DWG NO R37798 | SH I CONT. II

SCHEMATIC DIAGRAM INDEX

ITEM	DESCRIPTION OF CIRCUITRY	SHEET NO.
ARMATURES	CROWD:	
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	FEEDBACK & DIVERTER CONTROL	12
	HOIST #1 (FRONT HOIST):	
	CONVERTER & DIVERTER	6
	ARMATURE, FEEDBACK, & DIVERTER CONTROL	8
	SUPPLY SUPPRESSION & SUPPRESSION BREAKER	3
	HOIST #2 (REAR HOIST):	
	CONVERTER & DIVERTER	7
	ARMATURE, FEEDBACK, & DIVERTER CONTROL	8
	SUPPLY SUPPRESSION & SUPPRESSION BREAKER	3
	PROPEL #1 (RIGHT PROPEL):	
	CONVERTER & ARMATURE	6
	FEEDBACK & DIVERTER CONTROL	8
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	FEEDBACK & DIVERTER CONTROL	12
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	CONVERTER, DIVERTER & ARMATURE	9
	FEEDBACK & DIVERTER CONTROL	10
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RECORD OF CHANGES

VER. MARK	CHANGE CODE	KIT NO	SHEETS AFFECTED	NAME/ DATE
01	ERN 17031		I,IV,8,12,35,38,53,54,55	WB/AT 10/05/1998
02	ERN 20011		ALL SHEETS REVISED FROM ANALOG TO DIGITAL CONTROL	JJN 04/04/1999
03	ERN 20504		I,20,22,25,26,53, DELETED 25A	WB 05/17/1999
04	ERN 33735		I,48,49,50,51,52,64,65,66,67,69,71,73, 75, & 77	CCD 10/22/2004
05	ERN 5518876		I,II,III,V,1-15,17,19-31,34. DELETED IV,16,18,26A,27A,31A,32,33,35-41,41A, 42,43,43A,44,44A,45-47,47A,48-53, 53A,54,55,55A,56-60,60A,61,61A,62-66,66A,67,67A,68-80. NEW 86,88-93,95-98,100-108,113-119,129-135,140-144,149-153,158-162,167-170, 175-180,194-199,500-525.	J DEMOTT 10/2019

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U.S. BORAX

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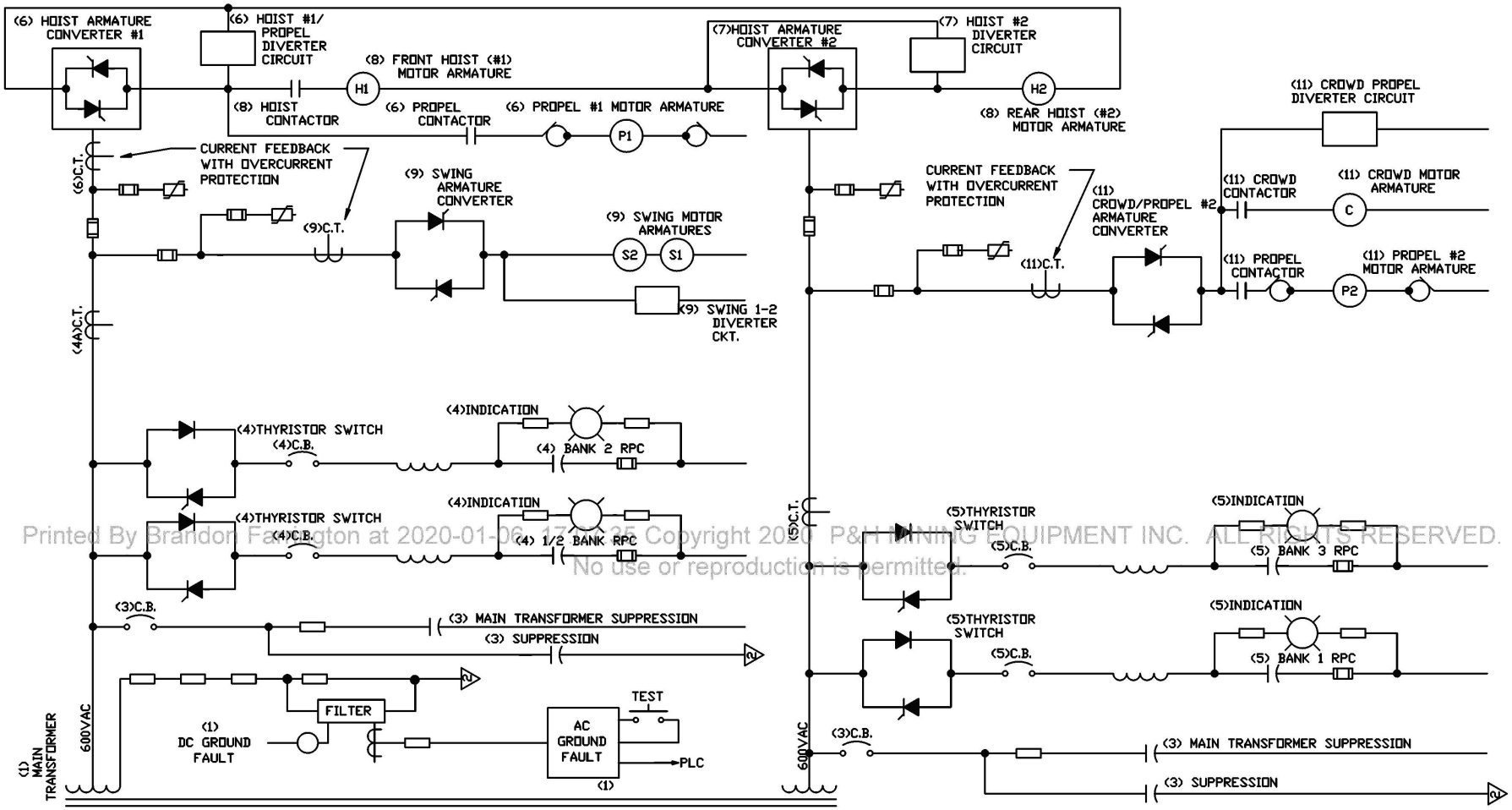
05	5518876	J DEMOTT 10/2019	
CHNG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

ASSY NO. REF	S.N. ES4184 60HZ
SIZE	C
DWN BY / DATE	J.DEMOTT 10/2019
SCALE	NONE
TR BY / DATE	
CHKD BY / DATE	R PITSCH 10/2019
RELEASE DATE	09/24/98
SIMILAR TO	R37998
ENGR BY / DATE	J WUTKE 10/2019
TITLE	SCHEMATIC DIAG
PRCS BY / DATE	
PROD OR MODEL	4100A
DWG NO	R37798
SH / CONT.	I / II

DWG NO R37798 | SH II CONT. III



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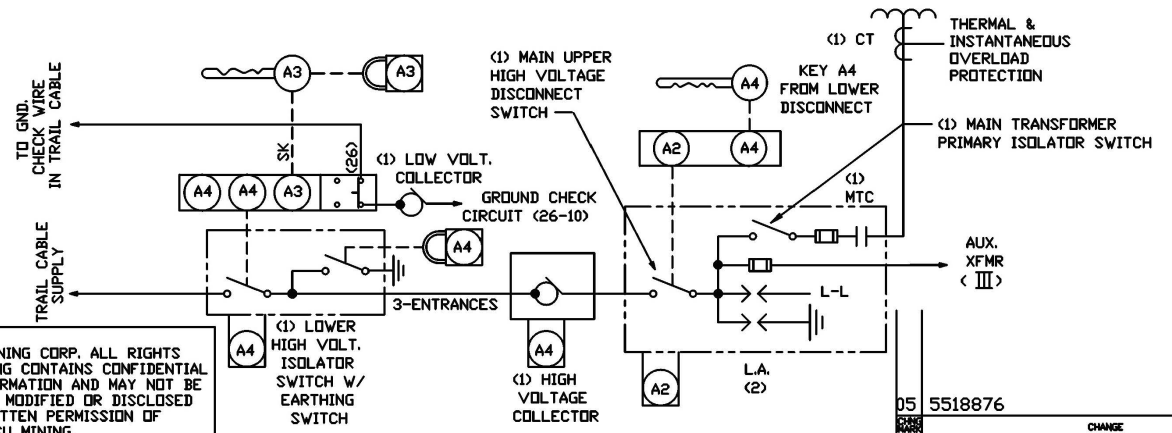

GROUND TO UPPER FRAME

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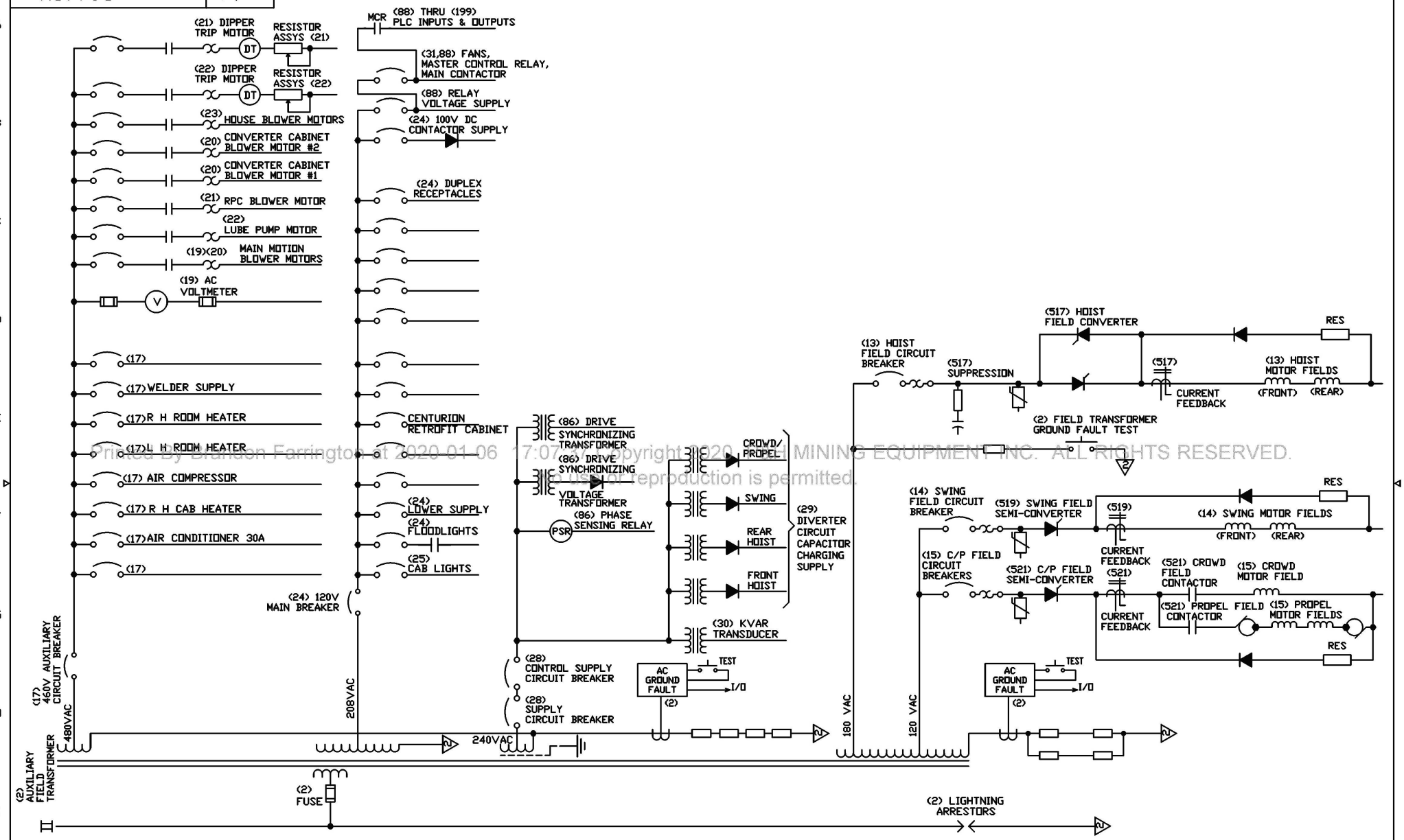
05 5518876	J DEMOTT 10/2019	S.N. ES4184 60HZ	SIZE C
CHNG MARK: CHANGE	CHNG BY	DWN BY J.DEMOTT DATE 10/2019	SCALE NONE
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE		TR BY DATE	KOMATSU
		CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98 SIMILAR TO R37998
		CHK BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG
		PRCS BY DATE	PROD OR MODEL 4100A
		DWG NO R37798	SH II CONT. III

DWG NO R37798 | SH III CONT. V



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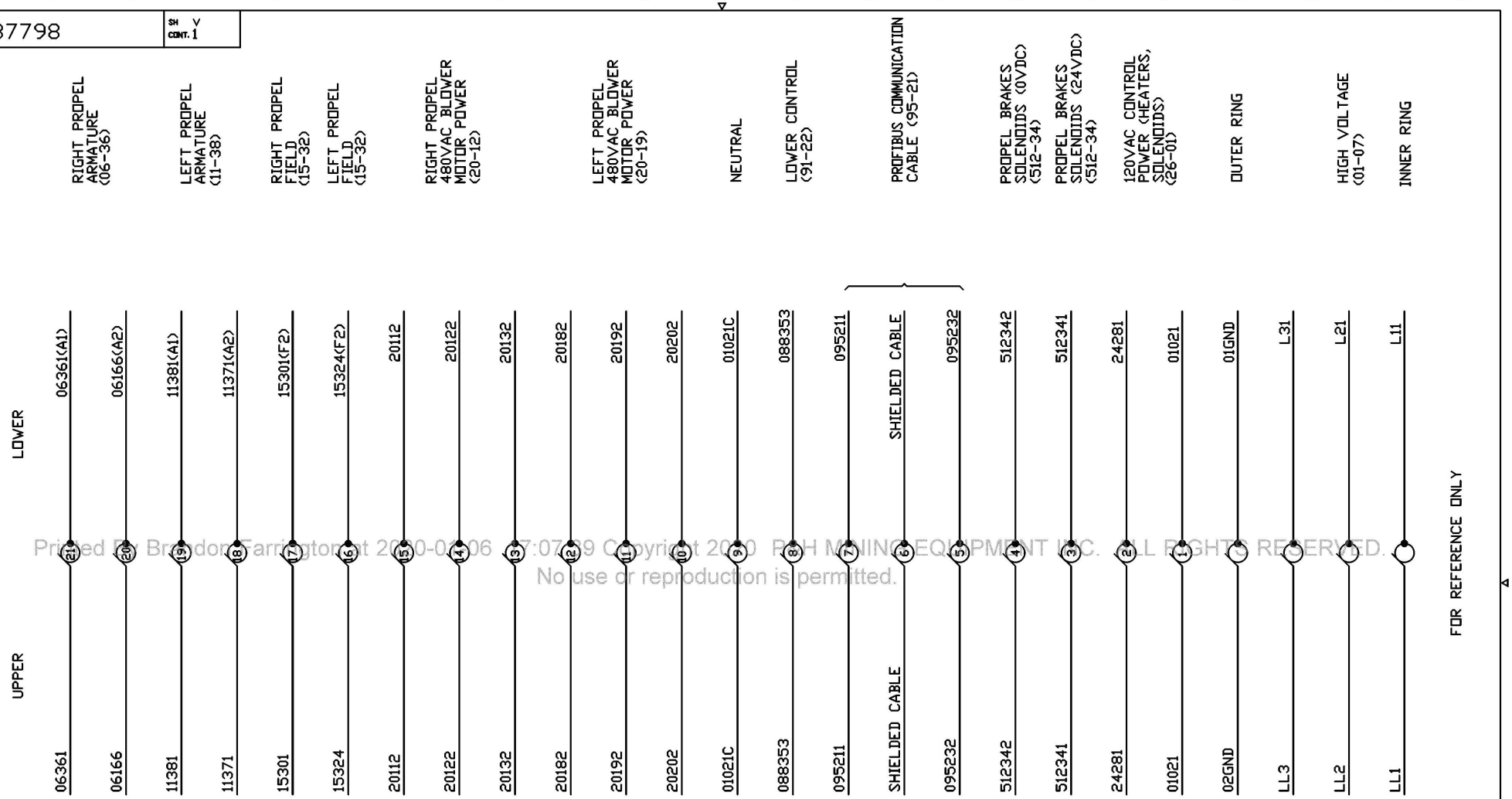
05	5518876	J DEMOTT 10/2019
CHNG MARK	CHANGE	CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ			SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CHKR BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD OR MODEL 4100A		
DWG NO R37798		SH III CONT. V	

DWG NO R37798 | SH Y CONT. 1



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05	5518876	J DEMOTT 10/2019
CHG MARK	CHANGE	CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ	SIZE C
DWN J.DEMOTT DATE 10/2019	SCALE NONE
TR BY DATE	KOMATSU
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98
APPR J WUTKE DATE 10/2019	SIMILAR TO R37998
PROCS BY DATE	TITLE SCHEMATIC DIAG
DWG NO R37798	PROD DR MODEL 4100A
	SH Y CONT. 1

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DWG NO R37798 SH 1 CONT.2

SHEET NO. LINE NO.

7,200VAC, 30, 60 HZ.

L1 L2 L3

AIR DISCONNECT SWITCH WITH EARTHING L01000

HIGH VOLTAGE COLLECTOR ASS'Y L04000 (CARBODY)

01GND

L11 L21 L31

HIGH VOLTAGE COLLECTOR ASS'Y U01000 (RVLG FR)

02GND

AIR DISCONNECT SWITCH H02X04

1-GROUND TO LOWER FRAME

2-GROUND TO UPPER FRAME

HIGH VOLTAGE ISOLATOR

LIGHTNING ARRESTORS

LL11 LL12 LL1 LL2 LL3 LL21 LL22 LL31 LL32

H02X01 H02X02 H02X03 H04X04

MTC H01X03 H01X02

01121 01131 01141 01153 (31-36)

LIGHTNING ARRESTOR H01X01

MT1 MT2 MT3

U41X02 U41X03 U41X04

01151 01152

MAIN XFMR O.L. A01B03

TTMT (129-05)

01161 01162 01163

MAIN TRANSFORMER THERMAL PROBE IN #2 COIL U41X05 129-05

01181 01191 01201

7.2kv 1.75Ω 01211 01212 A01B04

A01B12

MSN MS11 1L1 (3-01) MS12 1L2 (3-01) MS13 1L3 (3-01)

1L1,1L2,1L3=600V

01213 INSTANT O.L. RELAY A01B10 (129-03)

QTTM 1 2 3 4 5

01211 01251 47KΩ A01B15A

MTOAR (0) (1) 01261 (108-01) (108-02)

31072 01021 (31-45) 120VAC

N2 MS21 2L1 (3-19) MS22 2L2 (3-19) MS23 2L3 (3-19)

2L1,2L2,2L3 = 600V

H41X01 MAIN TRANSFORMER 7,200V - 600V, 600V

P.U. 15V.DC. D.O. 2V.DC. BEFORE PICKUP

P.U. 5V.DC. D.O. .4V.DC. AFTER PICKUP

01281 CURRENT SENSOR

100Ω 160W U15C03 U15E01

(PASS WIRE THROUGH SENSOR 3 TIMES)

01291 01292 090251 01021 (90-30)

01301 02GND CHOKE U15G02 01322 U15F03 40μF

TEST PB 01316 01326 U15N03

090251 31271 (131-27)

01336 01337 RESET PB U15P03

U15A01 01331 U15A02 01341 U15A03 01361 U15B03 02GND

33Ω 300W TYPICAL (4) RESISTORS

U15G01 CHOKE U15F01 40μF U15F02 40μF U15G03 CHOKE

01351 01381 01382 01392

U15D01 GROUND FAULT RELAY MAIN (GFRM) SETTINGS: PICKUP = 1.0 AMP TIME = 0.6 SEC.

01391 U15G04 CHOKE U15G05 CHOKE 01404 U15C01 50Ω 25W 01405

U15F04 40μF 01401 01402 01403 U15F06 40μF U15F05 40μF

U15E04 AC AC + - 01441

U15C02 50Ω 25W

01411 U15J03 75Ω 25W 01451

GROUND FAULT RELAY 3 4 (+) (-) 2 1 U15G01

090093 (150-39) 150391 (150-39)

LL1 LL2 LL3 (2-01)

05 5518876 CHANGE

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

CHNG BY J DEMOTT 10/2019

DWG NO R37798

S.N. ES4184 60HZ

DRN J.DEMOTT DATE 10/2019

CHKD R PITSCH DATE 10/2019

ENGR J WITKE DATE 10/2019

SCALE NONE

RELEASE DATE 09/24/98

SIMILAR TO R37998

MODEL 4100A

TITLE SCHEMATIC DIAG

KOMATSU

SIZE C

SH 1 CONT.2

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SHEET NO. 02-01 | LINE NO. (1-45)

LL1 LL2 LL3

AUXILIARY TRANSFORMER FUSES

H04X01 02051

H04X02 02061

H04X03 02071

AUXILIARY/FIELD TRANSFORMER U42X01

7,200V - 480V,240V, 208V, 180V/120V

AT1 AT2 AT3

531 246 7 8

ASN AS1 AS2 AS3

02121 02122 (17-01) 02123 (17-01) 02124 (17-01)

1-GROUND TO LOWER FRAME

2-GROUND TO UPPER FRAME

CURRENT SENSOR U15E03 02141 02151

GROUND FAULT RELAY MAIN AUX.(GFRA) SETTINGS: PICKUP = 1.0 AMP TIME = 0.6 SEC.

U15D02

U15N02 TEST PB 02166 02176

090251 002371 (90-30)

090251 131271 (131-29)

02196 02197 RESET PB

U15P02

02161 U15A04 02181 U15A05 02201 U15A06 02211 U15B06

33Ω 300W TYPICAL (4)RESISTORS

02GND

CSN CS1 CS2 CS3

02221 (28-01) 02222 (28-01) 02223 (28-01)

02221,02222,02223= 230V

02261

FSN FS21 FS11 FS22 FS12 FS23 FS13

02271 (15-01) (14-01) 02272 (3-36) (13-01) 02273 (15-01) (14-01) 02274 (3-36) (13-01) 02275 (15-01) (14-01) 02276 (3-36) (13-01)

02272, 02274, 02276 = 180V.

02271, 02273, 02275 = 120V.

CURRENT SENSOR U15E05 02281 02291

GROUND FAULT RELAY FIELD (GFRF) SETTINGS: PICKUP = 1.0 AMP TIME = 0.6 SEC.

U15D03

U15N01 TEST PB 02306 02316

090251 002371 (90-30)

090251 131311 (131-31)

02326 02327 RESET PB

U15P01

02301

U15B01 U15B02 02321 02322 U15B04 U15B05

33Ω 300W TYPICAL (4)RESISTORS

02GND

LSN LS1 LS2 LS3

01021 (24-01) 02361 (24-01) 02362 (24-01) 02363 (24-01)

02361, 02362, 02363 = 208V.

LIGHTNING ARRESTORS H01X04, H01X05, H01X06

02GND

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DWG NO	SH	CONT.
R37798	2	3

REV	DESCRIPTION	DATE	BY
05	5518876		
CHANGE	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE	J DEMOTT 10/2019	

DWN J.DEMOTT 10/2019 | CHK'D R PITSCH 10/2019 | ENGR J.WITKE 10/2019 | DRGS

DWG NO R37798

SCALE NONE | RELEASE DATE 09/24/98 | SIMILAR TO R37998

PROD MODEL 4100A | TITLE SCHEMATIC DIAG

KOMATSU

SH 2 CONT. 3

SIZE C

S.N. ES4184 60HZ

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SHEET NO. LINE NO.

03-01

600VAC, 3Ø, 60HZ (1-21)

1L1 1L2 1L3

S1SB

03031 03041 03051

A 03061 (3-43)

B 90093 (150-44)

4-02 4-02 4-02

P01A01A 6Ω P01A01B 6Ω P01A02A 6Ω P01A02B 6Ω P01A03A 6Ω P01A03B 6Ω

03061 03081 03101

P01B01 20µF P01B02 20µF P01B03 20µF

03062

P01C01 1µF P01C05A 12KΩ

P01C02 1µF P01C05B 12KΩ

P01C03 1µF P01C05C 12KΩ

02GND

MAIN TRANSFORMER SECONDARY #1 SUPPRESSION BREAKER 30A. P00X01

MAIN TRANSFORMER SECONDARY #1 SUPPRESSION

2-GROUND TO UPPER FRAME

600VAC, 3Ø, 60HZ (1-26)

2L1 2L2 2L3

S2SB

03211 03221 03231

A 150441 (150-44)

B 03422 (3-42)

2L1 2L2 2L3 (05-01)

P01A04A 6Ω P01A04B 6Ω P01A05A 6Ω P01A05B 6Ω P01A06A 6Ω P01A06B 6Ω

03241 03261 03281

P01B04 20µF P01B05 20µF P01B06 20µF

03242

P01D01 1µF P01D05A 12KΩ

P01D02 1µF P01D05B 12KΩ

P01D03 1µF P01D05C 12KΩ

02GND

MAIN TRANSFORMER SECONDARY #2 SUPPRESSION BREAKER 30A. P00X02

MAIN TRANSFORMER SECONDARY #2 SUPPRESSION

180V, 3 PHASE, 60HZ (2-28)

002272 002274 002276

U20X01 ATSB 30A

AUX. TRANSFORMER SECONDARY SUPPRESSION BREAKER

03391 03401 03411

A 03422 (3-26)

B 03061 (3-06)

U20A01A U20A01B U20A01C U20A02C U20A02A U20A02B

300W 6 OHM

03421 03431 03451

U20B01 20uF U20B02 20uF U20B03 20uF

AUX. TRANSFORMER FIELD DRIVE SECONDARY SUPPRESSION

DWG NO R37798

SH 3 CONT. 4

05 5518876 CHANGE

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

CHNG BY J DEMOTT 10/2019

DWN J.DEMOTT DATE 10/2019

CHKD R PITSCH DATE 10/2019

ENGR J WITKE DATE 10/2019

SCALE NONE

RELEASE DATE 09/24/98

SIMILAR TO R37998

TITLE SCHEMATIC DIAG

MODEL 4100A

S.N. ES4184 60HZ

SIZE C

KOMATSU

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SHEET NO. 04-01 LINE NO. 02

600VAC, 3Ø, 60HZ

03-07 03-07 03-07

1L1 1L2 1L3

TYPICAL FOR 1/2 STEP

TYPICAL CAPACITOR -FUSE CIRCUIT

TYPICAL DV/DT CKT.

F21

F21J01 F21H01 F21F01 F21E01 F21C01 F21B01 F21J02 F21H02 F21F02 F21E02 F21C02 F21B02

524-03 524-02 1L1 04191
524-08 524-07 1L2 04231
524-13 524-12 1L3 04271
524-28 524-27 1L1 04321
524-18 524-17 1L2 04361
524-23 524-22 1L3 04401

CAPACITOR CKT. BKR. #1 F19A04

CAPACITOR CKT. BKR. #3 F32A04

04181 04182 04221 04222 04261 04262 04311 04312 04351 04352 04391 04392

(158-23) (158-28)

F19A02 F19A03 F19A01 F32A01 F32A03 F32A02

F10X03E F10X03F F10X03A F10X03B F10X03C F10X03D F30X03J F30X03K F30X03L F30X03M F30X03G F30X03H

P1-3 J1-3 J1-6 P1-6 1C-3 04161 04162 BLK RED
P1-2 J1-2 J1-5 P1-5 1C-2 04201 04202 GRN DRN
P1-1 J1-1 J1-4 P1-4 1C-1 04241 04242 BLU WHT
P1-1 J1-1 J1-4 P1-4 1C-1 04291 04292 BLU WHT
P1-3 J1-3 J1-6 P1-6 1C-3 04331 04332 BLK RED
P1-2 J1-2 J1-5 P1-5 1C-2 04371 04372 GRN DRN

CAPACITOR/ FUSE CKT.

04183 04223 04263 04313 04353 04393

1L2 1L3 1L1 1L3 1L1 1L2

X1 04411 04412 (30-09) K06X01A
X1 04421 04422 (30-22) K06X01C

1L11 1L2 1L31
(6-01)(9-01)

REACTIVE POWER COMPENSATOR 1/2 BANK, 675 KVAR
FUSES F10X01
CAPACITORS F19B02, F19C02 159-15

CAPACITORS F19B03, F19C03 159-19

CAPACITORS F19B01, F19C01 159-21

REACTIVE POWER COMPENSATOR BANK 2, 1350 KVAR
FUSES F30X01
CAPACITORS F32B01, F32C01, F32D01 159-33

CAPACITORS F32B03, F32C03, F32D03 159-38

CAPACITORS F32B02, F32C02, F32D02 159-39

LOCATION OF PRESSURE SWITCHES ARE LISTED BELOW EACH CAPACITOR OR GROUPS OF CAPACITORS
INDICATOR CIRCUIT FOR 1/2 BANK AND BANK 1 F10X02
1C1-1,2,3,4,5,6
INDICATOR CIRCUIT FOR BANKS 2 & 3 F30X02
1C2-1,2,3,4,5,6

DWG NO R37798 SH 4 CONT. 5

05 5518876 CHANGE
J DEMOTT 10/2019 CHNG BY
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWG NO R37798
S.N. ES4184 60HZ
DRN J.DEMOTT DATE 10/2019
CHKD R PITSCH DATE 10/2019
ENGR J WITKE DATE 10/2019
RELEASE DATE 02/24/98
SCALE NONE
SIMILAR TO R37998
MODEL 4100A
TITLE SCHEMATIC DIAG
KOMATSU
SIZE C
SH 4 CONT. 5

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DWG NO R37798 SH 5 CONT. 6

SHEET NO. LINE NO.

05-01 600VAC, 3Ø, 60HZ (3-25)

2L1 2L2 2L3

TYPICAL CAPACITOR -FUSE CIRCUIT

TYPICAL DV/DT CKT.

E E G H J K

F22

CAPACITOR CKT. BKR. #2 F11A04

CAPACITOR CKT. BKR. #4 F33A04

F22J02 525-12 525-11 2L3 05191 F22H02

F22F02 525-07 525-06 2L2 05231 F22E02

F22C02 525-02 525-01 2L1 05271 F22B02

F22J01 525-22 525-21 2L3 05321 F22H01

F22F01 525-17 525-16 2L2 05361 F22E01

F22C01 525-27 525-26 2L1 05401 F22B01

05181 05182 F11A01 05183 F10X03J P1-10 J1-10 1C-4 05161 J1-13 P1-13 05162 F10X03K CAPACITOR/ FUSE CKT. 2L1

REACTIVE POWER COMPENSATOR BANK 1, 1350 KVAR

FUSES F10X01

CAPACITORS F11B01, F11C01, F11D01, 159-31

05221 05222 F11A03 05223 F10X03L P1-11 J1-11 1C-5 05201 J1-14 P1-14 05202 F10X03M CAPACITOR/ FUSE CKT. 2L3

CAPACITORS F11B03, F11C03, F11D03, 159-27

05261 (158-24) 05262 F11A02 05263 F10X03G P1-12 J1-12 1C-6 05241 J1-15 P1-15 05242 F10X03H CAPACITOR/ FUSE CKT. 2L2

CAPACITORS F11B02, F11C02, F11D02, 159-26

REACTIVE POWER COMPENSATOR BANK 3, 1350 KVAR

FUSES F30X01

05311 05312 F33A02 05313 F30X03E P1-11 J1-11 1C-5 05291 J1-14 P1-14 05292 F30X03F CAPACITOR/ FUSE CKT. 2L2

CAPACITORS F33B02, F33C02, F33D02, 160-01

05351 05352 F33A03 05353 F30X03A P1-12 J1-12 1C-6 05331 J1-15 P1-15 05332 F30X03B CAPACITOR/ FUSE CKT. 2L1

CAPACITORS F33B03, F33C03, F33D03, 159-45

05391 (158-30) 05392 F33A01 05393 F30X03C P1-10 J1-10 1C-4 05371 J1-13 P1-13 05372 F30X03D CAPACITOR/ FUSE CKT. 2L3

CAPACITORS F33B01, F33C01, F33D01, 159-44

X1 05421 05422 (30-15) K02X01A

X1 05431 05432 (30-28) K02X01C

2L11 2L2 2L31 (7-01)X11-01)

LOCATION OF PRESSURE SWITCHES ARE LISTED BELOW EACH CAPACITOR OR GROUPS OF CAPACITORS

INDICATOR CIRCUIT FOR 1/2 BANK AND BANK 1 F10X02

1C1-1,2,3,4,5,6

INDICATOR CIRCUIT FOR BANKS 2 & 3 F30X02

1C2-1,2,3,4,5,6

05	5518876	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE	
CHANGE			
CHNG BY	J DEMOTT 10/2019		

DWN J.DEMOTT DATE 10/2019
CHKD R PITSCH DATE 10/2019
ENGR J WITKE DATE 10/2019
RELEASE DATE 09/24/98
SIMILAR TO R37998
SCALE NONE
SIZE C
SHEET
DWG NO R37798
REV
S.N. ES4184 60HZ
KOMATSU
MODEL 4100A
TITLE SCHEMATIC DIAG
SH 5 CONT. 6

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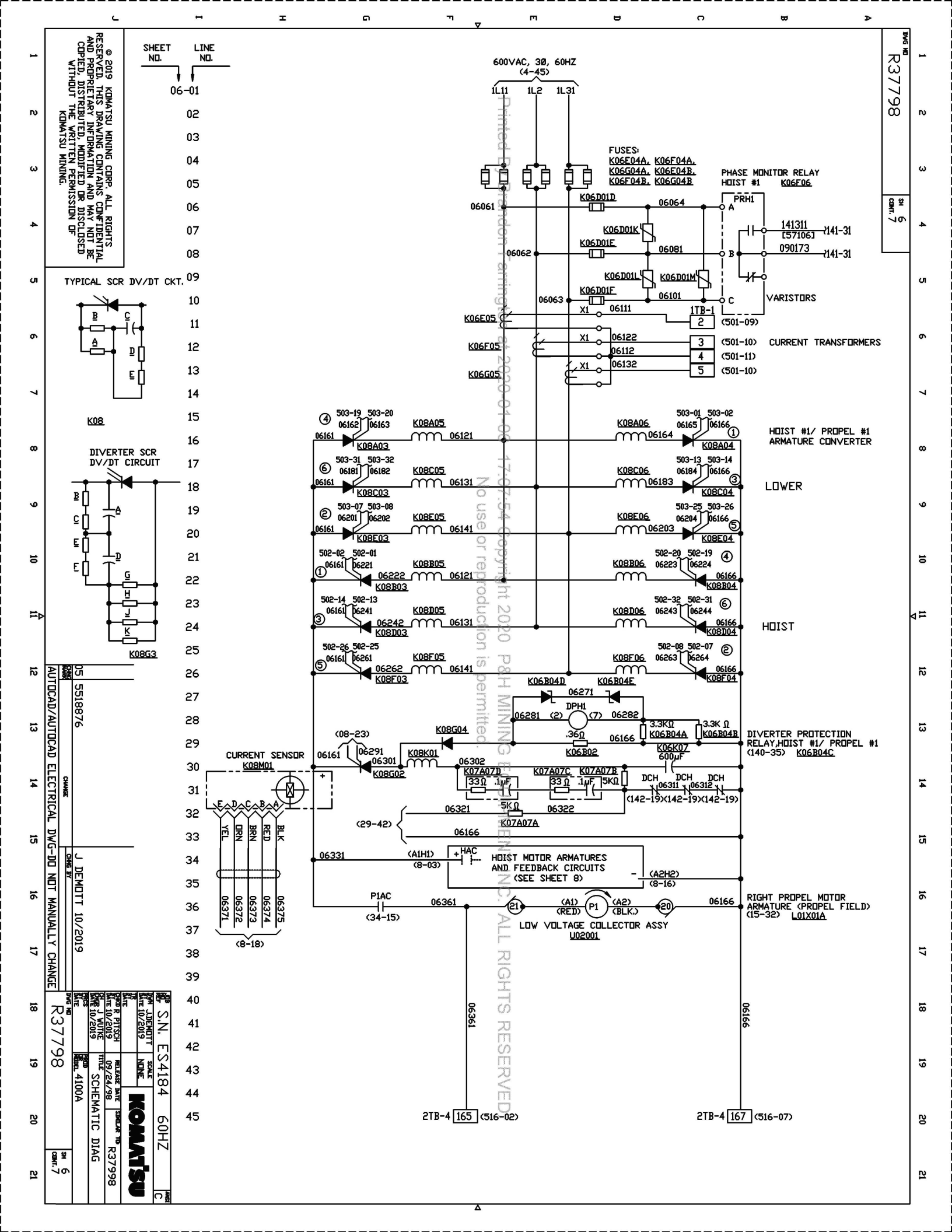
SHEET NO. / LINE NO.



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05	5518876		
CHANGE			
CHNG BY	J DEMOTT 10/2019		

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWN	J.DEMOTT 10/2019	SCALE	NONE
CHKD	R PITSCH 10/2019	RELEASE DATE	02/24/98
APPD	J WITKE 10/2019	SIMILAR TO	R37998
DWG NO	R37798	TITLE	SCHEMATIC DIAG
SERIES		MODEL	4100A
SHT 6 CONT. 7			

S.N. ES4184 60HZ

KOMATSU

SIZE C

DWG NO R37798

SH 6 CONT. 7

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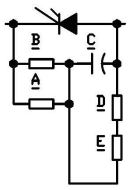
SHEET NO. / LINE NO.

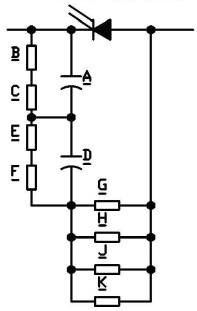
07-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

TYPICAL SCR DV/DT CKT.



K01

DIVERTER SCR DV/DT CIRCUIT



K01G2

600VAC, 30, 60HZ (5-45)

2L11 2L2 2L31

FUSES: K02E03A, K02F03A, K02G03A, K02E03B, K02G03B, K02F03B, K02G03B

PHASE MONITOR RELAY HOIST #2 K02F01

PRH2

07061 K02D01A 07064 A — 141331 (571261) >141-33

K02D01G

07062 K02D01B 07081 B — 090173 >141-33

K02D01H K02D01J

07063 K02D01C 07101 C — VARISTORS

K01A03 07161 506-19 506-20 07162 07163 K01A05 — 07061 — K01A06 07164 506-01 506-02 07165 07166 K01A04

K01C03 07161 506-31 506-32 07181 07182 K01C05 — 07062 — K01C06 07183 506-13 506-14 07184 07166 K01C04

HOIST ARMATURE CONVERTER #2

HOIST

K01E03 07161 506-07 506-08 07201 07202 K01E05 — 07063 — K01E06 07203 506-25 506-26 07204 07166 K01E04

K01B03 07161 507-02 507-01 07221 07222 K01B05 — 07061 — K01B06 07223 507-20 507-19 07224 07166 K01B04

K01D03 07161 507-14 507-13 07241 07242 K01D05 — 07062 — K01D06 07243 507-32 507-31 07244 07166 K01D04

LOWER

K01F03 07161 507-26 507-25 07261 07262 K01F05 — 07063 — K01F06 07263 507-08 507-07 07264 07166 K01F04

K02B03E 07271 K02B03D

DPH2 07281 (7) (2) 07282

DIVERTER PROTECTION RELAY, HOIST #2 K02B03C (140-36)

3.3KΩ K02B03A 3.3KΩ K02B03B .36Ω K02B01

K02R05 600μF

K01G01 K01K01 (8-25) 07303 07166 07302 K01G04

07161 DCH DCH DCH 07311 07312 (142-19)(142-19)(142-19)

K03A04B 5KΩ 1μF K03A04D 33Ω K03A04C 1μF 33Ω 5KΩ K03A04A

07321 07322 (29-42)

07161

07161 (A2H1) (08-03) — HOIST MOTOR ARMATURES AND FEEDBACK CIRCUITS (SEE SHEET 8) + (A1H2) (08-16) 07166

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DWG NO R37798 SH 7 CONT. 8

05 5518876 CHANGE — AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

CHNG BY J DEMOTT 10/2019

DWN J.DEMOTT DATE 10/2019 — CHKD R PITSCH DATE 10/2019 — APVD J WUTKE DATE 10/2019

SCALE NONE — RELEASE DATE 02/24/98 — SIMILAR TO R37998

TITLE SCHEMATIC DIAG

MODEL 4100A

DWG NO R37798 SH 7 CONT. 8

S.N. ES4184 60HZ

KOMATSU

SIZE C

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SHEET NO. / LINE NO.

08-01

HOIST MOTOR ARMATURE RIGHT FRONT U61X02A

(6-34) 06331 HAC (34-23) 08031 A1 (RED) H1 A2 (BLK) 07161 2TB-4 166 (516-05) (7-34)

2TB-4 164 (516-01) 08031

(FRONT HOIST FIELD) (13-30)

HOIST MOTOR ARMATURE RIGHT REAR U61X01A

(7-35) 07166 A1 (RED) H2 A2 (BLK) 06166 2TB-4 167 (516-07) (6-35)

2TB-4 168 (516-10)

(REAR HOIST FIELD) (13-30)

(6-38)
06375 BLK.
06374 RED.
06373 BRN.
06372 ORN.
06371 YEL.

DIVERTER CIRCUIT CONTROL MODULE HOIST K03D03

29151
01021C
K03D03A 1100µF
TB1 TB2 DCMH
08231
PULSE TRANSFORMER CIRCUIT HOIST #1 K08G01
E2 06291 (06-29)
PTH1 E1 06161

(29-15) 29151 01021C DELR 08241
(142-13) (142-15)
29151 01021C 08241 (10-09) (12-09)

1TB-3 53 08351 (500-33) [500331]
1TB-3 54 01021C (500-39) [500342]

PULSE TRANSFORMER CIRCUIT HOIST #2 K01G03
E2 07303 (07-29)
PTH2 E1 07166
[29171] 090173
[56036] 140231 (140-23)

1TB-1 7 08306 [500091] (501-42)
1TB-1 6 01021C [500081] (501-42)

DWG NO	SH 8 CONT. 9
R37798	

CHANGE	CHNG BY
05 5518876 AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE	J DEMOTT 10/2019

DWN	CHKD	ENGR	APP
J.DEMOTT 10/2019	R PITSCH 10/2019	J WITKE 10/2019	

SCALE NONE

RELEASE DATE 09/24/98

SIMILAR TO R37798

TITLE SCHEMATIC DIAG

PROD MODEL 4100A

S.N. ES4184 60HZ

SIZE C

DWG NO R37798

SH 8 CONT. 9

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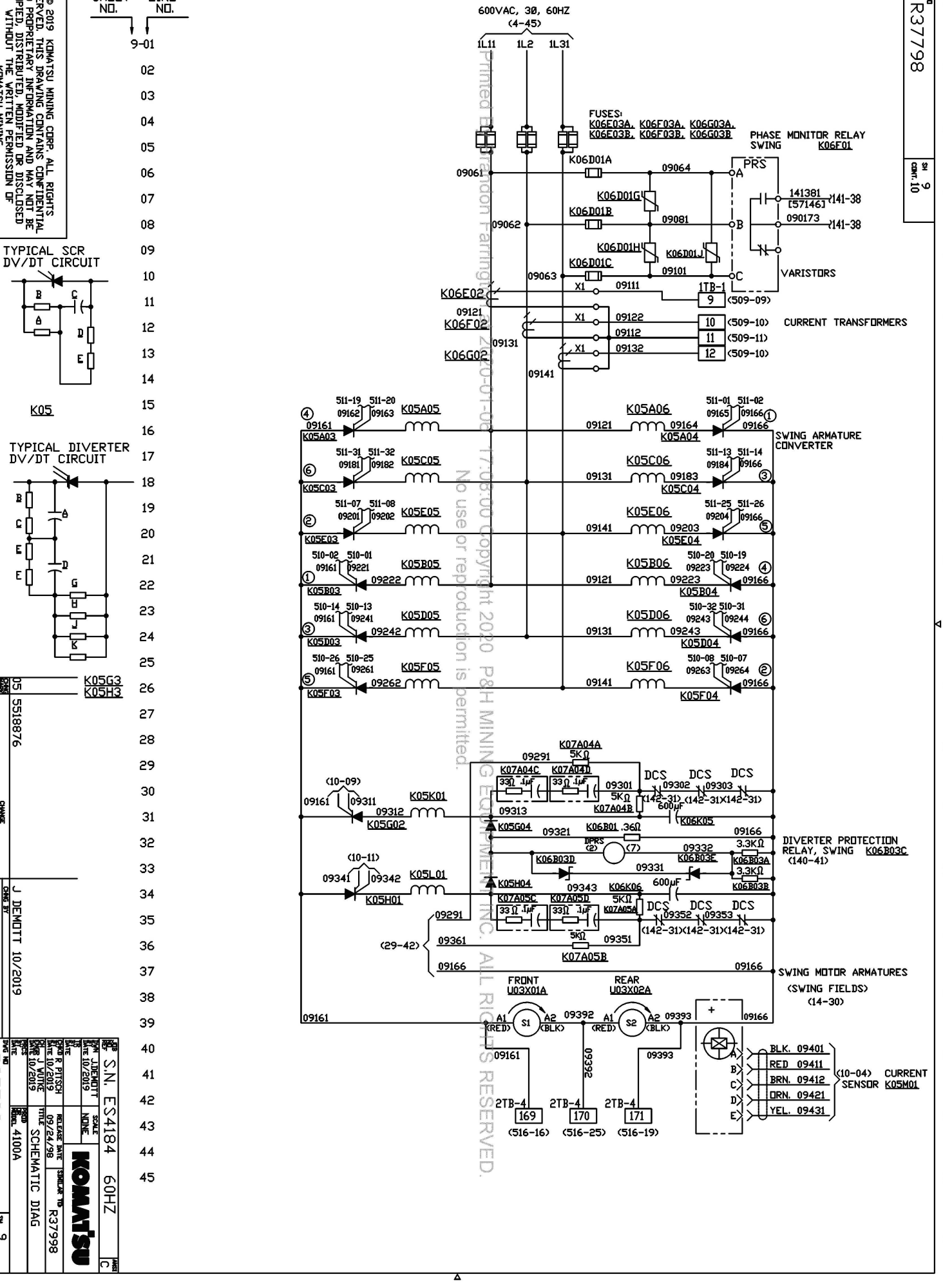
SHEET NO. LINE NO.



TYPICAL SCR DV/DT CIRCUIT

K05

TYPICAL DIVERTER DV/DT CIRCUIT

K05G3
K05H3

DWG NO	REV	DESCRIPTION	CHANGE	CHG BY
	05	5518876	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE	J DEMOTT 10/2019

DWG NO R37798 SH 9 CONT.10

DWG NO R37798

DRN	J.DEMOTT	DATE 10/2019	
CHK'D	R PITSCH	DATE 10/2019	
APP'D	J WITKE	DATE 10/2019	
RELEASE DATE	02/24/98	SIMILAR TO	R37798
SCALE	NONE	SHEET	C
TITLE	SCHEMATIC DIAG		
MODEL	4100A		

S.N. ES4184 60HZ

KOMATSU

SH 9 CONT.10

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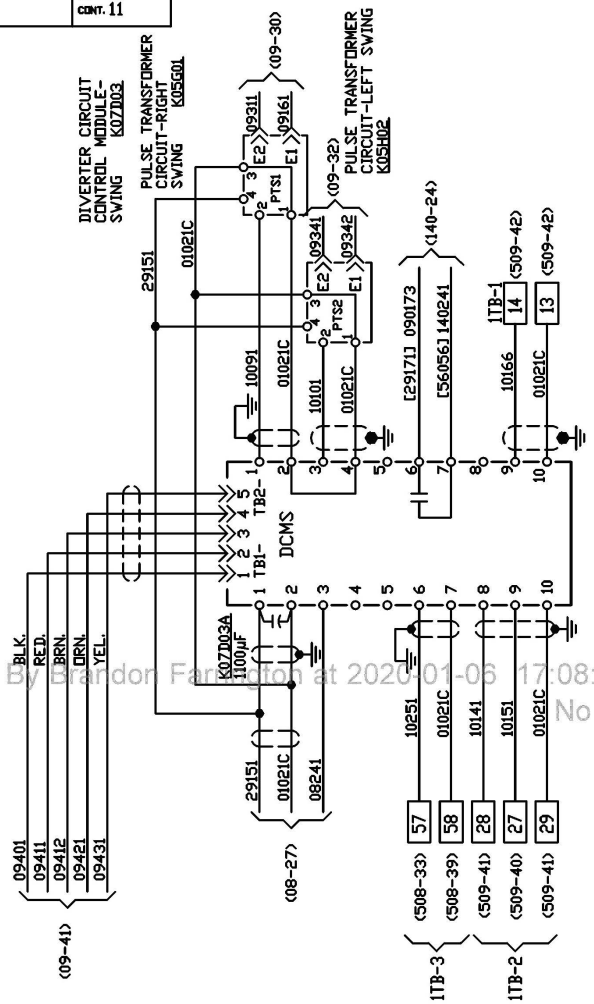
DWG NO R37798 | SH 10 CONT. 11



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SHEET NO. LINE NO. 10-01

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05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ | SIZE C

DWN BY J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

CHKD BY R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CHK BY J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

PROD DR MODEL 4100A

DWG NO R37798 | SH 10 CONT. 11

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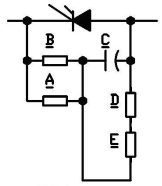
SHEET NO. / LINE NO.

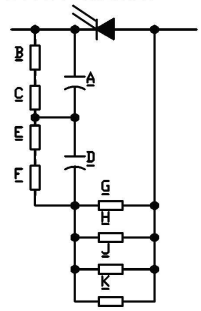
11-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

TYPICAL SCR DV/DT CIRCUIT



K04

TYPICAL DIVERTER DV/DT CIRCUIT



K04
K04

600VAC, 3Ø, 60HZ (5-45)

2L11 2L2 2L31

FUSES: K02E04A, K02F04A, K02G04A, K02E04B, K02F04B, K02G04B

PHASE MONITOR RELAY CROWD/PROPEL K02F06

PRC

K02D01D 11061 11064 A

K02D01K

K02D01E 11062 11081 B

K02D01L K02D01M

K02D01F 11063 11101 C

141391 [571166] 090173 →141-39

VARISTORS

X1 11111 1TB-1 16 (513-09)

K02E05 11121 X1 11122 17 (513-10)

K02F05 11131 X1 11112 18 (513-11)

K02G05 11141 X1 11132 19 (513-10)

CURRENT TRANSFORMERS

514-19 514-20 11162 11163 K04A05 — 11161 K04A03 — 11121 — K04A06 11164 — K04A04 514-01 514-02 11165 11166 ①

CROWD/PROPEL #2 ARMATURE CONVERTER

514-31 514-32 11181 11182 K04C05 — 11161 K04C03 — 11131 — K04C06 11183 — K04C04 514-13 514-14 11184 11166 ③

514-07 514-08 11201 11202 K04E05 — 11161 K04E03 — 11141 — K04E06 11203 — K04E04 514-25 514-26 11204 11166 ⑤

515-02 515-01 11161 11221 K04B05 11222 K04B03 — 11121 — K04B06 11223 — K04B04 515-20 515-19 11223 11224 11166 ④

515-14 515-13 11161 11241 K04D05 11242 K04D03 — 11131 — K04D06 11243 — K04D04 515-32 515-31 11243 11244 11166 ⑥

515-26 515-25 11161 11261 K04F05 11262 K04F03 — 11141 — K04F06 11263 — K04F04 515-08 515-07 11263 11264 11166 ②

K03A05D

5KΩ 11271 K03A05H K03A05G .1μF 33Ω .1μF 33Ω

DCCP DCCP DCCP 11281 11282 11283 (142-26)X(142-26)(142-26) 5KΩ K03A05C 600μF

K02R06 .36Ω K02B02 11301 K04G01

11161 3.3KΩ K02B04A 11311 (7) DPCP (2) K02B04E 11312 K02B04D 3.3KΩ K02B04B

600μF K02R07 11321 K04H01

DCCP DCCP DCCP 11331 11332 (142-26)(142-26)(142-26) 5KΩ K03A05A K03A05F K03A05E .1μF 33Ω .1μF 33Ω

11333 5KΩ K03A05B

11271 11341 (29-42) 11161

K04K01 11293 11166 (12-09) 11292 K04G04

DIVERTER PROTECTION RELAY, CROWD/PROPEL #2 K02B04C (140-42)

K04L01 11322 11323 (12-11) K04H03

11161 + 11371 A2 (BLK) C A1 (RED) 11372 CAC (34-25) 11166

CROWD MOTOR ARMATURES (CROWD FIELD) B01X01A (15-30)

18 A2 (BLK) P2 A1 (RED) 19 11381 P2AC (34-17)

LEFT PROPEL MOTOR ARMATURE L02X01A (PROPEL FIELD) (15-32)

11382 BLK A
11391 RED B
11392 BRN C
11393 ORG D
11401 YEL E

(12-04) CURRENT SENSOR K04M01

11371 2TB-4 174 (516-39)

11166 2TB-4 175 (516-36)

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DWG NO	SN	CONT.
R37798	11	12

REV	DESCRIPTION	DATE	BY
05	5518876	CHANGE	J DEMOTT 10/2019

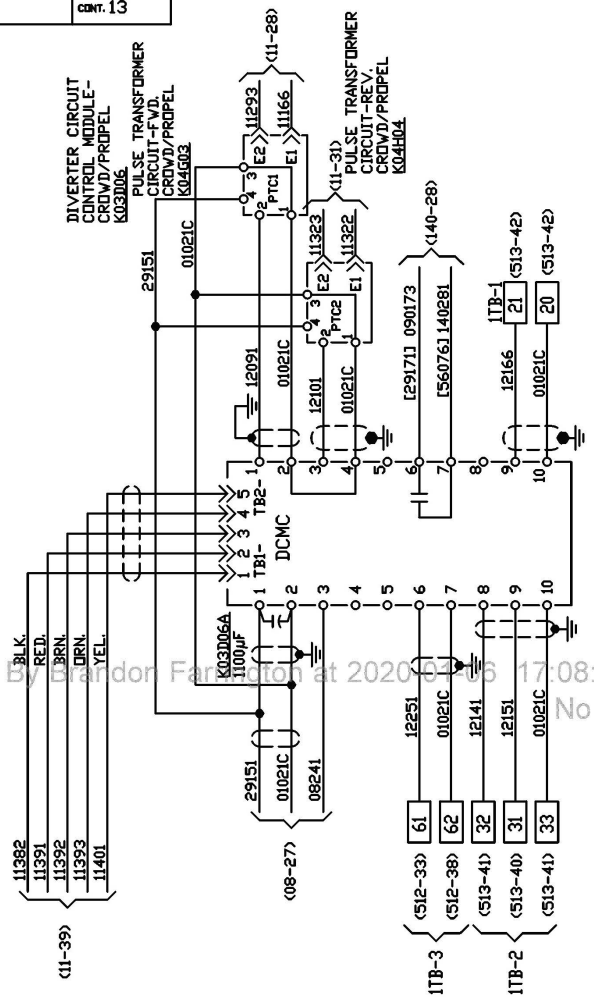
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWN	J.DEMOTT	DATE	10/2019
CHK'D	R PITSCH	DATE	10/2019
ENGR	J WITKE	DATE	10/2019
APPD		DATE	
DWG NO	R37798		
SIZE	C		
SCALE	NONE		
RELEASE DATE	09/24/98		
SIMILAR TO	R37798		
MODEL	4100A		
TITLE	SCHEMATIC DIAG		
SERIES	S.N. ES4184 60HZ		

KOMATSU

DWG NO	SN	CONT.
R37798	11	12

DWG NO R37798 | SH 12 CONT. 13



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SHEET NO. 12-01 LINE NO.

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05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ | SIZE C

DWN J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

CHKD R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

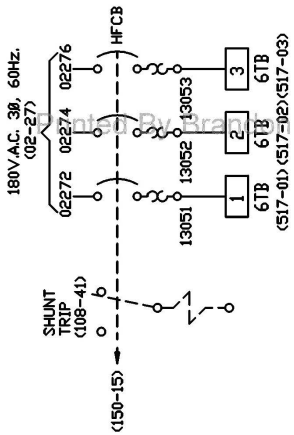
CH DSGR J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

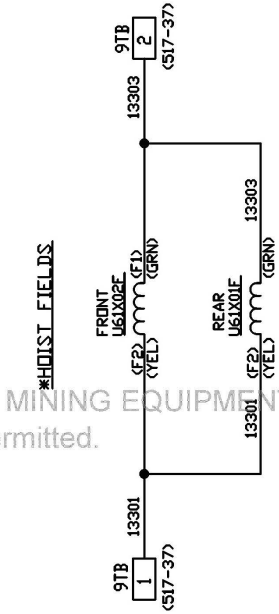
PRCS BY DATE | PROD DR MODEL 4100A

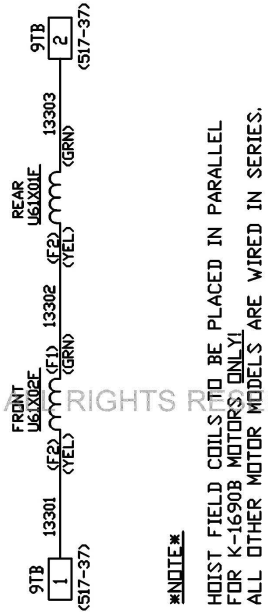
DWG NO R37798 | SH 12 CONT. 13

DWG NO R37798 | SH 13 CONT. 14

HOIST FIELDS
CIRCUIT BREAKER
125 AMP. U29X01







NOTE

HOIST FIELD COILS TO BE PLACED IN PARALLEL
FOR K-1690B MOTORS ONLY!
ALL OTHER MOTOR MODELS ARE WIRED IN SERIES.

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SHEET NO. 13-01 LINE NO.

02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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2 -GROUND TO UPPER FRAME

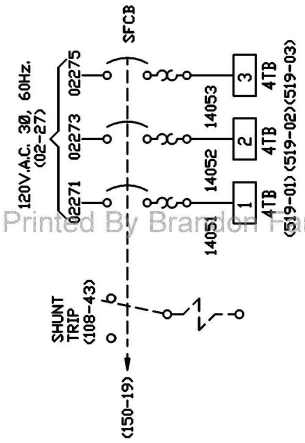
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES REF	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SH 13 CONT. 14	

DWG NO R37798 | SH 14 CONT. 15

SWING FIELDS
CIRCUIT BREAKER
125 AMP. U29X02



SWING FIELDS

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SHEET NO. LINE NO. 14-01

02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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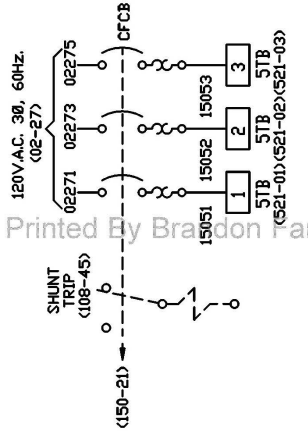
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

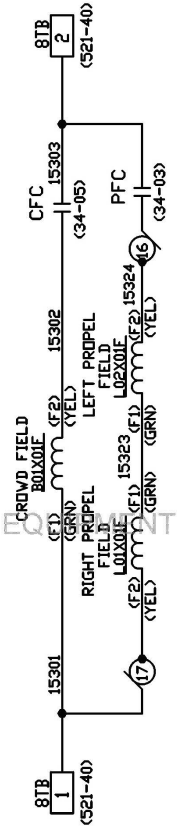
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

ECO REF	S.N. ES4184 60HZ		SIZE C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY / DATE		PROD DR MODEL 4100A	
DWG NO	R37798		SH 14 CONT. 15

DWG NO R37798 | SH 15 CONT. 17

CROWD/PROPEL FIELDS CIRCUIT BREAKER 125 AMP. U29X03





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LINE NO. 15-01

SHEET NO. 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

ECO REF	S.N. ES4184 60HZ		SIZE C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR BY / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY / DATE		PROD DR MODEL 4100A	
DWG NO	R37798		SH 15 CONT. 17

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SHEET NO. 17 LINE NO. 01

460VAC, 3Ø, 60HZ (02-13)

02122 02123 02124

ACCB 350 AMP (POS. A)

AUXILIARIES CIRCUIT BREAKER U45X01 (150-26)

ZLB 20AMP

AHB1 30AMP

R.H. COOP AIR CONDITIONER C10X18A

17041 17042 17054 17055 17062

02GND

(POS.B) U45X02

(POS.C) U45X03

R.H. COOP BASE BOARD HEATER C10X10

SWITCH HS1-1 OFF

SELECTOR SWITCH C10X10A

HS1-2 HS1-3

17081 17082 17083 17054 17086 17087 17088

17051 17052 17053

HS1-6 HS1-5 HS1-4

24261 (24-26)

01021 (24-26)

NOTE:
1.SELECTOR SWITCH HS1 IS A SIX SELECTION SWITCH.
2.SWITCH SELECTION SHOWN VIEWED OPPOSITE FROM OPERATOR END.

BASE BOARD HEATER

OFF
HI BLOWER ONLY
HI BLOWER HI HEAT
HI BLOWER MED HEAT
LO BLOWER LO HEAT
LO BLOWER ONLY

2 = GROUND TO UPPER FRAME.

FRONT VIEW OF LOADCENTER-BREAKER POSITION

A B C D E F G H I J K

ACB1 40AMP

AIR COMPRESSOR CONTROL #1

AIR COMPRESSOR U04X01

17182 17183 17192 17193 17202 17203

L1 L2 L3 T1 T2 T3 M OL'S

25 H.P.

02GND

(POS.E) U45X05

COOP HEATER RECEPTACLE C00X12

HB 40AMP

17181 17191 17201

R.H. COOP HEATER 7.5KW

02GND

(POS.D) U45X04

R.H.ROOM HEATER RECEPTACLE U70X02

LUBE ROOM HEATER RECEPTACLE U70X03

U45X06 WSB1 60AMP

SPARE 40AMP

WELDER PLUG U50X03

WELDER RECEPTACLE U59X02

17351 17352 17361 17362 17371 17372

(POS.F) (POS.G) U45X07

R.H. ROOM AIR CONDITIONER C10X18B

AHB2 30AMP

SPARE 60AMP

17431 17392 17441 17402 17451 17412

(POS.H) (POS.I) U45X09

U45X8

ROPE TUGGER U72X11

RTB 20AMP

(POS.J) U45X10

17051 17052 17053

(19-02)

ROPE TUGGER U72X21

02GND

05	5518876		
CHANGE	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE		
CHNG BY	J DEMOTT 10/2019		

DWG NO	R37798		
DRAWN	J.DEMOTT 10/2019	SCALE	NONE
CHKD	R PITSCH 10/2019	RELEASE DATE	09/24/98
ENGR	J WUTKE 10/2019	SIMILAR TO	R37998
MODEL	4100A	TITLE	SCHEMATIC DIAG
SERIES			
APP BY	S.N. ES4184 60HZ		
DATE			
CHKD			
DATE			
DRAWN			
DATE			
SIZE	C		

DWG NO R37798 SH 17 CONT.19

SH 17 CONT.19

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DWG NO R37798 | SH 19 CONT. 20

SHEET NO. | LINE NO.

460VAC, 3Ø, 60HZ (17-45)

19-01 | 17051 17052 17053 31131 150261

SHUNT TRIP

19051 19052 19053 | 01021 150262

A01B01 .5A 19041 (V)

A01B02 .5A 19043

NEUTRAL (24-43) 01021

AUX. CABINET CIRCUIT BREAKER (150-26) AUX (31-13) SHUNT

A.C. VOLTMETER A00X24

(24-43) 24331

3 CONNECT TO GROUND IN AUXILIARY CABINET

FHBS-CB

19111 FHBS
19121 FHBS
19131 FHBS

OVERLOAD

19112 | 19122 | 19132

15 H.P. 03GND

132051 [54286] (132-05)

3 P E C

19151 | 01021

HOIST (FRONT) BLOWER CIRCUIT A01C01 BREAKER

HOIST (FRONT) BLOWER STARTER A01D01 129-13

HOIST (FRONT) BLOWER MOTOR U61X01B

RHBS-CB

19181 RHBS
19191 RHBS
19201 RHBS

OVERLOAD

19182 | 19192 | 19202

15 H.P. 03GND

132091 [54306] (132-09)

3 P E C

19221 | 01021

HOIST (REAR) BLOWER CIRCUIT BRKR. A01C02

HOIST (REAR) BLOWER STARTER A01D02 129-15

HOIST (REAR) BLOWER MOTOR U61X01B

FSBS-CB

19251 FSBS
19261 FSBS
19271 FSBS

OVERLOAD

19252 | 19262 | 19272

7.5 H.P. 03GND

132131 [54326] (132-13)

3 P E C

19291 | 01021

SWING (FRONT) BLOWER CIRCUIT BRKR. A01C03

SWING (FRONT) BLOWER STARTER A01D03 129-17

SWING (FRONT) BLOWER MOTOR U03X01B

RSBS-CB

19321 RSBS
19331 RSBS
19341 RSBS

OVERLOAD

19322 | 19332 | 19342

7.5 H.P. 03GND

132251 [54346] (132-25)

3 P E C

19361 | 01021

SWING (REAR) BLOWER CIRCUIT BRKR. A01C04

SWING (REAR) BLOWER STARTER A01D04 129-25

SWING (REAR) BLOWER MOTOR U03X02B

19051 19052 19053 (20-01) | 24331 (20-15) | 01021 (20-01)

CHANGE	CHG BY
05 5518876	J DEMOTT 10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWG NO R37798

S.N. ES4184 60HZ

DWN J.DEMOTT 10/2019 | CHKD R PITSCH 10/2019 | ENGR J WITKE 10/2019

SCALE NONE | RELEASE DATE 09/24/98 | SIMILAR TO R37998

TITLE SCHEMATIC DIAG

PROD MODEL 4100A

SH 19 CONT. 20

KOMATSU

SIZE C

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DWG NO R37798 | SH 20 CONT. 21

SHEET NO. | LINE NO.

20-01 460VAC, 30, 60HZ (19-45)

02 19051 19052 19053

NEUTRAL (19-45) 01021

1 GROUND TO LOWER FRAME.

3 CONNECT TO GROUND IN AUXILIARY CABINET

RPCBS-CB
20111 20121 20131
RPBS RPBS RPBS
OVERLOAD
20112 20122 20132
15 14 13
7.5 H.P.
01GND
PROPEL (RIGHT) BLOWER CIRCUIT L051C02
BREAKER/ STARTER 131-35
PROPEL (RIGHT) BLOWER MOTOR L01X01B
134291 (134-29)
3 P E C
20161
01021
(19-45)
24431

LPCBS-CB
20181 20191 20201
LPBS LPBS LPBS
OVERLOAD
20182 20192 20202
12 11 10
7.5 H.P.
01GND
PROPEL (LEFT) BLOWER BLOWER CIRCUIT L051C01
BREAKER/ STARTER 131-35
PROPEL (LEFT) BLOWER MOTOR L02X01B
135371 (135-37)
3 P E C
20231
01021
24431

CBS-CB
20251 20261 20271
CBS CBS CBS
OVERLOAD
20252 20262 20272
15 H.P.
03GND
CROWD BLOWER CIRCUIT BRKR. A01C09
CROWD BLOWER STARTER A01D09 130-03
CROWD BLOWER MOTOR B01X01B
133091 [55066] (133-09)
3 P E C
20291
01021
24431

HCBS-CB
20321 20331 20341
HCBS HCBS HCBS
OVERLOAD
20322 20332 20342
2 H.P.
03GND
CONV.- HOIST BLOWER CIRCUIT BRKR. A10C10
CONVERTER - HOIST BLOWER STARTER A01D10 130-05
CONVERTER - HOIST BLOWER MOTOR K00X01
133131 [55086] (133-13)
3 P E C
20361
01021
24431

SCCBS-CB
20391 20401 20411
SCCBS SCCBS SCCBS
OVERLOAD
20392 20402 20412
2 H.P.
03GND
CONVERTER BLOWER CIRCUIT BRKR. A01C11
CONVERTER BLOWER STARTER - SWING/CROWD A01D11 130-07
CONVERTER BLOWER MOTOR - SWING/CROWD K00X02
133171 [55106] (133-17)
3 P E C
20431
01021
24431

(21-04)

19051 19052 19053 (21-01)

01021 (21-01)

REV	CHANGE	BY	DATE
05	5518876	J DEMOTT	10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWN J.DEMOTT 10/2019 | SCALE NONE | SIZE C

CHKD R PITSCH 10/2019 | RELEASE DATE 09/24/98

ENGR J WITKE 10/2019 | SIMILAR TO R37998

DWG NO R37798 | REV 05

TITLE SCHEMATIC DIAG

MODEL 4100A

S.N. ES4184 60HZ

KOMATSU

SH 20 CONT. 21

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SHEET NO. 21 LINE NO. 01

460VAC, 3Ø, 60HZ (20-45)

19051 19052 19053 (20-45) 24431

NEUTRAL (20-45) 01021

3 CONNECT TO GROUND IN AUXILIARY CABINET

RPCB1S-CB
21111 RPCB1S 21112
21121 RPCB1S 21122
21131 RPCB1S 21132
OVERLOAD
2 H.P.
03GND
133251 [551461] (133-25)
3 P E C
21151
01021
24431

(1/2 BANK) R.P.C. BLOWER #1 CIRCUIT BRKR. A01E01
(1/2 BANK) R.P.C. BLOWER #1 STARTER A01F01 130-29
R.P.C. BLOWER MOTOR F10X06

RPCB2S-CB
21181 RPCB2S 21182
21191 RPCB2S 21192
21201 RPCB2S 21202
OVERLOAD
2 H.P.
03GND
133291 [551661] (133-29)
3 P E C
21221
01021
24431

R.P.C. BLOWER (SWITCH) CIRCUIT BRKR. A01E02
R.P.C. BLOWER (SWITCH) STARTER A01F02 130-31
R.P.C. BLOWER MOTOR F20X06

RPCB3S-CB
21251 RPCB3S 21252
21261 RPCB3S 21262
21271 RPCB3S 21272
OVERLOAD
2 H.P.
03GND
133331 [552661] (133-33)
3 P E C
21291
01021
24431

R.P.C BLOWER (BANK 2) CIRCUIT BRKR. A01E03
R.P.C BLOWER (BANK 2) STARTER 130-33
R.P.C. BLOWER MOTOR F30X06

HLPS-CB
21321 HLPS 21322
21331 HLPS 21332
21341 HLPS 21342
OVERLOAD
1.0 H.P.
03GND
132291 [552861] (132-29)
3 P E C
21361
01021
24431

HOIST LUBE PUMP CIRCUIT BRKR. A01E04
HOIST LUBE PUMP STARTER A01F04 129-27
HOIST LUBE PUMP MOTOR U61X01P

DIPPER TRIP RESISTOR ASSY U79X01A ADJUST EACH PHASE TOTAL TO 2.45Ω
DIPPER TRIP MOTOR U00X08

DTS1-CB
21411 DTS1 21412
21421 DTS1 21422
21431 DTS1 21432
OVERLOAD
15HP
03GND
A02B05A
134051 [553061] (134-05)
3 P E C
21451
01021
24431

21413 21414 21423 21424 21433 21434 21425
DTC1 DTC1 DTC1
(135-09)

DIPPER TRIP CIRCUIT BRKR. A01E05
SLACK TAKE UP RESISTOR ASSY U79X02A
ADJUST EACH PHASE TOTAL TO 70.4Ω
DIPPER TRIP MOTOR STARTER #1 A01F05 130-27

24431 (22-08)
19051 19052 19053 (22-01)
01021 (22-01)

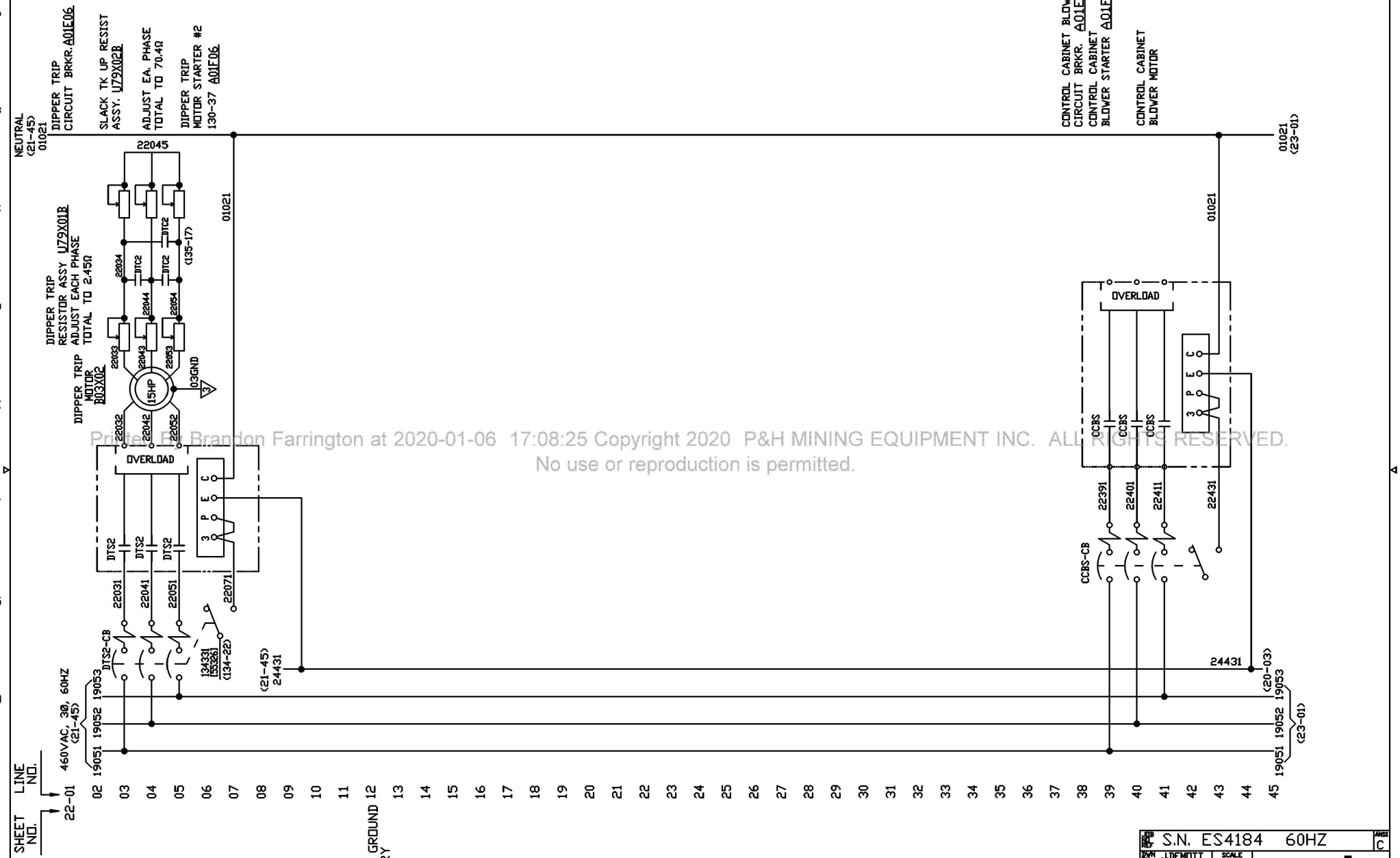
05	5518876	J DEMOTT 10/2019	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWG NO R37798 | SH 21 CONT. 22

DWN J.DEMOTT 10/2019 | CHKD R PITSCH 10/2019 | ENGR J WITKE 10/2019 | DRWG NO R37798 | SCALE NONE | RELEASE DATE 09/24/98 | SIMILAR TO R37998 | MODEL 4100A | TITLE SCHEMATIC DIAG | S.N. ES4184 60HZ | SIZE C | SH 21 CONT. 22

KOMATSU

DWG NO R37798 | SH 22 CONT. 23



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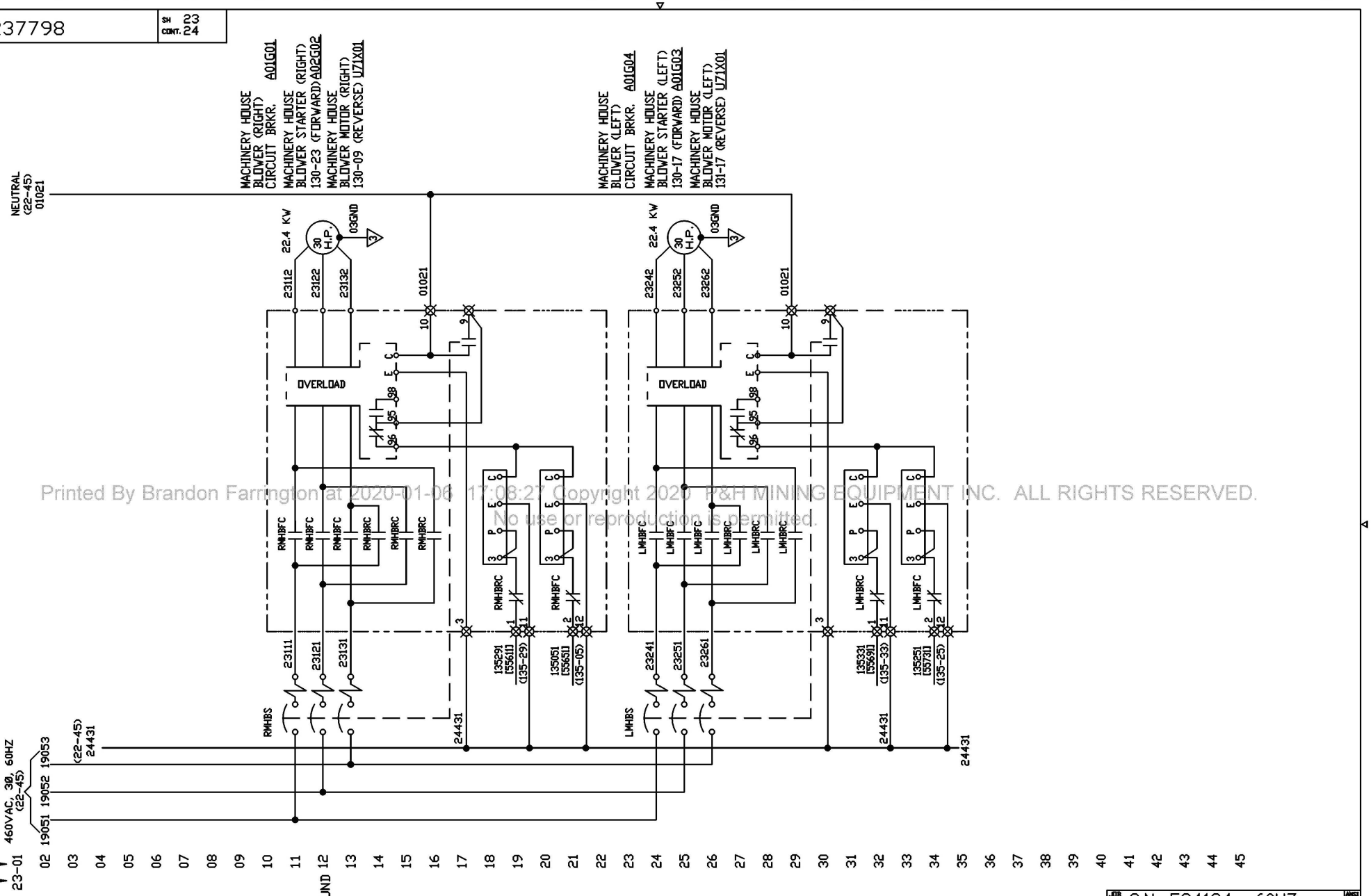
3 CONNECT TO GROUND IN AUXILIARY CABINET

05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

MFG REF	S.N. ES4184 60HZ		REV C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CHK BY / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
APVD BY / DATE		PROD REF MODEL 4100A	
DWG NO	R37798		SH 22 CONT. 23

DWG NO R37798 | SH 23 CONT. 24



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③ CONNECT TO GROUND IN AUXILIARY CABINET

⊠ -INDICATES TERMINAL LOCATED ON PREWIRED STARTER

05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — SIZE C

DWN J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS DATE	PROD MODEL 4100A		
DWG NO R37798		SH 23 CONT. 24	

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SHEET NO. LINE NO.

24-01

208VAC, 30, 60HZ (02-36)

02361 02362 02363 01021

02GND

MB 150 AMP

120V MAIN BREAKER U25X01

24101 24102 24103 01021

TYPICAL R.C.V. CIRCUIT

GROUND TO UPPER FRAME

FLS C11F04

FLOODLIGHTS C11E01

(25-35) 24182 2 ON(3) 24181 FLC1

FLOODLIGHT CONTACTOR #1 25-28,25-29,25-30,25-31 U27X01

U27X01A RCV

FLC2

FLOODLIGHT CONTACTOR #2 25-32,25-33,25-33 U27X02

U27X02A RCV

NEUTRAL BUS

BASEBOARD HEATER CONTROL

(17-15) 24261 BBHB 20 AMP

CVSB 10 AMP 24262 2TB-1 107 (89-01) CONTROL CABINET RECEPTACLE

(17-16)

PROPEL MOTOR HEATERS/ LOWER 120V SUPPLY (26-01) 24281 LSB 20 AMP

MOB1 20 AMP 24282

MOTOR HEATERS LOWER I/O SUPPLY (26-08), (27-24) 24301 HB1 20 AMP 088353 (88-45)

MOB2 20 AMP 24302

HEATERS (27-01) (89-07) 24321 HB2 20 AMP

LSAB 20 AMP 24322

CONTACTOR SUPPLY 100V.D.C.

24331 (34-01) RECTIFIER T01A3 24371 (34-01)

DCSB 20 AMP 24341

DRB1 15 AMP 24342

DUPLEX RECEPTACLES C00X19,U80X00

DRB2 15 AMP 24362

HB3 20 AMP 24361

DRB3 15 AMP 24382

RECEPTACLES, GROUND FAULT PROTECTED NEAR DOORS U80X01

RSB 20 AMP

2TB-3 155 24381

DRB4 15 AMP 24402

RELAY VOLTAGE SUPPLY (31-02) 2TB-3 156 24401

2TB-3 157 24421

DRB5 15 AMP 24422

(19-09) 24431 10 AMP 15 AMP 24432

(19-01) 01021

DRB6 20 AMP 24451 15 AMP 24452

02GND 01021

24453 15 AMP 15 AMP 24454

01021

24101 24102 24103 01021

(25-01)

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DWG NO	SH CONT.
R37798	24 25

CHANGE	BY	DATE
05 5518876 AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE	J DEMOTT	10/2019

DRAWN	DATE
J DEMOTT	10/2019
CHKD R PITSCH	10/2019
APP'D J WITKE	10/2019
RELEASED	

DWG NO R37798

REVISED

MODEL 4100A

SCALE NONE

RELEASE DATE 09/24/98

SIMILAR TO R37798

TITLE SCHEMATIC DIAG

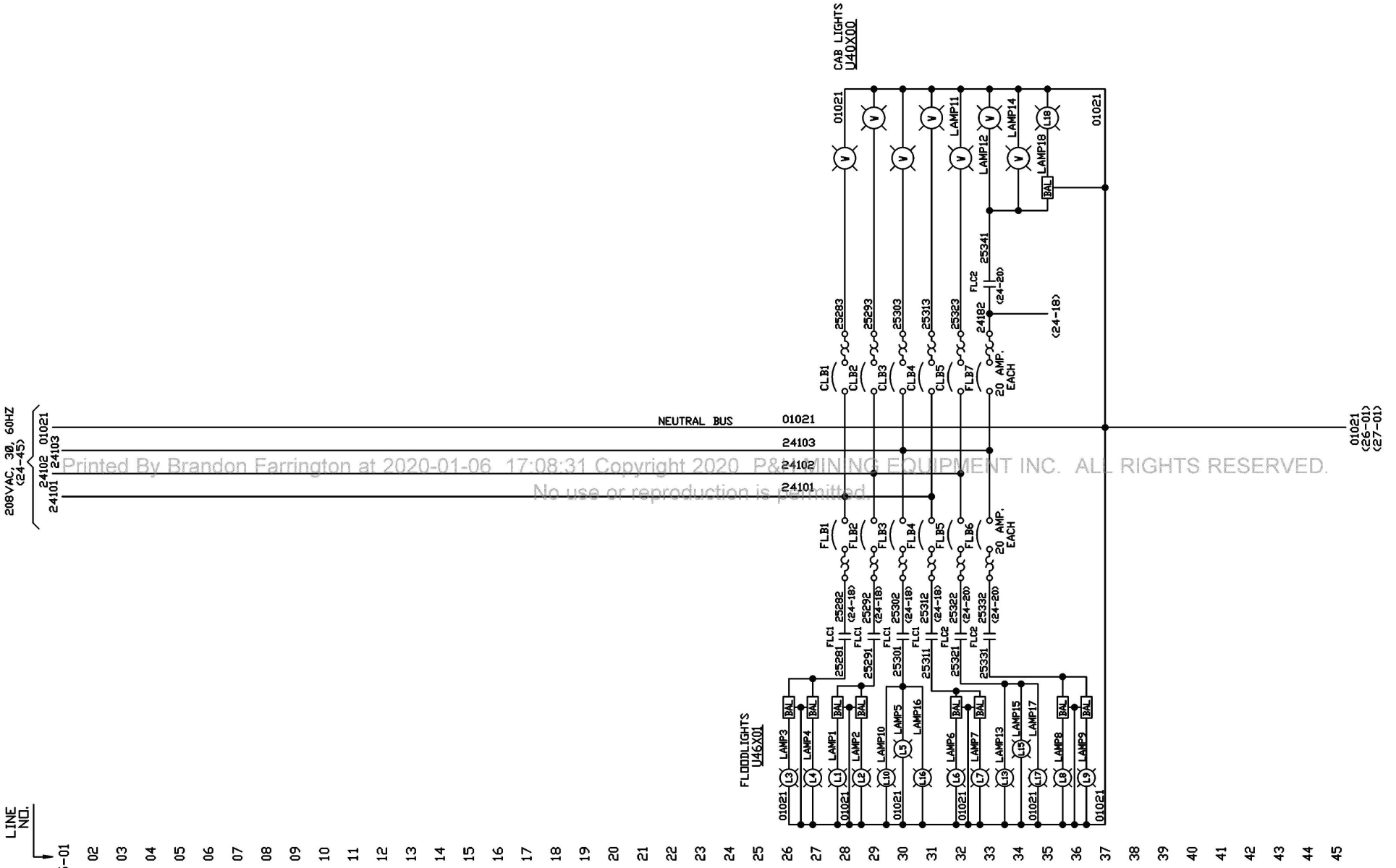
S.N. ES4184 60HZ

SIZE C

KOMATSU

DWG NO	SH CONT.
R37798	24 25

DWG NO R37798 | SH 25 CONT. 26



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LINE NO. 25-01
SHEET NO.

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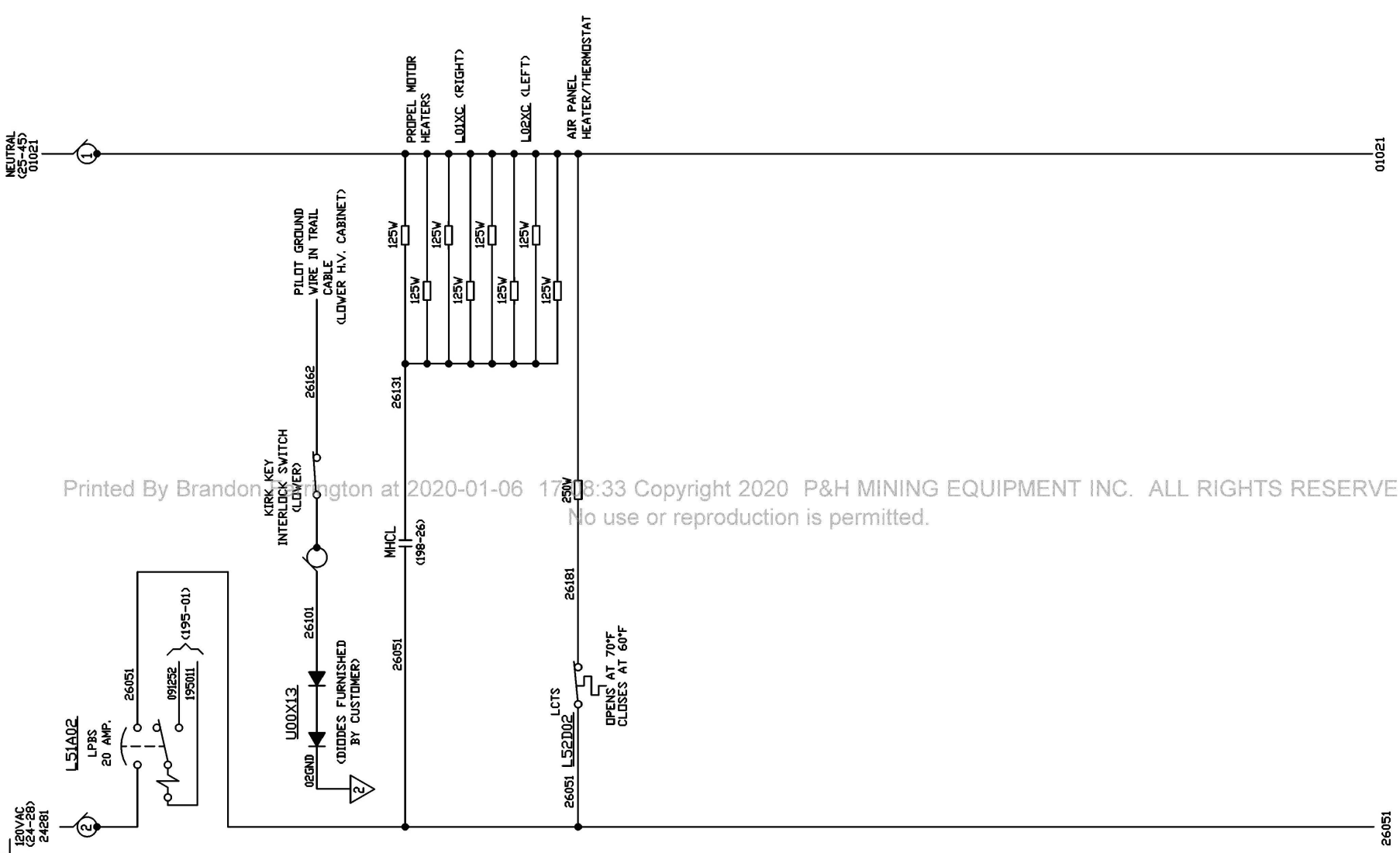
2 GROUND TO UPPER FRAME

05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ			REV C
DWN J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SH 25 CONT. 26	

DWG NO R37798 | SH 26 CONT. 27



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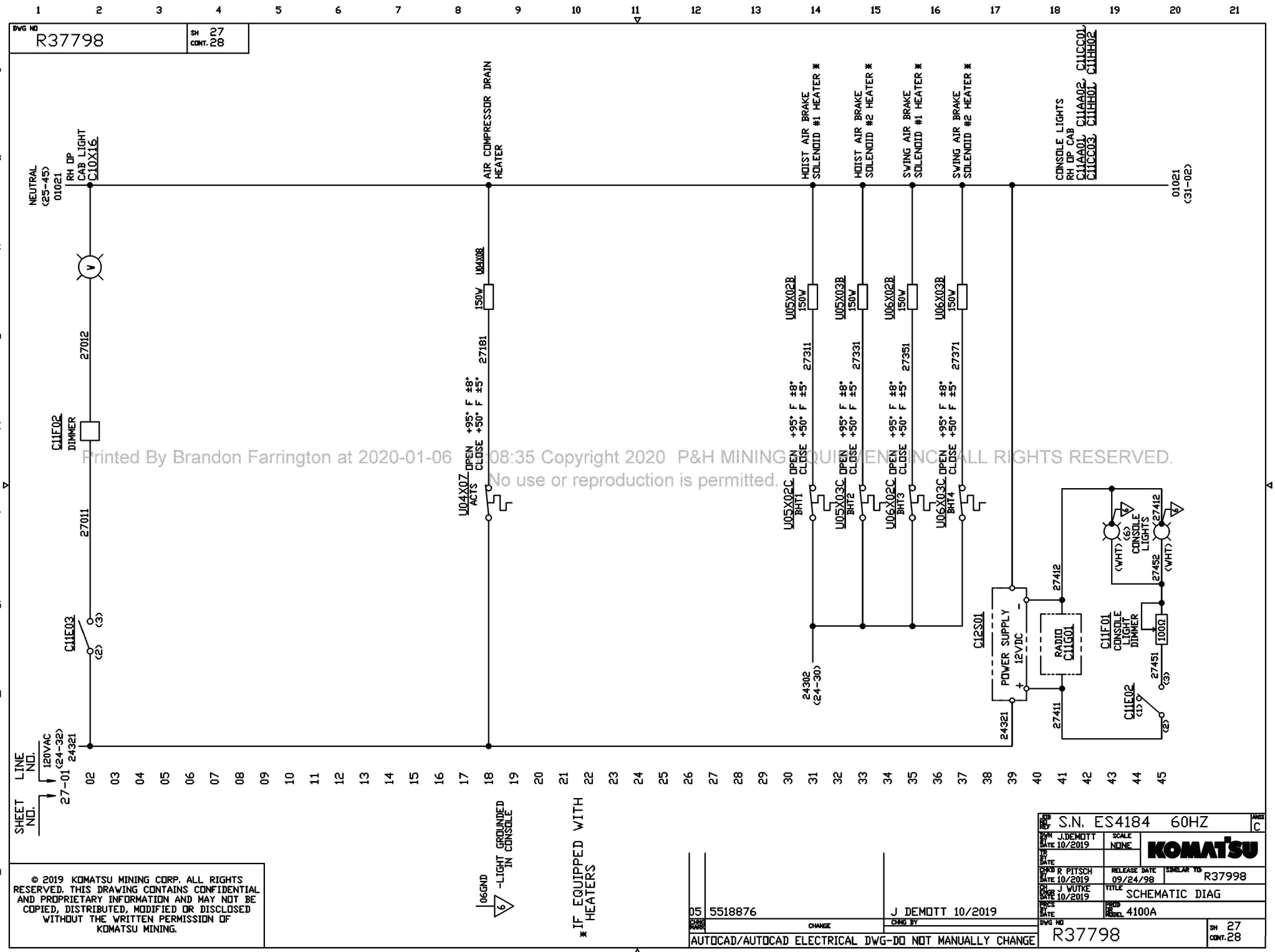
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES REF	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD OR MODEL 4100A		
DWG NO R37798		SH 26 CONT. 27	



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DWG NO R37798 | SH 28 CONT. 29

SUPPLY CIRCUIT
BREAKER
30 AMP
U43X01

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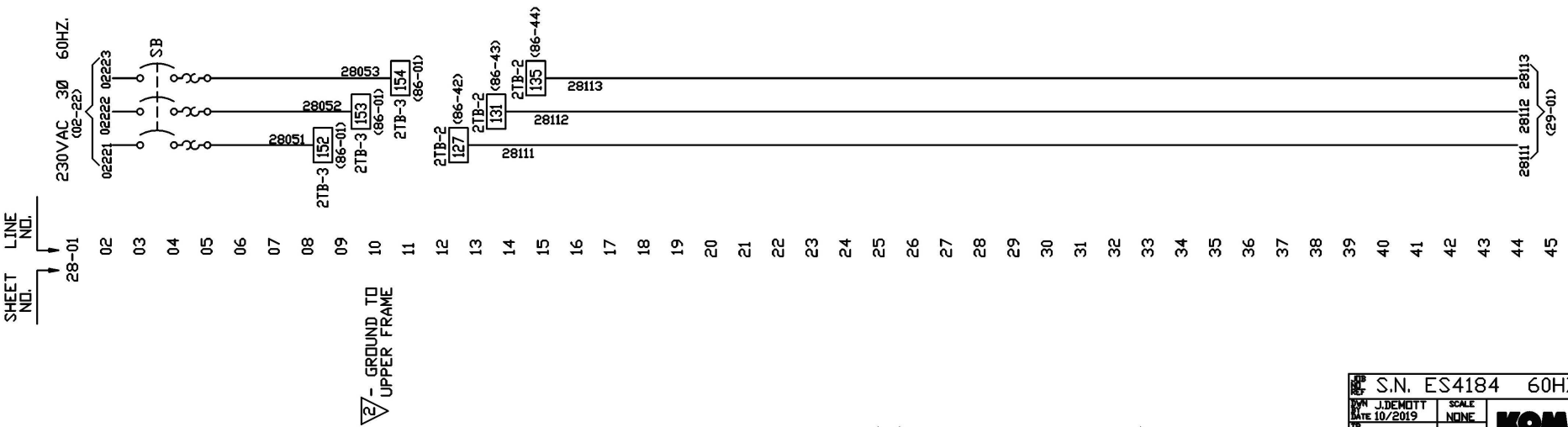

2/- GROUND TO UPPER FRAME

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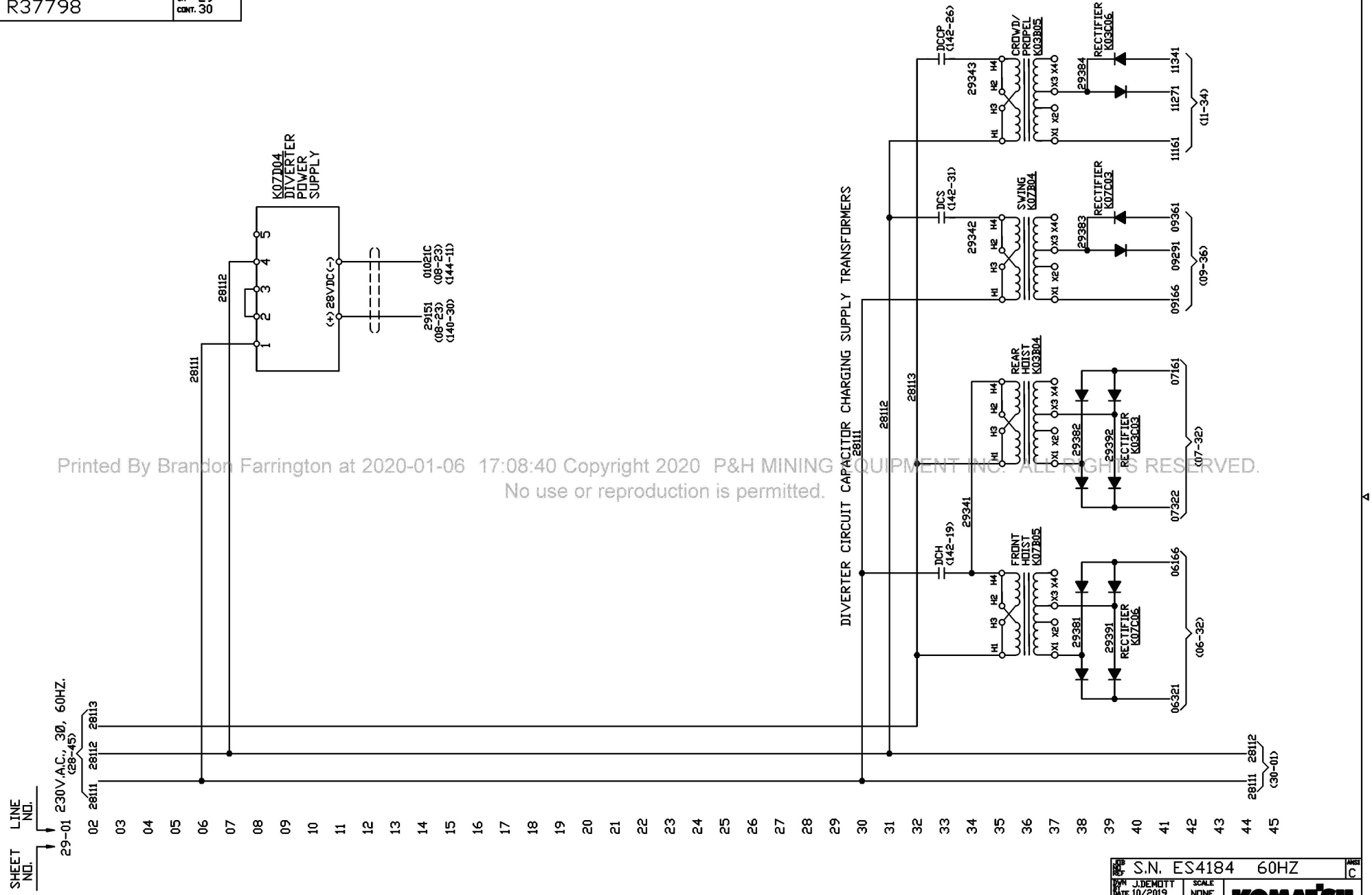
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

ECO REF	S.N. ES4184 60HZ		SIZE C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY / DATE		PROD GR MODEL 4100A	
DWG NO	R37798		SH 28 CONT. 29

DWG NO R37798 | SH 29 CONT. 30



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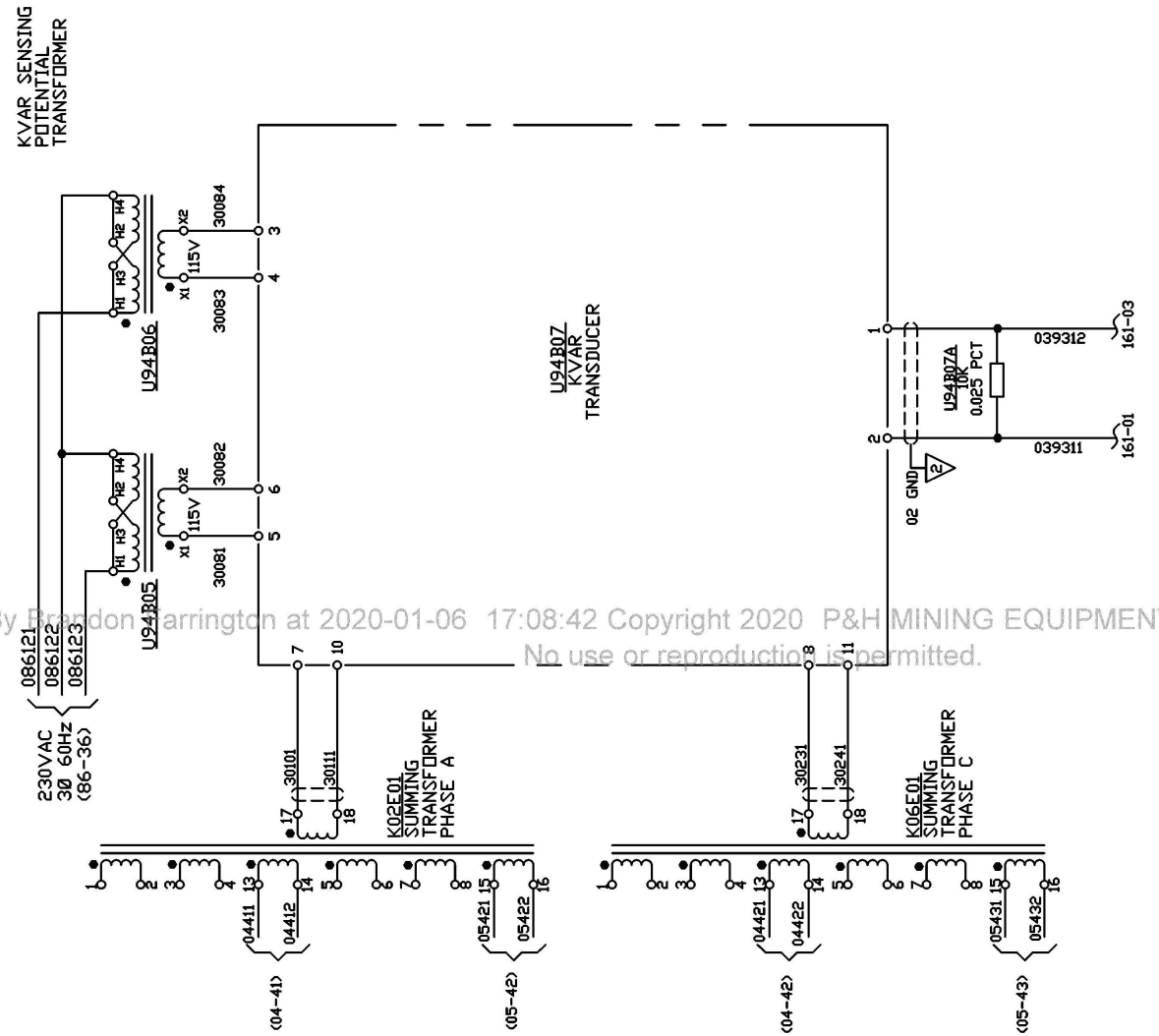
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
APPD BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PROCS BY DATE	PROD OR MODEL 4100A		
DWG NO R37798		SH 29 CONT. 30	

DWG NO R37798 | SH 30 CONT. 31



SUMMING TRANSFORMER							
1-2	3.2V						
3-4	3.2V						
5-6	3.2V						
7-8	3.2V						
13-14	11.98V						
15-16	11.98V						
17-18	20.0V						

SHEET NO. LINE NO. 30-01

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05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE			

S.N. ES4184 60HZ — SIZE C

DSN J.DEMOTT 10/2019 | SCALE NONE | KOMATSU

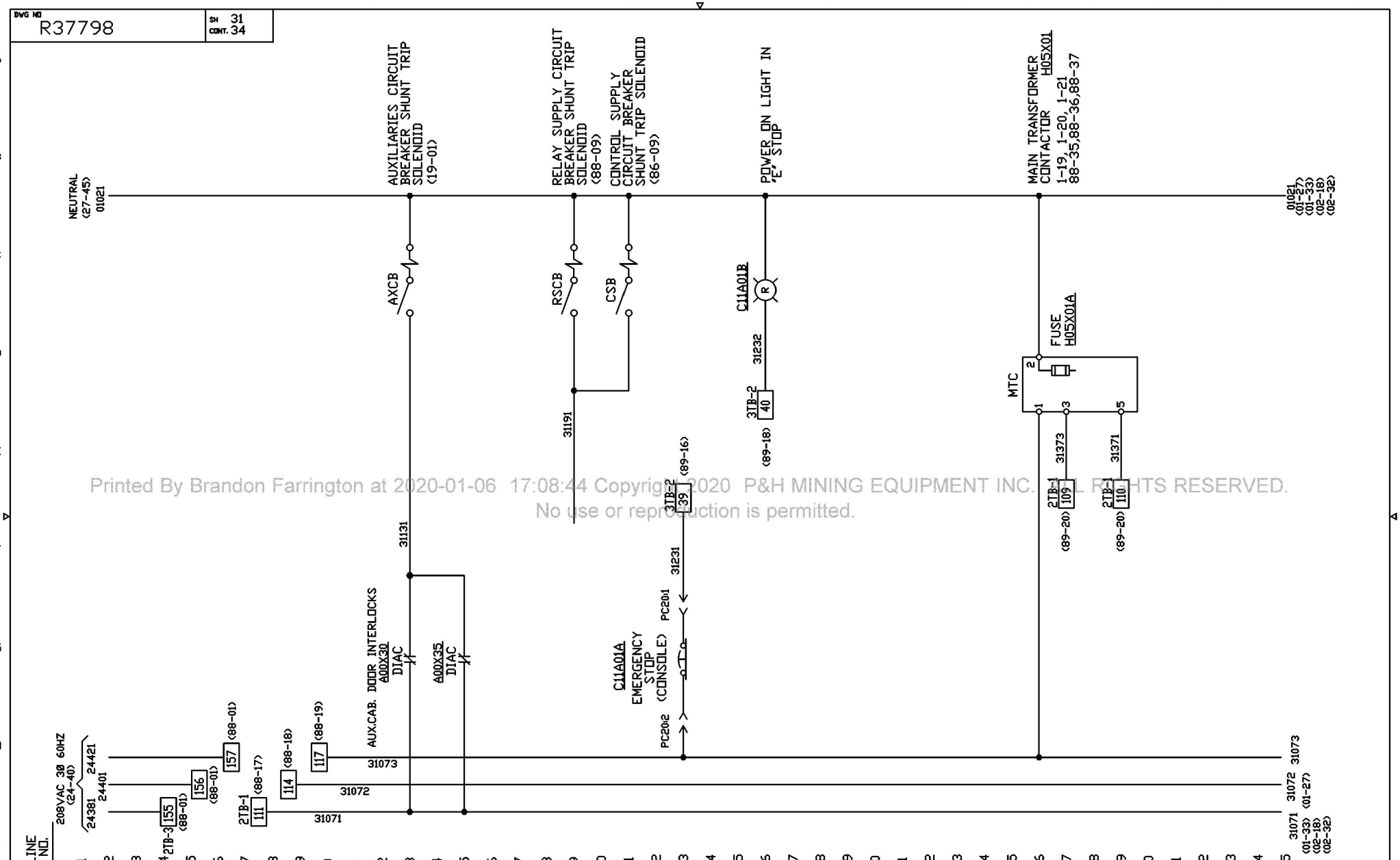
CHKD R PITSCH 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CHK J WUTKE 10/2019 | TITLE SCHEMATIC DIAG

PROD MODEL 4100A

DWG NO R37798 | SH 30 CONT. 31

DWG NO R37798 | SH 31 CONT. 34



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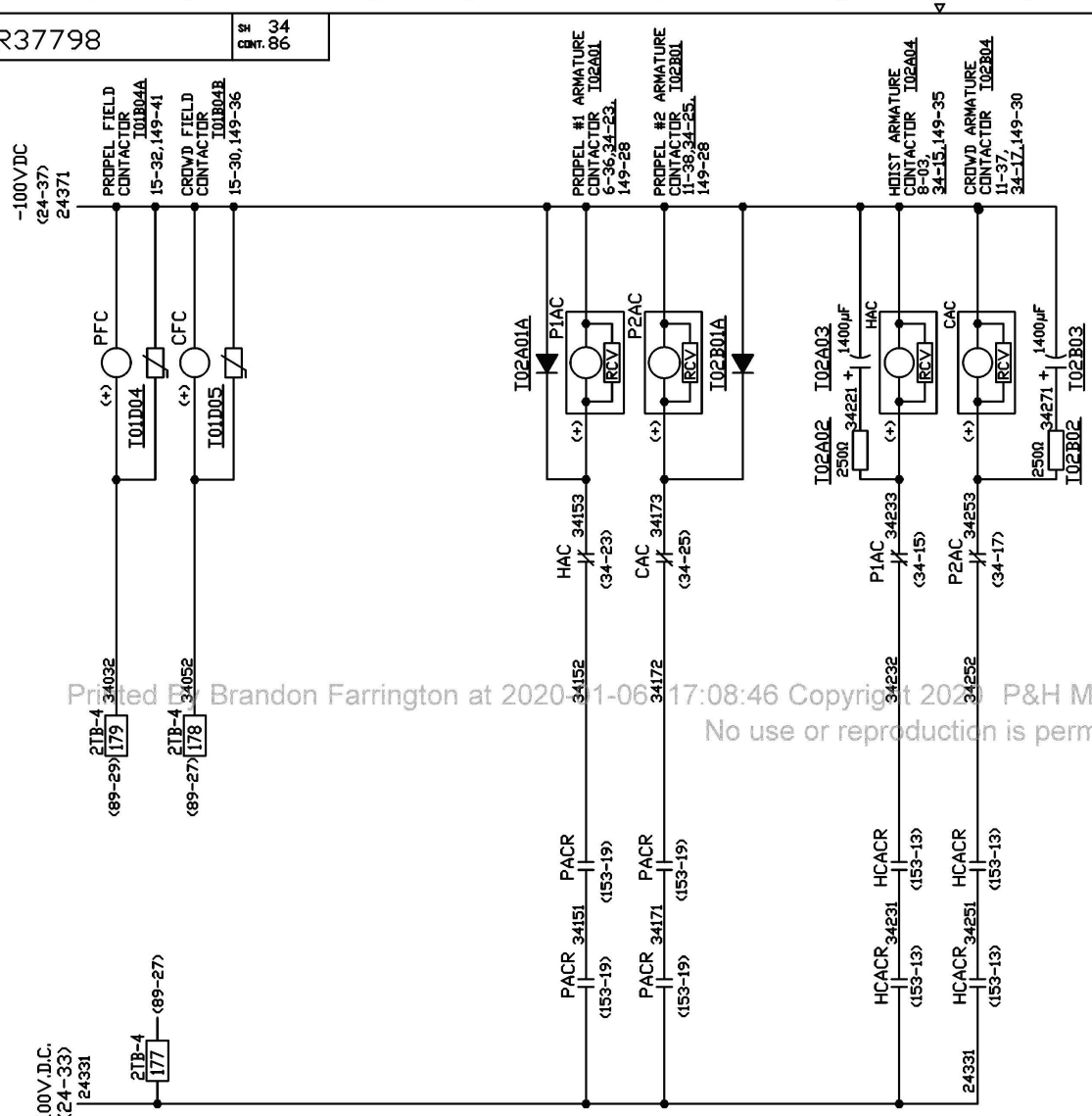
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ		SIZE C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR BY / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY / DATE		PROD DR MODEL 4100A	
DWG NO	R37798	SH 31 CONT. 34	

DWG NO R37798 | SH 34 CONT. 86



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SHEET NO. 34-01 LINE NO. 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

TYPICAL R.C.V. CIRCUIT

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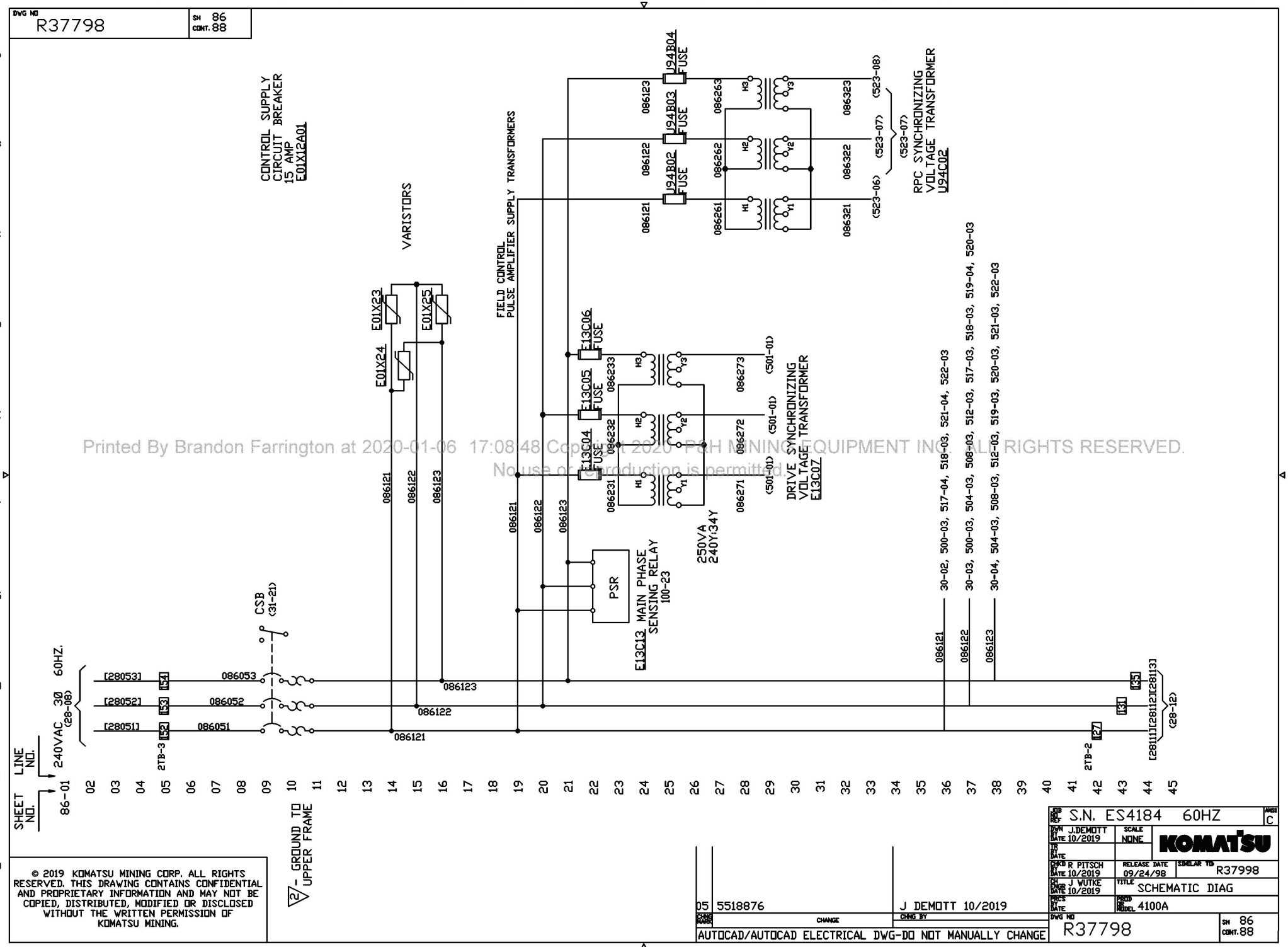
05	5518876	J DEMOTT 10/2019	
CODE MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ		REV C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR BY / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY / DATE		PROD DR MODEL 4100A	
DWG NO	R37798		SH 34 CONT. 86

DWG NO R37798 | SH 86 CONT. 88



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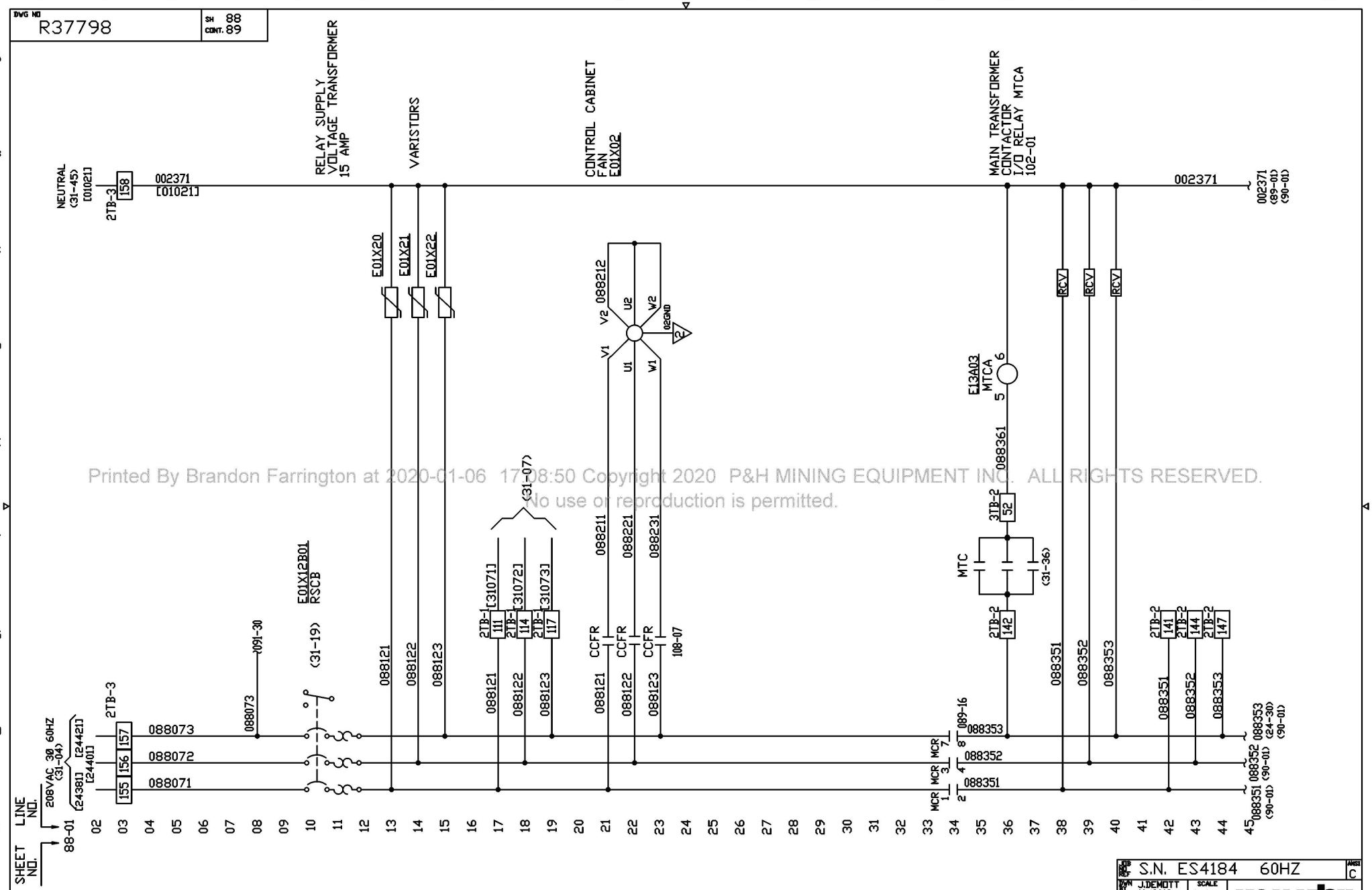
05	5518876	J DEMOTT 10/2019	
REV	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — REV C

DSN J.DEMOTT 10/2019	SCALE NONE	KOMATSU	
CHKD R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
APP J WUTKE 10/2019	TITLE SCHEMATIC DIAG		
PROJ ENGR DATE	MODEL 4100A		
DWG NO R37798		SH 86 CONT. 88	

DWG NO R37798 | SH 88 CONT. 89



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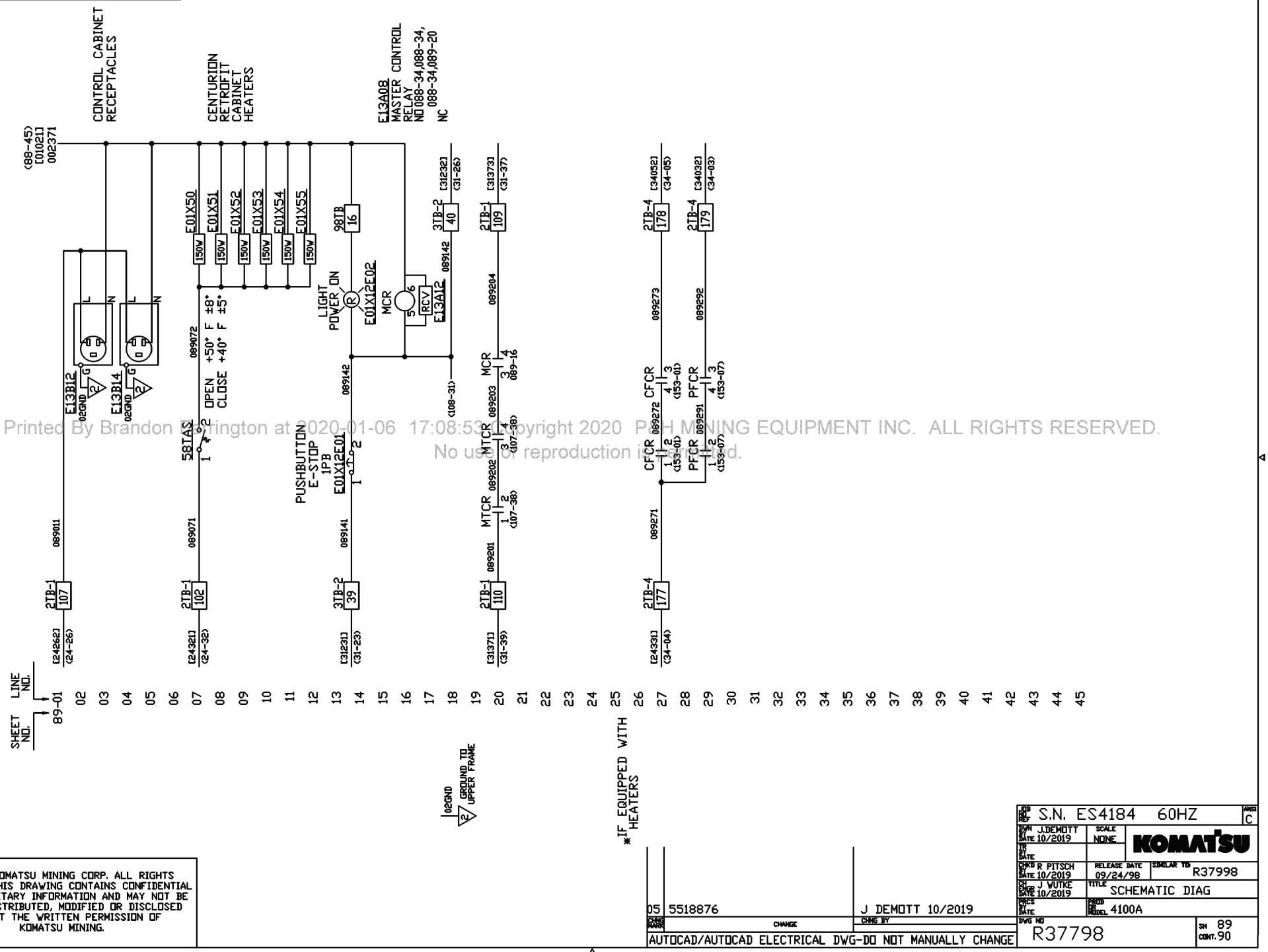
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — REV C

DWN J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CHK J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PROCS BY DATE	PROD OR MODEL 4100A		
DWG NO R37798		SH 88 CONT. 89	

DWG NO R37798 | SH 89 CONT. 90



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05	5518876	J DEMOTT 10/2019	
REVISIONS	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ | SIZE C

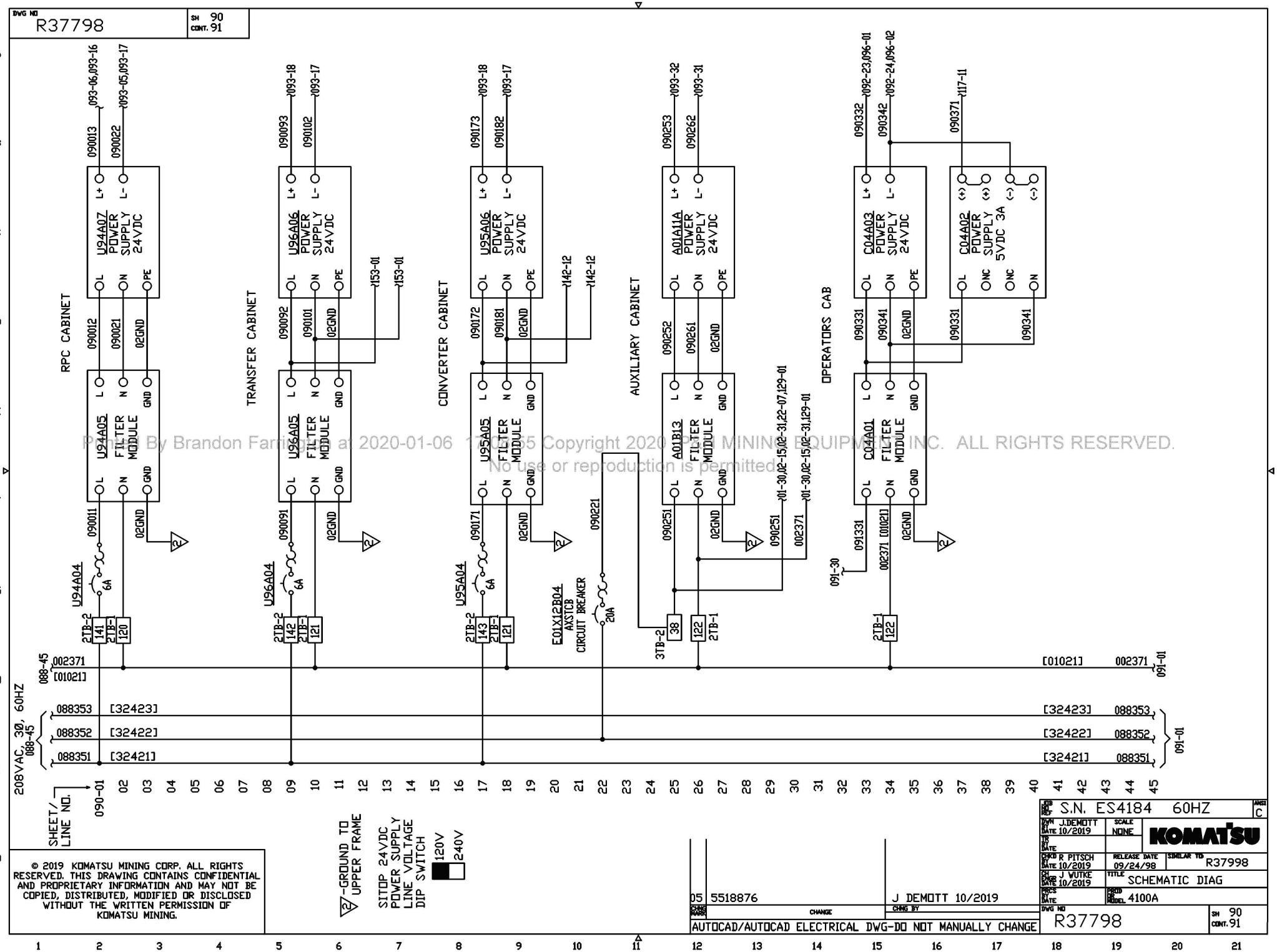
DWN BY J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

CHKD BY R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CH CHKD BY J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

PRCS BY DATE | PROD DR MODEL 4100A

DWG NO R37798 | SH 89 CONT. 90



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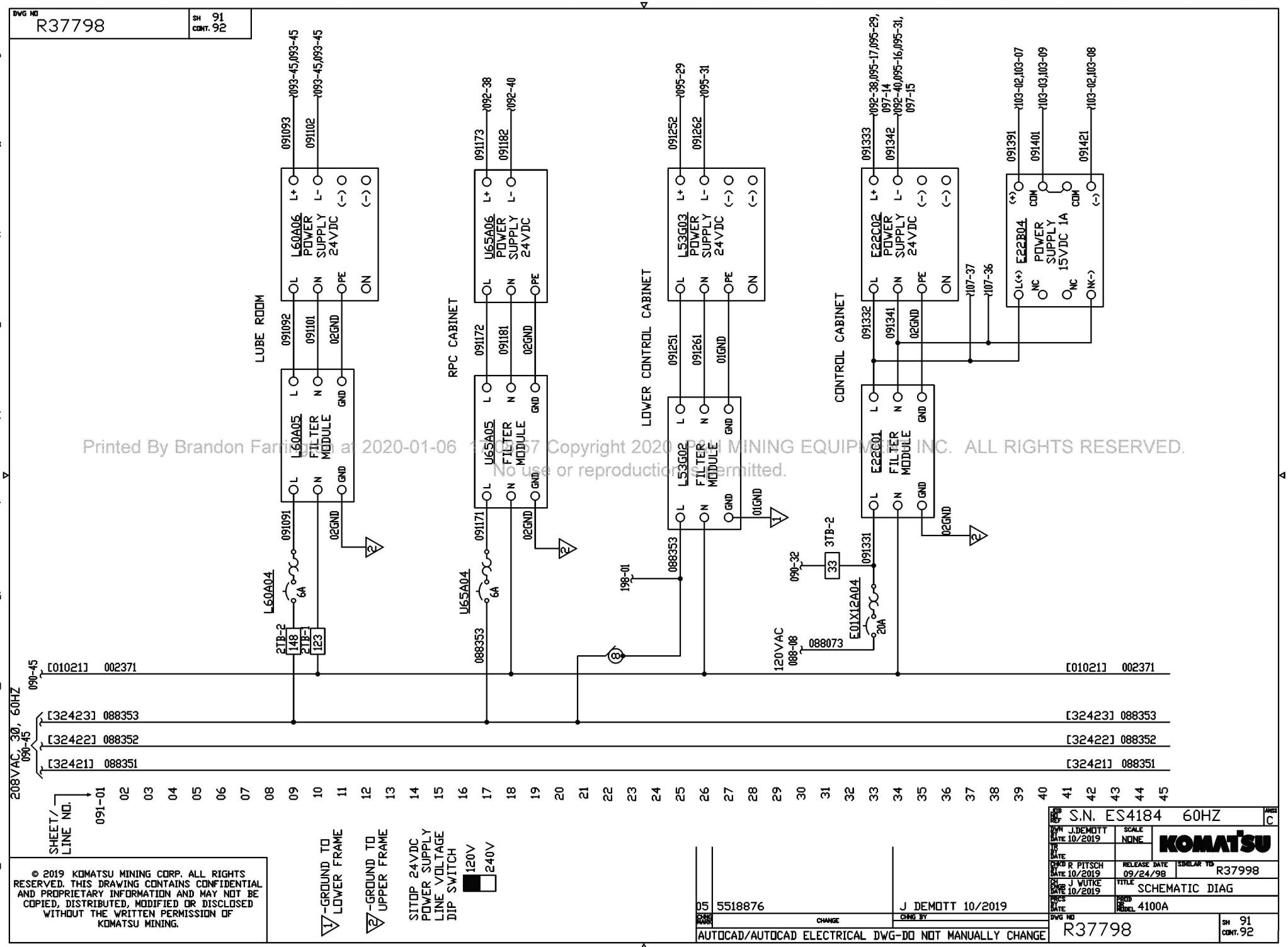
DWG NO R37798 | SH 91 CONT. 92



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SHEET/LINE NO. 091-01

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1/-GROUND TO LOWER FRAME

2/-GROUND TO UPPER FRAME

SITOP 24VDC POWER SUPPLY LINE VOLTAGE DIP SWITCH
120V
240V

05	5518876	J DEMOTT 10/2019
REV LTR	CHANGE	CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ REV C

DWN J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

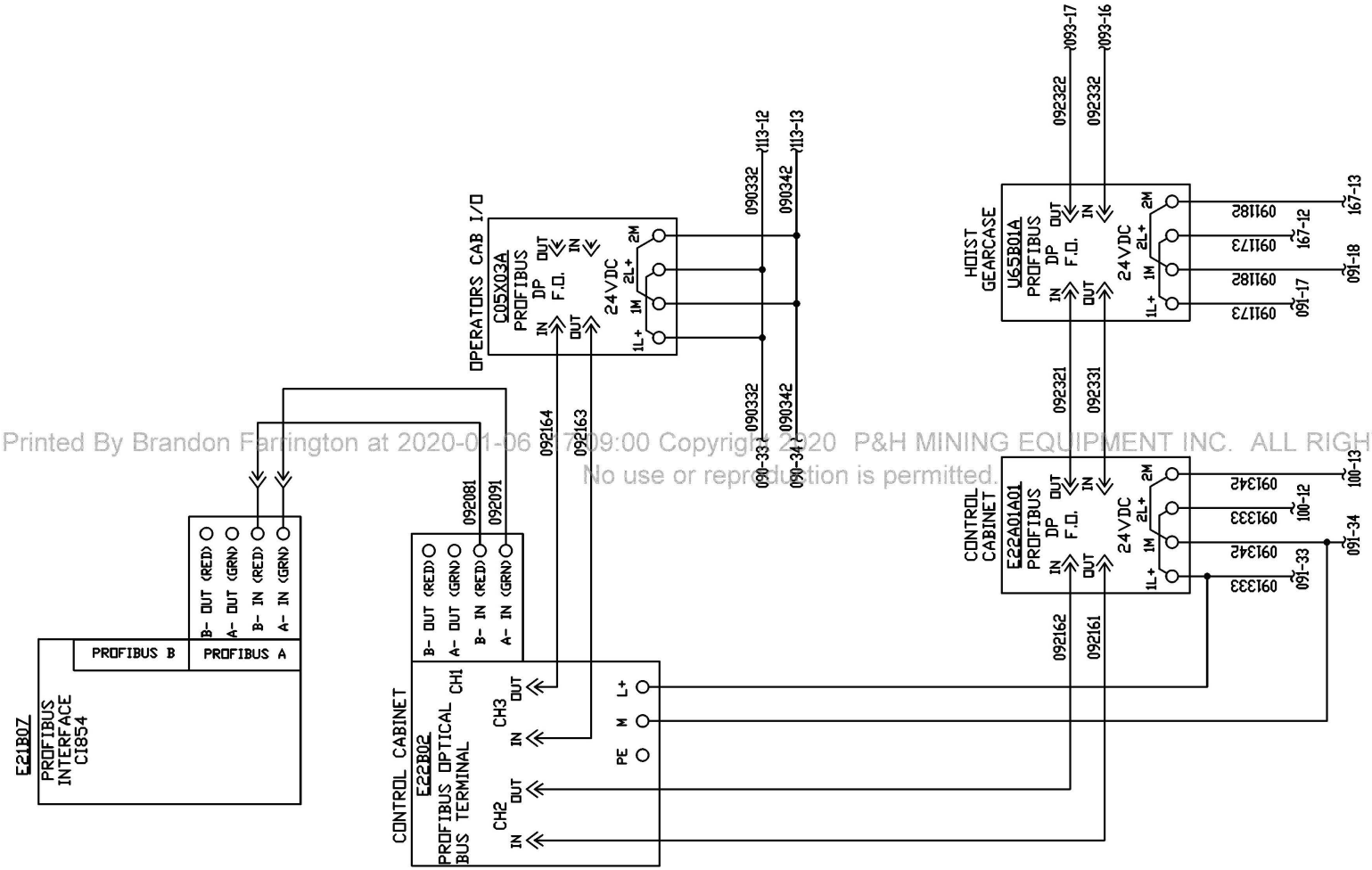
CHKD R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

APVD J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

PROCS DATE | PROD OR MODEL 4100A

DWG NO R37798 | SH 91 CONT. 92

DWG NO R37798 | SH 92 CONT. 93



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SHEET/LINE NO. 092-01

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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — SIZE C

DWN J.DEMOTT 10/2019 | SCALE NONE | KOMATSU

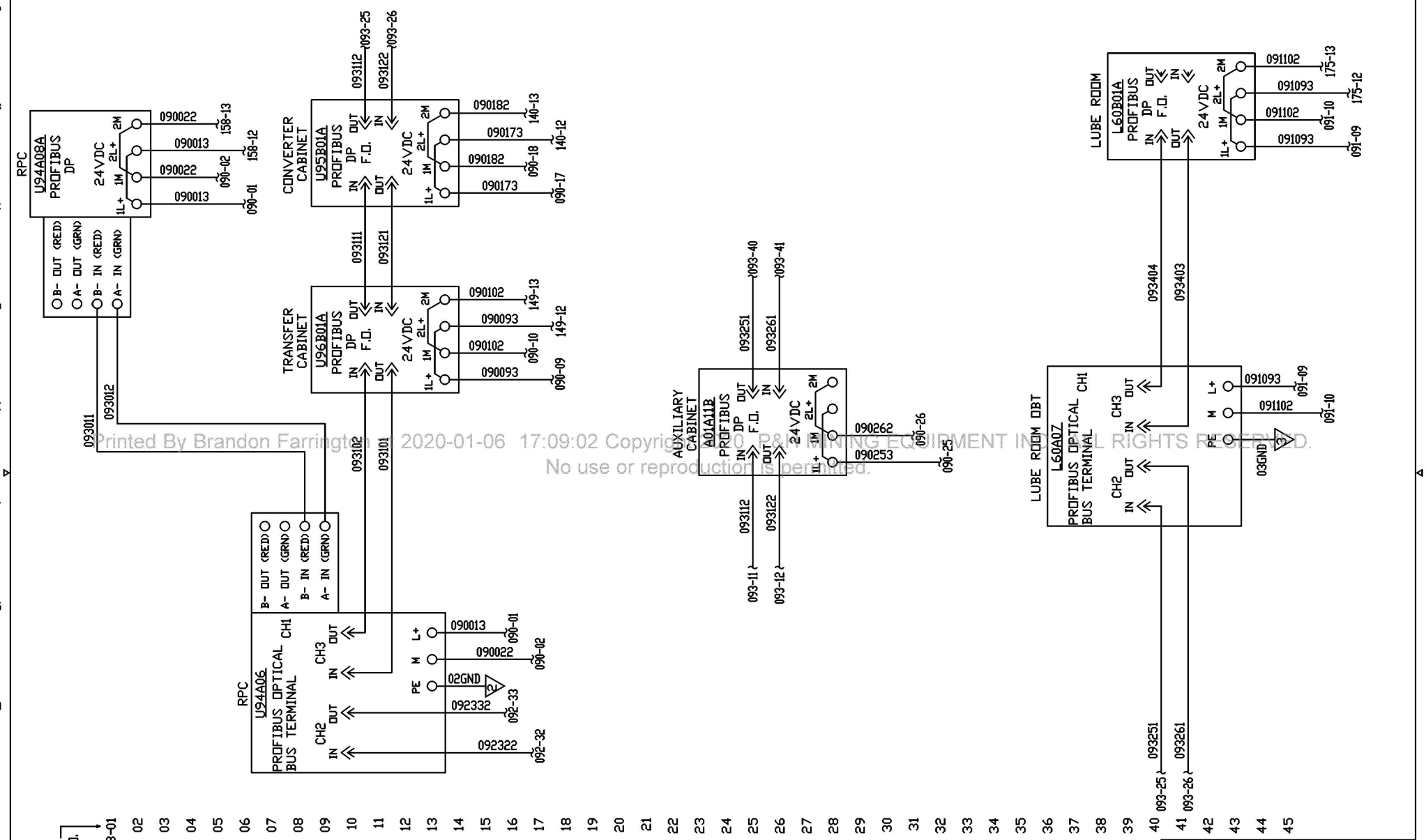
CHKD R PITSCH 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

ENG J WUTKE 10/2019 | TITLE SCHEMATIC DIAG

PRCS BY DATE | PROD DR MODEL 4100A

DWG NO R37798 | SH 92 CONT. 93

DWG NO R37798 | SH 93 CONT. 95



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05	5518876	J DEMOTT 10/2019	
REVISIONS	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — SIZE C

DSN J.DEMOTT 10/2019 — SCALE NONE — KOMATSU

CHKD R PITSCH 10/2019 — RELEASE DATE 09/24/98 — SIMILAR TO R37998

CHKD J WUTKE 10/2019 — TITLE SCHEMATIC DIAG

PROD ENGR — MODEL 4100A

DWG NO R37798 — SH 93 CONT. 95

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SHEET/LINE NO.

095-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

B02X01
RESOLVER
CROWD
CLS
095011
(R1) 1 (R2) 2 (S1) 3 (S2) 4 (S4) 6 (S3) 5
BK/RD GN BK/GN BK/WT RD WT
095015

U31X01
RESOLVER
HOIST
HLS
5 (S3) WT 095032
6 (S4) RD 095041
4 (S2) BK/WT 095014
3 (S1) BK/GN 095031
2 (R2) GN 095013
1 (R1) BK/RD 095012

E21B08
PROFIBUS INTERFACE
CI854
BUS #1
PROFIBUS B
PROFIBUS A
B-2 (RED)
A-2 (GRN)
B-1 (RED) 095172
A-1 (GRN) 095171

AMCI
RESOLVER
INTERFACE
E22B01
RESOLVER 1 & 2
RESOLVER 3 & 4
BRAKE PRESET
10-30VDC
RS485
1 2 3 4 5
1 2 3 4
COMM PORT
POWER
24VDC 0.5A
(+) (-) GND
02GND
A- IN (GRN) B- IN (RED) A- OUT (GRN) B- OUT (RED)
091333 091342 091-34 091-33
095172 095171

LOWER
L53D02
PWR RAIL BSTR
095-21 095211 095211 (GRN) A1
A2
095-23 095232 (RED) B1
B2
11 12 14
091-25 091252 L1+
L2+
091-26 091262 M1
M2
B- OUT (RED) A- OUT (GRN) B- IN (RED) A- IN (GRN)
095231 095233

CONTROL CABINET
E22B03
PWR RAIL BSTR
095-21 095211 (GRN) A1
A2
095-23 095232 (RED) B1
B2
11 12 14
091-33 091333 L1+
L2+
091-34 091342 M1
M2
B- OUT (RED) A- OUT (GRN) B- IN (RED) A- IN (GRN)

LOWER CONTROL CABINET
L53D01
PROFIBUS OPTICAL BUS TERMINAL CH1
CH2 IN OUT CH3 IN OUT
PE M L+
03GND
B- OUT (RED) A- OUT (GRN) B- IN (RED) A- IN (GRN)

LOWER CONTROL CABINET
L53A01A
PROFIBUS
IN DP F.O. OUT
OUT IN
24VDC
1L+ 1M 2L+ 2M
095392
095391
091262 194-13
091252 194-12

05	5518876	CHANGE	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
	J DEMOTT 10/2019	CHNG BY	

DWN	J.DEMOTT 10/2019	SCALE	NONE
CHKD	R PITSCH 10/2019	RELEASE DATE	09/24/98
ENGR	J WITKE 10/2019	SIMILAR TO	R37998
DWG NO	R37798	TITLE	SCHEMATIC DIAG
REV		MODEL	4100A
SH	95	CONT.	96

S.N. ES4184 60HZ

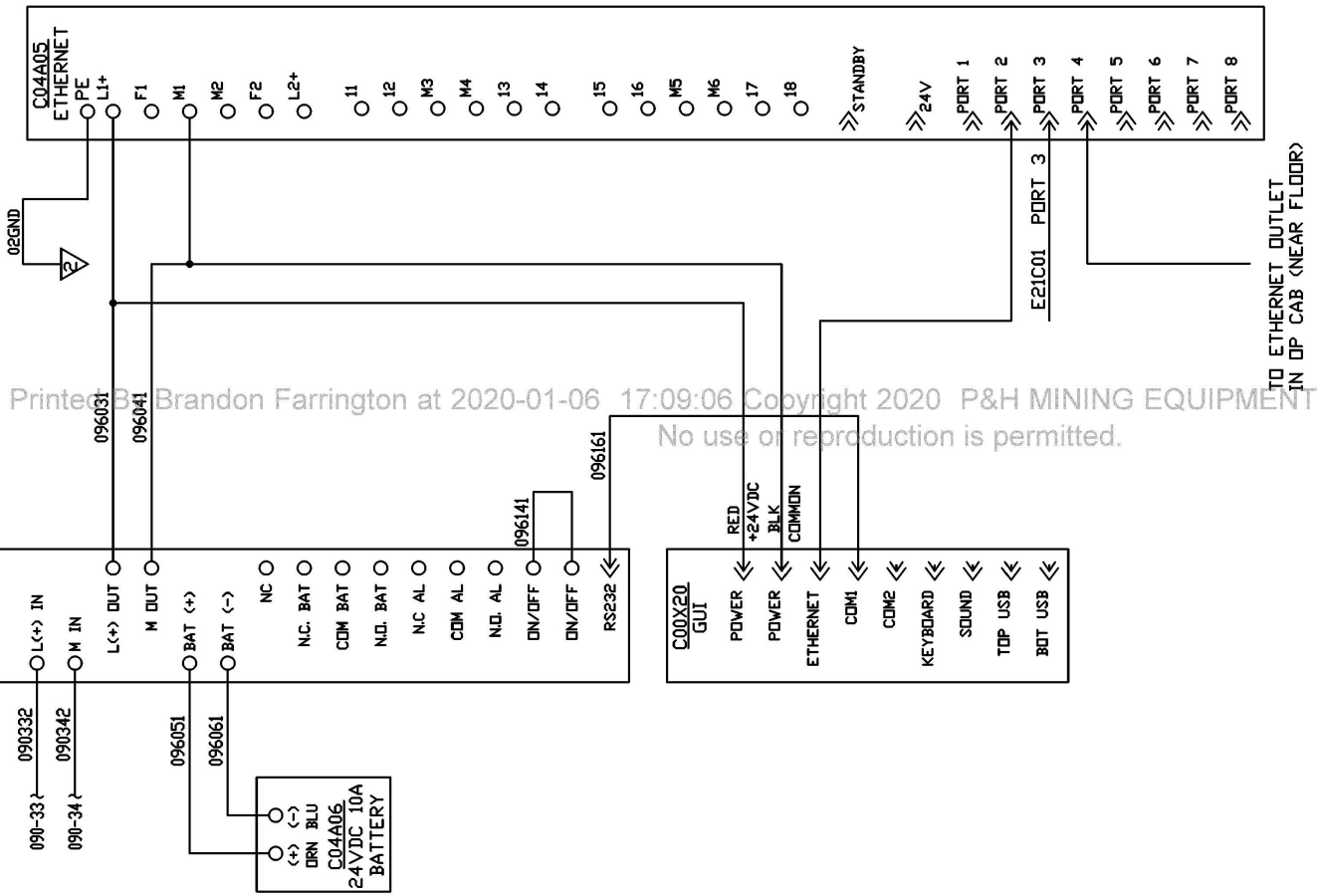
KOMATSU

SIZE C

DWG NO R37798

SH 95 CONT. 96

DWG NO R37798 | SH 96 CONT. 97



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SHEET/LINE NO. 096-01

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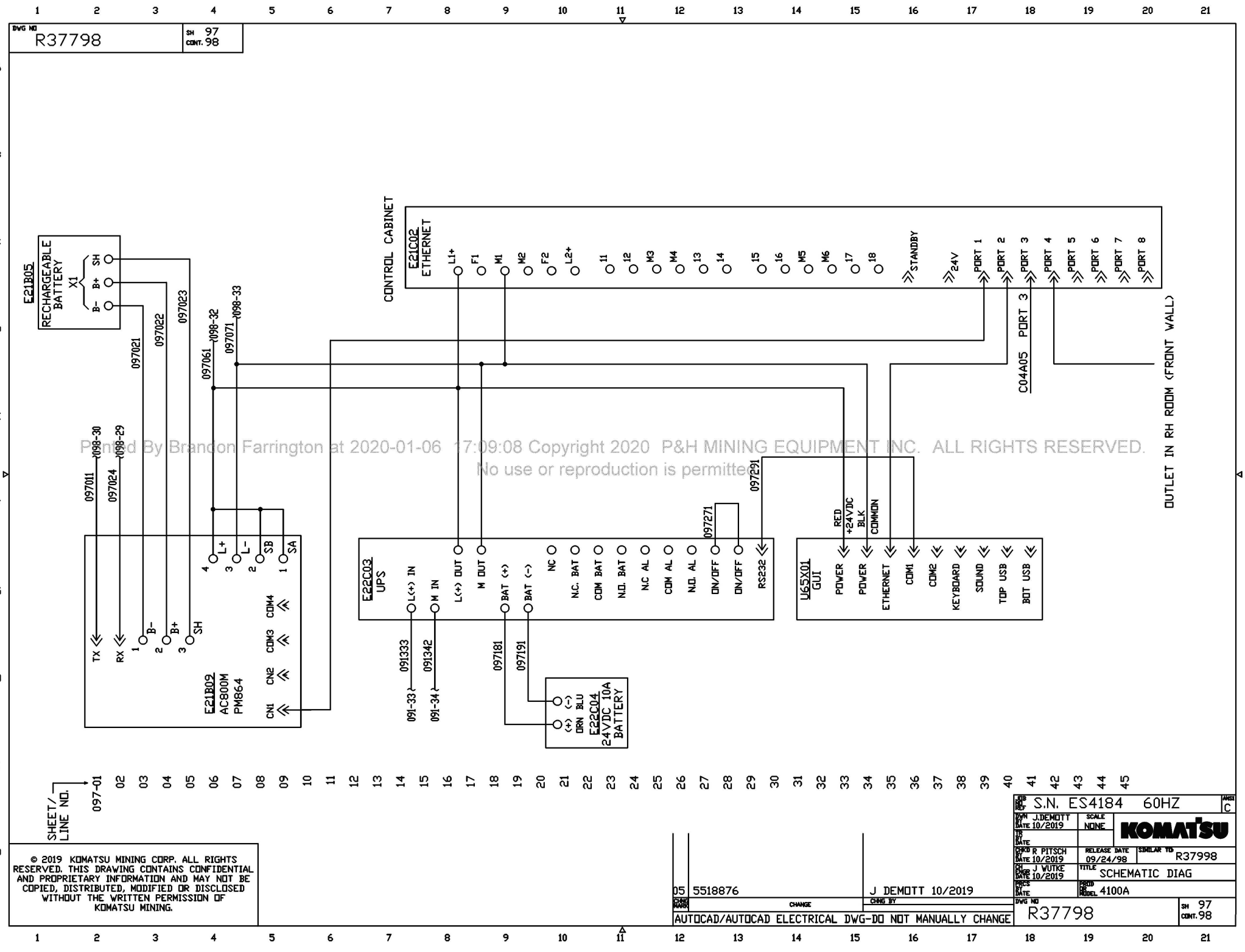
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	DWG NO R37798 SH 96 CONT. 97

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CHK BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		


DWG NO R37798
SH 97 CONT. 98
CONTROL CABINET
E21C02 ETHERNET
L1+ F1 M1 M2 F2 L2+ 11 12 M3 M4 13 14 15 16 M5 M6 17 18 STANDBY 24V PORT 1 PORT 2 PORT 3 PORT 4 PORT 5 PORT 6 PORT 7 PORT 8
C04A05 PORT 3
OUTLET IN RH ROOM (FRONT WALL)
E21B05 RECHARGEABLE BATTERY X1 B- B+ SH
097021 097022 097023
097061 098-32 097071 098-33
097011 098-30 097024 098-29
E21B02 AC800M PM864
TX RX B- B+ SH
L+ L- SB SA
CN1 CN2 COM3 COM4
E22C03 UPS
L(+) IN M IN L(+) OUT M OUT BAT (+) BAT (-) NC N.C. BAT COM BAT N.O. BAT N.C AL COM AL N.O. AL ON/OFF ON/OFF RS232
091333 091342 091-33 091-34
097181 097191 097271 097291
E22C04 24VDC 10A BATTERY
(-) (+) DRN BLU
U65X01 GUI
RED +24VDC BLK COMMON
POWER POWER ETHERNET COM1 COM2 KEYBOARD SOUND TOP USB BOT USB
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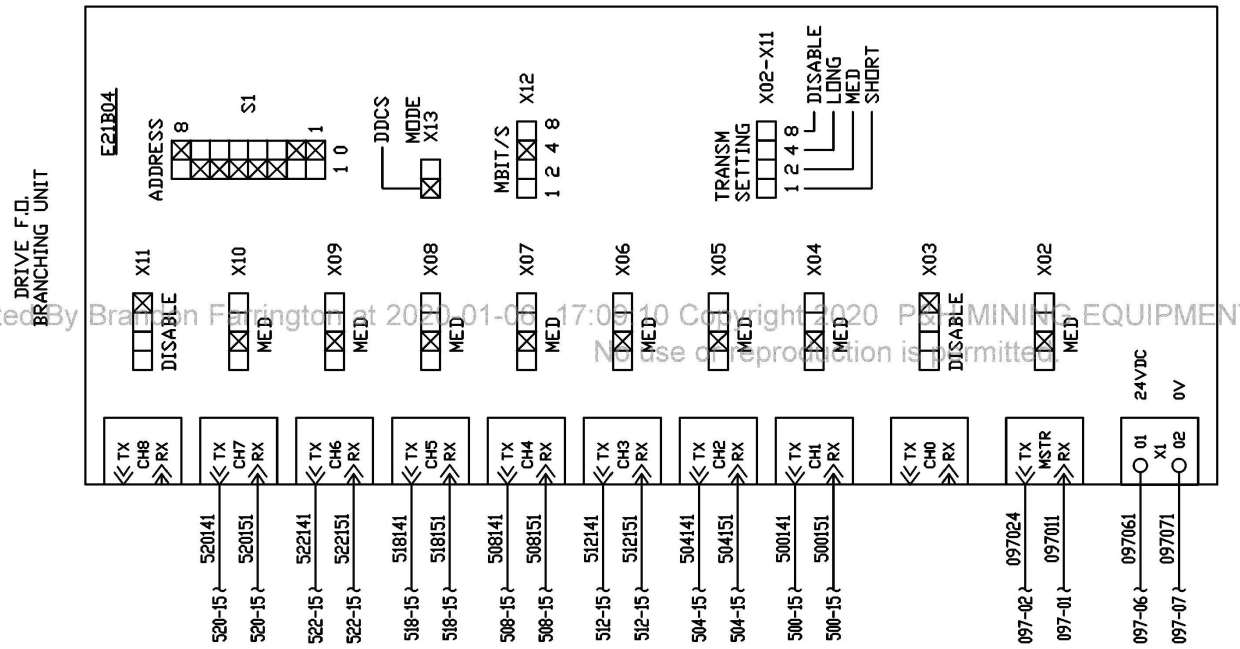
05 5518876 CHANGE
J DEMOTT 10/2019 CHNG BY
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
S.N. ES4184 60HZ
DWN J.DEMOTT 10/2019
CHKD R PITSCH 10/2019
ENGR J WUTKE 10/2019
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
TITLE SCHEMATIC DIAG
MODEL 4100A
DWG NO R37798
SH 97 CONT. 98
KOMATSU

DWG NO R37798 | SH 98 CONT. 100



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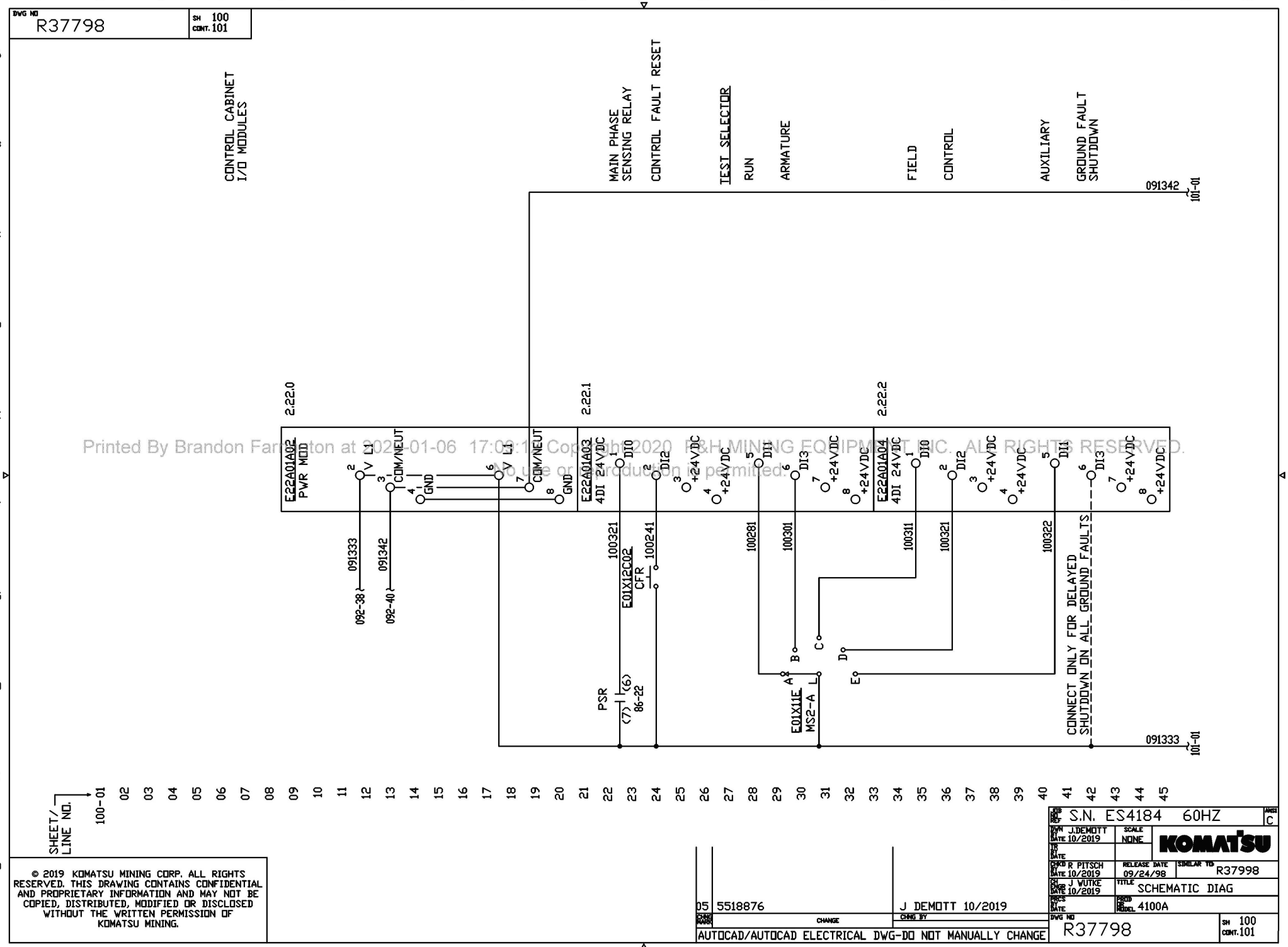
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ		SIZE C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR BY / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY / DATE		PROD DR MODEL 4100A	
DWG NO	R37798		SH 98 CONT. 100

DWG NO R37798 | SH 100 CONT. 101



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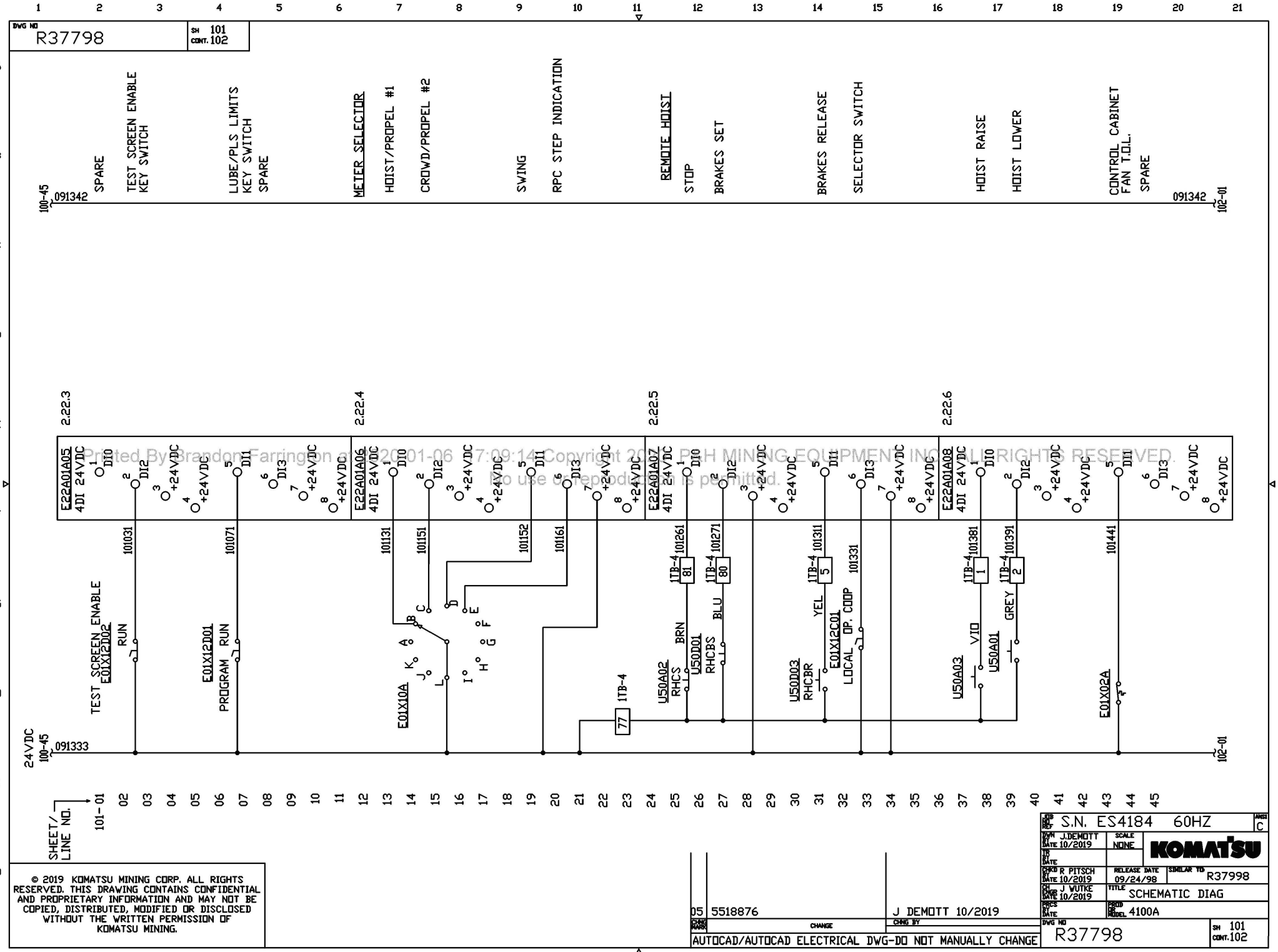
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CHK BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PROCS BY DATE	PROD DES MODEL 4100A		
DWG NO R37798		SH 100 CONT. 101	

DWG NO R37798 | SH 101 CONT. 102



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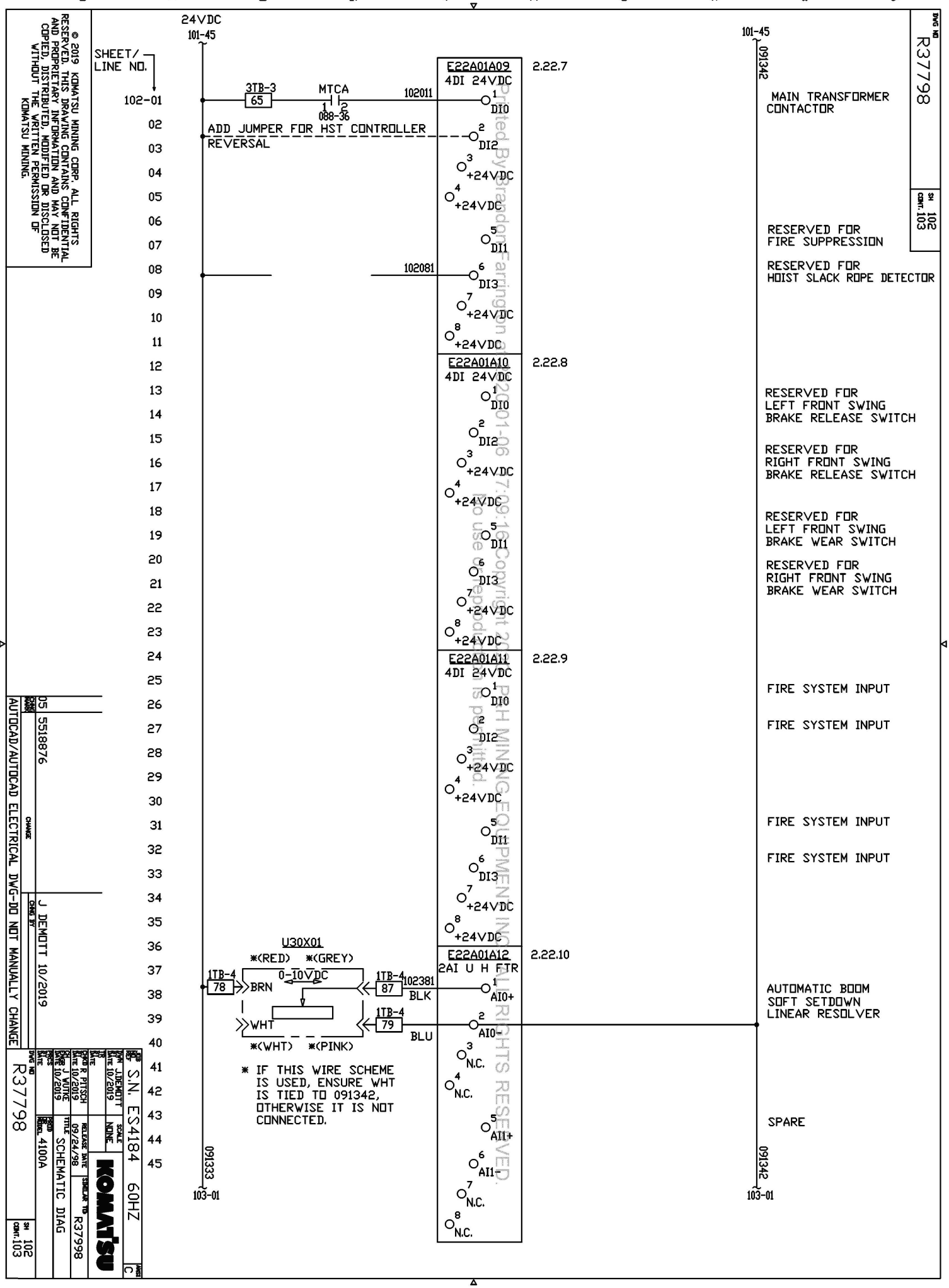
05	5518876	J DEMOTT 10/2019	
CHG NO	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REQD BY	S.N. ES4184 60HZ		SIZE C
DSGN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
APPD BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	REQD BY MODEL 4100A		
DWG NO R37798		SH 101 CONT. 102	


24VDC
101-45
SHEET/ LINE NO.
102-01
3TB-3
65
MTCA
088-36
102011
ADD JUMPER FOR HST CONTROLLER REVERSAL
102081
E22A01A09
4DI 24VDC
2.22.7
DI0
DI2
+24VDC
+24VDC
DI1
DI3
+24VDC
+24VDC
E22A01A10
4DI 24VDC
2.22.8
DI0
DI2
+24VDC
+24VDC
DI1
DI3
+24VDC
+24VDC
E22A01A11
4DI 24VDC
2.22.9
DI0
DI2
+24VDC
+24VDC
DI1
DI3
+24VDC
+24VDC
U30X01
*(RED) *(GREY)
0-10VDC
1TB-4
78
BRN
1TB-4
87
102381
BLK
WHT
1TB-4
79
BLU
*(WHT) *(PINK)
* IF THIS WIRE SCHEME IS USED, ENSURE WHT IS TIED TO 091342, OTHERWISE IT IS NOT CONNECTED.
E22A01A12
2AI U H FTR
2.22.10
AI0+
AI0-
N.C.
N.C.
AI1+
AI1-
N.C.
N.C.
091333
103-01
101-45
091342
MAIN TRANSFORMER CONTACTOR
RESERVED FOR FIRE SUPPRESSION
RESERVED FOR HOIST SLACK ROPE DETECTOR
RESERVED FOR LEFT FRONT SWING BRAKE RELEASE SWITCH
RESERVED FOR RIGHT FRONT SWING BRAKE RELEASE SWITCH
RESERVED FOR LEFT FRONT SWING BRAKE WEAR SWITCH
RESERVED FOR RIGHT FRONT SWING BRAKE WEAR SWITCH
FIRE SYSTEM INPUT
FIRE SYSTEM INPUT
FIRE SYSTEM INPUT
FIRE SYSTEM INPUT
AUTOMATIC BOOM SOFT SETDOWN LINEAR RESOLVER
SPARE
091342
103-01
DWG NO R37798
SH 102 CONT. 103
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05 5518876 AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
J DEMOTT 10/2019
DRN J.DEMOTT DATE 10/2019
CHK'D R PITSCH DATE 10/2019
ENGR J WITKE DATE 10/2019
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37798
MODEL 4100A
TITLE SCHEMATIC DIAG
DWG NO R37798
SH 102 CONT. 103
SIZE C
S.N. ES4184 60HZ
KOMATSU

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SHEET/LINE NO.

24VDC

102-45 091333

103-01

U02X08B
INCLINOMETER L/R
SIG D 103011
A +15VDC 091391
B -15VDC 091421
C COM 091401
091-39
091-42
091-40

U02X08A
INCLINOMETER F/B
SIG D 103071
A +15VDC 091391
B -15VDC 091421
C COM 091401
091-39
091-42
091-40

E22A01A13 2.22.11
2AI U H FTR
1 AI0+
2 AI0-
3 N.C.
4 N.C.
5 AI1+
6 AI1-
7 N.C.
8 N.C.

102-45 091342
LEFT/RIGHT INCLINOMETER
FRONT/BACK INCLINOMETER

3TB-3 63
U06X02D 4-20 (1) (2) P
3TB-3 83
103131

E22A01A14 2.22.12
2AI I 24VDC
1 AI0+
2 AI0-
3 +24VDC
4 -24VDC
5 AI1+
6 AI1-
7 +24VDC
8 -24VDC

LEFT FRONT SWING BRAKE AIR PRESSURE

U06X03D 4-20 (1) (2) P
103191

RIGHT FRONT SWING BRAKE AIR PRESSURE

E22A01A15 2.22.13
2AI I 24VDC
1 AI0+
2 AI0-
3 +24VDC
4 -24VDC
5 AI1+
6 AI1-
7 +24VDC
8 -24VDC

RESERVED FOR ROLLER CIRCLE OPEN GEAR LUBE PRESSURE

091333 105-36
091342 105-36

E22A01A16 2.22.14
2AI RTD

U03X01
CLR 103381 [67726]
BLK 103391 SHLD [66847]
1 AI0+
2 AI0-
3 +I CON 0
4 -I CON 0

RTD MACHINERY HOUSE AMBIENT

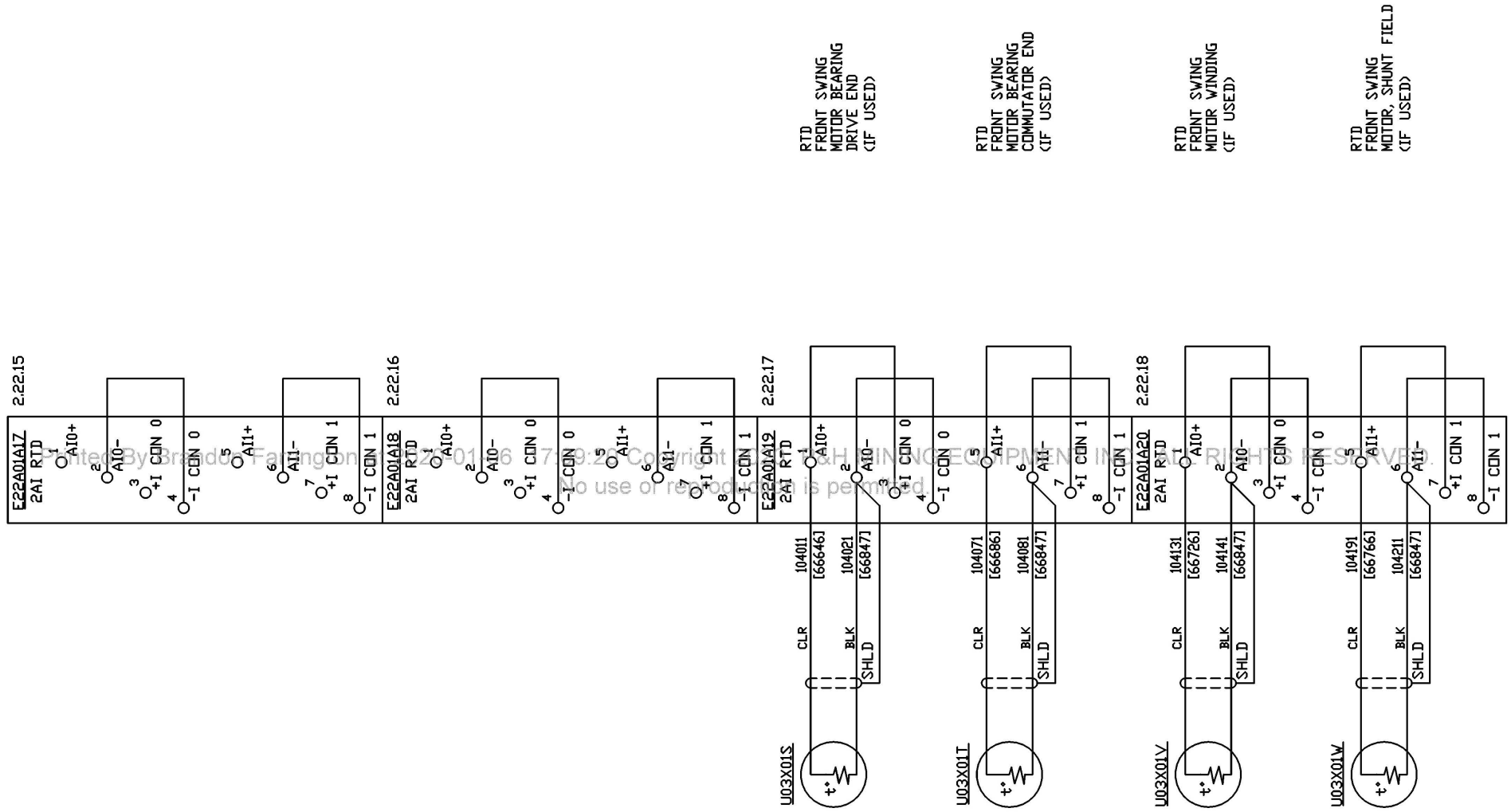
C03X01
CLR 103441 [67766]
BLK 103451 SHLD [66847]
5 AI1+
6 AI1-
7 +I CON 1
8 -I CON 1

RTD OUTSIDE AMBIENT

DWG NO	R37798	SH 103 CONT. 104	
05	5518876	CHANGE	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
	J DEMOTT 10/2019	CHNG BY	
APP		DATE	
CHK	J DEMOTT 10/2019	DATE	
DRN	J WITKE 10/2019	DATE	
DES	R PITSCH 10/2019	DATE	
DWG NO	R37798	SCALE	NONE
		RELEASE DATE	09/24/98
		SIMILAR TO	R37998
PROD MODEL	4100A	TITLE	SCHEMATIC DIAG
	S.N. ES4184 60HZ		
SH 103 CONT. 104		SIZE	C

KOMATSU

DWG NO R37798 | SH 104 CONT. 105



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SHEET/LINE NO. 104-01

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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — SIZE C

DSN J.DEMOTT 10/2019 — SCALE NONE — KOMATSU

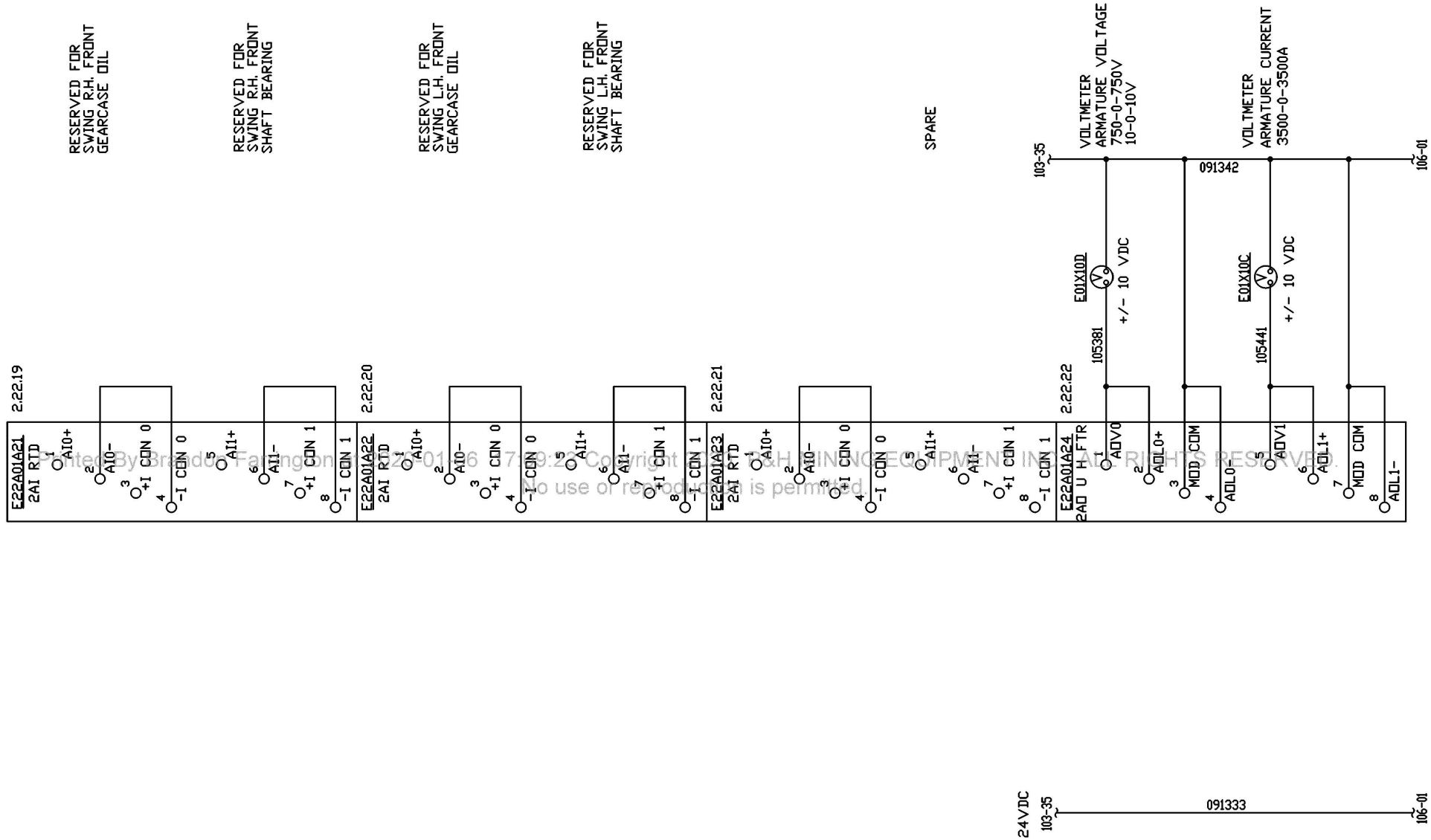
CHKD R PITSCH 10/2019 — RELEASE DATE 09/24/98 — SIMILAR TO R37998

CHKD J WUTKE 10/2019 — TITLE SCHEMATIC DIAG

PROD MODEL 4100A

DWG NO R37798 — SH 104 CONT. 105

DWG NO R37798 | SH 105 CONT. 106



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SHEET/LINE NO. 105-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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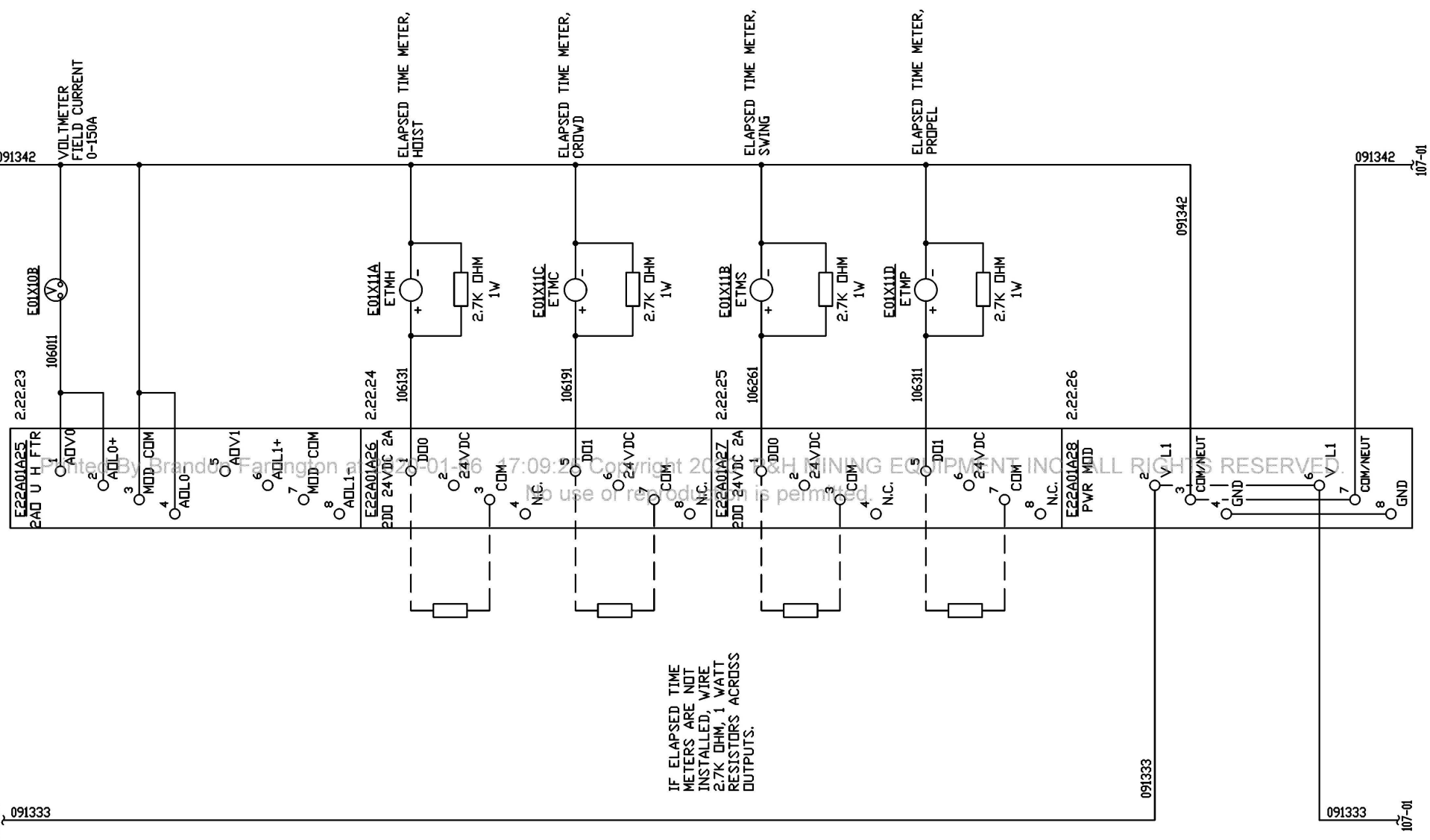
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ		REV C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CHK BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DES MODEL 4100A		
DWG NO R37798		SH 105 CONT. 106	

DWG NO R37798 | SH 106 CONT. 107



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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — REV C

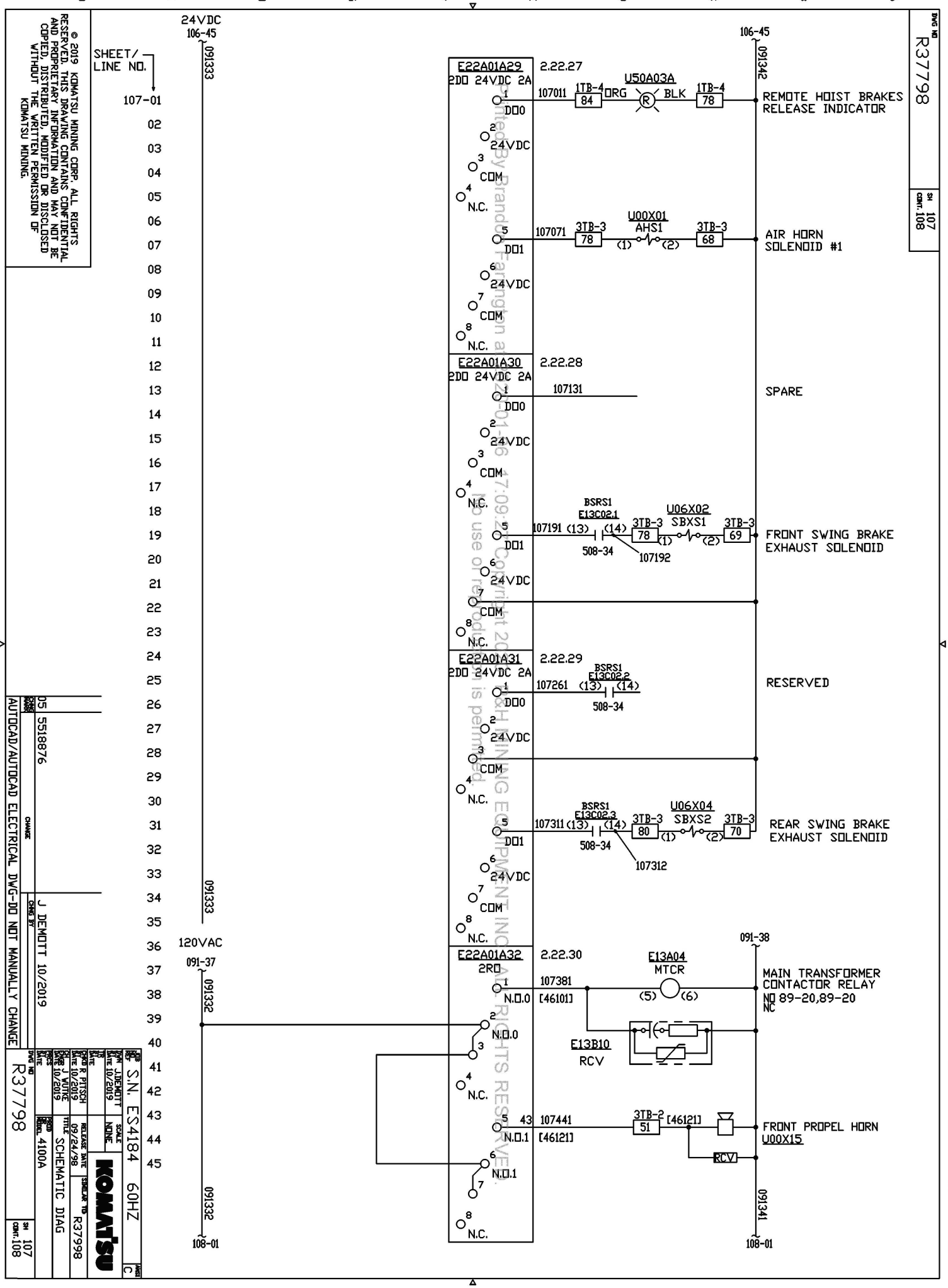
DWN J.DEMOTT DATE 10/2019 — SCALE NONE — KOMATSU

CHKD R PITSCH DATE 10/2019 — RELEASE DATE 09/24/98 — SIMILAR TO R37998

CHK J WUTKE DATE 10/2019 — TITLE SCHEMATIC DIAG

PROG DATE — PROD MODEL 4100A

DWG NO R37798 — SH 106 CONT. 107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SHEET/ LINE NO.
24VDC
106-45
091333
107-01
E22A01A29
2.22.27
2DO 24VDC 2A
DO0
DO1
107011
1TB-4
84
ORG
U50A03A
R
BLK
1TB-4
78
091342
REMOTE HOIST BRAKES RELEASE INDICATOR
24VDC
COM
N.C.
U00X01
AHS1
107071
3TB-3
78
(1)
(2)
3TB-3
68
AIR HORN SOLENOID #1
E22A01A30
2.22.28
2DO 24VDC 2A
107131
SPARE
BSRS1
E13C02.1
U06X02
SBXS1
107191
(13)
(14)
3TB-3
78
3TB-3
69
508-34
107192
FRONT SWING BRAKE EXHAUST SOLENOID
E22A01A31
2.22.29
2DO 24VDC 2A
BSRS1
E13C02.2
107261
(13)
(14)
508-34
RESERVED
U06X04
SBXS2
BSRS1
E13C02.3
107311
(13)
(14)
3TB-3
80
3TB-3
70
508-34
107312
REAR SWING BRAKE EXHAUST SOLENOID
120VAC
091-37
091332
091-38
E22A01A32
2.22.30
2RO
E13A04
MTCR
107381
N.O.0
[46101]
(5)
(6)
MAIN TRANSFORMER CONTACTOR RELAY
NO 89-20,89-20
NC
E13B10
RCV
N.O.1
43
107441
[46121]
3TB-2
51
[46121]
FRONT PROPEL HORN
U00X15
RCV
091341
108-01
091332
108-01
DWG NO R37798
SH 107
CONT. 108
05 5518876 AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
CHANGE
CHNG BY
J DEMOTT 10/2019
DRN J.DEMOTT DATE 10/2019
CHKD R PITSCH DATE 10/2019
ENGR J WITKE DATE 10/2019
DWGS DATE
DWG NO R37798
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
TITLE SCHEMATIC DIAG
MODEL 4100A
SERIES S.N. ES4184 60HZ
SH 107
CONT. 108
SHEET C
KOMATSU
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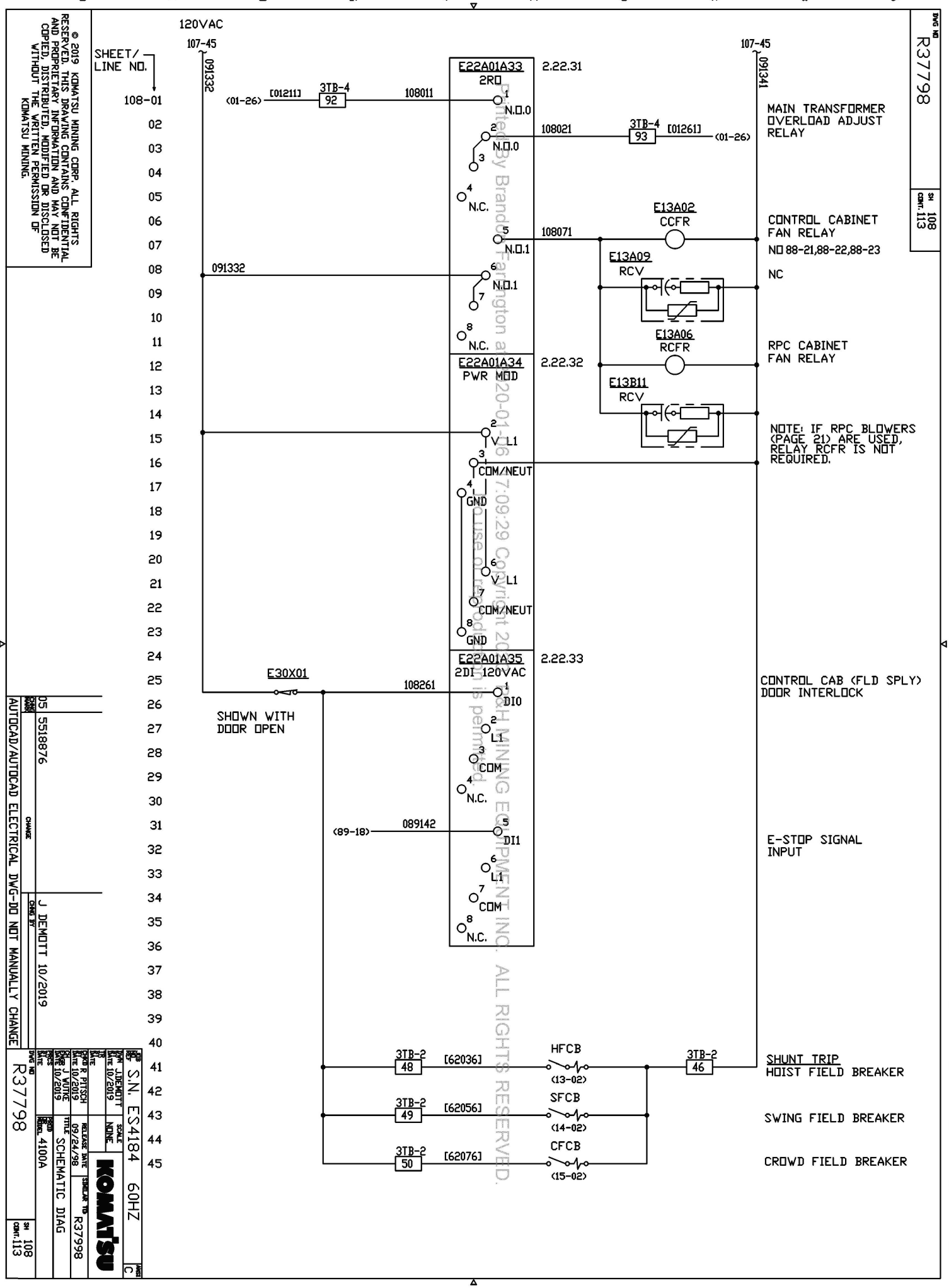
120VAC
107-45
091332
SHEET/ LINE NO.
108-01
(01-26) [01211] 3TB-4 92 108011
E22A01A33 2RO
2.22.31
1 N.O.0
2 N.O.0
3
4 N.C.
108021 3TB-4 93 [01261] (01-26)
MAIN TRANSFORMER OVERLOAD ADJUST RELAY
E13A02 CCFR
CONTROL CABINET FAN RELAY
NO 88-21,88-22,88-23
NC
5 N.O.1
108071
E13A09 RCV
091332
6 N.O.1
7
8 N.C.
E13A06 RCFR
RPC CABINET FAN RELAY
E22A01A34 PWR MOD
2.22.32
E13B11 RCV
NOTE: IF RPC BLOWERS (PAGE 21) ARE USED, RELAY RCFR IS NOT REQUIRED.
2 V L1
3 COM/NEUT
4 GND
6 V L1
7 COM/NEUT
8 GND
E22A01A35 2DI 120VAC
2.22.33
E30X01
108261
1 DI0
2 L1
3 COM
4 N.C.
CONTROL CAB (FLD SPLY) DOOR INTERLOCK
SHOWN WITH DOOR OPEN
(89-18) 089142
5 DI1
6 L1
7 COM
8 N.C.
E-STOP SIGNAL INPUT
3TB-2 48 [62036] HFCB (13-02) 3TB-2 46
SHUNT TRIP HOIST FIELD BREAKER
3TB-2 49 [62056] SFCB (14-02)
SWING FIELD BREAKER
3TB-2 50 [62076] CFCB (15-02)
CROWD FIELD BREAKER
DWG NO R37798
SH 108 CONT. 113
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05 5518876 CHANGE
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
CHNG BY J DEMOTT 10/2019
DRN J.DEMOTT DATE 10/2019
CHK R PITSCH DATE 10/2019
ENGR J WITKE DATE 10/2019
MFG DATE
DWG NO R37798
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37798
FEED MODEL 4100A
TITLE SCHEMATIC DIAG
SERIES S.N. ES4184 60HZ
SHEET C
SH 108 CONT. 113
KOMATSU
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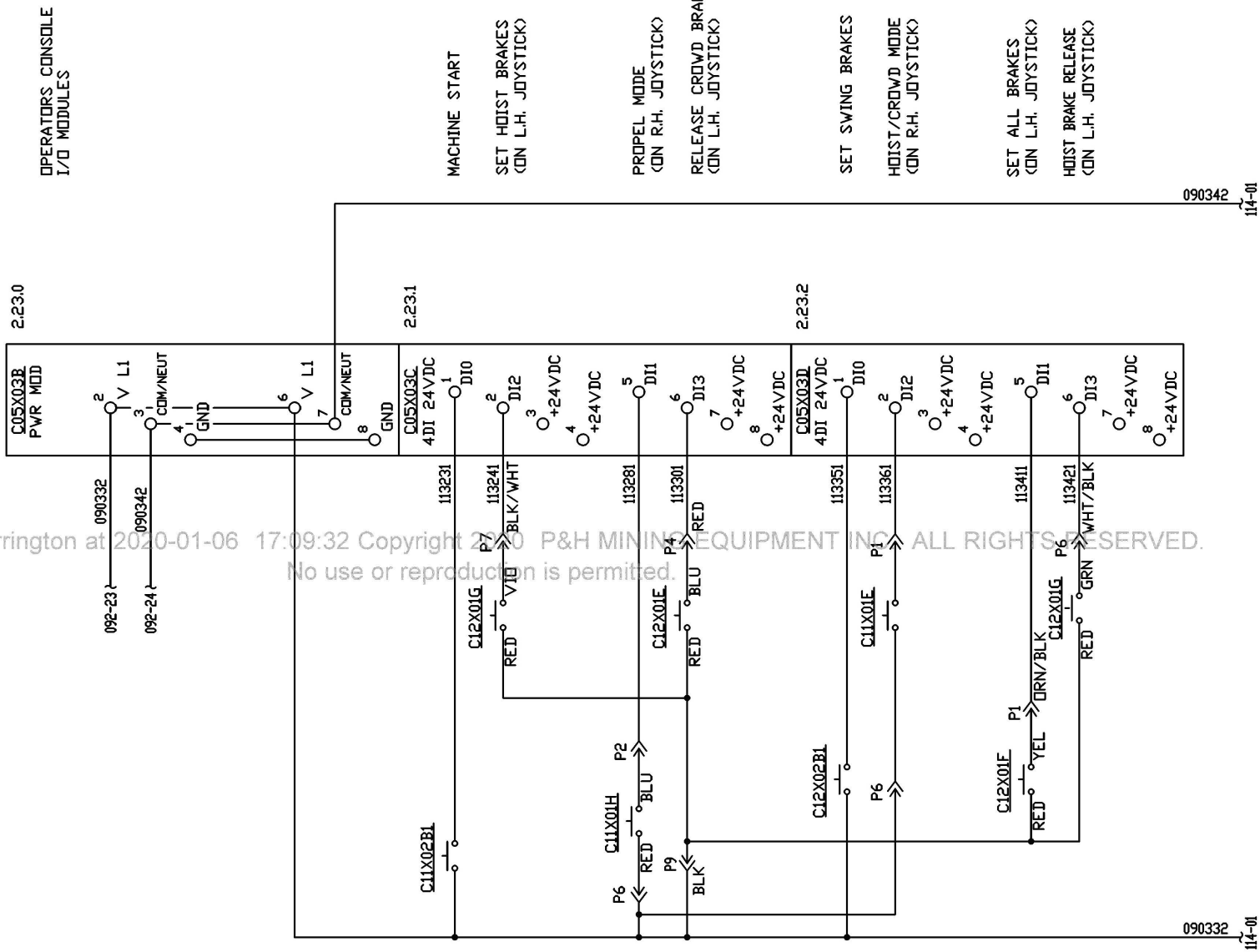
DWG NO R37798 | SH 113 CONT. 114



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SHEET/LINE NO. 113-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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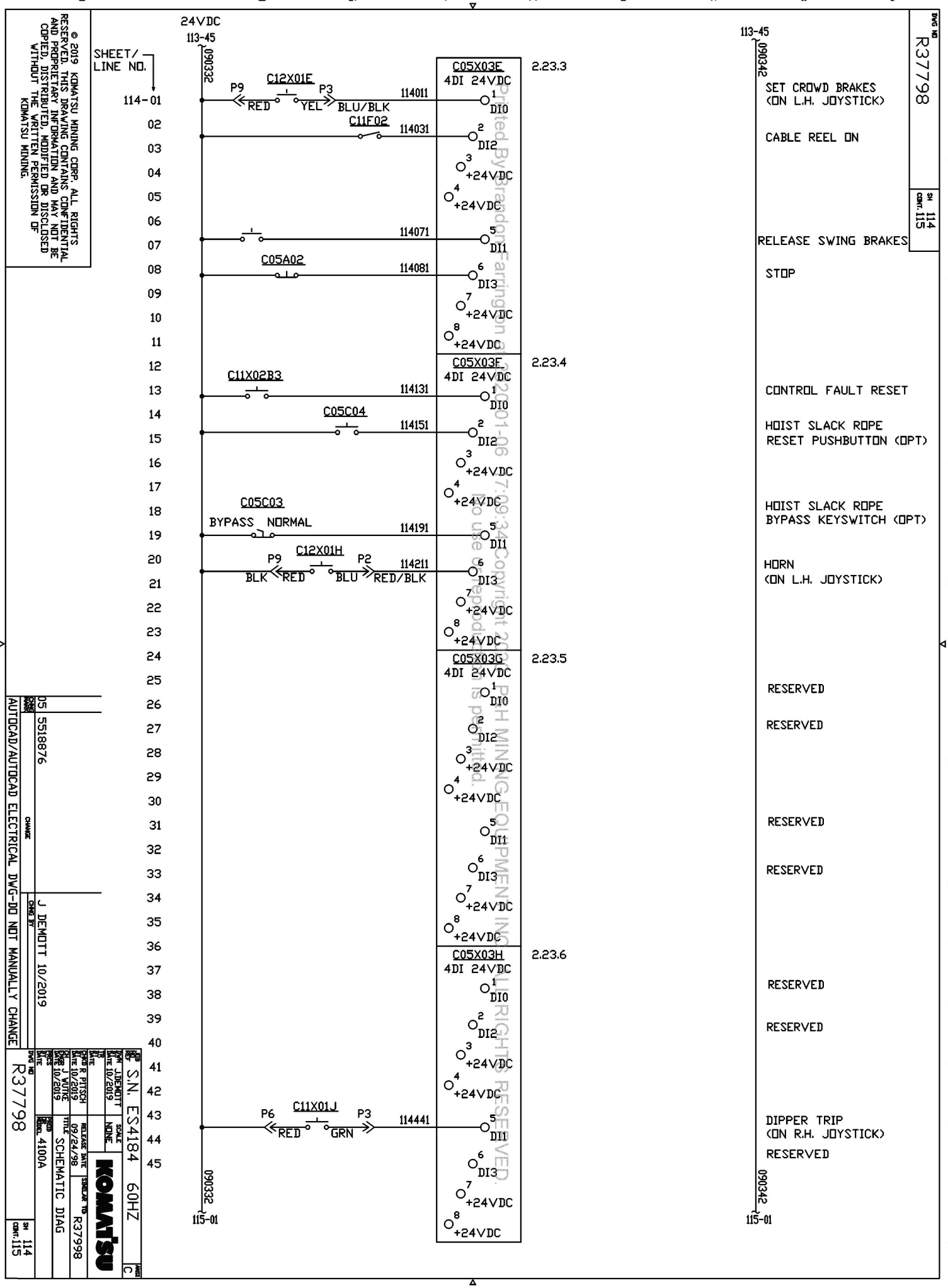
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REQ'D BY	S.N. ES4184 60HZ		REV C
DSGN BY DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
CHKD BY DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CONT DSGN BY DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PROCS BY DATE		PROD OR MODEL 4100A	
DWG NO	R37798		SH 113 CONT. 114



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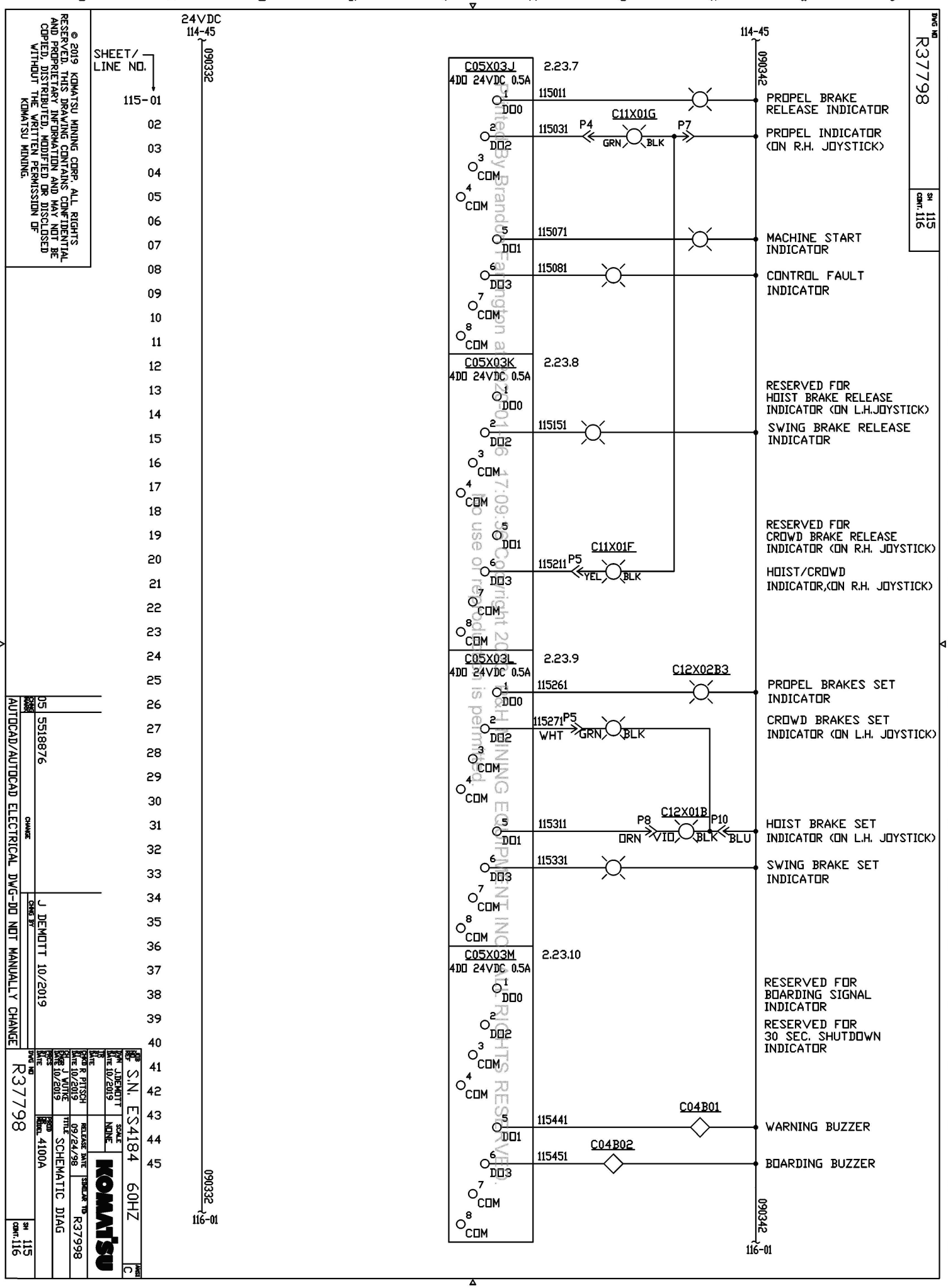
CHANGE	CHANGE BY	DATE
05 5518876	J DEMOTT	10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWN	J.DEMOTT	10/2019
CHKD	R PITSCH	10/2019
ENGR	J WITKE	10/2019
MFG		
DWG NO	R37798	
SCALE	NONE	
RELEASE DATE	09/24/98	
SIMILAR TO	R37998	
MODEL	4100A	
TITLE	SCHEMATIC DIAG	
SH	114	
CONT.	115	
SIZE	C	

S.N. ES4184 60HZ

KOMATSU


24VDC
114-45
090332
SHEET/
LINE NO.
115-01
02
03
04
05
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42
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44
45
090332
116-01
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114-45
090342
C05X03J
4DO 24VDC 0.5A
2.23.7
DO0
DO2
DO1
DO3
COM
115011
PROPEL BRAKE RELEASE INDICATOR
C11X01G
115031
P4
P7
GRN
BLK
PROPEL INDICATOR (ON R.H. JOYSTICK)
115071
MACHINE START INDICATOR
115081
CONTROL FAULT INDICATOR
C05X03K
4DO 24VDC 0.5A
2.23.8
RESERVED FOR HOIST BRAKE RELEASE INDICATOR (ON L.H.JOYSTICK)
115151
SWING BRAKE RELEASE INDICATOR
RESERVED FOR CROWD BRAKE RELEASE INDICATOR (ON R.H. JOYSTICK)
C11X01F
115211
P5
YEL
BLK
HOIST/CROWD INDICATOR,(ON R.H. JOYSTICK)
C05X03L
4DO 24VDC 0.5A
2.23.9
C12X02B3
115261
PROPEL BRAKES SET INDICATOR
115271
P5
WHT
GRN
BLK
CROWD BRAKES SET INDICATOR (ON L.H. JOYSTICK)
C12X01B
115311
P8
P10
ORN
VIO
BLK
BLU
HOIST BRAKE SET INDICATOR (ON L.H. JOYSTICK)
115331
SWING BRAKE SET INDICATOR
C05X03M
4DO 24VDC 0.5A
2.23.10
RESERVED FOR BOARDING SIGNAL INDICATOR
RESERVED FOR 30 SEC. SHUTDOWN INDICATOR
C04B01
115441
WARNING BUZZER
C04B02
115451
BOARDING BUZZER
090342
116-01
DWG NO
R37798
SH
115
CONT.116
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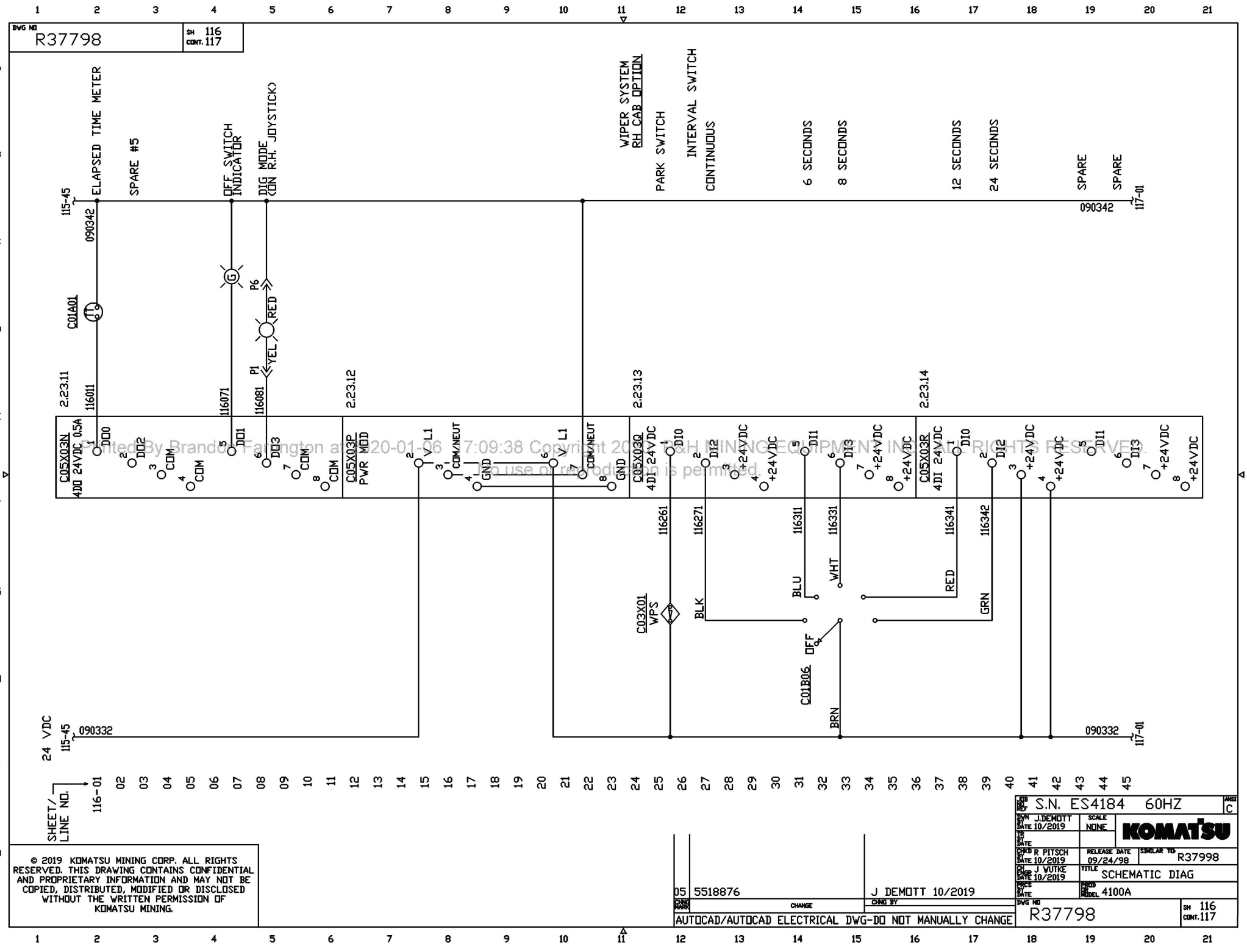
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
05 5518876 J DEMOTT 10/2019
CHANGE
CHNG BY
DRN J.DEMOTT 10/2019
CHK R PITSCH 10/2019
ENGR J.WITKE 10/2019
DWG NO R37798
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
TITLE SCHEMATIC DIAG
MODEL 4100A
SERIES
SH 115
CONT.116
S.N. ES4184 60HZ
SIZE C



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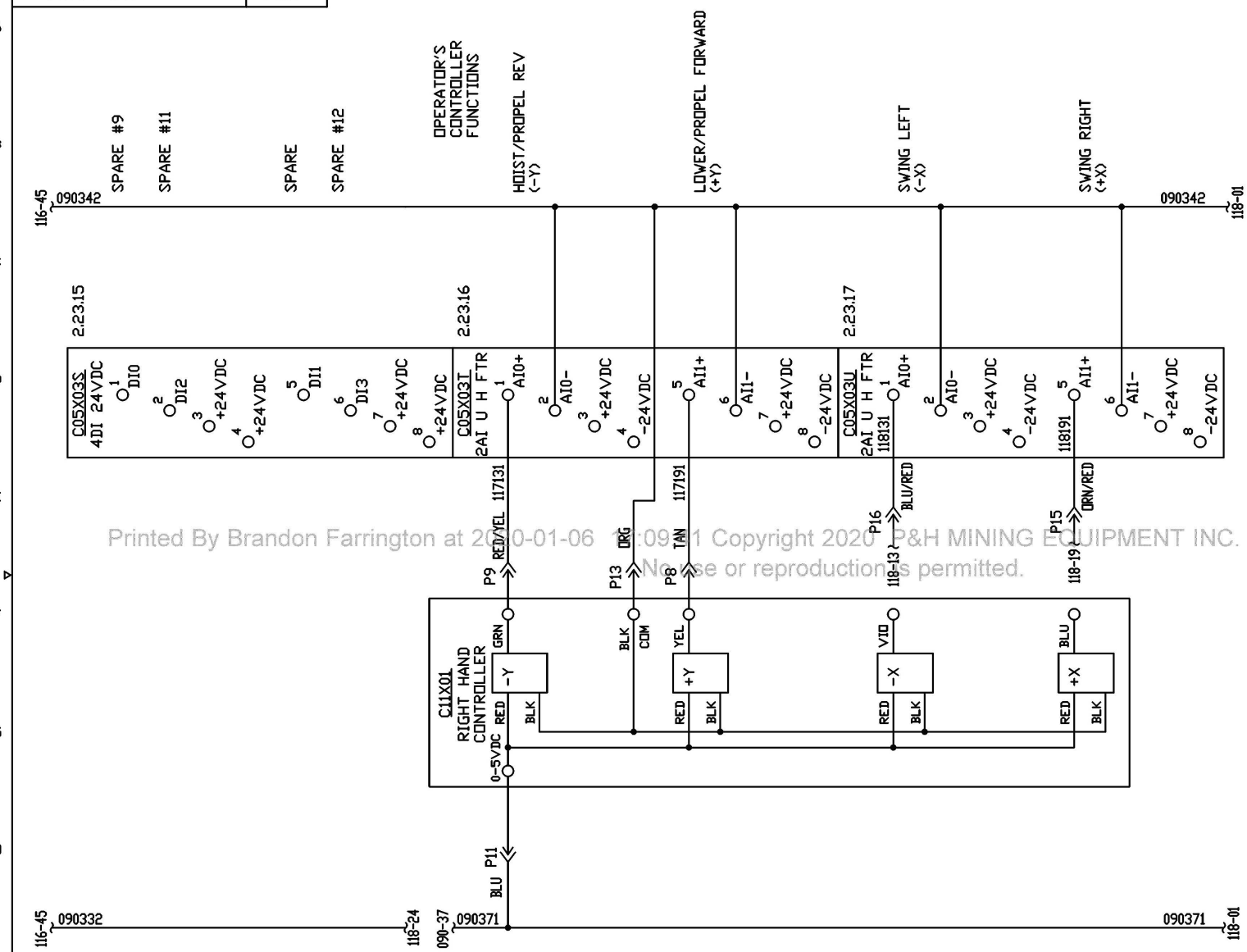
DWG NO R37798 | SH 117 CONT. 118



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SHEET/LINE NO. 117-01

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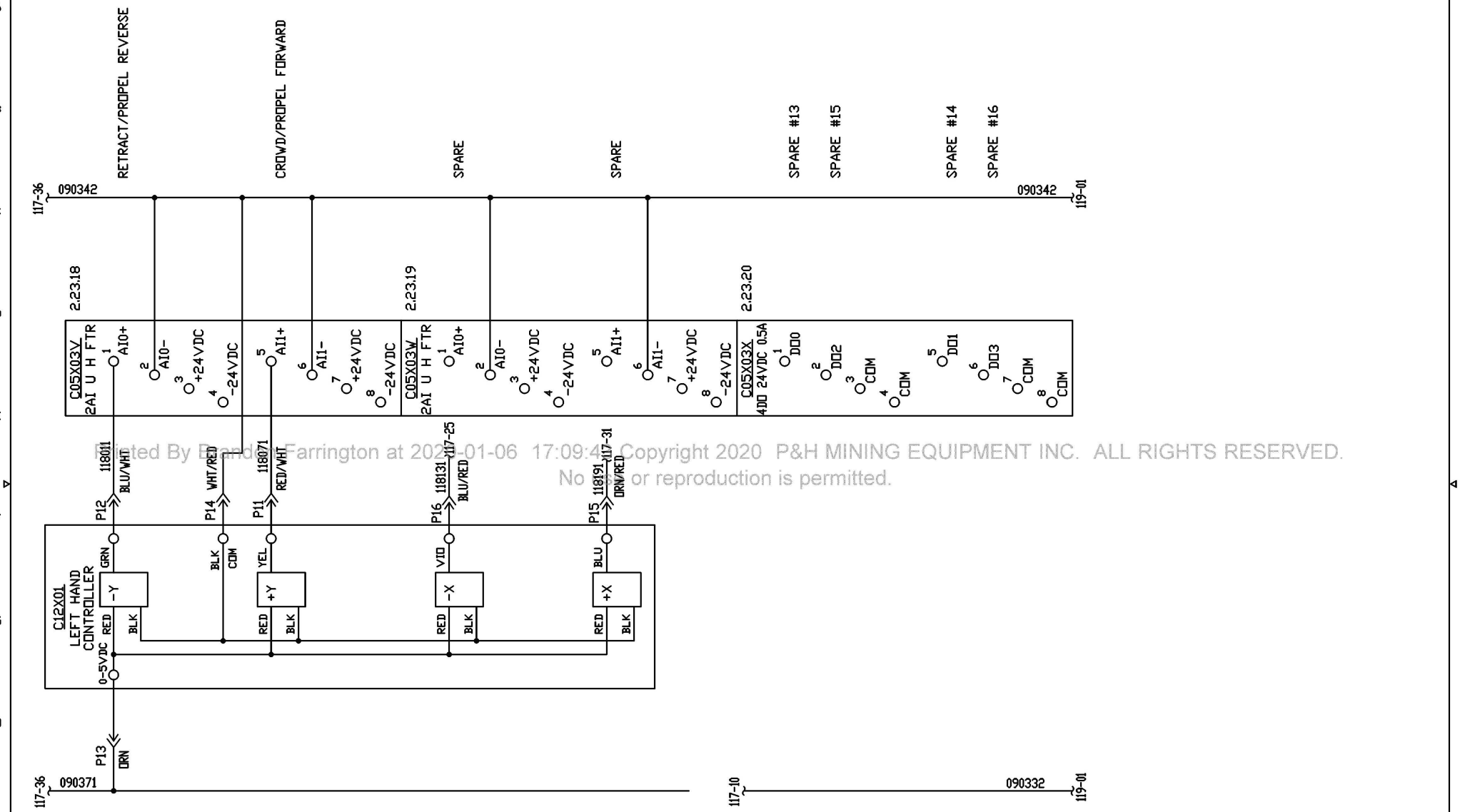
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SH 117 CONT. 118	

DWG NO R37798 | SH 118 CONT. 119



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05	5518876	J DEMOTT 10/2019	
CHG NO	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ | REV C

DWN J.DEMOTT 10/2019 | SCALE NONE | KOMATSU

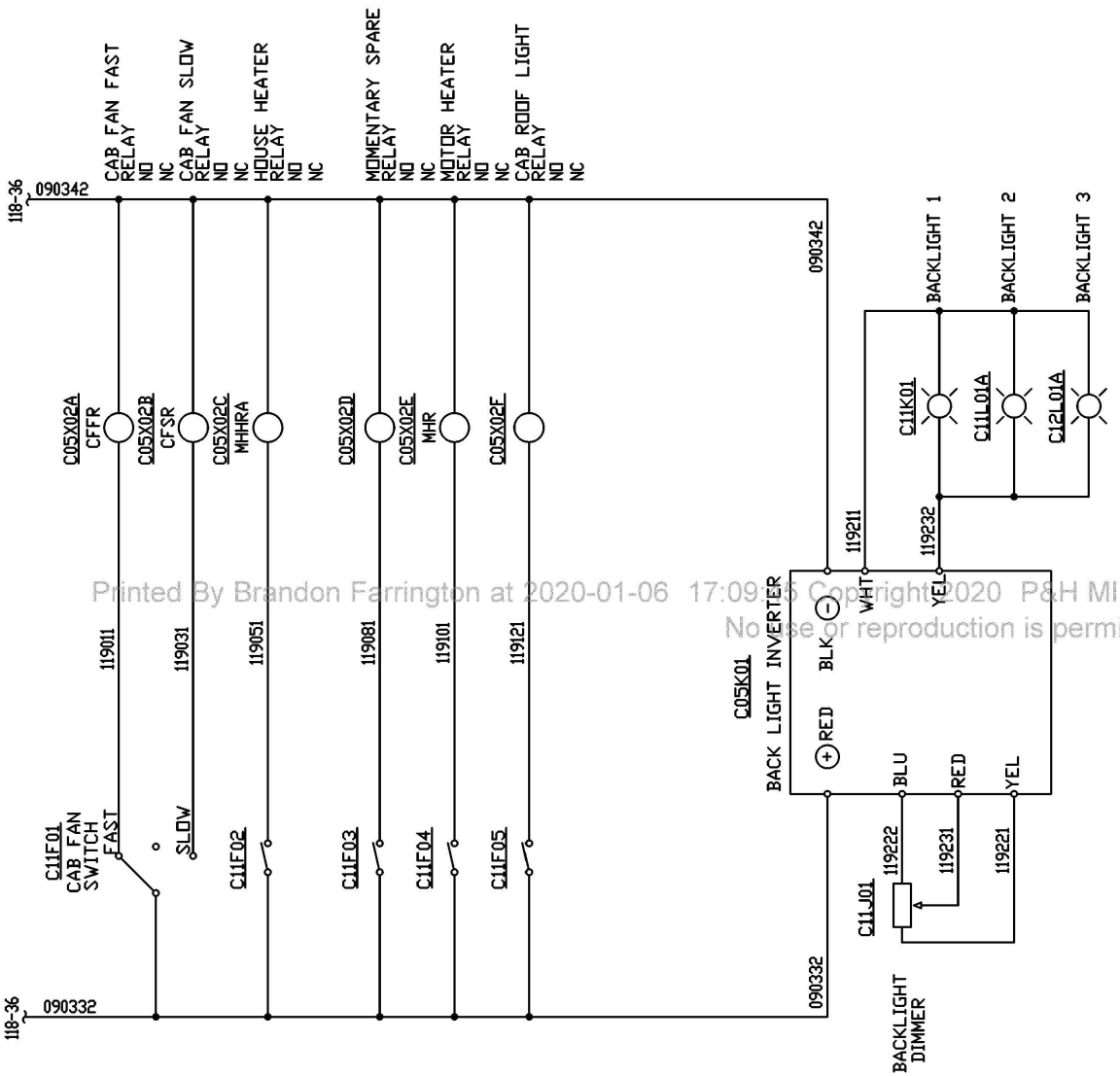
CHKD R PITSCH 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CH ENGR J WUTKE 10/2019 | TITLE SCHEMATIC DIAG

PROD MODEL 4100A

DWG NO R37798 | SH 118 CONT. 119

DWG NO R37798 | SH 119 CONT. 129



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05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE			

S.N. ES4184 60HZ — SIZE C

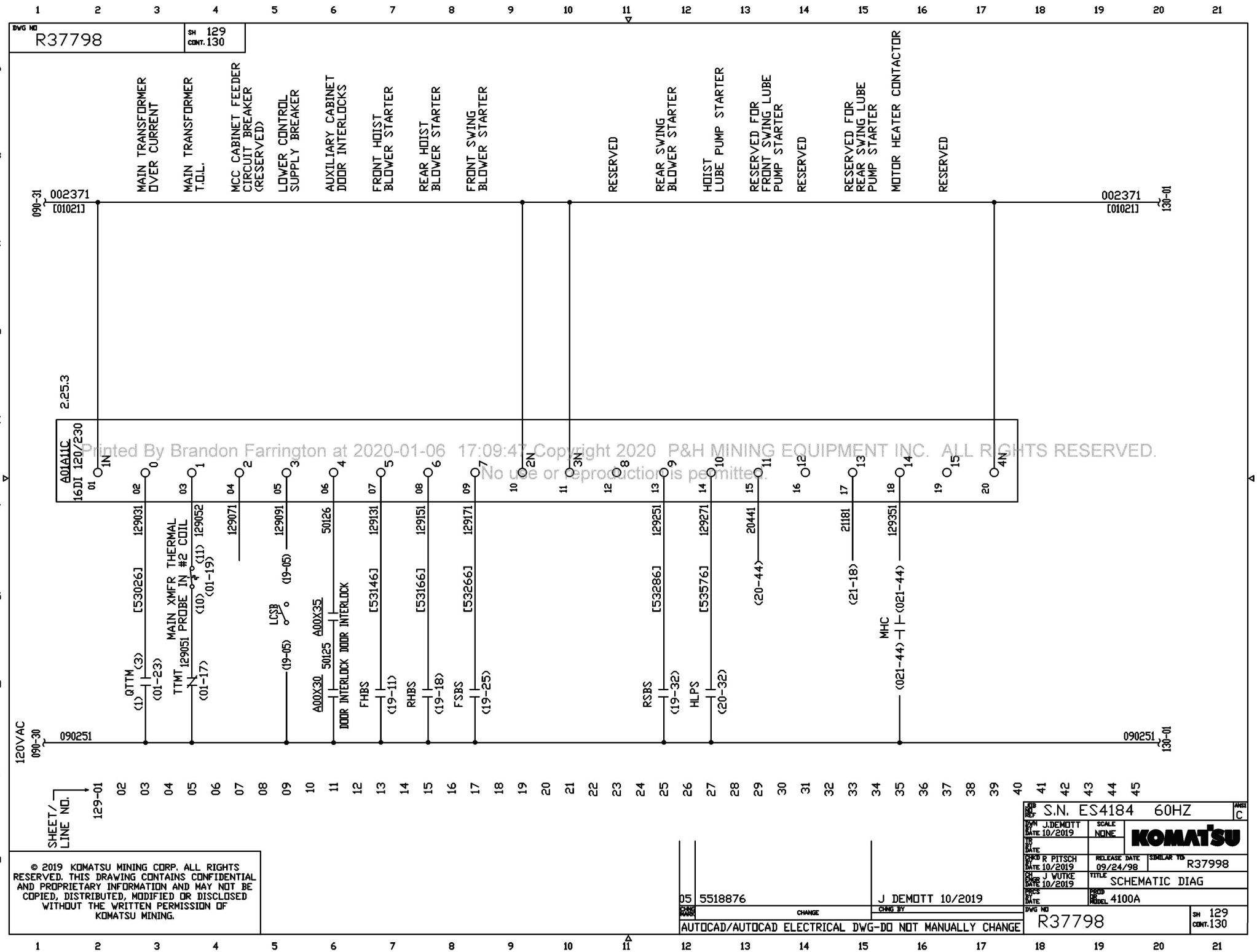
DWN J.DEMOTT 10/2019 | SCALE NONE | KOMATSU

CHKD R PITSCH 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CHK J WUTKE 10/2019 | TITLE SCHEMATIC DIAG

PRCS BY DATE | PROD OR MODEL 4100A

DWG NO R37798 | SH 119 CONT. 129



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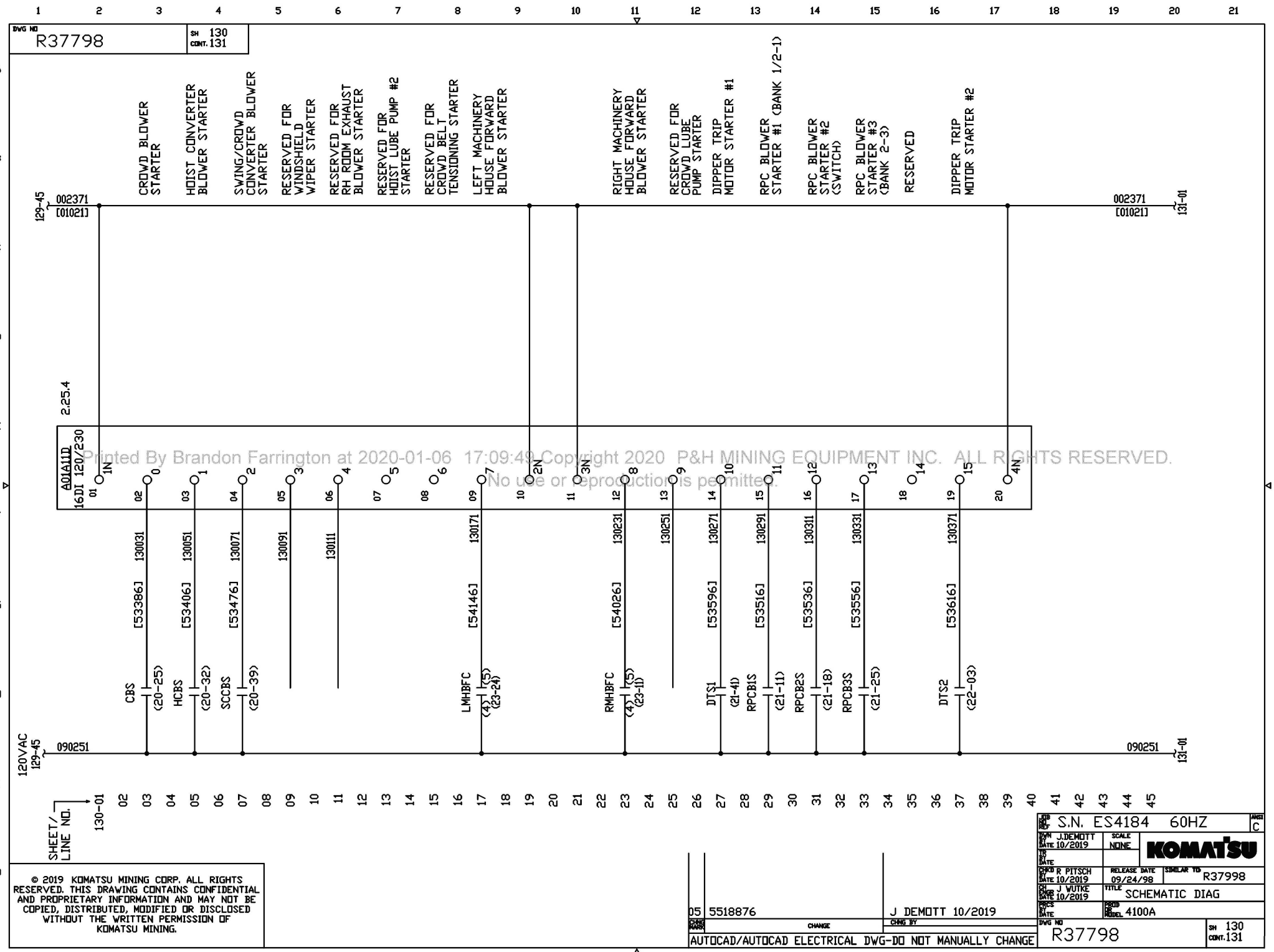
DWG NO R37798 | SH 130 CONT. 131



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05	5518876	J DEMOTT 10/2019	
CHG NO	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — SIZE C

DWN J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

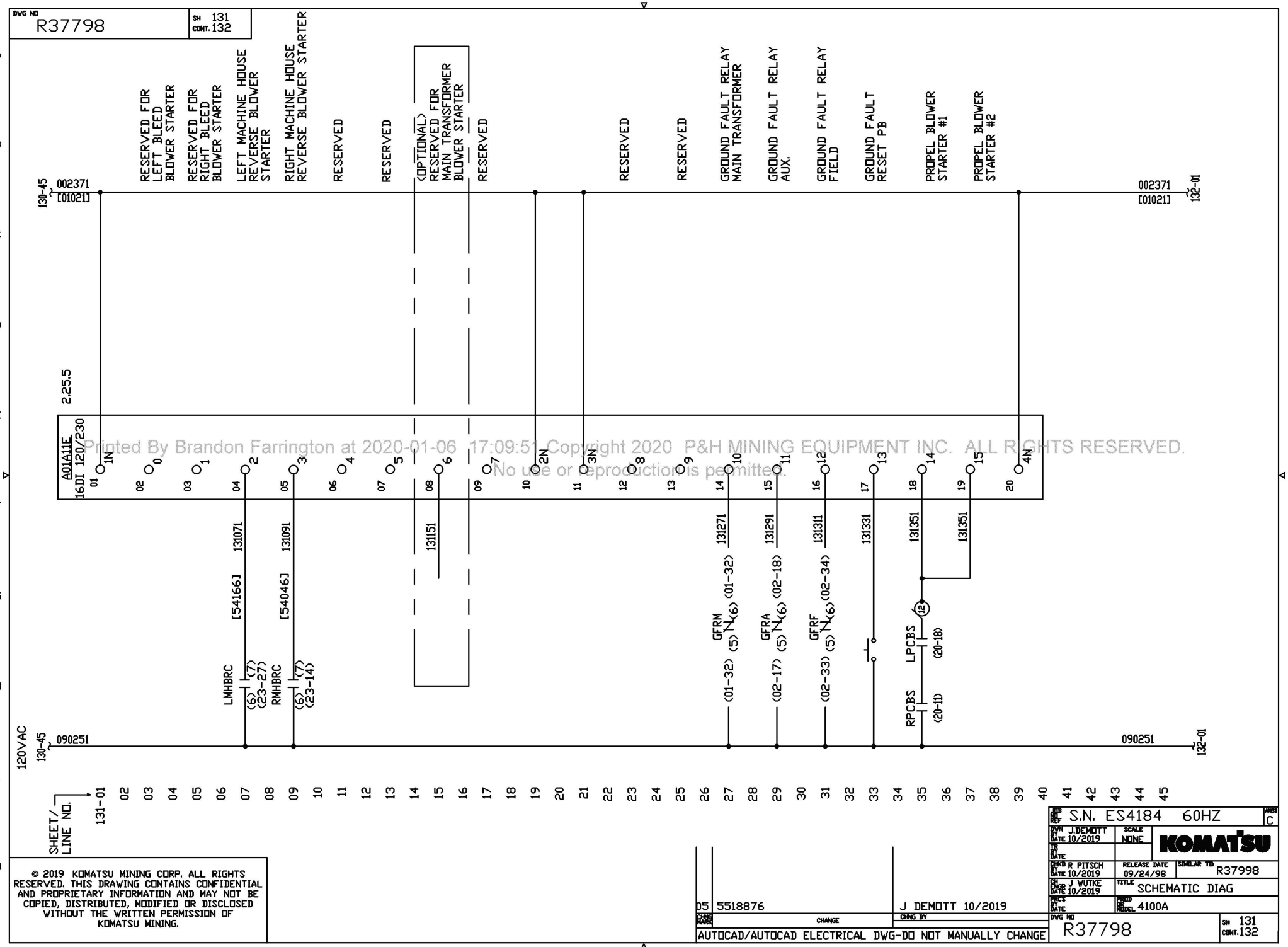
CHKD R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CH ENGR J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

PROCS BY DATE | PROD OR MODEL 4100A

DWG NO R37798 | SH 130 CONT. 131

DWG NO R37798 | SN 131 CONT. 132



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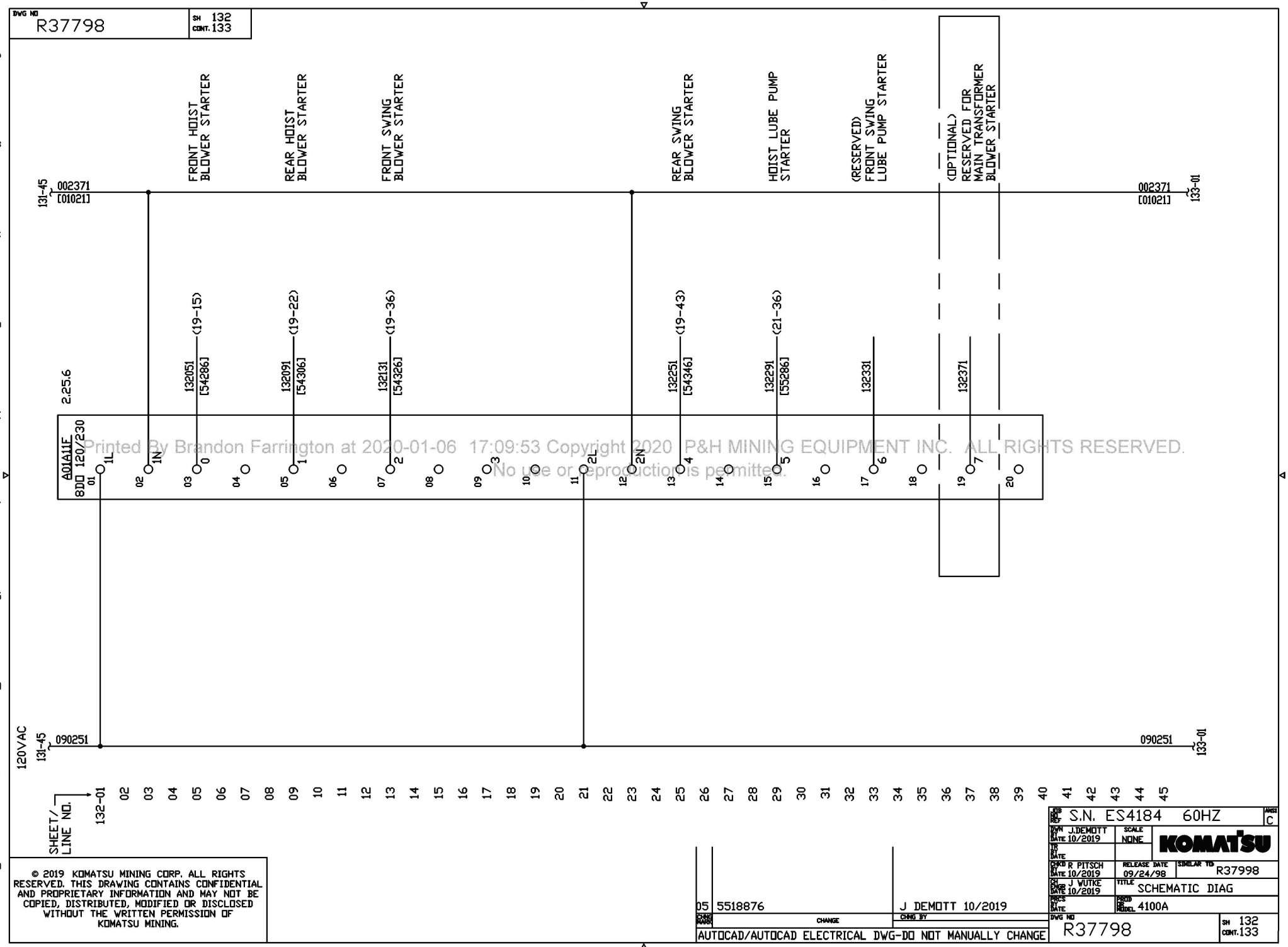
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TCH BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CHK BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD OR MODEL 4100A		
DWG NO R37798		SN 131 CONT. 132	

DWG NO R37798 | SN 132 CONT. 133



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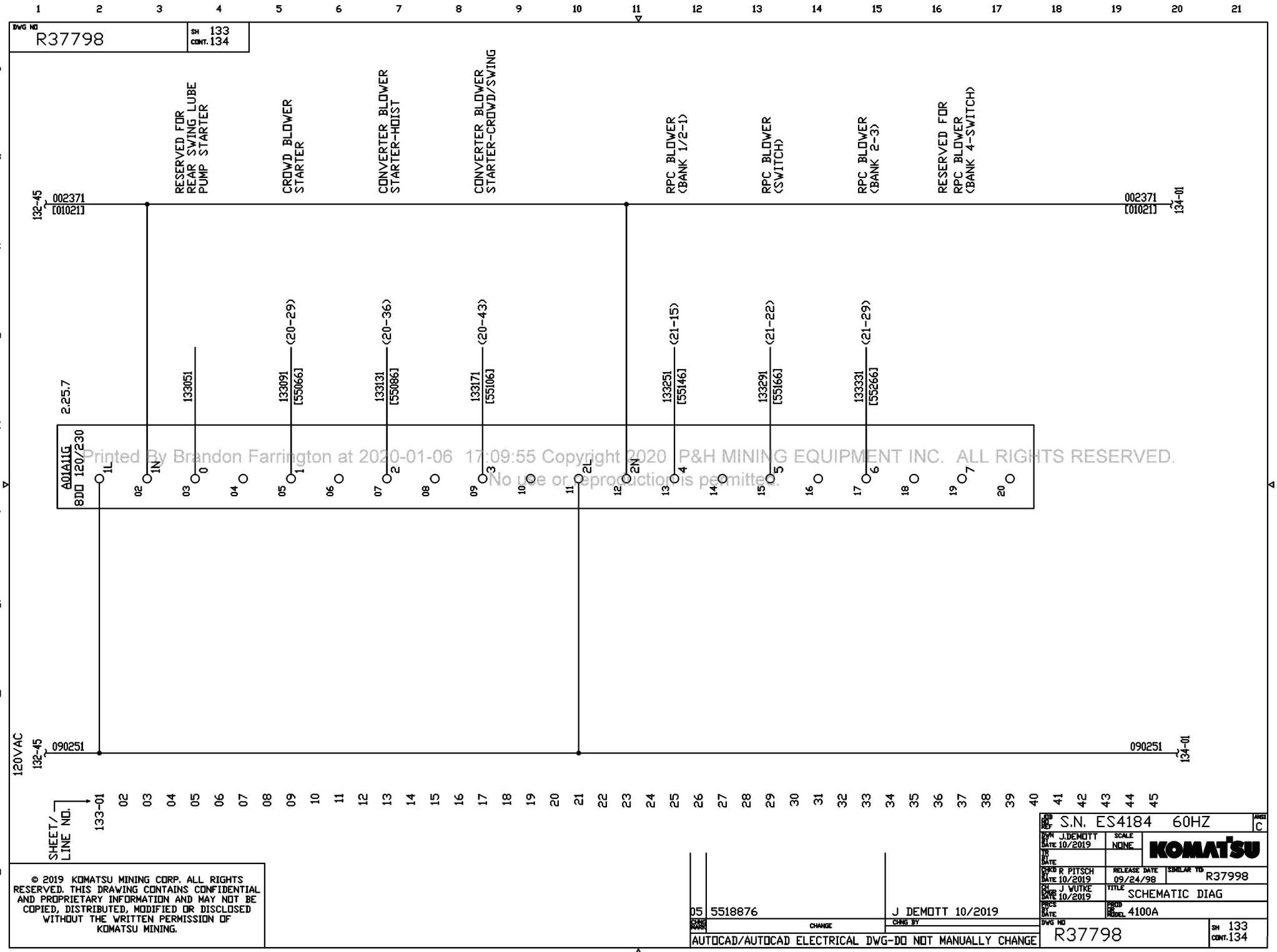
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SHEET C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SN 132 CONT. 133	

DWG NO R37798 | SH 133 CONT. 134



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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ	SIZE C
DWN J.DEMOTT DATE 10/2019	SCALE NONE
TR BY DATE	KOMATSU
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98
SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG
PRCS BY DATE	PROD DR MODEL 4100A
DWG NO R37798	SH 133 CONT. 134

DWG NO R37798 | SH 134 CONT. 135

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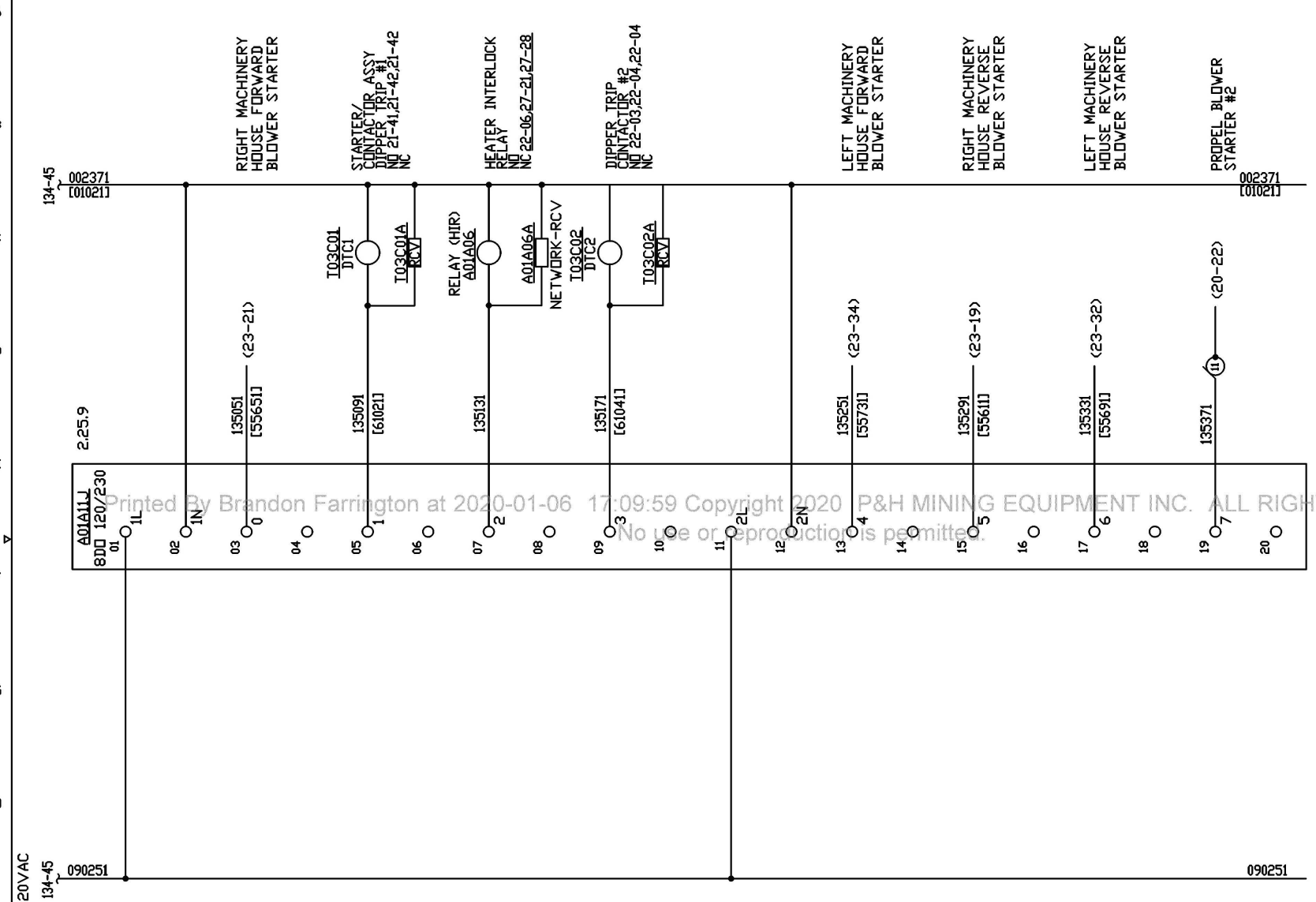
05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE			DWG NO R37798 SH 134 CONT. 135

S.N. ES4184 60HZ	SIZE C
DWN J.DEMOTT DATE 10/2019	SCALE NONE
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98
SIMILAR TO R37998	
CHKD J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG
MODEL 4100A	

DWG NO R37798 | SH 135 CONT. 140



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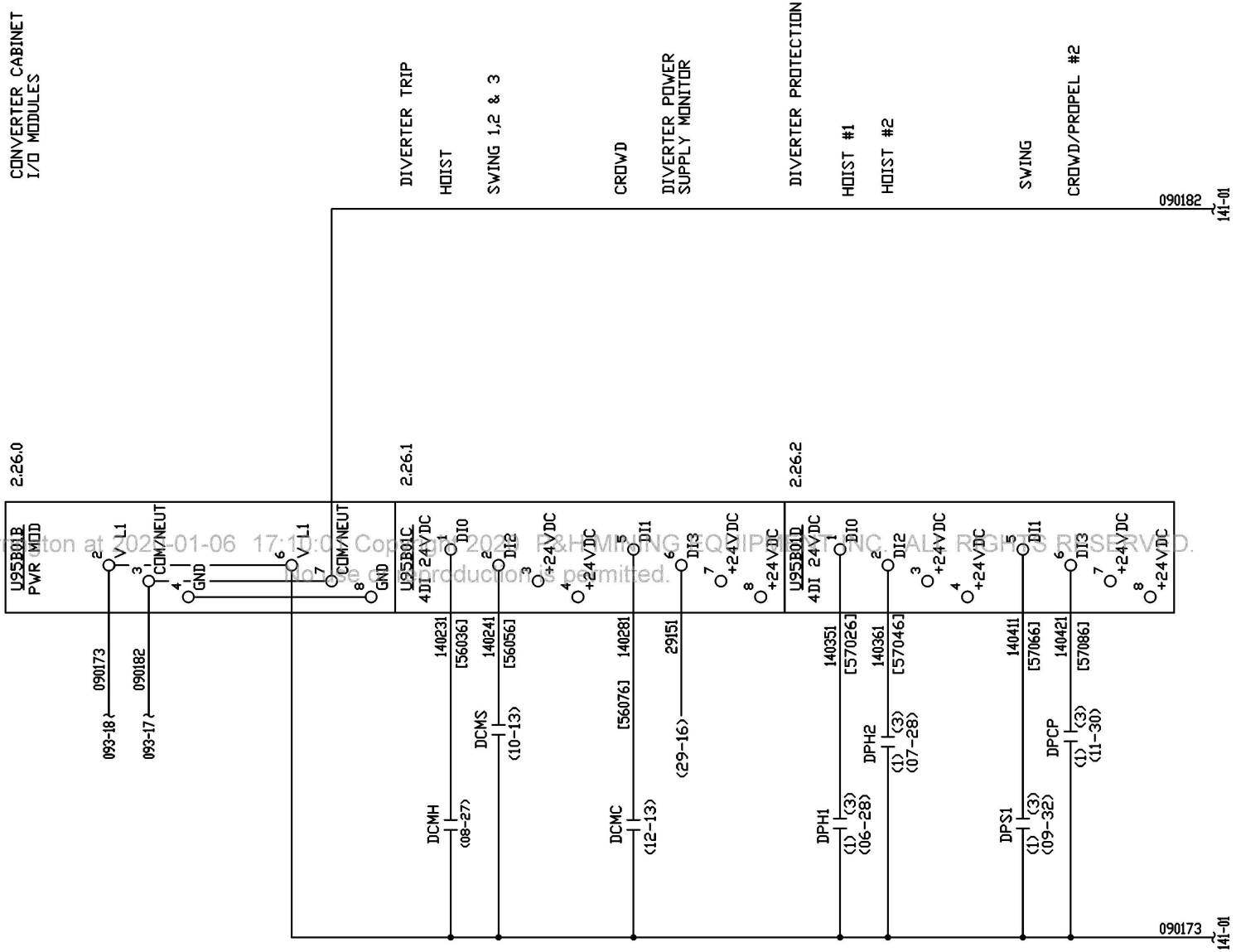
05	5518876	J DEMOTT 10/2019	
	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — SIZE C

DWN J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SH 135 CONT. 140	

DWG NO R37798 | SH 140 CONT. 141



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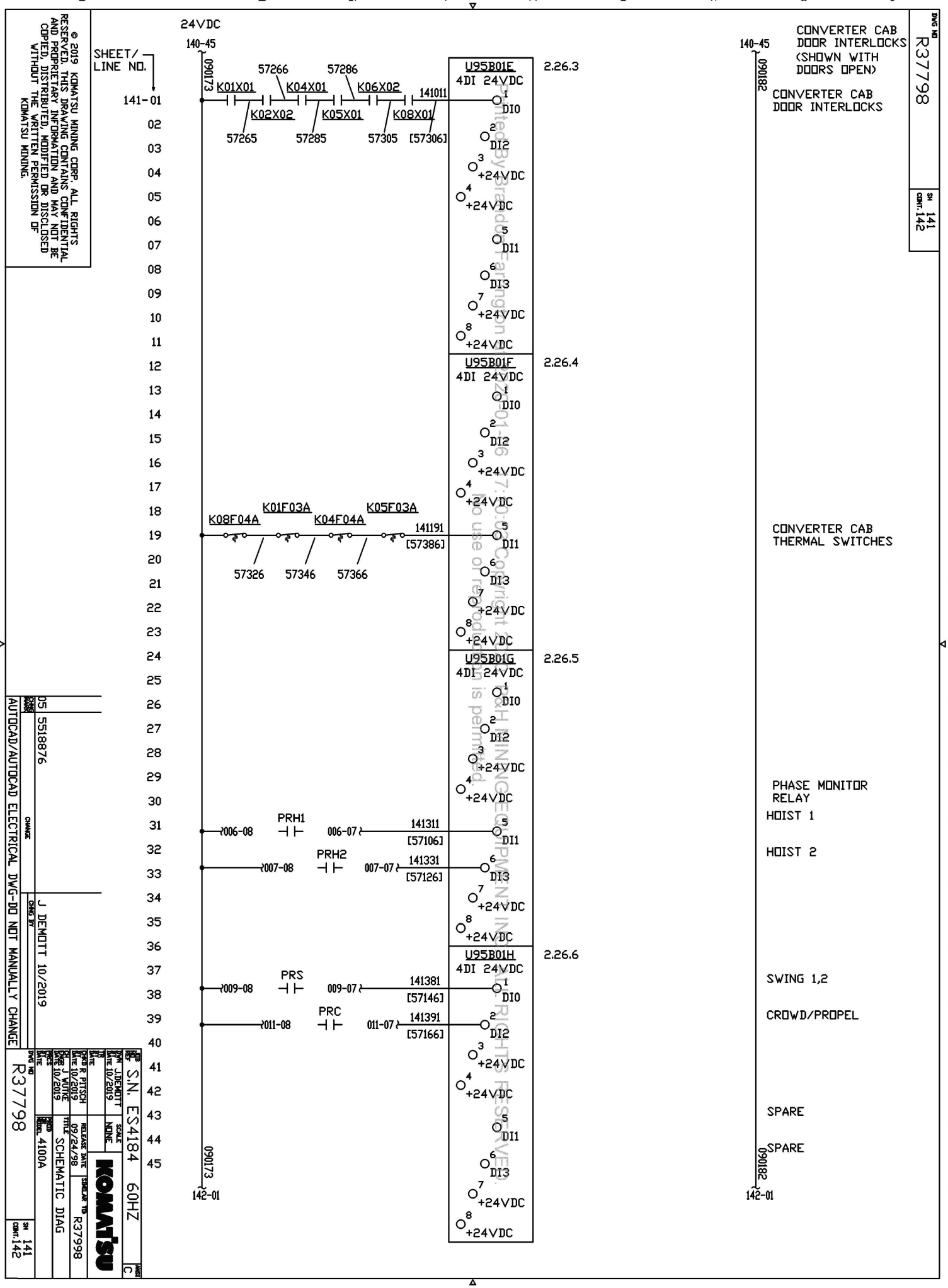
05	5518876	J DEMOTT 10/2019	
REV LTR MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV LTR DESCRIPTION	S.N. ES4184 60HZ		SHEET C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
APPD BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PROCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SH 140 CONT. 141	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140-45
090173
SHEET/ LINE NO.
141-01
K01X01
57265
57266
K02X02
K04X01
57285
57286
K05X01
K06X02
57305
K08X01
[57306]
141011
U95B01E
4DI 24VDC
2.26.3
DI0
DI2
+24VDC
+24VDC
DI1
DI3
+24VDC
+24VDC
U95B01F
4DI 24VDC
2.26.4
DI0
DI2
+24VDC
+24VDC
DI1
DI3
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+24VDC
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K01F03A
57346
K04F04A
57366
K05F03A
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U95B01G
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DI0
DI2
+24VDC
+24VDC
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006-07
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DI1
PRH2
007-08
007-07
141331
[57126]
DI3
+24VDC
+24VDC
U95B01H
4DI 24VDC
2.26.6
PRS
009-08
009-07
141381
[57146]
DI0
PRC
011-08
011-07
141391
[57166]
DI2
+24VDC
+24VDC
DI1
DI3
+24VDC
+24VDC
090173
142-01
140-45
090182
CONVERTER CAB
DOOR INTERLOCKS
(SHOWN WITH
DOORS OPEN)
CONVERTER CAB
DOOR INTERLOCKS
CONVERTER CAB
THERMAL SWITCHES
PHASE MONITOR
RELAY
HOIST 1
HOIST 2
SWING 1,2
CROWD/PROPEL
SPARE
SPARE
090182
142-01
DWG NO R37798
SH 141
CONT. 142
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05 5518876
CHANGE
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
CHNG BY J DEMOTT 10/2019
DRN J.DEMOTT DATE 10/2019
CHKD R PITSCH DATE 10/2019
ENGR J WITKE DATE 10/2019
APP'D DATE
DWG NO R37798
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
TITLE SCHEMATIC DIAG
MODEL 4100A
SERIES S.N. ES4184 60HZ
SHEET C
SH 141
CONT. 142
KOMATSU
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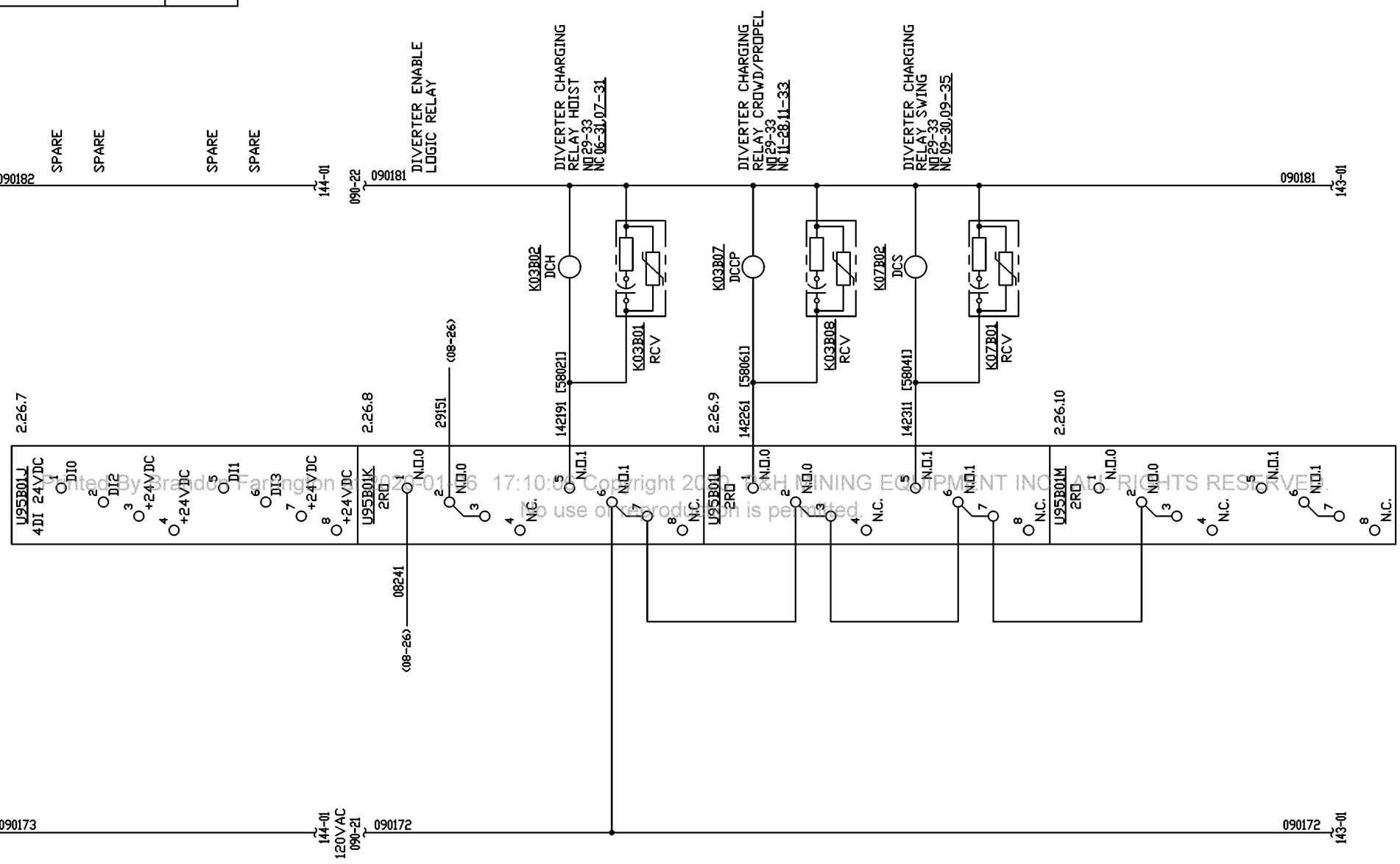
DWG NO R37798 | SH 142 CONT. 143



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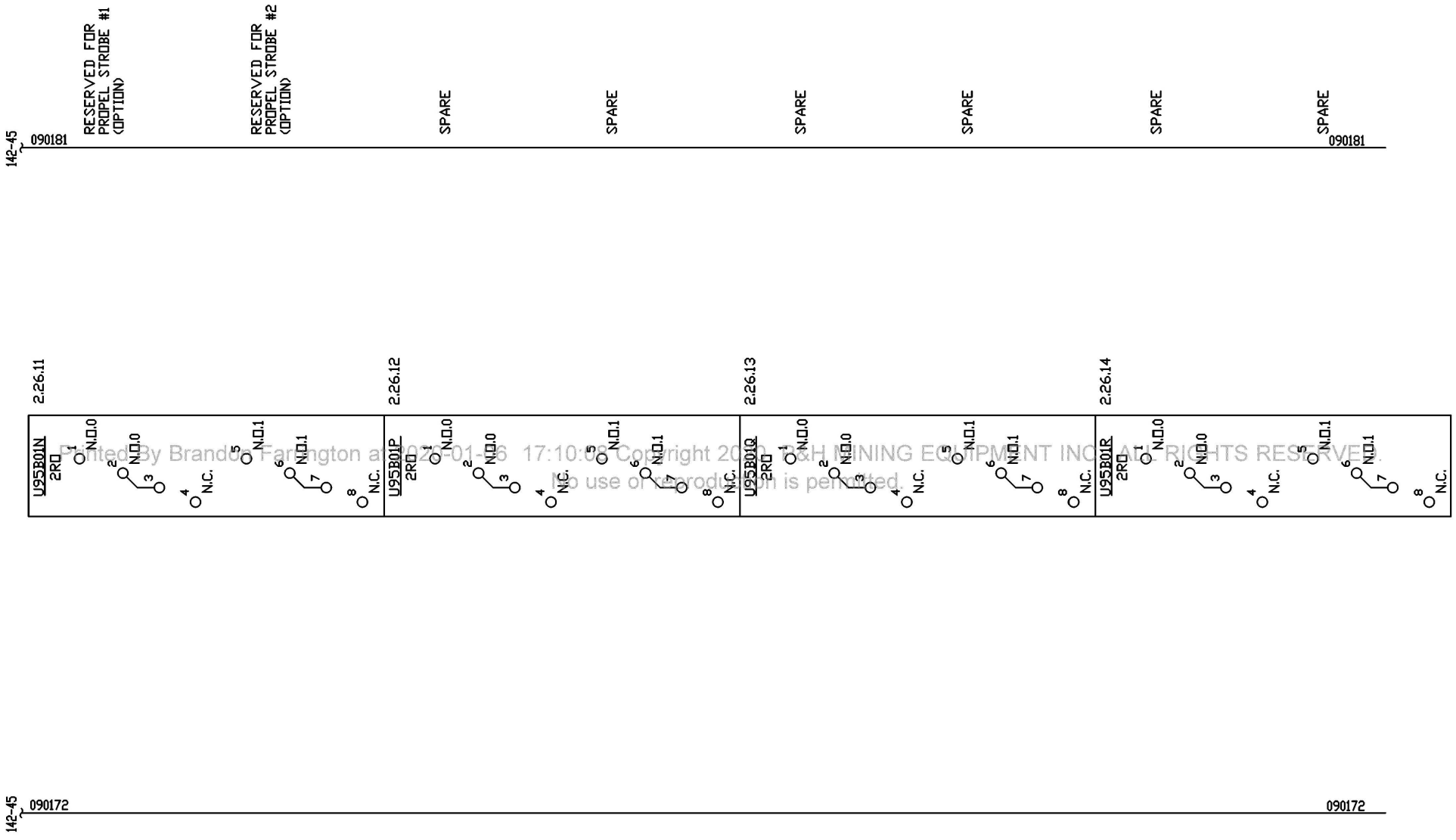
05	5518876	J DEMOTT 10/2019
CHG MARK	CHANGE	CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — REV C

DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU
TR BY DATE		
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY DATE	PROD DR MODEL 4100A	
DWG NO R37798	SH 142 CONT. 143	



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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CHK ENGR / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY / DATE		PROD DR MODEL 4100A	
DWG NO	R37798		SH 143 CONT. 144

DWG NO R37798 | SH 144 CONT. 149

SPARE
SPARE
SPARE
SPARE

142-10 090182

2.26.15

U25B01S
4DO 24VDC 0.5A

DO0 1
DO2 2
COM 3
COM 4
DO1 5
DO3 6
COM 7
COM 8

0102IC
(29-16)
DIVERTER POWER SUPPLY COMMON

24VDC
142-10 090173

SHEET/LINE NO.
144-01

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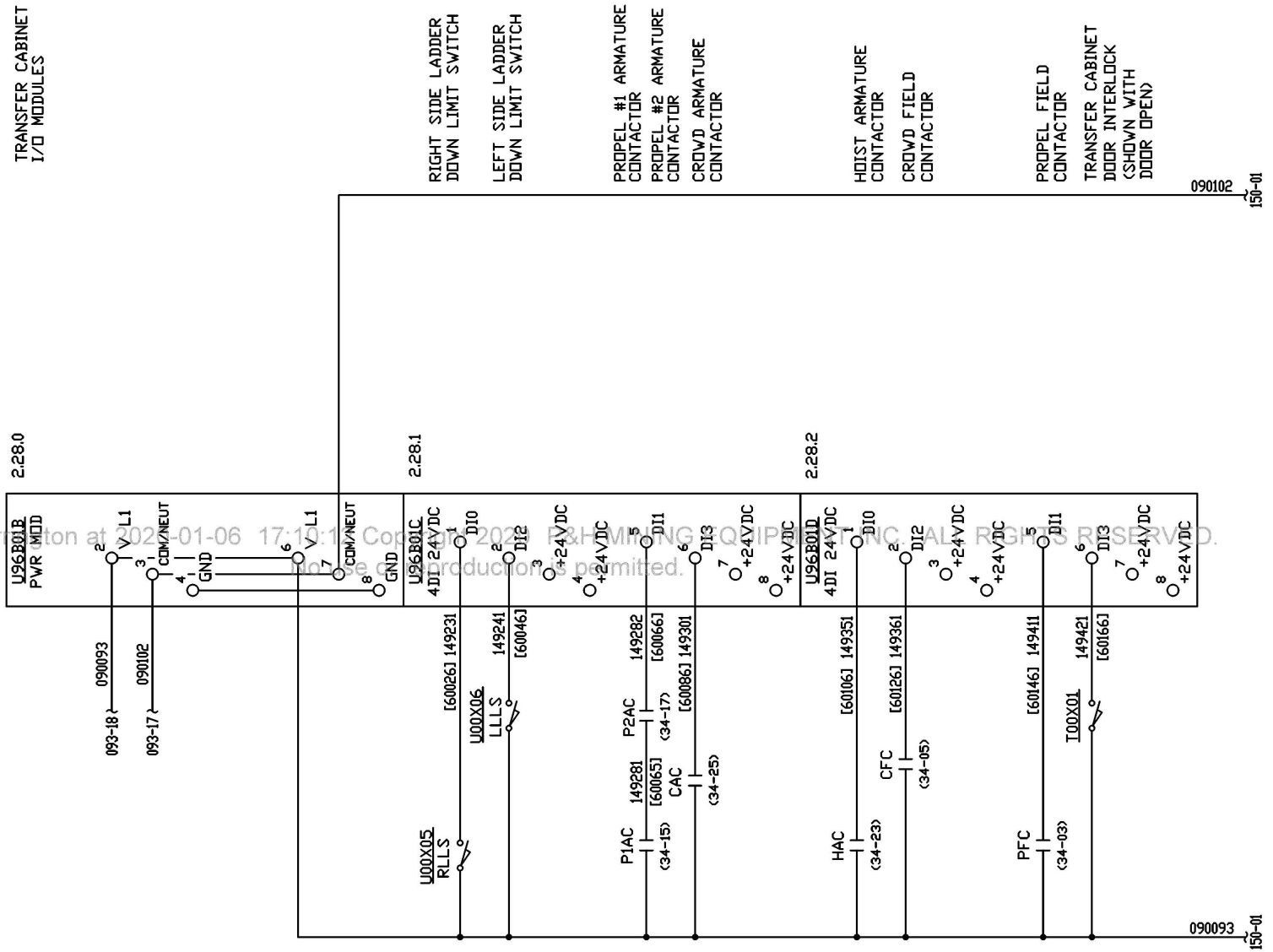
CHG MARK	CHANGE	CHNG BY
05	5518876	J DEMOTT 10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ
DWN BY / DATE	J.DEMOTT 10/2019
TR BY / DATE	
CHKD BY / DATE	R PITSCH 10/2019
CH ENGR BY / DATE	J WUTKE 10/2019
PRCS BY / DATE	
SCALE	NONE
RELEASE DATE	09/24/98
SIMILAR TO	R37998
TITLE	SCHEMATIC DIAG
PROD DR MODEL	4100A
DWG NO	R37798
SIZE	C
SH / CONT.	144 / 149

DWG NO R37798 | SH 149 CONT. 150



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SHEET/LINE NO. 149-01

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05	5518876	J DEMOTT 10/2019
CHG MARK	CHANGE	CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ
SIZE	C
DWN BY / DATE	J.DEMOTT 10/2019
SCALE	NONE
TR BY / DATE	
CHKD BY / DATE	R PITSCH 10/2019
RELEASE DATE	09/24/98
SIMILAR TO	R37998
CH ENGR BY / DATE	J WUTKE 10/2019
TITLE	SCHEMATIC DIAG
PROCS BY / DATE	
PROD DES MODEL	4100A
DWG NO	R37798
SH / CONT.	149 / 150

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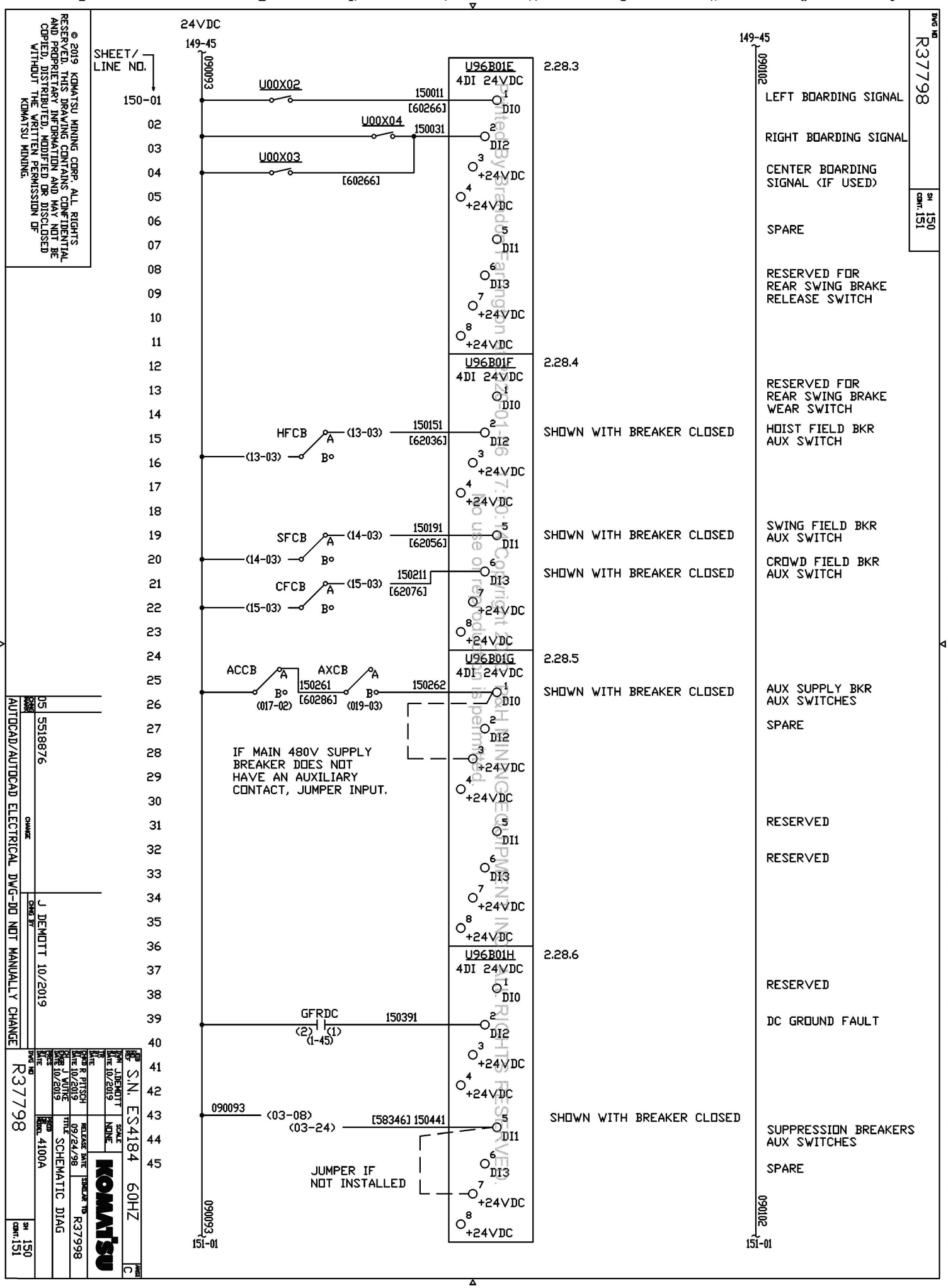

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DWG NO	R37798		
SH 150 CONT. 151			
05	5518876	CHANGE	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
	J DEMOTT 10/2019	CHNG BY	
DRN	J.DEMOTT 10/2019		
CHKD	R PITSCH 10/2019		
ENGR	J WITKE 10/2019		
DWG NO	R37798		
MODEL	4100A	TITLE	SCHEMATIC DIAG
SCALE	NONE	RELEASE DATE	09/24/98
SIMILAR TO	R37998		
SH 150 CONT. 151			
SER NO	S.N. ES4184 60HZ		
SHEET	C		

KOMATSU

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SHEET/LINE NO.

24VDC

150-45 090093 152-37

151-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

150-45 090102 152-37

SPARE
SPARE
SPARE
SPARE

U96B01J 4DI 24VDC 2.28.7
1 DI0
2 DI2
3 +24VDC
4 +24VDC
5 DI1
6 DI3
7 +24VDC
8 +24VDC

U96B01K 2AI RTD 2.28.8

U61X01S
CLR 151131 [61486] → 1 AI0+
BLK SHLD 151151 [61847] → 2 AI0−
3 +I CON 0
4 −I CON 0
RTD REAR HOIST MOTOR BEARING DRIVE END (IF USED)

U61X01T
CLR 151191 [61526] → 5 AI1+
BLK SHLD 151211 [61847] → 6 AI1−
7 +I CON 1
8 −I CON 1
RTD REAR HOIST MOTOR BEARING COM END (IF USED)

U96B01L 2AI RTD 2.28.9

U61X01V
CLR 151261 [61566] → 1 AI0+
BLK SHLD 151271 [61847] → 2 AI0−
3 +I CON 0
4 −I CON 0
RTD REAR HOIST MOTOR WINDING (IF USED)

U61X01W
CLR 151311 [61606] → 5 AI1+
BLK SHLD 151331 [61847] → 6 AI1−
7 +I CON 1
8 −I CON 1
RTD REAR HOIST MOTOR SHUNT FIELD (IF USED)

U96B01M 2AI RTD 2.28.10

U03X02S
CLR 151381 [61646] → 1 AI0+
BLK SHLD 151391 [61847] → 2 AI0−
3 +I CON 0
4 −I CON 0
RTD REAR SWING MOTOR BEARING DRIVE END (IF USED)

U03X02T
CLR 151441 [61686] → 5 AI1+
BLK SHLD 151451 [61847] → 6 AI1−
7 +I CON 1
8 −I CON 1
RTD REAR SWING MOTOR BEARING COM END (IF USED)

DWG NO R37798
SH 151 CONT. 152

CHANGE	CHNG BY
05 5518876	J DEMOTT 10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DRN	J.DEMOTT 10/2019	SCALE NONE
CHKD	R PITSCH 10/2019	RELEASE DATE 09/24/98
ENGR	J WITKE 10/2019	SIMILAR TO R37998
DWG NO	R37798	TITLE SCHEMATIC DIAG
REVS		MODEL 4100A

S.N. ES4184 60HZ

SH 151 CONT. 152

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SHEET/ LINE NO.

152-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

U03X02V

CLR 152011 [617726]

BLK 152031 [61847]

SHLD

U03X02W

CLR 152071 [617766]

BLK 152081 [61847]

SHLD

U61X01R

CLR 152261 [60486]

BLK 151271 [61847]

SHLD

U96B01N 2.28.11
2AI RTD
1 AI0+
2 AI0-
3 +I CON 0
4 -I CON 0
5 AI1+
6 AI1-
7 +I CON 1
8 -I CON 1

RTD
REAR SWING MOTOR
INTERPOLE
(IF USED)

RTD
REAR SWING MOTOR
WINDING
(IF USED)

U96B01P 2.28.12
2AI RTD
1 AI0+
2 AI0-
3 +I CON 0
4 -I CON 0
5 AI1+
6 AI1-
7 +I CON 1
8 -I CON 1

U96B01Q 2.28.13
2AI RTD
1 AI0+
2 AI0-
3 +I CON 0
4 -I CON 0
5 AI1+
6 AI1-
7 +I CON 1
8 -I CON 1

RTD
HOIST DRUMSIDE STAND
BEARING END
(IF USED)

RESERVED FOR
CENTER GUDGEON
HUB

24VDC
151-11

U85X09
(1) 4-20 (2)
P

152381

U96B01R 2.28.14
2AI I 24VDC
1 AI0+
2 AI0-
3 +24VDC
4 -24VDC
5 AI1+
6 AI1-
7 +24VDC
8 -24VDC

090093
153-36

151-11
090102
153-36

REAR SWING BRAKE
AIR PRESSURE

CHANGE	CHNG BY	DATE
05 5518876	J DEMOTT	10/2019
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE		

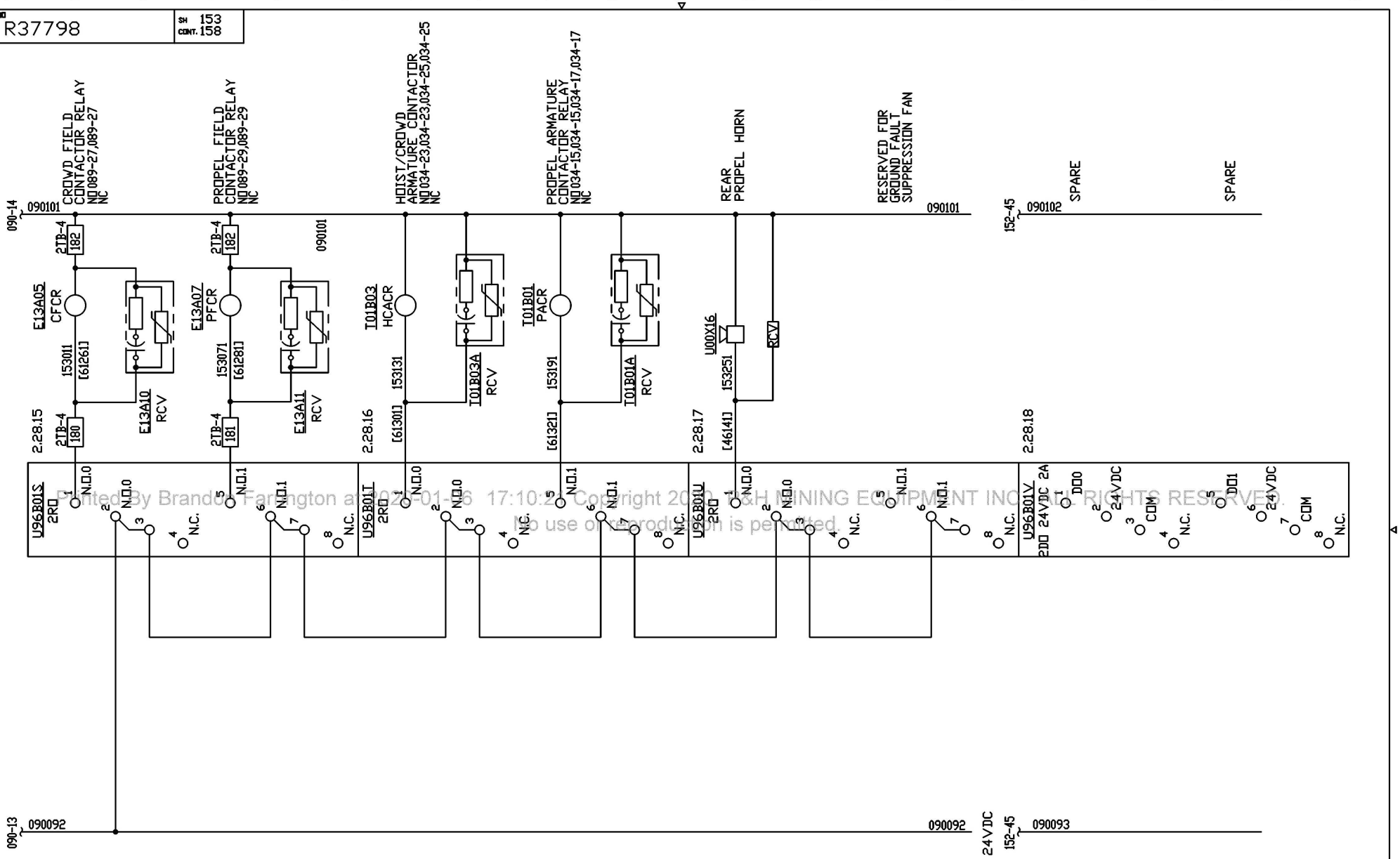
DWG NO R37798
SH 152 CONT. 153

DRN J.DEMOTT	DATE 10/2019	
CHKD R PITSCH	DATE 10/2019	
ENGR J WITKE	DATE 10/2019	
SCALE NONE	RELEASE DATE 09/24/98	
TITLE SCHEMATIC DIAG	SIMILAR TO R37998	
MODEL 4100A	SH 152 CONT. 153	
DWG NO R37798	REV C	

S.N. ES4184 60HZ

KOMATSU

DWG NO R37798 | SH 153 CONT. 158



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05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — SIZE C

DWN J.DEMOTT 10/2019 | SCALE NONE | KOMATSU

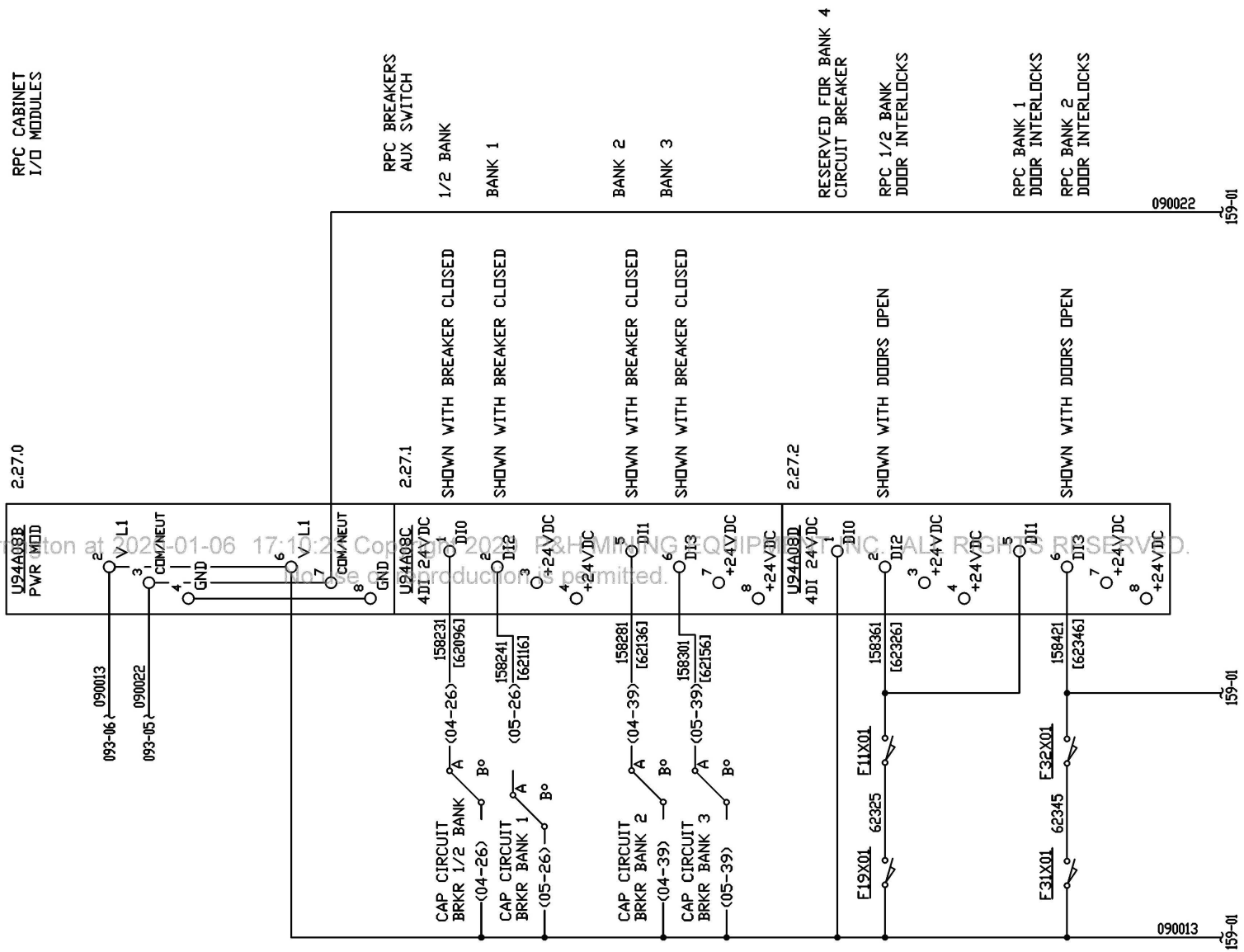
CHKD R PITSCH 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CHK J WUTKE 10/2019 | TITLE SCHEMATIC DIAG

PROD ENGR MODEL 4100A

DWG NO R37798 | SH 153 CONT. 158

DWG NO R37798 | SH 158 CONT. 159



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SHEET/ LINE NO. 158-01

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05	5518876	J DEMOTT 10/2019
CHG MARK	CHANGE	CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ	SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU
TR BY DATE		
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CHK DES BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG	
PROCS BY DATE	PROD DES MODEL 4100A	
DWG NO R37798		SH 158 CONT. 159

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24VDC

158-45 090013

SHEET/ LINE NO.

159-01

F21X01 — 62365 — F22X01 — 158411 [62366]

158-45 158421

U94A08E 4DI 24VDC 2.27.3
- DI0
- DI2
- +24VDC
- +24VDC
- DI1
- DI3
- +24VDC
- +24VDC

U94A08F 4DI 24VDC 2.27.4
- DI0
- DI2
- +24VDC
- +24VDC
- DI1
- DI3
- +24VDC
- +24VDC

F19B02A (4-18) — 159151 [63025] — F19C02A (4-18) — 159152 [63026]

F19B03A (4-22) — 159191 [63045] — F19C03A (4-22) — 159192 [63046]

F19B01A (4-26) — 159211 [63065] — F19C01A (4-26) — 159212 [63066]

U94A08G 4DI 24VDC 2.27.5
- DI0
- DI2
- +24VDC
- +24VDC
- DI1
- DI3
- +24VDC
- +24VDC

F11B02A (5-26) — 159261 [63084] — F11C02A (5-26) — 159262 [63085] — F11D02A (5-26) — 159263 [63086]

F11B03A (5-22) — 159271 [63104] — F11C03A (5-22) — 159272 [63105] — F11D03A (5-22) — 159273 [63106]

F11B01A (5-18) — 159311 [63124] — F11C01A (5-18) — 159312 [63125] — F11D01A (5-18) — 159313 [63126]

F32B01A (4-31) — 159331 [63264] — F32C01A (4-31) — 159332 [63265] — F32D01A (4-31) — 159333 [63266]

U94A08H 4DI 24VDC 2.27.6
- DI0
- DI2
- +24VDC
- +24VDC
- DI1
- DI3
- +24VDC
- +24VDC

F32B03A (4-35) — 159381 [63284] — F32C03A (4-35) — 159382 [63285] — F32D03A (4-35) — 159383 [63286]

F32B02A (4-39) — 159391 [63304] — F32C02A (4-39) — 159392 [63305] — F32D02A (4-39) — 159393 [63306]

F33B01A (5-39) — 159441 [63324] — F33C01A (5-39) — 159442 [63325] — F33D01A (5-39) — 159443 [63326]

F33B03A (5-35) — 159451 [63344] — F33C03A (5-35) — 159452 [63345] — F33D03A (5-35) — 159453 [63346]

158-45 090022

RPC BANK 3 DOOR INTERLOCKS

RPC SWITCH DOOR INTERLOCKS

RPC SWITCH DOOR INTERLOCKS

RESERVED FOR RPC BANK 4 DOOR INTERLOCK

RESERVED FOR RPC BANK 4 SW DOOR INTERLOCK

1/2 BANK AB

CAP PRESSURE SWITCHES

1/2 BANK BC

1/2 BANK CA

BANK 1 AB

BANK 1 BC

BANK 1 CA

BANK 2 AC

BANK 2 BA

BANK 2 CB

BANK 3 AC

BANK 3 BA

090022 160-01

090013 160-01

DWG NO R37798 SH 159 CONT. 160

05 5518876 J DEMOTT 10/2019 AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

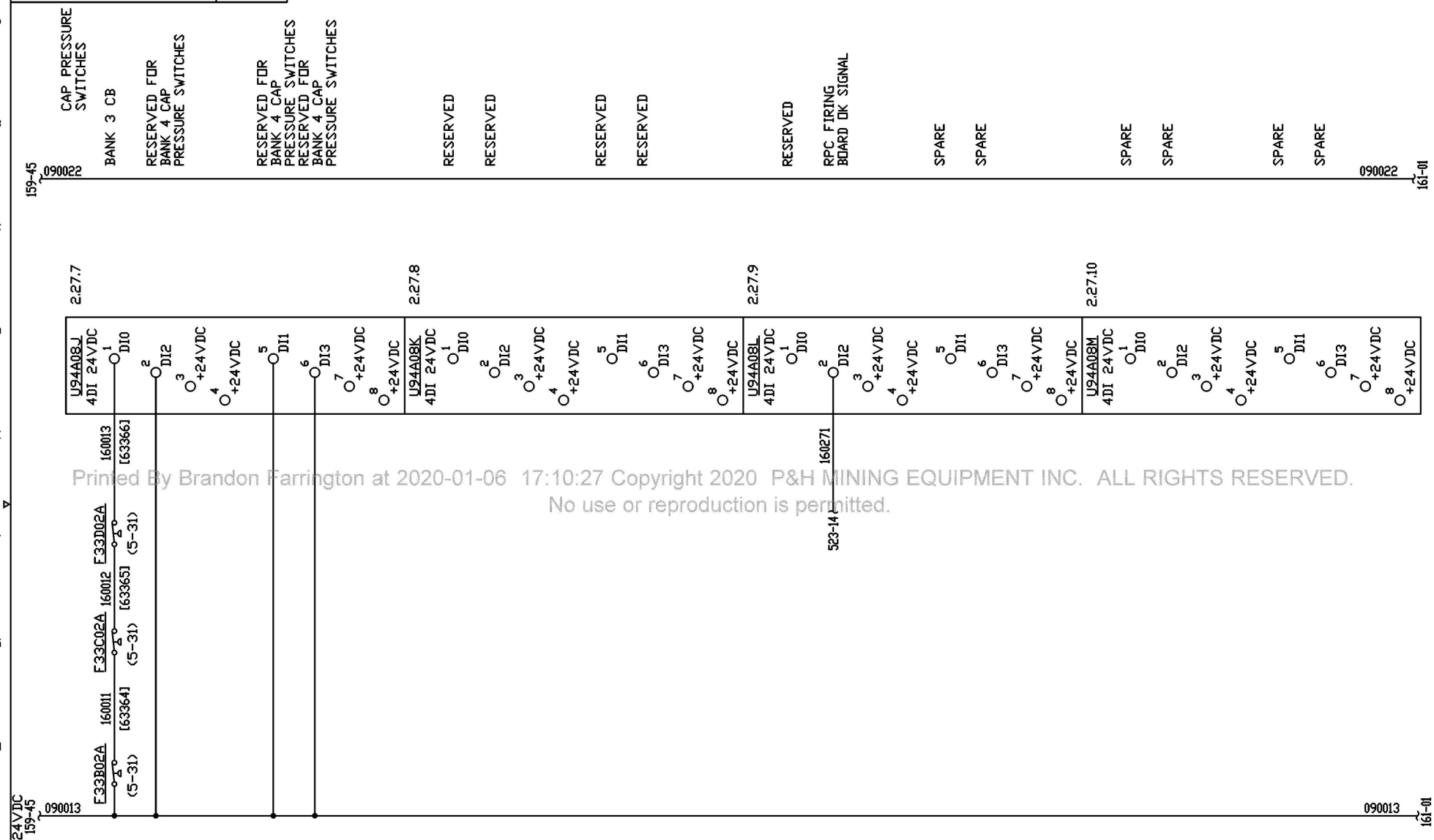
DRN J.DEMOTT 10/2019
CHKD R PITSCH 10/2019
ENGR J WITKE 10/2019
APPD

SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
PROD MODEL 4100A
TITLE SCHEMATIC DIAG
DWG NO R37798
SH 159 CONT. 160
SIZE C

KOMATSU

S.N. ES4184 60HZ

DWG NO R37798 | SH 160 CONT. 161



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SHEET/LINE NO. 160-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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05	5518876	J DEMOTT 10/2019	
CHNG NUMBER	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ | SIZE C

DWN J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

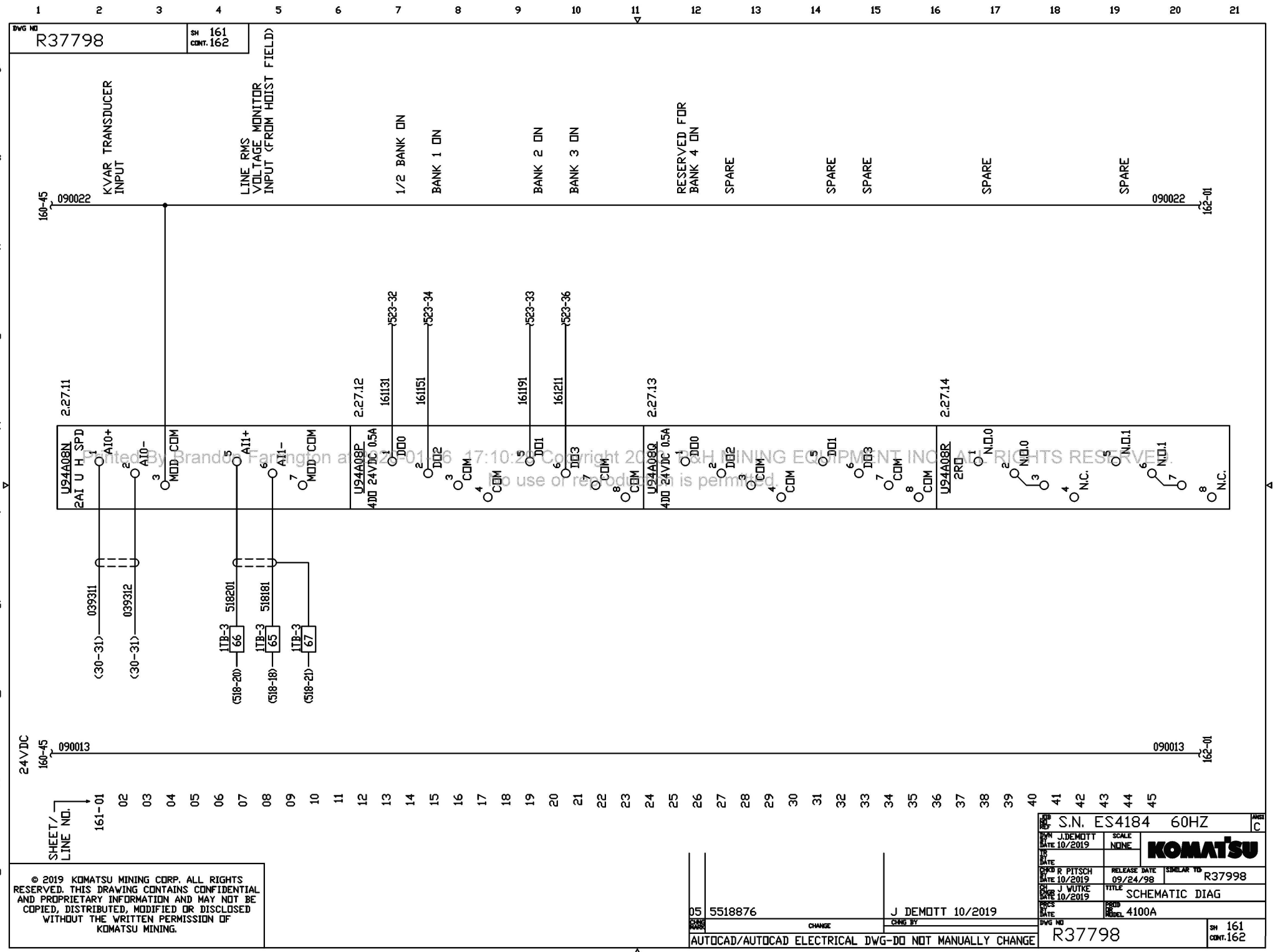
CHKD R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CH ENGR J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

PROJ ENGR | PROD MODEL 4100A

DWG NO R37798 | SH 160 CONT. 161

(5-35)



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DWG NO R37798 | SH 162 CONT. 167

161-45 090022 SPARE SPARE 523-45

2.27.15

U24A08S 2RD

1 N.O.0 2 N.O.0 3 4 N.C. 5 N.O.1 6 N.O.1 7 8 N.C.

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24VDC 161-45 090013 523-13

SHEET/LINE NO. 162-01

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CHG MARK	CHANGE	CHNG BY
05	5518876	J DEMOTT 10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ
DWN BY / DATE	J.DEMOTT 10/2019
TR BY / DATE	
CHKD BY / DATE	R PITSCH 10/2019
CH ENGR BY / DATE	J WUTKE 10/2019
PRCS BY / DATE	
SCALE	NONE
RELEASE DATE	09/24/98
SIMILAR TO	R37998
TITLE	SCHEMATIC DIAG
PROD OR MODEL	4100A
DWG NO	R37798
SIZE	C
SH / CONT.	162 / 167

DWG NO R37798 | SH 167 CONT. 168

HOIST GEARCASE I/O MODULES (IN HOIST GEARCASE I/O CABINET)

RESERVED FOR FRONT HOIST BRAKE RELEASE SWITCH

RESERVED FOR FRONT HOIST BRAKE WEAR SWITCH

RESERVED FOR REAR HOIST BRAKE RELEASE SWITCH

RESERVED FOR REAR HOIST BRAKE WEAR SWITCH

SPARE

SPARE

SPARE

SPARE

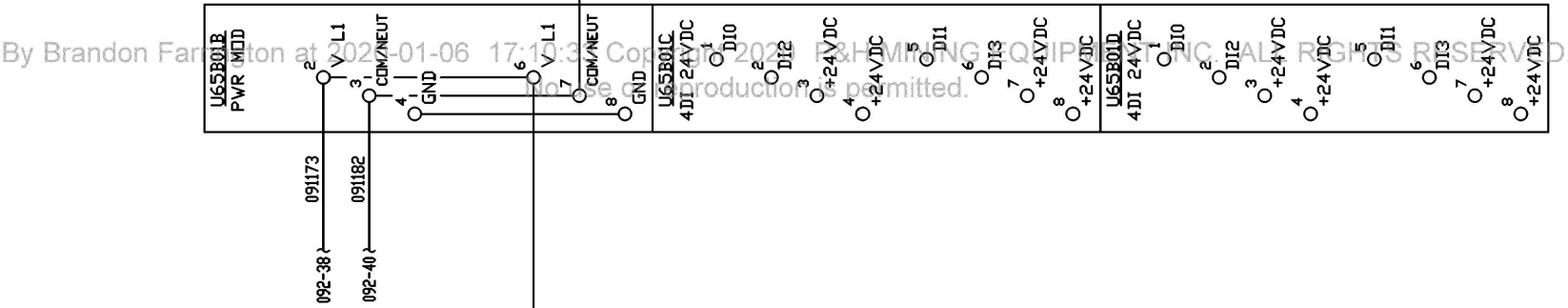
091182 → 168-01

091173 → 168-01

2.29.0 U65B01B PWR MOD

2.29.1 U65B01C 4DI 24VDC

2.29.2 U65B01D 4DI 24VDC



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SHEET/LINE NO. 167-01

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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — SIZE C

DWN J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

TR BY DATE

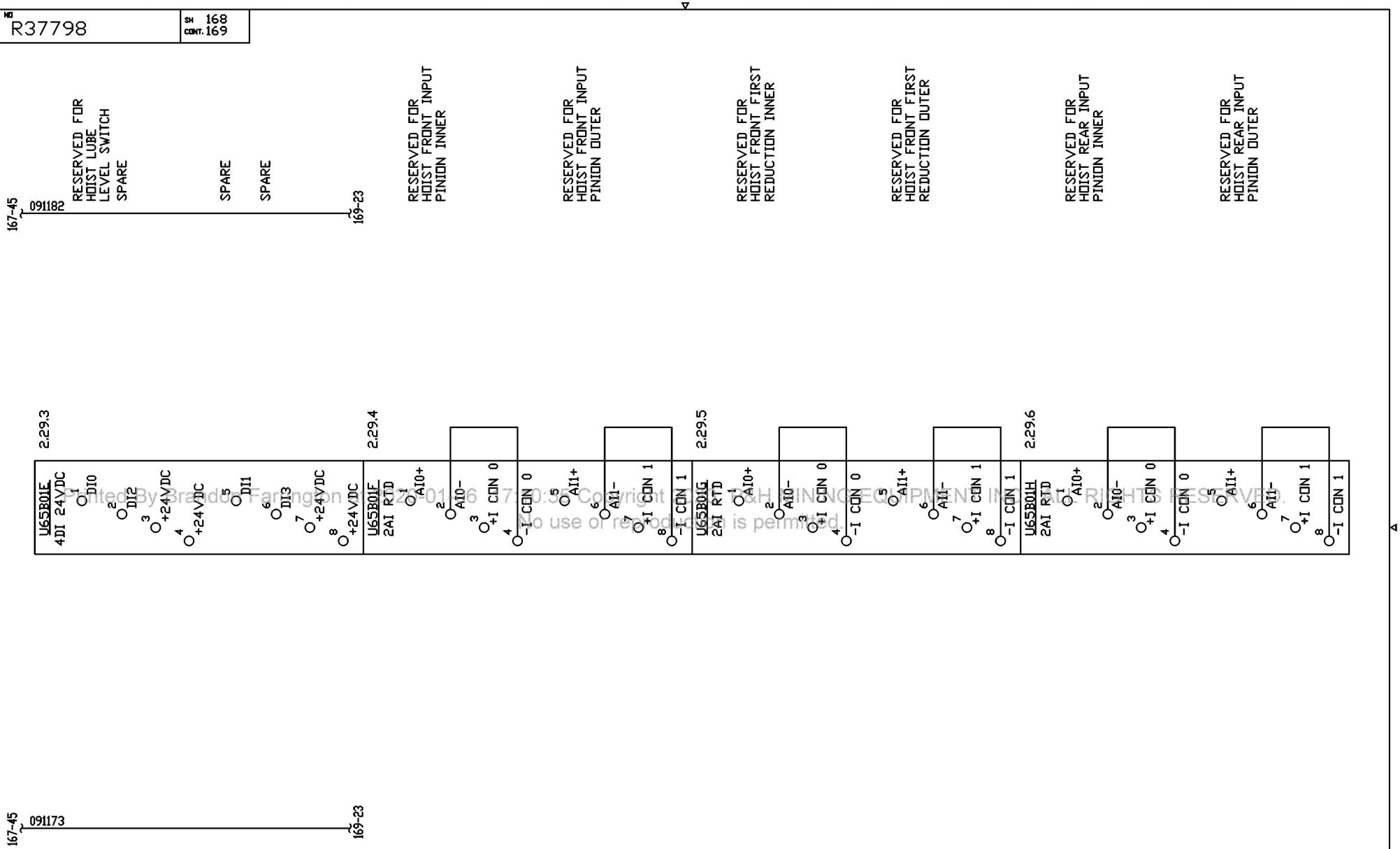
CHKD R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CH DES J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

PRCS BY DATE | PROD DR MODEL 4100A

DWG NO R37798 | SH 167 CONT. 168

DWG NO R37798 | SH 168 CONT. 169



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05	5518876	J DEMOTT 10/2019	
CHG NO MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY DATE			
CHKD BY DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR BY DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY DATE		PROD DR MODEL 4100A	
DWG NO	R37798		SH 168 CONT. 169

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SHEET/ LINE NO.

DWG NO R37798 SH 169 CONT. 170

U65B01J 2AI RTD 2.29.7
- 1 AI0+
- 2 AI0-
- 3 +I CON 0
- 4 -I CON 0
- 5 AI1+
- 6 AI1-
- 7 +I CON 1
- 8 -I CON 1

RESERVED FOR HOIST REAR FIRST REDUCTION INNER

RESERVED FOR HOIST REAR FIRST REDUCTION OUTER

U65B01K 2AI RTD 2.29.8
- 1 AI0+
- 2 AI0-
- 3 +I CON 0
- 4 -I CON 0
- 5 AI1+
- 6 AI1-
- 7 +I CON 1
- 8 -I CON 1

RESERVED FOR HOIST GEARCASE OIL

U61X01L
- CLR 169191 [60526] → 5 AI1+
- BLK 169211 [61847] → 6 AI1-
- SHLD

RTD HOIST DRUM GEARBOX BEARING (IF USED)

168-11 091173

U05X02D 4-20 P (1) (2) 169261

U05X03D 4-20 P (1) (2) 169311

U65B01L 2AI I 24VDC 2.29.9
- 1 AI0+
- 2 AI0-
- 3 +24VDC
- 4 -24VDC
- 5 AI1+
- 6 AI1-
- 7 +24VDC
- 8 -24VDC

168-11 091182

FRONT HOIST BRAKE AIR PRESSURE

REAR HOIST BRAKE AIR PRESSURE

U65B01M 2DO 24VDC 2A 2.29.10
- 1 DO0
- 2 24VDC
- 3 COM
- 4 N.C.
- 5 DO1
- 6 24VDC
- 7 COM
- 8 N.C.

BSRH2 U65B02 169381 (13) (14) 169382 U05X02 HBXS1 (1) (2) 500-36

FRONT HOIST BRAKE EXHAUST SOLENOID

BSRH2 U65B03 169441 (13) (14) 169442 U05X03 HBXS2 (1) (2) 500-36

BRAKE SUPPLY RELAY HOIST #2

REAR HOIST BRAKE EXHAUST SOLENOID

091173 170-01

091182 170-01

05 5518876 J DEMOTT 10/2019 AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWG NO R37798 | S.N. ES4184 60HZ | SCALE NONE | RELEASE DATE 09/24/98 | SIMILAR TO R37998 | TITLE SCHEMATIC DIAG | MODEL 4100A | SH 169 CONT. 170 | SIZE C

DRN J.DEMOTT 10/2019 | CHKD R PITSCH 10/2019 | ENGR J WITKE 10/2019

KOMATSU

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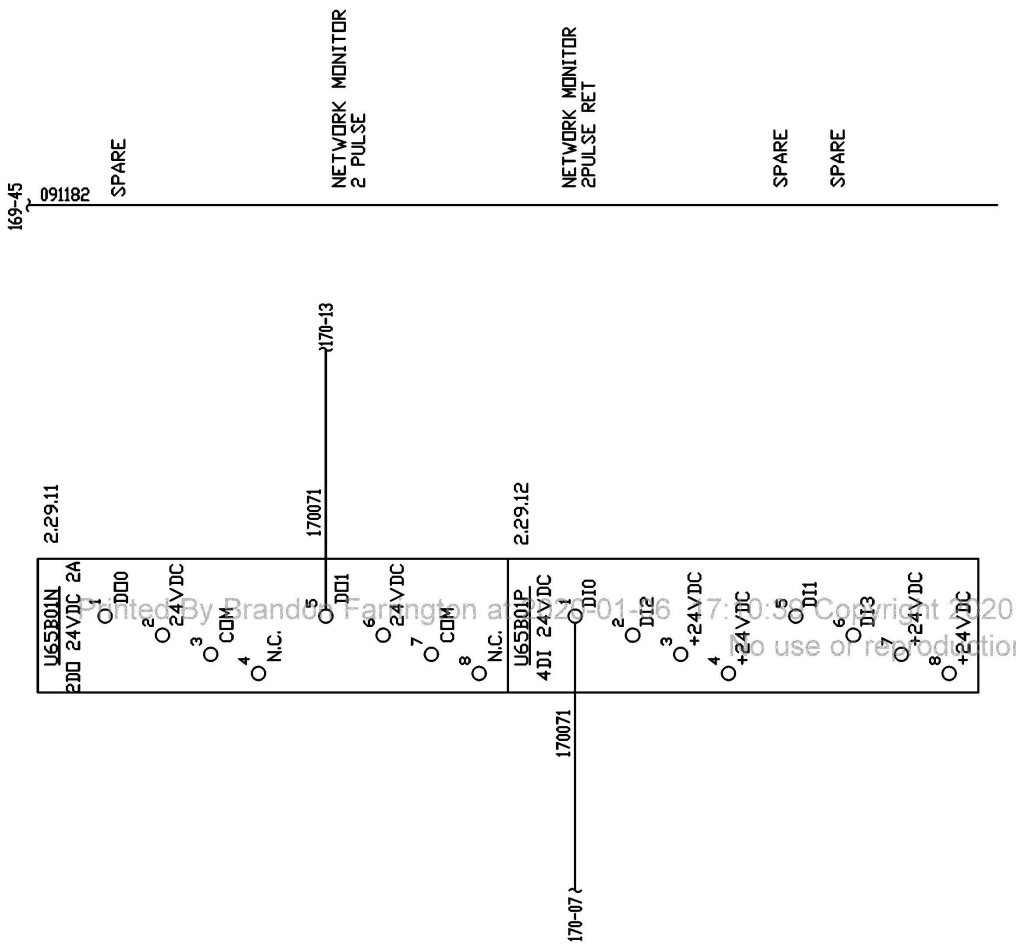
DWG NO R37798 | SH 170 CONT. 175



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SHEET/LINE NO. 170-01

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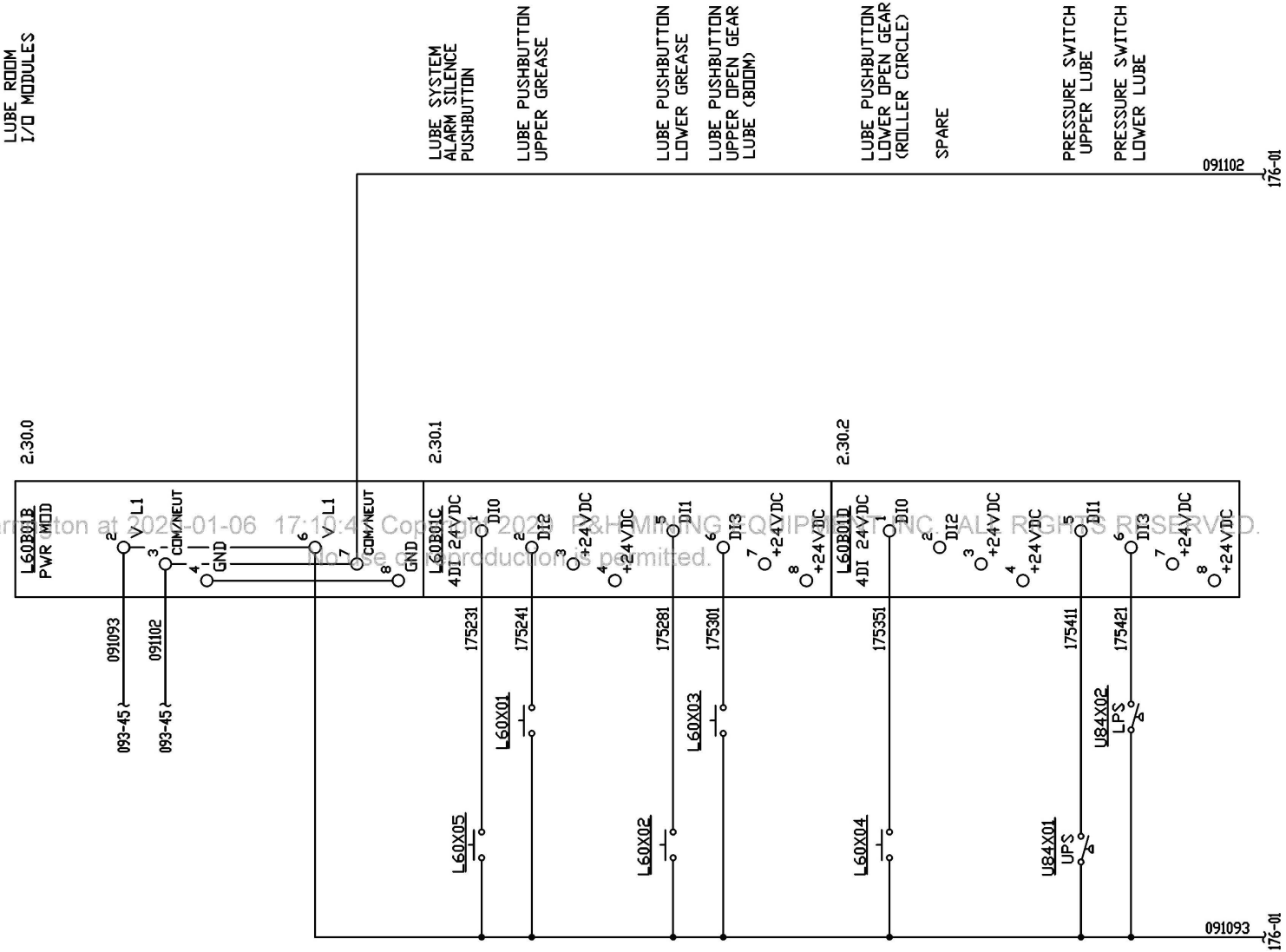
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES REF	S.N. ES4184 60HZ
DWN BY DATE	J.DEMOTT 10/2019
TR BY DATE	
CHKD BY DATE	R PITSCH 10/2019
CH ENGR BY DATE	J WUTKE 10/2019
PRCS BY DATE	
SCALE	NONE
RELEASE DATE	09/24/98
SIMILAR TO	R37998
TITLE	SCHEMATIC DIAG
PROD DR MODEL	4100A
DWG NO	R37798
SIZE	C
SH CONT.	170 175

DWG NO R37798 | SH 175 CONT. 176



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SHEET/LINE NO. 175-01

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05	5518876	J DEMOTT 10/2019
CHG MARK	CHANGE	CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ | SIZE C

DSN J.DEMOTT 10/2019 | SCALE NONE | KOMATSU

CHKD R PITSCH 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CODE J WUTKE 10/2019 | TITLE SCHEMATIC DIAG

PROJ | MODEL 4100A

DWG NO R37798 | SH 175 CONT. 176

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SHEET/LINE NO.

24VDC

175-45 091093

176-01

U64X01 GLPS — 176071

U85X03 4-20 (1) (2) P — 176191

U85X06 4-20 (1) (2) P — 176261

091093 177-11

L60B01E 4DI 24VDC — 2.30.3
- 1 DI0
- 2 DI2
- 3 +24VDC
- 4 +24VDC
- 5 DI1
- 6 DI3
- 7 +24VDC
- 8 +24VDC

L60B01F 2AI I 24VDC — 2.30.4
- 1 AI0+
- 2 AI0-
- 3 +24VDC
- 4 -24VDC
- 5 AI1+
- 6 AI1-
- 7 +24VDC
- 8 -24VDC

L60B01G 2AI I 24VDC — 2.30.5
- 1 AI0+
- 2 AI0-
- 3 +24VDC
- 4 -24VDC
- 5 AI1+
- 6 AI1-
- 7 +24VDC
- 8 -24VDC

L60B01H 2AI RTD — 2.30.6
- 1 AI0+ — CLR 176381 [66486]
- 2 AI0- — BLK 176391 [66487], SHLD
- 3 +I CON 0
- 4 -I CON 0
- 5 AI1+ — CLR 176441 [66526]
- 6 AI1- — BLK 176451 [66847], SHLD
- 7 +I CON 1
- 8 -I CON 1

U61X02S

U61X02T

175-45 091102

SPARE

SPARE

PRESSURE SWITCH OPEN GEAR LUBE

SPARE

RESERVED FOR UPPER GREASE PRESSURE

CROWD BRAKE AIR PRESSURE

MAIN AIR PRESSURE

091102

RESERVED FOR AIR RECEIVER PRESSURE

177-11

FRONT HOIST MOTOR BEARING DRIVE END (IF USED)

FRONT HOIST MOTOR BEARING COMMUTATOR END (IF USED)

DWG NO R37798

SH 176 CONT. 177

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CHANGE	CHANGE BY	DATE
05	5518876	
	J DEMOTT	10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWN	J.DEMOTT	10/2019
CHKD	R PITSCH	10/2019
ENGR	J WITKE	10/2019
SCALE	NONE	
RELEASE DATE	02/24/98	
SIMILAR TO	R37998	
SIZE	C	

S.N. ES4184 60HZ

DWG NO R37798

TITLE SCHEMATIC DIAG

MODEL 4100A

KOMATSU

SH 176 CONT. 177

DWG NO R37798 | SH 177 CONT. 178

RTD FRONT HOIST MOTOR INTERPOLE (IF USED)

RTD FRONT HOIST MOTOR SHUNT FIELD (IF USED)

LUBE ROOM ALARM

UPPER GREASE INDICATOR

LOWER GREASE INDICATOR

BOOM UPPER OPEN GEAR OIL INDICATOR

ROLLER CIRCLE GEAR LUBE INDICATOR

ALARM SILENCE

SPARE

SPARE

176-36 091102

091102 178-01

L60X06 L60X01A L60X02A L60X03A L60X04A L60X05A

2.30.7 2.30.8 2.30.9 2.30.10

L60B01J 2AI RTD: AI0+ AI0- +I CON 0 -I CON 1 AI1+ AI1- +I CON 1 -I CON 1

L60B01K 4DO 24VDC 0.5A: DO0 DO2 COM COM DO1 DO3 COM COM

L60B01L 4DO 24VDC 0.5A: DO0 DO2 COM COM DO1 DO3 COM COM

L60B01M PWR MOD: VL1 COM/NEUT GND VL1 COM/NEUT GND

177011 [66566] CLR 177031 [66847] BLK SHLD

177071 [66606] CLR 177081 [66847] BLK SHLD

U61X02V U61X02W

24VDC 176-36 091093 091093 178-01

SHEET/ LINE NO. 177-01

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05 5518876 CHANGE | J DEMOTT 10/2019 CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ | SIZE C

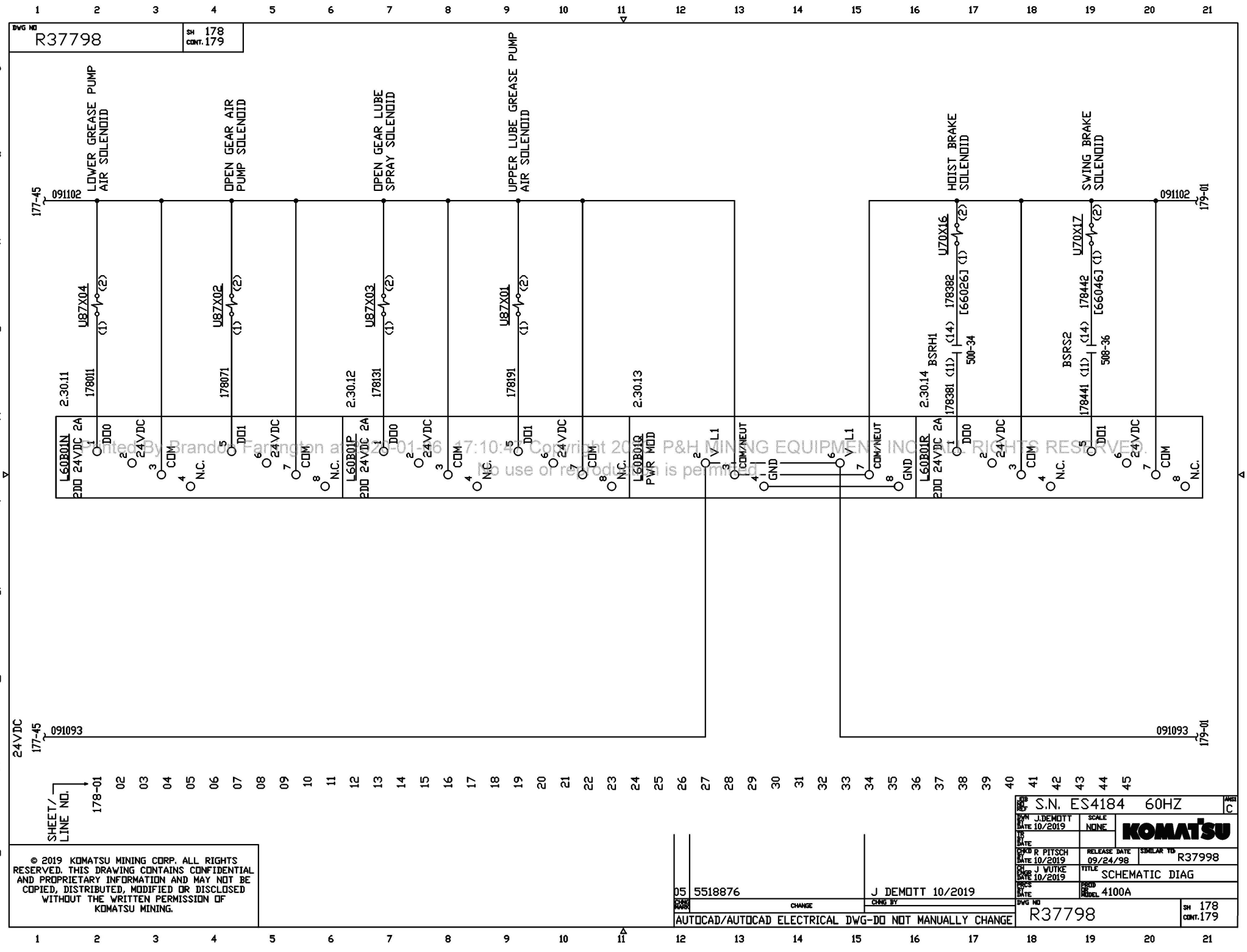
DWN J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

CHKD R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

ENGR J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

PROD DR MODEL 4100A

DWG NO R37798 | SH 177 CONT. 178



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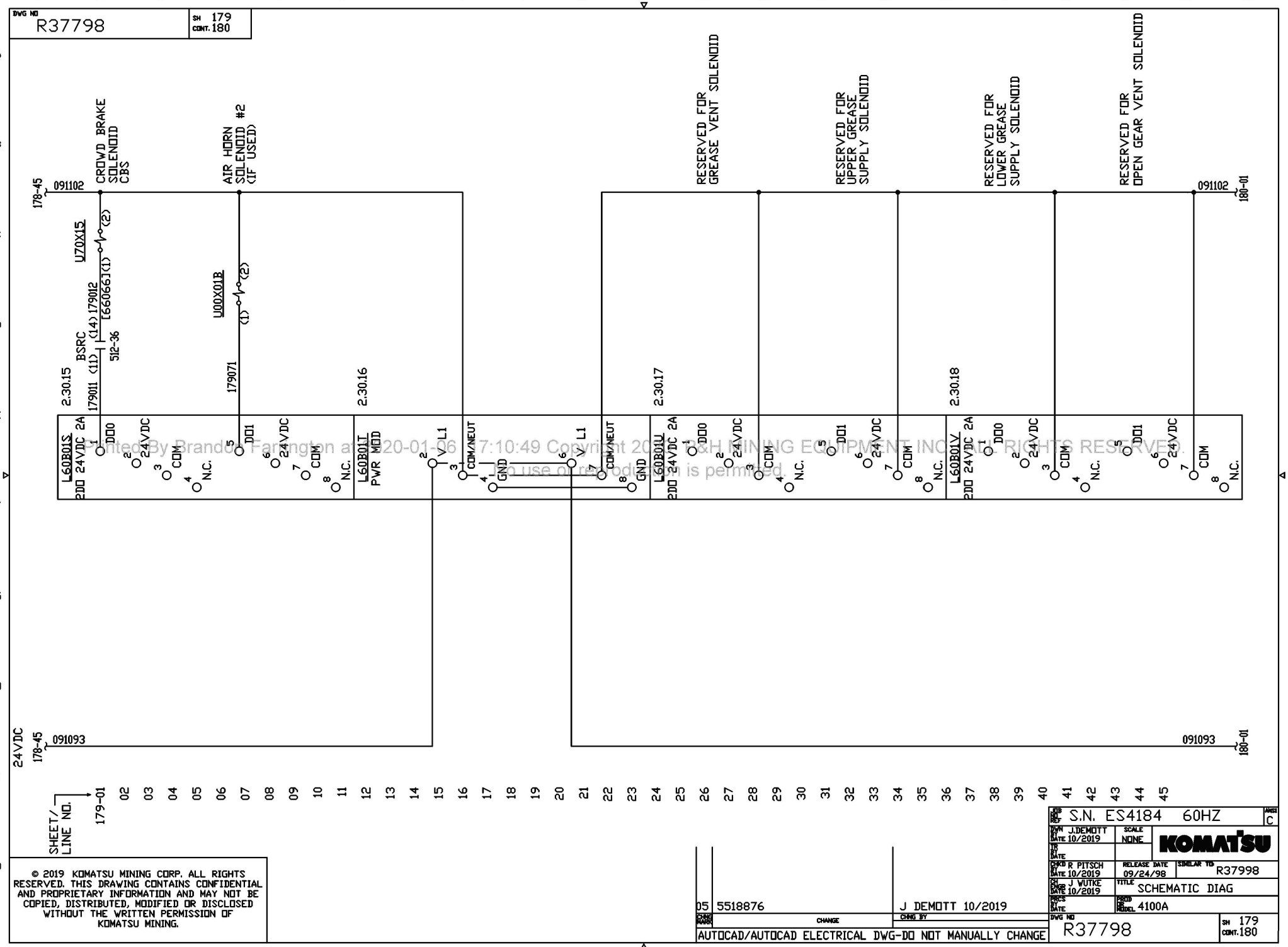
DWG NO R37798 | SH 179 CONT. 180



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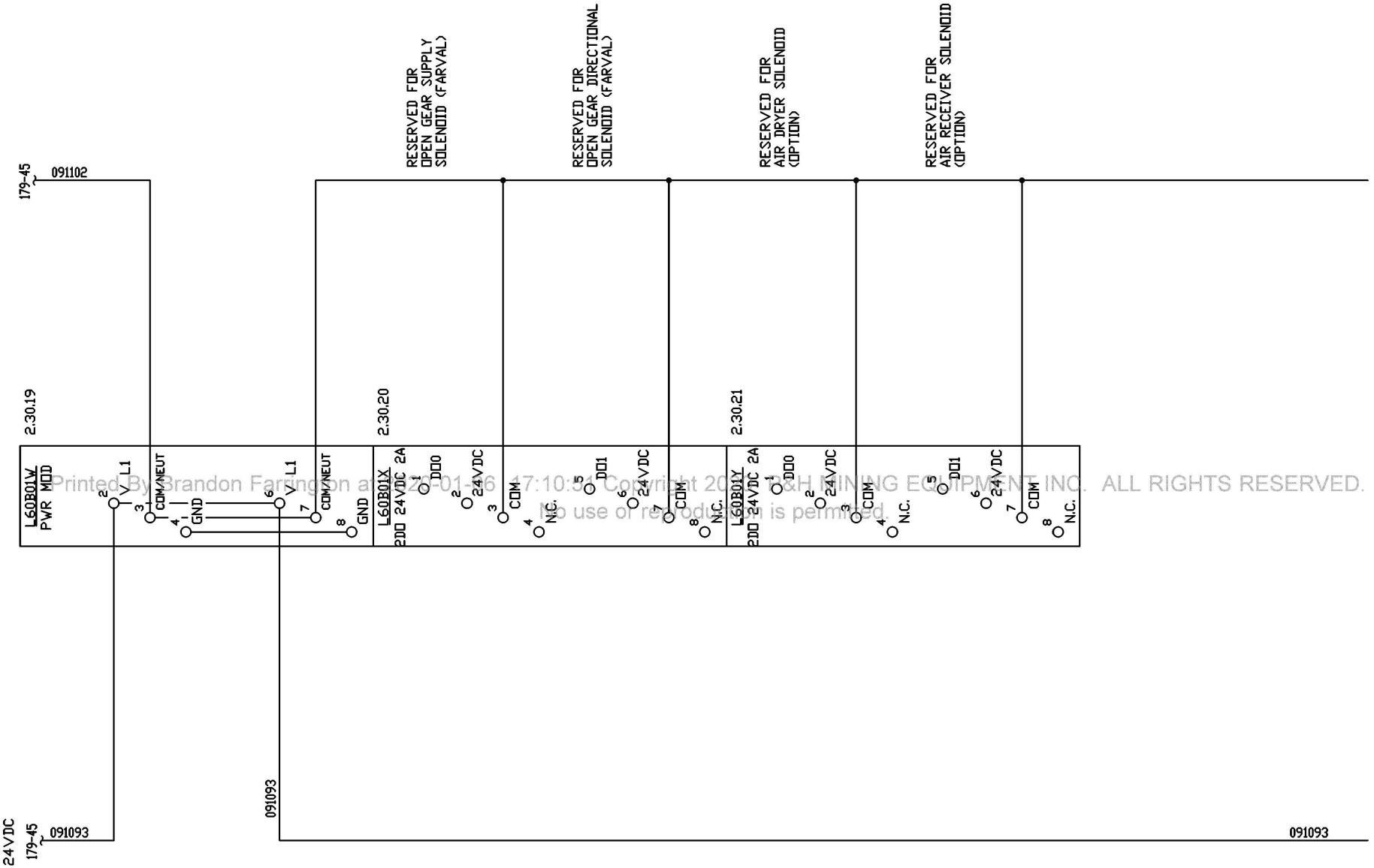
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ	SIZE C
DWN J.DEMOTT DATE 10/2019	SCALE NONE
TR BY DATE	
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98
APVD J WUTKE DATE 10/2019	SIMILAR TO R37998
PRCS BY DATE	TITLE SCHEMATIC DIAG
DWG NO R37798	PROD DR MODEL 4100A
	SH 179 CONT. 180

DWG NO R37798 | SH 180 CONT. 194



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SHEET/LINE NO. → 180-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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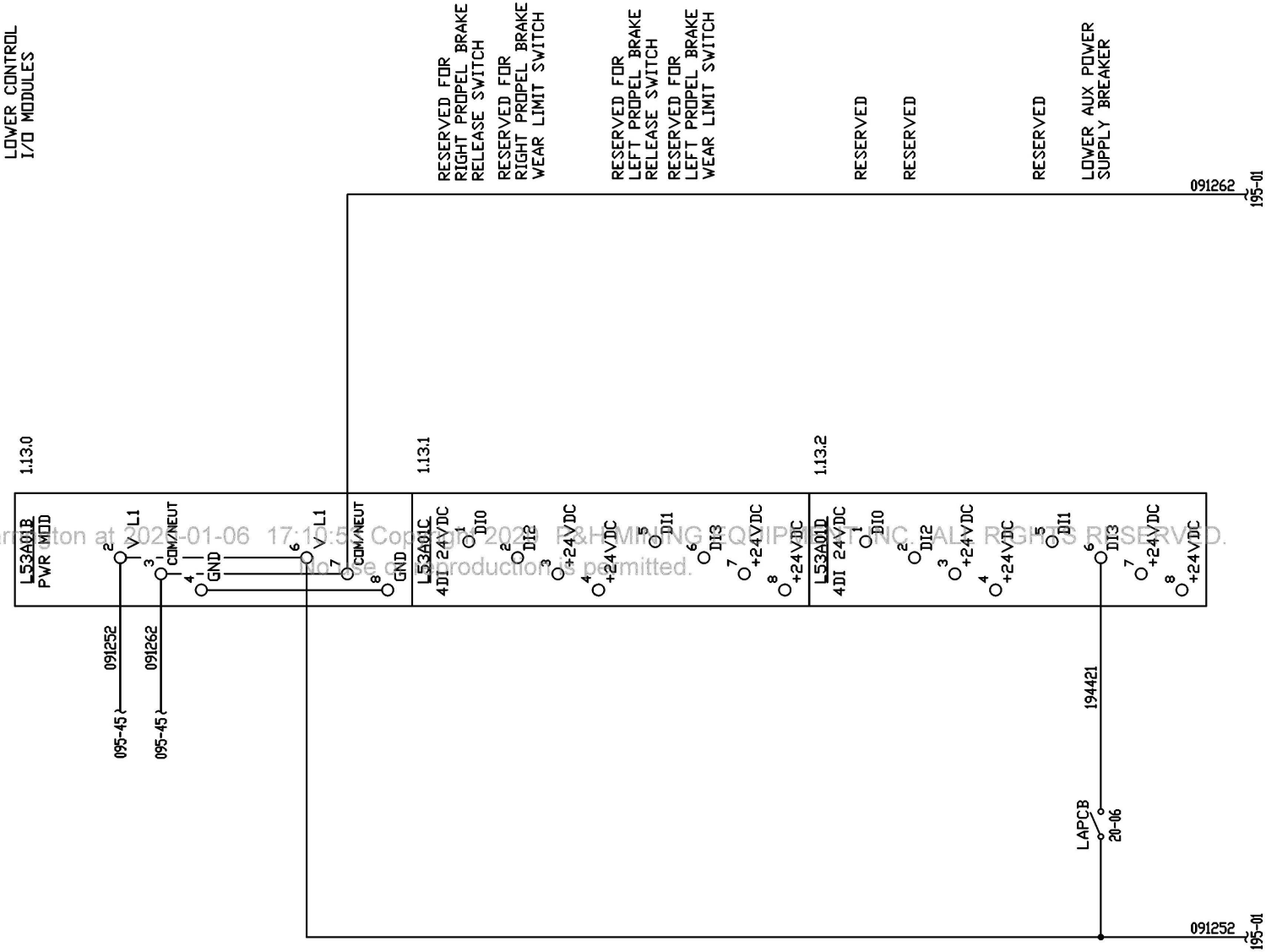
05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ
SIZE	C
DWN BY / DATE	J.DEMOTT 10/2019
SCALE	NONE
TR BY / DATE	
CHKD BY / DATE	R PITSCH 10/2019
RELEASE DATE	09/24/98
SIMILAR TO	R37998
CH ENGR BY / DATE	J WUTKE 10/2019
TITLE	SCHEMATIC DIAG
PRCS BY / DATE	
PROD OR MODEL	4100A
DWG NO	R37798
SH / CONT.	180 / 194

KOMATSU

DWG NO R37798 | SH 194 CONT. 195



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SHEET/ LINE NO. 194-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SH 194 CONT. 195	

DWG NO R37798 | SH 195 CONT. 196

LOWER HEATER SUPPLY CIRCUIT BREAKER
NETWORK MONITOR IPULSE RET
SPARE
RESERVED FOR LOWER CONTROL DOOR INTERLOCK
CABLE REEL SWITCH
RESERVED
RESERVED
SPARE
SPARE
SPARE
SPARE

194-45 091262 — 091262 197-23

1.13.3 L53A01E 4DI 24VDC — DI0 +24VDC; DI2 +24VDC; +24VDC; DI1 +24VDC; DI3 +24VDC; +24VDC
1.13.4 L53A01E 4DI 24VDC — DI0 +24VDC; DI2 +24VDC; +24VDC; DI1 +24VDC; DI3 +24VDC; +24VDC
1.13.5 L53A01G 4DI 24VDC — DI0 +24VDC; DI2 +24VDC; +24VDC; DI1 +24VDC; DI3 +24VDC; +24VDC
1.13.6 L53A01H 4DI 24VDC — DI0 +24VDC; DI2 +24VDC; +24VDC; DI1 +24VDC; DI3 +24VDC; +24VDC

JUMPER
199381
199-38
JUMPERS
195271 [26771]
JUMPER IF NOT USED
CRS
LPBS 26-05
195011 [25491]

24VDC 194-45 091252 — 091252 197-23

SHEET/LINE NO. 195-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ
SIZE	C
DWN BY / DATE	J.DEMOTT 10/2019
SCALE	NONE
TR BY / DATE	
CHKD BY / DATE	R PITSCH 10/2019
RELEASE DATE	09/24/98
SIMILAR TO	R37998
CK BY / DATE	J WUTKE 10/2019
TITLE	SCHEMATIC DIAG
PRCS BY / DATE	
PROD DR MODEL	4100A
DWG NO	R37798
SH / CONT.	195 / 196

KOMATSU

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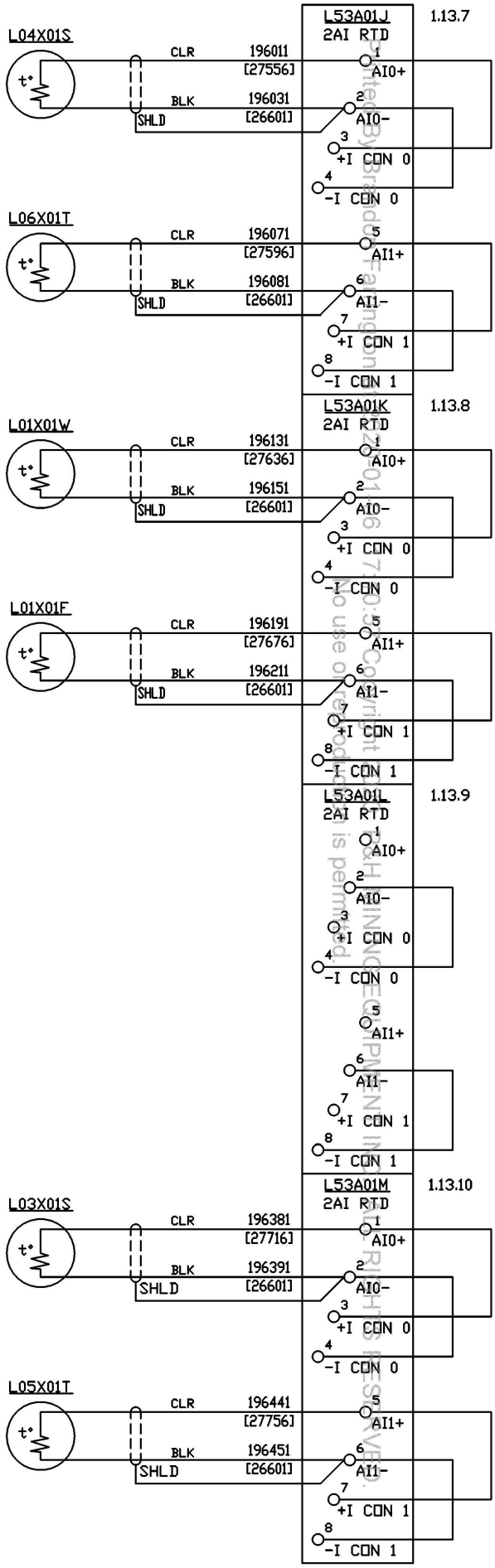
SHEET/ LINE NO.



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DWG NO R37798
SH 196 CONT. 197

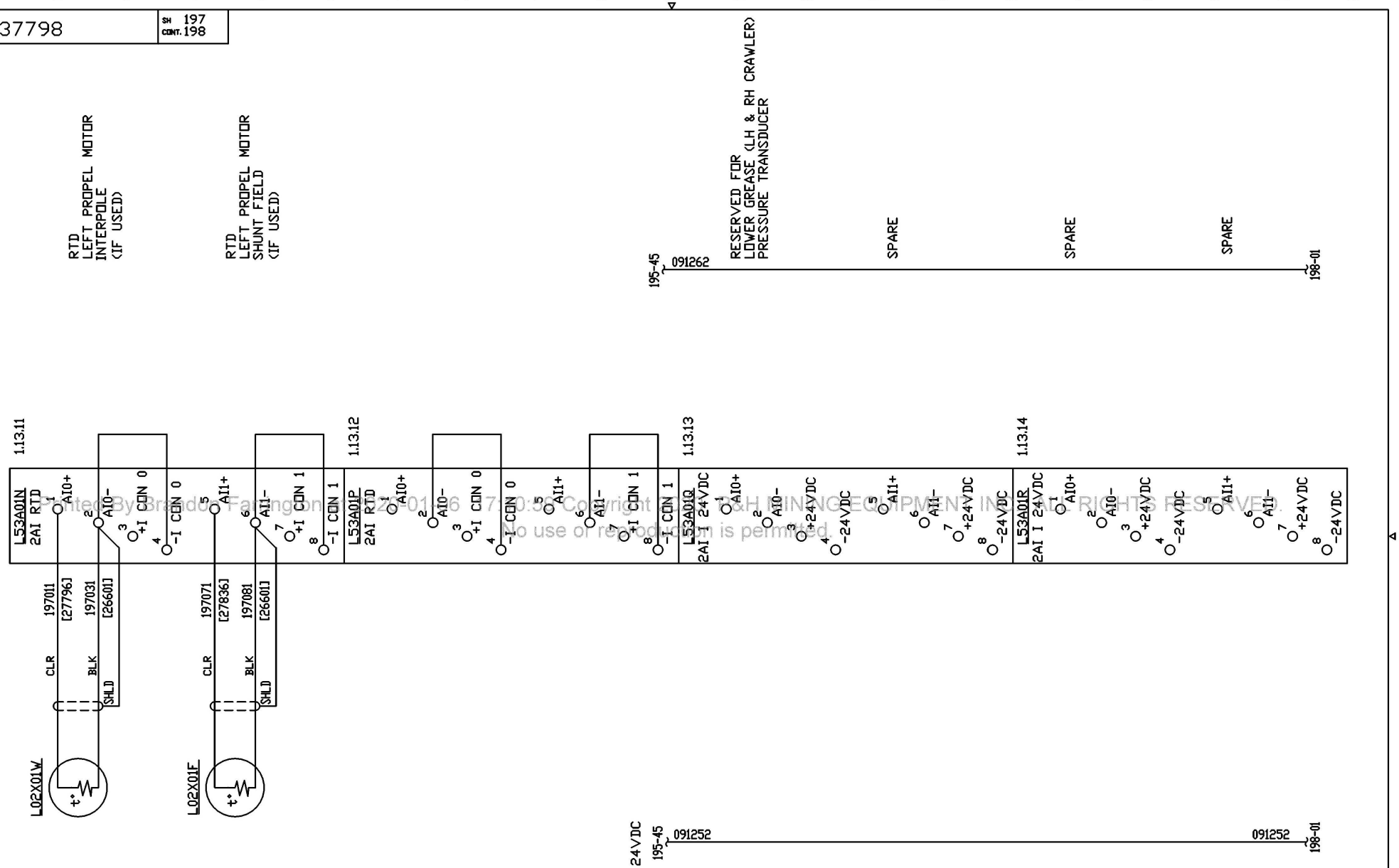
05	5518876	J DEMOTT 10/2019	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
REV	CHANGE	CHNG BY	

DRN	J.DEMOTT 10/2019	SCALE	NONE
CHKD	R PITSCH 10/2019	RELEASE DATE	09/24/98
ENGR	J WITKE 10/2019	SIMILAR TO	R37998
MFGS		PROD MODEL	4100A
DWG NO	R37798	TITLE	SCHEMATIC DIAG
SH CONT.	196 197	SIZE	C

KOMATSU

S.N. ES4184 60HZ

DWG NO R37798 | SN 197 CONT. 198



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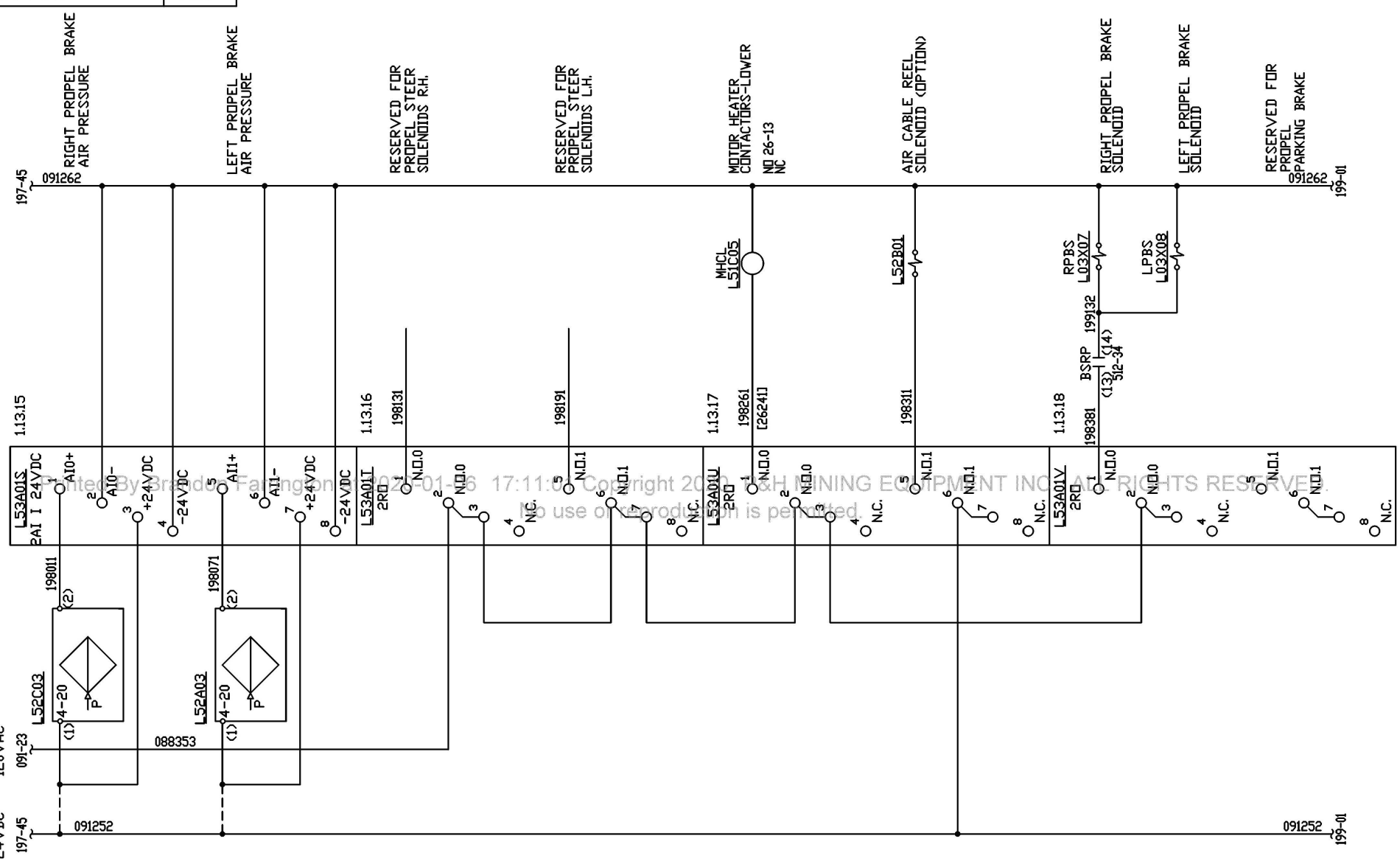
05	5518876	J DEMOTT 10/2019	
CHG NO / MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SHEET C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD OR MODEL 4100A		
DWG NO R37798		SN 197 CONT. 198	

DWG NO R37798 | SN 198 CONT. 199



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05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE			

S.N. ES4184 60HZ — REV C

DWN J.DEMOTT 10/2019 — SCALE NONE — KOMATSU

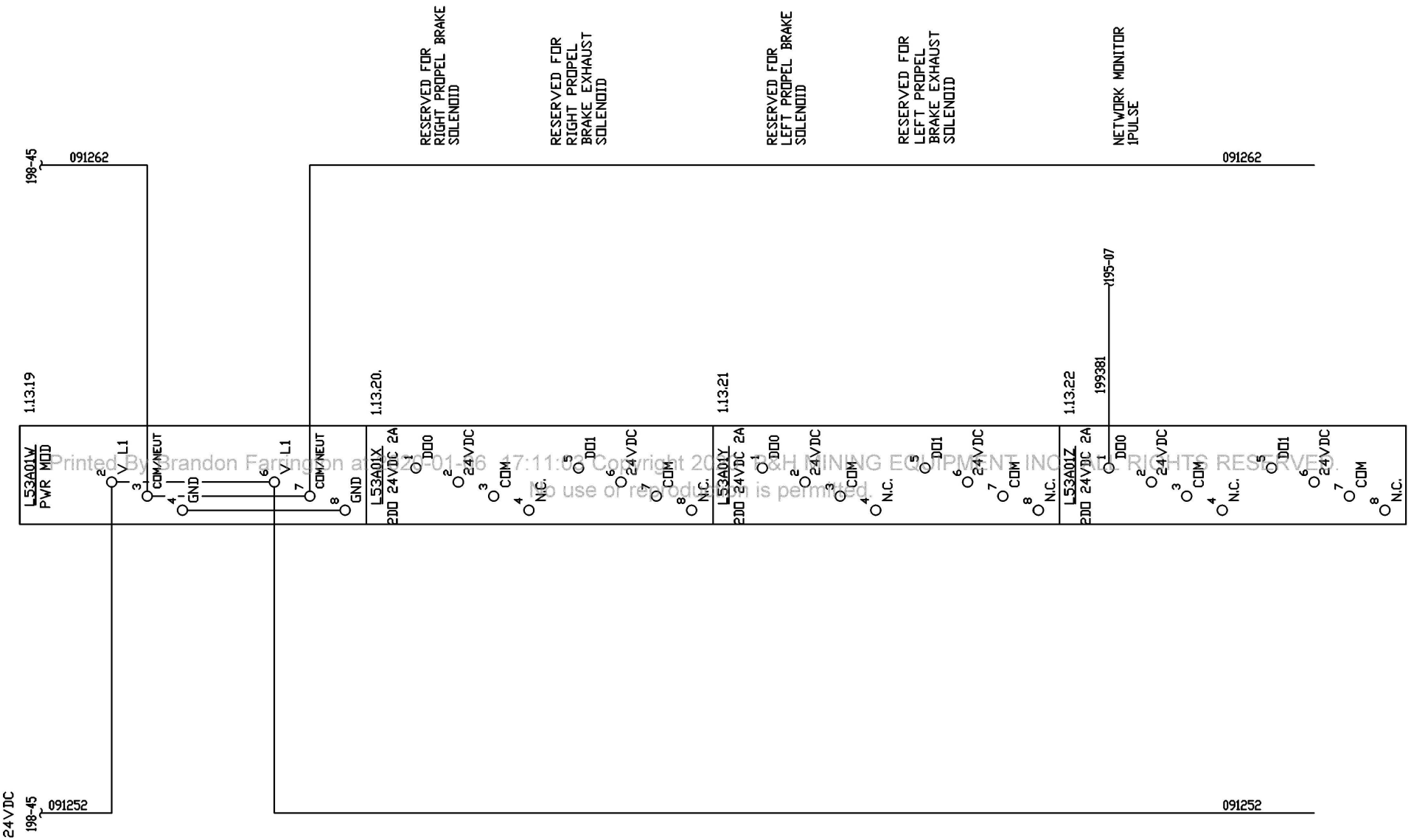
CHKD R PITSCH 10/2019 — RELEASE DATE 09/24/98 — SIMILAR TO R37998

CH J WUTKE 10/2019 — TITLE SCHEMATIC DIAG

PROD MODEL 4100A

DWG NO R37798 — SN 198 CONT. 199

DWG NO R37798 | SH 199 CONT. 500



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SHEET/LINE NO. 199-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR / DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY / DATE		PROD OR MODEL 4100A	
DWG NO	R37798		SH 199 CONT. 500

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SHEET/LINE NO.

HOIST 1/PROPEL 1 ARMATURE 1DCR

E12A01B

A21 SDCS-POW-4 POWER SUPPLY

OUTPUT ENCODER VOLTAGE (ENCV)

5V	12V	24V
15V 24V	15V 24V	15V 24V
X3	X3	X3
X4 A B	X4 A B	X4 A B
X5 A B	X5 A B	X5 A B

NOT IN USE

X99 1 086121 (86-36)
2 086122 (86-37)

X95 U- 1, U+ 2

X96 1 500091 501-43
2 500081 501-43

D08

X37

E00X10 PANEL CDP-312

X33

A11 E12A01A SDCS-CON-4 MAIN CONTROL BOARD

E12A01C

A12 SDCS-COM-8

5V O.K. V6

X10

098-23 500141 RX0 CH0 AC800 COMM
098-23 500151 TX0
RX2 CH2 MASTER/FOLLOWER COMM
TX2
504-18 500173 RX3 CH3 PC TOOL
500181 TX3
RX3

V1 FAULT

FIBER OPTIC SERVICE PORT

X37 POWER SUPPLY INPUT

X4
0 3
+10V 4
-10V 5
0V (A0x) 6 500171 TH1
AO1 7 500172 02GND
AO2 8 500221 TH4
1ACT 9 500251 TH2
0V 10 500222 02GND

V_{AFB}

OPER. REF.

I_{AFB}

X3 90-270V
30-90V
8-30V
S4
AITC
GND
AI1
22K +10V
S1:23-24
AI2
AI3
AI4

X6
DI1
DI2
DI3
DI4
DI5
DI6
DI7
DI8
+48V/≤50mA

+24V DO1 X7 1
DO2 2
DO3 3
DO4 4
DO5 5 500331 1TB-3 53 (08351) (08-27)
DO6 6 500341 (A1) (A2) BSRH1 L60B02
DO7 7 500361 (A1) (A2) BSRH2 U65B02 (2 COILS)
0V 8 500342 1TB-3 54 (10021C) (08-28)

BRAKE SUPPLY RELAY HOIST #1
NO 178-38
NC

BRAKE SUPPLY RELAY HOIST #2
NO 169-38,169-43
NC

SDCS-DSL-4 E12A01E

X52
518-41 500411
518-42 500421
518-42 500422

X53
504-41 500441
504-42 500442
504-42 500443

S2 1 2 3 4
S1 1 2 3

SCREW

02GND

CARD MOUNTED ON METAL PLATE

X12 X13
501-13 501-26

DWG NO R37798
SH 500 CONT. 501

REV	CHANGE	BY	DATE
05	5518876	J DEMOTT	10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DRN J.DEMOTT 10/2019
CHK R PITSCH 10/2019
ENGR J WITKE 10/2019
DWG NO R37798
REV
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
PROD MODEL 4100A
TITLE SCHEMATIC DIAG
S.N. ES4184 60HZ
SH 500 CONT. 501
SHEET C

KOMATSU

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SHEET/LINE NO.

-GROUND TO UPPER FRAME

HOIST #1/PROPEL #1

E12A01

E12A01D A61

PIN-61 POWER INTERFACE BOARD

34 VAC (86-29)

086271 086272 086273

POWER SUPPLY

X3 1 5 2 6 3 7

UU UV UW

505-02 505-02 505-02

CURRENT FEEDBACK

JUMPER SETTINGS

	W20
2000A	X---
3500A	----

U1 V1 W1 COM

X5 1 2 3 4

501081 501091 501101 501102

1TB-1 2 3 5 4

[06111] [06122] [06132] [06112]

(06-11) (06-12) (06-13) (06-12)

X12 500-45

IDCM IDC GNDI STNA

X13 500-45

OUTP11 OUTP12 OUTP13 OUTP14 OUTP15 OUTP16

X1 7 1 8 2 9 3 10 4 11 5 12 6

RED 501161 BLK 501162 ↗502-01 ↗502-03

WHT 501171 BLK 501181 ↗502-07 ↗502-09

GRN 501191 BLK 501192 ↗502-13 ↗502-15

BLU 501201 BLK 501211 ↗502-19 ↗502-21

BRN 501221 BLK 501222 ↗502-25 ↗502-27

YEL 501231 BLK 501241 ↗502-31 ↗502-33

FWD HOIST P45V

OUTP21 OUTP22 OUTP23 OUTP24 OUTP25 OUTP26

X2 8 1 9 2 10 3 11 4 12 5 13 6

RED 501271 BLK 501281 ↗503-01 ↗503-03

WHT 501291 BLK 501292 ↗503-07 ↗503-09

GRN 501301 BLK 501311 ↗503-13 ↗503-15

BLU 501321 BLK 501322 ↗503-19 ↗503-21

BRN 501331 BLK 501341 ↗503-25 ↗503-27

YEL 501351 BLK 501352 ↗503-31 ↗503-33

REV LOWER P45V

7 14

DIVERTER INTERFACE

FORWARD REVERSE GATE BLOCK

X4 1 2 3 4 5

500081 500091 1TB-1 6 7

[01021C] [083063] (08-29) (08-29) ↗505-42 ↗505-42

UA- UA+ VOLTAGE FEEDBACK C1 D1

X3 4 8

501441 501451 ↗516-01 ↗516-06

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CHANGE	CHNG BY
05 5518876	J DEMOTT 10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWG NO R37798 REV

DRN J.DEMOTT 10/2019

CHKD R PITSCH 10/2019

ENGR J WITKE 10/2019

MFGS

APPD

SCALE NONE

RELEASE DATE 09/24/98

SIMILAR TO R37998

MODEL 4100A

TITLE SCHEMATIC DIAG

S.N. ES4184 60HZ

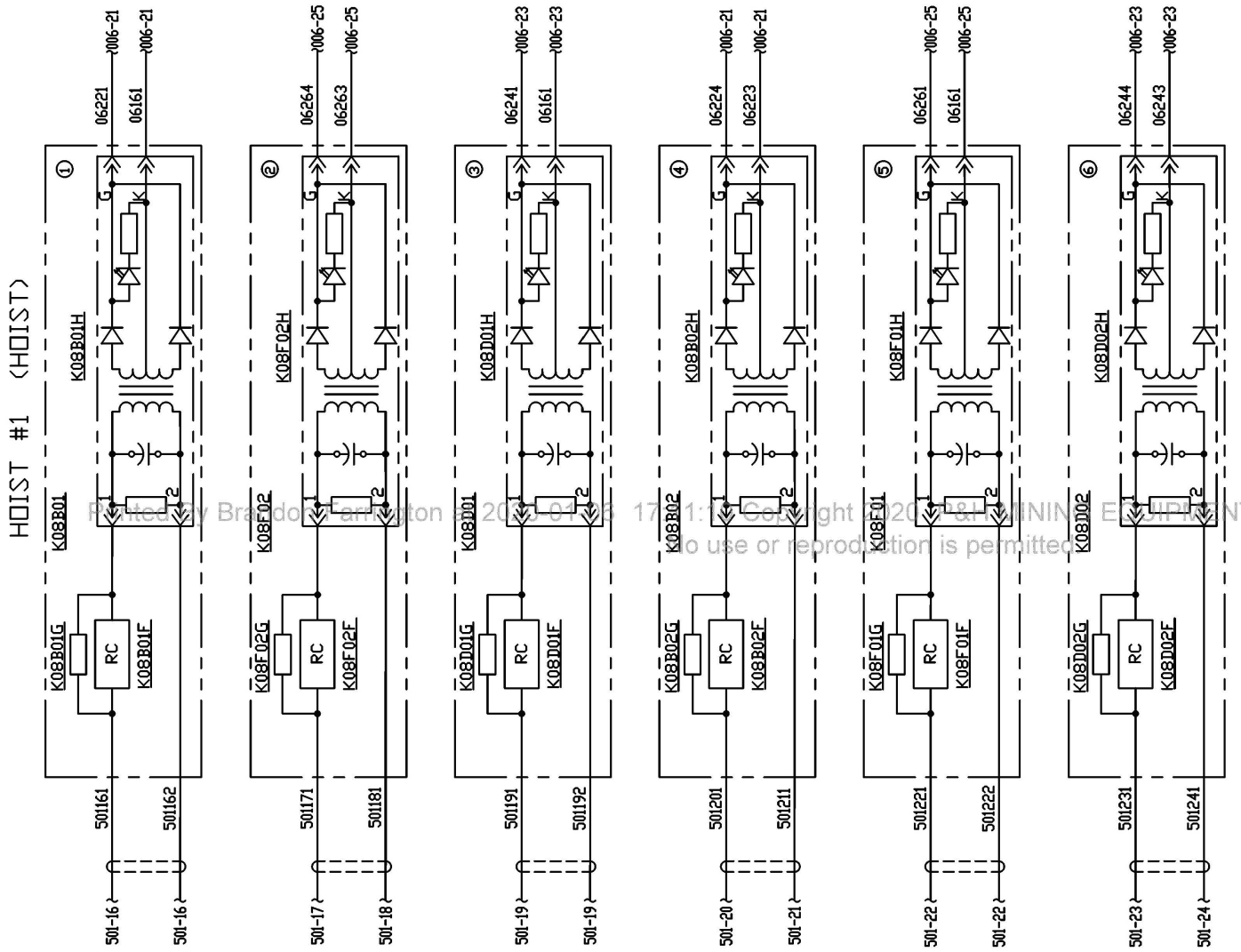
SH 501 CONT. 502

SH 501 CONT. 502

DWG NO R37798

SHEET C

DWG NO R37798 | SH 502 CONT. 503



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SHEET/LINE NO. 502-01

GROUND TO UPPER FRAME

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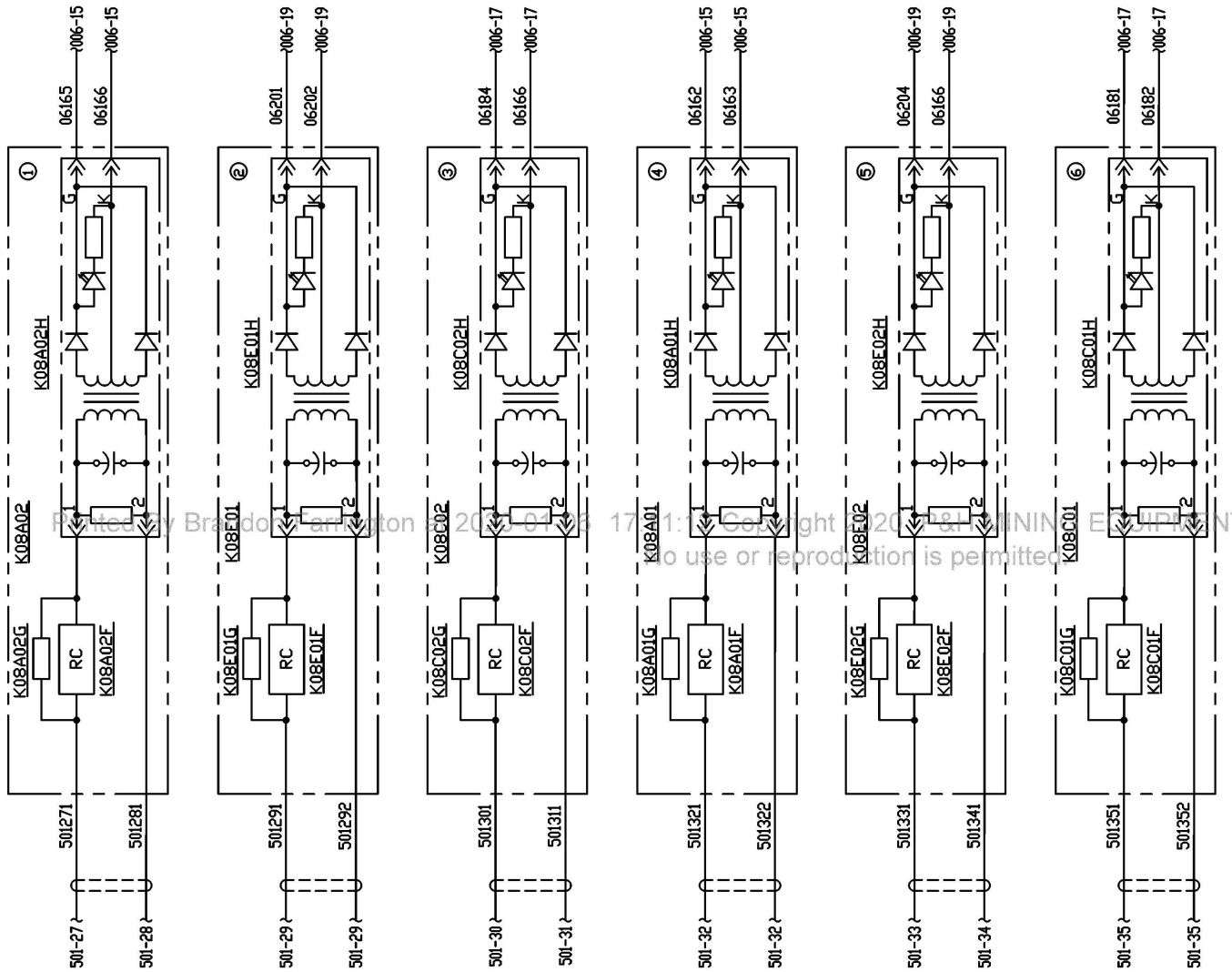
05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ	REV C
DWN J.DEMOTT DATE 10/2019	SCALE NONE
TR BY DATE	KOMATSU
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98
APVD J WUTKE DATE 10/2019	SIMILAR TO R37998
PRCS BY DATE	TITLE SCHEMATIC DIAG
DWG NO R37798	PROD DR MODEL 4100A
	SH 502 CONT. 503

DWG NO R37798 | SH 503 CONT. 504



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SHEET/LINE NO. 503-01

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05	5518876	J DEMOTT 10/2019	
CHANGE NO.	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ — REV C

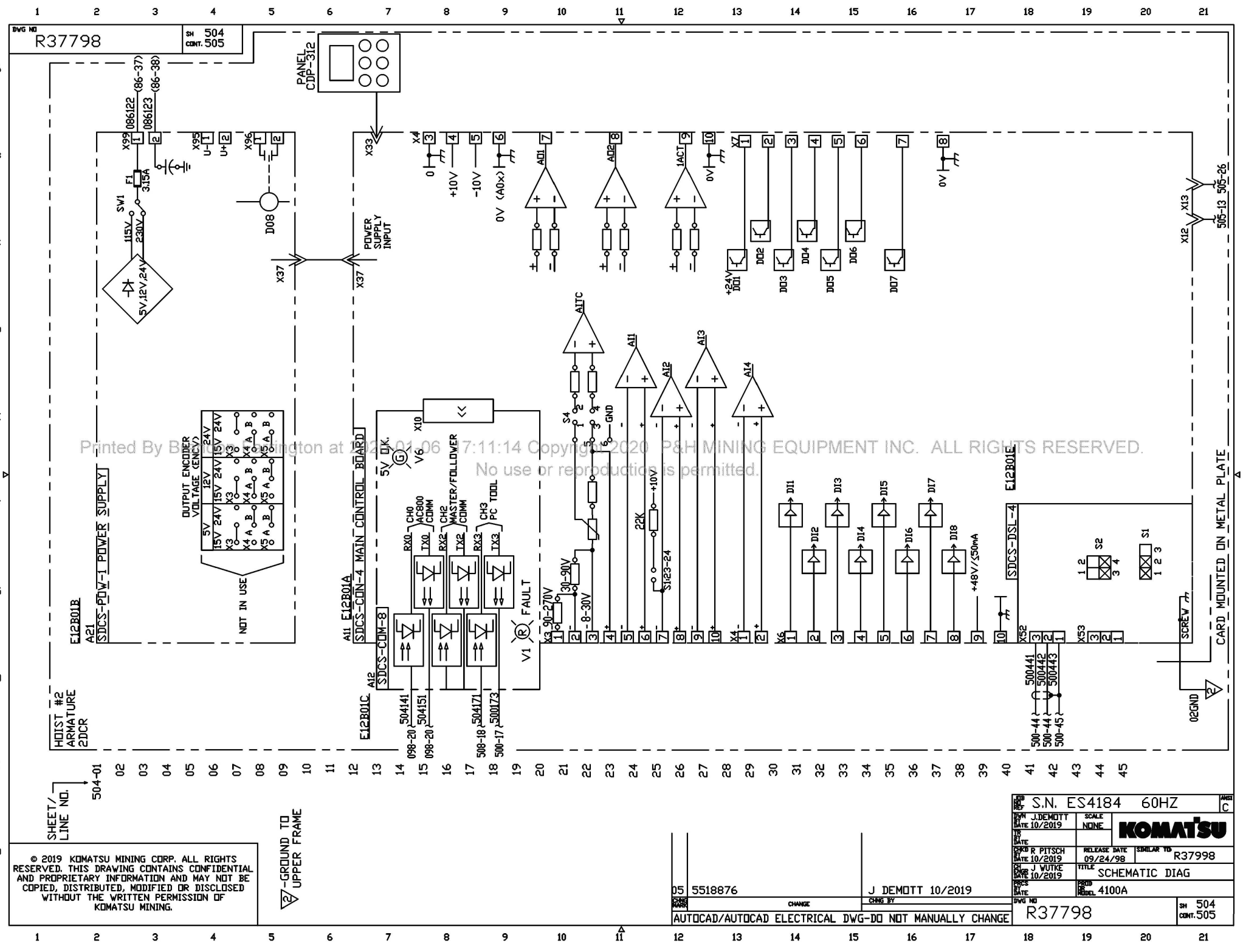
DWN J.DEMOTT DATE 10/2019 — SCALE NONE — KOMATSU

CHKD R PITSCH DATE 10/2019 — RELEASE DATE 09/24/98 — SIMILAR TO R37998

CH DSGN J WUTKE DATE 10/2019 — TITLE SCHEMATIC DIAG

PRCS BY DATE — PROD MODEL 4100A

DWG NO R37798 — SH 503 CONT. 504



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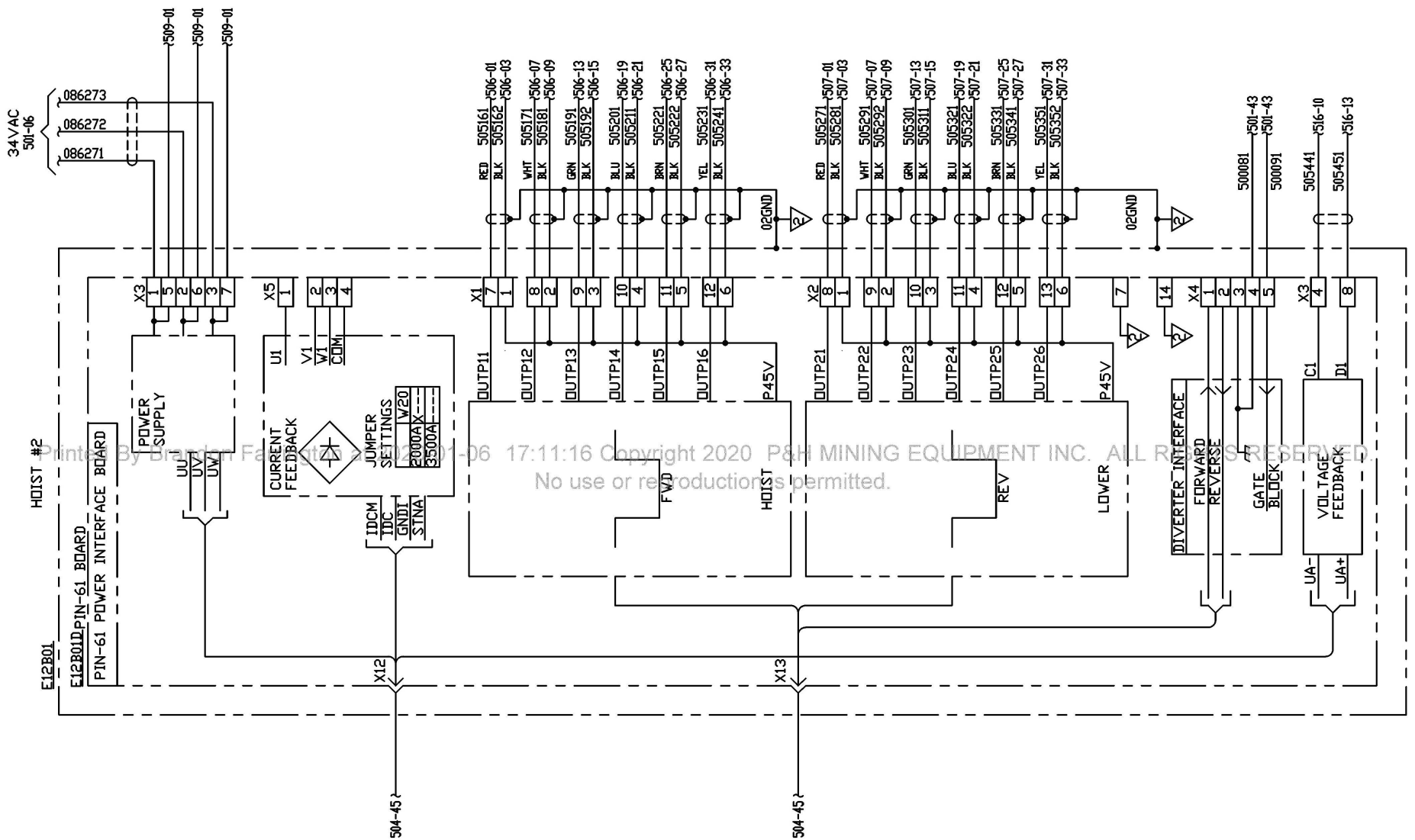
DWG NO R37798 | SH 505 CONT. 506



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SHEET/LINE NO. 505-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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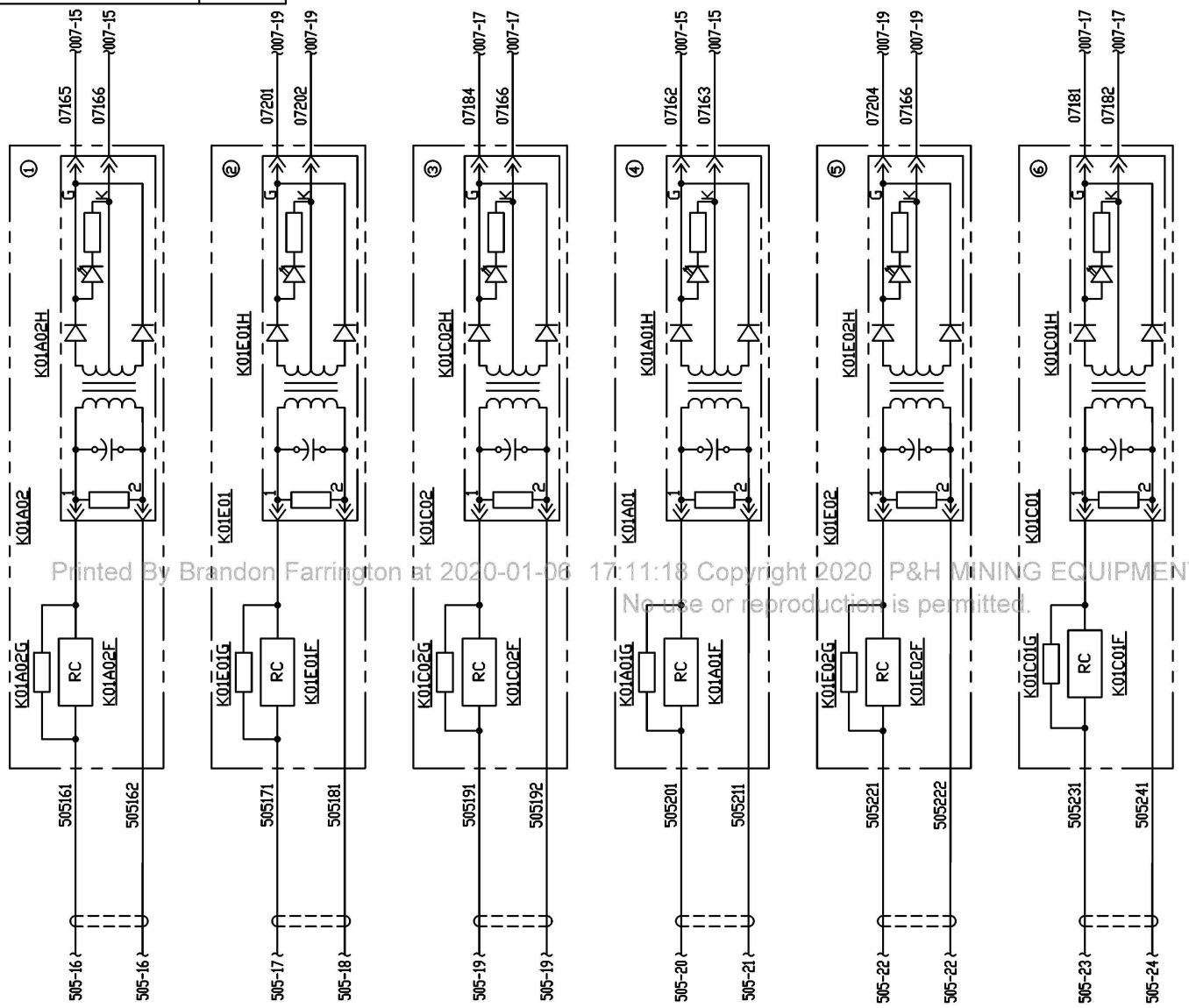
-GROUND TO UPPER FRAME

05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV	S.N. ES4184 60HZ		SIZE C
DSGN J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
CHKD R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CONT J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PROCS DATE	MODEL 4100A		
DWG NO R37798		SH 505 CONT. 506	

DWG NO R37798 | SN 506 CONT. 507



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SHEET/LINE NO. 506-01

GROUND TO UPPER FRAME

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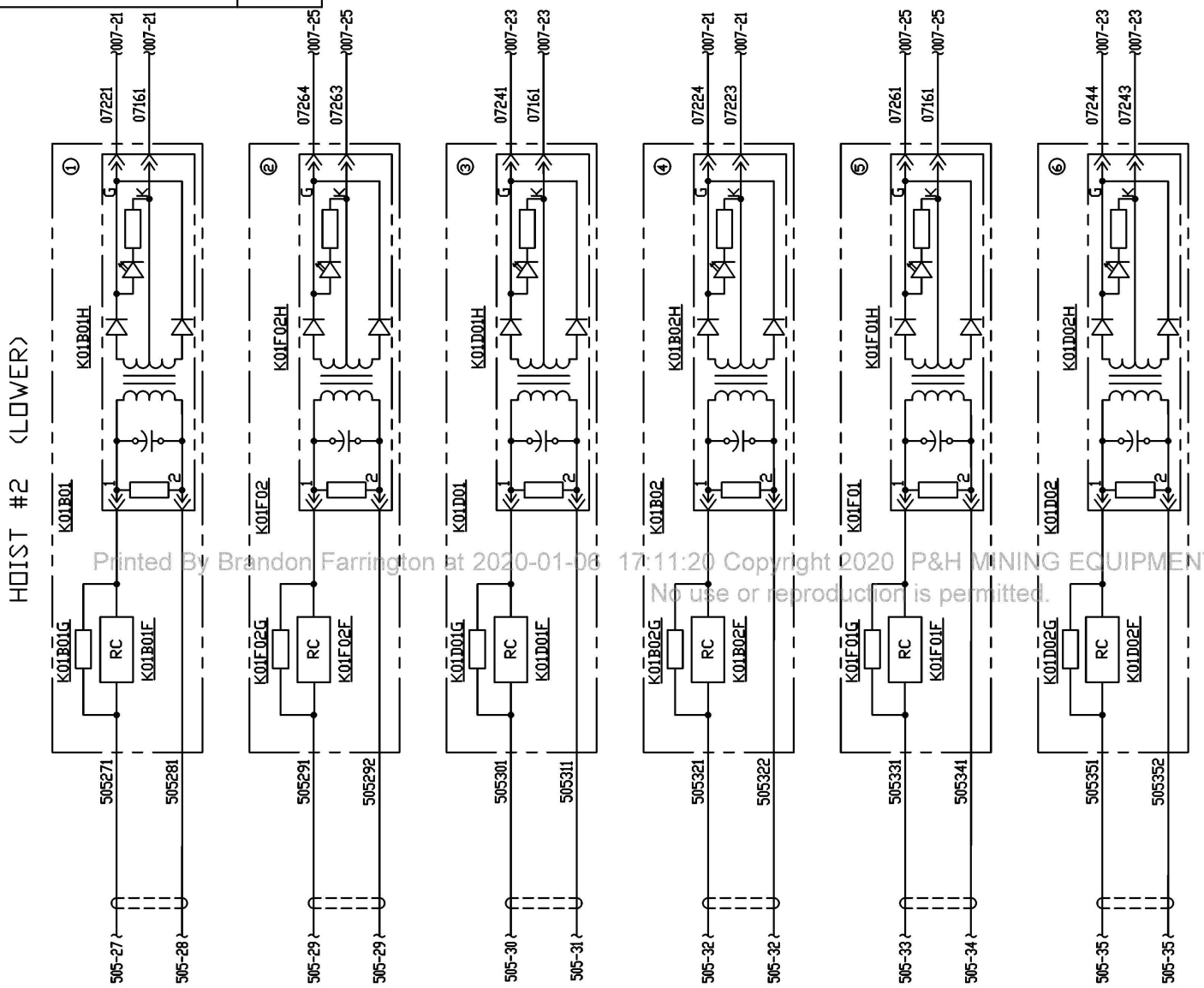
05	5518876	J DEMOTT 10/2019	
REV LTR MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REF DES REF	S.N. ES4184 60HZ
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE
TR BY DATE	
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98
CH ENGR BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG
PRCS BY DATE	PROD DR MODEL 4100A
DWG NO R37798	SIMILAR TO R37998
	SN 506 CONT. 507

SIZE C

DWG NO R37798 | SN 507 CONT. 508



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05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR BY J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SN 507 CONT. 508	

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SHEET/LINE NO.

SWING ARMATURE 4DCR

E12B05B
A21
SDCS-POW-4 POWER SUPPLY

OUTPUT ENCODER VOLTAGE (ENCV)
5V | 12V | 24V
15V 24V | 15V 24V | 15V 24V
NOT IN USE

X99 086122 (86-37)
086123 (86-38)
X95 U- U+
X96 508082 509-43
508091 509-43
D08
X37

A11 E12B05A
SDCS-CON-4 MAIN CONTROL BOARD
E12B05C
A12
SDCS-COM-8
5V O.K. V6
X10
098-15 508141 RX0 TX0 CH0 AC800 COMM
098-16 508151
RX2 TX2 CH2 MASTER/FOLLOWER COMM
512-18 508181 RX3 TX3 CH3 PC TOOL
504-17 504171
V1 FAULT

POWER SUPPLY INPUT
X33 PANEL CDP-312

X4
0
+10V
-10V
0V (A0x)
TS1A 508171
VAFB AO1 508172
02GND
TS4 508221 508222
OPER. REF. AO2
SWING ARM DIFFERENTIAL
TS2A 508252 508222
IAFB 1ACT 0V
02GND

X3 90-270V
30-90V
8-30V
S4
AITC
GND
516-22 508241
516-25 508251
516-28 508271
516-31 508281
22K +10V
S1:23-24
AI1 AI2 AI3 AI4

X6
DI1 DI2 DI3 DI4 DI5 DI6 DI7 DI8
+48V/≤50mA

+24V DO1 DO2 DO3 DO4 DO5 DO6 DO7
X7
BRAKE SUPPLY RELAY SWING #1
NO 107-19,107-26, 107-31
NC
508331 1TB-3 57 (102511) (10-13)
508341 (A1) (A2) E13C01 BSRS1
508361 (A1) (A2) L60B03 BSRS2
0V
508342 1TB-3 58 (10021C1) (10-14)
BRAKE SUPPLY RELAY SWING #2
NO 178-44
NC

SDCS-DSL-4
E12B05E
X52
520-41 508411
520-42 508421
520-42 508422
X53
S2
S1
SCREW
02GND
CARD MOUNTED ON METAL PLATE

X12 X13
509-13 509-26

-GROUND TO UPPER FRAME

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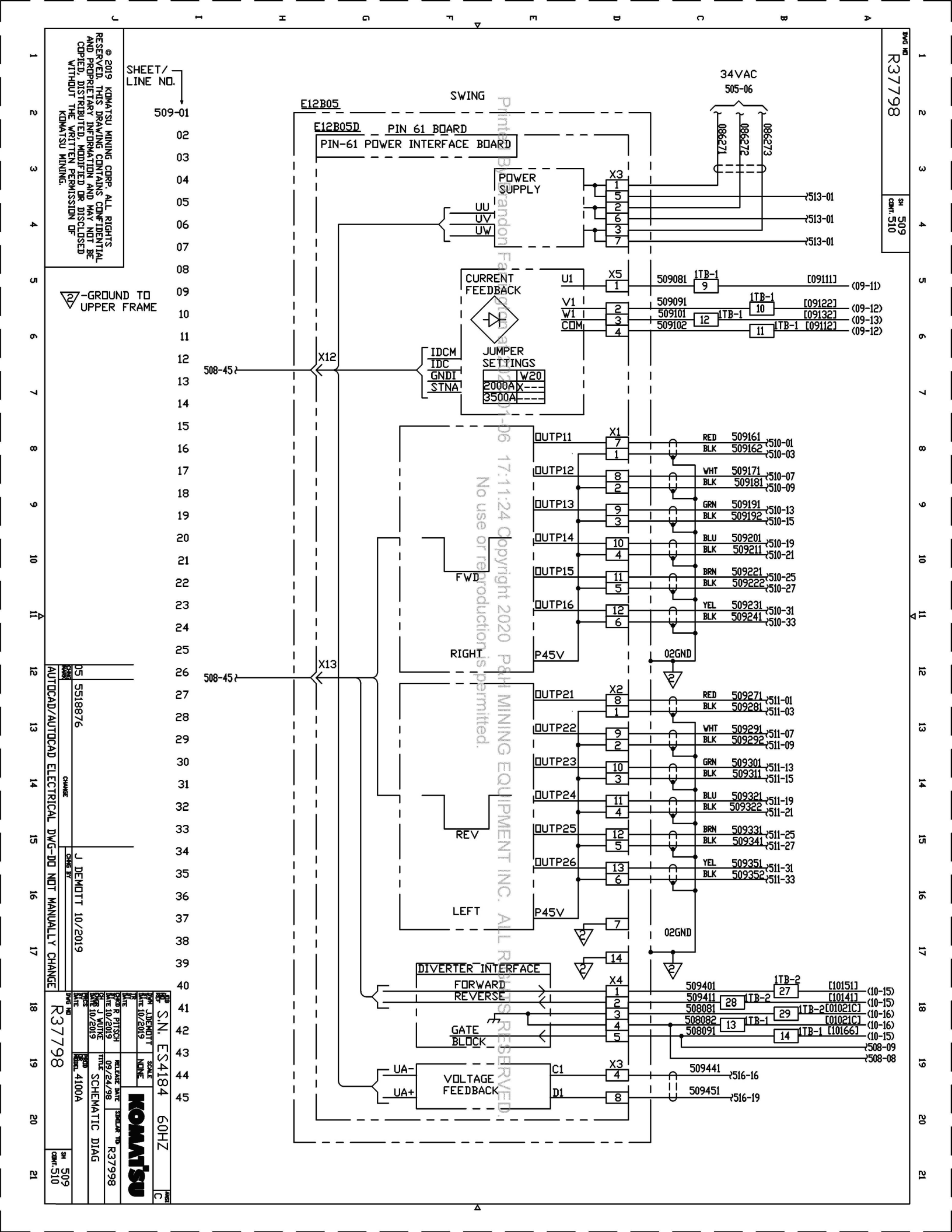
05	5518876	J DEMOTT 10/2019	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWG NO R37798 SH 508 CONT. 509

DRN J.DEMOTT 10/2019
DES R PITSCH 10/2019
ENGR J.WITKE 10/2019
PROD
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
MODEL 4100A
TITLE SCHEMATIC DIAG
S.N. ES4184 60HZ
SIZE C
DWG NO R37798
SH 508 CONT. 509


SHEET/ LINE NO.
SWING
E12B05
E12B05D
PIN 61 BOARD
PIN-61 POWER INTERFACE BOARD
34VAC
505-06
086271
086272
086273
POWER SUPPLY
X3
513-01
UU
UV
UW
CURRENT FEEDBACK
U1
V1
W1
COM
X5
509081
509091
509101
509102
1TB-1
[09111]
[09122]
[09132]
[09112]
(09-11)
(09-12)
(09-13)
(09-12)
-GROUND TO UPPER FRAME
X12
508-45
IDCM
IDC
GNDI
STNA
JUMPER SETTINGS
W20
2000A X---
3500A ----
X1
OUTP11
OUTP12
OUTP13
OUTP14
OUTP15
OUTP16
FWD
RIGHT
P45V
02GND
RED 509161 510-01
BLK 509162 510-03
WHT 509171 510-07
BLK 509181 510-09
GRN 509191 510-13
BLK 509192 510-15
BLU 509201 510-19
BLK 509211 510-21
BRN 509221 510-25
BLK 509222 510-27
YEL 509231 510-31
BLK 509241 510-33
X13
508-45
X2
OUTP21
OUTP22
OUTP23
OUTP24
OUTP25
OUTP26
REV
LEFT
RED 509271 511-01
BLK 509281 511-03
WHT 509291 511-07
BLK 509292 511-09
GRN 509301 511-13
BLK 509311 511-15
BLU 509321 511-19
BLK 509322 511-21
BRN 509331 511-25
BLK 509341 511-27
YEL 509351 511-31
BLK 509352 511-33
DIVERTER INTERFACE
FORWARD
REVERSE
GATE BLOCK
X4
509401
509411
508081
508082
508091
1TB-2
1TB-1
[10151]
[10141]
[01021C]
[01021C]
[10166]
(10-15)
(10-15)
(10-16)
(10-16)
(10-15)
508-09
508-08
UA-
UA+
VOLTAGE FEEDBACK
C1
D1
X3
509441
509451
516-16
516-19
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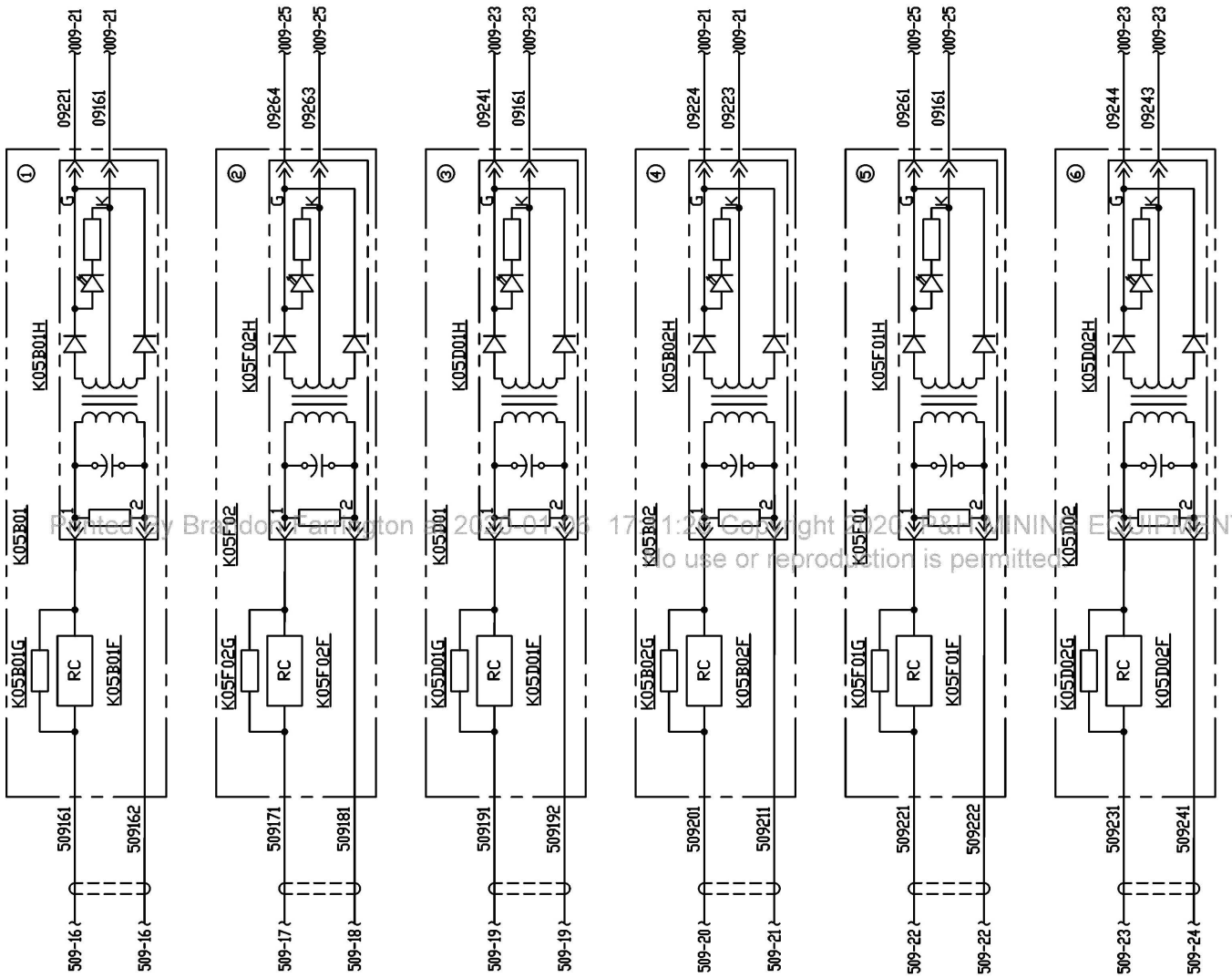
DWG NO R37798
SH 509 CONT. 510
05 5518876 CHANGE
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
CHNG BY J DEMOTT 10/2019
DWG NO R37798
S.N. ES4184 60HZ
DWN J.DEMOTT DATE 10/2019
CHKD R PITSCH DATE 10/2019
ENGR J WUTKE DATE 10/2019
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37798
TITLE SCHEMATIC DIAG
MODEL 4100A
SIZE C
SH 509 CONT. 510
KOMATSU

DWG NO R37798 | SH 510 CONT. 511

SWING (RIGHT)



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SHEET/LINE NO. 510-01

GROUND TO UPPER FRAME

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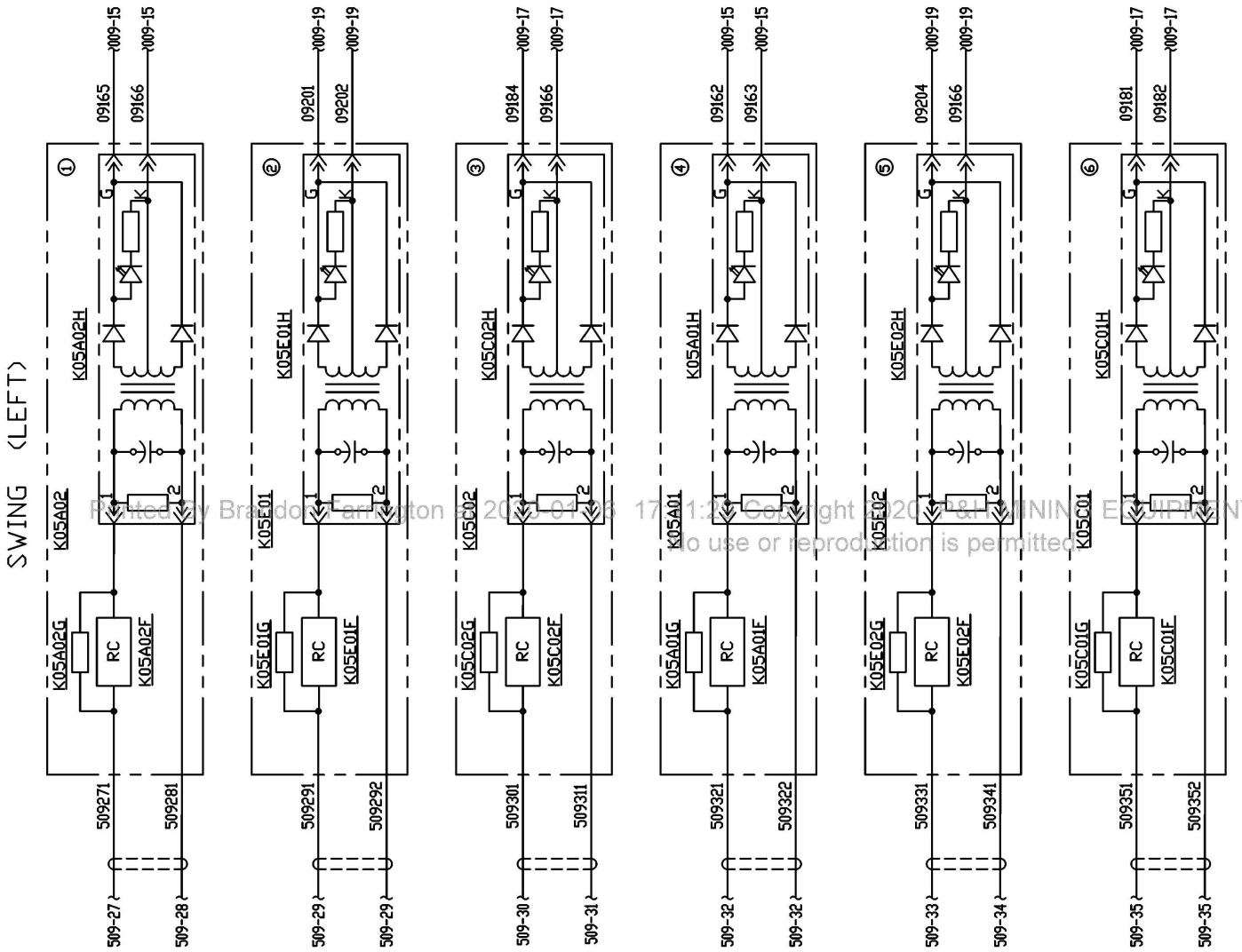
05	5518876	J DEMOTT 10/2019	
REV MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SHEET C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TRC BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD OR MODEL 4100A		
DWG NO R37798		SH 510 CONT. 511	

DWG NO R37798 | SH 511 CONT. 512



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SHEET/LINE NO. 511-01

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05	5518876	J DEMOTT 10/2019	
CHANGE		CHNG BY	
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE			

REF DWG	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SH 511 CONT. 512	

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SHEET/LINE NO.

CROWD/ PROPEL ARMATURE 3DCR

E12A05B
A21
SDCS-POW-4 POWER SUPPLY

OUTPUT ENCODER VOLTAGE (ENCV)
5V | 12V | 24V
15V 24V | 15V 24V | 15V 24V
NOT IN USE

X99 086122 (86-37)
086123 (86-38)
X95 U- U+
X96 512082 513-43
512091 513-43
D08
X37
PANEL CDP-312

A11 E12A05A
SDCS-CON-4 MAIN CONTROL BOARD
E12A05C
A12
SDCS-COM-8
5V O.K. V6
X10
098-18 512141
098-19 512151
518-18 512181
508-17 508181
RX0 TX0 CH0 AC800 COMM
RX2 TX2 CH2 MASTER/FOLLOWER COMM
RX3 TX3 CH3 PC TOOL
V1 FAULT

POWER SUPPLY INPUT
X33

X4
0
+10V
-10V
0V (AOx)
TC1
512171

X3 90-270V
30-90V
8-30V
S4
GND
AITC
AI1
22K
+10V
S1:23-24
AI2
AI3
AI4
V_{AFB}
AO1
512172
02GND
TC4
OPER. REF.
AO2
512221
512222
TC2
I_{AFB}
1ACT
512251
512222
02GND

X6
DI1
DI2
DI3
DI4
DI5
DI6
DI7
DI8
+48V/≤50mA

+24V
DO1
DO2
DO3
DO4
DO5
DO6
DO7
X7
BRAKE SUPPLY RELAY PROPEL NO198-38 NC
512331 1TB-3 61 [12251] (12-13)
512341 L53B04 BSRP
512361 512342 L60B04 BSRC
0V
1TB-3 62 [01021C] (12-14)
BRAKE SUPPLY RELAY CROWD NO179-01 NC

SDCS-DSL-4
E12A05E
X52
X53
512411
512421
512422
522-41
522-42
522-42
S2
S1
SCREW
02GND
CARD MOUNTED ON METAL PLATE

X12 X13
513-13 513-26

GROUND TO UPPER FRAME

05	5518876		
CHANGE			
CHNG BY	J DEMOTT 10/2019		

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWG NO	R37798		
DRN	J.DEMOTT 10/2019	SCALE	NONE
CHKD	R PITSCH 10/2019	RELEASE DATE	09/24/98
ENGR	J WITKE 10/2019	SIMILAR TO	R37998
PROD MODEL	4100A	TITLE	SCHEMATIC DIAG
SN CONT.	512 513	SIZE	C

S.N. ES4184 60HZ

KOMATSU

DWG NO R37798
SH 512 CONT. 513

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SHEET/ LINE NO.

2-GROUND TO UPPER FRAME

E12A05

CROWD/PROPEL

E12A05D PIN 61 BOARD

PIN-61 POWER INTERFACE BOARD

34VAC

509-06

POWER SUPPLY

UU
UV
UW

X3
1
5
2
6
3
7

086271
086272
086273

CURRENT FEEDBACK

U1
V1
W1
COM

X5
1
2
3
4

513081 1TB-1 16 [11111] (11-11)
513091 1TB-1 16 [11122] (11-12)
513101 1TB-1 19 [11132] (11-13)
513102 1TB-1 18 [11112] (11-12)

JUMPER SETTINGS

	W20
2000A	X
3500A	---

IDCM
IDC
GNDI
STNA

512-45 → X12

512-45 → X13

FWD

REV

OUTP11 X1 7 RED 513161 →514-01
1 BLK 513162 →514-03

OUTP12 8 WHT 513171 →514-07
2 BLK 513181 →514-09

OUTP13 9 GRN 513191 →514-13
3 BLK 513192 →514-15

OUTP14 10 BLU 513201 →514-19
4 BLK 513211 →514-21

OUTP15 11 BRN 513221 →514-25
5 BLK 513222 →514-27

OUTP16 12 YEL 513231 →514-31
6 BLK 513241 →514-33

P45V

02GND

OUTP21 X2 8 RED 513271 →515-01
1 BLK 513281 →515-03

OUTP22 9 WHT 513291 →515-07
2 BLK 513292 →515-09

OUTP23 10 GRN 513301 →515-13
3 BLK 513311 →515-15

OUTP24 11 BLU 513321 →515-19
4 BLK 513322 →515-21

OUTP25 12 BRN 513331 →515-25
5 BLK 513341 →515-27

OUTP26 13 YEL 513351 →515-31
6 BLK 513352 →515-33

P45V 7

02GND

14

DIVERTER INTERFACE

FORWARD
REVERSE
GATE BLOCK

X4
1 513401 1TB-2 31 [12151] (12-15)
2 513411 1TB-2 32 [12141] (12-14)
3 512081 1TB-2 33 [01021C] (12-16)
4 512082 1TB-1 20 [01021C] (12-16)
5 512091 1TB-1 21 [12166] (12-15)

→512-08
→512-09

UA-
UA+

VOLTAGE FEEDBACK

C1
D1

X3
4 513441 →516-36
8 513451 →516-40

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05	5518876		
CHANGE			
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE			
CHNG BY	J DEMOTT 10/2019		

DWG NO	R37798		
DRN	J.DEMOTT 10/2019	SCALE	NONE
DES	J.WITKE 10/2019	RELEASE DATE	09/24/98
PROD MODEL	4100A	SIMILAR TO	R37798
TITLE	SCHEMATIC DIAG		
SH 513 CONT. 514			

S.N. ES4184 60HZ

KOMATSU

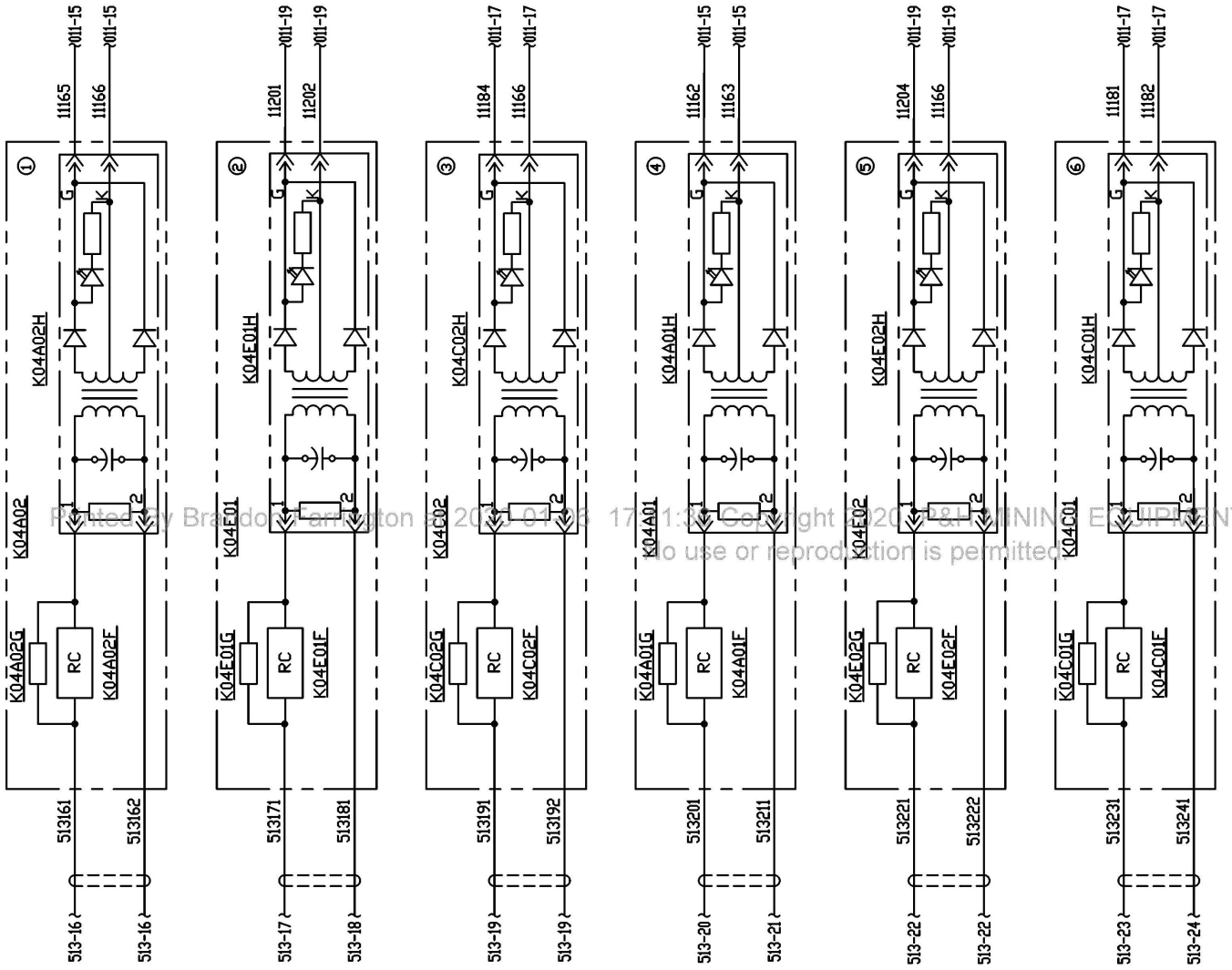
SIZE C

DWG NO R37798

SH 513 CONT. 514

DWG NO R37798 | SN 514 CONT. 515

CROWD/PROPEL



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SHEET/LINE NO. → 514-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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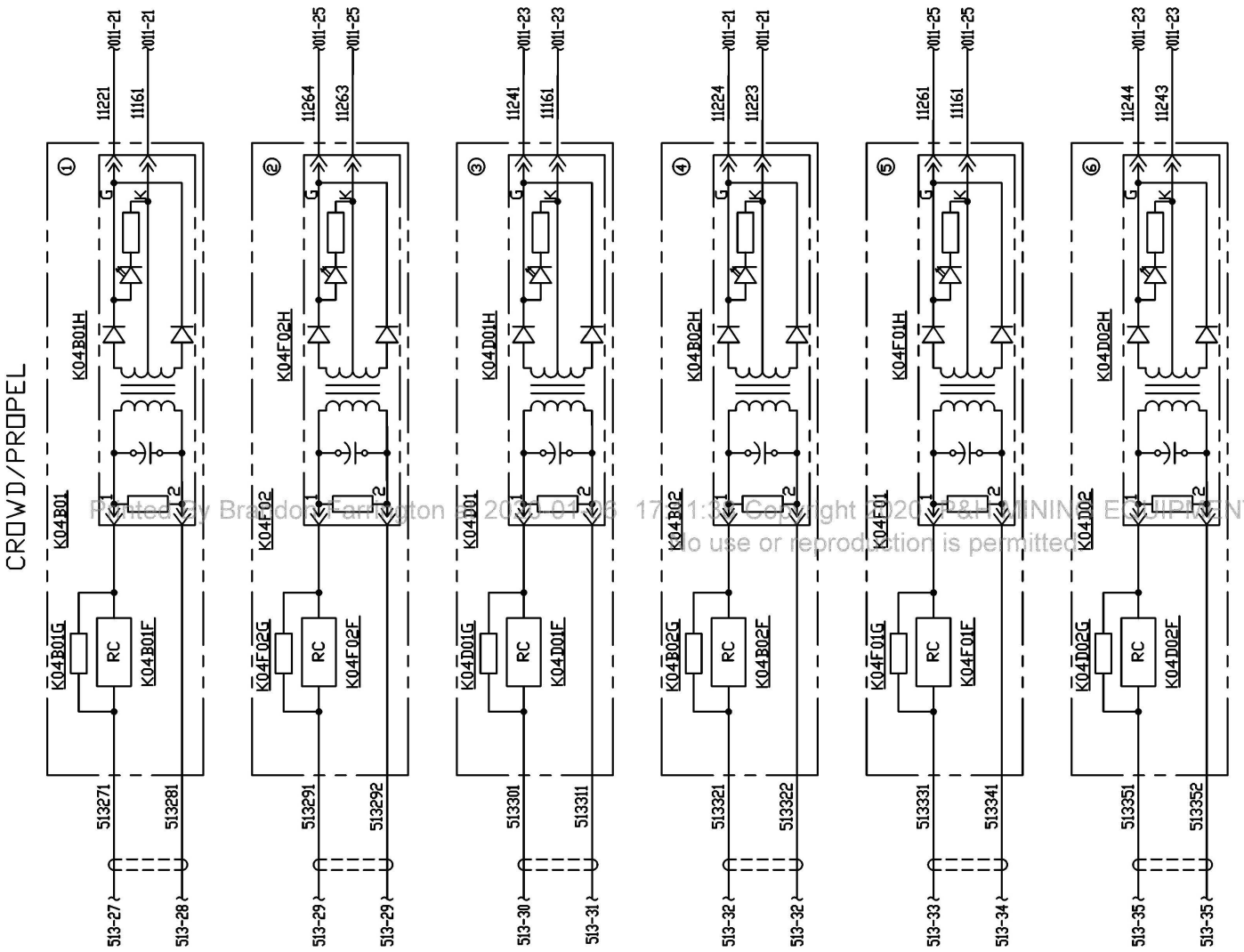
② GROUND TO UPPER FRAME

05	5518876	J DEMOTT 10/2019	
CHG MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SHEET C
DWN BY / DATE	J.DEMOTT 10/2019	SCALE	NONE
TR BY / DATE			
CHKD BY / DATE	R PITSCH 10/2019	RELEASE DATE	09/24/98
CH ENGR BY / DATE	J WUTKE 10/2019	SIMILAR TO	R37998
PRCS BY / DATE		TITLE	SCHEMATIC DIAG
DWG NO	R37798	PROD DR MODEL	4100A
		SN CONT.	514 515

DWG NO R37798 | SN 515 CONT. 516



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SHEET/LINE NO. 515-01

GROUND TO UPPER FRAME (2)

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05	5518876	J DEMOTT 10/2019	
REV MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY DATE	J.DEMOTT 10/2019	SCALE NONE	KOMATSU
TR BY DATE			
CHKD BY DATE	R PITSCH 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998
CH ENGR BY DATE	J WUTKE 10/2019	TITLE SCHEMATIC DIAG	
PRCS BY DATE		PROD DR MODEL 4100A	
DWG NO	R37798		SN 515 CONT. 516

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DWG NO R37798 SH 516 CONT. 517

SHEET/ LINE NO.

E13A01

516-01	(08-04)	[08031]	2TB-4 164	516011	X1 1	R1 8M OHM	X3 1	501441	↗501-44	H1/P1 V_{FB}
02	(06-45)	[06361]	2TB-4 165	516021	X1 2	R2 8M OHM				
03						R3 499K OHM				
05	(08-03)	[07161]	2TB-4 166	516051	X1 3	R4 8M OHM	X3 2	501451	↗501-45	
06										
07	(06-45) (08-16)	[06166]	2TB-4 167	516071	X1 4	R5 8M OHM				
08						R6 499K OHM				
09										
10	(08-18)	[07166]	2TB-4 168	516101	X1 5	R7 8M OHM	X3 3	505441	↗505-44	H2 V_{FB}
11						R8 499K OHM				
12										
13						R9 8M OHM	X3 4	505451	↗505-45	
14						R10 499K OHM				
15										
16	(09-43)	[09161]	2TB-4 169	516161	X2 2	R15 8M OHM	X4 2	509441	↗509-44	VAFB SWING
17						R16 499K OHM				
18										
19	(09-43)	[09393]	2TB-4 171	516191	X2 4	R17 8M OHM	X4 3	509451	↗509-45	
20										
21						R18 499K OHM				
22						R19 8M OHM	X4 4	508241	↗508-24	V_{DIFF} SWING
23										
24						R20 100K OHM				
25	(09-43)	[09392]	2TB-4 170	516251	X2 5	R21 8M OHM	X4 5	508251	↗508-25	
26						R22 100K OHM				
27										
28					X2 6	R23 8M OHM	X4 6	508271	↗508-25	
29						R24 100K OHM				
30										
31					X2 7	R25 8M OHM	X4 7	508281	↗508-26	
32						R26 100K OHM				
33										
34							X4 1	02GND	▽2	
35										
36	(11-42)	[11166]	2TB-4 175	516361	X1 7	R11 8M OHM	X3 5	513441	↗513-44	CP2 V_{FB}
37						R12 499K OHM				
38										
39	(11-42)	[11371]	2TB-4 174	516391	X2 1	R13 8M OHM	X3 6	513451	↗513-45	
40						R14 499K OHM				
41										
42							X3 7	02GND	▽2	
43										
44										
45										

MOTION FEEDBACK CIRCUIT BOARD

▽2 -GROUND TO UPPER FRAME

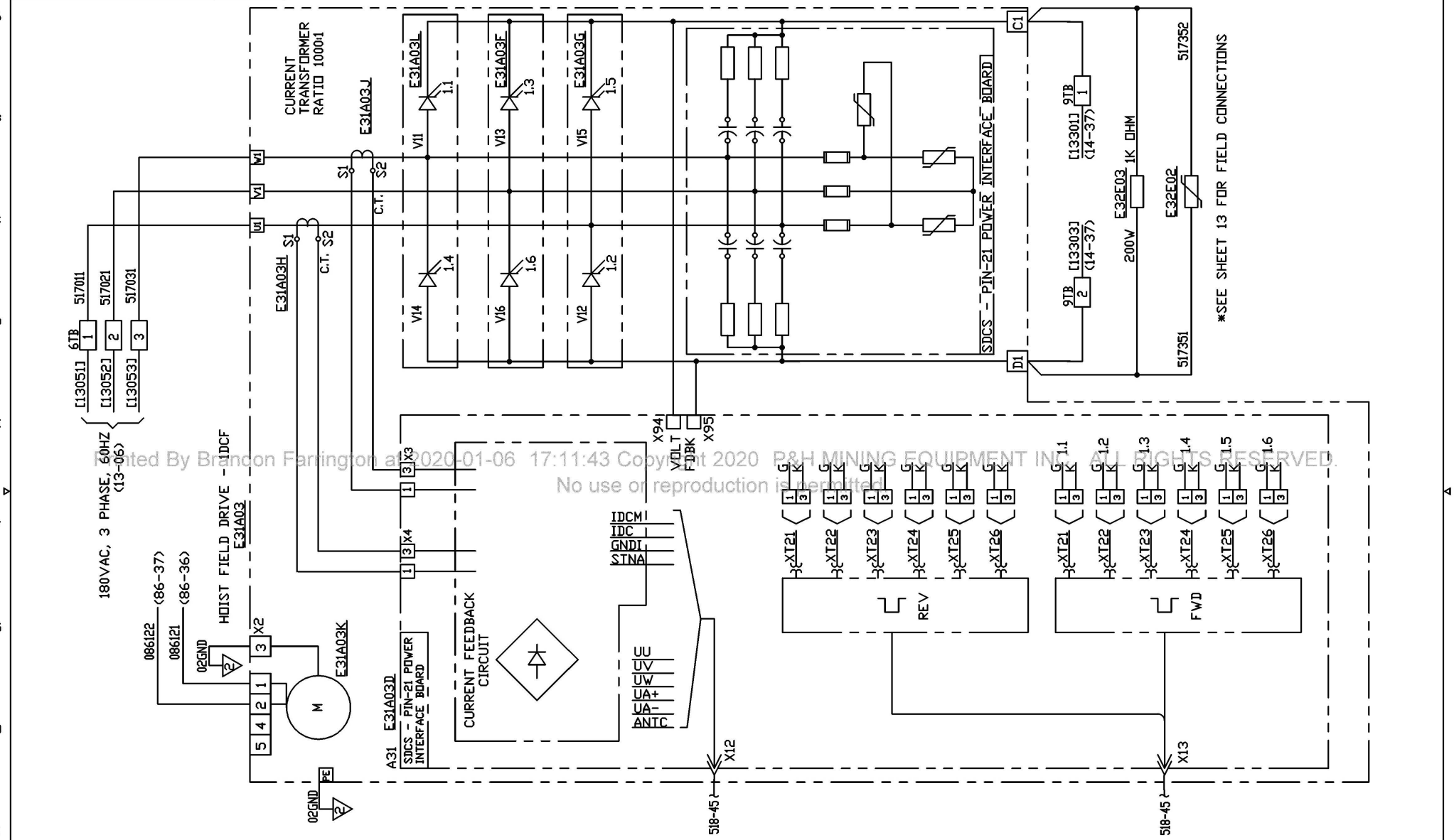
REV	CHANGE	BY	DATE
05	5518876	J DEMOTT	10/2019

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

DWN	J.DEMOTT	10/2019
CHK	R PITSCH	10/2019
ENG	J WITKE	10/2019
MFG		
DWG NO	R37798	
SCALE	NONE	
RELEASE DATE	09/24/98	
SIMILAR TO	R37998	
TITLE	SCHEMATIC DIAG	
MODEL	4100A	
SERIAL	S.N. ES4184 60HZ	
SH CONT.	516 517	
SIZE	C	

KOMATSU

DWG NO R37798 | SH 517 CONT. 518



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SHEET/LINE NO. 517-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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2-GROUND TO UPPER FRAME

REMOVED JUMPERS FOR PIN-21 BOARD

W10	W15	W17	W18	W19	W20	W21	W22	W80	W81	W82
X	X	X		X	X	X	X	X		X

05 5518876 CHANGE | J DEMOTT 10/2019 CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ REV C

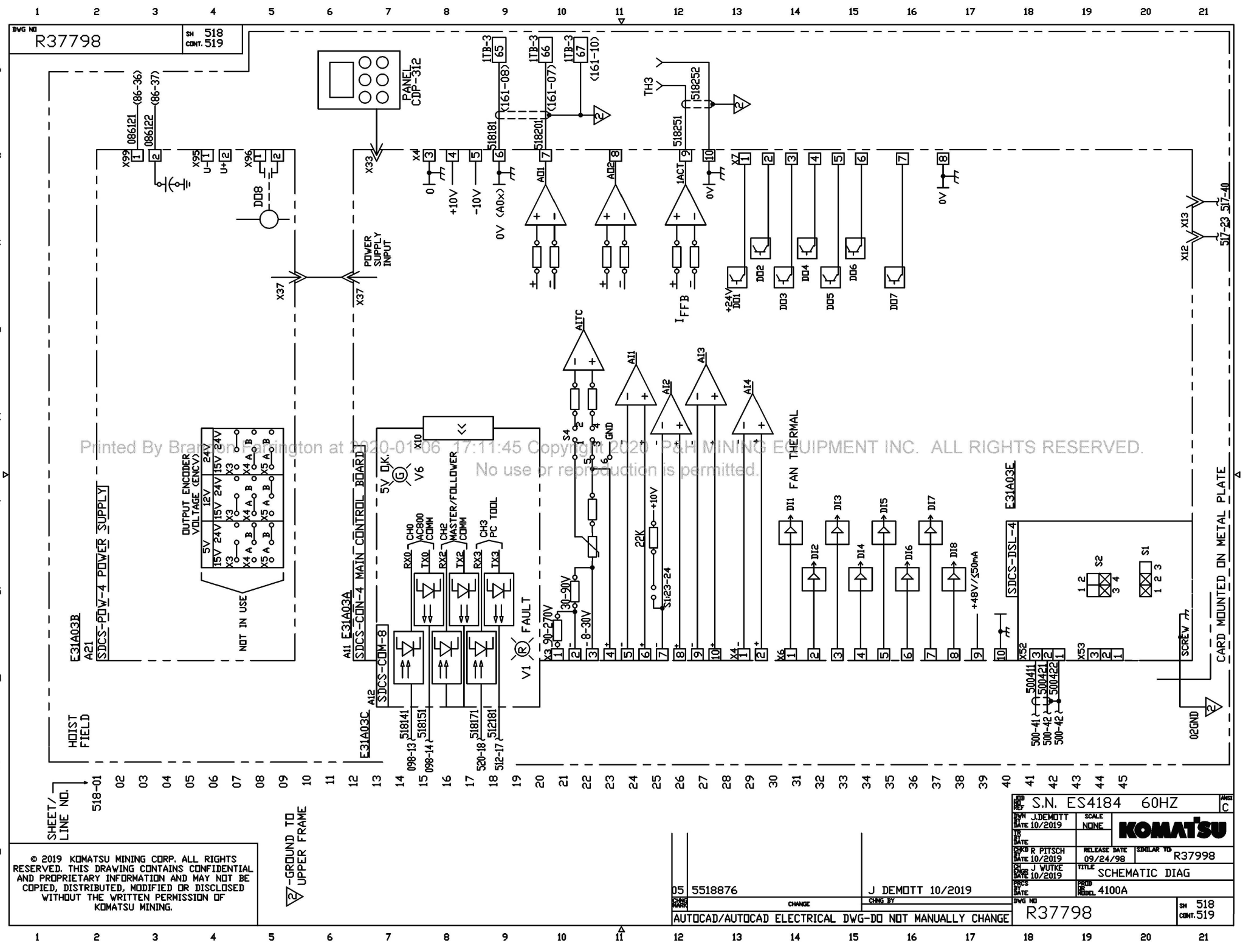
DSGN J.DEMOTT DATE 10/2019 | SCALE NONE | KOMATSU

CHKD R PITSCH DATE 10/2019 | RELEASE DATE 09/24/98 | SIMILAR TO R37998

CONF J WUTKE DATE 10/2019 | TITLE SCHEMATIC DIAG

PROCS BY DATE | PROD OR MODEL 4100A

DWG NO R37798 | SH 517 CONT. 518


DWG NO R37798
SH 518 CONT. 519
PANEL CDP-312
POWER SUPPLY INPUT
E31A03B A21 SDCS-POW-4 POWER SUPPLY
E31A03A A11 SDCS-CIN-4 MAIN CONTROL BOARD
E31A03C A12 SDCS-COM-8
E31A03E SDCS-DSL-4
OUTPUT ENCODER VOLTAGE (ENCV)
NOT IN USE
CH0 AC800 COMM
CH2 MASTER/FOLLOWER COMM
CH3 PC TOOL
5V OK.
FAULT
FAN THERMAL
+48V/≤50mA
SCREW
CARD MOUNTED ON METAL PLATE
HOIST FIELD
SHEET/ LINE NO.
2-GROUND TO UPPER FRAME
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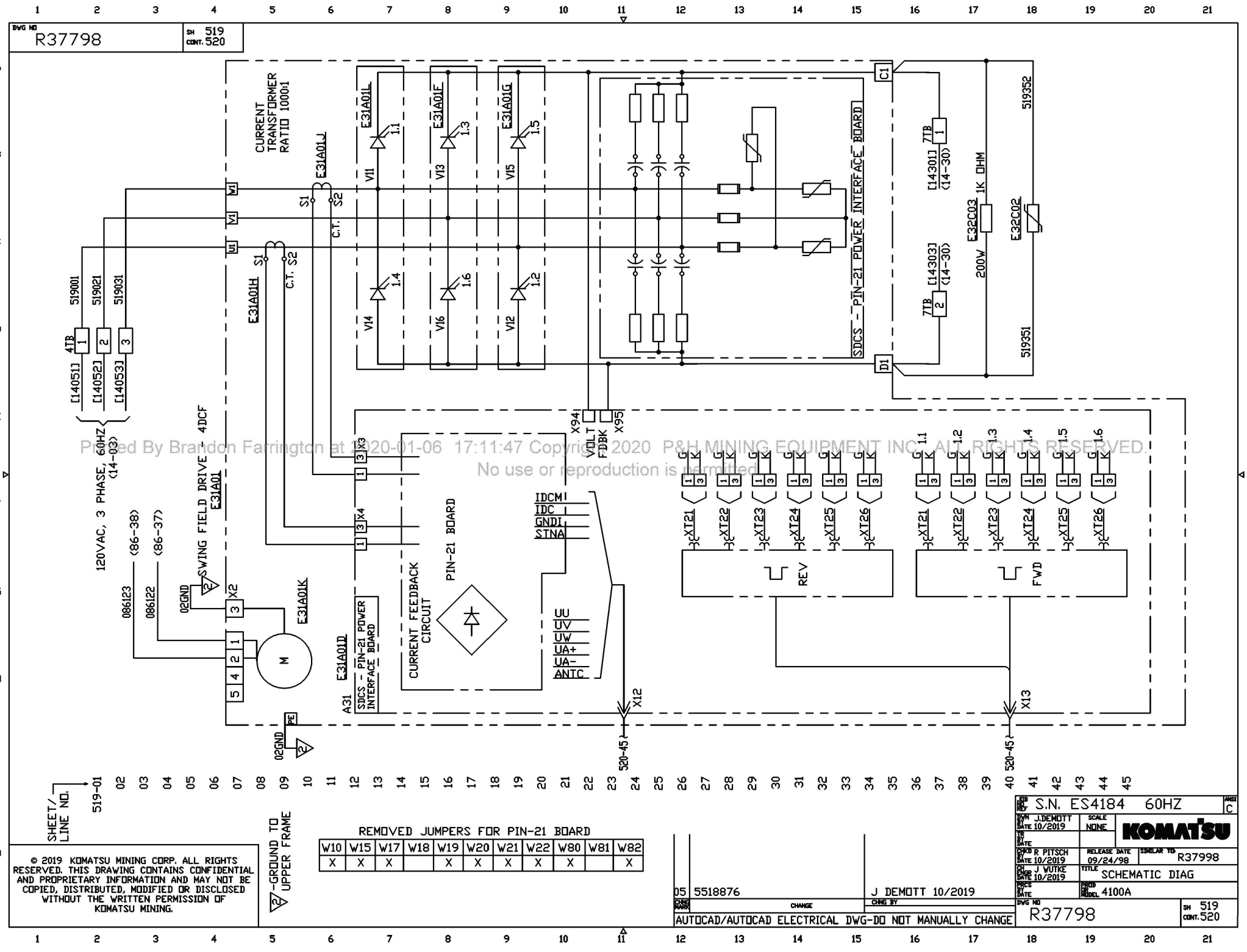
05 5518876
J DEMOTT 10/2019
AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
S.N. ES4184 60HZ
J.DEMOTT 10/2019
NONE
KOMATSU
R PITSCH 10/2019
09/24/98
R37998
J WUTKE 10/2019
SCHEMATIC DIAG
4100A
R37798
SH 518 CONT. 519



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REMOVED JUMPERS FOR PIN-21 BOARD

W10	W15	W17	W18	W19	W20	W21	W22	W80	W81	W82
X	X	X		X	X	X	X	X		X

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05 5518876 CHANGE — J DEMOTT 10/2019 CHNG BY

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

S.N. ES4184 60HZ

DSN J.DEMOTT 10/2019

CHKD R PITSCH 10/2019

CODE J WUTKE 10/2019

SCALE NONE

RELEASE DATE 09/24/98

SIMILAR TO R37998

TITLE SCHEMATIC DIAG

MODEL 4100A

DWG NO R37798

SH 519 CONT. 520

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SHEET/LINE NO.

SWING FIELD 4DCR

E31A01B
A21
SDCS-PDW-4 POWER SUPPLY

OUTPUT ENCODER VOLTAGE (ENCV)
5V | 12V | 24V
15V 24V | 15V 24V | 15V 24V
NOT IN USE
X3 X4 A B X5 A B

X99 1 086122 (86-37)
2 086123 (86-38)
X95 U- 1 U+ 2
D08
X96 1 2
X37

A11 E31A01A
SDCS-CON-4 MAIN CONTROL BOARD
E31A01C
A12
SDCS-COM-8
5V O.K. V6
X10
098-08 520141 RX0 CH0 AC800 COMM
098-09 520151 TX0
RX2 CH2 MASTER/FOLLOWER COMM
TX2
522-18 520171 RX3 CH3 PC TOOL
518-17 518171 TX3
V1 FAULT

POWER SUPPLY INPUT
X33
PANEL CDP-312

X4
0 3
+10V 4
-10V 5
0V (AOx) 6

X3 90-270V 1
30-90V 2
8-30V 3
4+
5-
6+
7-
8+
9-
10+
S4 1 2 3 4 5 6 GND
AITC
AI1
22K +10V
S123-24
AI2
AI3
X4 1- 2+
AI4

RPC STEPS AO1 7
KVAR AO2 8
I FFB 1ACT 9 520251 520252 0V 10
TS3
02GND
+24V DO1 X7 1
DO2 2
DO3 3
DO4 4
DO5 5
DO6 6
DO7 7
0V 8

X6
1 DI1 FAN THERMAL
2 DI2
3 DI3
4 DI4
5 DI5
6 DI6
7 DI7
8 DI8
9 +48V/≤50mA
10

SDCS-DSL-4 E31A01E
X52 3 2 1
508-41 508411
508-42 508421
508-42 508422
X53 3 2 1
S2 1 2 3 4
S1 1 2 3
SCREW
02GND
CARD MOUNTED ON METAL PLATE

X12 X13
519-24 519-40

DWG NO R37798
SH CONT. 520 521

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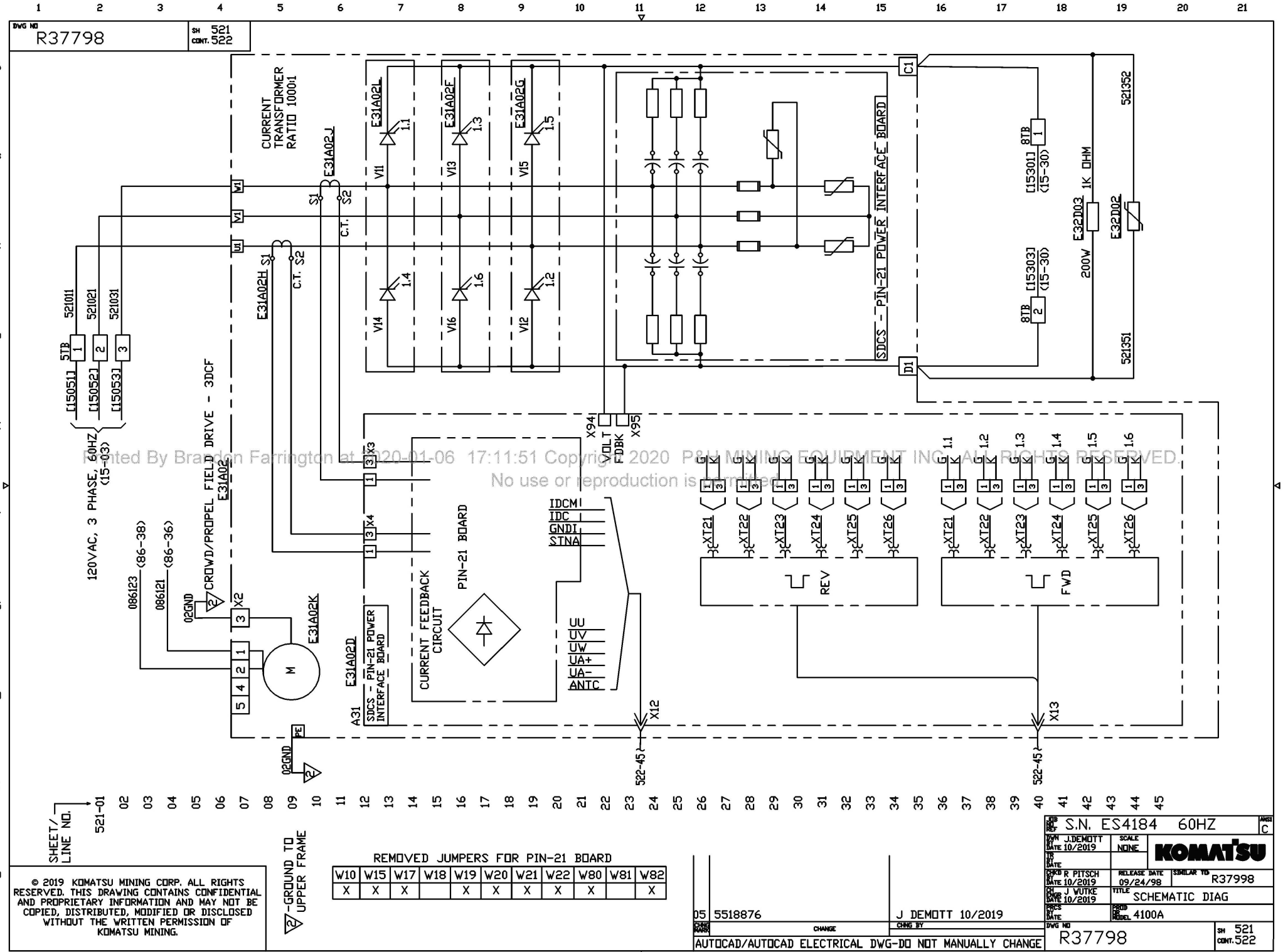
-GROUND TO UPPER FRAME

05 5518876 CHANGE AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
CHNG BY J DEMOTT 10/2019

DRN J.DEMOTT DATE 10/2019
CHK R PITSCH DATE 10/2019
ENGR J WITKE DATE 10/2019
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
TITLE SCHEMATIC DIAG
MODEL 4100A
DWG NO R37798
SH CONT. 520 521
SIZE C
S.N. ES4184 60HZ
KOMATSU



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SHEET/LINE NO.

CROWD/PROPEL FIELD

E31A02B
A21
SDCS-POW-4 POWER SUPPLY

OUTPUT ENCODER VOLTAGE (ENCV)
5V | 12V | 24V
15V 24V | 15V 24V | 15V 24V
NOT IN USE
X3 X4 A B X5 A B

X99 1 086121 (86-36)
2 086123 (86-38)
X95 U- 1 U+ 2
D08
X96 1 2
X37

A11 E31A02A
SDCS-CON-4 MAIN CONTROL BOARD
E31A02C
A12
SDCS-COM-8
5V O.K. V6
X10
098-10 522141 RX0 CH0 AC800 COMM TX0
098-11 522151
RX2 CH2 MASTER/FOLLOWER COMM TX2
TX3 522171 RX3 CH3 PC TOOL TX3
520-17 520171
E01B10B FIBER OPTIC SERVICE PORT
V1 FAULT

X37 POWER SUPPLY INPUT
X33
PANEL CDP-312

X4
0 3
+10V 4
-10V 5
0V (AOx) 6

X3 90-270V 1
30-90V 2
8-30V 3
S4
GND 6
AITC
AI1
22K +10V
S123-24
AI2
AI3
AI4
FIELD REF.
AO1 7
AO2 8

TC3
I_{FFB}
1ACT 9 522251
0V 10 522252
02GND

X6
DI1 FAN THERMAL
DI2
DI3
DI4
DI5
DI6
DI7
DI8
9 +48V/≤50mA
10

+24V DO1 X7 1
DO2 2
DO3 3
DO4 4
DO5 5
DO6 6
DO7 7
0V 8

SDCS-DSL-4 E31A02E
X52 3 2 1
512-41 512411
512-42 512421
512-42 512422
X53 3 2 1
S2 1 2 3 4
S1 1 2 3
SCREW
02GND
CARD MOUNTED ON METAL PLATE

X12 X13
521-23 521-40

DWG NO R37798
SH 522 CONT. 523

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

CHANGE	BY	DATE
05 5518876	J DEMOTT	10/2019

DRN J.DEMOTT 10/2019
CHKD R PITSCH 10/2019
ENGR J WITKE 10/2019
APPD
DWG NO R37798
SCALE NONE
RELEASE DATE 09/24/98
SIMILAR TO R37998
PROD MODEL 4100A
TITLE SCHEMATIC DIAG
S.N. ES4184 60HZ
SIZE C
SH 522 CONT. 523
KOMATSU

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DWG NO R37798 | SH 523 CONT. 524

SHEET/LINE NO.

*NOTE:

50 HZ & 60 HZ OPERATION IS SELECTED BY POSITIONING (3) JUMPERS ON JUMPER BLOCK "J1" OF THE RPC BOARD. ALWAYS VERIFY JUMPER SETTINGS DURING BOARD REPLACEMENT.

U94C01

RPC FIRING BOARD

34VAC 3 PHASE

(86-32) 086321 → X1 1,4 → L1
(86-32) 086322 → X1 2,5 → L2
(86-32) 086323 → X1 3,6 → L3

POWER SUPPLY AND LINE SYNC

Outputs: +42V, +10V, Gp, +15V, Gs, B-A, A-B, C-B, B-C, A-C, C-A, Gs, +15V

100 KHZ OSCILLATOR AND ON-SIGNAL INTERFACE

Inputs: OSC, OSC, ON1, ON2, ON3, ON4, ON5, ON6

X2 1,7,2 → 11, 12

X17 1,7,2 ← 162-11 090013, 160-27 160271

X3 7,14

X4 7,14

X5 7,14

X2 8 B1 BANK 1/2
X2 3 B2 BANK 2
X2 9 B3 BANK 1
X2 4 B4 BANK 3
X2 10 B5 BANK 4
X2 5 B6 BANK 5

X17 8 ← 161-13 161131 B1 BANK 1/2
X17 3 ← 161-19 161191 B2 BANK 2
X17 9 ← 161-15 161151 B3 BANK 1
X17 4 ← 161-21 161211 B4 BANK 3
X17 10 B5 BANK 4
X17 5 B6 BANK 5

X2 11 +15V
X2 6 COM
X17 11 +15V
X17 6 COM ← 162-11 090022

Each bank: OSC, A-B, B-C, C-A, B-A, C-B, A-C, ON1–ON6 → PULSE GEN (+, S, P, ON)

X3 SWITCHES

BANK 1/2: 1 → 523101 / 8 → 523111 → 524-02 / 524-04
BANK 2: 2 → 523121 / 9 → 523131 → 524-07 / 524-09
BANK 2: 3 → 523141 / 10 → 523151 → 524-12 / 524-14
BANK 2: 4 → 523161 / 11 → 523171 → 524-17 / 524-19
BANK 2: 5 → 523181 / 12 → 523191 → 524-22 / 524-24
BANK 2: 6 → 523201 / 13 → 523211 → 524-27 / 524-29

X4

BANK 1: 1 → 523221 / 8 → 523231 → 525-01 / 525-03
BANK 1: 2 → 523241 / 9 → 523251 → 525-06 / 525-08
BANK 1: 3 → 523261 / 10 → 523271 → 525-11 / 525-13
BANK 3: 4 → 523281 / 11 → 523291 → 525-16 / 525-18
BANK 3: 5 → 523301 / 12 → 523311 → 525-21 / 525-23
BANK 3: 6 → 523321 / 13 → 523331 → 525-26 / 525-28

X5 1, 8 → 02GND

-GROUND TO UPPER FRAME

05	5518876	CHANGE	AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE
	J DEMOTT 10/2019	CHNG BY	

DRN J.DEMOTT 10/2019 | CHK R PITSCH 10/2019 | APP J WITKE 10/2019 | MFG | DWG NO R37798

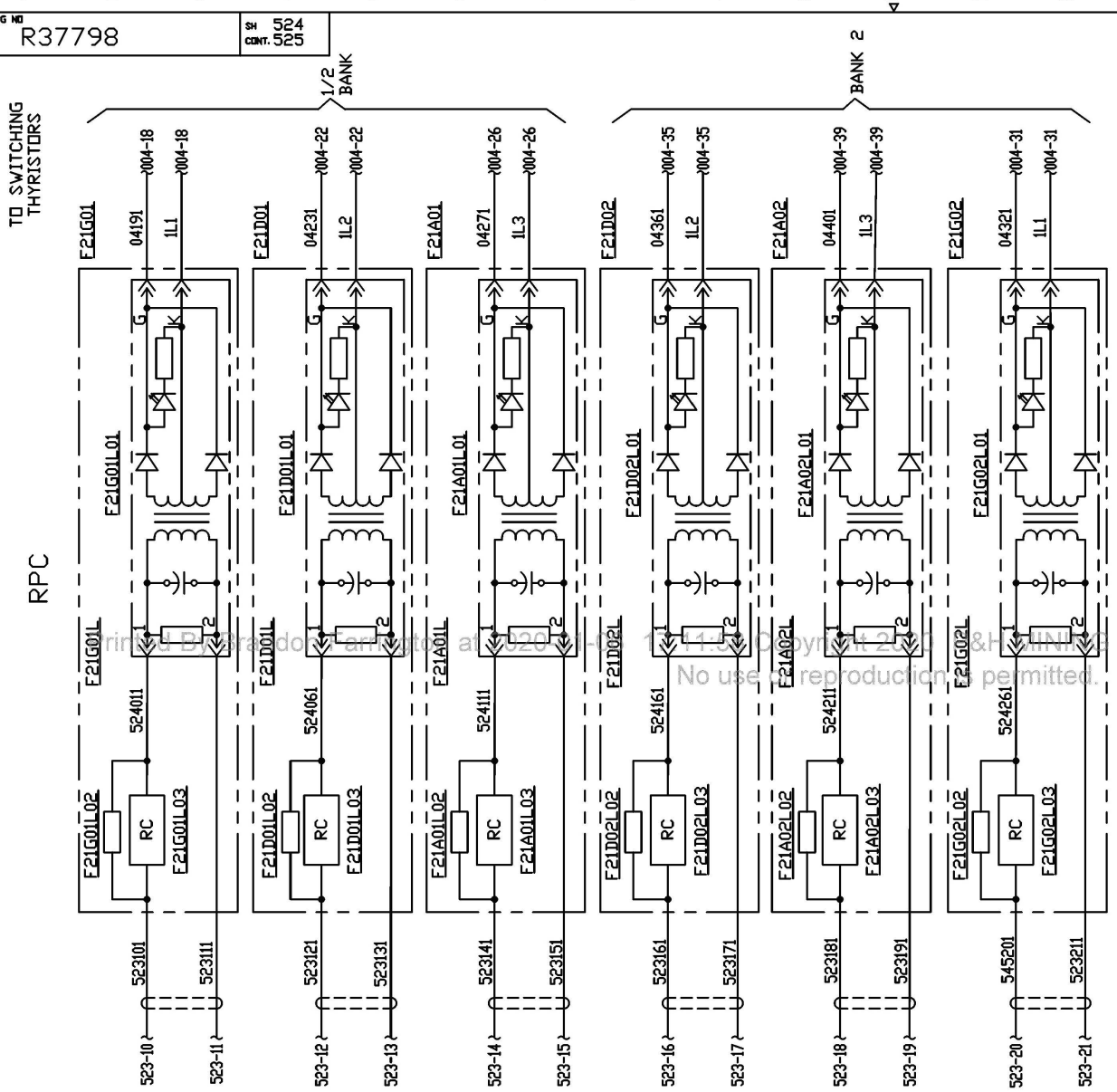
SCALE NONE | RELEASE DATE 09/24/98 | SIMILAR TO R37798 | PROD MODEL 4100A | TITLE SCHEMATIC DIAG

S.N. ES4184 60HZ

SH 523 CONT. 524

SIZE C

DWG NO R37798 | SN 524 CONT. 525



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SHEET/LINE NO. 524-01

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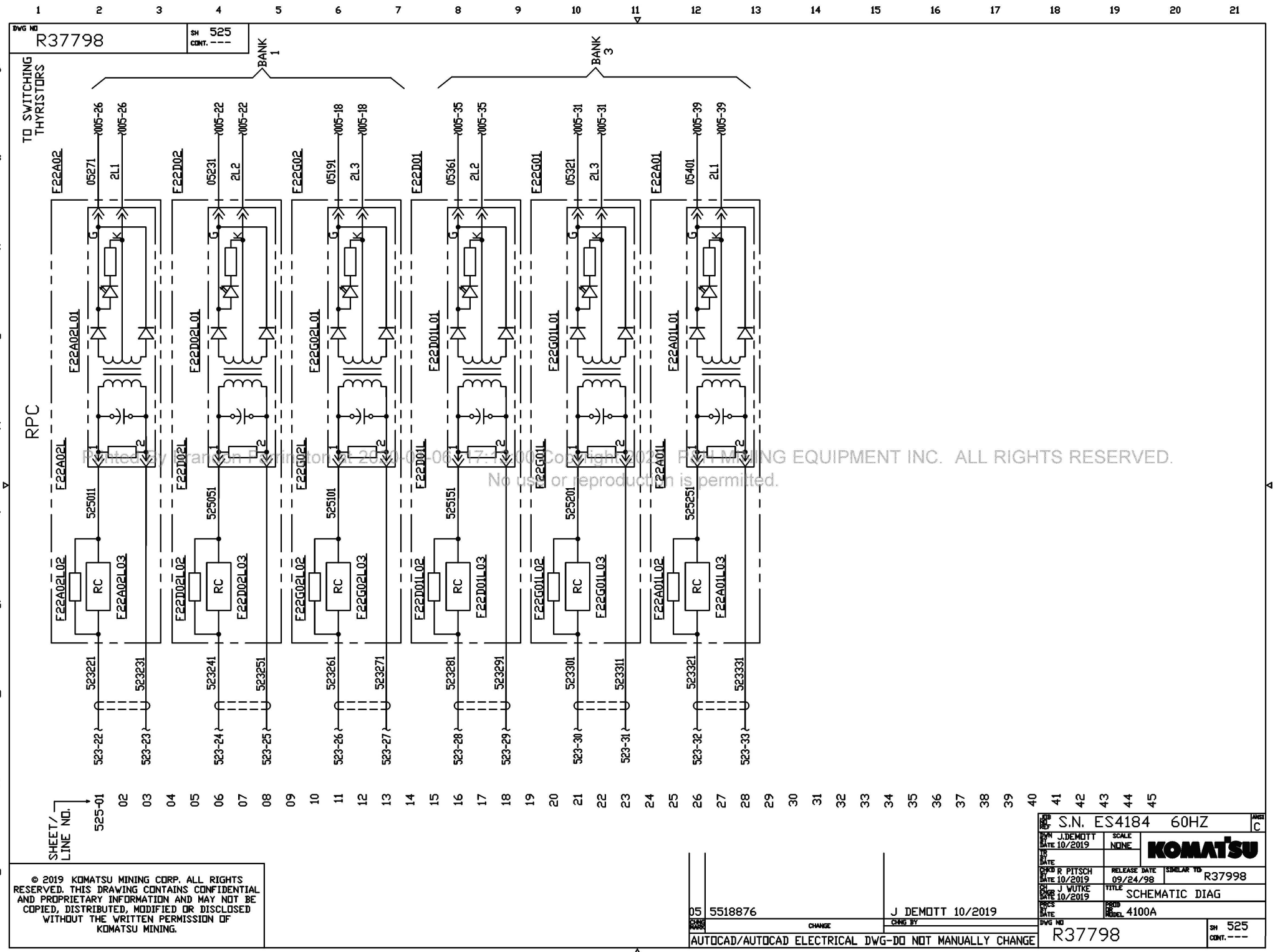
05	5518876	J DEMOTT 10/2019	
REV LTR MARK	CHANGE	CHNG BY	

AUTOCAD/AUTOCAD ELECTRICAL DWG-DO NOT MANUALLY CHANGE

REV REF	S.N. ES4184 60HZ		SIZE C
DWN BY J.DEMOTT DATE 10/2019	SCALE NONE	KOMATSU	
TCR BY DATE			
CHKD BY R PITSCH DATE 10/2019	RELEASE DATE 09/24/98	SIMILAR TO R37998	
CH ENGR J WUTKE DATE 10/2019	TITLE SCHEMATIC DIAG		
PRCS BY DATE	PROD DR MODEL 4100A		
DWG NO R37798		SN 524 CONT. 525	



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