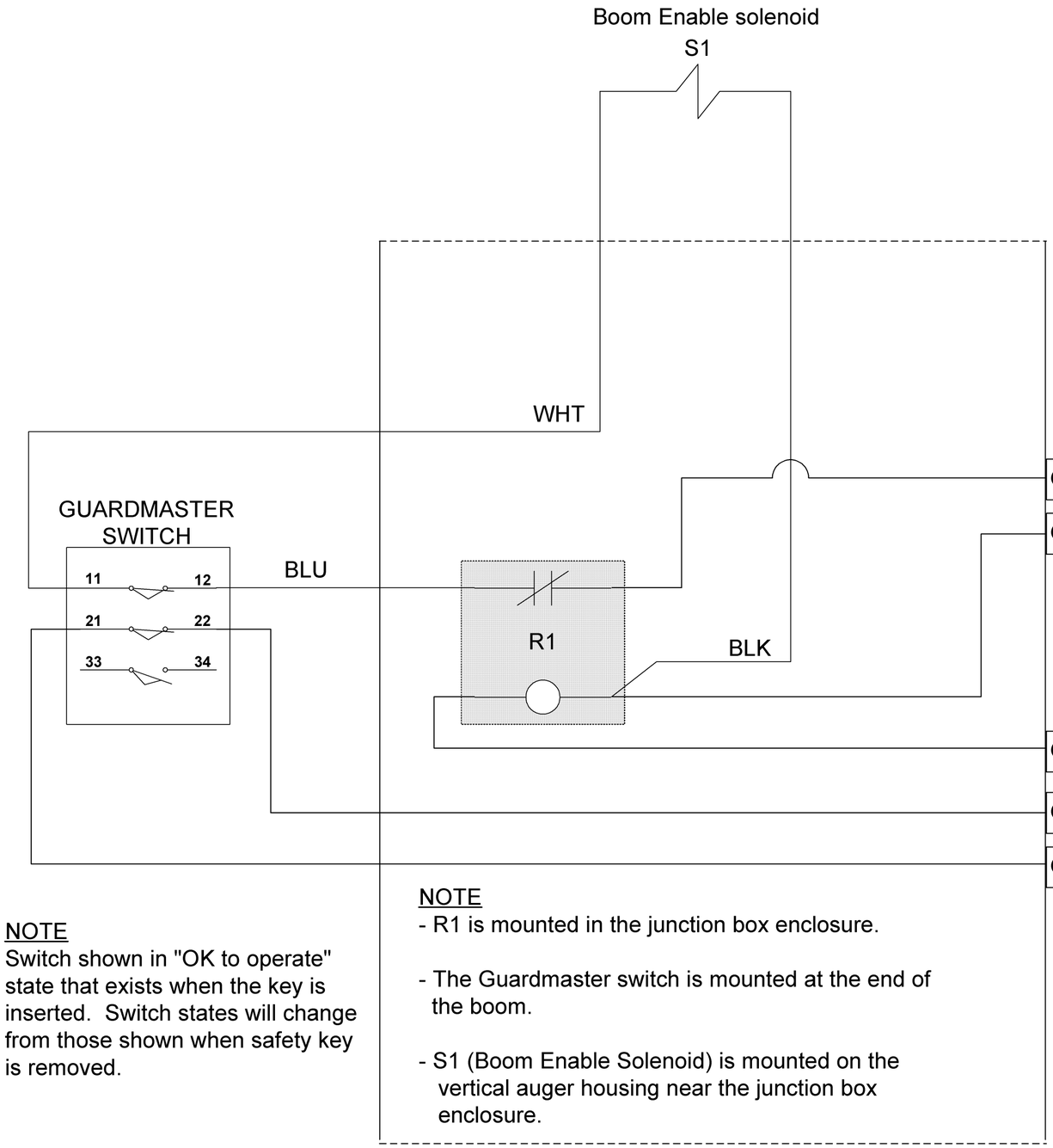
PART_ID	DESCRIPTION	QTY	SUPPLY	
TC04489	BOTTOM AUGER ASM 16-10S50	1	WO	172646
TC04516	MOTOR PKG -/10 SP STD BLEND/FO		WO	165931
TC06592	SUCTION ASM TWIN 16FT 4-3 UNIVERSAL		WO	176775
TC06661	UPFILL ASM EMUL LEFT 4 IN		WO	172955
TC07327	PP3F4-N8Z23N-N0NX33-XX		WO	181231
TC07349	2NES80 PUMP ASSEMBLY XX16		WO	183154
TC07418	ADDL AUX HYD TOP MOUNT		WO	182393
UA1307A08	TRUNK HOSE ASSEMBLY 8IN		WO	165887
UA1800A03X	VERTICAL AUGER ASM 42-10 12VDC		WO	165935
UA1901A232S	BOOM AUGER ASM 10S10-19.3		WO	165936
UB1000A10S	FLEX MOUNT ASM - 4 POINT		WO	165923
UB1000A12S	FLEX MOUNT ASM - 10 POINT		WO	165939
UB1000A54	GRATE ASSEMBLY 32/42 UNIBODY		WO	165941
UB1005A01	BODY WELDMENT 4216US12-8_S, 1_S UNIBODY		WO	165932
UC1013A01X	GUARDMASTER JUNCTION BOX 12V		WO	161034
UC1014A03	BLEND STATION MOUNTING ASM DCC+ 16FT		WO	165889
UC1017A01X	ELECTRICAL DISTRIBUTION BOX 12V		WO	165904
UC1020A04	DCC+ DISPLAY SCREEN CONTROL BOX 12-24V		WO	165895
UC1020A06	DCC+ AUGERING SYSTEM JUNCTION BOX		WO	159690
UC1020A07	DCC+ AUGERING SENSORS JUNCTION BOX		WO	165891
UC1020A23	DCC+ CPU BOX BLEND & QUAD		WO	165894
UC1020A28	DCC+BLENDING CONTROL BOX		WO	165898
UC1020A30X	DCC+ HOSEREEL CONTROL BOX W/ POT 12V		I	05
UC1020A32	DCC+ WATER CONTROL BOX W/ POT CONTROL		WO	165897
UC1020A33	DCC+ PUMPING CONTROL BOX W/ POT		WO	165896
UC1020A35X	POWER CONDITIONER IN-CAB 5-AMP 12-24V		WO	167516
UC1020A37	LEVEL CONTROL PRINCO 12-24 VDC W/PROBE		WO	168887
UC1020A38	PUMPING SYSTEM J-BOX (PROPORTIONAL)		WO	165901
UC1020A42	PUMP SENSORS JUNCTION BOX ASM		WO	165900

PART_ID	DESCRIPTION	QTY		SUPPLY
UC1025A03X	BLEND STATION DCC+ SINGLE AUX 12V		WO	165902
UC1032A06	PUMP ELEC. STATION WELDMENT FRONT HR		WO	165899
UC1037D03	WIRE/CONDUIT BLEND/QUAD RHR DCC+		WO	165893
UD1000A27S	LADDER & WALKWAY SIDE ACCESS 4216 HYD		WO	165938
UD1002A04X	HANDRAIL DUAL ALARM SYSTEM 12V		WO	165906
UE1002A01	EMUL PUMP ASM 3IN BOWIE 4216		WO	165927
UE1006A31	EMUL PRESSURE PIPE 41/4216 3IN		WO	165928
UF1000A02	DFO CAL. APPARATUS NO ORIFICE X 1IN	2	WO	165916
UF1002A07	DFO PUMP ASM 2-20 GPM 10INX16FT	1	WO	165915
UF1003A56	DFO TANK 340 GAL 4216 QUAD		WO	149923
UF1007A02	DFO PRESSURE PIPING 1.0 INCH 4216		WO	165917
UG1003A24	FILL ASM FITTINGS 0G/W UNIBODY		WO	165921
UG1004A02X	FILL ASM 42 QUAD 12V		WO	165920
UH1000A04	MOTOR PKG 8/-- STD PUMP X073		WO	172010
UH1012A03	PUMP HYD CNTRL ASM DCC+ 0-GAS IN-CAB		WO	171951
UH1013A04	HYDRAULIC TANK ASM 4216-3 55 GAL		WO	165929
UH1014A06X	AUGER VALVE ASM 16-10 S 2BFO-12V		WO	165930
UH1016A04	PUMP ASM PERMCO 1.5 BR SAE		WO	172530
UH1016A05	PUMP ASM PERMCO 1.5/1.0 BR PAD		WO	172528
UH1017A02	PTO ASM 150 PAD		WO	172529
UH1017A04	PTO ASM 150 SAE		WO	172531
UH1022A02X	HYDRAULIC COOLER ASM 12V OAD-16		WO	172011
UL1004A06X	LIGHT ASM HWY 42-12V SSTR/HR 4 WIRE		WO	180939
UL1005A03X	FLOOD LIGHT ASM 12V FHR		WO	165905
UL1007P01	REAR UPPER BODY MARKING	2	I	STOCK
UP1015A02	PUMPPRO ASSEMBLY FOR UNIBODY 3 IN	1	WO	165890
UR1005A50	HOSE ASM UNIBORE 3 X ROYALFLEX 2.5 X 120		WO	163045
UR1011A02S	TANK SUPERSTRUCTURE ASM 42 SERIES		WO	165922
UR1015A04	FHR ASM 72 X 3 ANGLE LEFT RIGID		WO	181136

PART_ID	DESCRIPTION	QTY		SUPPLY
US1004A01	HOSE/CHOCK & POLE STORAGE UNDER FRAME		WO	165907
US1007A21	REAR STORAGE 42 QUAD FHR		WO	165925
US1008A01SQ	STORAGE ASSEMBLY 4216 QUAD		WO	165933
US1008A11	DOOR COVER ASSEMBLY 48-4216		WO	156531
US1008A12	DOOR COVER ASSEMBLY 30-4216		WO	165909
US1014A02	FENDER SUPPORTS 4216 REAR SUPERSTRUCTURE		WO	165940
UW1001A01	WATER PUMP ASM CAT 431		WO	165918
UW1002A03X	WATER TANK ASM 42-36 255 GAL REAR SS 12V		WO	165919
UX1000P18	LOGO UNIBODY 18 INCH		I	STOCK
	LOGO UNIBODY 18 INCH		I	STOCK
UX1000P35	LOGO UNIBODY 35 INCH	2	I	STOCK
UX1005A03	PLACARD PACKAGE OFF-ROAD USE BLEND	1	WO	165911
UX1008A13X	VIBRATOR ASM AND CONTROL ELEC 12V		WO	165937
UX1010A02	BUMPER ASM DOT HIGHWAY 42 SERIES		WO	165913
UX1013A01	TANK GAUGE STICK ASM 10 FT		WO	165886

X:\Unibody Manual Drawings.rpt



NOTE:
Cable GP is to be run to the main power distribution box and protected by a 10 Amp breaker.

GP2 - RED	(+) UnSwitched Truck Pwr
GP1 - BLK	(-) UnSwitched Truck Pwr
GM3 - PNK	Boom Bypass
GM2 - GRY	Boom Enabled Out
GM1 - VIO	Boom Enabled Rtn

NOTE
Switch shown in "OK to operate" state that exists when the key is inserted. Switch states will change from those shown when safety key is removed.

NOTE
- R1 is mounted in the junction box enclosure.

- The Guardmaster switch is mounted at the end of the boom.

- S1 (Boom Enable Solenoid) is mounted on the vertical auger housing near the junction box enclosure.

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1.0 INCH = 25.4 mm

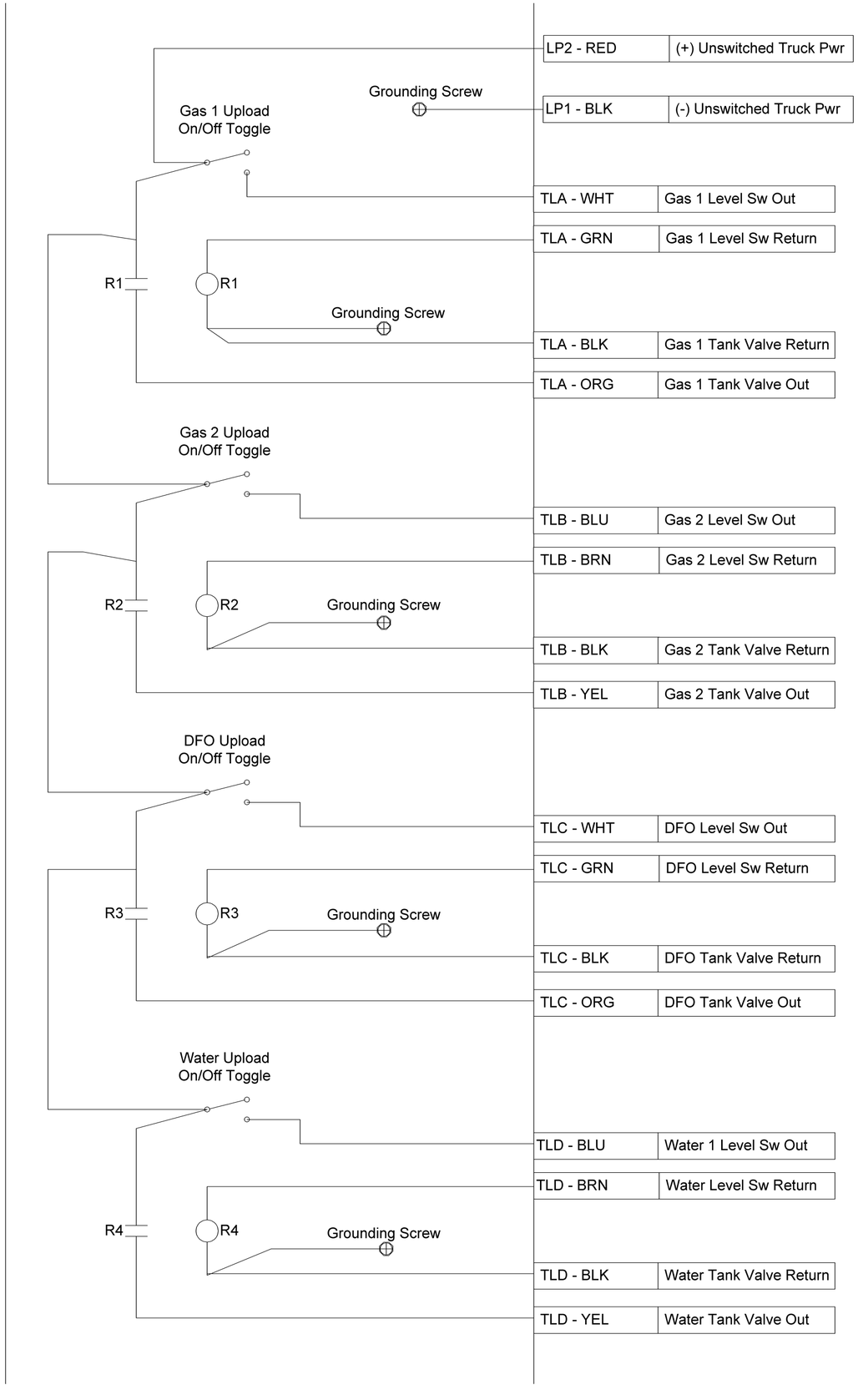
THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

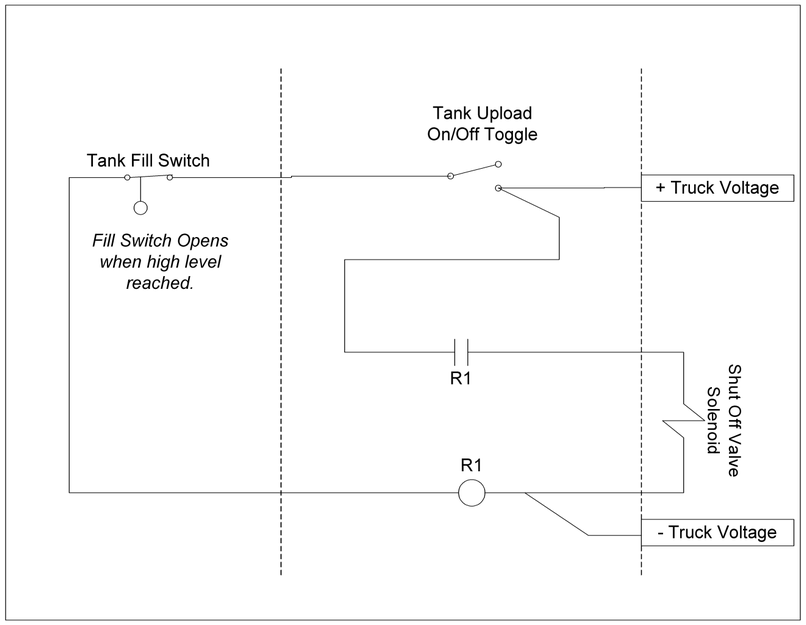
DRAWN TBARHAM
DATE 6/28/2003
APPR. D. COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY
TITLE GUARDMASTER JUNCTION BOX 12V
GUARDMASTER
DWG NO UC1013A01X
REV 1
SIZE C
WEIGHT 0.0 lbm
SHEET 2 OF 2



SCHEMATIC OF INDIVIDUAL TANK CIRCUIT

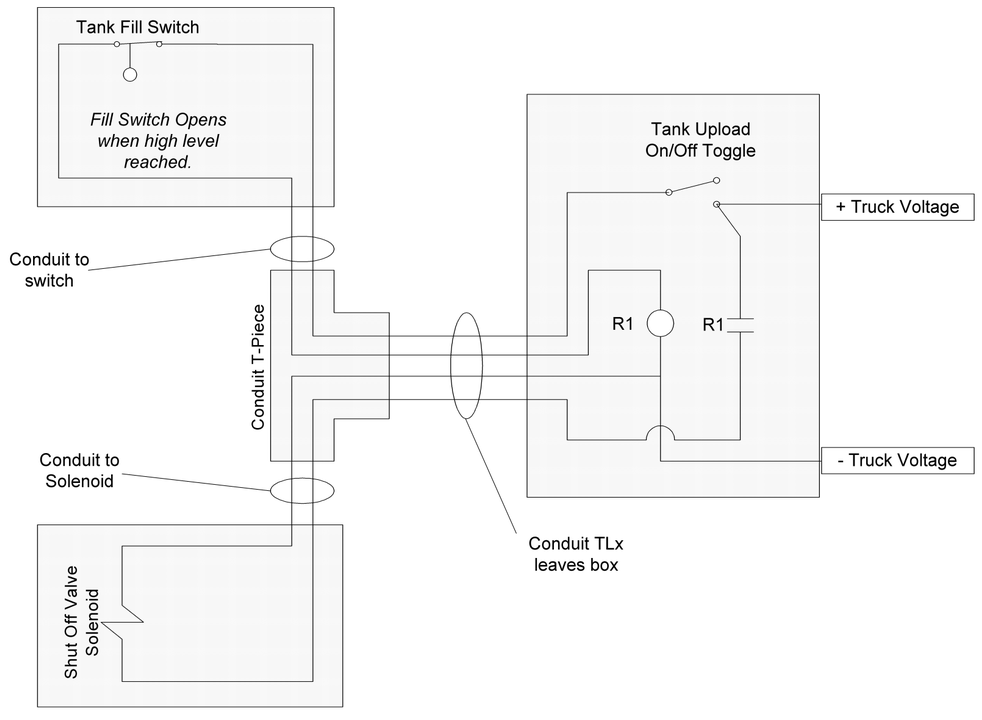


NOTES:

- Cable LP is to be run to the main power distribution box and protected by a 10 Amp fuse.

- The Grounding Screws refer to screws inserted into the the pre-tapped mounting/ grounding holes inside the aluminum enclosure.

-All toggle switches should be mounted so that the keyway is in the 'down' position.



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TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL X = ± .100 DECIMAL XX = ±.020 DECIMAL XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN TBARHAM; DATE 5/14/2010; APPR. D COLE	PROJECT TANK FILL CONTROL BOX 12V; TITLE TANK FILL CONTROL BOX 12V UNIBODY PUMPING MODULE	DWG NO UC1016A01X; REV 02; SIZE C; WEIGHT 3.7 lbm; SHEET 2 OF 2

Last Changed: 7/8/2010

CONNECTION RULES

- THE TREAD ELECTRICAL SYSTEM MUST ALWAYS BE CONNECTED AFTER / BEHIND ANY BATTERY-DISCONNECT SWITCH SUPPLIED WITH THE CHASSIS.

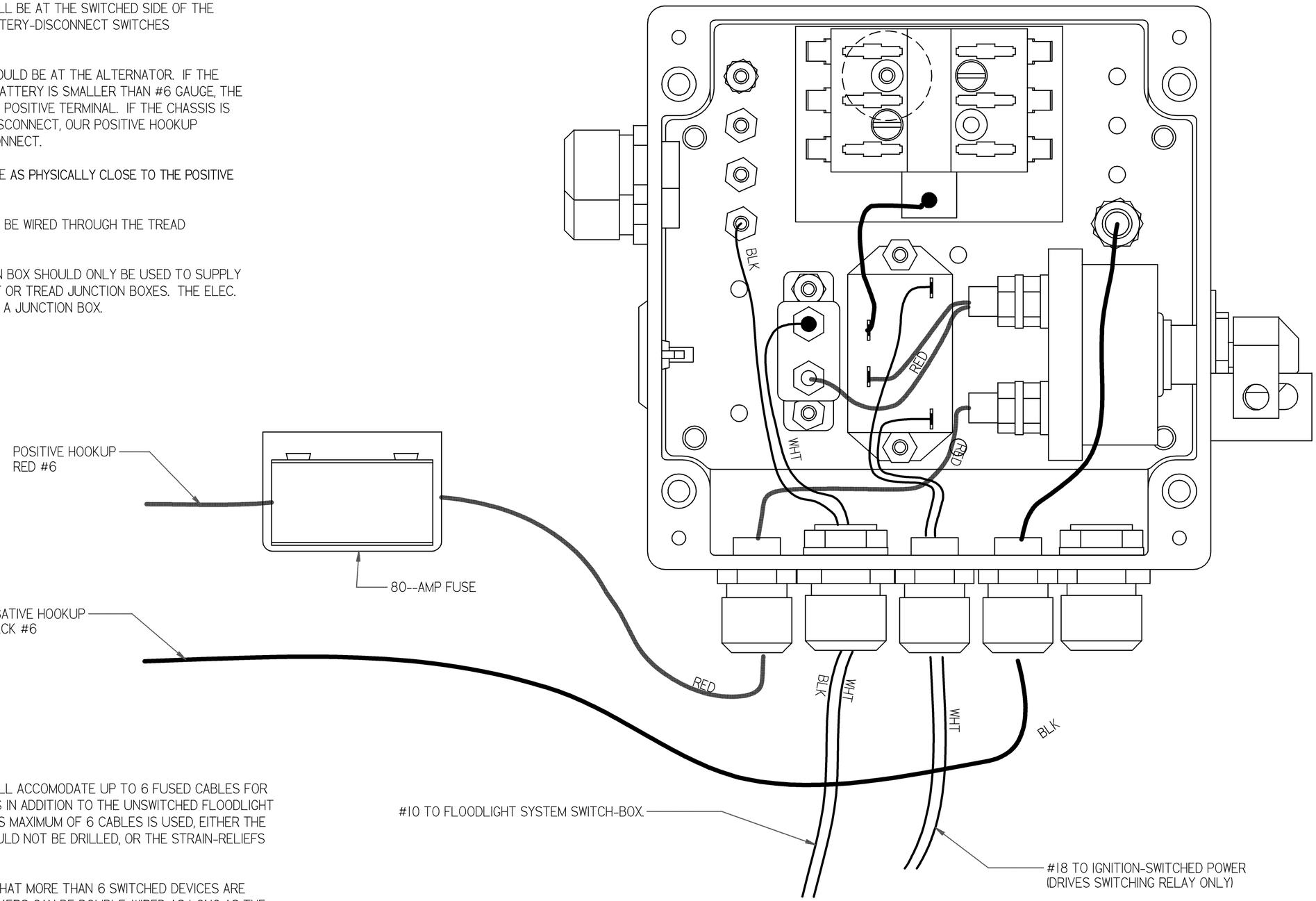
- NORMALLY OUR NEGATIVE HOOKUP WILL BE AT THE SWITCHED SIDE OF THE BATTERY-DISCONNECT (WHERE THE BATTERY-DISCONNECT SWITCHES CHASSIS-GROUND).

- NORMALLY THE POSITIVE HOOKUP SHOULD BE AT THE ALTERNATOR. IF THE WIRE BETWEEN THE ALTERNATOR AND BATTERY IS SMALLER THAN #6 GAUGE, THE HOOKUP SHOULD BE AT THE BATTERY'S POSITIVE TERMINAL. IF THE CHASSIS IS SUPPLIED WITH A POSITIVE BATTERY-DISCONNECT, OUR POSITIVE HOOKUP SHOULD BE AFTER THE BATTERY-DISCONNECT.

- THE 80-AMP FUSE SHOULD ALWAYS BE AS PHYSICALLY CLOSE TO THE POSITIVE HOOKUP AS POSSIBLE.

- THE TRUCK'S PTO LIGHT SHOULD NOT BE WIRED THROUGH THE TREAD ELECTRICAL DISTRIBUTION BOX.

- THE TREAD ELECTRICAL DISTRIBUTION BOX SHOULD ONLY BE USED TO SUPPLY POWER DIRECTLY TO TREAD EQUIPMENT OR TREAD JUNCTION BOXES. THE ELEC. DISTR. BOX SHOULD NEVER BE USED AS A JUNCTION BOX.



MISC. NOTES

- THE DISTRIBUTION BOX WILL ACCOMODATE UP TO 6 FUSED CABLES FOR SWITCHED DEVICES. (THIS IS IN ADDITION TO THE UNSWITCHED FLOODLIGHT CABLE). IF FEWER THAN THIS MAXIMUM OF 6 CABLES IS USED, EITHER THE STRAIN-RELIEF HOLES SHOULD NOT BE DRILLED, OR THE STRAIN-RELIEFS SHOULD BE PLUGGED.

- IN THE UNLIKELY EVENT THAT MORE THAN 6 SWITCHED DEVICES ARE NEEDED, SOME FUSES/BREAKERS CAN BE DOUBLE-WIRED AS LONG AS THE APPROPRIATE WIRE GAUGE IS USED (#16 MINIMUM). EXTRA STRAIN RELIEFS MAY BE NECESSARY IN THIS CASE.

- JUMPER WIRES IN DISTRIBUTION BOX SHOULD BE EITHER
  #6 WIRE, or DOUBLED-UP #10 WIRE

- APPLY HEAVY COATING OF SILICONE COMPOUND TO 80A FUSEHOLDER CONNECTIONS

- APPLY ANTI-SIEZE COMPOUND TO BOX COVER SCREW THREADS

Last Changed: 3/10/2008

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1.0 INCH = 25.4 mm

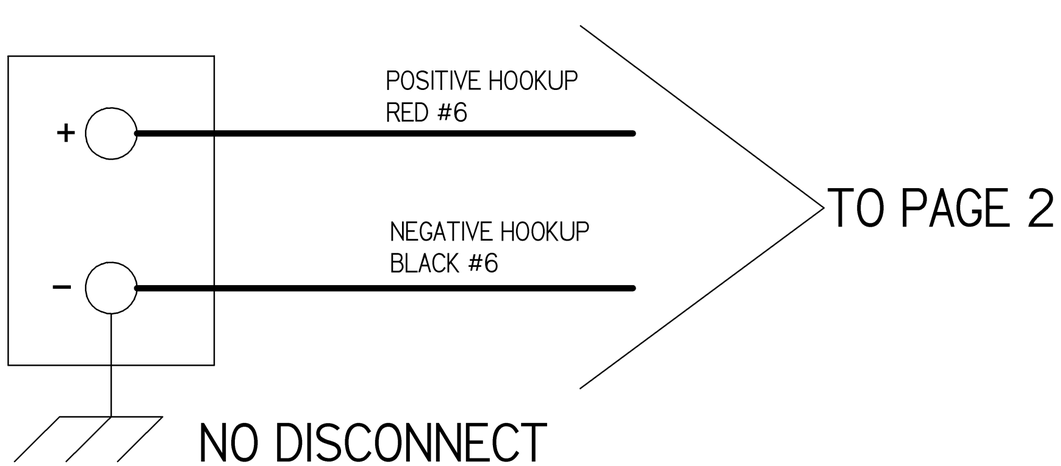
THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

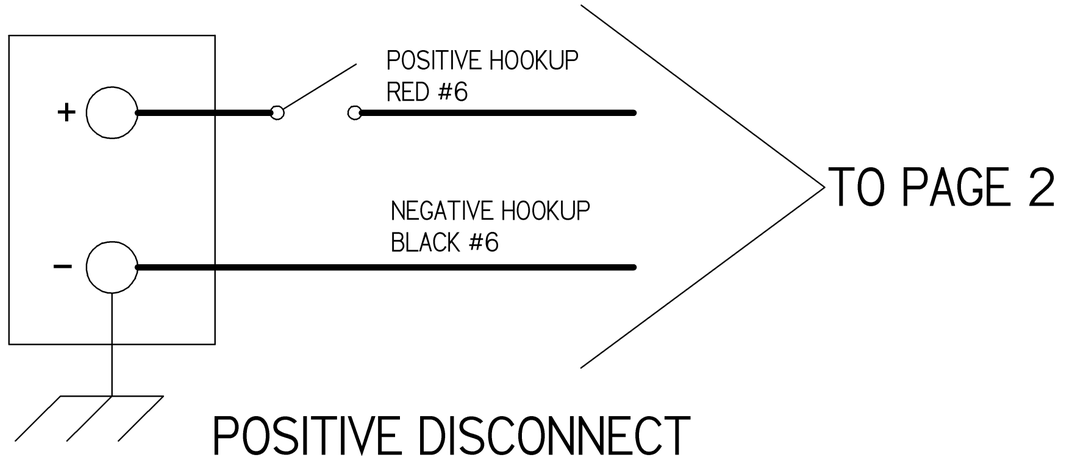
DRAWN bsekinger
DATE 3/30/2007
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

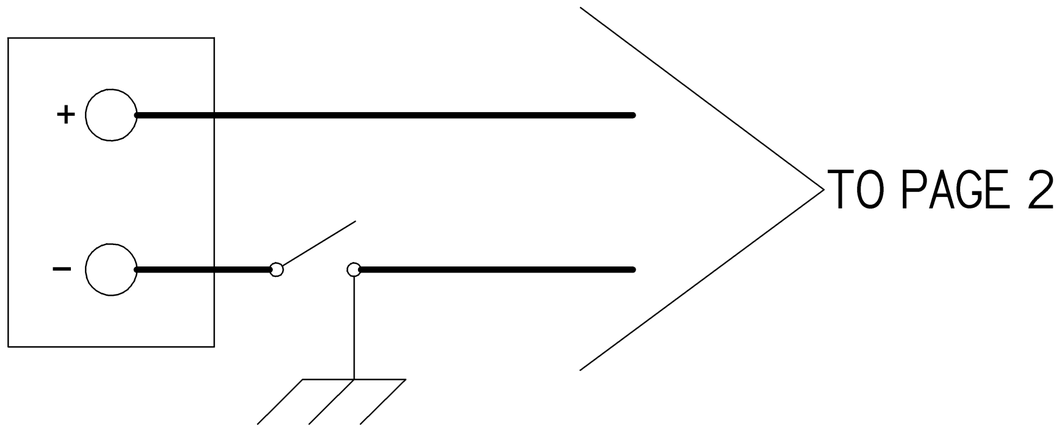
PROJECT UNIBODY
TITLE ELECTRICAL DISTRIBUTION BOX 12V
UNIBODY ELECTRICAL SYSTEM
DWG NO UC1017A01X
REV 4
SIZE C
WEIGHT 10.1 lbm
SHEET 2 OF 3



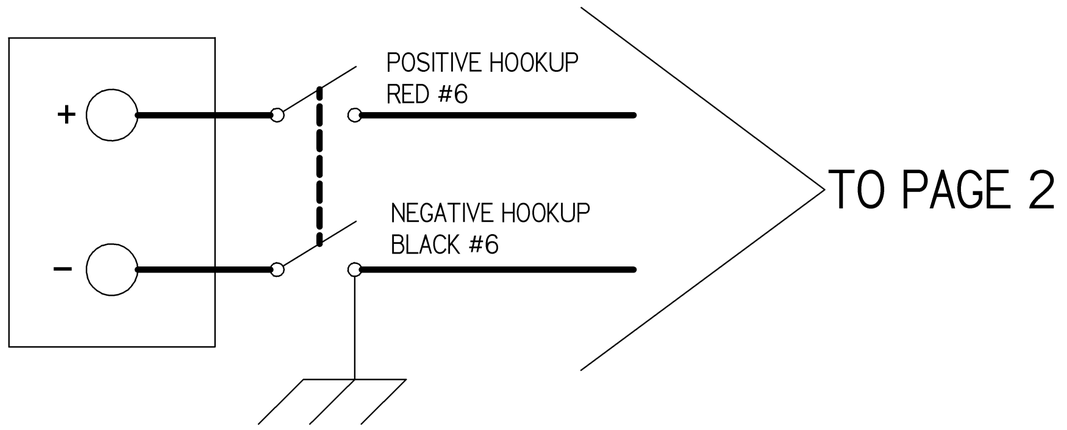
NO DISCONNECT



POSITIVE DISCONNECT



NEGATIVE DISCONNECT



POSITIVE AND NEGATIVE DISCONNECT

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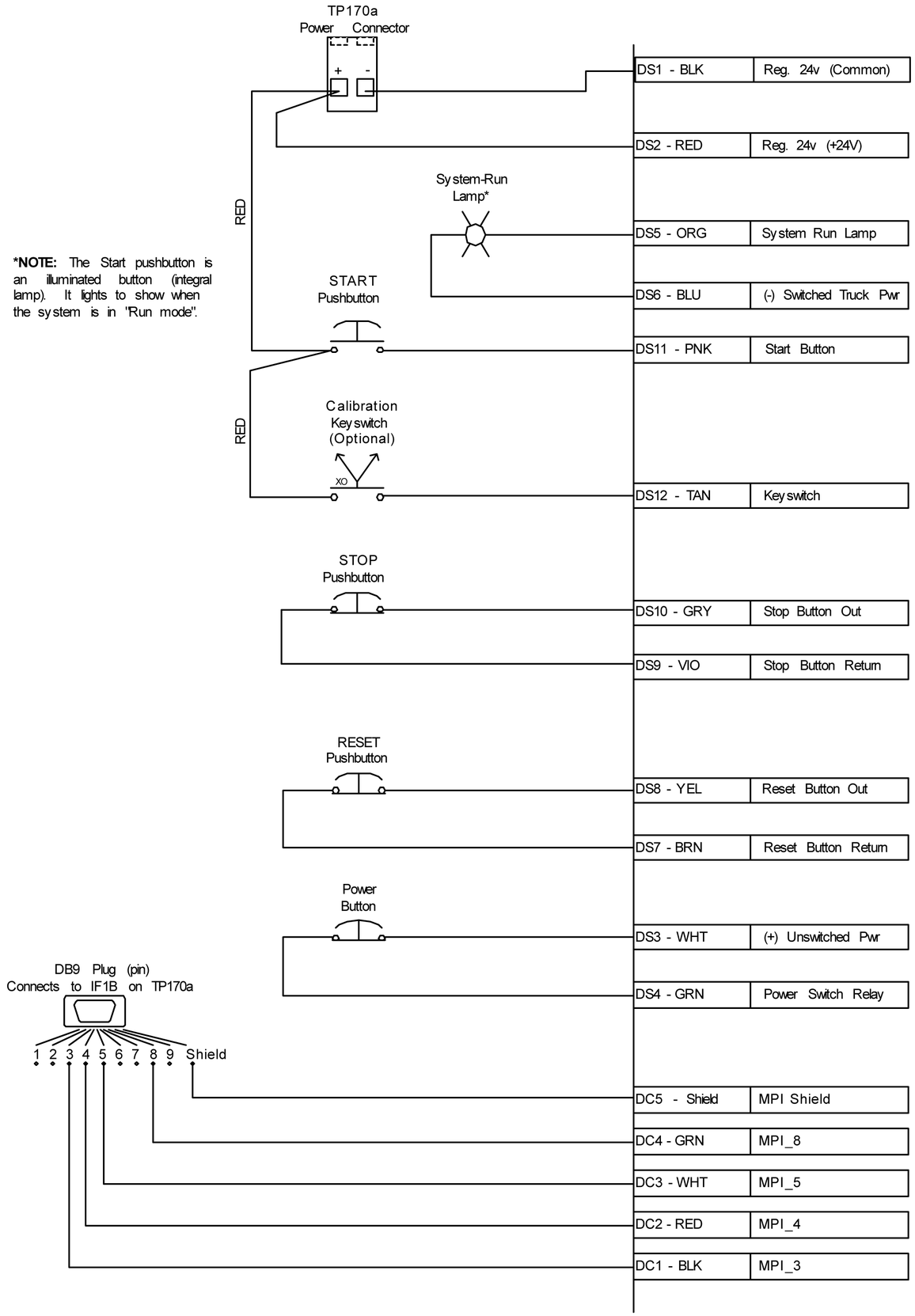
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: bsekinger DATE: 3/30/2007 APPR.: D COLE	DWG NO: UC1017A01X REV: 4 SIZE: C WEIGHT: 10.1 lbm SHEET: 3 OF 3

Last Changed: 3/10/2008



***NOTE:** The Start pushbutton is an illuminated button (integral lamp). It lights to show when the system is in "Run mode".

Last Changed: 5/14/2009

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

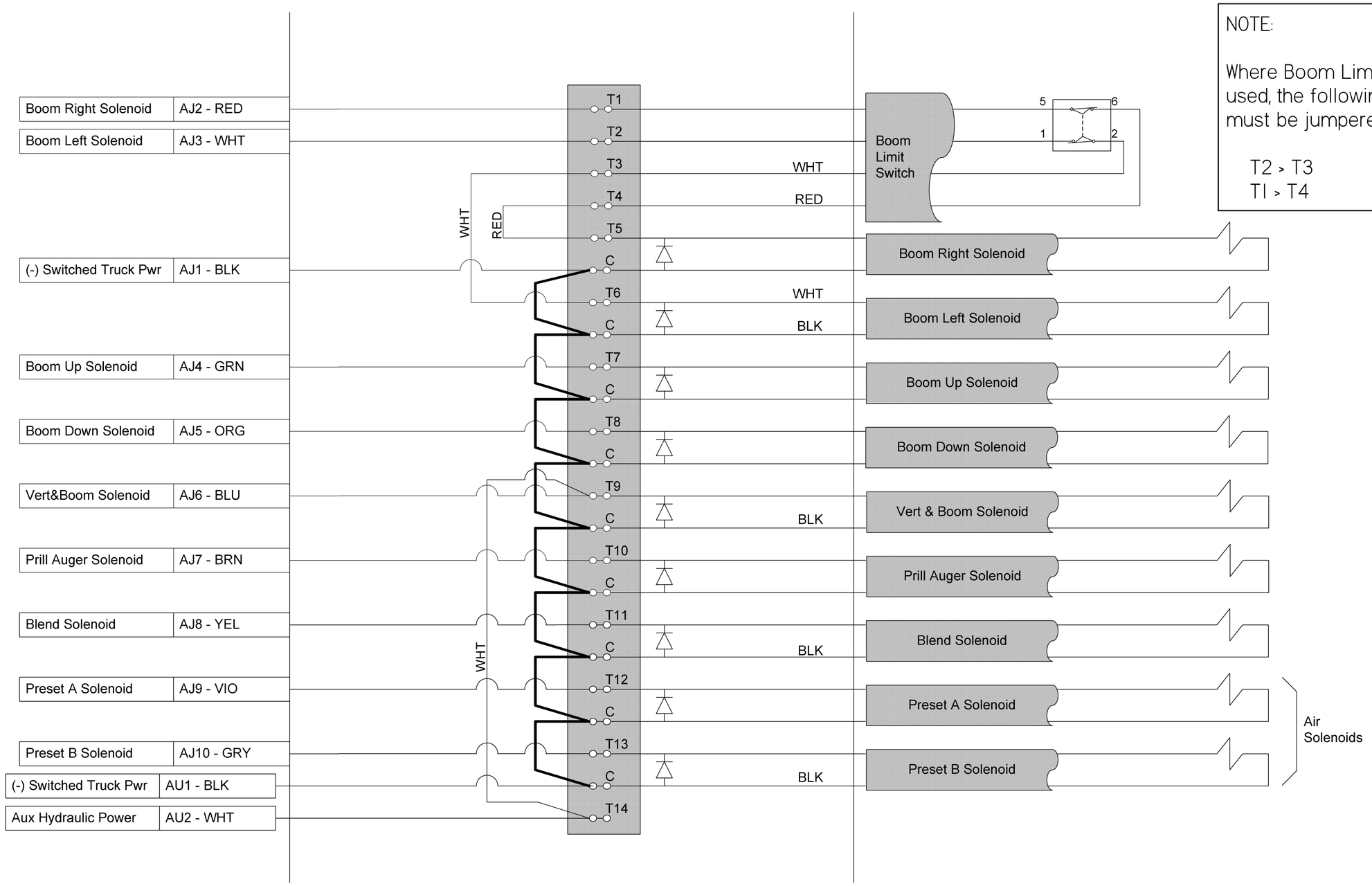
THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 7/27/2007
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ DISPLAY SCREEN CONTROL BOX
TITLE DCC+ DISPLAY SCREEN CONTROL BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A04 | REV 03 | SIZE C
WEIGHT 8.7 lbm | SHEET 2 OF 3



NOTE:

Where Boom Limit Switch is not used, the following terminals must be jumpered together:

T2 > T3
T1 > T4

NOTE: Terminals labeled 'C' are the common for switched (unregulated) truck power. Where the connections are shown with a thick line, the terminals should be tied together with an Entrelec bus-bar.

Also note that the terminal blocks labeled 'C' are blue. The rest are grey.

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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

UNLESS OTHERWISE SPECIFIED
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1.0 INCH = 25.4 mm

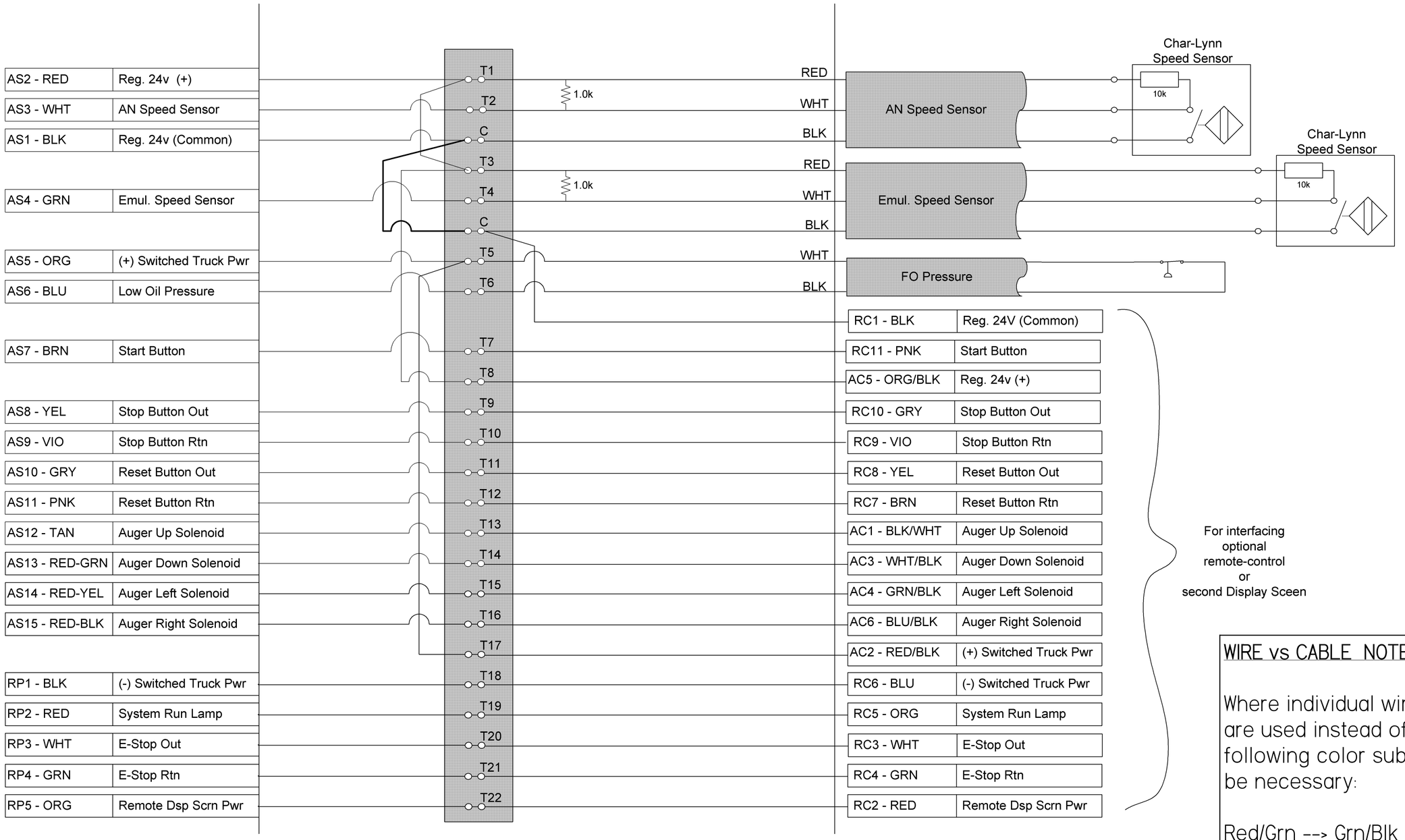
THIRD ANGLE PROJECTION

DRAWN T BARHAM
DATE 2/17/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ AUGERING SYSTEM JUNCTION BOX
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A06
REV 2
SIZE C
WEIGHT 3.3 lbm
SHEET 3 OF 3

Last Changed: 2/2/2009



NOTE: Terminals labeled 'C' are the common for regulated 24 volt sensor power. Due to the small number of these terminals, a bus-bar is not used for this terminal strip.

Also note that the terminal blocks labeled 'C' are blue. The rest are grey.

WIRE vs CABLE NOTE

Where individual wires in conduit are used instead of cable, the following color substitutions may be necessary:

Red/Grn --> Grn/Blk
Red/Yel --> Yel/Blk
Red/Blk --> Red/Blk

The substitute colors are created using solid wire color and adding a black stripe to differentiate them.

WIRE COLOR NOTE

WHERE WIRE COLOR IS INDICATED BY A COLOR PAIR, THE FIRST COLOR IS THE PRIMARY WIRE COLOR AND THE SECOND COLOR IS THE COLOR OF A STRIPE OR TAG ON THE WIRE.

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

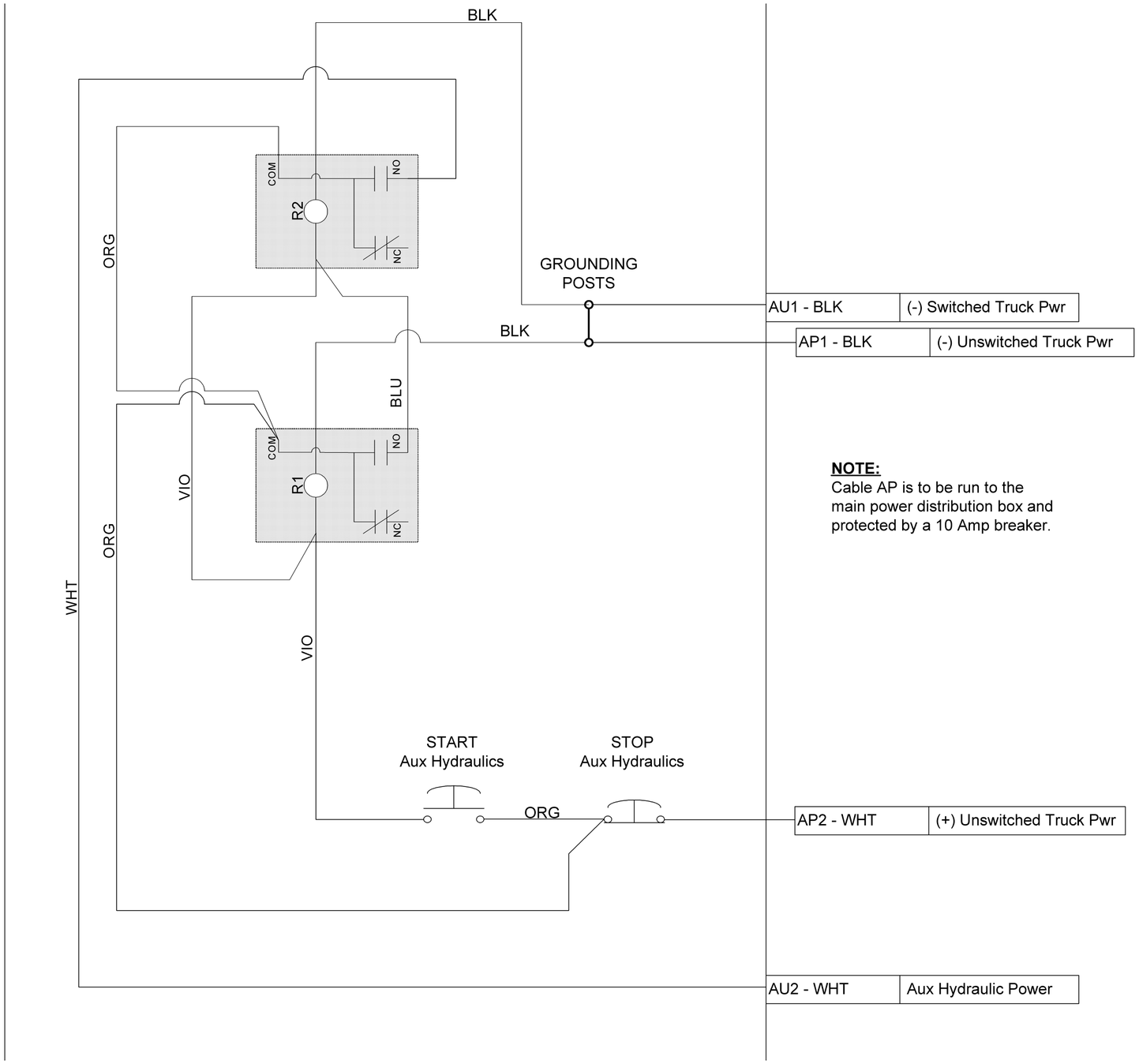
DRAWN tbarham
DATE 4/11/2006
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ AUGERING SENSORS JUNCTION BOX
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A07
REV 3
SIZE C
WEIGHT 3.7 lbm
SHEET 3 OF 3

Last Changed: 3/10/2008

SCHEMATIC FOR USE WITH ALL TRUCKS EXCEPT REPUMPERS WITH DANFOSS VALVES



NOTE:
Cable AP is to be run to the main power distribution box and protected by a 10 Amp breaker.

SCHEMATIC FOR 12 V SYSTEM

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TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN TBARHAM DATE 8/27/2004 APPR.	PROJECT AUXILLIARY HYDRAULIC CONTROL BOX TITLE AUXILLIARY HYDRAULIC CONTROL BOX 12V DCC PLUS CONTROLLER SYSTEM DWG NO UC1020A14X REV 2 SIZE C WEIGHT 2.2 lbm SHEET 3 OF 3

Last Changed: 4/15/2009

DC1 - BLK	MPI_3
DC2 - RED	MPI_4
DC3 - WHT	MPI_5
DC4 - GRN	MPI_8
DC5 - Shield	MPI_Shield

NOTE:
Cable 'RP' may be omitted in systems that do not have a remote control or second display screen.

RP1 - BLK	(-) Switched Truck Pwr
RP2 - RED	System Run Lamp
RP3 - WHT	E-Stop Out
RP4 - GRN	E-Stop Rtn
RP5 - ORG	Remote Disp Scrn Pwr
DS1 - BLK	Reg. 24v (Common)
DS2 - RED	Reg. 24v (+)
DS3 - WHT	(+) Unswitched Pwr
DS4 - GRN	Power Switch Relay
DS5 - ORG	System Run Lamp
DS6 - BLU	(-) Switched Truck Pwr
DS7 - BRN	Reset Button Rtn
DS8 - YEL	Reset Button Out
DS9 - VIO	Stop Button Rtn
DS10 - GRY	Stop Button Out
DS11 - PNK	Start Button
DS12 - TAN	Keyswitch
AS1 - BLK	Reg. 24v (Common)
AS2 - RED	Reg. 24v (+)
AS3 - WHT	AN Speed Sensor
AS4 - GRN	Emul. Speed Sensor
AS5 - ORG	(+) Switched Truck Pwr
AS6 - BLU	Low Oil Pressure
AS7 - BRN	Start Button
AS8 - YEL	Stop Button Out
AS9 - VIO	Stop Button Rtn
AS10 - GRY	Reset Button Out
AS11 - PNK	Reset Button Rtn
AS12 - TAN	Boom Up Solenoid
AS13 - RED-GRN	Boom Down Solenoid
AS14 - RED-YEL	Boom Left Solenoid
AS15 - RED-BLK	Boom Right Solenoid
PS1 - BLK	Reg. 24v (Common)
PS2 - RED	Reg. 24v (+)
PS3 - WHT	PPmp Speed Sensor
PS4 - GRN	Low Pump Pres.
PS5 - ORG	High Pump Pres.
PS6 - BLU	Air Pres.
PS7 - BRN	Pump Flow
PS8 - YEL	PumpGard Enabled
PS9 - VIO	(+) Switched Truck Pwr
PS10 - GRY	(-) Switched Truck Pwr
PS11 - PNK	Lvl High
PS12 - TAN	Lvl Low
PS13 - RED-GRN	Lvl High High
PS14 - RED-YEL	Lvl Low Low
PS15 - RED-BLK	Gas 1 Flowmeter
PS16 - WHT-BLK	Gas 2 Flowmeter
GM1 - VIO	Boom Enabled Rtn
GM2 - GRY	Boom Enabled Out
GM3 - PNK	Boom Bypass

* IF THIS SYSTEM IS USED ON ATRUCK WITHOUT A GUARDMASTER, A JUMPER WIRE MUST BE INSTALLED BETWEEN TERMINALS T120 AND T121.

Male DB9 connects to MPI Port 0 of PLC.

NOTE:
Cable 'DC' should connect ***directly*** to the DB9 connector's terminals.

Display Screen Selector

NOTE:
For systems with only one display screen (the norm), the selector switch shown to the left can be omitted. When omitted, the Regulated 24V (from T52) should connect directly to T7 and then be jumpered to T13.

Rail A: T1 YEL >> T10; T2 BLK >> T11; T10 YEL >> R2; T11 BLK >> C; T21 RED >> V+; T24 WHT >> T75; T29 GRN >> T71; T30 WHT >> T70; T31 ORG >> T72; T32 BLU >> T73; T35 BLU >> T96; T35 BLU >> CPU I0.6; T17 GRY >> CPU I1.3; T20 WHT >> CPU I2.1; T45 BRN >> T104; T46 WHT >> T110; T47 GRY >> R4

SIMATIC S7-200 CPU 226 DC/DC/DC

T35 << BLU; T17 << GRY; T120 << WHT; ORG >> T87 (PPump Bypass / PumpGard Reset)

R1: BLK; T11 << BLK; T54 << BLK; T64 << BLK; T76 << BLK; BLK >> T77

T22 << RED; T65 << RED; T78 << RED; RED >> R5; RED >> R6

Rail B: T50 GRY; T51 T79 << BLK; T52 PNK; T53 T80 << RED

R2 YEL >> T10 (Run-Mode Indicator); R3 WHT >> T69 (Vert & Boom Augers); R4 GRY >> T122 (Boom Bypass); R5 GRN >> T60 (Prill Auger); R6 ORG >> T74 (Blend); R7 BRN >> T100 (Gasser A); R8 VIO >> T109 (Gasser B); R9 BLU >> T84 (Product Pump)

T54 C << BLK; T55 BLU; T56 ORG; T57 GRN; T58 WHT; T59 BLU; T60 R5 << GRN; T61 YEL; T62 VIO; T63 GRY; T64 C << BLK; T65 V+ << RED; T66; T67; T68 R3 << WHT; T69 T30 << WHT; T70 T29 << GRN; T71 T31 << ORG; T72 T32 << BLU; T73

Rail B

NOTE:
Since the unswitched power wires may carry as much as 24 Amps of current, the 'REG1' and 'REG2' wires should be 10-Gauge, while 'REG3' and 'REG4' should be 18-Gauge.

REG1 - BLK	(-) UnSwitched Pwr
REG2 - WHT	(+) UnSwitched Pwr
REG5 - WHT/BLK	(+) Switched Pwr
REG3 - GRY	Reg. 24v (Common)
REG4 - PNK	Reg. 24v (+)

WIRE COLOR NOTE

Where individual wires in conduit are used instead of cable, the following color substitutions may be necessary:

Red/Grn --> Grn/Blk
Red/Yel --> Yel/Blk
Red/Blk --> Red/Blk

The substitute colors are created using solid wire color and adding a black stripe to differentiate them.

**** NOTE ****
If DCC+ is being installed on a truck with 24V Danfoss pumping valves, this wire should connect to T53 instead of V+.

AJ1 - BLK	(-) Switched Truck Pwr
AJ2 - RED	Boom Right Solenoid
AJ3 - WHT	Boom Left Solenoid
AJ4 - GRN	Boom Up Solenoid
AJ5 - ORG	Boom Down Solenoid
AJ6 - BLU	Vert. & Boom Solenoid
AJ7 - BRN	Prill Auger Solenoid
AJ8 - YEL	Blend Solenoid
AJ9 - VIO	Preset A Solenoid
AJ10 - GRY	Preset B Solenoid
BC1 - BLK	(-) Switched Truck Pwr
BC2 - RED	(+) Switched Truck Pwr
BC3 - WHT	Preset B Solenoid
BC4 - GRN	Preset A Solenoid
BC5 - ORG	Blend Solenoid
BC6 - BLU	Vert. & Boom Solenoid
BC7 - BRN	Boom Down Solenoid
BC8 - YEL	Boom Up Solenoid
BC9 - VIO	Boom Left Solenoid
BC10 - GRY	Boom Right Solenoid

****IMPORTANT:**
The STOP, RESET, and POWER (E-Stop) buttons are all normally-closed contacts. As such, remote buttons must be wired in series with the existing buttons. *For systems without a remote control or second display screen, the following terminal pairs must be shorted together:*

- T3(E-Stop Out) to T4(E-Stop Rtn)
- T25(Stop Button Out) to T26(Stop Button Rtn)
- T27(Reset Button Out) to T28(Reset Button Rtn)

NOTE:
The terminal blocks labeled 'C' are blue. The rest are grey.

CONSTRUCTION NOTE

In order to retain consistency across versions of the DCC+, terminal block IDs are numbered the same in all verions of the DCC+ (hence there are gaps in numbering in this schematic).

Last Changed: 1/29/2009

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

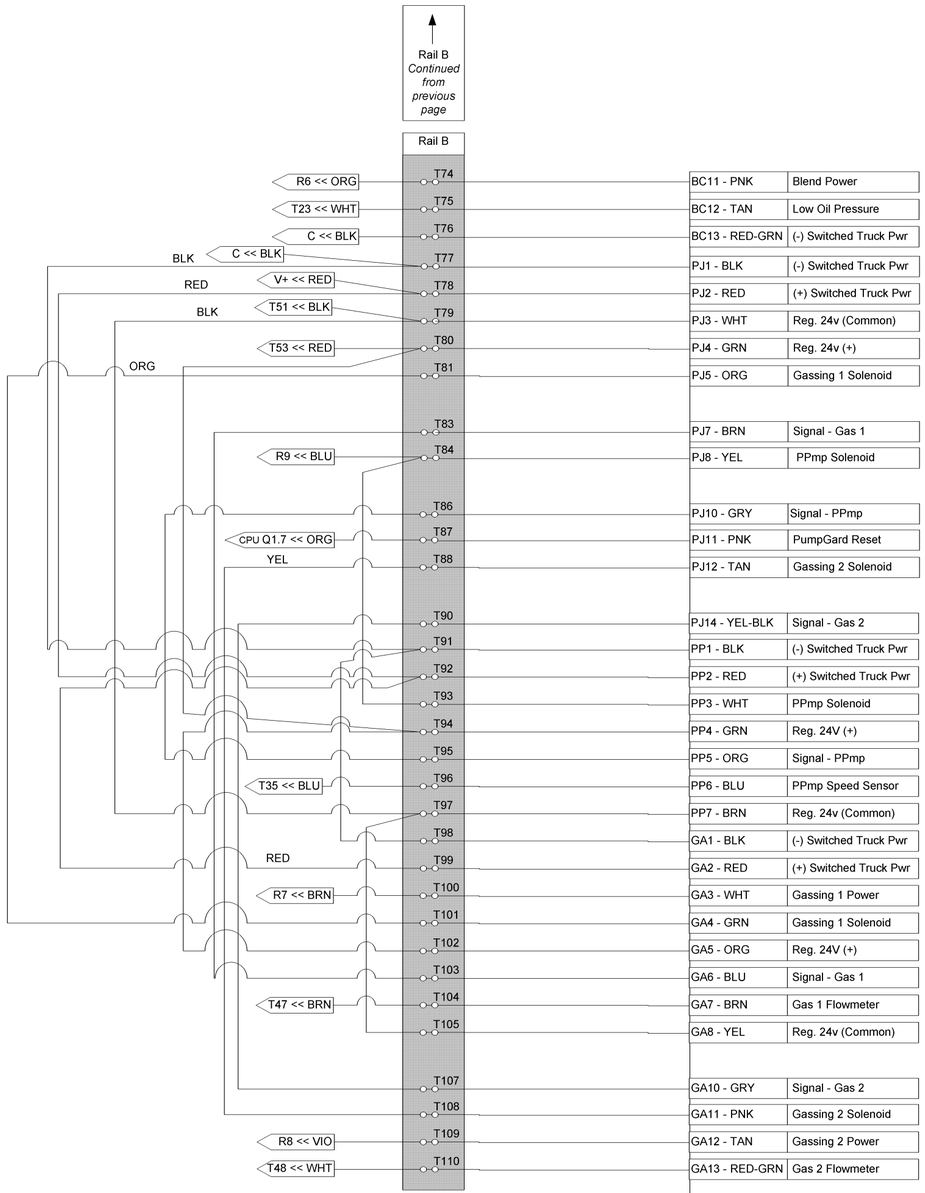
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN T BARHAM
DATE 3/24/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ CPU BOX BLEND & QUAD
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A23
REV 5
SIZE C
WEIGHT 30.9 lbm
SHEET 4 OF 7



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THIRD ANGLE PROJECTION

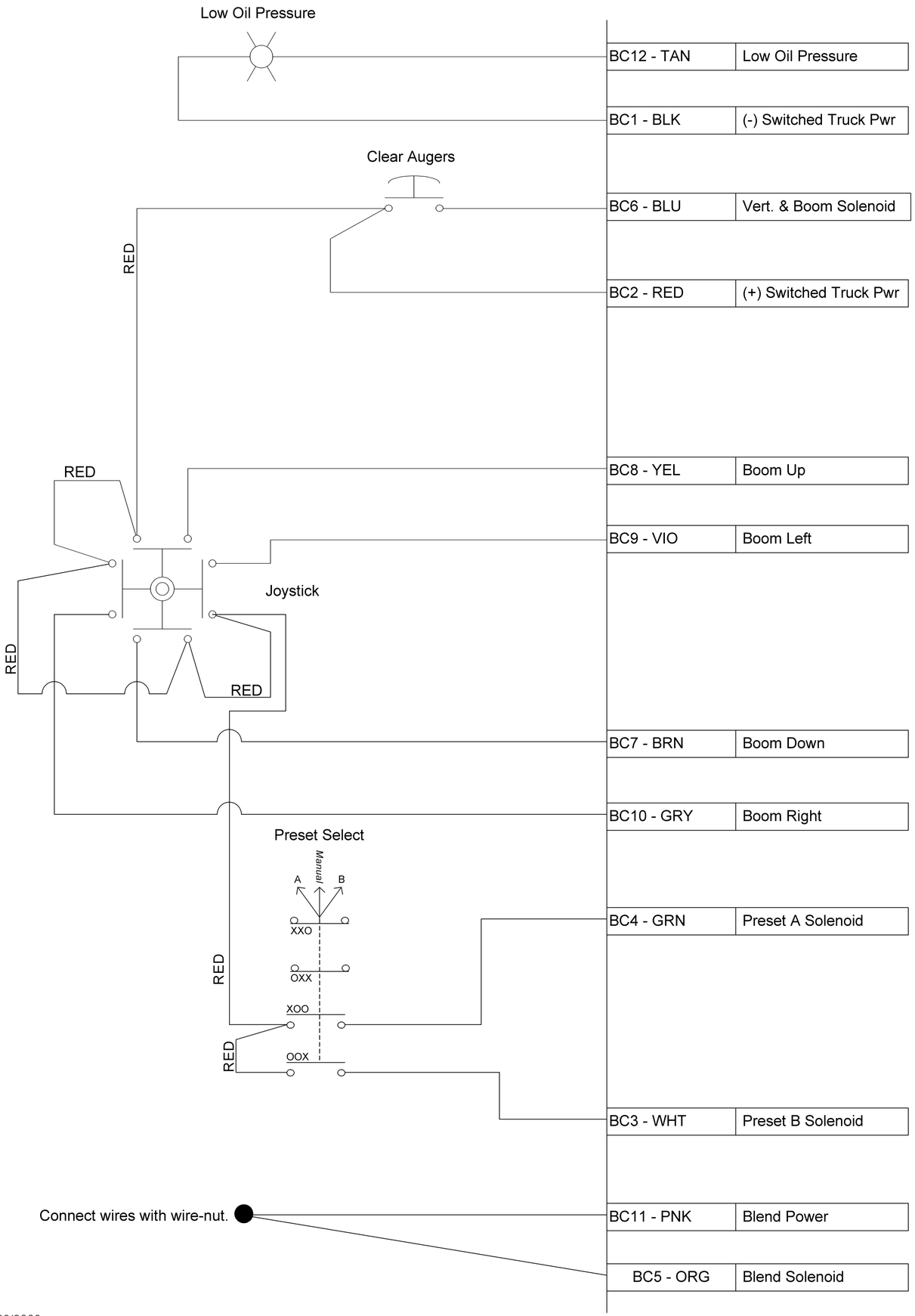
DRAWN T BARHAM
DATE 3/24/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ CPU BOX BLEND & QUAD
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A23 | REV 5 | SIZE C
WEIGHT 30.9 lbm | SHEET 5 OF 7

Last Changed: 1/29/2009



WIRE COLOR NOTE

Where individual wires in conduit are used instead of cable, the following color substitutions may be necessary:

Red/Grn --> Grn/Blk
Red/Yel --> Yel/Blk
Red/Blk --> Red/Blk

The substitute colors are created using solid wire color and adding a black stripe to differentiate them.

Last Changed: 6/29/2009

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL X = ± .100
DECIMAL XX = ±.020
DECIMAL XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 2/16/2005
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BLENDING CONTROL BOX
TITLE BLENDING CONTROL BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A28
REV 01
SIZE C
WEIGHT 4.4 lbm
SHEET 3 OF 3

NOTE:
All toggle switches should be mounted so that the keyway is in the 'down' position.

Fast Up/Down Toggle Switch

Slow Retract 8501K19 Toggle Mounted with keyway down, where down = "STOP"

8501K19 Switch Circuit Diagram

UP Position	CENTER Position	DOWN Position (Key)
1 2 3 / 4 5 6	1 2 3 / 4 5 6	1 2 3 / 4 5 6

Hose Retracting

Boom Control Toggle Switch

Hose Depth Meter

7 +10-30 VDC	RST 4
6 DC Common	IN A 3
5 Enable/R	IN B 2
	GND 1

Back View of Potentiometer

HR3 - WHT	Fast Up Solenoid
HR5 - ORG	Fast Down Solenoid
HR2 - RED	Reg. 24V (+)
HR1 - BLK	Reg. 24V (Common)
HR6 - BLU	Slow Up Solenoid
HR7 - BRN	Boom Up
HR8 - YEL	Boom Down
HR9 - VIO	HR Depth Signal
HR4 - GRN	Signal - HR Pot

Last Changed: 1/5/2011

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

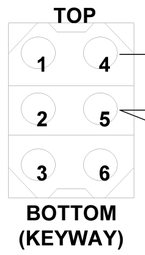
DRAWN TBARHAM
DATE 08/27/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

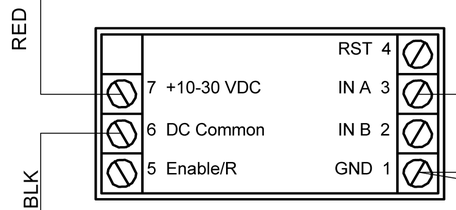
PROJECT DCC+ HOSEREEL CONTROL BOX W/ POT
TITLE DCC+ HOSEREEL CONTROL BOX W/ POT 12V
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A30X
REV 02
SIZE C
WEIGHT 2.6 lbm
SHEET 3 OF 3

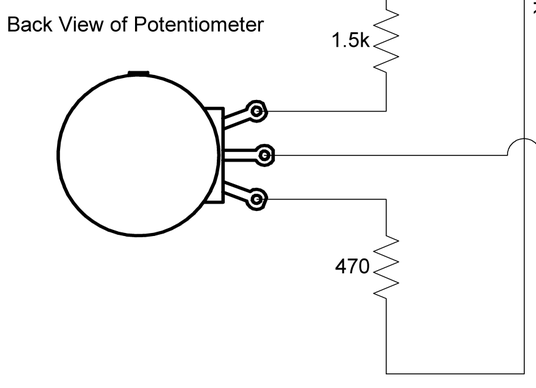
NOTE:
All toggle switches should be mounted so that the keyway is in the 'down' position.

Water -- / Manual Toggle



WA3 - WHT	Water Solenoid
WA9 - VIO	Reg. 24v (+)
WA7 - BRN	(+) Switched Truck Pwr
WA1 - BLK	Water Flowmeter
WA8 - YEL	Reg. 24v (Common)
WA6 - BLU	(-) Switched Truck Pwr
WA4 - GRN	Signal - Water





Last Changed: 5/14/2009

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ANGULARITY = ± 0.5 DEG

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ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 8/27/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ WATER CONTROL BOX W/ POT CO

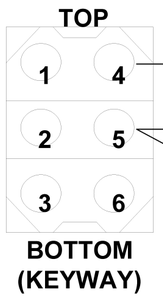
TITLE DCC+ WATER CONTROL BOX W/ POT CONTROL
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A32 | REV 02 | SIZE C

WEIGHT 2.3 lbm | SHEET 3 OF 3

NOTE:
All toggle switches should be mounted so that the keyway is in the 'down' position.

PPmp Auto//Manual Toggle

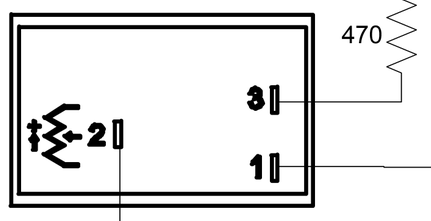


PP3 - WHT	PPmp Solenoid
PP4 - GRN	Reg. 24V (+)

PP1 - BLK	(-) Switched Truck Pwr
PP2 - RED	(+) Switched Truck Pwr
PP6 - BLU	PPmp Speed Sensor

UNUSED

PP7 - BRN	Reg. 24v (Common)



PP5 - ORG	Signal - PPmp

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1.0 INCH = 25.4 mm

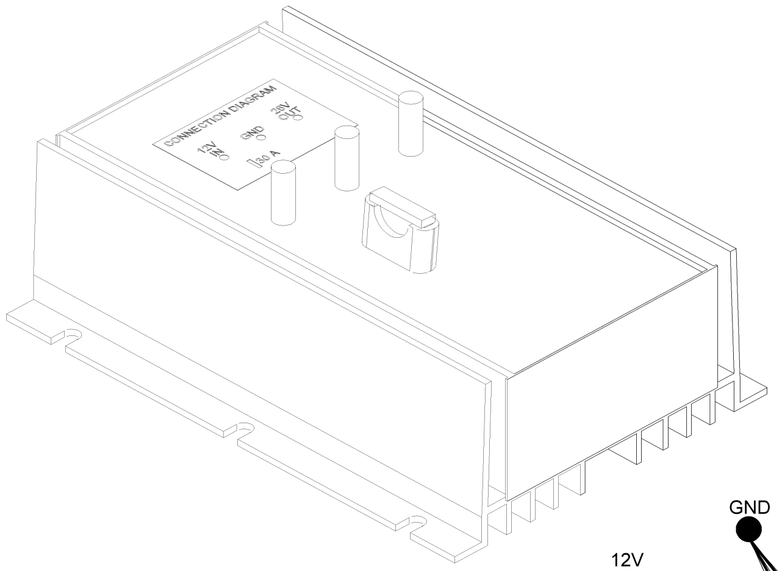
THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 7/20/2007
APPR. J COLE

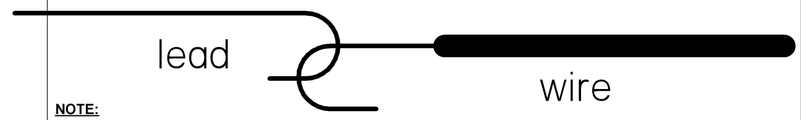
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ PUMPING CONTROL BOX W/ POT
TITLE DCC+ PUMPING CONTROL BOX W/ POT
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A33
REV 04
SIZE C
WEIGHT 2.2 lbm
SHEET 3 OF 3

Last Changed: 5/14/2009



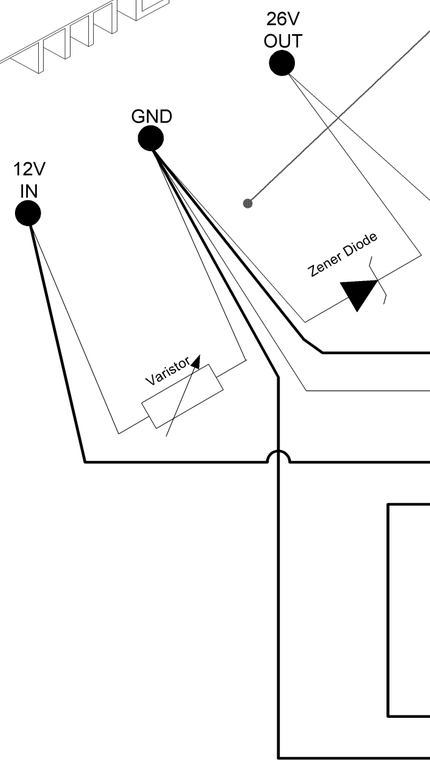
Solder 18 AWG white and 18 AWG grey lead wires to Varistor.
Solder 18 AWG grey and 18 AWG pink lead wires to zener diode.
Solder per IPC-A-610C Section 5.5.1.4
Use ring terminals on the lead wires to connect the components to the screw terminals



NOTE:
Since the unswitched power wires may carry as much as 24 Amps of current, the following wires should be 10-gauge:
'PWR'
'REG1'
'REG2'
'REG5'

The following wires should be 18-gauge:
'REG3'
'REG4'

Likewise, a 25 Amp fuse/breaker should be installed in the electrical distribution box in order to protect the 'PWR' wires. (e.g. for 12V systems, Tread pn234.1296 should be used).



REG4 - PNK	Reg. 24V (+)
REG1 - BLK	(-) Unswitched Pwr
REG3 - GRY	Reg. 24V (Common)
REG5 - WHT/BLK	(+) Switched Pwr
REG2 - WHT	(+) Unswitched Pwr

→ To CPU Box

PWR - WHT	(+) Unswitched Pwr
PWR - BLK	(-) Unswitched Pwr

→ To Power Distribution Box. Use 25A fuse/breaker.

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1.0 INCH = 25.4 mm

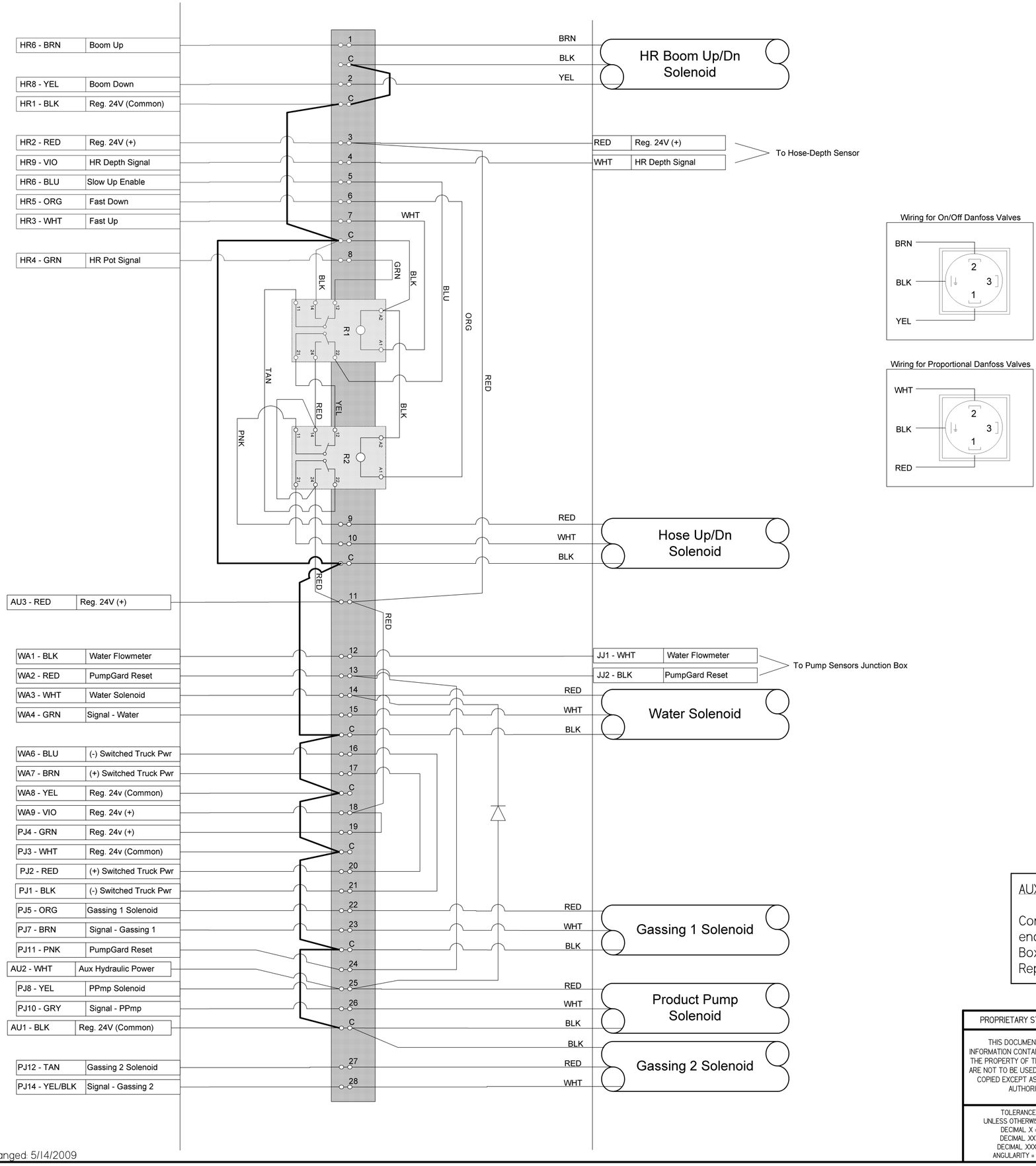
THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 7/9/2003
APPR. DCOLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY
TITLE POWER CONDITIONER IN-CAB 5-AMP 12-24V DCC+
DWG NO UC1020A35X
REV 1
SIZE C
WEIGHT 0.0 lbm
SHEET 2 OF 2

Last Changed: 3/10/2008



Wiring for On/Off Danfoss Valves

Wiring for Proportional Danfoss Valves

TERMINAL BLOCK NOTES:
Terminals labeled 'C' are the common for Regulated 24V. Where the connections are shown with a thick line, these terminals should be tied together with Entrelec bus-bars. Also note that the terminal blocks labeled 'C' are blue. The rest are grey.

AUXILLIARY HYDRAULICS NOTE

Conduit 'AU' would ONLY be routed to this enclosure (from the Auxilliary Hyraulic Control Box) if the DCC+ is being installed on a Unibody Repumper.

Last Changed: 5/14/2009

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THIRD ANGLE PROJECTION

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN T BARHAM
DATE 3/24/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT PUMPING SYSTEM J-BOX (PROPORTION

TITLE PUMPING SYSTEM J-BOX (PROPORTIONAL)
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A38 | REV 01 | SIZE C

WEIGHT 18.7 lbm | SHEET 3 OF 5

Single-point Level-Probe Hookup

PS2 - RED	Reg. 24v (+)
PS3 - WHT	PPmp Speed Sensor
PS1 - BLK	Reg. 24v (Common)
PS4 - GRN	Low Pump Pres.
PS5 - ORG	High Pump Pres.
PS6 - BLU	Air Pres.
PS7 - BRN	Pump Flow
PS8 - YEL	PumpGard Enabled
PS10 - GRY	(-) Switched Truck Pwr
PS9 - VIO	(+) Switched Truck Pwr
PS11 - PNK	Lvl High
PS12 - TAN	Lvl Low
PS13 - RED-GRN	Lvl High High
PS14 - RED-YEL	Lvl Low Low
PS15 - RED-BLK	Gas 1 Flowmeter
JJ1 - WHT	Water Flowmeter
JJ2 - BLK	Reset PumpGard
PS16 - WHT-BLK	Gas 2 Flowmeter

T1 T2 C C T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 C T13 T14 T15 T16 T17 T18 T19 C T20 T21 C T22 T23 T24 C

RED

BRN BLK BLU

NPN – PNP CONVERTER (OUT / IN)

BRN RED
BLK WHT
BLU BLK

Pump Speed Sensor

Char-Lynn Speed Sensor

10k

PP - BLK	Reg. 24v (Common)
PP - RED	Reg. 24v (+)
PP - YEL	PumpGard Enabled
PP - WHT	PumpPro Inhibit

LP2 - RED	Reg. 24v (+)
LP1 - BLK	Reg. 24v (Common)
LP3 - WHT	(-) Switched Truck Pwr
LP4 - GRN	Lvl High

RED WHT BLK — Gas 1 Flowmeter

RED WHT BLK — Water Flowmeter

RED WHT BLK — Gas 2 Flowmeter

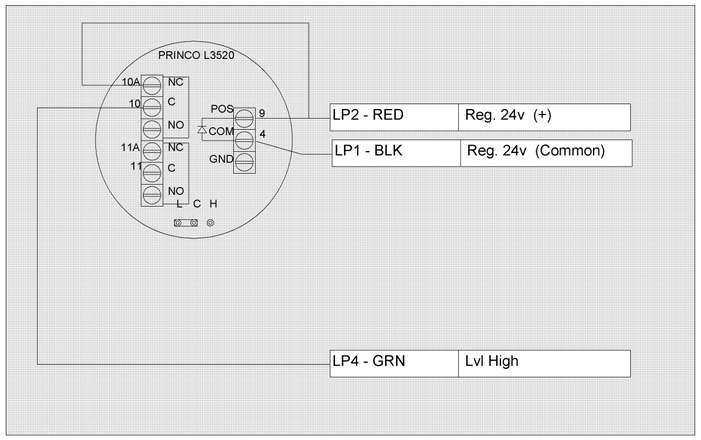
3.3k

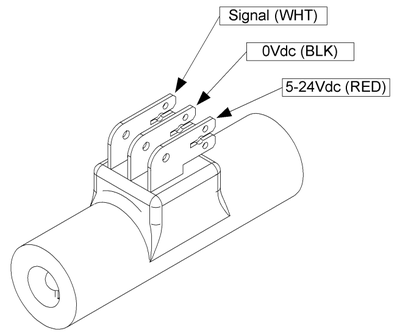
GEMS Turbine Flow Sensor (5-24Vdc, Signal, 0Vdc)

GEMS Turbine Flow Sensor (5-24Vdc, Signal, 0Vdc)

GEMS Turbine Flow Sensor (5-24Vdc, Signal, 0Vdc)

YEL





NOTE: Terminals labeled 'C' are the common for regulated 24 volt sensor power. Where the connections are shown with a thick line, these terminals should be tied together with Entrelec bus-bars.

Also note that the terminal blocks labeled 'C' are blue. The rest are grey.

NPN – PNP CONVERTER NOTE

Input side of the converter has the connector attached to it. Mark the input side, before cutting the connector off

WIRE COLOR NOTE

Where individual wires in conduit are used instead of cable, the following color substitutions may be necessary:
Red/Grn --> Grn/Blk
Red/Yel --> Yel/Blk
Red/Blk --> Red/Blk
The substitute colors are created using solid wire color and adding a black stripe to differentiate them.

FLOW SENSOR NOTE

This dwg shows the pin-out for a GEMS turbine flowmeter as an example. Other flow sensors may be used; but they will always use the following hookup scheme:
BLK = Ground / Common
RED = Power (+24V)
WHT = Signal

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ANGULARITY = ± 0.5 DEG

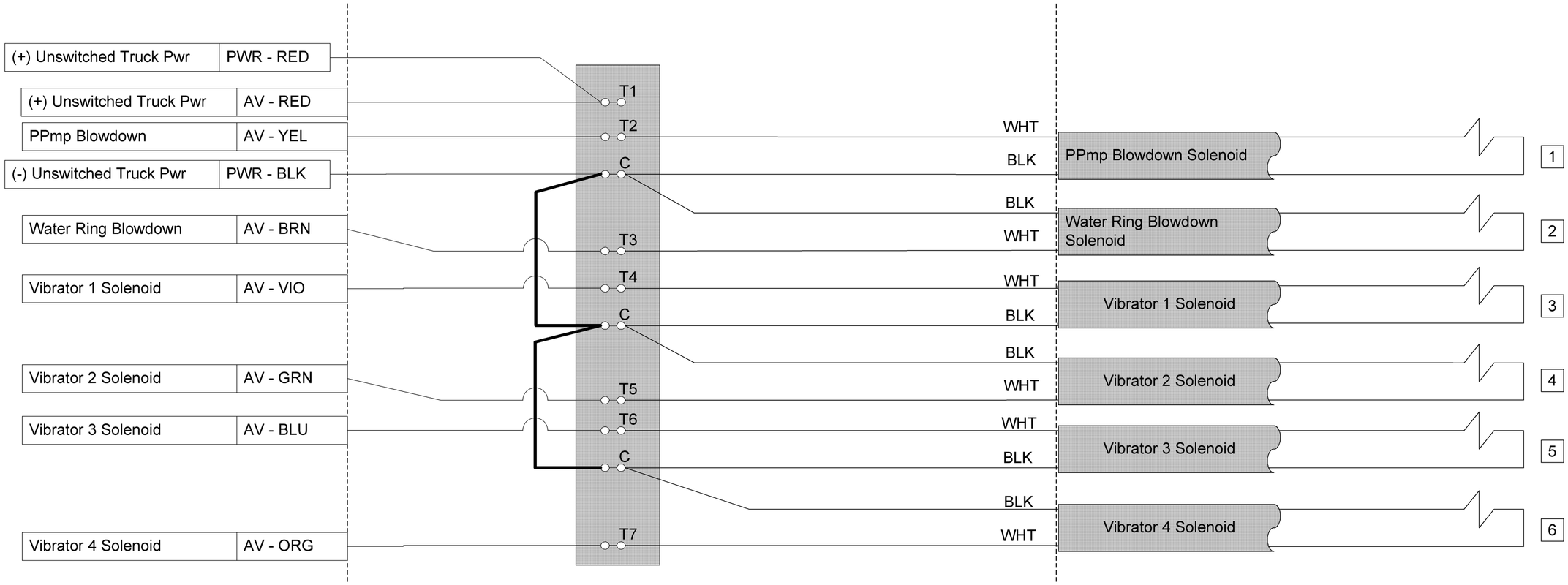
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm
THIRD ANGLE PROJECTION

DRAWN bsekinger
DATE 5/11/2007
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

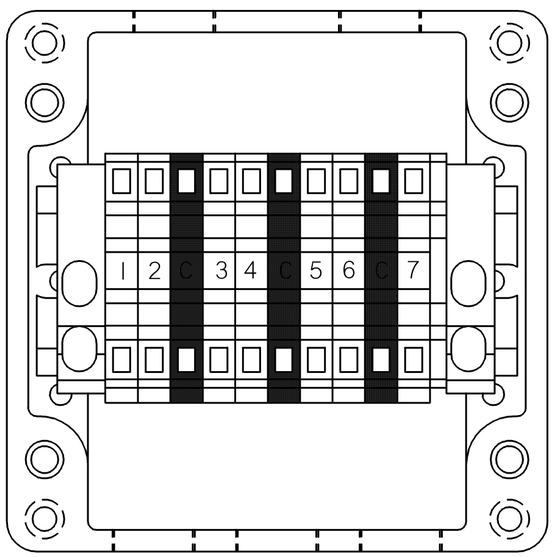
PROJECT UNIBODY CONTROLS
TITLE PUMP SENSORS JUNCTION BOX ASM
DCC PLUS CONTROL SYSTEM (w/ PumpPro)
DWG NO UC1020A42 REV 2 SIZE C
WEIGHT 7.7 lbm SHEET 2 OF 2

Last Changed: 3/10/2008



NOTE: Terminals labeled 'C' are the common for regulated 24 volt sensor power. Where the connections are shown with a thick line, these terminals should be tied together with Entrelec bus-bars.

Also note that the terminal blocks labeled 'C' are blue. The rest are grey.



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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 11/30/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

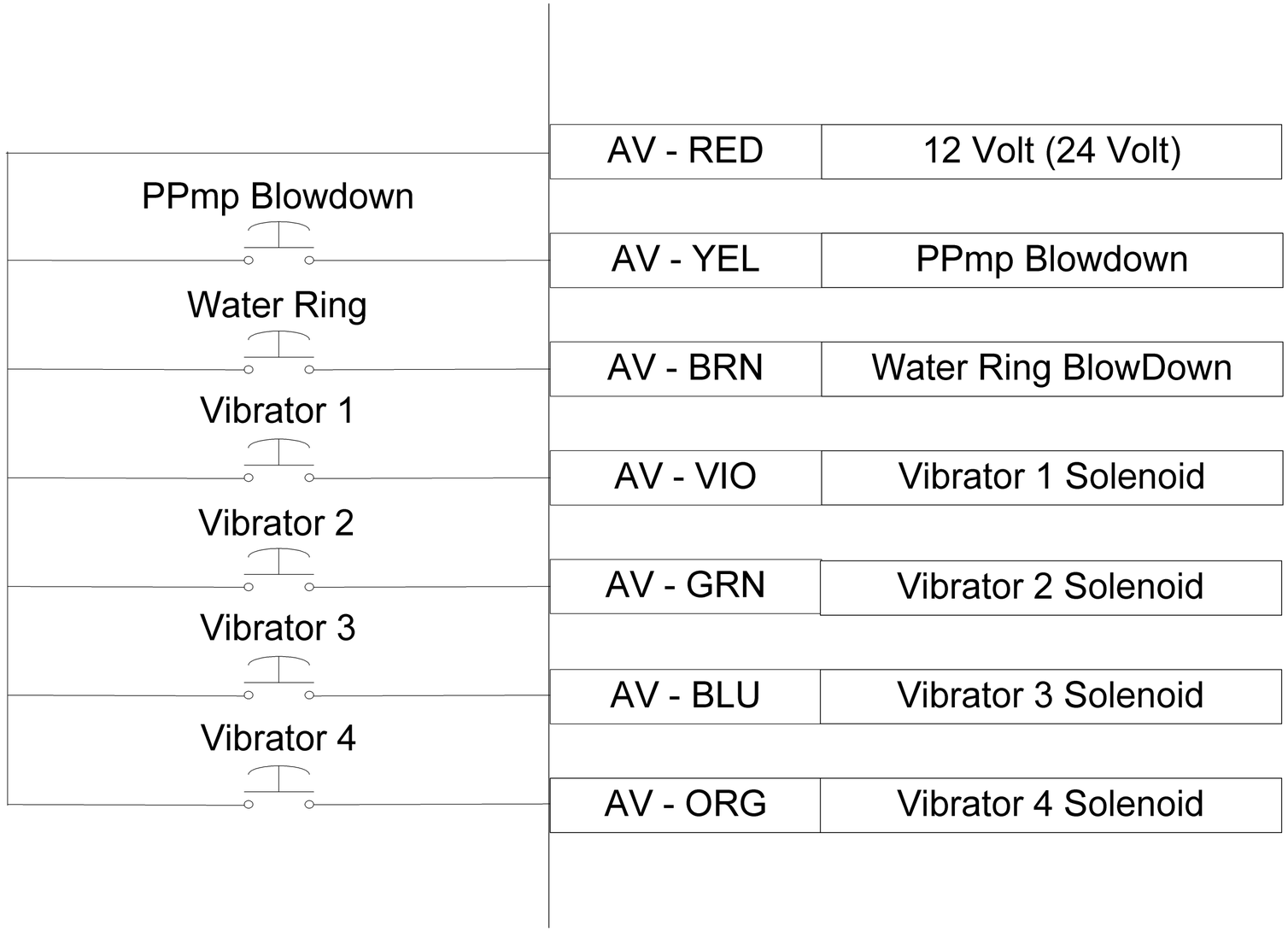
PROJECT AIR VALVE ASM JUNCTION BOX

TITLE AIR VALVE ASM JUNCTION BOX
BLOW-DOWN AND VIBRATORS

DWG NO UC1040A01 REV 01 SIZE C

WEIGHT 0.0 lbm SHEET 3 OF 3

Last Changed: 11/30/2010



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ANGULARITY = ± 0.5 DEG

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN ERICP
DATE 5/4/2004
APPR. DCOLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

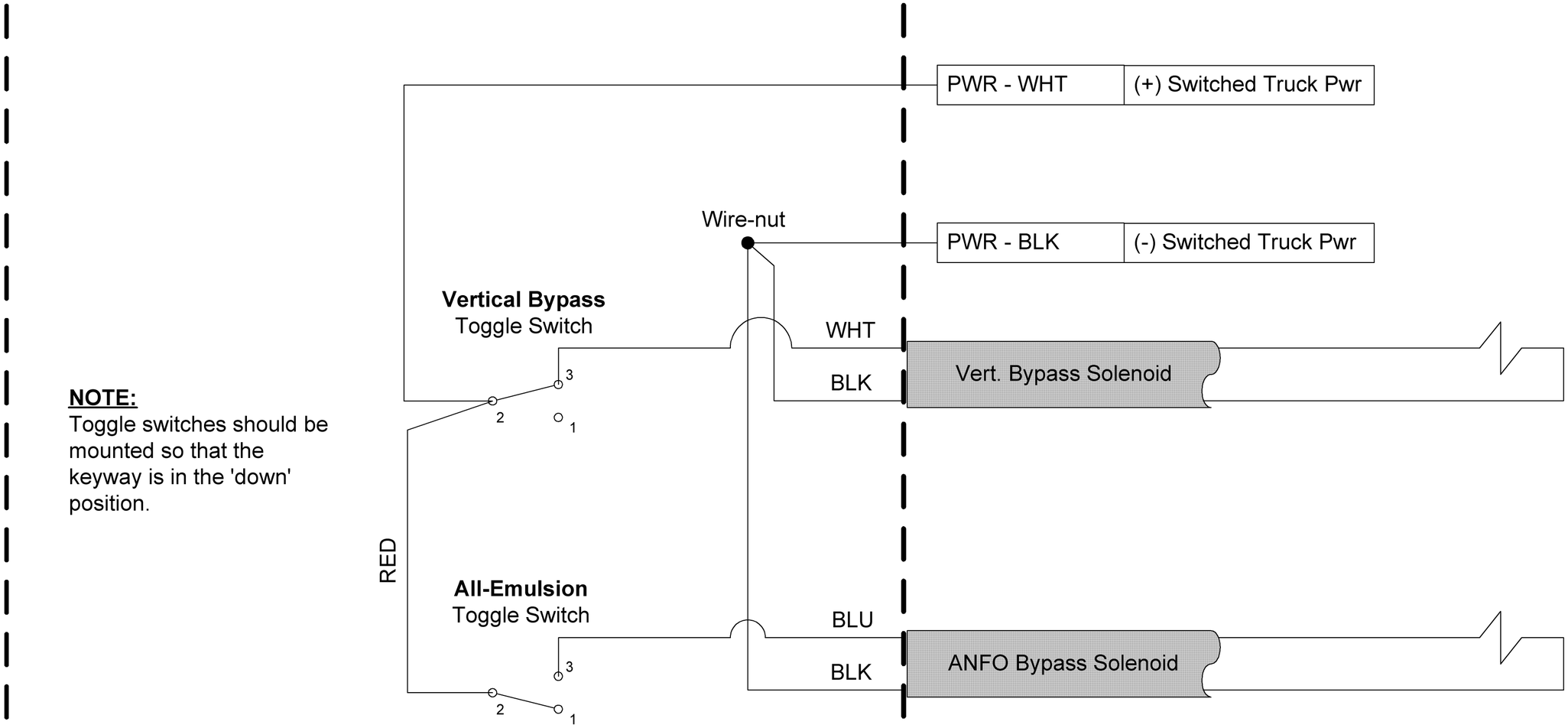
PROJECT UNIBODY

TITLE AIR PUSH BUTTON BOX ASSEMBLY
AIR CONTROL SYSTEM

DWG NO UC1040A02 | REV I | SIZE C

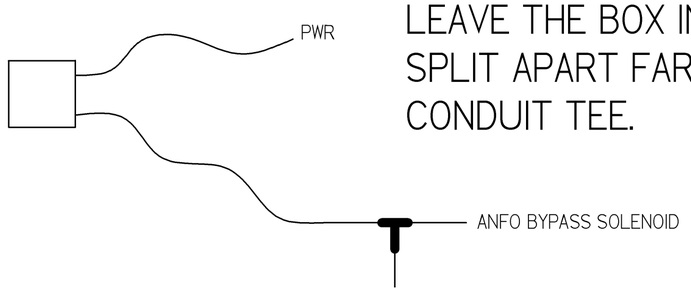
WEIGHT 5.4 lbm | SHEET 3 OF 3

Last Changed: 7/28/2008



NOTE:
Toggle switches should be mounted so that the keyway is in the 'down' position.

NOTE
TO MINIMIZE CONDUIT RUNS TO THE CAB, THE FOUR WIRES FOR THE SOLENOIDS LEAVE THE BOX IN A SIGLE CONDUIT AND SPLIT APART FARTHER AWAY USING A CONDUIT TEE.



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ANGULARITY = ± 0.5 DEG

UNLESS OTHERWISE SPECIFIED
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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 7/21/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT

TITLE ANFO BYPASS W/ OPTIONAL VERT AUG BYPASS

DWG NO UC1046A01 | REV 11 | SIZE C

WEIGHT 0.0 lbm | SHEET 2 OF 2

Last Changed: 3/10/2008

RUN AUGERS REVERSE

DOWN HANDRAIL UP

LEFT BOOM RIGHT

LOWER BOOM RAISE

RUN AUGERS REVERSE

CV 01

300 PSI

3000 PSI

600 PSI

-12/-16

-06/-08

-12/-12

E 01

OPTIONAL

AUXILLIARY

V 06

IN-OFF AUXILLIARY HYDRAULIC OUT-ON

V 01

M 05

VERTICAL AUGER

DISCHARGE AUGER

M 06

IMPORTANT

R PORT MUST BE REFERENCED TO TANK ONLY

V 07

200 PSI

M 04

AUGER SWEEP

BAR

X

V 05

BOOM RAISE

C 01

.047

.075

.100

V 08

TPC

A

B

TPR

CP1

CP2

CR1

CR2

-04/-06

C 02

E 02

25 MICRON

-20

-24

P 01

16 GPM

24 GPM

1.0 IN GEAR

1.5 IN GEAR

PTO

V 04

AIR

EMULSION

M 02

V 03

EF

P

CF

CW-SLOW BLEND SPEED CCW-FAST

V 02

C2

C1

AIR 1

AIR 2

EMULSION BLEND 1 RATIO ANFO

PRILL

M 01

MINIMUM FUEL OIL RATIO MAXIMUM

FUEL OIL

M 03

OPTION 2

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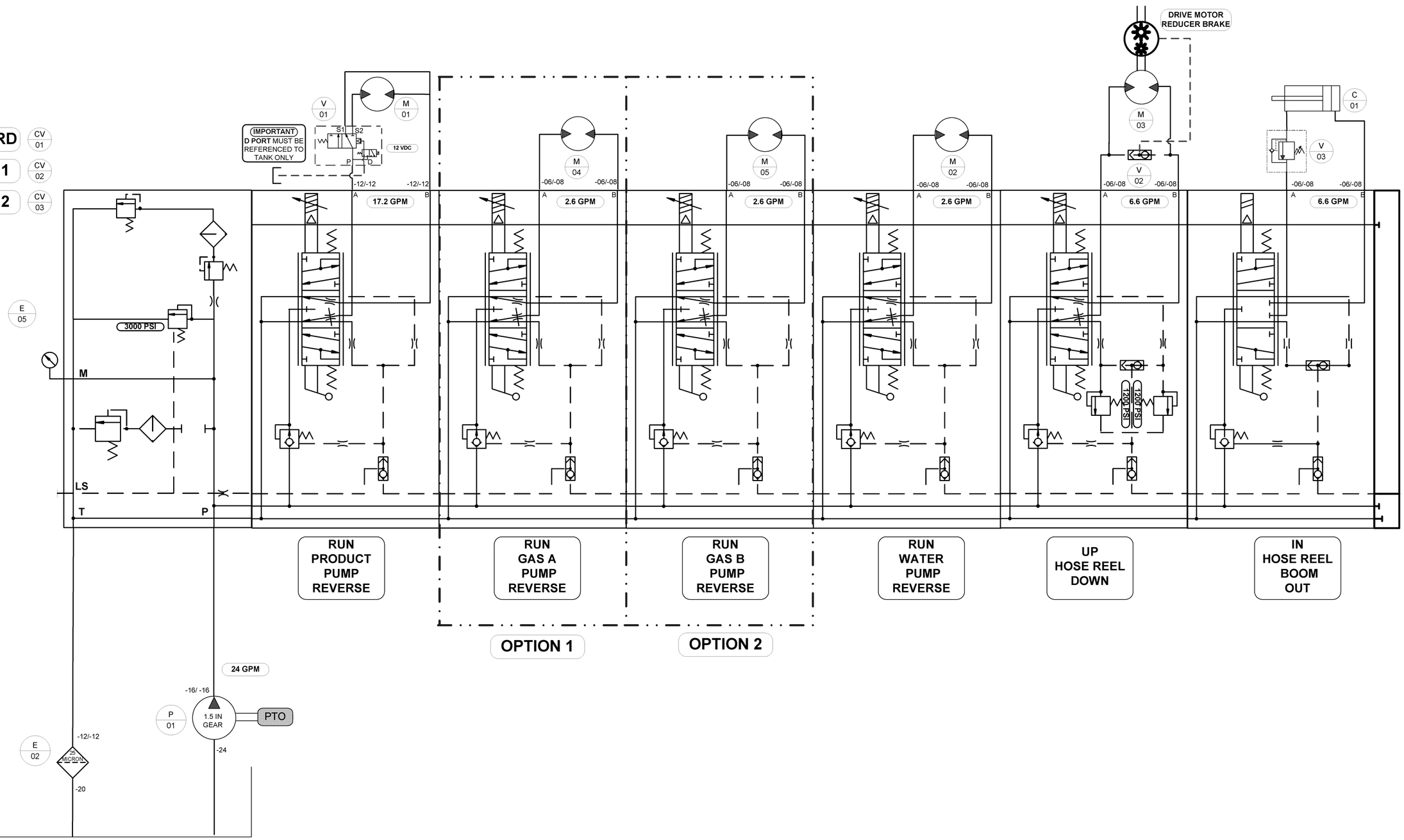
	THIRD ANGLE PROJECTION	PROJECT: UNIBODY HYDRAULIC	
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: rduncan	TITLE: SCHEMATIC LABEL -10 S BLEND	
	DATE: 12/6/2005	DWG NO: UH2004A03EN	REV: 2 / SIZE: C
	APPR.	WEIGHT: 0.0 lbm	SHEET: 2 OF 5

Last Changed: 4/23/2008

STANDARD CV 01

OPTION 1 CV 02

OPTION 2 CV 03



Last Changed: 7/25/2008

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 12/6/2005
APPR.

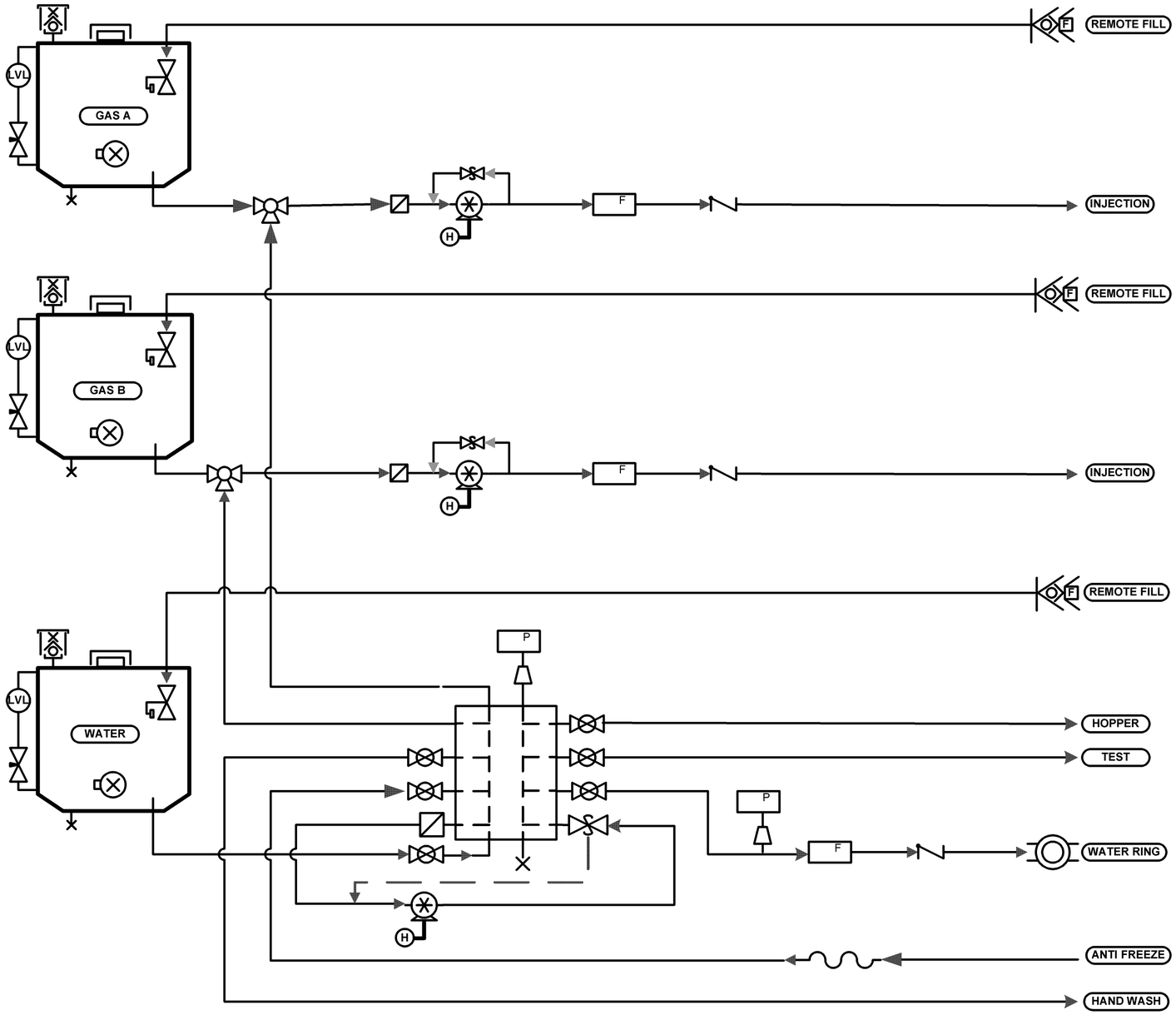
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

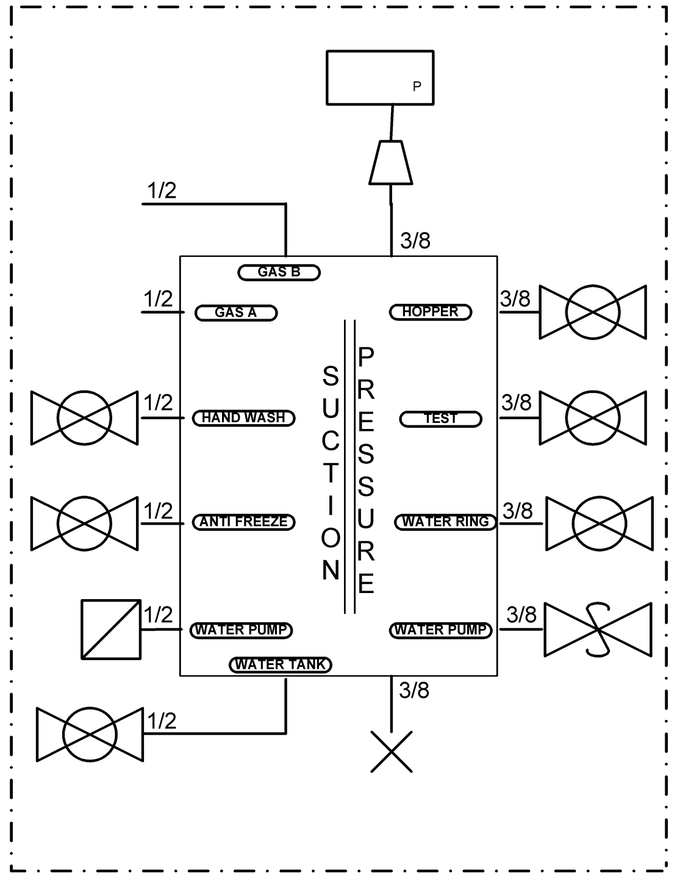
PROJECT UNIBODY HYDRAULIC

TITLE SCHEMATIC LABEL PUMP DCC+FHR

DWG NO UH2005A01EN | REV I | SIZE C

WEIGHT 0.0 lbm | SHEET 2 OF 5





Last Changed: 3/12/2008

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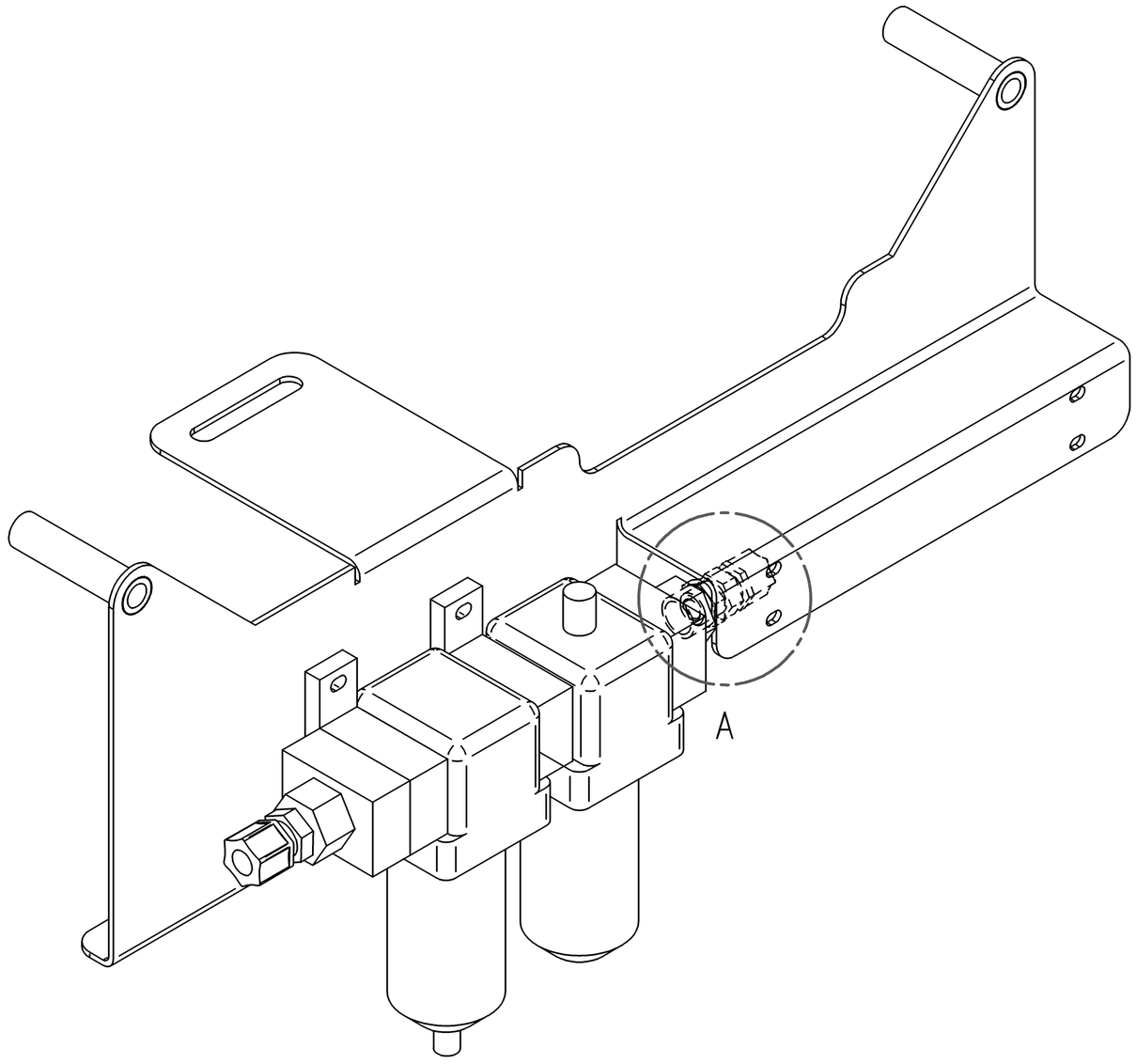
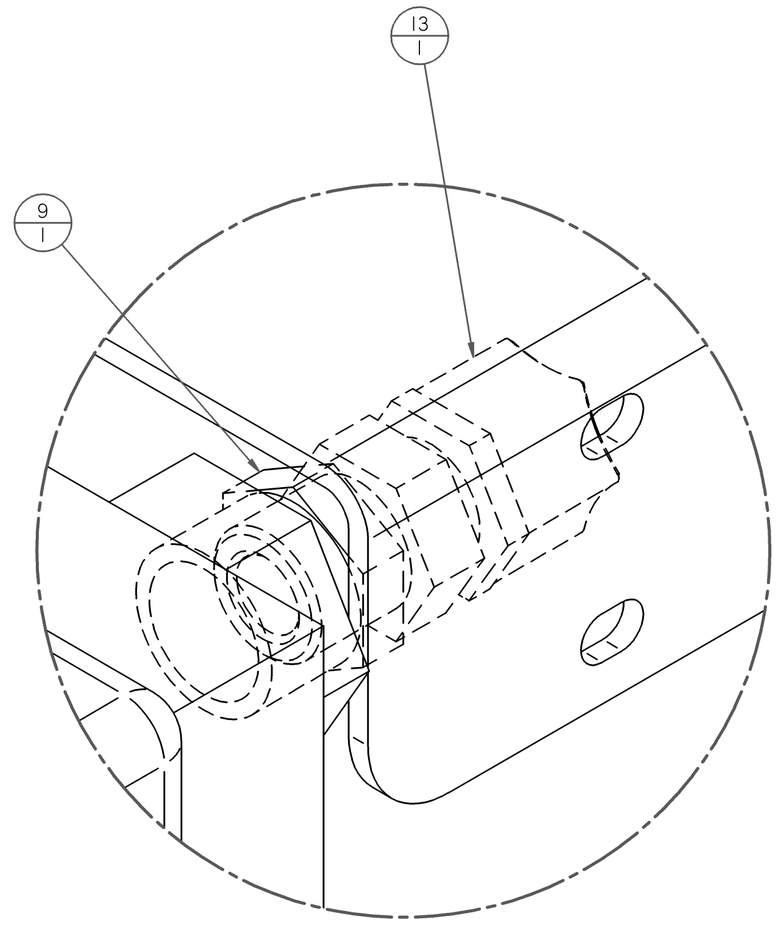
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN rduncan DATE 7/27/2006 APPR.	TITLE WATER PUMP MANIFOLD ASSEMBLY UNIBODY WATER SYSTEM DWG NO UW1001A12 · REV 4 · SIZE C WEIGHT 23.4 lbm · SHEET 4 OF 4





DETAIL A

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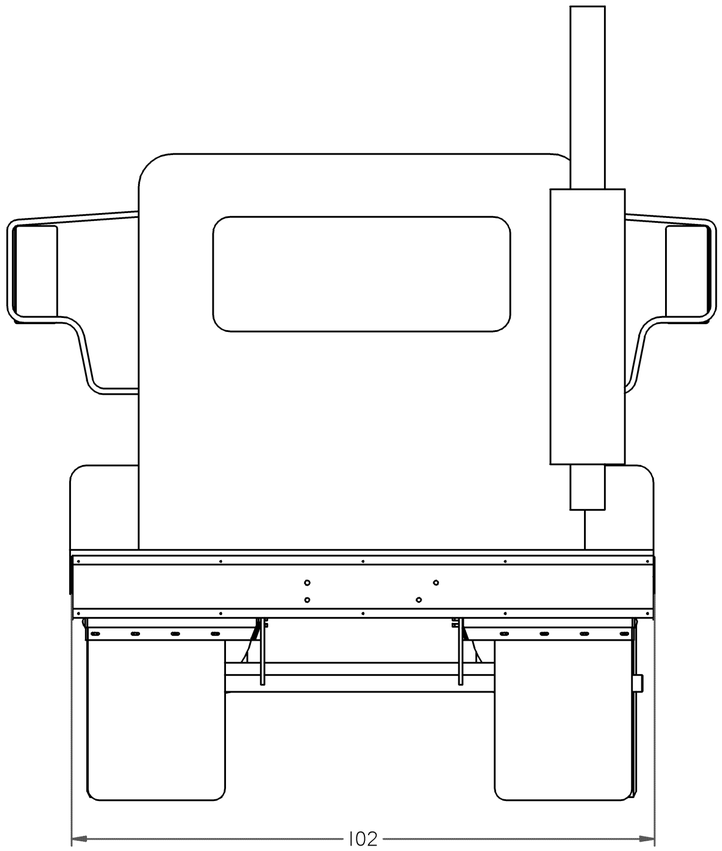
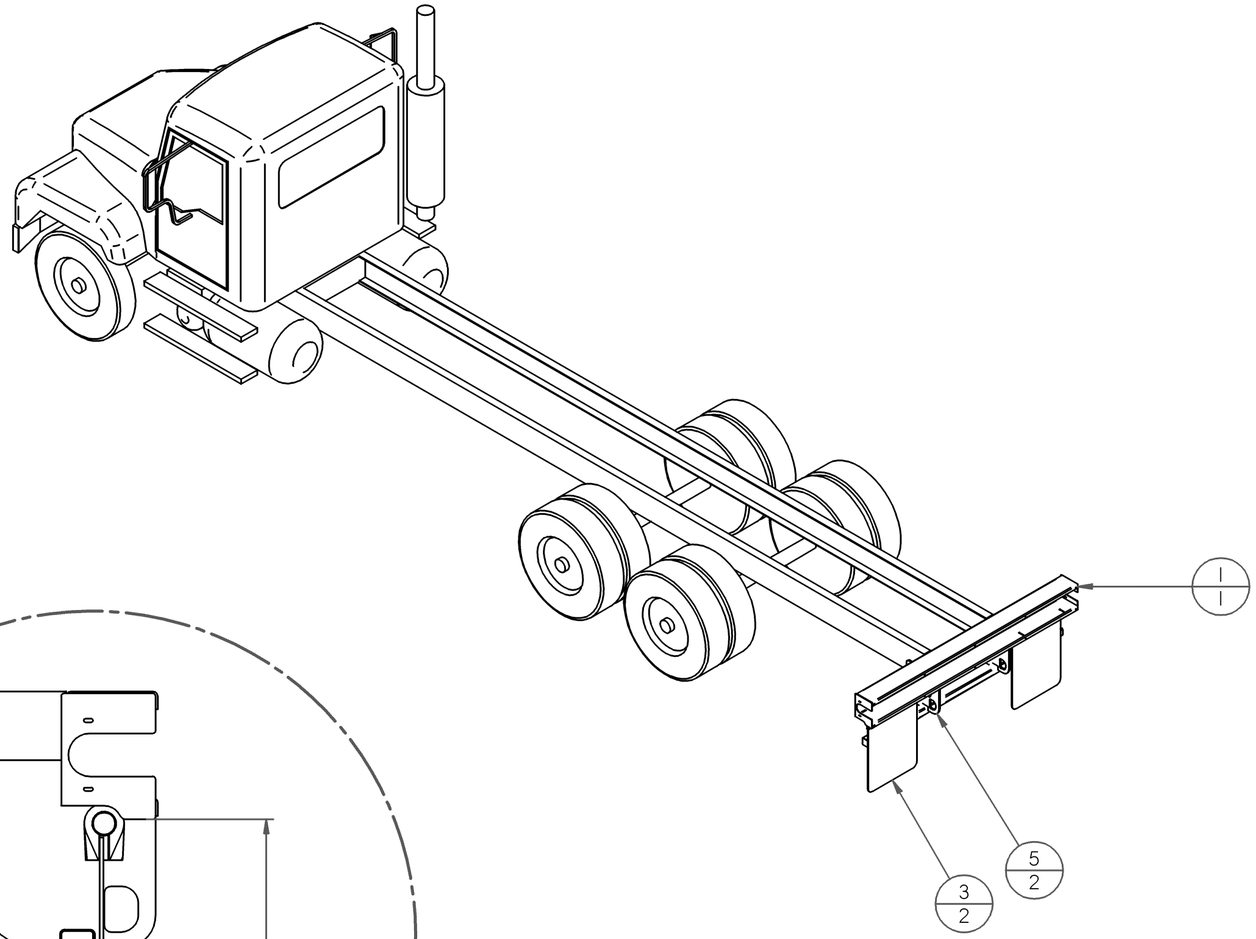
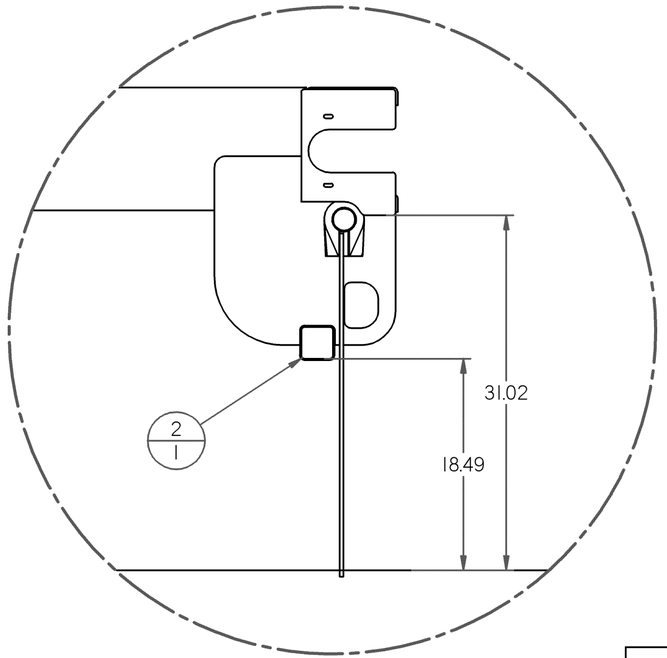
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: LWILLIAMS DATE: 11/09/2005 APPR.	DWG NO: UX1008A13X REV: 1 SIZE: C WEIGHT: 0.0 lbm SHEET: 2 OF 2

Last Changed: 04/28/2009



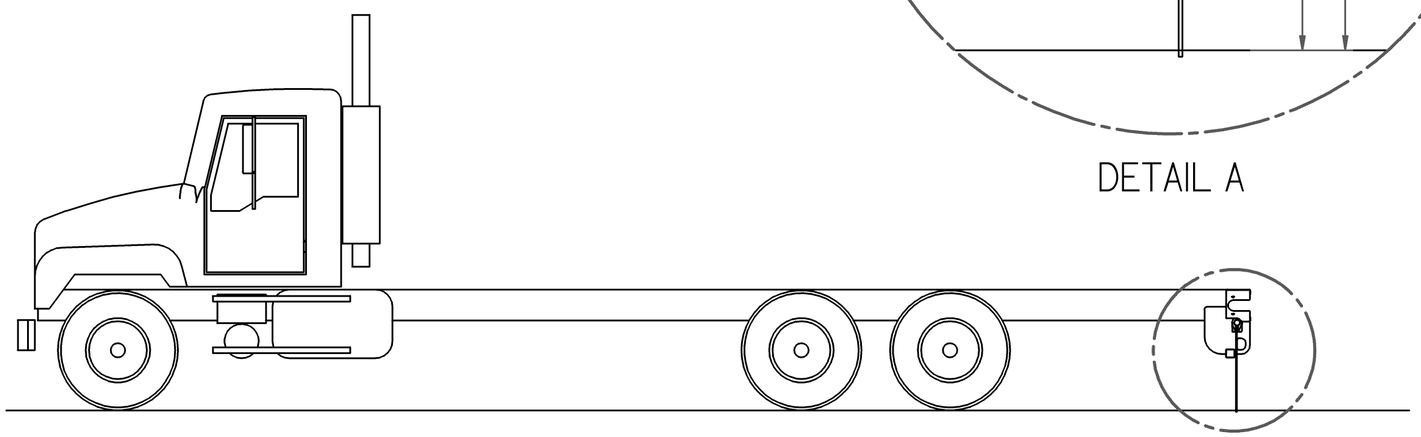
NOTE: CENTER BUMPER CORE ON FRAME RAILS





DETAIL A

DIMENSIONS FROM GROUND TO ICC BAR AND BUMPER ARE VARIABLE DUE TO DIFFERENCES IN CHASSIS DESIGN, AXLE (SPRING) RATING, WEIGHT OF BODY AND OPTIONAL ACCESSORIES, AND PRODUCT LOADING. HOWEVE,R, DIMENSION FROM GROUND TO ICC BAR WILL NEVER EXCEED 760 MM (30") AND IS GENERALLY SUBSTANTIALLY LESS.



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UX1010A06	BUMPER	
2	1	UX1010A10	ICC BAR WELDMENT	
3	2		MUD FLAPS "TREAD"	243.5581
4*	2		BRACKETS MUD FLAP FRAME MOUNT MS	243.5591
5	2	UX1010P01	BUMPER TOW PLATE D-HOLE STYLE .63	UX1010P01

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN LWILLIAMS
DATE 10/7/2003
APPR.

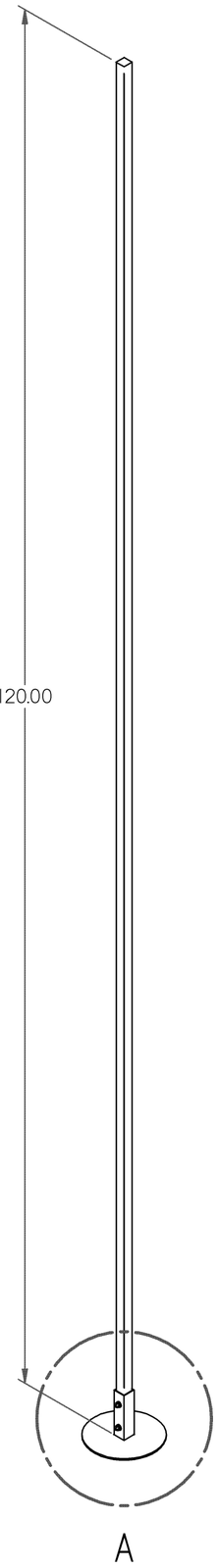
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BUMPER ASM DOT HIGHWAY 42 SERIES
TITLE BUMPER ASM DOT HIGHWAY 42 SERIES
UNIBODY 42XX SERIES

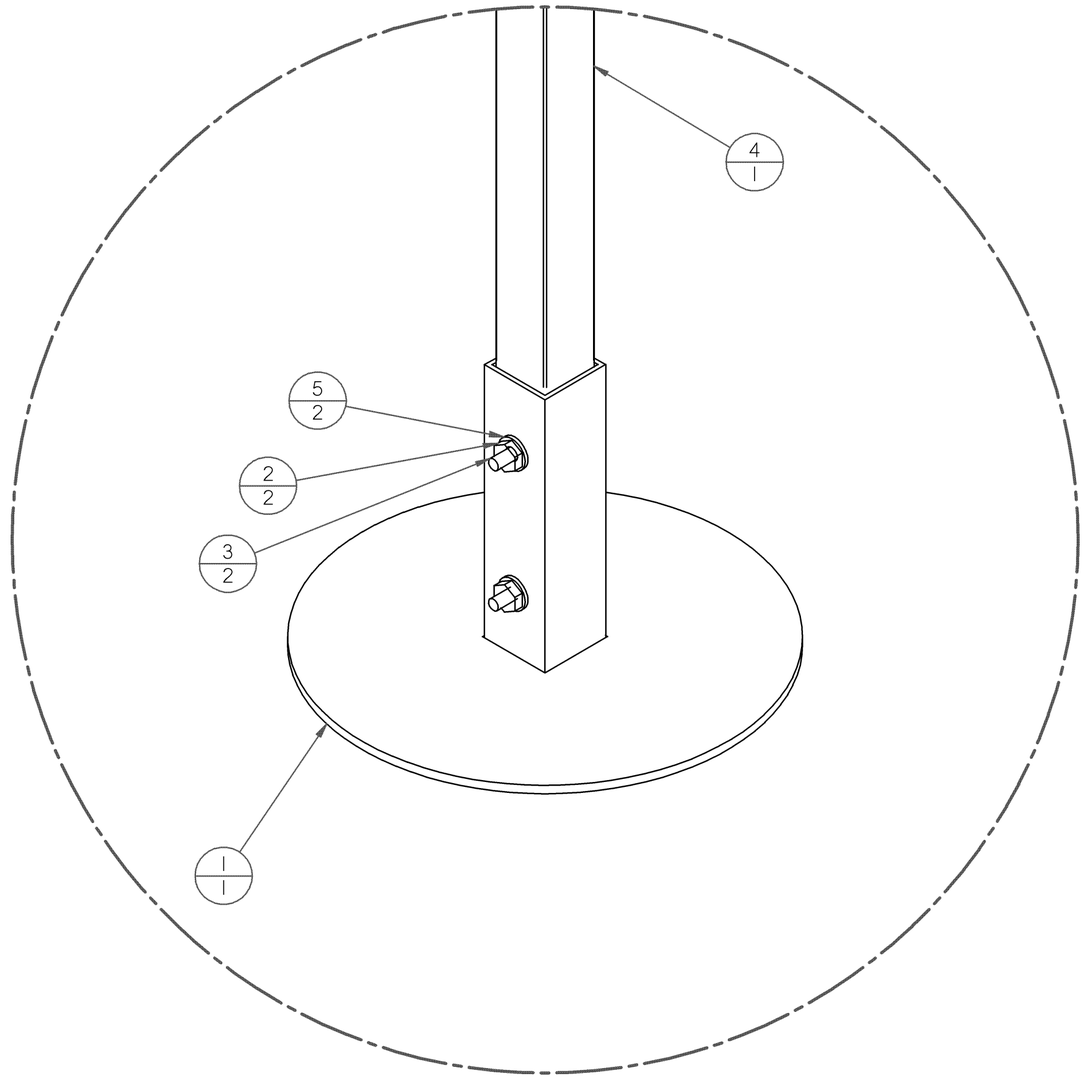
DWG NO UX1010A02 | REV 01 | SIZE C
WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 7/27/2009

A



A



DETAIL A

ASSEMBLY NOTES:

1- INSERT WOODEN GAUGE STICK INTO FOOT UNTIL END IS FLUSH WITH BOTTOM OF FOOT.

2- LOCATE AND DRILL (2) HOLES .188 DIA 1 INCH FROM EACH END OF TUBE THRU TUBE AND GAUGE STICK.

3- INSTALL MACHINE SCREWS, WASHERS, AND NUTS, AND SECURE WITH LOCKITTE.

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UX1013A02	UNIBODY TANK GAUGE FOOT ASM	UX1013A02
2	2		NUT HEX #8-32 SS	950.1214
3	2		SCREW MACHINE SL ROUND HD #8-32X1.25 SS	915.1304
4	1		TANK GAUGE STICK 10 FT ONE PIECE	250.2500
5	2		WASHER PLAIN FLAT #8	960.1214

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN DCOLE
DATE 5/3/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT

TITLE TANK GAUGE STICK ASM 10 FT

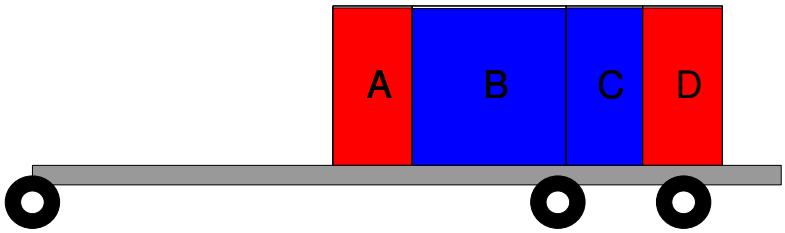
DWG NO UX1013A01 | REV 1 | SIZE C

WEIGHT 1.7 lbm | SHEET 1 OF 1

Last Changed: 3/13/2008

Western Star 4900SA 4216US12

Unibody Loading Analysis



69% Emulsion

TankFill

Tank	Contents	Density	Contents (lbs)	%Full	Fill Level
A	AN Prill	0.78	6,622	100%	1 in from Top
B	Emulsion	1.30	21,363	100%	1 in from Top
C	Emulsion	1.30	10,636	100%	1 in from Top
D	AN Prill	0.78	6,622	100%	1 in from Top
Fuel Tank/Hopper		0.90	2,967	100%	100%
Total Product			***48,210 lbs***		
Hose/Pole Box			99 lbs		
188 gal Tank (for 42x1k)		1.00	1,569 lbs	100%	100%
Chassis Fuel		0.84	491 lbs	100%	70 gal

Axle Loading (lbs)

	Front	Rear	GVW
Mfg Limits	22,000	65,000	87,000
Calculated Loading	19,260	65,926	85,186

Warnings for this Scenario (Off Road):

Exceeded Mfg Wt Limit for Tandem Front by 463 lbs

Exceeded Mfg Wt Limit for Tandem Rear by 463 lbs

MANUAL CHECKLIST

Serial Number	3090	Customer	US Borax
Manual Quantity	1	Created	02/17/2011
Configuration	4264S12-IFS-3FS-00 12V UNPAINTED		

	Truck SN Folder	Manual Hardcopy	Comments
DOT Certificate	☐	☐	
Parts Listing	✓	✓	
Drawing Index	✓	✓	
Axle Loading	☐	☐	
Truck Drawings	✓	✓	
Control Manuals		✓	Dect, PumpPro
Engineering Drawings	☐	✓	
Hydraulic Schematic	☐	✓	
Other Schematic	☐	✓	
Manual Back Page		✓	
Manual Binder		✓	
Manual Cover		✓	

Components: Attached

	Hardcopy		SN Folder
Manual Printed	✓		✓
CD	✓ Axleload	Manual	
Added to Truck SN Listing			✓ Yes

Manual components for unibody

Tread composed manual section
OEM manual section "linked"
OEM manual options

Standard items:

Section
Repump introduction
Unibody introduction
Emulsion pump
Fuel pump (Viking)
~~Gas pump STD PB~~
Hosereel RHR FHR Small
Hydraulics, Gresen, Permco
Hydraulics, proBlast
Product pump quad
Water pump STD PB

Links
PT coupling
PT coupling
Graphilor burst disc
Viking pump HL4195B
Valve check .25M X .25M X 25 psi
Fairfield reel planetary
PTO
PTO
Princo L3610 analog rf level
Valve check .25M X .25M X 25 psi

AccuPAX Battery Master Switch
AccuPAX Battery Master Switch
Valve betts wet-or-dry 4in air spring
Flow meter liquid fill rite
Valve relief circle seal .25 mnpt
Gresen V20 hydraulic valve
Danfoss PVG proportional valve
Graphilor burst disc

Valve ss gas purge .25M X .188tube handle
Permco 2500 & 3700

The following items are dependant on the customer selection:

Controls
ACS
iBlast
SCS
DCC+
proBlast
PumpPro
Remote control enrange 4
Remote control enrange 8

Hydraulics, proBlast
Oilgear PVG
Oilgear PVM
Oilgear PVWH
Oilgear PVWJ
Cooler oilair OAD

Product Pump
Allweiler
Monoflo X
Netzsch 2NE-XX-A
Orbit D/E 8000 progressive cavity
Tarby progressive cavity

Emulsion Pump
Bowie
Napco 3in ductile
Raven outboard

iBlast
Controller keyence
Siemens pc 677B touch computer screen

Valve
Betts 3in emergency (Canada DFO)
(UF1003A08/Lee)

~~Gas Pump~~
~~General WM~~
Hydracell D10,G3,G13,M3,M23
Hydracell D10,G10

~~Meters, sensors~~
Flow sensor kobold D
Flow sensor GPI remote electronics

Water Pump
Cat 231
Cat 281
Cat 351
Cat 431
General WM

Hose
Hose concord yellow jacket
Hose goodyear blue flexwing
Hose goodyear gorilla
Hose goodyear plycord 250
Hose royalflex
Hose thermoid hercules

Motors
Motor charlynn 2k, 4k, 6k, 10k (below)
~~Motor charlynn A series (130-XXXX)~~
~~Motor charlynn H series (101-XXXX)~~
~~Motor charlynn J-2 series (129-XXXX)~~

Misc
Waukesha 5000
LED Warning Beacon

(104-XXXX,109-XXXX,112-XXXX)

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
2NES80 PUMP ASSEMBLY XX16	**TC07349**	**1**	**EACH**	**183154**
AL SHEET .090 60 X 120 5052-H32 STD	215.8332	2		
COUPLING GATES HOSE 12-12 F JIC	262.6212	4		
COUPLING L225 HYTREL SPYDER	247.1390	1		
COUPLING L225 X 1.250 BORE .312 KEY	247.1404	1		
COUPLING L225 X 1.875 BORE .50 KEY	247.1403	1		
FITTING 45 M37/F37 SW 12-12	76502.1212	2		
FITTING 90 M37/ADJ MSAE 08-06	76801.0806	1		
FITTING 90 M37/ADJ MSAE 12-12	76801.1212	2		
FITTING 90 M37/ADJ MSAE 12-12	76801.1212	1		
FITTING STR M37/MSAE 12-16	76400.1216	2		
FITTING TEE M37/M37/F37 SW -12	76600.121212	1		
FIXED BASE WELDMENT 4116	UP1001A55	1		
HOPPER GASKET NETZSCH 2NES80A	TC07378	1		
HOSE HYD GATES 12 M3K XTRATUFF .750	262.3712	3		
HOSE HYD GATES 12 M3K XTRATUFF .750	262.3712	3		
JACK SCREW ASSEMBLY	UP1001A06	4		
MOTOR 109-1588 CHAR LYNN 19.0 SS 1.25	263.5461	1		
NUT HEX .375-16 SS	950.4214	4		
NUT HEX .50-13 SS	950.5414	4		
NUT HEX .625-11 SS	950.6614	8		
NUT HEX .75-6 ACME SS	950.7264	4		
PUMP NETZSCH 2NES80A	241.5684	1		
RIVNUT FLT HD .250 X .200 GRIP SS RIB	261.1025	4		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	4		
SCREW CAP HEX HEAD .31-18X3.00 SS	900.3774	2		
SCREW CAP HEX HEAD .375-16X1.00 SS	900.4294	2		
SCREW CAP HEX HEAD .50-13X2.00 SS	900.5534	4		
SCREW CAP HEX HEAD .625-11 X 2.00 GR8	900.67308	8		
SS PLATE .187 60 X 120 304-2B STD	210.7726	4		
SS PLATE .187 60 X 120 304-2B STD	210.7726	1		
SS PLATE .25 60 X 120 304-2B STD	210.0440	176		
SWITCH PRESSURE SIGMA 275 PSI DIN CONNEC	263.2544	1		
VALVE 2 POS 3 WAY 30 GPM ASM 24 VDC	264.0142	1		
ADDL AUX HYD TOP MOUNT	**TC07418**	**1**	**EACH**	**182393**
AUXILLIARY HYDRAULIC CONTROL BOX 12V	UC1020A14X	1		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	4		
AUGER VALVE ASM 16-10 S 2BFO-12V	**UH1014A06X**	**1**	**EACH**	**165930**
AIR VALVE ASSEMBLY 12V	UH1010A02X	1		
ANFO BYPASS W/ OPTIONAL VERT AUG BYPAS	UC1046A01	1		
AP FLOW KNOB PACKAGE	286.7229	1		
AP FLOW W/ROTARY ACTUATOR ASSEMBLY	UH1010A01	1		
BASE WELDMENT HYDRAULIC BLEND	UH1014A11S	1		
BRACKET GAUGE MOUNTING	500.0157	1		
COVER FLOW DIVIDER DUAL PRESET	UH1002P21	1		
COVER HYDRAULIC VALVE	UH1014A14	1		
FITTING 45 M37/ADJ MSAE 08-10	76802.0810	6		
FITTING 45 M37/ADJ MSAE 12-10	76802.1210	4		
FITTING 45 M37/ADJ MSAE 12-12	76802.1212	4		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
FITTING 45 M37/F37 SW 12-12	76502.1212	1		
FITTING 45 M37/F37 SW 12-12	76502.1212	1		
FITTING 90 JIC M37/METRIC 12-22	274.9003	2		
FITTING 90 LL M37/ADJ MSAE -12 **DRILLED	76801.12120104	1		
FITTING 90 M37/ADJ MSAE 08-06	76801.0806	2		
FITTING 90 M37/ADJ MSAE 12-12	76801.1212	2		
FITTING 90 M37/ADJ MSAE 12-12	76801.1212	1		
FITTING 90 M37/ADJ MSAE 12-12	76801.1212	3		
FITTING 90 M37/ADJ MSAE 12-16	76801.1216	1		
FITTING PLUG -12 SAE	76408.12	1		
FITTING PLUG MSAE -14	76408.14	1		
FITTING STR FNPTSW/FNPT .125-.25	82046.0204	2		
FITTING STR JIC M37/METRIC 12-22	274.9001	1		
FITTING STR M37/MSAE 12-12	76400.1212	1		
GAUGE LENZ 2.5 5K PSI .25 MNPT BACK CONN	260.7017	2		
HOSE ASSEMBLY .25IN X 24IN .125MNPT	262.0302	2		
LABEL AP-FLOW DIVIDER BLEND	UH1010P19	1		
LABEL AP-FLOW DIVIDER FO	UH1002P28EN	1		
LABEL BLEND RATE	UH1002P27EN	1		
LABEL HYD GRESEN BLEND	UH1002P25EN	1		
LABEL HYDR PRESSURE DUAL	UH1002P26EN	1		
NUT HEX .31-18 SS	950.3614	5		
ORIFICE V-20 .075	286.5068	2		
SCHEMATIC LABEL -10 S BLEND	UH2004A03EN	1		
SCREW CAP HEX HEAD .31-18X3.00 SS	900.3774	3		
SCREW CAP HEX HEAD .31-18X3.50 SS	900.3794	2		
SHELF SUPPORT PLATE	UH1010P17	1		
SPACER CFDA10	UH1002P03	2		
SPACER SELECTOR VALVE	UH1002P02	4		
VALVE 2 POS 3 WAY 30 GPM ASM 12 VDC	264.0141	2		
VALVE FLOW CONTROL UNIBODY 0-17.2 GPM	264.3089	1		
VALVE FLOW DIV ADJ PROPORT LOGIC (2V21)	264.3001	1		
VALVE V20 4-WAY BLOCKED SPRING CNTRD	264.2400	2		
VALVE V20 4-WAY FREE FLOW SPRING CNTRD	264.2401	3		
VALVE V20 FITTING KIT CENTER SECTION	264.2070	3		
VALVE V20 FITTING KIT FIRST SECTION	264.2071	1		
VALVE V20 FITTING KIT LAST SECTION	264.2072	1		
VALVE V20 HANDLE KIT VERTICAL BLACK	264.2110	5		
VALVE V20 LEFT COVER	264.2140	1		
VALVE V20 MAIN RELIEF WH 3500 PSI	264.3506	2		
VALVE V20 MID-INLET SPLIT FLOW	264.2066	1		
VALVE V20 RIGHT COVER	264.2250	1		
VALVE V20 SOLENOID ACTUATOR 12VDC	264.2003	5		
VALVE V20 SPACER TUBE ASM	264.2310	1		
VALVE V20 STUD KIT 7 SECTION	264.2907	1		
VALVE V20 UTILITY SECTION MECH	264.2342	1		
VALVE V20 UTILITY SECTION TUBE KIT	264.2330	1		
VALVE V20 WORK PORT RELIEF RC 600 PSI	264.2361	5		
BLEND STATION DCC+ SINGLE AUX 12V	**UC1025A03X**	**1**	**EACH**	**165902**
AUXILLARY HYDRAULICS VALVE KEEPER WLDM	UC1025A06	1		
AUXILLIARY CONSOLE COVER ASM	UC1025A02	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
AUXILLIARY HYDRAULIC CONTROL BOX 12V	UC1020A14X	1		
DUST CAP	85657.10	1		
DUST PLUG	85659.10	1		
FITTING 90 ADJ MSAE/F37 SW 12-12	76809.1212	1		
FITTING 90 LL M37/ADJ MSAE-20	76801.121201	1		
FITTING 90 M37/ADJ MSAE 12-12	76801.1212	1		
FITTING BULKHEAD LOCK NUT -12 37	7306.12	2		
FITTING STR LN MNPT/BULKHD M37 08-12	72706.0812	2		
LABEL AUX HYDRAULIC CONTROL ASM DCC+	UC1025P05EN	1		
QUICK DISCONNECT FEMALE	85601.0810	1		
QUICK DISCONNECT MALE	85602.0810	1		
RETAINING RING 1.0 SS S12 VALVE	264.3507	2		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	2		
VALVE HANDLE EXTENSION	UC1014P07	1		
VALVE S-12 SELECTOR	264.3512	1		
BLEND STATION MOUNTING ASM DCC+ 16FT	**UC1014A03**	**1**	**EACH**	**165889**
BLEND STATION WELDMENT	UC1026A04	1		
FLOOD LIGHTS BOX MOUNTING PLATE	UC1014P05	1		
BODY WELDMENT 4216US12-8_S, 1_S UNIBODY	**UB1005A01**	**1**	**EACH**	**165932**
AUGER CRADLE ASSEMBLY UNIBODY	UB1000A18S	1		
DECAL YELLOW LIFTING POINT ENGL/SPANISH	239.7000	12		
ELBOW STREET 90 SS S40 1 THRD	273.2506	2		
EMULSION TANK DIPSTICK (INCH) 42 B/Q	UB1000P44	1		
FITTING TUBE SS 90 .38 TUBE .125 NPT	274.9876	2		
FITTING WELD OUTLET .50 NPT SS	273.4524	8		
FITTING WELD OUTLET 1.00 NPT SS	273.4526	2		
FLANGE BOLTING RING TTMA 4X .75 SS ORING	UB1001P20	2		
FLEX MOUNT FRAME BRACKET WELDMENT SS	UB1000A02S	10		
FLEX MOUNT RUB RAIL END CAP SS	UB1000P06S	4		
FLEX MOUNT RUB RAIL RETAINER SS 5 FT	UB1000P04S	6		
FLEX MOUNT UHMW RUB RAIL 3X.75 X 10FT	230.0018	20		
FLEX MOUNT UHMW RUB RAIL 3X.75 X 10FT	230.0018	12		
HAT WELDMENT 3216	UB1001A57	2		
MANHOLE ASM BETTS 30 INCH 5.0 MAWP 412	243.5421	2		
NIPPLE PIPE SS S40 1 X 2.50	272.4658	2		
NUT HEX .50-13 SS	950.5414	8		
NUT HEX ELASTIC .50-13 SS	954.5414	8		
OUTLET POST RETAINER	UB1001P24	3		
PRODUCT ID TAG ANFO	UB1000P21	2		
PRODUCT ID TAG EMULSION	UB1000P22	2		
SPECIFICATION PLATE DOT 412 UNIBODY	UB1000P55	1		
SS BAR FLAT .375 X 3 304	211.0636	7		
SS BAR FLAT .375 X 3 304	211.0636	5		
SS PLATE .187 60 X 120 304-2B STD	210.7726	276		
SS PLATE .187 60 X 120 304-2B STD	210.7726	1,717		
SS PLATE .187 60 X 120 304-2B STD	210.7726	192		
SS PLATE .187 60 X 120 304-2B STD	210.7726	125		
SS PLATE .187 60 X 120 304-2B STD	210.7726	19		
SS PLATE .187 60 X 120 304-2B STD	210.7726	131		
SS PLATE .25 60 X 120 304-2B STD	210.0440	246		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
SS PLATE .25 60 X 120 304-2B STD	210.0440	1,507		
SS PLATE .25 60 X 120 304-2B STD	210.0440	36		
SS PLATE .25 60 X 120 304-2B STD	210.0440	324		
SS PLATE .25 60 X 120 304-2B STD	210.0440	1,355		
SS PLATE .25 60 X 120 304-2B STD	210.0440	79		
SS PLATE .25 60 X 120 304-2B STD	210.0440	94		
SS PLATE .25 60 X 120 304-2B STD	210.0440	86		
SS PLATE .25 60 X 120 304-2B STD	210.0440	1,498		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	74		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	41		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	398		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	108		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	29		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	961		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	22		
SS TUBE RND 10 X 11GA WALL 304 A269/A312	213.7481	9		
TANK CLOSURE ASSEMBLY	UB1001A60	1		
UNIBODY HATCH COVER	UB1001A56	2		
VALVE BALL 1 IN SS FULL PORT A/A S/R	264.3134	2		
BOOM AUGER ASM 10S10-19.3	**UA1901A232S**	**1**	**EACH**	**165936**
14/8 CONE ASSEMBLY 10 BOOM	UA1307A13	1		
19.3 FT 9 IN FULL PITCH BOOM AUGER	UA1122A230S	1		
9SS AUGER PADDLE ASSEMBLY	UA1000A04S	2		
AUGER SEAL ROTARY	UA1300P52	1		
AUGER SEAL TEFLON STATIONARY	UA1300P63	1		
AUGER SEAL TEFLON WASHER	UA1300P51	1		
BEARING FLANGE SEALED 1.5 4-BOLT SF-24	247.0935	1		
BOLT EYE .50-13X6.00 GALVANIZED	978.0100	1		
BOOM AUG HSNG WLDMNT DOWNER 10IN 19	UA1222A234S	1		
CLAMP HOSE 1.3125-2.25 UB AUGER DRIVE	269.1369	1		
DRIVE ASSEMBLY 10 TYPE 2	UA1301A02S	1		
GUARDMASTER INTERLOCK ASSEMBLY	UA1000A06	1		
IDLER GUARD ASSEMBLY TYPE 2	UA1302A11S	1		
IDLER MOUNT WELDMENT 10 IN	UA1302A17S	1		
IDLER SHAFT TYPE 2	UA1302A02	1		
NUT HEX .50-13 GALVANIZED	950.5419	1		
NUT HEX .50-13 SS	950.5414	16		
PT ADAPTER 25A AL FNPT	240.0257	1		
PT CAP 40V AL	240.8719	1		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	4		
SCREW CAP HEX HEAD .50-13X1.00 SS	900.5494	8		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	4		
SCREW CAP HEX HEAD .50-13X3.00 SS	900.5574	2		
SEAL COMPRESSION RING	UA1300P60S	1		
WASHER PLAIN FLAT .25 SS	960.3014	4		
WIRE ROPE .25IN 7 X 7 SS	269.9011	21		
WIRE ROPE CLIP .25IN(GALV)	269.9001	4		
WIRE ROPE THIMBLE .25	269.9003	2		
BOTTOM AUGER ASM 16-10S50	**TC04489**	**1**	**EACH**	**172646**
214 S-3.5P BED AUGER 8 X 6.5 X 4 RT	UA1137A214S	2		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
AUGER SEAL ROTARY	UA1300P52	2		
AUGER SEAL TEFLON STATIONARY	UA1300P63	2		
AUGER SEAL TEFLON WASHER	UA1300P51	2		
AUGER SHROUD 8 IN AUGER	TC03690	2		
BEARING FLANGE SEALED 1.5 4-BOLT SF-24	247.0935	2		
CLAMP HOSE 1.3125-2.25 UB AUGER DRIVE	269.1369	2		
IDLER GUARD ASSEMBLY TYPE 2	UA1302A11S	2		
IDLER MOUNT WELDMENT 10 IN	UA1302A17S	2		
IDLER SHAFT TYPE 2	UA1302A02	2		
NUT HEX .50-13 SS	950.5414	8		
NUT HEX .50-13 SS	950.5414	8		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	8		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	8		
SCREW CAP HEX HEAD .50-13X3.00 SS	900.5574	8		
SEAL COMPRESSION RING	UA1300P60S	2		
SPLINE DRIVE ASSEMBLY 10 TYPE 2	UA1301A23	2		
WASHER PLAIN FLAT .25 SS	960.3014	8		
BUMPER ASM DOT HIGHWAY 42 SERIES	**UX1010A02**	**1**	**EACH**	**165913**
BRACKETS MUD FLAP FRAME MOUNT R/L MS	243.5591	1		
BUMPER TOW PLATE D-HOLE STYLE	UX1010P01	2		
HR SHEET 11 GA 60 X 120 HRPO A1011 STD	200.8138	1		
HR SHEET 7 GA 60 X 120 HRPO A1011 STD	200.7738	180		
HR TUBE SQUARE 3 X .1875 WALL A500/B	204.7056	8		
MUD FLAPS TREAD	243.5581	2		
CHASSIS PREPARATION	**287.0295**	**1**	**EACH**	**165912**
DCC+ AUGERING SENSORS JUNCTION BOX	**UC1020A07**	**1**	**EACH**	**165891**
BACK PLATE	UC1020P12	1		
ENCLOSURE AUGER SENSORS JUNCTION BOX	UC1020P32	1		
FITTING BODY HARNESSFLEX 90 DEG NC16	231.6207	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	4		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	2		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	4		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	3		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	3		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	4		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	4		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	3		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	3		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	4		
FITTING TEE MNPT/FNPT/FNPT .25	82092.0404	1		
HOLE PLUG HEYCO THREADED PG9	231.6240	1		
RESISTOR 1.0K .50W	236.7348	2		
SWITCH PRESSURE SIGMA 20 PSI DIN CONNEC	231.2046	1		
TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050	22		
TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053	2		
TERMINAL END SECTION 6 MM ADO	231.1051	1		
TERMINAL END STOP ENTRELEC	231.0032	2		
TERMINAL MARKING STRIP 7.5 MM	231.1052	2		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
TERMINAL RAIL DIN 3 PREPUNCHED	231.0033	8		
DCC+ AUGERING SYSTEM JUNCTION BOX	**UC1020A06**	**1**	**EACH**	**159690**
BACK PLATE	UC1020P12	1		
DIODE SURGE SUPPRESSOR 51V(T-T)(PG)	231.0043	9		
ENCLOSURE AUGERING SYSTEM JUNCTION BO	UC1020P14	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	11		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	1		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	11		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	1		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	1		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	11		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	11		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	1		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	1		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	11		
TERMINAL 6MM JUMPER BAR 20 POLE	231.1057	1		
TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050	14		
TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053	9		
TERMINAL END SECTION 6 MM ADO	231.1051	1		
TERMINAL END STOP ENTRELEC	231.0032	2		
TERMINAL JUMPER SUB ASSEMBLY 6MM	231.1058	9		
TERMINAL MARKING STRIP 7.5 MM	231.1052	1		
TERMINAL RAIL DIN 3 PREPUNCHED	231.0033	8		
DCC+ CPU BOX BLEND & QUAD	**UC1020A23**	**1**	**EACH**	**165894**
BACK PLATE	UC1020P16	1		
BRACKET FOR 9-PIN D-SUB CONNECTOR	UC1020P43	1		
CONNECTOR D-SUB 9 POSITION MALE DISCRE	231.8145	1		
CONNECTOR D-SUB 9-PIN FEMALE IDC	231.8127	1		
CONNECTOR D-SUB 9-PIN MALE IDC	231.8126	1		
ENCLOSURE CPU BOX	UC1020P18	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	4		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	9		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	4		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	9		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	9		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	4		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	4		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	9		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	9		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	4		
HOLE PLUG HEYCO THREADED PG9	231.6240	3		
NUT HEX .25-20 SS	950.3014	8		
RELAY DIN RAIL MOUNTED 24 VDC 1 N.O.	231.1049	8		
RELAY SPST 12 VDC 30 AMP	231.0177	1		
RELAY SPST 24 VDC 30 AMP	231.0178	1		
S7-200 PLC CPU 226 DC/DC/DC	231.1012	1		
S7-200 PLC MEMORY BACKUP BATTERY	231.1009	1		
SCREW MACHINE SL FIL. HD .25-20X1.50 SS	916.3114	4		
TERMINAL 6MM JUMPER BAR 20 POLE	231.1057	1		
TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050	112		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053	5		
TERMINAL END SECTION 6 MM ADO	231.1051	6		
TERMINAL END STOP ENTRELEC	231.0032	7		
TERMINAL HAND TOOL FOR SELF STRIPPING	231.1055	1		
TERMINAL JUMPER SUB ASSEMBLY 6MM	231.1058	9		
TERMINAL MARKING STRIP 7.5 MM	231.1052	3		
TERMINAL RAIL DIN 3 PREPUNCHED	231.0033	56		
WASHER PLAIN FLAT .25 SS	960.3014	4		
WIRE RIBBON CABLE 9-CONDUCTOR	235.1200	2		
DCC+ DISPLAY SCREEN CONTROL BOX 12-24V	**UC1020A04**	**1**	**EACH**	**165895**
BRACKET FOR 9-PIN D-SUB CONNECTOR	UC1020P43	1		
CONNECTOR D-SUB 9 POSITION MALE DISCRE	231.8145	1		
ENCLOSURE DISPLAY SCREEN CONTROL BOX	UC1020P05	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	1		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	2		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	1		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	2		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	2		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	1		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	1		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	2		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	2		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	1		
MOUNT BALL/SOCKET TOUCH SCREEN/DCC+	269.3330	1		
MPI PORT EXTENDER CABLE	UC1020A15	1		
NUT HEX .31-18 SS	950.3614	4		
P.B. 22MM CONTACT BLOCK N.C.	234.1037	1		
P.B. 22MM ILLUM OPERATOR FLUSH HEAD GRN	234.1054	1		
P.B. 22MM OPERATOR FLUSH HEAD BLK	234.1035	1		
P.B. 22MM OPERATOR FLUSH HEAD RED	234.1021	1		
P.B. 22MM OPERATOR MUSHROOM RED	234.1020	1		
PILOT LIGHT BULB 12 VDC TYPE BA9S	234.1056	1		
PROTECTIVE MEMBRANE FOR TP177 SIEMENS	231.1007	1		
RAM MOUNT ADAPTER PLATE WELDMENT	UC1021A20	1		
SCREW MACHINE SL FLAT HD .313-18X.875 ZN	914.3681	8		
SCREW MACHINE SL ROUND HD #10-24X1.00 S	915.1894	3		
SIEMENS TOUCH PANEL TP177A	231.1083	1		
DCC+ HOSEREEL CONTROL BOX W/ POT 12V	**UC1020A30X**	**1**	**EACH**	**STOCK**
EUROSTRIPS 3-POLE TERMINAL STRIP	231.0220	1		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	1		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	1		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	1		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	1		
FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215	1		
HOSEREEL CONTROL ENCLOSURE	UC1020P78	1		
LABEL HOSEREEL CONTROL BOX W/ POTS CONTR	UC1020P107	1		
P.B. 22MM INDICATOR LIGHT GREEN	234.1046	1		
POTENTIOMETER OPERATOR ZB4BD922	231.0166	1		
POTENTIOMETER SEALED 1K OHM	231.0165	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
RELAY SPDT 24 VDC (PG)	231.0042	1		
RESISTOR 1500 OHM .5 WATT 5%	231.0027	1		
RESISTOR 470 OHM .25 WATT 5%	231.0023	1		
SEALED-SWITCH BUSHING SEAL	234.8040	3		
SWITCH TOGGLE SEALED DPDT 3-POS SPNG CTR	234.8043	2		
SWITCH TOGGLE SEALED DPDT 3-POS SPNG CTR	234.8044	1		
TOTALIZER DURANT BACKLIT 53302-401	231.0055	1		
DCC+ PUMPING CONTROL BOX W/ POT	**UC1020A33**	**1**	**EACH**	**165896**
ACRYLIC 2 PLY .06 WHITE PRINT ON BLACK	220.0100	1		
ENCLOSURE CONTROL BOX	UC1020P82	1		
EUROSTRIPS 3-POLE TERMINAL STRIP	231.0220	1		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	1		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	1		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	1		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	1		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	1		
POTENTIOMETER 3 DECADE DIGITAL 1K	231.0210	1		
POTENTIOMETER BOOT 3 DECADE DIGITAL	231.0211	1		
RESISTOR 1500 OHM .5 WATT 5%	231.0027	1		
RESISTOR 470 KOHM .25 WATT	236.7351	1		
RESISTOR 470 OHM .25 WATT 5%	231.0023	1		
SEALED-SWITCH BUSHING SEAL	234.8040	1		
SWITCH TOGGLE SEALED DP 3-POS PN8501K3	234.8046	1		
DCC+ WATER CONTROL BOX W/ POT CONTROL	**UC1020A32**	**1**	**EACH**	**165897**
ENCLOSURE GASSING CONTROL BOX	UC1020P80	1		
EUROSTRIPS 3-POLE TERMINAL STRIP	231.0220	1		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	1		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	1		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	1		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	1		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	1		
LABEL WATER CONTROL BOX W/ POT CONTRC	UC1020P108	1		
POTENTIOMETER OPERATOR ZB4BD922	231.0166	1		
POTENTIOMETER SEALED 1K OHM	231.0165	1		
SEALED-SWITCH BUSHING SEAL	234.8040	1		
SWITCH TOGGLE SEALED DP 3-POS PN8501K3	234.8046	1		
TOTALIZER/RATE BACKLIT DURANT 53302-405	231.0105	1		
DCC+BLENDING CONTROL BOX	**UC1020A28**	**1**	**EACH**	**165898**
ENCLOSURE BLENDING CONTROL BOX	UC1020P26	1		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	1		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	1		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	1		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	1		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	1		
LABEL BLENDING CONTROL BOX	UC1020P49	1		
P.B. 22MM INDICATOR LIGHT RED	234.1031	1		
P.B. 22MM OPERATOR 3-POS SEL MAINTAINED	234.1023	1		
P.B. 22MM OPERATOR 4-POS JOYSTICK	234.1026	1		
P.B. 22MM OPERATOR FLUSH HEAD GREEN	234.1022	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
PILOT LIGHT BULB 12 VDC TYPE BA9S	234.1056	1		
DFO CAL. APPARATUS NO ORIFICE X 1IN	**UF1000A02**	**2**	**EACH**	**165916**
CLAMP OETIKER 2-EAR .544-.669 DIA SS	269.1373	4		
FITTING 90 MNPT/FNPT .50-.50	82089.0808	2		
FITTING TEE MNPT/FNPT .50-.50	82091.0808	2		
HOSE PERFECTION 300 RED .5 ID DFO	240.3373	2		
PT ADAPTER 10 F ALUM	240.1270	2		
REDUCER THREADED SS S40 1 - .50	273.2116	2		
TYLOK MALE HOSE BARB .5 MNPT - .5 HOSE	274.9855	4		
VALVE CHECK .50 AL MNPT	264.0105	2		
DFO PRESSURE PIPING 1.0 INCH 4216	**UF1007A02**	**1**	**EACH**	**165917**
CLAMP T BOLT SS 1.25 HOSE 1.50 DIA	240.0918	8		
ELBOW PIPE 90 SS S40 1 THD	273.0906	1		
GROMMET PIPE 1.0	231.6029	2		
HOSE PERFECTION 300 RED 1.0 ID DFO	240.3380	3		
HOSE PERFECTION 300 RED 1.0 ID DFO	240.3380	3		
NIPPLE COMBINATION MNPT/HOSE 1.0IN SS	247.5734	1		
NIPPLE COMBINATION MNPT/HOSE 1.0IN SS	247.5734	2		
NUT HEX .25-20 SS	950.3014	2		
PT COUPLER 10C AL HOSE SHANK	240.1262	1		
SS PIPE S40 1 304 WELDED	213.1695	12		
U-BOLT MOUNTING CLIP 1IN	US1000P06	1		
U-BOLT SS 1.0, .25-20 THREAD	269.1349	1		
WASHER PLAIN FLAT .25 SS	960.3014	2		
DFO PUMP ASM 2-20 GPM 10INX16FT	**UF1002A07**	**1**	**EACH**	**165915**
FUEL OIL CAB DISPLAY 2-20 GPM	UF1005A03	1		
MOUNTING BRACKET FUEL OIL CAB DISPLAY	UF1005P05	1		
PROCESS FUEL PUMP ASM W/ 2-20 GPM FLOW	UF1002A04	1		
DFO TANK 340 GAL 4216 QUAD	**UF1003A56**	**1**	**EACH**	**149923**
ACCESS DOOR	UF1003A03	1		
ANTI SPILL CAP ASM.DFO AL / BUNA	UF1006A01	1		
BUSHING PIPE SS 1.50-1	271.9325	1		
BUSHING PIPE STEEL 1.50-1	271.9225	1		
CLAMP T BOLT SS 1.00 HOSE 1.31 DIA	240.0917	2		
CLAMP T BOLT SS 1.50 HOSE 2.00 DIA APPLI	240.0915	2		
CONDUIT HARNESSFLEX NC12 UNSLIT	231.6200	10		
DFO REMOTE FILL WELDMENT	UF1009A12	1		
ELBOW PIPE 90 SS S40 1.5 THD	273.0907	1		
ELBOW STREET 90 SS S40 1 THRD	273.2506	1		
FITTING ASM HARNESSFLEX 90 DEG NC12	231.6227	1		
FITTING STR FNPTSW/MNPT .75-.75 SS	81404.1212	1		
FITTING TUBE SS 90 .38 TUBE .125 NPT	274.9876	2		
FUEL TANK 340 GAL / HOPPER WELDMENT	UF1003A55	1		
GASKET LEVEL SWITCH FLANGE	UG1001P28	1		
GAUGE SIGHT VALVE LIQUID LEVEL	260.2775	2		
HOSE PERFECTION 300 RED 1.0 ID DFO	240.3380	10		
HOSE PERFECTION 300 RED 1.5 ID DFO	240.3384	8		
LEVEL SWITCH FLANGE WELDMENT	UG1001A25	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
LEVEL SWITCH MOUNTING FLANGE REMOVABL	UG1001A30	1		
NIPPLE COMBINATION MNPT/HOSE 1.0IN SS	247.5734	1		
NIPPLE COMBINATION MNPT/HOSE 1.0IN SS	247.5734	1		
NIPPLE COMBINATION MNPT/HOSE 1.5IN SS	247.5735	1		
NIPPLE PIPE SS S40 1 CLOSE	272.4655	3		
NUT HEX .25-20 SS	950.3014	7		
NUT HEX .625-11 SS	950.6614	13		
PIPE NIPPLE 3IN MACHINED ENDS	UF1001P15	1		
PLUG PIPE HEX HD SS .50 NPT	275.0009	1		
PLUG PIPE HEX HD SS 1IN NPT	275.0012	1		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	7		
SCREW CAP HEX HEAD .625-11X1.50 SS	900.6714	13		
SUCTION FITTING DFO FUEL TANK	UF1001P09	1		
SWITCH LEVEL GEMS LS 1750	239.3002	1		
TUBING .5 OD X 3/8 ID YELLOW FUEL, OIL	231.7008	6		
VALVE BALL 1 IN SS FULL PORT A/A S/R	264.3134	2		
WASHER FLAT HARD A325 .625	962.6610	26		
WASHER PLAIN FLAT .25 SS	960.3014	14		
WIRE ROPE OVAL SLEEVE SS .125	261.1002	2		
WIRE ROPE SS .125 DIA. 7 X 19 STRAND	261.1003	2		
DOOR COVER ASSEMBLY 30-4216	**US1008A12**	**1**	**EACH**	**165909**
DOOR COVER WELDMENT 30-4216	US1008A121	1		
GAS SPRING SS 60-LB(UB)	269.3333	2		
HANDLE MOLDED RECESS GRAB BLK FINISH	269.3340	1		
NUT HEX .375-16 SS	950.4214	4		
WASHER PLAIN FLAT .375 SS	960.4214	6		
WEATHER STRIP .5 X 1 SPONGE TAPE UNIBODY	220.0282	0		
DOOR COVER ASSEMBLY 48-4216	**US1008A11**	**1**	**EACH**	**156531**
DOOR COVER WELDMENT 48-4216	US1008A111	4		
GAS SPRING SS 60-LB(UB)	269.3333	8		
HANDLE MOLDED RECESS GRAB BLK FINISH	269.3340	4		
NUT HEX .375-16 SS	950.4214	16		
WASHER PLAIN FLAT .375 SS	960.4214	24		
WEATHER STRIP .5 X 1 SPONGE TAPE UNIBODY	220.0282	1		
ELECTRICAL DISTRIBUTION BOX 12V	**UC1017A01X**	**1**	**EACH**	**165904**
BATTERY DISCONNECT SWITCH 175A SNGL POI	231.0180	1		
CIRCUIT BREAKER 12VDC 30A STUD-MT	231.0181	1		
CONDUIT SEAL .50 HOLE SS	231.0064	1		
ENCLOSURE ELECTRICAL DISTRIBUTION BOX	UC1017P03	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	8		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	1		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	1		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	8		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	1		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	1		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	1		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	1		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	8		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	8		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	1		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	1		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	1		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	1		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	8		
FUSE BLOCK ATO/ATC 6-POSITION	231.0179	1		
FUSE BOX MOUNTING PLATE	UC1017P01	1		
FUSE HOLDER/BLOCK MIDI 80 AMP	231.2905	1		
FUSE MIDI 80 AMP	231.2904	1		
LOCKOUT LEVER KIT	231.0219	1		
MIDI FUSE BLOCK MOUNTING BRACKET	UC1017P05	1		
NUT HEX #10-24 SS	950.1814	22		
NUT HEX .375-16 SS	950.4214	2		
RELAY SPST 12 VDC 30 AMP	231.0177	1		
SCREW CAP HEX HEAD .375-16X1.00 SS	900.4294	1		
SCREW MACHINE SL ROUND HD #10-24X1.00 S	915.1894	13		
EMUL PRESSURE PIPE 41/4216 3IN	**UE1006A31**	**1**	**EACH**	**165928**
CLAMP T BOLT SS 2.50 HOSE 3.12 DIA	240.0921	4		
CLAMP T BOLT SS 3.00 HOSE 3.50 DIA	240.0922	8		
ELBOW PIPE 90 SS S40 3 THRD	274.0910	1		
EMULSION BULKHEAD WELDMENT 42-3IN	UA1000A20S	1		
EMULSION INJECTION ASM 2.5	UA1000A102	1		
EMULSION SWIVEL SERIES 42 3 X 2.5 X 45	UA1000A12	1		
HOSE CONCORD YELLOW JACKET 2.5IN 400 M	264.3391	7		
HOSE HOLDER	UA1000P236	1		
HOSE ROYALFLEX 1196 3.0 INCH ***DROP	240.3388X	7		
HOSE ROYALFLEX 1196 3.0 INCH ***DROP	240.3388X	8		
MOUNT U-BOLT SS 2.5	US1000P05	1		
NIPPLE COMBINATION MNPT/HOSE 3IN SS	247.5750	1		
NIPPLE COMBINATION MNPT/HOSE 3IN SS	247.5750	1		
NUT HEX .375-16 SS	950.4214	4		
PT ADAPTER 30A AL FNPT	240.0258	1		
PT COUPLER 25C AL HOSE SHANK	240.1265	1		
PT COUPLER 30C AL HOSE SHANK	240.1266	2		
SCREW CAP HEX HEAD .375-16X1.25 SS	900.4304	4		
SS PIPE S40 3 304 WELDED	213.3695	8		
U-BOLT SS 3.0	269.1356	1		
WRAP VELCRO 2 X 12 BLACK	100.6783	3		
WRAP VELCRO 2 X 18	100.6784	3		
EMUL PUMP ASM 3IN BOWIE 4216	**UE1002A01**	**1**	**EACH**	**165927**
BURST DISC 100 PSI 1.50	240.1117	1		
BURST DISC HOLDER WELDMENT 1.5 HOSE SHA	UE1000A02S	1		
BURST DISC HOLDER WELDMENT 1.5 MALE NPT	UE1000A01S	1		
BUSHING PIPE STEEL 3-1.50	271.9244	1		
CLAMP T BOLT SS 1.50 HOSE 2.00 DIA APPLI	240.0915	1		
COUPLING GATES HOSE 08-10 F JIC	262.6208	4		
COUPLING GUARD BRACKET L-110	UP1001P07	1		
COUPLING GUARD TUBE BOWIE SHORT SHAFT	UP1001P09	1		
COUPLING GUARD TUBE RING L-110	UP1001P08	1		
COUPLING L110 HYTREL SPYDER	247.1380	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
COUPLING L110 X 1.125 BORE .250 KEY	247.1382	1		
DRIVE COUPLING L110 X 1 MACHINED	285.9012	1		
ELBOW STREET 90 SS S40 .25 THD	273.2503	1		
FITTING STR M37/MSAE 10-10	76400.1010	2		
FITTING TUBE JACO .375-.25 FNPT	274.9882	1		
FLANGE GASKET BOWIE 3 INCH	UE1003P14	1		
GASKET BURST DISC NEOPRENE	240.1120	1		
HOSE HYD GATES 8 M3K XTRATUFF .500	262.3708	3		
HOSE HYD GATES 8 M3K XTRATUFF .500	262.3708	4		
HOSE ROYALFLEX 1196 1.5 INCH ***DROP ***	240.3385X	2		
NIPPLE PIPE SS S40 3 X 4	272.4801	1		
NUT HEX .25-20 SS	950.3014	3		
NUT HEX .31-18 SS	950.3614	2		
NUT HEX .50-13 SS	950.5414	4		
NUT HEX ELASTIC .375-16 SS	954.4214	4		
PLUG PIPE HEX HD SS .25IN NPT	275.0013	1		
PT ADAPTER 30F AL MNPT	240.2850	1		
PUMP BASE WELDMENT 16 FT BODY 3 IN BOWIE	UE1002A10	1		
PUMP BOWIE 3IN SHORT SHAFT	241.1044	1		
PUMP OUTLET TEE 3 IN CS WITH BLOWDOWN	UE1000A04	1		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	3		
SCREW CAP HEX HEAD .31-18X3.00 SS	900.3774	2		
SCREW CAP HEX HEAD .375-16X2.50 SS	900.4354	4		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	8		
SCREW CAP HEX HEAD .50-13X1.50 SS	900.5514	4		
SS PIPE S40 3 304 WELDED	213.3695	0		
SS PLATE .375 48 X 96 304-2B STD	210.0621	4		
SS PLATE .375 48 X 96 304-2B STD	210.0621	4		
VALVE AIR CONTROL EMULSION PUMP UNIBOI	UE1004A01	1		
VALVE ASM SUN AIR PILOT W/ FITTINGS	UE1001A24	1		
VALVE CHECK .25 MNPT X .25 MNPT 5PSI SS	264.0109	1		
WASHER PLAIN FLAT .25 SS	960.3014	3		
WASHER PLAIN FLAT .31 SS	960.3614	2		
WASHER PLAIN FLAT .50 SS	960.5414	4		
FENDER SUPPORTS 4216 REAR SUPERSTRUCTURE	**US1014A02**	**1**	**EACH**	**165940**
DOOR SUPPORT BOLT-ON 1-PC LEFT END OPEN	US1012P70L	1		
DOOR SUPPORT BOLT-ON 1-PC LEFT END OPEN	US1012P70R	1		
DOOR SUPPORT BOLT-ON MIDDLE OPEN	US1012A60	3		
STORAGE SUPPORT BOLT REINFORCING PLATE	US1010P01	6		
SUPPORT LEFT END 1-PC SOLID	US1012A11	1		
SUPPORT LEFT END WEB CLEAR ABOVE	US1012A50L	1		
SUPPORT MIDDLE WEB CLEAR ABOVE	US1012A40	2		
SUPPORT RIGHT END WEB CLEAR ABOVE	US1012A50R	1		
SUPPORT WELDMENT MIDDLE 1-PC SOLID	US1012A20	1		
SUPPORT WELDMENT MIDDLE 1-PC SOLID	US1012A21	2		
SUPPORT WELDMENT MIDDLE WEB CLEAR BELC	US1012A31	1		
SUPPORT WELDMENT RIGHT END W/ HOLE	US1012A12R	1		
FHR ASM 72 X 3 ANGLE LEFT RIGID	**UR1015A04**	**1**	**EACH**	**181136**
72 IN FRONT HOSE REEL PULLEY ASSEMBLY	UR1019A01	1		
BEARING PILLOW BLOCK 1.50 IN NP-24	247.0941	2		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
BOOM SPACER SLEEVE HOSE REEL	UR1015P09	1		
CHAIN WELDED .39 DIA LINK 304L SS	400.0184	3		
COUPLING GATES HOSE 04-06 F JIC	262.6205	4		
COUPLING GATES HOSE 06-08 F JIC	262.6206	8		
CYLINDER HOSE REEL BOOM 2 X48	261.2048	1		
ELBOW WELD 90 LR SS S40 2.5	274.0112	2		
ELBOW WELD 90 LR SS S40 3	274.0111	2		
ELBOW WELD 90 SR SS S40 3	274.0511	2		
FITTING 90 M37/ADJ MSAE 06-06	76801.0606	2		
FITTING 90 M37/ADJ MSAE 08-06	76801.0806	2		
FITTING 90 M37/F37 SW 08-08	76500.0808	2		
FITTING STR M37/MSAE 04-06	76400.0406	1		
FITTING STR M37/MSAE 08-06	76400.0806	1		
FITTING STR M37/MSAE 08-10	76400.0810	2		
FITTING STR MSAE/F37 SW 04-04	76402.0404	1		
FITTING STR MSAE/F37 SW 06-08	76402.0608	1		
FITTING STR REDUCER F37/M37 08-06	72406.0806	2		
FITTING TEE M37/F37 SW/M37 -08	76602.080808	2		
FLEX MOUNT RUB RAIL END CAP SS	UB1000P06S	4		
FLEX MOUNT UHMW RUB RAIL 3X.75 X 10FT	230.0018	7		
FLOOD LIGHT MTG BRACKET	UL1005P01	2		
GRIP STRUT 18.75 X 2 X .100 AL WALKWAY	219.8330	5		
HOSE HYD GATES 4 M3K XTRATUFF .250	262.3704	8		
HOSE HYD GATES 6 M3K XTRATUFF .375	262.3706	40		
HOSE REEL HOOP SS 72 INCH	UR1018P08	2		
HR PLATE .25 60 X 120 HRPO 1008-1010 STD	200.0438	17		
HR PLATE .375 48 X 120 HRPO 1008-1010STD	200.0628	79		
LADDER RUNG SS 304 16 GA X 1.625 X 60IN	204.8306	1		
MOTOR 104-1218 CHAR LYNN 8.0 13T SPLINE	263.5477	1		
NUT HEX .50-13 SS	950.5414	10		
NUT HEX .625-11 SS	950.6614	6		
NUT HEX .625-18 UNF SS	950.6914	9		
RIGID COUPLING PIPE 3 INCH	UR1003P45S	4		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	6		
SCREW CAP HEX HEAD .50-13X1.50 SS	900.5514	6		
SCREW CAP HEX HEAD .625-11 X 4.00 GR8	900.68108	6		
SCREW CAP HEX HEAD .625-11X1.00 GR8	900.66908	6		
SHIM DRIVE MOUNT PLATE SS	UR1006P25	1		
SPRING SNAP .625 OPENING .4375 DIA SS	981.4301	3		
SPRING(FLEX) 1.25 OD.625 ID X 1.75 L	269.9019	6		
SS BAR ROUND 1.50 304/304L	211.2200	0		
SS PIPE S40 3 304 WELDED	213.3695	0		
SS PIPE S40 3 304 WELDED	213.3695	0		
SS PIPE S80 2.5 304 WELDED	213.6094	15		
SS PLATE .187 60 X 120 304-2B STD	210.7726	108		
SS PLATE .187 60 X 120 304-2B STD	210.7726	42		
SS PLATE .187 60 X 120 304-2B STD	210.7726	428		
SS PLATE .187 60 X 120 304-2B STD	210.7726	4		
SS PLATE .25 60 X 120 304-2B STD	210.0440	173		
SS PLATE .25 60 X 120 304-2B STD	210.0440	192		
SS PLATE .25 60 X 120 304-2B STD	210.0440	4		
SS PLATE .375 48 X 96 304-2B STD	210.0621	25		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
SS PLATE .375 48 X 96 304-2B STD	210.0621	6		
SS PLATE .375 48 X 96 304-2B STD	210.0621	18		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	5		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	54		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	77		
SS SHEET 18 GA 4 X 60 304 2-B	210.8802	7		
SS SHEET 18 GA 60 X 120 304-2B STD	210.8830	4		
SS SHEET 20 GA 60 X 120 304-2B STD	210.9023	65		
SS TUBE SQUARE 1.5 X 11 GA WALL 304 WELD	213.7014	14		
SS TUBE SQUARE 3 X .1875 WALL 304 WELDED	213.7056	1		
SS TUBE SQUARE 3 X .1875 WALL 304 WELDED	213.7056	2		
SS TUBE SQUARE 3 X .1875 WALL 304 WELDED	213.7056	3		
SS TUBE SQUARE 3 X .1875 WALL 304 WELDED	213.7056	2		
SS TUBE SQUARE 3 X .1875 WALL 304 WELDED	213.7056	7		
SWIVEL JOINT 3IN STYLE 20 WELD X WELD SS	239.7991	1		
TORQUE HUB PLANETARY WHEEL DRIVE 7HBD	247.3008	1		
VALVE COUNTERBALANCE SUN CCCA-LIN-ECI	264.0123	1		
VALVE SHUTTLE HYDRAULIC BALL TYPE	264.0095	1		
WASHER FLAT HARD A325 .625	962.6610	15		
WASHER FLAT HARD A325 .625	962.6610	12		
WASHER PLAIN FLAT .50 SS	960.5414	6		
FILL ASM 42 QUAD 12V	**UG1004A02X**	**1**	**EACH**	**165920**
24 IN 4216 TANK MODULE UPLOAD COVER	US1007P70	1		
COUPLING PIPE SS S40 .375	273.0103	1		
COUPLING PIPE SS S40 .50	273.0104	3		
HINGE SS R194-0080	269.3321	2		
LATCH COMPRESSION SOUTHCO LOCK	269.5228	1		
LATCH PAWL	US1002P50	1		
SS SHEET 14 GA 48 X 120 304 2-B STD	210.8422	36		
TANK FILL CONTROL BOX 12V	UC1016A01X	1		
FILL ASM FITTINGS 0G/W UNIBODY	**UG1003A24**	**1**	**EACH**	**165921**
ADAPTER .5 NPT X GHT STAINLESS	260.1005	1		
COUPLING PIPE SS S40 .50	273.0104	1		
FITTING TUBE JACO .50-.375 MNPT	274.9873	2		
GASSING UPLOAD LABEL	UG1003P23EN	1		
HOSE EASM COUPLE BLUE .5 ID WATER	240.3382	1		
PLUG PIPE HEX HD SS .375IN NPT	275.0014	1		
PLUG PIPE HEX HD SS .50 NPT	275.0009	2		
TUBING AIR LINE .50 O.D.	239.0266	1		
TYLOK MALE HOSE BARB .5 MNPT - .5 HOSE	274.9855	1		
VALVE BALL ST .375	264.3103	1		
VALVE CHECK .50 AL MNPT	264.0105	1		
FILTER ELEMENT RETURN P562202	**260.2782**	**1**	**EACH**	**STOCK**
FIRE EXTINGUISHERS 20# ABC W/BRACKETS-2	**287.2773**	**1**	**EACH**	**165910**
COVER FIRE EXTINGUISHER VINYL WINDOW ME	239.2804	2		
FIRE EXTINGUISHER 20# ABC DOT	239.2805	2		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
FIRE EXTINGUISHER VEHICLE BRACKET	239.2806	2		
NUT HEX .375-16 SS	950.4214	12		
SCREW CAP HEX HEAD .375-16X1.25 SS	900.4304	12		
FLEX MOUNT ASM - 10 POINT	**UB1000A12S**	**1**	**EACH**	**165939**
FLEX MOUNT CHASSIS ANGLE	287.6033	10		
FLEX MOUNT CHASSIS ANGLE GUSSET	287.6030	20		
FLEX MOUNT CHASSIS BRACKET WLDMNT MS	UB1000A03	10		
NUT HEX STOVER LOCK .625-11	955.6610	50		
SCREW CAP HEX HEAD .625-11 X 2.00 GR8	900.67308	30		
SCREW CAP HEX HEAD .625-11 X 4.00 GR8	900.68108	10		
SPRING(FLEX) 1.25 OD.625 ID X 1.75 L	269.9019	20		
WASHER FLAT HARD A325 .625	962.6610	100		
FLEX MOUNT ASM - 4 POINT	**UB1000A10S**	**1**	**EACH**	**165923**
FLEX MOUNT CHASSIS ANGLE	287.6033	4		
FLEX MOUNT CHASSIS ANGLE GUSSET	287.6030	8		
FLEX MOUNT CHASSIS BRACKET WLDMNT MS	UB1000A03	4		
NUT HEX STOVER LOCK .625-11	955.6610	20		
SCREW CAP HEX HEAD .625-11 X 2.00 GR8	900.67308	12		
SCREW CAP HEX HEAD .625-11 X 4.00 GR8	900.68108	8		
SPRING(FLEX) 1.25 OD.625 ID X 1.75 L	269.9019	8		
WASHER FLAT HARD A325 .625	962.6610	40		
FLOOD LIGHT ASM 12V FHR	**UL1005A03X**	**1**	**EACH**	**165905**
CONDUIT HARNESSFLEX NC12 UNSLIT	231.6200	250		
FLOOD LIGHT ASM WITH CONDUIT ADAP 12V	UL1000A01X	6		
FLOOD LIGHT MTG BRACKET	UL1005P01	3		
FLOOD/STROBE LIGHT CONTROL BOX RELAY 1	UC1053A14	1		
GROMMET RUBBER BUNA N .1875 GRV.63 HOL	400.0066	3		
LIGHT BRACKET WALKWAY MOUNT	UL1005P02	1		
NUT HEX .25-20 SS	950.3014	6		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	6		
GRATE ASSEMBLY 32/42 UNIBODY	**UB1000A54**	**1**	**EACH**	**165941**
CONVERTIBLE TANK EMULSION SCREEN 30 IN	UB1000P42S	2		
GRATE BOLT WELDMENT	UD1000A30	16		
HATCH GRATE ROUND WELDMENT ALUM	UB1000A41	2		
HATCH GRATE SQUARE WELDMENT ALUM	UB1000A51S	2		
GUARDMASTER JUNCTION BOX 12V	**UC1013A01X**	**1**	**EACH**	**161034**
BACK PLATE	UC1013P03	2		
ENCLOSURE GUARDMASTER	UC1013P01	2		
FITTING BODY HARNESSFLEX 90 DEG NC12	231.6205	8		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	8		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	8		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	8		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	8		
RELAY SPDT 12 VDC(GAS)(LIGHT)	231.0065	2		
HANDRAIL DUAL ALARM SYSTEM 12V	**UD1002A04X**	**1**	**EACH**	**165906**
ADAPTER PLASTIC .500NPT PG9 FEMALE	UC1027P02	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
CONDUIT HARNESSFLEX NC12 UNSLIT	231.6200	100		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	1		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	1		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	1		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	1		
LIGHT & BUZZER COMBO ALARM 12 VDC	231.4112	1		
LIMIT SWITCH MOUNTING BRACKET SS	UD1002P08	1		
LIMIT SWITCH ROLLER PLUNGER	234.5296	1		
HOSE ASM UNIBORE 3 X ROYALFLEX 2.5 X 120	**UR1005A50**	**1**	**EACH**	**163045**
ADAPTER UNIBORE FEMALE 3 X 2.5 IN HOSE	UR1000P24	2		
CLAMP I-LINE 4.0 SS BOLTED	279.8300	2		
CLAMP T BOLT SS 2.50 HOSE 3.12 DIA	240.0921	4		
GASKET TEFLON UNIBORE 3 IN	UR1000P27	2		
HOSE ROYALFLEX 1196 2.5 INCH X 120 FT	240.3387	240		
HOSE/CHOCK & POLE STORAGE UNDER FRAME	**US1004A01**	**1**	**EACH**	**165907**
HOSE AND POLE STORAGE WELDMENT	US1004A02	1		
MOUNTING BRACKET	US1004P05	2		
NUT HEX ELASTIC .62-11 SS	954.6614	4		
REINFORCEMENT PLATE	US1004P08	2		
RIVET BLIND POP .1875 X.375 GRIP SS	970.1671	4		
RIVET MAGNA-LOK .253 X .375 SS	970.1666	4		
SPRING(FLEX) 1.25 OD.625 ID X 1.75 L	269.9019	4		
WASHER PLAIN FLAT .625 SS	960.6614	4		
WHEEL CHOCK HEAVY DUTY ALUMINUM	269.9008	2		
HYDRAULIC COOLER ASM 12V OAD-16	**UH1022A02X**	**1**	**EACH**	**172011**
COOLER ELECTRICAL ENCLOSURE	UH1022P05	1		
COOLER HYD OIL OILAIR OAD16-12VDC-C12C	264.0090	1		
COUPLING GATES HOSE 12-12 F JIC	262.6212	4		
FITTING 90 M37/ADJ MSAE 12-16	76801.1216	2		
FITTING ASM HARNESSFLEX 90 DEG NC12	231.6227	1		
FITTING ASM HARNESSFLEX 90 DEG NC16	231.6229	1		
FITTING ASM HARNESSFLEX STRAIGHT NC16	231.6228	1		
FITTING PLUG MSAE -16	76408.16	1		
FUSE ATO/ATC 30 AMP	231.3030	1		
HOSE HYD GATES 12 M3K XTRATUFF .750	262.3712	10		
HOSE HYD GATES 12 M3K XTRATUFF .750	262.3712	10		
RELAY SPST 12 VDC 30 AMP	231.0177	1		
SS PLATE .187 60 X 120 304-2B STD	210.7726	18		
SS PLATE .187 60 X 120 304-2B STD	210.7726	12		
SS PLATE .187 60 X 120 304-2B STD	210.7726	18		
HYDRAULIC TANK ASM 4216-3 55 GAL	**UH1013A04**	**1**	**EACH**	**165929**
4 HYDRAULIC RETURN MANIFOLD	UH1001P09	1		
4216-4 SUCTION HYDRAULIC TANK WELDMENT	UH1013A14	1		
BUSHING PIPE STEEL 2-1.50	271.9233	1		
FILLER CAP PRESSURE LENZ BPC57XL40P5N	260.2773	1		
FILTER RETURN 50AT25CN15DDN	260.2781	1		
FITTING 90 M37/ADJ MSAE 20-20	76801.2020	1		
FITTING 90 M37/F37 SW 12-12	76500.1212	4		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
FITTING 90 M37/MNPT 20-20	72501.2020	1		
FITTING STR M37/MSAE 12-12	76400.1212	4		
GAUGE SIGHT/TEMP 0-200F	260.2774	1		
HOSE HYD ASM 20 FJIC X 20 FJIC X 32 OAL	262.3821	1		
HYDRAULIC TANK LATCH PAWL	UH1001P14	1		
HYDRAULIC TANK SHIM	UH1013P27	2		
LATCH COMPRESSION SOUTHCO BASIC	269.5229	1		
NIPPLE PIPE SS S40 1.25 CLOSE	272.4680	1		
NIPPLE PIPE SS S40 1.50 CLOSE	272.4720	3		
PLUG PIPE HEX HD SS .25IN NPT	275.0013	1		
PLUG PIPE HEX HD SS .50 NPT	275.0009	1		
PLUG PIPE HEX HD SS 1.5IN NPT	275.0015	1		
TANK END COVER 6IN SS WITH .38IN BOLT	239.2237	1		
VALVE BALL SS 1.50 STANDARD PORT	264.3212	3		
LABEL NO STEP 7IN X 2IN RED ON WHITE	**286.0060**	**4**	**EACH**	**STOCK**
LADDER & WALKWAY SIDE ACCESS 4216 HYD	**UD1000A27S**	**1**	**EACH**	**165938**
AL SHEET .125 60 X 120 5052-H32 STD	215.0222	1		
AL SHEET .125 60 X 120 5052-H32 STD	215.0222	1		
COUPLING GATES HOSE 04-06 F JIC	262.6205	11		
COUPLING GATES HOSE 06-08 F JIC	262.6206	5		
ELECTRIC HANDRAIL CONTROL	UC1008A05	1		
FITTING 90 M37/ADJ MSAE 08-08	76801.0808	1		
FITTING 90 M37/F37 SW 08-08	76500.0808	1		
FITTING 90 M37/MNPT 06-04	72501.0604	4		
FITTING STR M37/MSAE 06-06	76400.0606	4		
FITTING STR M37/MSAE 08-08	76400.0808	1		
GRIP STRUT 18.75 X 2 X .100 AL WALKWAY	219.8330	12		
GRIP STRUT 18.75 X 2 X .100 AL WALKWAY	219.8330	4		
HANDRAIL ASSEMBLY 16 FT HYD	UD1003A26S	1		
HOSE HYD GATES 4 M3K XTRATUFF .250	262.3704	11		
HOSE HYD GATES 4 M3K XTRATUFF .250	262.3704	12		
HOSE HYD GATES 4 M3K XTRATUFF .250	262.3704	6		
HOSE HYD GATES 4 M3K XTRATUFF .250	262.3704	7		
HOSE HYD GATES 6 M3K XTRATUFF .375	262.3706	10		
HOSE SPIRAL WRAP 1.5IN HYD.	269.8905	4		
LADDER ASM 42 TWINN STEER SIDE ACCESS SS	UD1001A02S	1		
MOUNTING PLATE HANDRAIL CONTROL BOX	UD1000P14	1		
NUT HEX #8-32 SS	950.1214	4		
NUT HEX ELASTIC .31-18 SS	954.3614	2		
SCREW CAP HEX HEAD .31-18X3.50 SS	900.3794	2		
SCREW MACHINE SS SL FILLIS HD #8-32X1.00	916.1290	4		
VALVE HYDRAULIC HANDRAIL CONTROL UNIB	264.0174	1		
WALKWAY END TOE BOARD SS	UD1000P03S	1		
WASHER PLAIN FLAT #8 SS	960.1214	4		
WASHER PLAIN FLAT .31 SS	960.3614	4		
LEVEL CONTROL PRINCO 12-24 VDC W/PROBE	**UC1020A37**	**1**	**EACH**	**168887**
ADAPTER PLASTIC .500NPT PG9 FEMALE	UC1027P02	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
BUSHING PIPE SS 1-.50	271.9314	1		
DIODE SURGE SUPPRESSOR 51V(T-T)(PG)	231.0043	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	1		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	1		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	1		
LEVEL CONTROL PRINCO L3520 12-24 VDC	236.7020	1		
LEVEL PROBE PRINCO L853 12IN	236.7022	1		
LIGHT ASM HWY 42-12V SSTR/HR 4 WIRE	**UL1004A06X**	**1**	**EACH**	**180939**
FRONT MARKER LAMP ASM LH	UL1010A08Z	2		
FRONT MARKER LAMP ASM RH	UL1010A09Z	2		
LIGHT KIT BUMPER 12V HARNESS LED 4 WIRE	231.8012	2		
LIGHT KIT ID 12V HARNESS LED GROTE	231.9012	2		
MARKER LAMP 12V GROTE RED REFLECTOR	231.6068	4		
SCREW TAP HEX WASHER HD .25 X 1.00 SS	921.3094	10		
SS SHEET 14 GA 48 X 120 304 2-B STD	210.8422	91		
WASHER PLAIN FLAT .25 SS	960.3014	10		
LOGO UNIBODY 18 INCH	**UX1000P18**	**1**	**EACH**	**STOCK**
LOGO UNIBODY 18 INCH	**UX1000P18**	**1**	**EACH**	**STOCK**
LOGO UNIBODY 35 INCH	**UX1000P35**	**2**	**EACH**	**STOCK**
MIXING NOZZLE FOR SCOTCH WELD 10:1 BLEND	**100.1176**	**1**	**EACH**	**STOCK**
MOTOR PKG -/10 SP STD BLEND/FO	**TC04516**	**1**	**EACH**	**165931**
CONNECTOR ELBOW CIRC. 4 POLE 12 MM	242.1262	2		
MOTOR 101-2473 CHAR LYNN 2.2 CP	263.5435	1		
MOTOR 104-1533 CHAR LYNN 14.9 CP	263.5431	1		
MOTOR 104-1534 CHAR LYNN 18.7 CP	263.5433	1		
MOTOR 104-3008 CHAR LYNN 14.9 1.25 14T	263.5457	1		
MOTOR 104-3530 CHAR LYNN 9.6 CP SS CIRC	263.5468	1		
MOTOR PKG 8/-- STD PUMP X073	**UH1000A04**	**1**	**EACH**	**172010**
CONNECTOR ELBOW CIRC. 4 POLE 12 MM	242.1262	1		
MOTOR 101-2473 CHAR LYNN 2.2 CP	263.5435	1		
OIL HYDRAULIC SAE 20W-20	**260.6157**	**100**	**GALLON**	**STOCK**
PAINT BLEND PRIMER COAT	**289.0001**	**4**	**GALLON**	**STOCK**
ADDUCT PRIMER DAVIS M-126	268.1010	0		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
PRIMER EPOXY DAVIS 63-F612	268.0001	1		
PAINT BLEND WHITE TOP COAT	**289.0000**	**5**	**GALLON**	**STOCK**
ACTIVATOR URETHANE DAVIS 57-X604	268.1041	0		
PAINT WHITE URETHANE DAVIS 53-W623	268.1044	1		
PLACARD PACKAGE OFF-ROAD USE BLEND	**UX1005A03**	**1**	**EACH**	**165911**
ORANGE PANEL 1942/0331 ANFO	UX1005P11	8		
ORANGE PANEL 3139/0332 EMULSION	UX1005P10	4		
ORANGE PANEL BRACKET	UX1005P03	8		
ORANGE PANEL SLIDE IN HOLDER(PLACARD)	239.6920	8		
PLACARD BACK PLATE W/O FOOT	UX1005P01	2		
PLACARD BACK PLATE WITH FOOT	UX1005P02	1		
PLACARD FLIP SYSTEM 1.1D/1.4B/1.5D/3/5.1	239.6913	4		
POWER CONDITIONER IN-CAB 5-AMP 12-24V	**UC1020A35X**	**1**	**EACH**	**167516**
CONVERTER DC/DC 12/24 @ 5.0 AMPS (DCC+	231.0097	1		
CONVERTER MOUNTING PLATE	UC1020P87	1		
DIODE SURGE SUPPRESSOR 51V(T-T)(PG)	231.0043	1		
END SLEEVE HARNESSFLEX ESN16	231.6220	2		
FINGER GUARD	UC1020P88	1		
FUSE ATO/ATC 25 AMP	231.3025	1		
RIVNUT FLT HD .250 X .200 GRIP SS RIB	261.1025	2		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	2		
VARISTOR SURGE SUPPRESSOR 43V	231.0187	1		
PP3F4-N8Z23N-N0NX33-XX	**TC07327**	**1**	**EACH**	**181231**
BURST DISC 200 PSI 1.50	240.1118	1		
BURST DISC FLANGE 1.5 IN SS	UE1000P01S	1		
BURST DISC HOLDER WLD 1.5 HOSE SHANK 90	UE1000A05S	1		
BUSHING PIPE SS .50-.25	271.9305	1		
CLAMP T BOLT SS 3.00 HOSE 3.50 DIA	240.0922	4		
COUPLING PIPE SS S40 3	273.0111	1		
COUPLING RIGID 3IN SS W/NITRILE GASKET	247.9003	2		
FITTING TUBE JACO .375-.25 MNPT	274.9869	1		
FLANGE WELD NECK PORTED 6IN PUMPPRO	UP1016P43	1		
GASKET BURST DISC NEOPRENE	240.1120	1		
HALF COUPLING PIPE SS S40 .25	287.5086	1		
HOSE CONCORD YELLOW JACKET 3IN 400 MA	264.3389	15		
NIPPLE COMBINATION MNPT/HOSE 3IN SS	247.5750	1		
NIPPLE PIPE SS S40 3 X 6	272.4805	1		
NUT HEX ELASTIC .375-16 SS	954.4214	4		
PLUG PIPE HEX HD SS .25IN NPT	275.0013	1		
PRESSURE TEE W/ BURST DISK 3 IN	UP1016P51	1		
PUMP FLANGE ASM 3716 REPUMP 2NE80A	UP1008A08	1		
PUMPPRO SPOOL .5-14 NPS FITTING	UP1015P92	1		
PUMPPRO SPOOL .5-14 NPT FITTING	UP1015P93	2		
REDUCER WELD SS S40 6-3	274.3387	1		
RIGID COUPLING PIPE 3 INCH	UR1003P45S	1		
SCREW CAP HEX HEAD .375-16X2.50 SS	900.4354	4		
WATER RING ASM RIGID 3 INCH NPT IN	TC05247	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
PTO ASM 150 PAD	**UH1017A02**	**1**	**EACH**	**172529**
DRIVESHAFT FOR PAD PUMP GENERIC	247.6893	1		
FITTING 90 MNPT/FNPT .125-.125	82089.0202	1		
FITTING STR MNPT/FNPT .125-.125	82092.0202	1		
FUSE HOLDER WEATHERTIGHT ATO/ATC	231.2902	1		
HR SHEET 11 GA 60 X 120 HRPO A1011 STD	200.8138	40		
LENS PILOT LIGHT PTO GREEN	231.6882	1		
PTO 150% PAD GENERIC	247.6896	1		
PTO AIR SWITCH BRACKET	285.5144	1		
VALVE BALL ST .25	264.3102	1		
VALVE WILLIAMS AIR PROTECTION WM778A	242.0278	1		
PTO ASM 150 SAE	**UH1017A04**	**1**	**EACH**	**172531**
FITTING 90 MNPT/FNPT .125-.125	82089.0202	1		
FITTING STR MNPT/FNPT .125-.125	82092.0202	1		
FUSE HOLDER WEATHERTIGHT ATO/ATC	231.2902	1		
LENS PILOT LIGHT PTO GREEN	231.6882	1		
PTO 150% SAE GENERIC	283.0409	1		
PTO AIR SWITCH BRACKET	285.5144	1		
VALVE BALL ST .25	264.3102	1		
VALVE WILLIAMS AIR PROTECTION WM778A	242.0278	1		
PUMP ASM PERMCO 1.5 BR SAE	**UH1016A04**	**1**	**EACH**	**172530**
CLAMP T BOLT SS 1.50 HOSE 2.00 DIA APPLI	240.0915	4		
COUPLING GATES HOSE 12-12 F JIC	262.6212	2		
FITTING HYDRAULIC PUMP STRAIGHT 1-1.5IN	286.8001	1		
FITTING STR M37/MNPT 12-16	72404.1216	1		
HOSE HYD GATES 12 M3K XTRATUFF .750	262.3712	1		
HOSE HYDRAULIC SUCTION 1.5 R4	262.3825	1		
NIPPLE COMBINATION HYD SUCTION 1.5IN MS	247.5737	2		
PUMP PERMCO 1.5 B/R SAE B FLANGE	263.1500	1		
PUMP ASM PERMCO 1.5/1.0 BR PAD	**UH1016A05**	**1**	**EACH**	**172528**
CLAMP T BOLT SS 1.50 HOSE 2.00 DIA APPLI	240.0915	8		
COUPLING GATES HOSE 12-12 F JIC	262.6212	4		
FITTING 90 M37/MNPT 12-16	72501.1216	1		
FITTING HYDRAULIC PUMP 90 1-1.5IN	286.8002	1		
FITTING HYDRAULIC PUMP STRAIGHT 1-1.5IN	286.8001	1		
FITTING STR M37/MNPT 12-16	72404.1216	1		
HOSE HYD GATES 12 M3K XTRATUFF .750	262.3712	20		
HOSE HYDRAULIC SUCTION 1.5 R4	262.3825	20		
NIPPLE COMBINATION HYD SUCTION 1.5IN MS	247.5737	4		
PUMP MOUNT PERMCO PAD HYDRAULIC PUM	UH1016P02	1		
PUMP PERMCO 1.5/1.0 B/R PAD MOUNT	263.1521	1		
PUMP ELEC. STATION WELDMENT FRONT HR	**UC1032A06**	**1**	**EACH**	**165899**
AL SHEET .125 60 X 120 5052-H32 STD	215.0222	14		
RIVNUT FLT HD .250 X .200 GRIP SS RIB	261.1025	6		
SS PLATE .187 60 X 120 304-2B STD	210.7726	40		
SS SHEET 11 GA 60 X 120 304 2-B STD	210.8132	17		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
PUMP HYD CNTRL ASM DCC+ 0-GAS IN-CAB	**UH1012A03**	**1**	**EACH**	**171951**
CONSOLE COVER PUMP HYD VALVE 0-GAS	UH1012P03	1		
FITTING 45 M37/ADJ MSAE 08-10	76802.0810	4		
FITTING 45 M37/ADJ MSAE 10-10	76802.1010	2		
FITTING 45 M37/ADJ MSAE 12-10	76802.1210	2		
FITTING 45 M37/F37 SW 16-16	76502.1616	1		
FITTING 90 M37/ADJ MSAE 16-12	76801.1612	2		
FITTING STR FNPTSW/FNPT .125-.25	82046.0204	1		
FITTING STR FNPTSW/FNPT .125-.25	82046.0204	1		
FITTING STR MSAE.FNPT 03-02	76405.0302	1		
FITTING STR MSAE/FNPT 05-02	76405.0502	1		
FITTING STR MSAE/MNPT 05-04	76401.0504	1		
GAUGE LENZ 2.5 5K PSI .25 MNPT BACK CONN	260.7017	1		
HOSE ASSEMBLY .25IN X 24IN .125MNPT	262.0302	1		
LABEL HYD DANFOSS PMP 0G DCC+	UH1012P17EN	1		
LABEL HYDR PRESSURE SINGLE	UH1002P29EN	1		
MOUNT ELECTRIC AIR VALVES	UH1012P10	1		
MOUNT GAUGE HYDRAULIC PRESSURE	UH1003P03	1		
PUMP HYDRAULIC BASE WELDMENT	UH1012A10	1		
SCHEMATIC LABEL PUMP DCC+FHR	UH2005A01EN	1		
VALVE DANFOSS 157B7103 SPOOL 4W3P/O/17	264.3098	1		
VALVE DANFOSS DCC+ PUMPING SP 0G D106	UH1011A13	1		
PUMP SENSORS JUNCTION BOX ASM	**UC1020A42**	**1**	**EACH**	**165900**
BACK PLATE	UC1020P37	1		
CONVERTER EE-2002 NPN TO PNP 5-24VDC	234.7566	1		
ENCLOSURE PUMP SENSOR JUNCTION BOX PP	UC1020P65	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	7		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	1		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	7		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	1		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	1		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	1		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	7		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	1		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	7		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	1		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	1		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	1		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	7		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	1		
LABEL PUMP SENSORS JUNCTION BOX ASM	UC1020P46	1		
NUT HEX .25-20 SS	950.3014	8		
RESISTOR 1.0K .50W	236.7348	4		
SCREW MACHINE SL FIL. HD .25-20X1.50 SS	916.3114	4		
TERMINAL 6MM JUMPER BAR 20 POLE	231.1057	2		
TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050	24		
TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053	6		
TERMINAL END SECTION 6 MM ADO	231.1051	1		
TERMINAL END STOP ENTRELEC	231.0032	2		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
TERMINAL JUMPER SUB ASSEMBLY 6MM	231.1058	6		
TERMINAL MARKING STRIP 7.5 MM	231.1052	1		
TERMINAL RAIL DIN 3 PREPUNCHED	231.0033	10		
WASHER PLAIN FLAT .25 SS	960.3014	4		
PUMPING SYSTEM J-BOX (PROPORTIONAL)	**UC1020A38**	**1**	**EACH**	**165901**
BACK PLATE	UC1020P95	1		
DIODE SURGE SUPPRESSOR 51V(T-T)(PG)	231.0043	1		
ENCLOSURE PUMPING SYSTEM J-BOX	UC1020P93	1		
FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204	9		
FITTING BODY HARNESSFLEX STRAIGHT NC16	231.6206	3		
FITTING CAP NUT HARNESSFLEX NC12	231.6208	9		
FITTING CAP NUT HARNESSFLEX NC16	231.6209	3		
FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213	3		
FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212	9		
FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210	9		
FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211	3		
FITTING SEALING WASHER HARNESSFLEX SWM2	231.6215	3		
FITTING SEALING WASHER HARNESSFLEX SWPG	231.6214	9		
RELAY DIN RAIL MOUNTED 24 VDC DPDT	231.1062	2		
TERMINAL 6MM JUMPER BAR 20 POLE	231.1057	3		
TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050	30		
TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053	9		
TERMINAL END SECTION 6 MM ADO	231.1051	2		
TERMINAL END STOP ENTRELEC	231.0032	4		
TERMINAL JUMPER SUB ASSEMBLY 6MM	231.1058	9		
TERMINAL MARKING STRIP 7.5 MM	231.1052	1		
TERMINAL RAIL DIN 3 PREPUNCHED	231.0033	11		
PUMPPRO ASSEMBLY FOR UNIBODY 3 IN	**UP1015A02**	**1**	**EACH**	**165890**
MOUNTING PLATE PUMP PRO J-BOX	UP1015P18	1		
PUMPPRO CPU ASSEMBLY	UP1015A10	1		
PUMPPRO JUNCTION BOX ASSEMBLY	UP1015A30	1		
PUMPPRO SENSOR ASSEMBLY UNIBORE 3 IN	UP1015A60	1		
REAR STORAGE 42 QUAD FHR	**US1007A21**	**1**	**EACH**	**165925**
24 IN 4216 TANK MODULE UPLOAD COVER	US1007P70	1		
32 SERIES DOOR TRIM SINGLE BLANK END	US1007P81	1		
42 SERIES DOOR TRIM DOUBLE	US1007P29	2		
42 SERIES DOOR TRIM SINGLE	US1007P30	3		
4216-25 REMOVABLE DUST PAN	US1008P25	2		
4216-30 REMOVABLE DUST PAN	US1008P22	2		
COVER STORAGE TANK SUPERSTRUCTURE	UR1011P54	1		
COVER STORAGE TANK SUPERSTRUCTURE	UR1011P55	1		
DOOR COVER ASSEMBLY 25-42XX	US1008A16	1		
DOOR COVER ASSEMBLY 30-4216	US1008A12	2		
DOOR SUPPORT BOLT-ON 1-PC LEFT END OPEN	US1012P70L	1		
DOOR SUPPORT BOLT-ON 1-PC LEFT END SOLID	US1012P80L	1		
DOOR SUPPORT BOLT-ON 1-PC RT END SOLID	US1012P80R	1		
DOOR SUPPORT BOLT-ON HOPPER	US1012P71R	1		
DOOR SUPPORT BOLT-ON MIDDLE OPEN	US1012A60	2		
LABEL NO LOAD	US1002P96EN	4		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
SCREW BUTTON HEAD SS .25-20 X 1.00	901.3365	32		
SUPPORT LEFT END WEB CLEAR ABOVE	US1012A50L	2		
SUPPORT MIDDLE WEB CLEAR ABOVE	US1012A40	2		
SUPPORT RIGHT END WEB CLEAR ABOVE	US1012A50R	2		
REAR UPPER BODY MARKING	**UL1007P01**	**2**	**EACH**	**STOCK**
STORAGE ASSEMBLY 4216 QUAD	**US1008A01SQ**	**1**	**EACH**	**165933**
42 SERIES DOOR TRIM DOUBLE	US1007P29	6		
42 SERIES DOOR TRIM SINGLE	US1007P30	4		
4216-30 REMOVABLE DUST PAN	US1008P22	2		
48IN 42 SERIES DUST PAN	US1008P21	5		
DOOR COVER ASSEMBLY 30-4216	US1008A12	1		
DOOR COVER ASSEMBLY 48-4216	US1008A11	4		
LABEL NO LOAD	US1002P96EN	4		
SCREW BUTTON HEAD SS .25-20 X 1.00	901.3365	64		
STRAP DOUBLE AIR LINE .38	**269.1381**	**10**	**EACH**	**STOCK**
STRAP SINGLE AIR LINE .38	**269.1380**	**10**	**EACH**	**STOCK**
SUCTION ASM TWIN 16FT 4-3 UNIVERSAL	**TC06592**	**1**	**EACH**	**176775**
AL PIPE 4 IN W/SACRIFICIAL GROOVE	UE1001P64	1		
AL PIPE 4 IN W/SACRIFICIAL GROOVE	UE1001P64	1		
AL PIPE S10 4 6063T6 SMLS	218.4693	0		
AL PIPE S10 4 6063T6 SMLS	218.4693	1		
AL PIPE S40 4 6061T6 SMLS	218.4695	1		
AL PLATE .375 48 X 144 5052-H32 STD	215.0600	2		
ELBOW BELL BETTS 45 LR AL 4 X .125 WALL	274.0324	2		
ELBOW BELL BETTS 90 SR AL 4 X .125 WALL	274.0323	1		
ELBOW BETTS 90 SR AL 3 X .125 LG TANGE	273.2544	1		
ELBOW STREET BETT90 SR BELL AL 4 X .125	273.2543	1		
ELBOW STREET BETT90 SR BELL AL 4 X .125	273.2543	2		
FLANGE BOLTING RING TTMA 4 X .375 SS	UE1003P20	2		
FLANGE TTMA 4 X .375 AL	277.5906	2		
FLANGE TTMA 4 X .375 AL	277.5906	2		
FLANGE TTMA 4 X .375 AL	277.5906	1		
GASKET TTMA FLANGE 4 INCH CORK-BUNA	271.2957	8		
O-RING 5.00 X 5.38 X .18 BUNA N	264.2196	2		
SCREW CAP HEX HEAD .375-16X1.50 SS	900.4314	8		
SCREW CAP HEX HEAD .375-16X3.00 SS	900.4374	4		
SCREW CAP HEX HEAD .375-16X4.00 SS	900.4414	4		
STRAUB GRIP-L COUPLING 3IN W/BUNA N	271.3000	1		
STRAUB GRIP-L COUPLING 4IN W/BUNA N	271.2000	1		
TEE BELLED BETTS AL 4 X .125 WALL	274.2624	1		
UPFILL COVER PLATE	TC06699	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
VALVE BETTS WET-OR-DRY 4IN AIR/SPRING	242.1118	2		
VALVE OUTLET COVER TTMA UNIBODY	UB1001P23	2		
WASHER PLAIN FLAT .375 SS	960.4214	45		
TANK GAUGE STICK ASM 10 FT	**UX1013A01**	**1**	**EACH**	**165886**
NUT HEX #8-32 SS	950.1214	2		
SCREW MACHINE SL ROUND HD #8-32X1.25 SS	915.1304	2		
TANK GAUGE STICK 10 FT ONE PIECE	250.2500	1		
UNIBODY TANK GAUGE FOOT ASM	UX1013A02	1		
WASHER PLAIN FLAT #8 SS	960.1214	2		
TANK SUPERSTRUCTURE ASM 42 SERIES	**UR1011A02S**	**1**	**EACH**	**165922**
BACK COVER ID LAMP BOX	UR1011P20S	1		
NUT HEX .50-20 SS	950.6609	1		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	1		
SKIRT 42 REAR SUPPORT STRUCTURE QUAD SS	UR1001P38S	1		
TANK SUPERSTRUCTURE 42 SERIES	UR1011A10S	1		
WASHER PLAIN FLAT .50 SS	960.5414	2		
TRIANGLE WARNING KIT	**239.2808**	**1**	**CASE**	**STOCK**
TRIM EDGE HOLE LINING .135 TO .250	**261.1014**	**50**	**FOOT**	**STOCK**
TRUNK HOSE ASSEMBLY 8IN	**UA1307A08**	**1**	**EACH**	**165887**
HOSE VINYL 8IN TIGERFLEX GT800 4PSI	240.3404	8		
NUT HEX ELASTIC .375-16 SS	954.4214	4		
SCREW CAP HEX HEAD .375-16X1.25 SS	900.4304	4		
TRUNK HOSE 8IN COLLAR WELDMENT	UA1307A06	1		
WASHER REBOUND .375 ISOLATOR	S10053P01	4		
UPFILL ASM EMUL LEFT 4 IN	**TC06661**	**1**	**EACH**	**172955**
AL PIPE S10 4 6063T6 SMLS	218.4693	2		
ELBOW STREET BETT90 SR BELL AL 4 X .125	273.2543	1		
ELBOW STREET BETT90 SR BELL AL 4 X .125	273.2543	1		
FLANGE TTMA 4 X .375 AL	277.5906	2		
GASKET TTMA FLANGE 4 INCH CORK-BUNA	271.2957	2		
PT CAP 40V AL	240.8719	1		
U-BOLTS 4.0 PIPE	269.1365	1		
UPFILL PORT 4 IN FLANGE/CAMLOCK 45	UE1003A31	1		
UPFILL SUPPORT BRACKET 4 IN	TC06634	1		
VALVE BETTS WET-OR-DRY 4IN MANUAL	242.1122	1		
VERTICAL AUGER ASM 42-10 12VDC	**UA1800A03X**	**1**	**EACH**	**165935**
AUGER SEAL ROTARY	UA1300P52	1		
AUGER SEAL TEFLON STATIONARY	UA1300P63	1		
AUGER SEAL TEFLON WASHER	UA1300P51	1		
BEARING FLANGE SEALED 1.5 4-BOLT SF-24	247.0935	1		
BOOM JACK FITTING .047 JIC .50	UA1600A51	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
BOOM PIVOT CLAMP RING ASM SS	UA1000A19S	1		
BOOM SPACER SLEEVE	UA1600P03	1		
CENTRAL LUBRICATION SYSTEM	UX1002A01	1		
CLAMP HOSE 1.3125-2.25 UB AUGER DRIVE	269.1369	1		
CLAMP HYD TUBE -08 .50IN0.D. OMEGA	262.8008	8		
CLAMP HYD TUBE -12 .75IN0.D. OMEGA	262.8012	6		
CLEANOUT DOOR ASSEMBLY	UA1304A02S	2		
COLLAR 2 PIECE SHAFT 1.25 BORE SS	248.9206	1		
COUPLING GATES HOSE 06-08 F JIC	262.6206	8		
COUPLING GATES HOSE 08-10 F JIC	262.6208	2		
COUPLING GATES HOSE 08-10 F JIC	262.6208	4		
COUPLING GATES HOSE 12-12 F JIC	262.6212	10		
CYLINDER BOOM 3 X 12 -08 SAE 3.5 ST LMT	261.3014	1		
FITTING 45 M37/F37 SW 12-12	76502.1212	2		
FITTING 90 M37/ADJ MSAE 08-06	76801.0806	1		
FITTING 90 M37/ADJ MSAE 08-08	76801.0808	1		
FITTING 90 M37/ADJ MSAE 10-12	76801.1012	1		
FITTING 90 M37/ADJ MSAE 12-12	76801.1212	3		
FITTING 90 M37/BSPP 10-08	79059.1008	1		
FITTING 90 M37/F37 SW 08-08	76500.0808	2		
FITTING 90 M37/F37 SW 12-12	76500.1212	1		
FITTING PLUG BSPP 08	79028.08	1		
FITTING STR BORE/M37 08-08	7403.0808	8		
FITTING STR BORE/M37 12-12	7403.1212	6		
FITTING STR M37/BSPP 08-08	79002.0808	2		
FITTING STR M37/MSAE 08-08	76400.0808	4		
FITTING STR M37/MSAE 12-10	76400.1210	4		
FITTING STR MSAE/F37 SW 10-08	76402.1008	2		
FITTING TEE M37/F37 SW/M37 -08	76602.080808	2		
FITTING TEE M37/M37/F37 SW -12	76600.121212	1		
HD GUARDMASTER MOUNTING PLATE	UA1000P82	1		
HD ROTATE SWING GUARD ASM	UA1400A14	1		
HD ROTATE WELDMENT	UA1211A02S	1		
HD SWING STOP 270	UA1000P150S	1		
HOSE AND TUBING COVER 42	UA1400P16	1		
HOSE HYD GATES 12 M3K XTRATUFF .750	262.3712	26		
HOSE HYD GATES 6 M3K XTRATUFF .375	262.3706	15		
HOSE HYD GATES 6 M3K XTRATUFF .375	262.3706	2		
HOSE HYD GATES 6 M3K XTRATUFF .375	262.3706	2		
HOSE HYD GATES 6 M3K XTRATUFF .375	262.3706	3		
HOSE HYD GATES 6 M3K XTRATUFF .375	262.3706	3		
HOSE HYD GATES 8 M3K XTRATUFF .500	262.3708	4		
HOSE SPIRAL WRAP 1.5IN HYD.	269.8905	2		
HOSE SPIRAL WRAP 1.5IN HYD.	269.8905	2		
IDLER GUARD ASSEMBLY TYPE 2	UA1302A11S	1		
IDLER MOUNT WELDMENT 10 IN	UA1302A17S	1		
IDLER SHAFT TYPE 2	UA1302A02	1		
MOTOR 101-2474 CHAR LYNN 17.9 CP	263.5439	1		
NUT HEX .375-16 SS	950.4214	2		
NUT HEX .375-16 SS	950.4214	2		
NUT HEX .375-16 SS	950.4214	3		
NUT HEX .50-13 SS	950.5414	4		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
NUT HEX .50-13 SS	950.5414	8		
PLUG PIPE HEX SC HD ST .125 NPT	271.8001	2		
RIVNUT FLT HD .250 X .140 GRIP SS RIB	261.1015	4		
ROTATE SLEWING RING ASSEMBLY	247.2982	1		
SCREW CAP HEX HEAD .25-20 X. 75 SS	900.3074	4		
SCREW CAP HEX HEAD .375-16X.75 SS	900.4274	1		
SCREW CAP HEX HEAD .375-16X1.25 SS	900.4304	1		
SCREW CAP HEX HEAD .375-16X2.50 SS	900.4354	3		
SCREW CAP HEX HEAD .375-16X3.50 SS	900.4394	2		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	8		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	4		
SCREW CAP HEX HEAD .50-13X1.75 SS	900.5524	2		
SCREW CAP HEX HEAD .625-11 X 2.00 GR8	900.67308	18		
SCREW CAP HEX HEAD .625-11X3.00 GR8	900.67708	24		
SEAL COMPRESSION RING	UA1300P60S	1		
SWING LIMIT BOLT	UA1000P130	1		
TUBE HYDRAULIC ST .50 X .065 -08 J525	262.5065	18		
TUBE HYDRAULIC ST .75 X .083 J524 / J525	262.7584	14		
VALVE 2 POS 3 WAY 30 GPM ASM 12 VDC	264.0141	1		
VALVE HYD SWING LIMIT HAWE #SG3G-AK(UN	264.2013	1		
VALVE RELIEF SUN 200 PSI REV FREE FLO	260.2820	2		
VERT AUGER FULL PITCH X 2 LEFT 9IN 110 S	UA1113A110S	1		
VERTICAL TOP DRIVE ASSEMBLY TYPE 2 10P/T	UA1301A07S	1		
WASHER FLAT HARD A325 .625	962.6610	42		
WASHER PLAIN FLAT .25 SS	960.3014	4		
VIBRATOR ASM AND CONTROL ELEC 12V	**UX1008A13X**	**1**	**EACH**	**165937**
AIR PUSH BUTTON BOX ASSEMBLY	UC1040A02	1		
AIR VALVE ASM 12V	UP1013A01X	1		
AIR VALVE ASM JUNCTION BOX	UC1040A01	1		
BUSHING PIPE SS .50-.375	271.9306	1		
DRAIN FLOAT AUTO WILKERSON	239.0292	1		
END BLOCK CONNECTOR WILKERSON .50	239.0294	2		
FILTER WILKERSON .50 F28-04-SK00 10 MIC	239.0291	1		
FITTING TUBE 90 JACO .375-.25 MNPT	274.9870	4		
FITTING TUBE 90 JACO .50-.50 MNPT	274.9877	2		
FITTING TUBE JACO .375-.375 MNPT	274.9879	1		
FITTING TUBE JACO .50-.50 MNPT	274.9878	1		
LUBRICATOR WILKERSON .50 L28-04-KK00	239.0290	1		
MODULAR UNIT CONNECTOR WILKERSON WAI	239.0293	2		
MOUNTING BRACKET 4 VIBRATOR ASM	UX1008A04	1		
TUBING AIR LINE .50 O.D.	239.0266	50		
VALVE AIR ROSS Y1523C4002	242.0263	1		
VIBRATOR AIR PISTON 50-2L	239.8786	4		
WATER PUMP ASM CAT 431	**UW1001A01**	**1**	**EACH**	**165918**
BRENNAN SS .5 NPT MALE BRANCH	274.9860	1		
BUSHING PIPE SS .50-.375	271.9306	1		
CAT PUMP OIL	241.1193	1		
CLAMP OETIKER 2-EAR .544-.669 DIA SS	269.1373	4		
CLAMP OETIKER 2-EAR .748-.866 DIA SS	269.1375	5		
COUPLING L095 HYTREL SPYDER	247.1369	1		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
COUPLING L095 X 1.000 BORE .250 KEY	247.1371	1		
COUPLING L095 X 16.5MM BORE 5 MM KEY	247.1372	1		
ELBOW STREET 90 SS S40 .375	273.2507	1		
FITTING 45 M37/ADJ MSAE 10-10	76802.1010	2		
HOSE EASM COUPLE BLUE .38 ID WATER	240.3381	6		
HOSE EASM COUPLE BLUE .5 ID WATER	240.3382	10		
HOSE EASM COUPLE BLUE .5 ID WATER	240.3382	4		
HOSE EASM COUPLE BLUE .5 ID WATER	240.3382	6		
NUT HEX .50-13 SS	950.5414	2		
PLUG PIPE HEX HD SS .25IN NPT	275.0013	1		
PLUG PIPE HEX HD SS .375IN NPT	275.0014	2		
PUMP CAT 431 SS 5.0 GPM PISTON	241.1189	1		
PUMP CAT 431/281/231/291 SHAFT GUARD	241.1191	1		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	2		
SHAFT GUARD TUBE 4.2IN LONG	UW1001P02	1		
SHAFT KEY	UW1001P04	1		
TYLOK MALE HOSE BARB .5 MNPT - .5 HOSE	274.9855	2		
TYLOK MALE HOSE BARB 3/8 MNPT - 3/8 HOSE	274.9852	1		
WATER PUMP MANIFOLD ASSEMBLY	UW1001A12	1		
WATER TANK ASM 42-36 255 GAL REAR SS 12V	**UW1002A03X**	**1**	**EACH**	**165919**
42-36 REAR TANK WELDMENT SS	UW1002A11	1		
ANTI SPILL CAP ASSEMBLY SS / EPDM	UG1006A01	1		
CLAMP OETIKER 2-EAR .433-.512 DIA SS	269.1364	2		
ELBOW STREET 90 SS S40 .50	273.2504	2		
GASKET LEVEL SWITCH FLANGE	UG1001P28	1		
GAUGE SIGHT VALVE LIQUID LEVEL	260.2775	1		
LABEL BALL VALVE OFF/ON CW	UW1001P16	1		
LEVEL SWITCH FLOAT ASSEMBLY	UG1001A22	1		
LEVEL SWITCH MOUNTING FLANGE REMOVABL	UG1001A30	1		
NIPPLE PIPE SS S40 .50 CLOSE	272.4594	2		
NUT HEX ELASTIC .50-13 SS	954.5414	22		
SCREW CAP HEX HEAD .50-13X1.25 SS	900.5504	11		
SCREW CAP HEX HEAD .50-13X1.75 SS	900.5524	11		
TUBING .5 OD X 3/8 ID FEP FLUROPOLYMER	231.7007	5		
TYLOK MALE HOSE BARB .5 MNPT - .5 HOSE	274.9855	2		
VALVE 2 POS/WAY SS12VDCW DIN(-UPLOAD)	239.7290	1		
VALVE BALL SS .50 FNPT FULL PORT	264.3211	1		
WASHER PLAIN FLAT .50 SS	960.5414	44		
WIRE ROPE OVAL SLEEVE SS .125	261.1002	2		
WIRE ROPE SS .125 DIA. 7 X 19 STRAND	261.1003	2		
WIRE/CONDUIT BLEND/QUAD RHR DCC+	**UC1037D03**	**1**	**EACH**	**165893**
CONDUIT HARNESSFLEX NC12 UNSLIT	231.6200	1,380		
CONDUIT HARNESSFLEX NC16 UNSLIT	231.6201	360		
WIRE #10 STRANDED BLACK	235.0020	95		
WIRE #10 STRANDED WHITE	235.0019	120		
WIRE CABLE 18 AWG 4 COND PVC SHIELDED	235.1198	85		
WIRE CABLE BLACK #6 6 37BC SGT	235.1187	25		
WIRE CABLE RED #6 6 37BC SGT	235.1186	25		
WIRE HOOK-UP 18 AWG PVC BLACK	235.0032	1,780		
WIRE HOOK-UP 18 AWG PVC BLUE	235.0036	390		

DESCRIPTION	ID	QTY	UNIT OF MEASURE	SUPPLY
WIRE HOOK-UP 18 AWG PVC BROWN	235.0039	375		
WIRE HOOK-UP 18 AWG PVC GREEN	235.0034	625		
WIRE HOOK-UP 18 AWG PVC GREY	235.0038	345		
WIRE HOOK-UP 18 AWG PVC ORANGE	235.0037	445		
WIRE HOOK-UP 18 AWG PVC PINK	235.0040	480		
WIRE HOOK-UP 18 AWG PVC RED	235.0033	975		
WIRE HOOK-UP 18 AWG PVC TAN	235.0041	205		
WIRE HOOK-UP 18 AWG PVC VIOLET	235.0030	345		
WIRE HOOK-UP 18 AWG PVC WHITE	235.0031	2,075		
WIRE HOOK-UP 18 AWG PVC WHITE/BLACK	235.0042	50		
WIRE HOOK-UP 18 AWG PVC WHITE/BLUE	235.0046	50		
WIRE HOOK-UP 18 AWG PVC WHITE/BROWN	235.0047	50		
WIRE HOOK-UP 18 AWG PVC WHITE/GREEN	235.0044	50		
WIRE HOOK-UP 18 AWG PVC WHITE/ORANGE	235.0048	50		
WIRE HOOK-UP 18 AWG PVC WHITE/RED	235.0043	50		
WIRE HOOK-UP 18 AWG PVC WHITE/VIOLET	235.0049	50		
WIRE HOOK-UP 18 AWG PVC WHITE/YELLOW	235.0045	50		
WIRE HOOK-UP 18 AWG PVC YELLOW	235.0035	460		
WRAP VELCRO 2 X 12 BLACK	**100.6783**	**10**	**EACH**	**STOCK**

X:\Parts List Per Workorder.rpt

Western Star 4900SA 4216US12

SN3090

Chassis Information

Description: Western Star 4900SA

Wheel Base: 290 in
Empty Wt Front: 10,182 lbs
Empty Wt Rear: 8,051 lbs
Tandem Spacing: 62 in

Front Axle to back of Cab: 74 in
Mfg Wt Limit Front: 22,000 lbs
Mfg Wt Limit Rear: 65,000 lbs
Mfg Wt Limit Total: 87,000 lbs

Tag Axle	(fm front Axle) Location	Tag Assy Weight	Manufacturers Loading Limit

Empty Truck Axle Loading

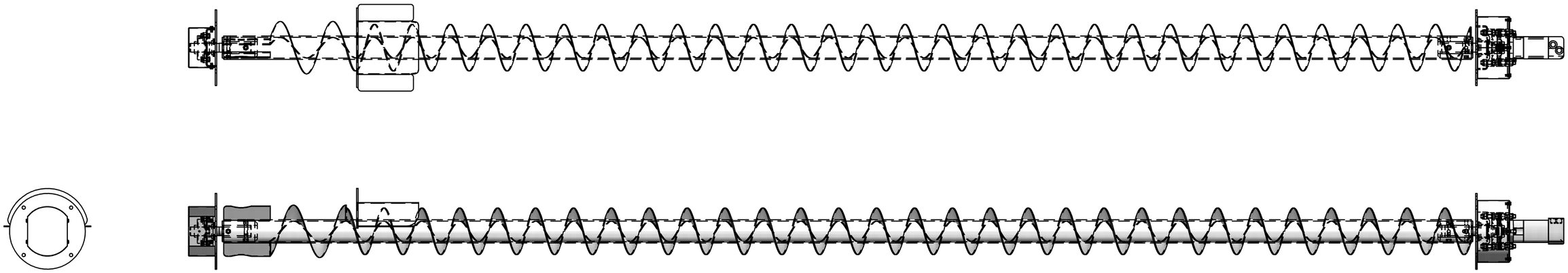
Front	Rear	GVW
11,682 lbs	27,671 lbs	39,353 lbs

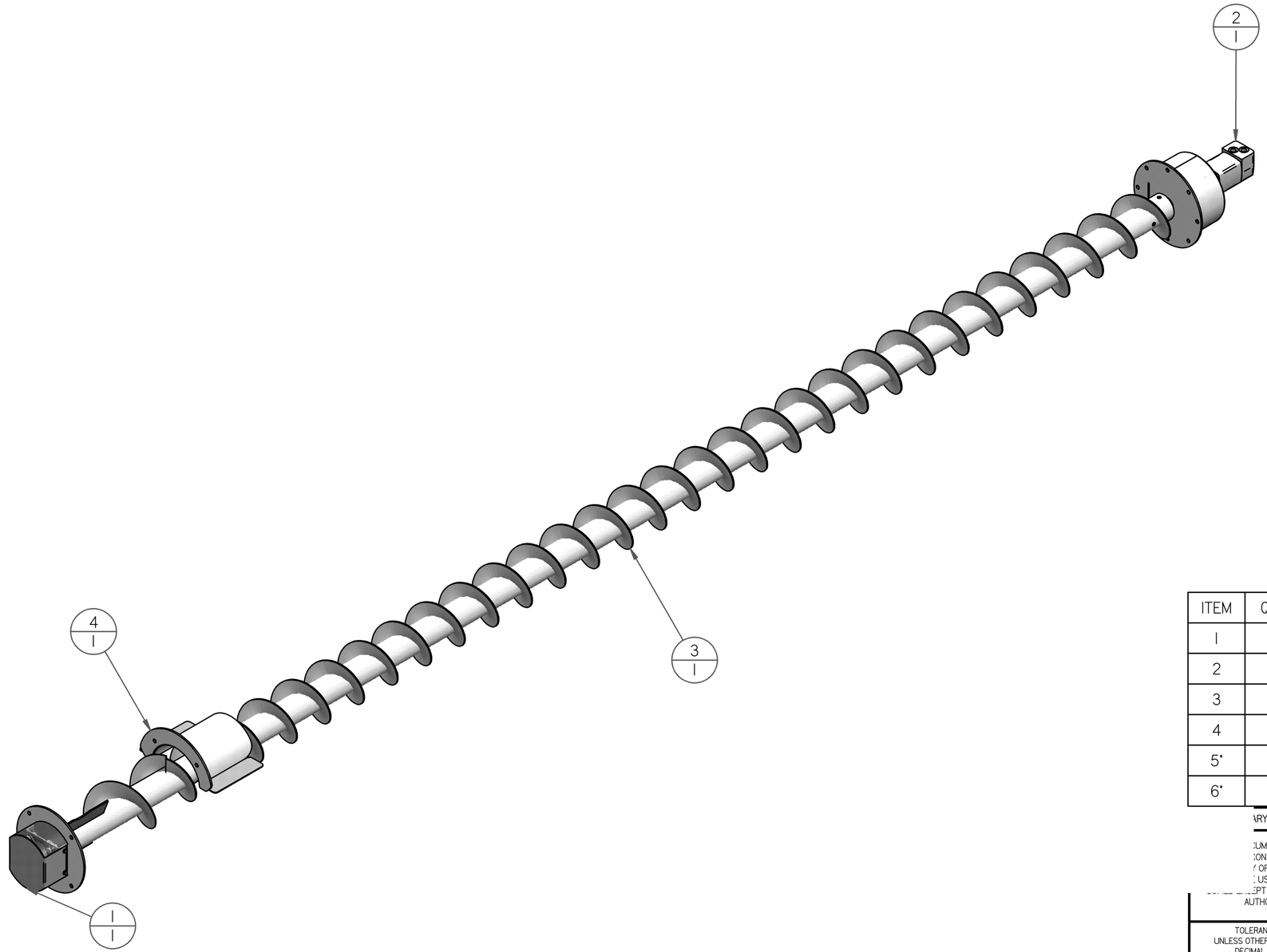
Unibody Components Information

Body [Located 148 in from front axle] *-- (Empty Wt = 10,399 lbs)*
Tank Superstructure -- (Empty Wt = 1,375 lbs)
Driver -- (Empty Wt = 225 lbs)
Hose/Pole Box -- (Empty Wt = 285 lbs)
188 gal Tank (for 42xx) -- (Empty Wt = 430 lbs)
Chassis Fuel -- (Empty Wt = 0 lbs)
72" Narrow HR 3" -- (Empty Wt = 1,420 lbs)
Fuel Tank/Hopper -- (Empty Wt = 1,600 lbs)
PPump Assy (Preliminary) for Narrow HR -- (Empty Wt = 850 lbs)

Chassis -- (Wt = 18,233 lbs)

TOTAL Weight (incl. empty body, empty components, and chassis) = 34,817 lbs





CONFIGURATION RULES: (USED ON)
3216 OR 4216 QUAD WITH 10" AUGERS

ITEM	QTY	RV	DWG NO.	DESCRIPTION	Part ID
1	1	02	UA1302A05S	10IN IDLER ASSEMBLY	
2	1	01	UA1301A23	SPLINE DRIVE ASSEMBLY 10 TYPE 2	UA1301A23
3	1	03	UA1137A214S	214 S-3.5P BED AUGER 8 X 6.5 X 4 RT	UA1137A214S
4	1	01	TC03690	AUGER SHROUD 8IN AUGER	TC03690
5*	4	01	TC00529	NUT HEX .50-13 SS	950.5414
6*	4	01	TC00432	SCREW CAP HEX HEAD .50-13X3.00	900.5574

ARY STATEMENT

UMENT AND ALL
CONTAINED HEREIN ARE
OF TREAD CORP. AND
USED, DISCLOSED, OR
PT AS EXPRESSELY
AUTHORIZED.

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 12/2/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BOTTOM AUGER ASM 16-10S50 SP
TITLE BOTTOM AUGER ASM 16-10S50
UNIBODY AUGERS
DWG NO TC04489 | REV 02 | SIZE C
WEIGHT 362.6 lbm | SHEET 1 OF 2

Last Changed: 12/2/2010

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release		
02	REVISE AUGER WITH 2 PADDLES	02DEC10	RDUNCAN

Last Changed: 12/2/2010

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DECIMAL X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN rduncan
DATE 12/2/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

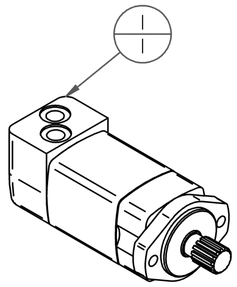
PROJECT BOTTOM AUGER ASM 16-10S50 SP

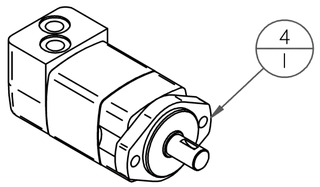
TITLE BOTTOM AUGER ASM 16-10S50
UNIBODY AUGERS

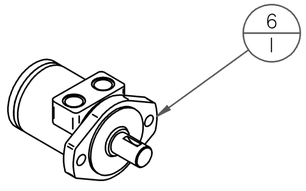
DWG NO TC04489 | REV 02 | SIZE C

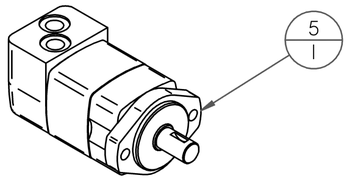
WEIGHT 362.6 lbm | SHEET 2 OF 2

UNIBODY -10 S STANDARD BLEND
BED AUGER
VERTICAL AUGER
DISCHARGE AUGER
FUEL OIL PUMP
EMULSION PUMP









ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	TC04517	MOTOR 104-3008CHAR LYN(14.9 IN^3) 14T	263.5457
2"	2	TC00919	CONNECTOR ELBOW CIRC. 4 POLE 12 MM	242.1262
3	1	TC00058	MOTOR 104-1534 CHAR LYNN (18.7 IN^3) CP	263.5433
4	1	TC00052	MOTOR 104-1533 CHAR LYNN (14.9 IN^3) CP	263.5431
5	1	TC00043	MOTOR 104-3530 CHAR LYNN 9.6 CP SS CIRC	263.5468
6	1	TC00017	MOTOR 101-2473 CHAR LYNN (2.2 IN^3) CP	263.5435

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 2/19/2010
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

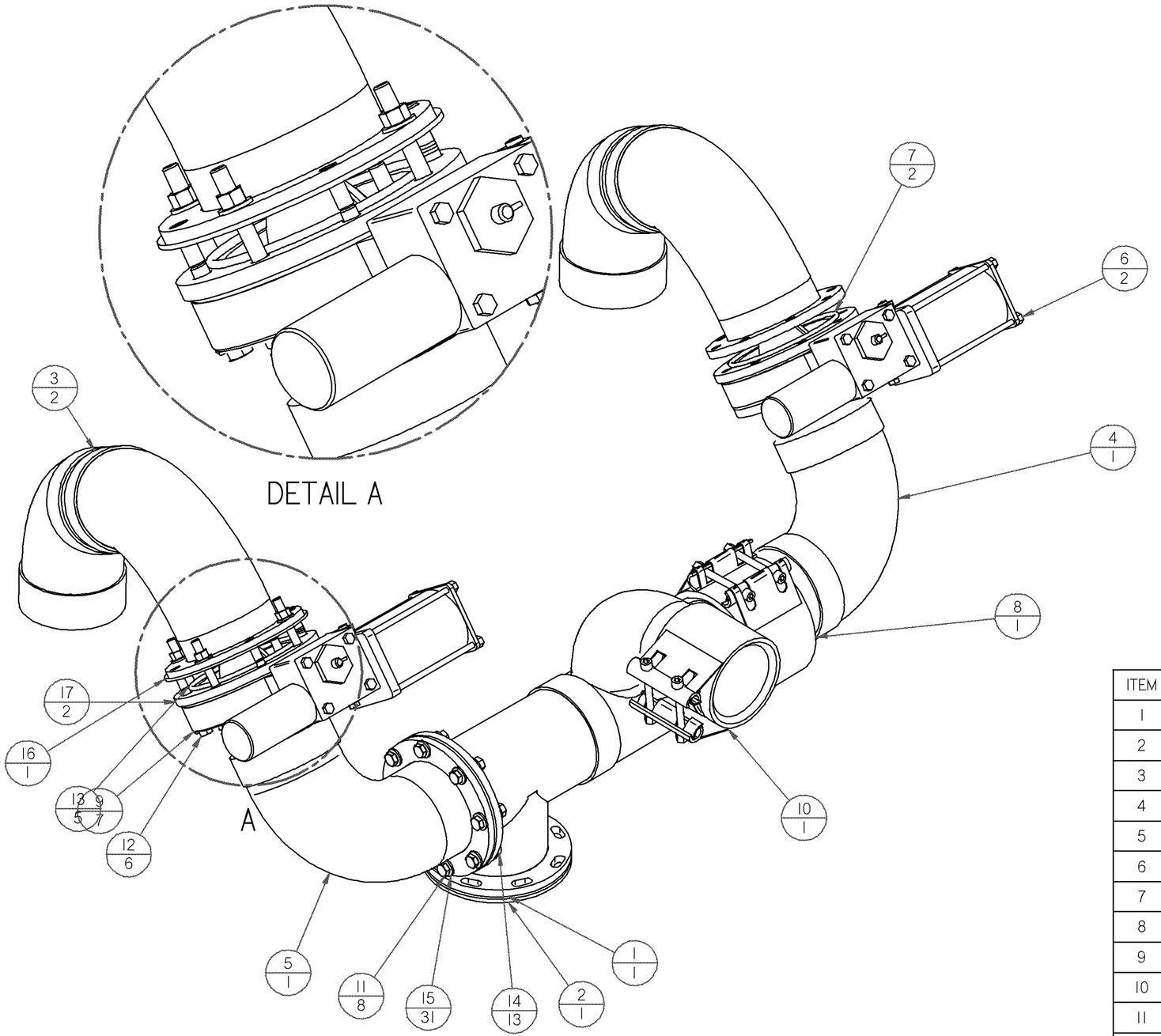
PROJECT MOTOR PKG -/10 SP STD BLEND/FO

TITLE MOTOR PKG -/10 SP STD BLEND/FO
UNIBODY STANDARD BLEND/QUAD

DWG NO TC04516 | REV 01 | SIZE C

WEIGHT 120.6 lbm | SHEET 1 OF 1

Last Changed: 2/19/2010



ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	TC06558	SUCTION ASM 3 INCH MIDDLE SECTION	
2	1	TC06699	UPFILL COVER PLATE	
3	2	UE1015A21	SUCTION ELBOW INSIDE WELDMENT 4 IN AL	
4	1	UE1015A35	SUCTION WELDMENT RIGHT	
5	1	UE1015A41	SUCTION WELDMENT LEFT	
6	2	TC00620	VALVE WET-OR-DRY 4" AIR/SPRING	242.1118
7	2	TC02515	O-RING 5.00 X 5.38 X .18 BUNA N	264.2196
8	1	TC03206	STRAUB GRIP-L COUPLING 4IN	271.2000
9	7	TC01631	GASKET TTMA FLANGE 4 INCH CORK-BUNA	271.2957
10	1	TC03205	STRAUB GRIP-L COUPLING 3IN	271.3000
11	8	TC00458	SCREW CAP HEX HEAD .31-18X1.50	900.4314
12	6	TC00465	SCREW CAP HEX HEAD .375-16X3.00 SS	900.4374
13	5	TC00467	SCREW CAP HEX HEAD .375-16X4.00 SS	900.4414
14	13	TC00536	NUT HEX .375-16	950.4214
15	31	TC00514	WASHER PLAIN FLAT .375	960.4214
16	1	UB1001P23	VALVE OUTLET COVER TTMA UNIBODY	UB1001P23
17	2	UE1003P20	FLANGE BOLTING RING TTMA 4 X .375 SS	UE1003P23

NOTE:

UB1001P23 ARE INCLUDED IN THE BOM TO USE WHEN THE EMULSION TANK IS CONVERTED TO AN ANFO BIN.. WHEN NOT USED, PLEASE SEND WITH OTHER ACCESSORIES.

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN lwilliams
DATE 11/11/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT SUCTION ASM TWIN 4-3 UNIVERSAL

TITLE SUCTION ASM TWIN 16FT 4-3 UNIVERSAL
MODEL 4116

DWG NO TC06592 | REV 01 | SIZE C

WEIGHT 82.8 lbm | SHEET 1 OF 2

Last Changed: 11/11/2010
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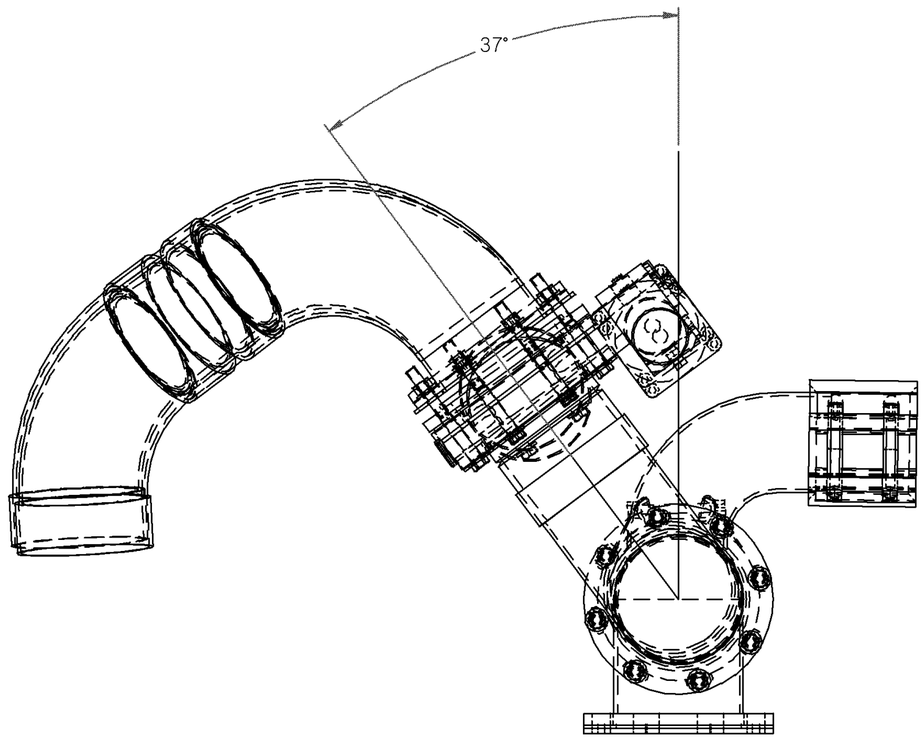

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TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN lwilliams DATE 11/11/2010 APPR.	PROJECT SUCTION ASM TWIN 4-3 UNIVERSAL TITLE SUCTION ASM TWIN 16FT 4-3 UNIVERSAL MODEL 4116 DWG NO TC06592 REV 01 SIZE C WEIGHT 82.8 lbm SHEET 2 OF 2

Last Changed: 11/11/2010
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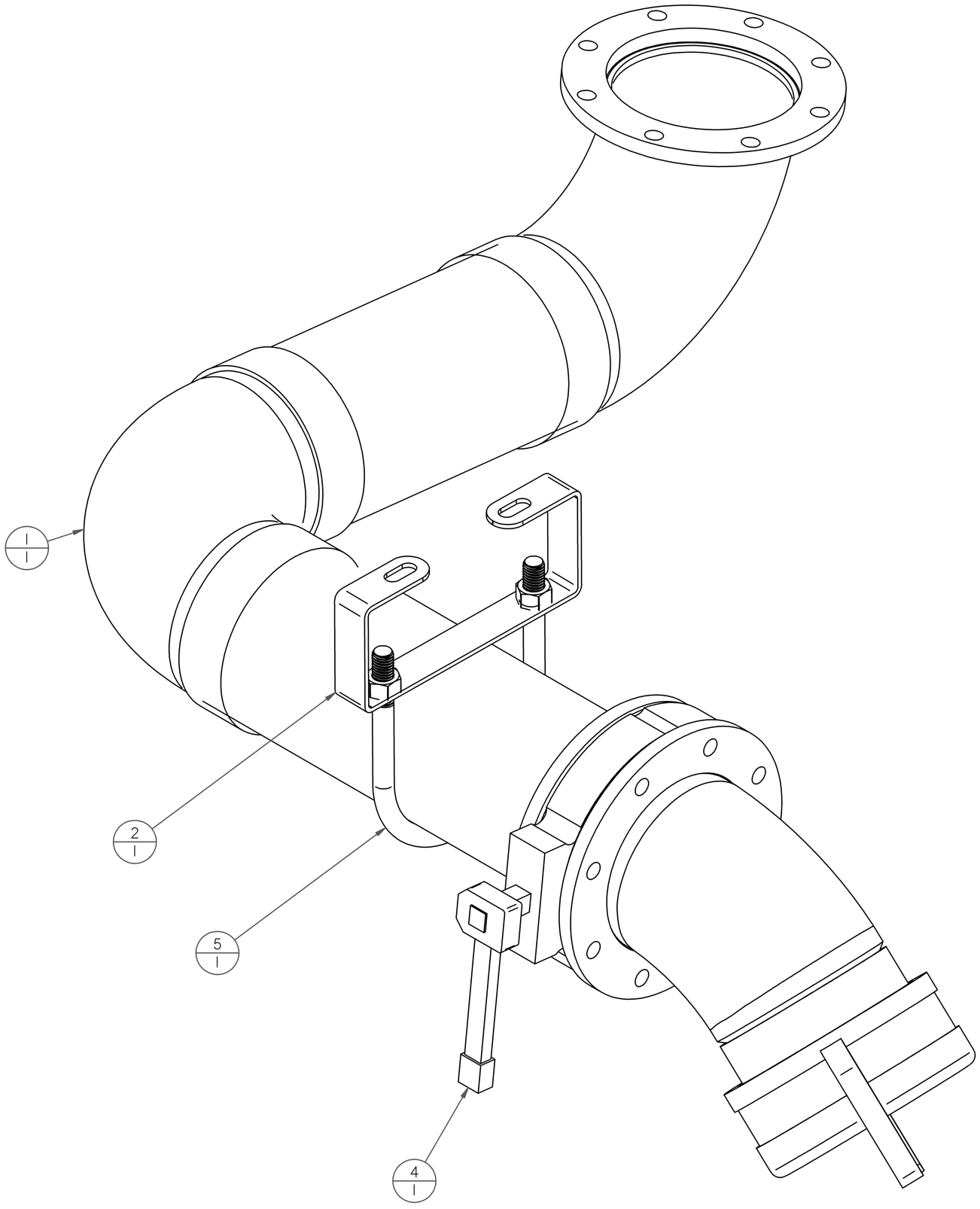

ITEM	QTY	DWG NO.	RN	DESCRIPTION	Part_ID
1	1	TC06616	01	EMULSOIN UPFILL 12 IN RT SIDE	
2	1	TC06634	01	UPFILL SUPPORT BRACKET 4 IN	
3*	1	TC00772	01	PT CAP 40V AL	240.8719
4	1	TC00619	01	VALVE WET-OR-DRY 4" MANUAL	242.1122
5	1	TC03399	01	U BOLT SS FOR 4" PIPE	269.1365
6*	2	TC01631	01	GASKET TTMA FLANGE 4 INCH CORK-BUNA	271.2957
7*	1	UE1003A31	01	UPFILL PORT 4" FLANGE/CAMLOCK 45	UE1003A31

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THIRD ANGLE PROJECTION

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN LWILLIAMS
DATE 10/6/2010
APPR. J.COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UPFILL ASM EMUL LEFT 4 IN Status

TITLE UPFILL ASM EMUL LEFT 4 IN

DWG NO TC06661 | REV 01 | SIZE C

WEIGHT 44.3 lbm | SHEET 1 OF 2

Last Changed: 11/8/2010
File: C:\SEEC Cache\SEEC\http_alpha_8080_tc\lwilliams\Default\TC06661.dft

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	10/6/2010	ALW
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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN: LWILLIAMS
DATE: 10/6/2010
APPR.: J.COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

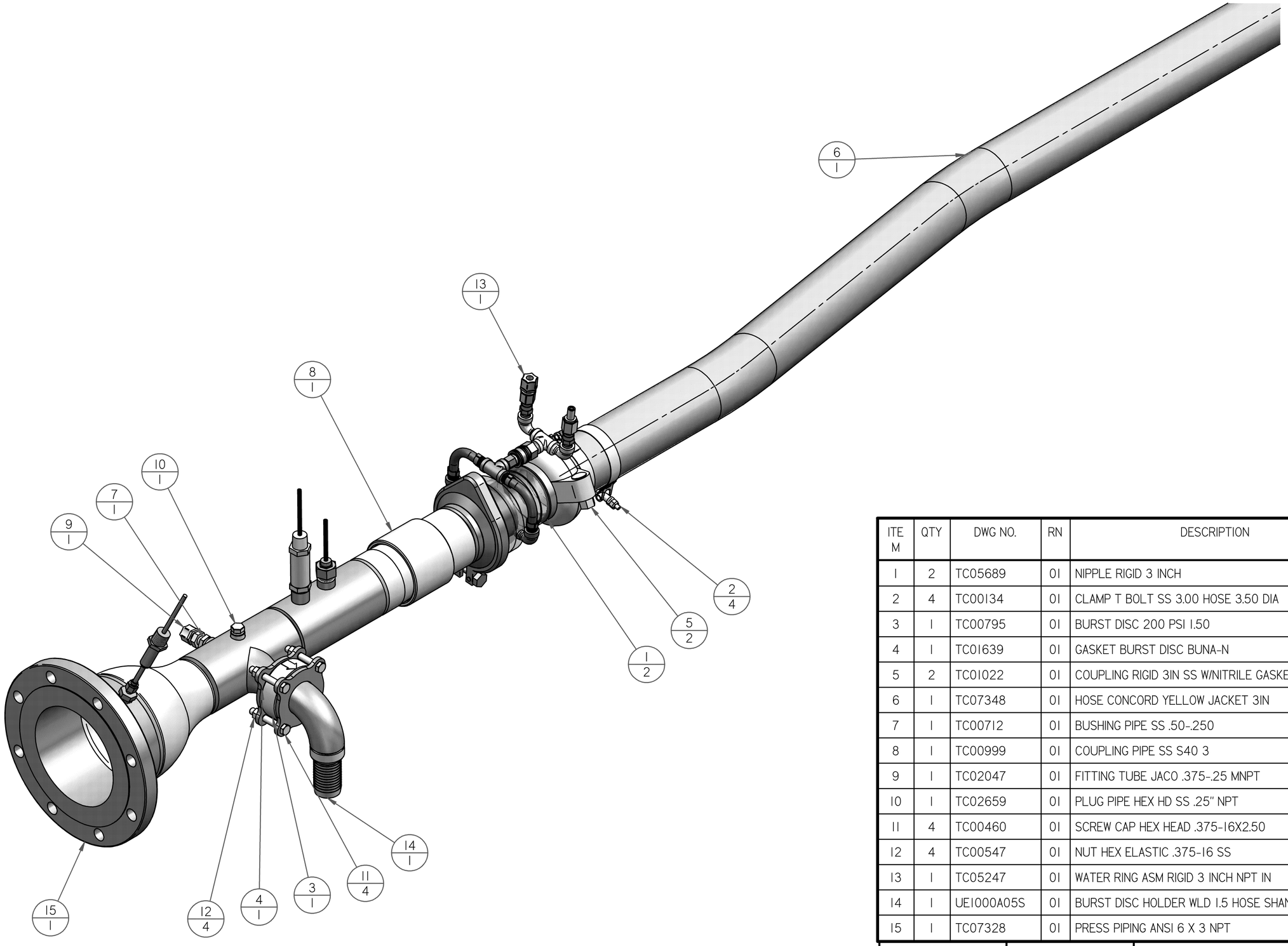
PROJECT: UPFILL ASM EMUL LEFT 4 IN — Status

TITLE: UPFILL ASM EMUL LEFT 4 IN

DWG NO: TC06661 | REV: 01 | SIZE: C

WEIGHT: 44.3 lbm | SHEET: 2 OF 2

Last Changed: 11/8/2010
File: C:\SEEC Cache\SEEC\http_alpha_8080_tc\lwilliams\Default\TC06661.dft



ITEM	QTY	DWG NO.	RN	DESCRIPTION	Part_ID
1	2	TC05689	01	NIPPLE RIGID 3 INCH	
2	4	TC00134	01	CLAMP T BOLT SS 3.00 HOSE 3.50 DIA	240.0922
3	1	TC00795	01	BURST DISC 200 PSI 1.50	240.1118
4	1	TC01639	01	GASKET BURST DISC BUNA-N	240.1120
5	2	TC01022	01	COUPLING RIGID 3IN SS W/NITRILE GASKET	247.9003
6	1	TC07348	01	HOSE CONCORD YELLOW JACKET 3IN	264.3389
7	1	TC00712	01	BUSHING PIPE SS .50-.250	271.9305
8	1	TC00999	01	COUPLING PIPE SS S40 3	273.0111
9	1	TC02047	01	FITTING TUBE JACO .375-.25 MNPT	274.9869
10	1	TC02659	01	PLUG PIPE HEX HD SS .25" NPT	275.0013
11	4	TC00460	01	SCREW CAP HEX HEAD .375-16X2.50	900.4354
12	4	TC00547	01	NUT HEX ELASTIC .375-16 SS	954.4214
13	1	TC05247	01	WATER RING ASM RIGID 3 INCH NPT IN	TC05247
14	1	UE1000A05S	01	BURST DISC HOLDER WLD 1.5 HOSE SHANK 90	UE1000A05S
15	1	TC07328	01	PRESS PIPING ANSI 6 X 3 NPT	UP1008A08

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THIRD ANGLE PROJECTION

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN jcole
DATE 01/21/2011
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT PP3F4-N8S23N-N0NX33-XX

TITLE PP3F4-N8S23N-N0NX33-XX

DWG NO. TC07327 | REV 01 | SIZE C

WEIGHT 244.5 lbm | SHEET 1 OF 3

Last Changed: 1/21/2011
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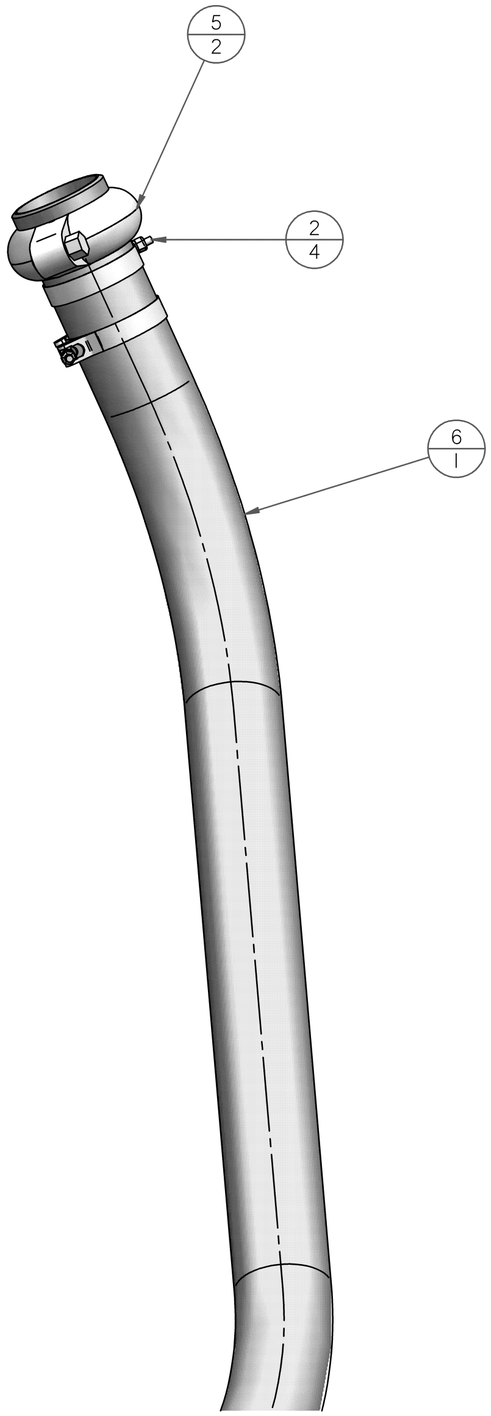

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN jcole
DATE 01/21/2011
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT PP3F4-N8S23N-N0NX33-XX

TITLE PP3F4-N8S23N-N0NX33-XX

DWG NO TC07327 | REV 01 | SIZE C

WEIGHT 244.5 lbm | SHEET 2 OF 3

Last Changed: 1/21/2011
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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	01.21.2011	jcole
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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

Last Changed: 1/21/2011
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THIRD ANGLE PROJECTION

DRAWN jcole
DATE 01/21/2011
APPR.

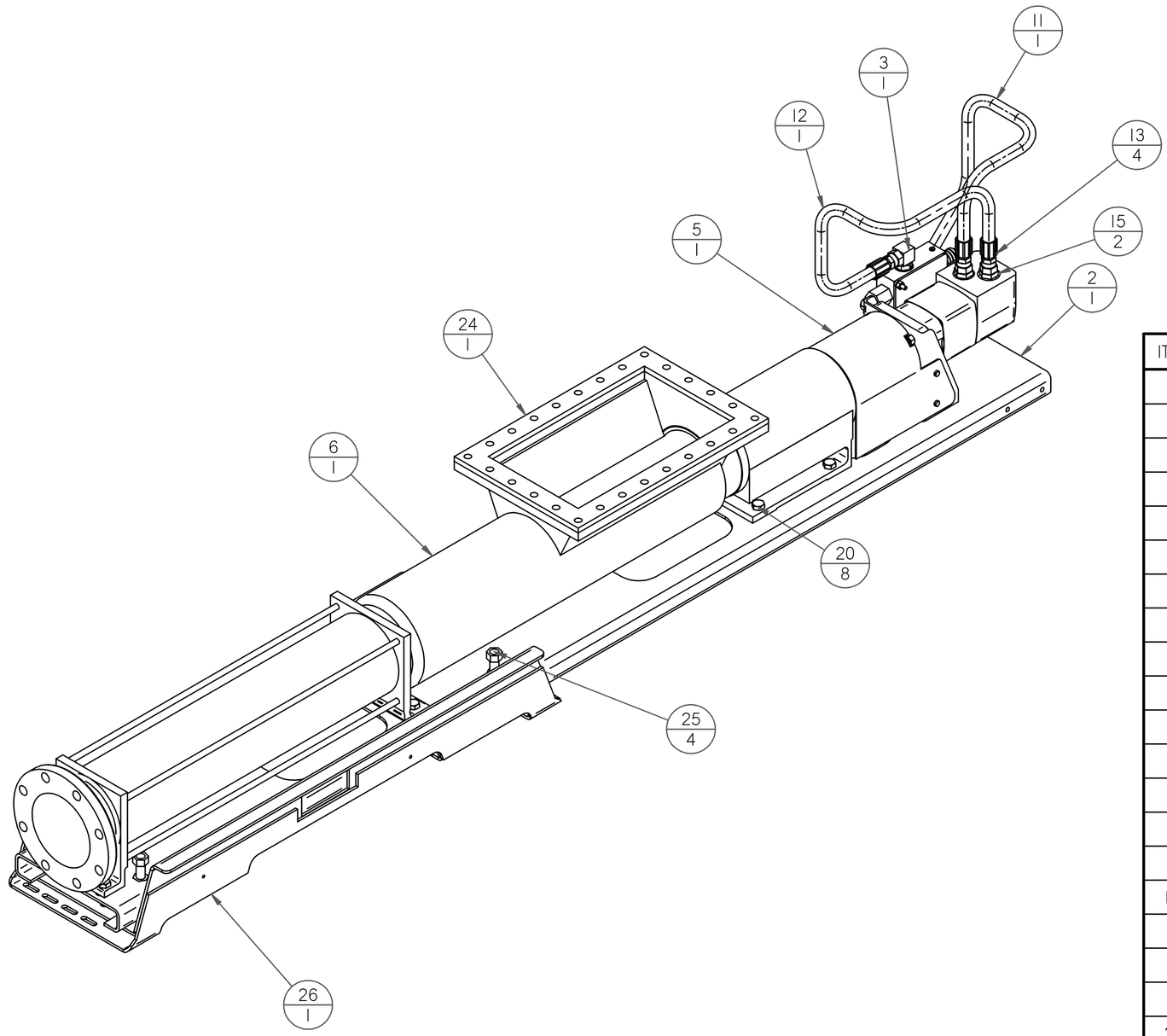
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT PP3F4-N8S23N-N0NX33-XX

TITLE PP3F4-N8S23N-N0NX33-XX

DWG NO TC07327 | REV 01 | SIZE C

WEIGHT 244.5 lbm | SHEET 3 OF 3



ITEM	QTY	DWG NO.	RN	DESCRIPTION	Part_ID
1	1	TC07361	01	BYPASS VALVE MOUNTING PLATE	
2	1	TC07379	01	PUMP BASE WELDMENT 2NES80 4216	
3	1	UP1001A17Z	01	30 GPM 24 VDC PUPMPRO BY-PASS ASM	
4	1	UP1008P26	01	MOTOR PLATE FOR PUMP BASE 2NE80 3716	
5	1	UP1008P27	01	COUPLING GUARD FOR PUMP BASE 2NE80 3716	
6	1	TC07331	01	PUMP NETZSCH 2NES80A TOP SUCTION	241.5684
7	1	TC02130	01	COUPLING L225 HYTREL SPYDER	247.1390
8	1	TC02133	01	COUPLING L225 X 1.875 BORE .500 KEY	247.1403
9	1	TC02132	01	COUPLING L225 X 1.250 BORE .312 KEY	247.1404
10	4	TC02916	01	RIVNUT FLT HD .250 X .200 GRIP SS RIB	261.1025
11	1	TC07380	01	HOSE HYD GATES 12 M3K XTRATUFF .750 3FT	262.3712
12	1	TC07381	01	HOSE HYD GATES 12 M3K XTRATUFF .750 3FT	262.3712
13	4	TC00965	01	COUPLING GATES HOSE 12-12 F JIC	262.6212
14	1	TC00187	01	MOTOR XXX-XXXX CHAR LYNN 19.0 SS 1.25	263.5461
15	2	TC01584	01	FITTING STR M37/MSAE 12-16	76400.1216
16*	4	TC00408	01	SCREW CAP HEX HEAD.25-20X .75 SS	900.3074
17	2	TC00479	01	SCREW CAP HEX HEAD .31-18X3.00	900.3774
18	2	TC00459	01	SCREW CAP HEX HEAD .38-16 X 1.00	900.4294
19	4	TC00429	01	SCREW CAP HEX HEAD .50-13X2.00	900.5534
20	8	TC00404	01	SCREW CAP HEX HEAD .625-11 X 2.00 GR8	900.67308
21*	4	TC00536	01	NUT HEX .375-16	950.4214
22	4	TC00529	01	NUT HEX .50-13 SS	950.5414
23*	8	TC00538	01	NUT HEX .625-11 SS	950.6614
24	1	TC07378	01	HOPPER GASKET NETZSCH 2NES80A	TC07378
25	4	UP1001A06	01	JACK SCREW ASSEMBLY	UP1001A06
26	1	UP1001A55	01	FIXED BASE WELDMENT4116	UP1001A55

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THIRD ANGLE PROJECTION

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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN jtruskey
DATE 01/26/2010
APPR. J.COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT 2NES80 PUMP ASSEMBLY XX16 Status

TITLE 2NES80 PUMP ASSEMBLY XX16

DWG NO TC07349 | REV 01 | SIZE C

WEIGHT 780.5 lbm | SHEET 1 OF 3

Last Changed: 2/11/2011
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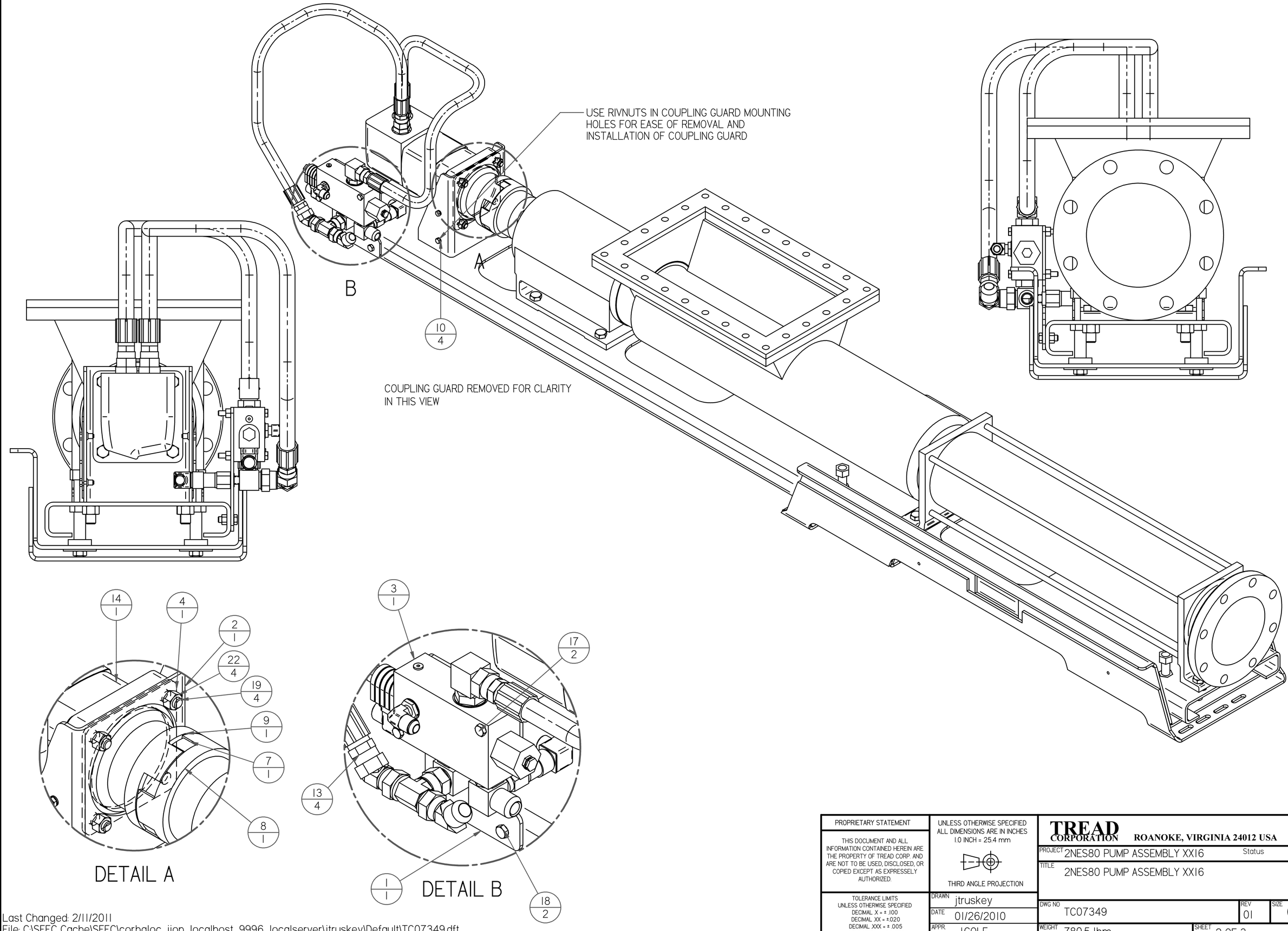

DETAIL A

DETAIL B

Last Changed: 2/11/2011
File: C:\SEEC Cache\SEEC\corbaloc_iiop_localhost_9996_localserver\jtruskey\Default\TC07349.dft

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TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN jtruskey DATE 01/26/2010 APPR. J.COLE	DWG NO TC07349 REV 01 SIZE C WEIGHT 780.5 lbm SHEET 2 OF 3

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	1/26/2010	JTRUSKEY
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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

Last Changed: 2/11/2011
File: C:\SEEC Cache\SEEC\corbaloc_iiop_localhost_9996_localserver\jtruskey\Default\TC07349.dft

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN jtruskey
DATE 01/26/2010
APPR. J.COLE

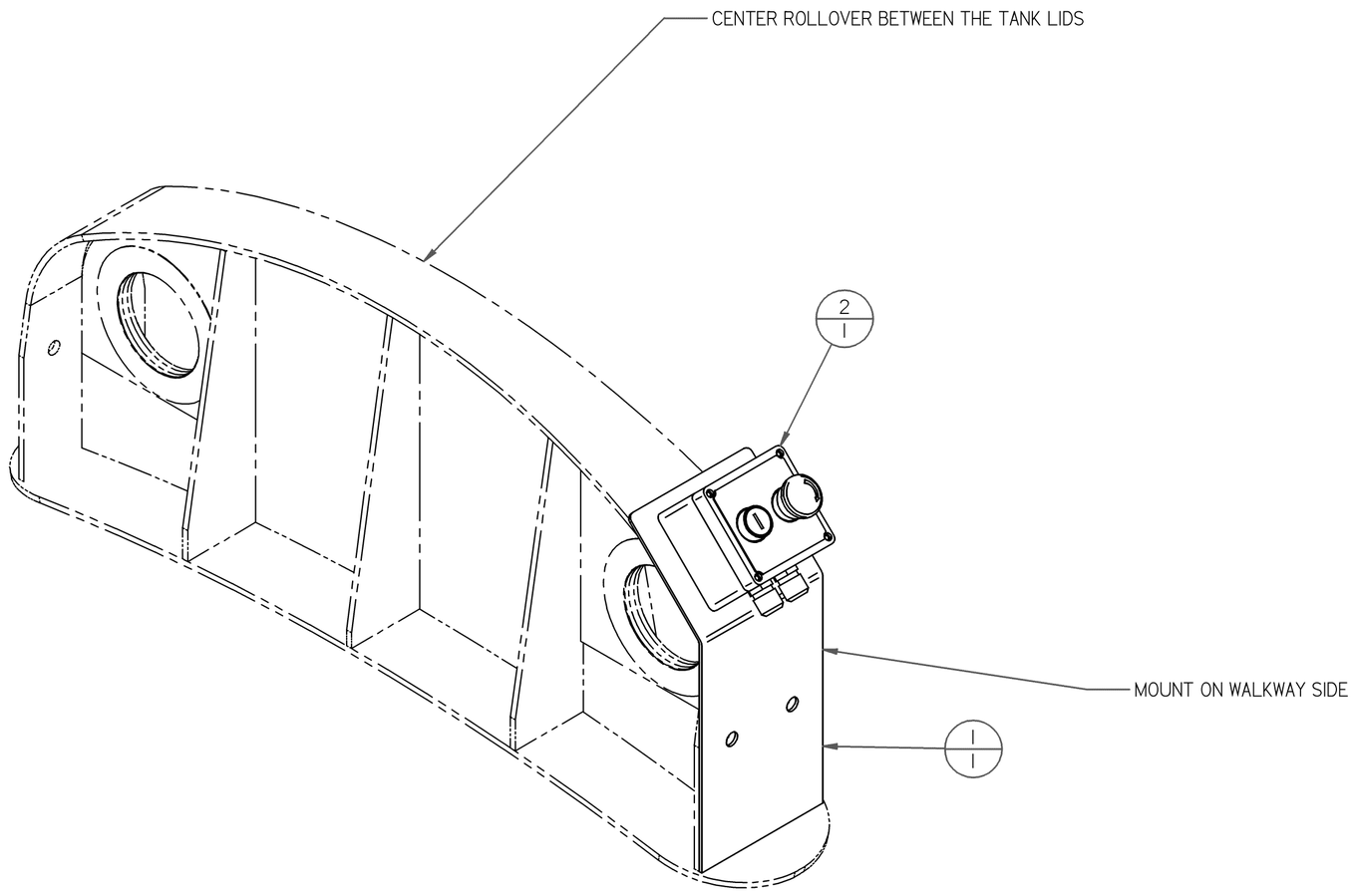
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT 2NES80 PUMP ASSEMBLY XX16 Status

TITLE 2NES80 PUMP ASSEMBLY XX16

DWG NO TC07349 | REV 01 | SIZE C

WEIGHT 780.5 lbm | SHEET 3 OF 3



ITEM	QTY	DWG NO.	RN	DESCRIPTION	Part_ID
1	1	TC07417	01	MTG PLATE AUX HYD	
2	1	UC1020A14X	02	AUXILLIARY HYDRAULIC CONTROL BOX 12V	UC1020A14X

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN bsekinger
DATE 02/01/2011
APPR. J.COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT ADDL AUX HYD TOP MOUNT Status

TITLE ADDL AUX HYD TOP MOUNT

DWG NO TC07418 | REV 01 | SIZE C

WEIGHT 90.7 lbm | SHEET 1 OF 2

Last Changed: 2/1/2011
File: C:\SEEC Cache\SEEC\http_alpha_8080_tc\bsekinger\Default\TC07418.dft

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	2/1/11	WJS
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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

Last Changed: 2/1/2011
File: C:\SEEC Cache\SEEC\http_alpha_8080_tc\bsekinger\Default\TC07418.dft

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DRAWN bsekinger
DATE 02/01/2011
APPR. J.COLE

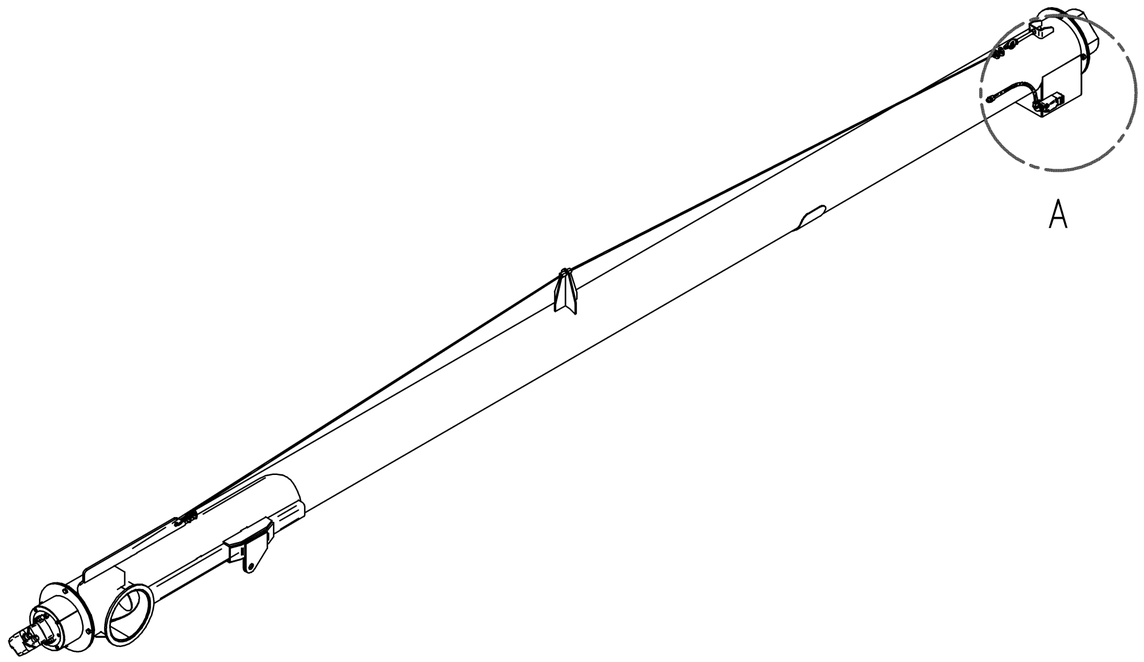
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

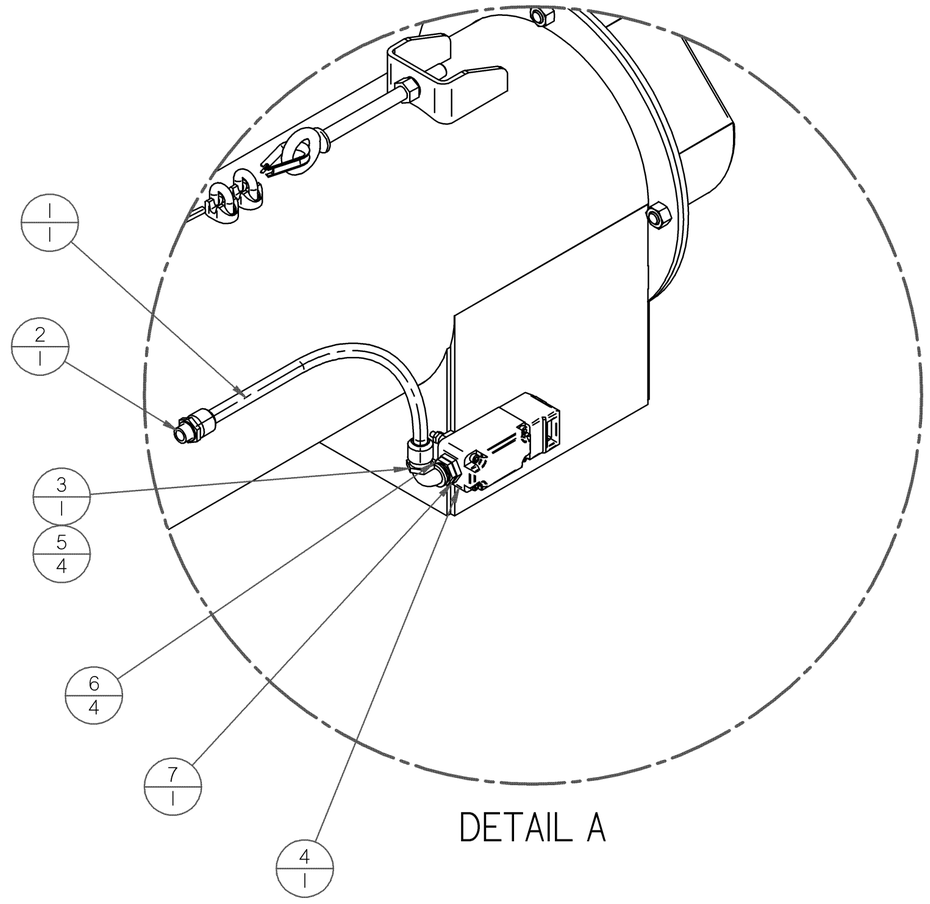
PROJECT ADDL AUX HYD TOP MOUNT Status

TITLE ADDL AUX HYD TOP MOUNT

DWG NO TC07418 | REV 01 | SIZE C

WEIGHT 90.7 lbm | SHEET 2 OF 2





ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1		CONDUIT HARNESSFLEX NC12 UNSLIT X 40 FT	231.6200
2	1		FITTING ASM HARNESSFLEX STRAIGHT NC12	231.6226
3	1		FITTING ASM HARNESSFLEX 90 DEG NC12	231.6227
4	1		SWITCH GUARDMASTER MT-GD2 ALLEN-BRADLEY	234.5297
5	4		SCREW CAP HEX SOCKET HEAD #10-24X2.00	901.1934
6	4		NUT HEX #10-24 SS	950.1814
7	1	UC1027P02	ADAPTER PLASTIC .50 NPT MALE TO PG9 FEMALE	UC1027P02

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THIRD ANGLE PROJECTION

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 10/28/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

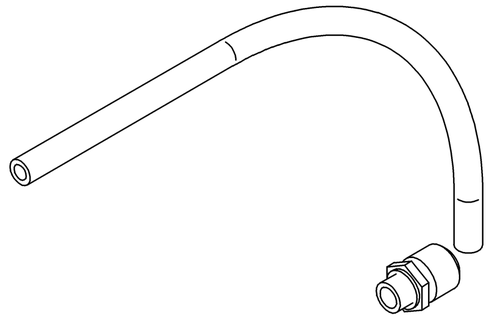
PROJECT

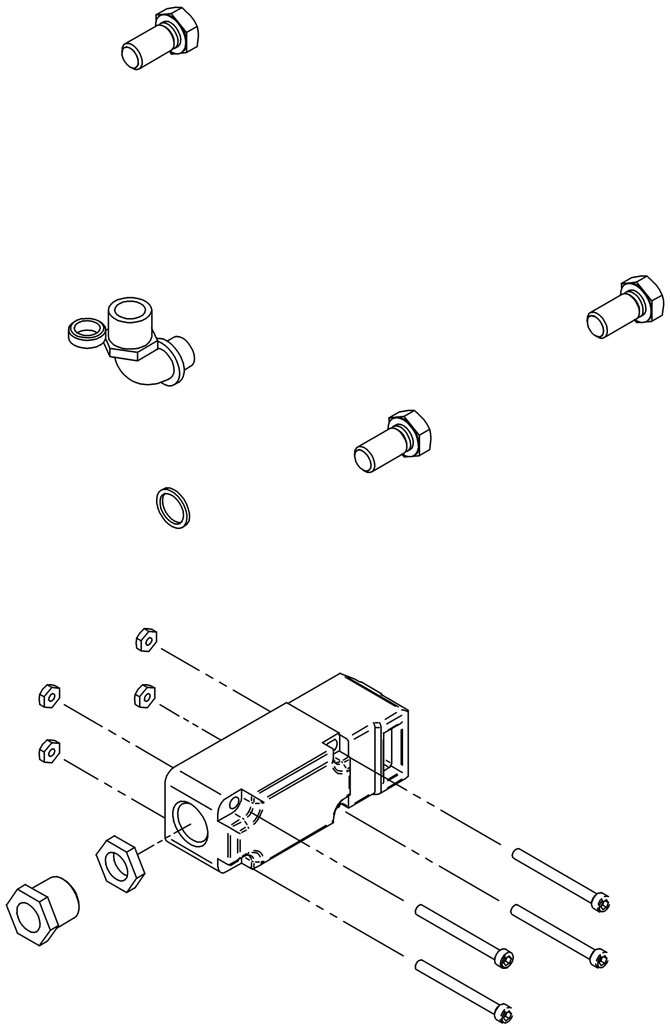
TITLE
GUARDMASTER INTERLOCK ASSEMBLY
UNIBODY AUGER

DWG NO UA1000A06 | REV 1 | SIZE C

WEIGHT 1.3 lbm | SHEET 1 OF 2

Last Changed: 3/7/2008





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UNLESS OTHERWISE SPECIFIED
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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN RDUNCAN
DATE 10/28/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

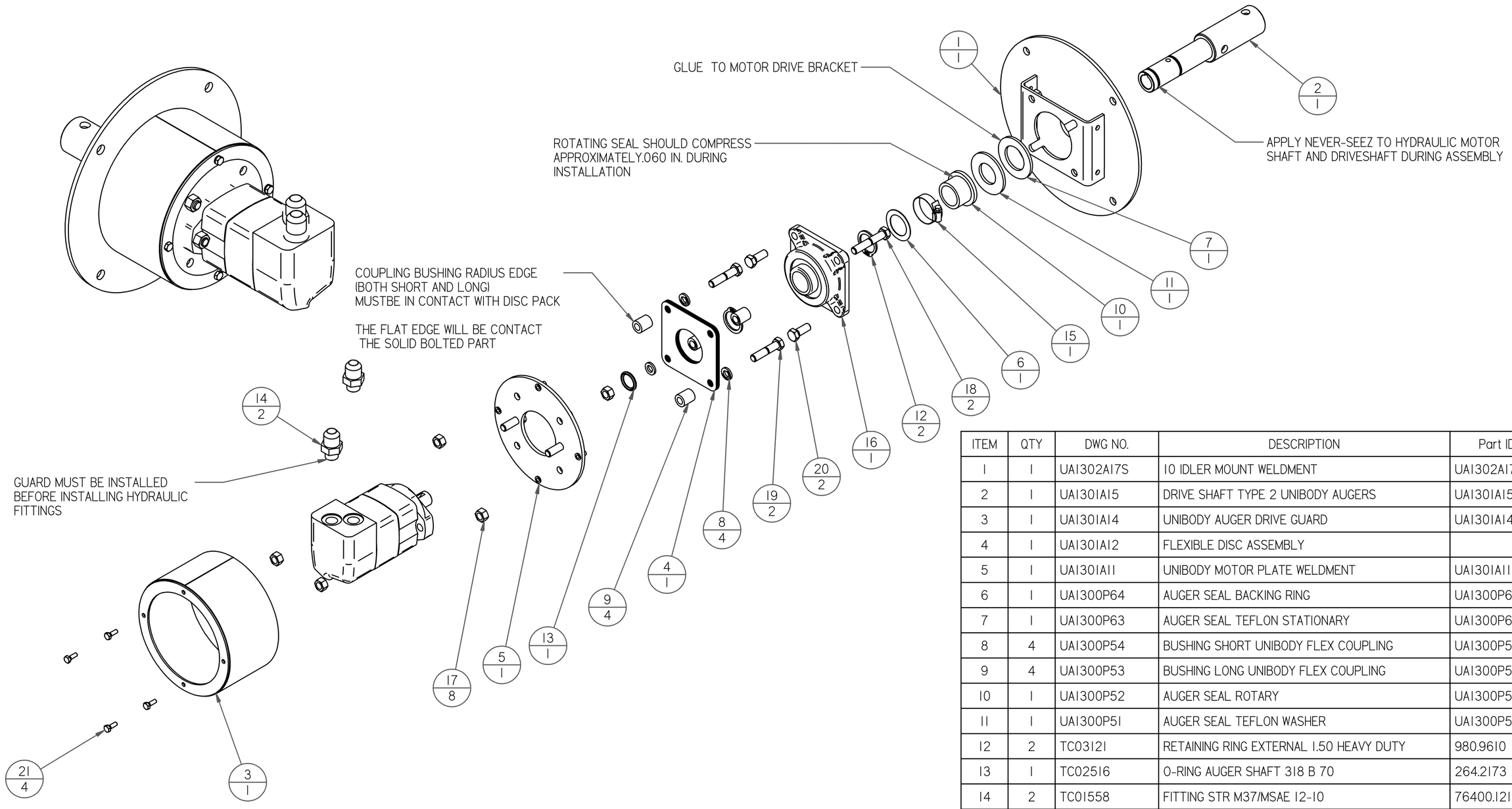
PROJECT

TITLE GUARDMASTER INTERLOCK ASSEMBLY
UNIBODY AUGER

DWG NO UA1000A06 | REV 1 | SIZE C

WEIGHT 1.3 lbm | SHEET 2 OF 2

Last Changed: 3/7/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UAI302A17S	10 IDLER MOUNT WELDMENT	UAI302A17S
2	1	UAI301A15	DRIVE SHAFT TYPE 2 UNIBODY AUGERS	UAI301A15
3	1	UAI301A14	UNIBODY AUGER DRIVE GUARD	UAI301A14
4	1	UAI301A12	FLEXIBLE DISC ASSEMBLY	
5	1	UAI301A11	UNIBODY MOTOR PLATE WELDMENT	UAI301A11
6	1	UAI300P64	AUGER SEAL BACKING RING	UAI300P64
7	1	UAI300P63	AUGER SEAL TEFLON STATIONARY	UAI300P63
8	4	UAI300P54	BUSHING SHORT UNIBODY FLEX COUPLING	UAI300P54
9	4	UAI300P53	BUSHING LONG UNIBODY FLEX COUPLING	UAI300P53
10	1	UAI300P52	AUGER SEAL ROTARY	UAI300P52
11	1	UAI300P51	AUGER SEAL TEFLON WASHER	UAI300P51
12	2	TC03121	RETAINING RING EXTERNAL 1.50 HEAVY DUTY	980.9610
13	1	TC02516	O-RING AUGER SHAFT 318 B 70	264.2173
14	2	TC01558	FITTING STR M37/MSAE 12-10	76400.1210
15	1	TC00859	CLAMP HOSE 1.3125 - 2.25 SS	269.1369
16	1	TC00575	BEARING FLANGE 1.50 IN 4-BOLT SF-24	247.0935
17	8	TC00529	NUT HEX .50-13 SS	950.5414
18	2	TC00428	SCREW CAP HEX HEAD .50-13X2.75	900.5564
19	2	TC00425	SCREW CAP HEX HEAD .50-13X2.25	900.5544
20	2	TC00420	SCREW CAP HEX HEAD .50-13X1.25	900.5504
21	4	TC00408	SCREW CAP HEX HEAD.25-20X .75 SS	900.3074

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

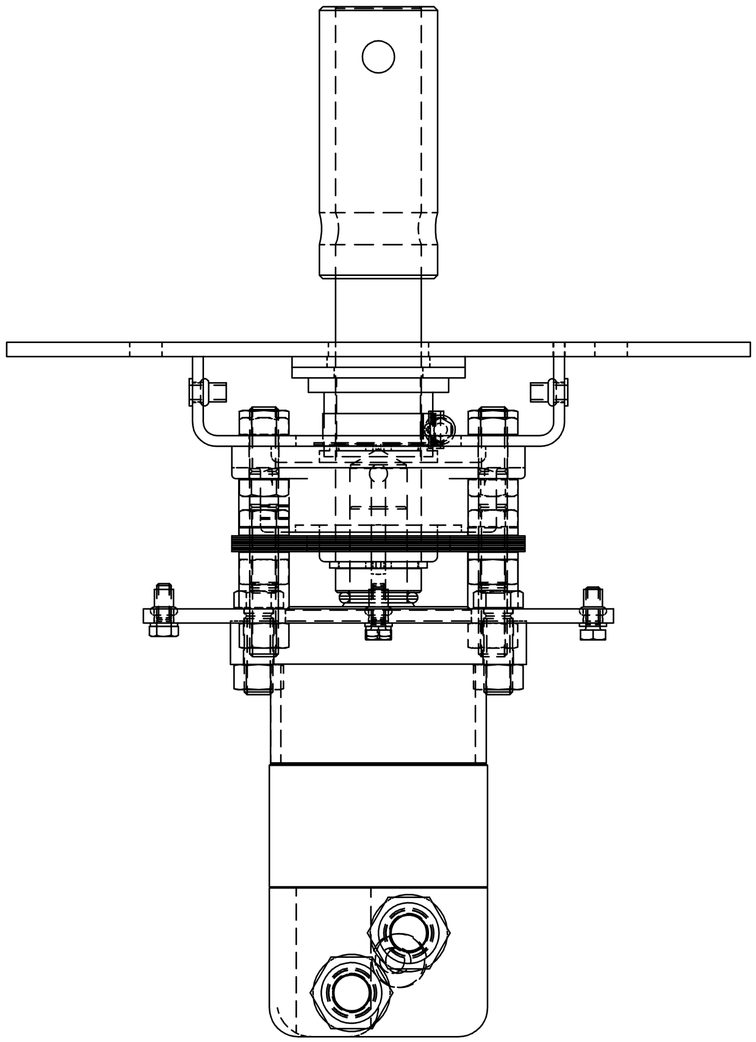
PROJECT: DRIVE ASSEMBLY 10 TYPE 2

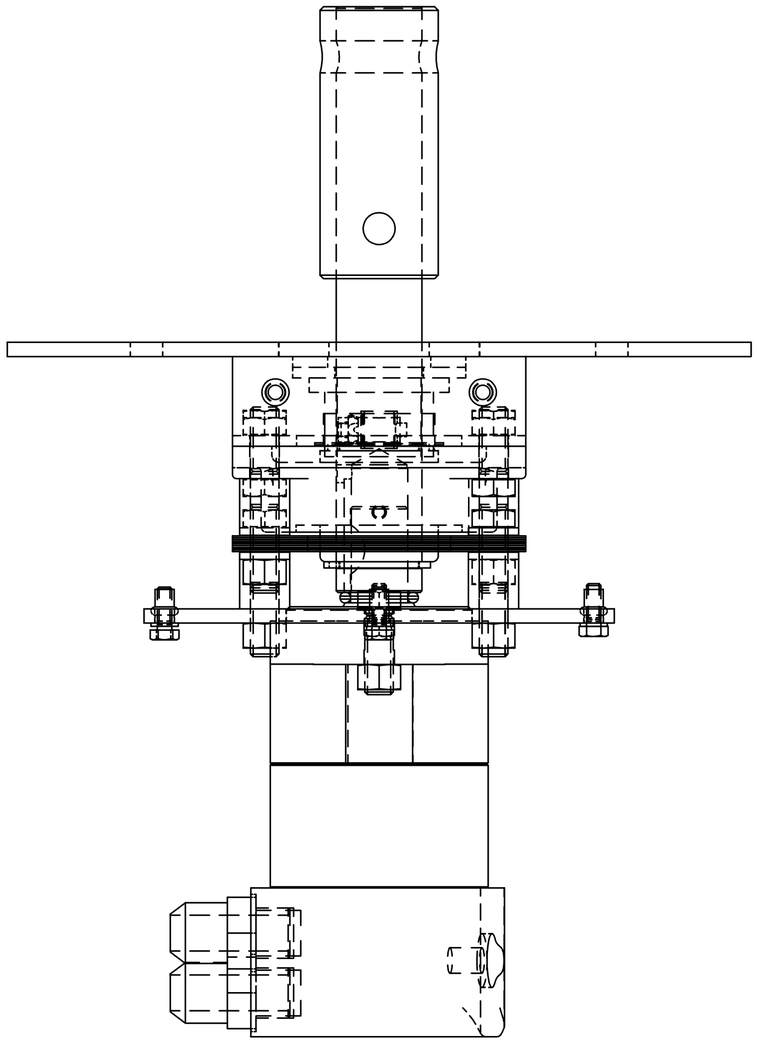
TITLE: DRIVE ASSEMBLY 10 TYPE 2
AUGER DRIVE ASSEMBLY TYPE 2

DRAWN: RDUNCAN
DATE: 12/10/2010
APPR.: D COLE

DWG NO: UAI301A02S
REV: 02
SIZE: C
WEIGHT: 58.3 lbm
SHEET: 1 OF 2

Last Changed: 1/19/2011





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TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN RDUNCAN DATE 12/10/2010 APPR. D COLE	PROJECT DRIVE ASSEMBLY 10 TYPE 2 TITLE DRIVE ASSEMBLY 10 TYPE 2 AUGER DRIVE ASSEMBLY TYPE 2 DWG NO UA1301A02S · REV 02 · SIZE C WEIGHT 58.3 lbm · SHEET 2 OF 2

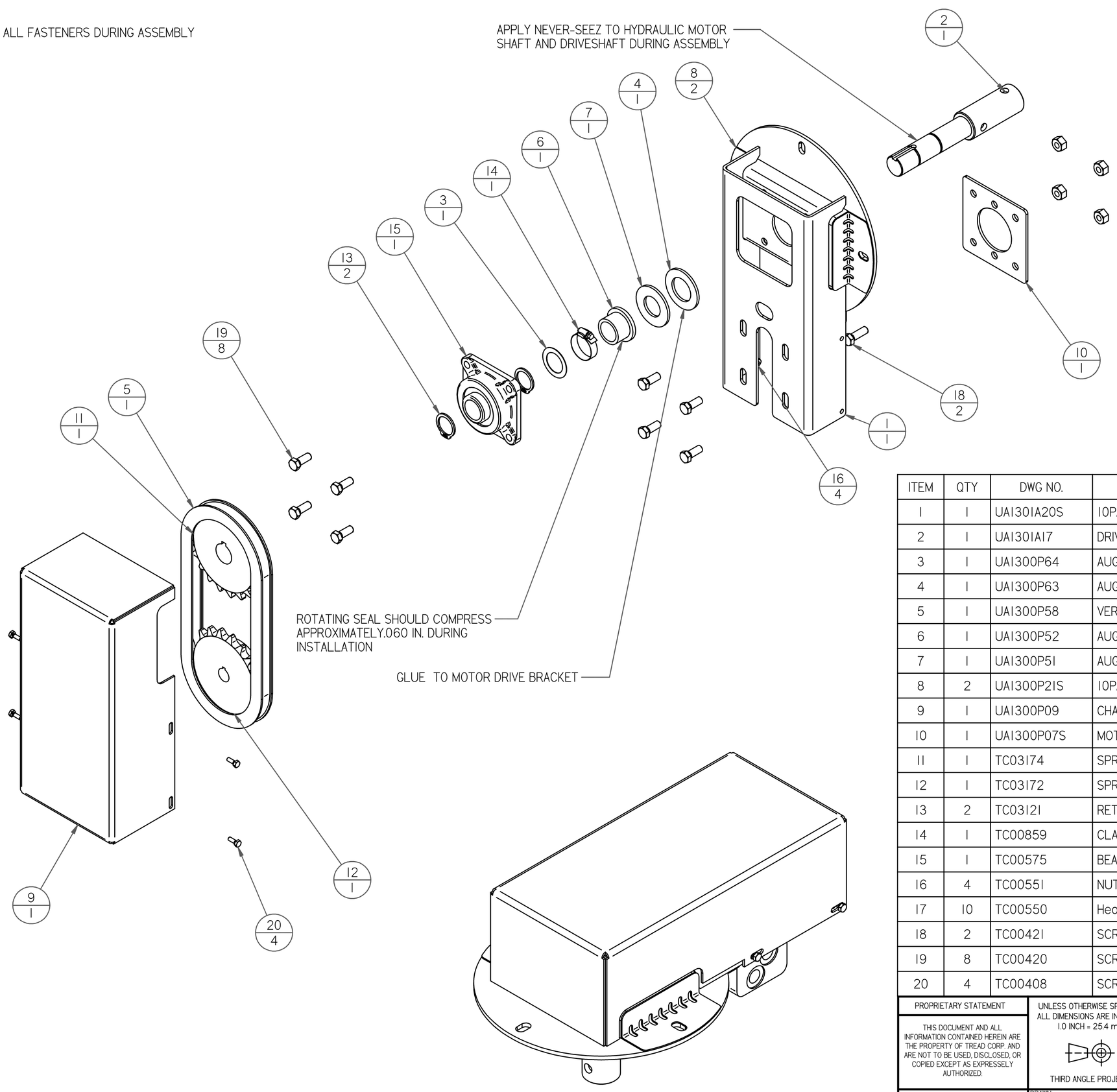
Last Changed: 1/19/2011

LOCKTITE ALL FASTENERS DURING ASSEMBLY

APPLY NEVER-SEEZ TO HYDRAULIC MOTOR SHAFT AND DRIVESHAFT DURING ASSEMBLY

ROTATING SEAL SHOULD COMPRESS APPROXIMATELY.060 IN. DURING INSTALLATION

GLUE TO MOTOR DRIVE BRACKET



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UA1301A20S	10P/T VERTICAL DRIVE WELDMENT TYPE 2	UA1301A20S
2	1	UA1301A17	DRIVESHAFT ASSEMBLY SS	
3	1	UA1300P64	AUGER SEAL BACKING RING	UA1300P64
4	1	UA1300P63	AUGER SEAL TEFLON STATIONARY	UA1300P63
5	1	UA1300P58	VERTICAL DRIVE CHAIN	
6	1	UA1300P52	AUGER SEAL ROTARY	UA1300P52
7	1	UA1300P51	AUGER SEAL TEFLON WASHER	UA1300P51
8	2	UA1300P21S	10P/T VERTICAL TOP DRIVE SHAFT GUARD	
9	1	UA1300P09	CHAIN GUARD	
10	1	UA1300P07S	MOTOR MOUNTING PLATE	
11	1	TC03174	SPROCKET 80B20 X 1.50 BORE	247.7869
12	1	TC03172	SPROCKET 80B20 X 1.00 BORE	247.7870
13	2	TC03121	RETAINING RING EXTERNAL 1.50 HEAVY DUTY	980.9610
14	1	TC00859	CLAMP HOSE 1.3125 - 2.25 SS	269.1369
15	1	TC00575	BEARING FLANGE 1.50 IN 4-BOLT SF-24	247.0935
16	4	TC00551	NUT HEX ELASTIC .250-20 SS	954.3014
17	10	TC00550	Heavy Hex Nut 1/2	950.5414
18	2	TC00421	SCREW CAP HEX HEAD .50-13X1.50	900.5514
19	8	TC00420	SCREW CAP HEX HEAD .50-13X1.25	900.5504
20	4	TC00408	SCREW CAP HEX HEAD.25-20X .75 SS	900.3074

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 1/22/2010
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

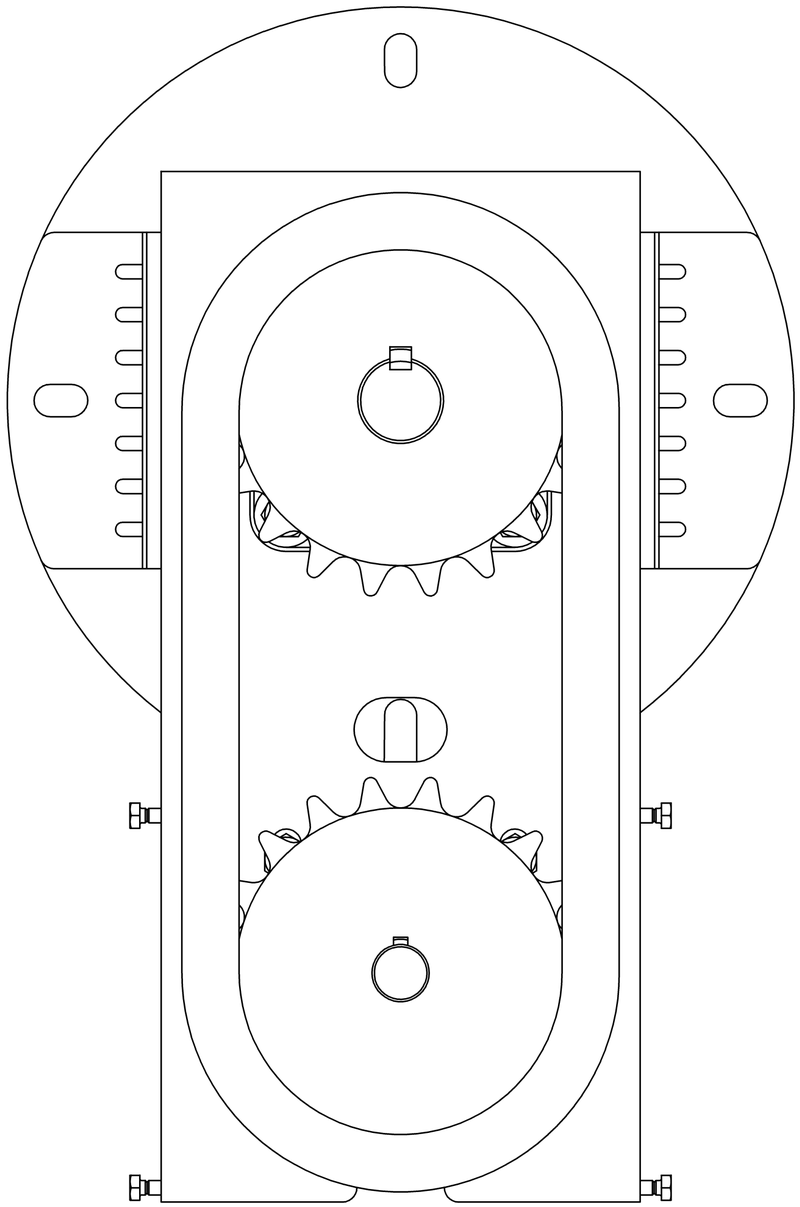
PROJECT 10P/T VERTICAL TOP DRIVE ASSEMBL

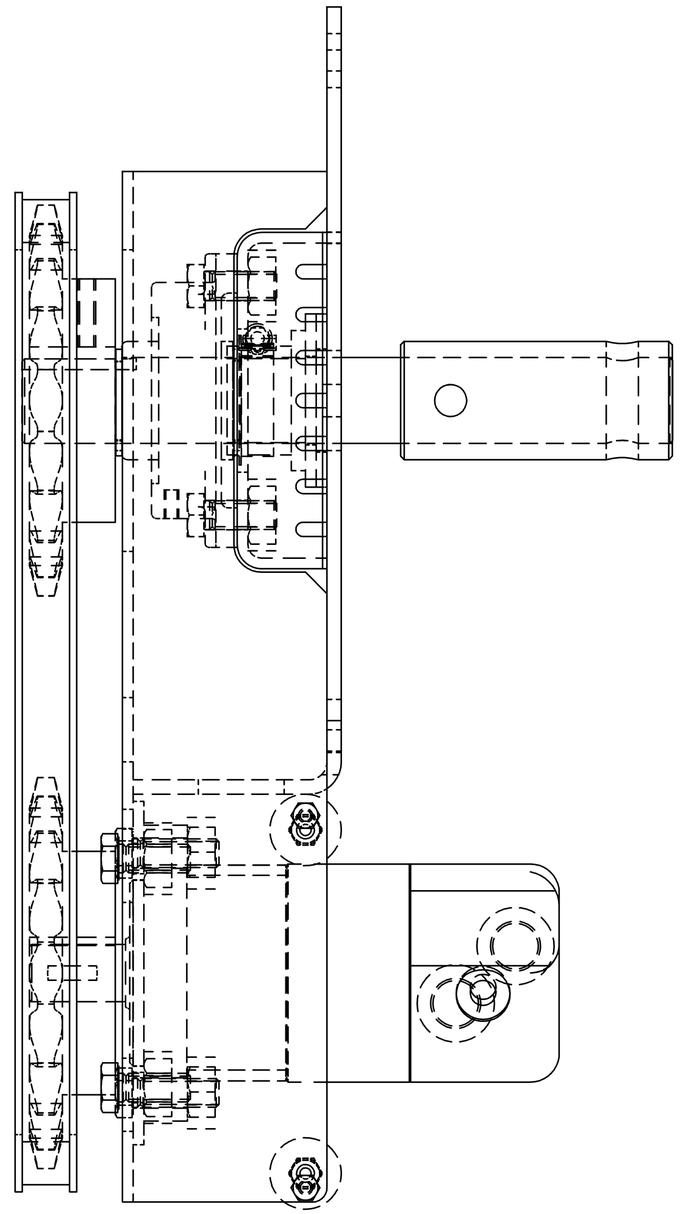
TITLE 10P/T VERTICAL TOP DRIVE ASSEMBLY TYPE 2
UNIBOODY AUGER SYSTEM

DWG NO UA1301A07S | REV 01 | SIZE C

WEIGHT 105.9 lbm | SHEET 1 OF 2

Last Changed: 2/16/2010





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THIRD ANGLE PROJECTION

DRAWN rduncan
DATE 1/22/2010
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

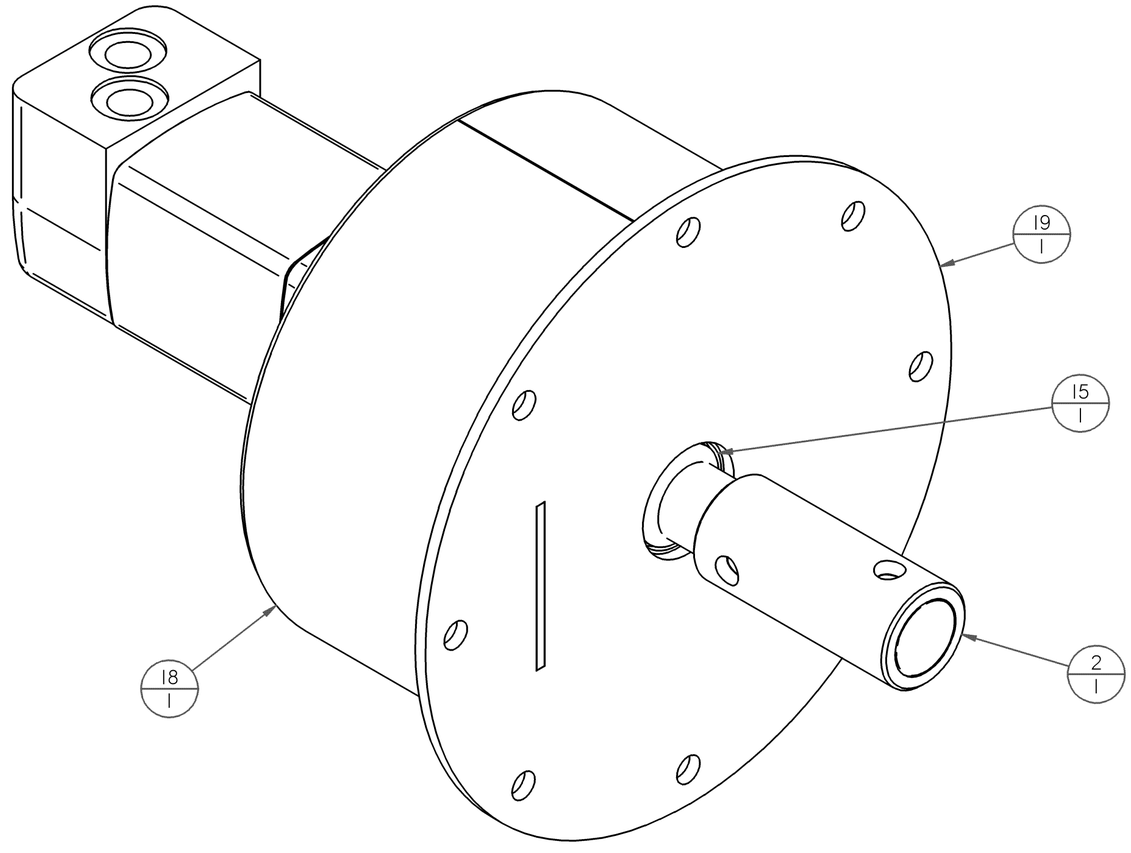
PROJECT 10P/T VERTICAL TOP DRIVE ASSEMBL

TITLE 10P/T VERTICAL TOP DRIVE ASSEMBLY TYPE 2
UNIBOODY AUGER SYSTEM

DWG NO UA1301A07S | REV 01 | SIZE C

WEIGHT 105.9 lbm | SHEET 2 OF 2

Last Changed: 2/16/2010



ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UA1301A25	MOTOR DRIVE PLATE ASM	
2	1	UA1301A26	AUGER SPLINE DRIVE SHAFT ASM	
3	1	UA1301A27	FLEX DRIVE COUPLING	
4	2	TC03122	RETAINING RING EXTERNAL HD 2.0 SHAFT	247.0932
5	1	TC00576	BEARING FLANGE SEALED 2.00 4-BOLT SF-32	247.0934
6	4	TC00439	SCREW CAP HEX HEAD .25-20X.75 SS	900.3074
7	2	TC00489	SCREW CAP HEX HEAD .625-11X2.00 SS	900.6734
8	2	TC00493	SCREW CAP HEX HEAD .625-11X3.00 SS	900.6774
9	2	TC00491	SCREW CAP HEX HEAD .625-11X3.50	900.6794
10	2	TC00529	NUT HEX .50-13 SS	950.5414
11	6	TC02465	NUT HEX ELASTIC .62-11 SS	954.6614
12	4	TC00510	WASHER PLAIN FLAT .25 SS	960.3014
13	4	UA1300P41	FLEX DISC SPACER 1.25 X 1.125 X .625	UA1300P41
14	1	UA1300P47	COMPRESSION SPACER	UA1300P47
15	1	UA1300P48	AUGER SEAL 2.0 TEFLON STATIONARY	UA1300P48
16	1	UA1300P49	AUGER SEAL 2.0 TEFLON ROTARY	UA1300P49
17	1	UA1300P50	AUGER SEAL 2.0 ROTARY BUNA	UA1300P50
18	1	UA1301A24	UNIBODY AUGER SPLINE DRIVE GUARD	UA1301A24
19	1	UA1302A20S	10 SPLINE DRIVE WELDMENT	UA1302A20S
20	4	UR1000P42	FLEX DISC SPACER 0.15 THICK SS	UR1000P42

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THIRD ANGLE PROJECTION

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 2/15/2010
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DRIVE ASSEMBLY 10 TYPE 2

TITLE SPLINE DRIVE ASSEMBLY 10 TYPE 2
AUGER DRIVE ASSEMBLY TYPE 2

DWG NO UA1301A23 | REV 01 | SIZE C

WEIGHT 74.4 lbm | SHEET 1 OF 3

Last Changed: 2/26/2010
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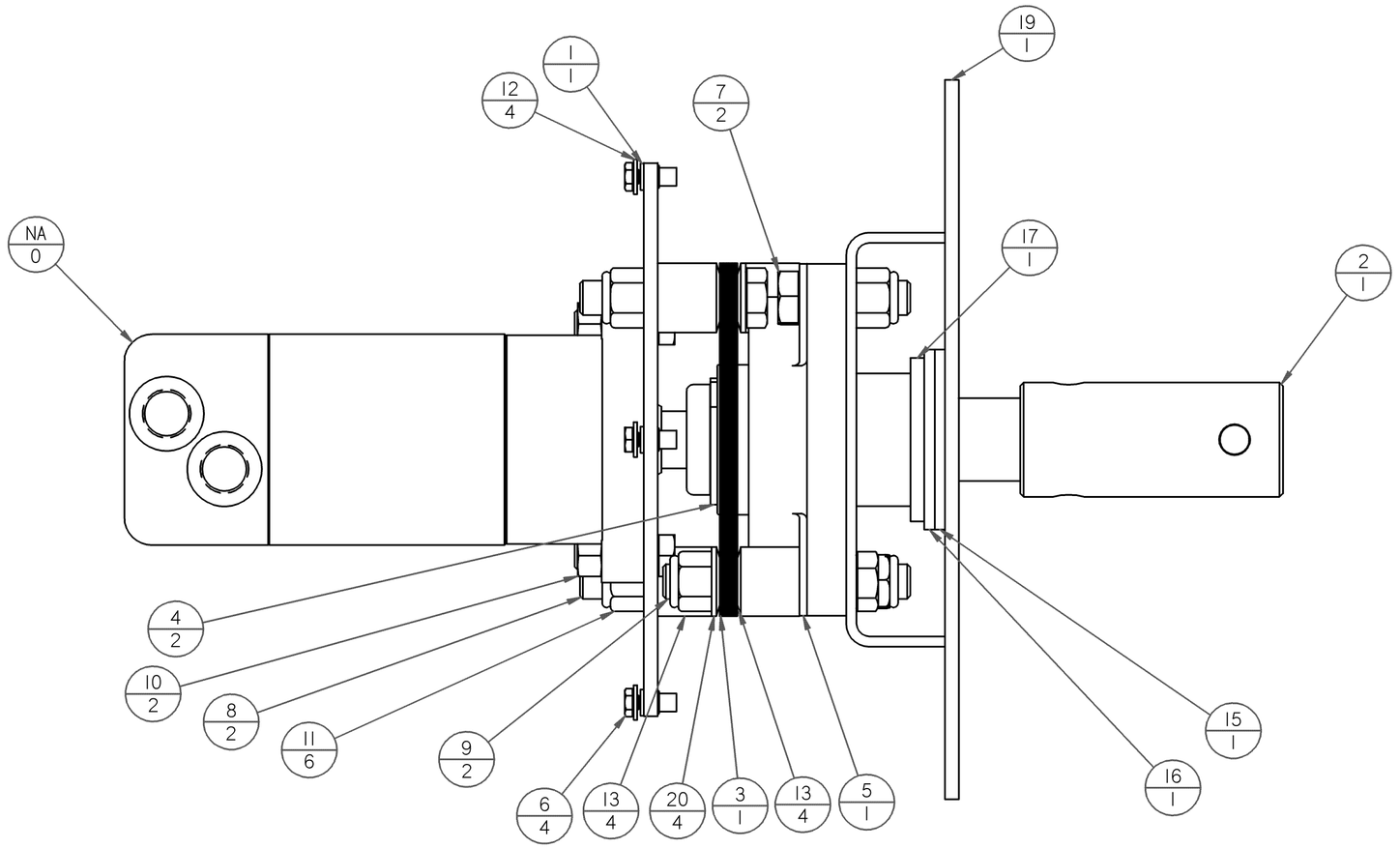

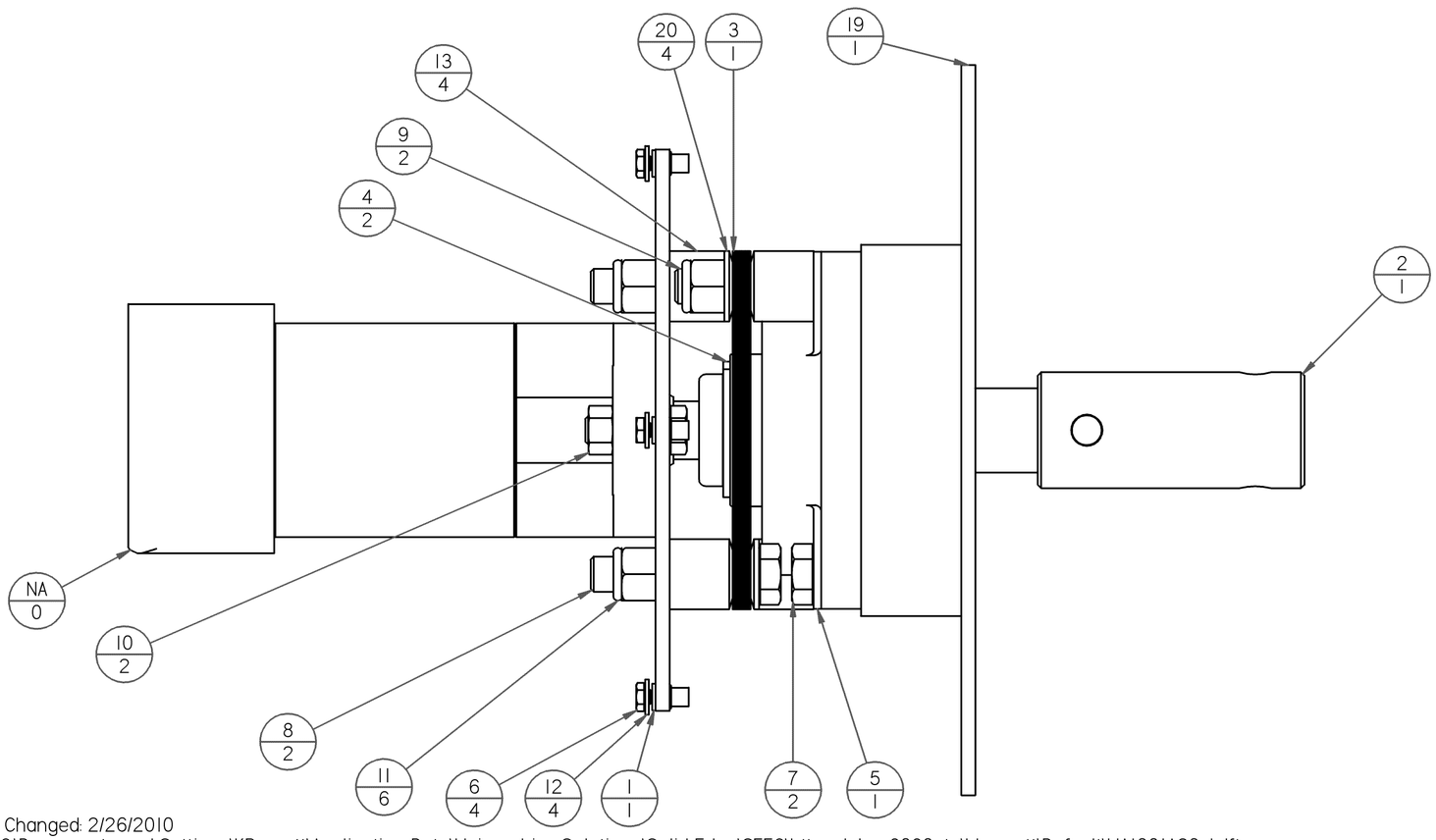

Last Changed: 2/26/2010
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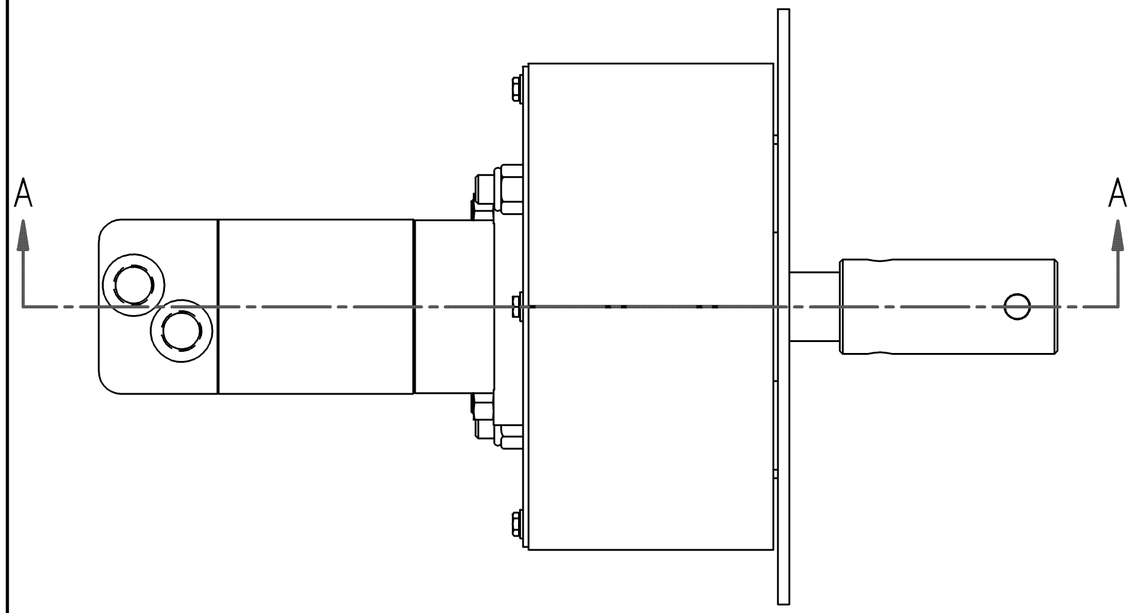
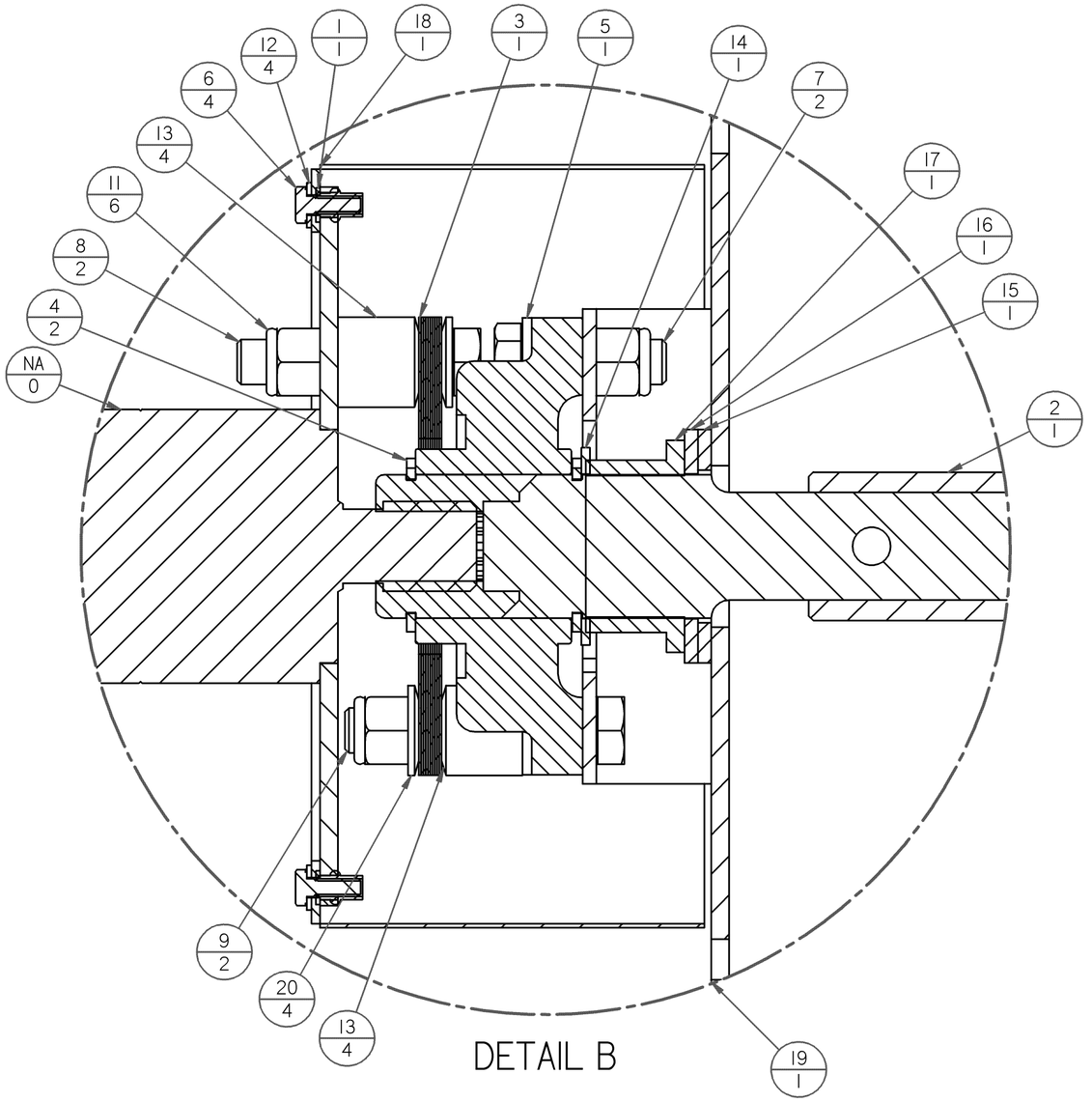
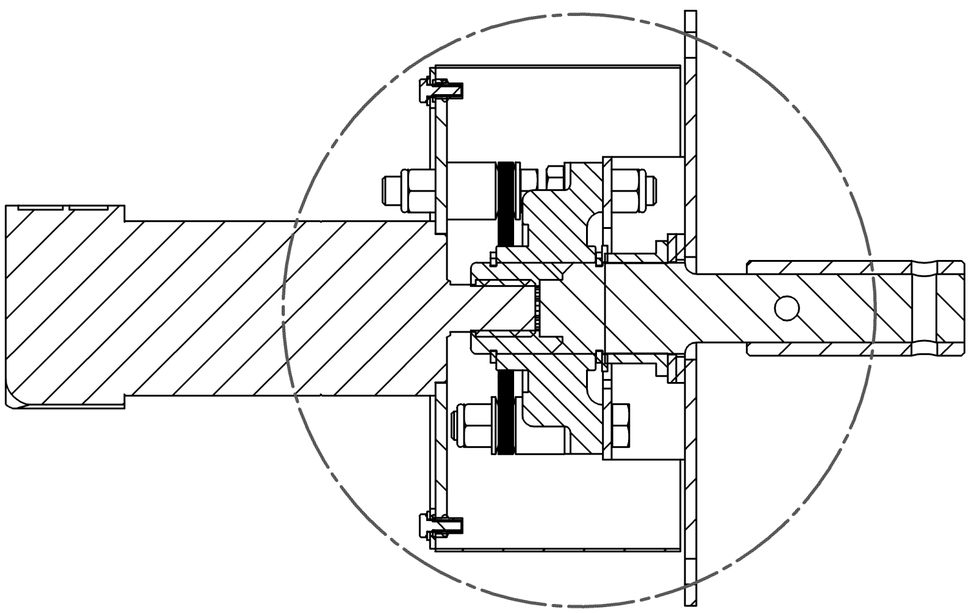
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL X = ± .100 DECIMAL XX = ±.020 DECIMAL XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN RDUNCAN DATE 2/15/2010 APPR. D COLE	PROJECT DRIVE ASSEMBLY 10 TYPE 2 TITLE SPLINE DRIVE ASSEMBLY 10 TYPE 2 AUGER DRIVE ASSEMBLY TYPE 2 DWG NO UA1301A23 REV 01 SIZE C WEIGHT 74.4 lbm SHEET 2 OF 3





DETAIL B



SECTION A-A

B

Last Changed: 2/26/2010
File: C:\Documents and Settings\KBarnett\Application Data\Unigraphics Solutions\Solid Edge\SEEC\http_alpha_8080_tc\kbarnett\Default\UA1301A23-1.dft

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 2/15/2010
APPR. D COLE

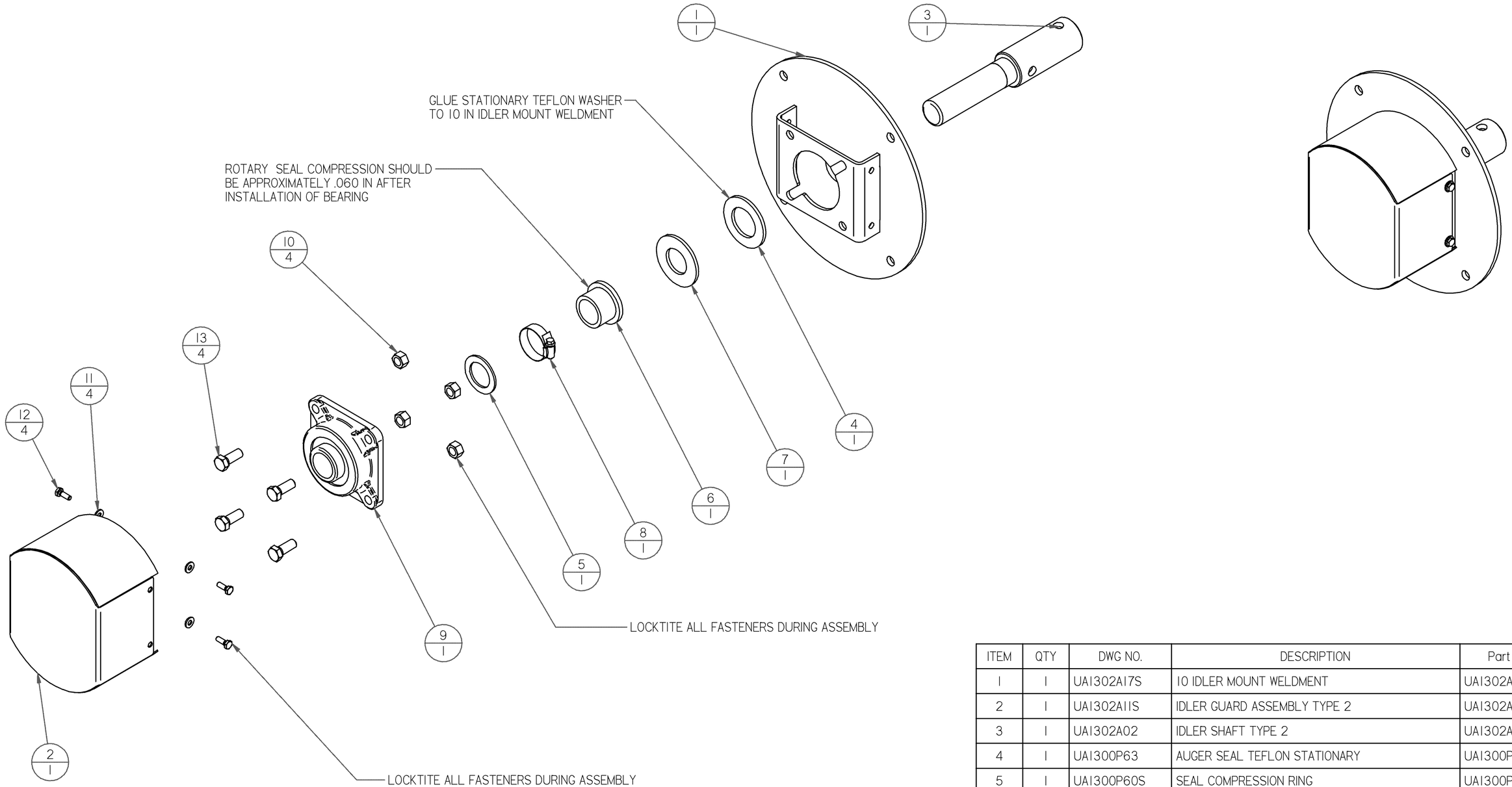
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DRIVE ASSEMBLY 10 TYPE 2

TITLE SPLINE DRIVE ASSEMBLY 10 TYPE 2
AUGER DRIVE ASSEMBLY TYPE 2

DWG NO UA1301A23 | REV 01 | SIZE C

WEIGHT 74.4 lbm | SHEET 3 OF 3



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UAI302A17S	10 IDLER MOUNT WELDMENT	UAI302A17S
2	1	UAI302A11S	IDLER GUARD ASSEMBLY TYPE 2	UAI302A11S
3	1	UAI302A02	IDLER SHAFT TYPE 2	UAI302A02
4	1	UAI300P63	AUGER SEAL TEFLON STATIONARY	UAI300P63
5	1	UAI300P60S	SEAL COMPRESSION RING	UAI300P60S
6	1	UAI300P52	AUGER SEAL ROTARY	UAI300P52
7	1	UAI300P51	AUGER SEAL TEFLON WASHER	UAI300P51
8	1	TC00859	CLAMP HOSE 1.3125 - 2.25 SS	269.1369
9	1	TC00575	BEARING FLANGE 1.50 IN 4-BOLT SF-24	247.0935
10	4	TC00529	NUT HEX .50-13 SS	950.5414
11	4	TC00510	WASHER PLAIN FLAT .25 SS	960.3014
12	4	TC00439	SCREW CAP HEX HEAD .25-20X.75 SS	900.3074
13	4	TC00420	SCREW CAP HEX HEAD .50-13X1.25	900.5504

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

UAI302A05S

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT 10IN IDLER ASSEMBLY

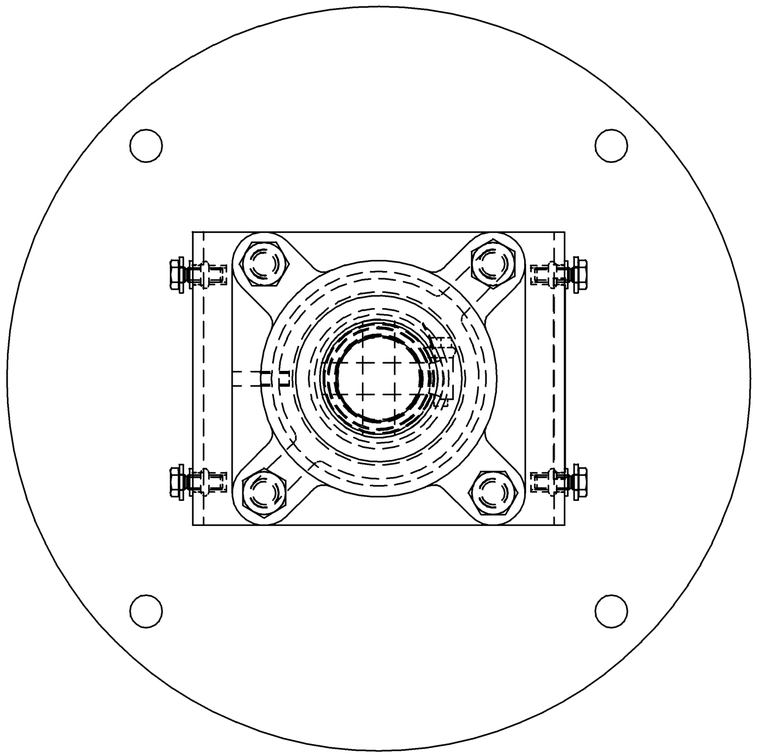
TITLE 10IN IDLER ASSEMBLY
AUGER IDLER ASSEMBLY TYPE 2

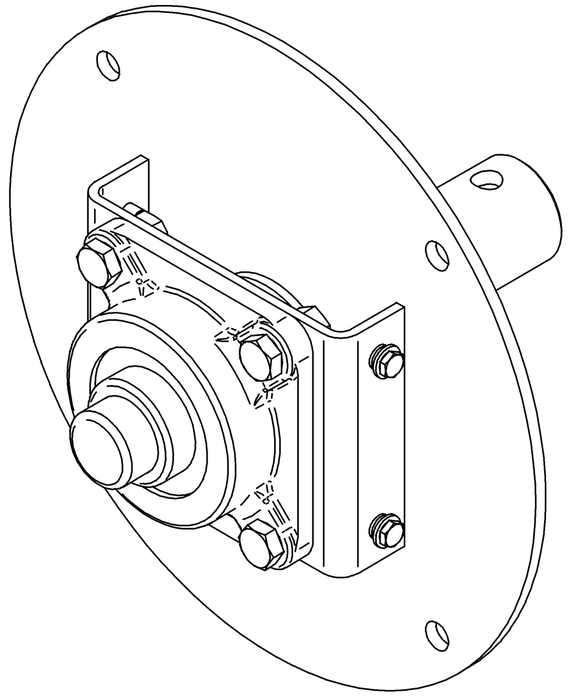
DRAWN rduncan
DATE 6/11/2010
APPR. D COLE

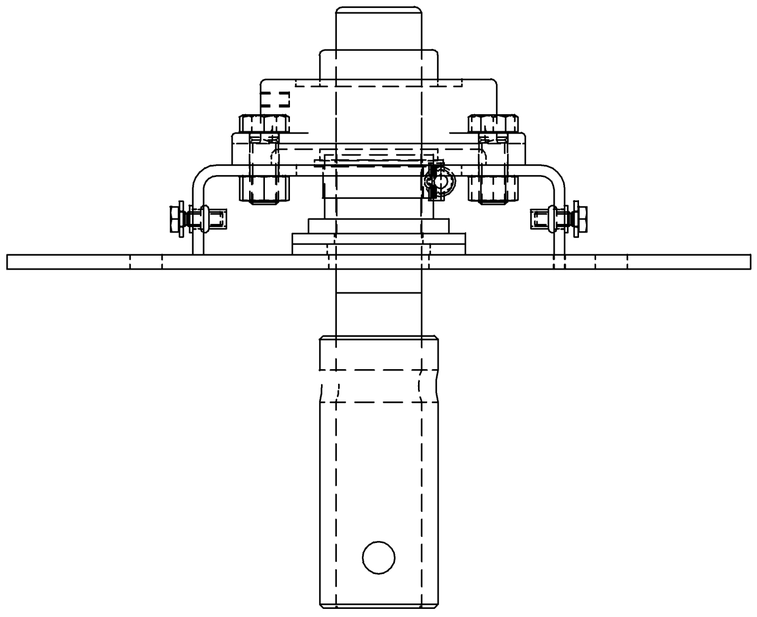
DWG NO UAI302A05S
REV 02
SIZE C
WEIGHT 24.3 lbm
SHEET 1 OF 1

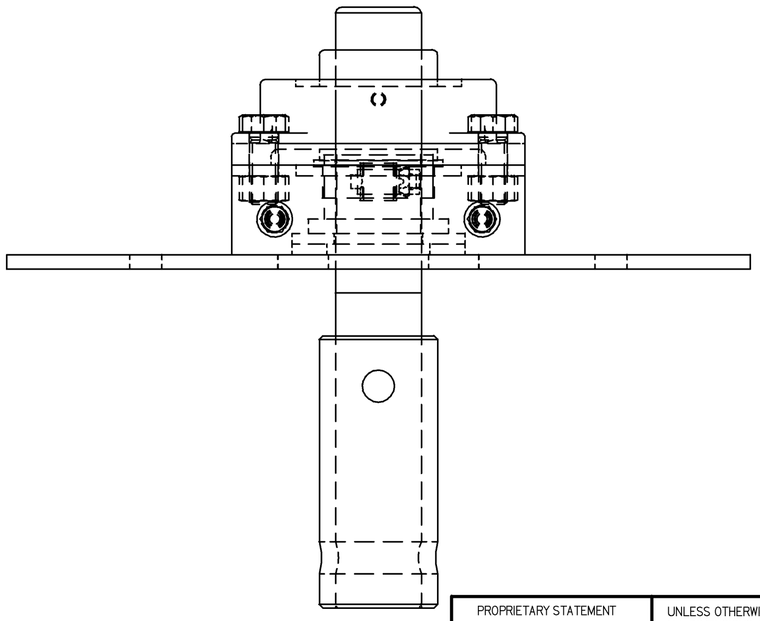
PART ID
Uaugers

Last Changed: 7/9/2010









PART ID
Uaugers

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THIRD ANGLE PROJECTION

DRAWN rduncan
DATE 6/11/2010
APPR. D COLE

UA1302A05S

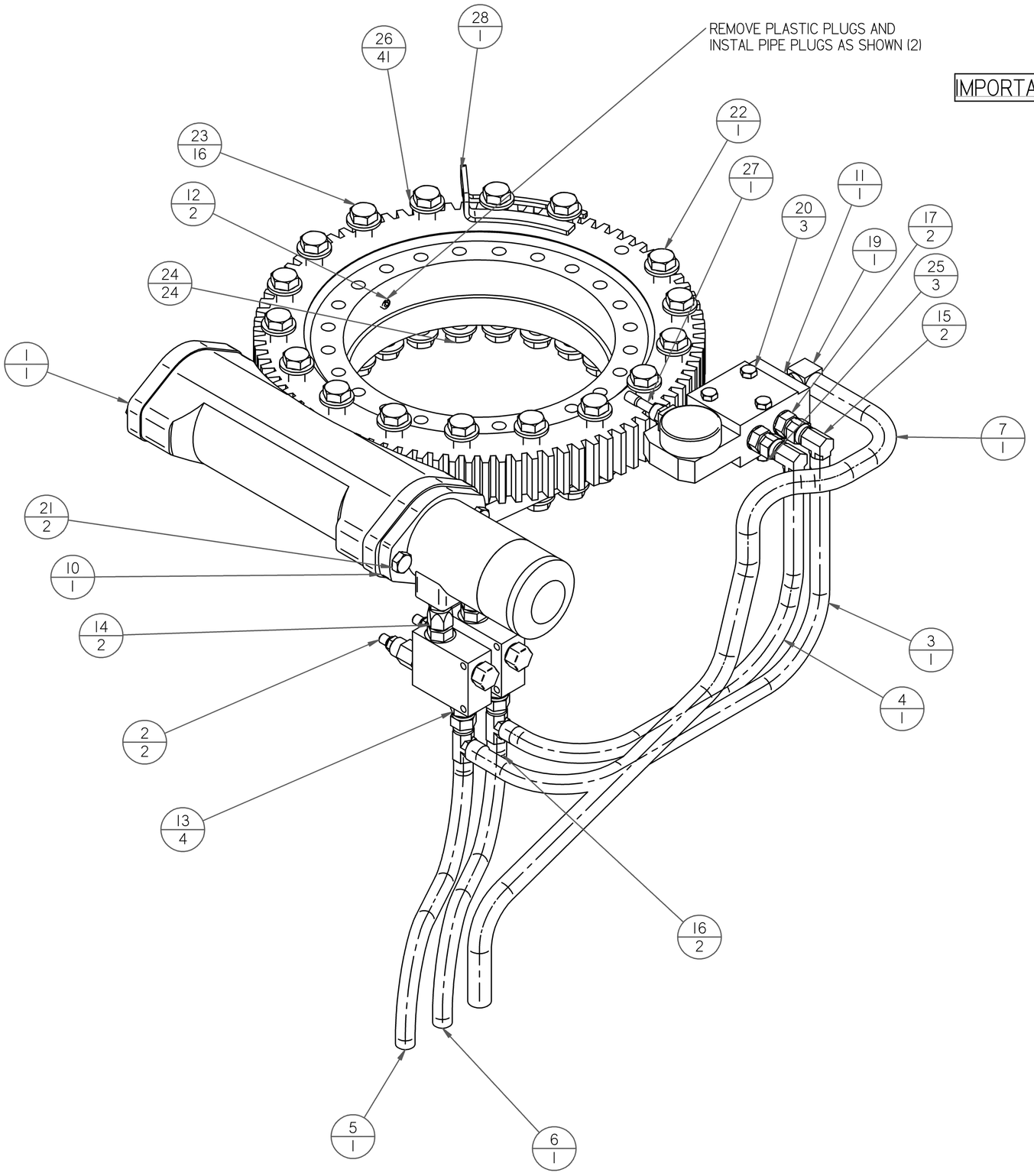
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT 10IN IDLER ASSEMBLY

TITLE 10IN IDLER ASSEMBLY
AUGER IDLER ASSEMBLY TYPE 2

DWG NO UA1302A05S | REV 02 | SIZE C

WEIGHT 24.3 lbm | SHEET



IMPORTANT: SEE ASSEMBLY NOTES ON SECOND SHEET

ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	TC02974	ROTATE SLEWING RING ASSEMBLY	247.2982
2	2	TC03546	VALVE RELIEF SUN 200 PSI REV FREE FLO	260.2820
3	1	UA1305P01	HOSE HYD GATES M3K XTRATUFF .375 X 3'	262.3706
4	1	UA1305P02	HOSE HYD GATES M3K XTRATUFF .375 X 3'	262.3706
5	1	UA1305P04	HOSE HYD GATES M3K XTRATUFF .375 X 2'	262.3706
6	1	UA1305P05	HOSE HYD GATES M3K XTRATUFF .375 X 2'	262.3706
7	1	UA1305P03	HOSE HYD GATES M3K XTRATUFF .500 X 4'	262.3708
8*	8	TC01642	COUPLING GATES HOSE 06-08 F JIC	262.6206
9*	2	TC01644	COUPLING GATES HOSE 08-10 F JIC	262.6208
10	1	TC00028	MOTOR 101-2474 CHAR LYNN (17.9 IN^3) CP	263.5439
11	1	TC03548	VALVE HYD SWING GUARD HAWE #SG3G-AK	264.2013
12	2	TC03920	PLUG PIPE HEX SC HD ST .125 NPT	271.8001
13	4	TC01552	FITTING STR M37/MSAE 08-08	76400.0808
14	2	TC01511	FITTING STR MSAE/F37 SW 10-08	76402.1008
15	2	TC01425	FITTING 90 M37/F37 SW 08-08	76500.0808
16	2	TC01591	FITTING TEE M37/M37/F37 SW -08	76602.080808
17	2	TC01534	FITTING STR M37/BSPP 08-08	79002.0808
18*	1	TC01573	FITTING PLUG BSPP 08	79028.08
19	1	TC01460	FITTING 90 M37/BSPP 10-08	79059.1008
20	3	TC00460	SCREW CAP HEX HEAD .375-16X2.50	900.4354
21	2	TC00423	SCREW CAP HEX HEAD .50-13X1.75	900.5524
22	1	TC00485	SCREW CAP HEX HEAD .625-11X1.50 GR 8	900.67108
23	16	TC00490	SCREW CAP HEX HEAD .625-11X2.00 GR8	900.67308
24	24	TC00494	SCREW CAP HEX HEAD .625-11X3.00 GR8	900.67708
25	3	TC00536	NUT HEX .375-16	950.4214
26	41	TC00517	WASHER FLAT HARD A325 .625	962.6610
27	1	UA1000P130	SWING LIMIT BOLT	UA1000P130
28	1	UA1000P150S	HD SWING STOP 270	UA1000P150S

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

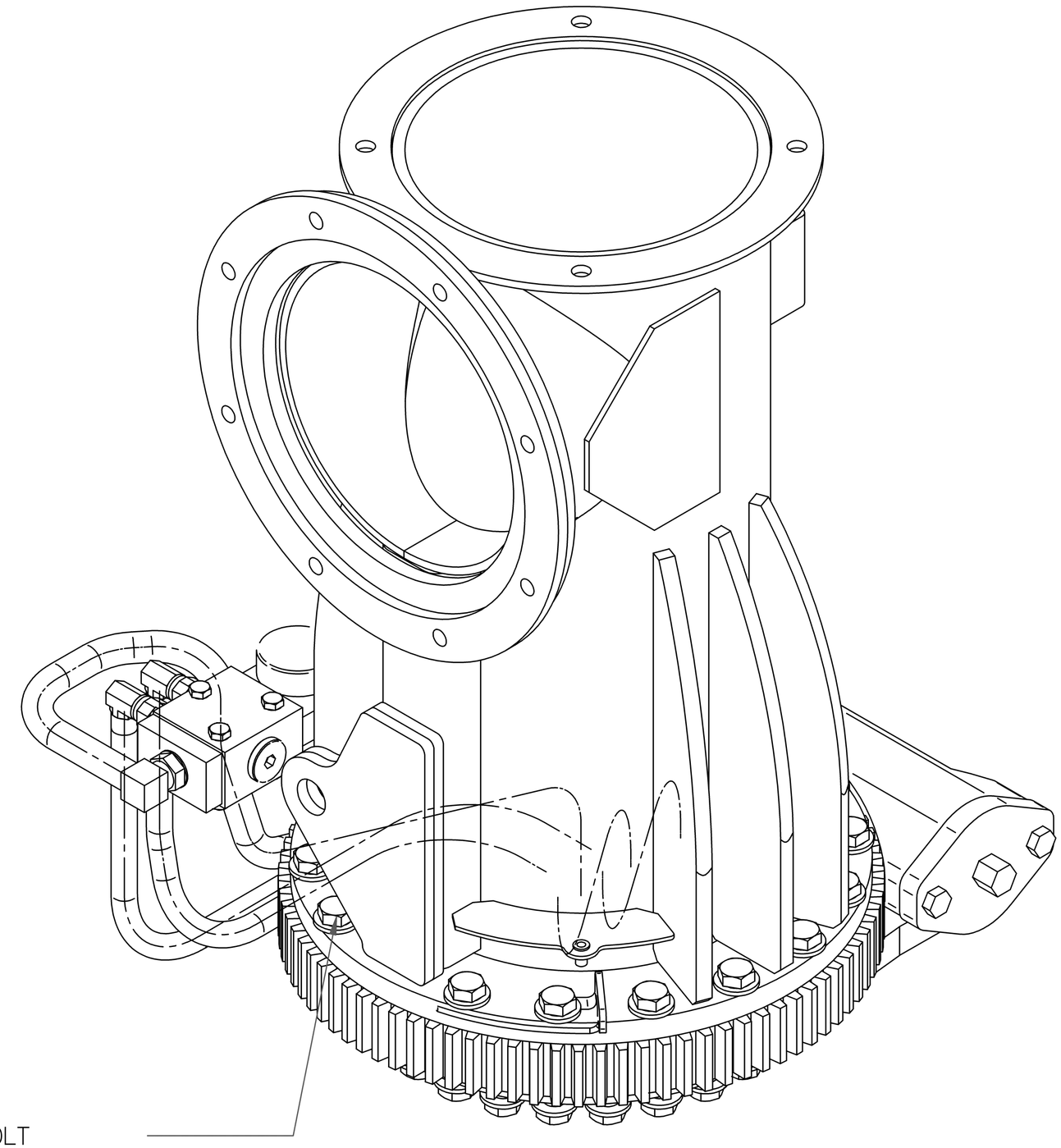
DRAWN RDUNCAN
DATE 9/4/2009
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT AUGER ROTATE ASSEMBLY
TITLE AUGER ROTATE ASSEMBLY
AUGER SYSTEM

DWG NO UA1305A01 | REV 03 | SIZE C
WEIGHT 305.5 lbm | SHEET 1 OF 2

Last Changed: 10/27/2009



NOTE: DUE TO CLEARANCE ISSUES WITH CLEVIS MOUNT THIS BOLT MUST BE INSTALLED FIRST. THIS IS THE 1-1/2" LONG BOLT, P/N 900.67108. BOLT MUST BE PLACED IN HOLE WITH HOUSING LIFTED OFF GEAR RING TO GET IT IN. YOU MAY NEED TO START THREADING THIS BOLT IN AS HOUSING IS LOWERED ONTO GEAR RING. IF ANY OTHER BOLTS ARE INSTALLED FIRST THIS BOLT CANNOT BE INSTALLED.

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TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/4/2009
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

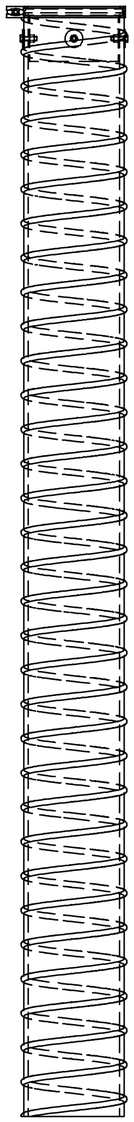
PROJECT AUGER ROTATE ASSEMBLY

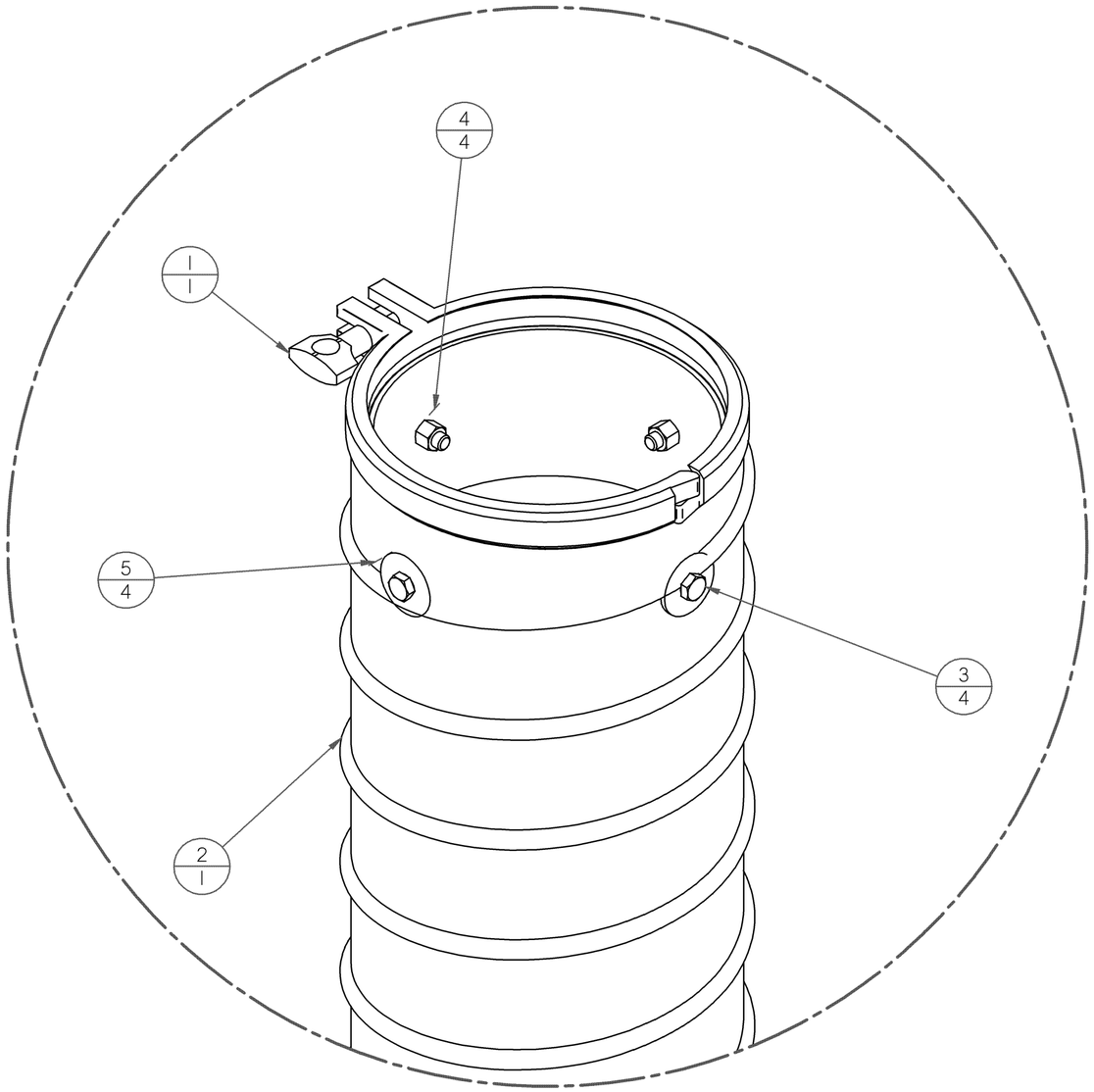
TITLE AUGER ROTATE ASSEMBLY
AUGER SYSTEM

DWG NO UA1305A01 | REV 03 | SIZE C

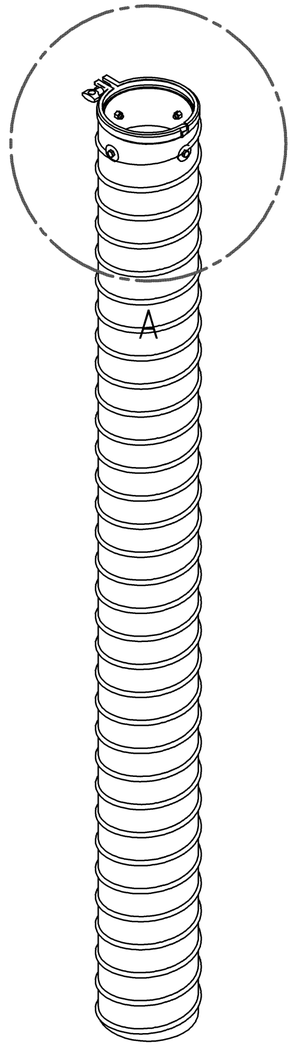
WEIGHT 305.5 lbm | SHEET 2 OF 2

Last Changed: 10/27/2009





DETAIL A



ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UA1307A06	TRUNK HOSE 8" COLLAR WELDMENT	
2	1		HOSE VINYL 8" TIGERFLEX x 8 FT	240.3404
3	4		SCREW CAP HEX HEAD .38-18X1.25	900.4304
4	4		NUT HEX ELASTIC .375-16 SS	954.4214
5	4	S10053P01	WASHER REBOUND .375 ISOLATOR	S10053P01

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN EricP
DATE 6/28/2003
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

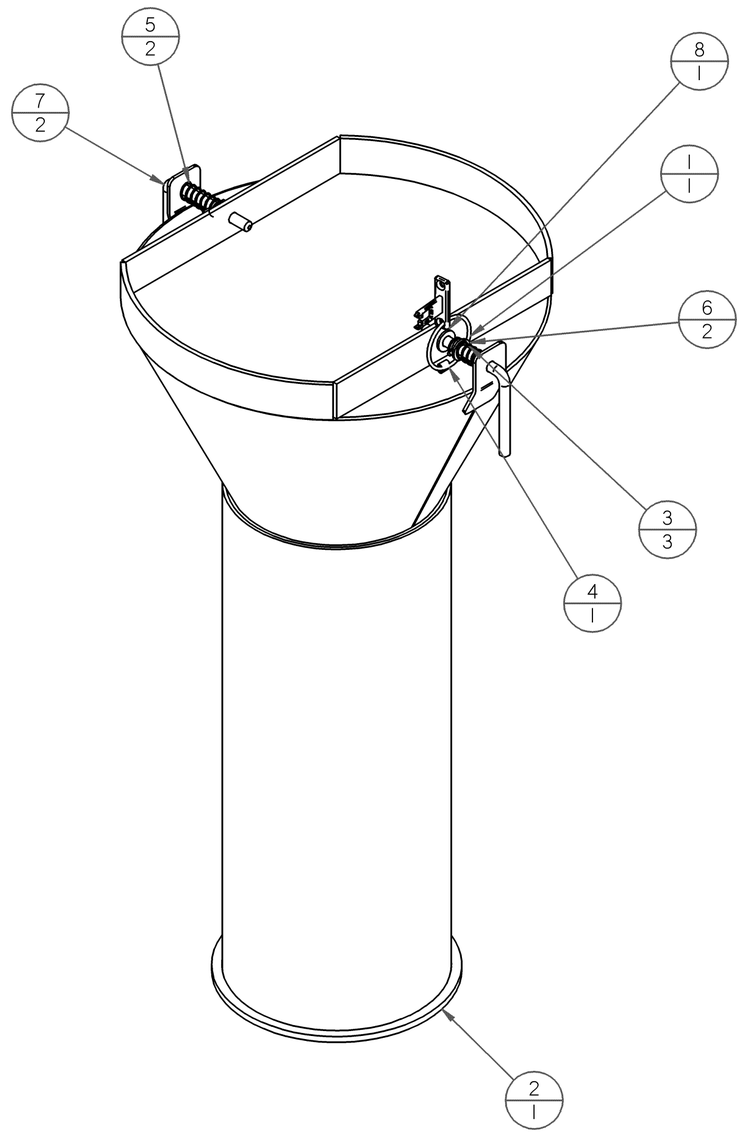
PROJECT UAUGERS

TITLE TRUNK HOSE ASSEMBLY 8"

DWG NO UA1307A08 | REV 1 | SIZE C

WEIGHT 71.6 lbm | SHEET 1 OF 1

Last Changed: 3/7/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UA1307P14	WIRE ROPE SS .125 DIA. 7 X 19 STRAND .6 FT	261.1003
2	1	UA1307A12	14/8 CONE WELDMENT	UA1307A12
3	3	TC03759	WASHER PLAIN FLAT .375	960.4214
4	1	TC03261	WIRE ROPE OVAL SLEEVE SS .125	261.1002
5	2	TC02720	SPRING DISCHARGE CONE HANDLE	269.7849
6	2	TC02154	PIN SLOT SPRING .125 X 1.00 SS	986.0994
7	2	TC01423	HANDLE SS CONE	287.5119
8	1	TC01412	GUARDMASTER INTERLOCK KEY	234.5298

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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

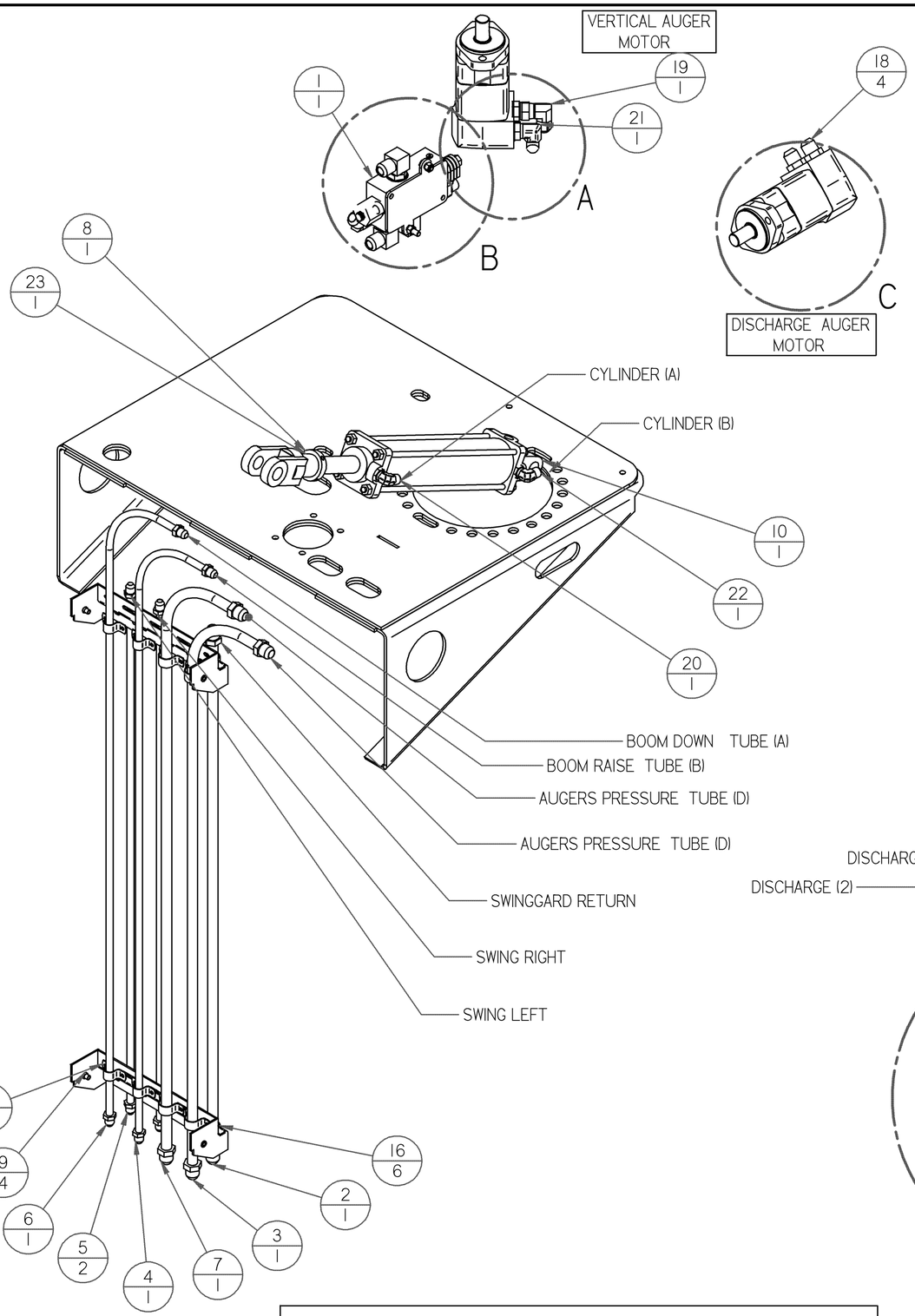
DRAWN LWILLIAMS
DATE 10/27/2005
APPR.

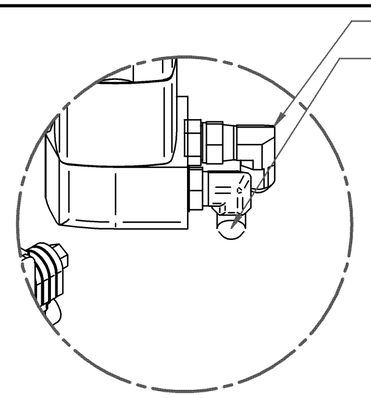
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT 14/8 CONE ASSEMBLY
TITLE 14/8 CONE ASSEMBLY
14/8 CONE ASSEMBLY

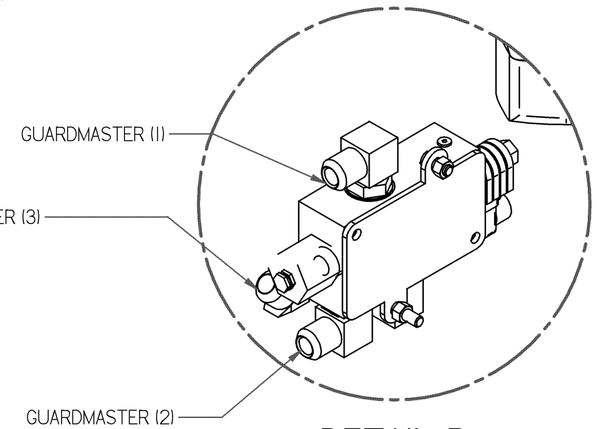
DWG NO UA1307A13 | REV 2 | SIZE C
WEIGHT 12.9 lbm | SHEET 1 OF 1

Last Changed: 3/23/2009

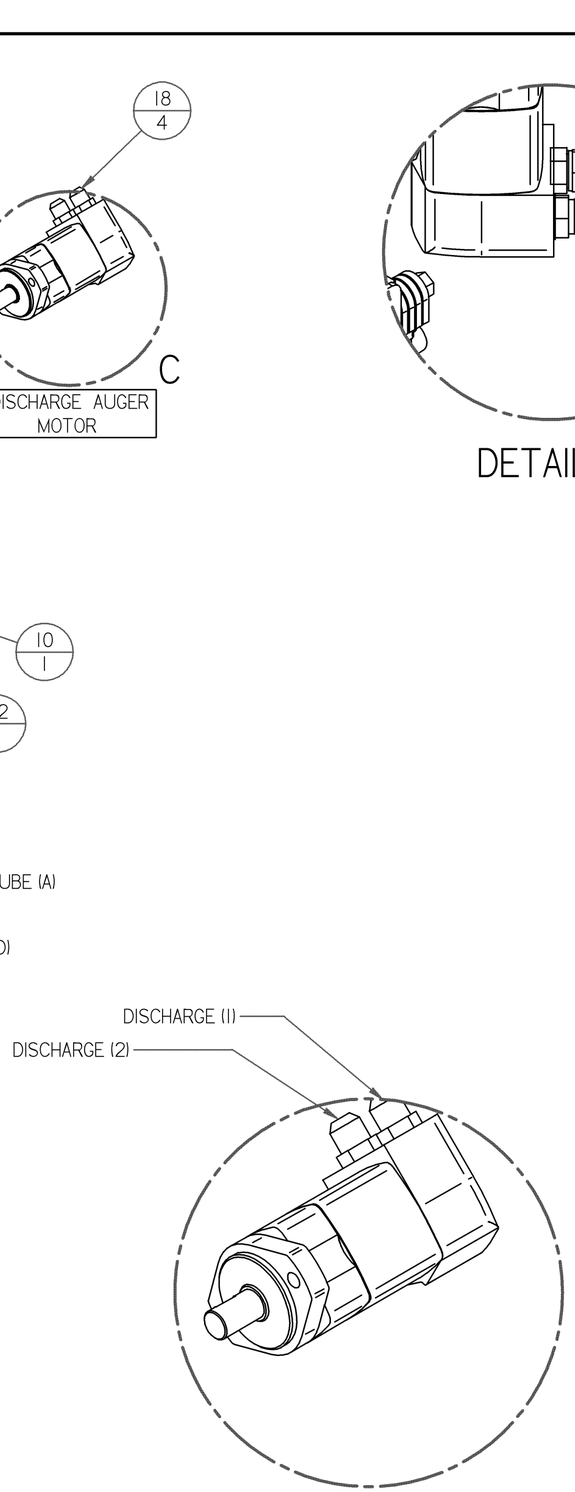




DETAIL A



DETAIL B



DETAIL C

FUNCTION	SIZE	LENGTH	LOCATION
BOOM DOWN	08	97 IN	TUBING (A) - CYLINDER (A)
BOOM UP	08	78 IN	TUBING (B) - CYLINDER (B)
AUGERS RUN	12	67 IN	TUBING (C) - VERTICAL MOTOR (1)
AUGERS RETURN	12	78 IN	TUBING (D) - GUARDMASTER (2)
INTERCONNECT 1	12	43 IN	VERTICAL MOTOR (2) - GUARDMASTER (1)
INTERCONNECT 2	12	58 IN	GUARDMASTER (3) - BOOM MOTOR (1)
INTERCONNECT 3	12	56 IN	BOOM MOTOR (2) - GUARDMASTER (2)

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UA1600A52X	30 GPM 12 VDC GUARDMASTER BY-PASS ASM	
2	1	UA1400A13	HYDRAULIC TUBING ASM (-12-44L-ST)	
3	1	UA1400A58	HYDRAULIC TUBING ASM (-12 - 54L-90)	
4	1	UA1400A56	HYDRAULIC TUBING ASM (-8- 58L-90)	
5	2	UA1400A12	HYDRAULIC TUBING ASM (-8-44L-ST)	
6	1	UA1400A55	HYDRAULIC TUBING ASM (-8-60L-90)	
7	1	UA1400A57	HYDRAULIC TUBING ASM (12-56L-90)	
8	1		COLLAR 2 PIECE SHAFT 1.25 BORE SS	248.9206
9	4		RIVNUT FLT HD .250 X .140 GRIP SS RIB	261.1015
10	1		CYLINDER BOOM 3 X 12 -08 SAE 3.5 ST LMT	261.3014
11*	15		HOSE HYD GATES M3K XTRATUFF .375	262.3706
12*	26		HOSE HYD GATES M3K XTRATUFF .750	262.3712
13*	4		COUPLING GATES HOSE 08-10 F JIC	262.6208
14*	10		COUPLING GATES HOSE 12-12 F JIC	262.6212
15	8		CLAMP HYD TUBE -08 .50"O.D. OMEGA	262.8008
16	6		CLAMP HYD TUBE -12 .75"O.D.	262.8012
17*	1		CABLE PROTECTION WRAP 1.5" HD X 2 FT	269.8905
18	4		FITTING STR M37/MSAE 12-10	76400.1210
19	1		FITTING 90 M37/F37 SW 12-12	76500.1212
20	1		FITTING 90 M37/ADJ MSAE 08-08	76801.0808
21	1		FITTING 90 M37/ADJ MSAE 10-12	76801.1012
22	1	UA1600A51	BOOM JACK FITTING 3/64 JIC .50	UA1600A51
23	1	UA1600P03	BOOM SPACER SLEEVE	UA1600P03

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 5/7/2008
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

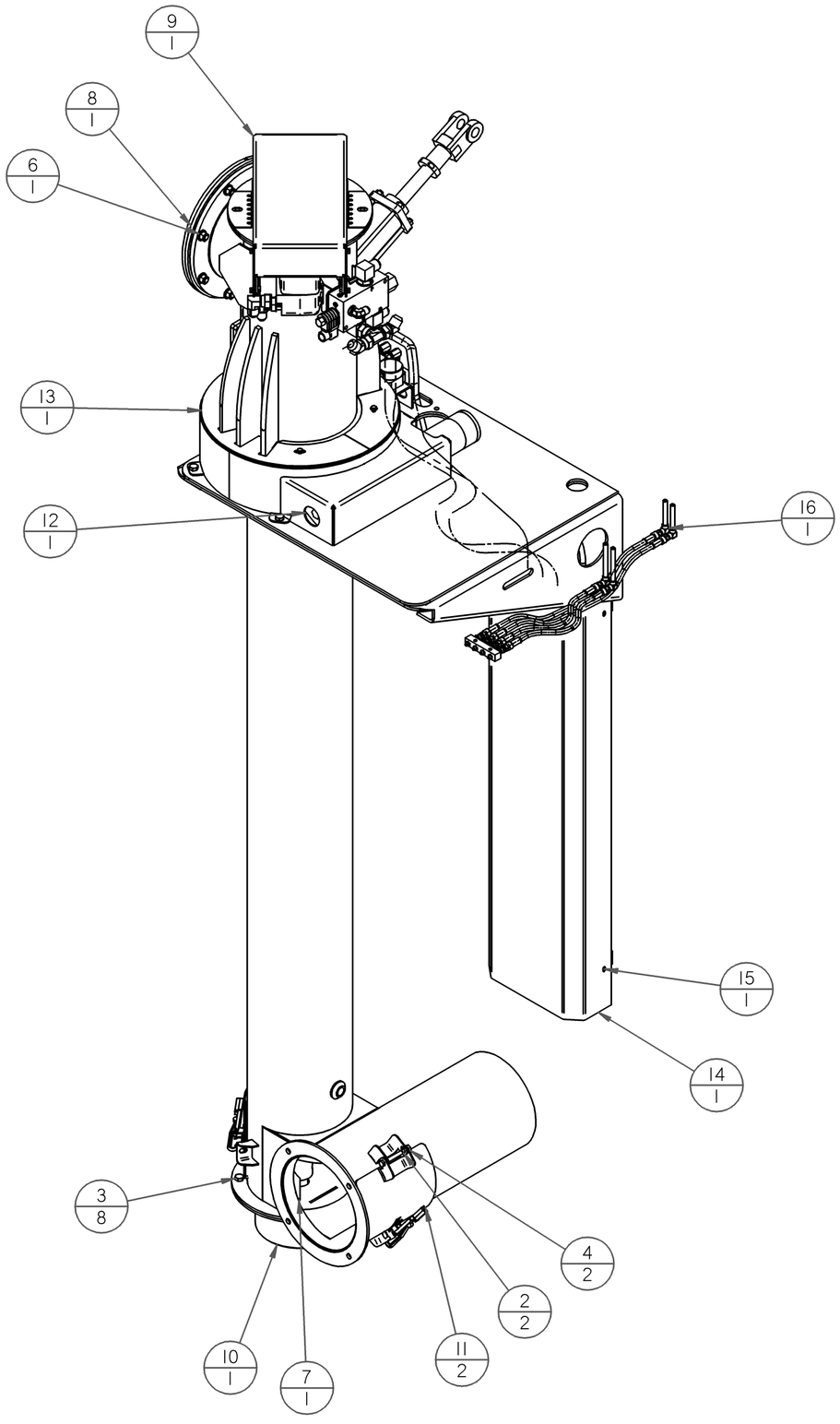
PROJECT

TITLE HYD COMPONENTS AND PLUMBING 42-10 UNIBODY

DWG NO UA1600A11X | REV 2 | SIZE C

WEIGHT 1950.9 lbm | SHEET 1 OF 1

Last Changed: 5/7/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1*	1		HOSE SPIRAL WRAP 1.5" HD 2FT	269.8905
2	2		SCREW CAP HEX HEAD .375-16X3.50 SS	900.4394
3	8	N/A	SCREW CAP HEX HEAD .50-13X1.25	900.5504
4	2		NUT HEX .375-16	950.4214
5*	8		NUT HEX .50-13 SS	950.5414
6	1	UA1000A19S	BOOM PIVOT CLAMP RING ASM SS	UA1000A19S
7	1	UA1113A110S	110 S VERT AUGER FULL PITCH X 2 LEFT 9"	UA1113A110S
8	1	UA1211A02S	HD ROTATE WELDMENT	UA1211A02S
9	1	UA1301A07S	10P/T VERTICAL TOP DRIVE ASSEMBLY TYPE 2	UA1301A07S
10	1	UA1302A05S	10IN IDLER ASSEMBLY	UA1302A05S
11	2	UA1304A02S	CLEANOUT DOOR ASSEMBLY	UA1304A02S
12	1	UA1305A01	AUGER ROTATE ASSEMBLY	UA1305A01
13	1	UA1400A14	HD ROTATE SWING GUARD ASM	UA1400A14
14	1	UA1400P16	HOSE AND TUBING COVER 42	UA1400P16
15	1	UA1600A11X	HYD COMPONENTS AND PLUMBING 42-10	UA1600A11X
16	1	UX1002A01	UNIBODY CENTRAL LUBRICATION SYSTEM	UX1002A01

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 2005-11-21
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

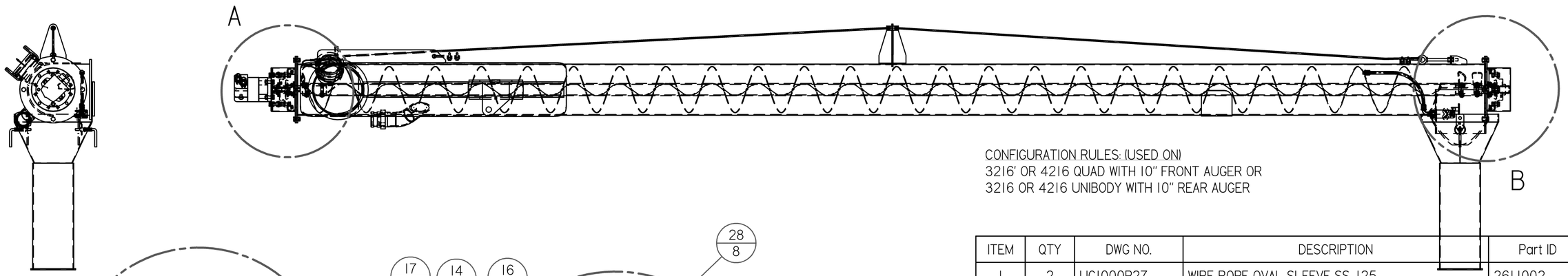
PROJECT VERTICAL AUGER ASM 42-10 12VDC

TITLE VERTICAL AUGER ASM 42-10 12VDC
UNIBODY AUGERS

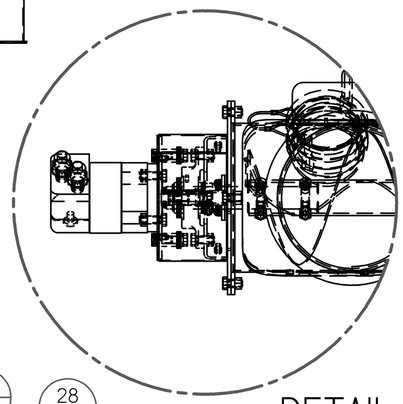
DWG NO UA1800A03X | REV 1 | SIZE C

WEIGHT 918.4 lbm | SHEET 1 OF 1

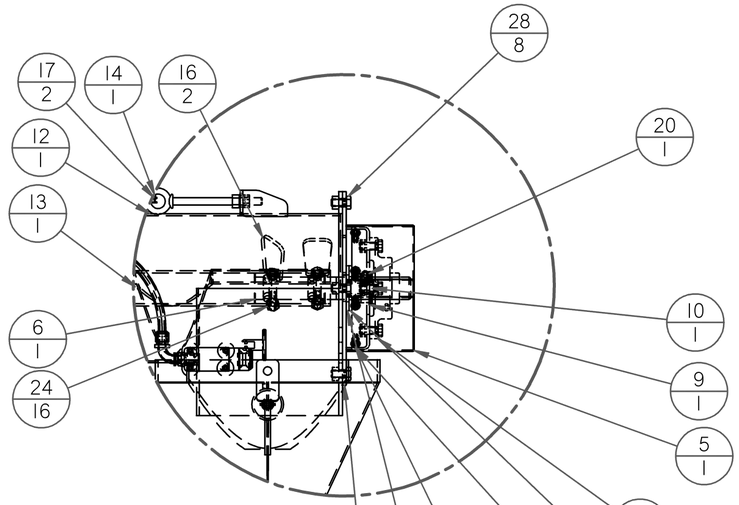
Last Changed: 2009-03-24



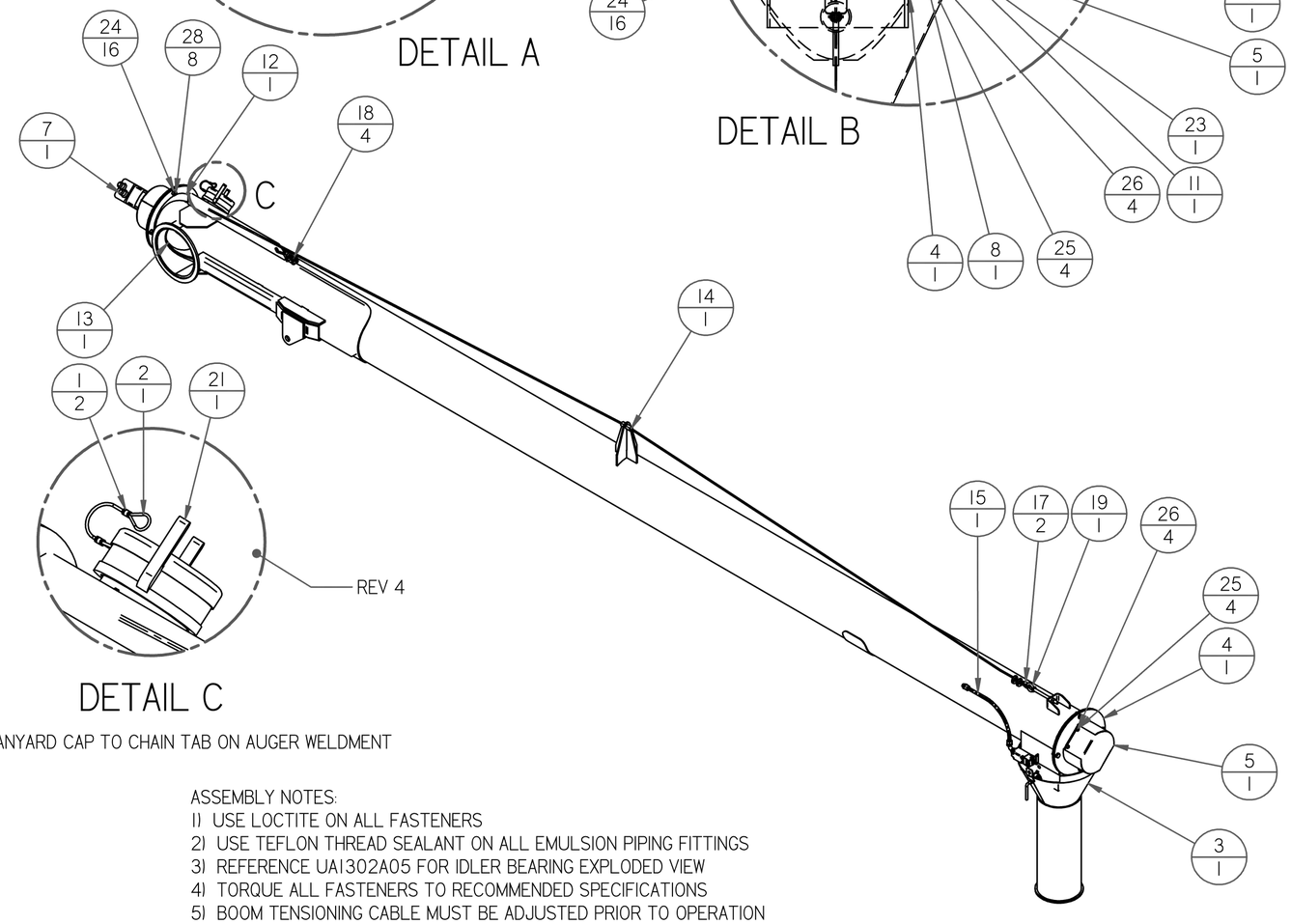
CONFIGURATION RULES: (USED ON)
3216' OR 4216 QUAD WITH 10" FRONT AUGER OR
3216 OR 4216 UNIBODY WITH 10" REAR AUGER



DETAIL A



DETAIL B



DETAIL C

LANYARD CAP TO CHAIN TAB ON AUGER WELDMENT

ASSEMBLY NOTES:
1) USE LOCTITE ON ALL FASTENERS
2) USE TEFLON THREAD SEALANT ON ALL EMULSION PIPING FITTINGS
3) REFERENCE UA1302A05 FOR IDLER BEARING EXPLODED VIEW
4) TORQUE ALL FASTENERS TO RECOMMENDED SPECIFICATIONS
5) BOOM TENSIONING CABLE MUST BE ADJUSTED PRIOR TO OPERATION

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	2	UG1000P27	WIRE ROPE OVAL SLEEVE SS .125	261.1002
2	1	UG1000P26	WIRE ROPE SS .125 DIA. 7 X 19 X 20.5"	261.1003
3	1	UA1307A13	14/8 CONE ASSEMBLY	UA1307A13
4	1	UA1302A17S	10 IDLER MOUNT WELDMENT	UA1302A17S
5	1	UA1302A11S	IDLER GUARD ASSEMBLY TYPE 2	UA1302A11S
6	1	UA1302A02	IDLER SHAFT TYPE 2	UA1302A02
7	1	UA1301A02S	DRIVE ASSEMBLY 10 TYPE 2	UA1301A02S
8	1	UA1300P63	AUGER SEAL TEFLON STATIONARY	UA1300P63
9	1	UA1300P60S	SEAL COMPRESSION RING	UA1300P60S
10	1	UA1300P52	AUGER SEAL ROTARY	UA1300P52
11	1	UA1300P51	AUGER SEAL TEFLON WASHER	UA1300P51
12	1	UA1222A232S	10 IN 19.3 FT BOOM AUGER HOUSING WELDMEN	UA1222A232S
13	1	UA1122A230S	19.3 FT 9 IN FULL PITCH BOOM AUGER	UA1122A230S
14	1	UA1000P157	WIRE ROPE .25" 7 X 7 SS X 21 FT	269.9011
15	1	UA1000A06	GUARDMASTER INTERLOCK ASSEMBLY	UA1000A06
16	2	UA1000A04S	9SS AUGER PADDLE ASSEMBLY	UA1000A04S
17	2	TC03664	WIRE ROPE THIMBLE .25	269.9003
18	4	TC03661	WIRE ROPE CLIP .25 (GALV)	269.9001
19	1	TC03660	WIRE ROPE EYE BOLT.5 X 6	978.0100
20	1	TC00859	CLAMP HOSE 1.3125 - 2.25 SS	269.1369
21	1	TC00772	PT CAP 40V AL	240.8719
22*	1	TC00734	PT ADAPTER 25A AL FNPT	240.0257
23	1	TC00575	BEARING FLANGE 1.50 IN 4-BOLT SF-24	247.0935
24	16	TC00529	NUT HEX .50-13 SS	950.5414
25	4	TC00510	WASHER PLAIN FLAT .25 SS	960.3014
26	4	TC00439	SCREW CAP HEX HEAD .25-20X.75 SS	900.3074
27*	2	TC00432	SCREW CAP HEX HEAD .50-13X3.00	900.5574
28	8	TC00424	SCREW CAP HEX HEAD .50-13X1.00 SS	900.5494
29*	4	TC00420	SCREW CAP HEX HEAD .50-13X1.25	900.5504
30*	1	TC00328	NUT HEX .50-13 GALVANIZED	950.5419

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 06/02/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BOOM AUGER ASM 10S10-19.3
TITLE BOOM AUGER ASM 10S10-19.3
UNIBODY AUGERS
DWG NO UA1901A232S
REV 04
SIZE C
WEIGHT 646.8 lbm
SHEET 1 OF 2

Last Changed: 1/31/2011

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	6/02/2004	R. Duncan
03	As Imported	11/07/2005	R. Duncan
04	Added Cap and lanyard to new cleanout port	4/22/2010	J. Truskey
------	------	------	------

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

PROPRIETARY STATEMENT

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TOLERANCE LIMITS
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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 06/02/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

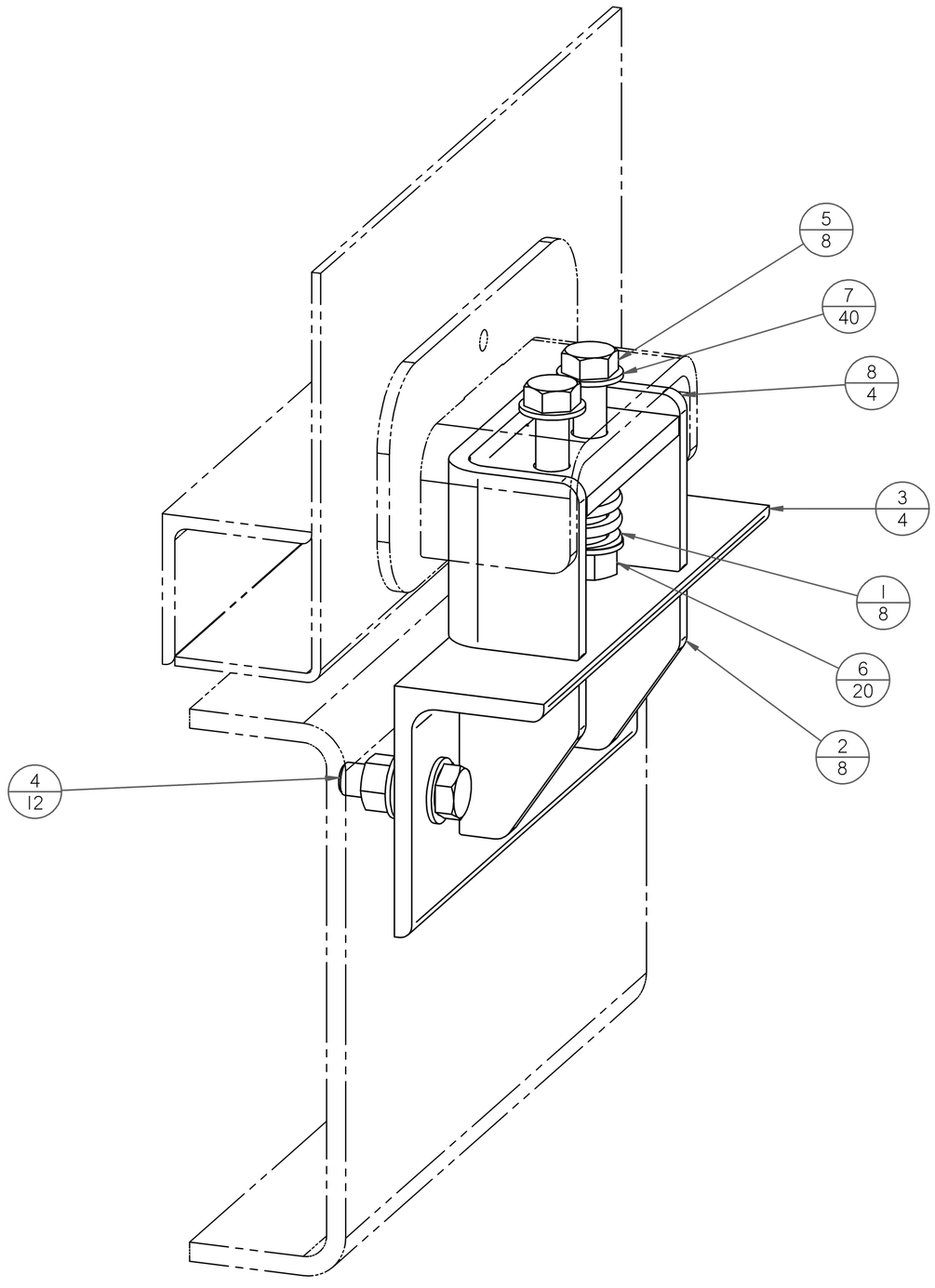
PROJECT BOOM AUGER ASM 10S10-19.3

TITLE BOOM AUGER ASM 10S10-19.3
UNIBODY AUGERS

DWG NO UA1901A232S | REV 04 | SIZE C

WEIGHT 646.8 lbm | SHEET 2 OF 2

Last Changed: 1/31/2011



CONFIGURATION RULES: (USED ON)
1608, REAR HOSE REEL, FRONT HOSE REEL OR SUPERSTRUCTURE.
(CONFIGURATOR HAS BODY FLEX MOUNTS, HOSE REEL FLEX MOUNTS AND SUPERSTRUCTURE FLEX MOUNTS THAT MAY REQUIRE THESE)

ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	8	TC03175	SPRING COMP 1.25 OD .625 X 1.75L	269.9019
2	8	S1000IP09	FLEX MOUNT CHASSIS ANGLE GUSSET CS	287.6030
3	4	S1000IP03	FLEX MOUNT CHASSIS ANGLE CS	287.6033
4	12	TC00418	SCREW CAP HEX HEAD .625-11 X 2.00 GR8	900.67308
5	8	TC00419	SCREW CAP HEX HEAD .625-11 X 4.00 GR8	900.68108
6	20	TC00555	NUT HEX STOVER LOCK .625-11	955.6610
7	40	TC00519	WASHER FLAT HARD A325 .625	962.6610
8	4	UB1000A03	FLEX MOUNT CHASSIS BRACKET WLDMNT MS	UB1000A03

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THIRD ANGLE PROJECTION

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UNLESS OTHERWISE SPECIFIED
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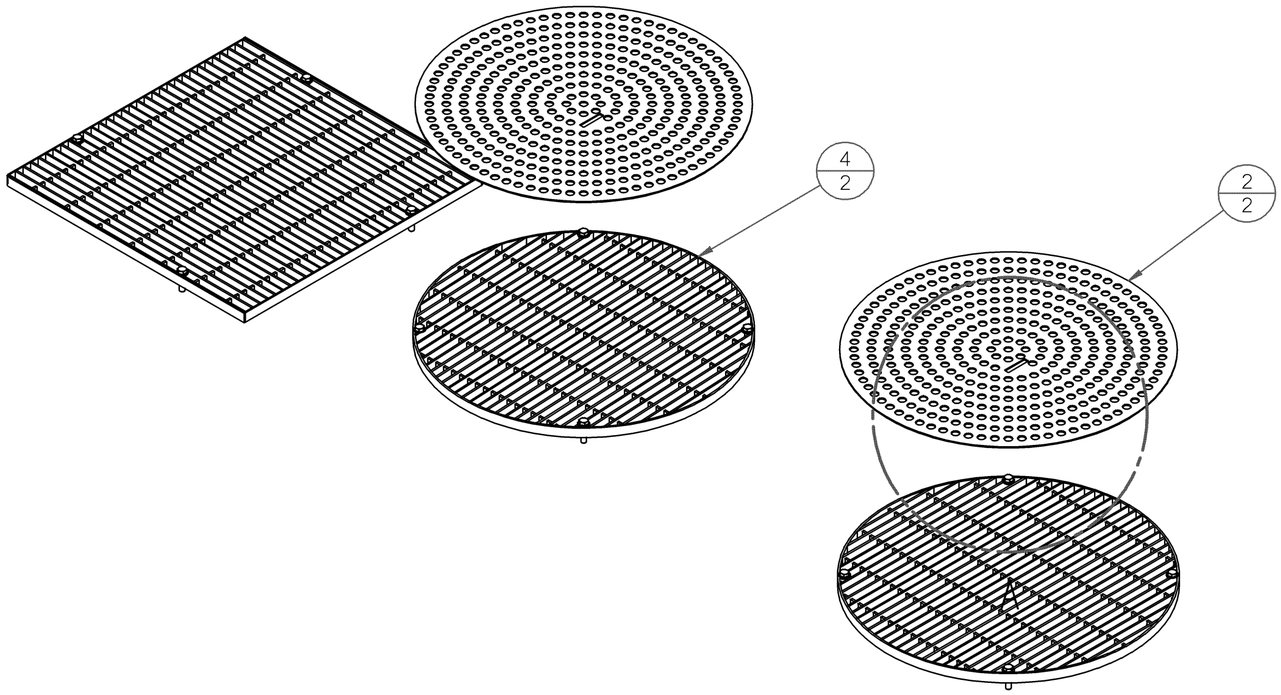
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

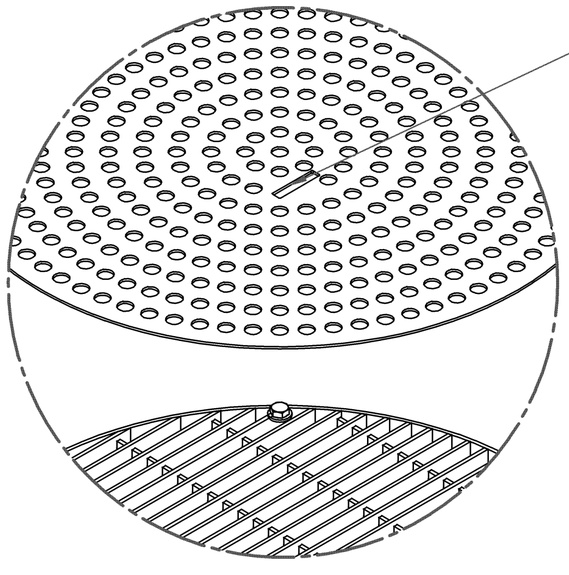
DRAWN LWILLIAMS
DATE 7/2/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT FLEX MOUNT ASM - 4 POINT
TITLE FLEX MOUNT ASM - 4 POINT UNIBODY
DWG NO UB1000A10S
REV 01
SIZE C
WEIGHT 0.0 lbm
SHEET 1 OF 1

Last Changed: 8/20/2009





LAY EMULSION SCREEN ON TOP OF GRATE AFTER BOLTING GRATE IN ALIGN DIPSTICK SLOT WITH GRATE AND PLACE IN POSITION WHERE IT WILL NOT INTERFERE WITH OPENING SMALL FILL LID
DO NOT BOLT SCREEN IN PLACE

DETAIL A

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	16	UD1000A30	GRATE BOLT WELDMENT	UD1000A30
2	2	UB1000P42S	CONVERTIBLE TANK EMULSION SCREEN 30 IN	
3	2	UB1000A51S	SQUARE GRATE WELDMENT	
4	2	UB1000A41	HATCH GRATE ROUND WELDMENT ALUM	UB1000A41

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN jtruskey
DATE 9/9/2008
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

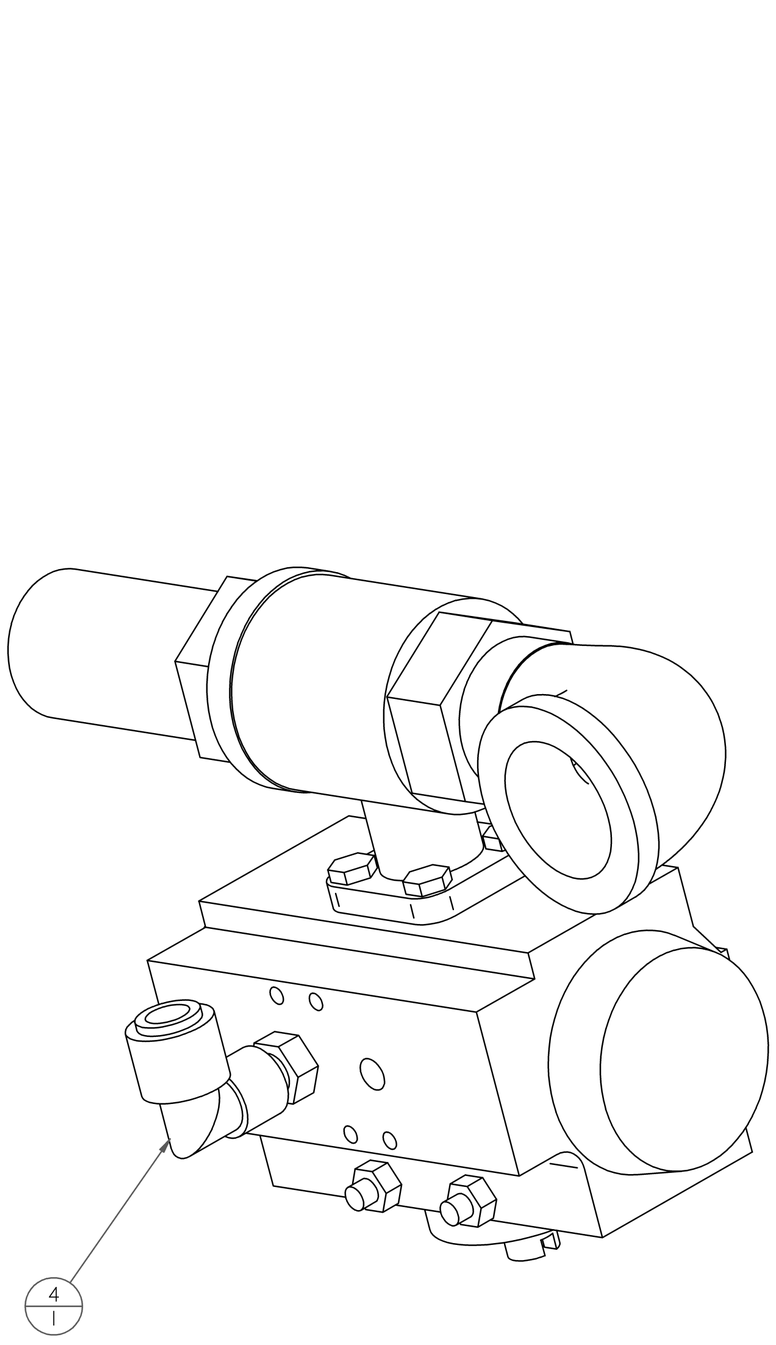
PROJECT

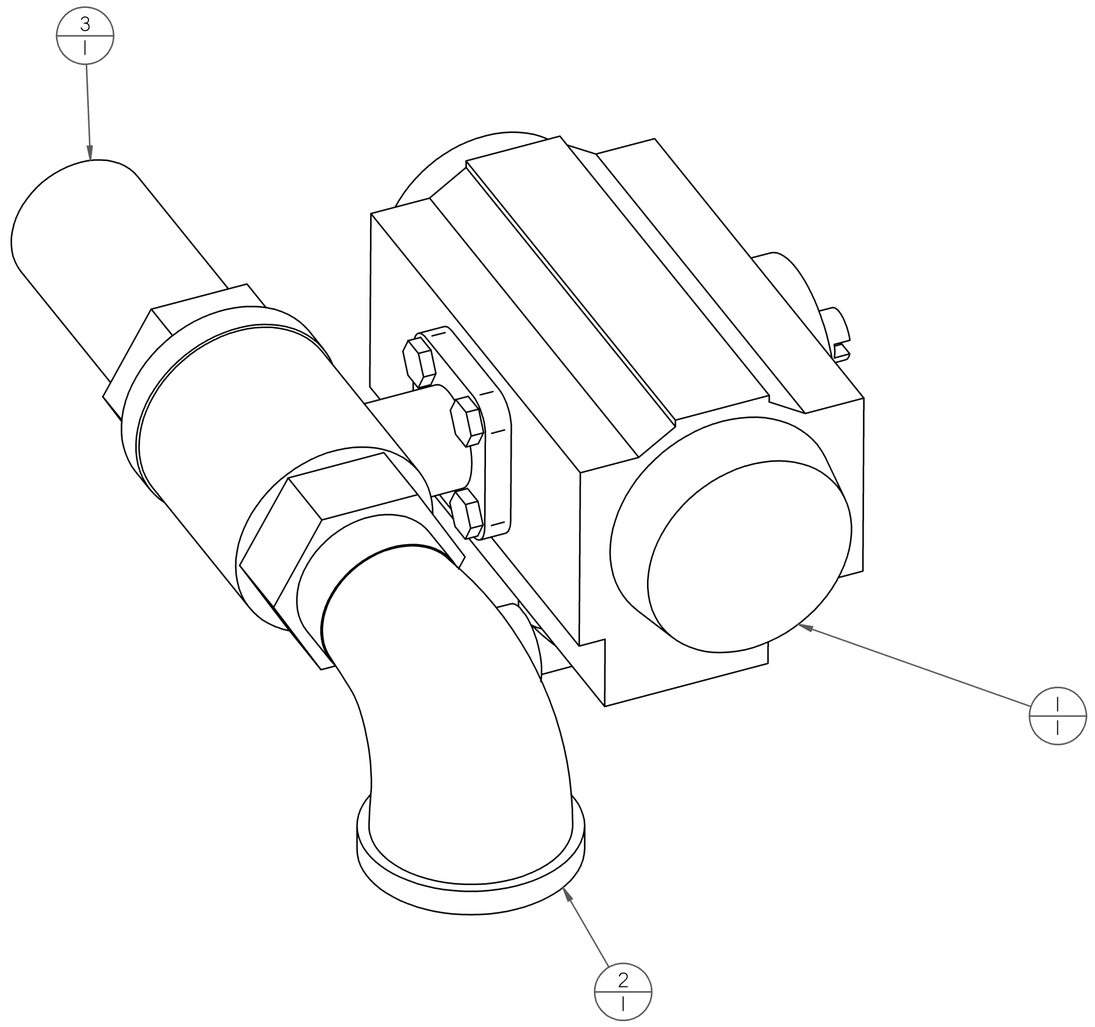
TITLE GRATE ASSEMBLY 32/42 UNIBODY

DWG NO UB100A54 | REV 2 | SIZE C

WEIGHT 76.3 lbm | SHEET 1 OF 1

Last Changed: 9/9/2008





ITEM	QTY	DWG NO.		DESCRIPTION	Part_ID
1	1	TC03444	01	VALVE BALL 1 IN SS FULL PORT AIR ACTUATE	264.3134
2	1	TC03213	01	ELBOW STREET 90 SS S40 1 THRD	273.2506
3	1	TC02389	01	NIPPLE PIPE SS S40 1 X 2.50	272.4658
4	1	TC01344	01	FITTING TUBE 90 .38 TUBE .125 NPT	274.9876

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN: ERIC P
DATE: 06/08/2008
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT: TANK MANLID VENT VALVE ASSEMBLY

TITLE: TANK MANLID VENT VALVE ASSEMBLY
UNIBODY EMULSION TANKS

DWG NO: UB1001A61 | REV: 01 | SIZE: C

WEIGHT: 12.9 lbm | SHEET: 1 OF 2

Last Changed: 4/10/2010

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	06/08/2008	jcole
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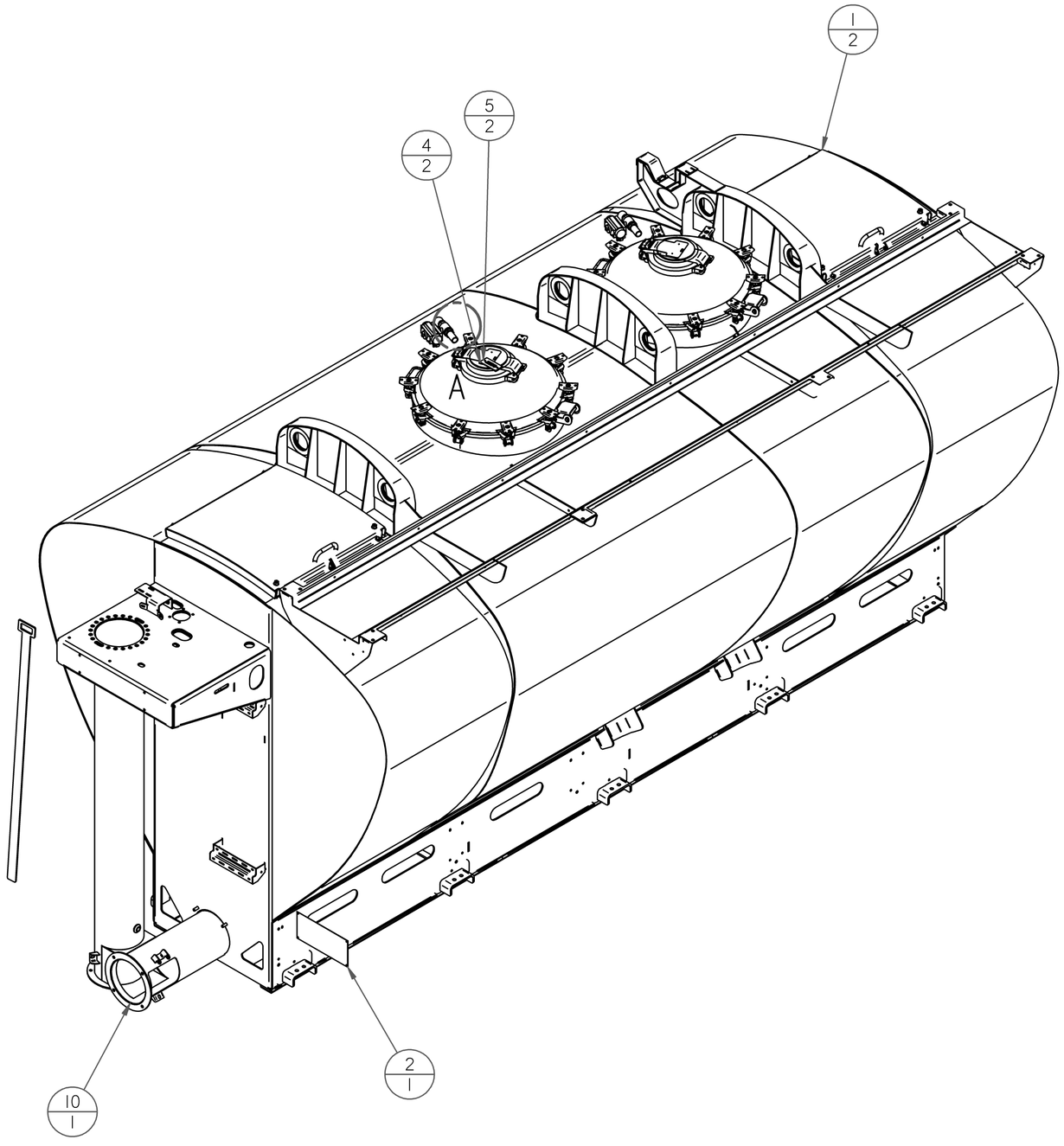
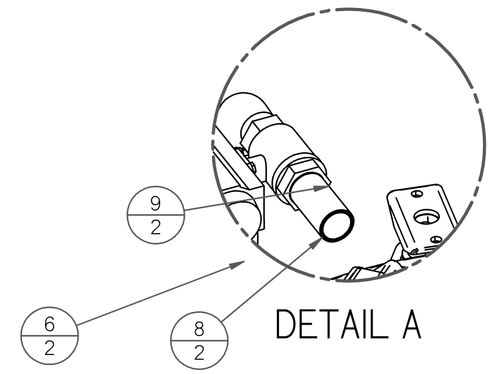
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

PROPRIETARY STATEMENT	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES 1.0 INCH = 25.4 mm	TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA	
THIS DOCUMENT AND ALL INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF TREAD CORP. AND ARE NOT TO BE USED, DISCLOSED, OR COPIED EXCEPT AS EXPRESSELY AUTHORIZED.	THIRD ANGLE PROJECTION	PROJECT: TANK MANLID VENT VALVE ASSEMBLY	
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: ERIC P DATE: 06/08/2008 APPR.	TITLE: TANK MANLID VENT VALVE ASSEMBLY UNIBODY EMULSION TANKS	
		DWG NO: UB1001A61	REV: 01 / SIZE: C
		WEIGHT: 12.9 lbm	SHEET: 2 OF 2

Last Changed: 4/10/2010





ITEM	QTY	DWG NO.		DESCRIPTION	Part_ID
1	2	UB1001A56	01	UNIBODY HATCH COVER	UB1001A56
2	1	UB1000P55	01	SPECIFICATION PLATE DOT 412 UNIBODY	UB1000P56
3*	1	UB1000P44	01	EMULSION TANK DIPSTICK (INCH) 42 B/Q	UB1000P44
4	2	UB1000P22	01	PRODUCT ID TAG EMULSION	UB1000P22
5	2	UB1000P21	01	PRODUCT ID TAG ANFO	UB1000P21
6	2	TC01344	01	FITTING TUBE 90 .38 TUBE .125 NPT	274.9876
7*	2	TC03213	01	ELBOW STREET 90 SS S40 1 THRD	273.2506
8	2	TC02389	01	NIPPLE PIPE SS S40 1 X 2.50	272.4658
9	2	TC03444	01	VALVE BALL 1 IN SS FULL PORT AIR ACTUATE	264.3134
10	1	UA1304A11S	02	42 BODY AUGER WELDMENT PARTS	
11*	1	UB1005A00	03	BODY SUBWELDMENT 4216US12-8_S	

PART ID
Ubodies

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

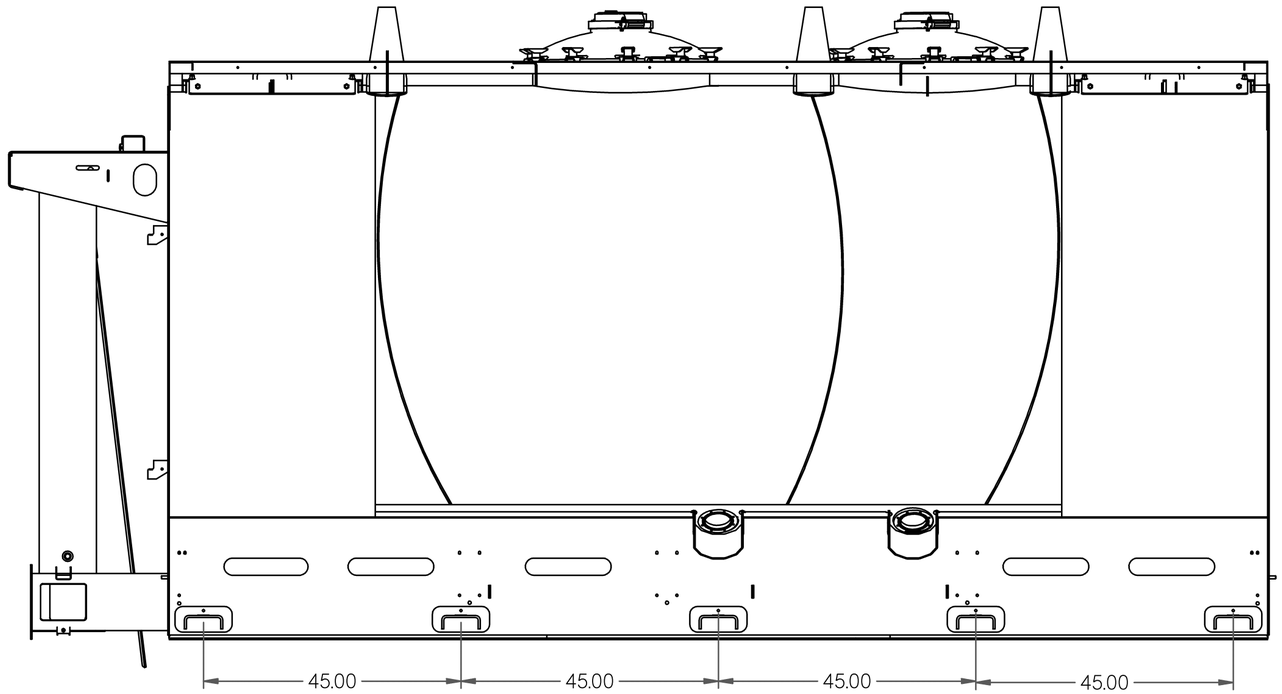
DRAWN L WILLIAMS
DATE 06/08/2008
APPR.

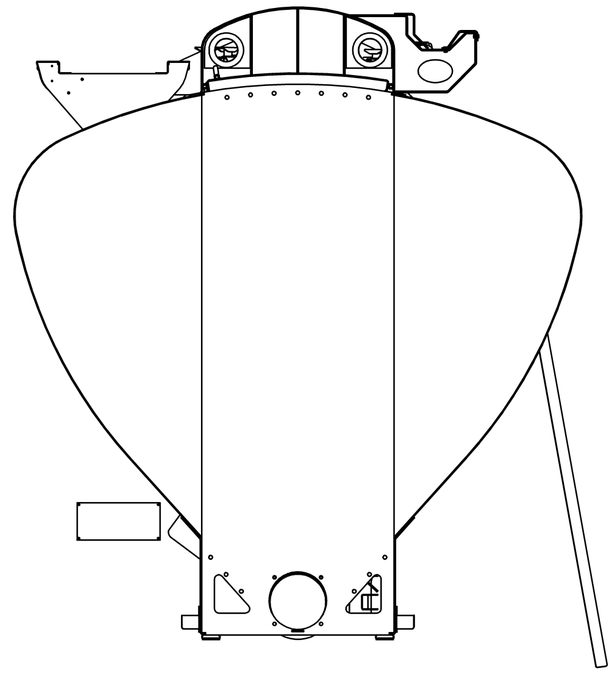
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BODY WELDMENT 4216US12-8_S, 1_S
TITLE BODY WELDMENT 4216US12-8_S, 1_S UNIBODY

DWG NO UB1005A01 | REV 02 | SIZE C
WEIGHT 5274.2 lbm | SHEET 1 OF 1

Last Changed: 4/10/2010





PART ID
Ubodies

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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN L WILLIAMS
DATE 06/08/2008
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BODY WELDMENT 4216US12-8_S, I_S

TITLE BODY WELDMENT 4216US12-8_S, I_S UNIBODY

DWG NO UB1005A01 | REV 02 | SIZE C

WEIGHT 5274.2 lbm | SHEET

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	06/08/2008	jcole
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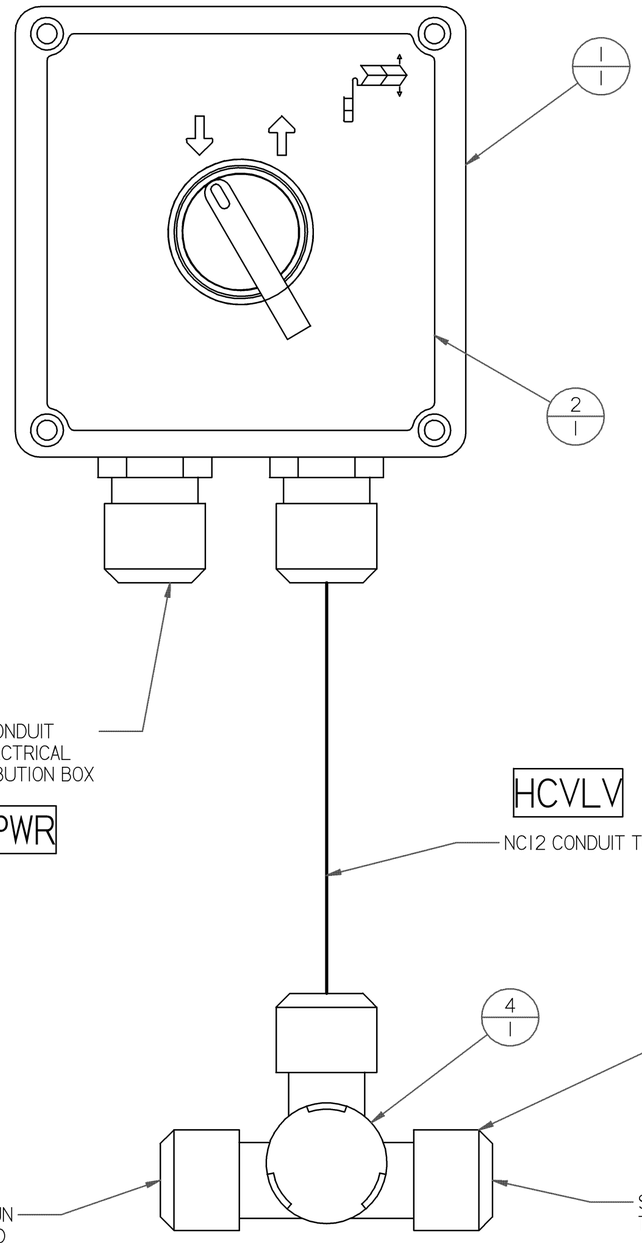
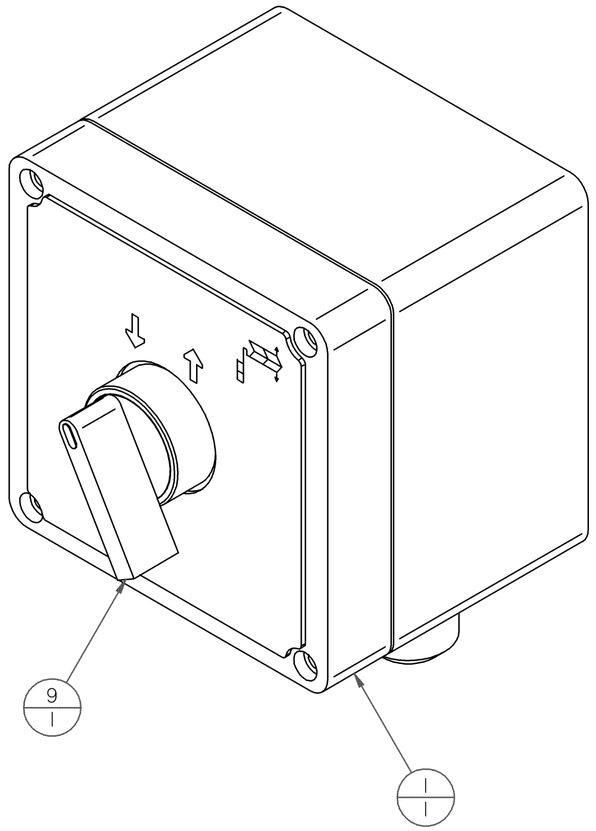
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

PART ID
Ubodies

PROPRIETARY STATEMENT THIS DOCUMENT AND ALL INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF TREAD CORP. AND ARE NOT TO BE USED, DISCLOSED, OR COPIED EXCEPT AS EXPRESSELY AUTHORIZED.	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES 1.0 INCH = 25.4 mm THIRD ANGLE PROJECTION	TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN L WILLIAMS DATE 06/08/2008 APPR.	PROJECT BODY WELDMENT 4216US12-8_S, I_S TITLE BODY WELDMENT 4216US12-8_S, I_S UNIBODY DWG NO UB1005A01 REV 02 SIZE C WEIGHT 5274.2 lbm SHEET





ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UC1008P08	ELECTRIC HANDRAIL CONTROL BOX	UC1008P08
2	1	UC1008P07	LABEL iBLAST HANDRAIL CONTROL	UC1008P07
3*	2		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
4	1		FITTING BODY HARNESSFLEX T-PIECE TP12	231.6234
5	5		FITTING CAP NUT HARNESSFLEX NC12	231.6208
6*	2		FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212
7*	5		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
8*	2		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
9	1		P.B. 22MM OPERATOR 3-POS SEL SPRING CTR	234.1024

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ANGULARITY = ± 0.5 DEG

DRAWN T BARHAM
DATE 1/26/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

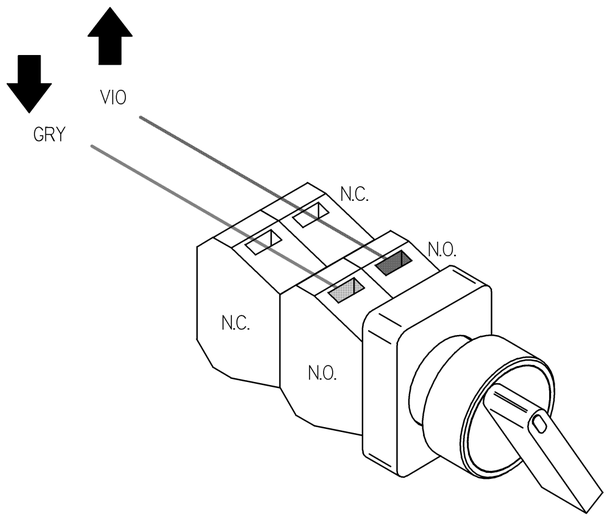
PROJECT UNIBODY CONTROLS

TITLE ELECTRIC HANDRAIL CONTROL

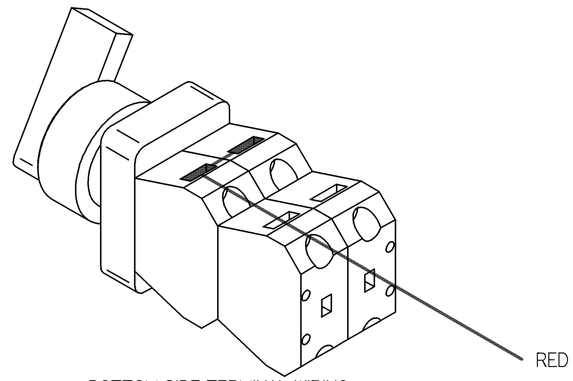
DWG NO UC1008A05 | REV 1 | SIZE C

WEIGHT 15.4 lbm | SHEET 1 OF 3

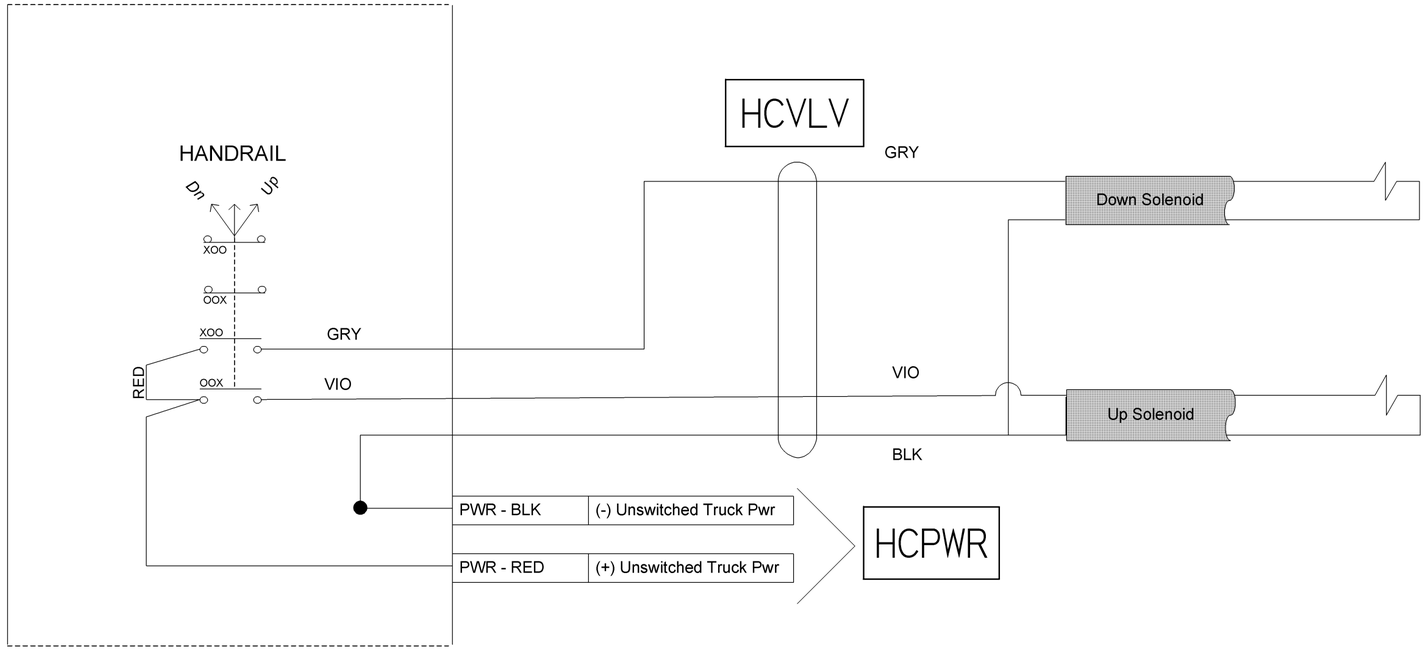
Last Changed: 3/10/2008



TOP SIDE TERMINAL WIRING



BOTTOM SIDE TERMINAL WIRING



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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN T BARHAM
DATE 1/26/2005
APPR.

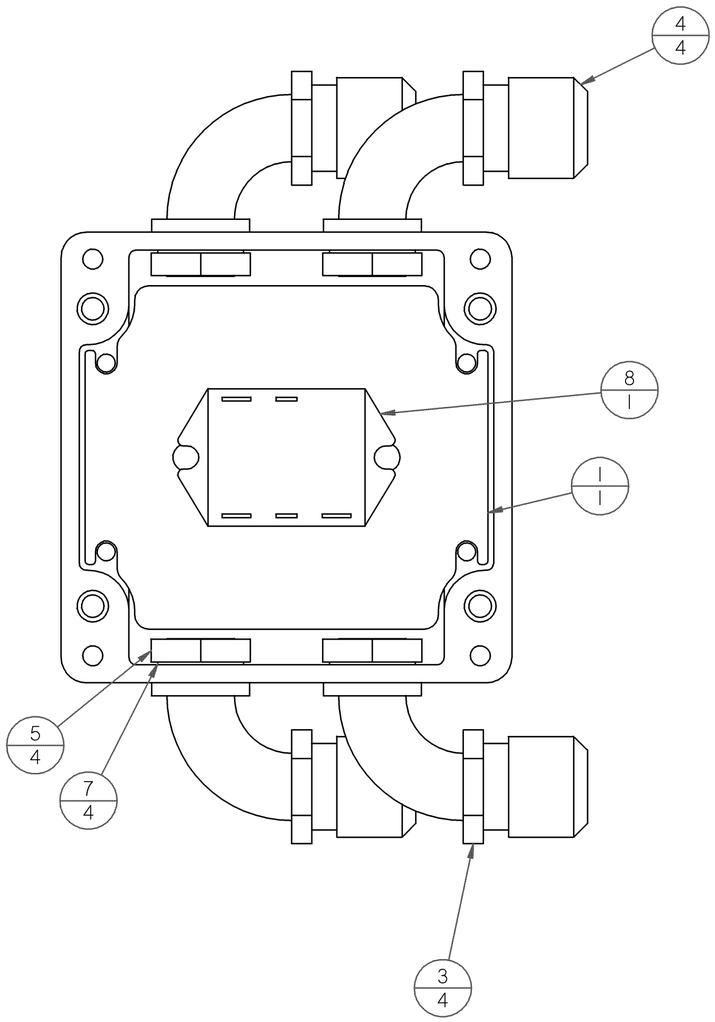
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

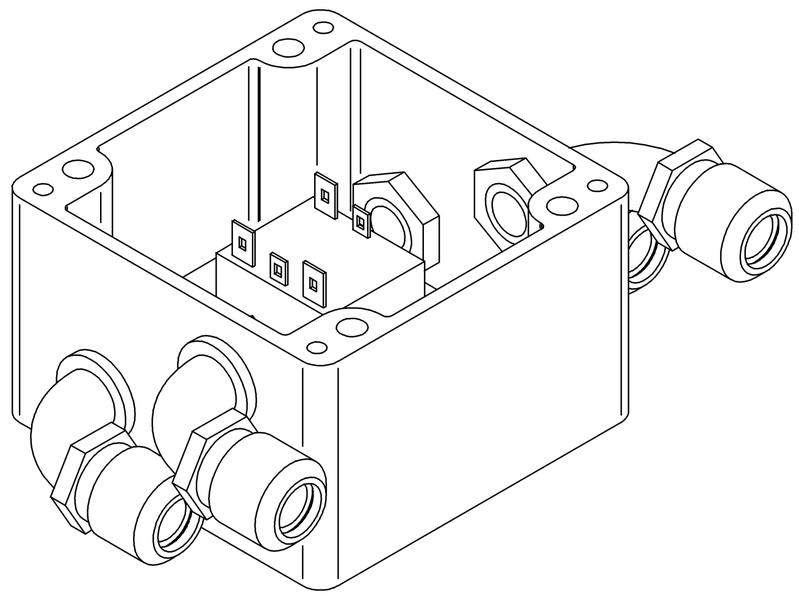
PROJECT UNIBODY CONTROLS

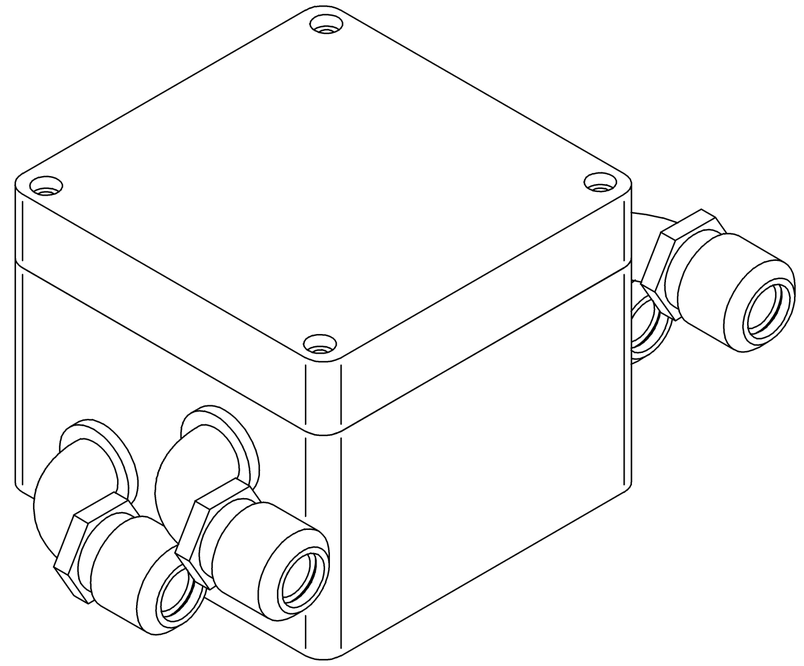
TITLE ELECTRIC HANDRAIL CONTROL

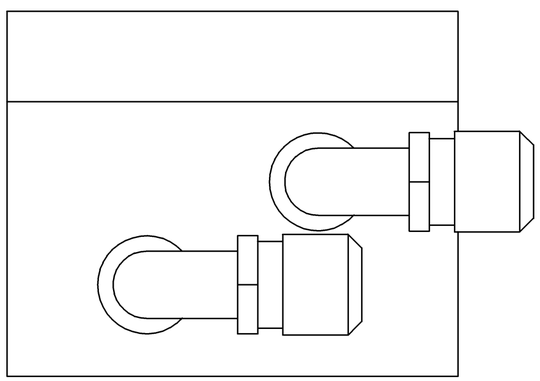
DWG NO UC1008A05 | REV 1 | SIZE C

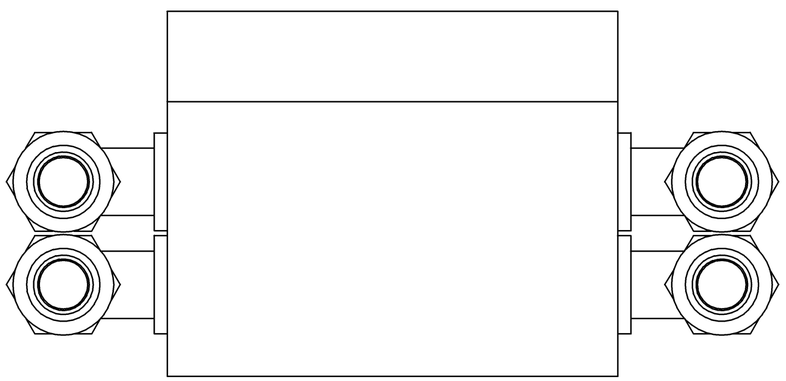
WEIGHT 15.4 lbm | SHEET 2 OF 3











ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1013P03	BACK PLATE	UC1013P03
2*	1	UC1013P01	ENCLOSURE	UC1013P01
3	4		FITTING BODY HARNESSFLEX 90 DEG NC12	231.6205
4	4		FITTING CAP NUT HARNESSFLEX NC12	231.6208
5	4		FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212
6*	4		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
7	4		FITTING SEALING WASHER HARNESSFLEX SWPG09	231.6214
8	1		RELAY SPDT 12 VDC	231.0065

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 6/28/2003
APPR. D. COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

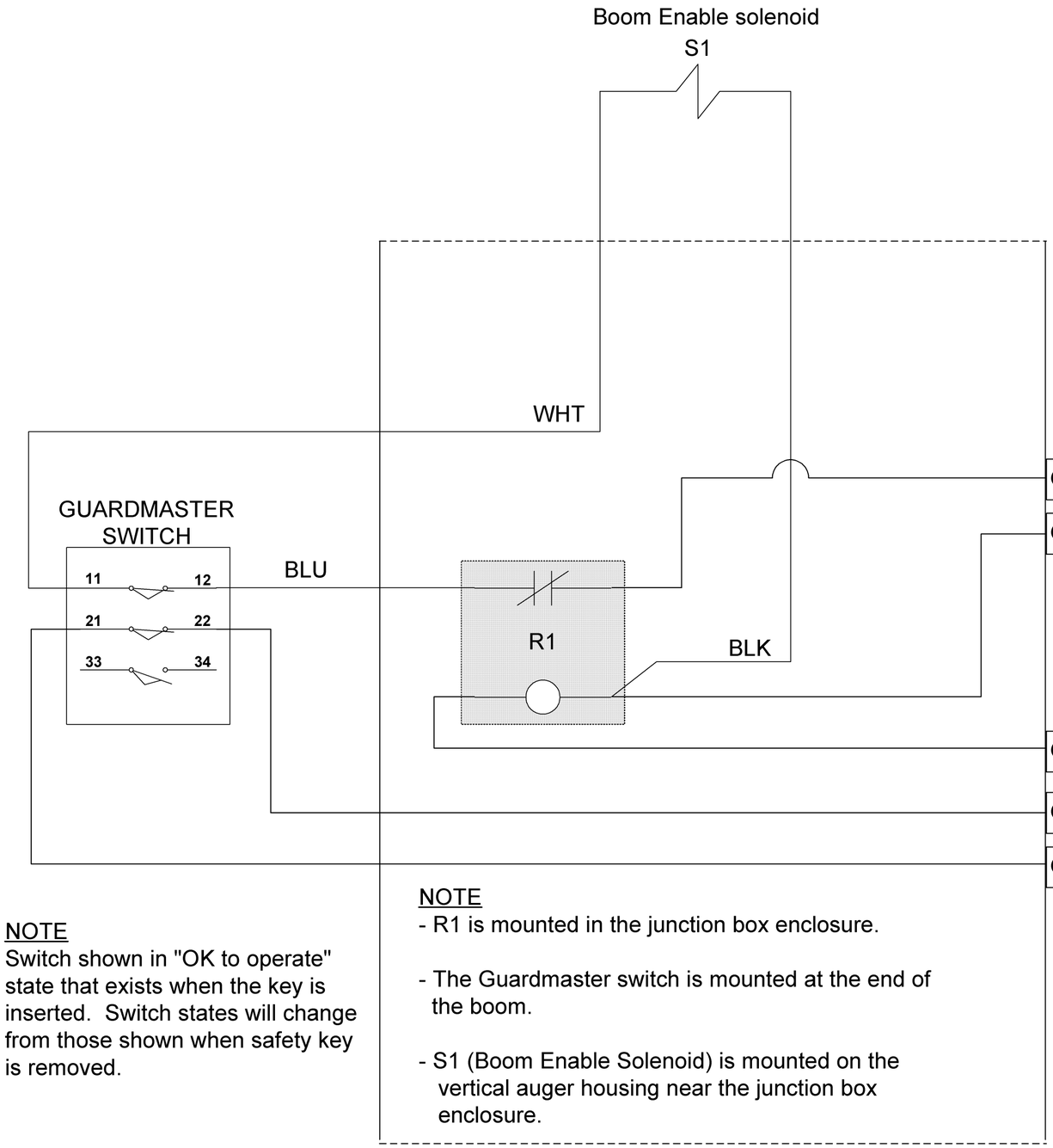
PROJECT UNIBODY

TITLE GUARDMASTER JUNCTION BOX 12V
GUARDMASTER

DWG NO UC1013A01X | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 2

Last Changed: 3/10/2008



NOTE:
Cable GP is to be run to the main power distribution box and protected by a 10 Amp breaker.

GP2 - RED	(+) UnSwitched Truck Pwr
GP1 - BLK	(-) UnSwitched Truck Pwr
GM3 - PNK	Boom Bypass
GM2 - GRY	Boom Enabled Out
GM1 - VIO	Boom Enabled Rtn

NOTE
Switch shown in "OK to operate" state that exists when the key is inserted. Switch states will change from those shown when safety key is removed.

NOTE
- R1 is mounted in the junction box enclosure.

- The Guardmaster switch is mounted at the end of the boom.

- S1 (Boom Enable Solenoid) is mounted on the vertical auger housing near the junction box enclosure.

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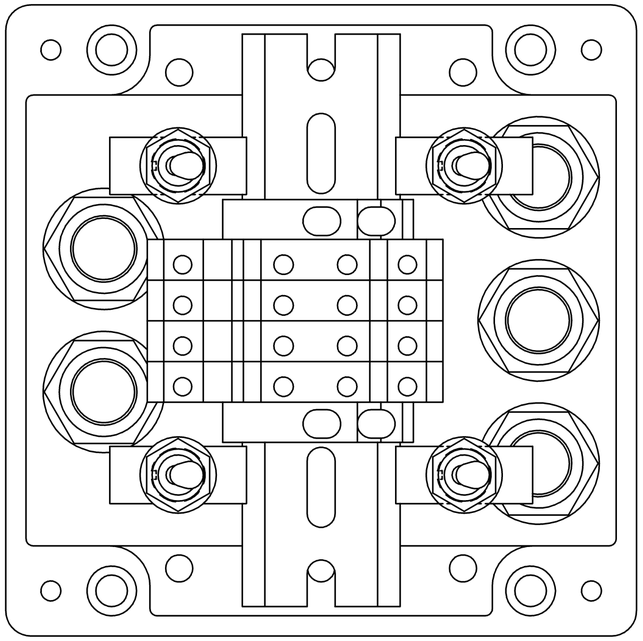
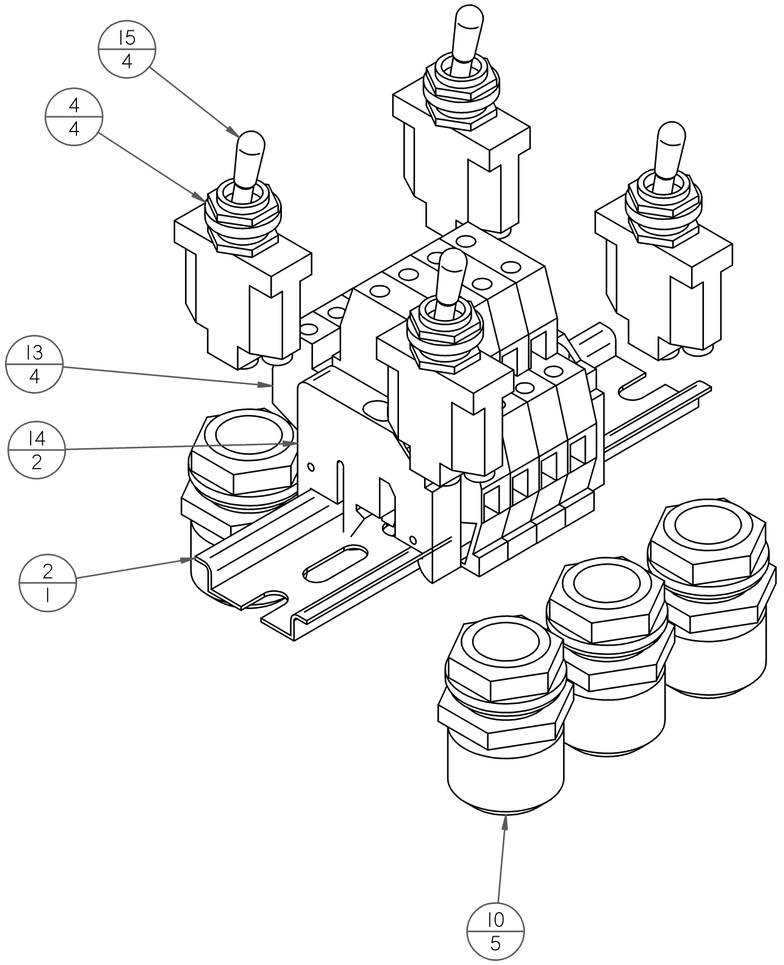
ANGULARITY = ± 0.5 DEG

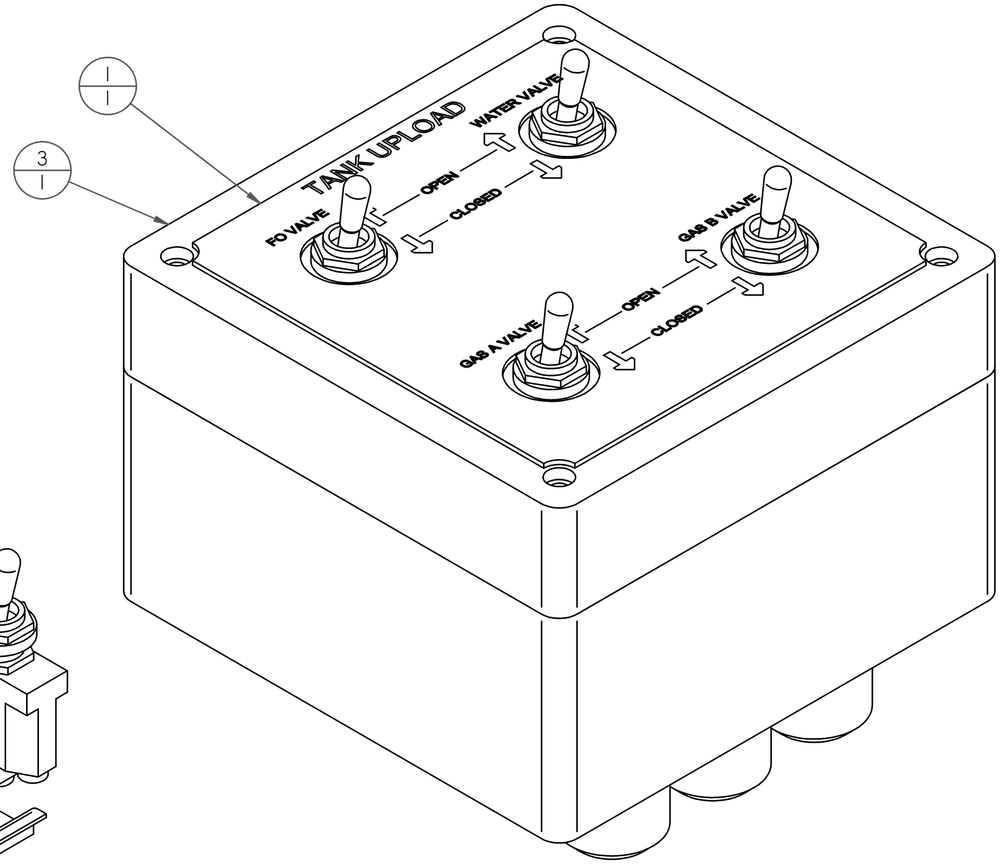
DRAWN TBARHAM
DATE 6/28/2003
APPR. D. COLE

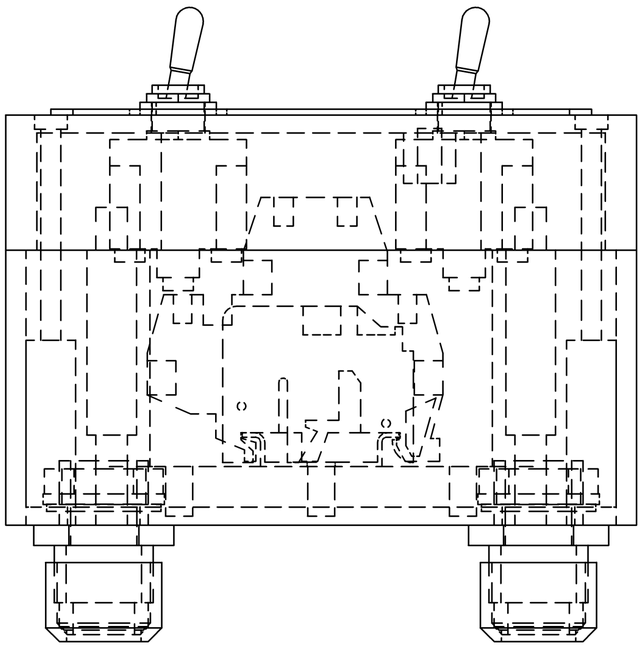
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY
TITLE GUARDMASTER JUNCTION BOX 12V
GUARDMASTER
DWG NO UC1013A01X
REV 1
SIZE C
WEIGHT 0.0 lbm
SHEET 2 OF 2









ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UC1016P04EN	LABEL UNIBODY TANK FILL CONTROL BOX	UC1016P04EN
2	1	UC1016P03	TERMINAL RAIL DIN 3 PREPUNCHED X 5"	231.0033
3	1	UC1016P01	UNIBODY TANK FILL CONTROL BOX ENCLOSURE	UC1016P01
4	4	TC03051	SEALED-SWITCH BUSHING SEAL	234.8040
5*	4	TC01849	FITTING BODY HARNESSFLEX T-PIECE TP12	231.6234
6*	5	TC01846	FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
7*	5	TC01844	FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
8*	12	TC01843	FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
9*	5	TC01841	FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
10	5	TC01818	FITTING CAP NUT HARNESSFLEX NC16	231.6209
11*	12	TC01817	FITTING CAP NUT HARNESSFLEX NC12	231.6208
12*	5	TC01815	FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
13	4	TC01244	DIN RAIL MOUNTED 12 VDC 1 N.O.	231.1048
14	2	TC01239	TERMINAL END STOP	231.0032
15	4	TC01132	SWITCH SEALED TOGGLE SPDT MAINT	234.8042

NOTES

THE 6 PRE-TAPPED HOLES IN THE BOTTOM OF THE ENCLOSURE SHOULD BE USED FOR GROUNDING (SEE ELECTRICAL SCHEMATIC) AS WELL AS DIRECT MOUNTING OF THE DIN RAIL.

SEALING WASHERS SHOULD BESANDWICHED BEWEEN THE INSIDE FACE OF THE LID AND THE TAGGLE SWITCH.

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 5/14/2010
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

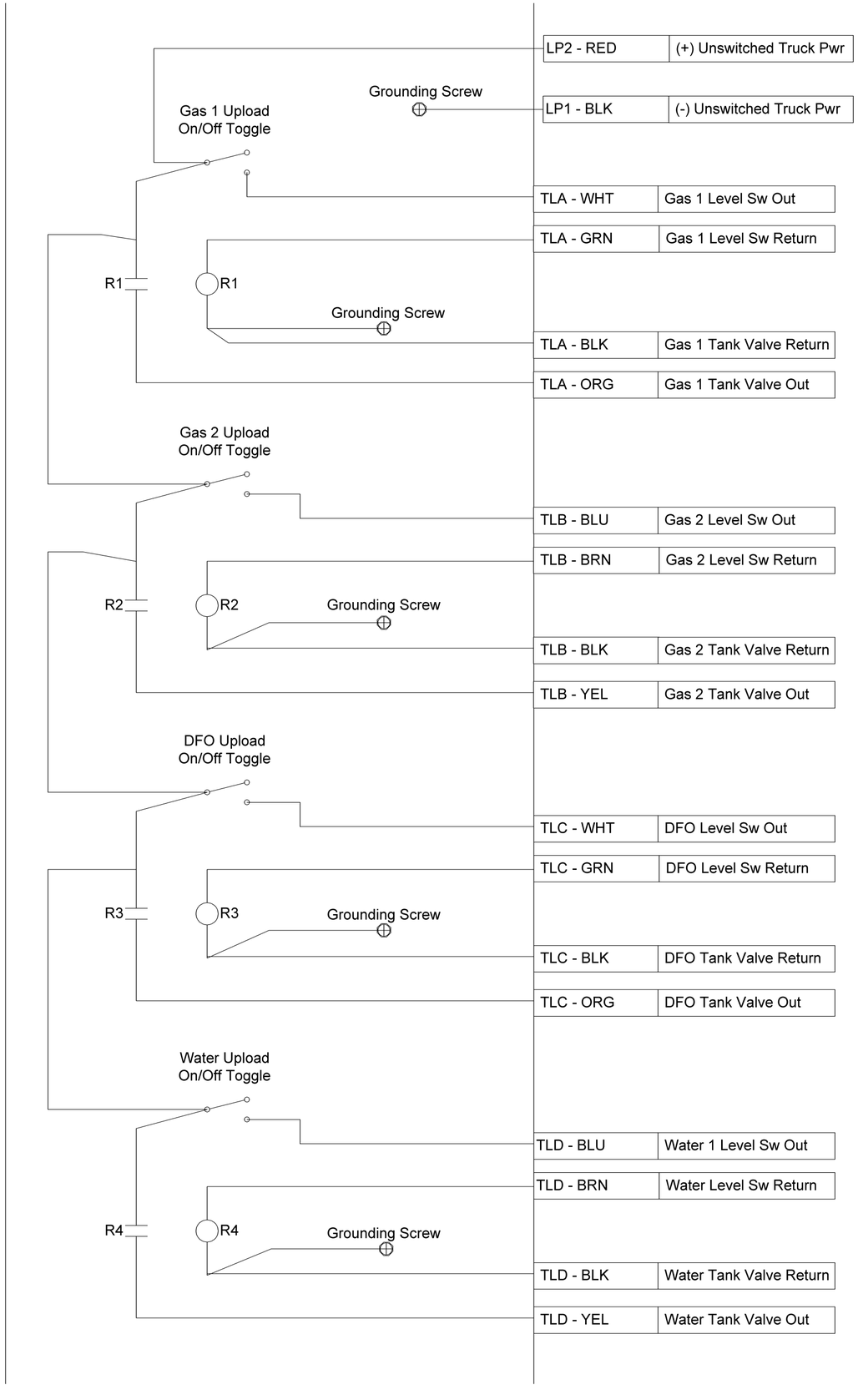
PROJECT TANK FILL CONTROL BOX 12V

TITLE TANK FILL CONTROL BOX 12V
UNIBODY PUMPING MODULE

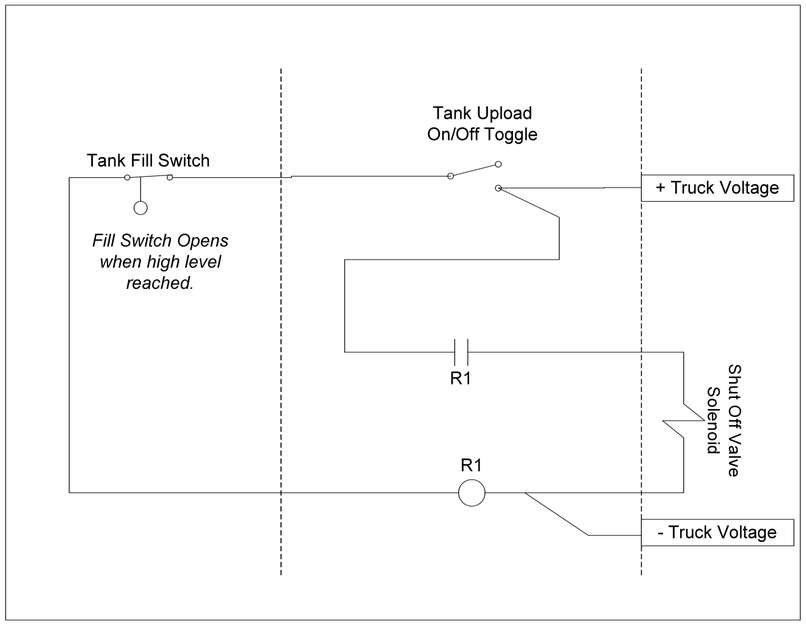
DWG NO UC1016A01X | REV 02 | SIZE C

WEIGHT 3.7 lbm | SHEET 1 OF 2

Last Changed: 7/8/2010



SCHEMATIC OF INDIVIDUAL TANK CIRCUIT

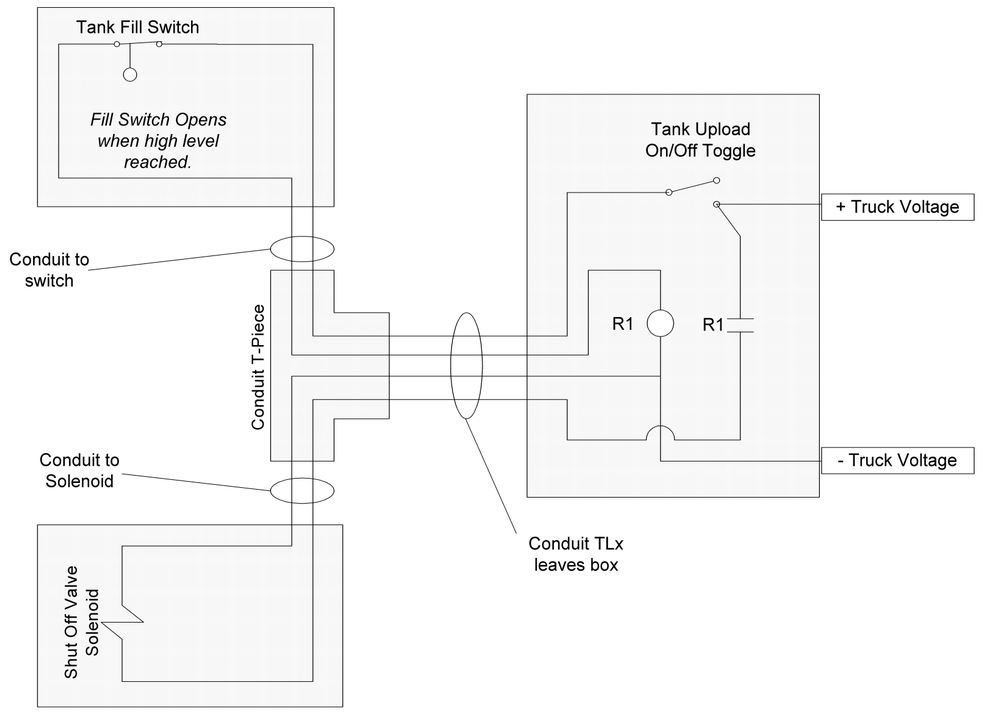


NOTES:

- Cable LP is to be run to the main power distribution box and protected by a 10 Amp fuse.

- The Grounding Screws refer to screws inserted into the the pre-tapped mounting/ grounding holes inside the aluminum enclosure.

-All toggle switches should be mounted so that the keyway is in the 'down' position.



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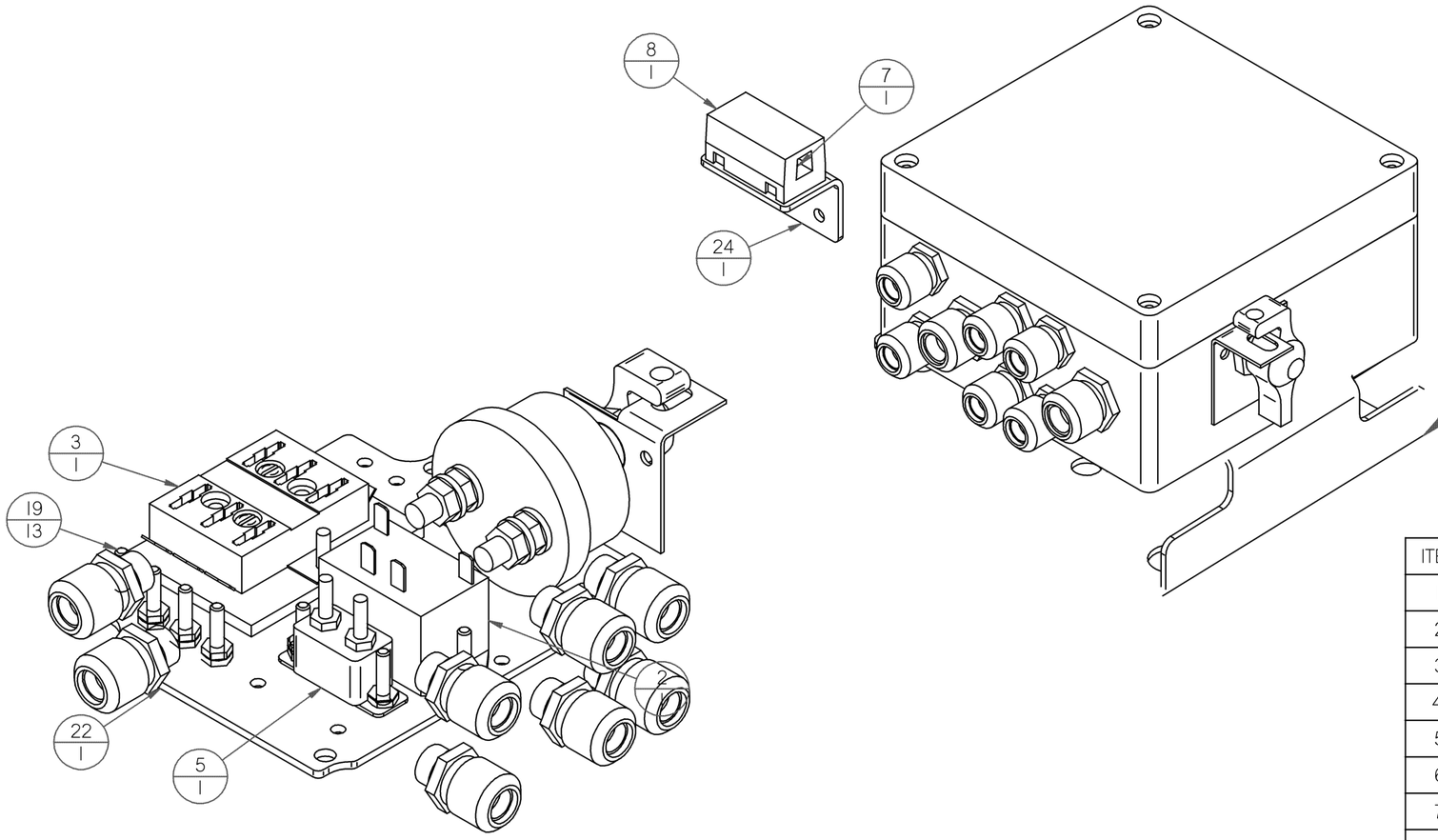
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL X = ± .100 DECIMAL XX = ±.020 DECIMAL XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN TBARHAM; DATE 5/14/2010; APPR. D COLE	PROJECT TANK FILL CONTROL BOX 12V; TITLE TANK FILL CONTROL BOX 12V UNIBODY PUMPING MODULE	DWG NO UC1016A01X; REV 02; SIZE C; WEIGHT 3.7 lbm; SHEET 2 OF 2

Last Changed: 7/8/2010



The bracket S1005P04 may be required (i.e.Treadbed pumpers).

CONFIGURATION RULES: (USED ON)
12 VOLT SELECTED

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1		CONDUIT SEAL .50 HOLE SS	231.0064
2	1		RELAY SPDT 12 VDC 30 AMP	231.0177
3	1		FUSE BLOCK ATO/ATC 6-POSITION	231.0179
4*	1		BATTERY DISCONNECT 175 AMP	231.0180
5	1		BREAKER CYCLING 12VDC 30A STUD-MT	231.0181
6	1		LOCKOUT LEVER KIT	231.0219
7	1		FUSE MIDI 80 AMP	231.2904
8	1		FUSE BLOCK MIDI	231.2905
9*	8		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
10*	1		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
11*	8		FITTING CAP NUT HARNESSFLEX NC12	231.6208
12*	1		FITTING CAP NUT HARNESSFLEX NC16	231.6209
13*	8		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
14*	1		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
15*	8		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
16*	1		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
17*	1		FITTING ASM HARNESSFLEX STRAIGHT NC16	231.6228
18	1		SCREW CAP HEX HEAD .375-16X1.00 SS	900.4294
19	13		SCREW MACHINE SL ROUND HD #10-24X1.00 SS	915.1894
20*	22		NUT HEX #10-24 SS	950.1814
21	2		NUT HEX .375-16	950.4214
22	1	UC1017P01	FUSE BOX MOUNTING PLATE	UC1017P01
23*	1	UC1017P03	ENCLOSURE	UC1017P03
24	1	UC1017P05	MIDI FUSE BLOCK MOUNTING BRACKET	UC1017P05

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN bsekinger
DATE 3/30/2007
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY

TITLE ELECTRICAL DISTRIBUTION BOX 12V
UNIBODY ELECTRICAL SYSTEM

DWG NO UC1017A01X | REV 4 | SIZE C

WEIGHT 10.1 lbm | SHEET 1 OF 3

Last Changed: 3/10/2008

CONNECTION RULES

- THE TREAD ELECTRICAL SYSTEM MUST ALWAYS BE CONNECTED AFTER / BEHIND ANY BATTERY-DISCONNECT SWITCH SUPPLIED WITH THE CHASSIS.

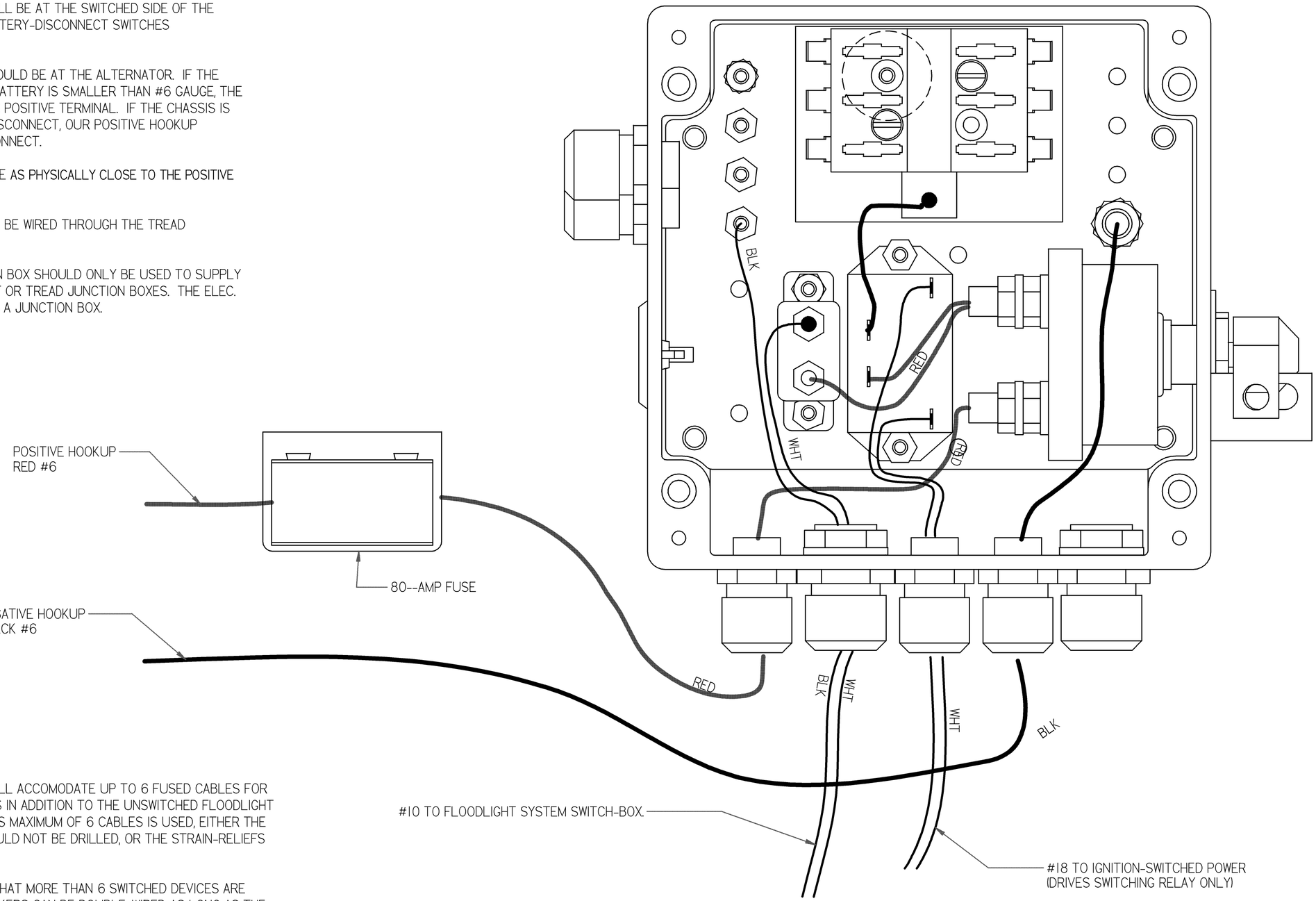
- NORMALLY OUR NEGATIVE HOOKUP WILL BE AT THE SWITCHED SIDE OF THE BATTERY-DISCONNECT (WHERE THE BATTERY-DISCONNECT SWITCHES CHASSIS-GROUND).

- NORMALLY THE POSITIVE HOOKUP SHOULD BE AT THE ALTERNATOR. IF THE WIRE BETWEEN THE ALTERNATOR AND BATTERY IS SMALLER THAN #6 GAUGE, THE HOOKUP SHOULD BE AT THE BATTERY'S POSITIVE TERMINAL. IF THE CHASSIS IS SUPPLIED WITH A POSITIVE BATTERY-DISCONNECT, OUR POSITIVE HOOKUP SHOULD BE AFTER THE BATTERY-DISCONNECT.

- THE 80-AMP FUSE SHOULD ALWAYS BE AS PHYSICALLY CLOSE TO THE POSITIVE HOOKUP AS POSSIBLE.

- THE TRUCK'S PTO LIGHT SHOULD NOT BE WIRED THROUGH THE TREAD ELECTRICAL DISTRIBUTION BOX.

- THE TREAD ELECTRICAL DISTRIBUTION BOX SHOULD ONLY BE USED TO SUPPLY POWER DIRECTLY TO TREAD EQUIPMENT OR TREAD JUNCTION BOXES. THE ELEC. DISTR. BOX SHOULD NEVER BE USED AS A JUNCTION BOX.



MISC. NOTES

- THE DISTRIBUTION BOX WILL ACCOMODATE UP TO 6 FUSED CABLES FOR SWITCHED DEVICES. (THIS IS IN ADDITION TO THE UNSWITCHED FLOODLIGHT CABLE). IF FEWER THAN THIS MAXIMUM OF 6 CABLES IS USED, EITHER THE STRAIN-RELIEF HOLES SHOULD NOT BE DRILLED, OR THE STRAIN-RELIEFS SHOULD BE PLUGGED.

- IN THE UNLIKELY EVENT THAT MORE THAN 6 SWITCHED DEVICES ARE NEEDED, SOME FUSES/BREAKERS CAN BE DOUBLE-WIRED AS LONG AS THE APPROPRIATE WIRE GAUGE IS USED (#16 MINIMUM). EXTRA STRAIN RELIEFS MAY BE NECESSARY IN THIS CASE.

- JUMPER WIRES IN DISTRIBUTION BOX SHOULD BE EITHER
  #6 WIRE, or DOUBLED-UP #10 WIRE

- APPLY HEAVY COATING OF SILICONE COMPOUND TO 80A FUSEHOLDER CONNECTIONS

- APPLY ANTI-SIEZE COMPOUND TO BOX COVER SCREW THREADS

Last Changed: 3/10/2008

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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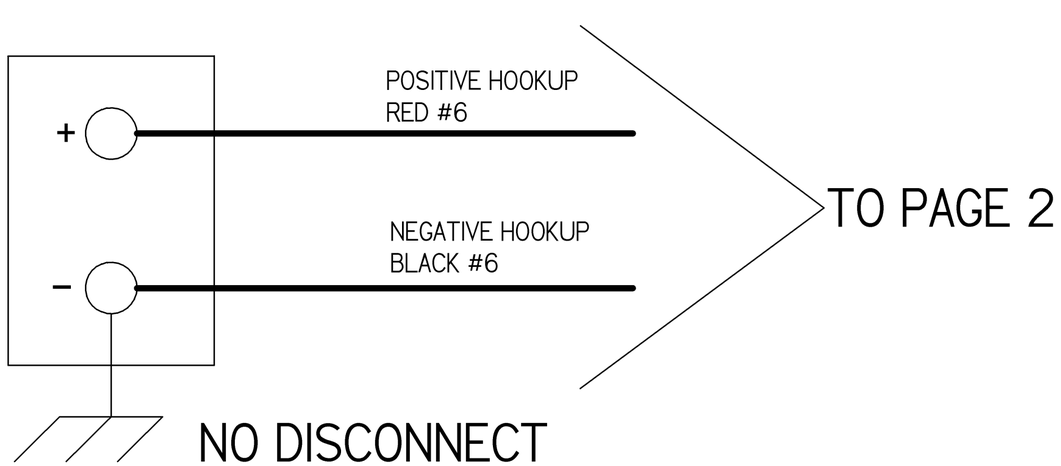
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

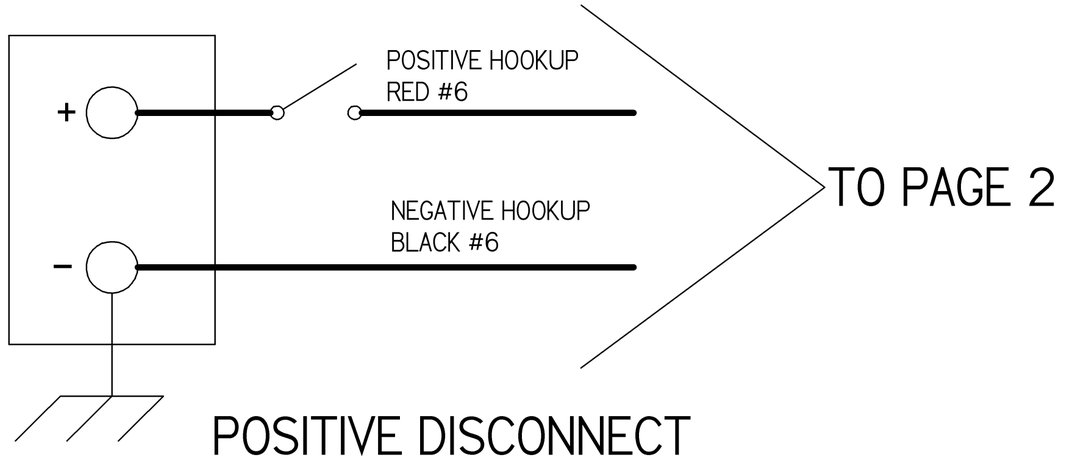
DRAWN bsekinger
DATE 3/30/2007
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

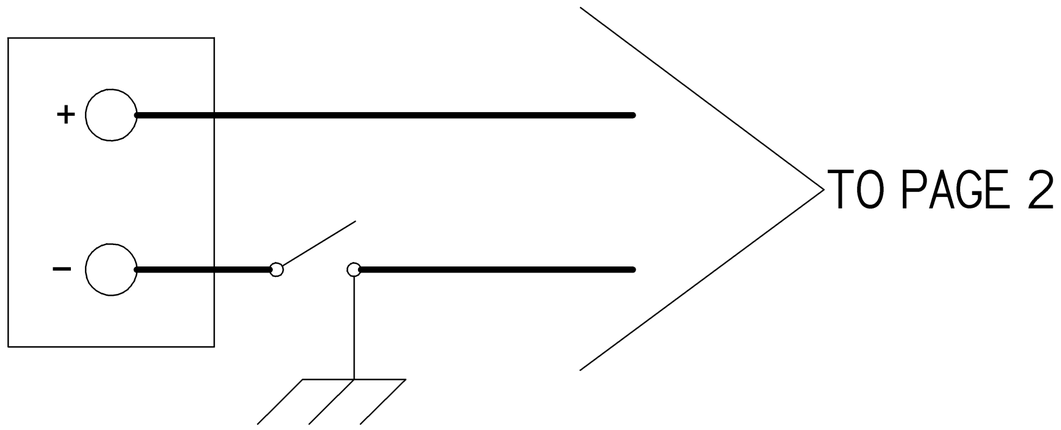
PROJECT UNIBODY
TITLE ELECTRICAL DISTRIBUTION BOX 12V
UNIBODY ELECTRICAL SYSTEM
DWG NO UC1017A01X
REV 4
SIZE C
WEIGHT 10.1 lbm
SHEET 2 OF 3



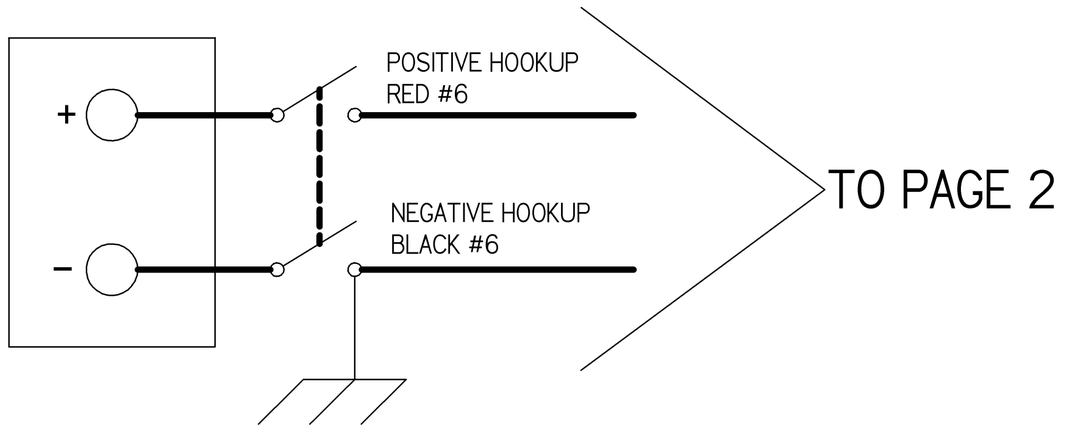
NO DISCONNECT



POSITIVE DISCONNECT



NEGATIVE DISCONNECT



POSITIVE AND NEGATIVE DISCONNECT

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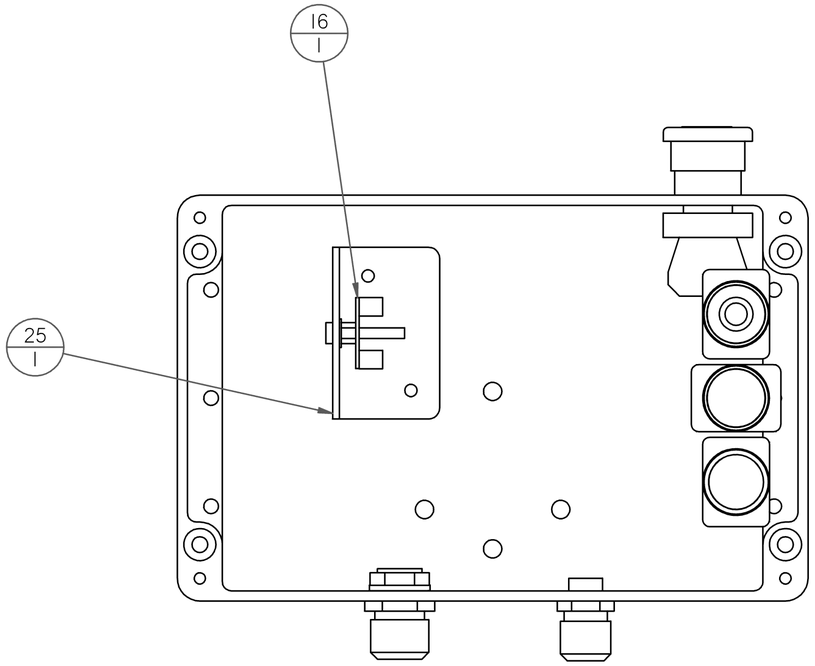
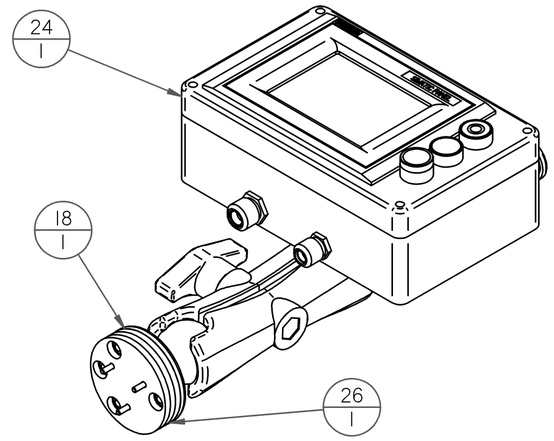
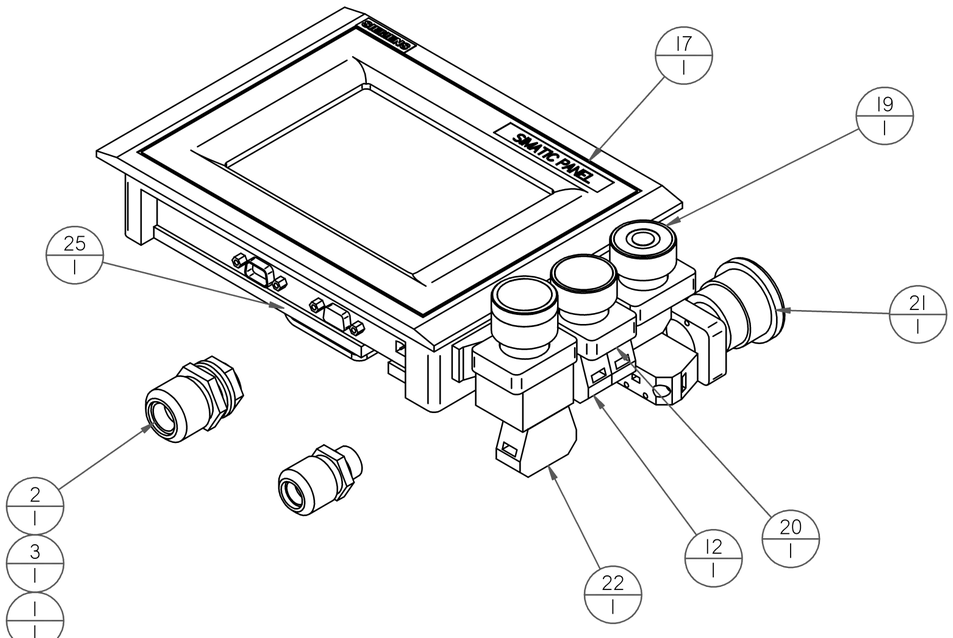
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: bsekinger DATE: 3/30/2007 APPR.: D COLE	DWG NO: UC1017A01X REV: 4 SIZE: C WEIGHT: 10.1 lbm SHEET: 3 OF 3

Last Changed: 3/10/2008







ITEM	QTY	DWG. NO.	DESCRIPTION	Part ID
26	1	UC1021A20	RAM MOUNT ADAPTER PLATE WELDMENT	UC1021A20
25	1	UC1020P43	BRACKET FOR 9-PIN D-SUB CONNECTOR	UC1020P43
24	1	UC1020P05	ENCLOSURE DISPLAY SCREEN CONTROL BOX	UC1020P05
23*	1	UC1020A15	MPI PORT EXTENDER CABLE	UC1020A15
22	1		P.B. 22MM ILLUM OPERATOR FLUSH HEAD GRN	234.1054
21	1		P.B. 22MM OPERATOR MUSHROOM RED	234.1020
20	1		P.B. 22MM OPERATOR FLUSH HEAD BLK	234.1035
19	1		P.B. 22MM OPERATOR FLUSH HEAD RED	234.1021
18	1		MOUNT BALL AND SOCKET RAM-D-101 SYSTEM	269.3330
17	1		SIEMENS TOUCH PANEL TP177A	231.1083
16	1		CONNECTOR D-SUB 9 POSITION MALE DISCRETE	231.8145
15*	1		PROTECTIVE MEMBRANE FOR TP177 SIEMENS	231.1007
14*	1		PILOT LIGHT BULB 12 VDC TYPE BA9S	234.1056
13*	1		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
12	1		P.B. 22MM CONTACT BLOCK N.C.	234.1037
11	1		FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
10	1		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
9*	3		SCREW MACHINE SL ROUND HD #10-24X1.00 SS	915.1894
8*	4		NUT HEX .31-18 SS	950.3614
7*	8		SCREW MACHINE SL FLAT HD .313-18X.875 ZN	914.3681
6*	1		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
5*	1		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
4*	1		FITTING CAP NUT HARNESSFLEX NC12	231.6208
3	1		FITTING CAP NUT HARNESSFLEX NC16	231.6209
2	1		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
1	1		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206

NOTE:
PART 234.1056 - PILOT LIGHT BULB 12 VDC TYPE BA9S - ONLY INCLUDED IN 12 VDC SYSTEMS.

ALL OTHER LISTED PARTS TO BE USED FOR EITHER 12 OR 24 VDC SYSTEMS.

CONFIGURATION RULES: (USED ON)
DCC+ (NOT REPUMP WITH REAR HOSE REEL.
[USED ON EVERYTHING ELSE])

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL X = ± .100
DECIMAL XX = ±.020
DECIMAL XXX = ± .005
ANGULARITY = ± 0.5 DEG

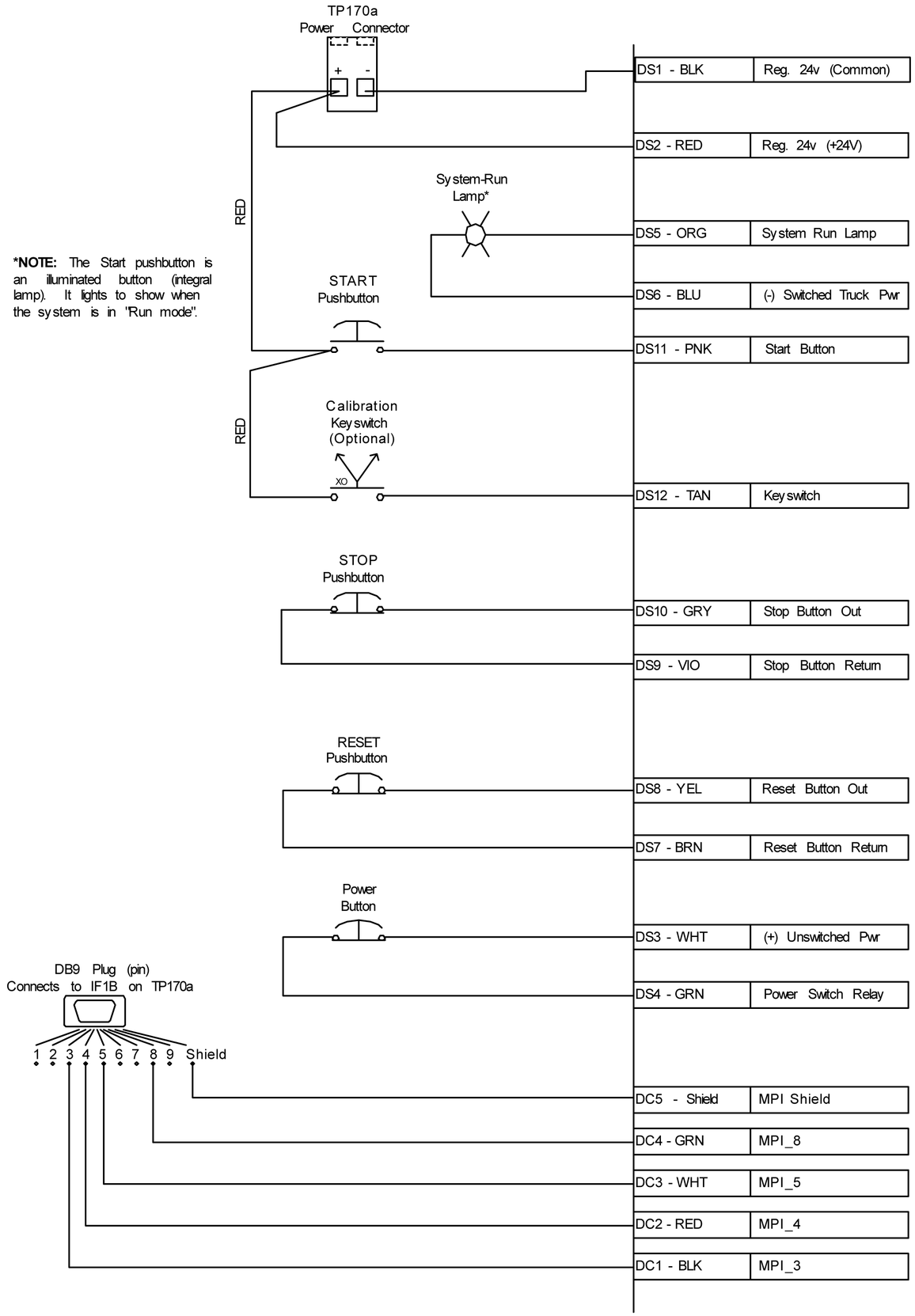
DRAWN TBARHAM
DATE 7/27/2007
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ DISPLAY SCREEN CONTROL BOX
TITLE DCC+ DISPLAY SCREEN CONTROL BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A04 | REV 03 | SIZE C
WEIGHT 8.7 lbm | SHEET 1 OF 3

Last Changed: 5/14/2009



***NOTE:** The Start pushbutton is an illuminated button (integral lamp). It lights to show when the system is in "Run mode".

Last Changed: 5/14/2009

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1.0 INCH = 25.4 mm

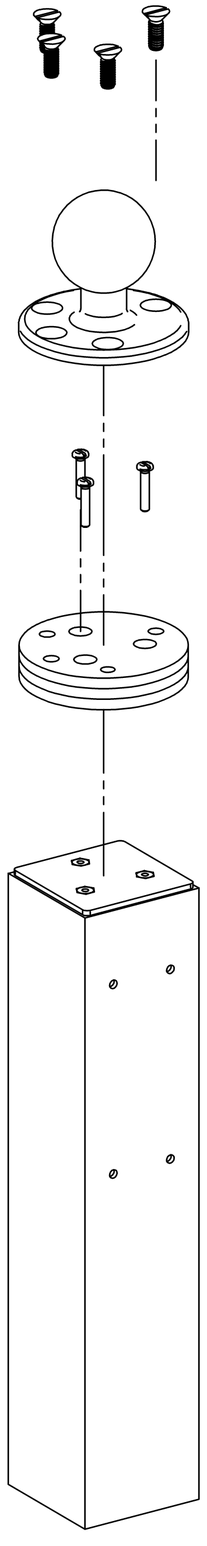
THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 7/27/2007
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ DISPLAY SCREEN CONTROL BOX
TITLE DCC+ DISPLAY SCREEN CONTROL BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A04 | REV 03 | SIZE C
WEIGHT 8.7 lbm | SHEET 2 OF 3



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UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

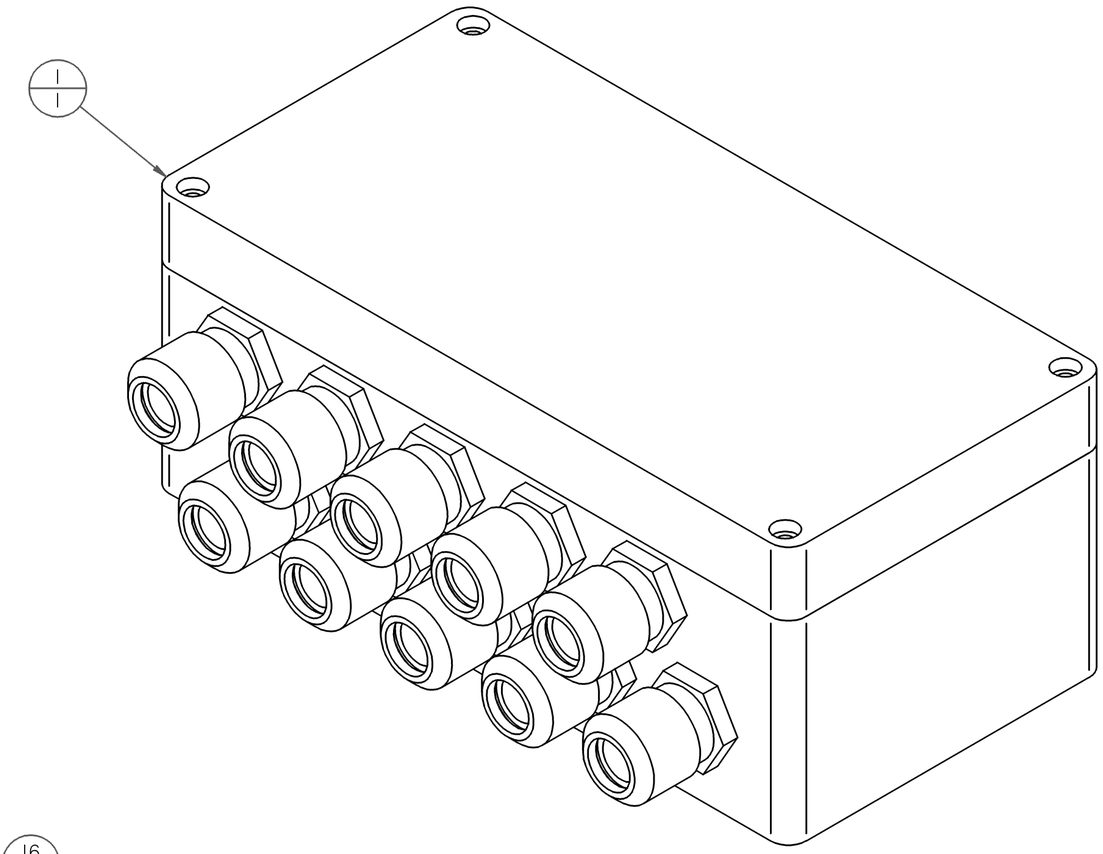
THIRD ANGLE PROJECTION

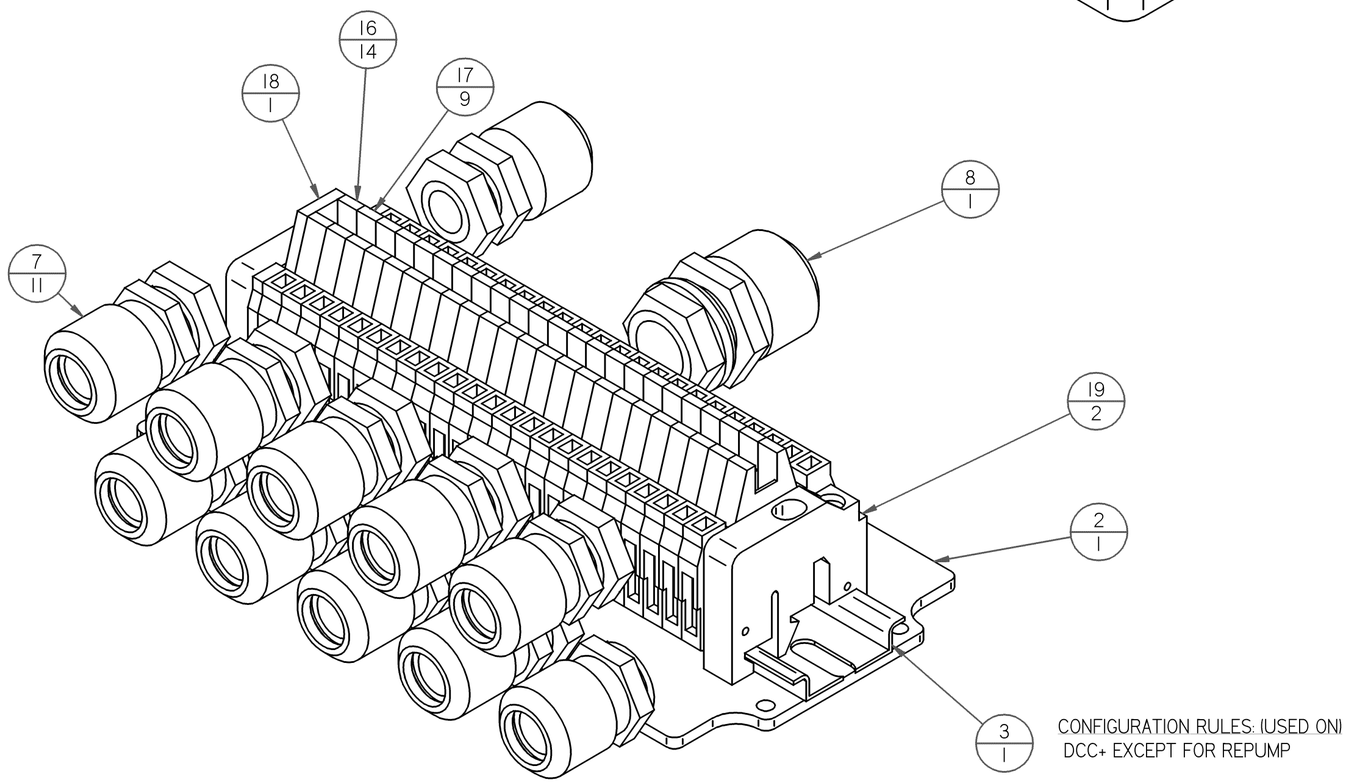
DRAWN TBARHAM
DATE 7/27/2007
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ DISPLAY SCREEN CONTROL BOX
TITLE DCC+ DISPLAY SCREEN CONTROL BOX
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A04 | REV 03 | SIZE C
WEIGHT 8.7 lbm | SHEET 3 OF 3

Last Changed: 5/14/2009





CONFIGURATION RULES: (USED ON)
DCC+ EXCEPT FOR REPUMP

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1020P14	ENCLOSURE AUGERING SYSTEM JUNCTION BOX	UC1020P14
2	1	UC1020P12	BACK PLATE	UC1020P12
3	1	UC1020P11	DIN RAIL	
4*	9		DIODE SURGE SUPPRESSOR 51VIT-T1	231.0043
5*	1		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
6*	11		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
7	11		FITTING CAP NUT HARNESSFLEX NC12	231.6208
8	1		FITTING CAP NUT HARNESSFLEX NC16	231.6209
9*	1		FITTING LOCKNUT HARNESSFLEX M20 THRD	
10*	11		FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212
11*	11		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
12*	1		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
13*	1		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
14*	11		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
15*	1		TERMINAL 6MM JUMPER BAR 20 POLE	231.1057
16	14		TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050
17	9		TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053
18	1		TERMINAL END SECTION 6 MM ADO	231.1051
19	2		TERMINAL END STOP	231.0032
20*	9		TERMINAL JUMPER SUB ASSEMBLY 6MM	231.1058
21*	1		TERMINAL MARKING STRIP 7.5 MM	231.1052

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN T BARHAM
DATE 2/17/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS

TITLE DCC+ AUGERING SYSTEM JUNCTION BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A06 | REV 2 | SIZE C

WEIGHT 3.3 lbm | SHEET 1 OF 3

Last Changed: 2/2/2009

AUGERING SYSTEM JUNCTION BOX

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

UNLESS OTHERWISE SPECIFIED
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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

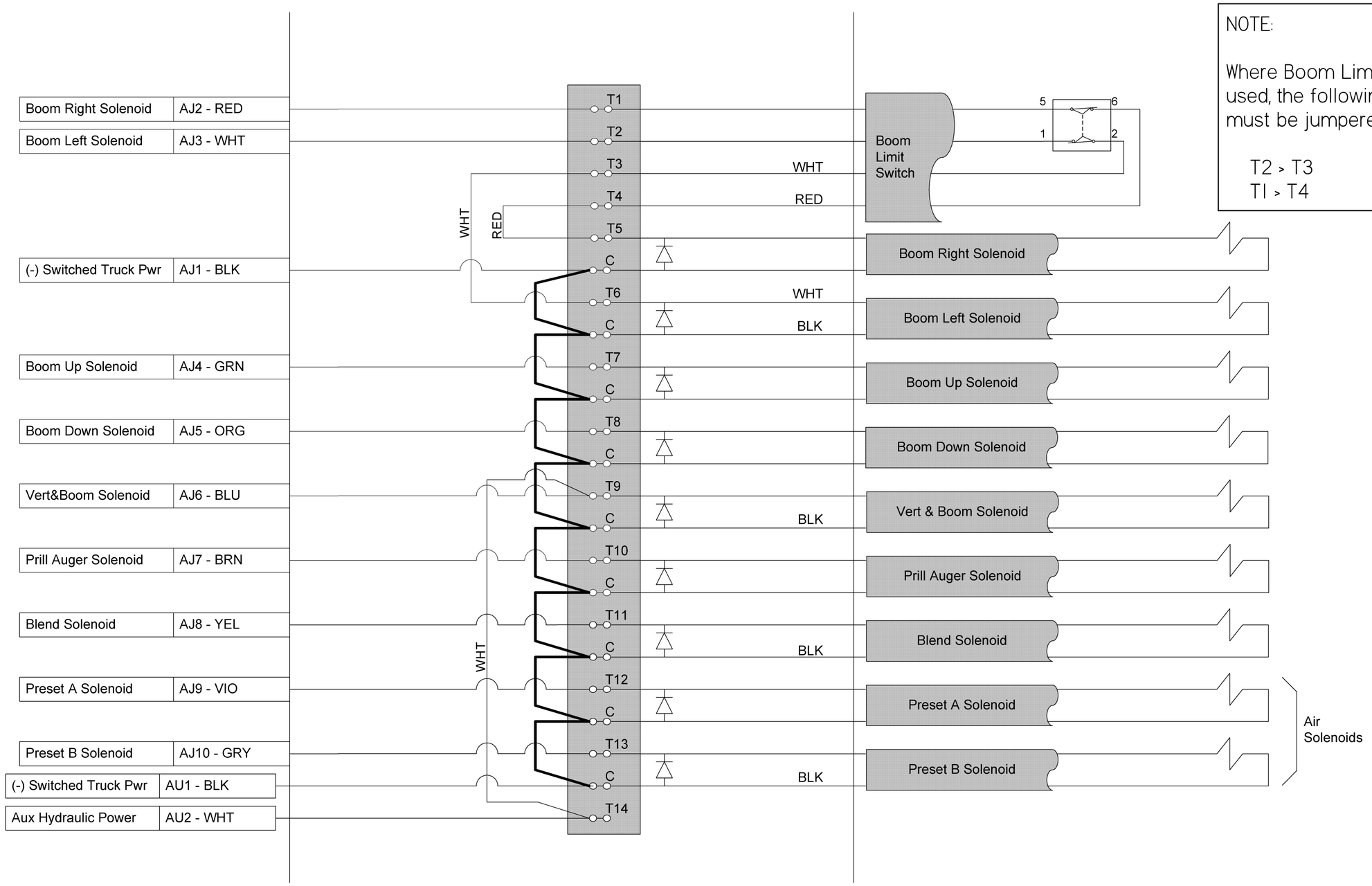
DRAWN T BARHAM
DATE 2/17/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ AUGERING SYSTEM JUNCTION BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A06 | REV 2 | SIZE C
WEIGHT 3.3 lbm | SHEET 2 OF 3

Last Changed: 2/2/2009



NOTE:

Where Boom Limit Switch is not used, the following terminals must be jumpered together:

T2 > T3
T1 > T4

NOTE: Terminals labeled 'C' are the common for switched (unregulated) truck power. Where the connections are shown with a thick line, the terminals should be tied together with an Entrelec bus-bar.

Also note that the terminal blocks labeled 'C' are blue. The rest are grey.

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UNLESS OTHERWISE SPECIFIED
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1.0 INCH = 25.4 mm

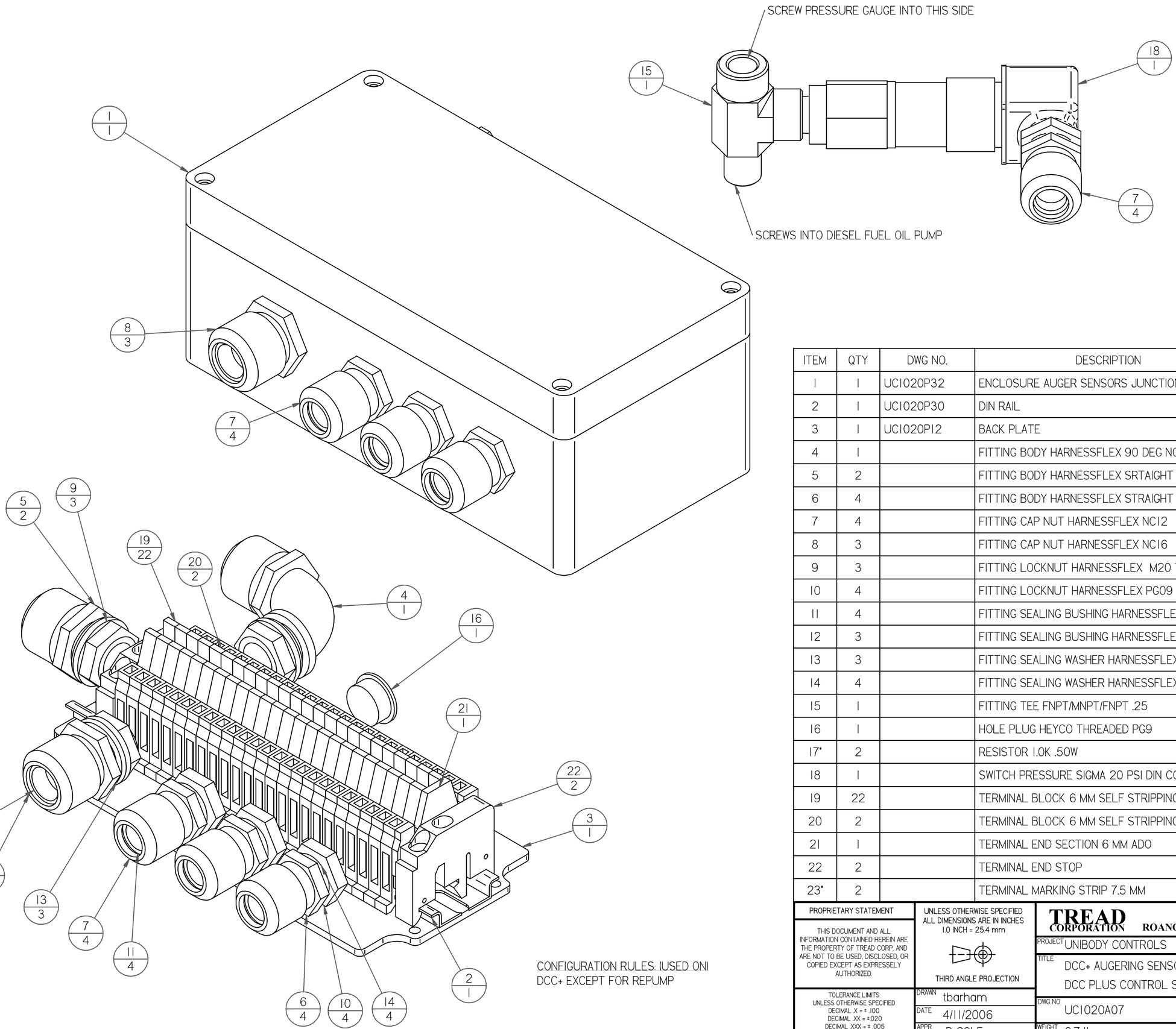
THIRD ANGLE PROJECTION

DRAWN T BARHAM
DATE 2/17/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ AUGERING SYSTEM JUNCTION BOX
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A06
REV 2
SIZE C
WEIGHT 3.3 lbm
SHEET 3 OF 3

Last Changed: 2/2/2009



CONFIGURATION RULES: (USED ON)
DCC+ EXCEPT FOR REPUMP

ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UC1020P32	ENCLOSURE AUGER SENSORS JUNCTION BOX	UC1020P32
2	1	UC1020P30	DIN RAIL	
3	1	UC1020P12	BACK PLATE	UC1020P12
4	1		FITTING BODY HARNESSFLEX 90 DEG NC16	231.6207
5	2		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
6	4		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
7	4		FITTING CAP NUT HARNESSFLEX NC12	231.6208
8	3		FITTING CAP NUT HARNESSFLEX NC16	231.6209
9	3		FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
10	4		FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212
11	4		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
12	3		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
13	3		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
14	4		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
15	1		FITTING TEE FNPT/MNPT/FNPT .25	82092.0404
16	1		HOLE PLUG HEYCO THREADED PG9	231.6240
17*	2		RESISTOR 1.0K .50W	236.7348
18	1		SWITCH PRESSURE SIGMA 20 PSI DIN CONNECT	231.2046
19	22		TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050
20	2		TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053
21	1		TERMINAL END SECTION 6 MM ADO	231.1051
22	2		TERMINAL END STOP	231.0032
23*	2		TERMINAL MARKING STRIP 7.5 MM	231.1052

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN tbarham
DATE 4/11/2006
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS

TITLE DCC+ AUGERING SENSORS JUNCTION BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A07 | REV 3 | SIZE C

WEIGHT 3.7 lbm | SHEET 1 OF 3

Last Changed: 3/10/2008

AUGERING SYSTEM SENSORS JUNCTION BOX

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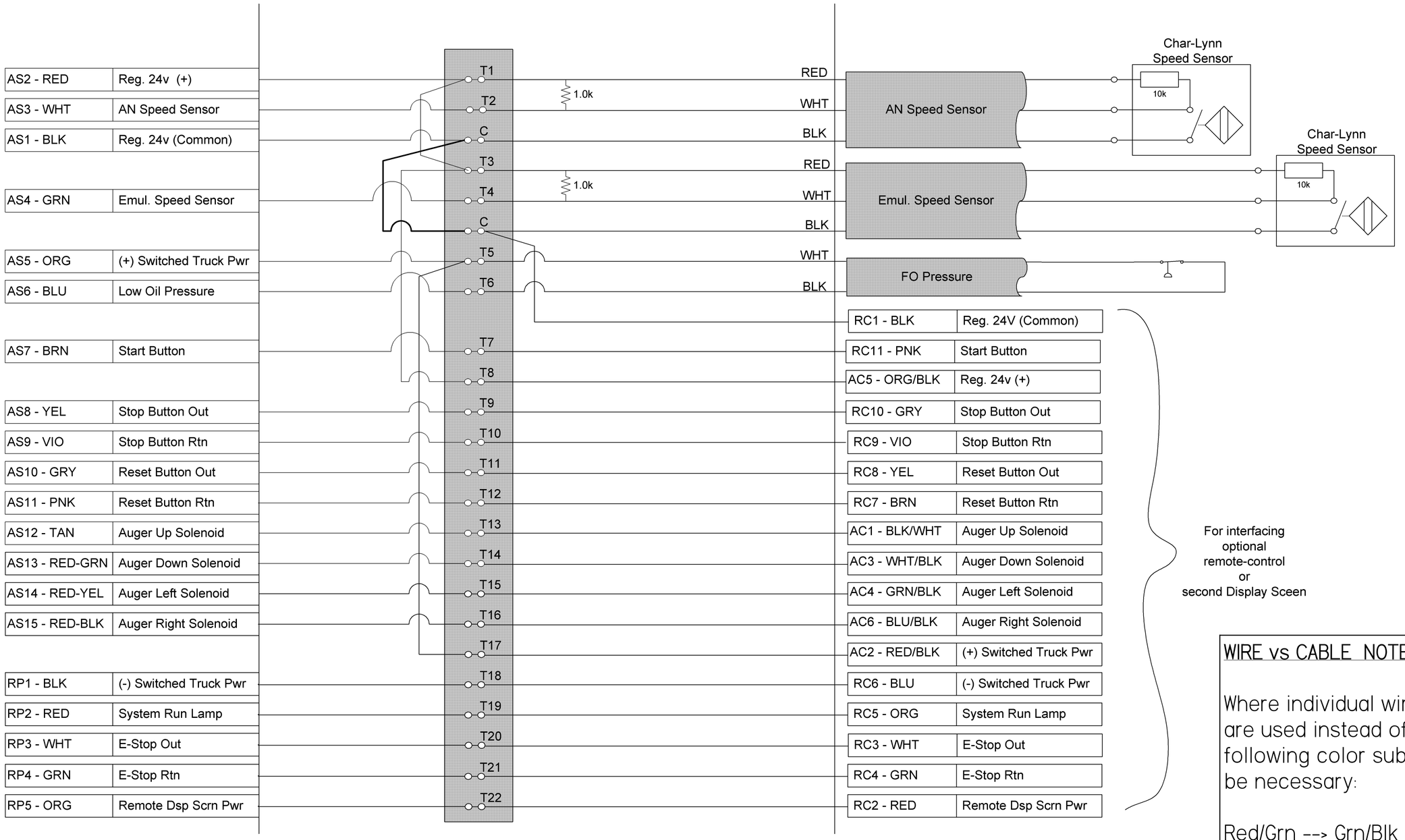
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: tbarham DATE: 4/11/2006 APPR.: D COLE	DWG NO: UC1020A07 | REV: 3 | SIZE: C WEIGHT: 3.7 lbm | SHEET: 2 OF 3

Last Changed: 3/10/2008



NOTE: Terminals labeled 'C' are the common for regulated 24 volt sensor power. Due to the small number of these terminals, a bus-bar is not used for this terminal strip.

Also note that the terminal blocks labeled 'C' are blue. The rest are grey.

WIRE vs CABLE NOTE

Where individual wires in conduit are used instead of cable, the following color substitutions may be necessary:

Red/Grn --> Grn/Blk
Red/Yel --> Yel/Blk
Red/Blk --> Red/Blk

The substitute colors are created using solid wire color and adding a black stripe to differentiate them.

WIRE COLOR NOTE

WHERE WIRE COLOR IS INDICATED BY A COLOR PAIR, THE FIRST COLOR IS THE PRIMARY WIRE COLOR AND THE SECOND COLOR IS THE COLOR OF A STRIPE OR TAG ON THE WIRE.

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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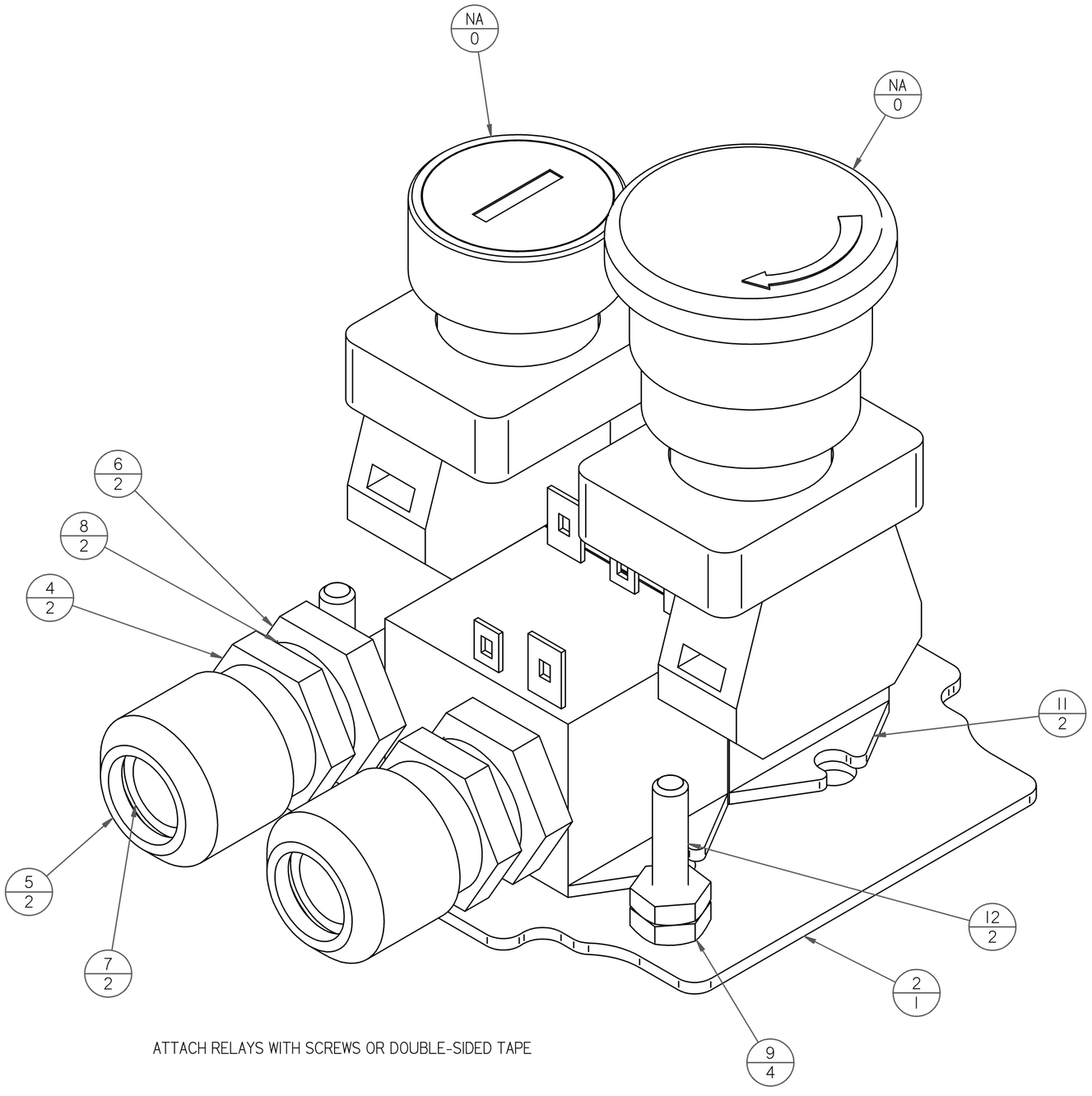
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN tbarham
DATE 4/11/2006
APPR. D COLE

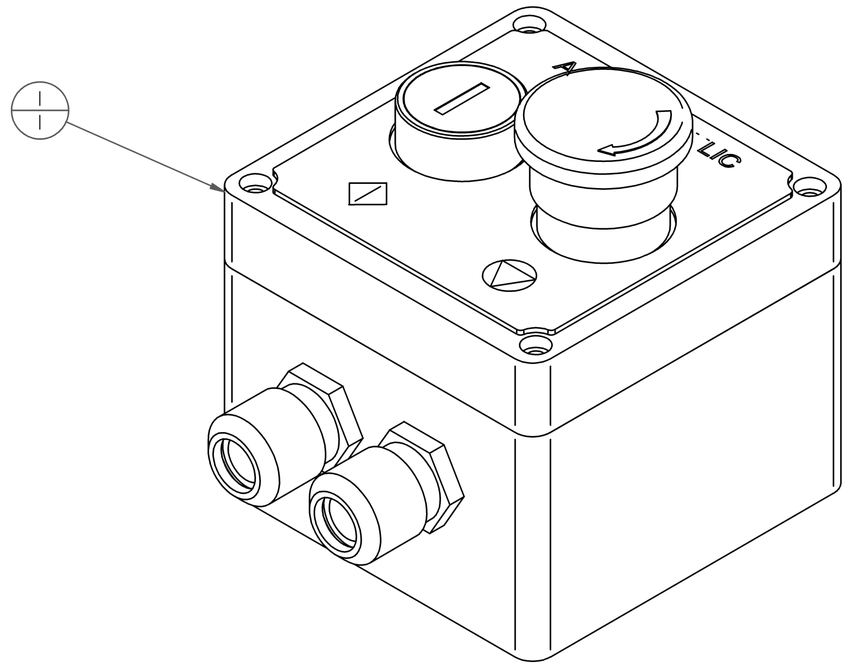
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ AUGERING SENSORS JUNCTION BOX
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A07
REV 3
SIZE C
WEIGHT 3.7 lbm
SHEET 3 OF 3

Last Changed: 3/10/2008



ATTACH RELAYS WITH SCREWS OR DOUBLE-SIDED TAPE



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1020P45	ENCLOSURE AUXILLIARY HYD CONTROL BOX	UC1020P45
2	1	UC1020P42	BACK PLATE	UC1020P42
3*	1	UC1020P110	LABEL AUXILLIARY HYDRAULIC CONTROL BOX	UC1020P110
4	2		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
5	2		FITTING CAP NUT HARNESSFLEX NC12	231.6208
6	2		FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212
7	2		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
8	2		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
9	4		NUT HEX #10-24 SS	950.1814
10*	1		P.B. 22MM CLEAR SILICONE COVER STD	234.1028
11	2		RELAY SPDT 12 VDC	231.0065
12	2		SCREW MACHINE SL ROUND HD #10-24X1.00 SS	915.1894

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THIRD ANGLE PROJECTION

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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 8/27/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

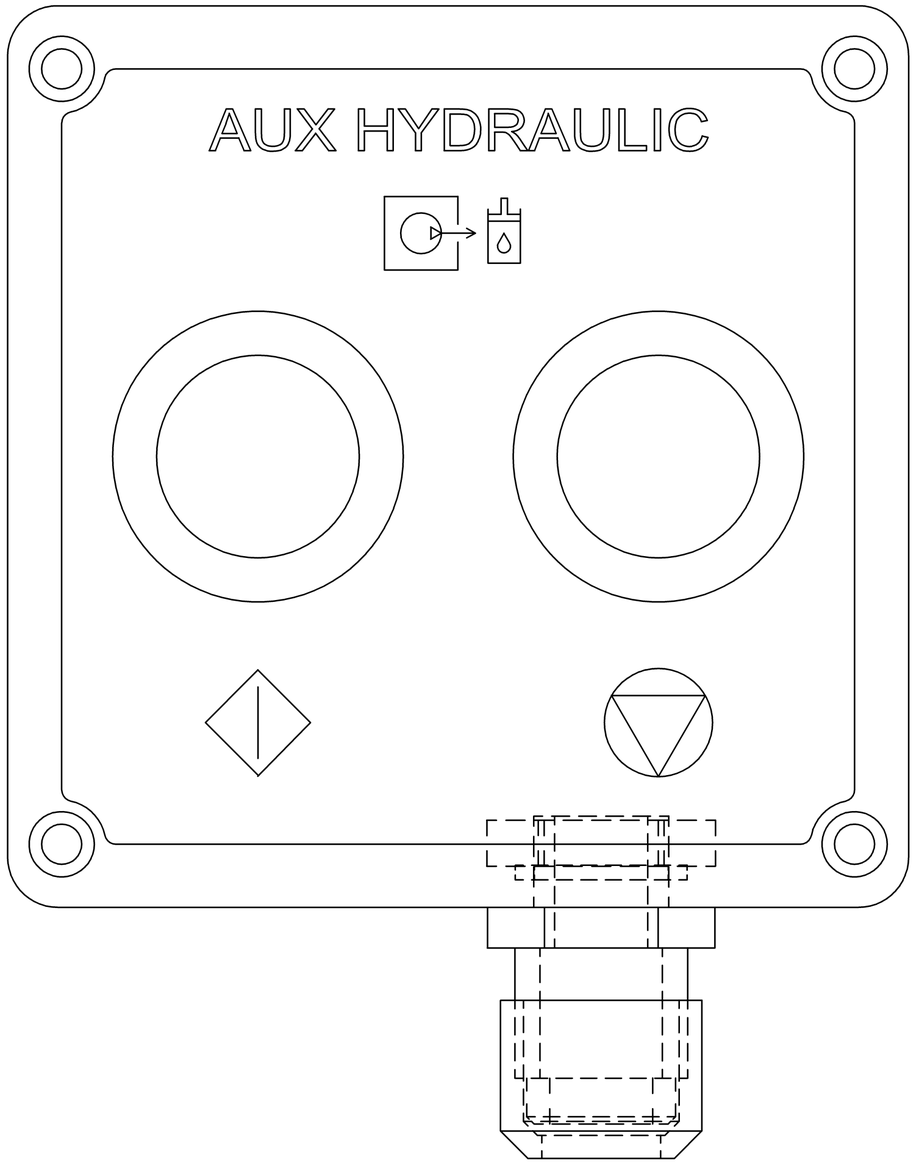
PROJECT AUXILLIARY HYDRAULIC CONTROL BOX

TITLE AUXILLIARY HYDRAULIC CONTROL BOX 12V
DCC PLUS CONTROLLER SYSTEM

DWG NO UC1020A14X | REV 2 | SIZE C

WEIGHT 2.2 lbm | SHEET 1 OF 3

Last Changed: 4/15/2009



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UNLESS OTHERWISE SPECIFIED
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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 8/27/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT AUXILLIARY HYDRAULIC CONTROL BOX

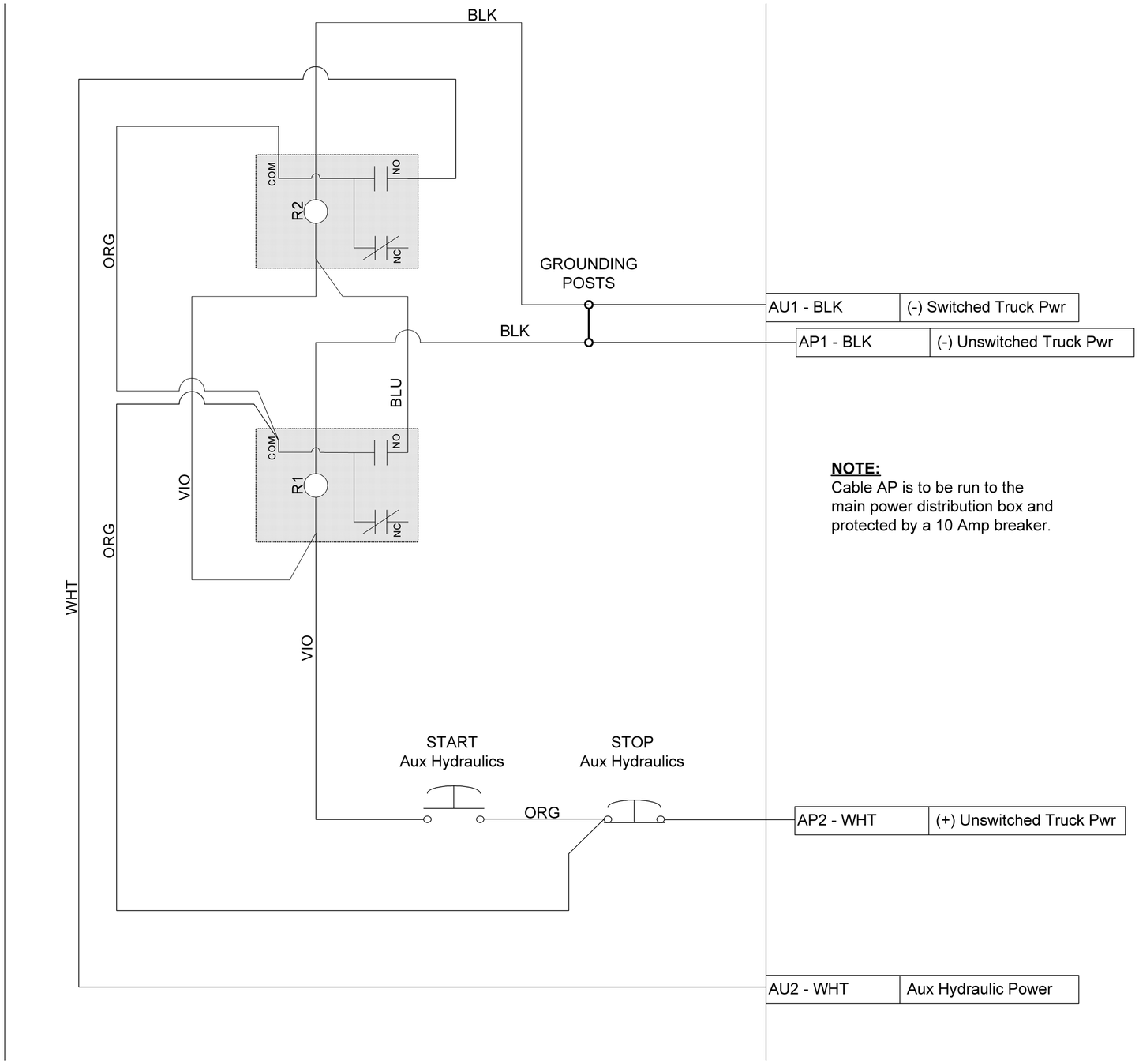
TITLE AUXILLIARY HYDRAULIC CONTROL BOX 12V
DCC PLUS CONTROLLER SYSTEM

DWG NO UC1020A14X | REV 2 | SIZE C

WEIGHT 2.2 lbm | SHEET 2 OF 3

Last Changed: 4/15/2009

SCHEMATIC FOR USE WITH ALL TRUCKS EXCEPT REPUMPERS WITH DANFOSS VALVES



NOTE:
Cable AP is to be run to the main power distribution box and protected by a 10 Amp breaker.

SCHEMATIC FOR 12 V SYSTEM

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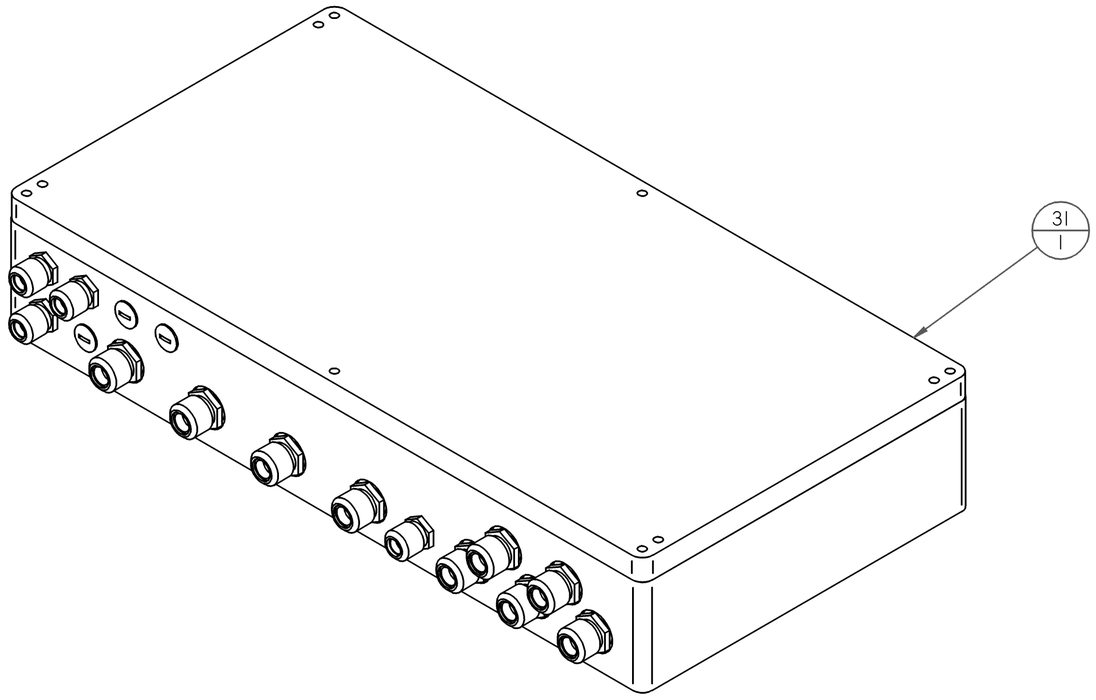
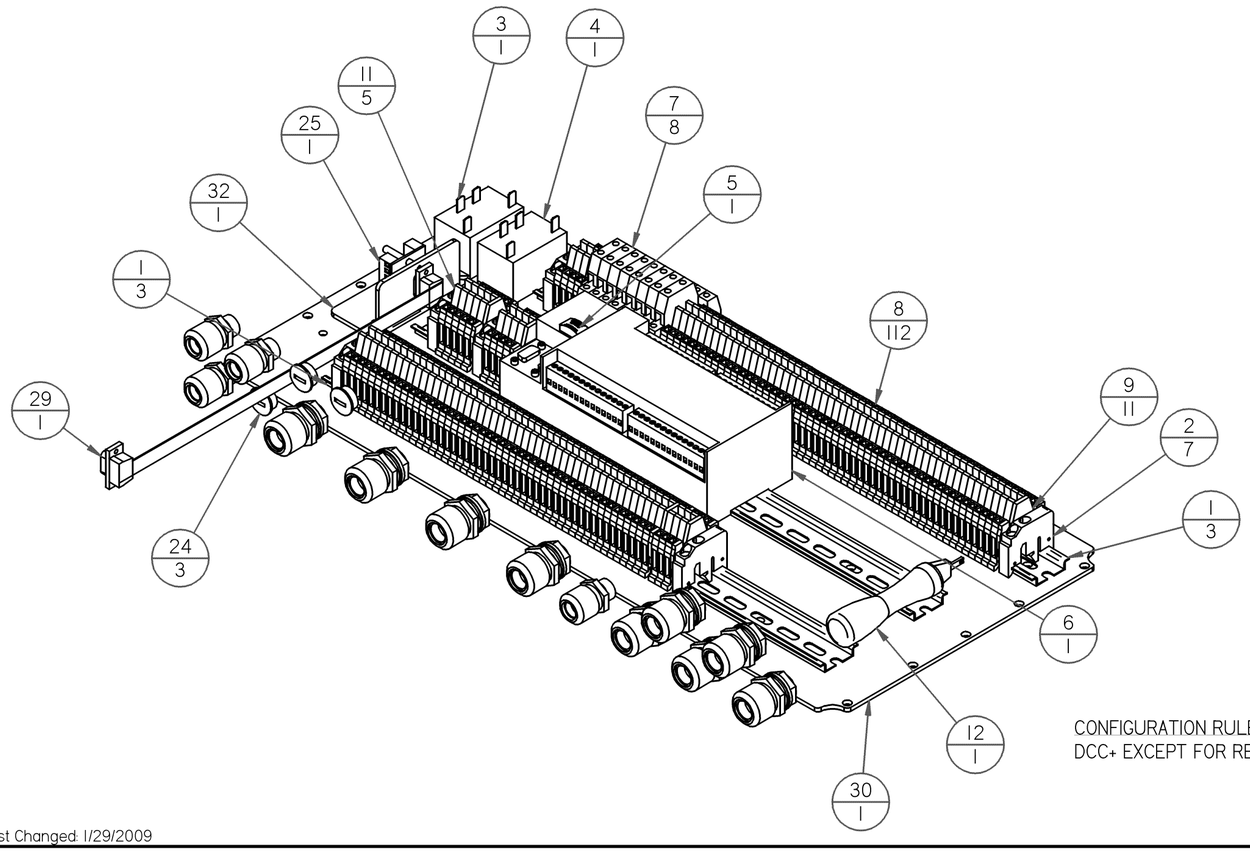
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN TBARHAM DATE 8/27/2004 APPR.	PROJECT AUXILLIARY HYDRAULIC CONTROL BOX TITLE AUXILLIARY HYDRAULIC CONTROL BOX 12V DCC PLUS CONTROLLER SYSTEM DWG NO UC1020A14X REV 2 SIZE C WEIGHT 2.2 lbm SHEET 3 OF 3

Last Changed: 4/15/2009



NOTE
TWO POWER RELAYS ARE INCLUDED
ONLY ONE OF THEM WILL BE USED, DEPENDING CHASSIS VOLTAGE
(E.G. - USE 12V RELAY FOR 12V CHASSIS)



CONFIGURATION RULES: (USED ON)
DCC+ EXCEPT FOR REPUMP

ITEM	QTY	DWG. NO.	DESCRIPTION	Part ID
32	1	UC1020P43	BRACKET FOR 9-PIN D-SUB CONNECTOR	UC1020P43
31	1	UC1020P18	ENCLOSURE CPU BOX	UC1020P18
30	1	UC1020P16	BACK PLATE	UC1020P16
29	1	UC1020A15	MPI PORT EXTENDER CABLE	UC1020A15
28*	4		WASHER PLAIN FLAT .25 SS	960.3014
27*	8		NUT HEX .25-20 SS	950.3014
26*	4		SCREW MACHINE SL FIL. HD .25-20X1.50 SS	916.3114
25	1		CONNECTOR D-SUB 9 POSITION MALE DISCRETE	231.8145
24	3		HOLE PLUG HEYCO THREADED PG9	231.6240
23*	9		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
22*	4		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
21*	9		FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
20*	9		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
19*	4		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
18*	9		FITTING CAP NUT HARNESSFLEX NC16	231.6209
17*	4		FITTING CAP NUT HARNESSFLEX NC12	231.6208
16*	9		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
15*	4		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
14*	9		TERMINAL JUMPER SUB ASSEMBLY 6MM	231.1058
13*	1		TERMINAL 6MM JUMPER BAR 20 POLE	231.1057
12	1		TERMINAL HAND TOOL FOR SELF STRIPPING	231.1055
11	5		TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053
10*	3		TERMINAL MARKING STRIP 7.5 MM	231.1052
9	11		TERMINAL END SECTION 6 MM ADO	231.1051
8	112		TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050
7	8		RELAY DIN RAIL MOUNTED 24 VDC 1 N.O.	231.1049
6	1		S7-200 PLC CPU 226 DC/DC/DC	231.1012
5	1		S7-200 PLC MEMORY BACKUP BATTERY	231.1009
4	1		RELAY SPDT 24 VDC 30 AMP	231.0178
3	1		RELAY SPDT 12 VDC 30 AMP	231.0177
2	7		TERMINAL END STOP	231.0032
1	3	UC1020P15	DIN RAIL LONG	

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1.0 INCH = 25.4 mm
THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

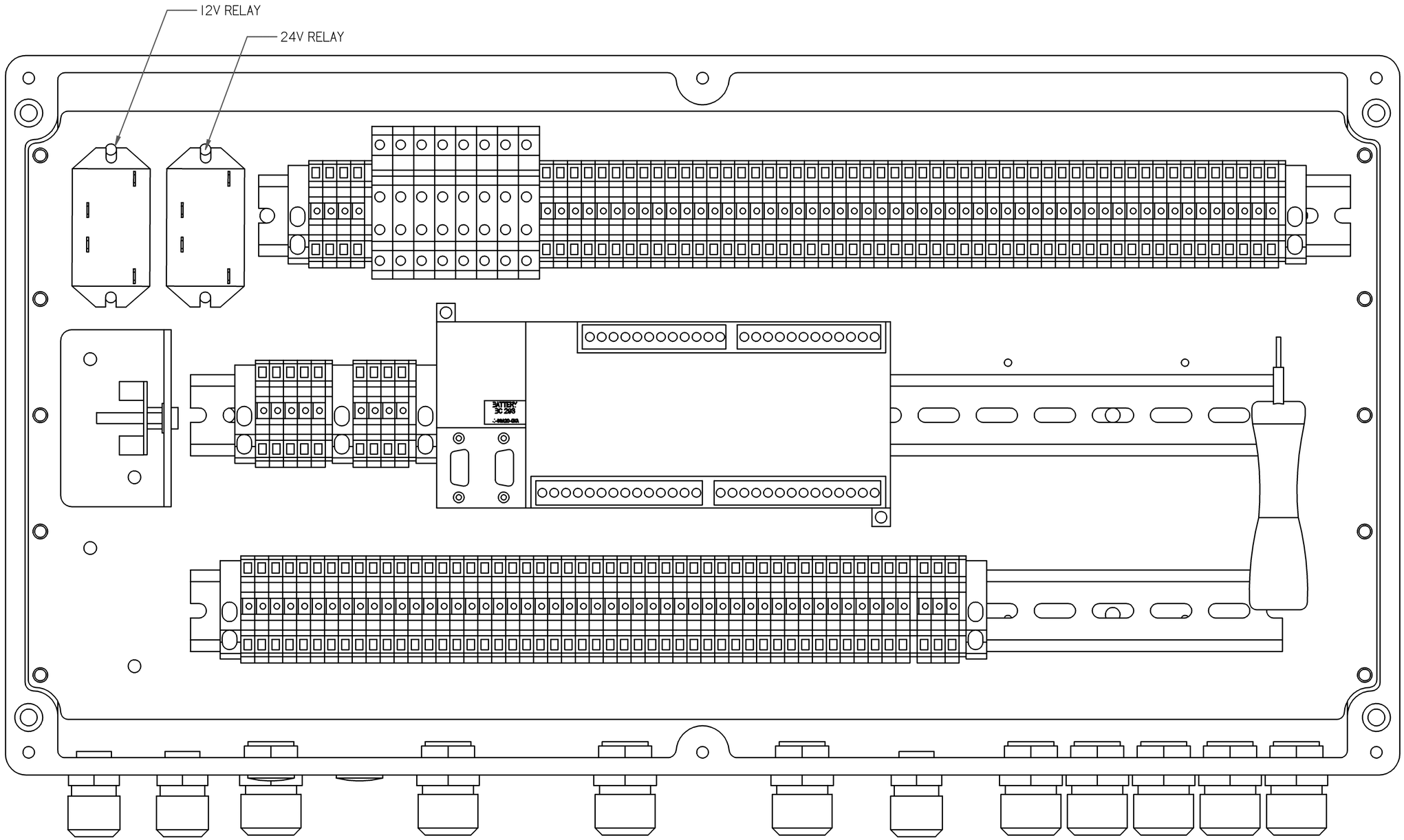
DRAWN T BARHAM
DATE 3/24/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ CPU BOX BLEND & QUAD
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A23 | REV 5 | SIZE C
WEIGHT 30.9 lbm | SHEET 1 OF 7

Last Changed: 1/29/2009



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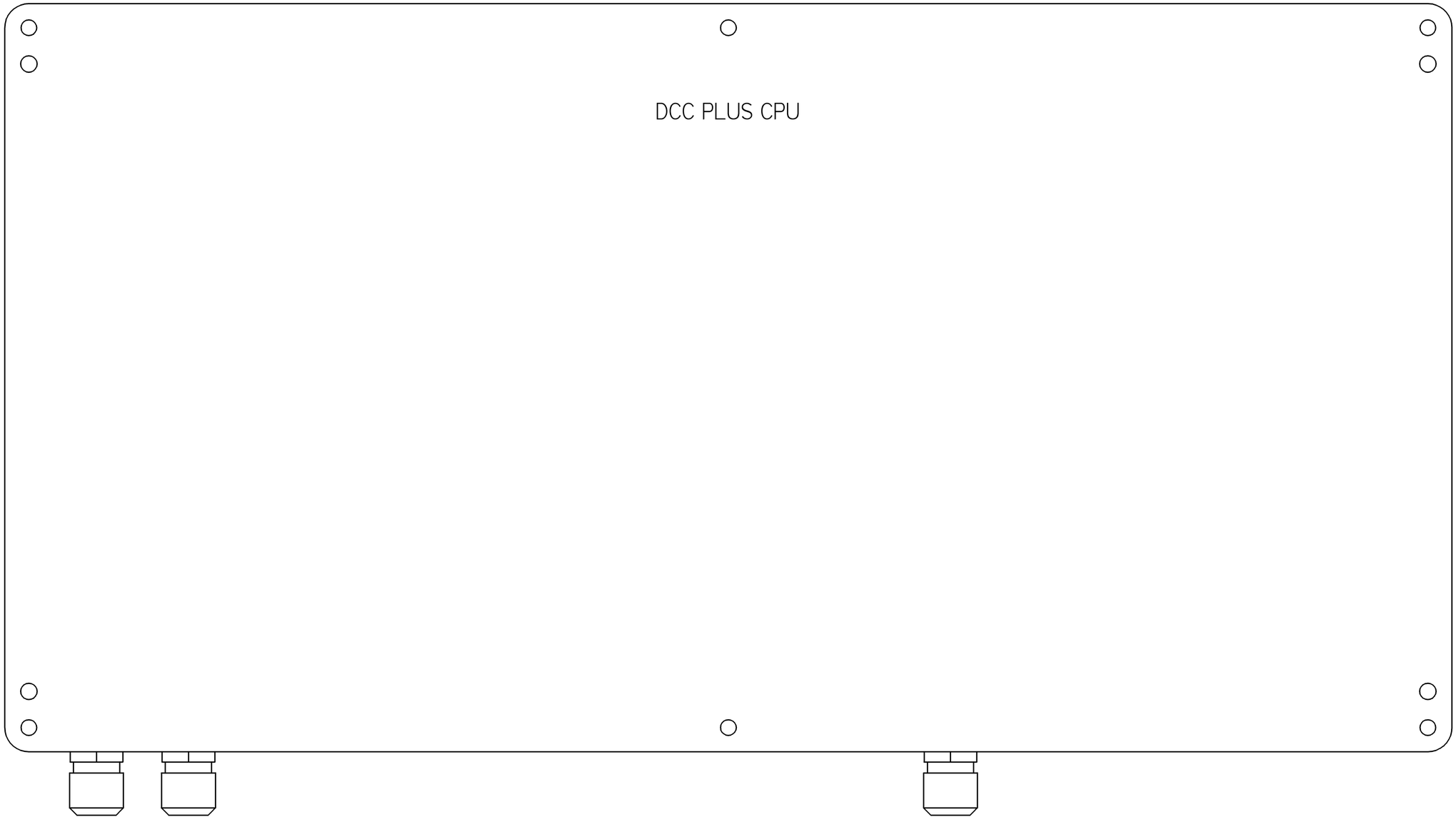
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN T BARHAM DATE 3/24/2005 APPR.	PROJECT UNIBODY CONTROLS TITLE DCC+ CPU BOX BLEND & QUAD DCC PLUS CONTROL SYSTEM DWG NO UC1020A23 REV 5 SIZE C WEIGHT 30.9 lbm SHEET 2 OF 7

Last Changed: 1/29/2009



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UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN T BARHAM
DATE 3/24/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ CPU BOX BLEND & QUAD
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A23 | REV 5 | SIZE C
WEIGHT 30.9 lbm | SHEET 3 OF 7

Last Changed: 1/29/2009

DC1 - BLK	MPI_3
DC2 - RED	MPI_4
DC3 - WHT	MPI_5
DC4 - GRN	MPI_8
DC5 - Shield	MPI_Shield

NOTE:
Cable 'RP' may be omitted in systems that do not have a remote control or second display screen.

RP1 - BLK	(-) Switched Truck Pwr
RP2 - RED	System Run Lamp
RP3 - WHT	E-Stop Out
RP4 - GRN	E-Stop Rtn
RP5 - ORG	Remote Disp Scrn Pwr
DS1 - BLK	Reg. 24v (Common)
DS2 - RED	Reg. 24v (+)
DS3 - WHT	(+) Unswitched Pwr
DS4 - GRN	Power Switch Relay
DS5 - ORG	System Run Lamp
DS6 - BLU	(-) Switched Truck Pwr
DS7 - BRN	Reset Button Rtn
DS8 - YEL	Reset Button Out
DS9 - VIO	Stop Button Rtn
DS10 - GRY	Stop Button Out
DS11 - PNK	Start Button
DS12 - TAN	Keyswitch
AS1 - BLK	Reg. 24v (Common)
AS2 - RED	Reg. 24v (+)
AS3 - WHT	AN Speed Sensor
AS4 - GRN	Emul. Speed Sensor
AS5 - ORG	(+) Switched Truck Pwr
AS6 - BLU	Low Oil Pressure
AS7 - BRN	Start Button
AS8 - YEL	Stop Button Out
AS9 - VIO	Stop Button Rtn
AS10 - GRY	Reset Button Out
AS11 - PNK	Reset Button Rtn
AS12 - TAN	Boom Up Solenoid
AS13 - RED-GRN	Boom Down Solenoid
AS14 - RED-YEL	Boom Left Solenoid
AS15 - RED-BLK	Boom Right Solenoid
PS1 - BLK	Reg. 24v (Common)
PS2 - RED	Reg. 24v (+)
PS3 - WHT	PPmp Speed Sensor
PS4 - GRN	Low Pump Pres.
PS5 - ORG	High Pump Pres.
PS6 - BLU	Air Pres.
PS7 - BRN	Pump Flow
PS8 - YEL	PumpGard Enabled
PS9 - VIO	(+) Switched Truck Pwr
PS10 - GRY	(-) Switched Truck Pwr
PS11 - PNK	Lvl High
PS12 - TAN	Lvl Low
PS13 - RED-GRN	Lvl High High
PS14 - RED-YEL	Lvl Low Low
PS15 - RED-BLK	Gas 1 Flowmeter
PS16 - WHT-BLK	Gas 2 Flowmeter
GM1 - VIO	Boom Enabled Rtn
GM2 - GRY	Boom Enabled Out
GM3 - PNK	Boom Bypass

* IF THIS SYSTEM IS USED ON ATRUCK WITHOUT A GUARDMASTER, A JUMPER WIRE MUST BE INSTALLED BETWEEN TERMINALS T120 AND T121.

Male DB9 connects to MPI Port 0 of PLC.

NOTE:
Cable 'DC' should connect ***directly*** to the DB9 connector's terminals.

Display Screen Selector

NOTE:
For systems with only one display screen (the norm), the selector switch shown to the left can be omitted. When omitted, the Regulated 24V (from T52) should connect directly to T7 and then be jumpered to T13.

Rail A: T1 YEL >> T10; T2 BLK >> T11; T10 YEL >> R2; T11 BLK >> C; T21 RED >> V+; T24 WHT >> T75; T29 GRN >> T71; T30 WHT >> T70; T31 ORG >> T72; T32 BLU >> T73; T35 BLU >> T96; T35 BLU >> CPU I0.6; T17 GRY >> CPU I1.3; T20 WHT >> CPU I2.1; T45 BRN >> T104; T46 WHT >> T110; T47 GRY >> R4

SIMATIC S7-200 CPU 226 DC/DC/DC

T35 << BLU; T17 << GRY; T120 << WHT; ORG >> T87 (PPump Bypass / PumpGard Reset)

R1: BLK; T11 << BLK; T54 << BLK; T64 << BLK; T76 << BLK; BLK >> T77

T22 << RED; T65 << RED; T78 << RED; RED >> R5; RED >> R6

Rail B: T50 GRY; T51 T79 << BLK; T52 PNK; T53 T80 << RED

R2 YEL >> T10 (Run-Mode Indicator); R3 WHT >> T69 (Vert & Boom Augers); R4 GRY >> T122 (Boom Bypass); R5 GRN >> T60 (Prill Auger); R6 ORG >> T74 (Blend); R7 BRN >> T100 (Gasser A); R8 VIO >> T109 (Gasser B); R9 BLU >> T84 (Product Pump)

T54 C << BLK; T55 BLU; T56 ORG; T57 GRN; T58 WHT; T59 BLU; T60 R5 << GRN; T61 YEL; T62 VIO; T63 GRY; T64 C << BLK; T65 V+ << RED; T66; T67; T68 R3 << WHT; T69 T30 << WHT; T70 T29 << GRN; T71 T31 << ORG; T72 T32 << BLU; T73

Rail B

NOTE:
Since the unswitched power wires may carry as much as 24 Amps of current, the 'REG1' and 'REG2' wires should be 10-Gauge, while 'REG3' and 'REG4' should be 18-Gauge.

REG1 - BLK	(-) UnSwitched Pwr
REG2 - WHT	(+) UnSwitched Pwr
REG5 - WHT/BLK	(+) Switched Pwr
REG3 - GRY	Reg. 24v (Common)
REG4 - PNK	Reg. 24v (+)

WIRE COLOR NOTE

Where individual wires in conduit are used instead of cable, the following color substitutions may be necessary:

Red/Grn --> Grn/Blk
Red/Yel --> Yel/Blk
Red/Blk --> Red/Blk

The substitute colors are created using solid wire color and adding a black stripe to differentiate them.

**** NOTE ****
If DCC+ is being installed on a truck with 24V Danfoss pumping valves, this wire should connect to T53 instead of V+.

AJ1 - BLK	(-) Switched Truck Pwr
AJ2 - RED	Boom Right Solenoid
AJ3 - WHT	Boom Left Solenoid
AJ4 - GRN	Boom Up Solenoid
AJ5 - ORG	Boom Down Solenoid
AJ6 - BLU	Vert. & Boom Solenoid
AJ7 - BRN	Prill Auger Solenoid
AJ8 - YEL	Blend Solenoid
AJ9 - VIO	Preset A Solenoid
AJ10 - GRY	Preset B Solenoid
BC1 - BLK	(-) Switched Truck Pwr
BC2 - RED	(+) Switched Truck Pwr
BC3 - WHT	Preset B Solenoid
BC4 - GRN	Preset A Solenoid
BC5 - ORG	Blend Solenoid
BC6 - BLU	Vert. & Boom Solenoid
BC7 - BRN	Boom Down Solenoid
BC8 - YEL	Boom Up Solenoid
BC9 - VIO	Boom Left Solenoid
BC10 - GRY	Boom Right Solenoid

****IMPORTANT:**
The STOP, RESET, and POWER (E-Stop) buttons are all normally-closed contacts. As such, remote buttons must be wired in series with the existing buttons. *For systems without a remote control or second display screen, the following terminal pairs must be shorted together:*

- T3(E-Stop Out) to T4(E-Stop Rtn)
- T25(Stop Button Out) to T26(Stop Button Rtn)
- T27(Reset Button Out) to T28(Reset Button Rtn)

NOTE:
The terminal blocks labeled 'C' are blue. The rest are grey.

CONSTRUCTION NOTE

In order to retain consistency across versions of the DCC+, terminal block IDs are numbered the same in all verions of the DCC+ (hence there are gaps in numbering in this schematic).

Last Changed: 1/29/2009

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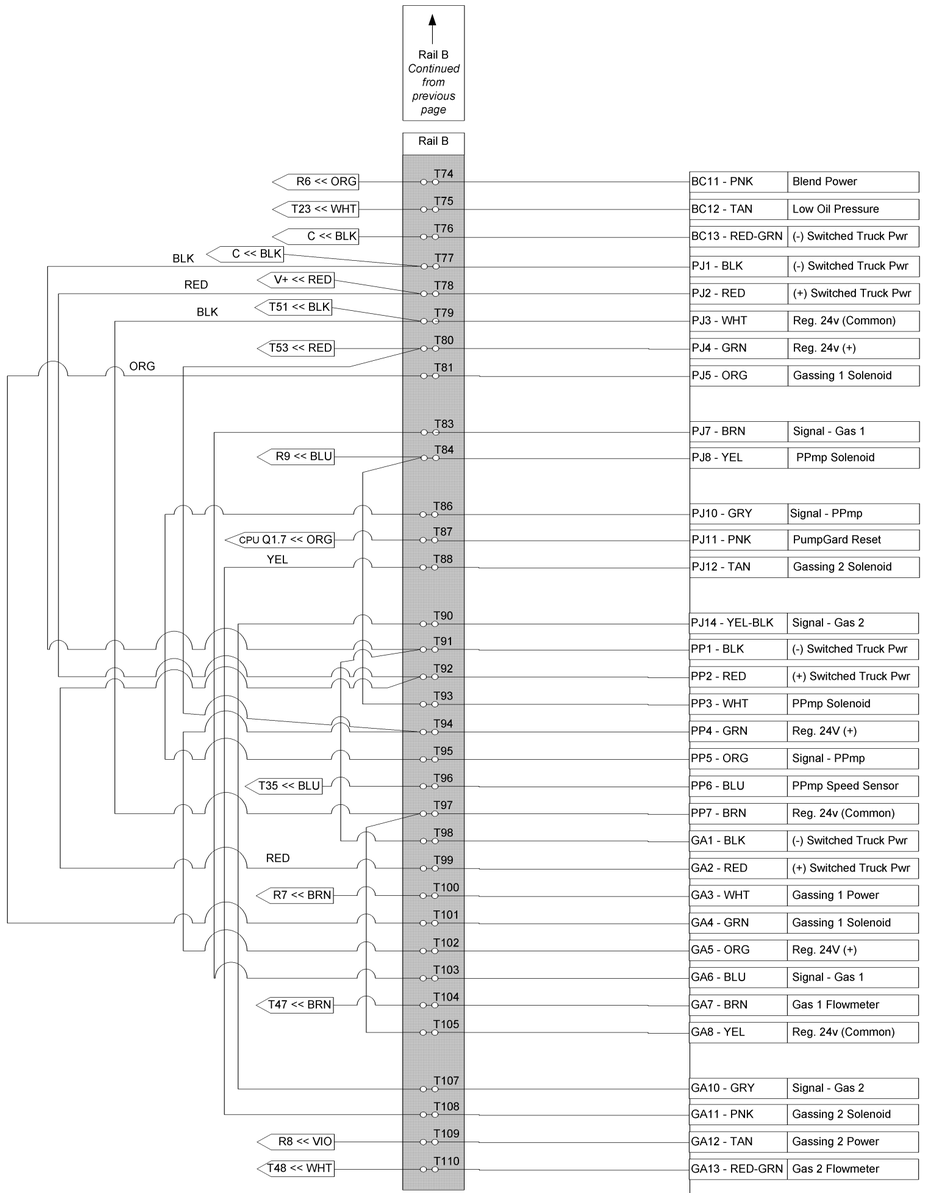
THIRD ANGLE PROJECTION

DRAWN T BARHAM
DATE 3/24/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ CPU BOX BLEND & QUAD
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A23
REV 5
SIZE C
WEIGHT 30.9 lbm
SHEET 4 OF 7



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PROJECT UNIBODY CONTROLS
TITLE DCC+ CPU BOX BLEND & QUAD
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A23 | REV 5 | SIZE C
WEIGHT 30.9 lbm | SHEET 5 OF 7

Last Changed: 1/29/2009

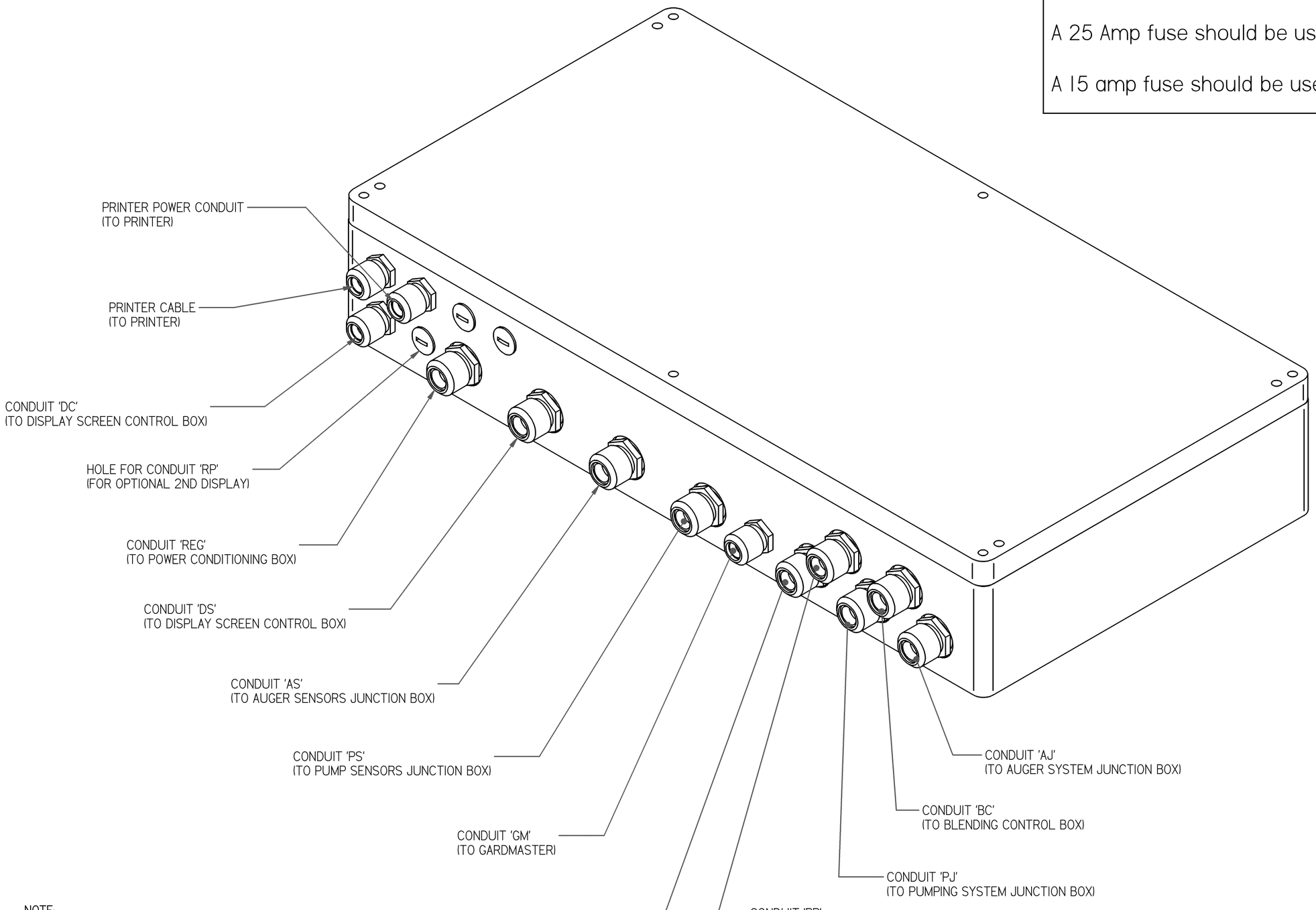
CABLE HOOK-UP DIAGRAM

POWER WIRING NOTE

The DCC+ should be on its own fused circuit running from the Tread power distribution box.

A 25 Amp fuse should be used for 12v systems.

A 15 amp fuse should be used for 24v systems.



NOTE:
CABLE 'RP' IS ONLY NECESSARY IF A REMOTE CONTROL OR SECOND DISPLAY CONTROL BOX IS INSTALLED.

NOT SHOWN IN THIS DRAWING IS OPTIONAL SELECTOR SWITCH THAT WOULD ONLY BE INCLUDED IF A SECOND DISPLAY CONTROL BOX IS ADDED.

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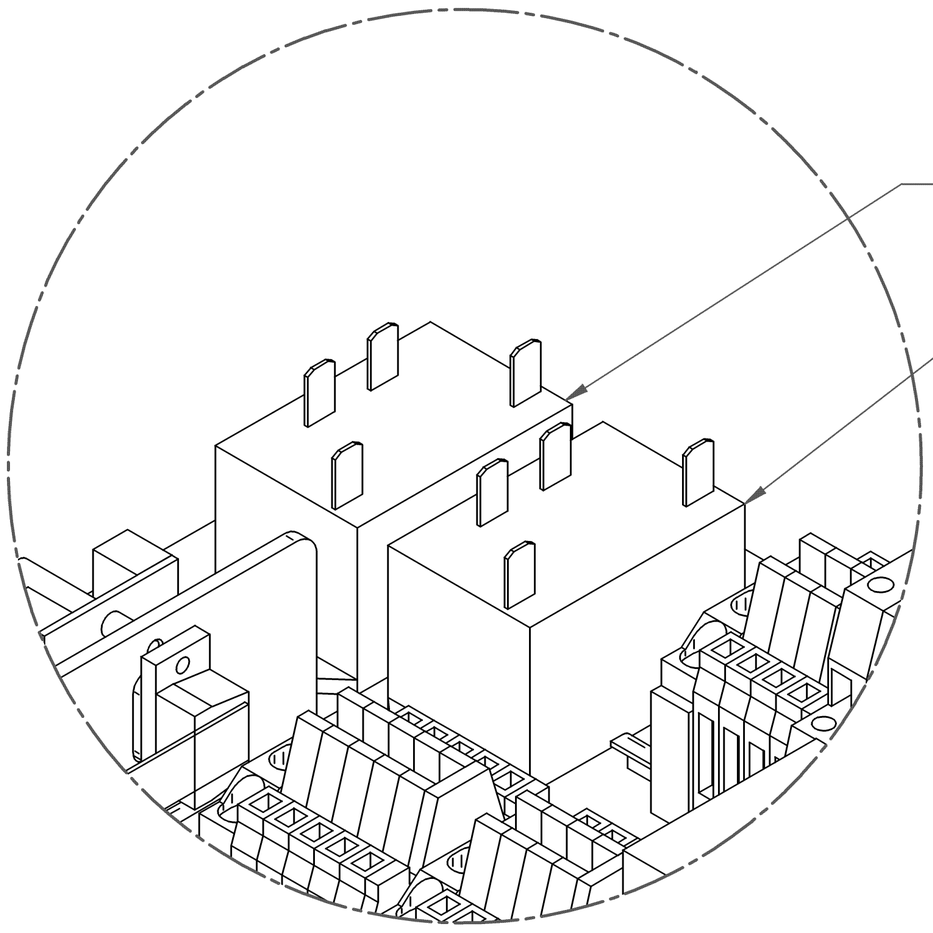
DRAWN T BARHAM
DATE 3/24/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

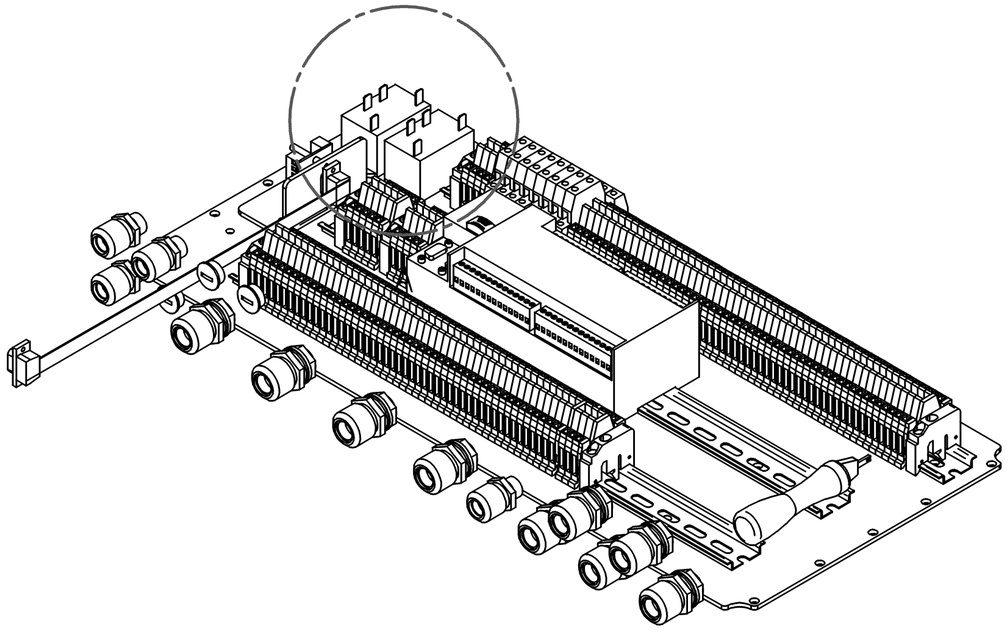
PROJECT UNIBODY CONTROLS
TITLE DCC+ CPU BOX BLEND & QUAD
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A23 | REV 5 | SIZE C
WEIGHT 30.9 lbm | SHEET 6 OF 7

Last Changed: 1/29/2009



DETAIL A



Because a DCC+ CPU Box may be built and stocked as 12V unit only to be later used on a 24V chassis, the relays should be labeled, and a note (or a copy of this drawing) should be placed in units built for stock.

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THIRD ANGLE PROJECTION

DRAWN T BARHAM
DATE 3/24/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE DCC+ CPU BOX BLEND & QUAD
DCC PLUS CONTROL SYSTEM

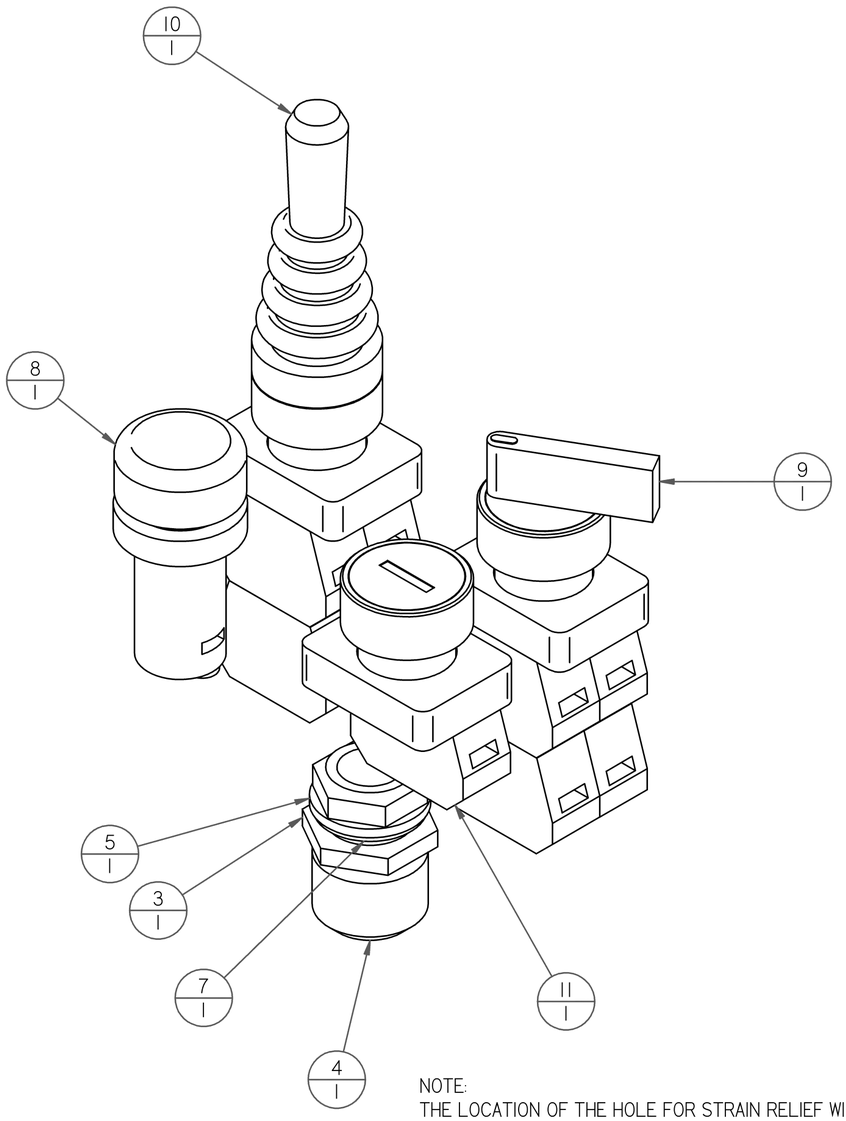
DWG NO UC1020A23 | REV 5 | SIZE C
WEIGHT 30.9 lbm | SHEET 7 OF 7

Last Changed: 1/29/2009

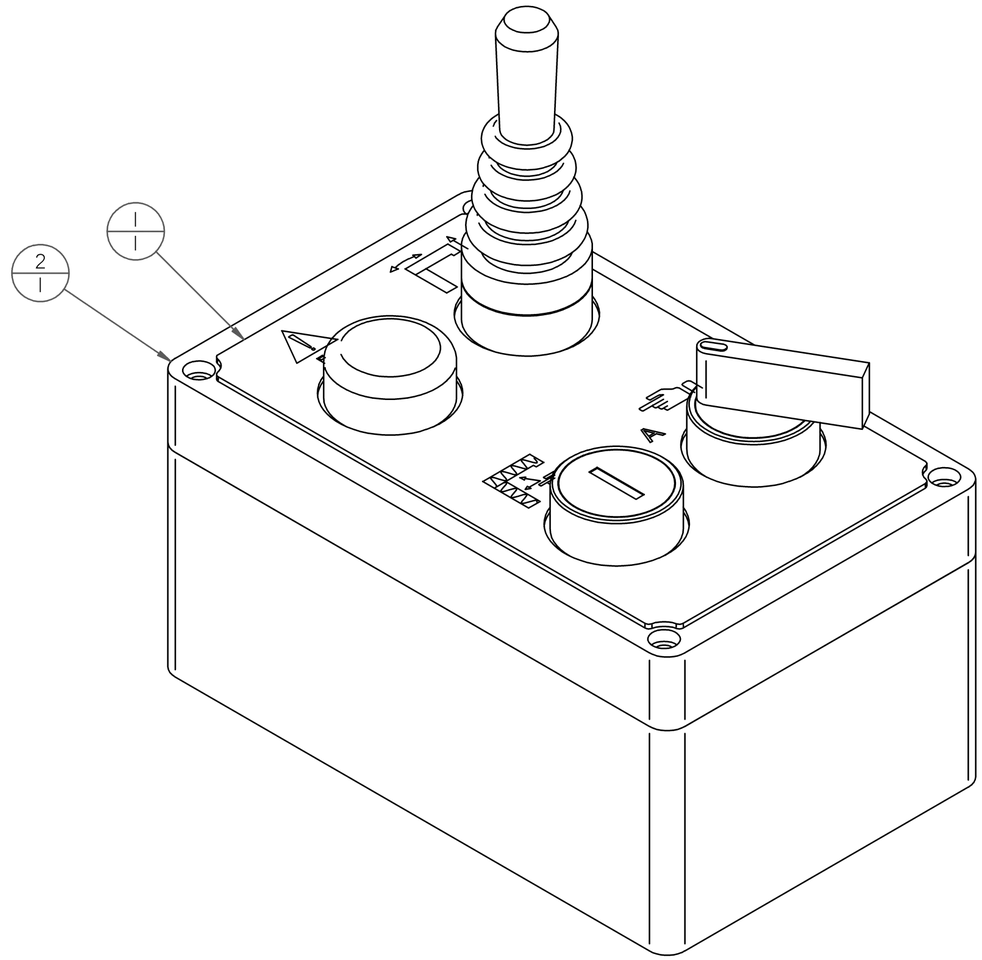
NOTE:
PART 234.1056 - PILOT LIGHT BULB 12 VDC TYPE BA9S - ONLY INCLUDED IN 12VDC SYSTEMS.

ALL OTHER LISTED PARTS TO BE USED FOR EITHER 12 OR 24 VDC SYSTEMS.

CONFIGURATION RULES: (USED ON)
DCC+ EXCEPT FOR REPUMP



NOTE:
THE LOCATION OF THE HOLE FOR STRAIN RELIEF WILL DEPEND ON HOW THE BOX IS TO BE MOUNTED.



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1020P49	LABEL BLENDING CONTROL BOX	UC1020P49
2	1	UC1020P26	ENCLOSURE	UC1020P26
3	1		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
4	1		FITTING CAP NUT HARNESSFLEX NC16	231.6209
5	1		FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
6*	1		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
7	1		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
8	1		P.B. 22MM INDICATOR LIGHT RED	234.1031
9	1		P.B. 22MM OPERATOR 3-POS SEL MAINTAINED	234.1023
10	1		P.B. 22MM OPERATOR 4-POS JOYSTICK	234.1026
11	1		P.B. 22MM OPERATOR FLUSH HEAD GREEN	234.1022
12*	1		PILOT LIGHT BULB 12 VDC TYPE BA9S	234.1056

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THIRD ANGLE PROJECTION

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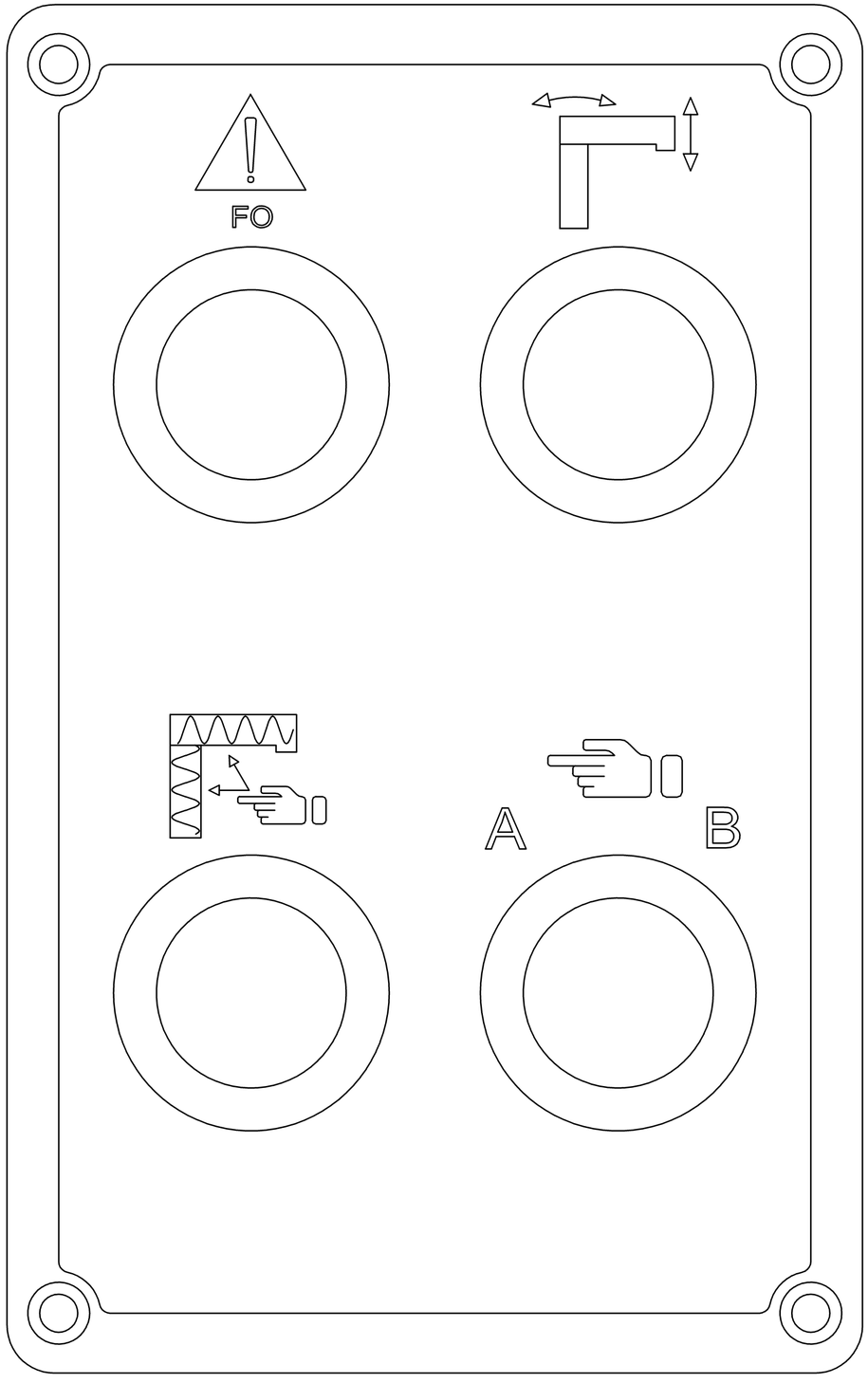
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 2/16/2005
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BLENDING CONTROL BOX
TITLE BLENDING CONTROL BOX
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A28
REV 01
SIZE C
WEIGHT 4.4 lbm
SHEET 1 OF 3

Last Changed: 6/29/2009



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THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 2/16/2005
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

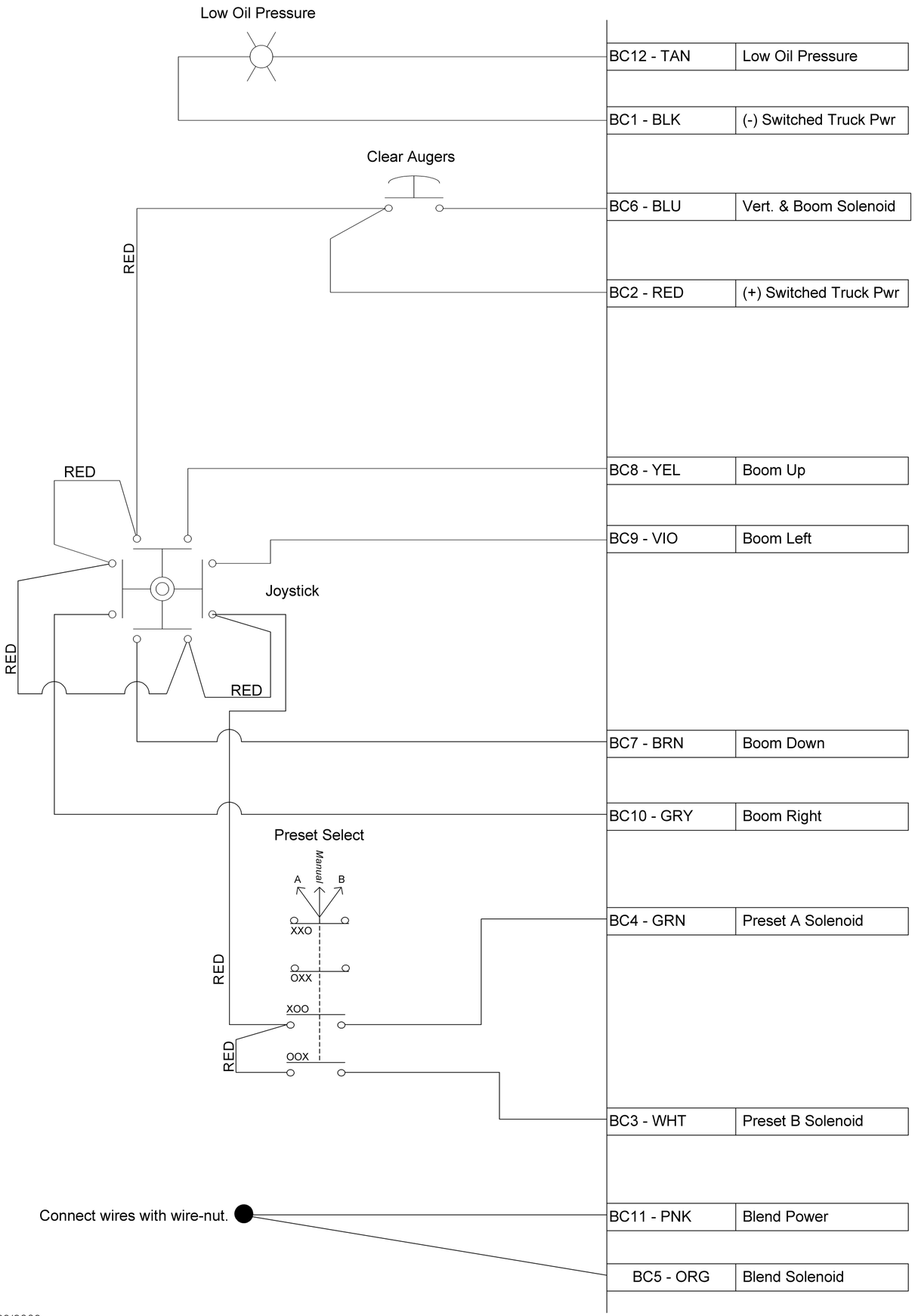
PROJECT BLENDING CONTROL BOX

TITLE BLENDING CONTROL BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A28 | REV 01 | SIZE C

WEIGHT 4.4 lbm | SHEET 2 OF 3

Last Changed: 6/29/2009



WIRE COLOR NOTE

Where individual wires in conduit are used instead of cable, the following color substitutions may be necessary:

Red/Grn --> Grn/Blk
Red/Yel --> Yel/Blk
Red/Blk --> Red/Blk

The substitute colors are created using solid wire color and adding a black stripe to differentiate them.

Last Changed: 6/29/2009

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DRAWN TBARHAM
DATE 2/16/2005
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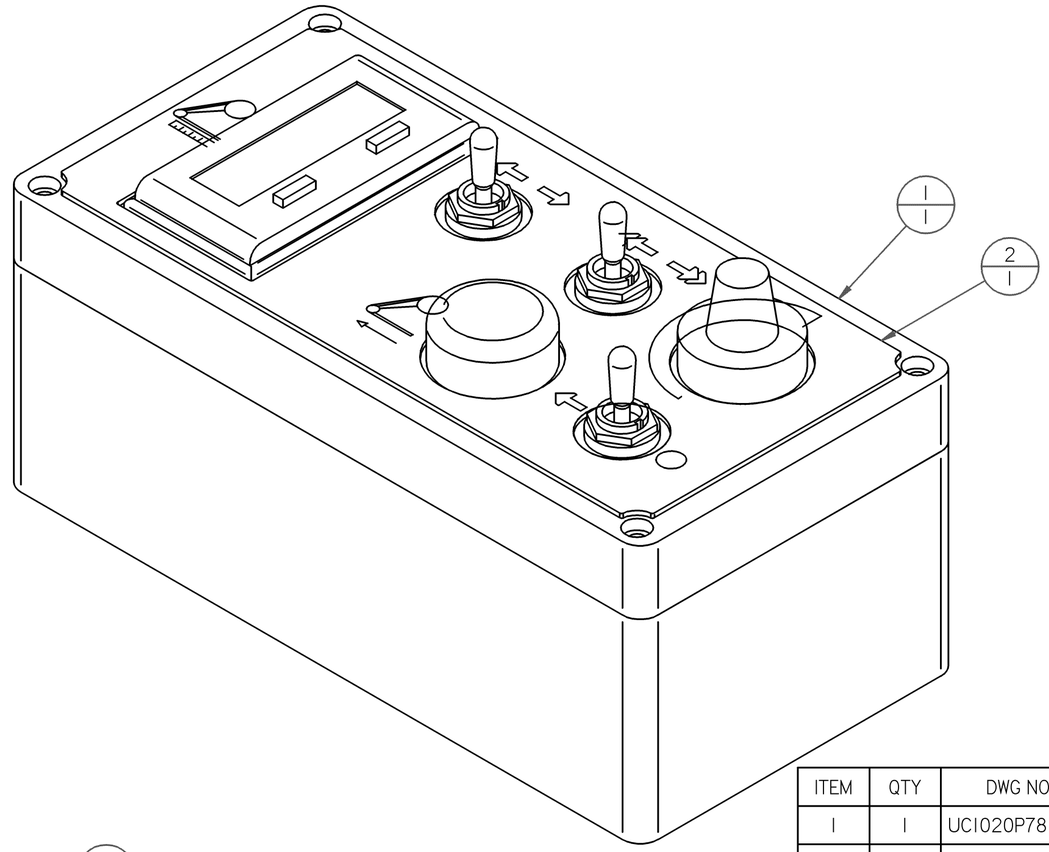
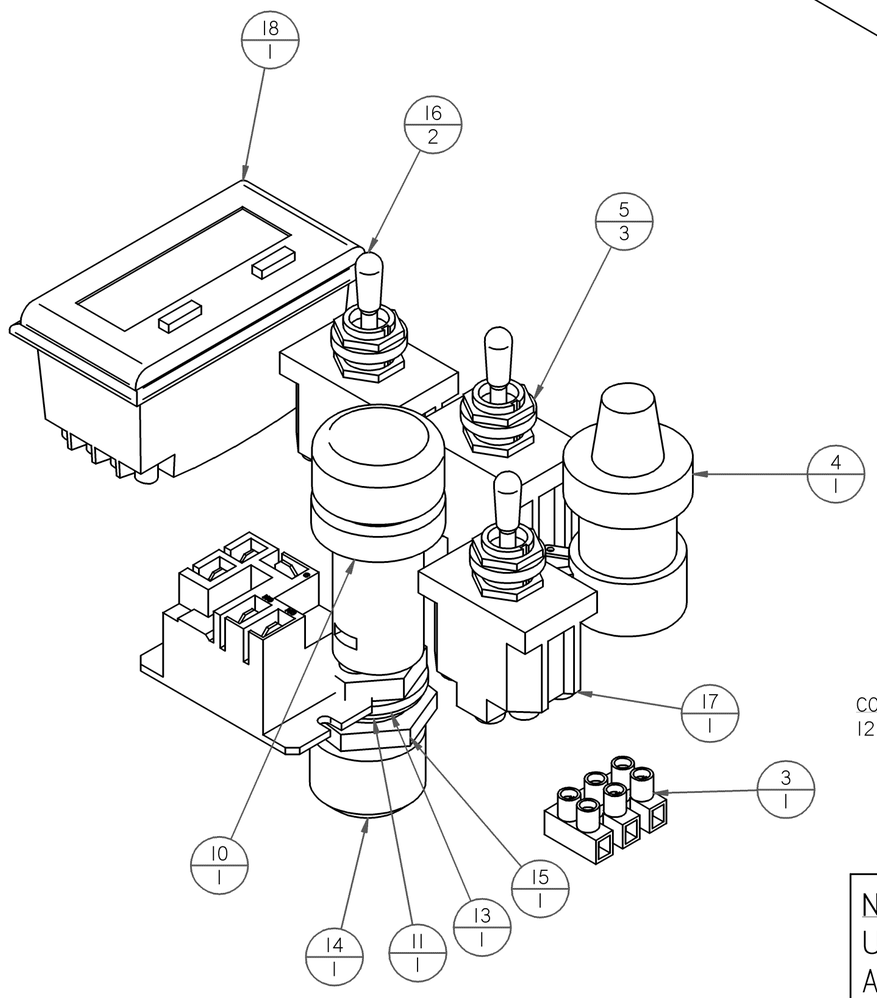
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BLENDING CONTROL BOX
TITLE BLENDING CONTROL BOX
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A28
REV 01
SIZE C
WEIGHT 4.4 lbm
SHEET 3 OF 3





CONFIGURATION RULES: (USED ON)
12 VOLT DCC+ WITH FRONT HOSE REEL

NOTE
USE TERMINAL STRIP TO AVOID SOLDERING INCOMING WIRES TO RESISTORS & POT

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1020P78	HOSEREEL CONTROL ENCLOSURE	UC1020P78
2	1	UC1020P107	LABEL HOSEREEL CONTROL BOX W/ POTS CONTR	UC1020P107
3	1	TC03350	EUROSTRIPS 3-POLE TERMINAL STRIP	231.0220
4	1	TC03336	P.B. 22MM POTENTIOMETER OPERATOR	231.0166
5	3	TC03051	SEALED-SWITCH BUSHING SEAL	234.8040
6*	1	TC02908	RESISTOR 470 OHM .25 WATT 5%	231.0023
7*	1	TC02904	RESISTOR 1500 OHM .5 WATT 5%	231.0027
8*	1	TC02886	RELAY SPDT 24 VDC	231.0042
9*	1	TC02696	POTENTIOMETER SEALED 1K OHM	231.0165
10	1	TC02561	P.B. 22MM INDICATOR LIGHT GREEN	234.1046
11	1	TC01846	FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
12*	1	TC01844	FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
13	1	TC01841	FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
14	1	TC01818	FITTING CAP NUT HARNESSFLEX NC16	231.6209
15	1	TC01815	FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
16	2	TC01131	SWITCH TOGGLE SEALED DPDT SPRING CTR	234.8043
17	1	TC01128	SWITCH TOGGLE SEALED DP 3-POS SPRING CTR	234.8044
18	1	TC01110	TOTALIZER DURANT BACKLIT 53302-401	231.0055

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ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 08/27/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

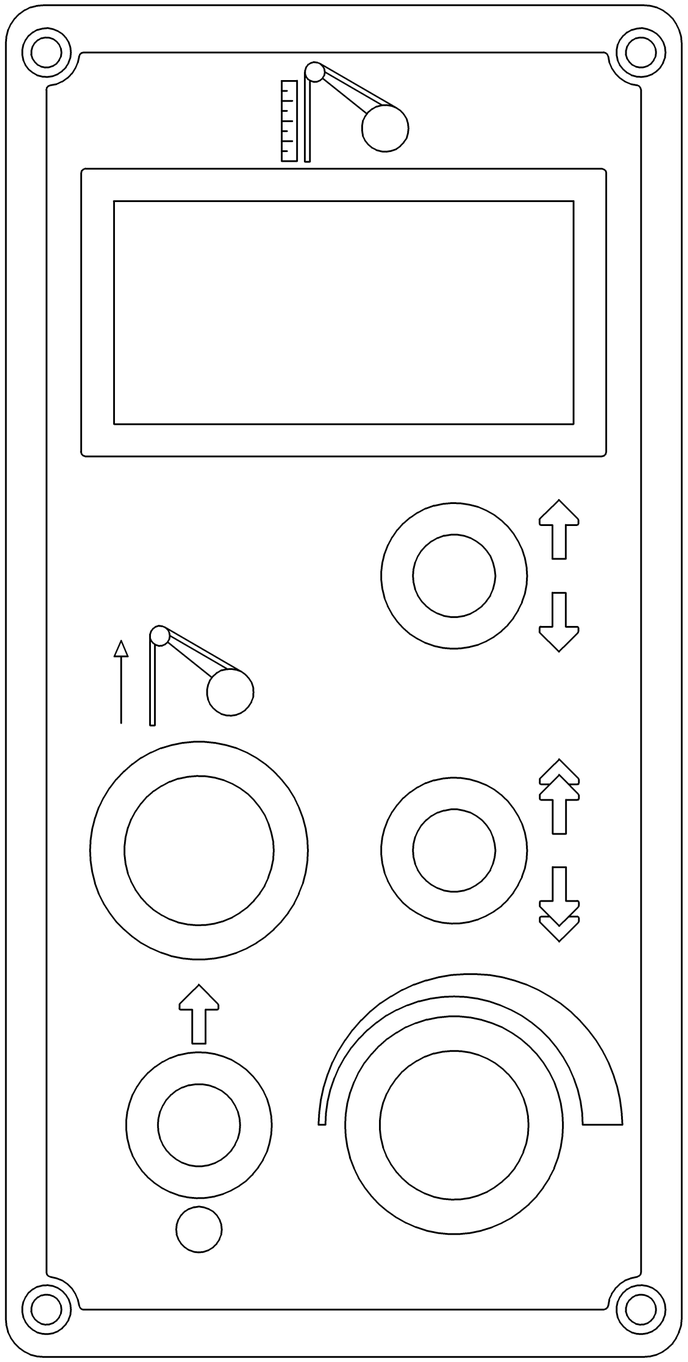
PROJECT DCC+ HOSEREEL CONTROL BOX W/ POT

TITLE DCC+ HOSEREEL CONTROL BOX W/ POT 12V DCC PLUS CONTROL SYSTEM

DWG NO UC1020A30X | REV 02 | SIZE C

WEIGHT 2.6 lbm | SHEET 1 OF 3

Last Changed: 1/5/2011



LABELING OPTIONS

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THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 08/27/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ HOSEREEL CONTROL BOX W/ POT
TITLE DCC+ HOSEREEL CONTROL BOX W/ POT 12V
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A30X
REV 02
SIZE C
WEIGHT 2.6 lbm
SHEET 2 OF 3

Last Changed: 1/5/2011

NOTE:
All toggle switches should be mounted so that the keyway is in the 'down' position.

Fast Up/Down Toggle Switch

Slow Retract 8501K19 Toggle Mounted with keyway down, where down = "STOP"

8501K19 Switch Circuit Diagram

UP Position	CENTER Position	DOWN Position (Key)
1 2 3 / 4 5 6	1 2 3 / 4 5 6	1 2 3 / 4 5 6

Hose Retracting

Boom Control Toggle Switch

Hose Depth Meter

7 +10-30 VDC	RST 4
6 DC Common	IN A 3
5 Enable/R	IN B 2
	GND 1

Back View of Potentiometer

HR3 - WHT	Fast Up Solenoid
HR5 - ORG	Fast Down Solenoid
HR2 - RED	Reg. 24V (+)
HR1 - BLK	Reg. 24V (Common)
HR6 - BLU	Slow Up Solenoid
HR7 - BRN	Boom Up
HR8 - YEL	Boom Down
HR9 - VIO	HR Depth Signal
HR4 - GRN	Signal - HR Pot

Last Changed: 1/5/2011

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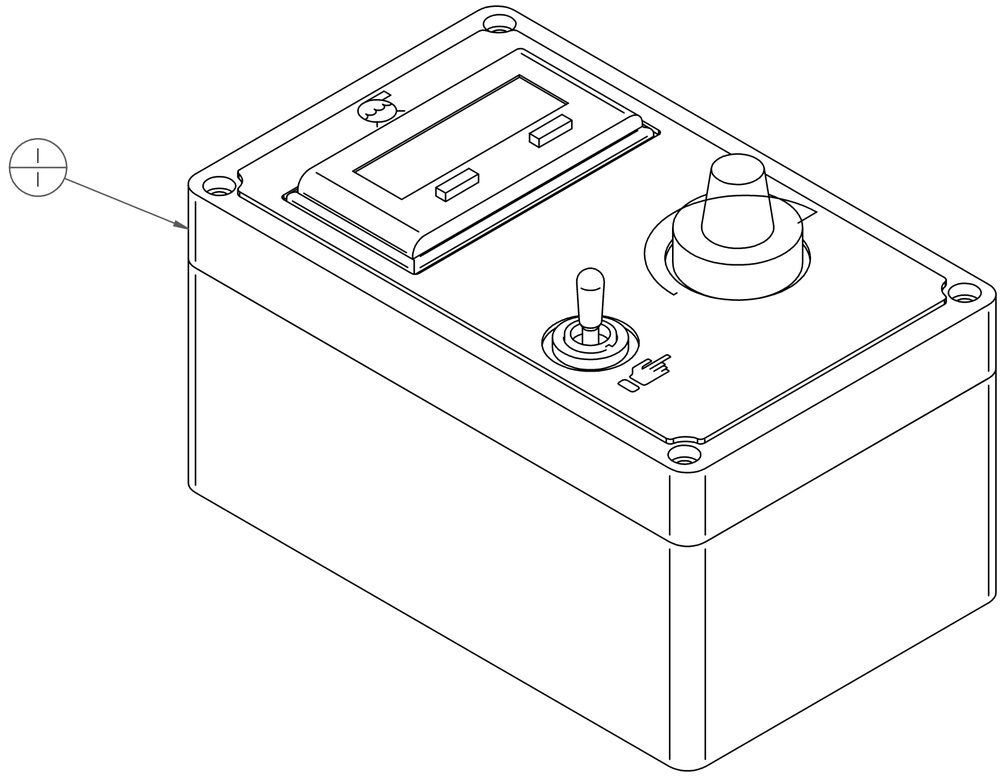
THIRD ANGLE PROJECTION

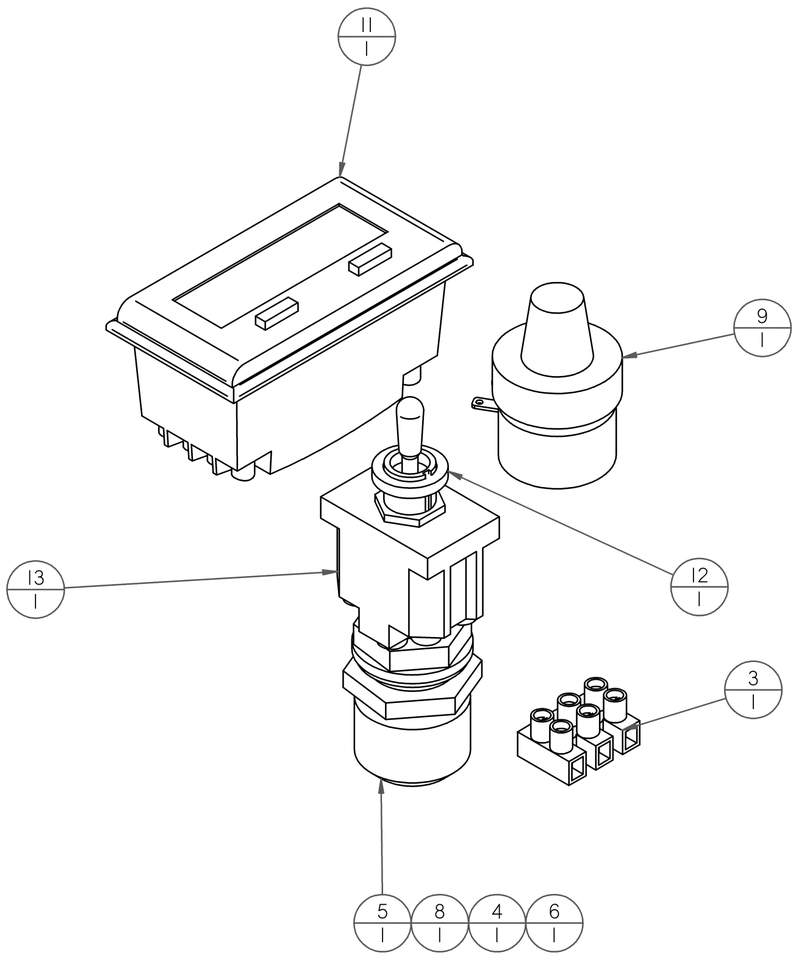
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 08/27/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ HOSEREEL CONTROL BOX W/ POT
TITLE DCC+ HOSEREEL CONTROL BOX W/ POT 12V
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A30X
REV 02
SIZE C
WEIGHT 2.6 lbm
SHEET 3 OF 3





CONFIGURATION RULES: (USED ON)
DCC+ FRONT HOSE REEL

NOTE
USE TERMINAL STRIP TO AVOID SOLDERING INCOMING WIRES TO RESISTORS & POT

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1020P80	ENCLOSURE	UC1020P80
2*	1	UC1020P108	LABEL	UC1020P108
3	1		EUROSTRIPS 3-POLE TERMINAL STRIP	231.0220
4	1		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
5	1		FITTING CAP NUT HARNESSFLEX NC16	231.6209
6	1		FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
7*	1		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
8	1		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
9	1		P.B. 22MM POTENTIOMETER OPERATOR	231.0166
10*	1		POTENTIOMETER SEALED 1K OHM	231.0165
11	1		RATE/TOTAL BACKLIT DURANT 53302-405	231.0105
12	1		SEALED-SWITCH BUSHING SEAL	234.8040
13	1		SWITCH TOGGLE SEALED DP 3-POS PN8501K3	234.8046

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THIRD ANGLE PROJECTION

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ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 8/27/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

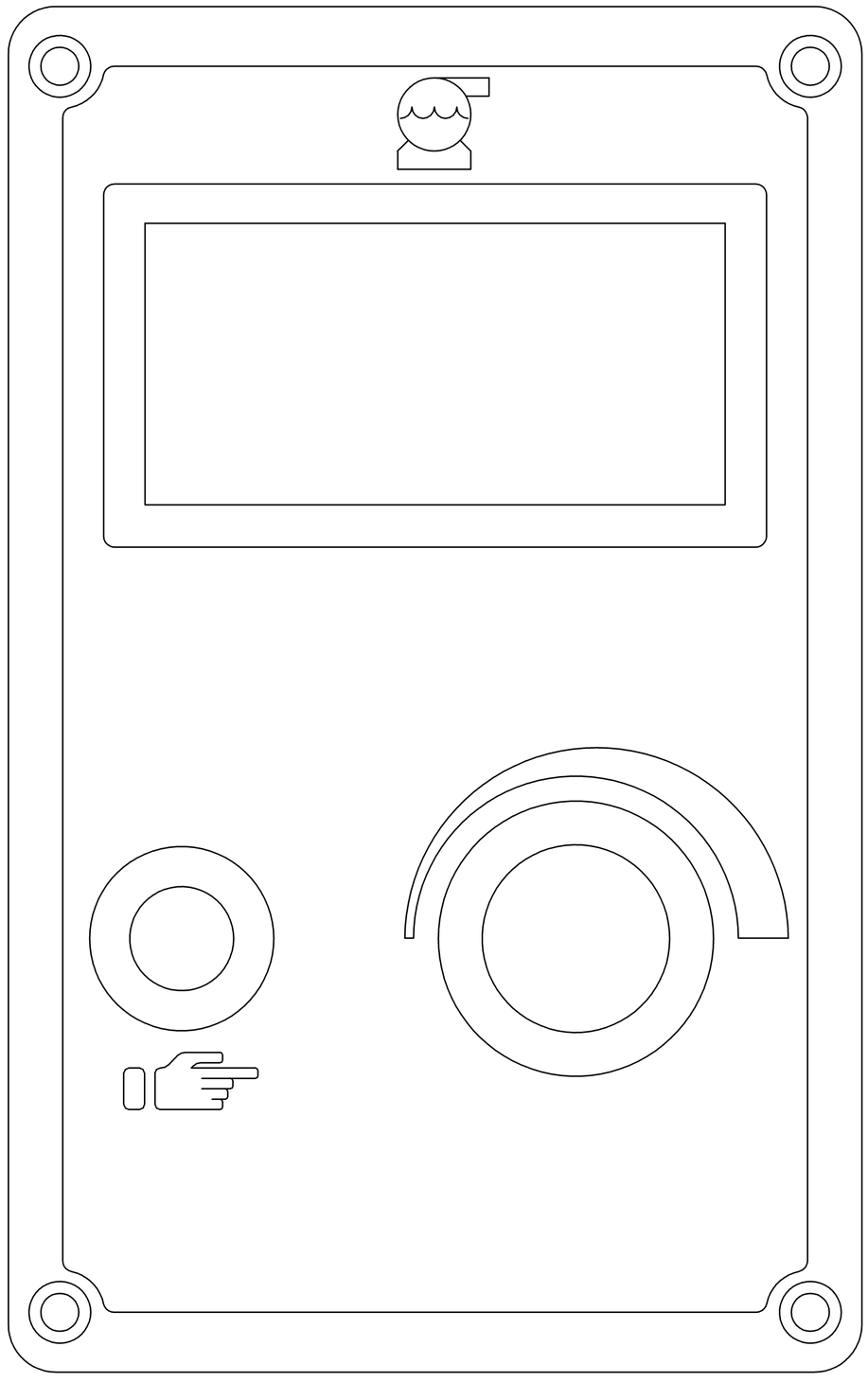
PROJECT DCC+ WATER CONTROL BOX W/ POT CO

TITLE DCC+ WATER CONTROL BOX W/ POT CONTROL
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A32 | REV 02 | SIZE C

WEIGHT 2.3 lbm | SHEET 1 OF 3

Last Changed: 5/14/2009



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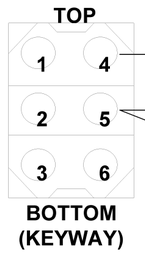
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN TBARHAM DATE 8/27/2004 APPR.	PROJECT DCC+ WATER CONTROL BOX W/ POT CO TITLE DCC+ WATER CONTROL BOX W/ POT CONTROL DCC PLUS CONTROL SYSTEM DWG NO UC1020A32 REV 02 SIZE C WEIGHT 2.3 lbm SHEET 2 OF 3

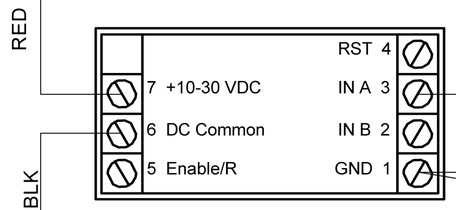
Last Changed: 5/14/2009

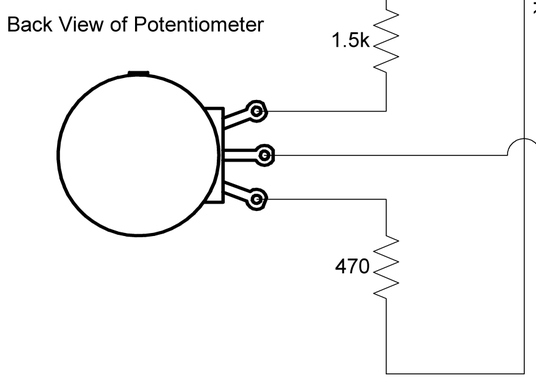
NOTE:
All toggle switches should be mounted so that the keyway is in the 'down' position.

Water -- / Manual Toggle



WA3 - WHT	Water Solenoid
WA9 - VIO	Reg. 24v (+)
WA7 - BRN	(+) Switched Truck Pwr
WA1 - BLK	Water Flowmeter
WA8 - YEL	Reg. 24v (Common)
WA6 - BLU	(-) Switched Truck Pwr
WA4 - GRN	Signal - Water





Last Changed: 5/14/2009

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THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 8/27/2004
APPR.

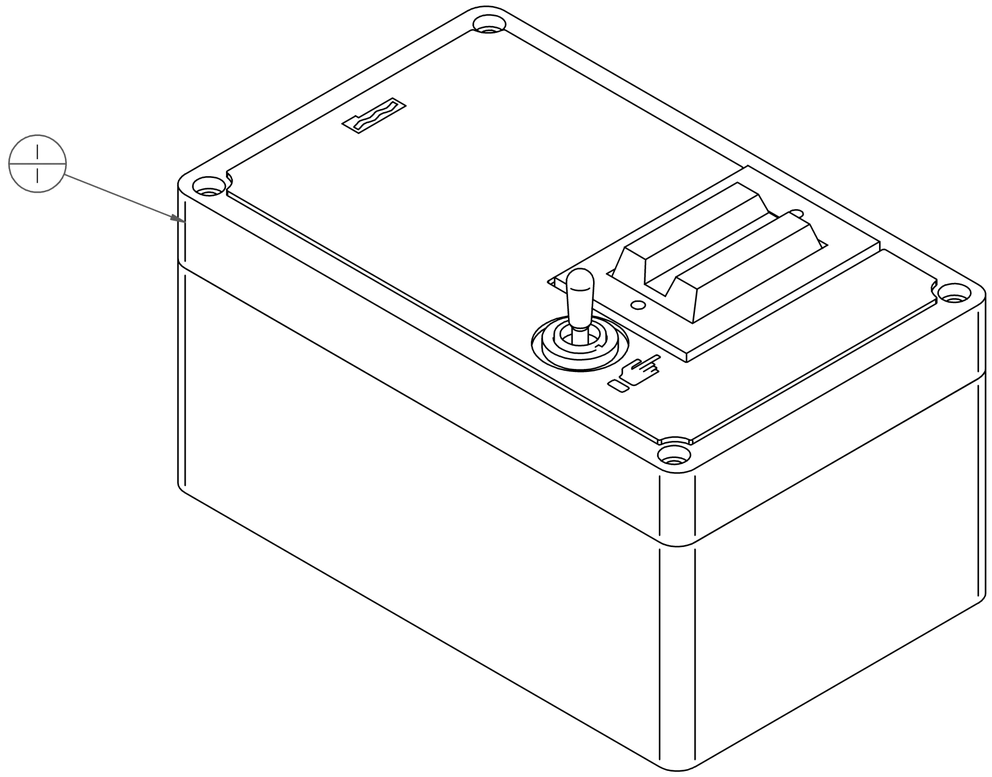
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

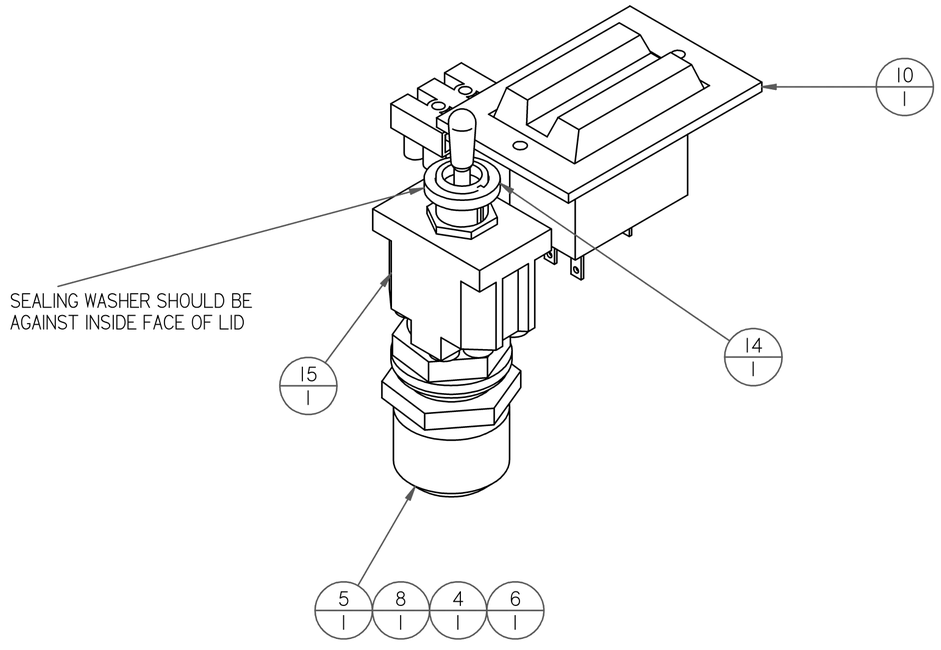
PROJECT DCC+ WATER CONTROL BOX W/ POT CO

TITLE DCC+ WATER CONTROL BOX W/ POT CONTROL
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A32 | REV 02 | SIZE C

WEIGHT 2.3 lbm | SHEET 3 OF 3





CONFIGURATION RULES: (USED ON)
DCC+ AND FRONT HOSE REEL

NOTE
USE TERMINAL STRIP TO AVOID SOLDERING INCOMING WIRES TO RESISTORS & POT

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1020P82	ENCLOSURE CONTROL BOX	UC1020P82
2*	1	UC1020P138	LABEL PUMPING CONTROL BOX W/ POT CONTROL	UC1020P138
3*	1		EUROSTRIPS 3-POLE TERMINAL STRIP	231.0220
4	1		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
5	1		FITTING CAP NUT HARNESSFLEX NC16	231.6209
6	1		FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
7*	1		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
8	1		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
9*	1		POTENTIOMETER 3 DECADE DIGITAL 1K	231.0210
10	1		POTENTIOMETER BOOT 3 DECADE DIGITAL	231.0211
11*	1		RESISTOR 1500 OHM .5 WATT 5%	231.0027
12*	1		RESISTOR 470 KOHM .25 WATT	236.7351
13*	1		RESISTOR 470 OHM .25 WATT 5%	231.0023
14	1		SEALED-SWITCH BUSHING SEAL	234.8040
15	1		SWITCH TOGGLE SEALED DP 3-POS PN8501K3	234.8046

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 7/20/2007
APPR. J COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

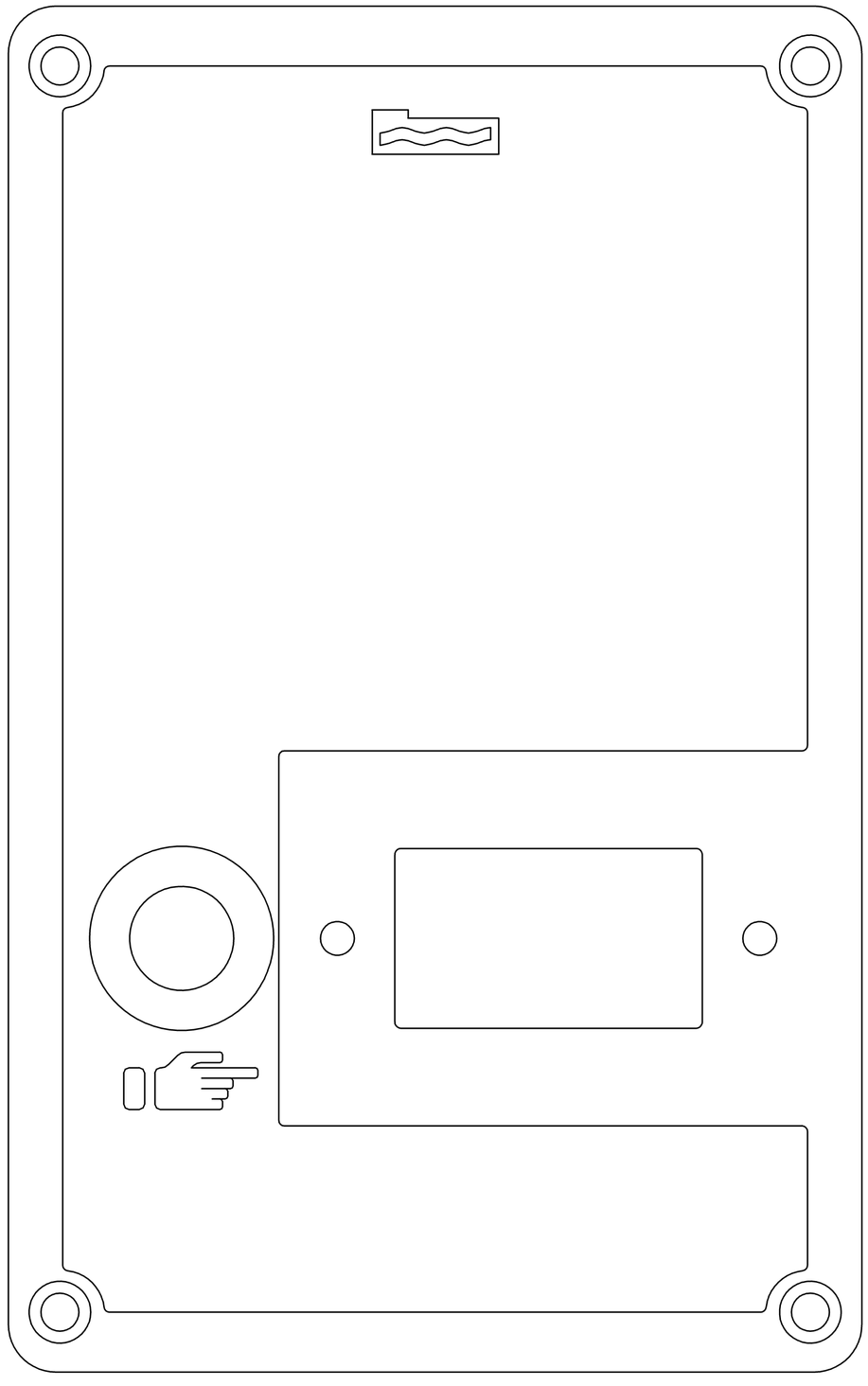
PROJECT DCC+ PUMPING CONTROL BOX W/ POT

TITLE DCC+ PUMPING CONTROL BOX W/ POT
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A33 | REV 04 | SIZE C

WEIGHT 2.2 lbm | SHEET 1 OF 3

Last Changed: 5/14/2009



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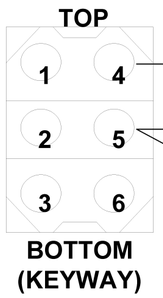
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN TBARHAM DATE 7/20/2007 APPR. J COLE	PROJECT DCC+ PUMPING CONTROL BOX W/ POT TITLE DCC+ PUMPING CONTROL BOX W/ POT DCC PLUS CONTROL SYSTEM DWG NO UC1020A33 REV 04 SIZE C WEIGHT 2.2 lbm SHEET 2 OF 3

Last Changed: 5/14/2009

NOTE:
All toggle switches should be mounted so that the keyway is in the 'down' position.

PPmp Auto//Manual Toggle

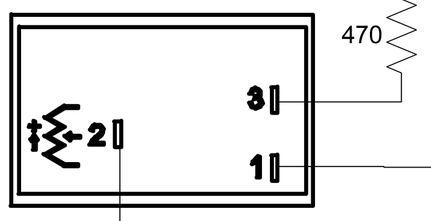


PP3 - WHT	PPmp Solenoid
PP4 - GRN	Reg. 24V (+)

PP1 - BLK	(-) Switched Truck Pwr
PP2 - RED	(+) Switched Truck Pwr
PP6 - BLU	PPmp Speed Sensor

UNUSED

PP7 - BRN	Reg. 24v (Common)



PP5 - ORG	Signal - PPmp

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1.0 INCH = 25.4 mm

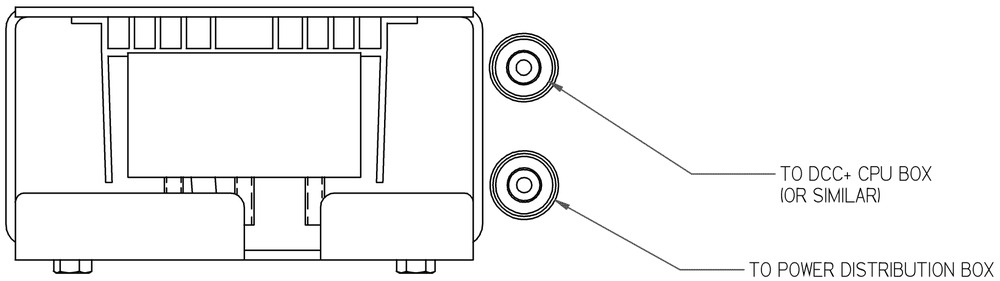
THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 7/20/2007
APPR. J COLE

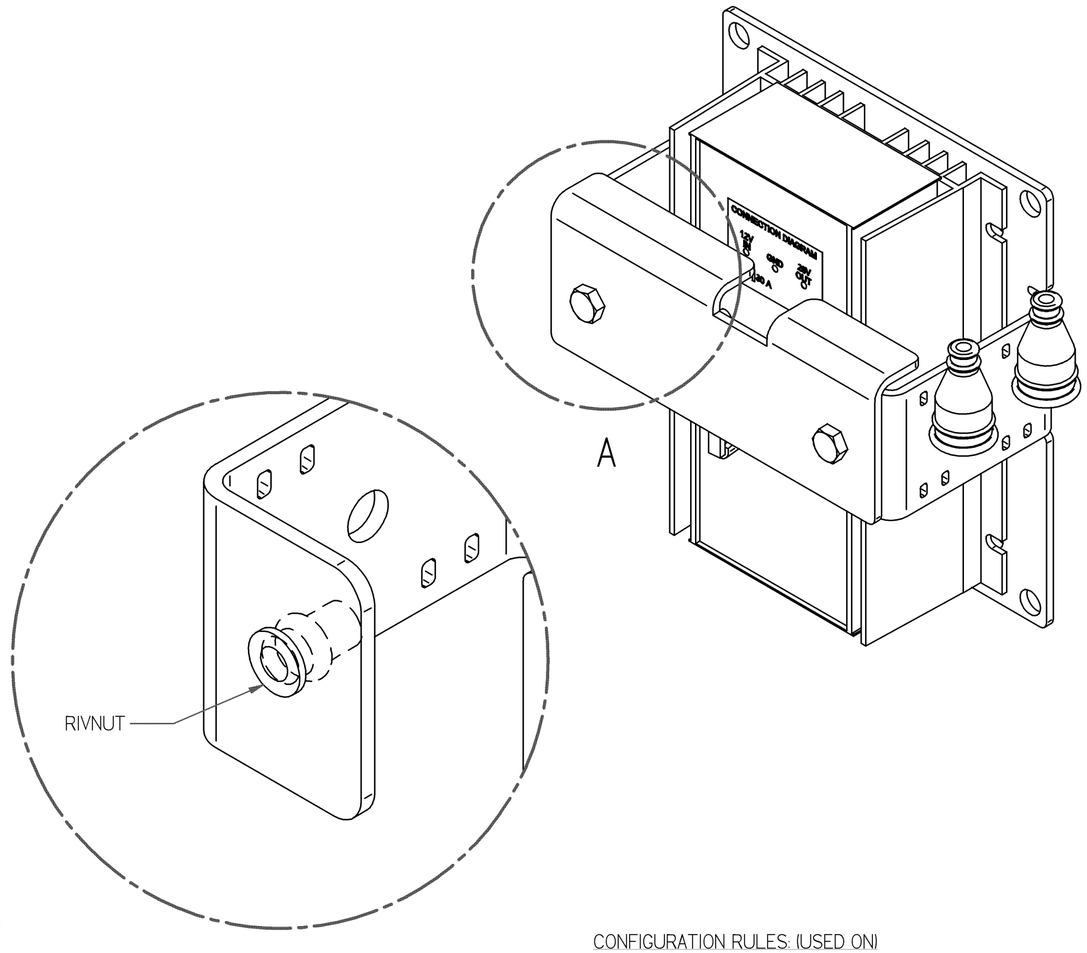
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT DCC+ PUMPING CONTROL BOX W/ POT
TITLE DCC+ PUMPING CONTROL BOX W/ POT
DCC PLUS CONTROL SYSTEM
DWG NO UC1020A33
REV 04
SIZE C
WEIGHT 2.2 lbm
SHEET 3 OF 3

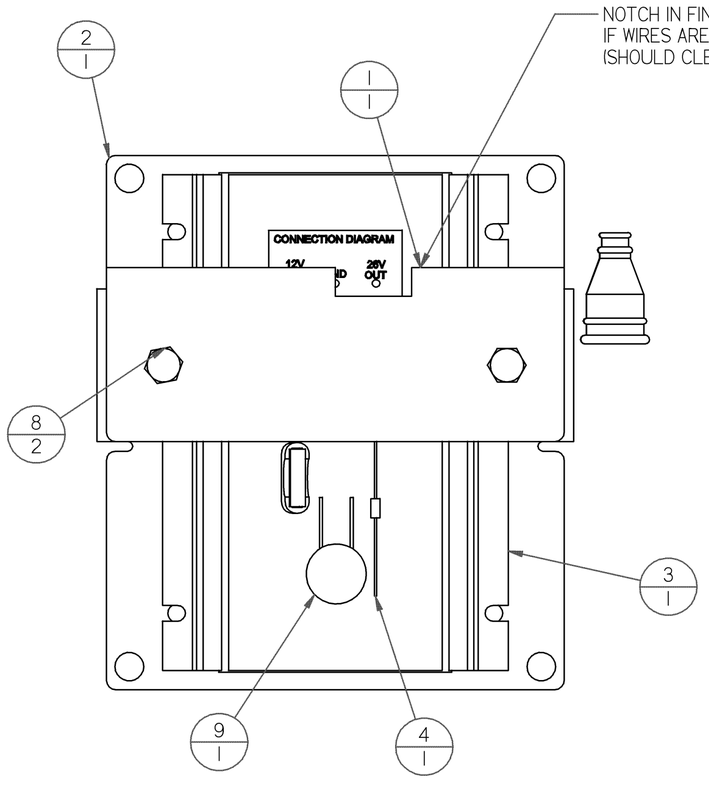
Last Changed: 5/14/2009

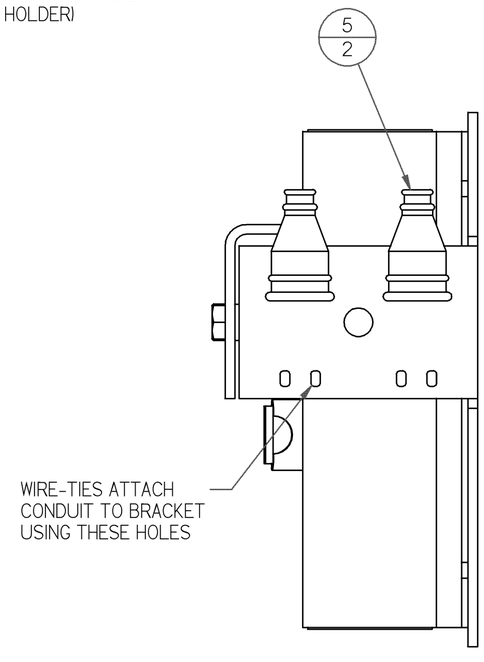


NOTE
TO HELP WATER-PROOF THE CONDUIT EXIT, PUT SILICONE GREASE IN END SLEEVE.



DETAIL A





CONFIGURATION RULES: (USED ON)
12 VOLT DCC+ EXCEPT FOR REPUMP

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1020P88	FINGER GUARD	UC1020P88
2	1	UC1020P87	CONVERTER MOUNTING PLATE	UC1020P87
3	1		CONVERTER DC/DC 12/26 @ 5.0 AMPS	231.0097
4	1		DIODE SURGE SUPPRESSOR 51VIT-T1	231.0043
5	2		END SLEEVE HARNESSFLEX ESN16	231.6220
6*	1		FUSE ATO/ATC 25 AMP	231.3025
7*	2		RIVNUT FLT HD .250 X .140 GRIP SS RIB	261.1015
8	2		SCREW CAP HEX HEAD.25-20X .75 SS	900.3074
9	1		VARISTOR SURGE SUPPRESSOR 43V	231.0187

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THIRD ANGLE PROJECTION

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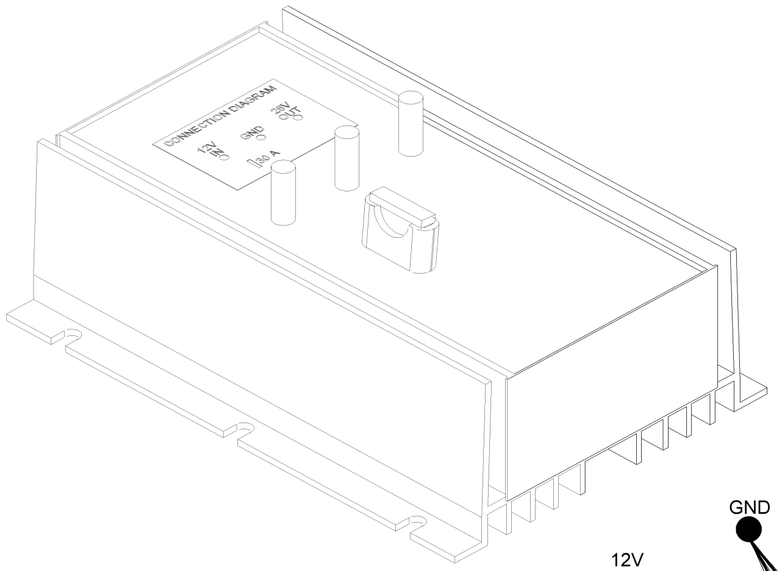
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 7/9/2003
APPR. DCOLE

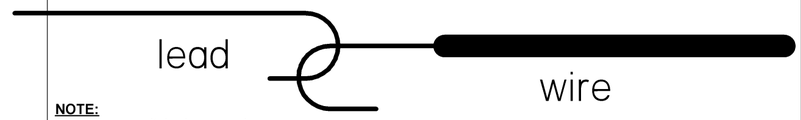
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY
TITLE POWER CONDITIONER IN-CAB 5-AMP 12-24V DCC+
DWG NO UC1020A35X
REV 1
SIZE C
WEIGHT 0.0 lbm
SHEET 1 OF 2

Last Changed: 3/10/2008



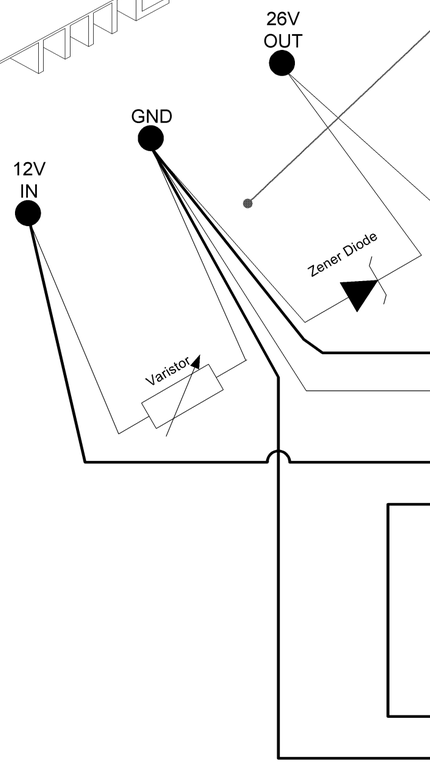
Solder 18 AWG white and 18 AWG grey lead wires to Varistor.
Solder 18 AWG grey and 18 AWG pink lead wires to zener diode.
Solder per IPC-A-610C Section 5.5.1.4
Use ring terminals on the lead wires to connect the components to the screw terminals



NOTE:
Since the unswitched power wires may carry as much as 24 Amps of current, the following wires should be 10-gauge:
'PWR'
'REG1'
'REG2'
'REG5'

The following wires should be 18-gauge:
'REG3'
'REG4'

Likewise, a 25 Amp fuse/breaker should be installed in the electrical distribution box in order to protect the 'PWR' wires. (e.g. for 12V systems, Tread pn234.1296 should be used).



REG4 - PNK	Reg. 24V (+)
REG1 - BLK	(-) Unswitched Pwr
REG3 - GRY	Reg. 24V (Common)
REG5 - WHT/BLK	(+) Switched Pwr
REG2 - WHT	(+) Unswitched Pwr

→ To CPU Box

PWR - WHT	(+) Unswitched Pwr
PWR - BLK	(-) Unswitched Pwr

→ To Power Distribution Box. Use 25A fuse/breaker.

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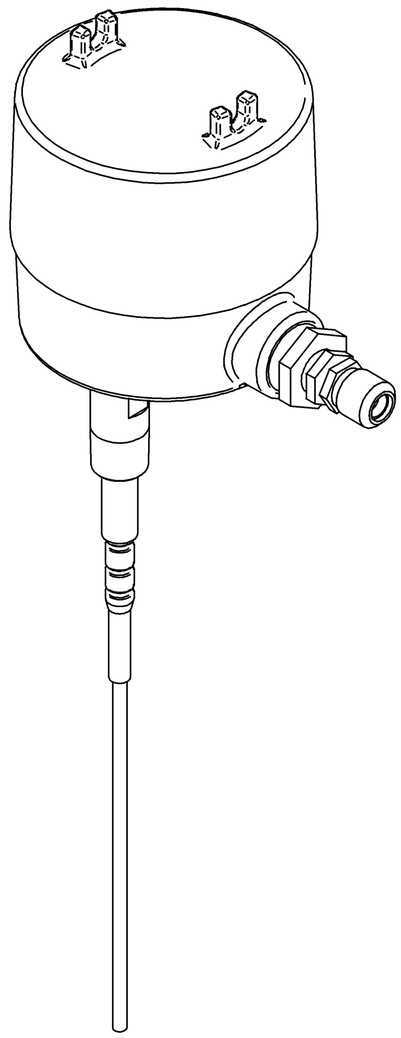
THIRD ANGLE PROJECTION

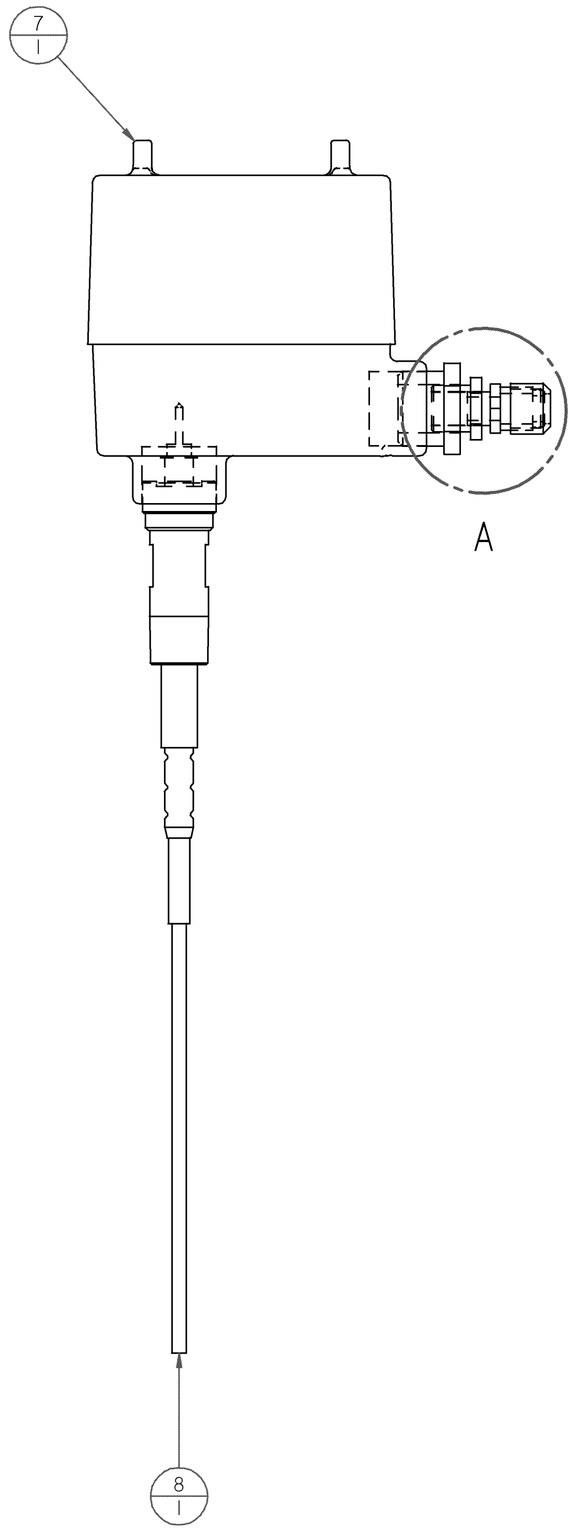
DRAWN TBARHAM
DATE 7/9/2003
APPR. DCOLE

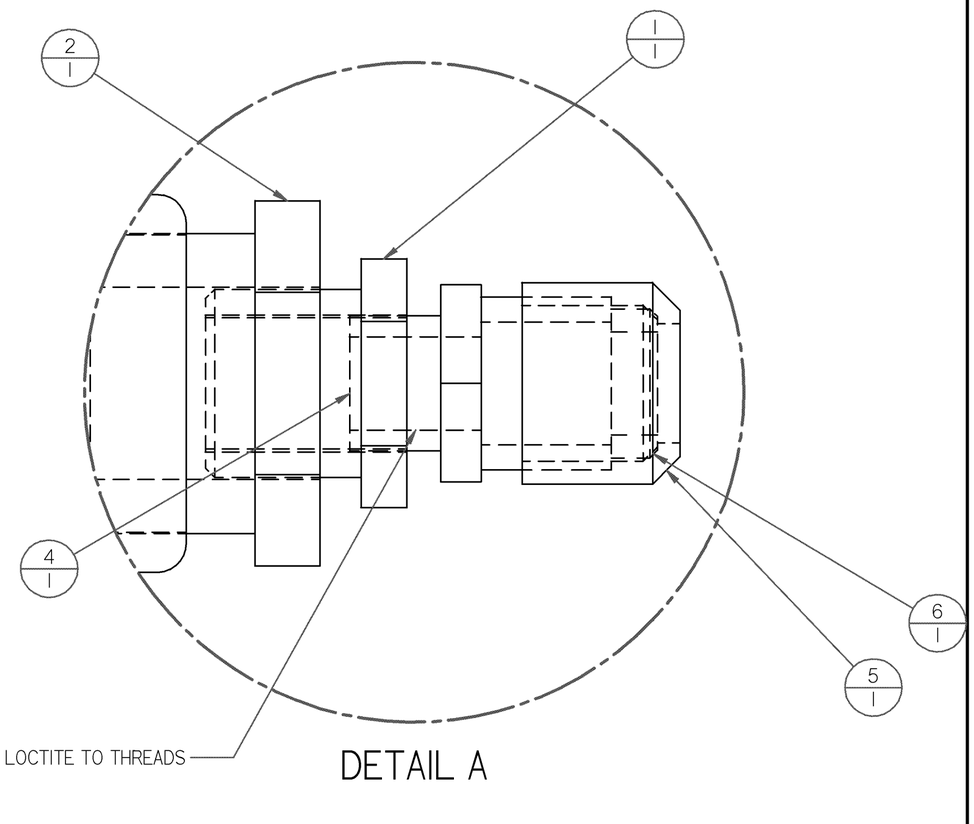
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY
TITLE POWER CONDITIONER IN-CAB 5-AMP 12-24V DCC+
DWG NO UC1020A35X
REV 1
SIZE C
WEIGHT 0.0 lbm
SHEET 2 OF 2

Last Changed: 3/10/2008







CONFIGURATION RULES: (USED ON)
DCC+ QUAD

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1027P02	ADAPTER PLASTIC .500NPT PG9 FEMALE	UC1027P02
2	1		BUSHING PIPE SS 1-.50	271.9314
3*	1		DIODE SURGE SUPPRESSOR 51V(T-T)	231.0043
4	1		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
5	1		FITTING CAP NUT HARNESSFLEX NC12	231.6208
6	1		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
7	1		LEVEL CONTROL PRINCO L3520 12-24 VDC	236.7020
8	1		LEVEL PROBE PRINCO L853	236.7022

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THIRD ANGLE PROJECTION

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN ERICP
DATE 12/12/2003
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

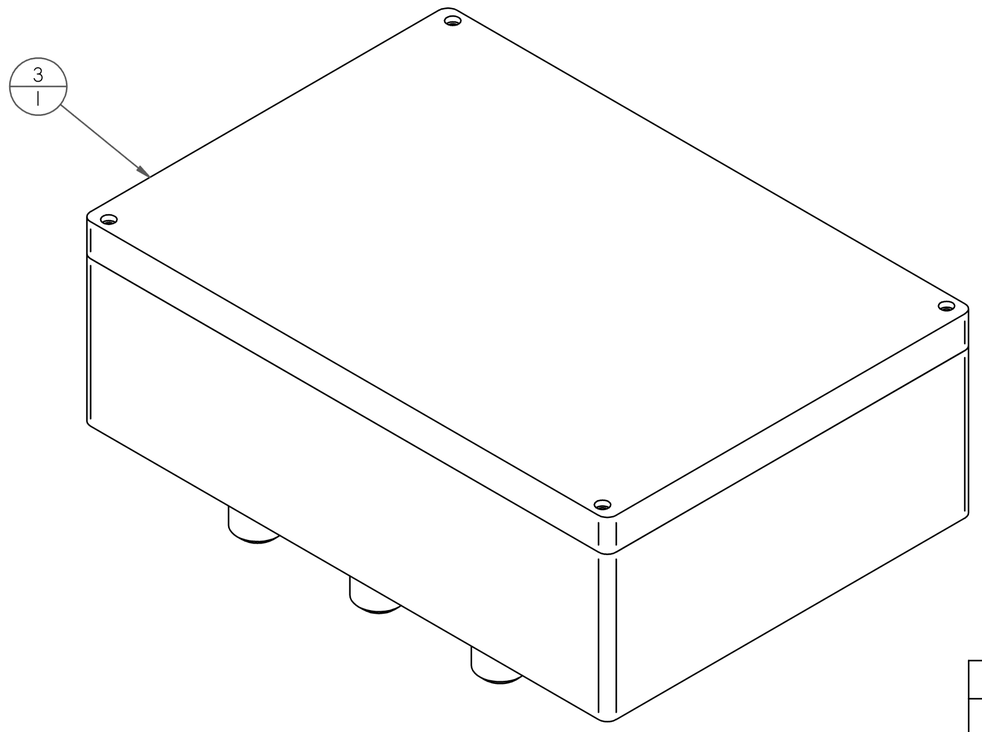
PROJECT

TITLE LEVEL CONTROL PRINCO 12-24 VDC W/PROBE

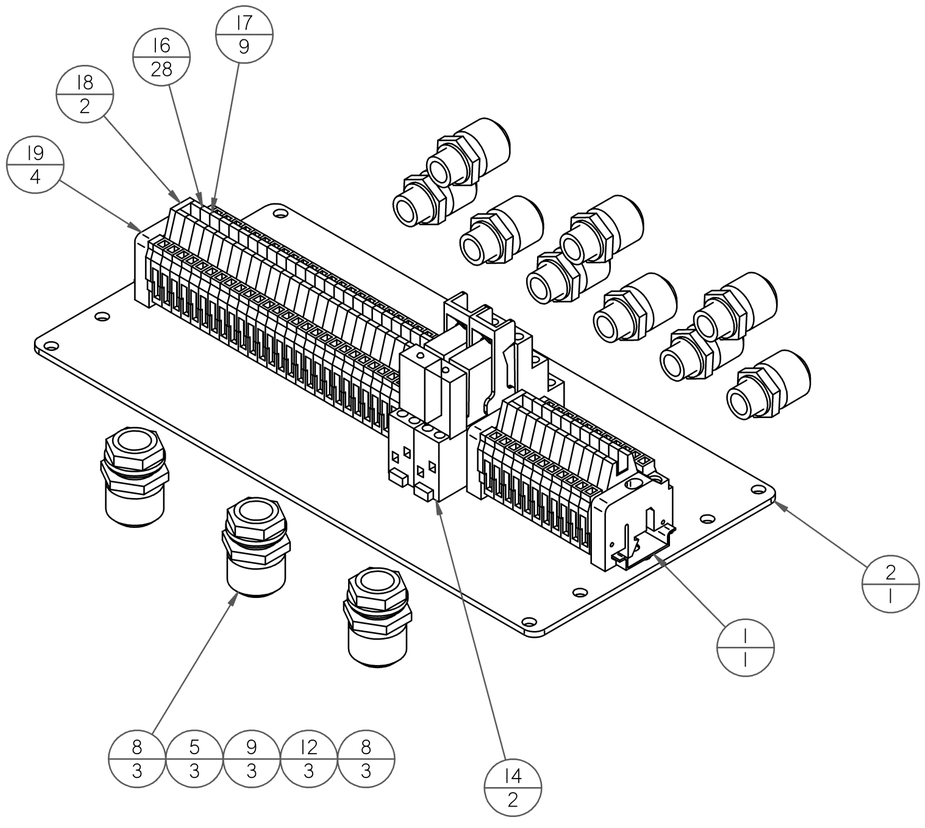
DWG NO UC1020A37 | REV 1 | SIZE C

WEIGHT 6.0 lbm | SHEET 1 OF 1

Last Changed: 4/2/2008



CONFIGURATION RULES: (USED ON)
DCC+ WITH FRONT HOSE REEL



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1020P96	DIN RAIL	
2	1	UC1020P95	BACK PLATE	UC1020P95
3	1	UC1020P93	ENCLOSURE	UC1020P93
4*	1		DIODE SURGE SUPPRESSOR 51V(T-T)	231.0043
5	3		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
6*	9		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
7*	9		FITTING CAP NUT HARNESSFLEX NC12	231.6208
8	3		FITTING CAP NUT HARNESSFLEX NC16	231.6209
9	3		FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
10*	9		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
11*	3		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
12	3		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
13*	9		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
14	2		RELAY DIN RAIL MOUNTED 24 VDC DPDT	231.1062
15*	3		TERMINAL 6MM JUMPER BAR 20 POLE	231.1057
16	28		TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050
17	9		TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053
18	2		TERMINAL END SECTION 6 MM ADO	231.1051
19	4		TERMINAL END STOP	231.0032
20*	9		TERMINAL JUMPER SUB ASSEMBLY 6MM	231.1058
21*	1		TERMINAL MARKING STRIP 7.5 MM	231.1052

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN T BARHAM
DATE 3/24/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

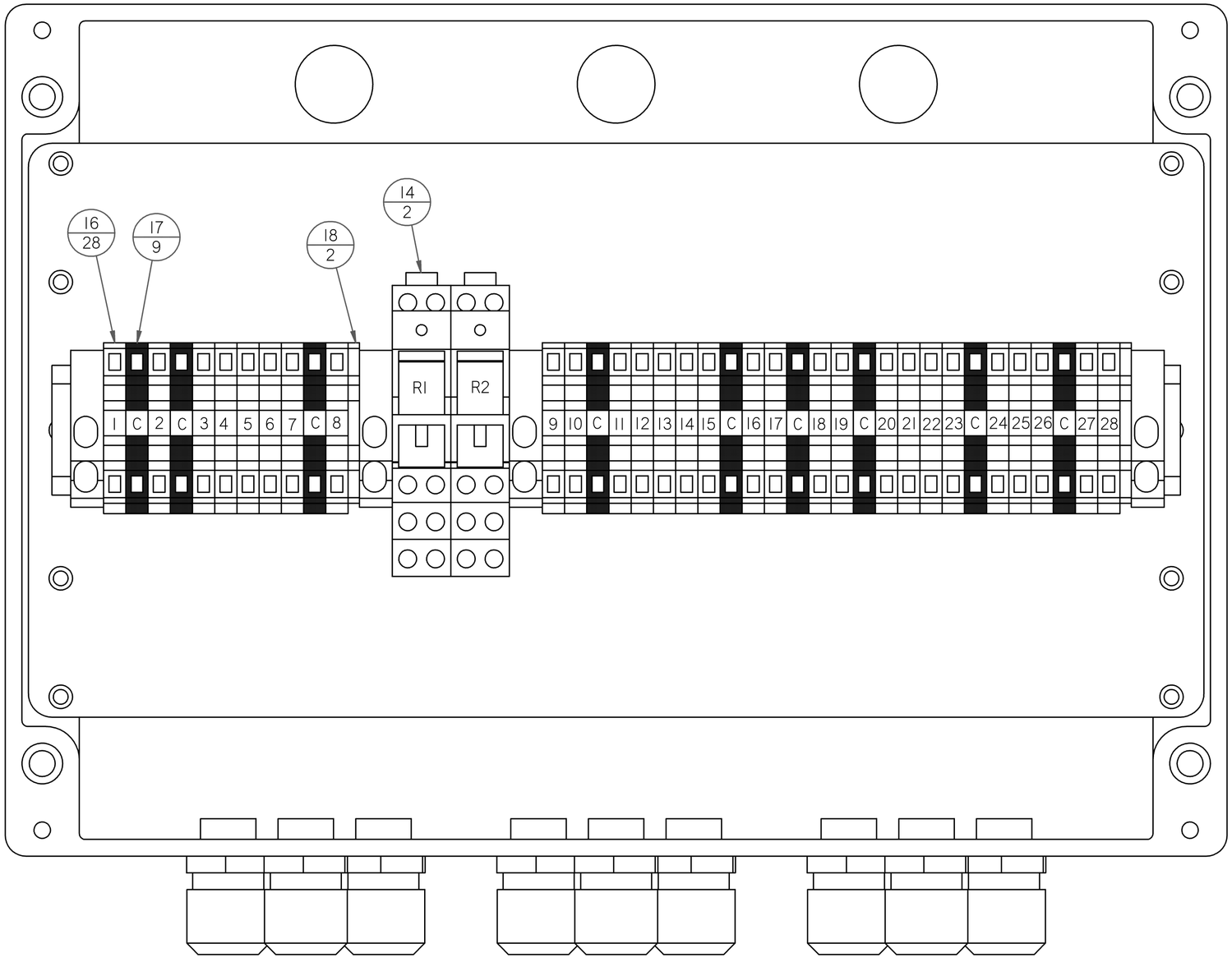
PROJECT PUMPING SYSTEM J-BOX (PROPORTION

TITLE PUMPING SYSTEM J-BOX (PROPORTIONAL)
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A38 | REV 01 | SIZE C

WEIGHT 18.7 lbm | SHEET 1 OF 5

Last Changed: 5/14/2009



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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN T BARHAM
DATE 3/24/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

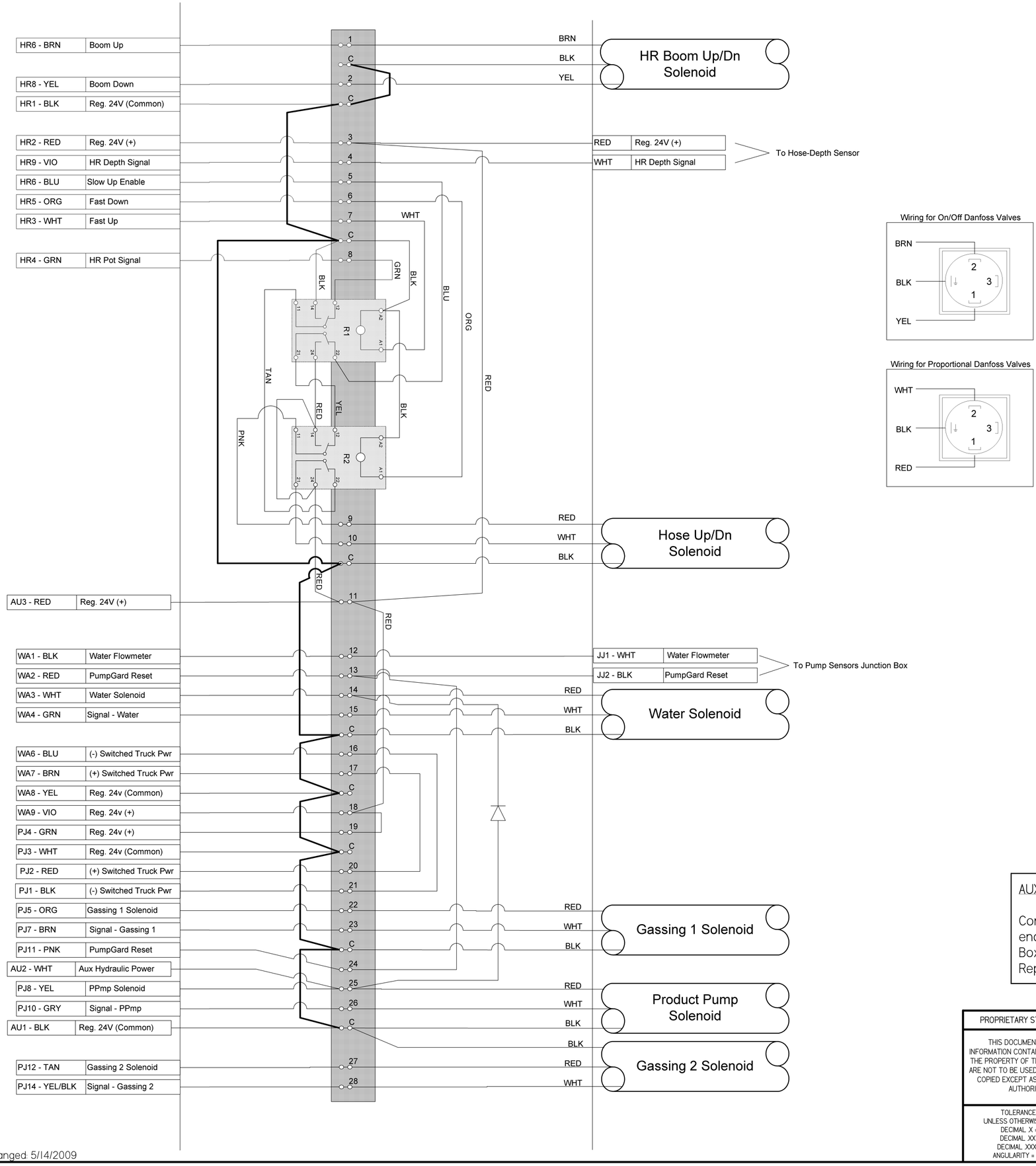
PROJECT PUMPING SYSTEM J-BOX (PROPORTION

TITLE PUMPING SYSTEM J-BOX (PROPORTIONAL)
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A38 | REV 01 | SIZE C

WEIGHT 18.7 lbm | SHEET 2 OF 5

Last Changed: 5/14/2009



Wiring for On/Off Danfoss Valves

Wiring for Proportional Danfoss Valves

TERMINAL BLOCK NOTES:
Terminals labeled 'C' are the common for Regulated 24V. Where the connections are shown with a thick line, these terminals should be tied together with Entrelec bus-bars. Also note that the terminal blocks labeled 'C' are blue. The rest are grey.

AUXILLIARY HYDRAULICS NOTE

Conduit 'AU' would ONLY be routed to this enclosure (from the Auxilliary Hyraulic Control Box) if the DCC+ is being installed on a Unibody Repumper.

Last Changed: 5/14/2009

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THIRD ANGLE PROJECTION

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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN T BARHAM
DATE 3/24/2004
APPR.

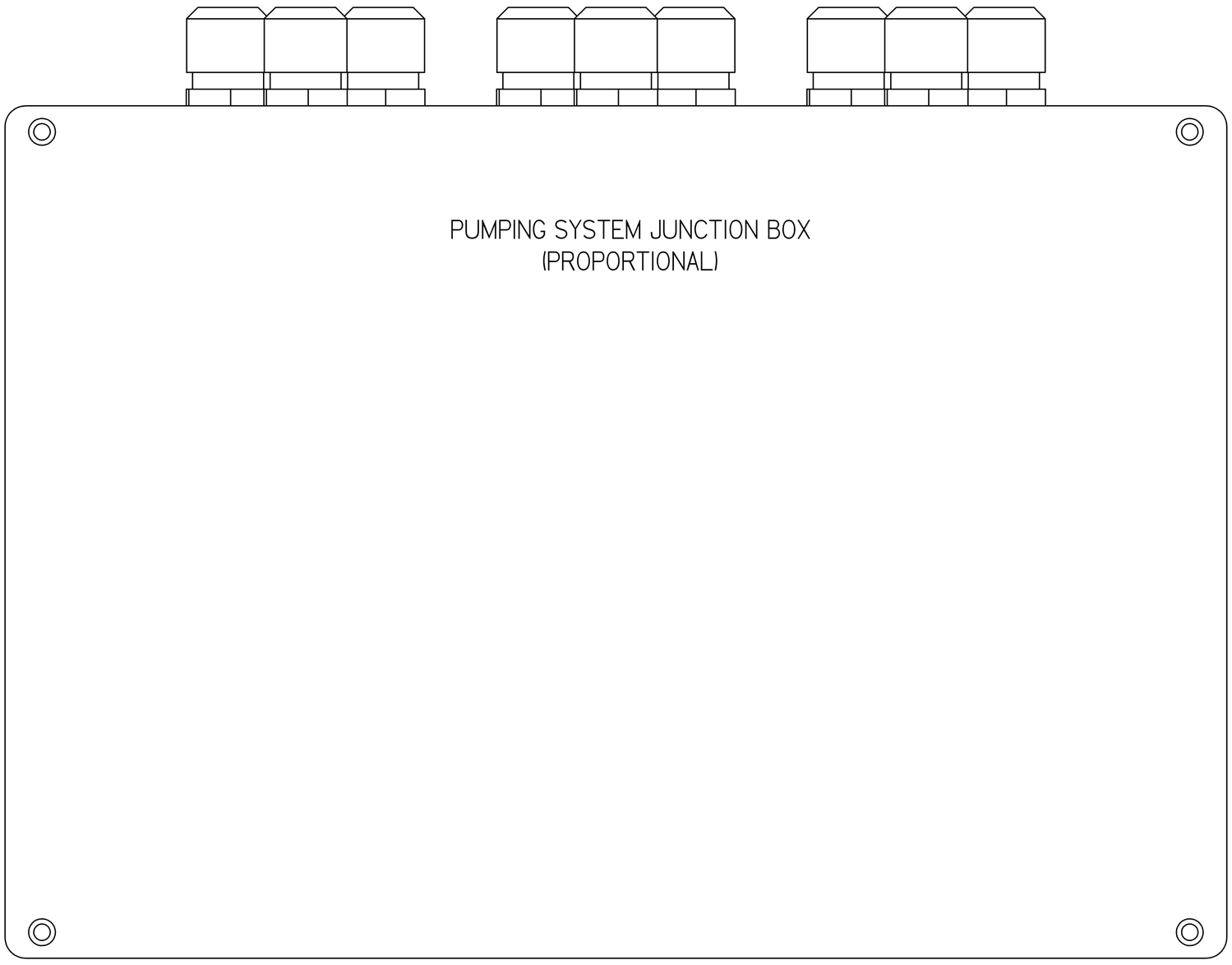
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT PUMPING SYSTEM J-BOX (PROPORTION

TITLE PUMPING SYSTEM J-BOX (PROPORTIONAL)
DCC PLUS CONTROL SYSTEM

DWG NO UC1020A38 | REV 01 | SIZE C

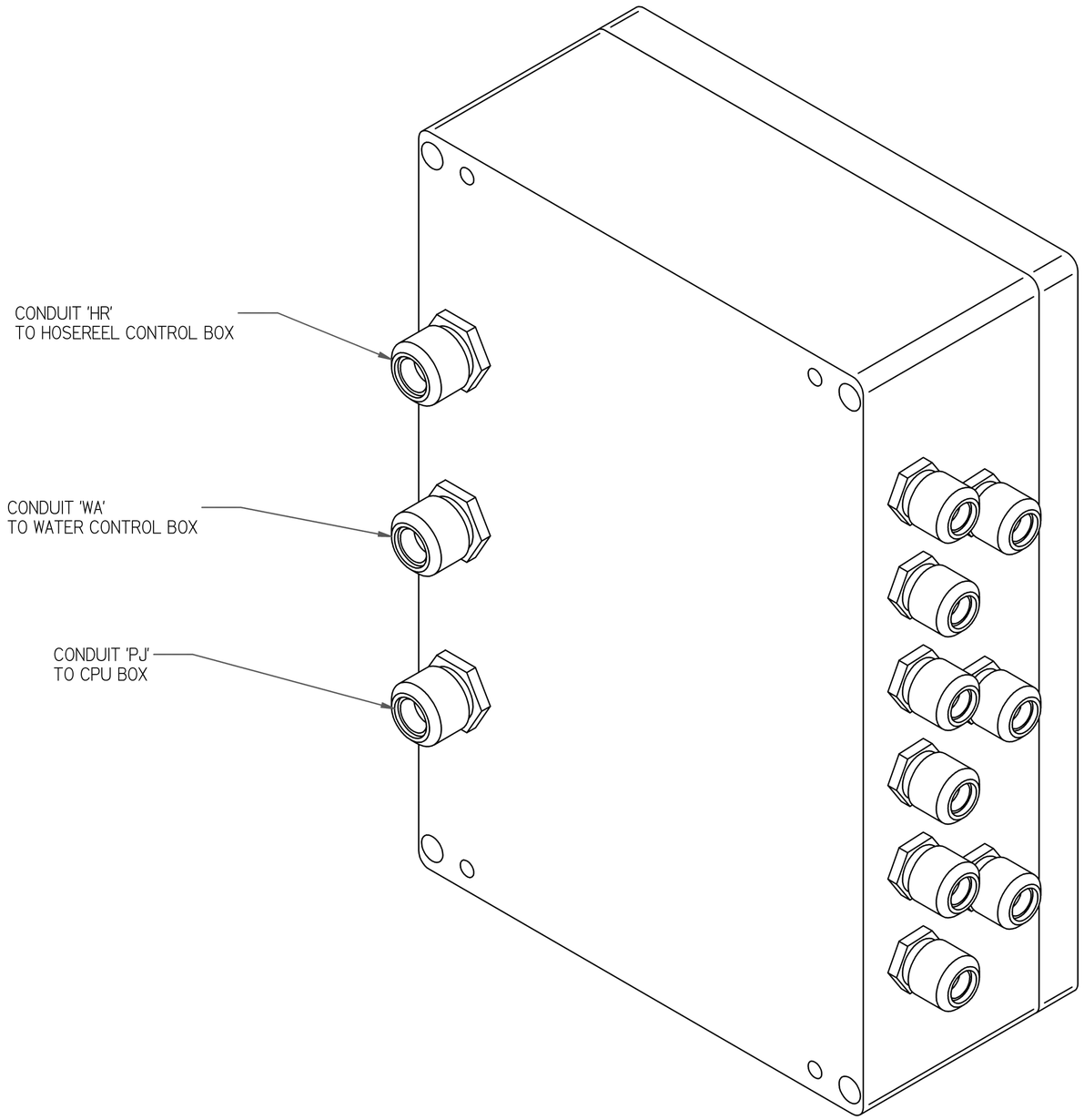
WEIGHT 18.7 lbm | SHEET 3 OF 5



PUMPING SYSTEM JUNCTION BOX
(PROPORTIONAL)

PROPRIETARY STATEMENT THIS DOCUMENT AND ALL INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF TREAD CORP. AND ARE NOT TO BE USED, DISCLOSED, OR COPIED EXCEPT AS EXPRESSELY AUTHORIZED.	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES 1.0 INCH = 25.4 mm THIRD ANGLE PROJECTION	**TREAD CORPORATION** ROANOKE, VIRGINIA 24012 USA
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN T BARHAM DATE 3/24/2004 APPR.	PROJECT PUMPING SYSTEM J-BOX (PROPORTION TITLE PUMPING SYSTEM J-BOX (PROPORTIONAL) DCC PLUS CONTROL SYSTEM DWG NO UC1020A38 REV 01 SIZE C WEIGHT 18.7 lbm SHEET 4 OF 5

Last Changed: 5/14/2009



Last Changed: 5/14/2009

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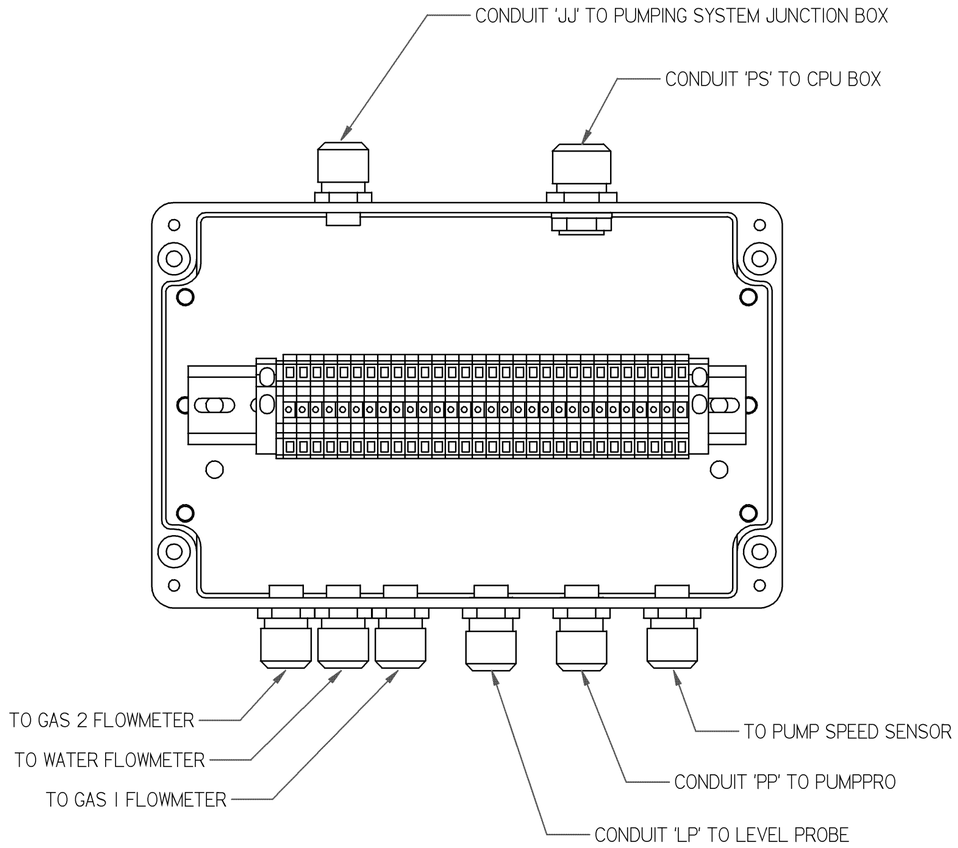
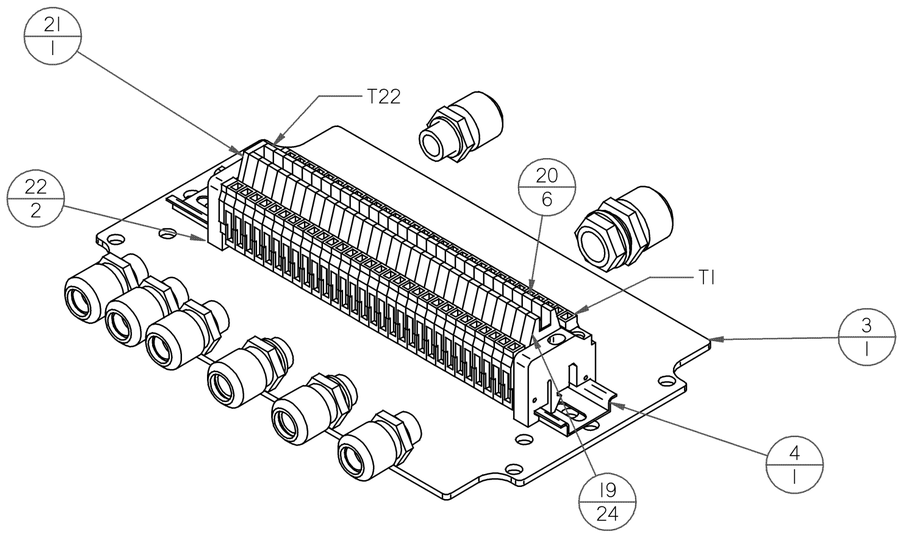
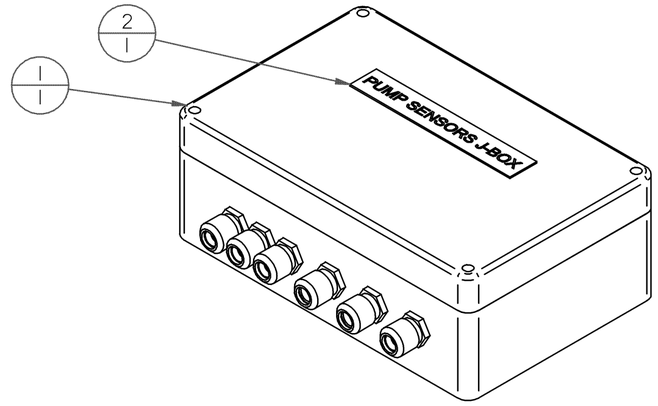
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: T BARHAM DATE: 3/24/2004 APPR.	DWG NO: UC1020A38 REV: 01 SIZE: C WEIGHT: 18.7 lbm SHEET: 5 OF 5





CONFIGURATION RULES: (USED ON)
DCC+ WITH FRONT HOSE REEL



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1*	1	UC1020P65	ENCLOSURE PUMP SENSOR JUNCTION BOX PP	UC1020P36
2	1	UC1020P46	LABEL PUMP SENSORS JUNCTION BOX ASM	UC1020P46
3	1	UC1020P37	BACK PLATE	UC1020P37
4	1	UC1020P34	DIN RAIL X 10" LONG	231.0033
5*	1		CONVERTER NPN TO PNP 5-24VDC	234.7566
6*	1		FITTING BODY HARNESSFLEX SRTAIGHT NC16	231.6206
7*	7		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
8*	7		FITTING CAP NUT HARNESSFLEX NC12	231.6208
9*	1		FITTING CAP NUT HARNESSFLEX NC16	231.6209
10*	1		FITTING LOCKNUT HARNESSFLEX M20 THRD	231.6213
11*	7		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
12*	1		FITTING SEALING BUSHING HARNESSFLEX NC16	231.6211
13*	1		FITTING SEALING WASHER HARNESSFLEX SWM20	231.6215
14*	7		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
15*	8		NUT HEX .25-20 SS	950.3014
16*	4		RESISTOR 1.0K .50W	236.7348
17*	4		SCREW MACHINE SL FIL. HD .25-20X1.50 SS	916.3114
18*	2		TERMINAL 6MM JUMPER BAR 20 POLE	231.1057
19	24		TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050
20	6		TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053
21	1		TERMINAL END SECTION 6 MM ADO	231.1051
22	2		TERMINAL END STOP	231.0032
23*	6		TERMINAL JUMPER SUB ASSEMBLY 6MM	231.1058
24*	1		TERMINAL MARKING STRIP 7.5 MM	231.1052
25*	4		WASHER PLAIN FLAT .25 SS	960.3014

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN bsekinger
DATE 5/11/2007
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS

TITLE PUMP SENSORS JUNCTION BOX ASM
DCC PLUS CONTROL SYSTEM (w/ PumpPro)

DWG NO UC1020A42 | REV 2 | SIZE C

WEIGHT 7.7 lbm | SHEET 1 OF 2

Last Changed: 3/10/2008

Single-point Level-Probe Hookup

PS2 - RED	Reg. 24v (+)
PS3 - WHT	PPmp Speed Sensor
PS1 - BLK	Reg. 24v (Common)
PS4 - GRN	Low Pump Pres.
PS5 - ORG	High Pump Pres.
PS6 - BLU	Air Pres.
PS7 - BRN	Pump Flow
PS8 - YEL	PumpGard Enabled
PS10 - GRY	(-) Switched Truck Pwr
PS9 - VIO	(+) Switched Truck Pwr
PS11 - PNK	Lvl High
PS12 - TAN	Lvl Low
PS13 - RED-GRN	Lvl High High
PS14 - RED-YEL	Lvl Low Low
PS15 - RED-BLK	Gas 1 Flowmeter
JJ1 - WHT	Water Flowmeter
JJ2 - BLK	Reset PumpGard
PS16 - WHT-BLK	Gas 2 Flowmeter

T1 T2 C C T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 C T13 T14 T15 T16 T17 T18 T19 C T20 T21 C T22 T23 T24 C

RED

BRN BLK BLU

NPN – PNP CONVERTER (OUT / IN)

BRN RED
BLK WHT
BLU BLK

Pump Speed Sensor

Char-Lynn Speed Sensor

10k

PP - BLK	Reg. 24v (Common)
PP - RED	Reg. 24v (+)
PP - YEL	PumpGard Enabled
PP - WHT	PumpPro Inhibit

LP2 - RED	Reg. 24v (+)
LP1 - BLK	Reg. 24v (Common)
LP3 - WHT	(-) Switched Truck Pwr
LP4 - GRN	Lvl High

RED WHT BLK — Gas 1 Flowmeter

RED WHT BLK — Water Flowmeter

RED WHT BLK — Gas 2 Flowmeter

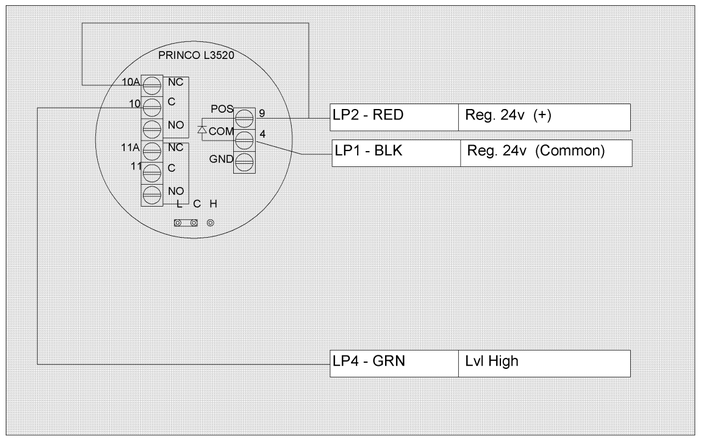
3.3k

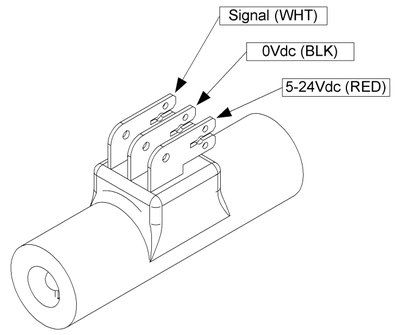
GEMS Turbine Flow Sensor (5-24Vdc, Signal, 0Vdc)

GEMS Turbine Flow Sensor (5-24Vdc, Signal, 0Vdc)

GEMS Turbine Flow Sensor (5-24Vdc, Signal, 0Vdc)

YEL





NOTE: Terminals labeled 'C' are the common for regulated 24 volt sensor power. Where the connections are shown with a thick line, these terminals should be tied together with Entrelec bus-bars.

Also note that the terminal blocks labeled 'C' are blue. The rest are grey.

NPN – PNP CONVERTER NOTE

Input side of the converter has the connector attached to it. Mark the input side, before cutting the connector off

WIRE COLOR NOTE

Where individual wires in conduit are used instead of cable, the following color substitutions may be necessary:
Red/Grn --> Grn/Blk
Red/Yel --> Yel/Blk
Red/Blk --> Red/Blk
The substitute colors are created using solid wire color and adding a black stripe to differentiate them.

FLOW SENSOR NOTE

This dwg shows the pin-out for a GEMS turbine flowmeter as an example. Other flow sensors may be used; but they will always use the following hookup scheme:
BLK = Ground / Common
RED = Power (+24V)
WHT = Signal

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

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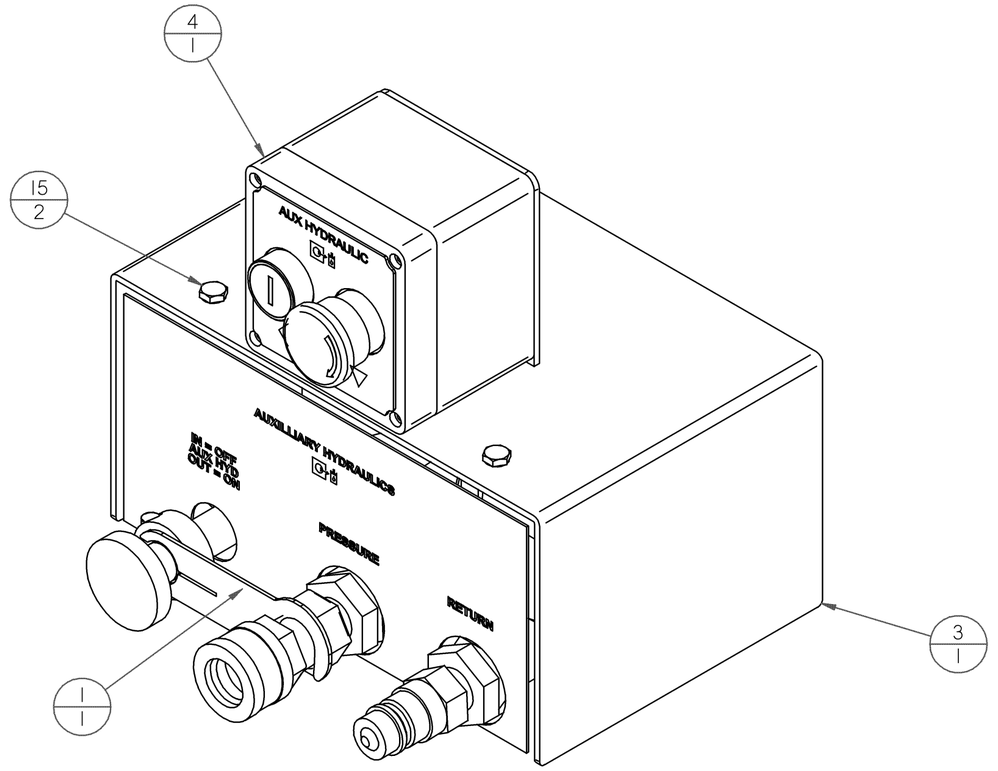
1.0 INCH = 25.4 mm
THIRD ANGLE PROJECTION

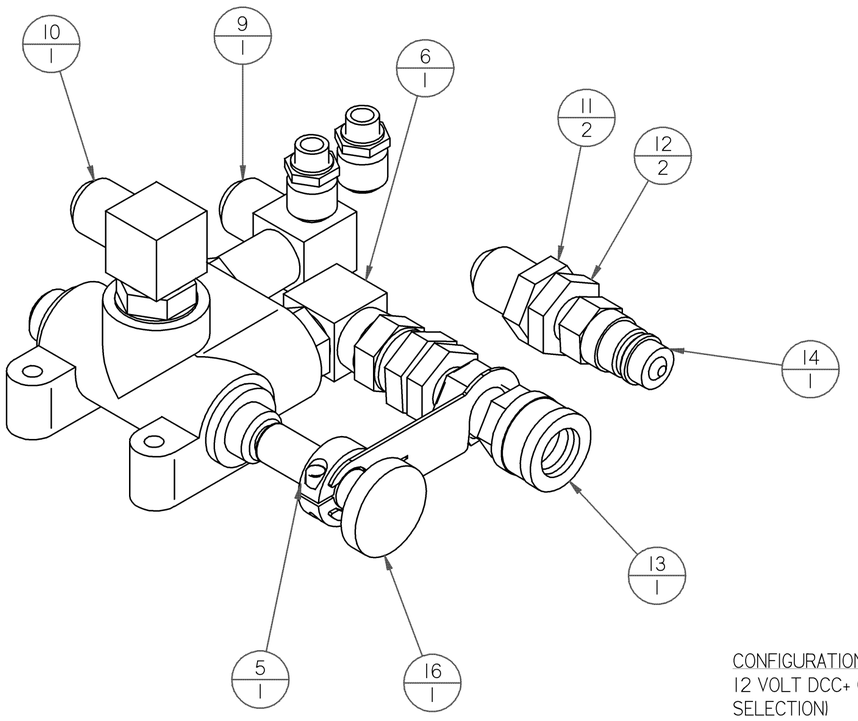
DRAWN bsekinger
DATE 5/11/2007
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY CONTROLS
TITLE PUMP SENSORS JUNCTION BOX ASM
DCC PLUS CONTROL SYSTEM (w/ PumpPro)
DWG NO UC1020A42 REV 2 SIZE C
WEIGHT 7.7 lbm SHEET 2 OF 2

Last Changed: 3/10/2008





CONFIGURATION RULES: (USED ON)
12 VOLT DCC+ CONTROL SYSTEM (OPTIONAL SELECTION)

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1025P05EN	LABEL AUX HYDRAULIC CONTROL ASM DCC+	UC1025P05EN
2*	1	UC1025A06	AUXILLARY HYDRAULICS VALVE KEEPER WLDMT	UC1025A06
3	1	UC1025A02	AUXILLIARY CONSOLE COVER ASM	UC1025A02
4	1	UC1020A14X	AUXILLIARY HYDRAULIC CONTROL BOX 12V	UC1020A14X
5	1	UC1014P07	VALVE HANDLE EXTENSION	UC1014P07
6	1		#12 FJIC X #12 SAE ADJ 90	76809.1212
7*	1		DUST CAP	85657.10
8*	1		DUST PLUG	85659.10
9	1		FITTING 90 LL M37/ADJ MSAE -12	76801.121201
10	1		FITTING 90 M37/ADJ MSAE 12-12	76801.1212
11	2		FITTING BULKHEAD LOCK NUT -12 37	7306.12
12	2		FITTING STR LN MNPT/BULKHD M37 08-12	72706.0812
13	1		QUICK DISCONNECT FEMALE	85601.0810
14	1		QUICK DISCONNECT MALE	85602.0810
15	2		SCREW CAP HEX HEAD .25-20X.75 SS	900.3074
16	1		VALVE S-12 SELECTOR	264.3512

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 08/27/04
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

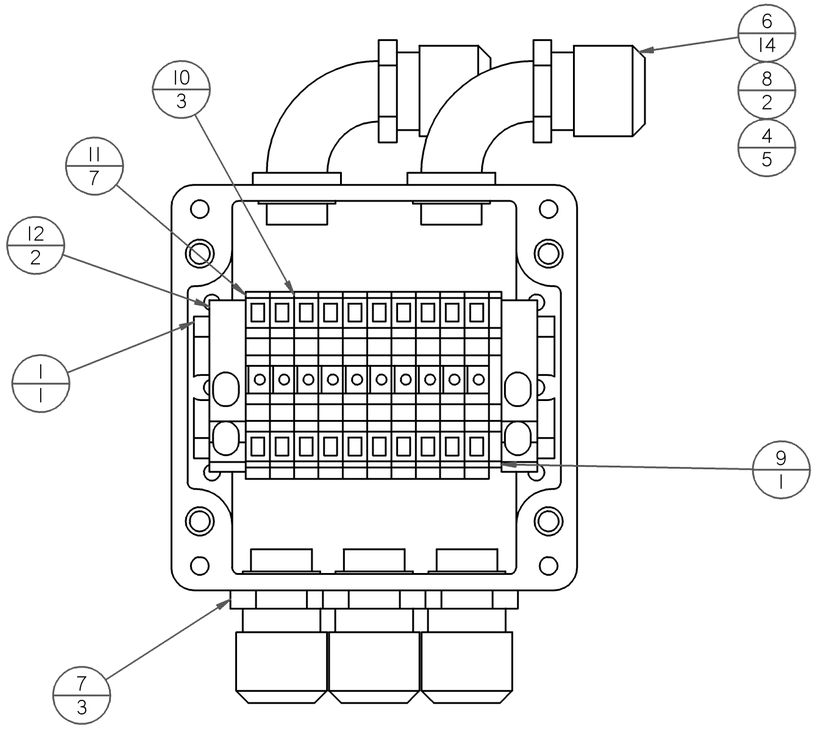
PROJECT UNIBODY

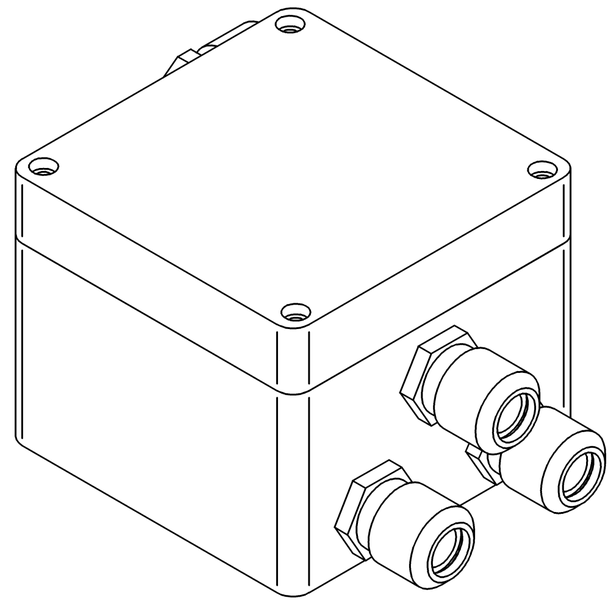
TITLE BLEND STATION DCC+ SINGLE AUX 12V
UNIBODY CONTROL SYSTEM

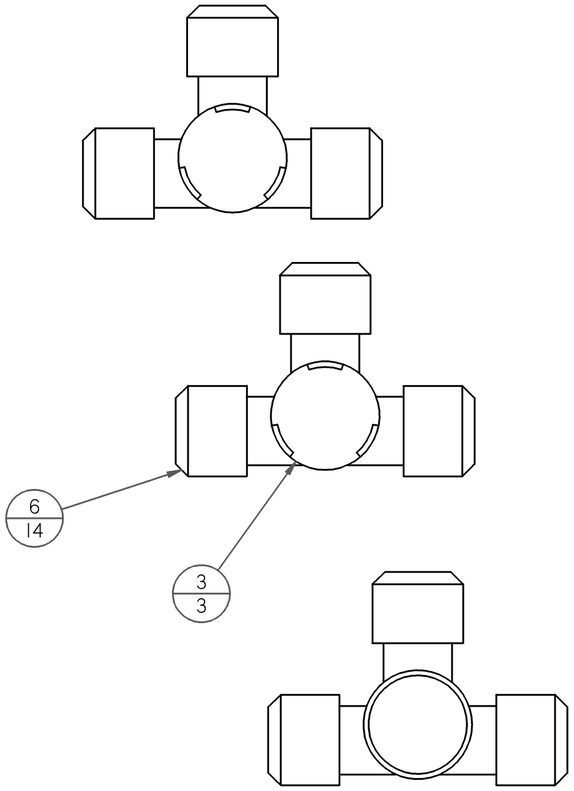
DWG NO UC1025A03X | REV 2 | SIZE C

WEIGHT 13.0 lbm | SHEET 1 OF 1

Last Changed: 07/29/08







ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1040P01	DIN RAIL	
2"	1	TC02923	ENCLOSURE ROSE 01101008 00	
3"	3	TC01849	FITTING BODY HARNESSFLEX T-PIECE TP12	231.6234
4	5	TC01847	FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
5"	14	TC01843	FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
6	14	TC01817	FITTING CAP NUT HARNESSFLEX NC12	231.6208
7	3	TC01814	FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
8	2	TC01811	FITTING BODY HARNESSFLEX 90 DEG NC12	231.6205
9	1	TC01243	TERMINAL END SECTION 6 MM ADO	231.1051
10	3	TC01241	TERMINAL BLOCK 6 MM SELF STRIPPING BLUE	231.1053
11	7	TC01240	TERMINAL BLOCK 6 MM SELF STRIPPING	231.1050
12	2	TC01239	TERMINAL END STOP	231.0032

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 11/30/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

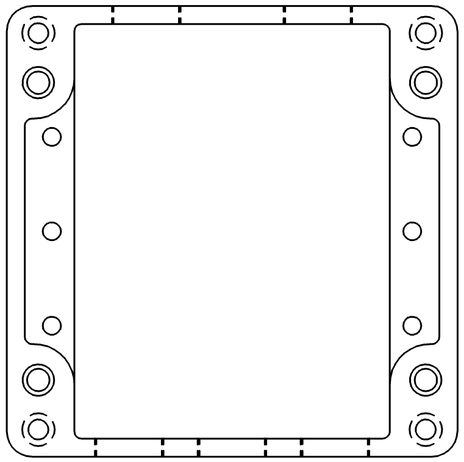
PROJECT AIR VALVE ASM JUNCTION BOX

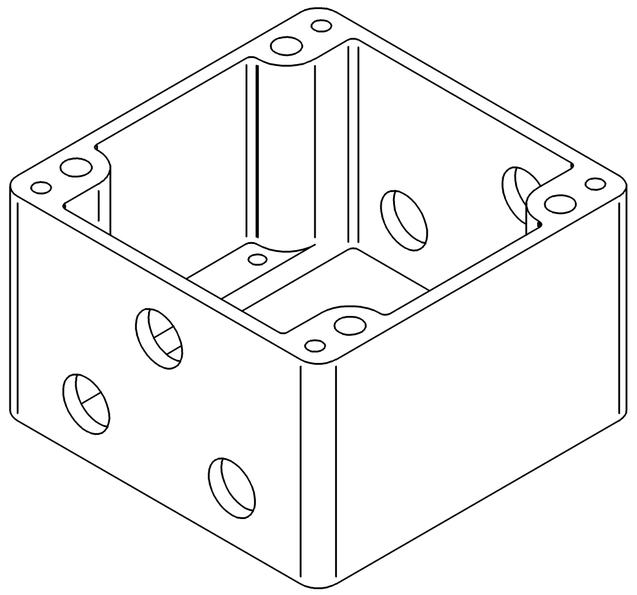
TITLE AIR VALVE ASM JUNCTION BOX
BLOW-DOWN AND VIBRATORS

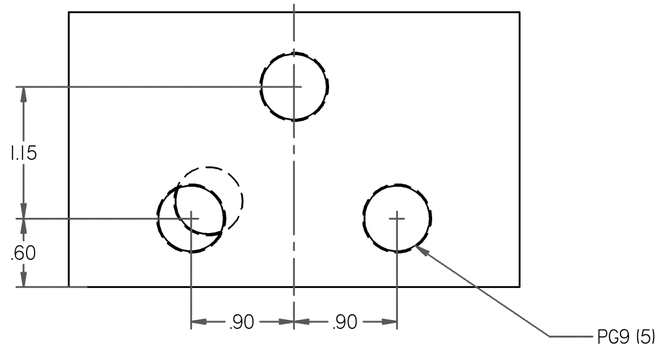
DWG NO UC1040A01 | REV 01 | SIZE C

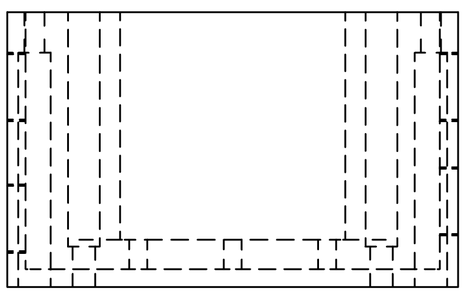
WEIGHT 0.0 lbm | SHEET 1 OF 3

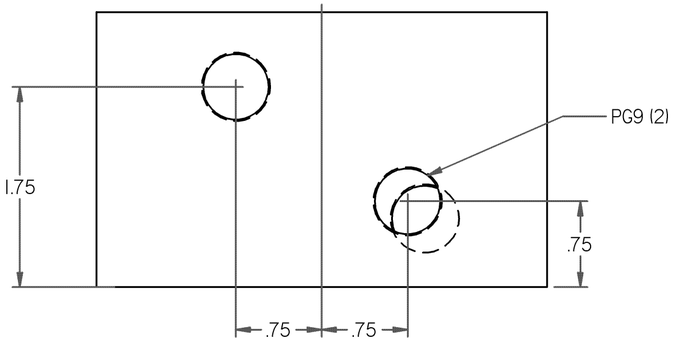
Last Changed: 11/30/2010











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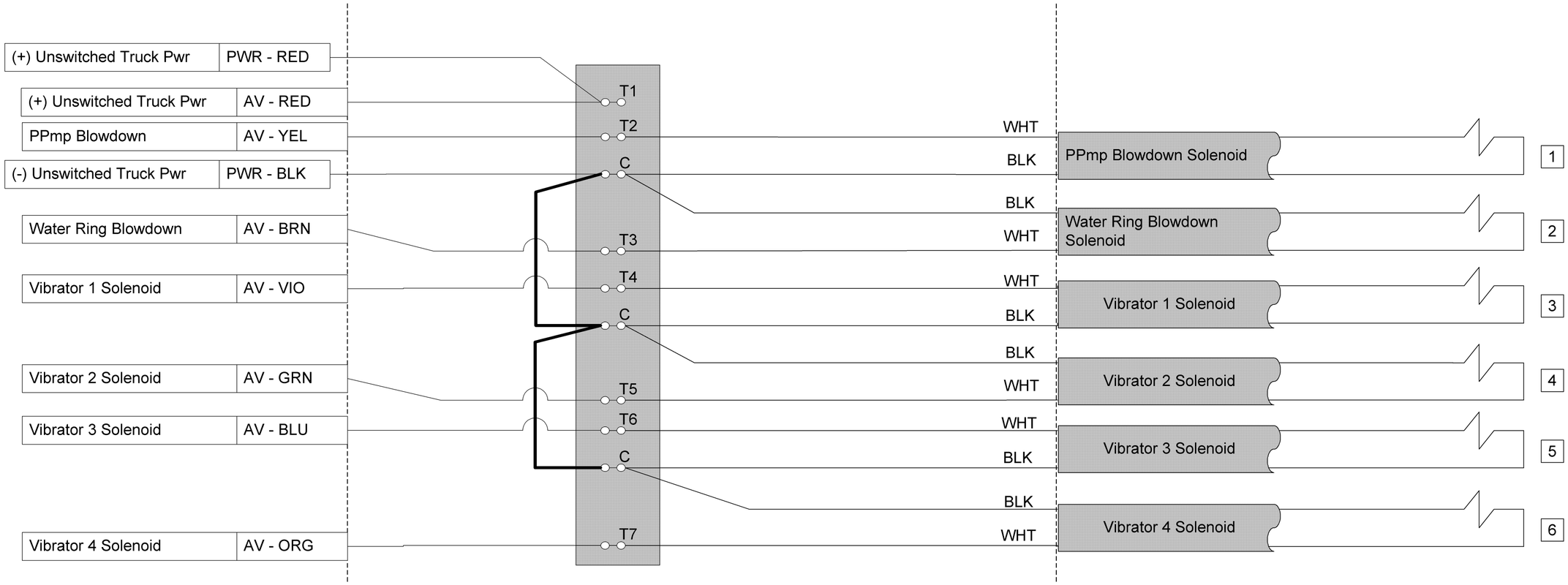
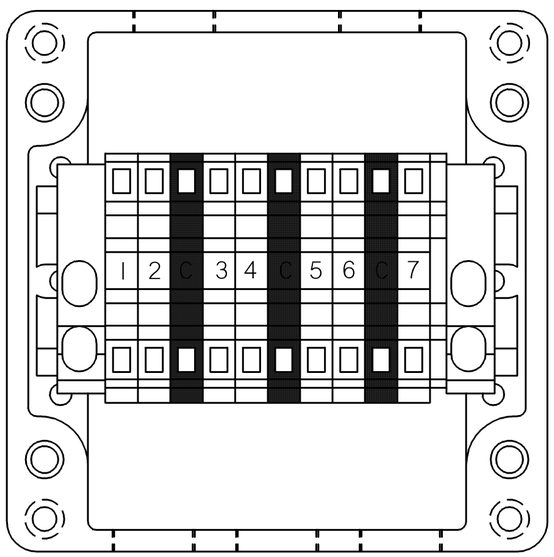
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ± .020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN TBARHAM DATE 11/30/2010 APPR.	PROJECT AIR VALVE ASM JUNCTION BOX TITLE AIR VALVE ASM JUNCTION BOX BLOW-DOWN AND VIBRATORS DWG NO UC1040A01 REV 01 SIZE C WEIGHT 0.0 lbm SHEET 2 OF 3

Last Changed: 11/30/2010



NOTE: Terminals labeled 'C' are the common for regulated 24 volt sensor power. Where the connections are shown with a thick line, these terminals should be tied together with Entrelec bus-bars.

Also note that the terminal blocks labeled 'C' are blue. The rest are grey.



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THIRD ANGLE PROJECTION

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 11/30/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

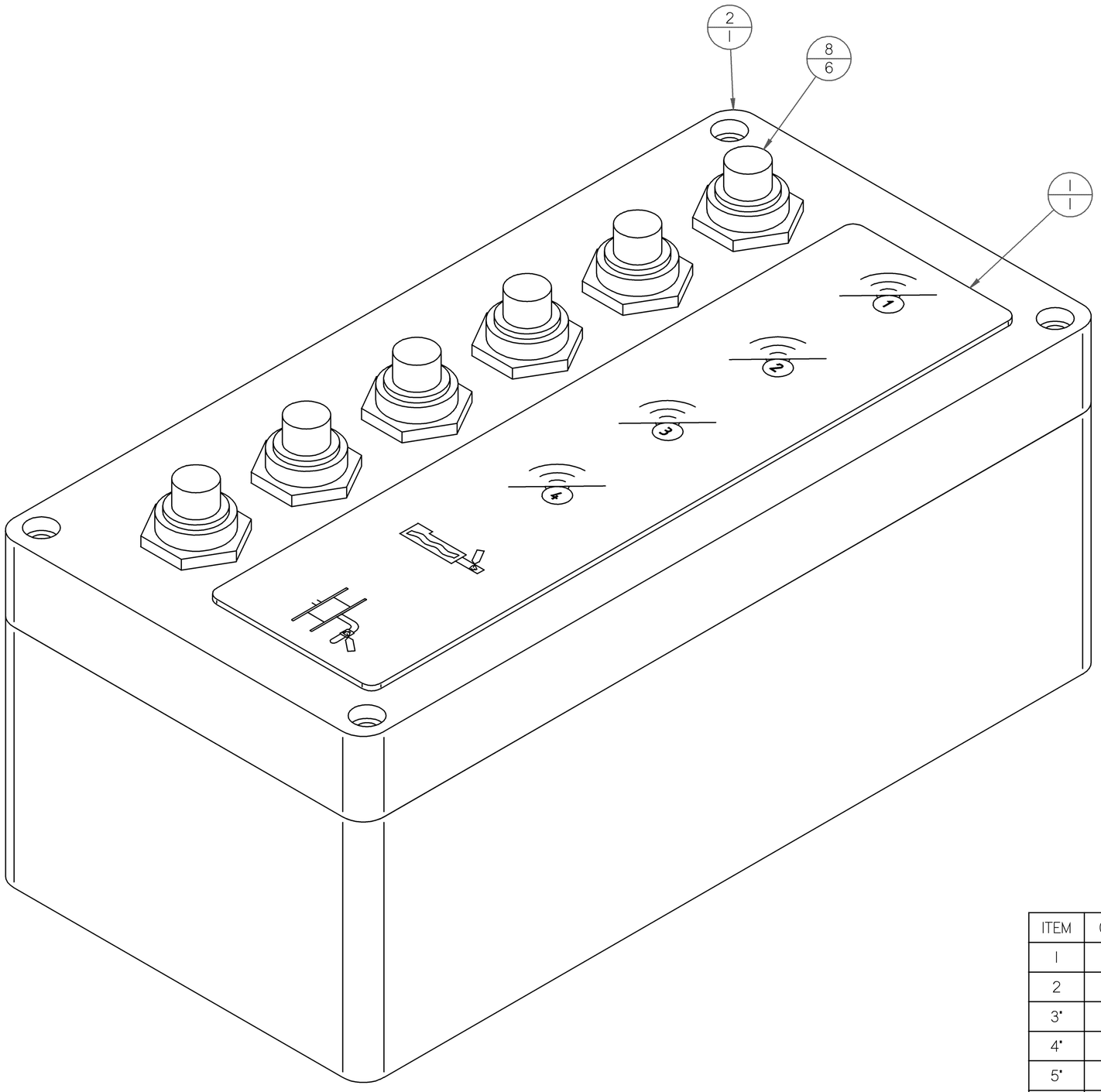
PROJECT AIR VALVE ASM JUNCTION BOX

TITLE AIR VALVE ASM JUNCTION BOX
BLOW-DOWN AND VIBRATORS

DWG NO UC1040A01 REV 01 SIZE C

WEIGHT 0.0 lbm SHEET 3 OF 3

Last Changed: 11/30/2010



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1040P05	LABEL	UC1040P05
2	1	UC1040P03	AIR PUSH BUTTON BOX	UC1040P03
3"	1		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
4"	1		FITTING CAP NUT HARNESSFLEX NC12	231.6208
5"	1		FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212
6"	1		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
7"	1		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
8	6		SWITCH PUSHBUTTON N.O. MOMENTARY	231.0093

NOTE

PG9 hole for conduit 'AV' should be drilled and tapped only after the Mounting-method for this box has been determined.

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THIRD ANGLE PROJECTION

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UNLESS OTHERWISE SPECIFIED
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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN ERICP
DATE 5/4/2004
APPR. DCOLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

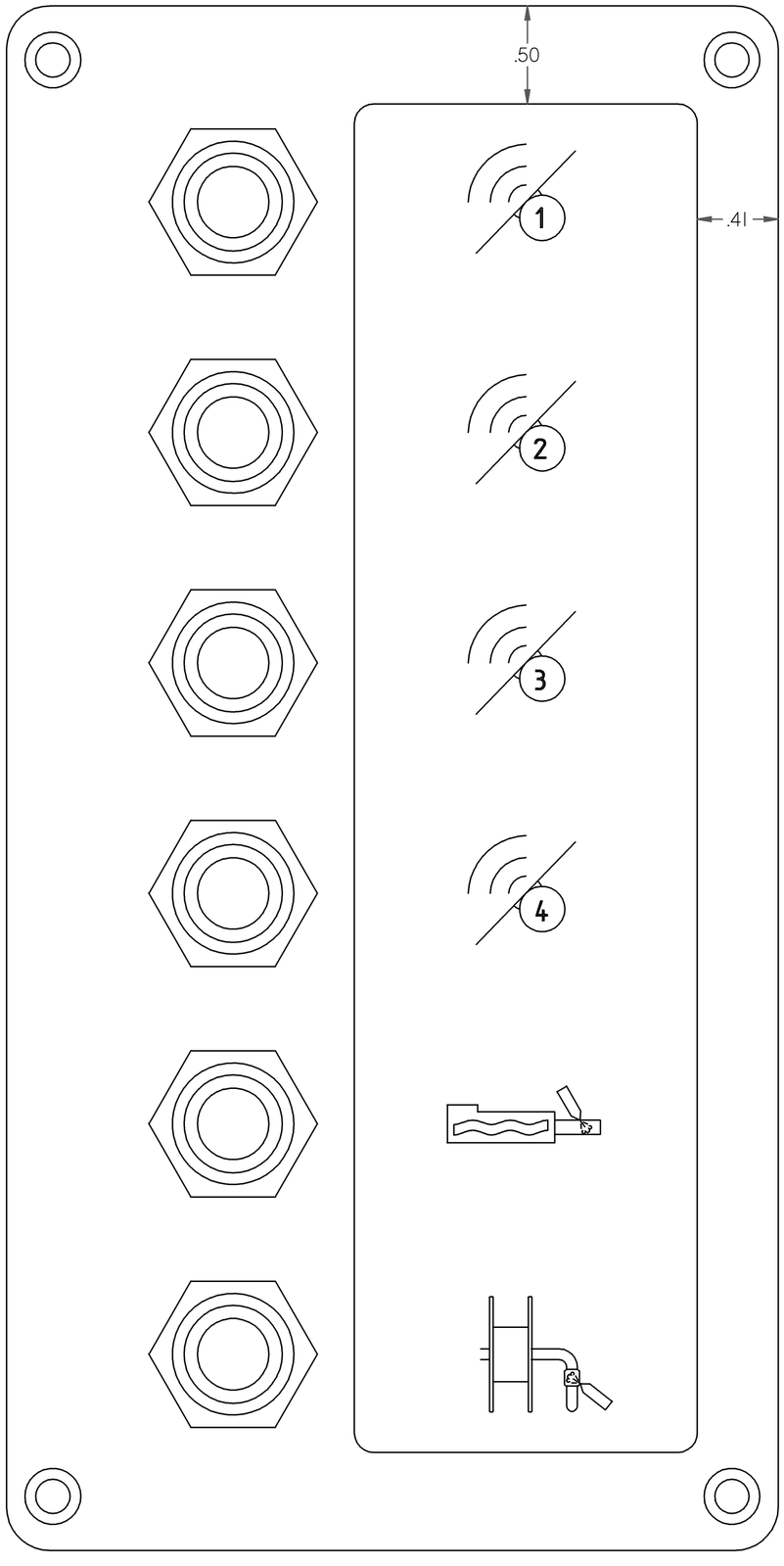
PROJECT UNIBODY

TITLE AIR PUSH BUTTON BOX ASSEMBLY
AIR CONTROL SYSTEM

DWG NO UC1040A02 | REV 1 | SIZE C

WEIGHT 5.4 lbm | SHEET 1 OF 3

Last Changed: 7/28/2008



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THIRD ANGLE PROJECTION

DRAWN ERICP
DATE 5/4/2004
APPR. DCOLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

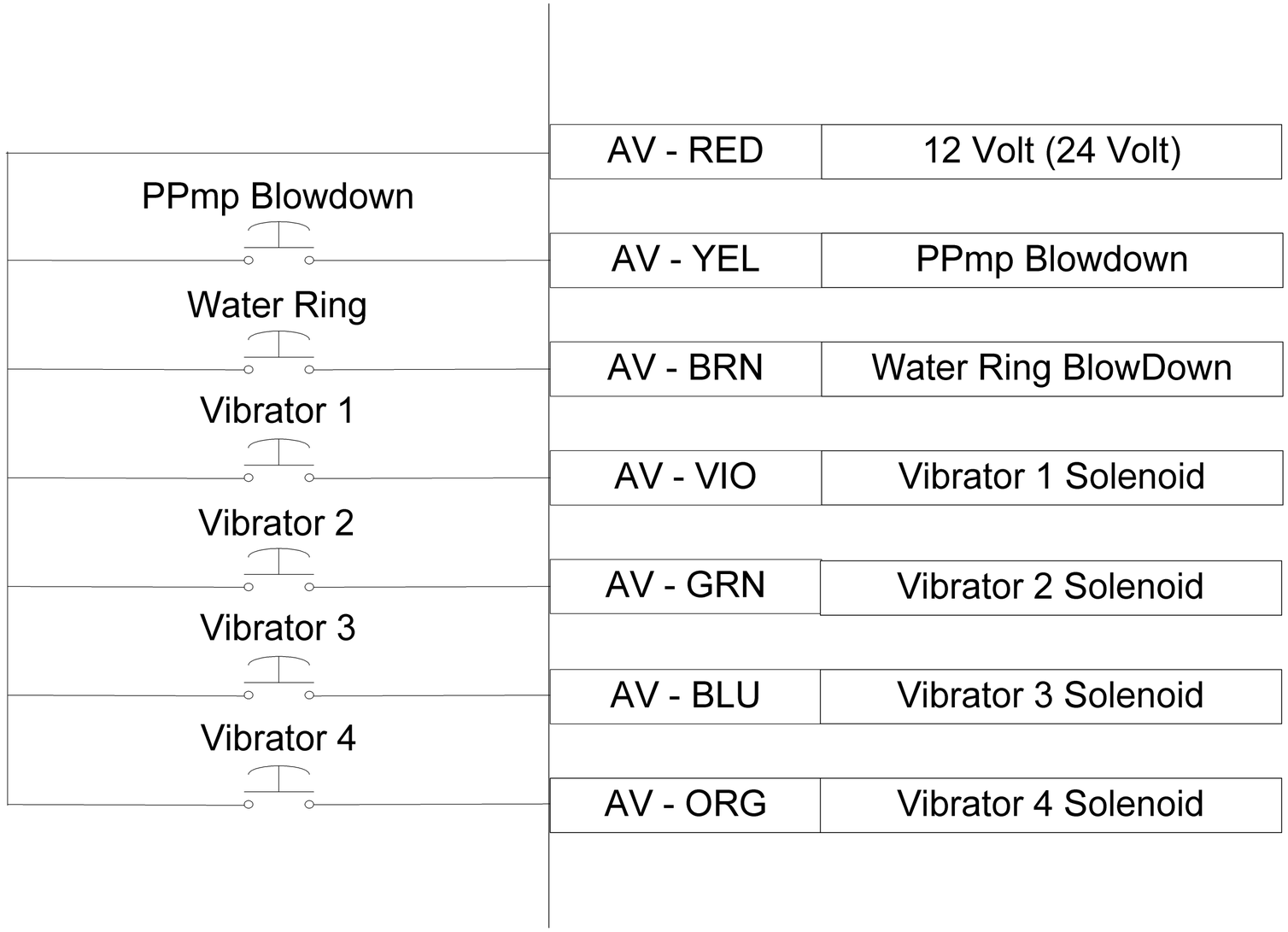
PROJECT UNIBODY

TITLE AIR PUSH BUTTON BOX ASSEMBLY
AIR CONTROL SYSTEM

DWG NO UC1040A02 | REV 1 | SIZE C

WEIGHT 5.4 lbm | SHEET 2 OF 3

Last Changed: 7/28/2008



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THIRD ANGLE PROJECTION

DRAWN ERICP
DATE 5/4/2004
APPR. DCOLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

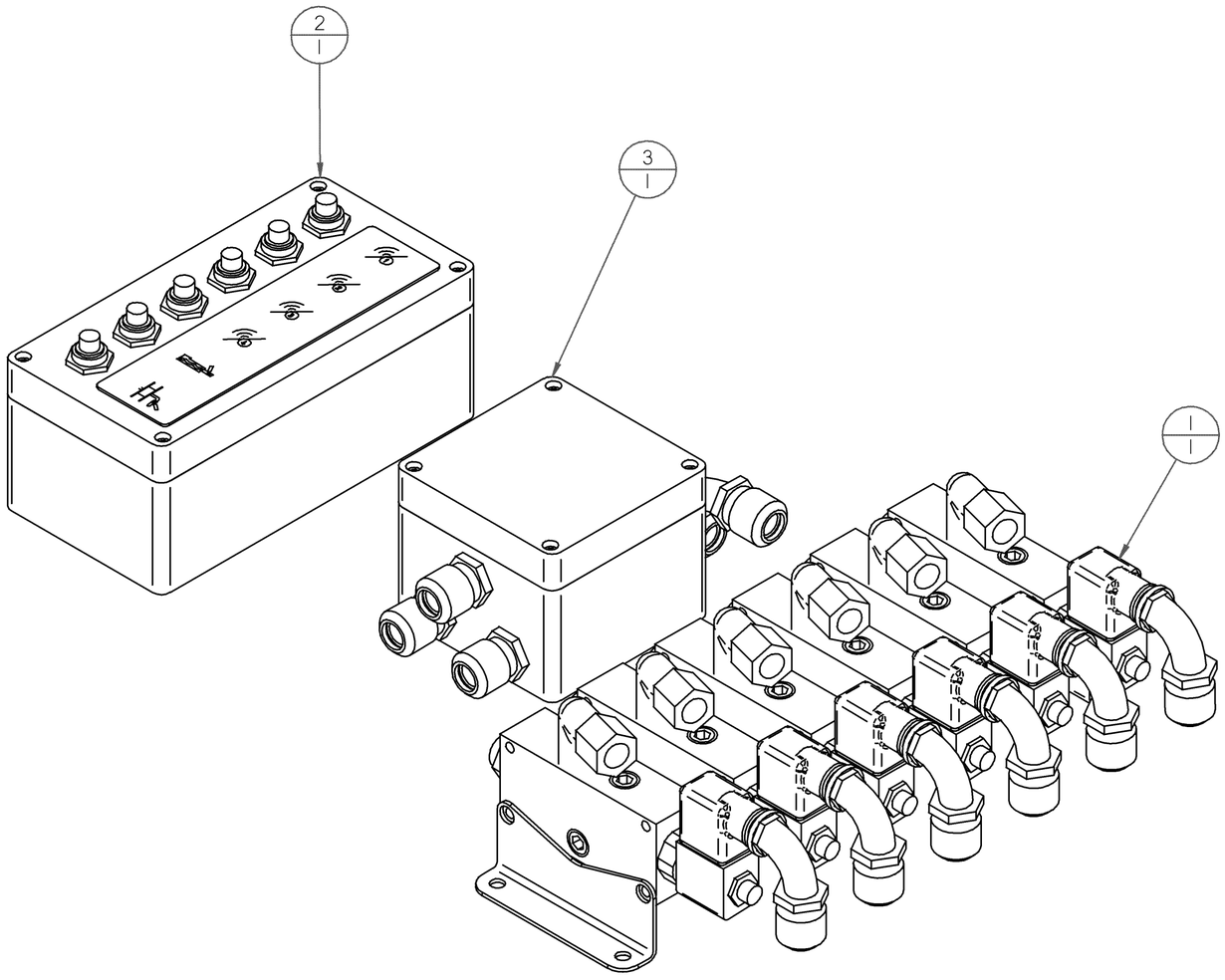
PROJECT UNIBODY

TITLE AIR PUSH BUTTON BOX ASSEMBLY
AIR CONTROL SYSTEM

DWG NO UC1040A02 | REV I | SIZE C

WEIGHT 5.4 lbm | SHEET 3 OF 3

Last Changed: 7/28/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UP1013A01X	AIR VALVE ASM 12V	UP1013A01X
2	1	UC1040A02	AIR PUSH BUTTON BOX ASSEMBLY	UC1040A02
3	1	UC1040A01	AIR VALVE ASM JUNCTION BOX	UC1040A01

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 8/11/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

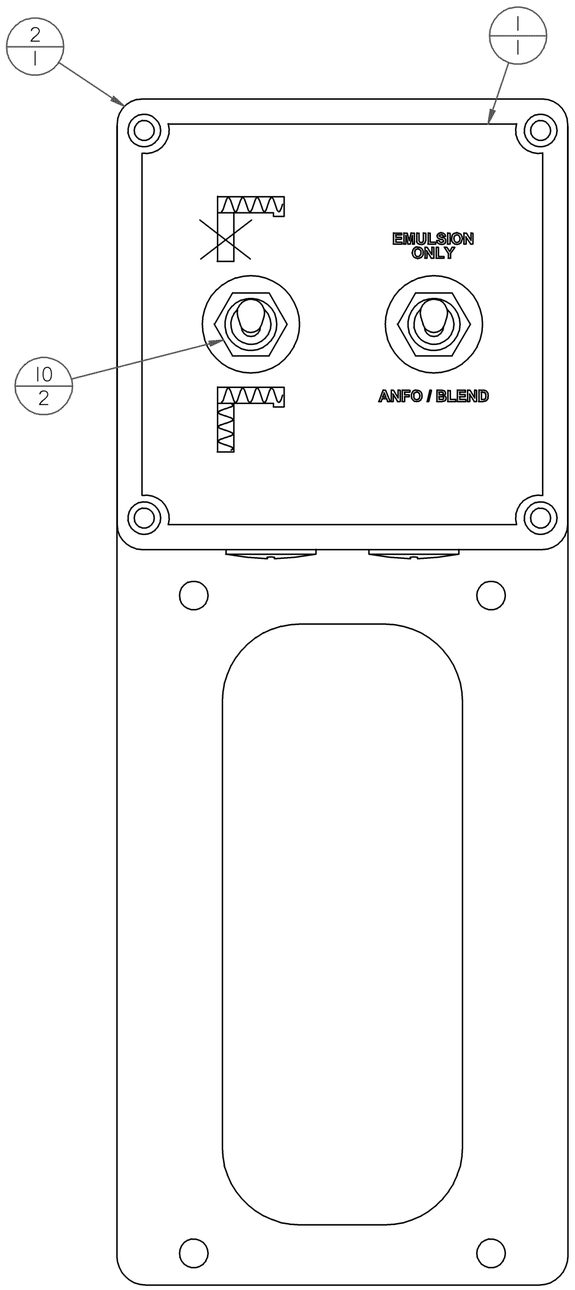
PROJECT UNIBODY

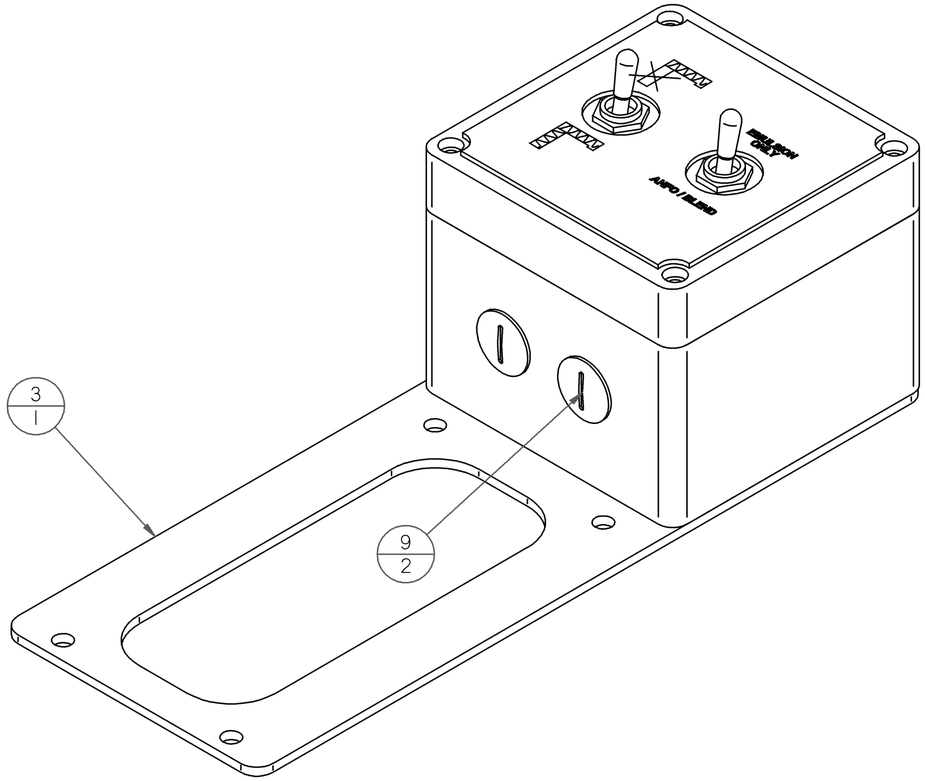
TITLE AIR VALVE CONTROL IN-CAB 12V
UNIBODY

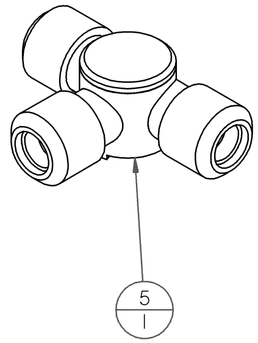
DWG NO UC1040A10X | REV 11 | SIZE C

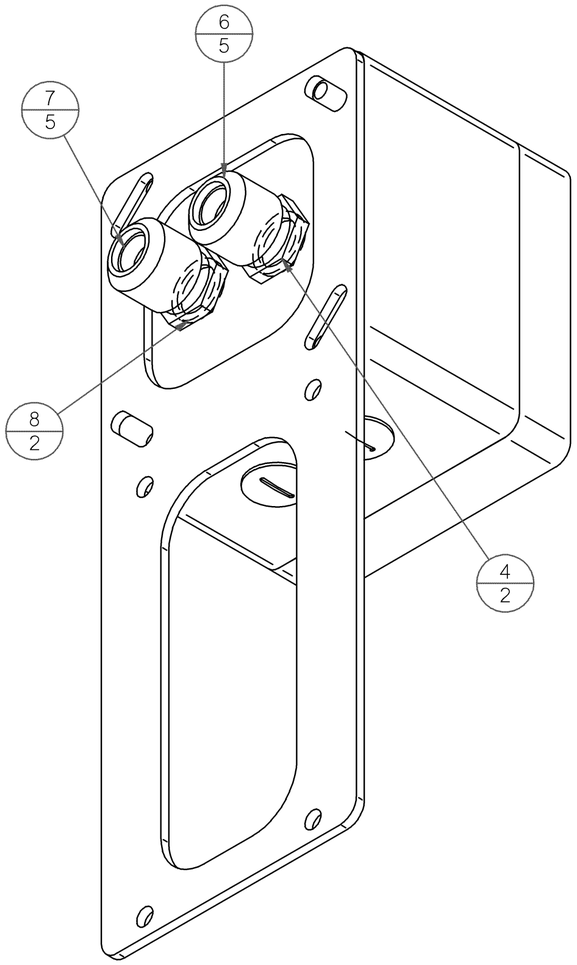
WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 8/11/2008









ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UC1046P03EN	LABEL ANFO AND VERT AUGER BYPASS	UC1046P03EN
2	1	UC1046P02	ENCLOSURE ANFO BYPASS W/OPT VERT AUG BYP	UC1046P02
3	1	UC102IP25	BRACKET ADDS LITTLE TO BIG	UC102IP25
4	2		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
5	1		FITTING BODY HARNESSFLEX T-PIECE TP12	231.6234
6	5		FITTING CAP NUT HARNESSFLEX NC12	231.6208
7	5		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
8	2		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
9	2		HOLE PLUG HEYCO THREADED PG9	231.6240
10	2		SWITCH SEALED TOGGLE SPDT MAINT	234.8042

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ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 7/21/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

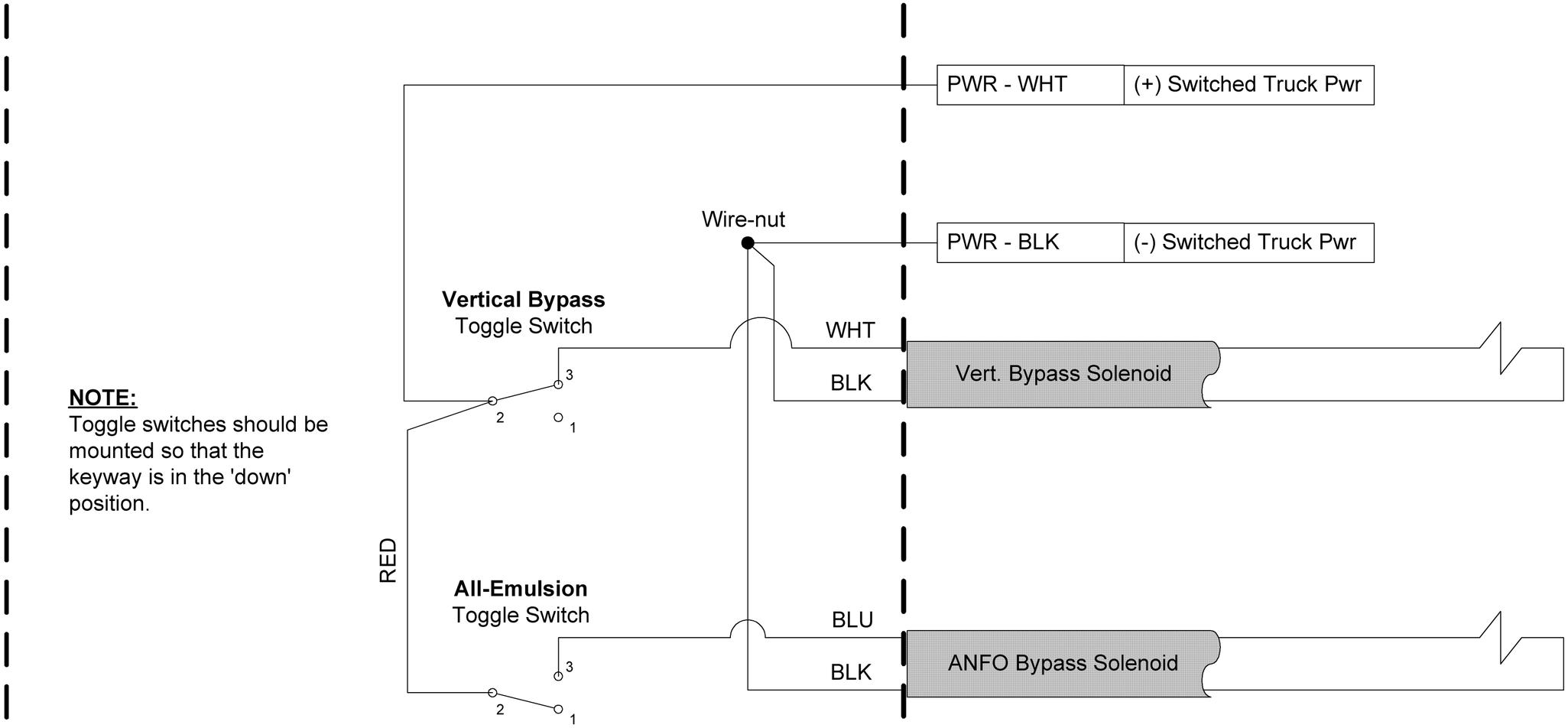
PROJECT

TITLE ANFO BYPASS W/ OPTIONAL VERT AUG BYPASS

DWG NO UC1046A01 | REV 11 | SIZE C

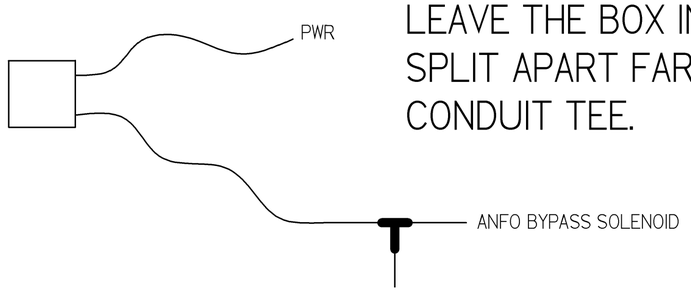
WEIGHT 0.0 lbm | SHEET 1 OF 2

Last Changed: 3/10/2008



NOTE:
Toggle switches should be mounted so that the keyway is in the 'down' position.

NOTE
TO MINIMIZE CONDUIT RUNS TO THE CAB, THE FOUR WIRES FOR THE SOLENOIDS LEAVE THE BOX IN A SIGLE CONDUIT AND SPLIT APART FARTHER AWAY USING A CONDUIT TEE.



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THIRD ANGLE PROJECTION

DRAWN TBARHAM
DATE 7/21/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

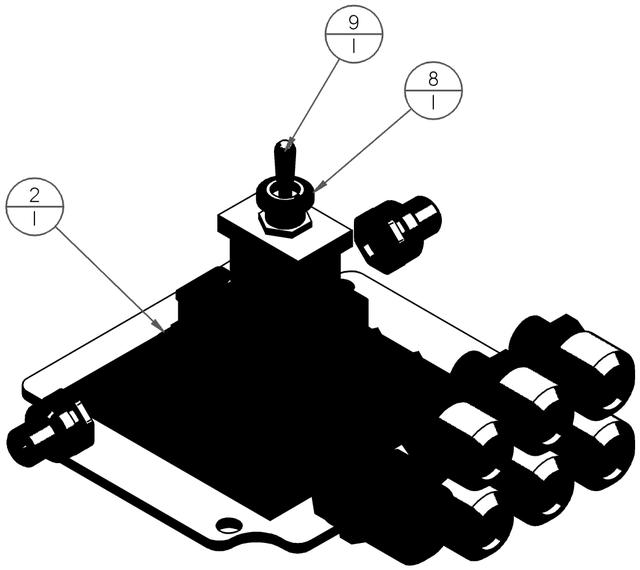
PROJECT

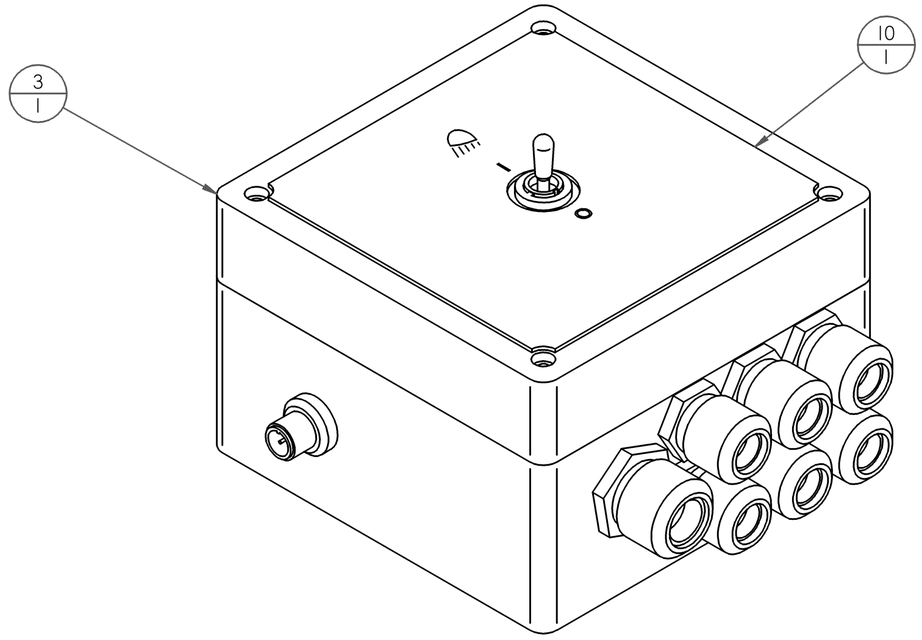
TITLE ANFO BYPASS W/ OPTIONAL VERT AUG BYPASS

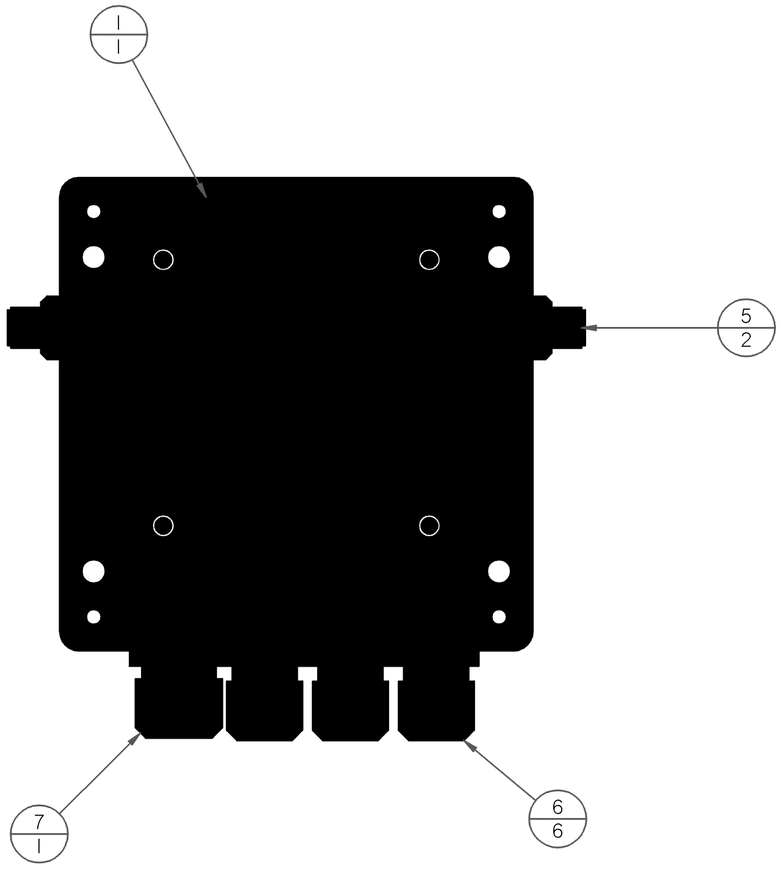
DWG NO UC1046A01 | REV 11 | SIZE C

WEIGHT 0.0 lbm | SHEET 2 OF 2

Last Changed: 3/10/2008







ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UC1024P09	SWITCH BOX BACK PLATE	
2	1	UC1053A50	FLOODLIGHT PCB ASSEMBLY	
3	1	UC1053P101	SWITCH BOX	
4*	2	TC01069	DIODE SURGE SUPPRESSOR 20VIT-T1	231.0189
5	2	TC02218	M12 MALE CONNECTOR 4 PIN REAR MOUNT	231.1400
6	6	TC01834	FITTING ASM HARNESSFLEX STRAIGHT NC12	231.6226
7	1	TC01836	FITTING ASM HARNESSFLEX STRAIGHT NC16	231.6228
8	1	TC03051	SEALED-SWITCH BUSHING SEAL	234.8040
9	1	TC01129	SWITCH TOGGLE SEALED DPDT 3-POS	234.8045
10	1	UC1024P04	LABEL FLOODLIGHT CONTROL BOX RELAY	UC1024P04

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN bsekinger
DATE 3/30/2010
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

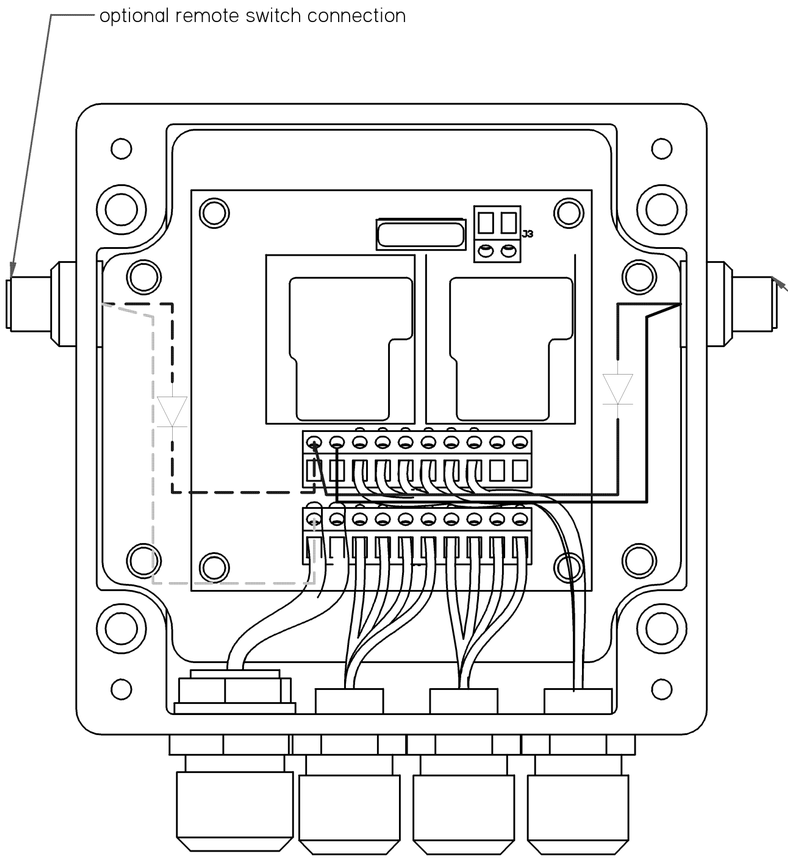
PROJECT FLOOD/STROBE LIGHT CONTROL BOX R

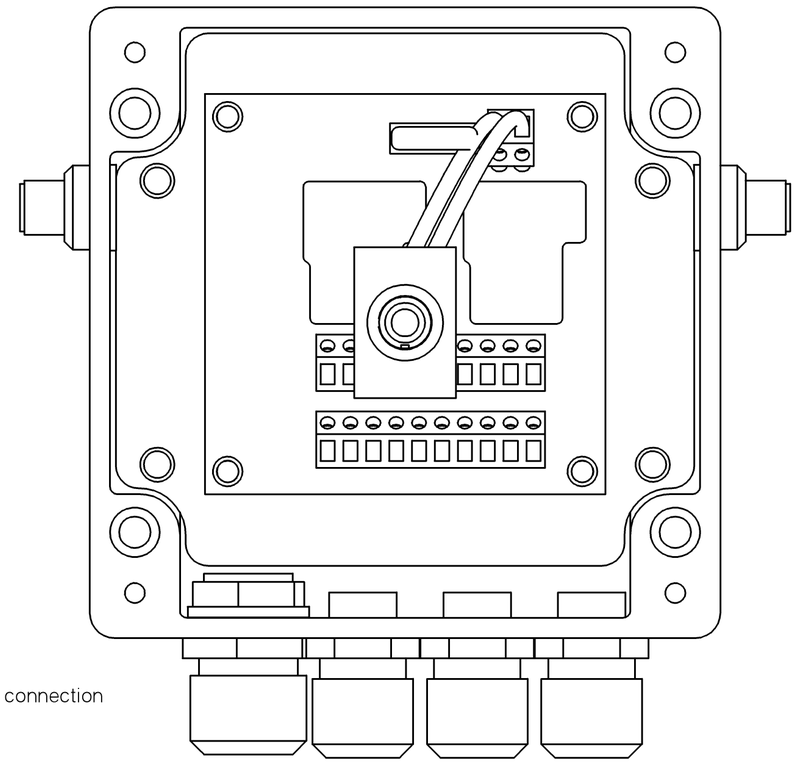
TITLE FLOOD/STROBE LIGHT CONTROL BOX RELAY 12V FLOODLIGHT SYSTEM

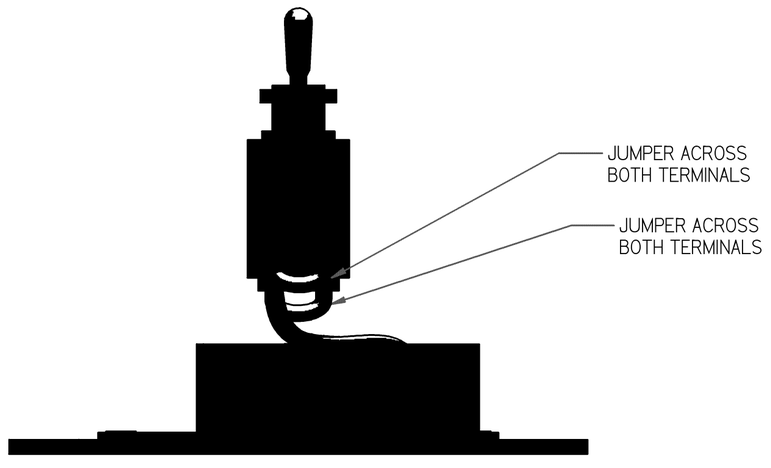
DWG NO UC1053A14 | REV 05 (05) | SIZE C

WEIGHT 4.4 lbm | SHEET 1 OF 2

Last Changed: 3/11/2008







USE WIRE FERRULES ON ALL WIRES TERMINATED TO CONNECTOR BLOCKS

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THIRD ANGLE PROJECTION

DRAWN bsekinger
DATE 3/30/2010
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

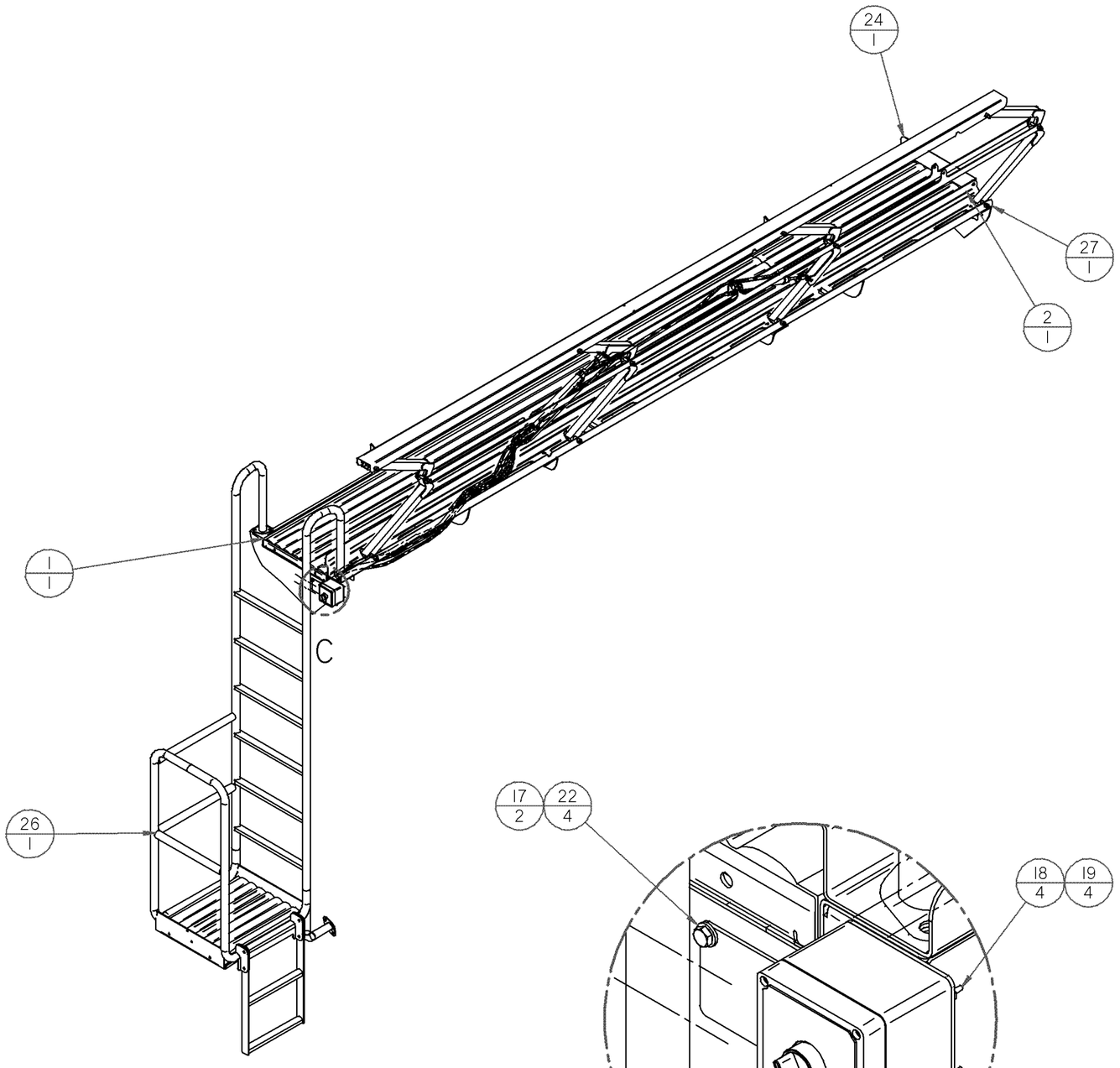
PROJECT FLOOD/STROBE LIGHT CONTROL BOX R

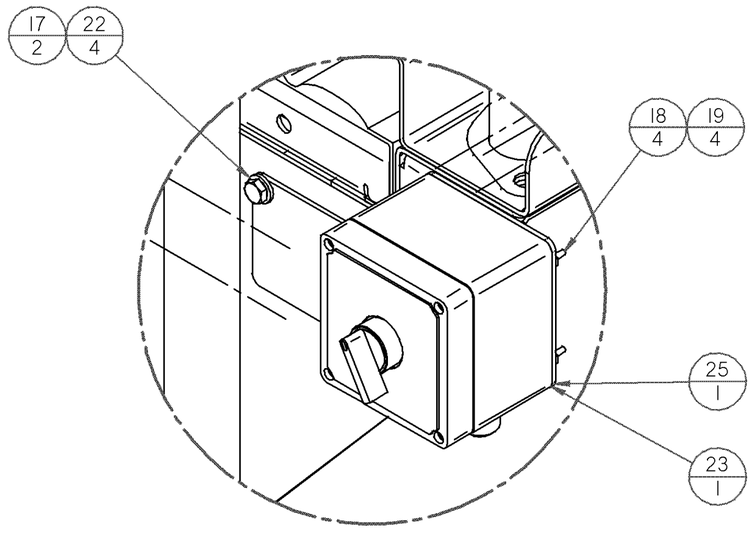
TITLE FLOOD/STROBE LIGHT CONTROL BOX RELAY 12V FLOODLIGHT SYSTEM

DWG NO UC1053A14 | REV 05 | SIZE C

WEIGHT 4.4 lbm | SHEET 2 OF 2

Last Changed: 3/11/2008





DETAIL C

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UD1000A12	WALKWAY GRATE WELDMENT 12 FT	
2	1	UD1000A04	WALKWAY GRATE WELDMENT 4 FT	
3	1		HOSE HYD GATES M3K XTRATUFF .250 (126 IN.)	262.3704
4	1		HOSE HYD GATES M3K XTRATUFF .250 (141 IN.)	262.3704
5	1		HOSE HYD GATES M3K XTRATUFF .250 (65 IN.)	262.3704
6	1		HOSE HYD GATES M3K XTRATUFF .250 (76 IN.)	262.3704
7	2		HOSE HYD GATES M3K XTRATUFF .375 (10 ft)	262.3706
8	8		COUPLING GATES HOSE 04-06 F JIC	262.6205
9	4		COUPLING GATES HOSE 06-08 F JIC	262.6206
10	1		VALVE HYDRAULIC HANDRAIL CONTROL UNIBODY	264.0174
11*	2		HOSE SPIRAL WRAP 1.5" HD (4ft)	269.8905
12	4		FITTING 90 M37/ADJ MSAE 06-04	72501.0604
13	4		FITTING STR M37/MSAE 06-06	76400.0606
14*	1		FITTING STR M37/MSAE 08-08	76400.0808
15	1		FITTING 90 M37/F37 SW 08-08	76500.0808
16	1		FITTING 90 M37/ADJ MSAE 08-08	76801.0808
17	2		SCREW CAP HEX HEAD .31-18X3.50	900.3794
18	4		SCREW MACHINE SS SL FILLIS HD #8-32X1.00	916.1290
19	4		NUT HEX #8-32 SS	950.1214
20	2		NUT HEX ELASTIC .31-18 SS	954.3614
21	4		WASHER PLAIN FLAT #8	960.1214
22	4		WASHER PLAIN FLAT .31 SS	960.3614
23	1	UC1008A05	ELECTRIC HANDRAIL CONTROL	UC1008A05
24	1	UD1000P03S	WALKWAY END TOE BOARD SS	UD1000P03S
25	1	UD1000P14	MOUNTING PLATE HANDRAIL CONTROL BOX	UD1000P14
26	1	UD1001A02S	LADDER ASSEMBLY 42 SIDE ACCES SS	UD1001A02S
27	1	UD1003A26S	HANDRAIL ASSEMBLY 16 FT HYD	UD1003A26S

PROPRIETARY STATEMENT

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UNLESS OTHERWISE SPECIFIED
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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ± 0.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN D.COLE
DATE 02/09/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

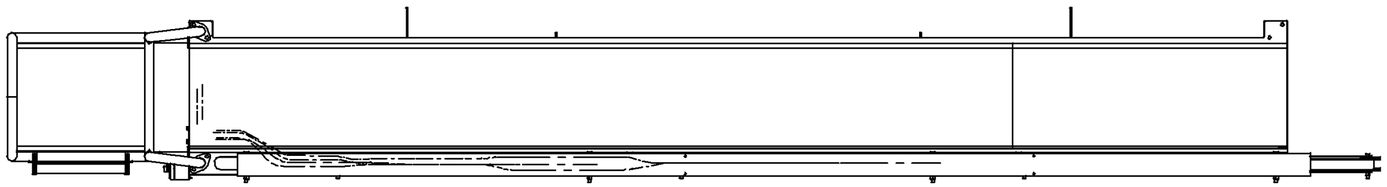
PROJECT LADDER & WALKWAY SIDE ACCESS 421

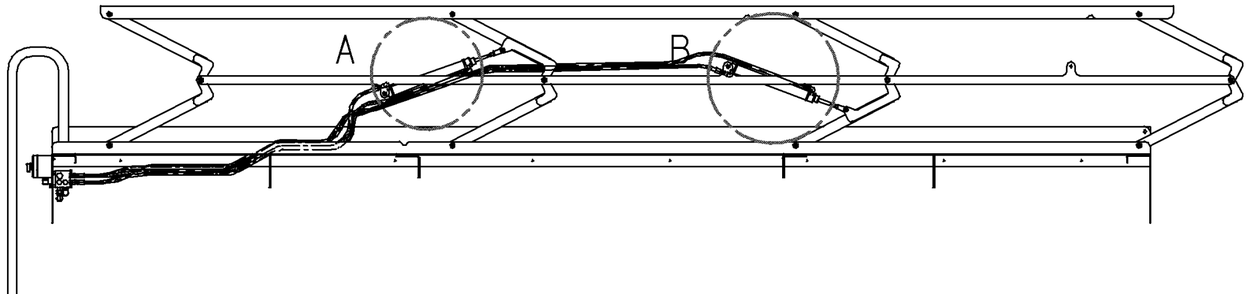
TITLE LADDER & WALKWAY SIDE ACCESS 4216 HYD UNIBODY 4216US

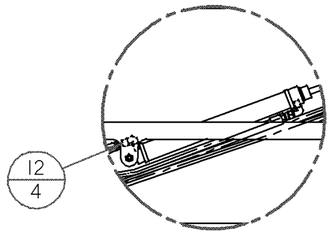
DWG NO UD1000A27S | REV 01 | SIZE C

WEIGHT 358.2 lbm | SHEET 1 OF 4

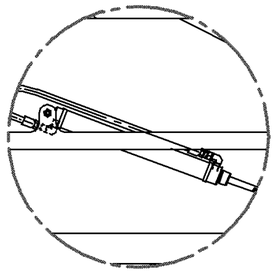
Last Changed: 06/01/2009



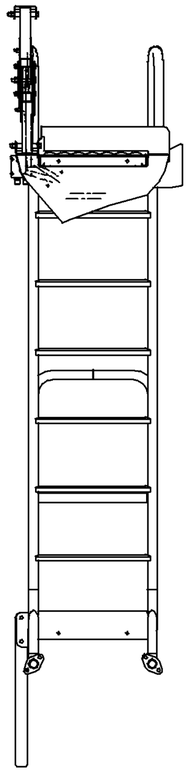




DETAIL A



DETAIL B



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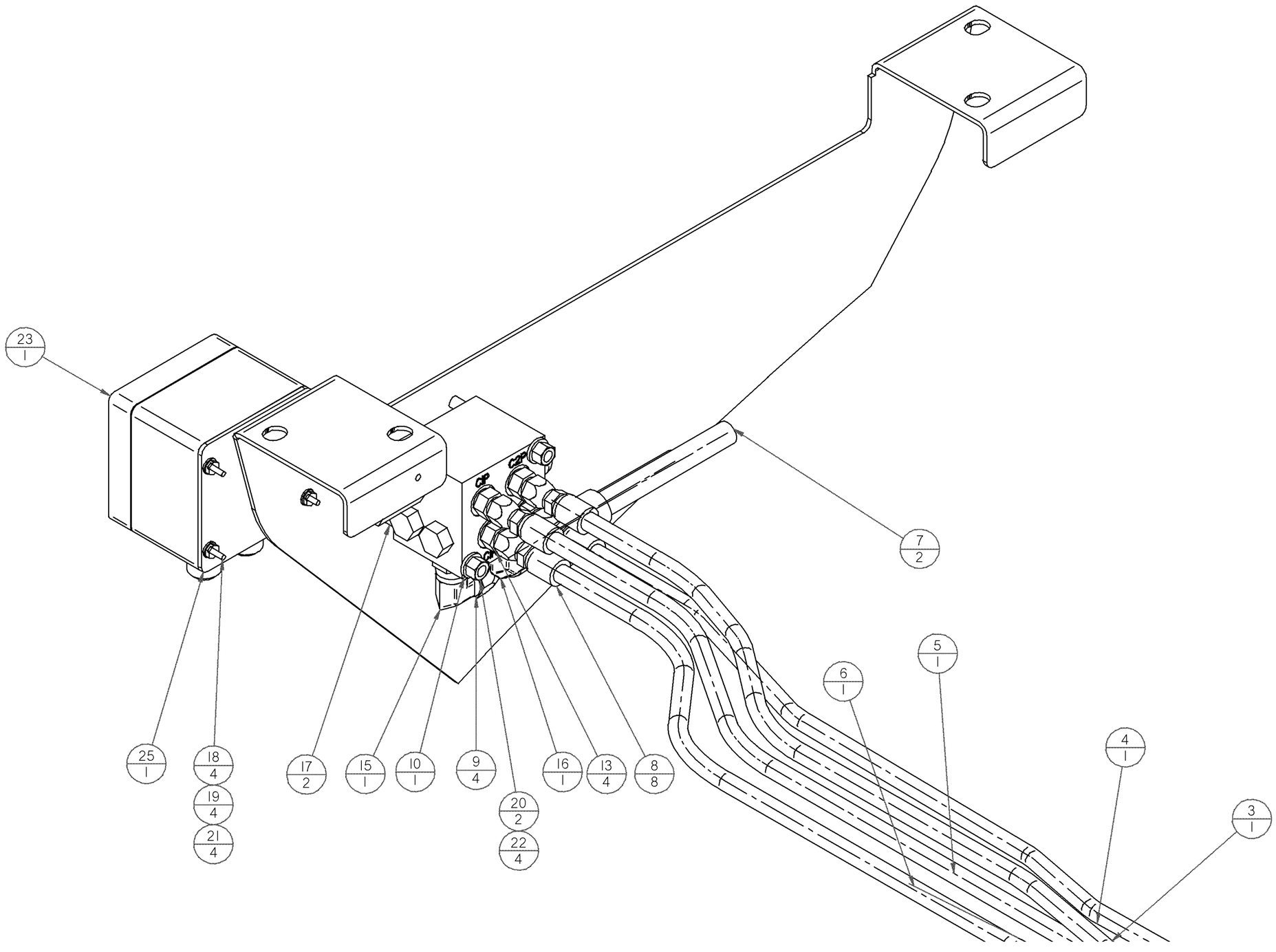
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ± 020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN D.COLE DATE 02/09/2005 APPR.	DWG NO UD1000A27S REV 091 SIZE C WEIGHT 358.2 lbm SHEET 2 OF 4

Last Changed: 06/01/2009



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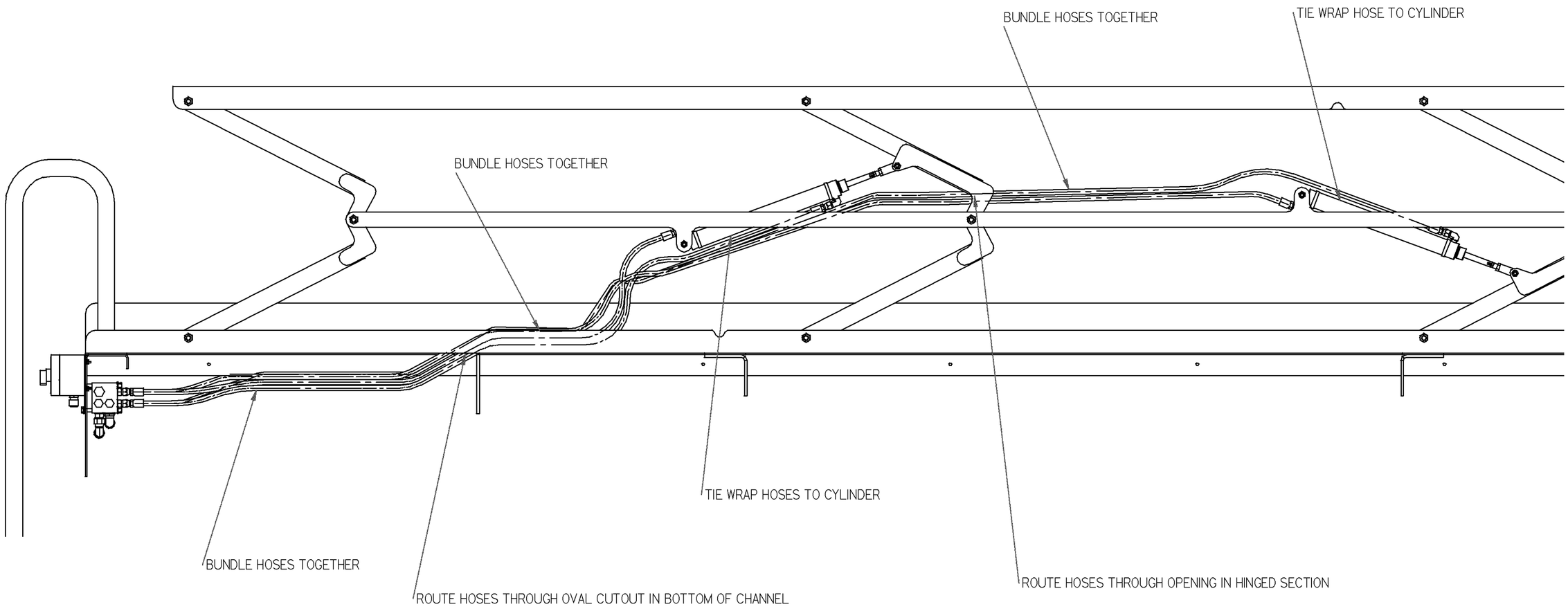
		PROJECT: LADDER & WALKWAY SIDE ACCESS 421
		TITLE: LADDER & WALKWAY SIDE ACCESS 4216 HYD UNIBODY 4216US
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: D.COLE DATE: 02/09/2005 APPR:	DWG NO: UD1000A27S REV: 01 SIZE: C WEIGHT: 358.2 lbm SHEET: 3 OF 4

Last Changed: 06/01/2009



WHEN TYING OFF HOSES BE SURE TO ALLOW ENOUGH SLACK TO ALLOW FULL RANGE OF MOTION

PROPRIETARY STATEMENT

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UNLESS OTHERWISE SPECIFIED
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ANGULARITY = ± 0.5 DEG

DRAWN D.COLE
DATE 02/09/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

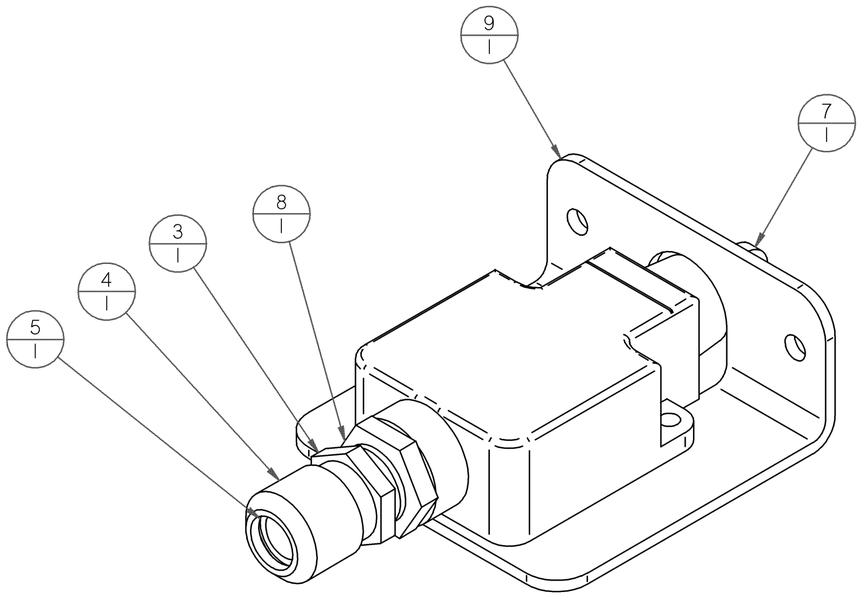
PROJECT LADDER & WALKWAY SIDE ACCESS 421

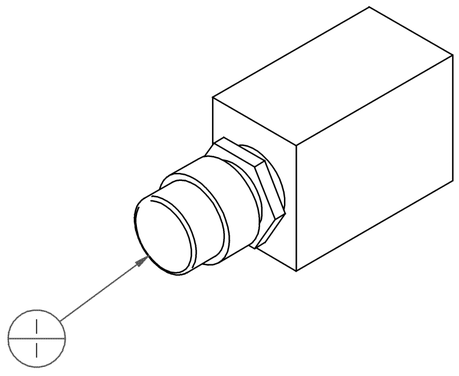
TITLE LADDER & WALKWAY SIDE ACCESS 4216 HYD UNIBODY 4216US

DWG NO UD1000A27S | REV 01 | SIZE C

WEIGHT 358.2 lbm | SHEET 4 OF 4

Last Changed: 06/01/2009





CONFIGURATOR RULES:
USE ON HANDRAILS WITH 12 VOLT WITHOUT PROBLAST

ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	N/A	LIGHT & BUZZER COMBO ALARM 12 VDC	231.4112
2*	1		CONDUIT HARNESSFLEX NC12 UNSLIT X 30 FEET	231.6200
3	1		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
4	1		FITTING CAP NUT HARNESSFLEX NC12	231.6208
5	1		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
6*	1		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
7	1	N/A	LIMIT SWITCH ROLLER PLUNGER	234.5296
8	1	UC1027P02	ADAPTER PLASTIC .50 NPT MALE TO PG9 FEMALE	UC1027P02
9	1	UD1002P08	LIMIT SWITCH MOUNTING BRACKET SS	UD1002P08

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TOLERANCE LIMITS
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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN DCOLE
DATE 6/28/2003
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

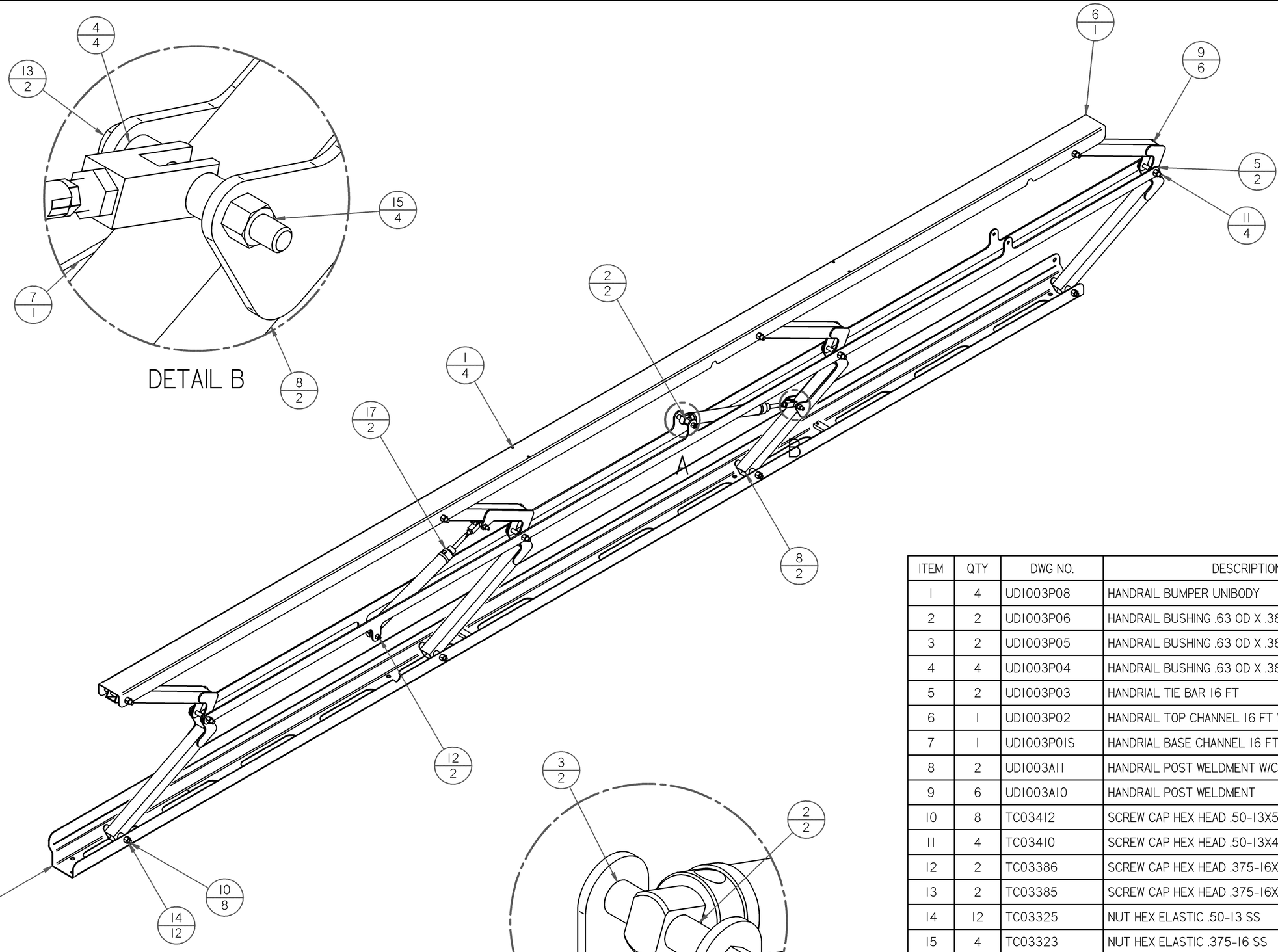
PROJECT UNIBODY 3216

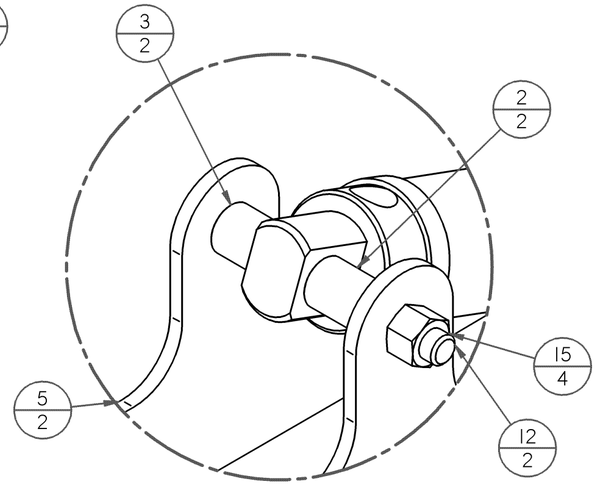
TITLE HANDRAIL DUAL ALARM SYSTEM 12V
UNIBODY HANDRAIL ASSEMBLY

DWG NO UD1002A04X | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 3/7/2008





ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	4	UD1003P08	HANDRAIL BUMPER UNIBODY	UD1003P08
2	2	UD1003P06	HANDRAIL BUSHING .63 OD X .38 ID X 1.06	UD1003P06
3	2	UD1003P05	HANDRAIL BUSHING .63 OD X .38 ID X .81 L	UD1003P05
4	4	UD1003P04	HANDRAIL BUSHING .63 OD X .38 ID X .50 L	UD1003P04
5	2	UD1003P03	HANDRIAL TIE BAR 16 FT	
6	1	UD1003P02	HANDRAIL TOP CHANNEL 16 FT W/FUEL TANK	UD1003P02
7	1	UD1003P01S	HANDRIAL BASE CHANNEL 16 FT SS	
8	2	UD1003A11	HANDRAIL POST WELDMENT W/CYL ATTACH	UD1003A11
9	6	UD1003A10	HANDRAIL POST WELDMENT	
10	8	TC03412	SCREW CAP HEX HEAD .50-13X5.00	900.5634
11	4	TC03410	SCREW CAP HEX HEAD .50-13X4.00	900.5614
12	2	TC03386	SCREW CAP HEX HEAD .375-16X3.50 SS	900.4394
13	2	TC03385	SCREW CAP HEX HEAD .375-16X3.00 SS	900.4374
14	12	TC03325	NUT HEX ELASTIC .50-13 SS	954.5414
15	4	TC03323	NUT HEX ELASTIC .375-16 SS	954.4214
16	16	TC03206	WASHER PLAIN FLAT .50 UHMW	960.5418
17	2		CYLINDER HYD 1.5 BORE 12 STROKE W/CLEVIS	260.1028

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN DCOLE
DATE 11/1/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

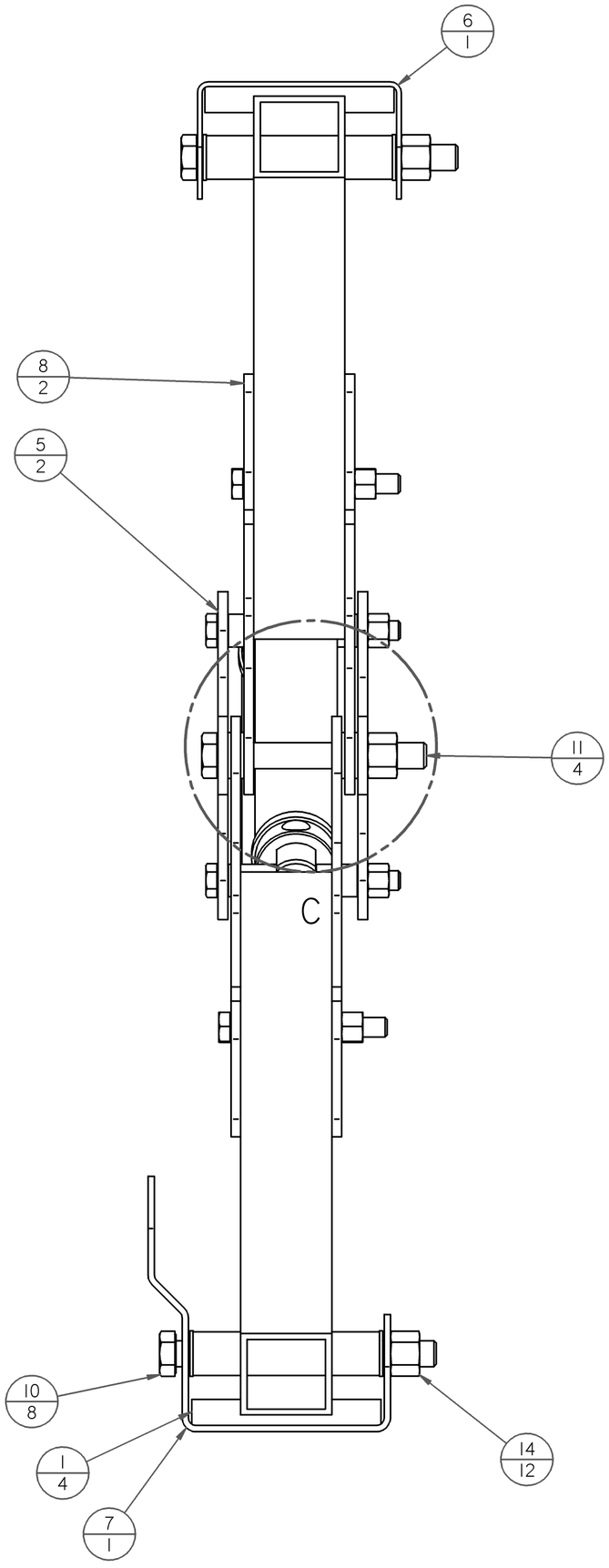
PROJECT UNIBODY LADDERS & WALKWAYS

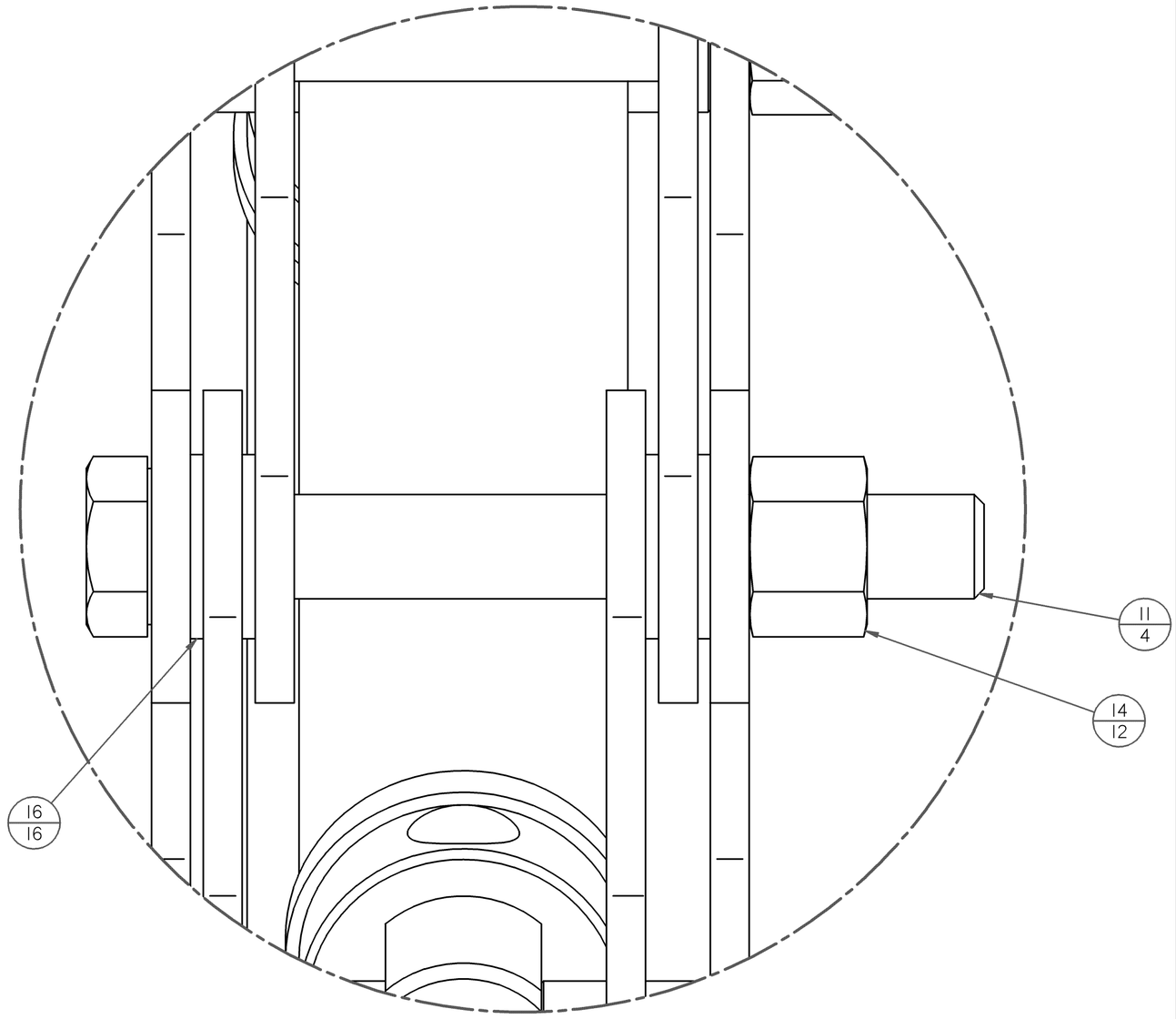
TITLE HANDRAIL ASSEMBLY 16 FT HYD
UNIBODY 3216/4216

DWG NO UD1003A26S | REV 1 | SIZE C

WEIGHT 131.4 lbm | SHEET 1 OF 2

Last Changed: 5/5/2009





DETAIL C

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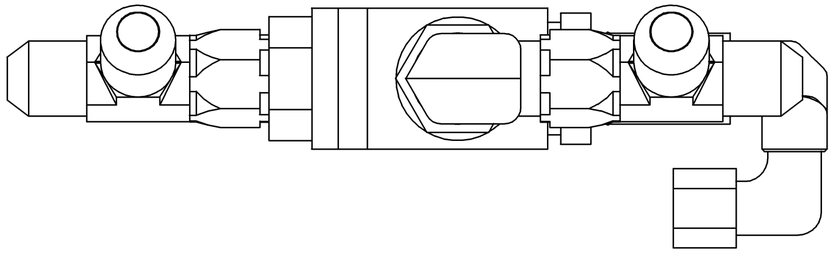
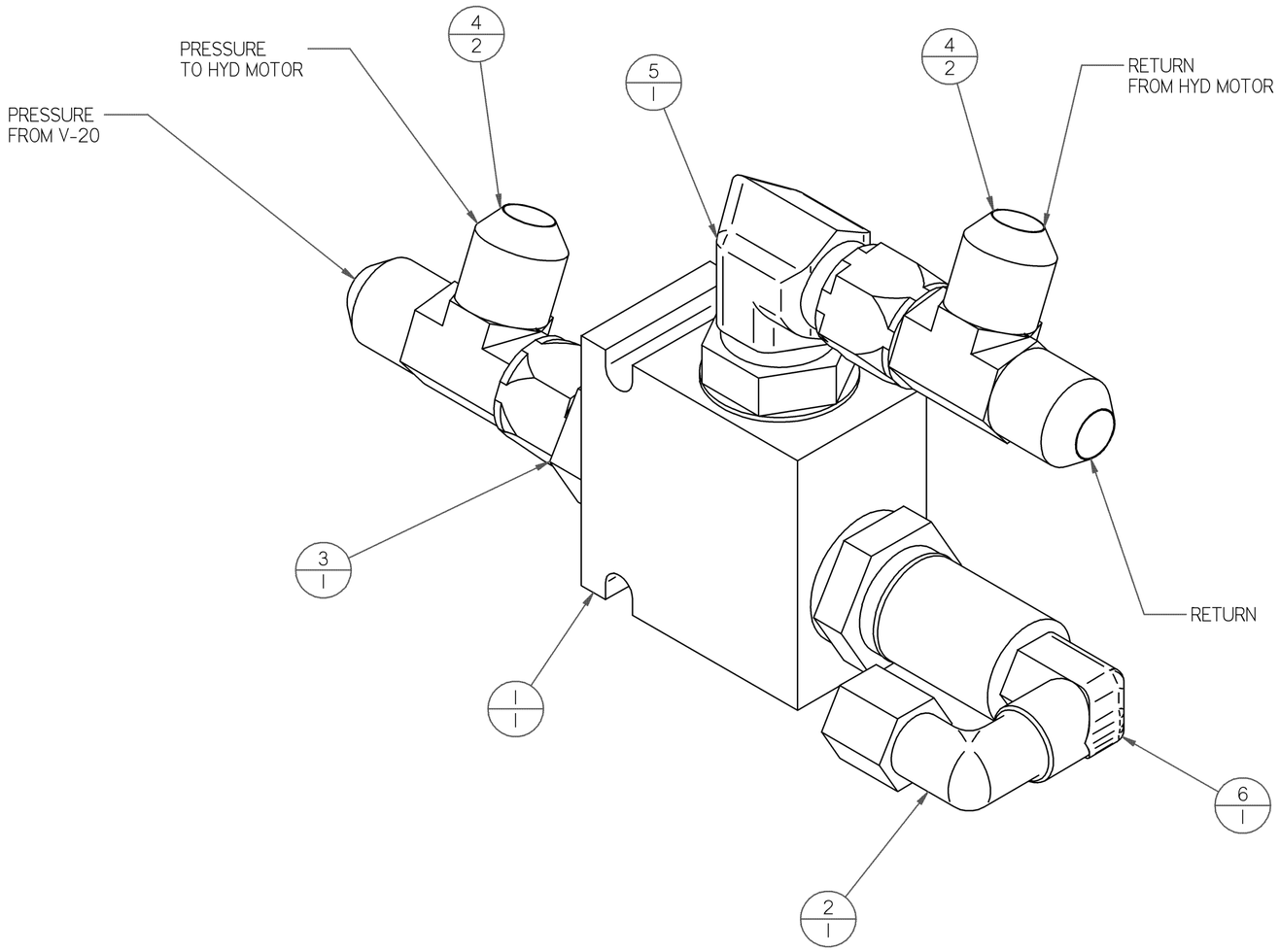
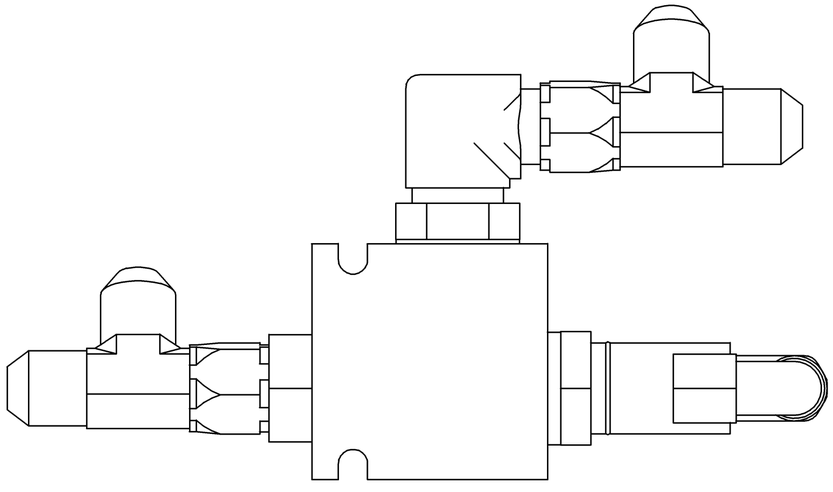
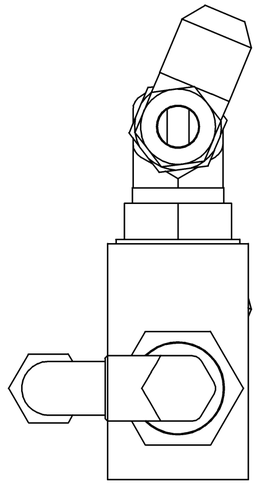
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN DCOLE DATE 11/1/2004 APPR.	PROJECT UNIBODY LADDERS & WALKWAYS TITLE HANDRAIL ASSEMBLY 16 FT HYD UNIBODY 3216/4216 DWG NO UD1003A26S · REV 1 · SIZE C WEIGHT 131.4 lbm · SHEET 2 OF 2

Last Changed: 5/5/2009









ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1		COMMAND CONTROLS VALVE AIR AODV-1478	264.3800
2	1		FITTING TUBE 90 JACO .375-.25 MNPT	274.9870
3	1		FITTING STR M37/MSAE 10-12	76400.1012
4	2		FITTING TEE M37/F37 SW/M37 -10	76602.101010
5	1		FITTING 90 M37/ADJ MSAE 10-12	76801.1012
6	1		FITTING 90 MNPT/FNPT .13 X .25	82089.0204

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 9/19/2006
APPR. J COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT

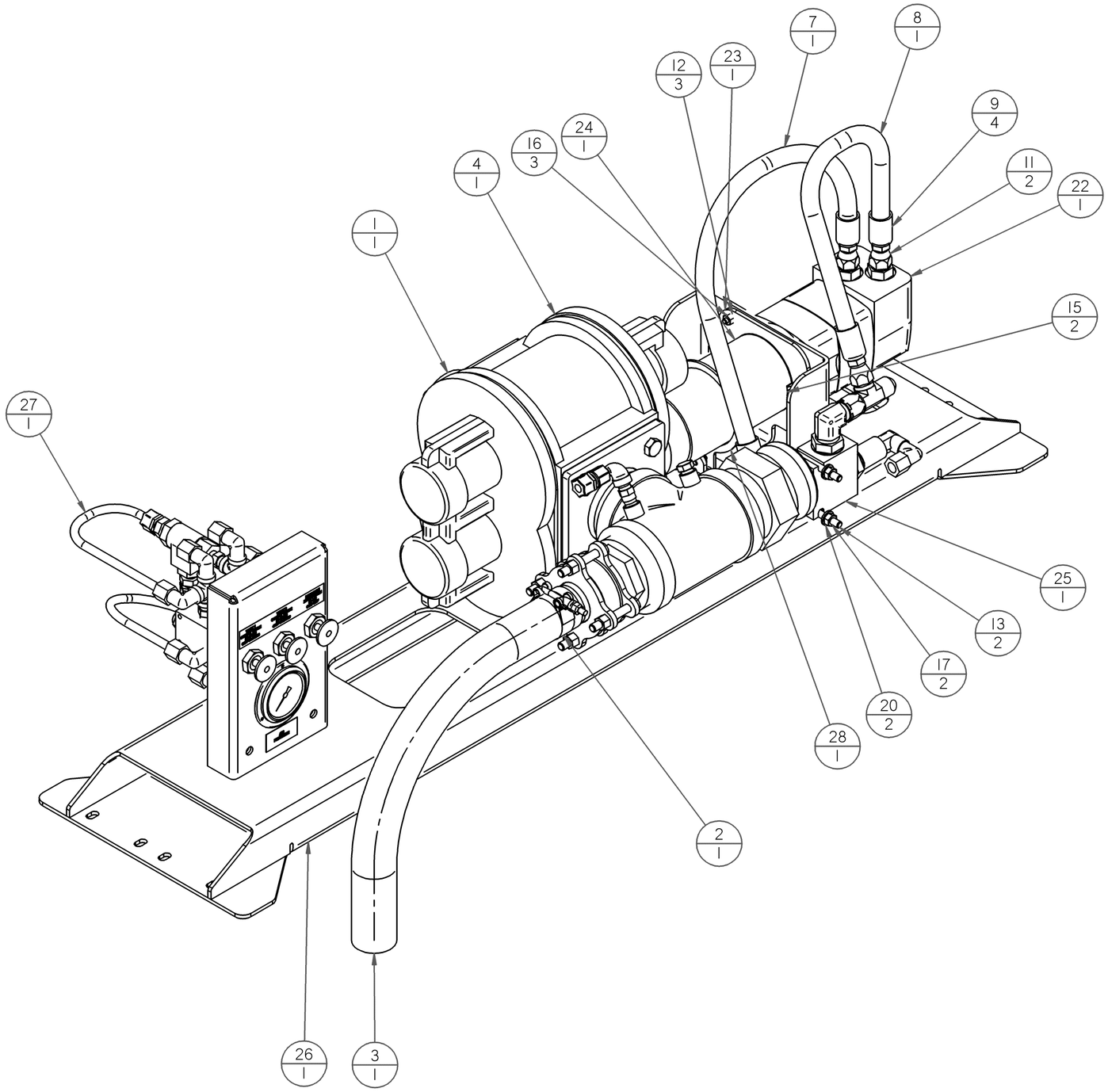
TITLE
VALVE ASM SUN AIR PILOT W/ FITTINGS
EMULSION PUMP MODULE BOWIE PUMP

DWG NO UE1001A24 | REV 3 | SIZE C

WEIGHT 5.1 lbm | SHEET 1 OF 1

PART ID

Last Changed: 3/7/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UE1003A15	INLET-OUTLET FITTING GROUP BOWIE 3 IN	
2	1	TC00125	CLAMP T BOLT SS 1.50 HOSE 2.00 DIA	240.0915
3	1	TC00683	HOSE ROYALFLEX 1196 1.5 INCH X 20 IN LONG	240.3385
4	1	TC00671	PUMP BOWIE 3" SHORT SHAFT W/O FLANGES	241.1044
5*	1	TC02106	COUPLING L110 HYTREL SPYDER	247.1380
6	1	TC02114	COUPLING L110 X 1.125 BORE .250 KEY	247.1382
7	1	UE1002P36	HOSE HYD GATES M3K XTRATUFF .500 (24")	262.3708
8	1	UE1002P37	HOSE HYD GATES M3K XTRATUFF .500 (18")	262.3708
9	4	TC01644	COUPLING GATES HOSE 08-10 F JIC	262.6208
10	1	TC02111	COUPLING L110 X 1.000 BORE .250 KEY MACHINED	285.9012
11	2	TC01555	FITTING STR M37/MSAE 10-10	76400.1010
12	3	TC00439	SCREW CAP HEX HEAD .25-20X.75 SS	900.3074
13	2	TC00479	SCREW CAP HEX HEAD .31-18X3.00	900.3774
14	4	TC00420	SCREW CAP HEX HEAD .50-13X1.25	900.5504
15	2	TC00421	SCREW CAP HEX HEAD .50-13X1.50	900.5514
16	3	TC00532	NUT HEX .25-20 SS	950.3014
17	2	TC00537	NUT HEX .31-18 SS	950.3614
18*	2	TC00529	NUT HEX .50-13 SS	950.5414
19*	3	TC00510	WASHER PLAIN FLAT .25 SS	960.3014
20	2	TC00515	WASHER PLAIN FLAT .31 SS	960.3614
21*	4	TC00508	WASHER PLAIN FLAT .50	960.5414
22	1	TC00060	MOTOR CHAR LYNN 2000 SERIES PER SPEC	PER SPEC
23	1	UE1000P04S	COUPLING GUARD BRACKET L-110	UE1000P04S
24	1	UE1000P06	COUPLING GUARD TUBE BOWIE SHORT SHAFT	UE1000P06
25	1	UE1001A24	VALVE ASM SUN AIR PILOT W/ FITTINGS	UE1001A24
26	1	UE1002A10	PUMP BASE WELDMENT 16 FT BODY 3 IN BOWIE	UE1002A10
27	1	UE1004A01	VALVE AIR CONTROL EMULSION PUMP UNIBODY	UE1004A01
28	1	UE1000P05S	COUPLING GUARD TUBE RING L-110	UP1001P08

PART ID
Uemulsion

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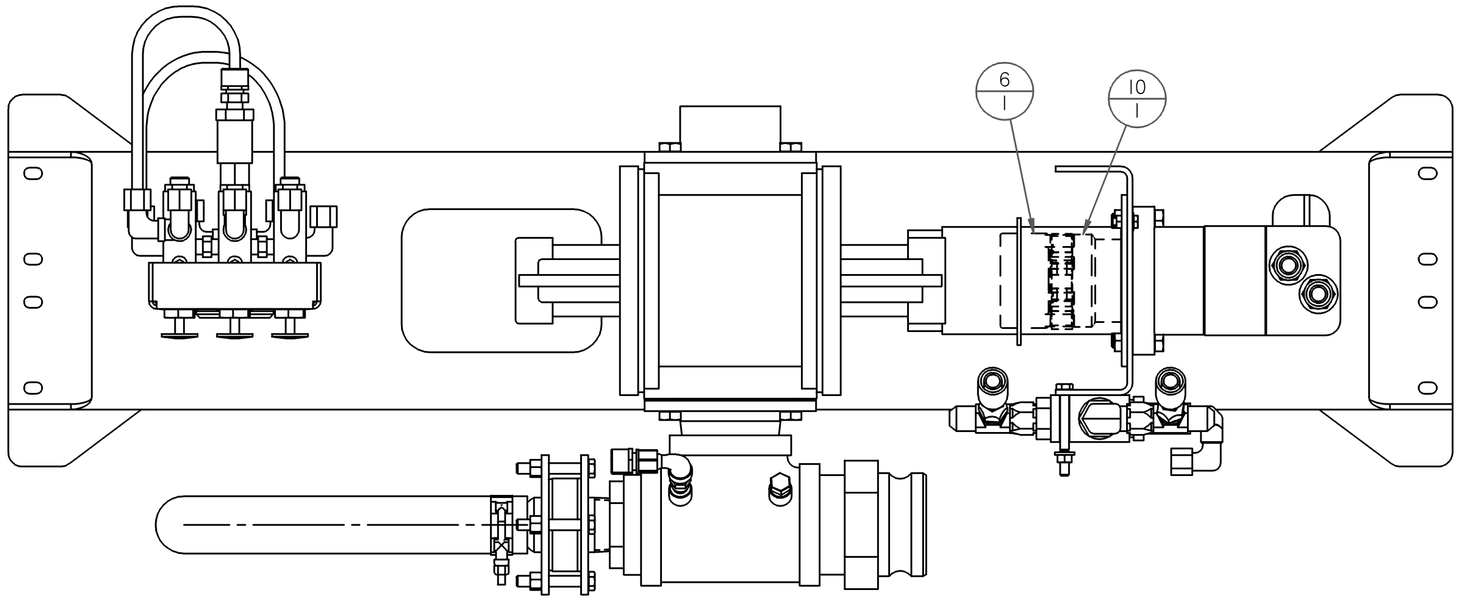
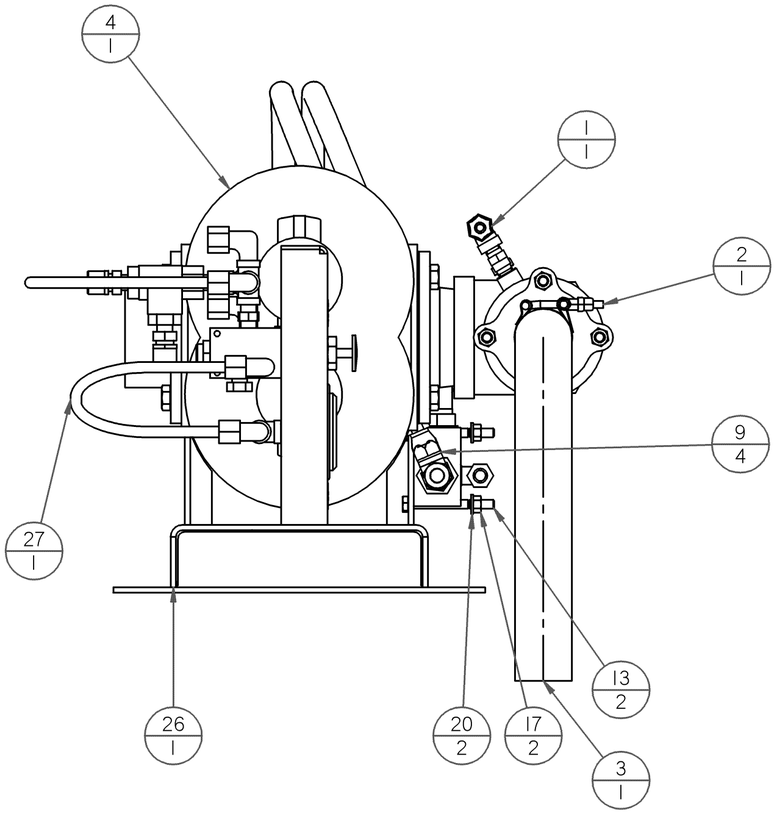
THIRD ANGLE PROJECTION

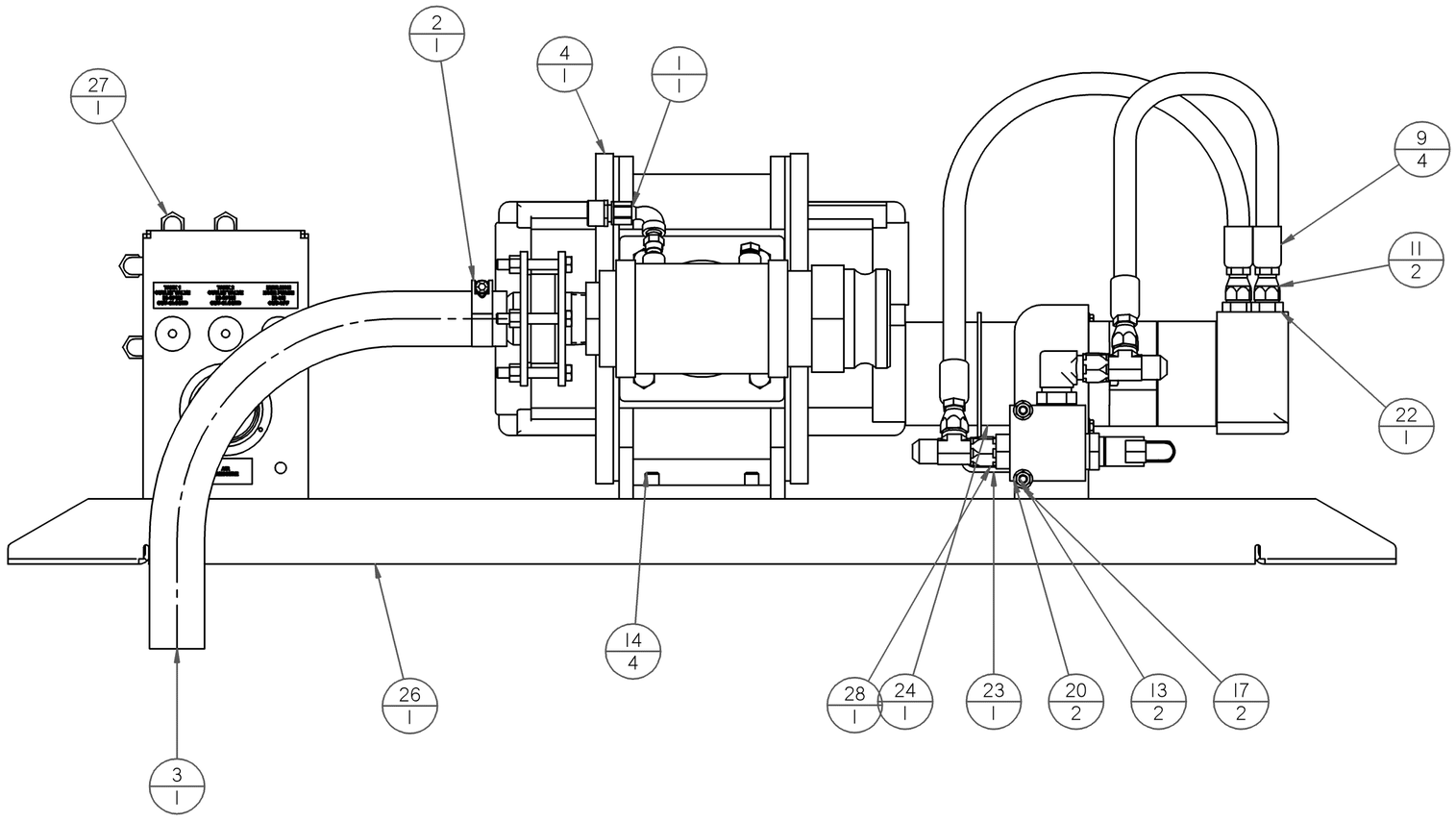
DRAWN D. Cole
DATE 10/21/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT EMUL PUMP ASM 3" BOWIE 4216
TITLE EMUL PUMP ASM 3" BOWIE 4216
UNIBODY EMULSION PUMP
DWG NO UE1002A01 REV 011 SIZE C
WEIGHT 268.8 lbm SHEET 1 OF 1







PART ID
Uemulsion

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TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN D. Cole DATE 10/21/2004 APPR.	PROJECT EMUL PUMP ASM 3" BOWIE 4216 TITLE EMUL PUMP ASM 3" BOWIE 4216 UNIBODY EMULSION PUMP
		DWG NO UE1002A01 REV 01 SIZE C
		WEIGHT 268.8 lbm SHEET

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	10/21/2004	D. Cole
------	------	------	------

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

PART ID
Uemulsion

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN D. Cole
DATE 10/21/2004
APPR.

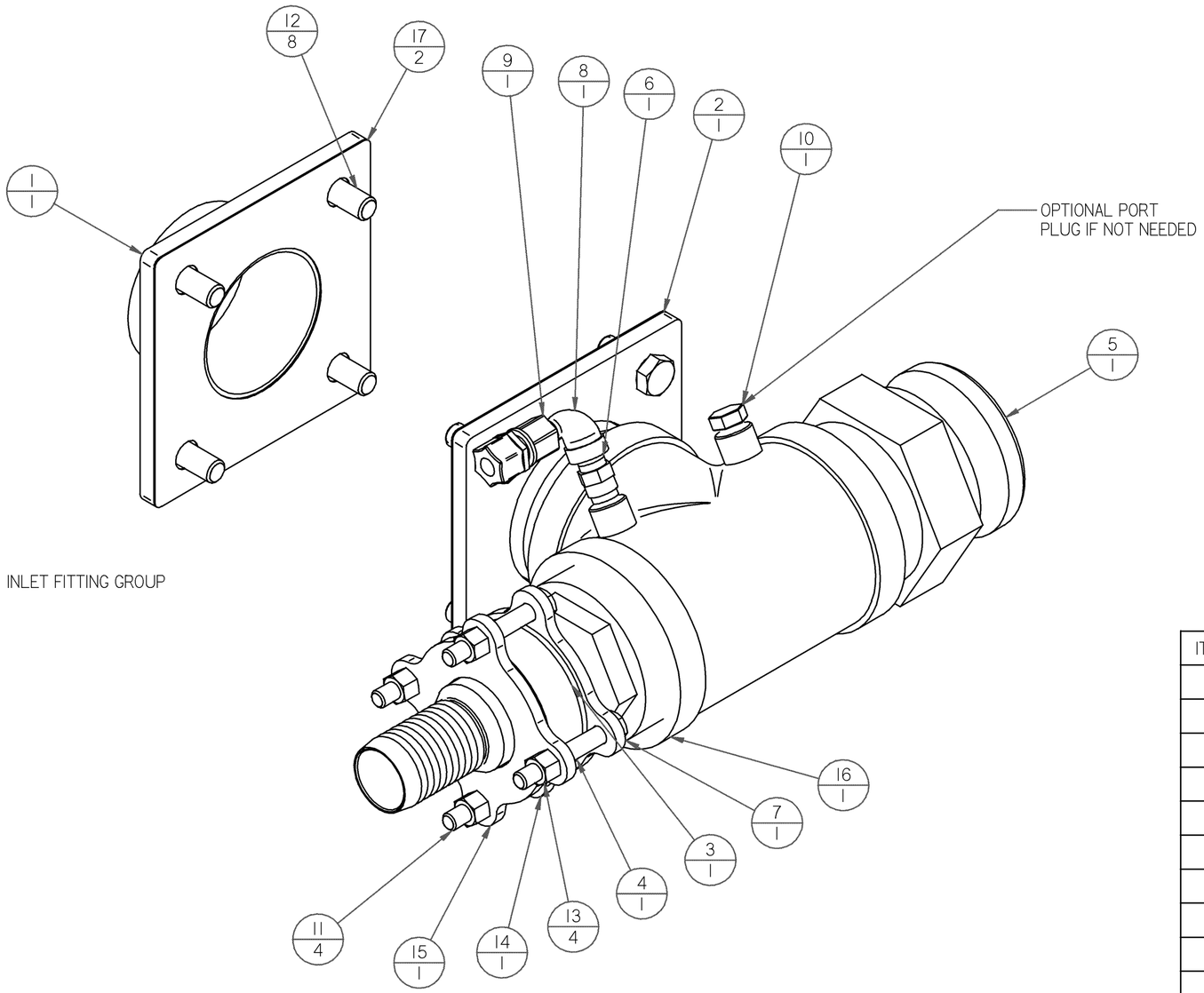
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT EMUL PUMP ASM 3" BOWIE 4216

TITLE EMUL PUMP ASM 3" BOWIE 4216
UNIBODY EMULSION PUMP

DWG NO UE1002A01 | REV 01 | SIZE C

WEIGHT 268.8 lbm | SHEET



INLET FITTING GROUP

OUTLET FITTING GROUP

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UE1003A16S	FLANGE BOWIE 3 IN SS BARE PIPE	
2	1	UE1003A17S	FLANGE BOWIE 3 IN SS MALE NPT	
3	1	TC00794	BURST DISC GRAPHITE 100 PSI 1.50 IN	240.1117
4	1	TC01639	GASKET BURST DISC BUNA-N	240.1120
5	1	TC00765	PT ADAPTER 30F AL MNPT	240.2850
6	1	TC01035	VALVE CHECK .25 MNPT X .25 MNPT SS	264.0109
7	1	TC00719	BUSHING PIPE STEEL 3-1.50	271.9244
8	1	TC03223	ELBOW STREET 90 SS S40 .25 THD	273.2503
9	1	TC02046	FITTING TUBE JACO .375-.25 FNPT	274.9882
10	1	TC02659	PLUG PIPE HEX HD SS .25" NPT	275.0013
11	4	TC00460	SCREW CAP HEX HEAD .375-16X2.50	900.4354
12	8	TC00420	SCREW CAP HEX HEAD .50-13X1.25	900.5504
13	4	TC00547	NUT HEX ELASTIC .375-16 SS	954.4214
14	1	UE1000A01S	BURST DISC HOLDER WELDMENT 1.5 MALE NPT	UE1000A01S
15	1	UE1000A02S	BURST DISC HOLDER WELDMENT 1.5 HOSE SHAN	UE1000A02S
16	1	UE1000A04	PUMP OUTLET TEE 3 IN CS WITH BLOWDOWN	UE1000A04
17	2	UE1003P14	FLANGE GASKET BOWIE 3 INCH	UE1003P14

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN D.COLE
DATE 6/14/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

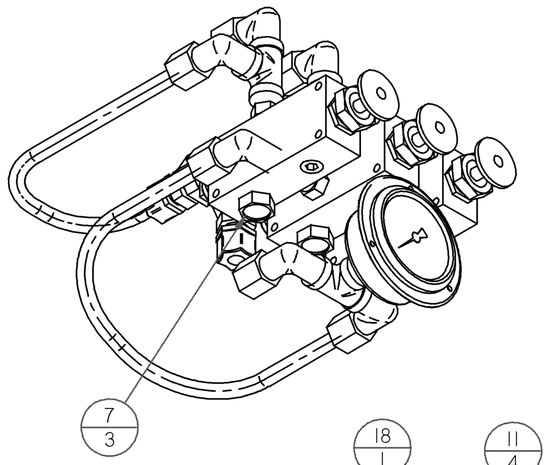
PROJECT INLET-OUTLET FITTING GROUP BOWIE

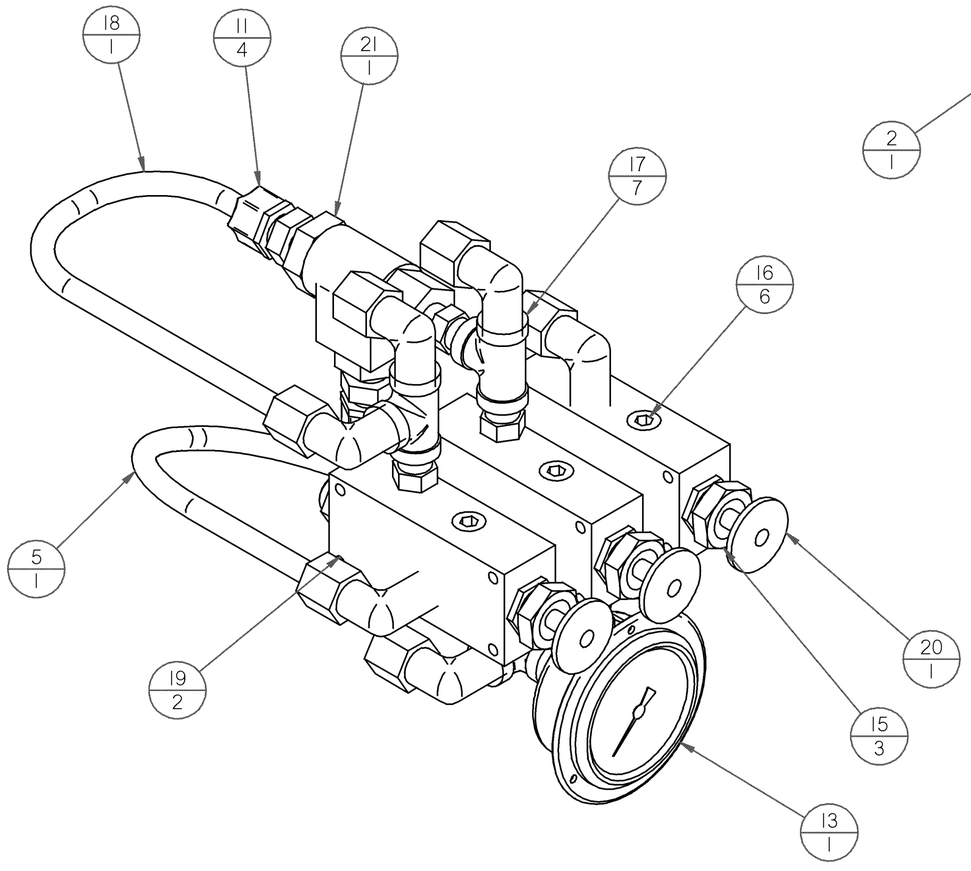
TITLE INLET-OUTLET FITTING GROUP BOWIE 3 IN
EMULSION PUMP MODULE UNIBODY 3 IN BOWIE

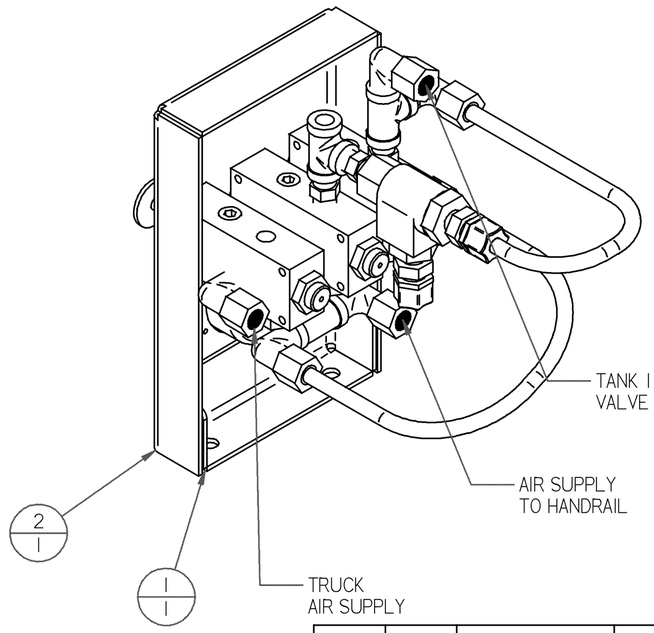
DWG NO UE1003A15 | REV 01 | SIZE C

WEIGHT 64.7 lbm | SHEET 1 OF 1

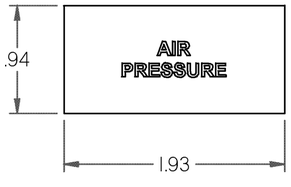
Last Changed: 8/9/2010



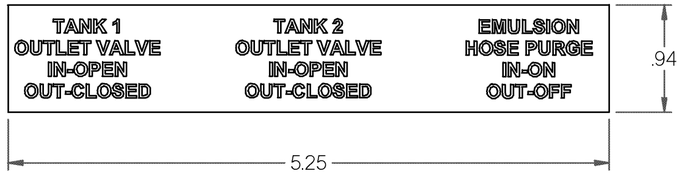




ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UE1004P11	PUMP BASE AIR VALVE PANEL MOUNT	UE1004P11
2	1	UE1004P10	PUMP BASE AIR VALVE PANEL SS	UE1004P10
3"	1	UE1004P03EN	LABEL UNIBODY "TANK1-TANK2-EMULSION"	UE1004P03EN
4"	1	UE1004P02EN	LABEL UNIBODY "AIR PRESSURE"	UE1004P02EN
5	1	239.0263	TUBING AIR LINE .375 O.D. X 12" LONG	239.0263
6	2		BUSHING PIPE SS .25-.125	271.9303
7	3		FILTER EXHAUST AIRDRAULIC	239.0252
8	2		FITTING 90 MNPT/FNPT .25-.125	82089.0402
9"	5		FITTING NIPPLE MNPT/MNPT .25-.25	82083.0404
10	10		FITTING TUBE 90 JACO .375-.25 MNPT	274.9870
11	4		FITTING TUBE JACO .375-.25 MNPT	274.9869
12	2		FUSIBLE PLUG FP15003BR BETTS	243.5451
13	1		GAUGE 2.5" 160 PSI .25 MNPT BACK CONN	260.7016
14	4		NIPPLE PIPE SS S40 .25 CLOSE	272.4532
15	3		NUT BULKHEAD LOCK 3/4-16 SS	7306.084
16	6		PLUG PIPE HEX SC HD ST .25 NPT	271.8002
17	7		TEE PIPE SS S40 .25 THD	273.3702
18	1		TUBING AIR LINE .375 O.D. X 12" LONG	239.0263
19	2		VALVE FABCO AIR DETENTED	242.0258
20	1		VALVE FABCO AIR SPRING RETURN	242.0257
21	1		VALVE SHUTTLE ROSS 1968D2003	242.0295



UE1002P02 LABEL "AIR PRESSURE"



UE1002P03 LABEL "TANK1-TANK2-PURGE"

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN lwilliams
DATE 2/29/2008
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

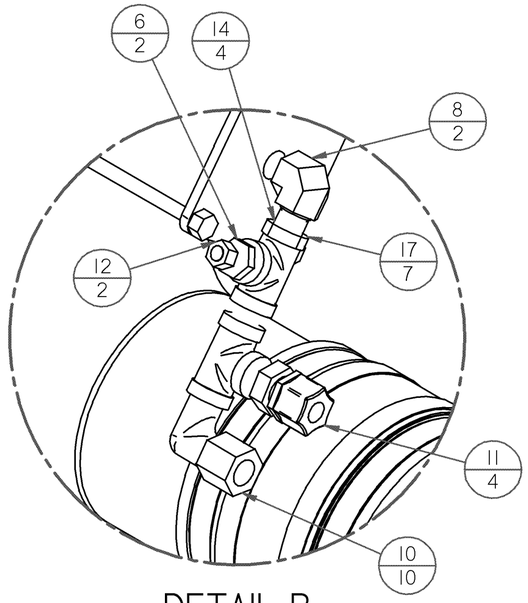
PROJECT UNIBODY EMULSION

TITLE VALVE AIR CONTROL EMULSION PUMP UNIBODY EMULSION PUMP MODULE BOWIE PUMP

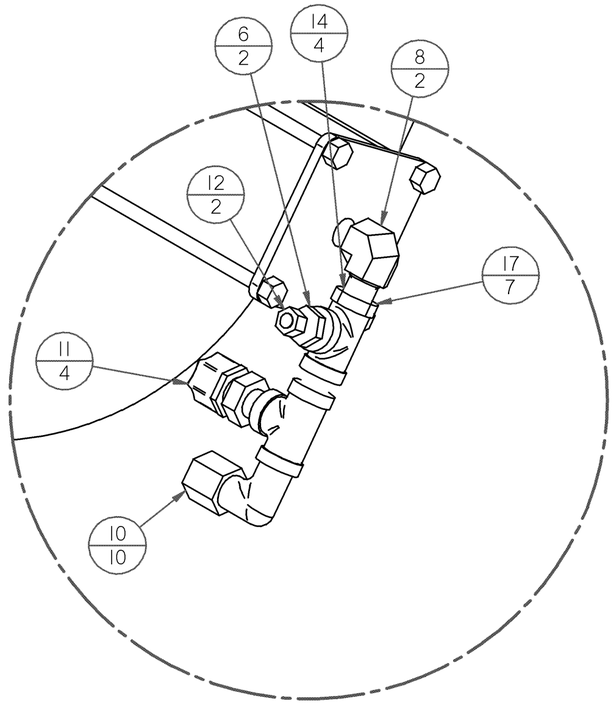
DWG NO UE1004A01 | REV 3 | SIZE C

WEIGHT 66.9 lbm | SHEET 1 OF 2

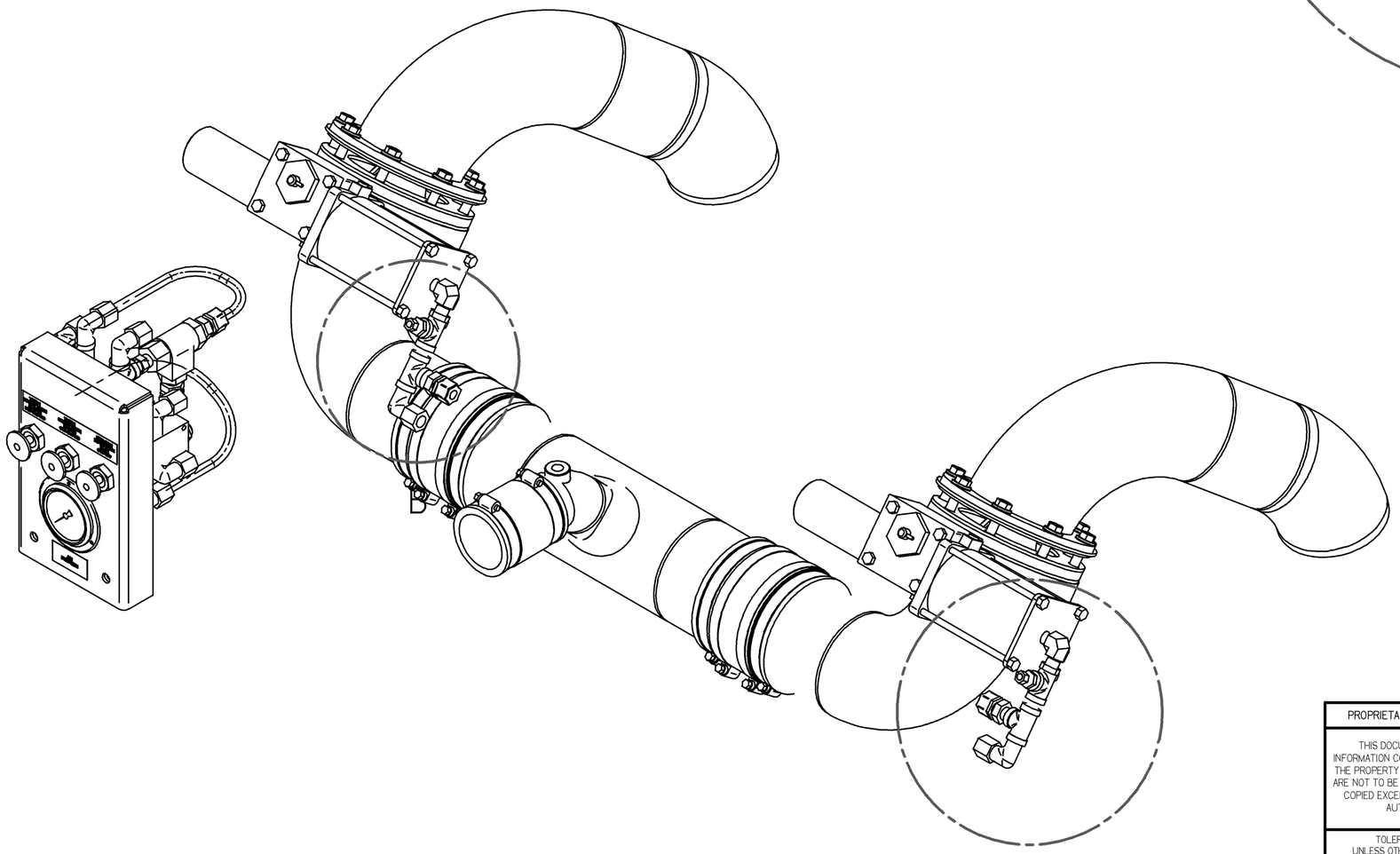
Last Changed: 6/30/2008



DETAIL B



DETAIL A



A

Last Changed: 6/30/2008

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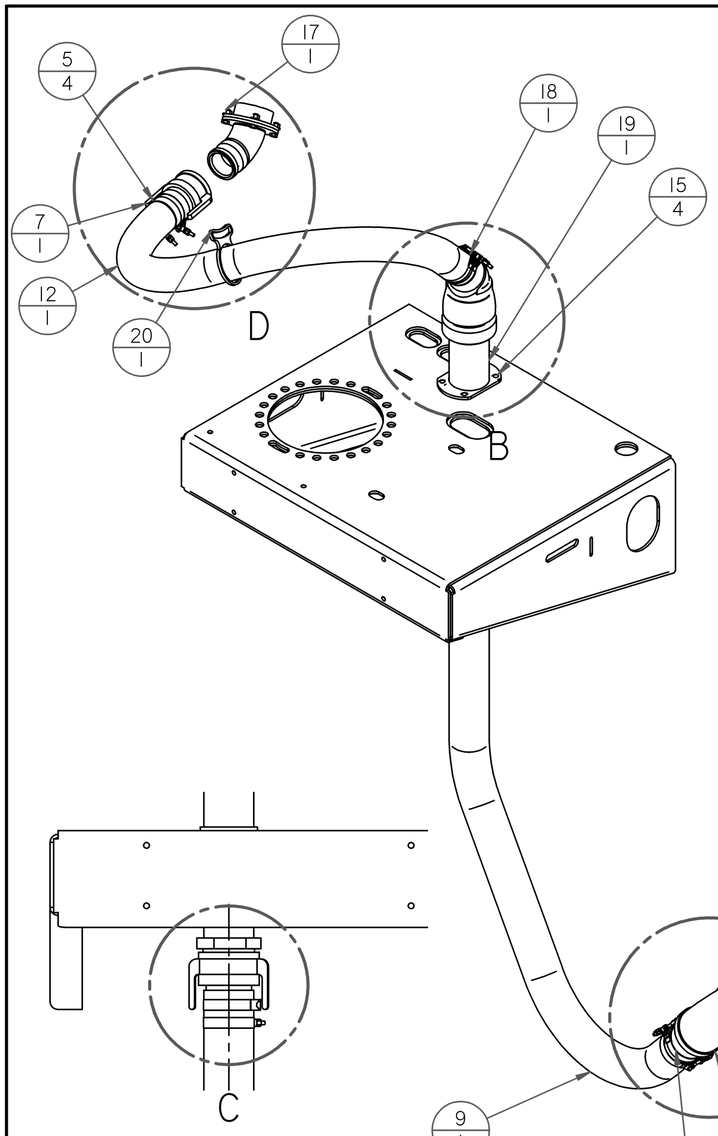
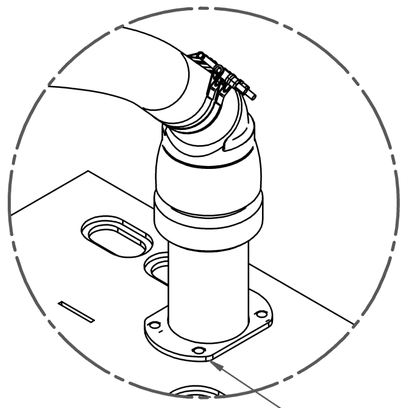
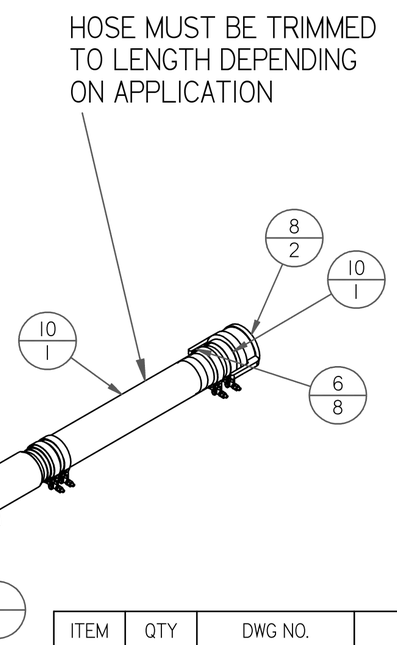
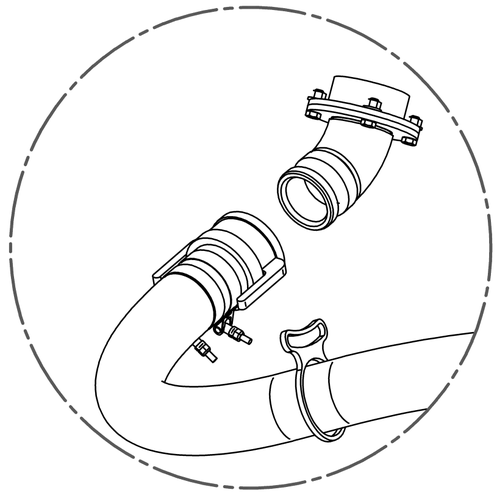
		PROJECT: UNIBODY EMULSION
		TITLE: VALVE AIR CONTROL EMULSION PUMP UNIBODY EMULSION PUMP MODULE BOWIE PUMP
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: lwilliams DATE: 2/29/2008 APPR.	DWG NO: UE1004A01 · REV: 3 · SIZE: C WEIGHT: 66.9 lbm · SHEET: 2 OF 2



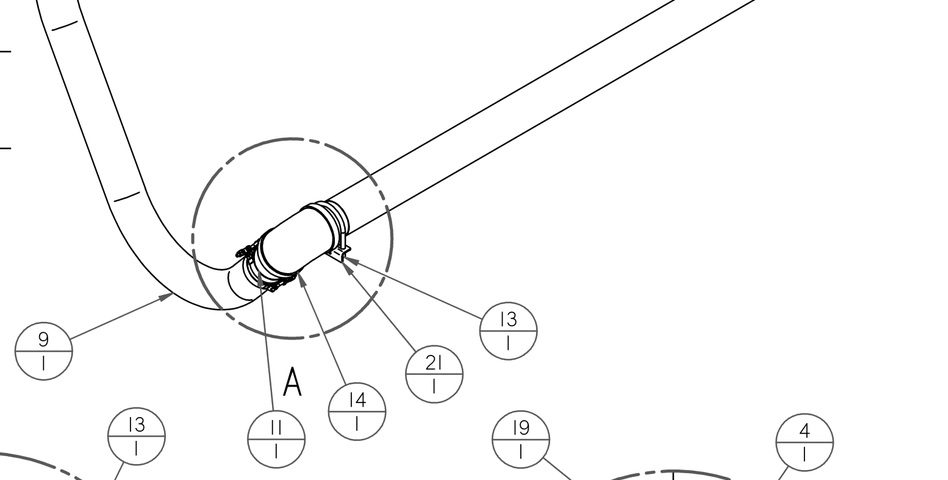


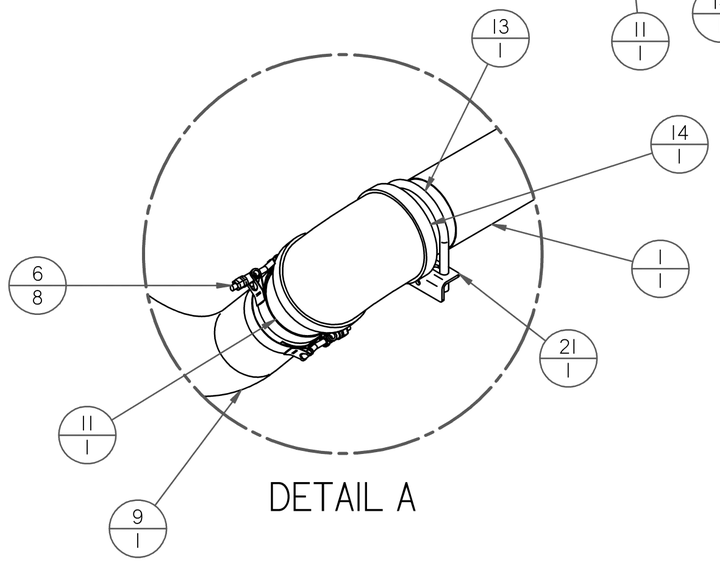
DETAIL B



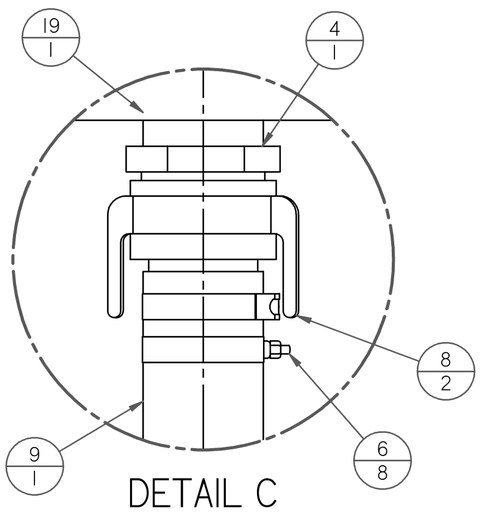


DETAIL D





DETAIL A



DETAIL C

ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UE1006A21	EMULSION PIPE WELDMENT 16-3"	
2*	3	TC03560	WRAP VELCRO 2" X 12" ORANGE	100.6783
3*	3	TC03561	WRAP VELCRO 2" X 18" BLACK	100.6784
4	1	TC00735	PT ADAPTER 30A AL FNPT	240.0258
5	4	TC00133	CLAMP T BOLT SS 2.50 HOSE 3.12 DIA	240.0921
6	8	TC00134	CLAMP T BOLT SS 3.00 HOSE 3.50 DIA	240.0922
7	1	TC00751	PT COUPLER 25C AL HOSE SHANK	240.1265
8	2	TC00752	PT COUPLER 30C AL HOSE SHANK	240.1266
9	1	UA1500P07	HOSE ROYALFLEX 1196 3.0 INCH (7.2 ft)	240.3388X
10	1	UE1006P98	HOSE ROYALFLEX 1196 3.0 INCH X 8 FT	240.3388X
11	1	TC00881	NIPPLE COMBINATION MNPT/HOSE 3" SS	247.5750
12	1	UA1500P15	HOSE CONCORD YELLOW JACKET 2.5IN L=81 IN	264.3391
13	1	TC03404	U-BOLT SS 3.0	269.1356
14	1	TC01166	ELBOW PIPE 90 SS S40 3 THRD	274.0910
15	4	TC00457	SCREW CAP HEX HEAD .38-18X1.25	900.4304
16*	4	TC00536	NUT HEX .375-16	950.4214
17	1	UA1000A102	EMULSION INJECTION ASM 2.5	UA1000A102
18	1	UA1000A12	EMULSION SWIVEL SERIES 42 3 X 2.5 X 45	UA1000A12
19	1	UA1000A20S	EMULSION BULKHEAD WELDMENT 42-3"	UA1000A20S
20	1	UA1000P236	HOSE HOLDER	UA1000P236
21	1	US1000P05	MOUNT U-BOLT SS 2.5	US1000P05

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 12/21/2009
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

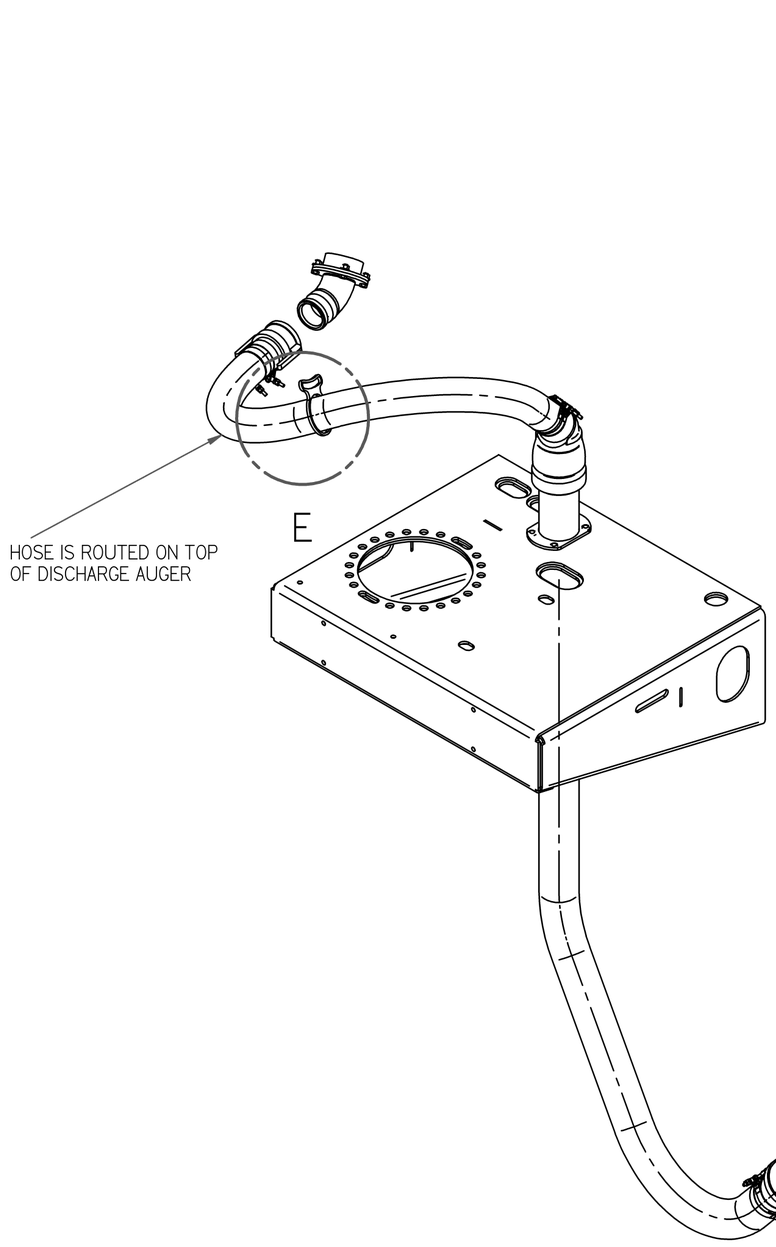
PROJECT EMUL PRESSURE PIPE 4216-3"

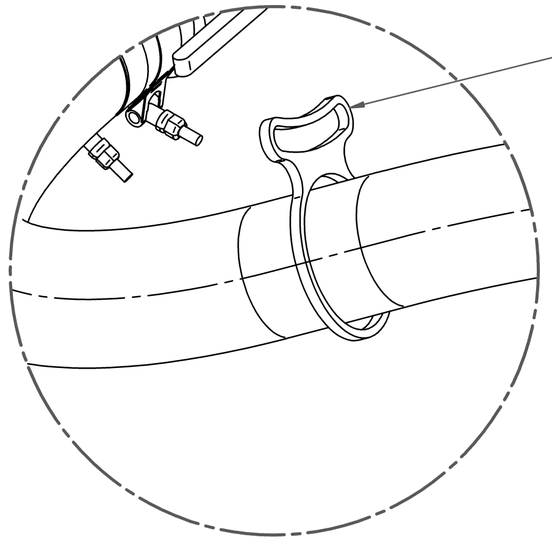
TITLE EMUL PRESSURE PIPE 41/4216-3"
41/42 EMULSION SYSTEM

DWG NO UE1006A31 | REV 01 | SIZE C

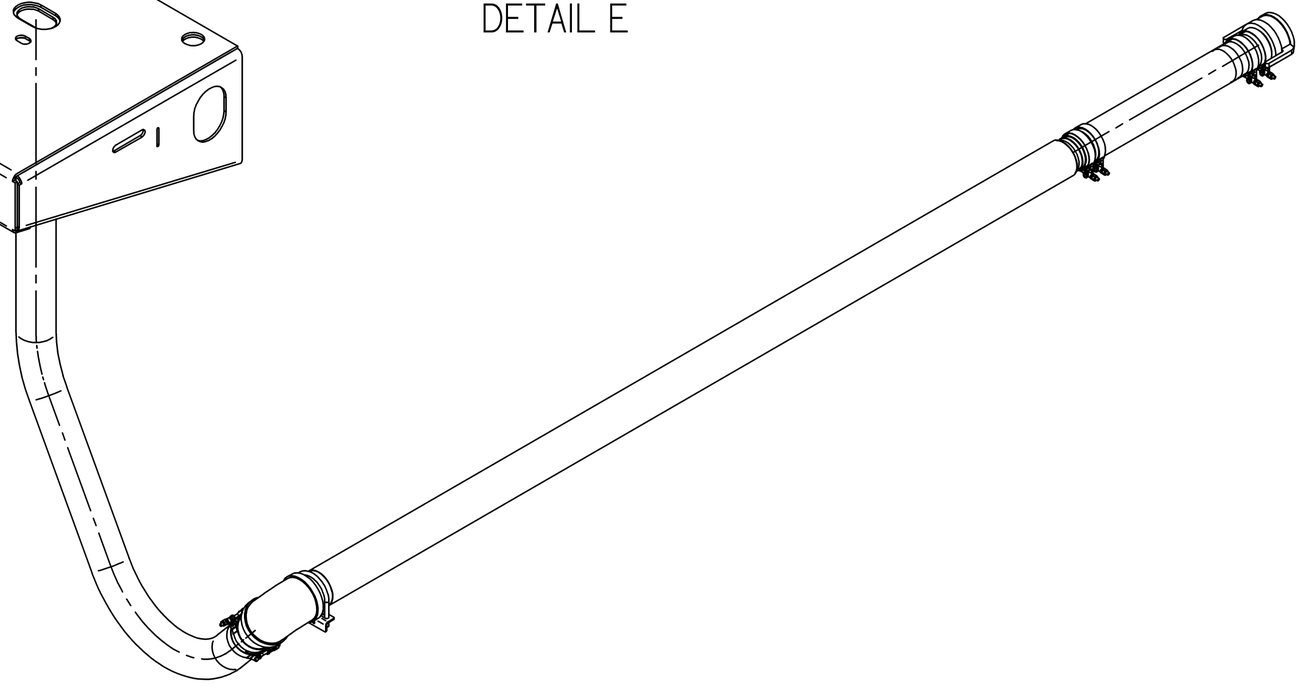
WEIGHT 161.8 lbm | SHEET 1 OF 2

Last Changed: 12/21/2009





DETAIL E



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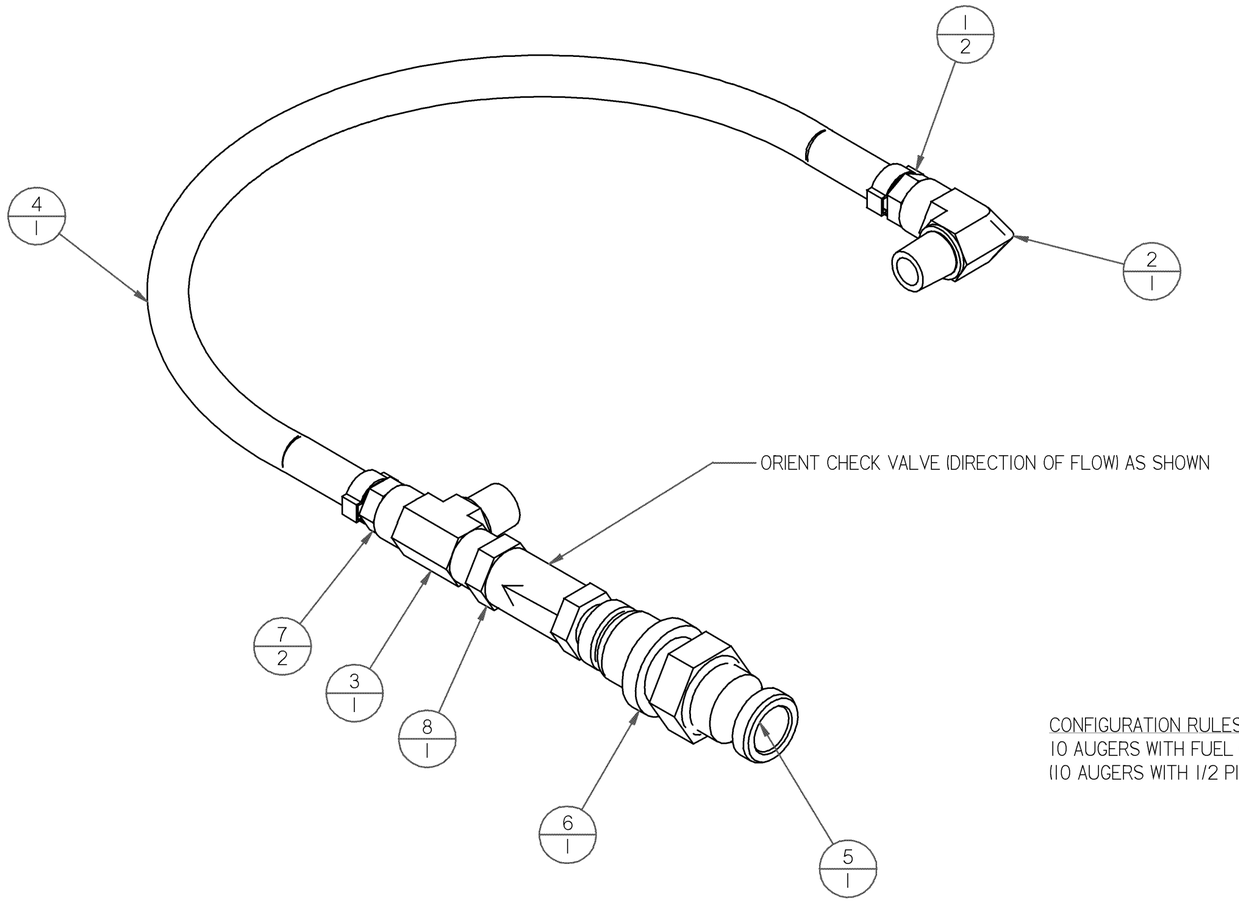
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL X = ± .100 DECIMAL XX = ±.020 DECIMAL XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: RDUNCAN DATE: 12/21/2009 APPR.	DWG NO: UE1006A31 · REV: 01 · SIZE: C WEIGHT: 161.8 lbm · SHEET: 2 OF 2

Last Changed: 12/21/2009



CONFIGURATION RULES: (USED ON)
10 AUGERS WITH FUEL OIL AND EITHER UA1700A03 OR UA1700A05.
(10 AUGERS WITH 1/2 PITCH)

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	2		CLAMP OETIKER 2-EAR .748 - .866 DIA SS	269.1375
2	1		FITTING 90 MNPT/FNPT .50-.50	82089.0808
3	1		FITTING TEE MNPT/FNPT .50-.50	82091.0808
4	1		HOSE PERFECTION 300 RED 1/2 ID DFO X 2 FT	240.3373
5	1		PT COUPLER 10 F ALUM	240.1270
6	1		REDUCER THREADED ST S40 1.0 -.5	273.2116
7	2		TYLOK MALE HOSE BARB 1/2 NPT - 1/2 HOSE	274.9855
8	1		VALVE CHECK .50 AL MNPT	264.0105

PART ID
500.0187

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN: EricP
DATE: 6/28/2003
APPR.

UF1000A02

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

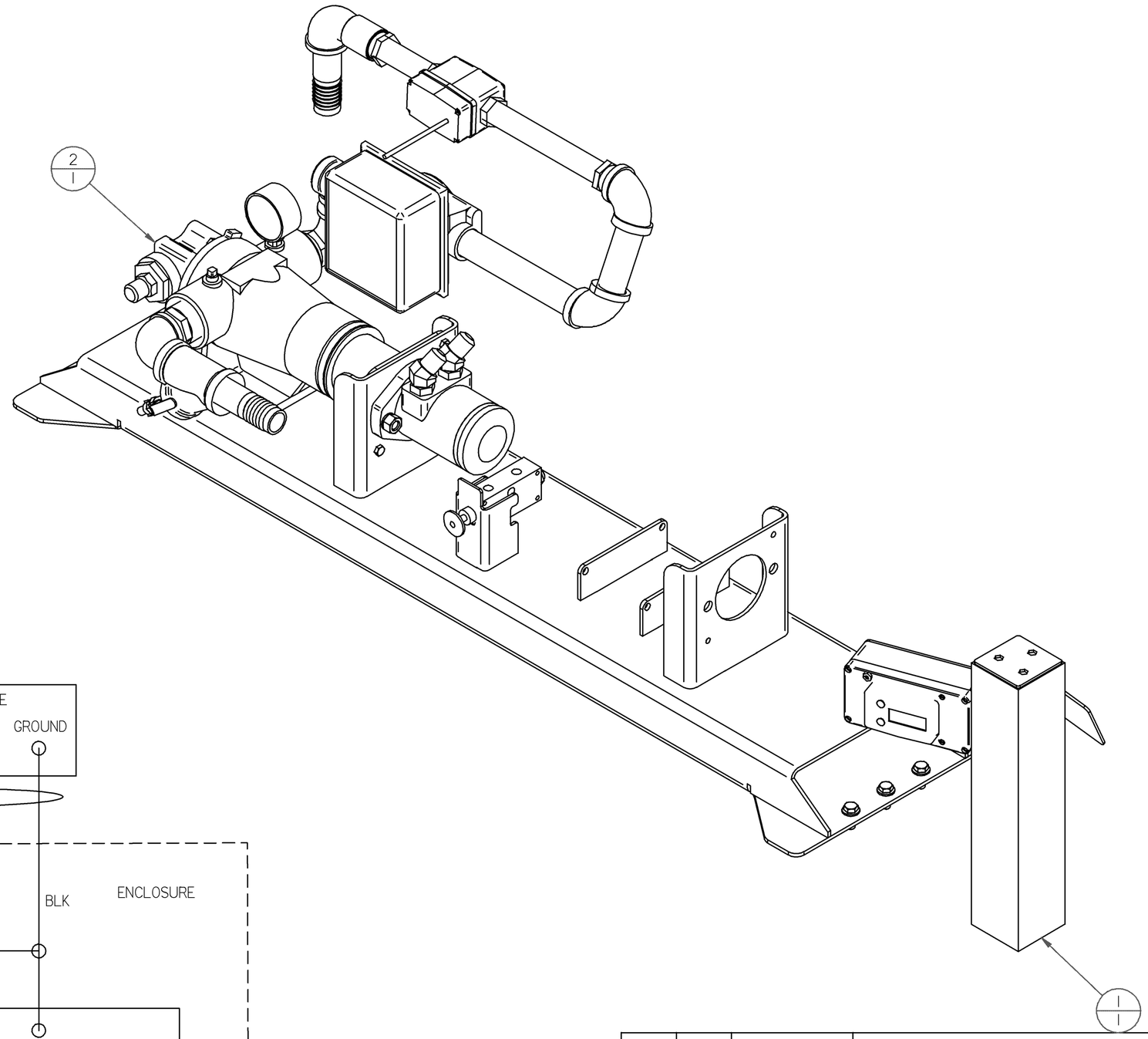
PROJECT

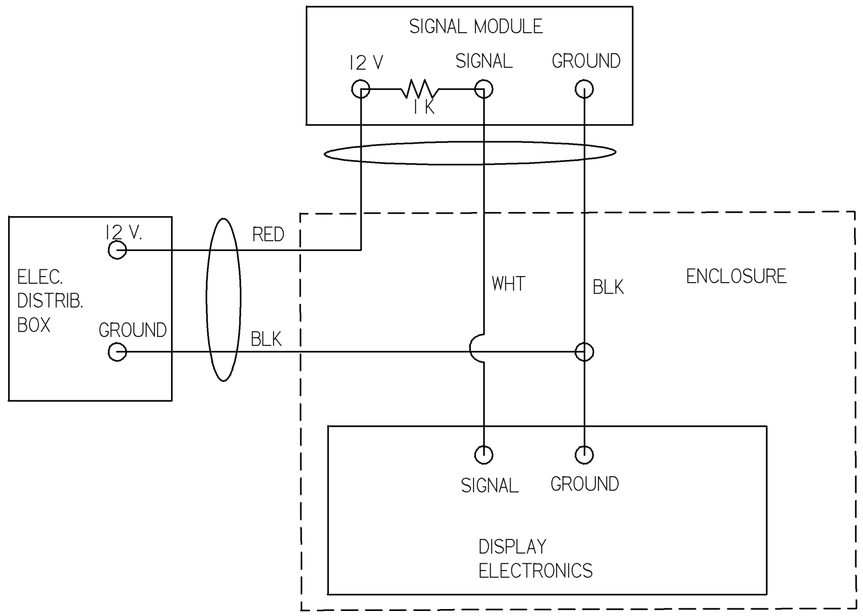
TITLE: DFO CAL. APPARATUS NO ORAFICE X 1"

DWG NO: UF1000A02 | REV: II | SIZE: C

WEIGHT: 2.4 lbm | SHEET: 1 OF 1

Last Changed: 5/2/2008





ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UF1005A04	FUEL OIL CAB DISPLAY 2-20 GPM	UF1005A04
2	1	UF1002A04	PROCESS FUEL PUMP ASSEMBLY	500.0124

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN LWILLIAMS
DATE 7/1/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

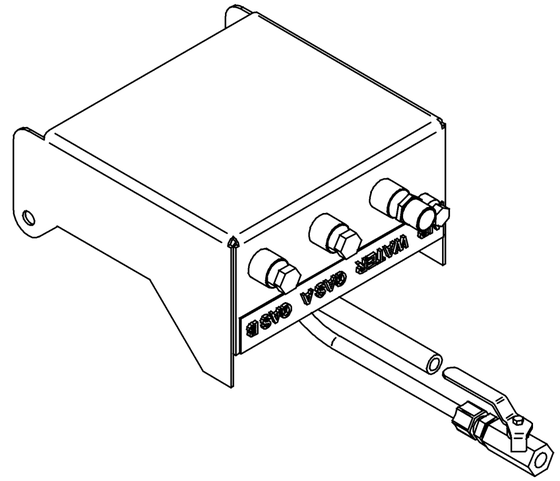
PROJECT

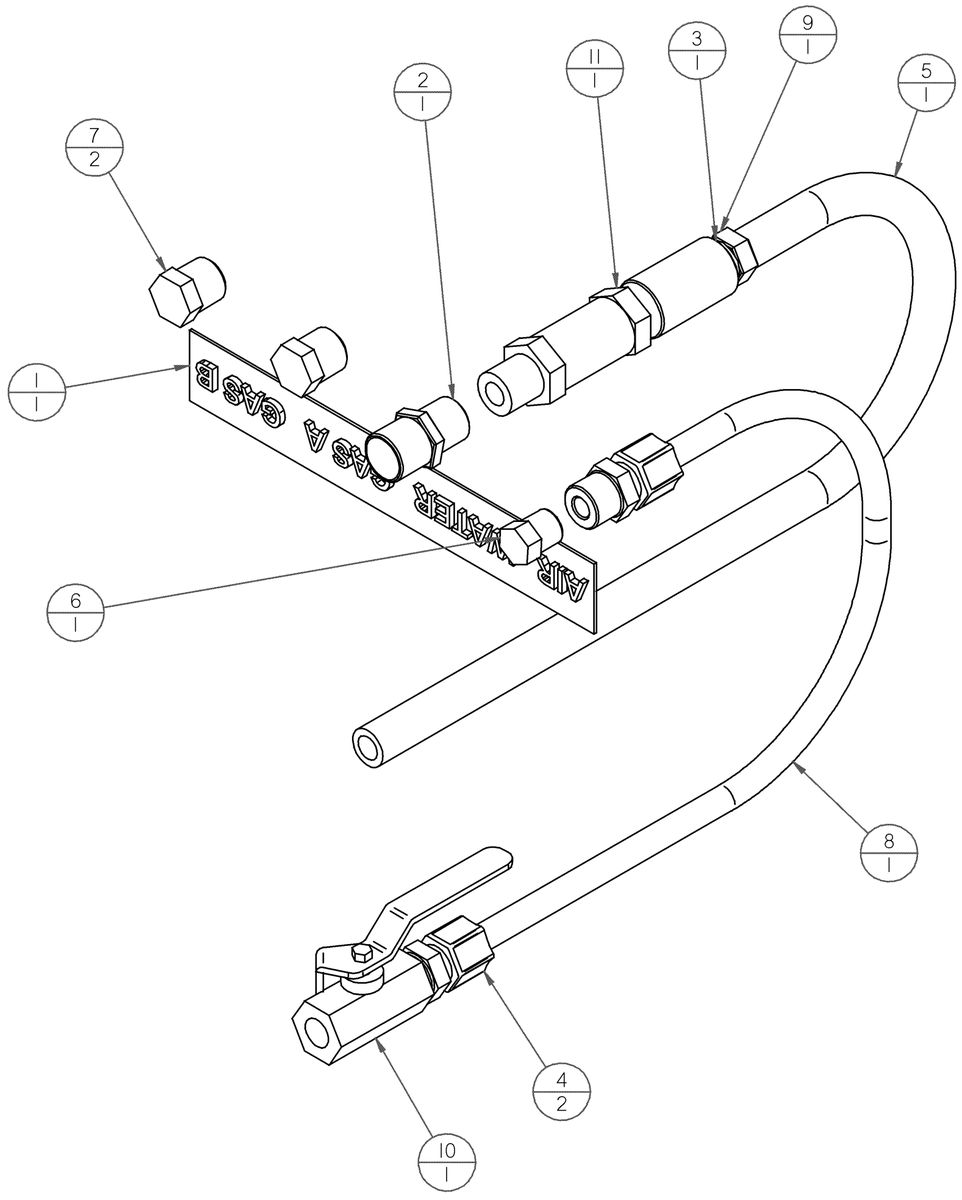
TITLE
DFO PUMP ASM 2-20 GPM 10"X16'
UNIBODY TRUCKS 16 FOOT BODIES

DWG NO UF1002A07 | REV 01 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 7/1/2010





ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UG1003P23EN	GASSING UPLOAD LABEL	UG1003P23EN
2	1		ADAPTER 1/2 NPT X GHT STAINLESS	260.1005
3	1		COUPLING PIPE SS S40 .50	273.0104
4	2		FITTING TUBE JACO .50-.375 MNPT	274.9873
5	1		HOSE EASY COUPLE BLUE 1/2 ID WATER	240.3382
6	1		PLUG PIPE HEX HD SS .375" NPT	275.0014
7	2		PLUG PIPE HEX HD SS .50 NPT	275.0009
8	1		TUBING AIR LINE .50 O.D. X 30 FT	239.0266
9	1		TYLOK MALE HOSE BARB 1/2 NPT - 1/2 HOSE	274.9855
10	1		VALVE BALL ST .375	264.3103
11	1		VALVE CHECK .50 AL MNPT	264.0105

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 10/29/2003
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

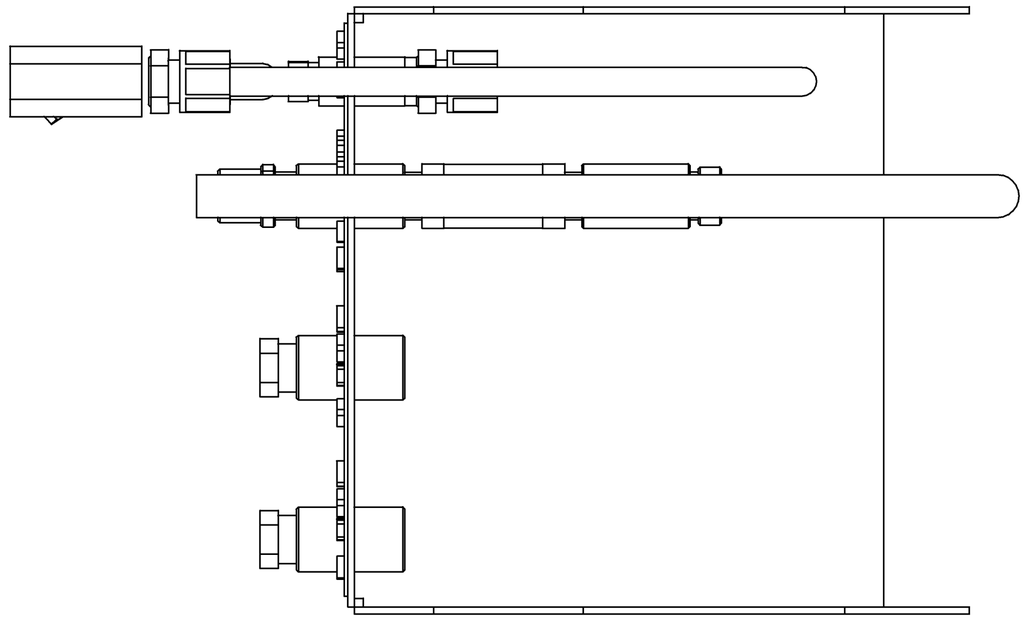
PROJECT UNIBODY GASSING

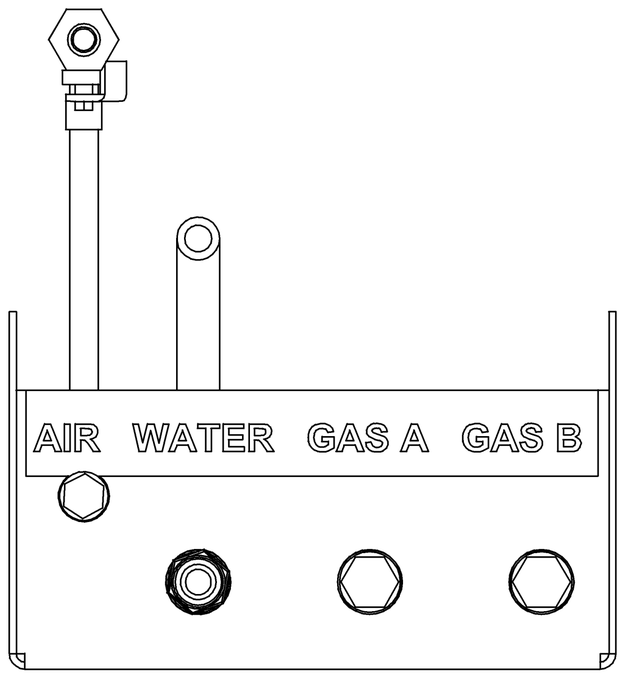
TITLE FILL ASM FITTINGS OG/W UNIBODY GASSING REMOTE FILL ASSEMBLY

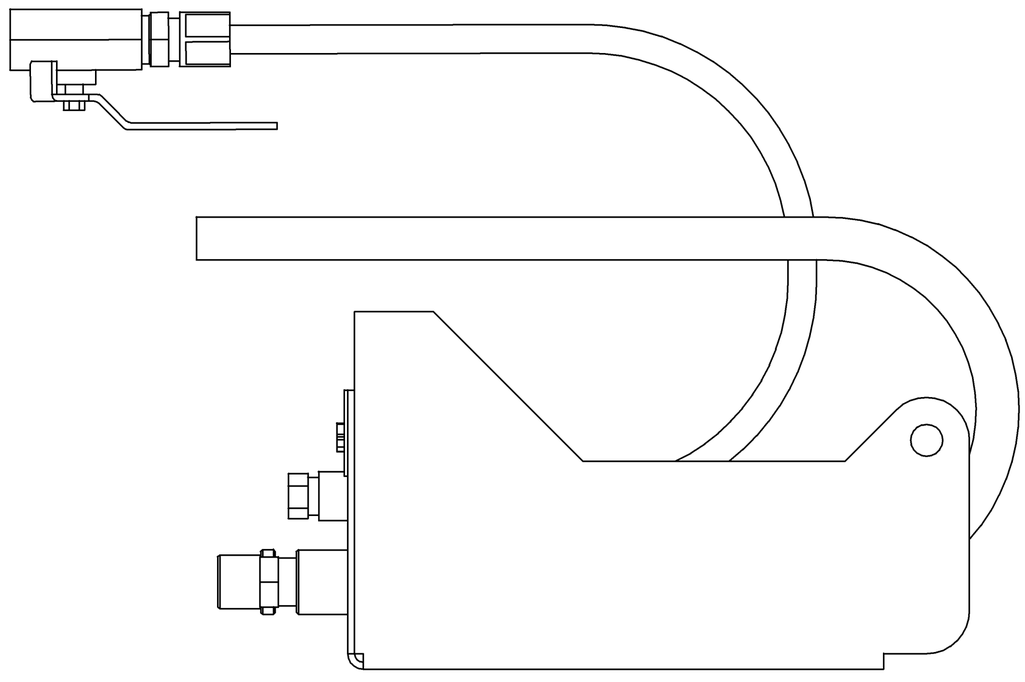
DWG NO UG1003A24 | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 2

Last Changed: 6/30/2008







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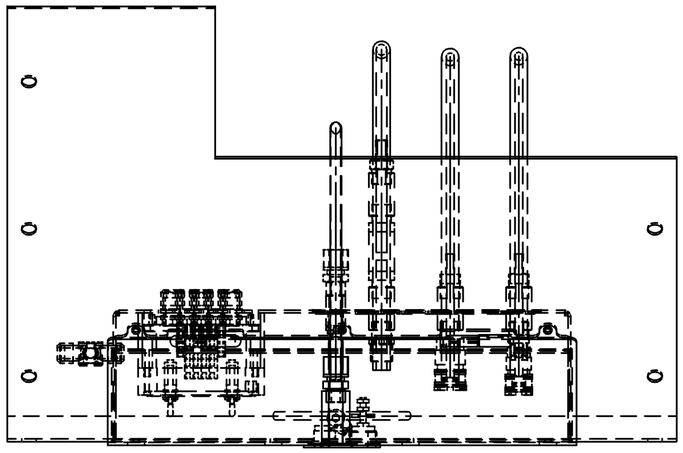
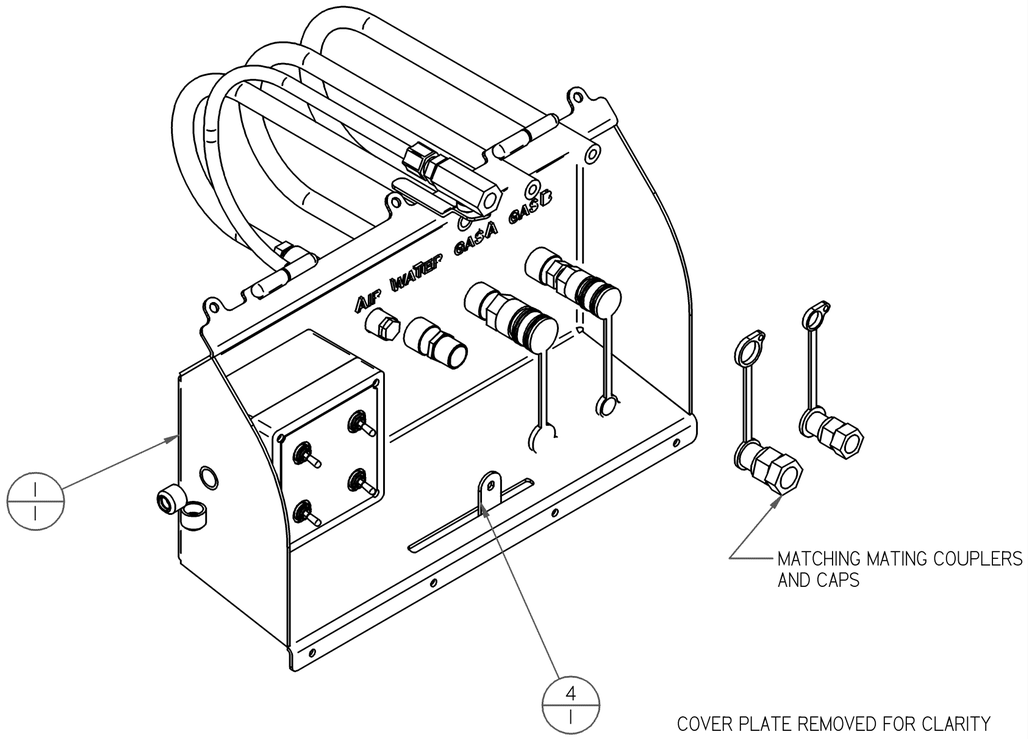
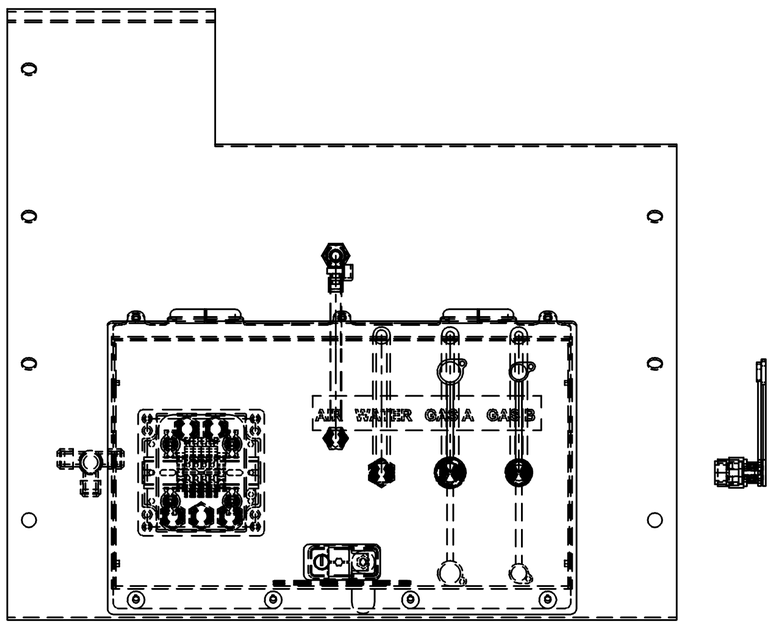
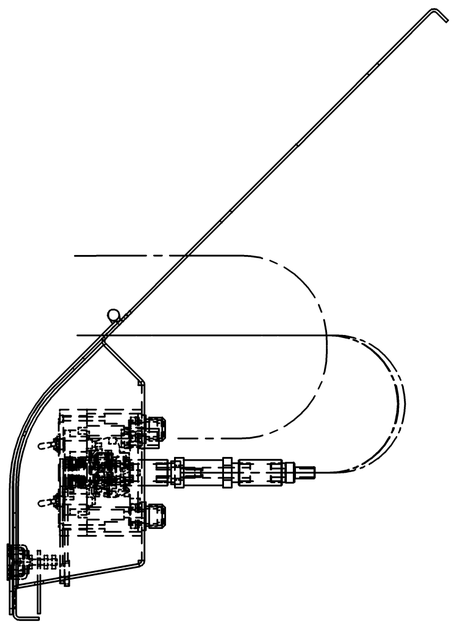
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: RDUNCAN DATE: 10/29/2003 APPR.: D COLE	DWG NO: UG1003A24 REV: 1 SIZE: C WEIGHT: 0.0 lbm SHEET: 2 OF 2

Last Changed: 6/30/2008









IF NO GASSING FILL SYSTEM IS REQUIRED, REPLACE ASSEMBLY WITH
PART NO. USI007P36 BLANK COVER

OPTIONAL FITTING ASSEMBLIES:

PART ID.	DESCRIPTION
UGI003A21	UGI003A21 CUSTOMER SPECIFIC FITTING ASSEMBLY
UGI003A22	UGI003A22 2G/W FITTING ASSEMBLY
UGI003A23	UGI003A23 1G/W FITTING ASSEMBLY
UGI003A24	UGI003A24 0G/W FITTING ASSEMBLY
UGI003A25	UGI003A25 NO FITTINGS SUPPLIED

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UGI004A11	GASSING HOUSING WELDMENT	
2*	1	TC02140	LATCH SOUTHCO COMPRESSION LOCKABLE	269.5228
3*	1	UCI016A01X	TANK FILL CONTROL BOX 12V	UCI016A01X
4	1	USI002P50	LATCH PAWL	USI002P50
5*	1	USI007P70	24 IN 4216 TANK MODULE UPLOAD COVER	USI007P70

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 10/04/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

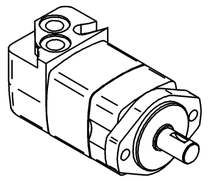
PROJECT FILL ASM 42 QUAD 12V

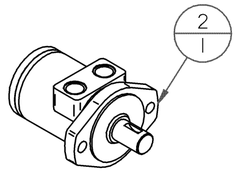
TITLE FILL ASM 42 QUAD 12V
42 SERIES QUAD

DWG NO UGI004A02X | REV 01 | SIZE C

WEIGHT 46.7 lbm | SHEET 1 OF 1

Last Changed: 1/4/2011





UNIBODY

(PUMP)

PRODUCT PUMP

MOTOR SUPPLIED WITH
X0 SERIES PRODUCT
PUMP ASSEMBLY

WATER PUMP

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1*	1		CONNECTOR ELBOW CIRC. 4 POLE 12 MM	242.1262
2	1		MOTOR 101-2473 CHAR LYNN (2.2 IN^3) CP	263.5435

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN RDUNCAN
DATE 2/18/2005
APPR. D COLE

TREAD CORPORATION **ROANOKE, VIRGINIA 24012 USA**

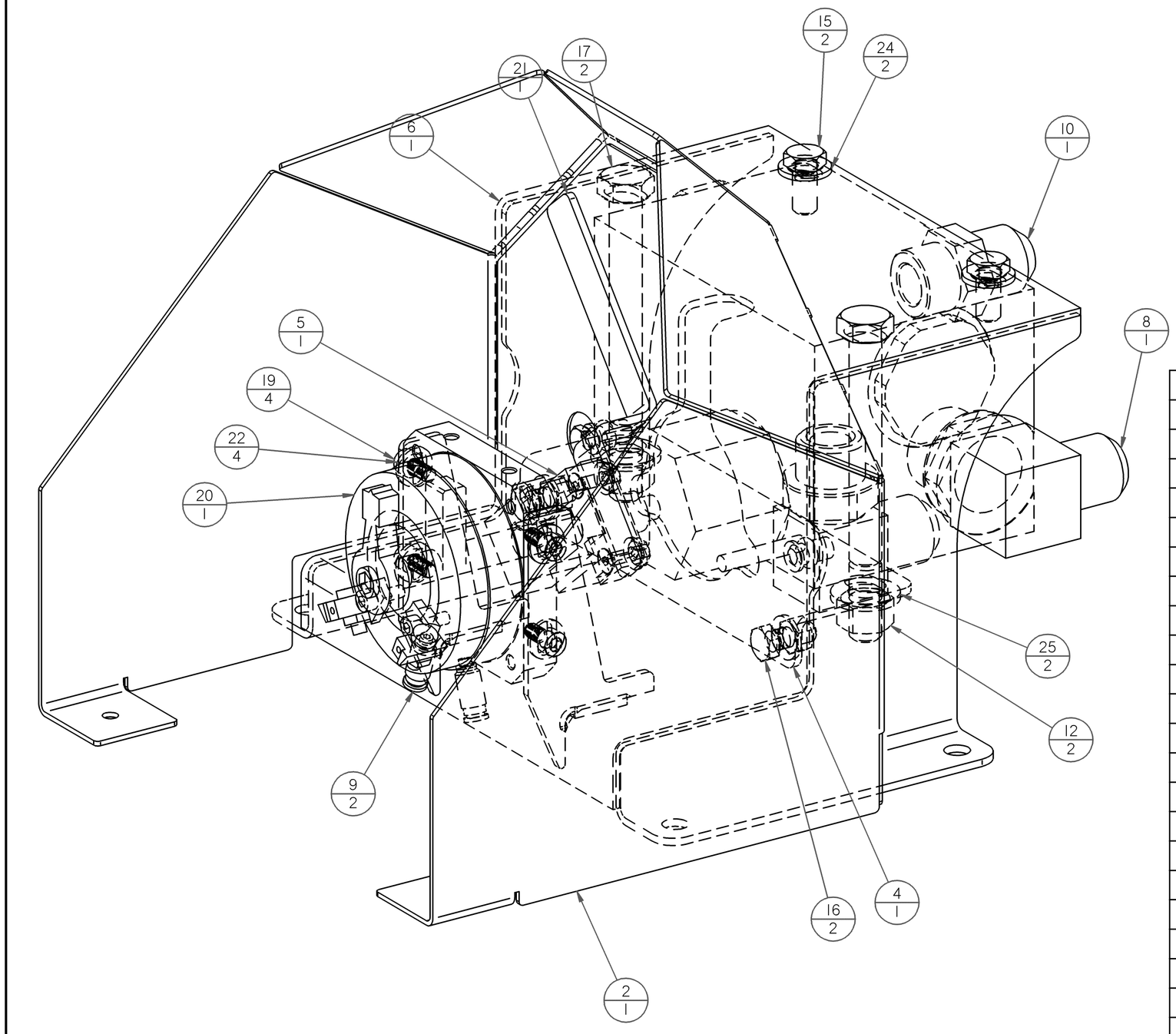
PROJECT

TITLE MOTOR PKG 8/-- STD PUMP X073
UNIBODY

DWG NO UH1000A04 | REV 1 | SIZE C

WEIGHT 38.4 lbm | SHEET 1 OF 1

Last Changed: 3/10/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1*	1	UH1010P19EN	LABEL AP-FLOW DIVIDER BLEND	UH1010P19EN
2	1	UH1010P16	CONTROLLER SHROUD	UH1010P16
3	2	UH1010P15	TRAPEZIODAY NUT FOR FESTO ACTUATOR	UH1010P15
4	1	UH1010P09	BRACKET ANGLE AP FLOW W/ROTARY ACTUATOR	UH1010P09
5	1	UH1010A10	COUPLING ASSY AP FLOW W/ROTARY ACTUATOR	UH1010A10
6	1	UH1010A05	BRACKET ASSY AP FLOW W/ROTARY ACTUATOR	UH1010A05
7*	1		FITTING 90 M37/ADJ MSAE 12-12	76801.1212
8	1		FITTING 90 M37/ADJ MSAE 12-16	76801.1216
9	2		FITTING FESTO PUSH-IN QSM-M5-.25-1-U-M	247.2971
10	1		FITTING STR M37/MSAE 12-12	76400.1212
11*	2		NUT HEX .31-18 SS	950.3614
12	2		NUT HEX .50-13 SS	950.5414
13*	2		RIVNUT FLT HD .250 X .140 GRIP SS RIB	261.1015
14*	2		SCREW CAP HEX HEAD .25-20X.75 SS	900.3074
15	2		SCREW CAP HEX HEAD .31-18X0.75	900.4274
16	2		SCREW CAP HEX HEAD .31-18X0.75 SS	900.3674
17	2		SCREW CAP HEX HEAD .50-13X5.00	900.5634
18	2		SCREW COMBINATION SS #10-24 .50	928.1875
19	4		SCREW HEX SOCKET HEAD M6 X 12 MM SS	991.6255
20	1		VALVE CONTROL ROTARY 2 POS FESTO	247.2970
21	1		VALVE FLOW DIVIDER ADJUST PROPORTIONAL	264.3001
22	4		WASHER PLAIN FLAT .25 SS	960.3014
23*	2		WASHER PLAIN FLAT .31 SS	960.3614
24	2		WASHER PLAIN FLAT .375	960.4214
25	2		WASHER PLAIN FLAT .50	960.5414
26	2		WASHER SPRING LOCK #10 SS	966.1814

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN DCOLE
DATE 08/19/05
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

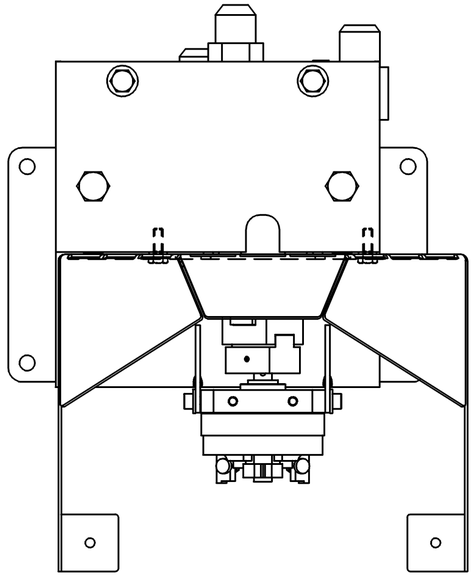
PROJECT AP FLOW W/ROTARY ACTUATOR ASSEMB

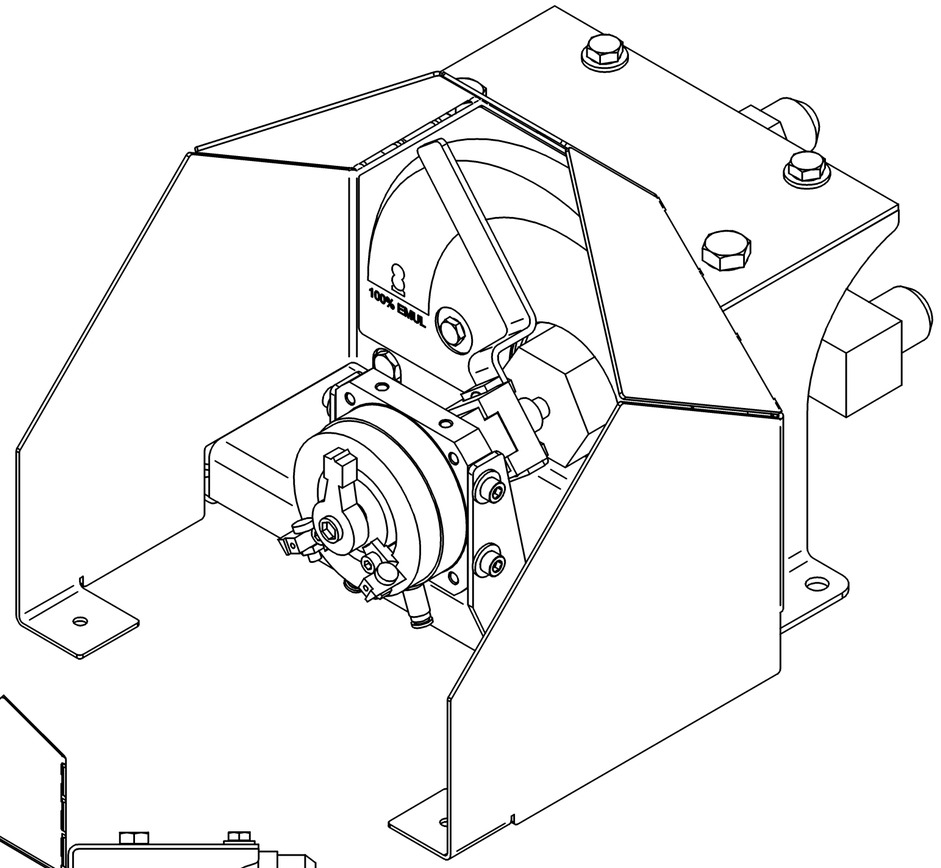
TITLE AP FLOW W/ROTARY ACTUATOR ASSEMBLY
DUAL PRESET FLOW SELECTOR

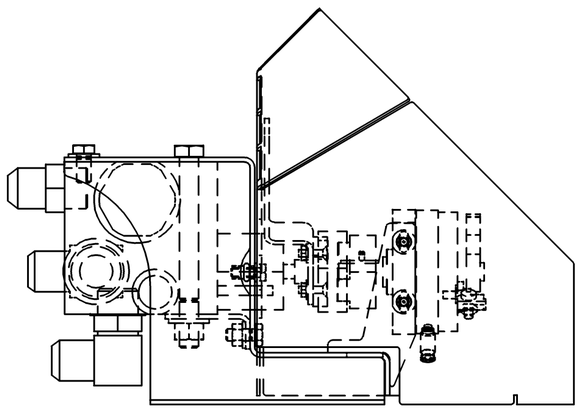
DWG NO UH1010A01 | REV 2 | SIZE C

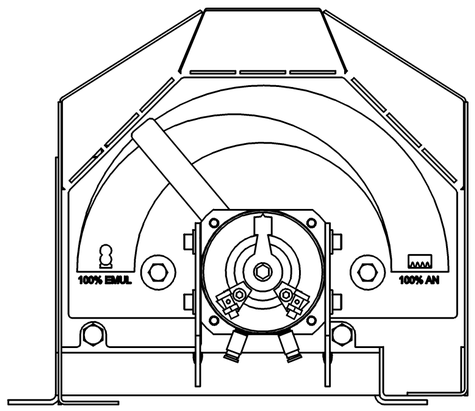
WEIGHT 26.9 lbm | SHEET 1 OF 3

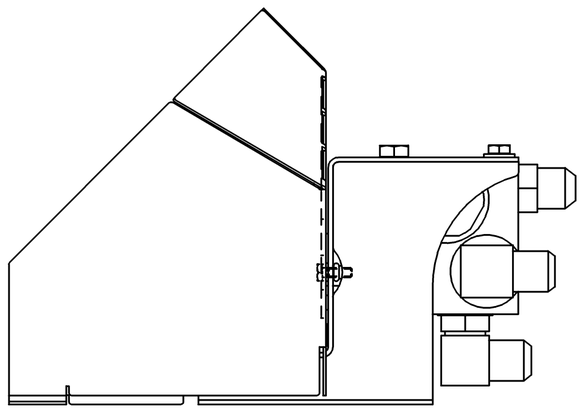
Last Changed: 02/24/09

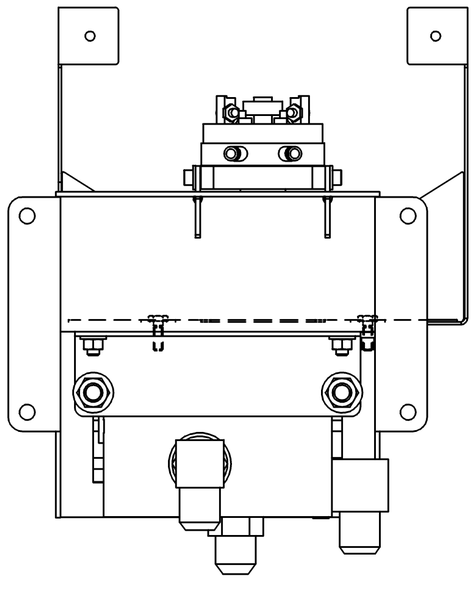












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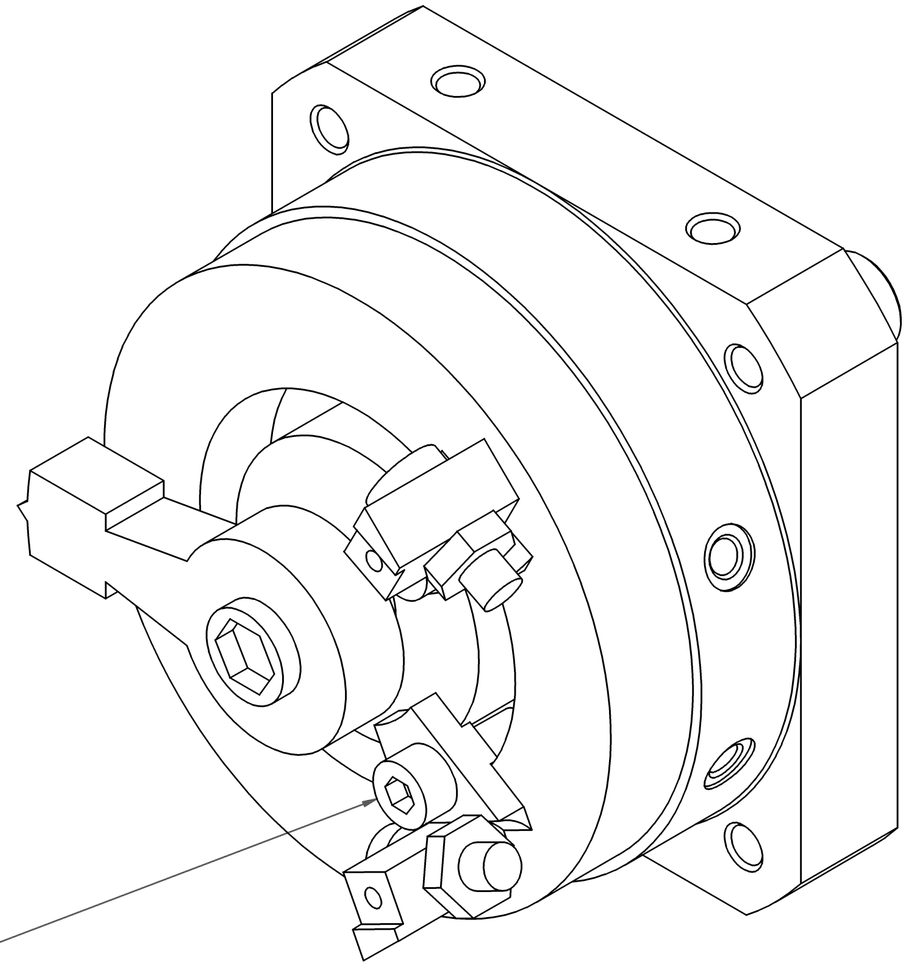
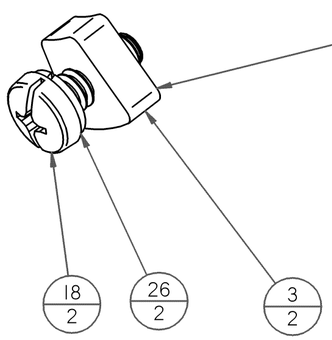
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN DCOLE DATE 08/19/05 APPR.	PROJECT AP FLOW W/ROTARY ACTUATOR ASSEMB TITLE AP FLOW W/ROTARY ACTUATOR ASSEMBLY DUAL PRESET FLOW SELECTOR DWG NO UH1010A01 REV 2 SIZE C WEIGHT 26.9 lbm SHEET 2 OF 3

Last Changed: 02/24/09



REPLACE STEEL MFG PARTS
WITH THESE SS PARTS



Last Changed: 02/24/09

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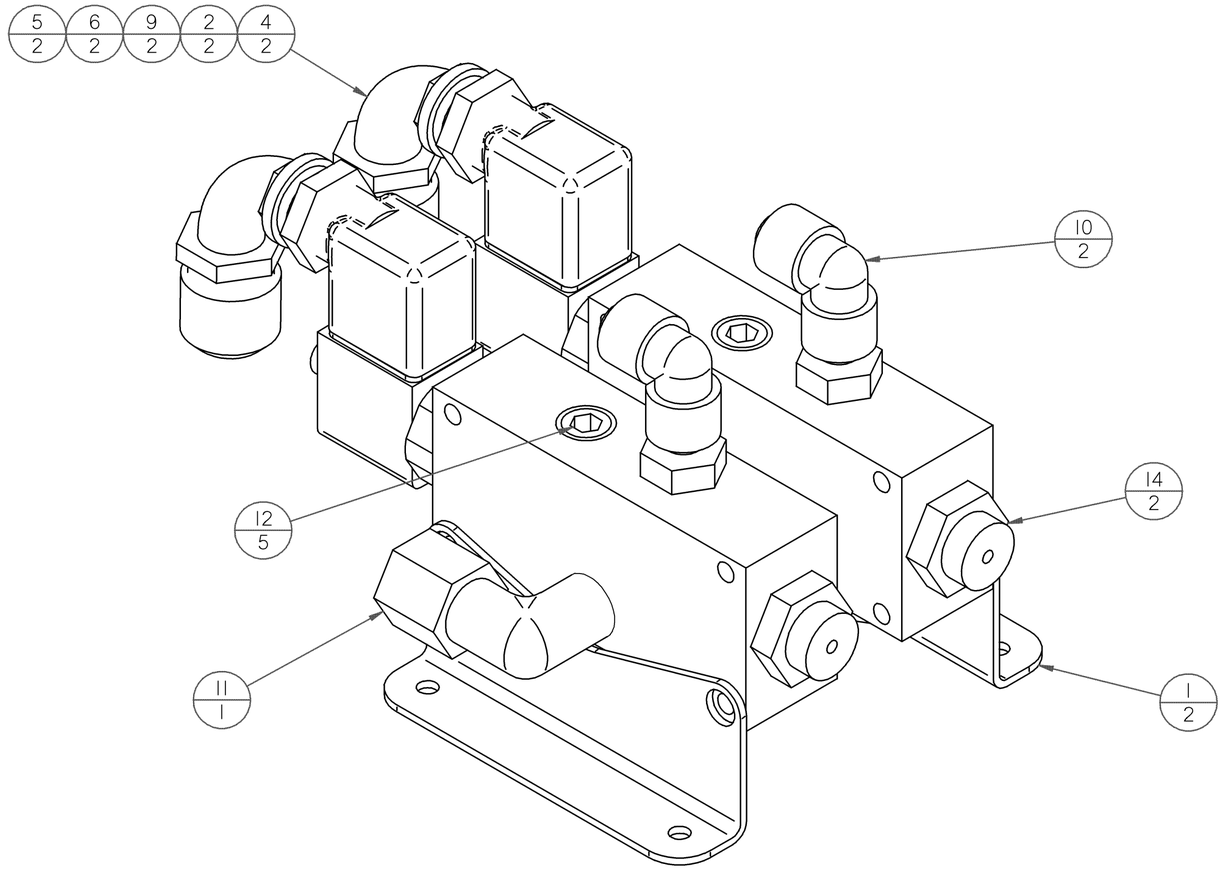
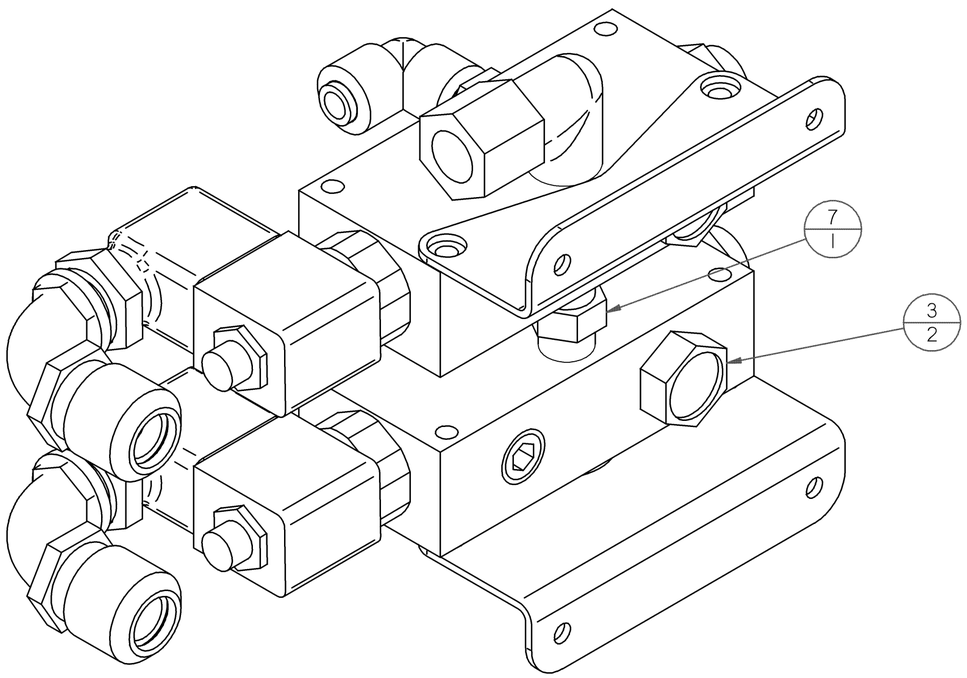
		PROJECT: AP FLOW W/ROTARY ACTUATOR ASSEMB
		TITLE: AP FLOW W/ROTARY ACTUATOR ASSEMBLY DUAL PRESET FLOW SELECTOR
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: DCOLE DATE: 08/19/05 APPR.	DWG NO: UH1010A01 REV: 2 SIZE: C WEIGHT: 26.9 lbm SHEET: 3 OF 3





ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	2	UP1013P01	AIR VALVE ASSEMBLY MOUNTING BRACKET	UP1013P01
2	2		CONNECTOR FABCO SOLENOID MINI-DIN	242.1260
3	2		FILTER EXHAUST AIRDRAULIC	239.0252
4	2		FITTING BODY HARNESSFLEX 90 DEG NC12	231.6205
5	2		FITTING CAP NUT HARNESSFLEX NC12	231.6208
6	2		FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212
7	1		FITTING NIPPLE MNPT/MNPT .25-.25	82083.0404
8*	2		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
9	2		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
10*	2		FITTING TUBE 90 .25 TUBE .25 NPTF	274.9885
11	1		FITTING TUBE 90 JACO .375-.25 MNPT	274.9870
12	5		PLUG PIPE HEX SC HD ST .25 NPT	271.8002
13*	1		TUBING AIR LINE .25 O.D.	239.0260
14	2		VALVE FABCO AIR 12V SOLENOID SPRG RETURN	242.1257

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 8/9/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

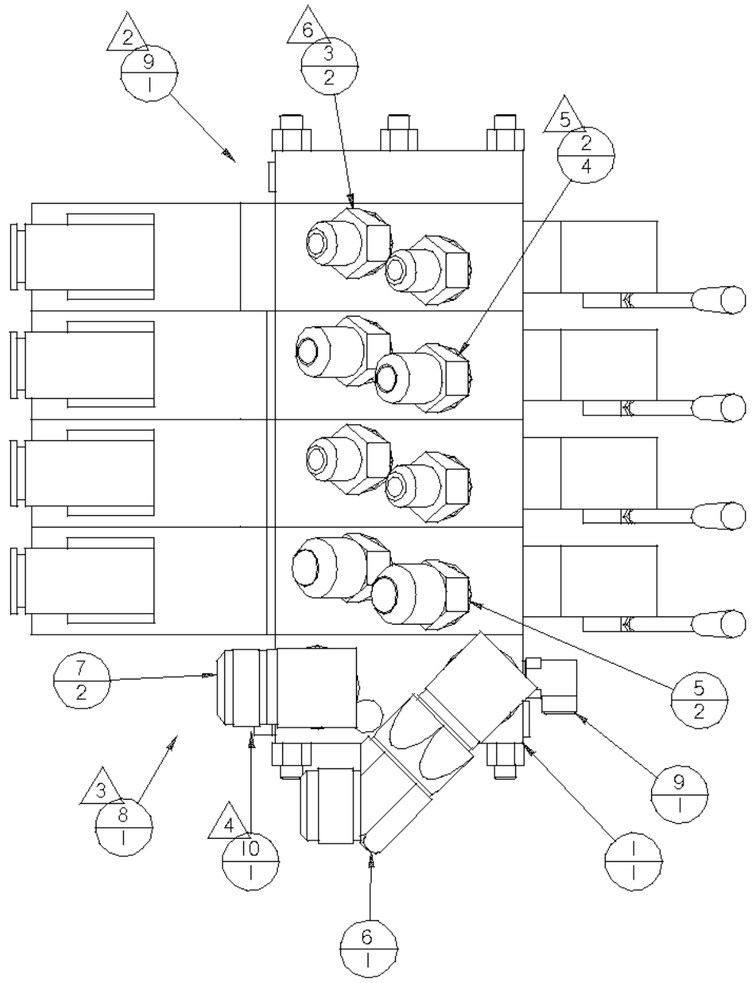
PROJECT UNIBODY

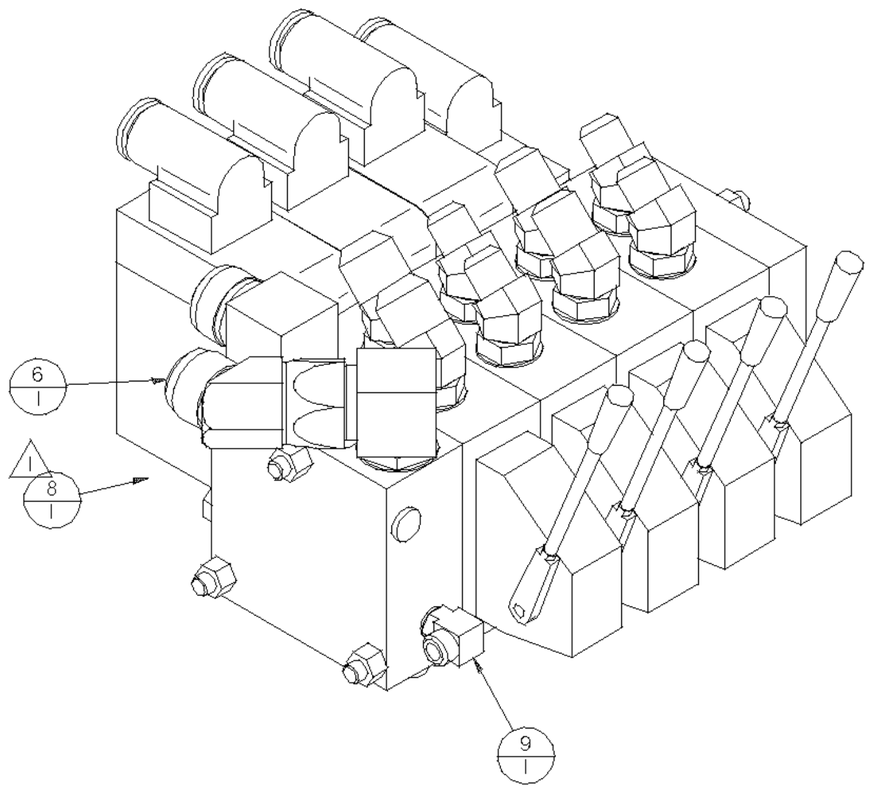
TITLE AIR VALVE ASSEMBLY (12V)
DUAL PRESET FLOW SELECTOR

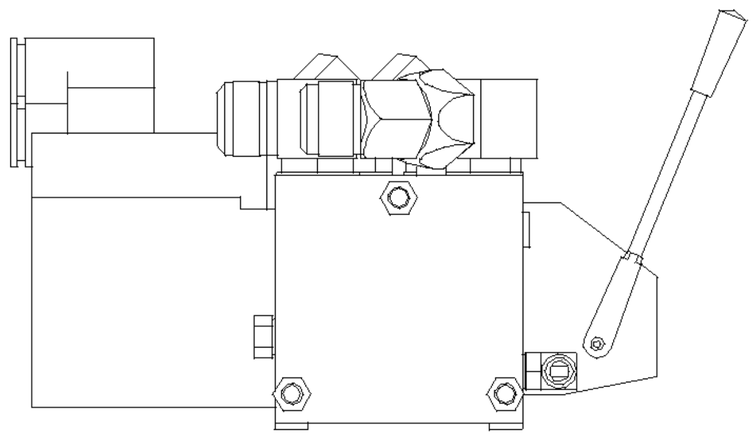
DWG NO UH1010A02X | REV 1 | SIZE C

WEIGHT 5.5 lbm | SHEET 1 OF 1

Last Changed: 3/10/2008







ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UH1011A13	VALVE DANFOSS DCC+ PUMP SP OG D1066-3	UH1011A13
2"	1		FITTING PLUG MSAE -05	76408.0520
3"	4		FITTING 45 M37/ADJ MSAE 08-10	76802.0810
4"	2		FITTING 45 M37/ADJ MSAE 10-10	76802.1010
5	2		FITTING 45 M37/ADJ MSAE 12-10	76802.1210
6	1		FITTING 45 M37/F37 SW 16-16	76502.1616
7	2		FITTING 90 M37/ADJ MSAE 16-12	76801.1612
8"	1		FITTING PLUG MSAE -03 HOLLOW HEX	76408.0300
9	1		FITTING STR FNPT/MSAE 02-05	76405.0502

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN T BARHAM
DATE 4/7/2004
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

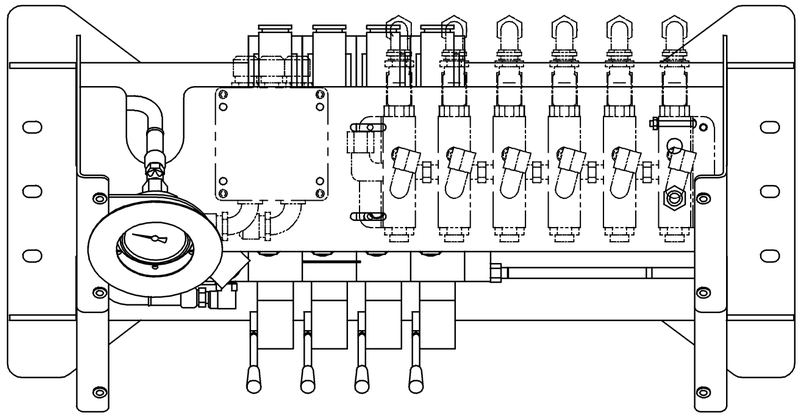
PROJECT

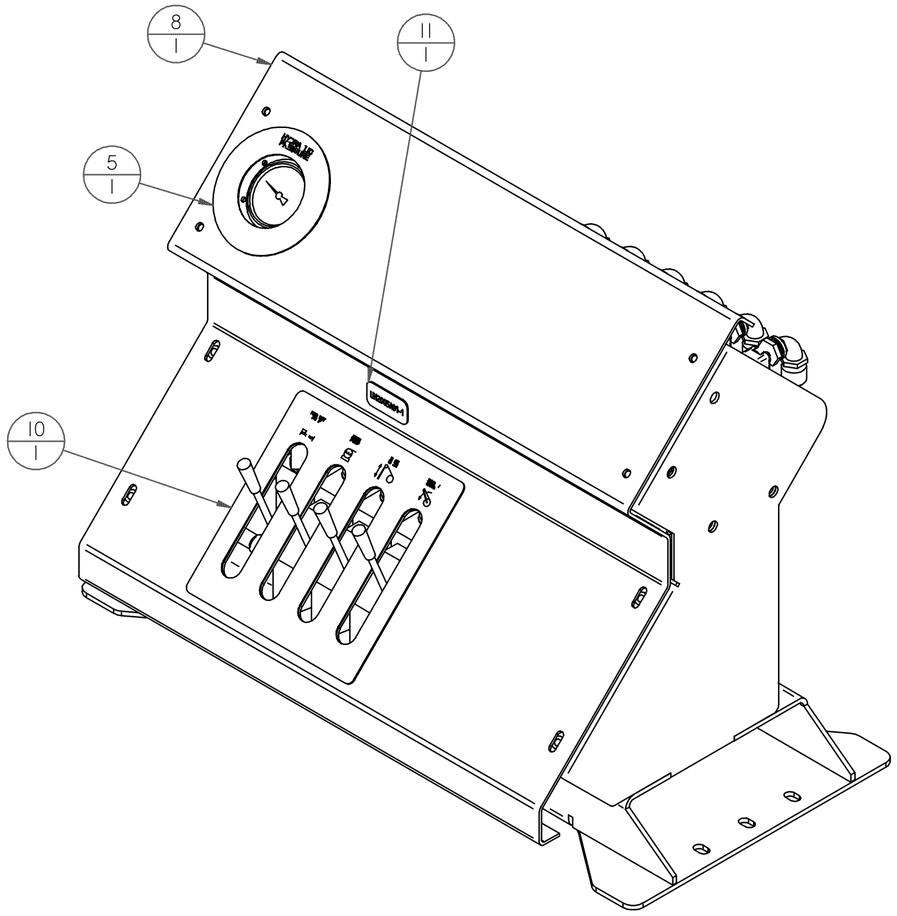
TITLE DANFOSS PUMPING VALVE ASSY 0 GAS
DCC+ PUMPING VALVE ASSY

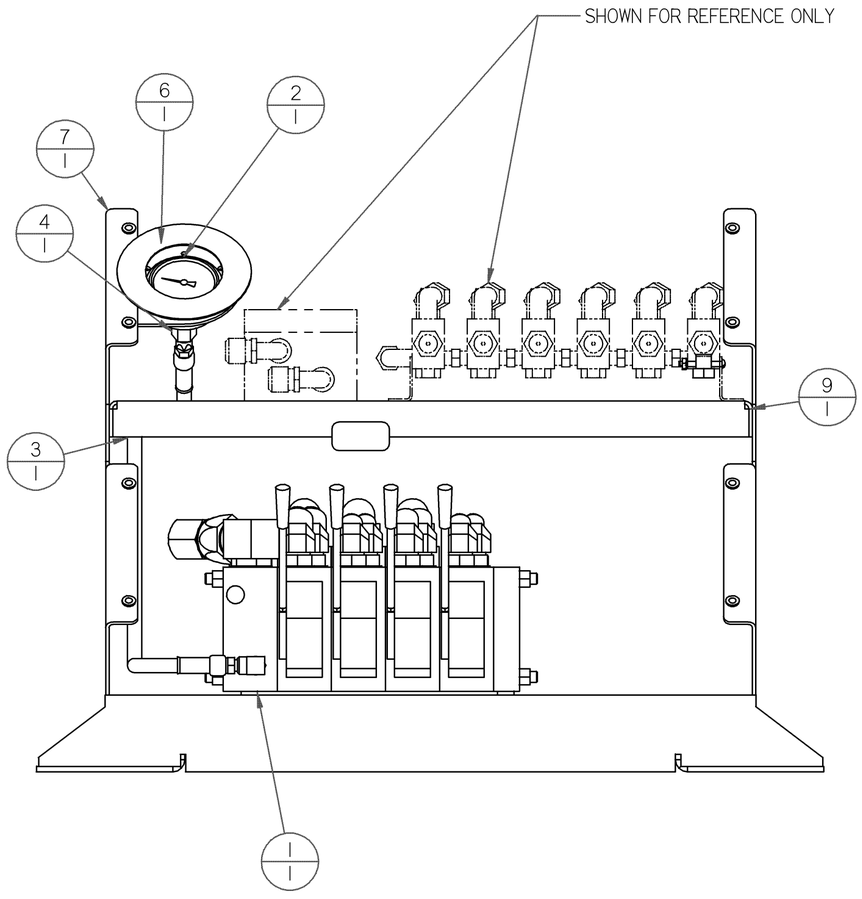
DWG NO UH1011A23 | REV 1 | SIZE C

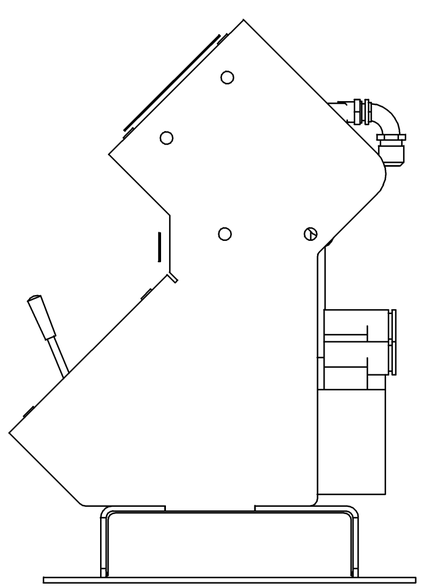
WEIGHT 102.71bm | SHEET 1 OF 1

Last Changed: 10/17/2008









ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UH1011A23	DANFOSS PUMPING VALVE ASSY 0 GAS	
2	1		GAUGE 2.5" 5000 PSI .25 MNPT BACK CONN	260.7017
3	1	N/A	HOSE ASSEMBLY .25 X .125 X 24"	262.0302
4	1		FITTING STR FNPTSW/FNPT .125-.25	82046.0204
5	1	UH1002P29EN	LABEL HYDR PRESSURE SINGLE	UH1002P29EN
6	1	UH1003P03	MOUNT GAUGE HYDRAULIC PRESSURE	UH1003P03
7	1	UH1012A10	PUMP HYDRAULIC BASE WELDMENT	UH1012A10
8	1	UH1012P03	CONSOLE COVER PUMP HYD VALVE 0-GAS	UH1012P03
9	1	UH1012P10	MOUNT ELECTRIC AIR VALVES	UH1012P10
10	1	UH1012P17EN	LABEL HYD DANFOSS PMP 0G DCC+	UH1012P17EN
11	1	UH2005A01EN	SCHEMATIC LABEL PUMP DCC+FHR	UH2005A01EN

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 10/17/2005
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY

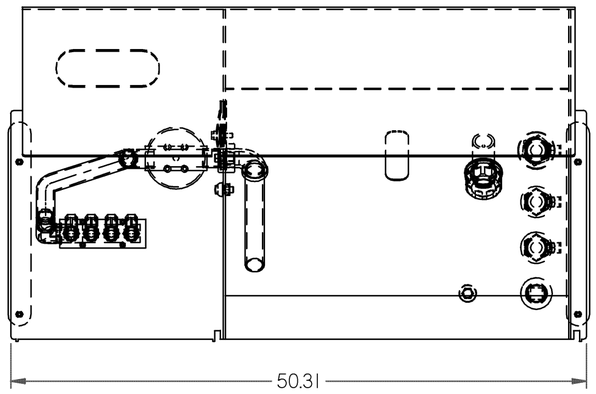
TITLE PUMP HYD CNTRL ASM DCC+ 0-GAS IN-CAB
UNIBODY PROPORTIONAL HYDRAULIC

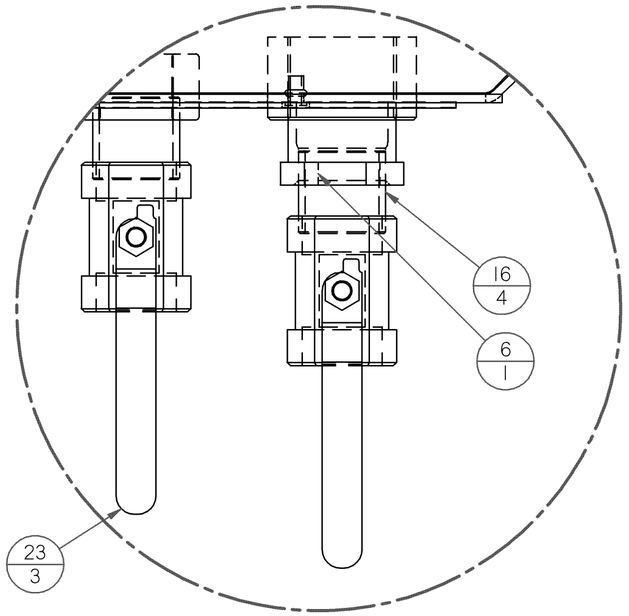
DWG NO. UH1012A03 | REV 3 | SIZE C

WEIGHT 160.6 lbm | SHEET 1 OF 1

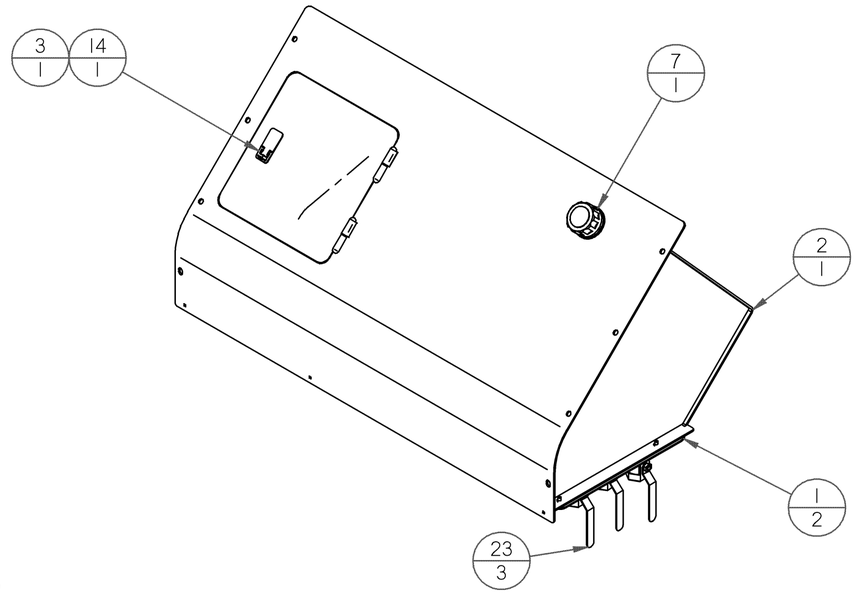
Last Changed: 3/10/2008

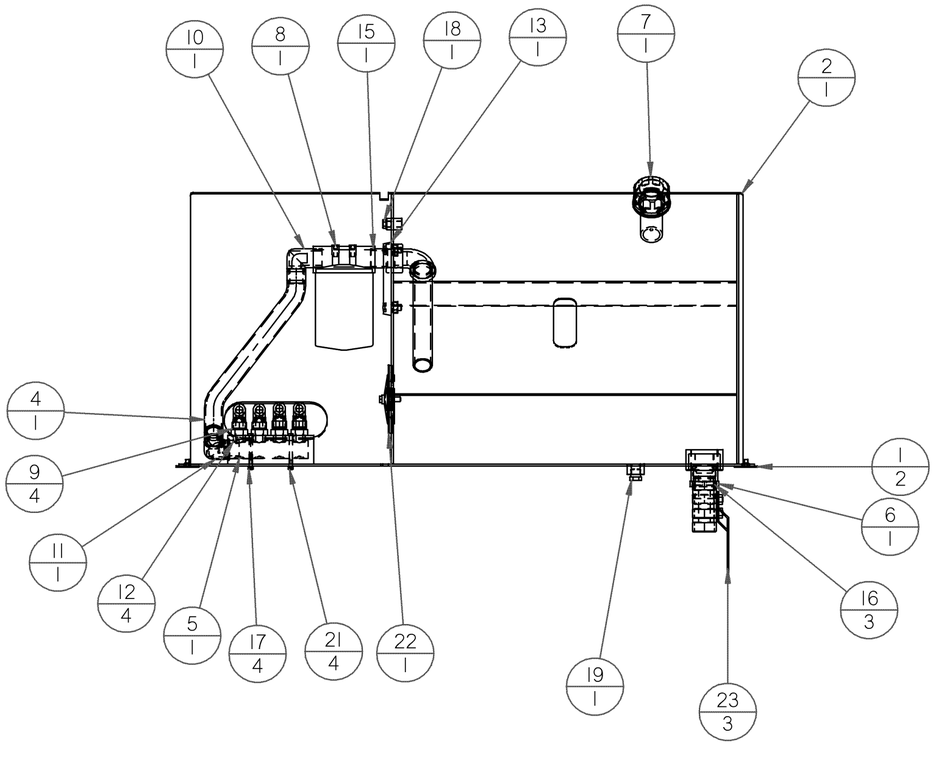
NOTE:
USE LIQUID TEFLON THREAD SEALANT ON ALL THREADED JOINTS

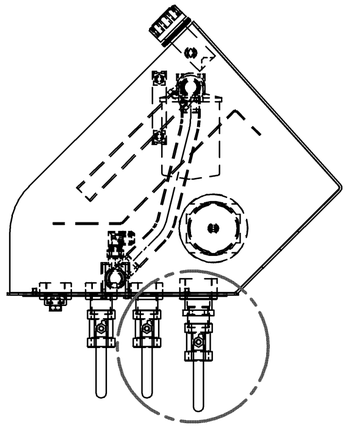




DETAIL A







A

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	2	UH1013P27	HYDRAULIC TANK SHIM	UH1013P27
2	1	UH1013A14	4216-4 SUCTION HYDRAULIC TANK WELDMENT	UH1013A14
3*	1	UH1001P14	HYDRAULIC TANK LATCH PAWL	UH1001P14
4	1	UH1001P10	HYDRAULIC RETURN HOSE	262.3821
5	1	UH1001P09	4 HYDRAULIC RETURN MANIFOLD	500.0167
6	1		BUSHING PIPE SS 2-1.50	271.9326
7	1		FILLER CAP PRESSURE PBB40-5-N	260.2773
8	1		FILTER RETURN FSP212-1JDNH	260.2781
9	4		FITTING 90 M37/F37 SW 12-12	76500.1212
10	1		FITTING 90 M37/MNPT 20-20	72501.2020
11	1		FITTING 90 M37/MSAE-2020	76801.2020
12	4		FITTING STR M37/MSAE 12-12	76400.1212
13	1		GAUGE SIGHT/TEMP 0-200F	260.2774
14	1		LATCH SOUTHCO COMPRESSION	269.5229
15	1		NIPPLE PIPE SS S40 1.25 CLOSE	272.4680
16	3		NIPPLE PIPE SS S40 1.50 CLOSE	272.4720
17	4		NUT HEX ELASTIC .25-20 SS	954.3014
18	1		PLUG PIPE HEX HD SS .25" NPT	275.0013
19	1		PLUG PIPE HEX HD SS .50 NPT	275.0009
20*	1		PLUG PIPE HEX HD SS 1 1/2" NPT	275.0015
21	4		SCREW CAP HEX HEAD .25-20X3.00 SS	900.3174
22	1		TANK END COVER 6" SS WITH 3/8"	239.2237
23	3		VALVE BALL SS 1.50	264.3212

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 10/4/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

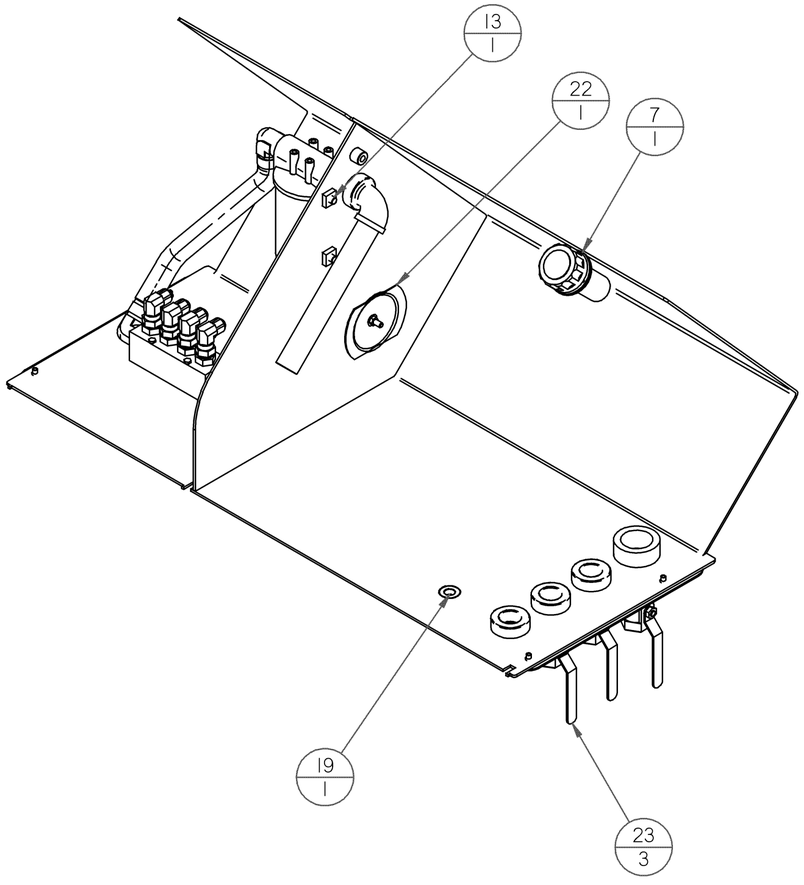
PROJECT

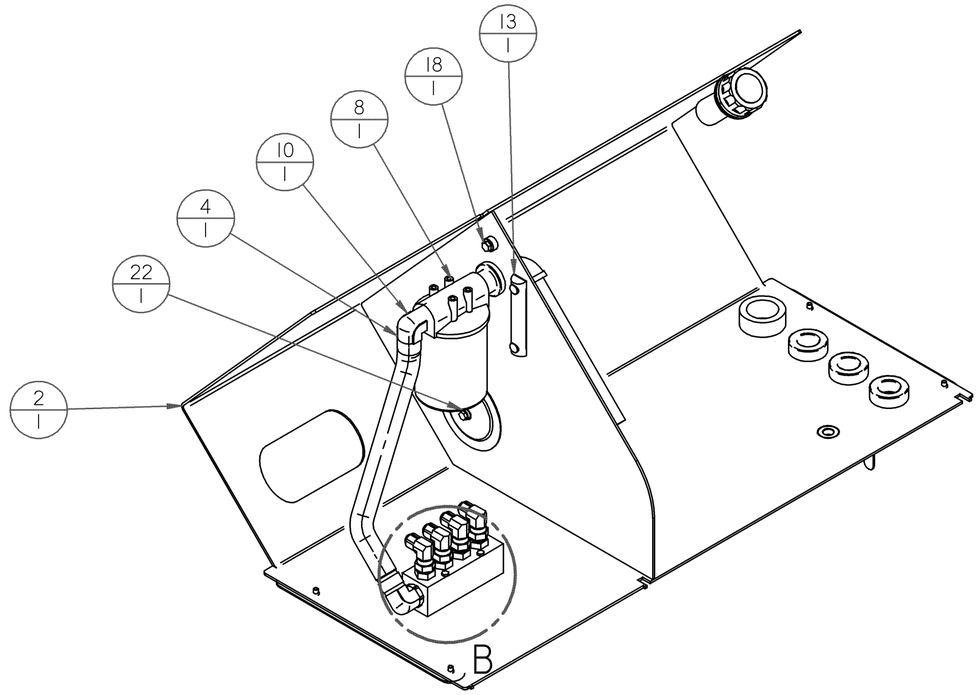
TITLE HYDRAULIC TANK ASM 4216-3 55 GAL
UNIBODY HYDRAULIC

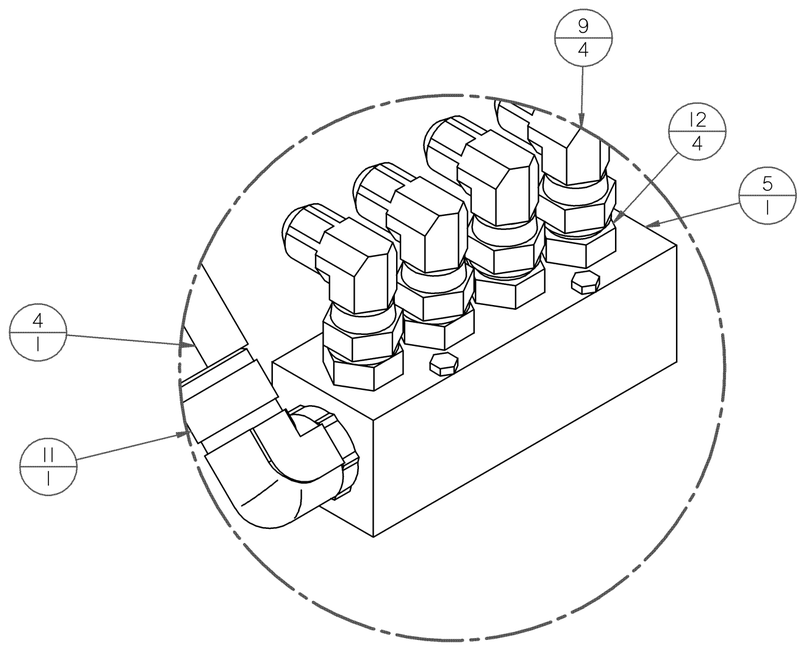
DWG NO UH1013A04 | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 2

Last Changed: 3/10/2008







DETAIL B

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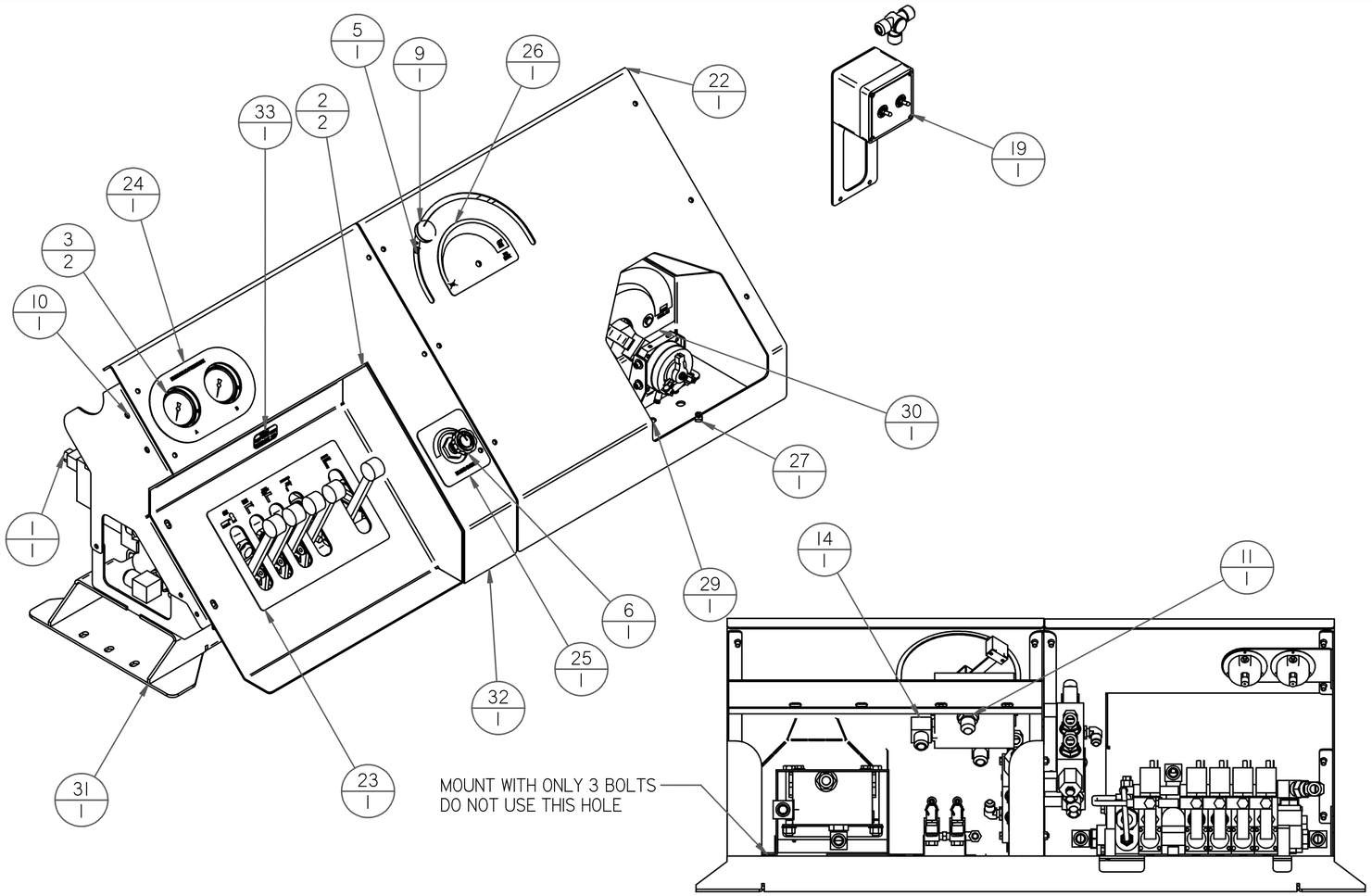
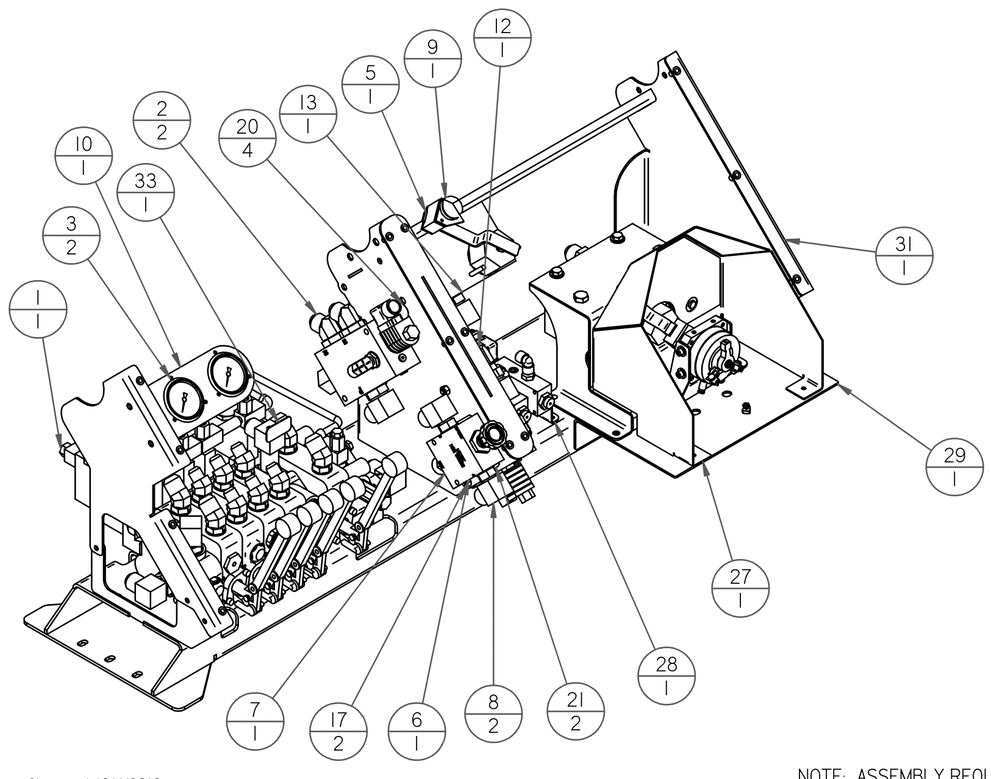
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN RDUNCAN DATE 10/4/2004 APPR.	DWG NO UH1013A04 REV 1 SIZE C WEIGHT 0.0 lbm SHEET 2 OF 2

Last Changed: 3/10/2008





ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UH1014A12X	10- 12V AUGER VALVE ASM.	
2	2	UH1014A13X	16-10 30 GPM BLEND BY-PASS ASSEMBLY	
3	2	TC01652	GAUGE 2.5" 5000 PSI .25 MNPT BACK CONN	260.7017
4*	2	TC00177	HOSE ASSEMBLY .25 X 24" .125MNPT	262.0302
5	1	TC01034	VALVE FLOW DIVIDER ADJUST PROPORTIONAL	264.3001
6	1	TC01390	VALVE FLOW CONTROL UNIBODY 0-17.2 GPM	264.3089
7	1	TC01560	FITTING STR JIC M37/METRIC 12-22	274.9001
8	2	TC01451	FITTING 90 JIC M37/METRIC 12-22	274.9003
9	1	UH1002A13	AP FLOW KNOB PACKAGE "DETAIL ONLY"	286.7229
10	1	UH1002P04S	BRACKET GAUGE MOUNTING	500.0157
11	1	TC01559	FITTING STR M37/MSAE 12-12	76400.1212
12	1	TC01419	FITTING 45 M37/F37 SW 12-12	76502.1212
13	1	TC01448	FITTING 90 M37/ADJ MSAE 12-12	76801.1212
14	1	TC01450	FITTING 90 M37/ADJ MSAE 12-16	76801.1216
15*	2	TC03576	FITTING STR FNPTSW/FNPT .125-.25	82046.0204
16*	3	TC03574	SCREW CAP HEX HEAD .31-18X3.00 SS	900.3774
17	2	TC00478	SCREW CAP HEX HEAD .31-18X3.50	900.3794
18*	5	TC03575	NUT HEX .31-18 SS	950.3614
19	1	UC1046A01	ANFO BYPASS W/ OPTIONAL VERT AUG BYPASS	UC1046A01
20	4	UH1002P02	SPACER SELECTOR VALVE	UH1002P02
21	2	UH1002P03	SPACER CFDA10	UH1002P03
22	1	UH1002P21	COVER FLOW DIVIDER DUAL PRESET	UH1002P21
23	1	UH1002P25EN	LABEL HYD GRESEN BLEND	UH1002P25EN
24	1	UH1002P26EN	LABEL HYDR PRESSURE DUAL	UH1002P26EN
25	1	UH1002P27EN	LABEL BLEND RATE	UH1002P27EN
26	1	UH1002P28EN	LABEL AP-FLOW DIVIDER FO	UH1002P28EN
27	1	UH1010A01	AP FLOW W/ROTARY ACTUATOR ASSEMBLY	UH1010A01
28	1	UH1010A02X	AIR VALVE ASSEMBLY (12V)	UH1010A02X
29	1	UH1010P17	SHELF SUPPORT PLATE	UH1010P17
30	1	UH1010P19	LABEL AP-FLOW DIVIDER BLEND	UH1010P19
31	1	UH1014A11S	BASE WELDMENT HYDRAULIC BLEND	UH1014A11S
32	1	UH1014A14	COVER HYDRAULIC VALVE	UH1014A14
33	1	UH2004A03EN	SCHEMATIC LABEL -10 S BLEND	UH2004A03EN

NOTE: ASSEMBLY REQUIRES UC1046A01 FOR ELECTRIC "ALL EMULSION" SELECTION

Last Changed: 10/4/2010

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 10/4/2010
APPR.

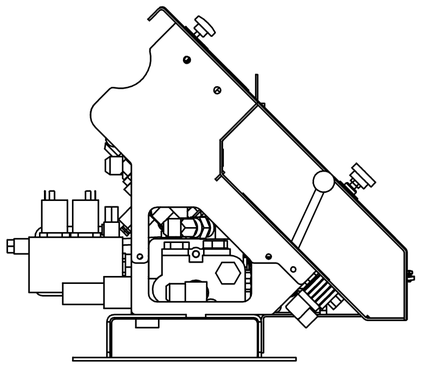
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

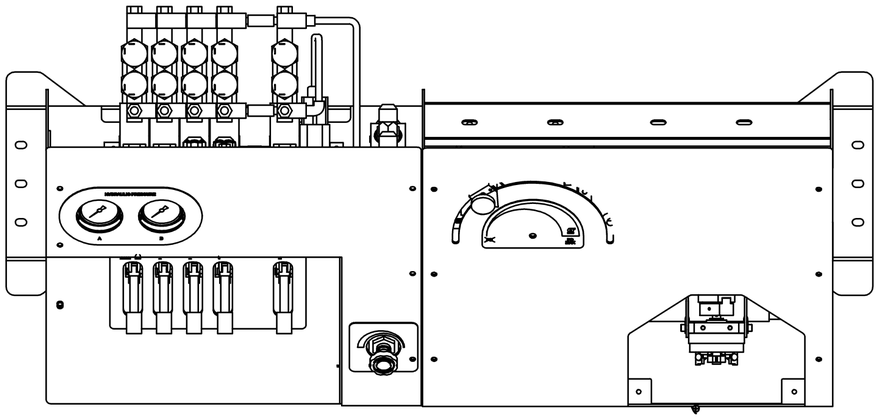
PROJECT AUGER VALVE ASM 16-10 S 2BF0-12V

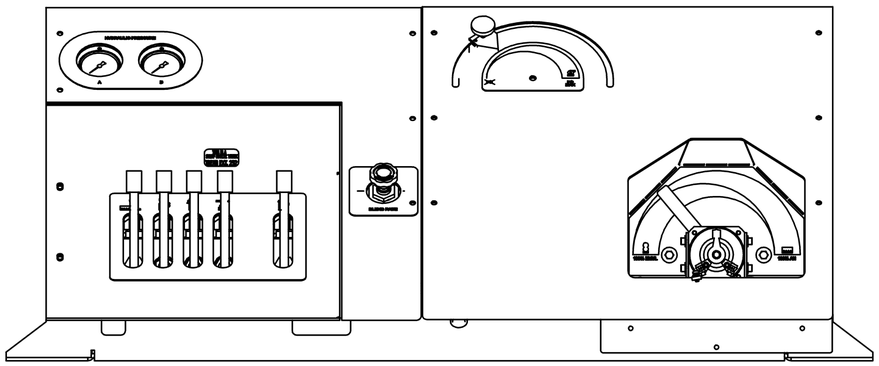
TITLE AUGER VALVE ASM 16-10 S 2BF0-12V
UNIBODY HYDRAULIC

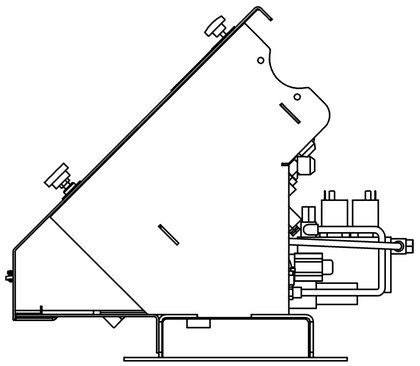
DWG NO UH1014A06X | REV 04 | SIZE C

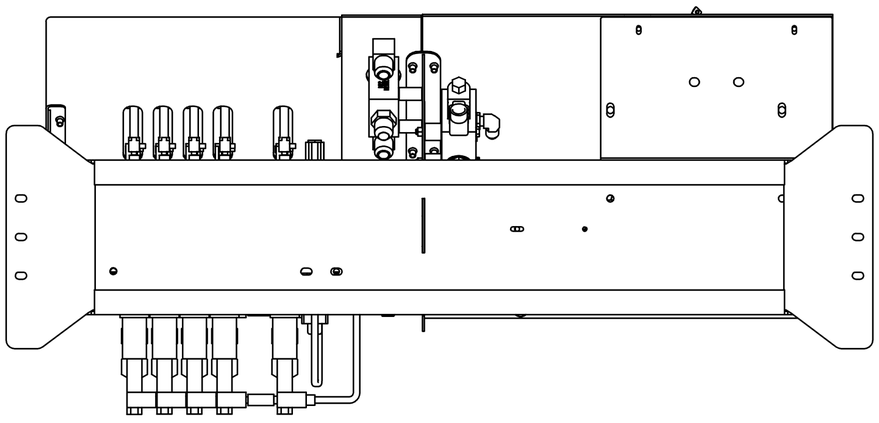
WEIGHT 268.3 lbm | SHEET 1 OF 2











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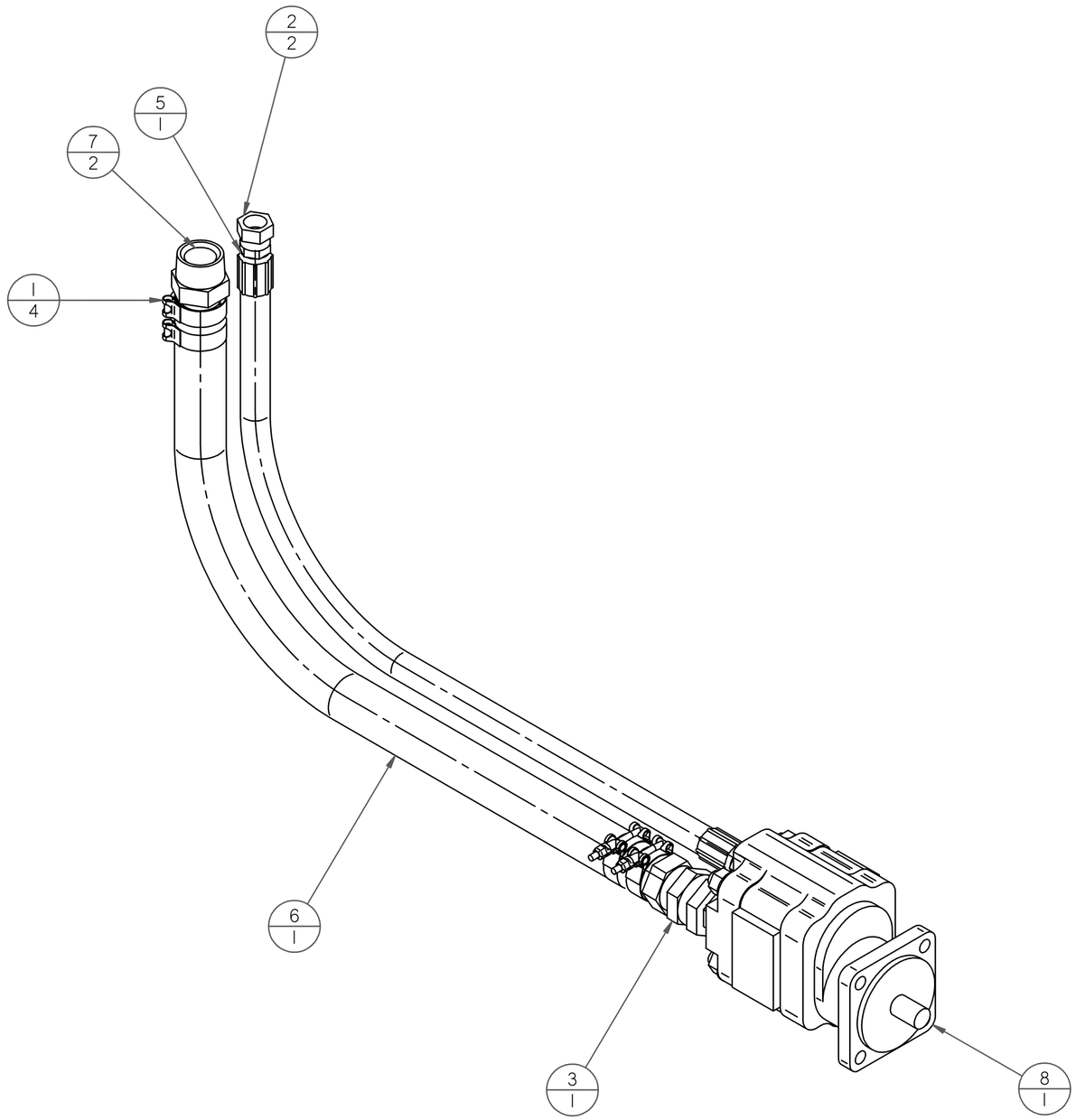
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: rduncan DATE: 10/4/2010 APPR.	DWG NO: UH1014A06X REV: 04 SIZE: C WEIGHT: 268.3 lbm SHEET: 2 OF 2

Last Changed: 10/4/2010



NOTE:

GEAR PUMPS SHOWN ARE BI-ROTATIONAL. THE SUCTION AND PRESSURE PORTS ARE DETERMINED BY PTO ROTATION.

THE PUMP SHOWN IS SUCTION LEFT WHEN FACING THE PUMP SHAFT.

SINCE THE PUMP IS BI-ROTATIONAL THE SUCTION LINES AND PRESSURE INES MAY BE REVERSED FOR OPPOSITE PTO ROTATION.

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	4		CLAMP T BOLT SS 1.50 HOSE 2.00 DIA	240.0915
2	2		COUPLING GATES HOSE 12-12 F JIC	262.6212
3	1		FITTING HYRAULIC PUMP STRAIGHT 1-1.5"	286.8001
4"	1		FITTING STR M37/MNPT 12-16	72404.1216
5	1		HOSE HYD GATES M3K XTUFF .75 (10 ft)	262.3712
6	1		HOSE HYD SUCTION 1.5 PIRELLI (10 ft)	262.3825
7	2		NIPPLE COMBINATION -HYD SUCTION 1.5" MS	247.5737
8	1		PUMP PERMCO 1.5 B/R SAE B FLANGE	263.1500

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL X = ± .100
DECIMAL XX = ±.020
DECIMAL XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/16/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT PUMP ASM PERMCO 1.5 BR SAE

TITLE PUMP ASM PERMCO 1.5 BR SAE
UNIBODY HYDRAULIC ASM

DWG NO UH1016A04 | REV 01 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 4

Last Changed: 5/21/2009

HYDRAULIC PUMP SPECIFICATION FOR BI-ROTATIONAL 1-SECTION PUMP
NOMINAL OUTPUT: 12 GPM

PERMCO P2500 PUMP AT 850 RPM			
GEAR WIDTH	OUTPUT FLOW AT 2000 PSI	INPUT POWER AT 3000 PSI	INPUT TORQUE
1 1/2 INCH	12 GPM	30 HP	186 LB-FT
1.5 INCH	12 GPM	30 HP	186 LB-FT

POWER TAKE-OFF REQUIREMENTS
90 PERCENT OF ENGINE SPEED
ENGINE SPEED 950 RPM
PUMP SPEED 850 RPM
122 LB-FT CONTINUOUS
186 LB-FT INTERMITTENT

PUMP ORDER CODE	
P2500A-231 ND-ZA15-14-TC	
P2500	2500 series pump
A231	Single 4 bolt SAE
ND	1” NPT port end cover w/extend studs
ZA15	1 1/2” gear section, no ports
14	13 Tooth 7/8” splined drive shaft
TC	Teflon coated thrust plate

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/16/2004
APPR.

TREAD CORPORATION **ROANOKE, VIRGINIA 24012 USA**

PROJECT PUMP ASM PERMCO 1.5 BR SAE
TITLE PUMP ASM PERMCO 1.5 BR SAE
UNIBODY HYDRAULIC ASM
DWG NO UH1016A04 | REV 01 | SIZE A
WEIGHT 0.0 lbm | SHEET 2 OF 4

Last Changed: 5/21/2009

HYDRAULIC PUMP SPECIFICATION FOR BI-ROTATIONAL 2-SECTION PUMP
NOMINAL OUTPUT: 24 GPM

PERMCO P2500 PUMP AT 1600 RPM			
GEAR WIDTH	OUTPUT FLOW AT 2000 PSI	INPUT POWER AT 3000 PSI	INPUT TORQUE
1 1/2 INCH	24 GPM	57 HP	190 LB-FT
1.5 INCH	24 GPM	57 HP	190 LB-FT

POWER TAKE-OFF REQUIREMENTS
150 PERCENT OF ENGINE SPEED
ENGINE SPEED 1100 RPM
PUMP SPEED 1600 RPM
125 LB-FT CONTINUOUS
190 LB-FT INTERMITTENT

PUMP ORDER CODE	
P2500A-231 ND-ZA15-14-TC	
P2500	2500 series pump
A231	Single 4 bolt SAE
ND	1” NPT port end cover w/extend studs
ZA15	1 1/2” gear section, no ports
14	13 Tooth 7/8” splined drive shaft
TC	Teflon coated thrust plate

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ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/16/2004
APPR.

TREAD CORPORATION **ROANOKE, VIRGINIA 24012 USA**

PROJECT PUMP ASM PERMCO 1.5 BR SAE
TITLE PUMP ASM PERMCO 1.5 BR SAE
UNIBODY HYDRAULIC ASM
DWG NO UH1016A04 | REV 01 | SIZE A
WEIGHT 0.0 lbm | SHEET 3 OF 4

Last Changed: 5/21/2009

Permco 2500

Actual Outputs at 2000 psi from Chart
Actual Avg HP Input at 2000 psi from Chart

Permco Gear	4 gpm	8 gpm	12 gpm	16 gpm	20 gpm	24 gpm
½ In.	850 rpm	1600 rpm				
	8 HP	14 HP				
¾ In.	550 rpm	1100 rpm	1600 rpm			
	8 HP	14 HP	20 HP			
1 In.	450 rpm	850 rpm	1250 rpm	1600 rpm	2000 rpm	
	8 HP	14 HP	20 HP	26 HP	32 HP	
1.5 In.		550 rpm	850 rpm	1100 rpm	1350 rpm	1600 rpm
		14 HP	20 HP	26 HP	32 HP	38 HP

Calculated Outputs at 3000 psi from Chart
Calculated Avg. HP Input at 3000 psi from Chart

Permco Gear	4 Gpm	8 gpm	12 gpm	16 gpm	20 gpm	24 gpm
½ In.	850 rpm	1600 rpm				
	12 HP	21 HP				
	74 Lb Ft	*64 Lb Ft*				
¾ In.	550 rpm	1100 rpm	1600 rpm			
	12 HP	21 HP	30 HP			
	114 Lb Ft	*100 Lb Ft*	*92 Lb Ft*			
1 In.	450 rpm	850 rpm	1250 rpm	1600 rpm	2000 rpm	
	12 HP	21 HP	30 HP	39 HP	48 HP	
	140 Lb Ft	*130 Lb Ft*	*126 Lb Ft*	*126 Lb Ft*	*126 Lb Ft*	
1.5 In.		550 rpm	850 rpm	1100 rpm	1350 rpm	1600 rpm
		21 HP	30 HP	39 HP	48 HP	57 HP
		200 Lb Ft	*186 Lb Ft*	*186 Lb Ft*	*186 Lb Ft*	*190 Lb Ft*

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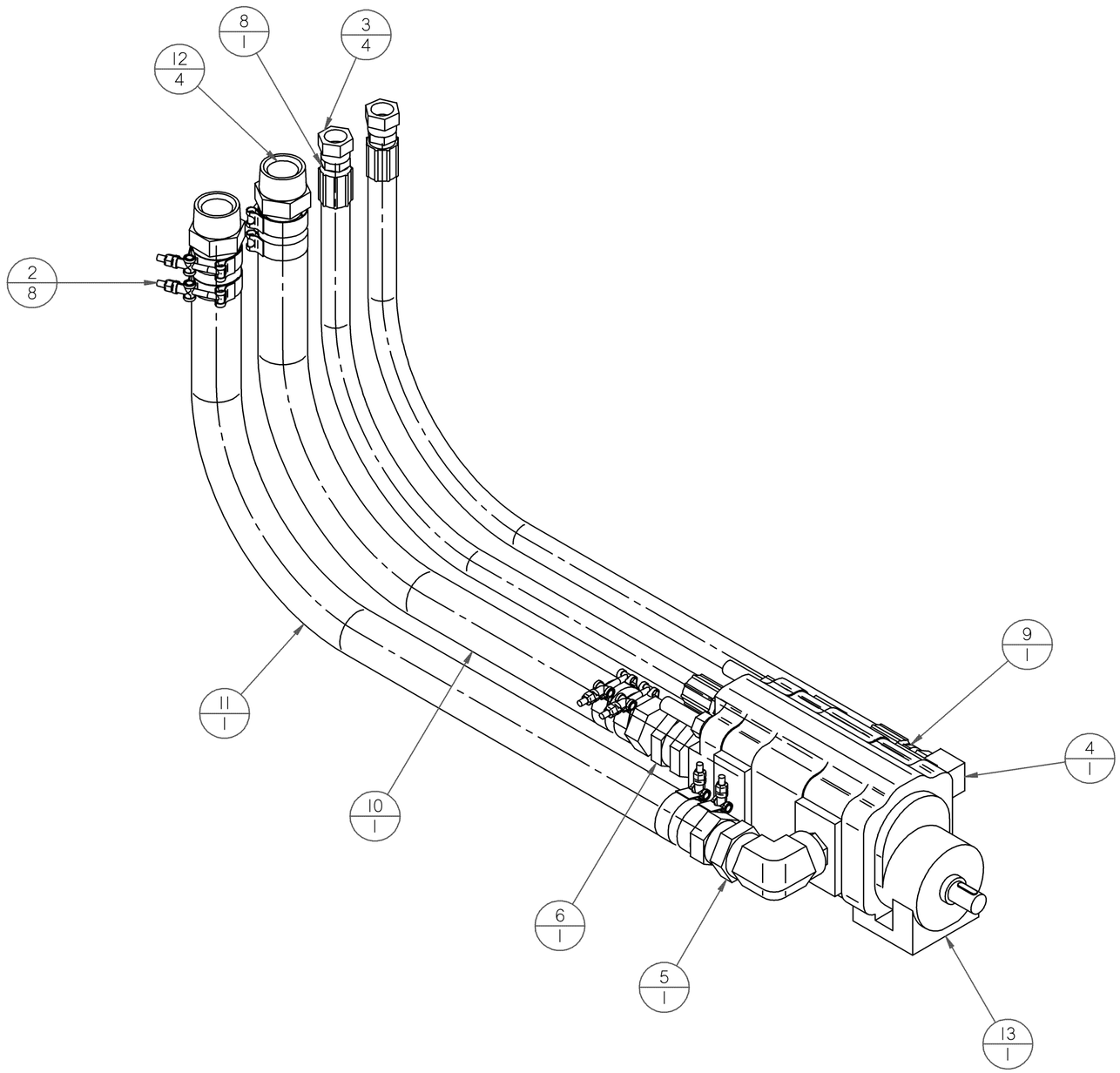
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/16/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT PUMP ASM PERMCO 1.5 BR SAE
TITLE PUMP ASM PERMCO 1.5 BR SAE
UNIBODY HYDRAULIC ASM
DWG NO UH1016A04
REV 01
SIZE A
WEIGHT 0.0 lbm
SHEET 4 OF 4

Last Changed: 5/21/2009



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1*	1	UH1016P02	PUMP MOUNT PERMCO PAD HYDRAULIC PUMP	UH1016P02
2	8		CLAMP T BOLT SS 1.50 HOSE 2.00 DIA	240.0915
3	4		COUPLING GATES HOSE 12-12 F JIC	262.6212
4	1		FITTING 90 M37/MNPT 12-16	72501.1216
5	1		FITTING HYRAULIC PUMP 90 1-1.5"	286.8002
6	1		FITTING HYRAULIC PUMP STRAIGHT 1-1.5"	286.8001
7*	1		FITTING STR M37/MNPT 12-16	72404.1216
8	1		HOSE HYD GATES M3K XTUFF .75 (10 ft)	262.3712
9	1		HOSE HYD GATES M3K XTUFF .75 (10 ft)	262.3712
10	1		HOSE HYD SUCTION 1.5 PIRELLI (10 ft)	262.3825
11	1		HOSE HYD SUCTION 1.5 PIRELLI (10 ft)	262.3825
12	4		NIPPLE COMBINATION -HYD SUCTION 1.5" MS	247.5737
13	1		PUMP PERMCO 1.5/1.0 B/R PAD MOUNT	263.1521

NOTE:

GEAR PUMPS SHOWN ARE BI-ROTATIONAL. THE SUCTION AND PRESSURE PORTS ARE DETERMINED BY PTO ROTATION.

THE PUMP SHOWN IS SUCTION LEFT WHEN FACING THE PUMP SHAFT.

SINCE THE PUMP IS BI-ROTATIONAL THE SUCTION LINES AND PRESSURE INES MAY BE REVERSED FOR OPPOSITE PTO ROTATION.

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/16/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT

TITLE
PUMP ASM PERMCO 1.5/1.0 BR PAD
UNIBODY HYDRAULIC ASM

DWG NO UH1016A05 | REV 1 | SIZE C

WEIGHT 309.7 lbm | SHEET 1 OF 3

Last Changed: 3/10/2008

HYDRAULIC PUMP SPECIFICATION FOR BI-ROTATIONAL 2-SECTION PUMP
NOMINAL OUTPUT: 24 GPM - 16 GPM

PERMCO P2500 PUMP AT 1600 RPM			
GEAR WIDTH	OUTPUT FLOW AT 2000 PSI	INPUT POWER AT 3000 PSI	INPUT TORQUE
1 1/2 INCH	24 GPM	57 HP	190 LB-FT
1 INCH	16 GPM	39 HP	126 LB-FT
2.5 INCH	40 GPM	96 HP	316 LB-FT

POWER TAKE-OFF REQUIREMENTS
150 PERCENT OF ENGINE SPEED
ENGINE SPEED 1100 RPM
PUMP SPEED 1600 RPM
208 LB-FT CONTINUOUS
316 LB-FT INTERMITTENT

PUMP ORDER CODE	
P2500B-299NX-HK15-00-A-ZA10-CK1-ZA10-TC	
P2500	2500 series pump
B231	SAE B-4 bolt shaft end cover
NX	1” NPT port end cover w/extend studs
HK15	1 1/2” gear section, 1 in. npt ports
29	7/8 keyed” drive shaft
A	bearing carrier, blank
1	connecting shaft
ZA10	1” gear section, no ports
TC	Teflon coated thrust plate

CK BEARING CARRIER

1” NPT 1” NPT

FRONT

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ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/16/2004
APPR.

TREAD CORPORATION **ROANOKE, VIRGINIA 24012 USA**

PROJECT

TITLE PUMP ASM PERMCO 1.5/1.0 BR PAD
UNIBODY HYDRAULIC ASM

DWG NO UH1016A05 | REV 1 | SIZE A

WEIGHT 309.7 lbm | SHEET 2 OF 3

Last Changed: 3/10/2008

Permco 2500

Actual Outputs at 2000 psi from Chart
Actual Avg HP Input at 2000 psi from Chart

Permco Gear	4 gpm	8 gpm	12 gpm	16 gpm	20 gpm	24 gpm
½ In.	850 rpm	1600 rpm				
	8 HP	14 HP				
¾ In.	550 rpm	1100 rpm	1600 rpm			
	8 HP	14 HP	20 HP			
1 In.	450 rpm	850 rpm	1250 rpm	1600 rpm	2000 rpm	
	8 HP	14 HP	20 HP	26 HP	32 HP	
1.5 In.		550 rpm	850 rpm	1100 rpm	1350 rpm	1600 rpm
		14 HP	20 HP	26 HP	32 HP	38 HP

Calculated Outputs at 3000 psi from Chart
Calculated Avg. HP Input at 3000 psi from Chart

Permco Gear	4 Gpm	8 gpm	12 gpm	16 gpm	20 gpm	24 gpm
½ In.	850 rpm	1600 rpm				
	12 HP	21 HP				
	74 Lb Ft	*64 Lb Ft*				
¾ In.	550 rpm	1100 rpm	1600 rpm			
	12 HP	21 HP	30 HP			
	114 Lb Ft	*100 Lb Ft*	*92 Lb Ft*			
1 In.	450 rpm	850 rpm	1250 rpm	1600 rpm	2000 rpm	
	12 HP	21 HP	30 HP	39 HP	48 HP	
	140 Lb Ft	*130 Lb Ft*	*126 Lb Ft*	*126 Lb Ft*	*126 Lb Ft*	
1.5 In.		550 rpm	850 rpm	1100 rpm	1350 rpm	1600 rpm
		21 HP	30 HP	39 HP	48 HP	57 HP
		200 Lb Ft	*186 Lb Ft*	*186 Lb Ft*	*186 Lb Ft*	*190 Lb Ft*

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UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/16/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

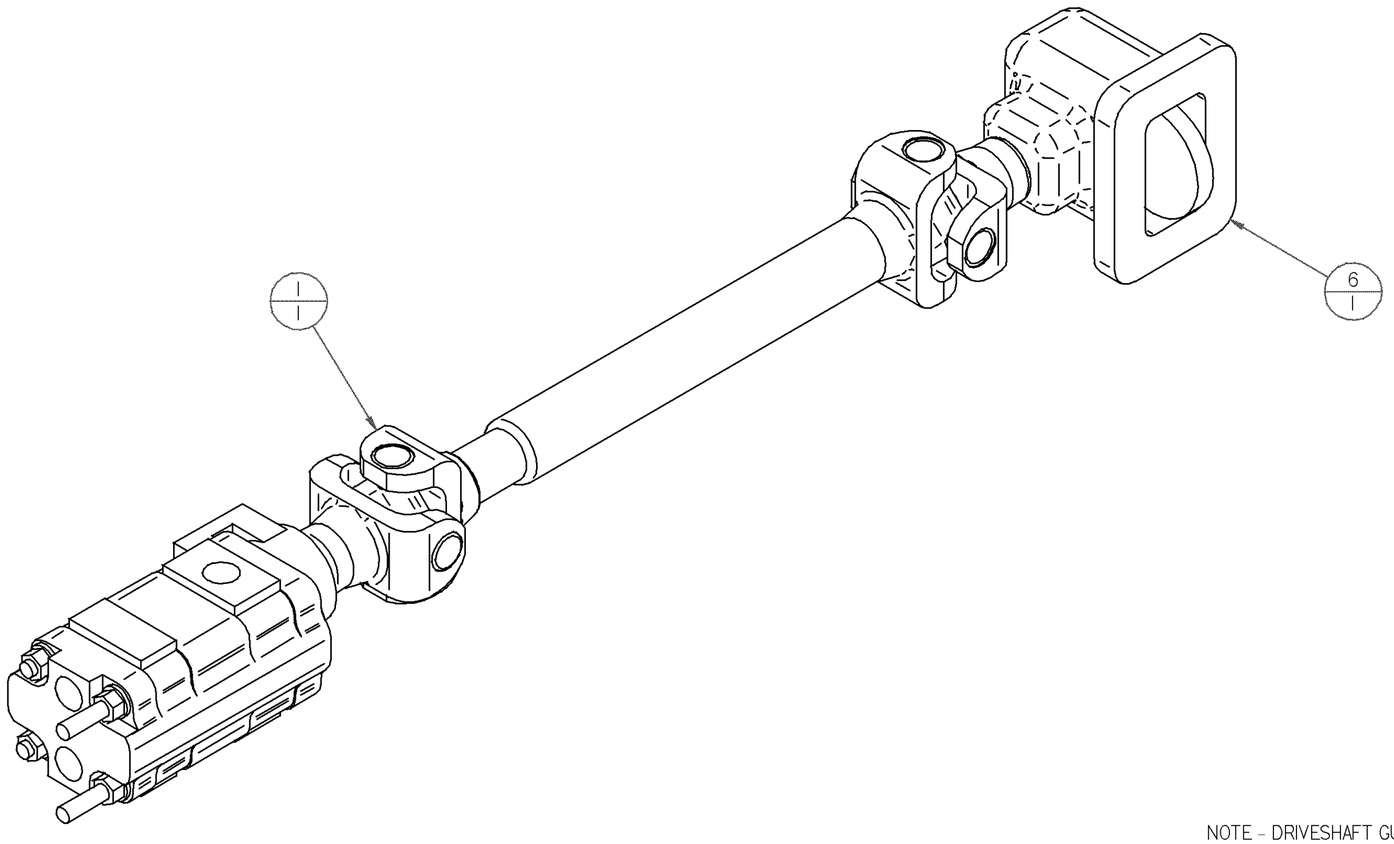
PROJECT

TITLE PUMP ASM PERMCO 1.5/1.0 BR PAD
UNIBODY HYDRAULIC ASM

DWG NO UH1016A05 | REV 1 | SIZE A

WEIGHT 309.7 lbm | SHEET 3 OF 3

Last Changed: 3/10/2008



NOTE - DRIVESHAFT GUARD IS TO BE CUSTOM MADE FOR EACH TRUCK. THE PART MASTER HAS 40LBS OF PART ID 200.8138 ADDED FOR A "CALCULATED" QUANTITY OF MATERIAL NEEDED.

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1		DRIVESHAFT FOR PAD MOUNT PUMP	247.6893
2"	1		FITTING 90 MNPT/FNPT .125-.125	82089.0202
3"	1		FITTING STR MNPT/FNPT .125-.125	82092.0202
4"	1		FUSE HOLDER WEATHERTIGHT ATO/ATC	231.2902
5"	1		LENS PILOT LIGHT PTO GREEN	231.6882
6	1		PTO 150% PAD GENERIC	247.6896
7"	1		PTO AIR SWITCH BRACKET	285.5144
8"	1		VALVE AIR PROTECTION WM778A	242.0278
9"	1		VALVE BALL ST .25	264.3215

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/22/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

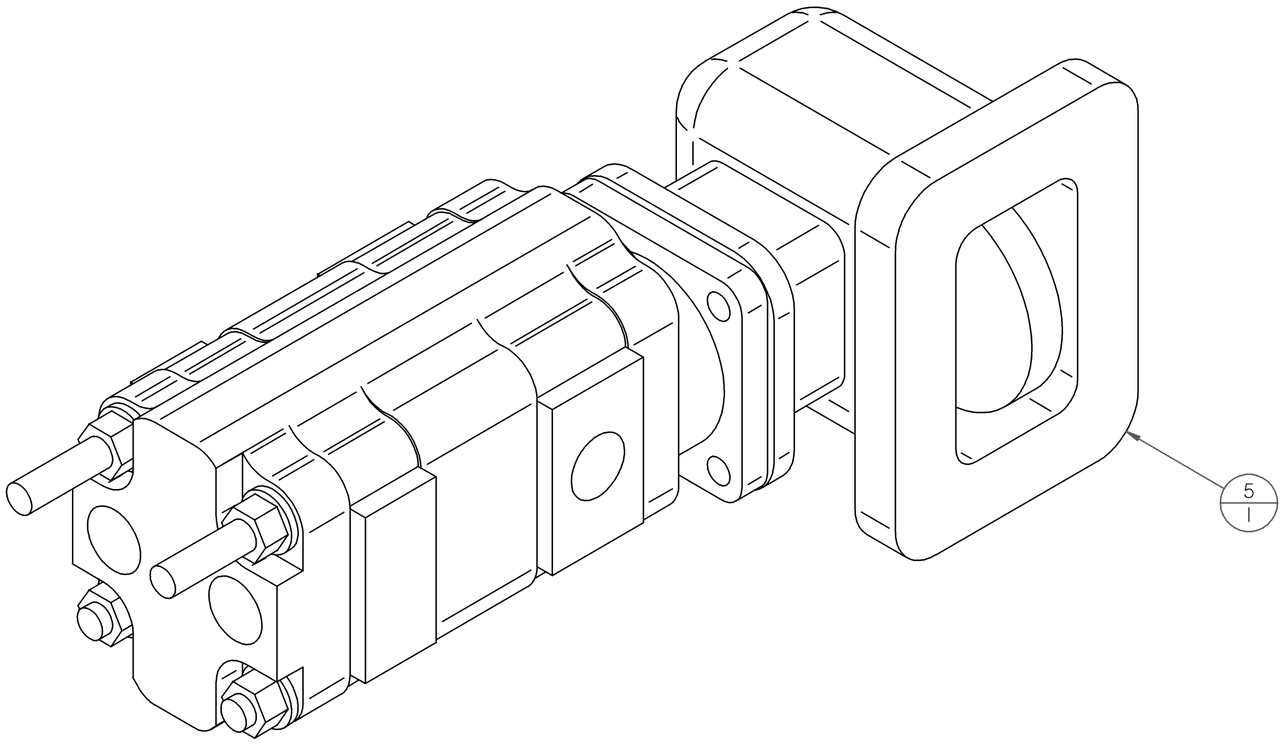
PROJECT

TITLE: PTO ASM 150 PAD
UNIBODY

DWG NO UH1017A02 | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 6/27/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1"	1		FITTING 90 MNPT/FNPT .125-.125	82089.0202
2"	1		FITTING STR MNPT/FNPT .125-.125	82092.0202
3"	1		FUSE HOLDER WEATHERTIGHT ATO/ATC	231.2902
4"	1		LENS PILOT LIGHT PTO GREEN	231.6882
5	1		PTO 150% SAE GENERIC	283.0409
6"	1		PTO AIR SWITCH BRACKET	285.5144
7"	1		VALVE AIR PROTECTION WM778A	242.0278
8"	1		VALVE BALL ST .25	264.3102

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TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/22/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

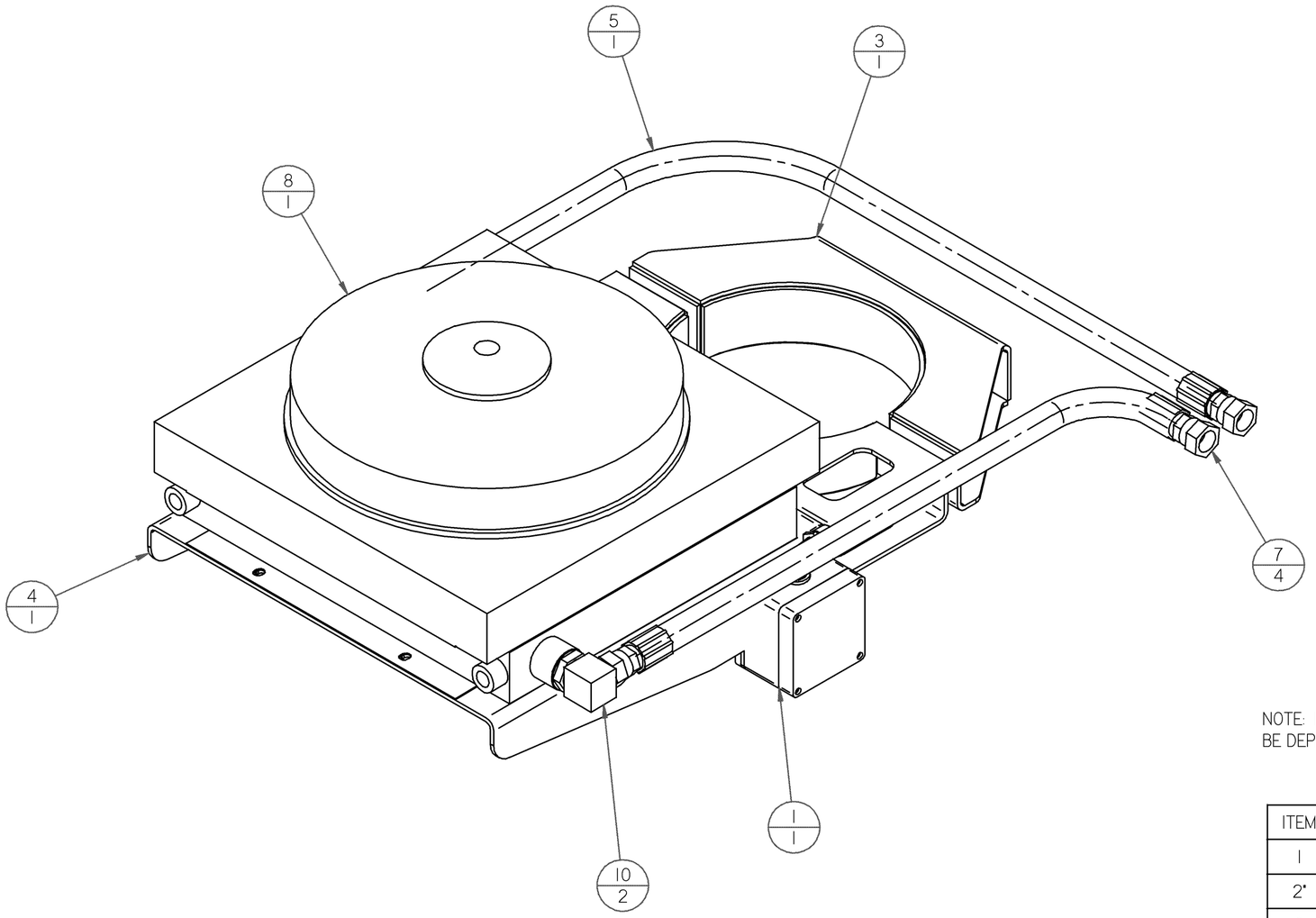
PROJECT

TITLE PTO ASM 150 SAE UNIBODY

DWG NO UH1017A04 | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 3/10/2008



NOTE: HOSE LENGTHS SHOWN ARE ESTIMATES aCTUAL HOSE LENGTHS WILL BE DEPENDANT ON INSTALLATION ORIENTATION

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UH1022A11X	COOLER ELECTRICAL ENCLOSURE ASM	
2*	1	UX1015A13	HOSE REEL MOUNT REEL BRACKET	
3	1	UX1015A14	HOSE REEL MOUNT TUBE BRACKET	
4	1	UH1022P11	HYDRAULIC COOLER MOUNT OAD-16	
5	1		HOSE HYD GATES M3K XTUFF .750 (10 ft)	262.3712
6*	1		HOSE HYD GATES M3K XTUFF .750 (10 ft)	262.3712
7	4		COUPLING GATES HOSE 12-12 F JIC	262.6212
8	1		COOLER HYD OIL OILAIR OAD16-12VDC-C120	264.0090
9*	1		FITTING PLUG MSAE -16	76408.16
10	2		FITTING 90 M37/ADJ MSAE 12-16	76801.1216

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 12/2/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT

TITLE HYDRAULIC COOLER ASM 12V OAD-16

DWG NO UH1022A02X | REV 11 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 1/17/2006

UH2004A03-2

QTY	UOM	MATERIAL DESCRIPTION	MAT'L ID
.02	SQUARE FOOT	ACRYLIC 2 PLY-1/16" BLACK/WHITE/MATTE	220.0100

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TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 12/6/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY HYDRAULIC

TITLE SCHEMATIC LABEL -10 S BLEND

DWG NO UH2004A03EN | REV 2 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 5

Last Changed: 4/23/2008

RUN AUGERS REVERSE

DOWN HANDRAIL UP

LEFT BOOM RIGHT

LOWER BOOM RAISE

RUN AUGERS REVERSE

CV 01

300 PSI

3000 PSI

600 PSI

-12/-16

-06/-08

-12/-12

E 01

OPTIONAL

AUXILLIARY

V 06

IN-OFF AUXILLIARY HYDRAULIC OUT-ON

V 01

M 05

VERTICAL AUGER

DISCHARGE AUGER

M 06

IMPORTANT

R PORT MUST BE REFERENCED TO TANK ONLY

V 07

200 PSI

M 04

AUGER SWEEP

BAR

X

V 05

BOOM RAISE

C 01

.047

.075

.100

V 08

TPC

A

B

TPR

CP1

CP2

CR1

CR2

-04/-06

C 02

E 02

25 MICRON

-20

-24

P 01

16 GPM

24 GPM

1.0 IN GEAR

1.5 IN GEAR

PTO

V 04

AIR

EMULSION

M 02

V 03

EF

P

CF

CW-SLOW BLEND SPEED CCW-FAST

V 02

C2

C1

AIR 1

AIR 2

EMULSION BLEND 1 RATIO ANFO

PRILL

M 01

MINIMUM FUEL OIL RATIO MAXIMUM

FUEL OIL

M 03

OPTION 2

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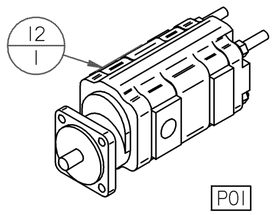
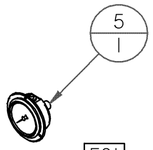
	THIRD ANGLE PROJECTION	PROJECT: UNIBODY HYDRAULIC	
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: rduncan	TITLE: SCHEMATIC LABEL -10 S BLEND	
	DATE: 12/6/2005	DWG NO: UH2004A03EN	REV: 2 / SIZE: C
	APPR.	WEIGHT: 0.0 lbm	SHEET: 2 OF 5

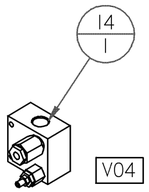
Last Changed: 4/23/2008

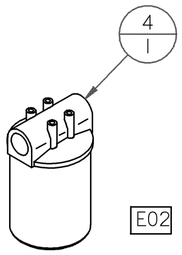


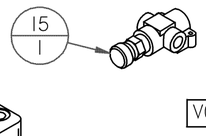
PUMP SHOWN FOR REFERENCE ONLY

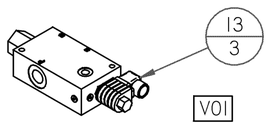
ACTUAL PUMP WILL DEPEND ON
CHASSIS AND PTO SELECTION

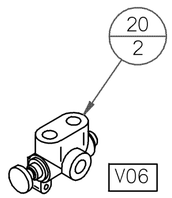


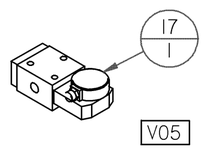


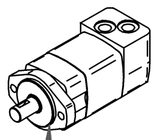


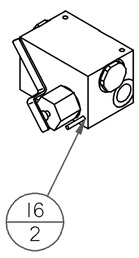


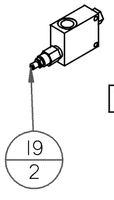


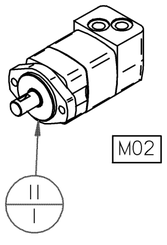


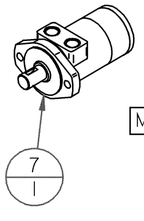


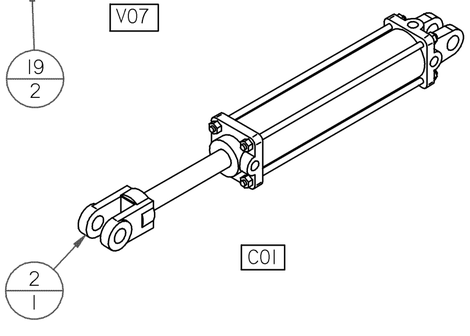


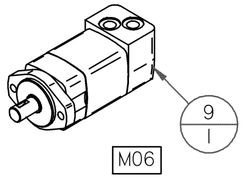


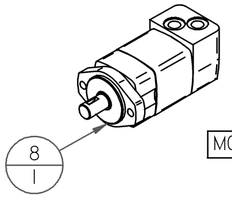


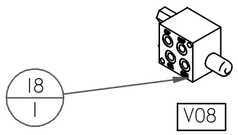


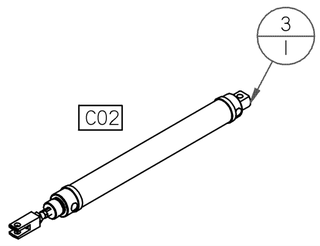












COMPONENTS SHOWN ARE FOR 12 VDC SYSTEMS ONLY

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UH1014A12X	10- 12V AUGER VALVE ASM.	UH1014A12X
2	1		CYLINDER BOOM 3 X 12 -08 SAE	261.3012
3	1		CYLINDER HYD 1.5 BORE X 12 STROKE	260.1028
4	1		FILTER RETURN FSP212-1JDNH	260.2781
5	1		GAUGE 2.5" 5000 PSI .25 MNPT BACK CONN	260.7017
6	1		MOTOR 101-2473 CHAR LYNN (2.2 IN^3) CP	263.5435
7	1		MOTOR 101-2474 CHAR LYNN (17.9 IN^3) CP	263.5439
8	1		MOTOR 104-1533 CHAR LYNN (14.9 IN^3) CP	263.5431
9	1		MOTOR 104-1534 CHAR LYNN (18.7 IN^3) CP	263.5433
10	1		MOTOR 104-3498 CHAR LYNN 14.9 CP SS CIR	263.5472
11	1		MOTOR 104-XXX4 CHAR LYNN 9.6 CP SS CIRC	263.5468
12	1		PUMP PERMCO 1.5/1.0 B/R SAE B FLANGE	263.1520
13	3		VALVE 2 POS 3 WAY 30 GPM ASSY 12 VDC	264.0141
14	1		VALVE 7AR15 WITH AIR CARTRIDGE ACTUATOR	264.3700
15	1		VALVE FLOW CONTROL BUCHER 0-17.2 GPM	264.3053
16	2		VALVE FLOW DIVIDER ADJUST PROPORTIONAL	264.3001
17	1		VALVE HYD SWING GUARD HAWE #SG3G-AK	264.2013
18	1		VALVE HYDRAULIC HANDRAIL CONTROL UNIBODY	264.0174
19	2		VALVE RELIEF SUN 200 PSI REV FREE FLO	260.2820
20	2		VALVE S-12 SELECTOR	264.3512

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 12/6/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

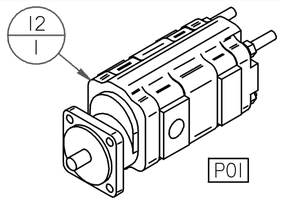
PROJECT UNIBODY HYDRAULIC

TITLE SCHEMATIC LABEL -10 S BLEND

DWG NO UH2004A03EN | REV 2 | SIZE C

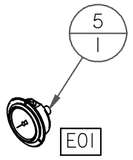
WEIGHT 0.0 lbm | SHEET 3 OF 5

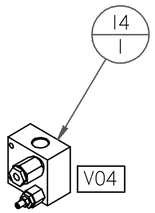
Last Changed: 4/23/2008

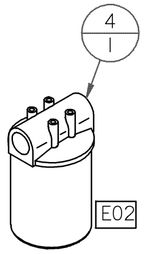


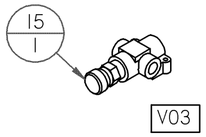
PUMP SHOWN FOR REFERENCE ONLY

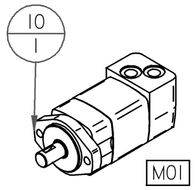
ACTUAL PUMP WILL DEPEND ON
CHASSIS AND PTO SELECTION

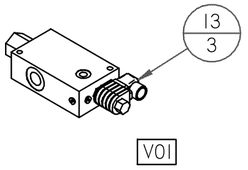


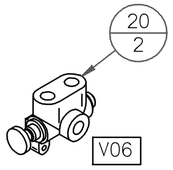


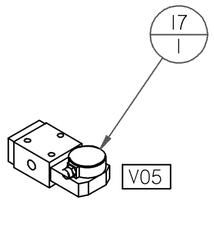


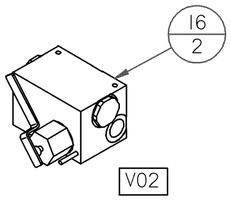


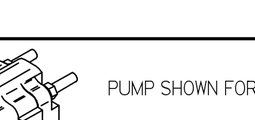


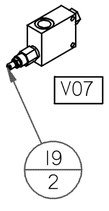


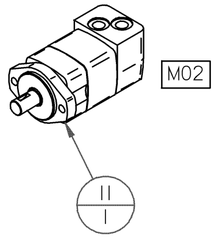


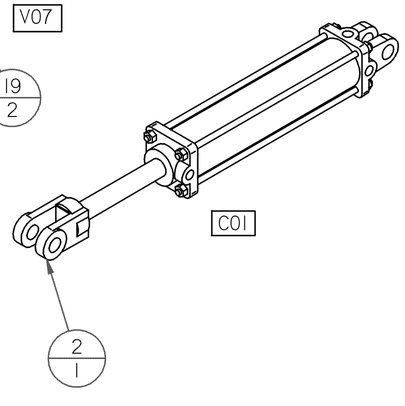


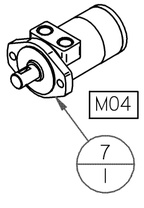


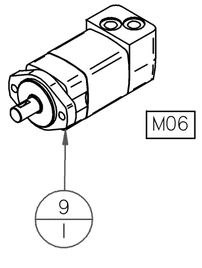


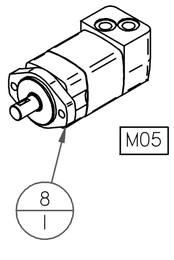


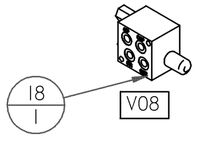


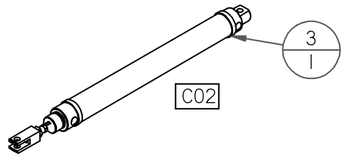












COMPONENTS SHOWN ARE FOR 24 VDC SYSTEMS ONLY

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UH1014A12Z	10- 24V AUGER VALVE ASM.	UH1014A12Z
2	1		CYLINDER BOOM 3 X 12 -08 SAE	261.3012
3	1		CYLINDER HYD 1.5 BORE X 12 STROKE	260.1028
4	1		FILTER RETURN FSP212-1JDNH	260.2781
5	1		GAUGE 2.5" 5000 PSI .25 MNPT BACK CONN	260.7017
6	1		MOTOR 101-2473 CHAR LYNN (2.2 IN^3) CP	263.5435
7	1		MOTOR 101-2474 CHAR LYNN (17.9 IN^3) CP	263.5439
8	1		MOTOR 104-1533 CHAR LYNN (14.9 IN^3) CP	263.5431
9	1		MOTOR 104-1534 CHAR LYNN (18.7 IN^3) CP	263.5433
10	1		MOTOR 104-3498 CHAR LYNN 14.9 CP SS CIR	263.5472
11	1		MOTOR 104-XXX4 CHAR LYNN 9.6 CP SS CIRC	263.5468
12	1		PUMP PERMCO 1.5/1.0 B/R SAE B FLANGE	263.1520
13	3		VALVE 2 POS 3 WAY 30 GPM ASSY 24 VDC	264.0142
14	1		VALVE 7AR15 WITH AIR CARTRIDGE ACTUATOR	264.3700
15	1		VALVE FLOW CONTROL BUCHER 0-17.2 GPM	264.3053
16	2		VALVE FLOW DIVIDER ADJUST PROPORTIONAL	264.3001
17	1		VALVE HYD SWING GUARD HAWE #SG3G-AK	264.2013
18	1		VALVE HYDRAULIC HANDRAIL CONTROL UNIBODY	264.0174
19	2		VALVE RELIEF SUN 200 PSI REV FREE FLO	260.2820
20	2		VALVE S-12 SELECTOR	264.3512

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 12/6/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY HYDRAULIC

TITLE SCHEMATIC LABEL -10 S BLEND

DWG NO UH2004A03EN | REV 2 | SIZE C

WEIGHT 0.0 lbm | SHEET 4 OF 5

Last Changed: 4/23/2008

UH2004A03-2

UH2005A01-1

QTY	UOM	MATERIAL DESCRIPTION	MAT'L ID
.02	SQUARE FOOT	ACRYLIC 2 PLY-1/16" BLACK/WHITE/MATTE	220.0100

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DRAWN rduncan
DATE 12/6/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY HYDRAULIC

TITLE SCHEMATIC LABEL PUMP DCC+FHR

DWG NO UH2005A01EN | REV 1 | SIZE C

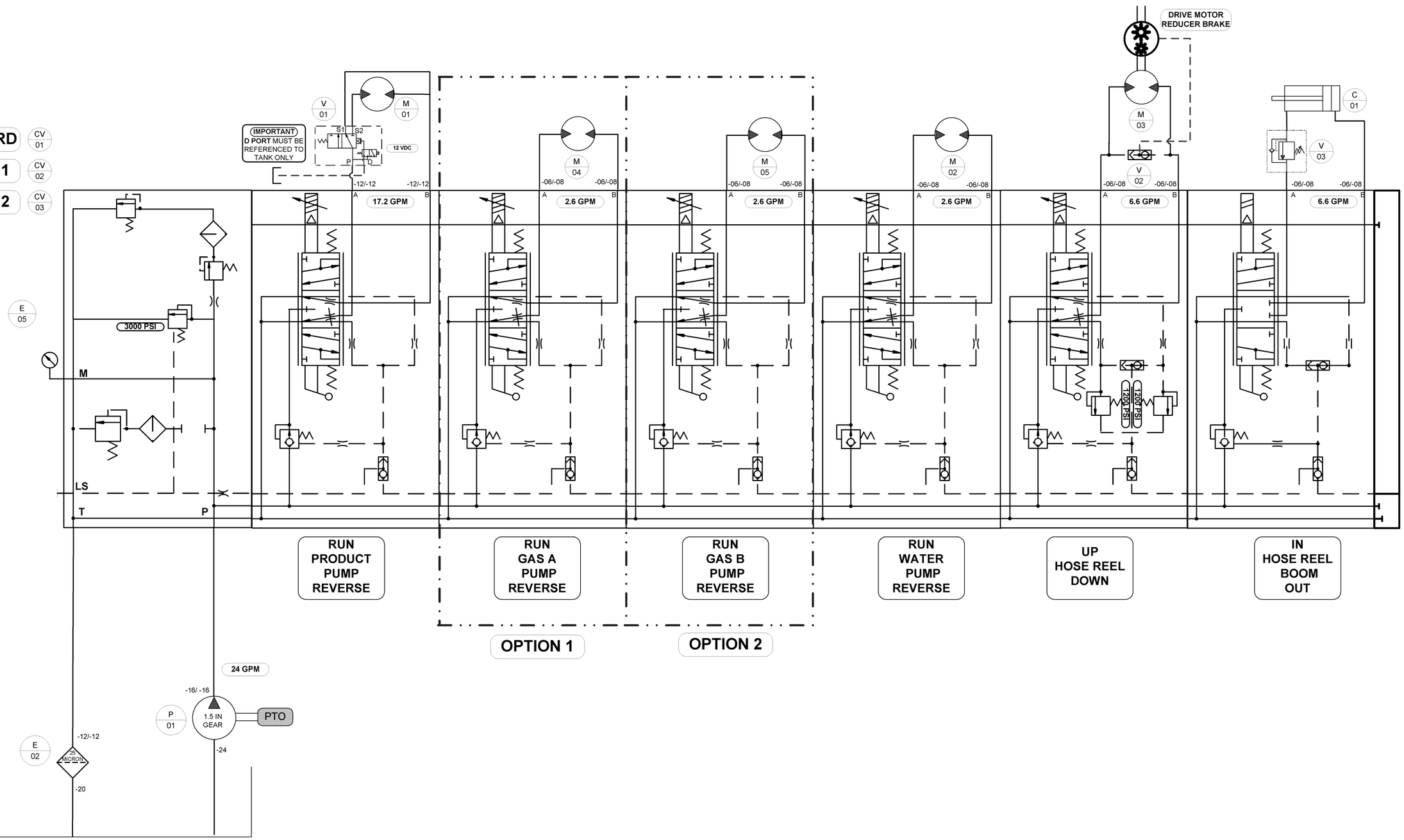
WEIGHT 0.0 lbm | SHEET 1 OF 5

Last Changed: 7/25/2008

STANDARD CV 01

OPTION 1 CV 02

OPTION 2 CV 03



Last Changed: 7/25/2008

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DRAWN rduncan
DATE 12/6/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY HYDRAULIC

TITLE SCHEMATIC LABEL PUMP DCC+FHR

DWG NO UH2005A01EN | REV I | SIZE C

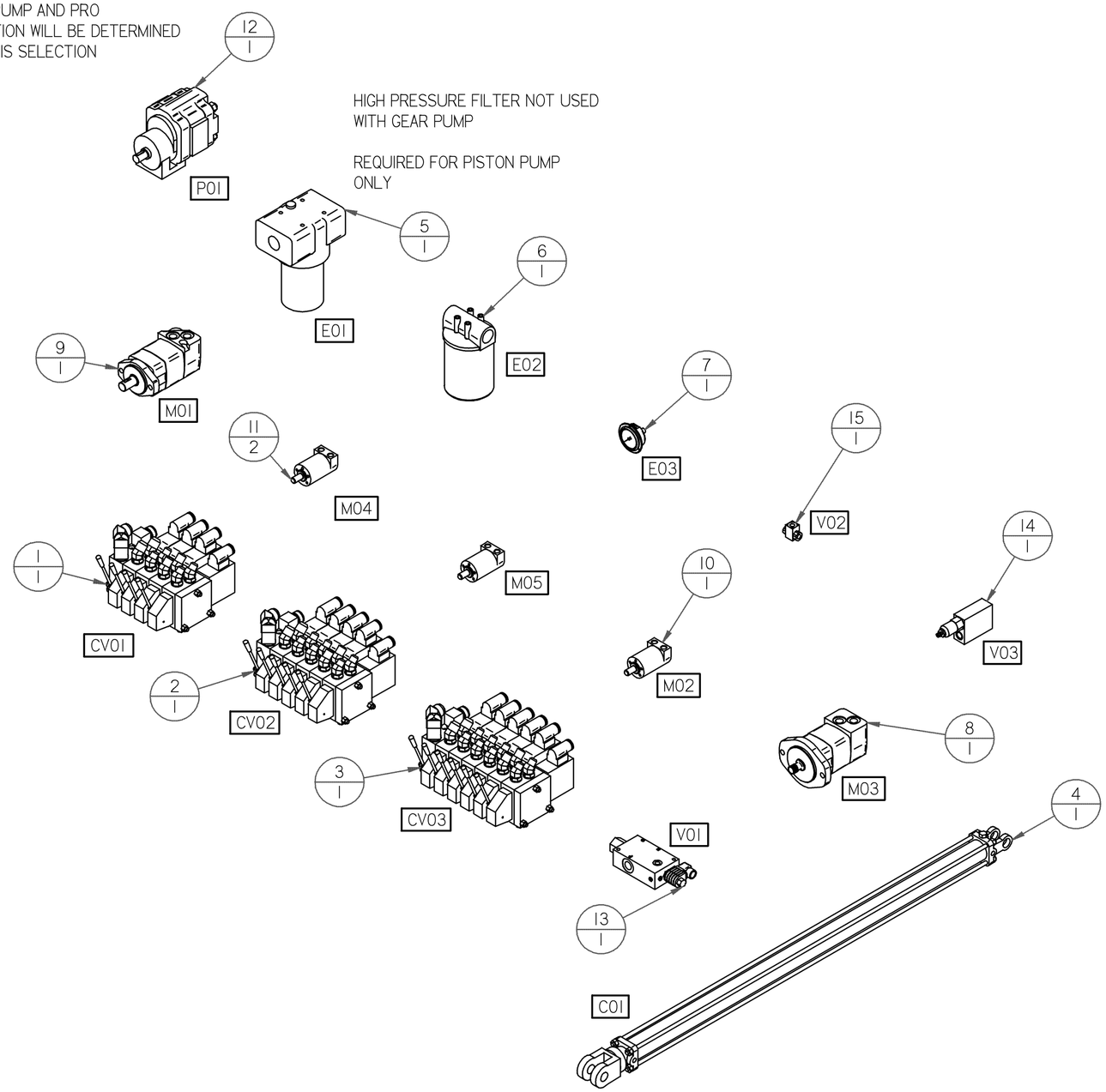
WEIGHT 0.0 lbm | SHEET 2 OF 5

PUMP SHOWN FOR REFERENCE ONLY

ACTUAL PUMP AND PRO COMBINATION WILL BE DETERMINED BY CHASSIS SELECTION

HIGH PRESSURE FILTER NOT USED WITH GEAR PUMP

REQUIRED FOR PISTON PUMP ONLY



GASSING MOTORS SHOWN FOR REFERENCE ONLY
ACTUAL MOTORS DEPEND ON GASSING RATE SELECTION

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UH1011A23	DANFOSS PUMPING VALVE ASSY 0 GAS	UH1011A23
2	1	UH1011A22	DANFOSS PUMPING VALVE ASSY 1 GAS	UH1011A22
3	1	UH1011A21	DANFOSS PUMPING VALVE ASSY 2 GAS	UH1011A21
4	1		CYLINDER HOSE REEL BOOM 2 X48	261.2048
5	1		FILTER HIGH PRESSURE 50 GPM	264.0117
6	1		FILTER RETURN FSP212-1JDNH	260.2781
7	1		GAUGE 2.5" 5000 PSI .25 MNPT BACK CONN	260.7017
8	1		MOTOR 104-1218 CHAR LYNN 8.0 13T SPLINE	263.5477
9	1		MOTOR 104-3497 CHAR LYNN 11.9 CP SS CIR	263.5470
10	1		MOTOR 129-0017 CHAR LYNN (0.50 IN^3)	263.5413
11	2		MOTOR 129-XXXX (REFER TO ENGR DWG)	263.5413
12	1		PUMP PERMCO 1.5 B/R PAD MOUNT	263.1522
13	1		VALVE 2 POS 3 WAY 30 GPM ASSY 12 VDC	264.0141
14	1		VALVE COUNTERBALANCE 1B12P38S	264.0123
15	1		VALVE SHUTTLE HYDRAULIC BALL TYPE	264.0095

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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 12/6/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY HYDRAULIC

TITLE SCHEMATIC LABEL PUMP DCC+FHR

DWG NO UH2005A01EN | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 3 OF 5

Last Changed: 7/25/2008

TREAD BLEND PUMPING
DCC+ Series Control System

HYDRAULIC MOTORS & FLOWS

DEVICE	Estimated LPVH (lb/min)	HYDRAU-LIC MOTOR	750 PPM EMUL 70%
PRODUCT PUMP ALLWEILER 380.2 2.5 PPR @ 1.25	840	104-XXXX 11.9 CIR SS	750 PPM 300 RPM 15.9 GPM
GAS A @ 0.40 % GENERAL 2315 0.011 PPR @ 1.0	XX	129-0019 1.21 CIR	3.00 PPM 275 RPM 1.5 GPM
GAS B @ 0.40 % GENERAL 2315 0.011 PPR @ 1.0	XX	129-0019 1.21 CIR	3.00 PPM 275 RPM 1.5 GPM
WATER @ 2.5% CAT 431 0.040 PPR @ 1.0	48	129-0017 0.50 CIR	19 PPM 475 RPM 1.1 GPM
HOSE REEL CAB 5 FT DRUM DIA.	NA	104-1218 8.0 CIR	XX RPM XX RPM 6.0 GPM
TOTAL PUMPING VALVE FLOW			26.0 GPM
TOTAL PUMP FLOW, GPM			26.0 GPM

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ANGULARITY = ± 0.5 DEG

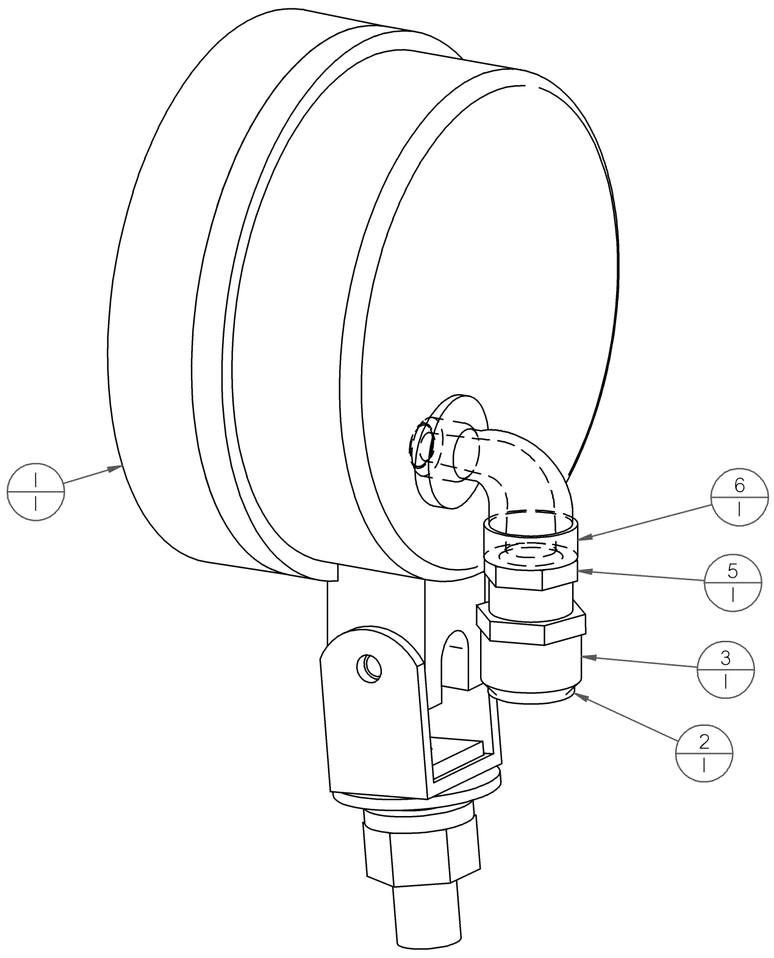
DRAWN rduncan
DATE 12/6/2005
APPR.

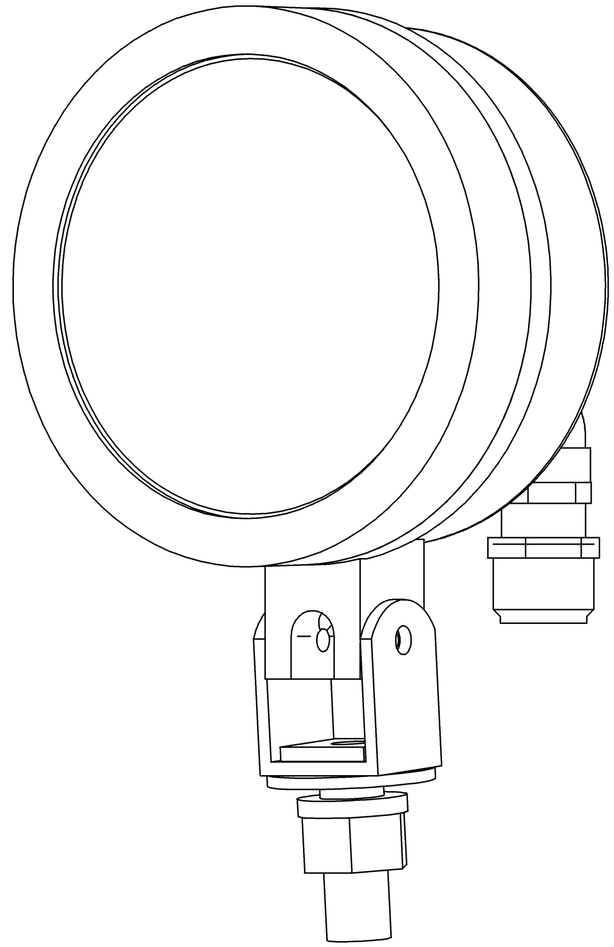
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY HYDRAULIC
TITLE SCHEMATIC LABEL PUMP DCC+FHR
DWG NO UH2005A01EN
REV I
SIZE C
WEIGHT 0.0 lbm
SHEET 4 OF 5

Last Changed: 7/25/2008

UH2005401-1





ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1		LIGHT FLOOD BETTS 12VDC .25 NPT ENTRY	231.5312
2	1		FITTING BODY HARNESSFLEX STRAIGHT NC12	231.6204
3	1		FITTING CAP NUT HARNESSFLEX NC12	231.6208
4"	1		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
5	1		CONDUIT THREAD REDUCER HARNESSFLEX PTR0907	231.6217
6	1		ELBOW STREET 90 SS S40 .25 THD	273.2503

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN L WILLIAMS
DATE 6/28/2003
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

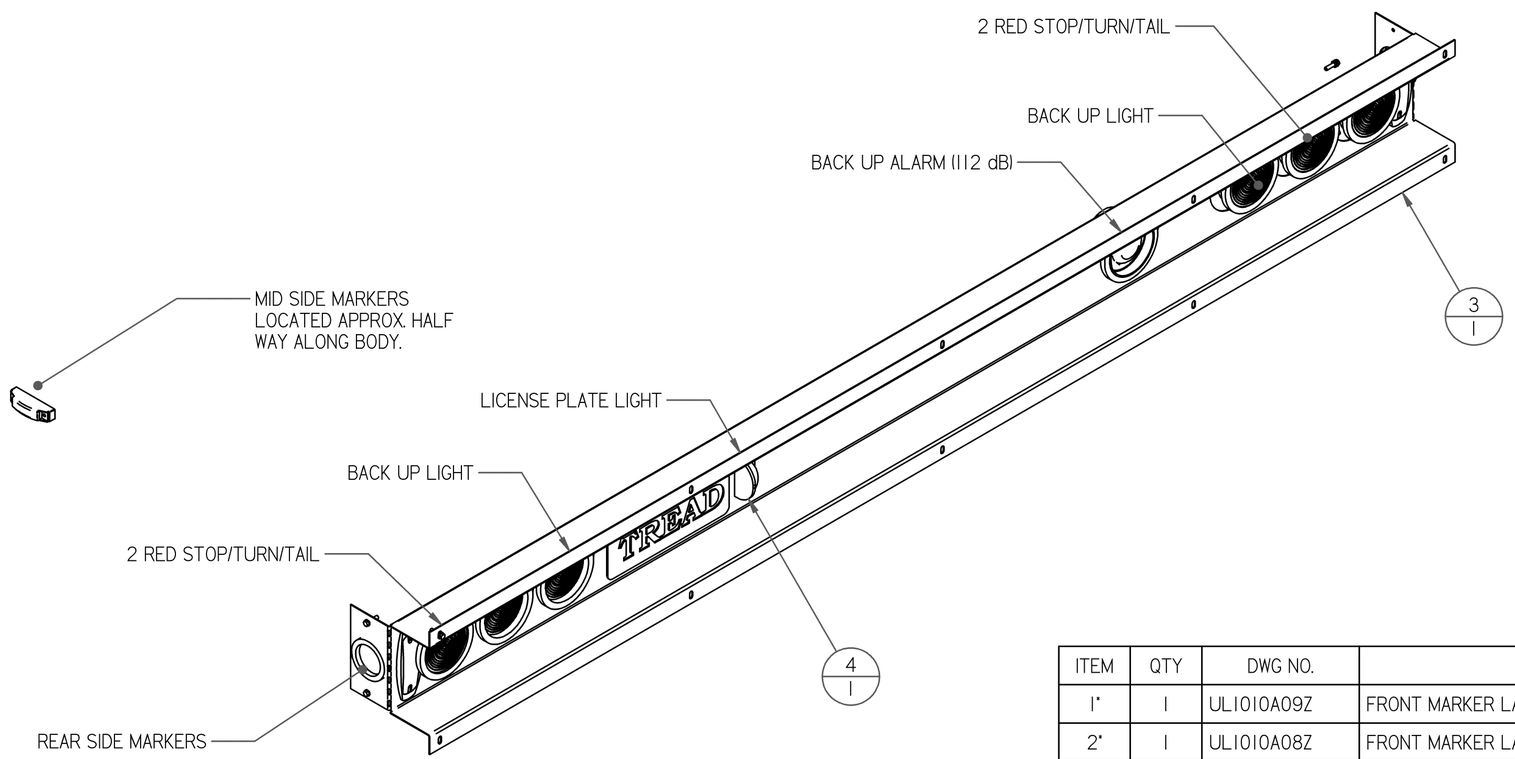
PROJECT UNIBODY

TITLE FLOOD LIGHT ASM WITH CONDUIT ADAP 12V
FLOOD LIGHT ASSY

DWG NO. UL1000A01X | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 3/10/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1*	1	UL1010A09Z	FRONT MARKER LAMP ASM RH	UL10101A08Z
2*	1	UL1010A08Z	FRONT MARKER LAMP ASM LH	UL10101A08Z
3	1	TC04001	LIGHT INSERT 42 SERIES 12 VOLT	
4	1	TC01785	GROTE LIGHT KIT ID LED 12 VOLT	231.9012
5*	1	TC01768	LIGHT KIT BUMPER 12V HARNESS LED 4 WIRE	231.8012
6*	2	TC01735	MARKER LAMP 12V GROTE RED REFLECTOR	231.6068
7*	5	TC01060	WASHER PLAIN FLAT .25 SS	960.3014
8*	5	TC00327	SCREW TAP HEX WASHER HD .25 X 1.00 SS	921.3094

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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN L WILLIAMS
DATE 11/16/2009
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

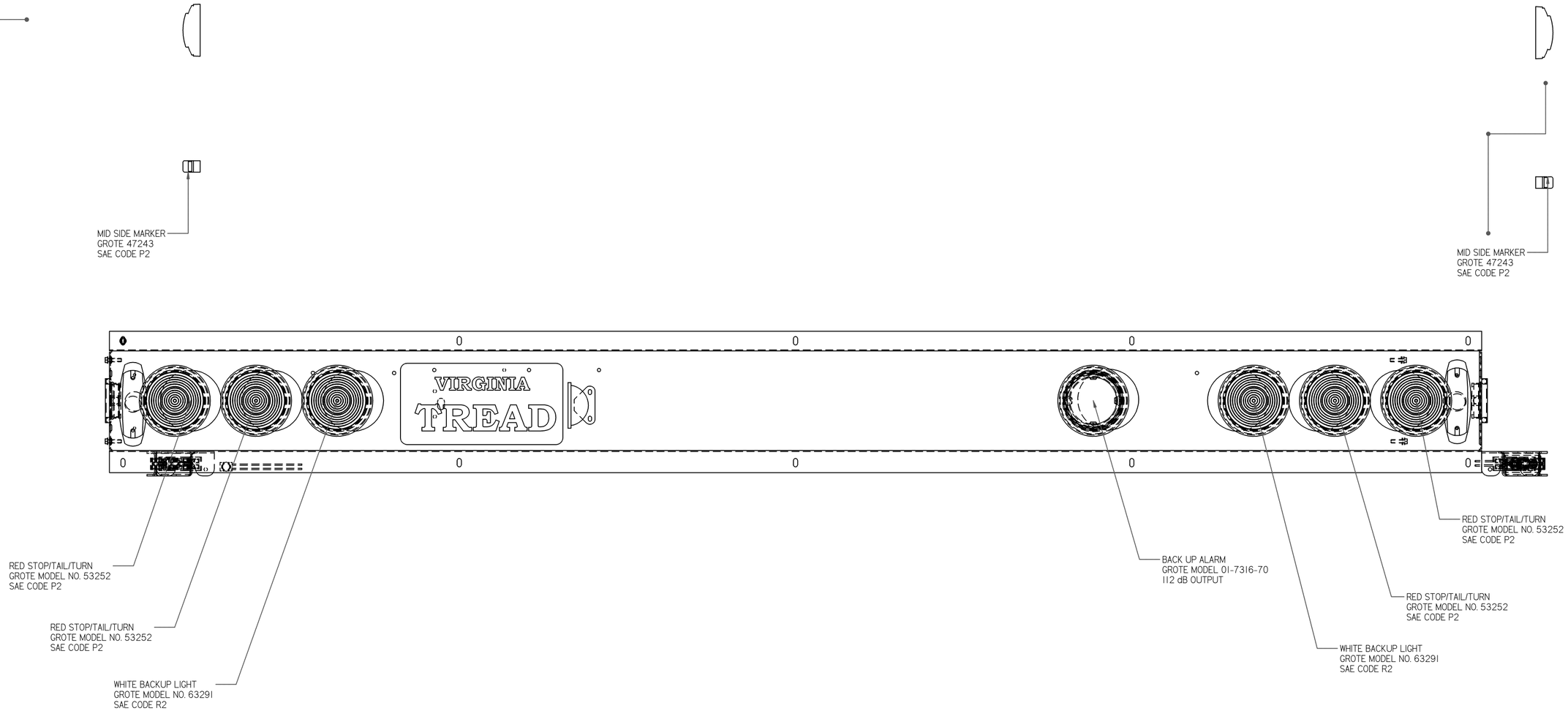
PROJECT LIGHT ASM HWY 42-12V SSTR/HR 4 W

TITLE LIGHT ASM HWY 42-12V SSTR/HR 4 WIRE
UNIBODY WITH HOSEREEL OPTION 42XX SERIES

DWG NO UL1004A06X | REV 01 | SIZE C

WEIGHT 57.8 lbm | SHEET 1 OF 2

Last Changed: 11/20/2009



Last Changed: 11/20/2009

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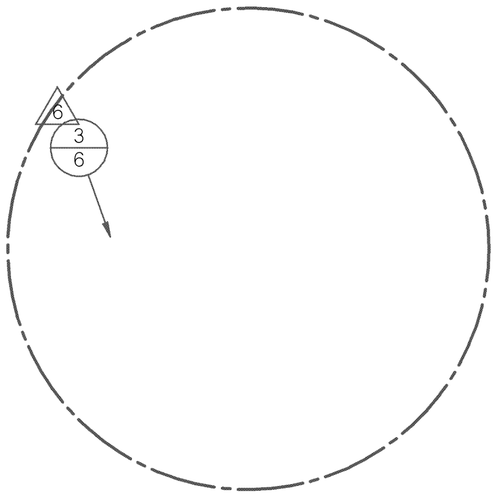
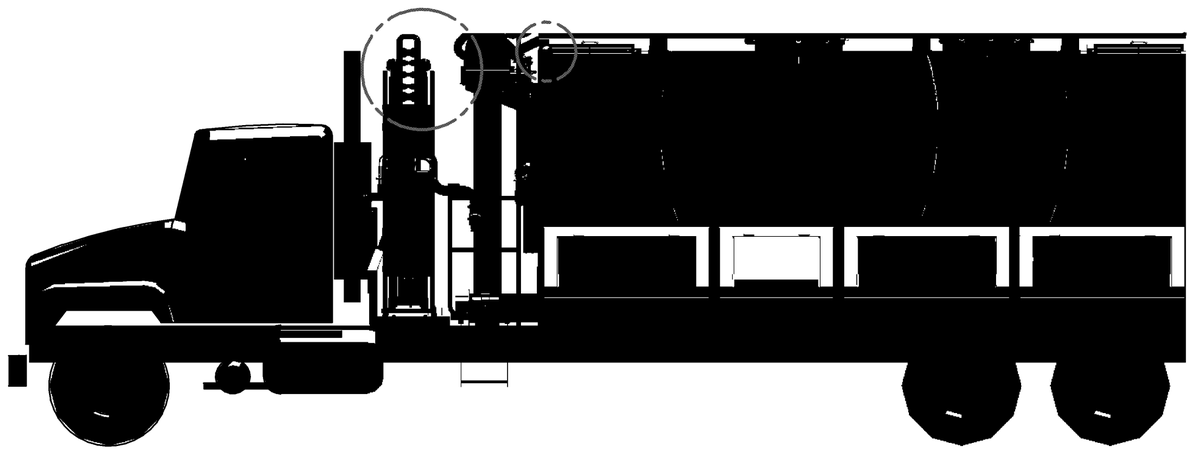
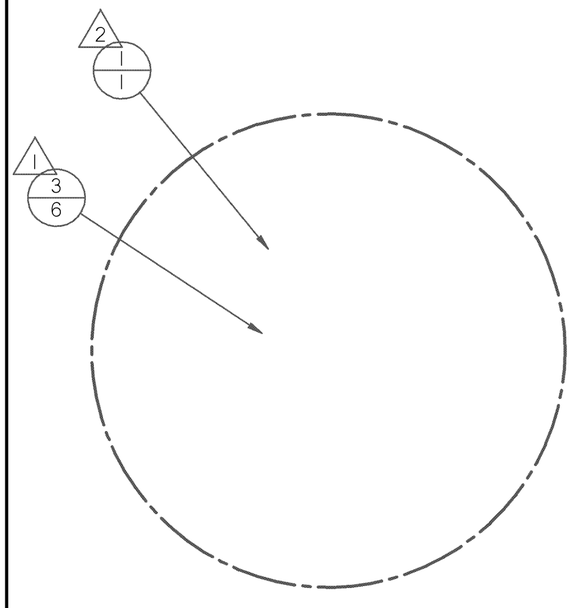
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL X = ± .100 DECIMAL .XX = ± .020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: L. WILLIAMS DATE: 11/16/2009 APPR:	PROJECT: LIGHT ASM HWY 42-12V SSTR/HR 4 W TITLE: LIGHT ASM HWY 42-12V SSTR/HR 4 WIRE UNIBODY WITH HOSEREEL OPTION 42XX SERIES DWG NO: ULI004A06X REV: 01 SIZE: D WEIGHT: 57.8 lbm SHEET: 2 OF 2



DETAIL C





DETAIL A

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UL1005P02	LIGHT BRACKET WALKWAY MOUNT	UL1005P02
2	3	UL1005P01	FLOOD LIGHT MTG BRACKET	UL1005P01
3	6	UL1000A01X	FLOOD LIGHT ASM WITH CONDUIT ADAP 12V	UL1000A01X
4	1	UC1053A14	FLOOD/STROBE LIGHT CONTROL BOX RELAY 12V	UC1053A14
5"	250		CONDUIT HARNESSFLEX NC12 UNSLIT	231.6200
6"	3		GROMMET RUBBER BUNA N 3/16 GRV 7/8 HOLE	400.0066
7"	6		NUT HEX .25-20 SS	950.3014
8"	6		SCREW CAP HEX HEAD .25-20X.75 SS	900.3074

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN LWILLIAMS
DATE 7/7/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

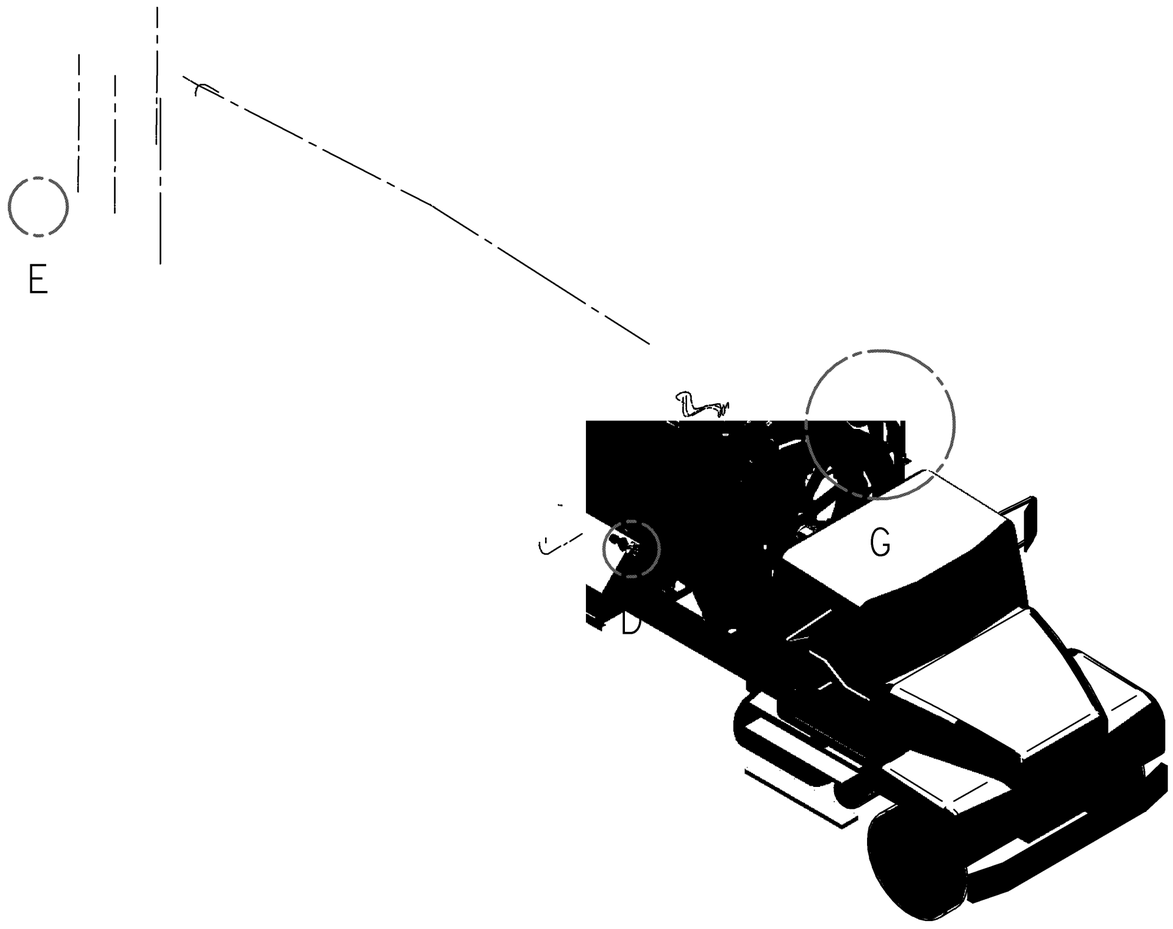
PROJECT UNIBODY

TITLE FLOOD LIGHT ASM 12V FHR
UNIBODY

DWG NO UL1005A03X | REV 1 | SIZE C

WEIGHT 19070.3 lbm | SHEET 1 OF 2

Last Changed: 1/12/2009



DETAIL G

DETAIL D

DETAIL E

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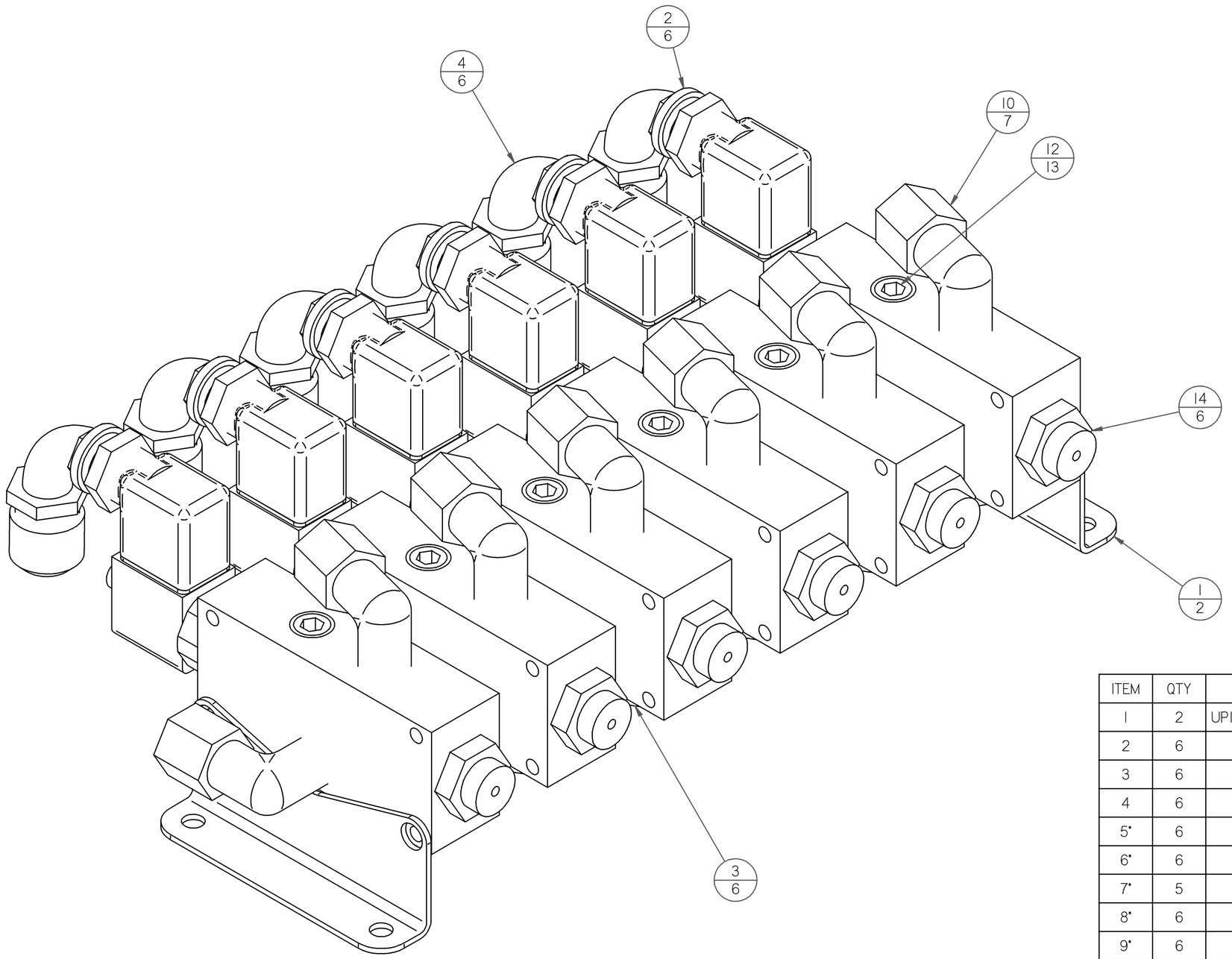
THIRD ANGLE PROJECTION

DRAWN LWILLIAMS
DATE 7/7/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT UNIBODY
TITLE FLOOD LIGHT ASM 12V FHR
UNIBODY
DWG NO UL1005A03X
REV 1
SIZE C
WEIGHT 19070.3 lbm
SHEET 2 OF 2

Last Changed: 1/12/2009



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	2	UP1013P01	AIR VALVE ASSEMBLY MOUNTING BRACKET	UP1013P01
2	6		CONNECTOR SOLENOID MINI-DIN 24V LED	242.6024
3	6		FILTER EXHAUST AIRDRAULIC	239.0252
4	6		FITTING BODY HARNESSFLEX 90 DEG NC12	231.6205
5*	6		FITTING CAP NUT HARNESSFLEX NC12	231.6208
6*	6		FITTING LOCKNUT HARNESSFLEX PG09 THRD	231.6212
7*	5		FITTING NIPPLE MNPT/MNPT .25-.25	82083.0404
8*	6		FITTING SEALING BUSHING HARNESSFLEX NC12	231.6210
9*	6		FITTING SEALING WASHER HARNESSFLEX SWPG9	231.6214
10	7		FITTING TUBE 90 JACO .375-.25 MNPT	274.9870
11*	4		NUT HEX #10-24 SS	950.1814
12	13		PLUG PIPE HEX SC HD ST .25 NPT	271.8002
13*	4		SCREW MACHINE SL ROUND HD #10-24X1.50 SS	915.1914
14	6		VALVE FABCO AIR 12V SOLENOID SPRG RETURN	242.1257
15*	4		WASHER SPRING LOCK #10 SS	966.1814

For In-Cab Pumping Controls, the valves are used as follows:
1 - Product Pump Blowdown
2 - Water Ring Blowdown
3 - Vibrator 1
4 - Vibrator 2
5 - Vibrator 3
6 - Vibrator 4

SOLID EDGE DEMO COPY

Last Changed: 5/30/2008

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THIRD ANGLE PROJECTION

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN TBARHAM
DATE 5/18/2004
APPR.

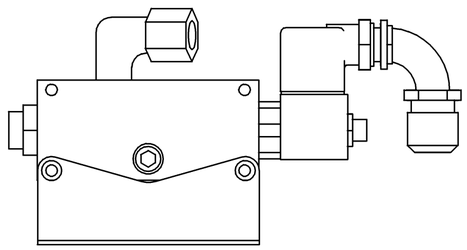
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

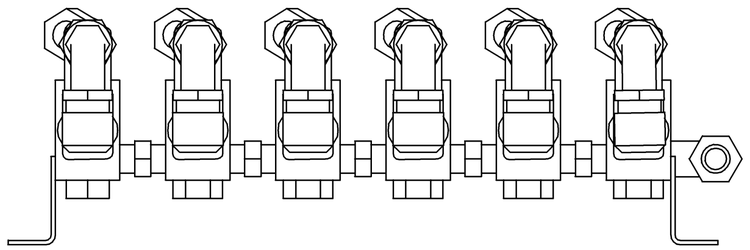
PROJECT UNIBODY

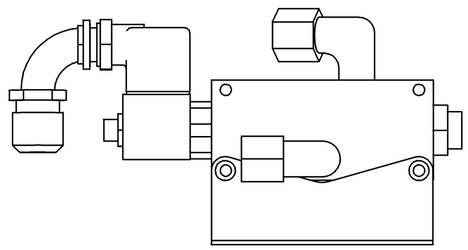
TITLE AIR VALVE ASM 12V
BLOW-DOWN AND VIBRATORS

DWG NO UP1013A01X | REV 1 | SIZE C

WEIGHT 5.5 lbm | SHEET 1 OF 2







SOLID EDGE DEMO COPY

Last Changed: 5/30/2008

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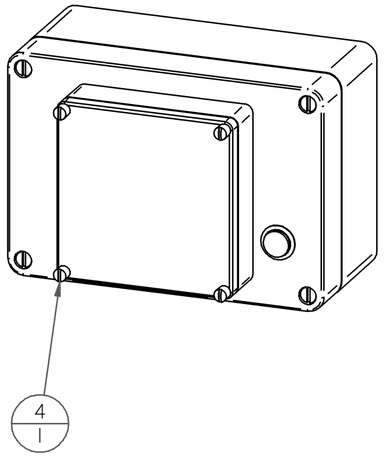
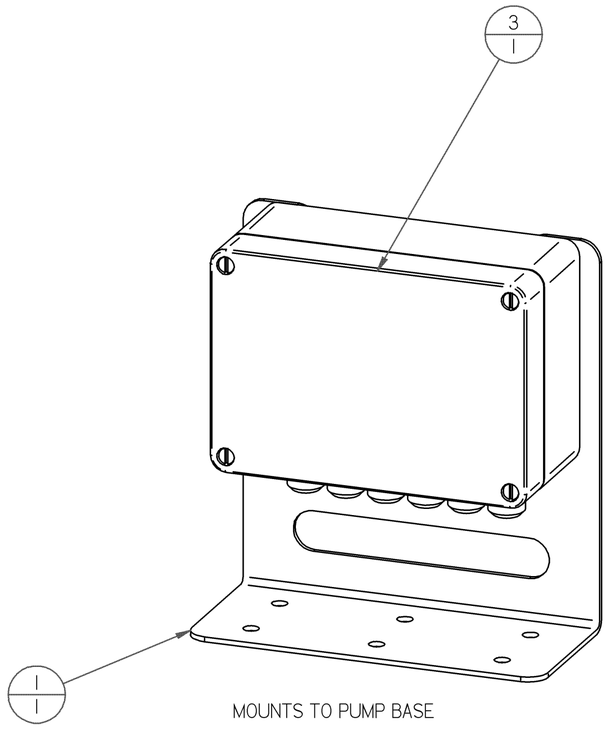
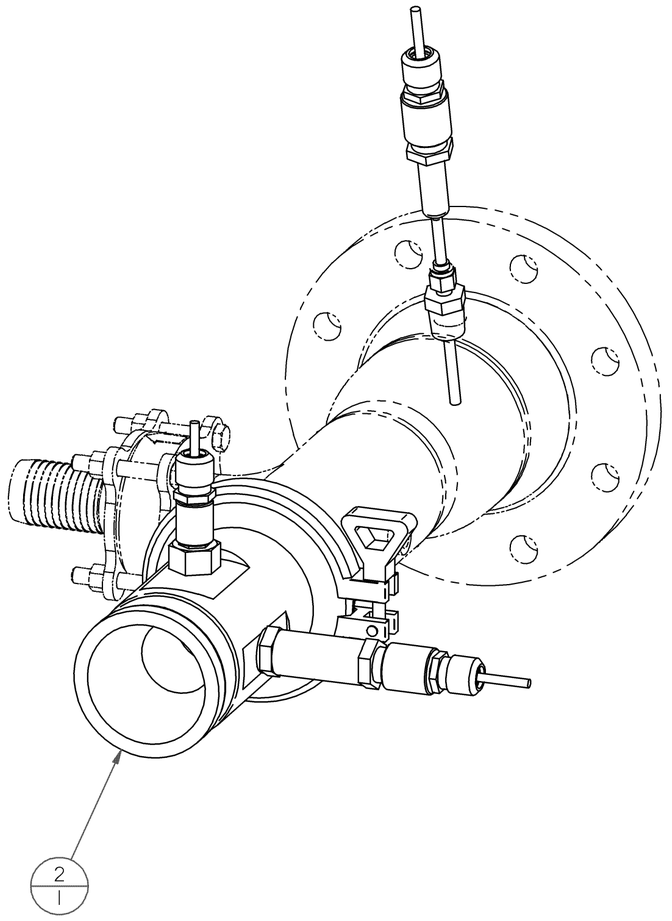
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ± .020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN TBARHAM DATE 5/18/2004 APPR.	PROJECT UNIBODY TITLE AIR VALVE ASM 12V BLOW-DOWN AND VIBRATORS DWG NO UP1013A01X · REV 1 · SIZE C WEIGHT 5.5 lbm · SHEET 2 OF 2





MOUNTS TO PUMP BASE



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UP1015P18	MOUNTING PLATE PUMP PRO J-BOX	UP1015P18
2	1	UP1015A60	PUMPPRO SENSOR ASSEMBLY UNIBORE 3 IN	UP1015A60
3	1	UP1015A30	PUMPPRO JUNCTION BOX ASSEMBLY	UP1015A30
4	1	UP1015A10	PUMPPRO CPU ASSEMBLY	UP1015A10

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN kbarnett
DATE 8/9/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

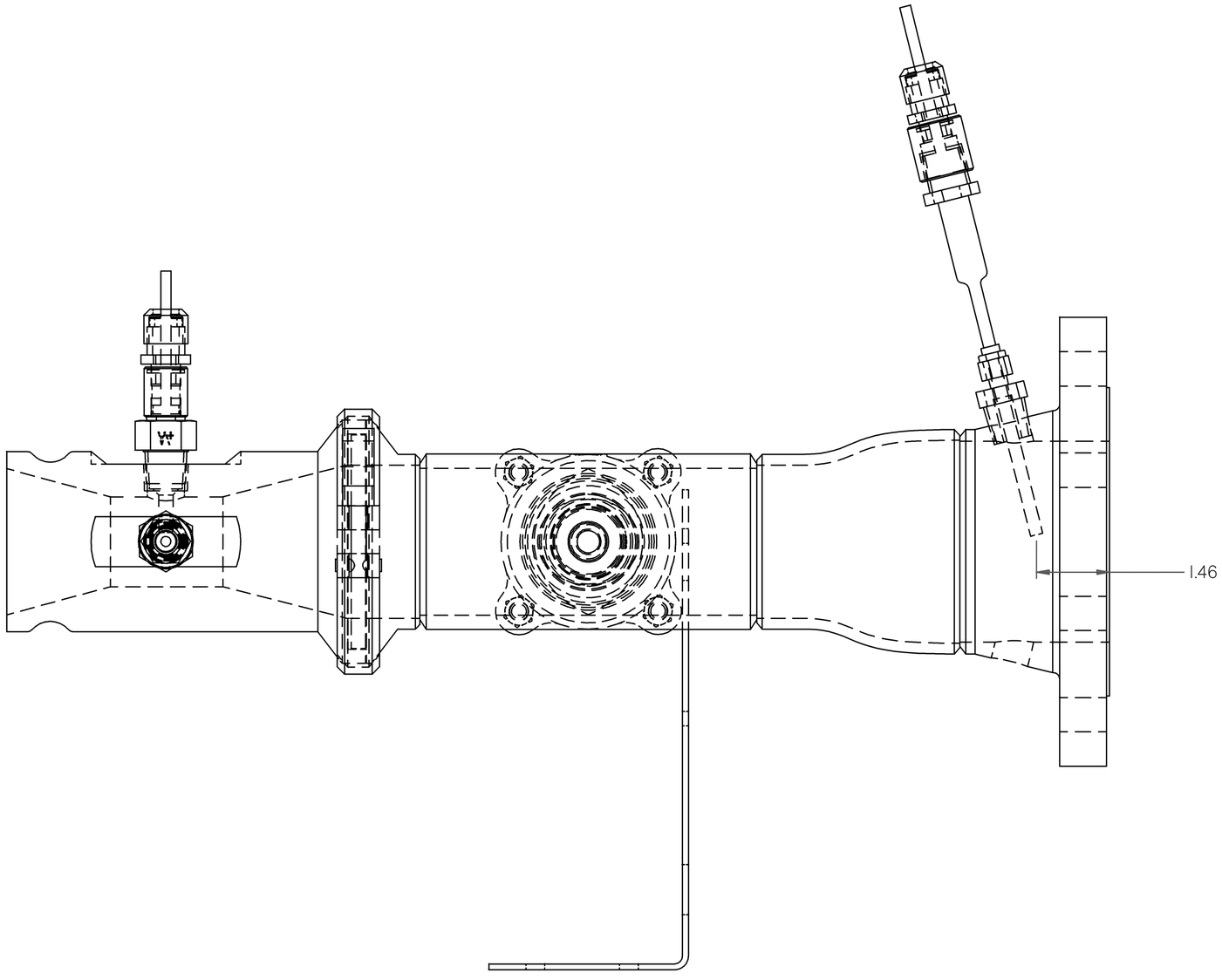
PROJECT

TITLE PUMPPRO ASSEMBLY FOR UNIBODY 3 IN

DWG NO UP1015A02 | REV 1 | SIZE C

WEIGHT 61.4 lbm | SHEET 1 OF 2

Last Changed: 7/14/2008



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DRAWN kbarnett
DATE 8/9/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

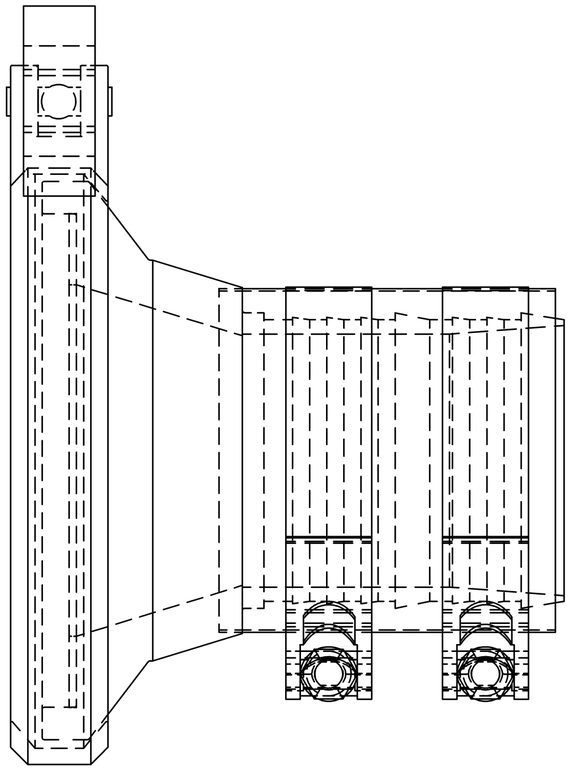
PROJECT

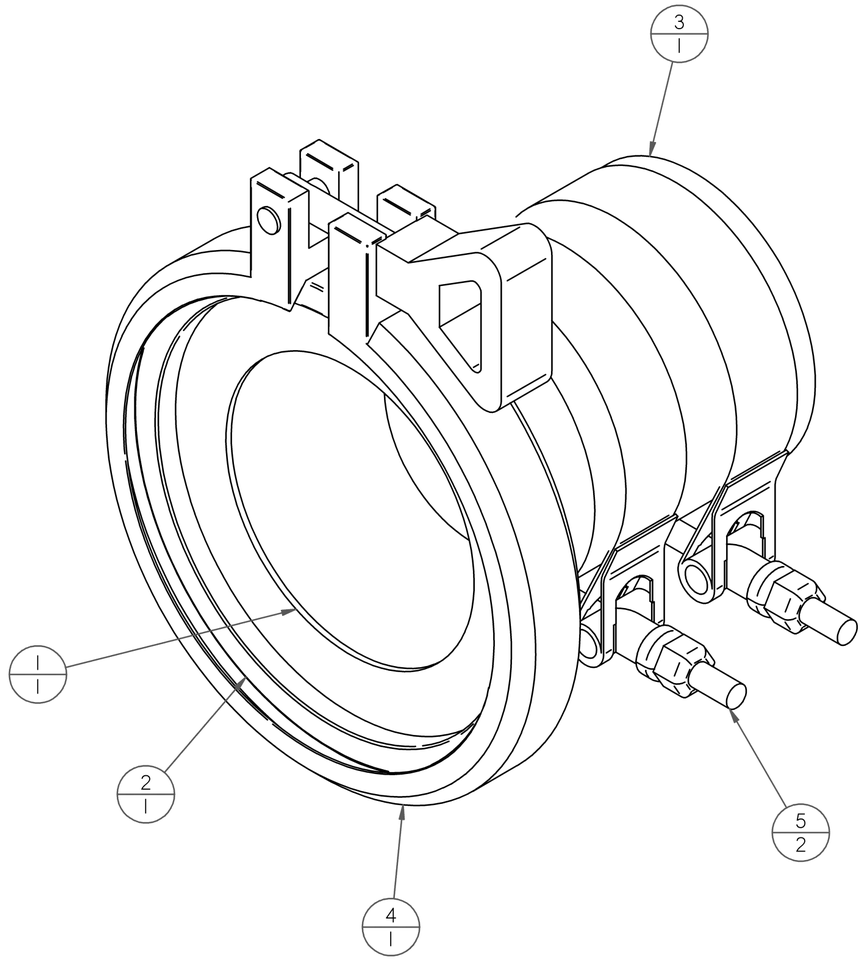
TITLE PUMPPRO ASSEMBLY FOR UNIBODY 3 IN

DWG NO UP1015A02 | REV 1 | SIZE C

WEIGHT 61.4 lbm | SHEET 2 OF 2

Last Changed: 7/14/2008





ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UR1000P27	GASKET TEFLON UNIBORE 3 IN	UR1000P27
2	1	UR1000P24	ADAPTER UNIBORE FEMALE 3 X 2.5 IN HOSE	UR1000P24
3	1	TC02982	HOSE ROYALFLEX 1196 2.5 INCH X 120 FT	240.3388
4	1	TC02017	CLAMP I-LINE 4.0 SS (USE W/UNIBORE 3 IN)	279.8300
5	2	TC00133	CLAMP T BOLT SS 2.50 HOSE 3.12 DIA	240.0921

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN DCOLE
DATE 1/13/2011
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

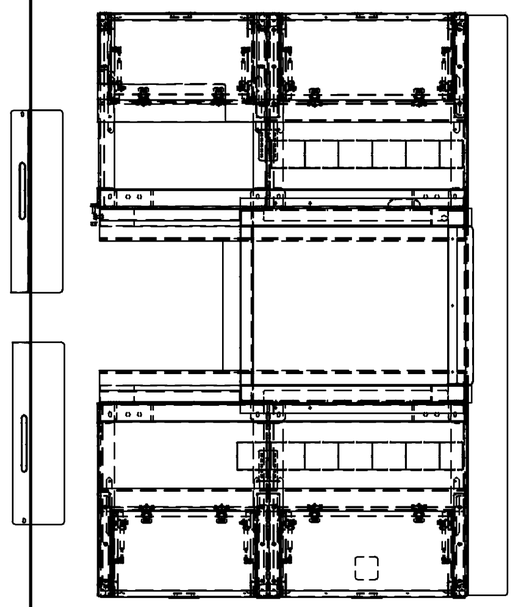
PROJECT HOSE ASM UNIBORE 3 X ROYALFLEX 2

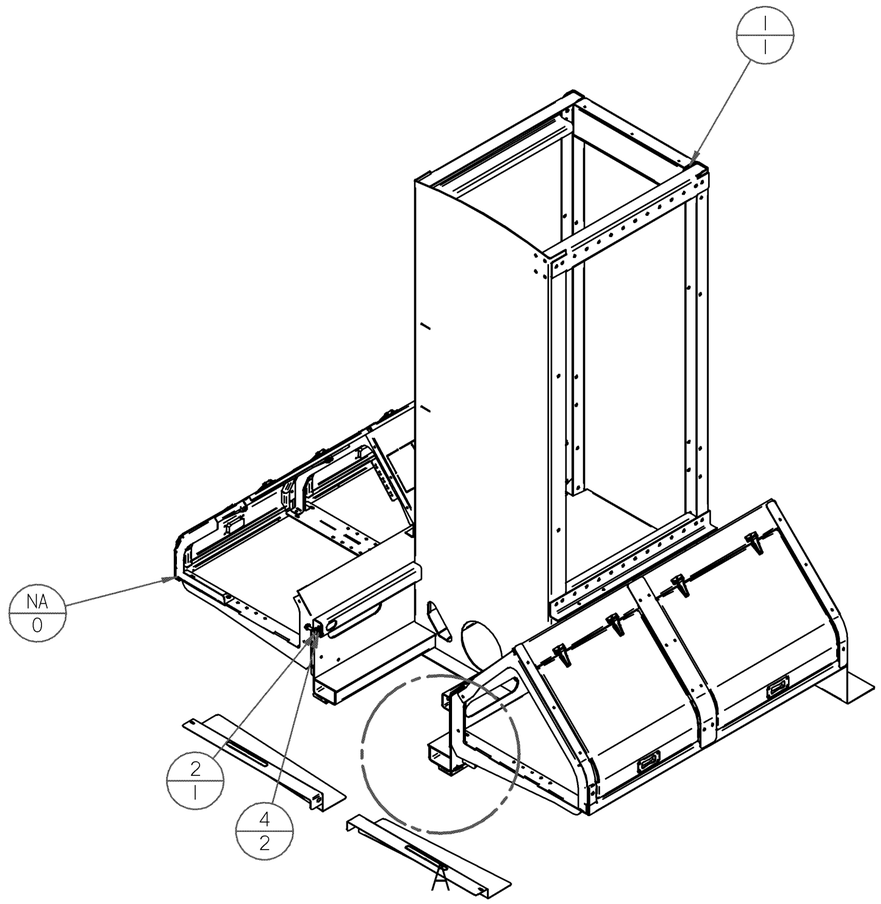
TITLE HOSE ASM UNIBORE 3 X ROYALFLEX 2.5 X 120 UNIBODY 3 INCH HOSE REELS

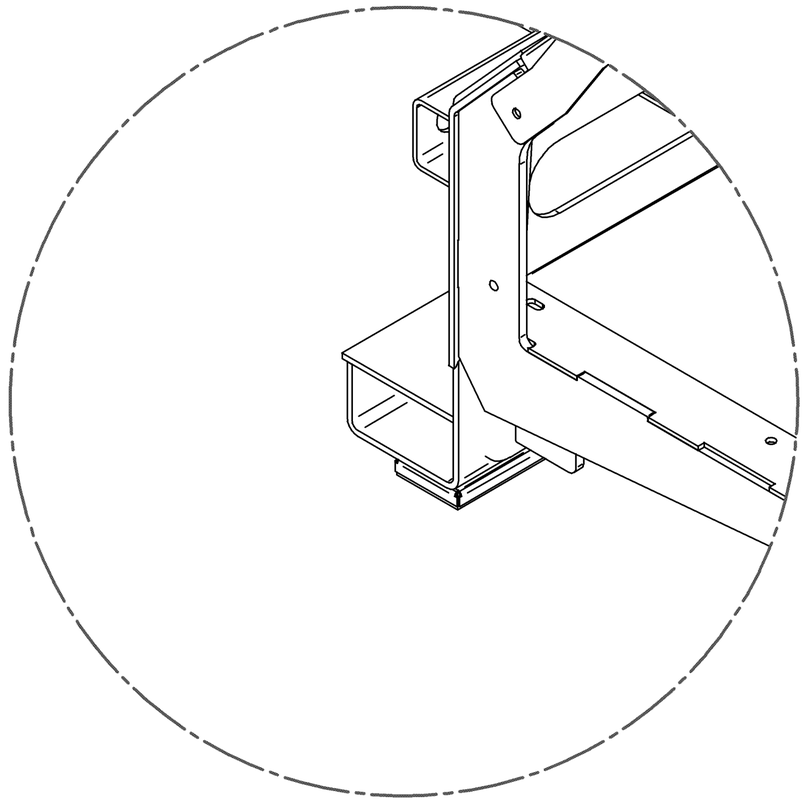
DWG NO. UR1005A50 | REV 01 | SIZE C

WEIGHT 6.3 lbm | SHEET 1 OF 1

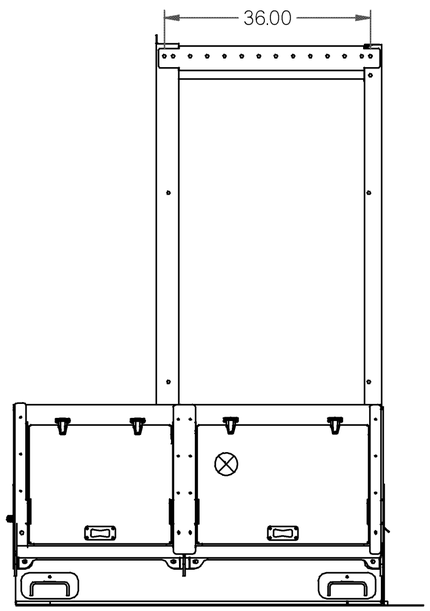
Last Changed: 1/13/2011

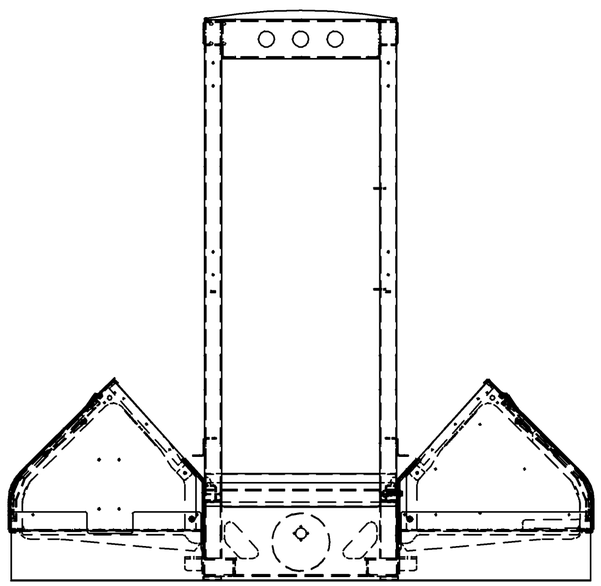






DETAIL A





REAR STORAGE SHOWN FOR REFERENCE ONLY

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UR1011P20	BACK COVER ID LAMP BOX	
2	1	TC00420	SCREW CAP HEX HEAD .50-13X1.25	900.5504
3*	1	TC00530	NUT HEX .50-20	950.6609
4	2	TC00508	WASHER PLAIN FLAT .50	960.5414
5*	1	UR100IP38S	SKIRT 42 REAR SUPPORT STRUCTURE QUAD SS	UR100IP38S
6*	1	UR011A10S	TANK SUPERSTRUCTURE 42 SERIES	UR1028A11

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN L. WILLIAMS
DATE 10/20/2010
APPR.

TREAD CORPORATION **ROANOKE, VIRGINIA 24012 USA**

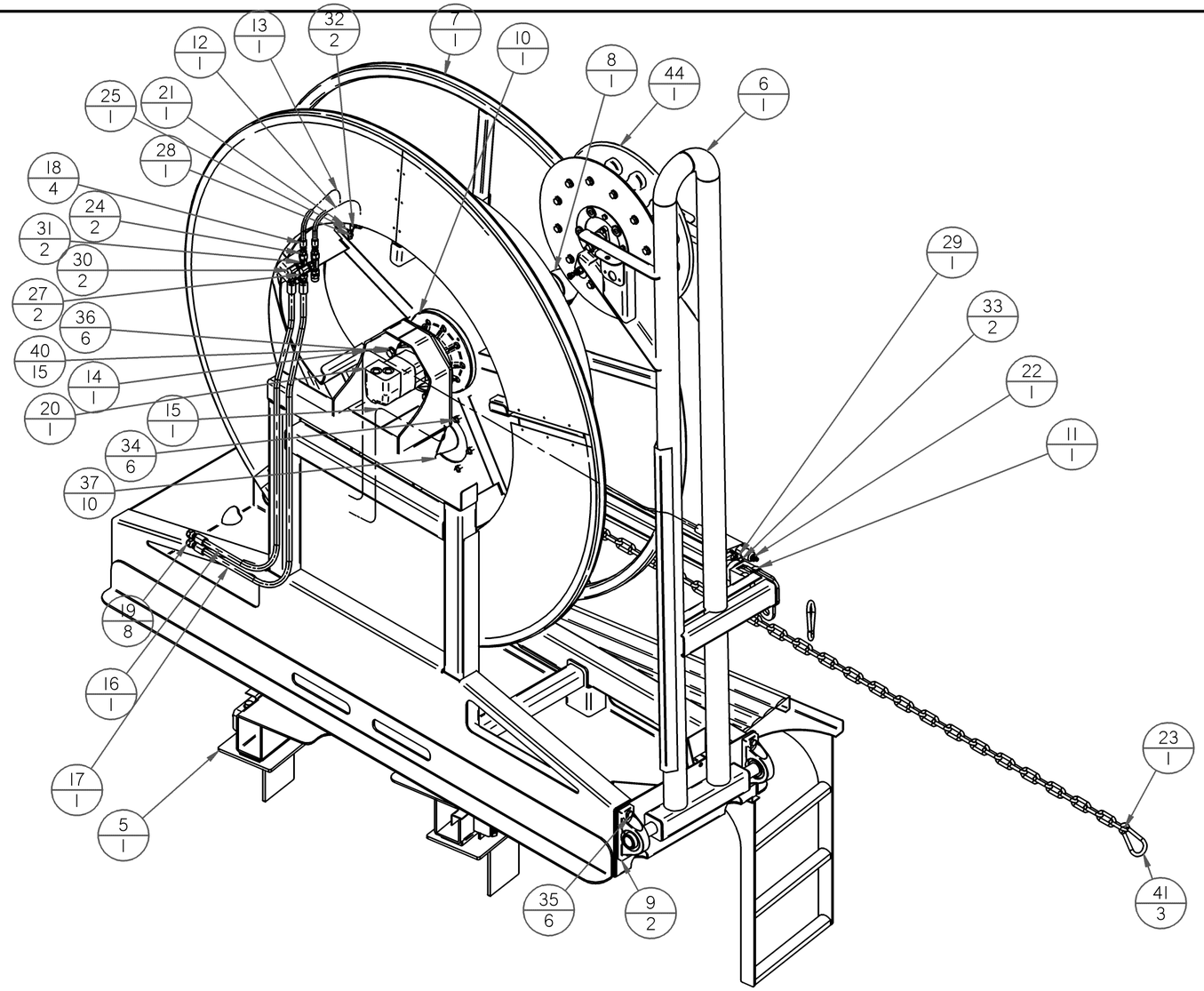
PROJECT 42 SERIES TANK SUPERSTRUCTURE AS

TITLE 42 SERIES TANK SUPERSTRUCTURE ASSY
UNIBODY 42 SERIES

DWG NO UR011A02 | REV 02 | SIZE C

WEIGHT 1366.5 lbm | SHEET 1 OF 1

Last Changed: 10/20/2010



ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	2	TC01223	CYLINDER PIN 1.0 DIA INCL W/CYLINDER	
2*	2	URI015P12	HOSE REEL DRUM SKIN	
3*	1	URI015P13	HOSE REEL DRUM SKIN	
4*	1	URI016A05	72 IN FRONT HOSE REEL FRAME WELDMENT SS RIGHT	
5	1	URI016A35	FRONT HOSE REEL MOUNT WITH PLATFORM	
6	1	URI017A03	72 IN FRONT HOSE REEL BOOM WELD SS RIGHT LONG	
7	1	URI018A01	72 IN FRONT HOSE REEL DRUM WELDMENT LEFT	
8	1	URI020A07	72 IN FRT HR RISER WLDMNT 3 IN DYNO	
9	2	TC02318	BEARING PILLOW BLOCK 1.50 IN NP-24	247.0941
10	1	TC03362	TORQUE HUB PLANETARY WHEEL DRIVE 7HBD	247.3008
11	1	TC01209	CYLINDER HOSE REEL BOOM 2 X 48	261.2048
12	1	URI015P01	HOSE HYD GATES M3K XTUFF .250 X 2 ft.	262.3704
13	1	URI015P02	HOSE HYD GATES M3K XTUFF .250 X 2 ft	262.3704
14	1	URI015P10	HOSE HYD GATES M3K XTUFF .250 X 2 ft.	262.3704
15	1	URI015P11	HOSE HYD GATES M3K XTUFF .250 X 2 ft.	262.3704
16	1	URI015P05	HOSE HYD GATES M3K XTUFF .375 X 20 ft	262.3706
17	1	URI015P06	HOSE HYD GATES M3K XTUFF .375 X 20 ft	262.3706
18	4	TC01641	COUPLING GATES HOSE 04-06 F JIC	262.6205
19	8	TC01642	COUPLING GATES HOSE 06-08 F JIC	262.6206
20	1	TC00041	MOTOR 104-1218 CHAR LYNN 8.0 13T SPLINE	263.5477
21	1	TC03507	VALVE SHUTTLE HYDRAULIC BALL TYPE	264.0095
22	1	TC00963	VALVE COUNTERBALANCE 1B12P38S	264.0123
23	1	UX1031P02	CHAIN WELDED .39 DIA LINK 304L SS X 3.4 FT	400.0184
24	2	TC01503	FITTING STR REDUCER F37/M37 08-06	72406.0806
25	1	TC01549	FITTING STR M37/MSAE 04-06	76400.0406
26*	1	TC01551	FITTING STR M37/MSAE 08-06	76400.0806
27	2	TC01553	FITTING STR M37/MSAE 08-10	76400.0810
28	1	TC01507	FITTING STR MSAE/F37 SW 04-04	76402.0404
29	1	TC01509	FITTING STR MSAE/F37 SW 06-08	76402.0608
30	2	TC01425	FITTING 90 M37/F37 SW 08-08	76500.0808
31	2	TC01591	FITTING TEE M37/M37/F37 SW -08	76602.080808
32	2	TC01432	FITTING 90 M37/ADJ MSAE 06-06	76801.0606
33	2	TC01434	FITTING 90 M37/ADJ MSAE 08-06	76801.0806
34	6	TC00420	SCREW CAP HEX HEAD .50-13X1.25	900.5504
35	6	TC00421	SCREW CAP HEX HEAD .50-13X1.50	900.5514
36	6	TC00483	SCREW CAP HEX HEAD .625-11X1.00 GR 8	900.66908
37	10	TC00529	NUT HEX .50-13 SS	950.5414
38*	9	TC00539	NUT HEX .625-18 UNF SS	950.6914
39*	6	TC00508	WASHER PLAIN FLAT .50	960.5414
40	15	TC00517	WASHER FLAT HARD A325 .625	962.6610
41	3	TC03117	SPRING SNAP .625 OPENING .4375 DIA SS	981.4301
42*	1	URI006P25	SHIM DRIVE MOUNT PLATE SS	URI006P25
43*	1	URI015P09	BOOM SPACER SLEEVE HOSE REEL	URI015P09
44	1	URI019A01	72 IN FRONT HOSE REEL PULLEY ASSEMBLY	URI019A01

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN JCOLE
DATE 2/3/2011
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

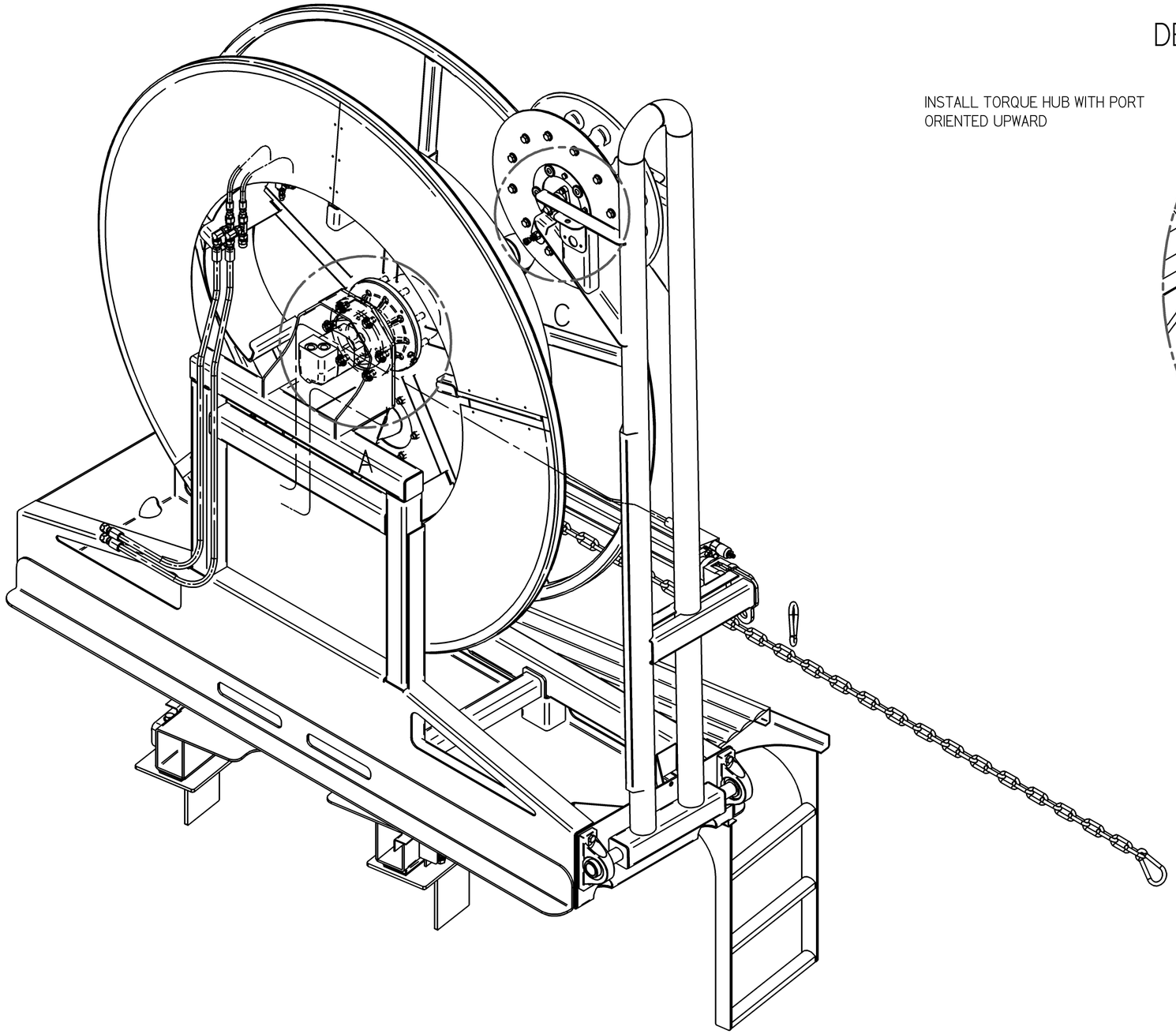
PROJECT FHR ASM 72 X 3 ANGLE LEFT RIGID

TITLE FHR ASM 72 X 3 ANGLE LEFT RIGID
UNIBODY REELS

DWG NO URI015A04 | REV 02 | SIZE C

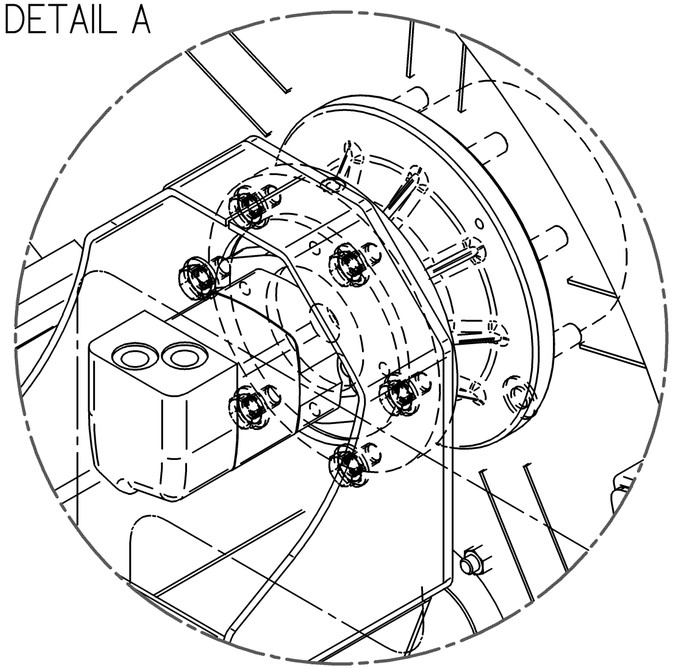
WEIGHT 1861.6 lbm | SHEET 1 OF 4

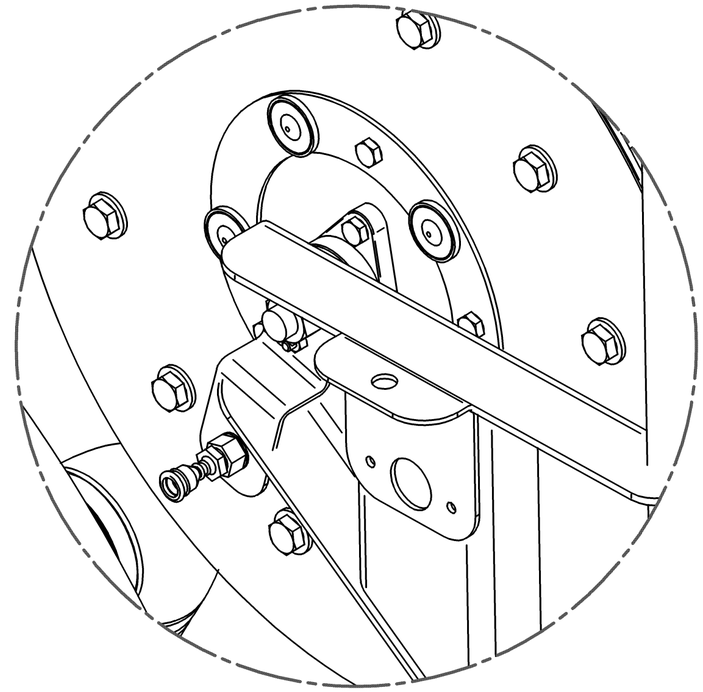
Last Changed: 2/4/2011



INSTALL TORQUE HUB WITH PORT ORIENTED UPWARD

DETAIL A





DETAIL C

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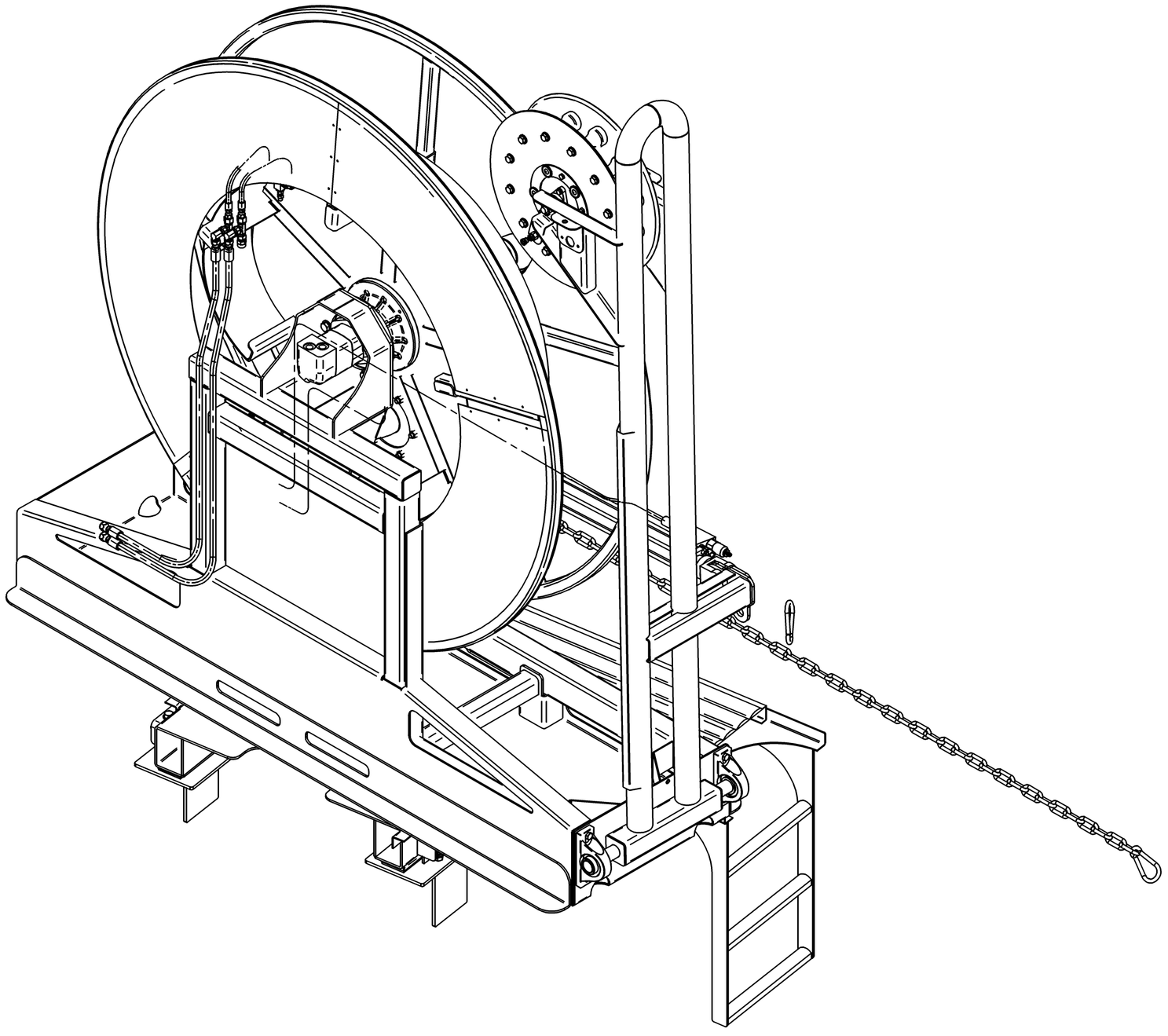
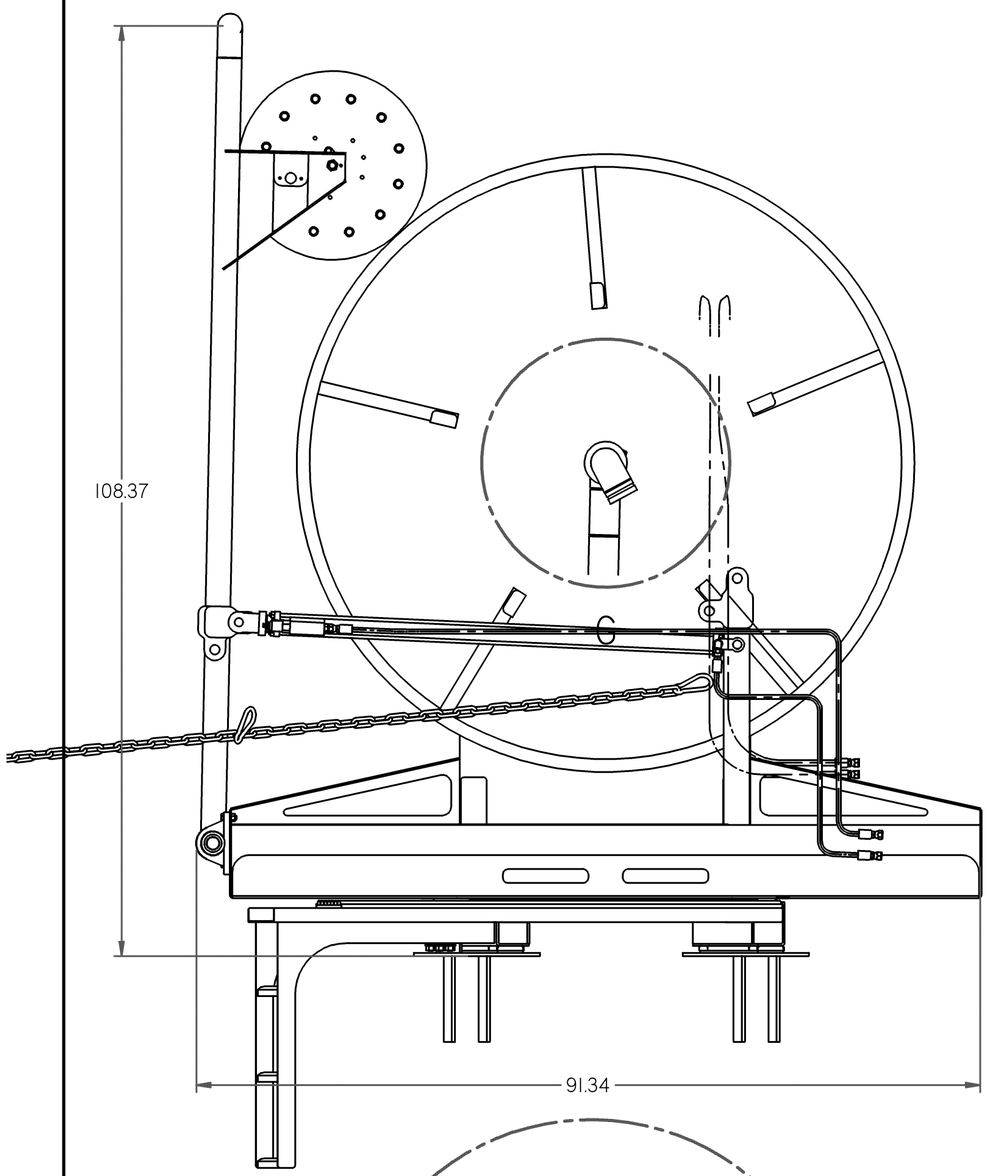
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN JCOLE DATE 2/3/2011 APPR.	PROJECT FHR ASM 72 X 3 ANGLE LEFT RIGID TITLE FHR ASM 72 X 3 ANGLE LEFT RIGID UNIBODY REELS DWG NO UR1015A04 REV 02 SIZE C WEIGHT 1861.6 lbm SHEET 2 OF 4

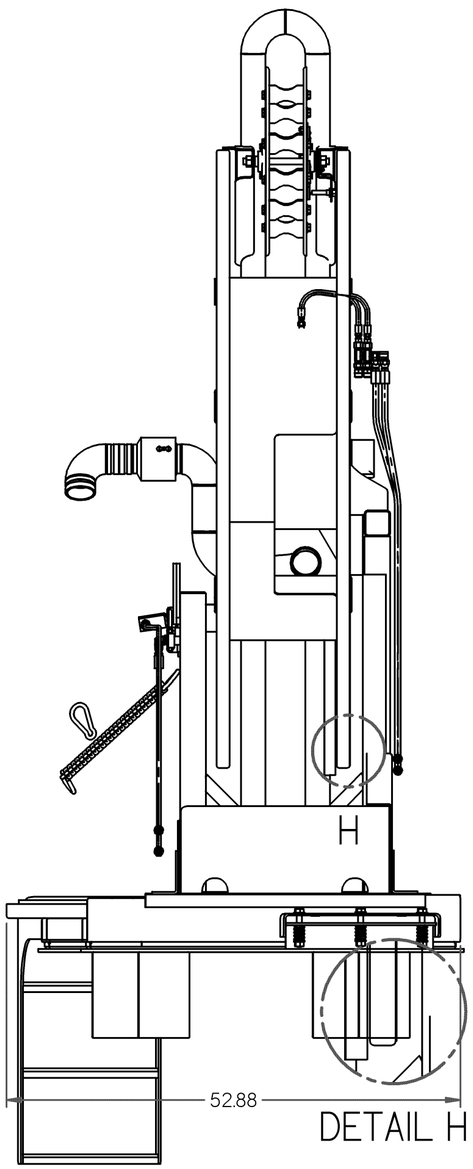
Last Changed: 2/4/2011



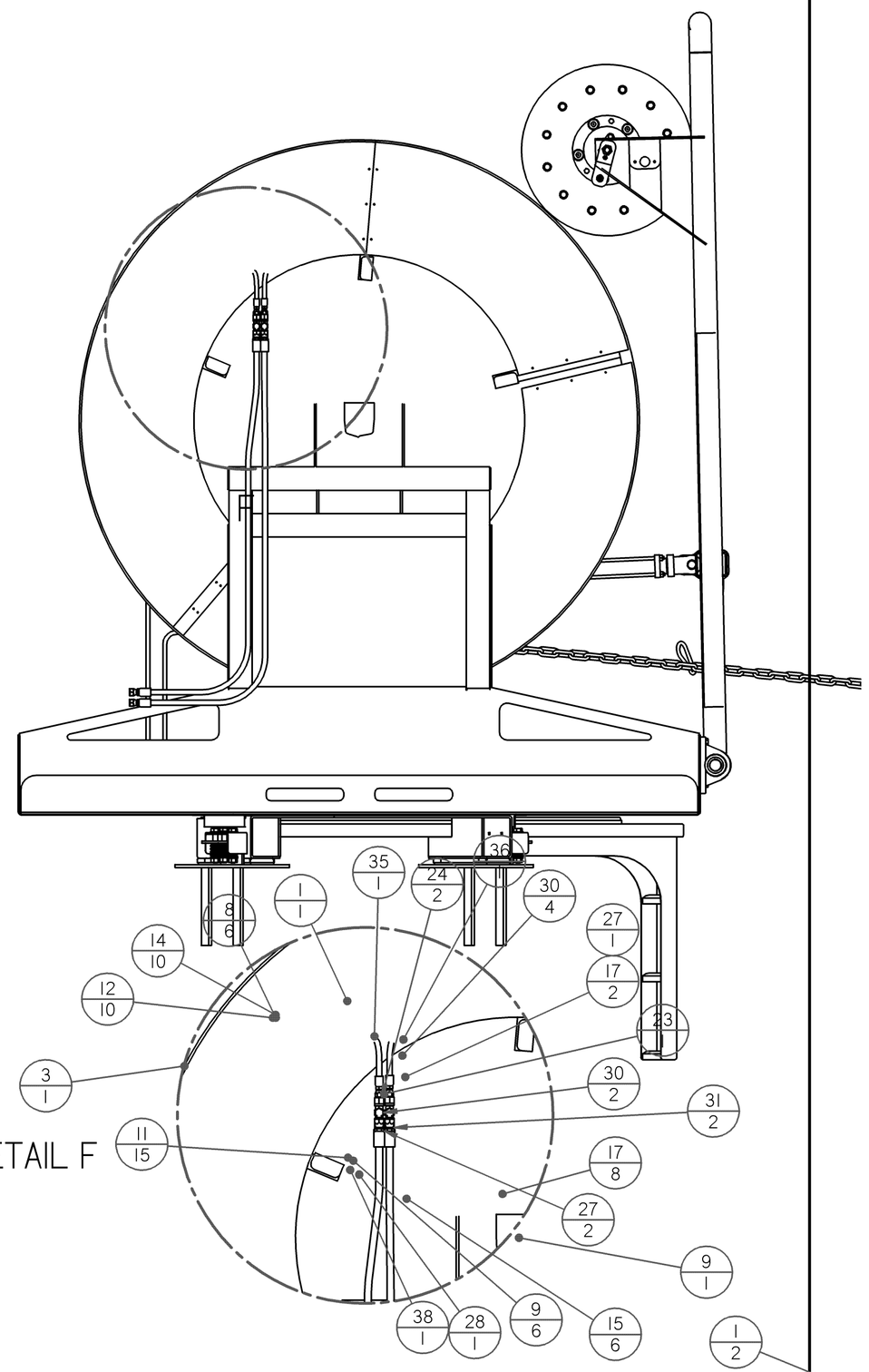
PROPRIETARY STATEMENT THIS DOCUMENT AND ALL INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF TREAD CORP. AND ARE NOT TO BE USED, DISCLOSED, OR COPIED EXCEPT AS EXPRESSELY AUTHORIZED.	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES 1.0 INCH = 25.4 mm THIRD ANGLE PROJECTION	**TREAD** CORPORATION ROANOKE, VIRGINIA 24012 USA
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN JCOLE DATE 2/3/2011 APPR.	PROJECT FHR ASM 72 X 3 ANGLE LEFT RIGID TITLE FHR ASM 72 X 3 ANGLE LEFT RIGID UNIBODY REELS DWG NO UR1015A04 REV 02 SIZE C WEIGHT 1861.6 lbm SHEET 3 OF 4

Last Changed: 2/4/2011

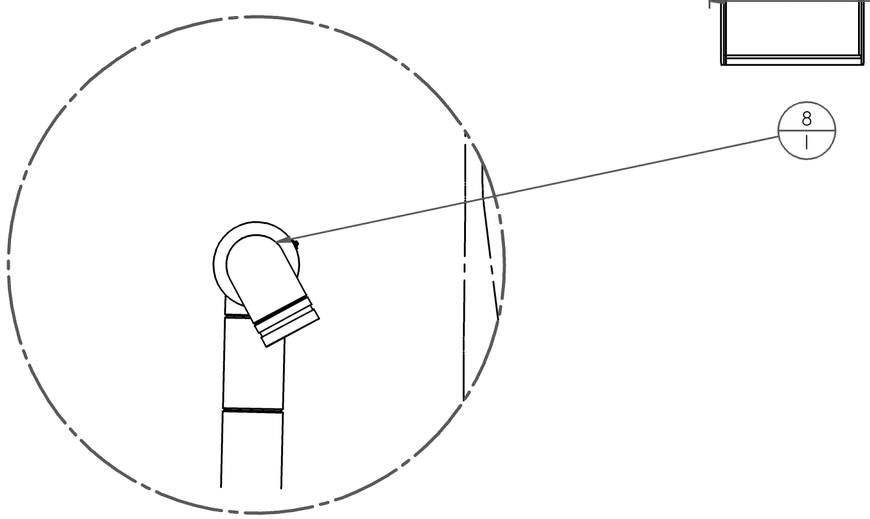




DETAIL H



DETAIL F



DETAIL G

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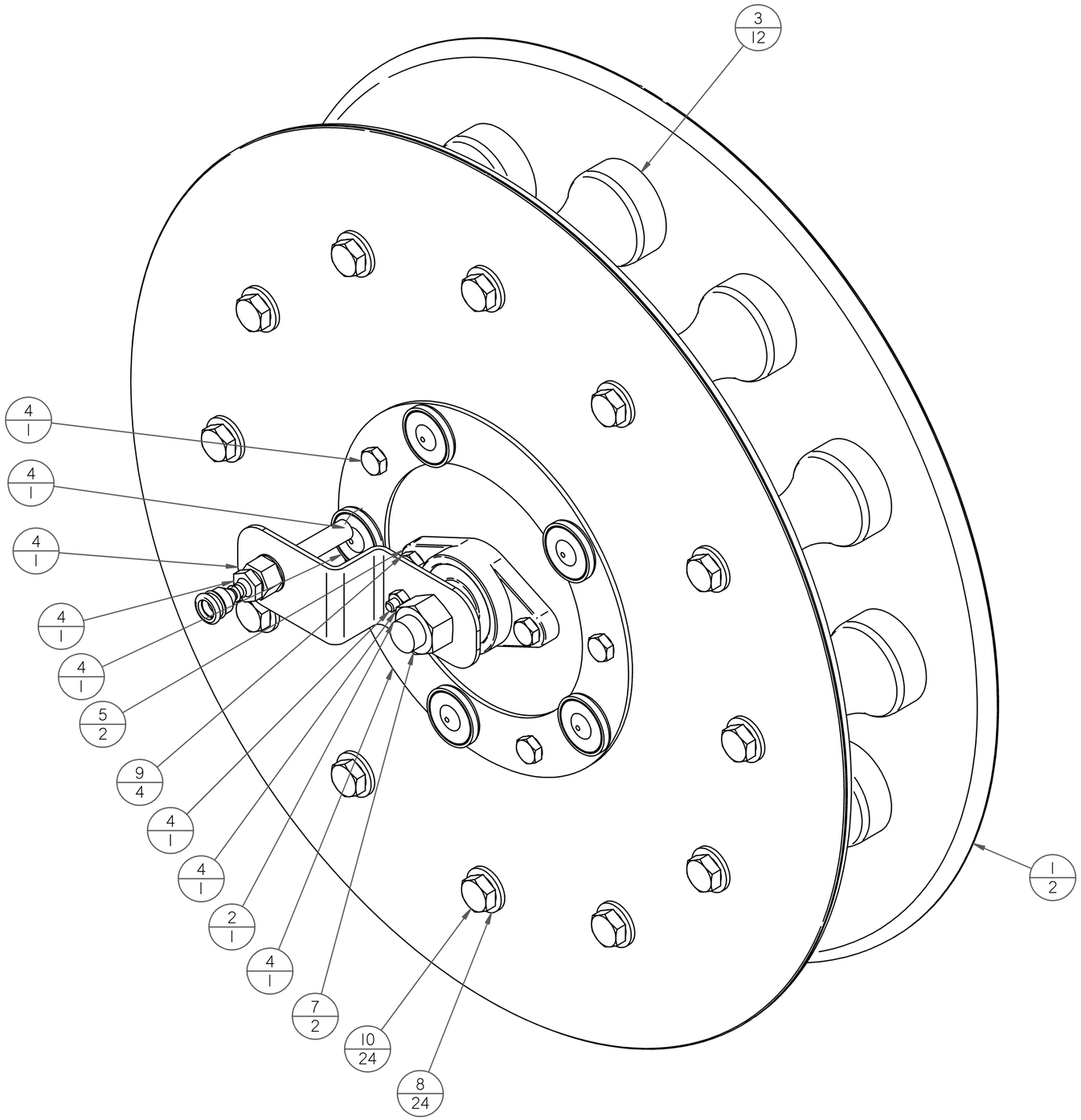
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN JCOLE DATE 2/3/2011 APPR.	PROJECT FHR ASM 72 X 3 ANGLE LEFT RIGID TITLE FHR ASM 72 X 3 ANGLE LEFT RIGID UNIBODY REELS DWG NO UR1015A04 REV 02 SIZE C WEIGHT 1861.6 lbm SHEET 4 OF 4

Last Changed: 2/4/2011



ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	2	ur1019p01	HOSE PULLEY FLANGE PLATE AL 22 IN	UR1019P01
2	1	UR1009P03	FRONT HOSE REEL PULLEY AXLE	UR1009P03
3	12	UR1009P02	HOSE PULLEY SPINDLE AL	UR1009P02
4	1	UR1009A10	HOSE PULLEY MAGNETIC SWITCH ASM FRONT	
5	2	TC02321	BEARING FLANGE .75 IN 2-BOLT SFT-12	247.0938
6"	4	TC00552	NUT HEX ELASTIC .375-16 SS	954.4214
7	2	TC00534	NUT HEX .75-10	950.7214
8	24	TC00508	WASHER PLAIN FLAT .50	960.5414
9	4	TC00457	SCREW CAP HEX HEAD .38-18X1.25	900.4304
10	24	TC00421	SCREW CAP HEX HEAD .50-13X1.50	900.5514

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN DCOLE
DATE 4/30/2010
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

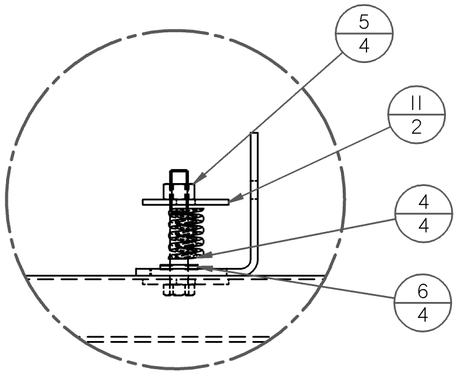
PROJECT 72 IN FRONT HOSE REEL PULLEY ASS

TITLE 72 IN FRONT HOSE REEL PULLEY ASSEMBLY
72 IN FRONT HOSE REEL ASSEMBLY SS

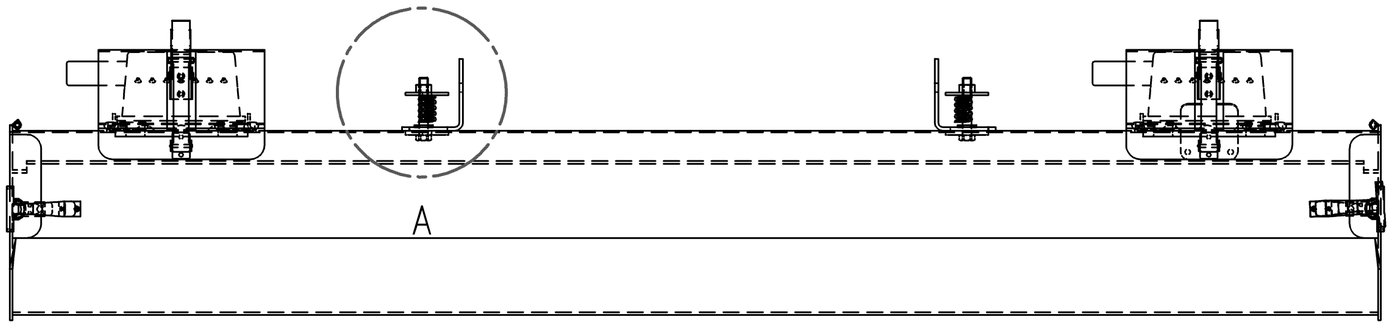
DWG NO UR1019A01 | REV 01 | SIZE C

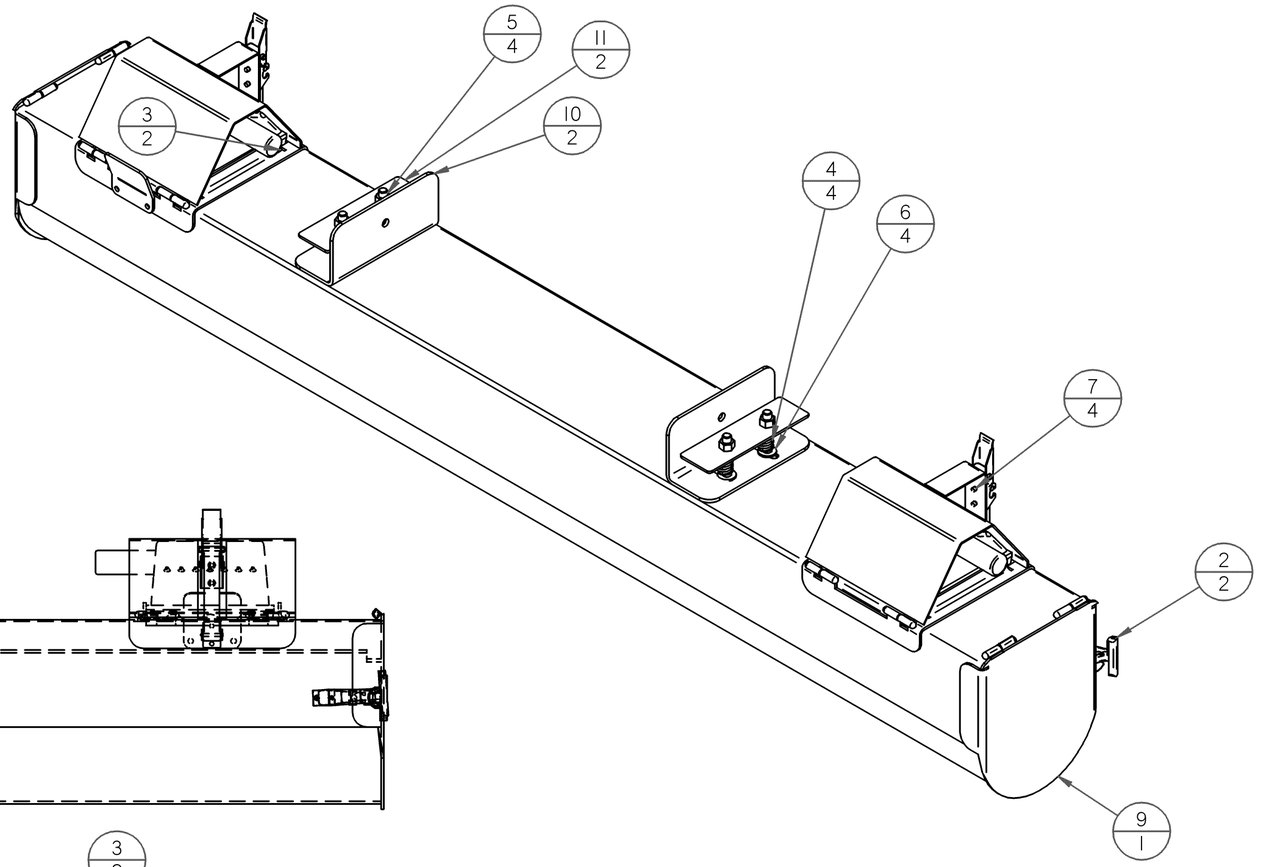
WEIGHT 49.2 lbm | SHEET 1 OF 1

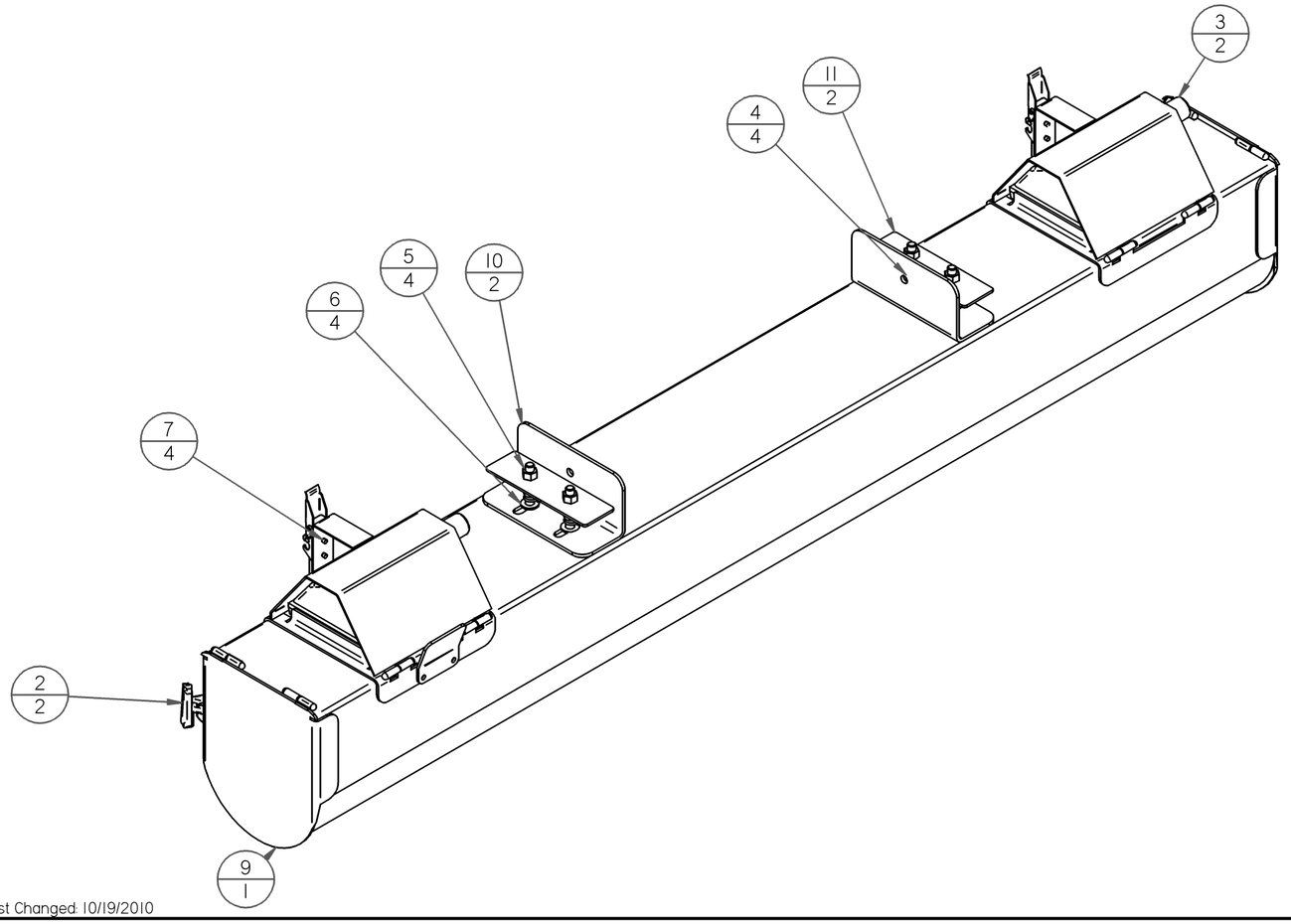
Last Changed: 5/6/2010



DETAIL A







ITEM	QTY	DWG NO.	DESCRIPTION	PART_ID
1*	1	US1004P29	LID STOP	
2	2	TC03139	LATCH SOUTHCO DRAW (RUBBER)	269.1334
3	2	TC03640	WHEEL CHOCK HEAVY DUTY ALUMINUM	269.9008
4	4	S1000IP08	SPRING COMP 1.25 OD .625 X 1.75L	269.9019
5	4	TC00549	NUT HEX ELASTIC .62-10 SS	950.6614
6	4	TC00516	WASHER PLAIN FLAT.625	960.6614
7	4	TC02247	RIVET MAGNA-LOK .253 X .375 SS	970.1666
8*	4	TC02685	RIVET BLIND POP .1875 X.375 GRIP SS	970.1671
9	1	US1004A02	HOSE AND POLE STORAGE WELDMENT	US1004A02
10	2	US1004P05	MOUNTING BRACKET	US1004P05
11	2	US1004P08	REINFORCEMENT PLATE	US1004P08

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN LWILLIAMS
DATE 6/18/2003
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

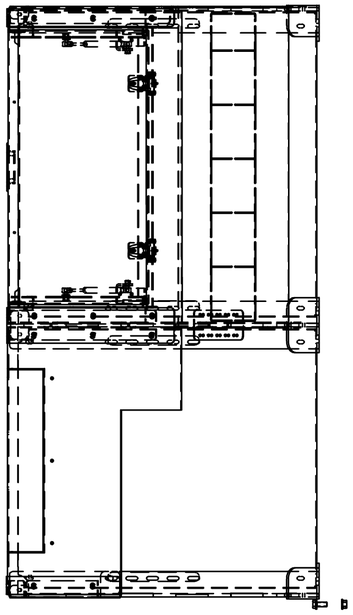
PROJECT HOSE/CHOCK & POLE STORAGE UNDER

TITLE HOSE/CHOCK & POLE STORAGE UNDER FRAME UNIBODY

DWG NO US1004A01 | REV 01 | SIZE C

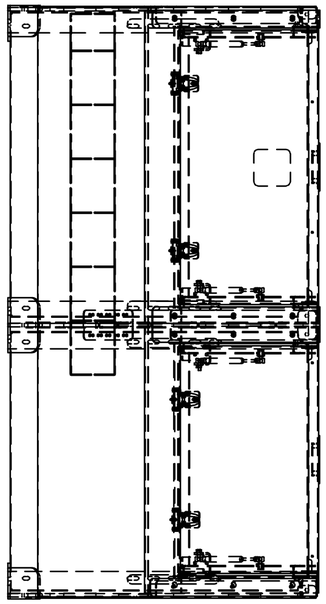
WEIGHT 323.2 lbm | SHEET 1 OF 1

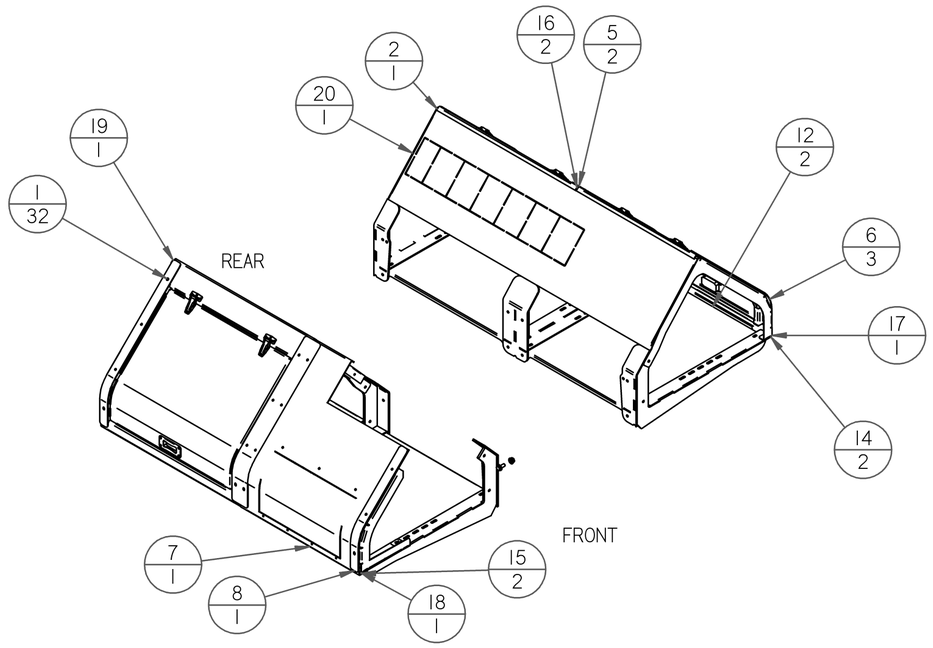
Last Changed: 10/19/2010



REAR

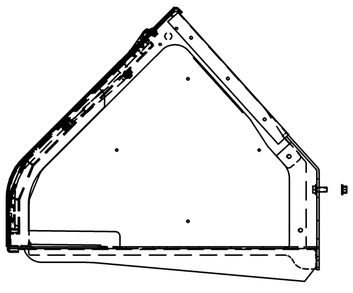
FRONT

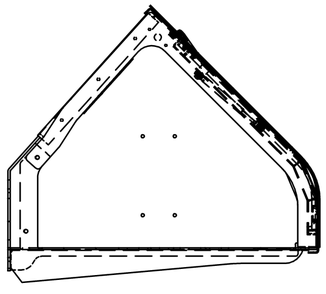




ITEM	QTY	DWG NO.	RN	DESCRIPTION	Part_ID
1	32	TC03047	01	SCREW BUTTON HEAD SS .25-20 X .750	901.3365
2	1	URI011P54	01	COVER STORAGE TANK SUPERSTRUCTURE	URI011P54
3*	1	URI011P55	01	COVER STORAGE TANK SUPERSTRUCTURE	URI011P55
4*	4	USI002P96EN	01	LABEL NO LOAD	USI002P96EN
5	2	USI007P29	01	42 SERIES DOOR TRIM DOUBLE	USI007P29
6	3	USI007P30	01	42 SERIES DOOR TRIM SINGLE	USI007P30
7	1	USI007P70	01	24 IN 4216 TANK MODULE UPLOAD COVER	USI007P70
8	1	USI007P81	01	32 SERIES DOOR TRIM SINGLE BLANK END	USI007P81
9*	2	USI008A12	01	DOOR COVER ASSEMBLY 30-4216	USI008A12
10*	1	USI008A16	01	DOOR COVER ASSEMBLY 25-42XX	USI008A16
11*	2	USI008P22	02	4216-30 REMOVABLE DUST PAN	USI008P22
12	2	USI008P25	02	4216-25 REMOVABLE DUST PAN	USI008P25
13*	2	USI012A40	02	SUPPORT MIDDLE WEB CLEAR ABOVE	USI012A40
14	2	USI012A50L	02	SUPPORT LEFT END WEB CLEAR ABOVE	USI012A50L
15	2	USI012A50R	02	SUPPORT RIGHT END WEB CLEAR ABOVE	USI012A50R
16	2	USI012A60	02	DOOR SUPPORT BOLT-ON MIDDLE OPEN	USI012A60
17	1	USI012P70L	01	DOOR SUPPORT BOLT-ON 1-PC LEFT END OPEN	USI012P70L
18	1	USI012P71R	01	DOOR SUPPORT BOLT-ON HOPPER	USI012P71R
19	1	USI012P80L	01	DOOR SUPPORT BOLT-ON 1-PC LEFT END SOLID	USI012P80L
20	1	USI012P80R	01	DOOR SUPPORT BOLT-ON 1-PC RT END SOLID	USI012P80R

NO LOAD LABELS MUST BE PLACED IN ANY COMPARTMENT WITH A DOOR EXCLUDING TOOLBOXES





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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN R. Duncan
DATE 04/12/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT REAR STORAGE 42 QUAD FHR

TITLE REAR STORAGE 42 QUAD FHR
UNIBODY 42 SERIES

DWG NO USI007A21 | REV 03 | SIZE C

WEIGHT 362.1 lbm | SHEET 1 OF 2

Last Changed: 2/8/2011

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
01	Initial Production Release	4/12/2004	rduncan
02	As Imported	1/18/2005	lwilliams
03	Removed extra door, replaced blank cover with upfill ready cover	02/08/2011	jtruskey
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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

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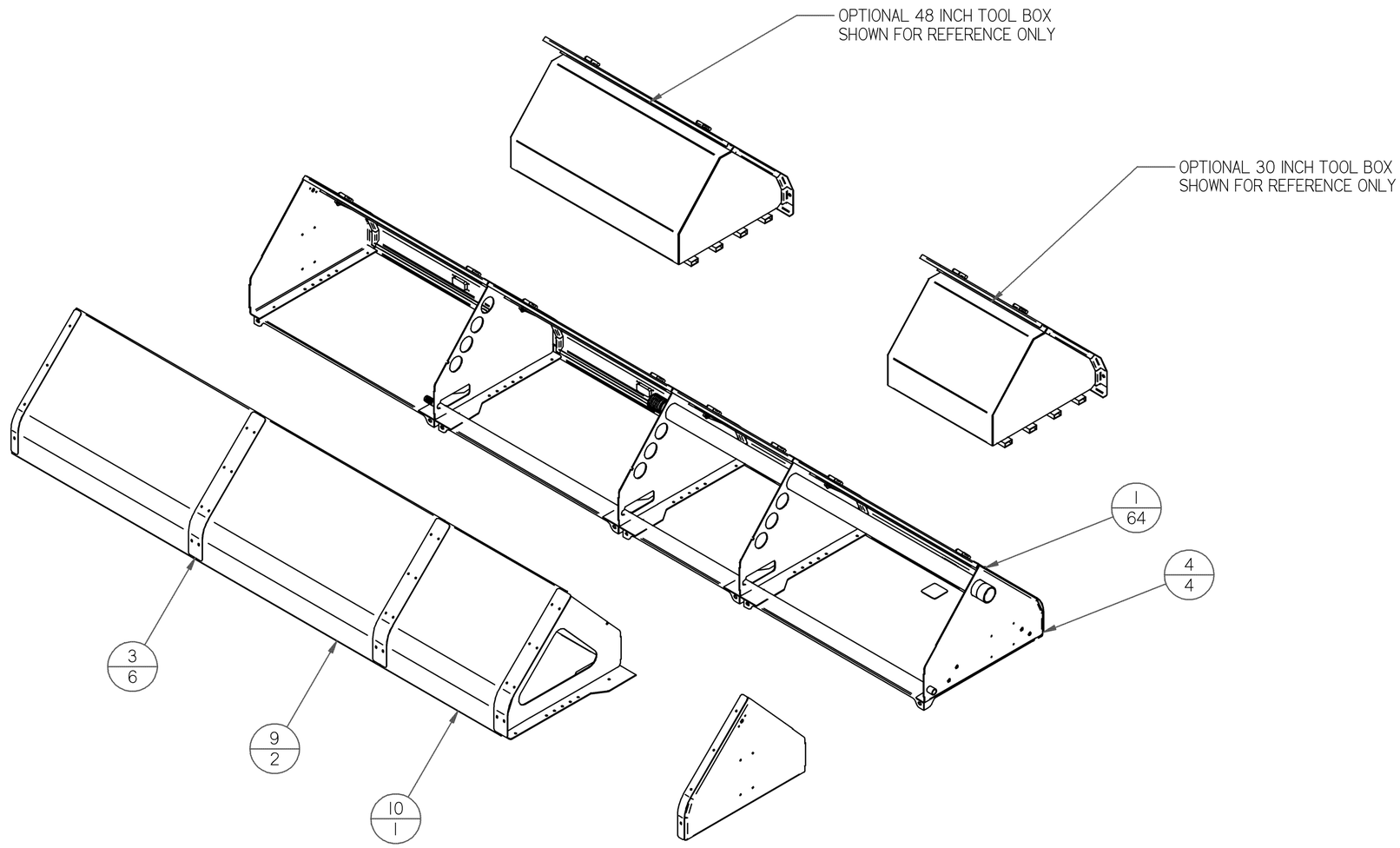
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES 1.0 INCH = 25.4 mm	THIRD ANGLE PROJECTION
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN R. Duncan; DATE 04/12/2004; APPR.
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA	
PROJECT REAR STORAGE 42 QUAD FHR	
TITLE REAR STORAGE 42 QUAD FHR UNIBODY 42 SERIES	
DWG NO US1007A21	REV 03; SIZE C
WEIGHT 362.1 lbm	SHEET 2 OF 2

Last Changed: 2/8/2011



NO LOAD LABELS MUST BE PLACED IN ANY COMPARTMENT WITH A DOOR EXCLUDING TOOLBOXES

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	64		SCREW BUTTON HEAD SS .25-20 X 1.00	901.3365
2*	4	US1002P96EN	LABEL NO LOAD	US1002P96EN
3	6	US1007P29	42 SERIES DOOR TRIM DOUBLE	US1007P29
4	4	US1007P30	42 SERIES DOOR TRIM SINGLE	US1007P30
5*	3	US1008A11	DOOR COVER ASSEMBLY 48-4216	US1008A11
6*	1	US1008A12	DOOR COVER ASSEMBLY 30-4216	US1008A12
7*	5	US1008P21	4216-48 REMOVEABLE DUST PAN	US1008P21
8*	2	US1008P22	4216-30 REMOVEABLE DUST PAN	US1008P22
9	2	US1008P79	COVER PLATE BLANK 4216-48 CURVED	US1008P79
10	1	US1008P80	COVER PLATE BLANK 4216-30 CURVED	US1008P80

CONFIGURATION OPTIONS SHOWN ON PAGE 2

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 9/30/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

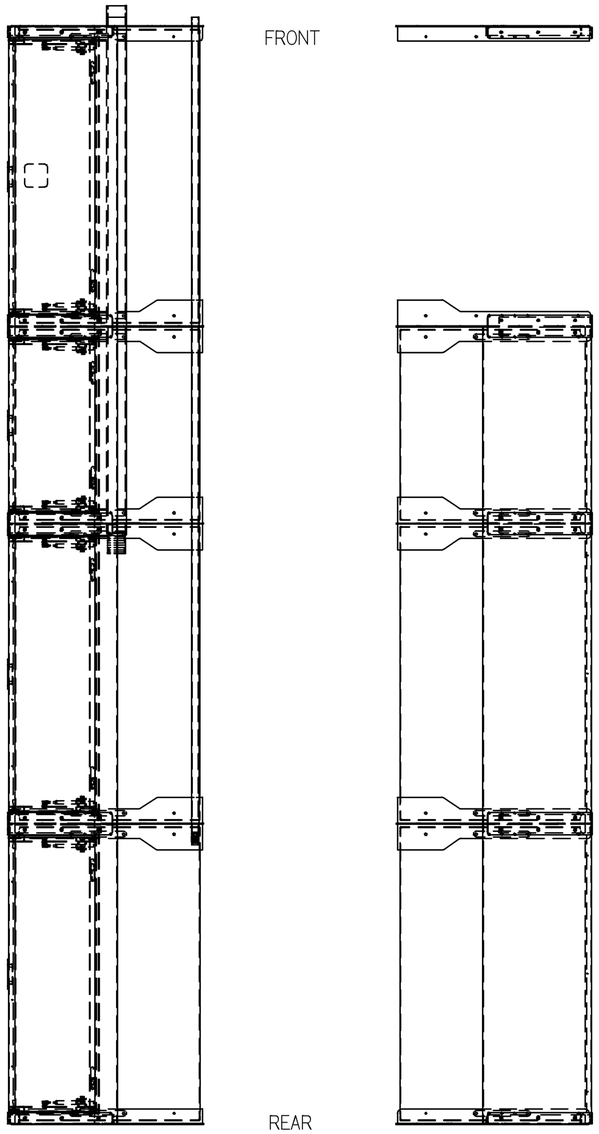
PROJECT

TITLE 4216 STORAGE ASSEMBLY
UNIBODY

DWG NO US1008A01S | REV 2 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 3

Last Changed: 1/31/2008



4216 48 Inch COMPARTMENT **R1**	4216 30 Inch COMPARTMENT **R2**	4216 48 Inch COMPARTMENT **R3**	4216 48 Inch COMPARTMENT **R4**
FRONT			**REAR**
4216 48 Inch COMPARTMENT **L1**	4216 30 Inch COMPARTMENT **L2**	4216 48 Inch COMPARTMENT **L3**	4216 48 Inch COMPARTMENT **L4**

	ANFO US1008A01SA		**BLEND US1008A01SB**		**QUAD US1008A01SQ**	
COMPARTMENT	**STD**	**OPT**	**STD**	**OPT**	**STD**	**OPT**
R1	48 In. EQUIP US1008A11	-NA-	48 In. EQUIP US1008A11	-NA-	48 In. EQUIP US1008A11	-NA-
R2	30 In. EQUIP US1008A12	-NA-	30 In. EQUIP US1008A12	-NA-	30 In. EQUIP US1008A12	-NA-
R3	48 In. EQUIP US1008A11	-NA-	48 In. EQUIP US1008A11	-NA-	48 In. EQUIP US1008A11	-NA-
R4	*1 SEE NOTE	-NA-	*1 SEE NOTE	-NA-	48 In. EQUIP US1008A11	-NA-
L1	48 In. HYD	-NA-	48 In. HYD	-NA-	48 In. HYD	-NA-
L2	30 In. BLANK US1008P80	30 In. TOOL US1008A14	30 In. BLANK US1008P80	30 In. TOOL US1008A14	30 In. BLANK US1008P80	30 In. TOOL US1008A14
L3	48 In. BLANK US1008P79	48 In. TOOL US1008A13	48 In BLANK US1008P79	48 In. TOOL US1008A13	48 In. BLANK US1008P79	48 In. TOOL US1008A13
L4	48 In. BLANK US1008P79	48 In. TOOL US1008A13	48 In. BLANK US1008P79	48 In. TOOL US1008A13	48 In. EQUIP US1008A11	-NA-

*Note 1: BLEND ONLY – NO FUEL OIL US1008P79
BLEND WITH FUEL OIL US1008A11

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DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

UNLESS OTHERWISE SPECIFIED
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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN RDUNCAN
DATE 9/30/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

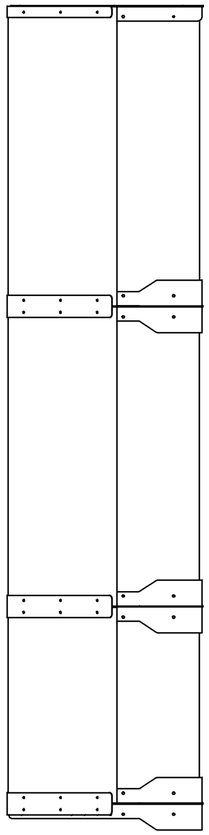
PROJECT

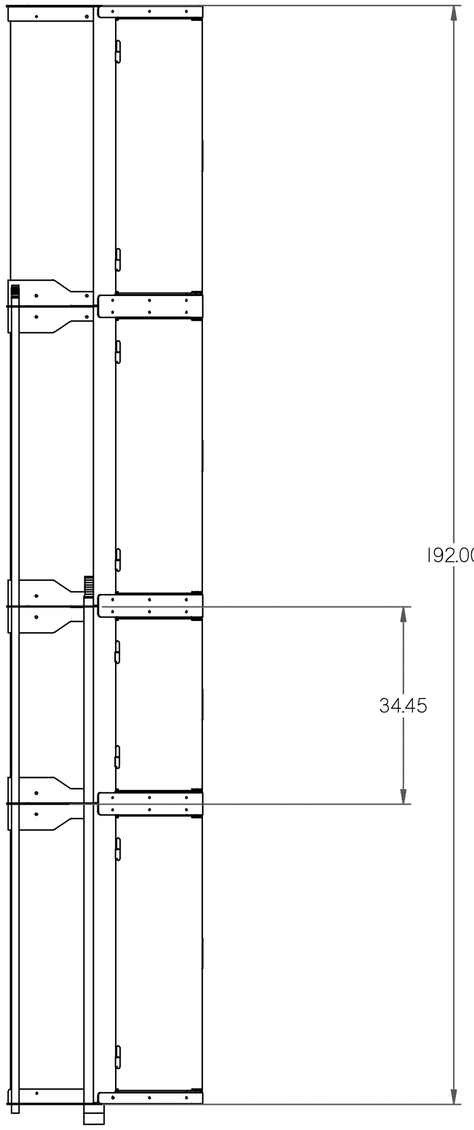
TITLE 4216 STORAGE ASSEMBLY
UNIBODY

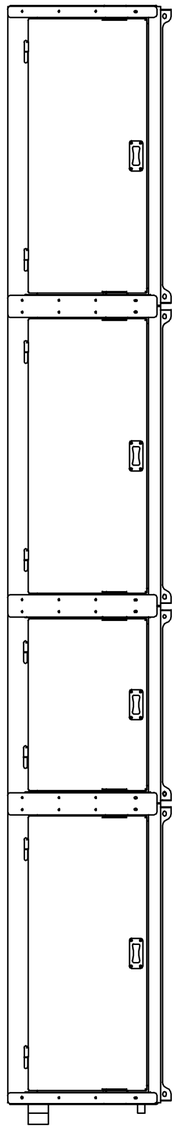
DWG NO US1008A0IS | REV 2 | SIZE C

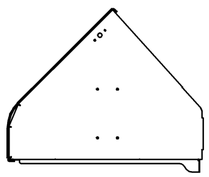
WEIGHT 0.0 lbm | SHEET 2 OF 3

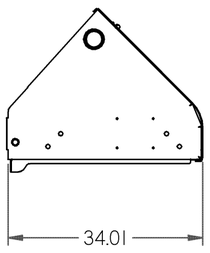
Last Changed: 1/31/2008





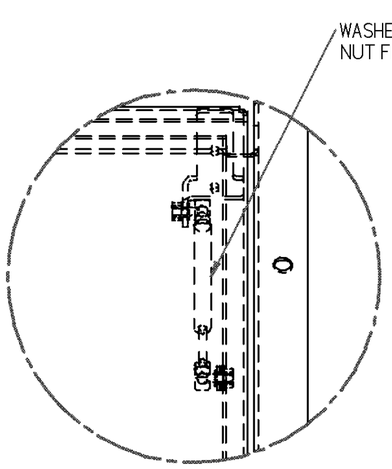




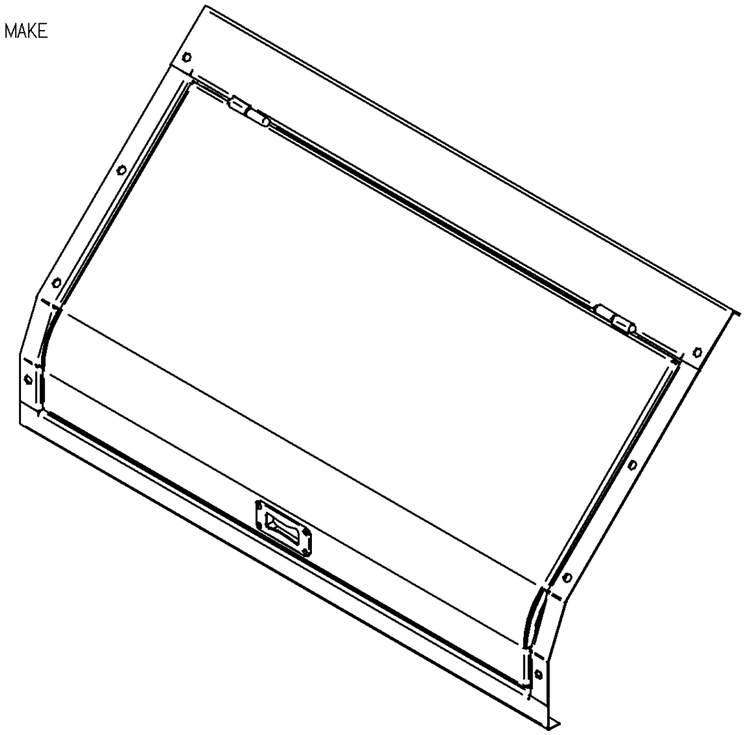


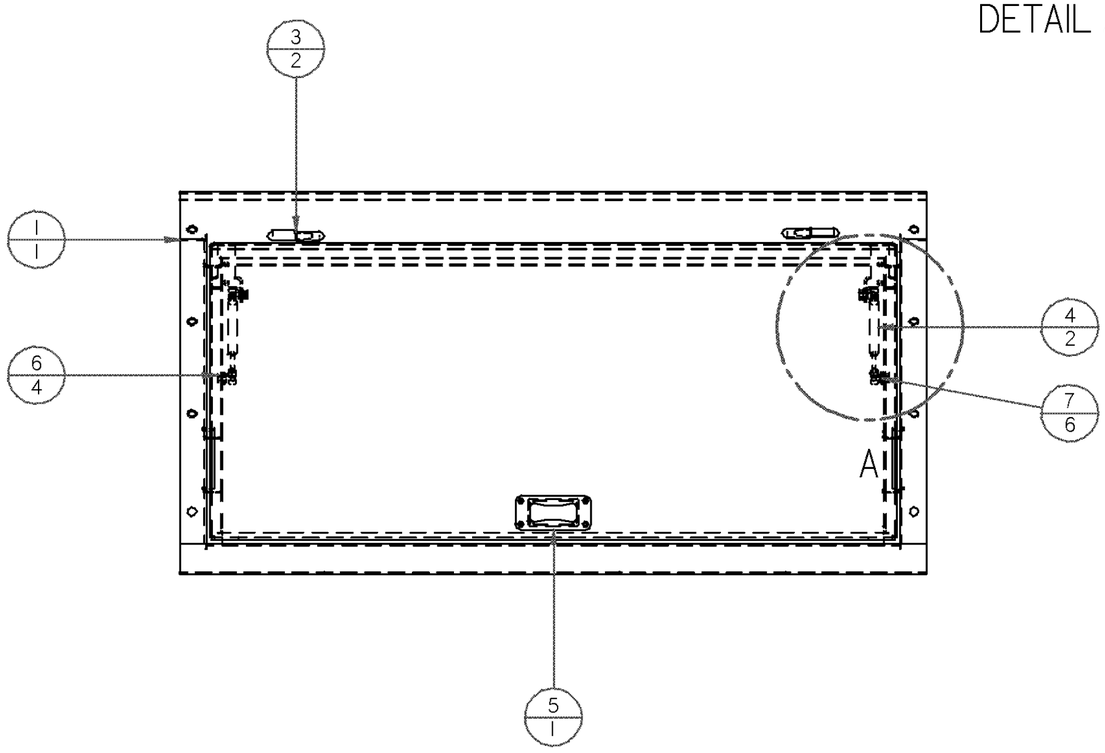
PROPRIETARY STATEMENT THIS DOCUMENT AND ALL INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF TREAD CORP. AND ARE NOT TO BE USED, DISCLOSED, OR COPIED EXCEPT AS EXPRESSELY AUTHORIZED.	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES 1.0 INCH = 25.4 mm THIRD ANGLE PROJECTION	**TREAD CORPORATION** ROANOKE, VIRGINIA 24012 USA PROJECT TITLE 4216 STORAGE ASSEMBLY UNIBODY
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN RDUNCAN DATE 9/30/2005 APPR.	DWG NO US1008A01S · REV 2 · SIZE C WEIGHT 0.0 lbm · SHEET 3 OF 3

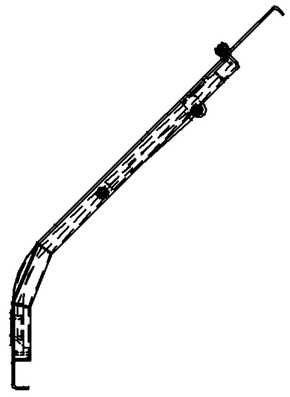
Last Changed: 1/31/2008



DETAIL A







ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UA1008A111	DOOR COVER WELDMENT 48-4216	US1008A111
2"	1		FOAM TAPE .5 X 1 LD POLYURETHANE X 3 FT	220.0282
3	2		HINGE AL WELD-ON 2.0 X .625	269.3324
4	2		GAS SPRING AVM SE300A 60-LB	269.3333
5	1		HANDLE MOLDED RECESS GRAB BLK FINISH	269.3340
6	4		NUT HEX .375-16	950.4214
7	6		WASHER PLAIN FLAT .375	960.4214

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN: R.DUNCAN
DATE: 1/6/2004
APPR:

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

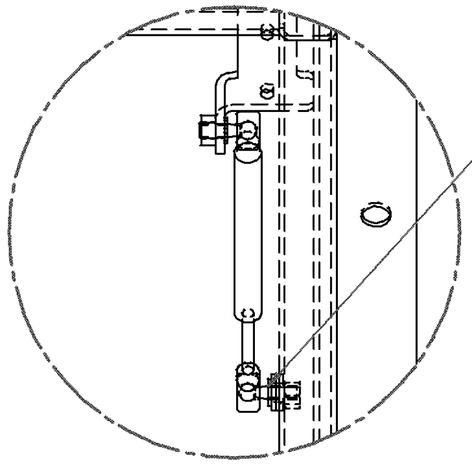
PROJECT:

TITLE: DOOR COVER ASSEMBLY 48-4216
UNIBODY STORAGE

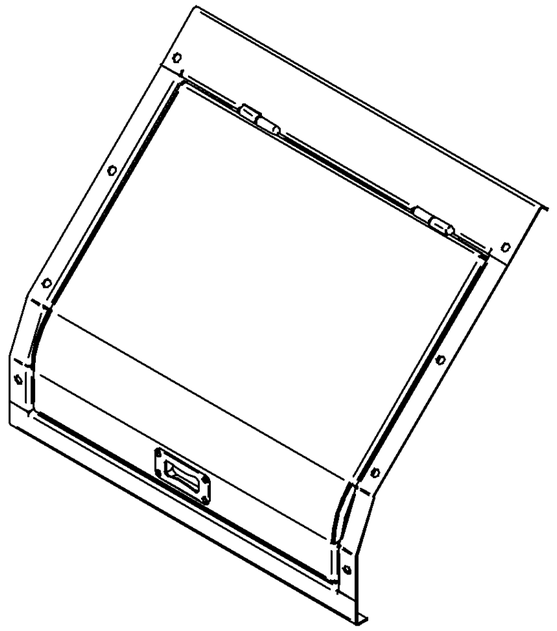
DWG NO: US1008A11 | REV: 1 | SIZE: C

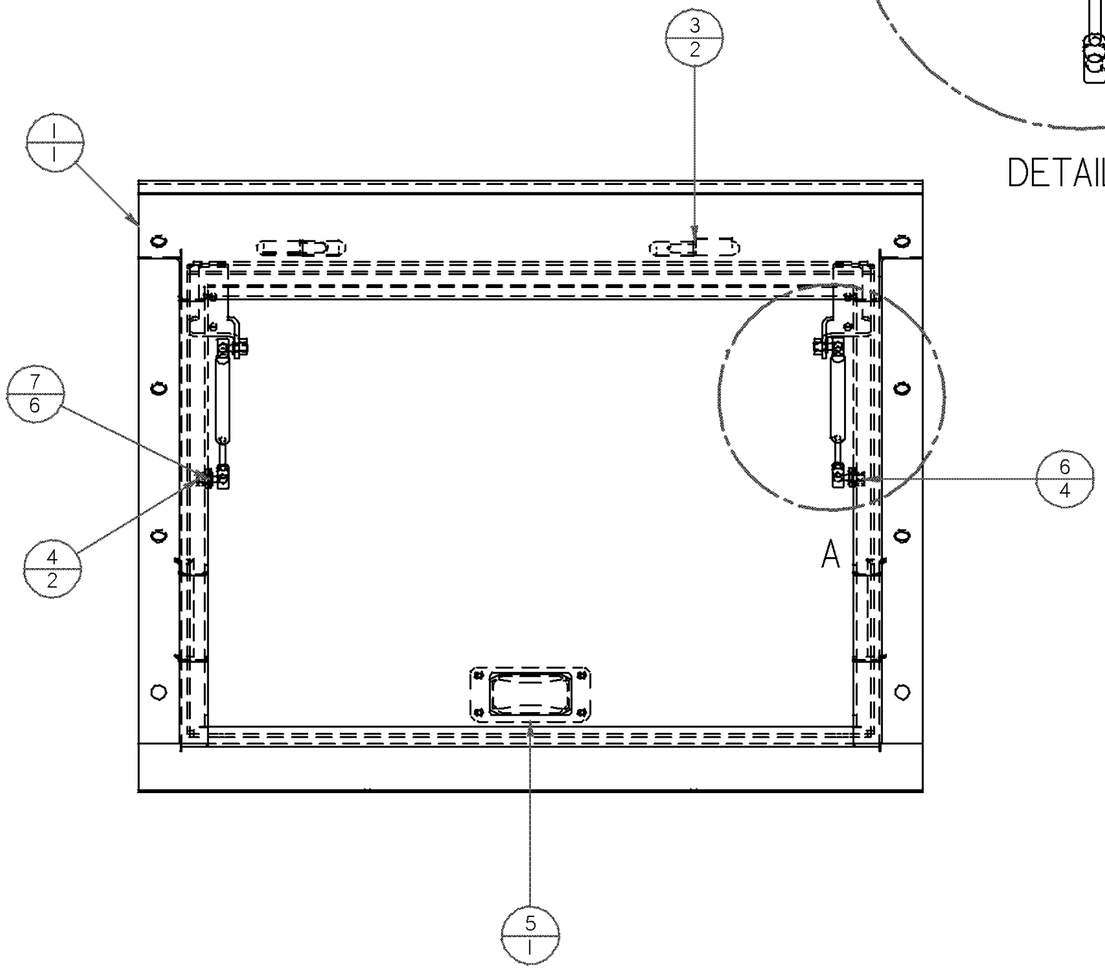
WEIGHT: 28.9 lbm | SHEET: 1 OF 1

Last Changed: 3/11/2008



DETAIL A





ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	US1008A121	DOOR COVER WELDMENT 30-4216	xxx
2"	1		FOAM TAPE .5 X 1 LD POLYURETHANE X 3 FT	220.0282
3	2		HINGE AL WELD-ON 2.0 X .625	269.3324
4	2		GAS SPRING AVM SE300A 60-LB	269.3333
5	1		HANDLE MOLDED RECESS GRAB BLK FINISH	269.3340
6	4		NUT HEX .375-16	950.4214
7	6		WASHER PLAIN FLAT .375	960.4214

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN RDUNCAN
DATE 1/6/2004
APPR

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

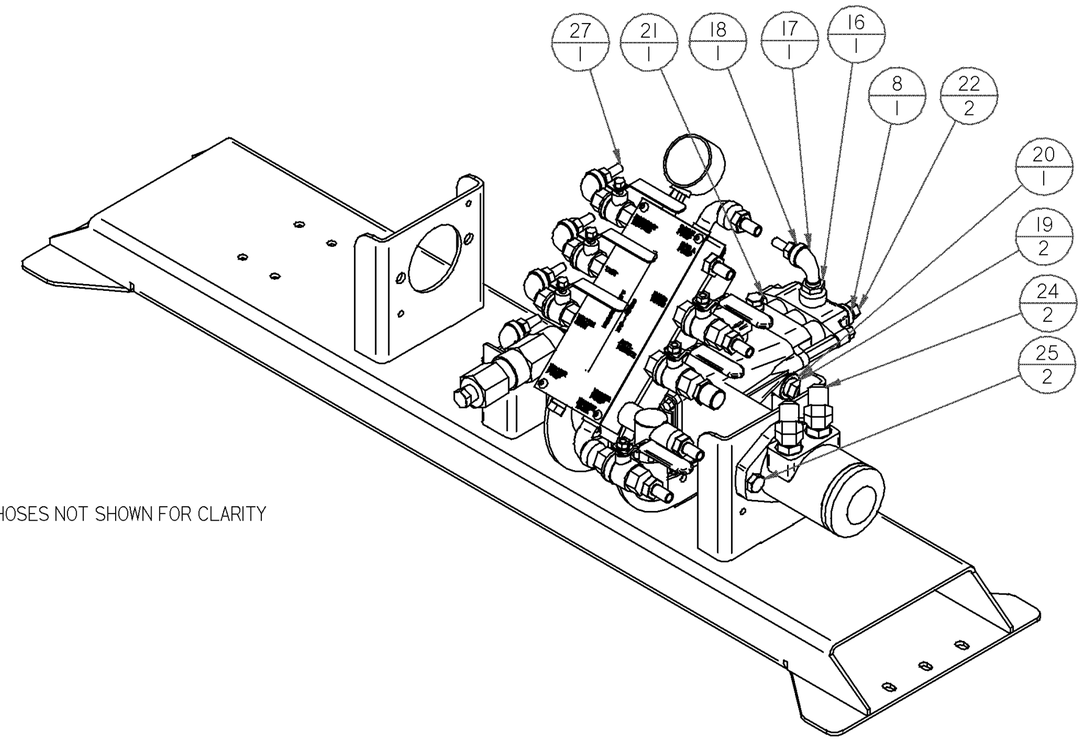
PROJECT

TITLE
DOOR COVER ASSEMBLY 30-4216
UNIBODY STORAGE

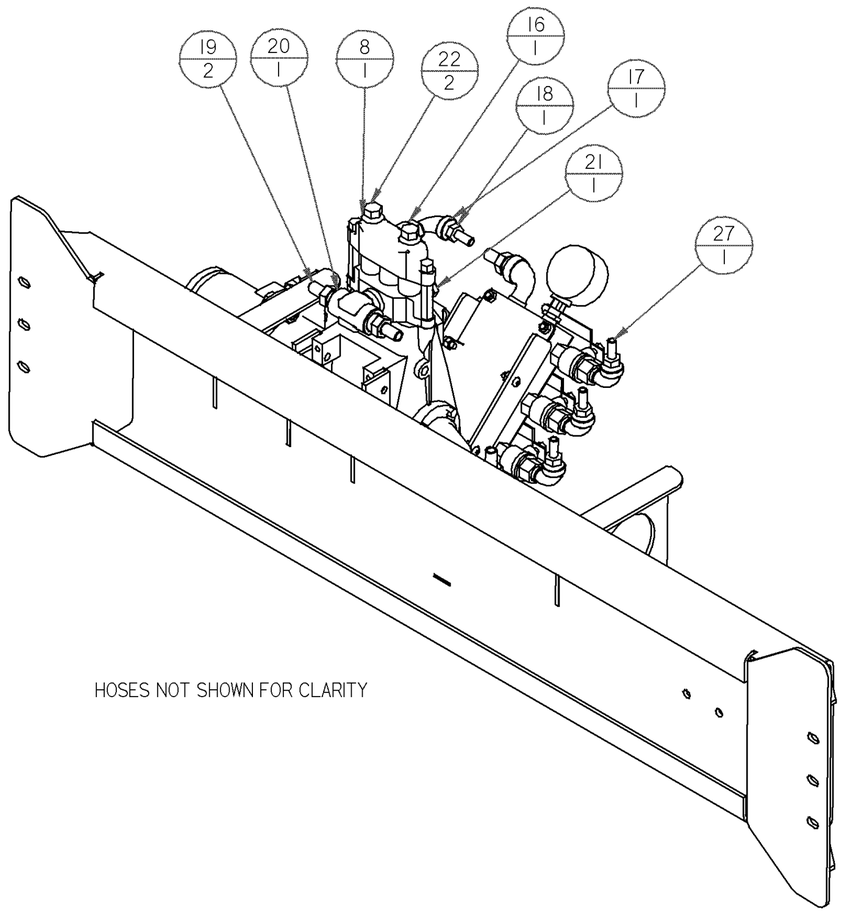
DWG NO US1008A12 | REV 1 | SIZE C

WEIGHT 19.9 lbm | SHEET 1 OF 1

Last Changed: 3/11/2008



HOSES NOT SHOWN FOR CLARITY



HOSES NOT SHOWN FOR CLARITY

ASSEMBLY NOTES:
1) USE LIQUID TEFLON THREAD SEALANT ON ALL THREADED PLUMBING CONNECTIONS
2) USE LOCTITE THREAD SEALANT ON ALL FASTENERS
3) TORQUE ALL FASTENERS TO RECOMMENDED SPECIFICATIONS

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1		HOSE EASY COUPLE BLUE 3/8 ID WATER X 3 FT	240.3381
2*	1		HOSE EASY COUPLE BLUE 3/8 ID WATER X 3 FT	240.3381
3	1		HOSE EASY COUPLE BLUE 1/2 ID WATER X 10 FT	240.3382
4	1		HOSE EASY COUPLE BLUE 1/2 ID WATER X 2 FT	240.3382
5	1		HOSE EASY COUPLE BLUE 1/2 ID WATER X 2 FT	240.3382
6	1		HOSE EASY COUPLE BLUE 1/2 ID WATER X 3 FT	240.3382
7	1		HOSE EASY COUPLE BLUE 1/2 ID WATER X 3 FT	240.3382
8	1		PUMP CAT 431 SS 5.0 GPM PISTON	241.1189
9*	1		GUARD SHAFT CAT PUMP	241.1191
10*	1		CAT PUMP OIL	241.1193
11*	1		COUPLING L095 HYTREL SPYDER	247.1369
12*	1		COUPLING L095 X 1.000 BORE .250	247.1371
13*	1		COUPLING L095 X 16.5MM BORE 5 MM KEY	247.1372
14	4		CLAMP OETIKER 2-EAR .544-.669 DIA SS	269.1373
15*	5		CLAMP OETIKER 2-EAR .748 - .866 DIA SS	269.1375
16	1		BUSHING PIPE SS .50-.375	271.9306
17	1		ELBOW STREET 90 SS S40 .375	273.2507
18	1		TYLOK MALE HOSE BARB 3/8 NPT - 3/8 HOSE	274.9852
19	2		TYLOK MALE HOSE BARB 1/2 NPT - 1/2 HOSE	274.9855
20	1		TYLOK SS 1/2 NPT MALE BRANCH	274.9860
21	1		PLUG PIPE HEX HD SS .25" NPT	275.0013
22	2		PLUG PIPE HEX HD SS .375" NPT	275.0014
23	1	UW1001P02	SHAFT GUARD TUBE 4.2" LONG	285.0005
24	2		FITTING 45 M37/ADJ MSAE 10-10	76802.1010
25	2		SCREW CAP HEX HEAD .50-13X1.25	900.5504
26*	2		NUT HEX .50-13 SS	950.5414
27	1	UW1001A12	WATER PUMP MANIFOLD ASSEMBLY	UW1001A12
28*	1	UW1001P04	SHAFT KEY	UW1001P04

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

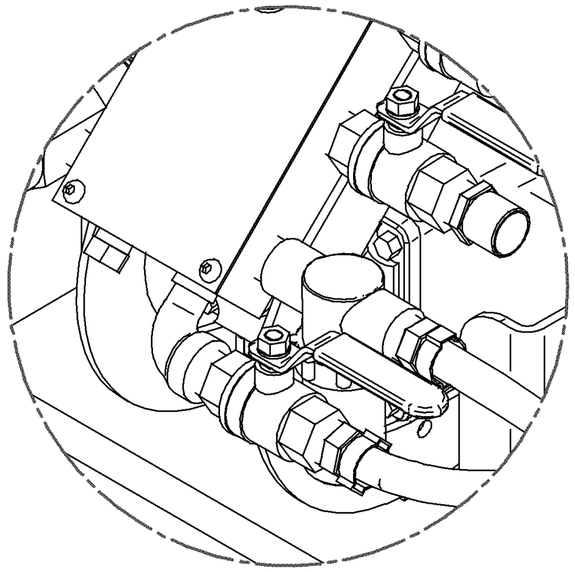
TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE
APPR. D COLE

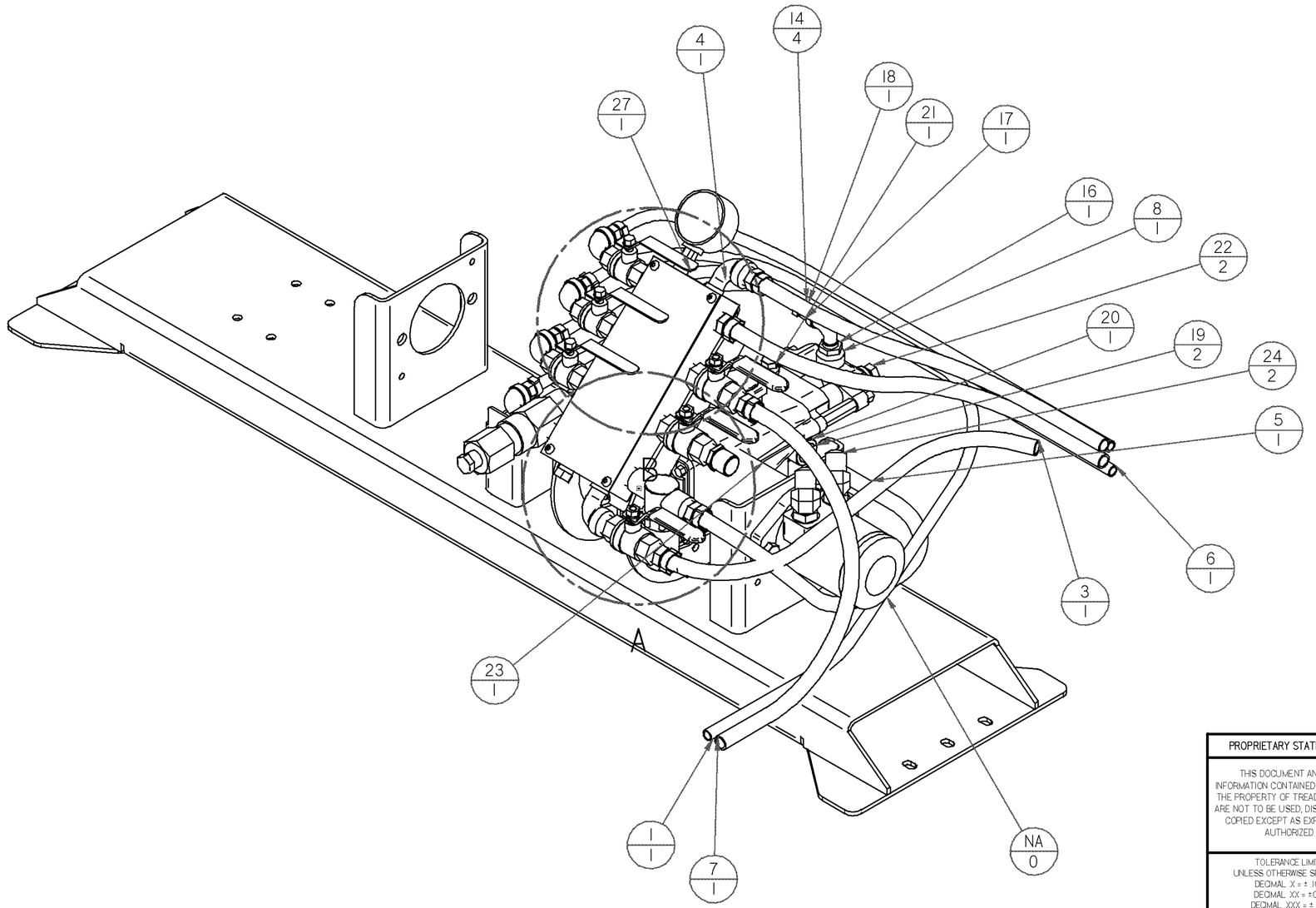
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

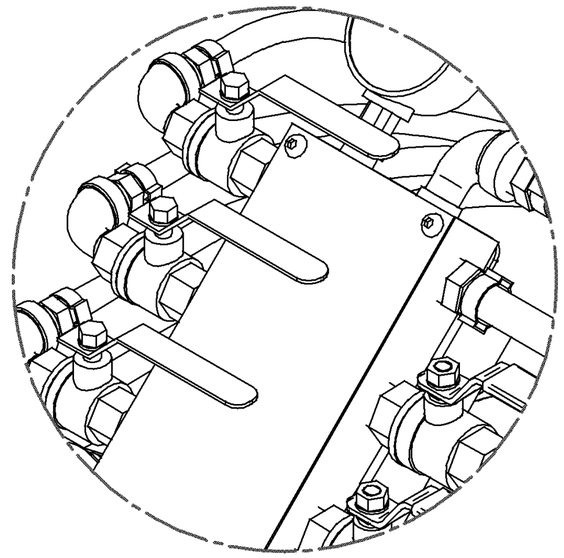
PROJECT WATER PUMP ASM
TITLE WATER PUMP ASM CAT 431
UNIBODY -16/19 SERIES
DWG NO UW1001A01
REV 03
SIZE C
WEIGHT 47.5 lbm
SHEET 1 OF 3

Last Changed: 10/22/2009



DETAIL A





DETAIL B

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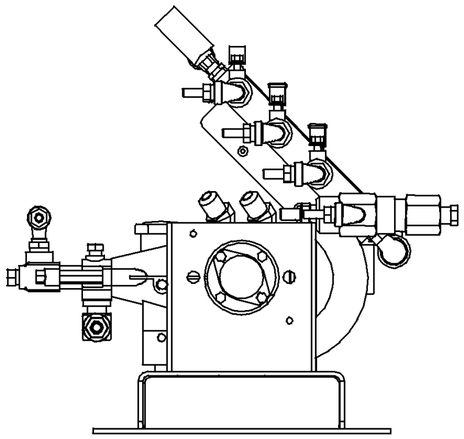
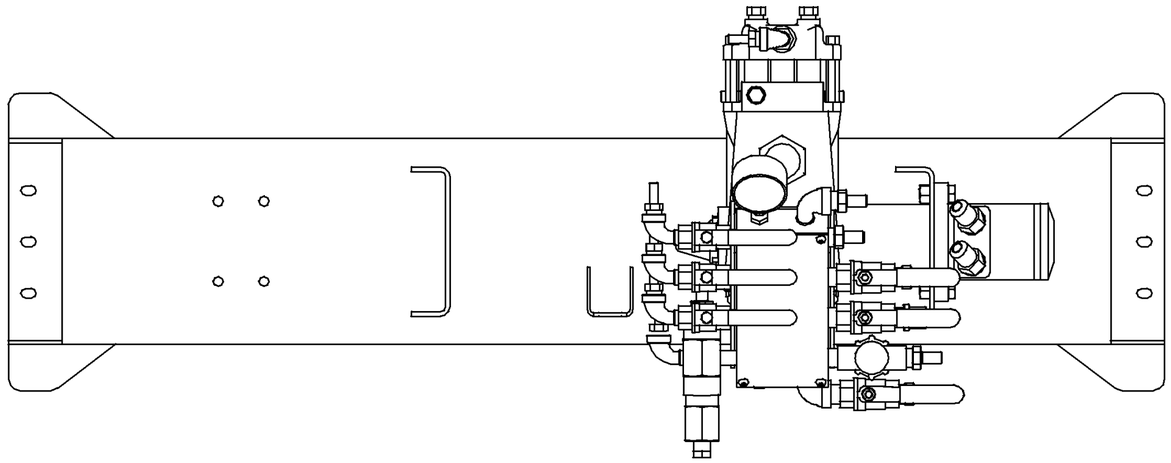
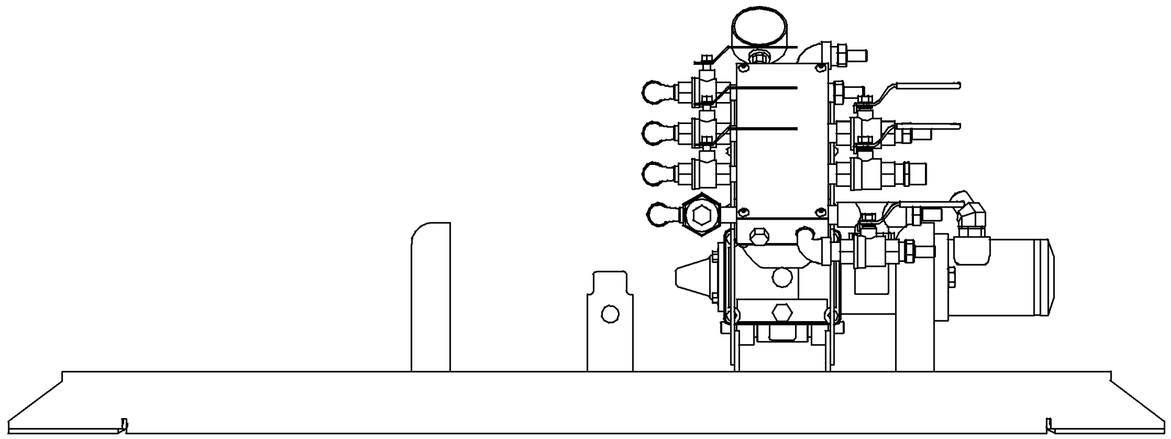
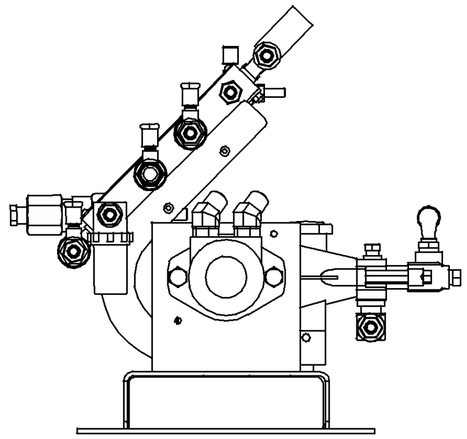
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN rduncan DATE APPR. D COLE	PROJECT WATER PUMP ASM TITLE WATER PUMP ASM CAT 431 UNIBODY -16/19 SERIES DWG NO UW1001A01 REV 03 SIZE C WEIGHT 47.5 lbm SHEET 2 OF 3

Last Changed: 10/22/2009









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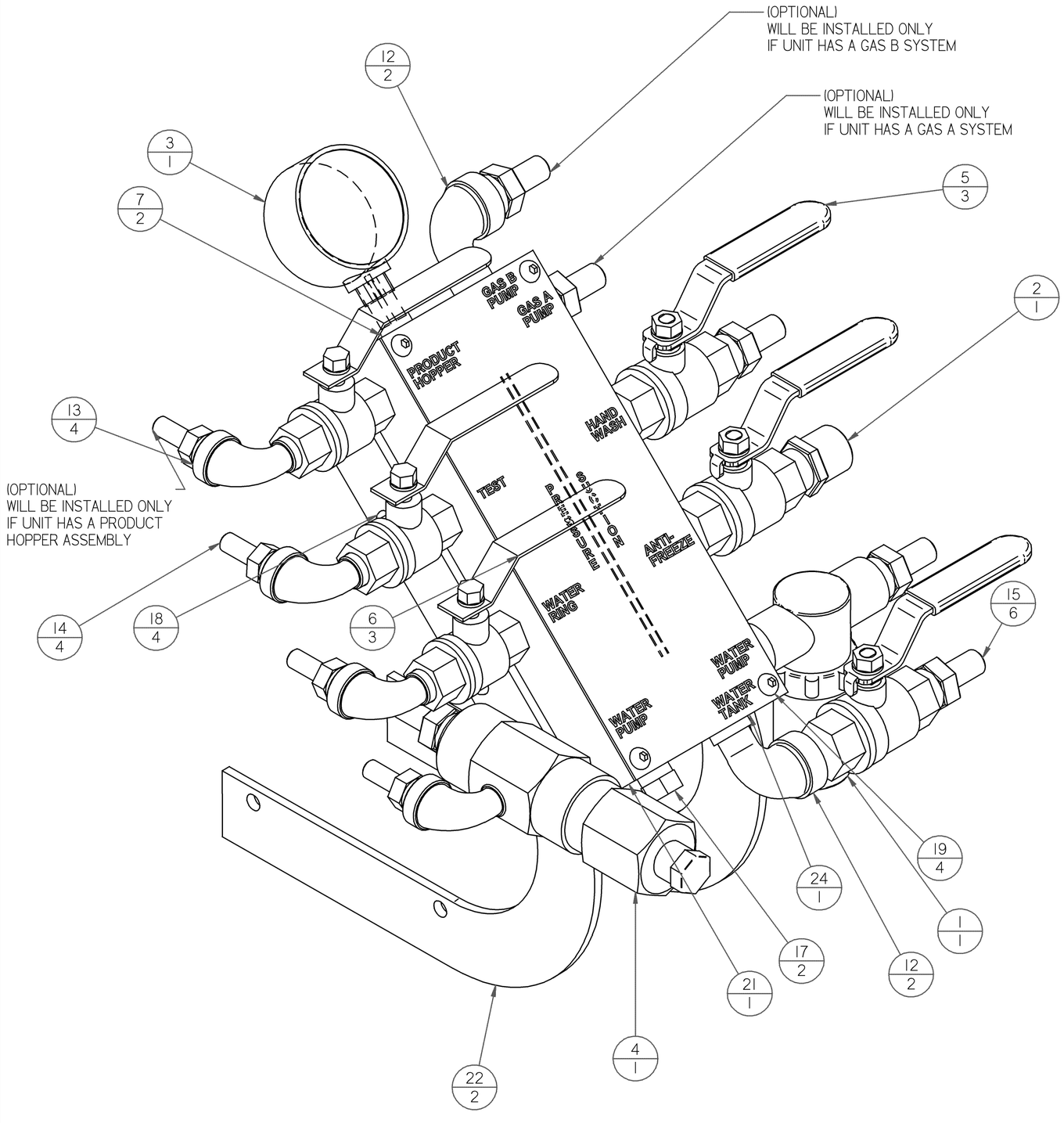
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN rduncan DATE APPR. D COLE	PROJECT WATER PUMP ASM TITLE WATER PUMP ASM CAT 431 UNIBODY -16/19 SERIES DWG NO UW1001A01 REV 03 SIZE C WEIGHT 47.5 lbm SHEET 3 OF 3

Last Changed: 10/22/2009



ASSEMBLY NOTES:
1) USE LIQUID TEFLON THREAD SEALANT ON ALL THREADED PLUMBING CONNECTIONS
2) USE LOCTITE THREAD SEALANT ON ALL FASTENERS
3) TORQUE ALL FASTENERS TO RECOMMENDED SPECIFICATIONS

ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1		STRAINER LINE .500 FNPT MINI SERIES	239.5292
2	1		ADAPTER 1/2 NPT X GHT STAINLESS	260.1005
3	1		GAUGE 2.5" 1000 PSI .25 MNPT BOTTOM CON	260.7023
4	1		PRESSURE REGULATOR CAT CPC SS	264.3201
5	3		VALVE BALL SS .50 FNPT FULL PORT	264.3211
6	3		VALVE BALL SS .375 FNPT FULL PORT	264.3216
7	2		BUSHING PIPE SS .375-.25	271.9304
8	1		NIPPLE PIPE SS S40 .375 2 IN	272.4073
9	3		NIPPLE PIPE SS S40 .375 CLOSE	272.4550
10	2		NIPPLE PIPE SS S40 .50 CLOSE	272.4594
11	2		NIPPLE PIPE SS S40 .50 CLOSE	272.4594
12	2		ELBOW STREET 90 SS S40 .50	273.2504
13	4		ELBOW STREET 90 SS S40 .375	273.2507
14	4		TYLOK MALE HOSE BARB 3/8 NPT - 3/8 HOSE	274.9852
15	6		TYLOK MALE HOSE BARB 1/2 NPT - 1/2 HOSE	274.9855
16*	3		PLUG PIPE HEX HD SS .50 NPT	275.0009
17	2		PLUG PIPE HEX HD SS .375" NPT	275.0014
18	4		BUTTON HEAD 1/4 - 20 X 3/4	901.3354
19	4		BUTTON HEAD 1/4 - 20 X 2.0 IN	901.3366
20	8		NUT HEX .25-20 SS	950.3014
21	1	UW100IP18	MANIFOLD WATER PUMP	UW100IP18
22	2	UW100IP22	MOUNT LEG WATER PUMP MANIFOLD	UW100IP22
23	1	UW100IP23	MOUNT BACK WATER PUMP MANIFOLD	UW100IP23
24	1	UW100IP24EN	LABEL WATER PUMP MANIFOLD	UW100IP24EN

THE 1/2 NPT HEX HEAD PIPE PLUGS SHOWN IN BOM ARE NOT SHOWN IN DRAWING. THEY ARE USED TO PLUG HOLES IN MANIFOLD WHERE OPTIONAL FEATURES ARE SHOWN, IF THOSE OPTIONS ARE NOT DESIRED. THERE IS ALSO AN EXTRA 3/8 NPT HEX PIPE PLUG IN BOM TO BE USED IF UNIT DOES NOT HAVE A PRODUCT HOPPER.

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

DRAWN rduncan
DATE 7/27/2006
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

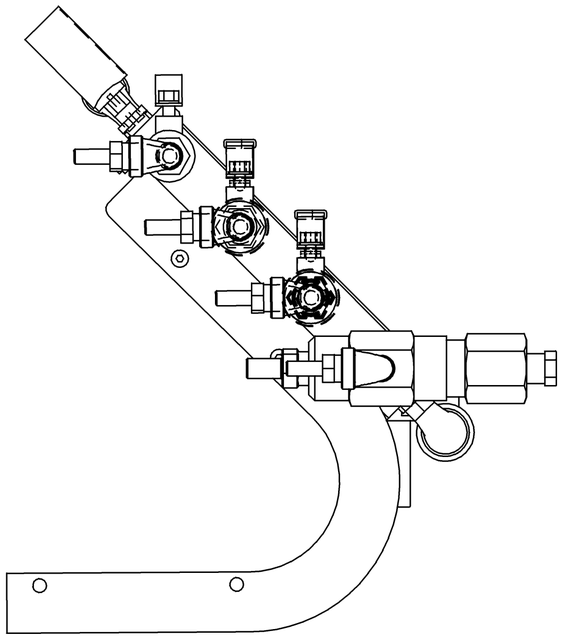
PROJECT

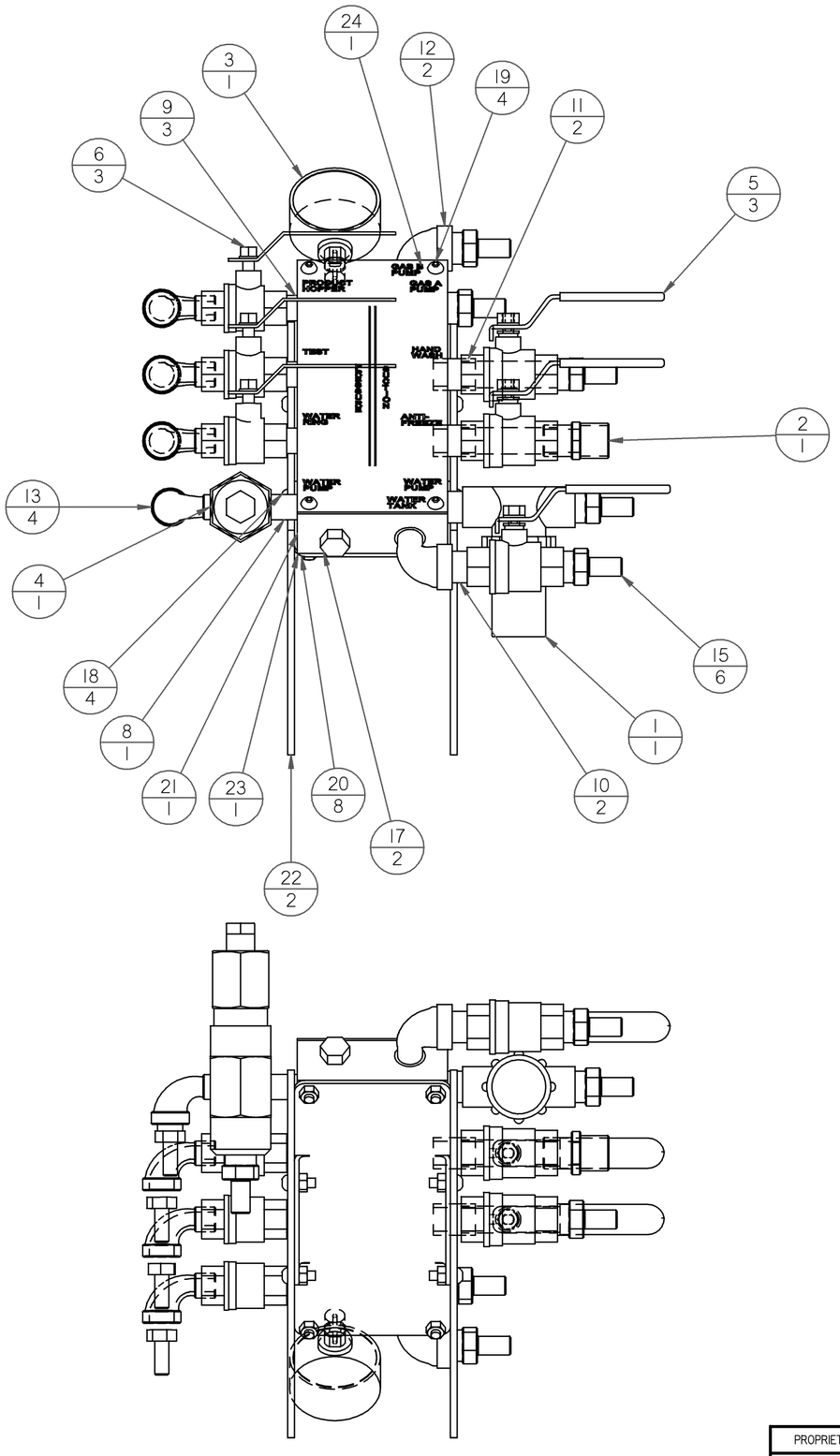
TITLE WATER PUMP MANIFOLD ASSEMBLY
UNIBODY WATER SYSTEM

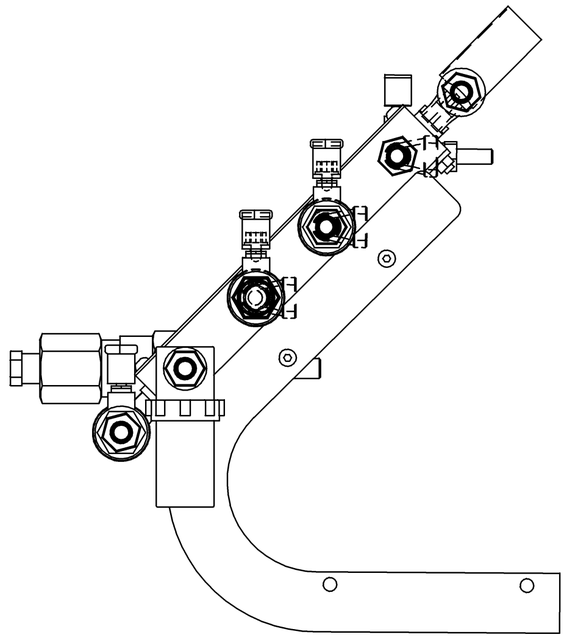
DWG NO UW100IA12 | REV 4 | SIZE C

WEIGHT 23.4 lbm | SHEET 1 OF 4

Last Changed: 3/12/2008







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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
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UNLESS OTHERWISE SPECIFIED
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THIRD ANGLE PROJECTION

DRAWN rduncan
DATE 7/27/2006
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

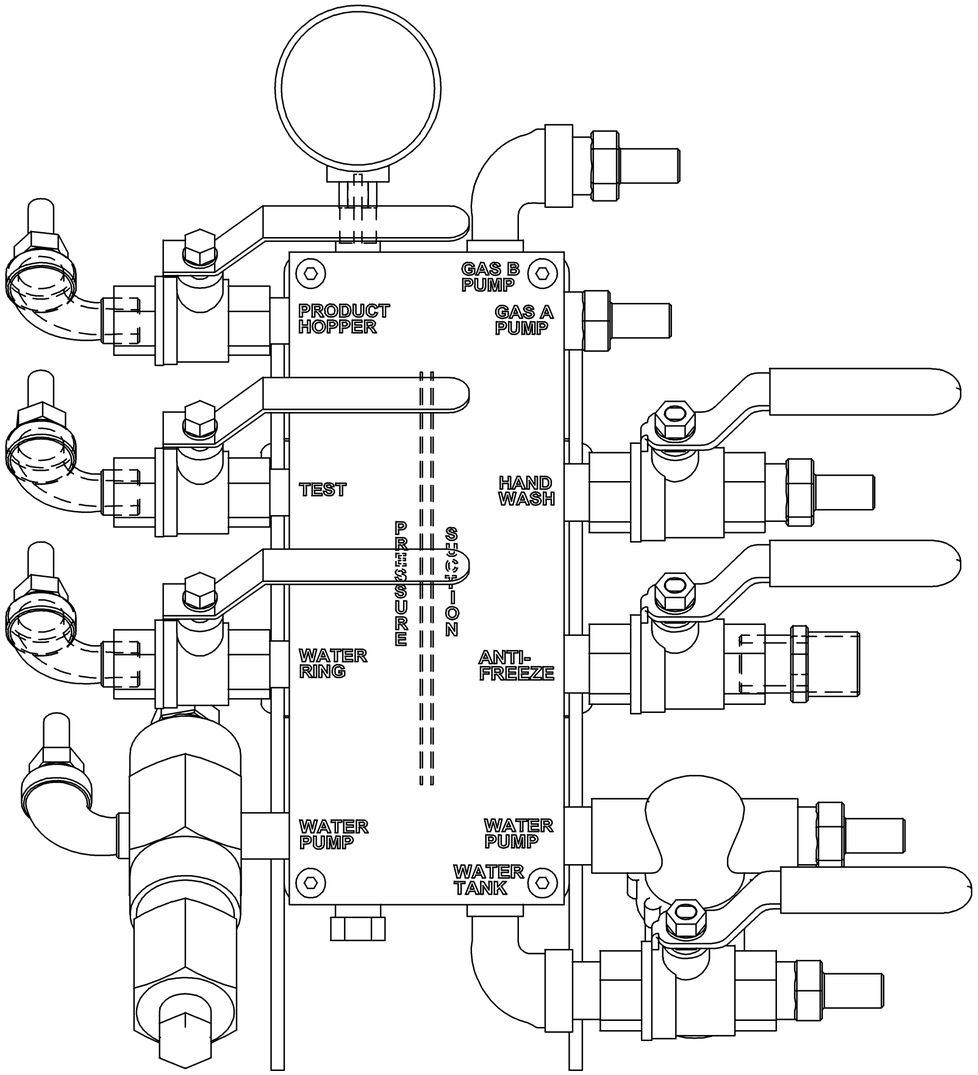
PROJECT

TITLE
WATER PUMP MANIFOLD ASSEMBLY
UNIBODY WATER SYSTEM

DWG NO UW1001A12 | REV 4 | SIZE C

WEIGHT 23.4 lbm | SHEET 2 OF 4

Last Changed: 3/12/2008



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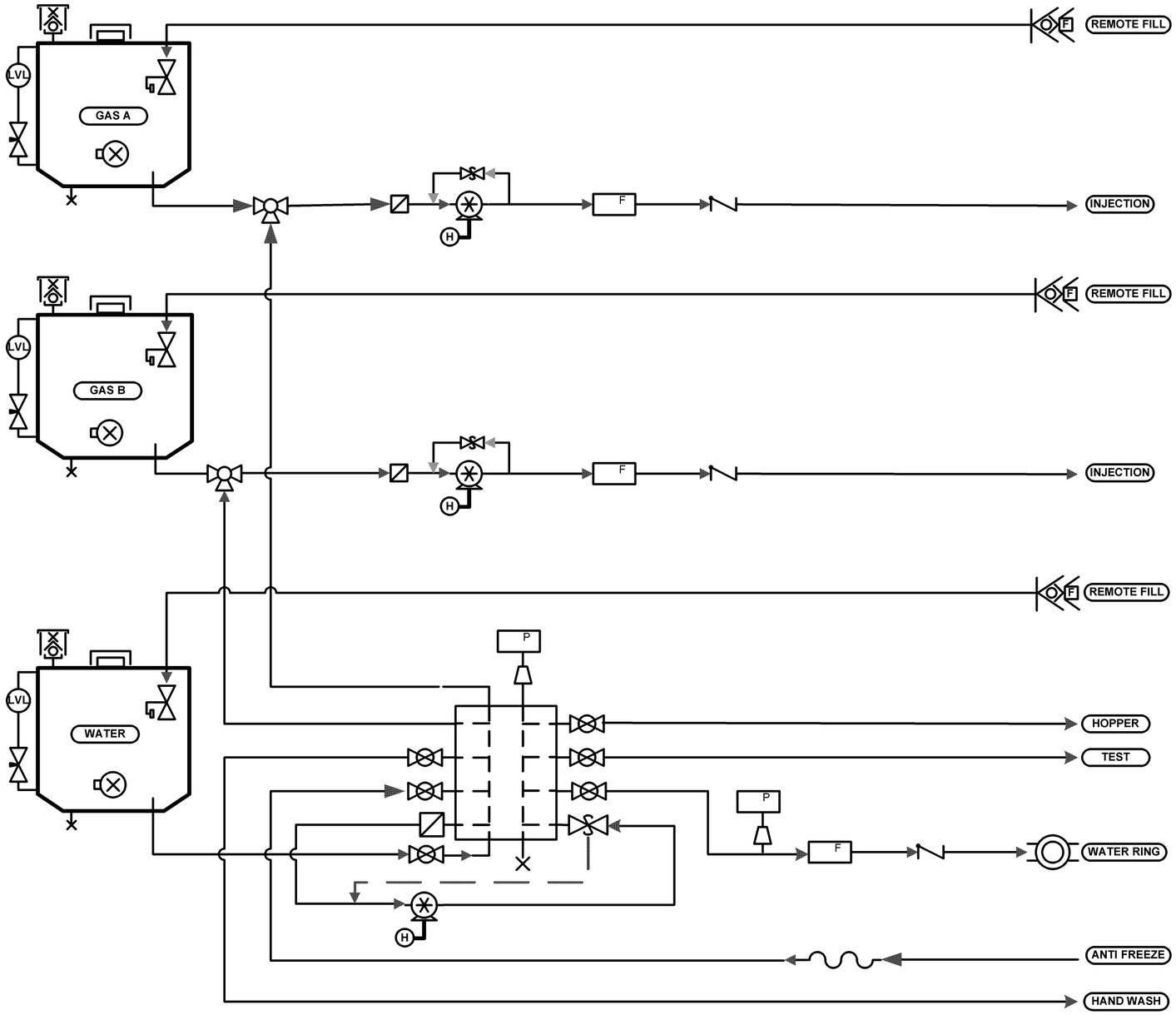
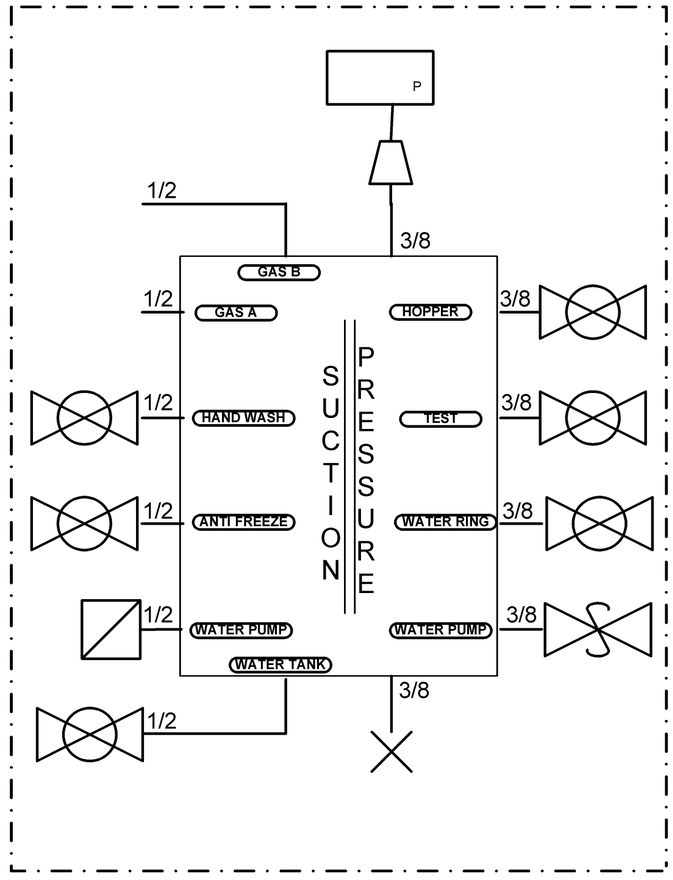
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN rduncan DATE 7/27/2006 APPR.	TITLE WATER PUMP MANIFOLD ASSEMBLY UNIBODY WATER SYSTEM DWG NO UWI001A12 REV 4 SIZE C WEIGHT 23.4 lbm SHEET 3 OF 4

Last Changed: 3/12/2008





Last Changed: 3/12/2008

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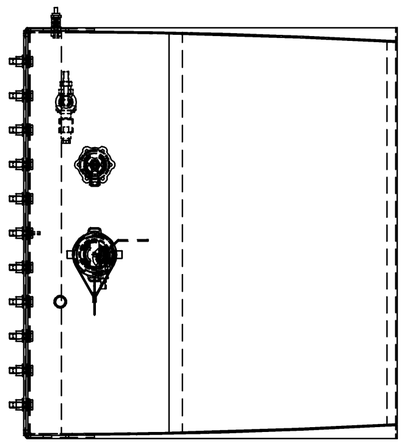
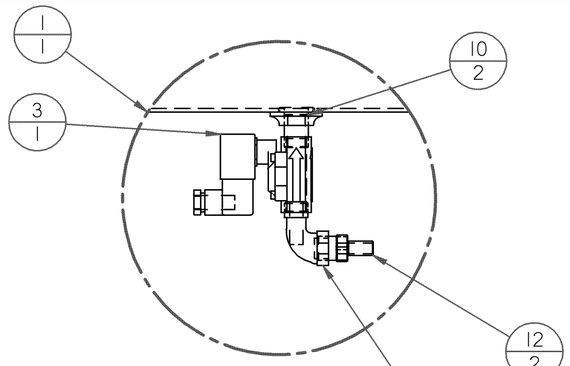
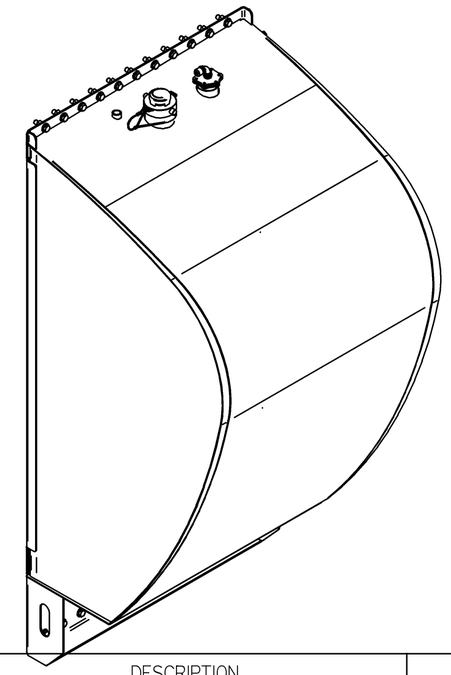
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN rduncan DATE 7/27/2006 APPR.	TITLE WATER PUMP MANIFOLD ASSEMBLY UNIBODY WATER SYSTEM DWG NO UW1001A12 · REV 4 · SIZE C WEIGHT 23.4 lbm · SHEET 4 OF 4

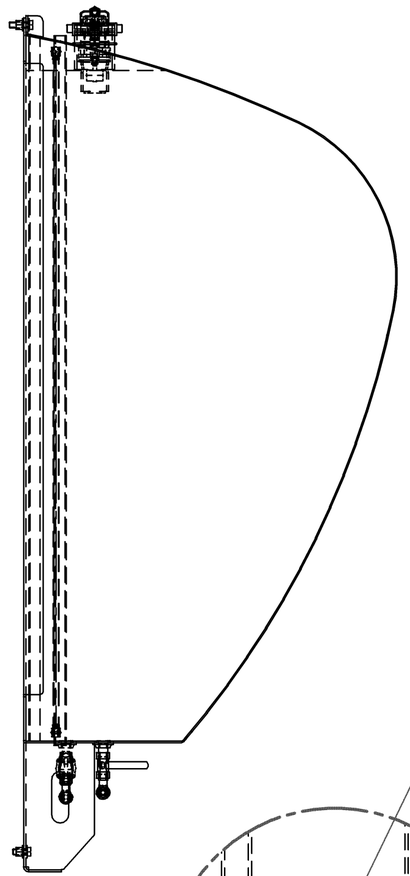


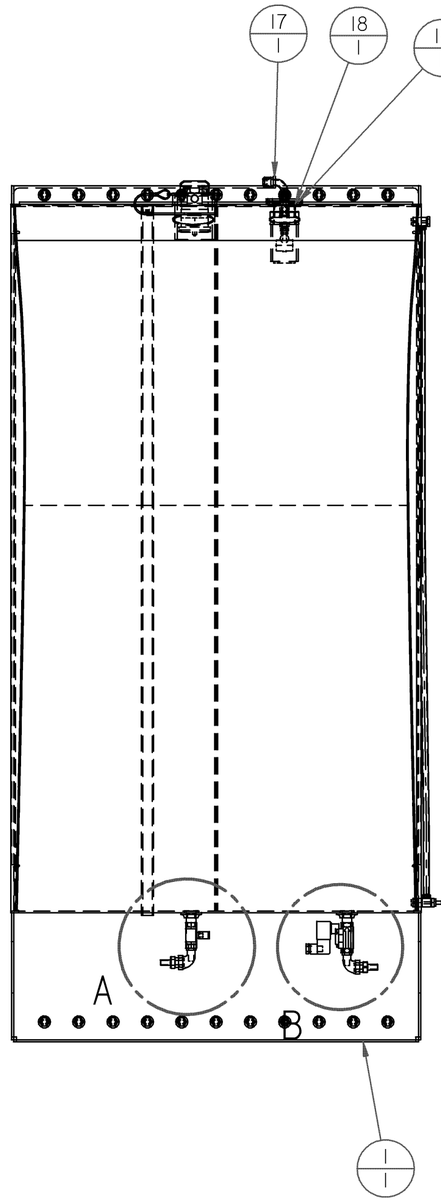


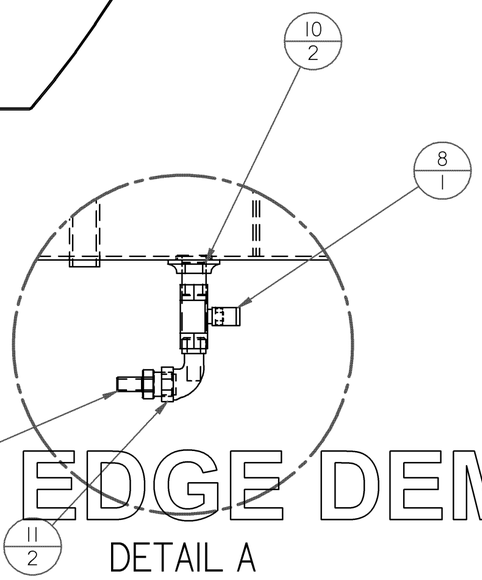
DETAIL B

NOTE:
PLACE LABELS AS CLOSE
AS POSSIBLE TO VALVES









DETAIL A

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UW1002A11	42-36 REAR TANK WELDMENT SS	
2"	1		TUBING 1/2 OD X 3/8 ID FEP FLUROPOLYMER X 5 FT	231.7007
3	1		VALVE 2 POS/WAY SS12VDCW DINI-UPLOAD1	239.7290
4	1		GAUGE SIGHT LIQUID LEVEL SHUTOFF	260.2775
5"	1		GAUGE SIGHT TOP LIQUID LEVEL	260.2775
6"	2		WIRE ROPE OVAL SLEEVE SS .125	261.1002
7"	1	UG1000P26	WIRE ROPE SS .125 DIA. 7 X 19 X 20.5"	261.1003
8	1		VALVE BALL SS .50 FNPT LO PRES	264.3211
9"	2		CLAMP 2-EAR .512-.433 DIA OETIKER SS	269.1364
10	2		NIPPLE PIPE SS S40 .50 CLOSE	272.4594
11	2		ELBOW STREET 90 SS S40 .50	273.2504
12	2		TYLOK MALE HOSE BARB 1/2 NPT - 1/2 HOSE	274.9855
13"	11		SCREW CAP HEX HEAD .50-13X1.25	900.5504
14"	11		SCREW CAP HEX HEAD .50-13X1.75	900.5524
15"	22		NUT HEX ELASTIC .50-13 SS	954.5414
16"	44		WASHER PLAIN FLAT .50	960.5414
17	1	UG1001A22	LEVEL SWITCH FLOAT ASSEMBLY	UG1001A22
18	1	UG1001A30	LEVEL SWITCH MOUNTING FLANGE REMOVABLE	UG1001A30
19	1	UG1001P28	GASKET LEVEL SWITCH FLANGE	UG1001P28
20"	1	UG1006A01	ANTI SPILL CAP ASSEMBLY SS / EPDM	UG1006A01
21"	1	UW1001P16	LABEL BALL VALVE OFF/ON	UW1001P16

SOLID EDGE DEMO COPY

PART ID

Last Changed: 6/3/2008

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN jtruskey
DATE 6/3/2008
APPR. D COLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

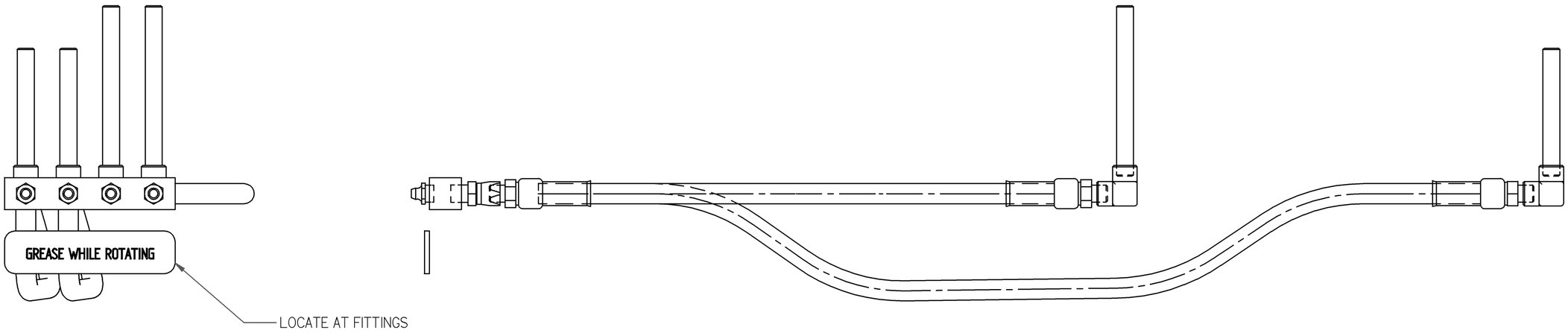
UW1002A03X

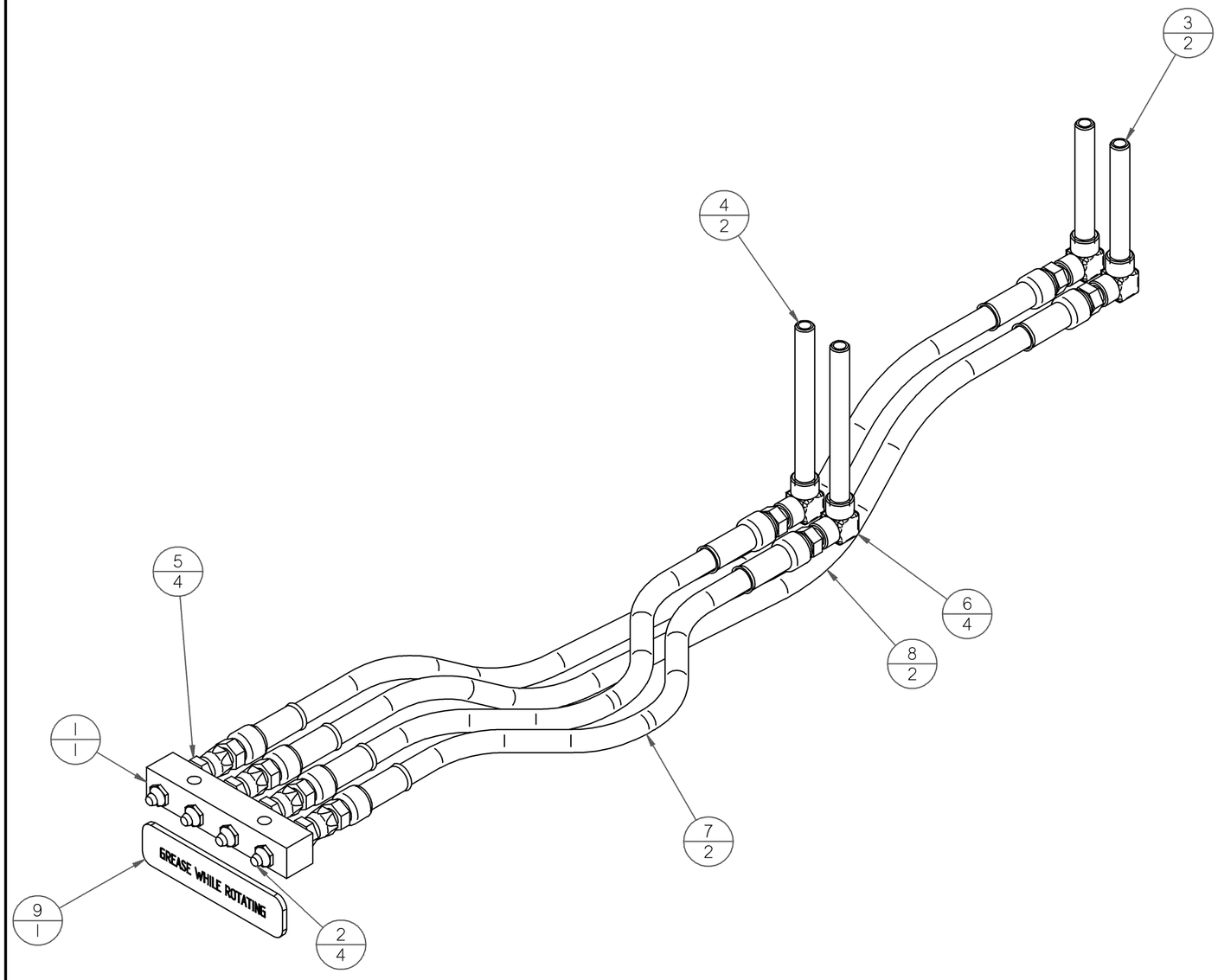
PROJECT

TITLE WATER TANK ASM 42-36 255 GAL REAR SS 12V UNIBODY 42

DWG NO UW1002A03X | REV 2 | SIZE C

WEIGHT 2392.7 lbm | SHEET 1 OF 1





ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1	1	UX1000P02	GREASE BLOCK 4 PORT 1/8 - 27 NPT	246.9499
2	4		ZERK FITTING .25-28	246.9541
3	2		NIPPLE PIPE SS S40 .125 X 3	272.4507
4	2		NIPPLE PIPE SS S40 .125 X 4	272.4507
5	4		FITTING STR MNPT/FNPTSW -02	71404.0202
6	4		FITTING 90 FNPT/FNPT .125-.125	75504.0202
7	2	UX1002A10	ROTATOR WORM GREASE LINE	UX1002A10
8	2	UX1002A11	ROTATOR BEARING GREASE LINE	UX1002A11
9	1	UX1002P04EN	LABEL GREASE WHILE ROTATING	UX1002P04EN

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ± .020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN rduncan
DATE 6/28/2003
APPR. DCOLE

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

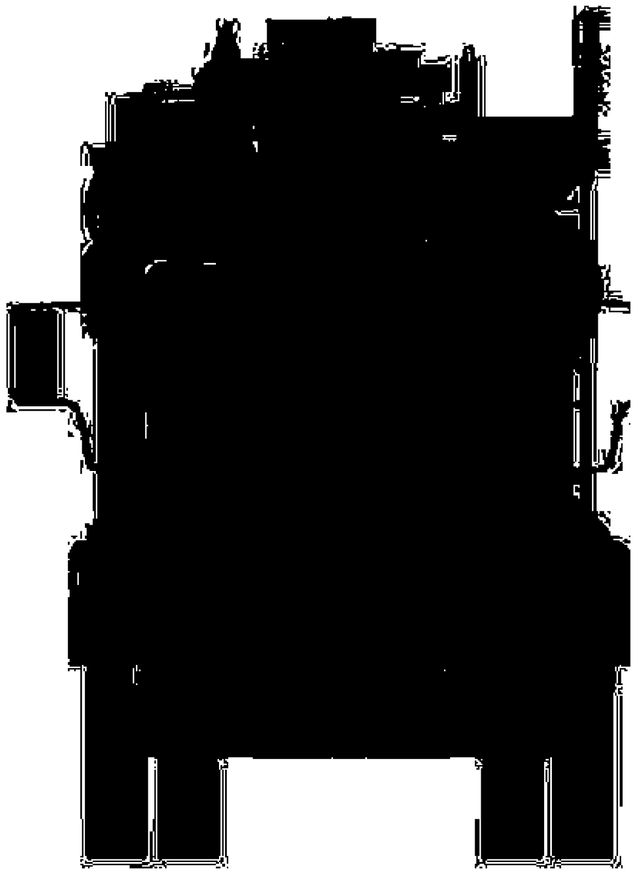
PROJECT

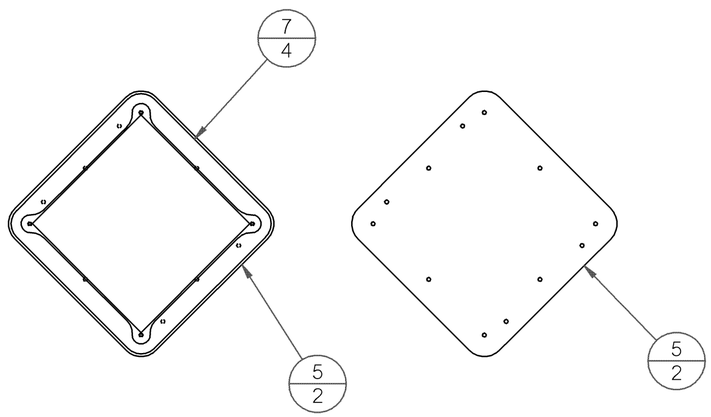
TITLE
CENTRAL LUBRICATION SYSTEM
CENTRAL LUBRICATION SYSTEM

DWG NO UX1002A01 | REV 1 | SIZE C

WEIGHT 4.8 lbm | SHEET 1 OF 1

Last Changed: 3/13/2008





FRONT PLACARDS

GENERAL NOTES:

PLACARDS ARE TO BE MOUNTED USING 1/4 X 3/8 INCH MAGNA-LOK RIVETS. MOUNTING HOLES WILL HAVE TO BE HAND DRILLED IN MOST CASES.

FRONT PLACARDS MOUNT TO THE FRONT BUMPER. THE ARRANGEMENT MAY NEED TO BE ADJUSTED TO ALLOW FOR TILTING OF THE CAB OR HOOD.

REAR OXIDIZER AND FUEL PLACARDS MOUNT TO THE REAR BUMPER. THE REAR FLIP PLACARD MOUNTS TO THE RIGHT REAR STORAGE COMPARTMENT SUPPORT.

SIDE OXIDIZER AND FLIP PLACARDS MOUNT TO THE DOORS OF THE IME CONTAINER. SIDE FUEL PLACRDS ARE ADHERED TO THE SIDE OF THE FUEL TANK.

SIDE ORANGE PANELS ARE MOUNTED TO THE TOP FLANGE OF THE STORAGE COMPARTMENTS ABOVE THE DOOR. ONE SLIDE-IN PANEL HOLDER AND BRACKET SHOULD BE CENTERED ABOVE EACH COMPARTMENT DOOR.

ORANGE PANELS ARE DOUBLE-SIDED FOR DUAL USE.

THE ORANGE PANEL MARKED 1942 AND 0331 IS FOR AN OR ANFO. THESE ARE SUPPLIED FOR EACH PRILL COMPARTMENT AND FOR EACH CONVERTIBLE EMULSION TANK.

THE ORANGE PANEL MARKED 3139 ND 0332 IS FOR EMULSIONS. THESE ARE SUPPLIED FOR EACH CONVERTIBLE EMULSION TANK.

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	8	UX1005P11	ORANGE PANEL 1942/0331 ANFO	UX1005P11
2	4	UX1005P10	ORANGE PANEL 3139/0332 EMULSION	UX1005P10
3	8	UX1005P03	ORANGE PANEL BRACKET	UX1005P03
4	1	UX1005P02	PLACARD BACK PLATE WITH FOOT	UX1005P02
5	2	UX1005P01	PLACARD BACK PLATE W/O FOOT	UX1005P01
6	8	N/A	ORANGE PANEL SLIDE IN HOLDER	239.6920
7	4	N/A	PLACARD FLIP SYSTEM 1.1D/1.4B/1.5D/3/5.1	239.6913

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
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DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN

DATE 10/31/2005

APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

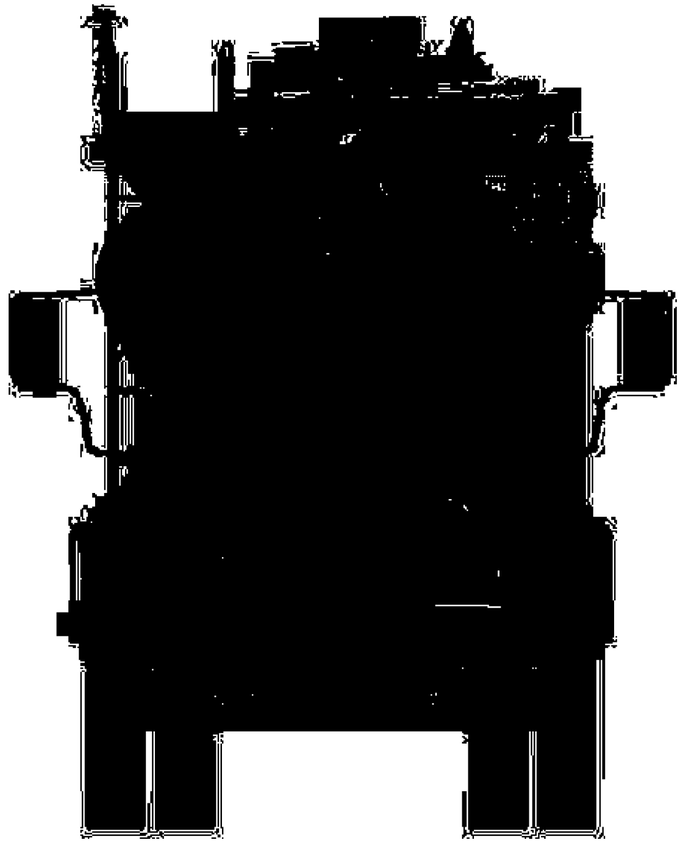
PROJECT UNIBODY PLACARDS

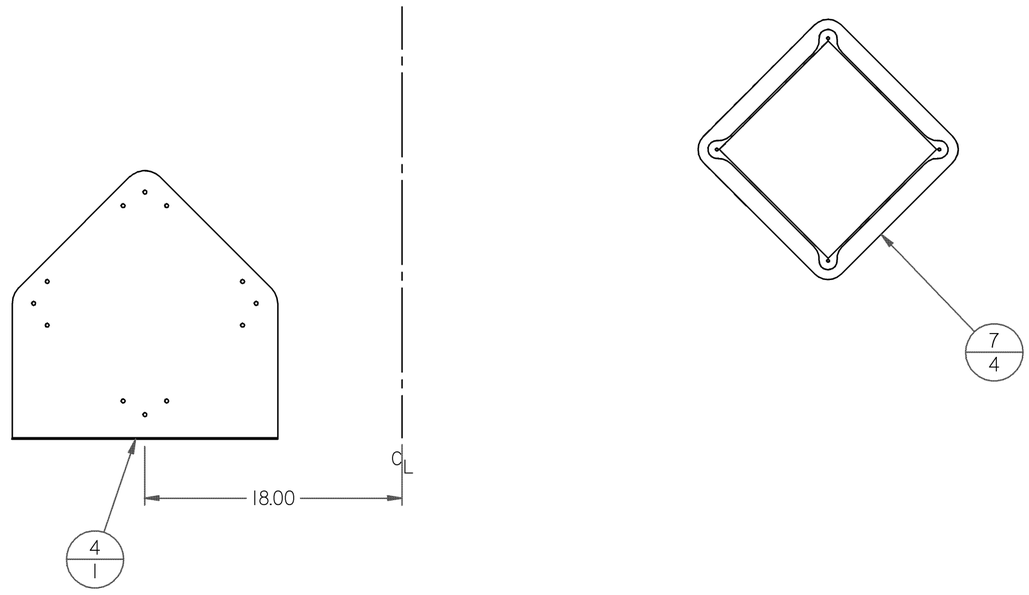
TITLE PLACARD PACKAGE OFF-ROAD USE BLEND
TOM WATTS PACKAGE

DWG NO UX1005A03 | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 3

Last Changed: 5/28/2008





REAR PLACARDS

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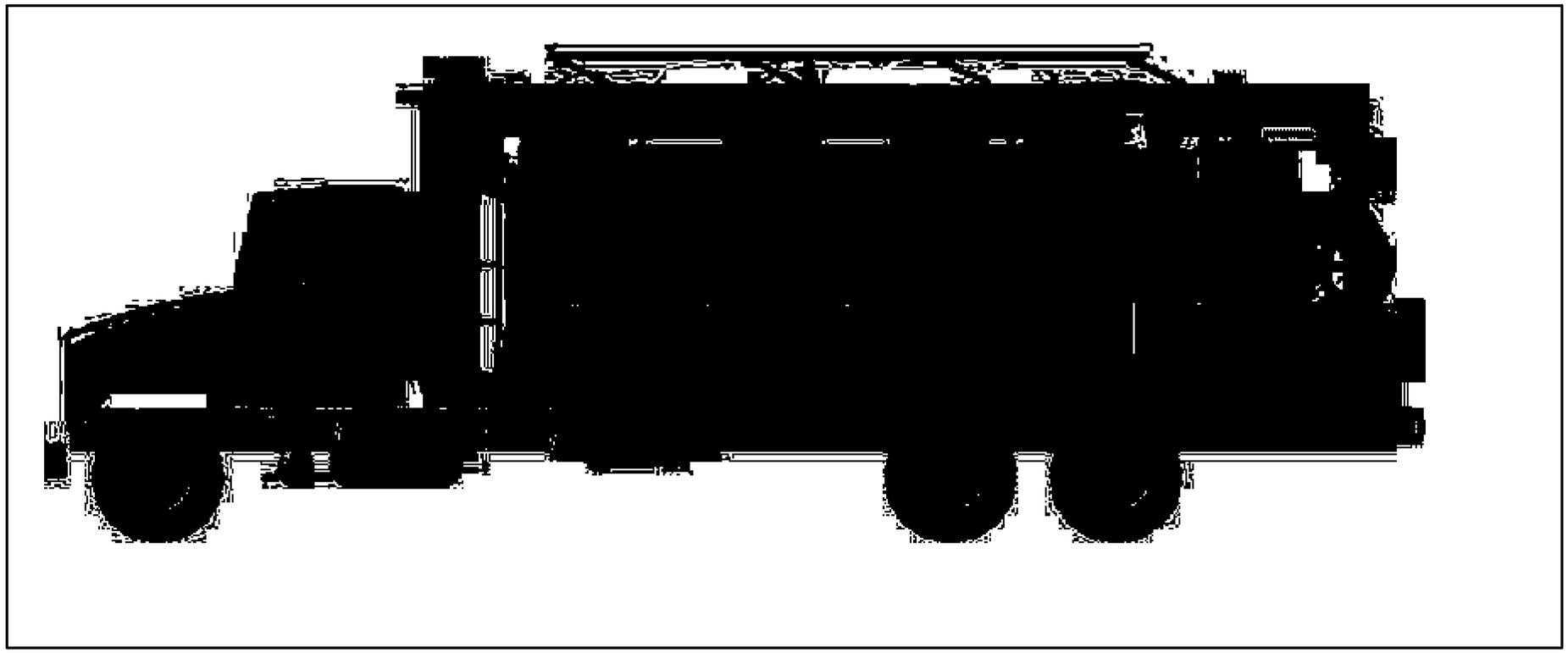
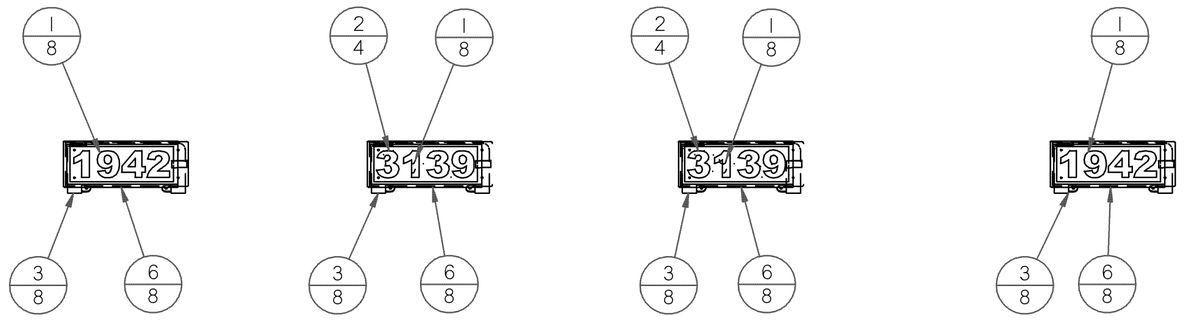
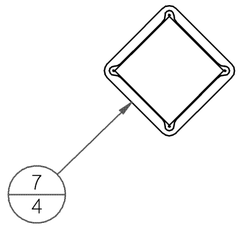
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN DATE: 10/31/2005 APPR.	DWG NO: UX1005A03 REV: 1 SIZE: C WEIGHT: 0.0 lbm SHEET: 2 OF 3

Last Changed: 5/28/2008







SIDE PLACARDS
INSTALLED ON BOTH SIDES OF VEHICLE

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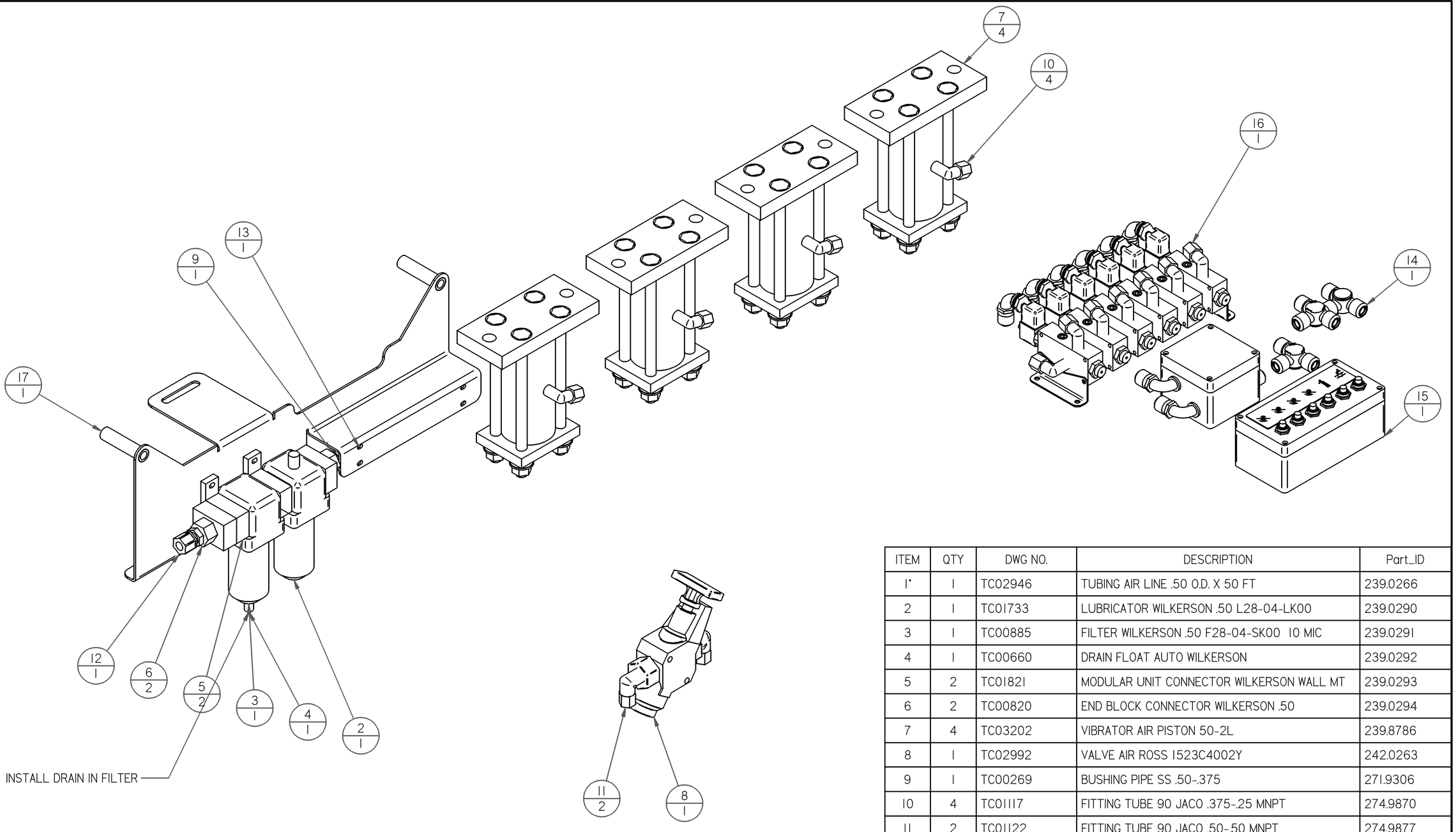
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ± .020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN DATE 10/31/2005 APPR.	PROJECT UNIBODY PLACARDS TITLE PLACARD PACKAGE OFF-ROAD USE BLEND TOM WATTS PACKAGE DWG NO UX1005A03 REV 1 SIZE C WEIGHT 0.0 lbm SHEET 3 OF 3

Last Changed: 5/28/2008



ITEM	QTY	DWG NO.	DESCRIPTION	Part_ID
1*	1	TC02946	TUBING AIR LINE .50 O.D. X 50 FT	239.0266
2	1	TC01733	LUBRICATOR WILKERSON .50 L28-04-LK00	239.0290
3	1	TC00885	FILTER WILKERSON .50 F28-04-SK00 10 MIC	239.0291
4	1	TC00660	DRAIN FLOAT AUTO WILKERSON	239.0292
5	2	TC01821	MODULAR UNIT CONNECTOR WILKERSON WALL MT	239.0293
6	2	TC00820	END BLOCK CONNECTOR WILKERSON .50	239.0294
7	4	TC03202	VIBRATOR AIR PISTON 50-2L	239.8786
8	1	TC02992	VALVE AIR ROSS 1523C4002Y	242.0263
9	1	TC00269	BUSHING PIPE SS .50-.375	271.9306
10	4	TC01117	FITTING TUBE 90 JACO .375-.25 MNPT	274.9870
11	2	TC01122	FITTING TUBE 90 JACO .50-.50 MNPT	274.9877
12	1	TC01128	FITTING TUBE JACO .50-.50 MNPT	274.9878
13	1	TC01125	FITTING TUBE JACO .375-.375 MNPT	274.9879
14	1	UC1040A01	AIR VALVE ASM JUNCTION BOX	UC1040A01
15	1	UC1040A02	AIR PUSH BUTTON BOX ASSEMBLY	UC1040A02
16	1	UP1013A01X	AIR VALVE ASM 12V	UP1013A01X
17	1	UX1008A04	MOUNTING BRACKET 4 VIBRATOR ASM	UX1008A04

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THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN LWILLIAMS
DATE 11/09/2005
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

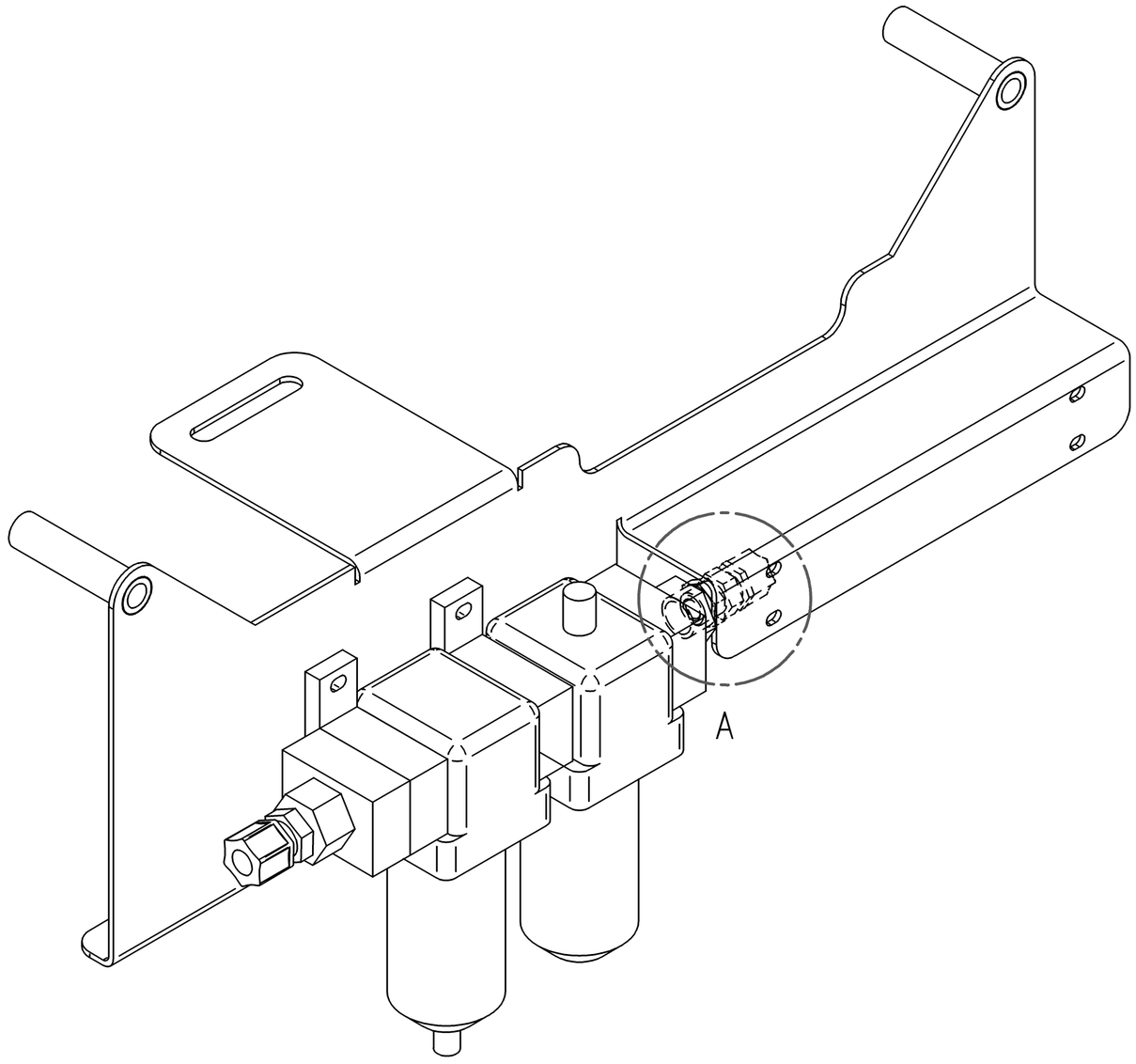
PROJECT VIBRATOR ASM AND CONTROL ELEC 12

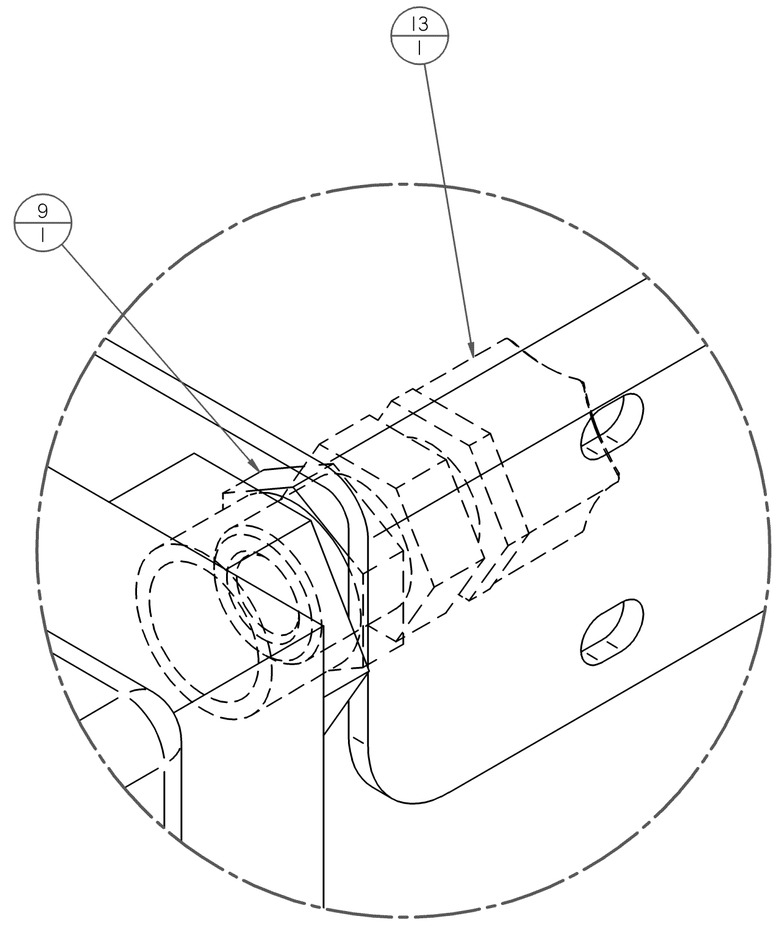
TITLE VIBRATOR ASM AND CONTROL ELEC 12V
UNIBODY

DWG NO UX1008A13X | REV 1 | SIZE C

WEIGHT 0.0 lbm | SHEET 1 OF 2

Last Changed: 04/28/2009





DETAIL A

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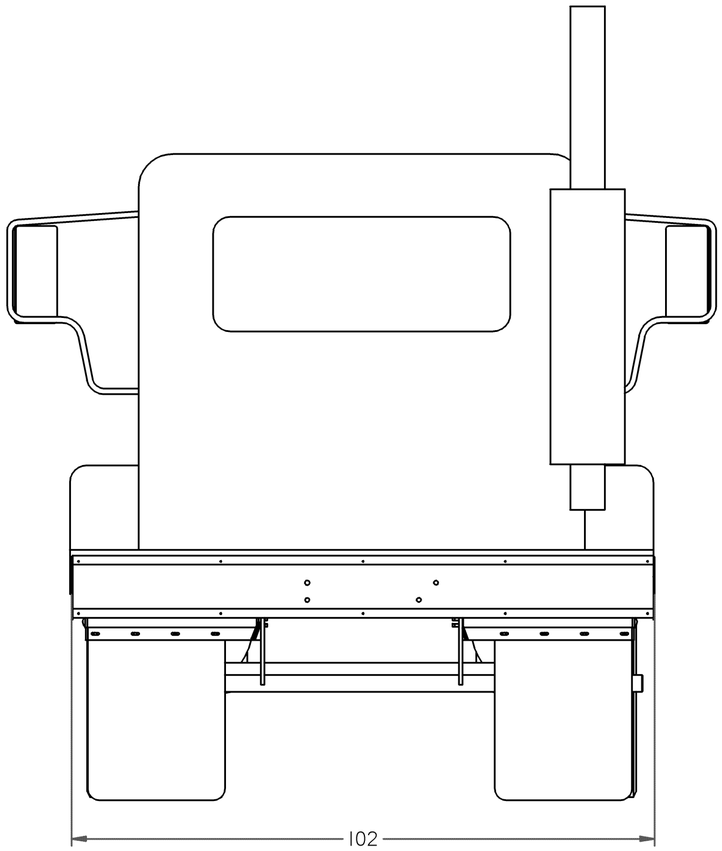
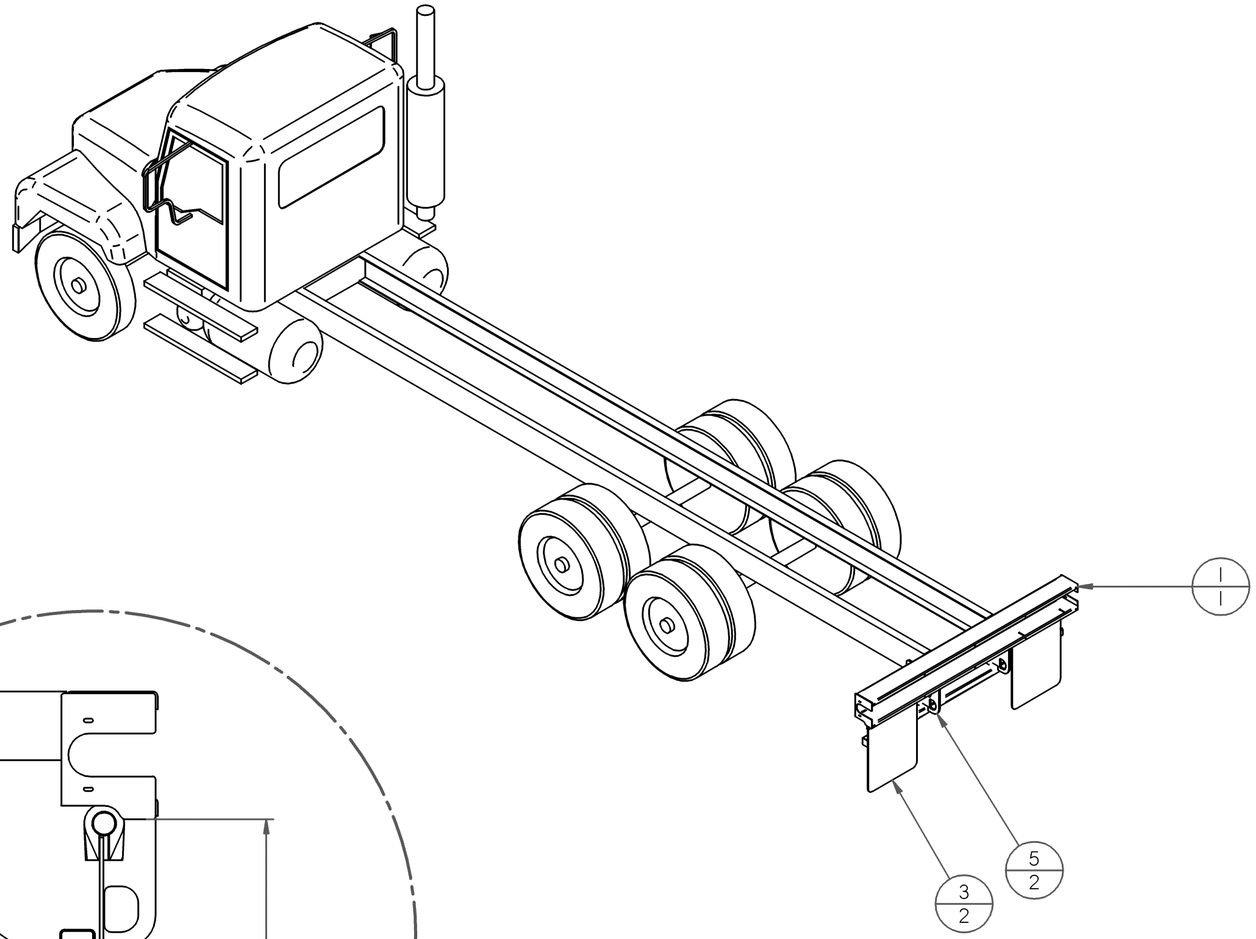
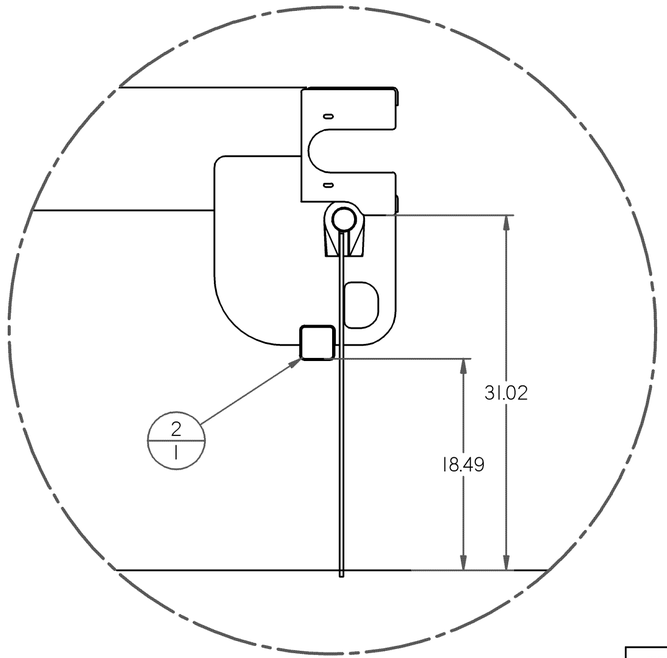
TOLERANCE LIMITS UNLESS OTHERWISE SPECIFIED DECIMAL .X = ± .100 DECIMAL .XX = ±.020 DECIMAL .XXX = ± .005 ANGULARITY = ± 0.5 DEG	DRAWN: LWILLIAMS DATE: 11/09/2005 APPR.	DWG NO: UX1008A13X REV: 1 SIZE: C WEIGHT: 0.0 lbm SHEET: 2 OF 2

Last Changed: 04/28/2009



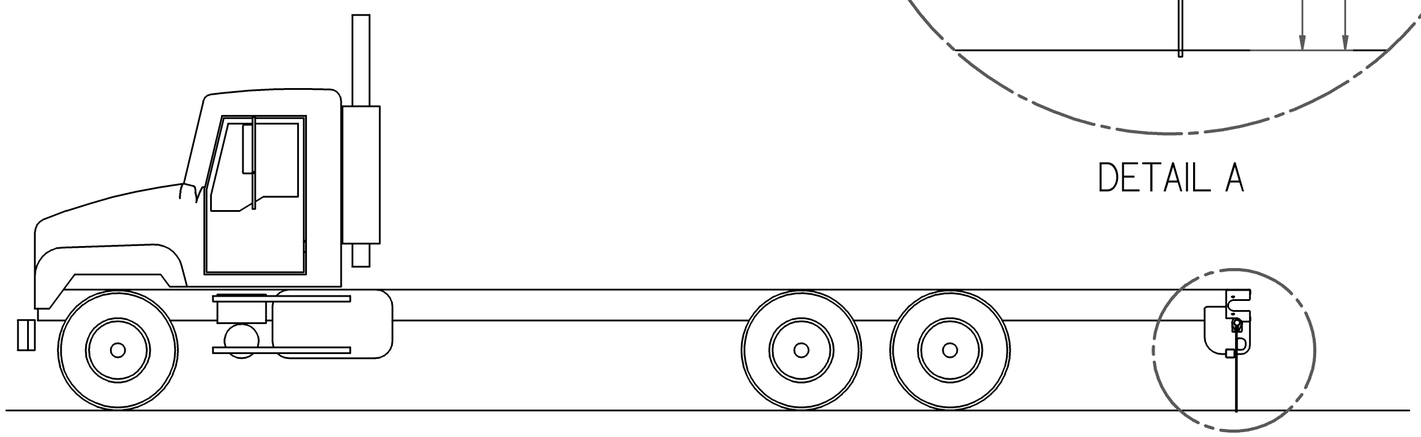
NOTE: CENTER BUMPER CORE ON FRAME RAILS





DETAIL A

DIMENSIONS FROM GROUND TO ICC BAR AND BUMPER ARE VARIABLE DUE TO DIFFERENCES IN CHASSIS DESIGN, AXLE (SPRING) RATING, WEIGHT OF BODY AND OPTIONAL ACCESSORIES, AND PRODUCT LOADING. HOWEVE,R, DIMENSION FROM GROUND TO ICC BAR WILL NEVER EXCEED 760 MM (30") AND IS GENERALLY SUBSTANTIALLY LESS.



ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UX1010A06	BUMPER	
2	1	UX1010A10	ICC BAR WELDMENT	
3	2		MUD FLAPS "TREAD"	243.5581
4*	2		BRACKETS MUD FLAP FRAME MOUNT MS	243.5591
5	2	UX1010P01	BUMPER TOW PLATE D-HOLE STYLE .63	UX1010P01

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1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN LWILLIAMS
DATE 10/7/2003
APPR.

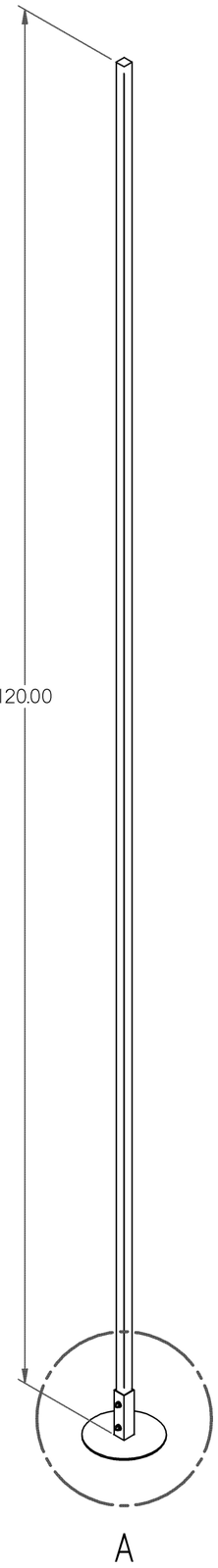
TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT BUMPER ASM DOT HIGHWAY 42 SERIES
TITLE BUMPER ASM DOT HIGHWAY 42 SERIES
UNIBODY 42XX SERIES

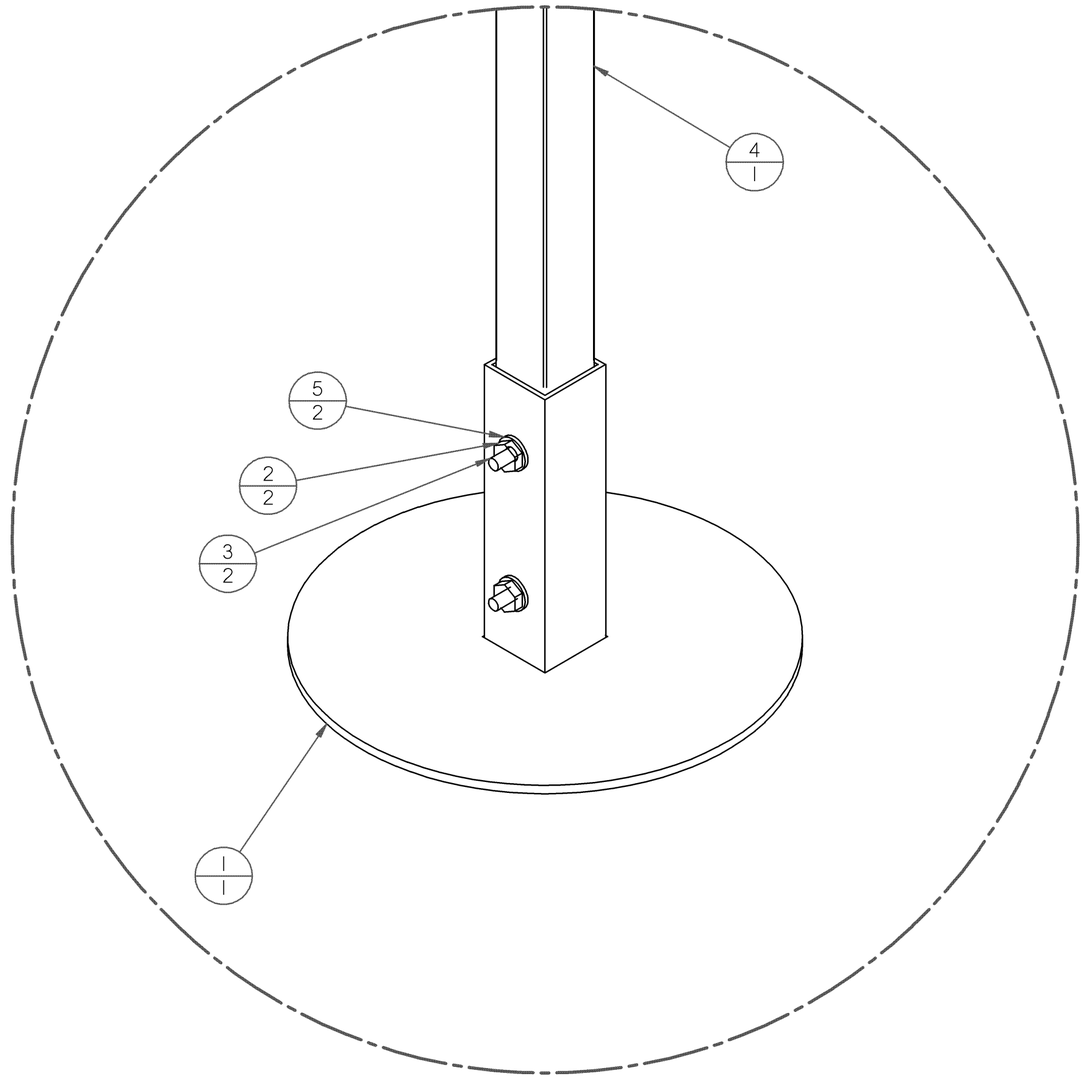
DWG NO UX1010A02 | REV 01 | SIZE C
WEIGHT 0.0 lbm | SHEET 1 OF 1

Last Changed: 7/27/2009

A



A



DETAIL A

ASSEMBLY NOTES:

1- INSERT WOODEN GAUGE STICK INTO FOOT UNTIL END IS FLUSH WITH BOTTOM OF FOOT.

2- LOCATE AND DRILL (2) HOLES .188 DIA 1 INCH FROM EACH END OF TUBE THRU TUBE AND GAUGE STICK.

3- INSTALL MACHINE SCREWS, WASHERS, AND NUTS, AND SECURE WITH LOCKITTE.

ITEM	QTY	DWG NO.	DESCRIPTION	Part ID
1	1	UX1013A02	UNIBODY TANK GAUGE FOOT ASM	UX1013A02
2	2		NUT HEX #8-32 SS	950.1214
3	2		SCREW MACHINE SL ROUND HD #8-32X1.25 SS	915.1304
4	1		TANK GAUGE STICK 10 FT ONE PIECE	250.2500
5	2		WASHER PLAIN FLAT #8	960.1214

PROPRIETARY STATEMENT

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UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
1.0 INCH = 25.4 mm

THIRD ANGLE PROJECTION

TOLERANCE LIMITS
UNLESS OTHERWISE SPECIFIED
DECIMAL .X = ± .100
DECIMAL .XX = ±.020
DECIMAL .XXX = ± .005
ANGULARITY = ± 0.5 DEG

DRAWN DCOLE
DATE 5/3/2004
APPR.

TREAD CORPORATION ROANOKE, VIRGINIA 24012 USA

PROJECT

TITLE TANK GAUGE STICK ASM 10 FT

DWG NO UX1013A01 | REV 1 | SIZE C

WEIGHT 1.7 lbm | SHEET 1 OF 1

Last Changed: 3/13/2008