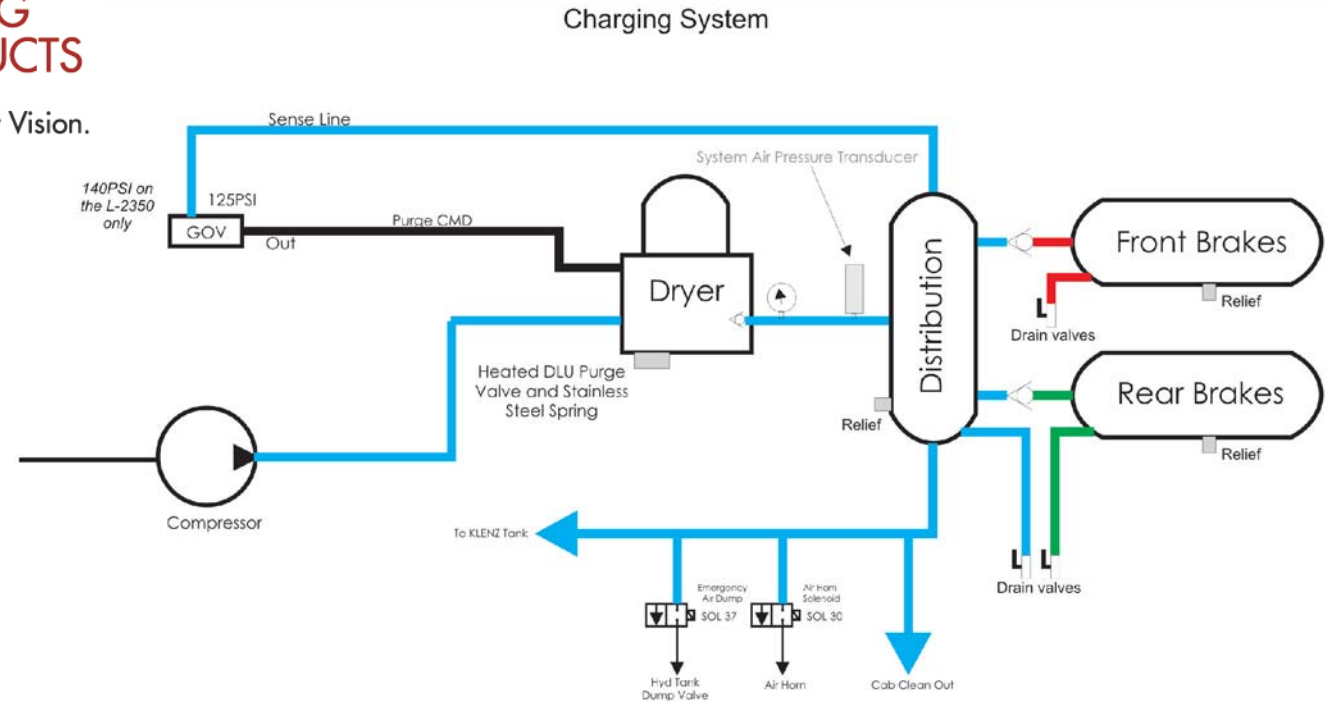




LeTourneau
TECHNOLOGIES™

MINING
PRODUCTS

Built On Experience. Driven By Vision.



Compressed Air Systems

COMPRESSED AIR SYSTEM

LeTourneau Technologies, Inc.



COMPRESSED AIR SYSTEM

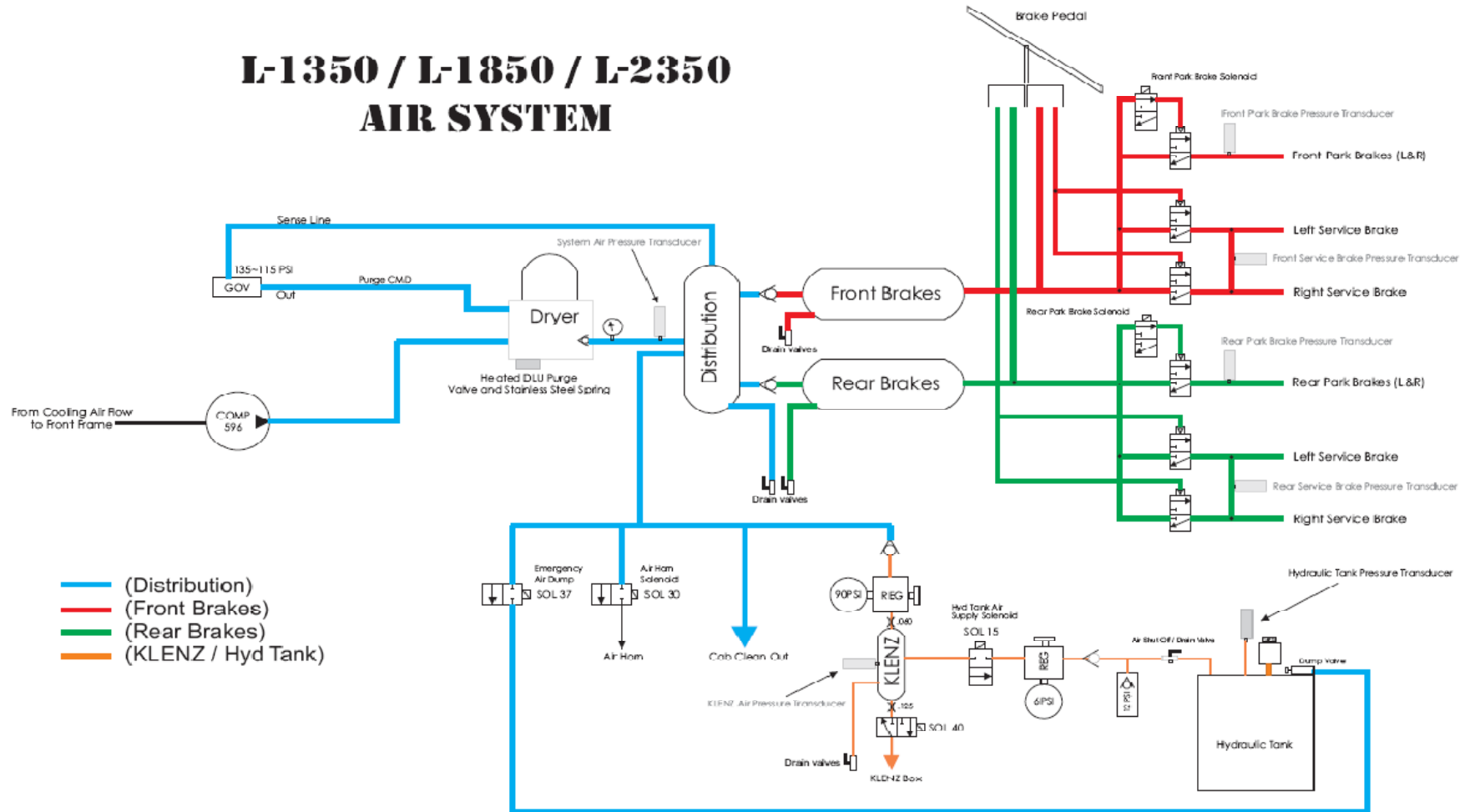
- Theory of Operation
- Component Descriptions
- Circuit Descriptions
- Settings and Adjustments
- Troubleshooting
- Removal and Installation



THEORY OF OPERATION



L-1350 / L-1850 / L-2350 AIR SYSTEM



COMPONENT DESCRIPTIONS



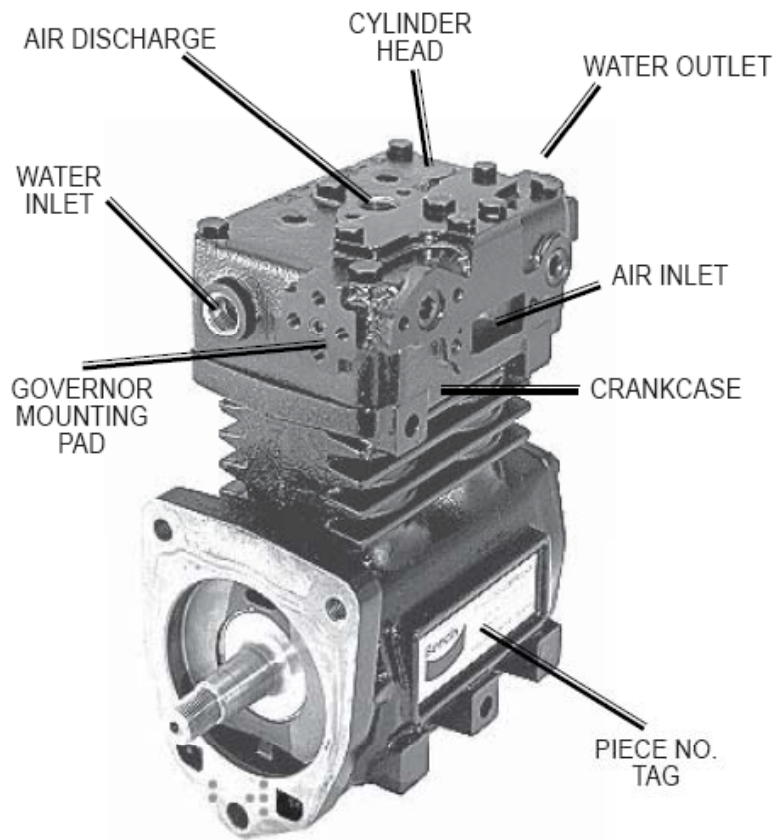
COMPONENT DESCRIPTIONS

- Compressors
- Valves
- Tanks
- Solenoids
- Transducers

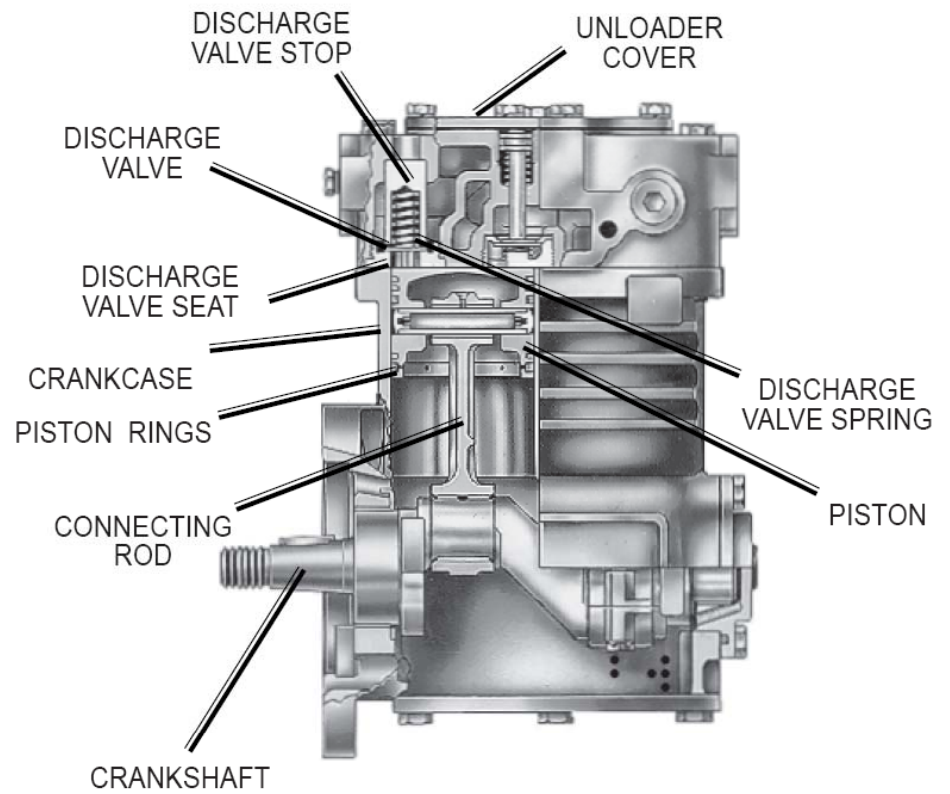


Model	Displacement (CFM) at 1250 RPM	Displacement (CFM) at 1900 RPM (120psi)	Displacement (CFM) at 1900 RPM (140psi)	Allowable inlet Temp °f	Allowable outlet Temp. °f	Boosted CFM at 1900RPM (120psi)	Lubrication	Cooling
750	16.5	11.7	10	250	400	34	Engine oil	Coolant
596	27	23	19.7	250	400	NA	PTO	Hyd Oil
922	31.7	27.8	23.8	170	350	NA	PTO	Coolant





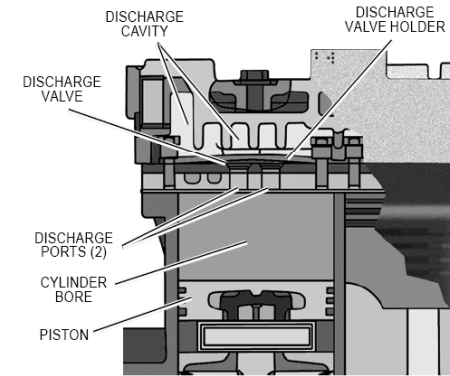
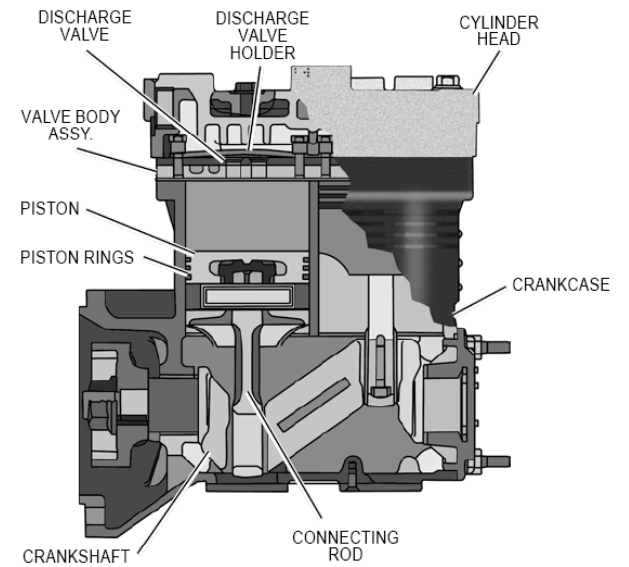
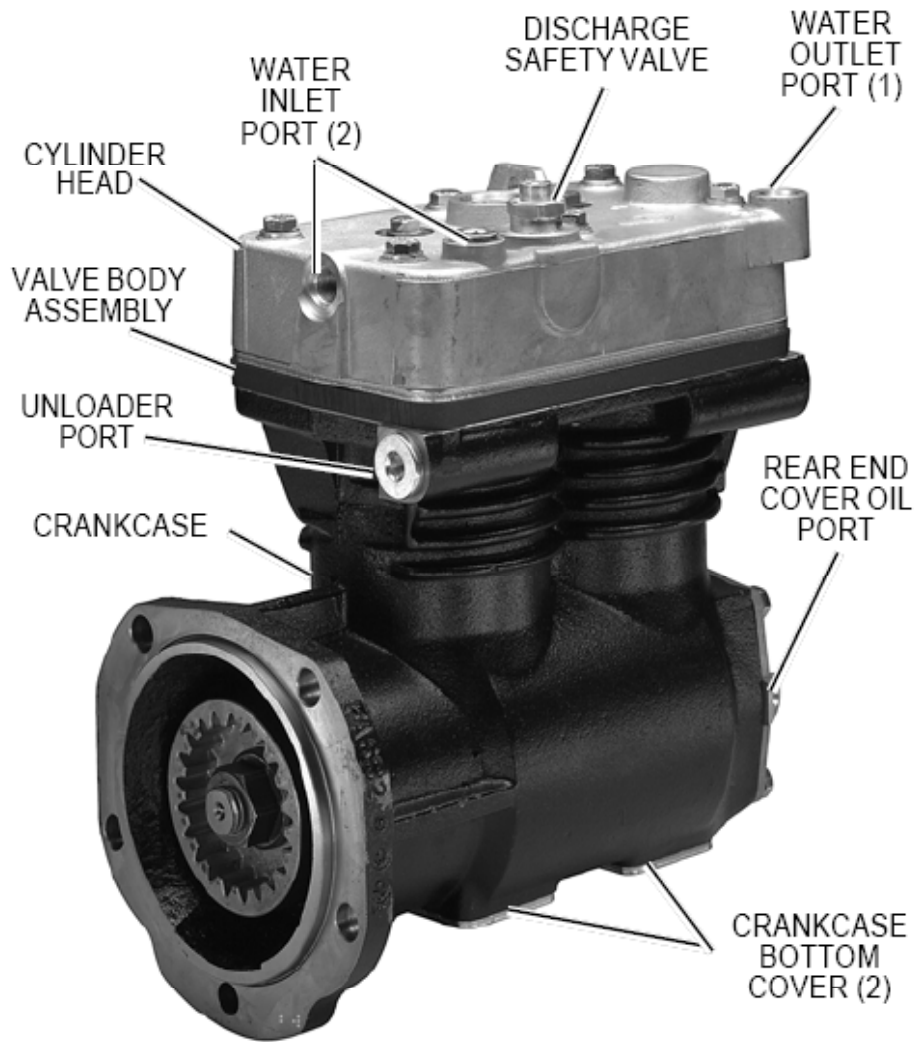
BENDIX® TU-FLO® 750 AIR COMPRESSOR
(EXTERIOR)



BENDIX® TU-FLO® 750 AIR COMPRESSOR
(CROSS SECTION)

BENDIX TU-FLO 750 COMPRESSOR

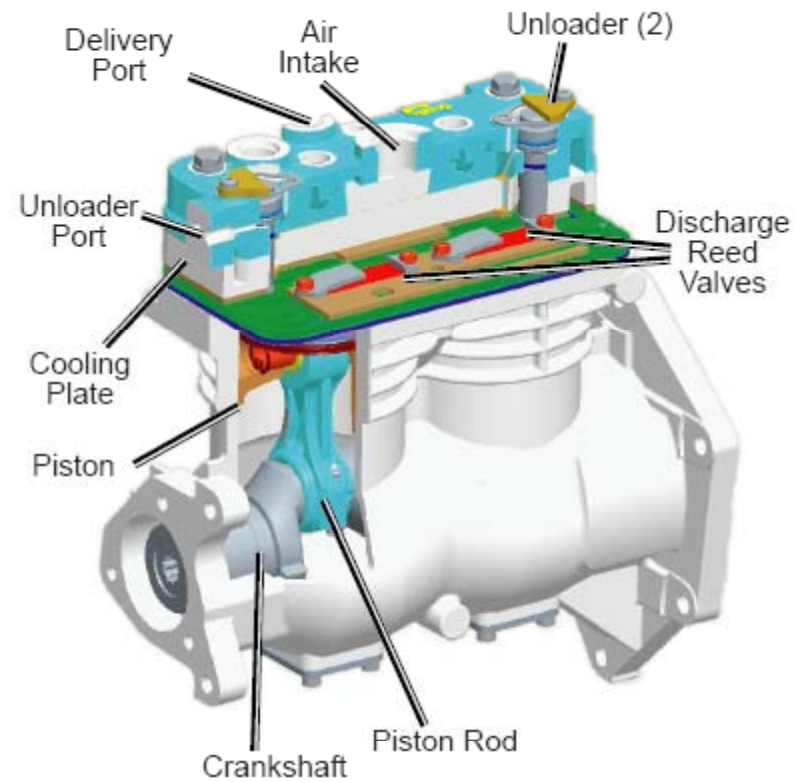
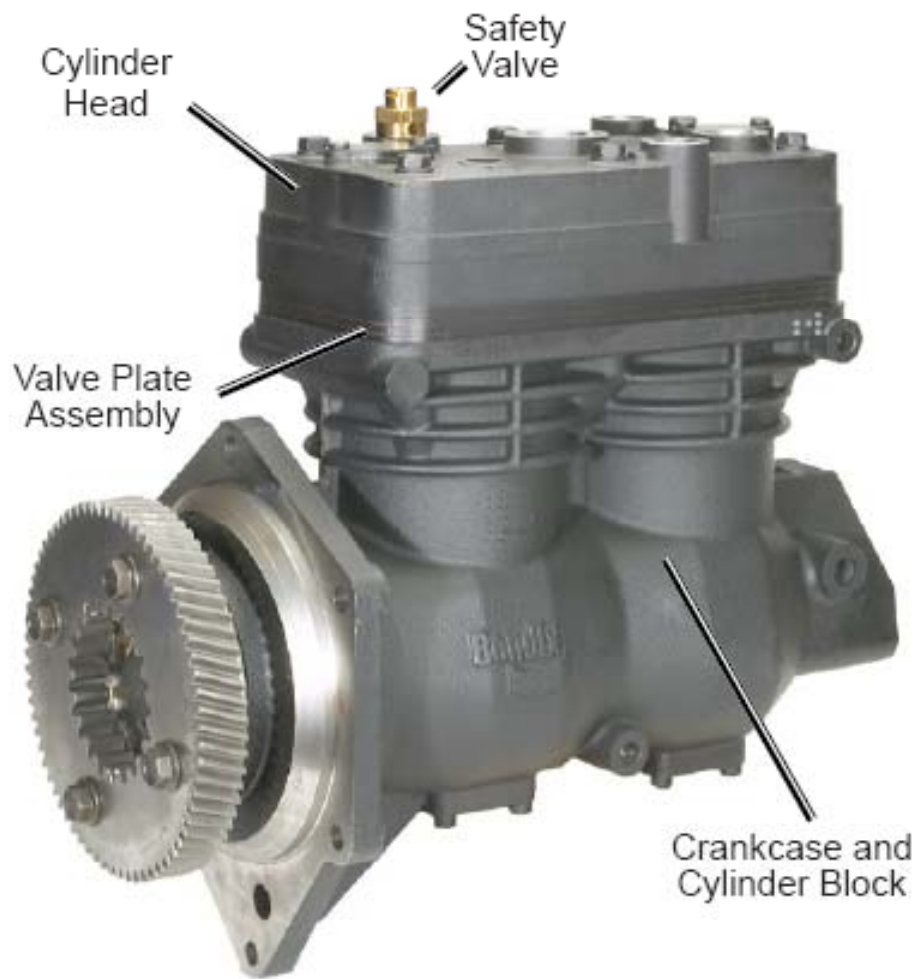




VIEW OF CYLINDER HEAD AND ONE CYLINDER BORE

BENDIX DURAFLO 596 COMPRESSOR



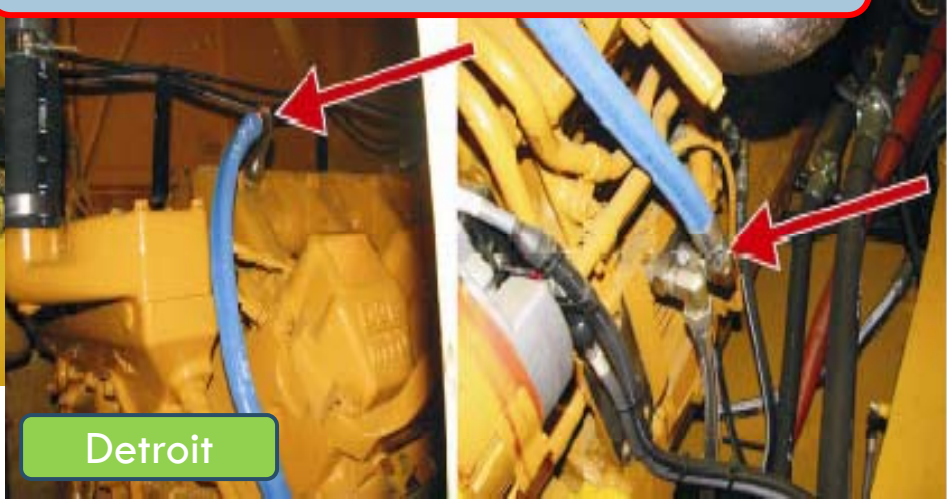


BENDIX BA-922 COMPRESSOR



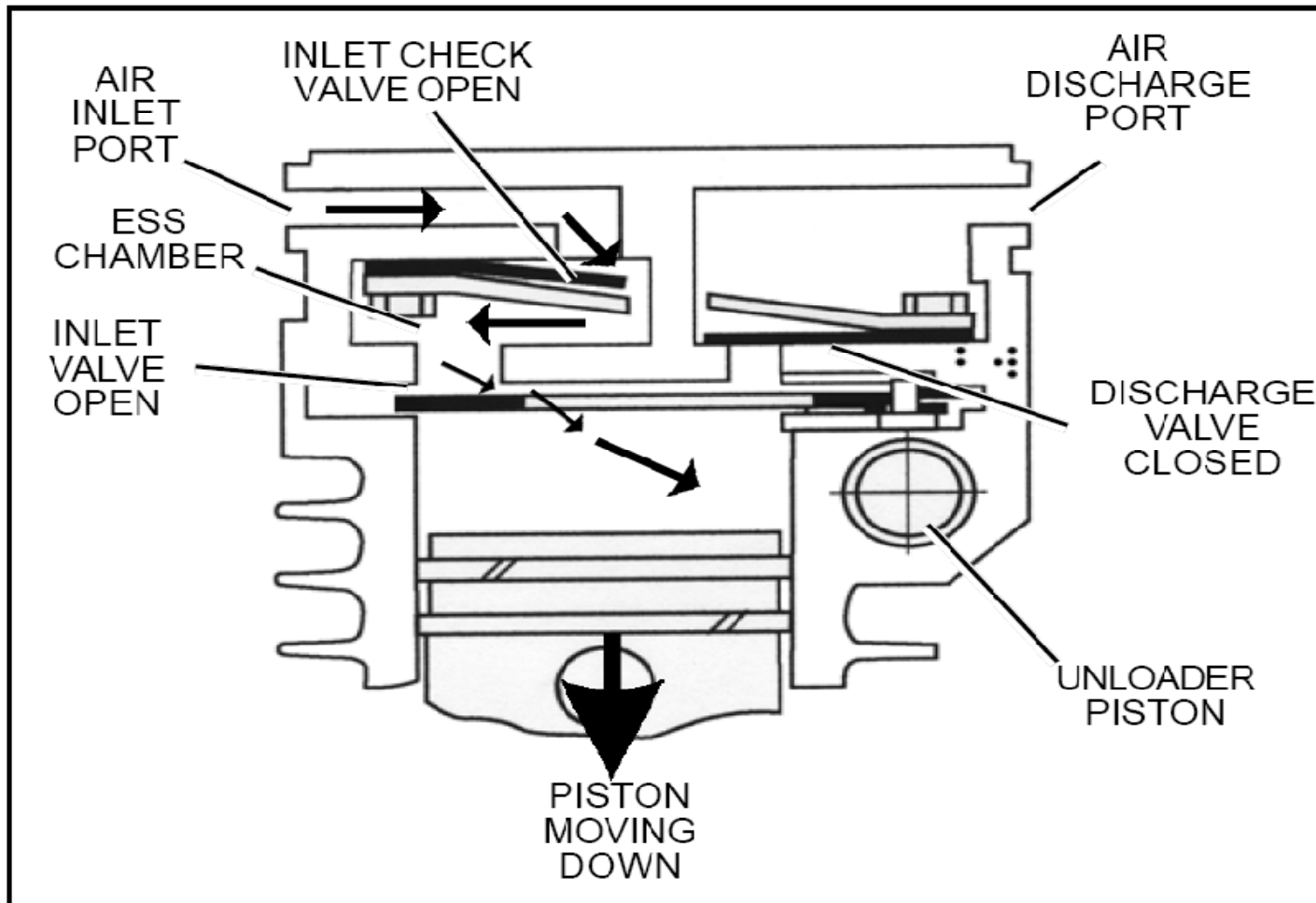


Engine Mounted TU-FLO 750 on L950's



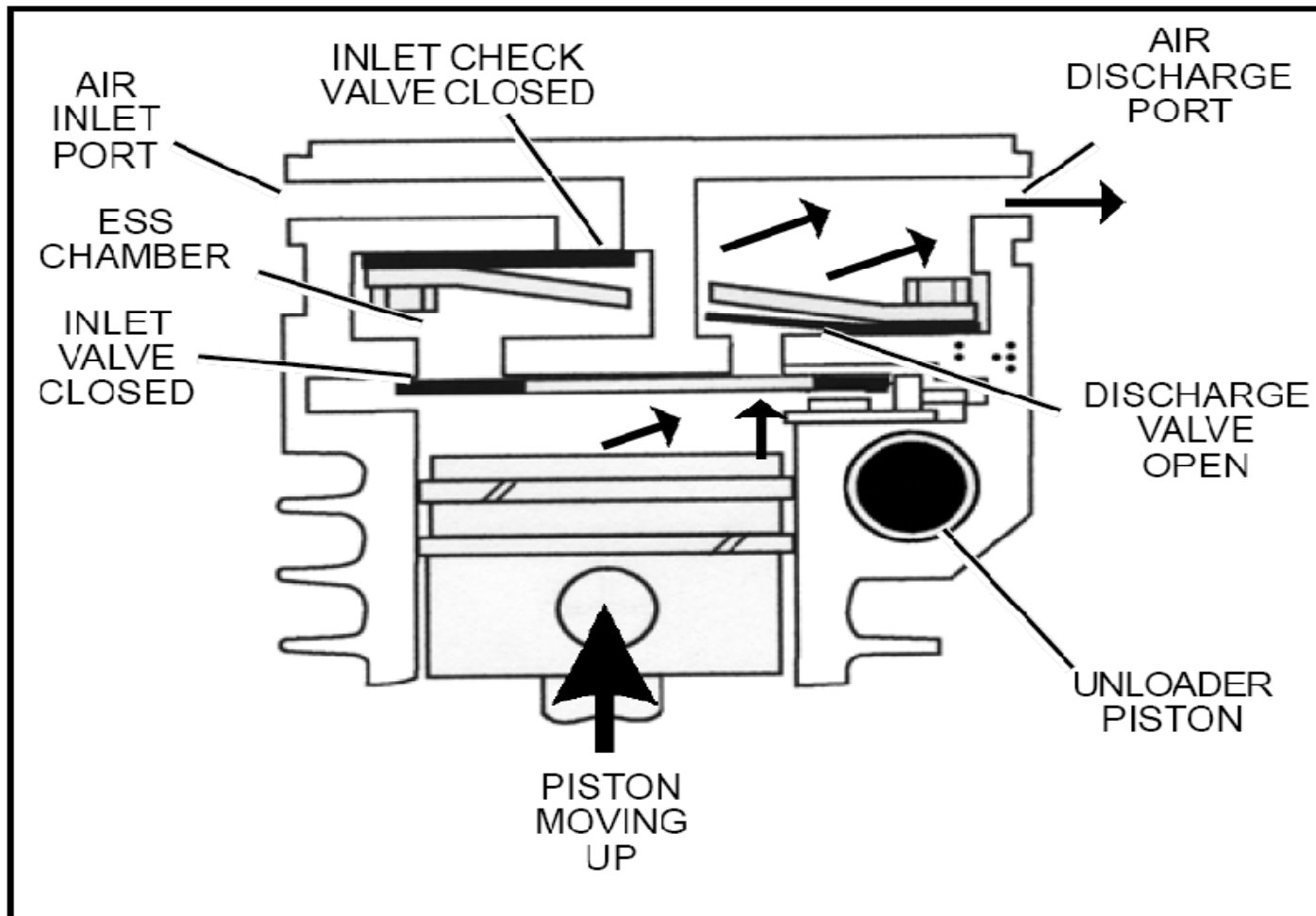
L1350, L1850, & L2350

COMPRESSOR INLET

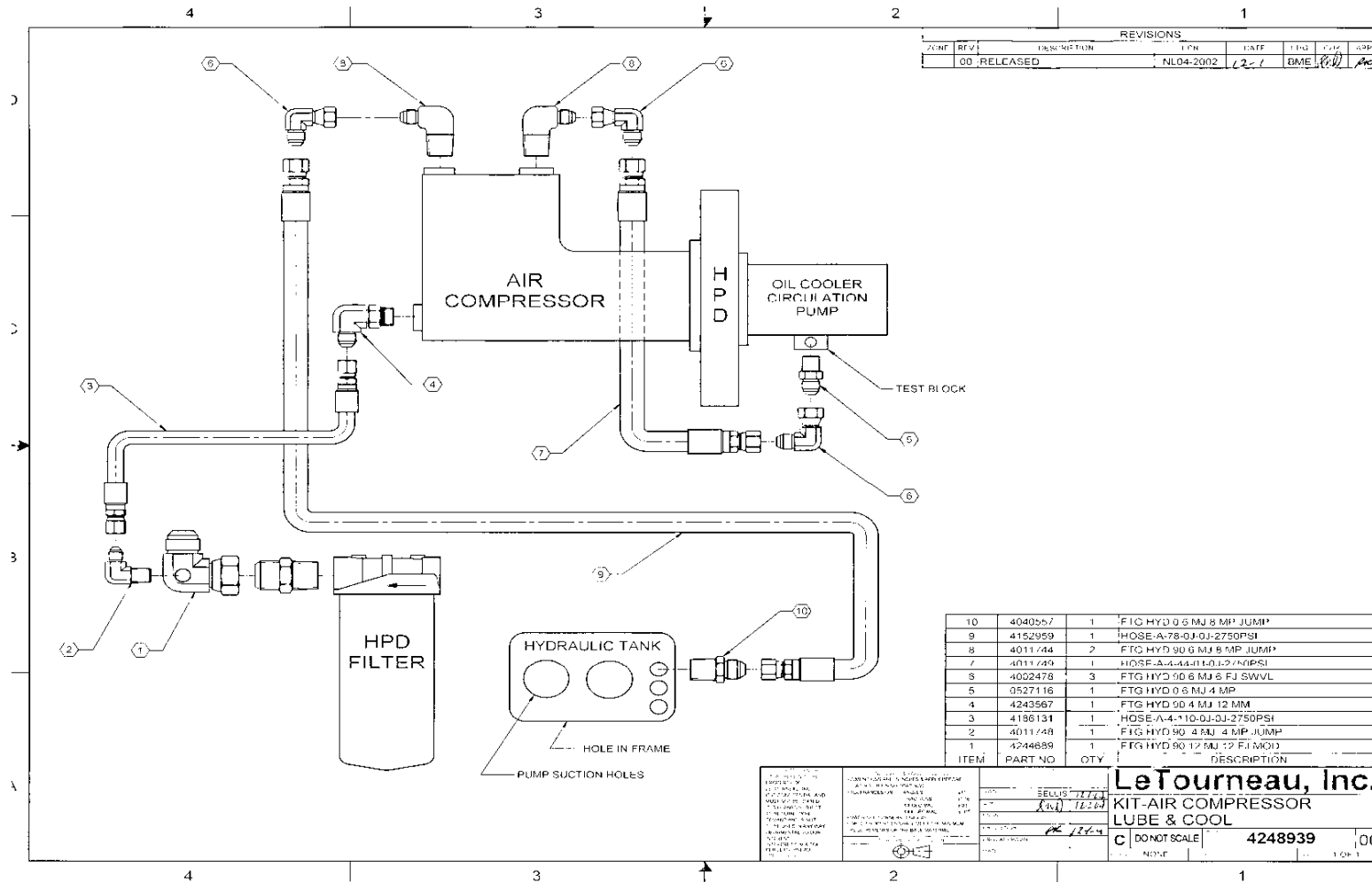


COMPRESSOR CYCLE - INTAKE





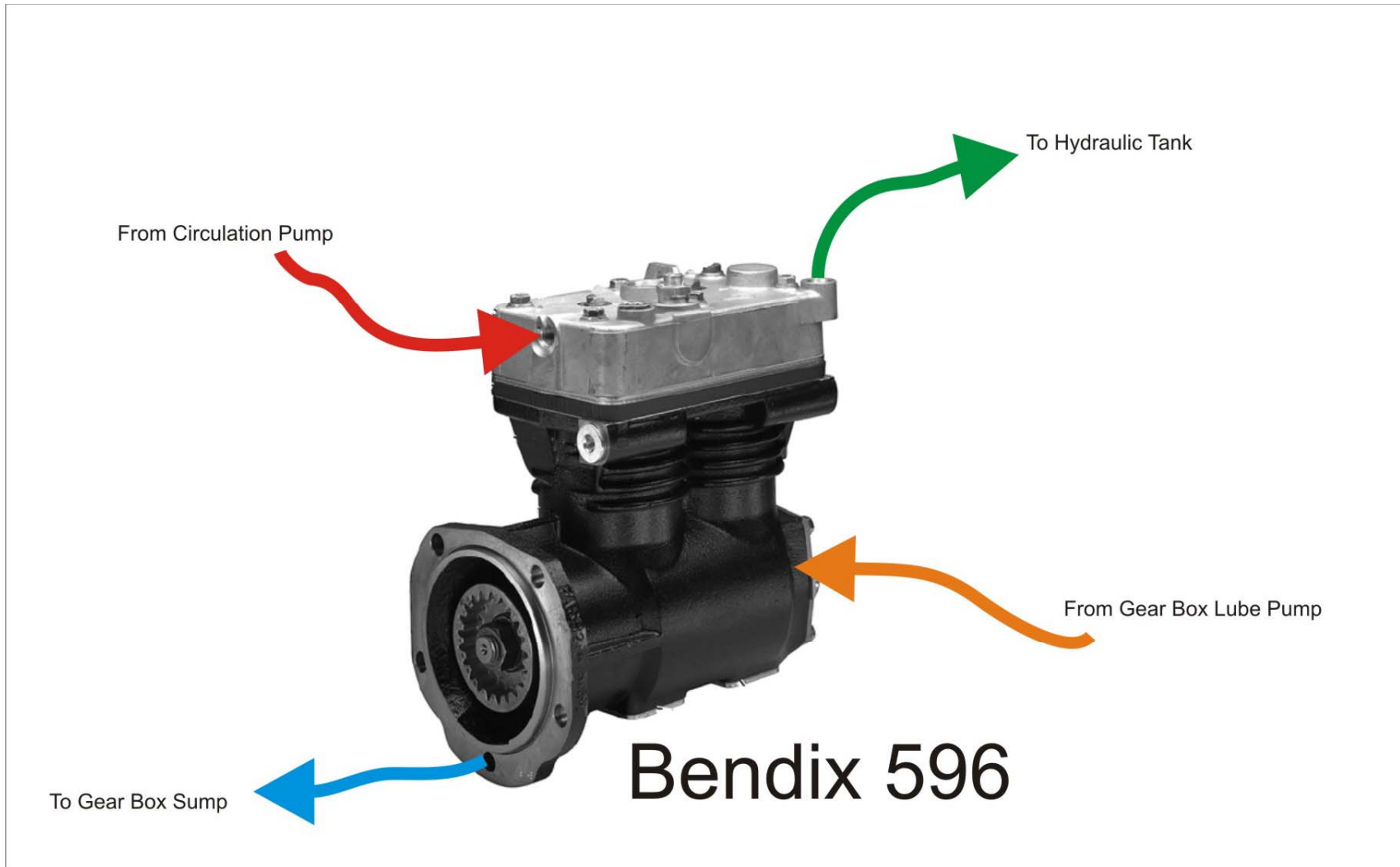
COMPRESSOR CYCLE - COMPRESSION



COMPRESSOR COOLING AND LUBE

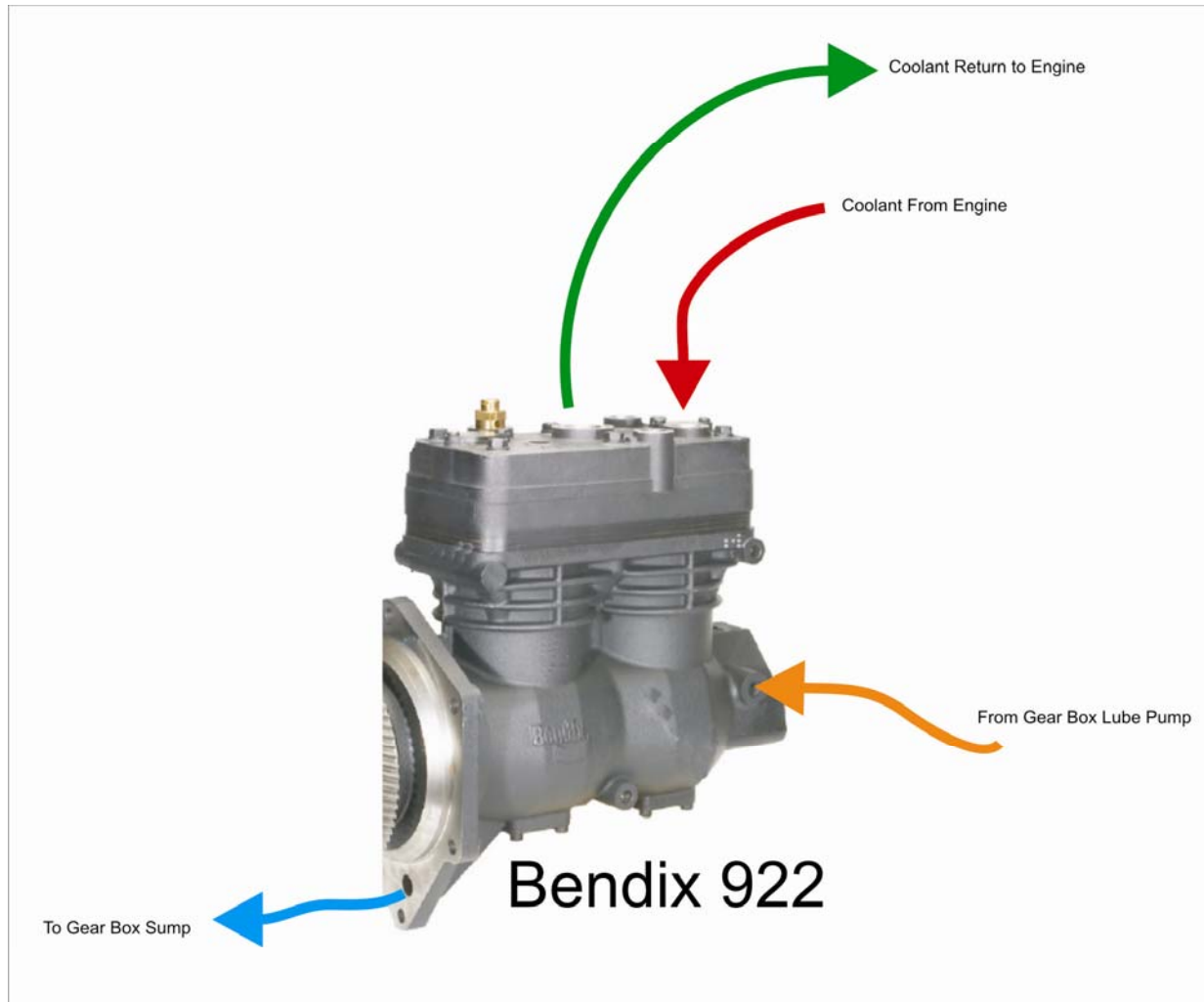
Component Descriptions

LeTourneau Technologies, Inc.



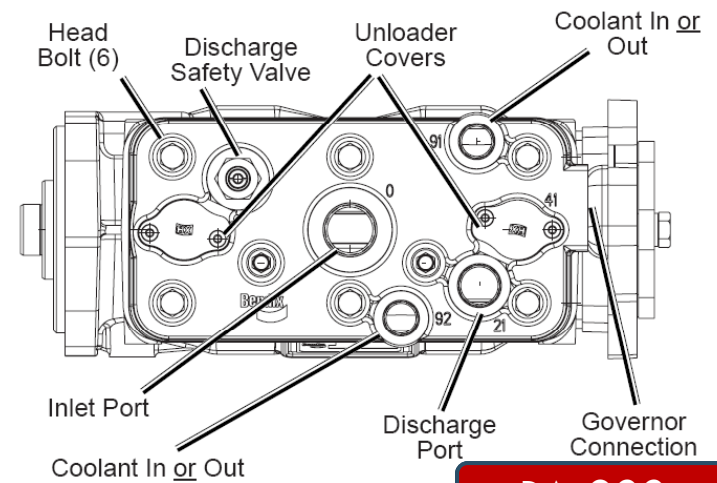
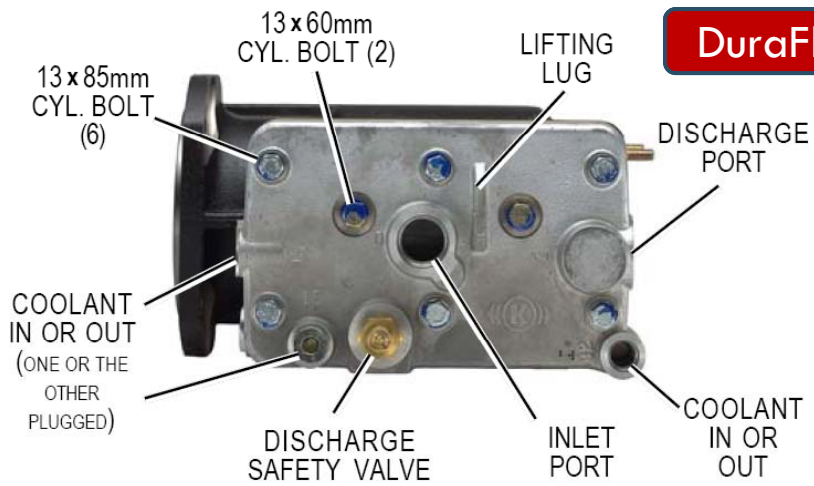
596 COMPRESSOR COOLING LUBE CIRCUIT



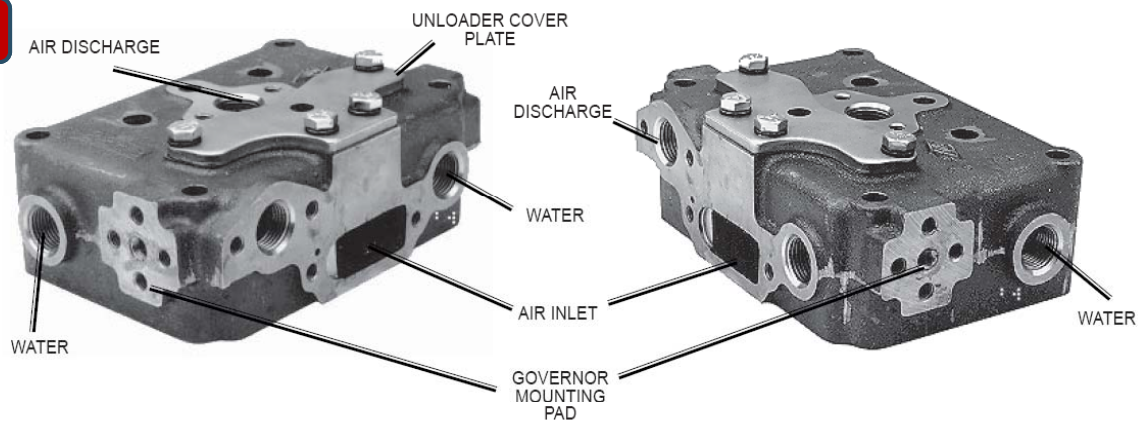


922 COMPRESSOR COOLING LUBE CIRCUIT

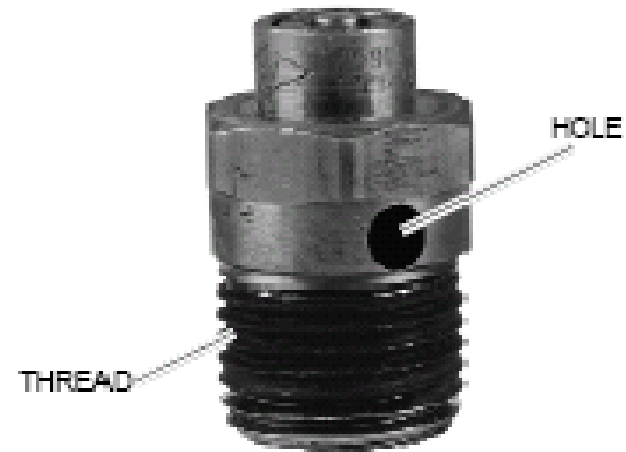




TU-Flo 750



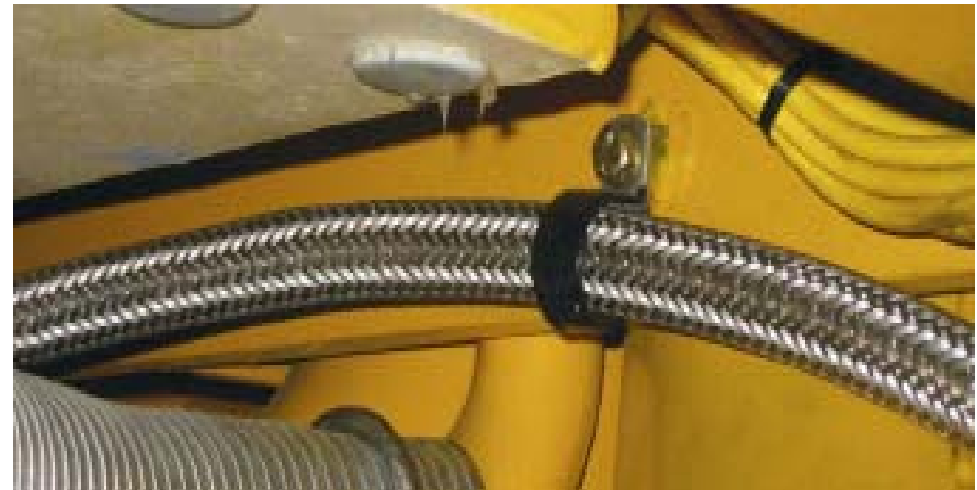
COMPRESSOR PORTING DESCRIPTION



COMPRESSOR 250 PSI SAFETY RELIEF

Component Descriptions

LeTourneau Technologies, Inc.

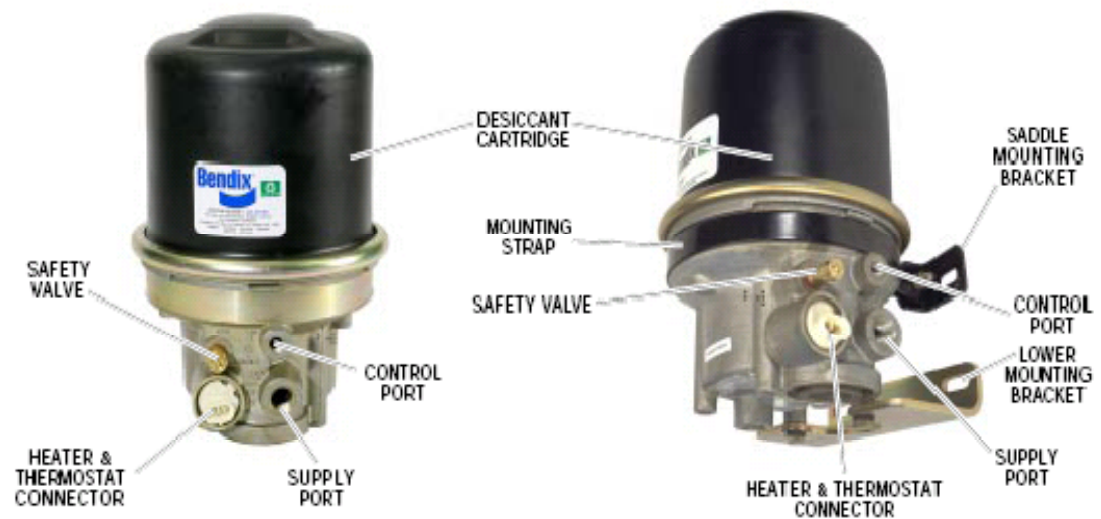


COMPRESSOR OUTLET
STAINLESS STEEL 120 INCH HOSE

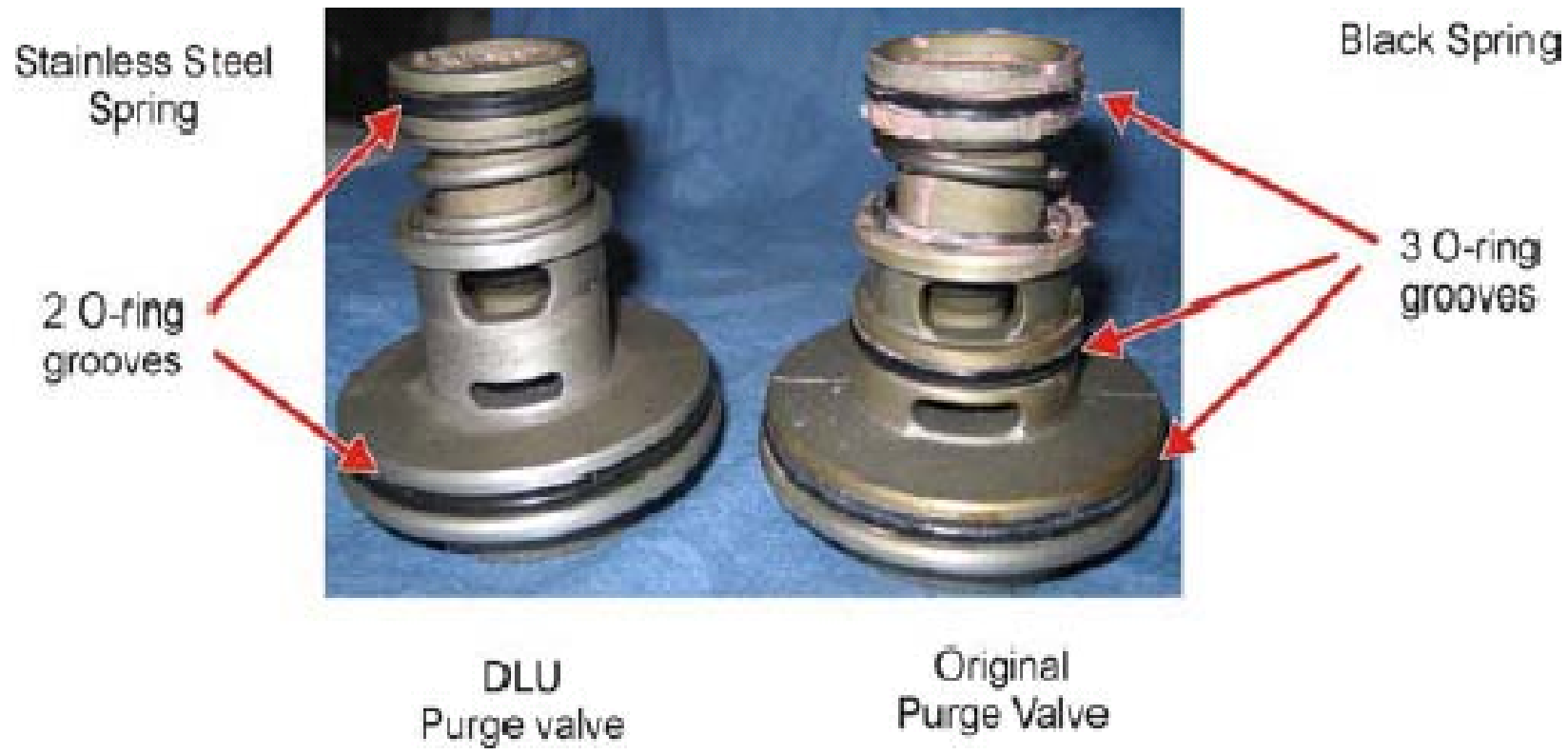
Component Descriptions

LeTourneau Technologies, Inc.

- 200 PSI Safety Relief
- 24 VDC Heater and Thermostat
- Desiccant Cartridge
- DLU Purge Valve
- Outlet Check Valve

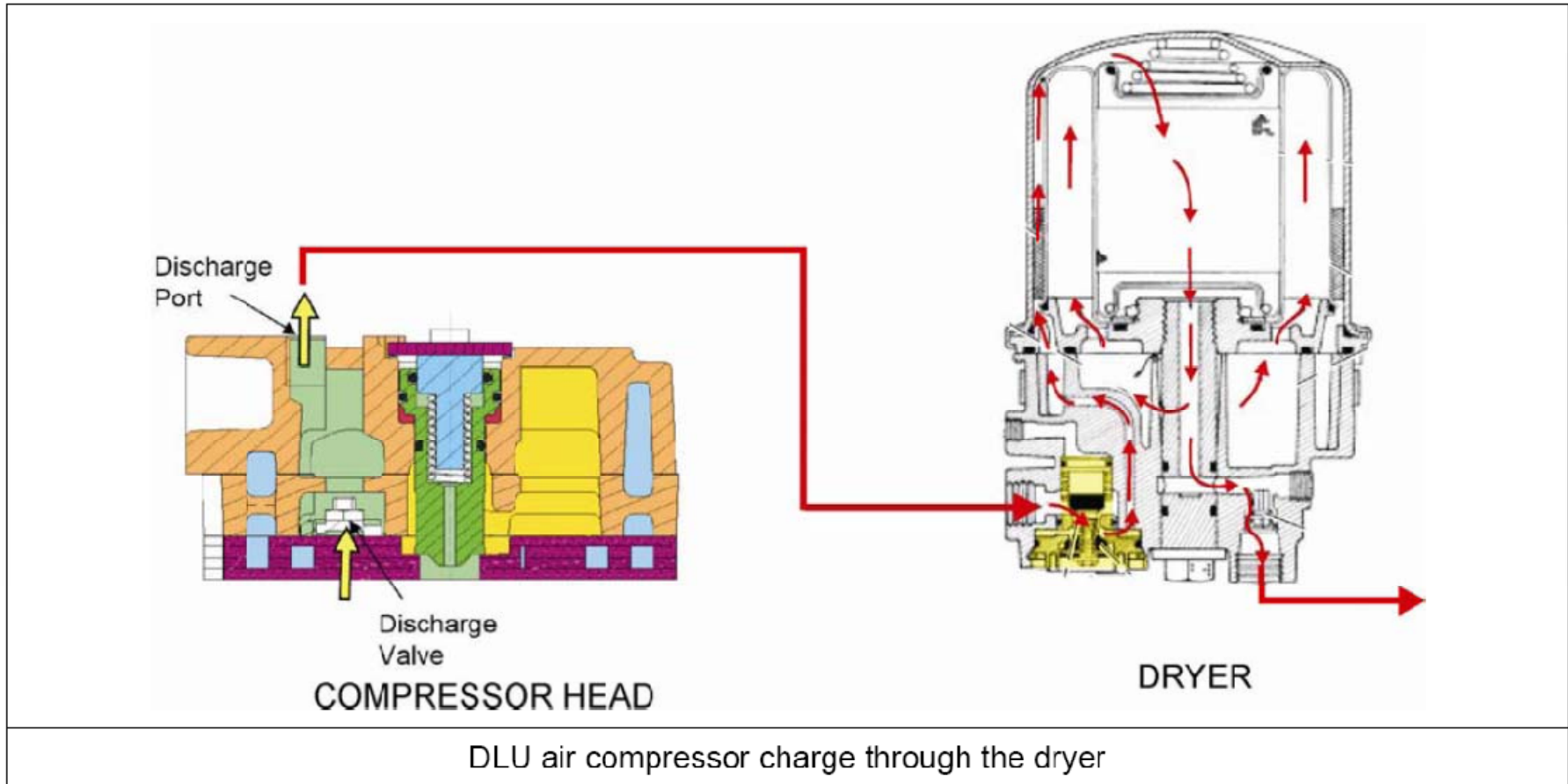


AD-IP Bendix Air Dryer Description

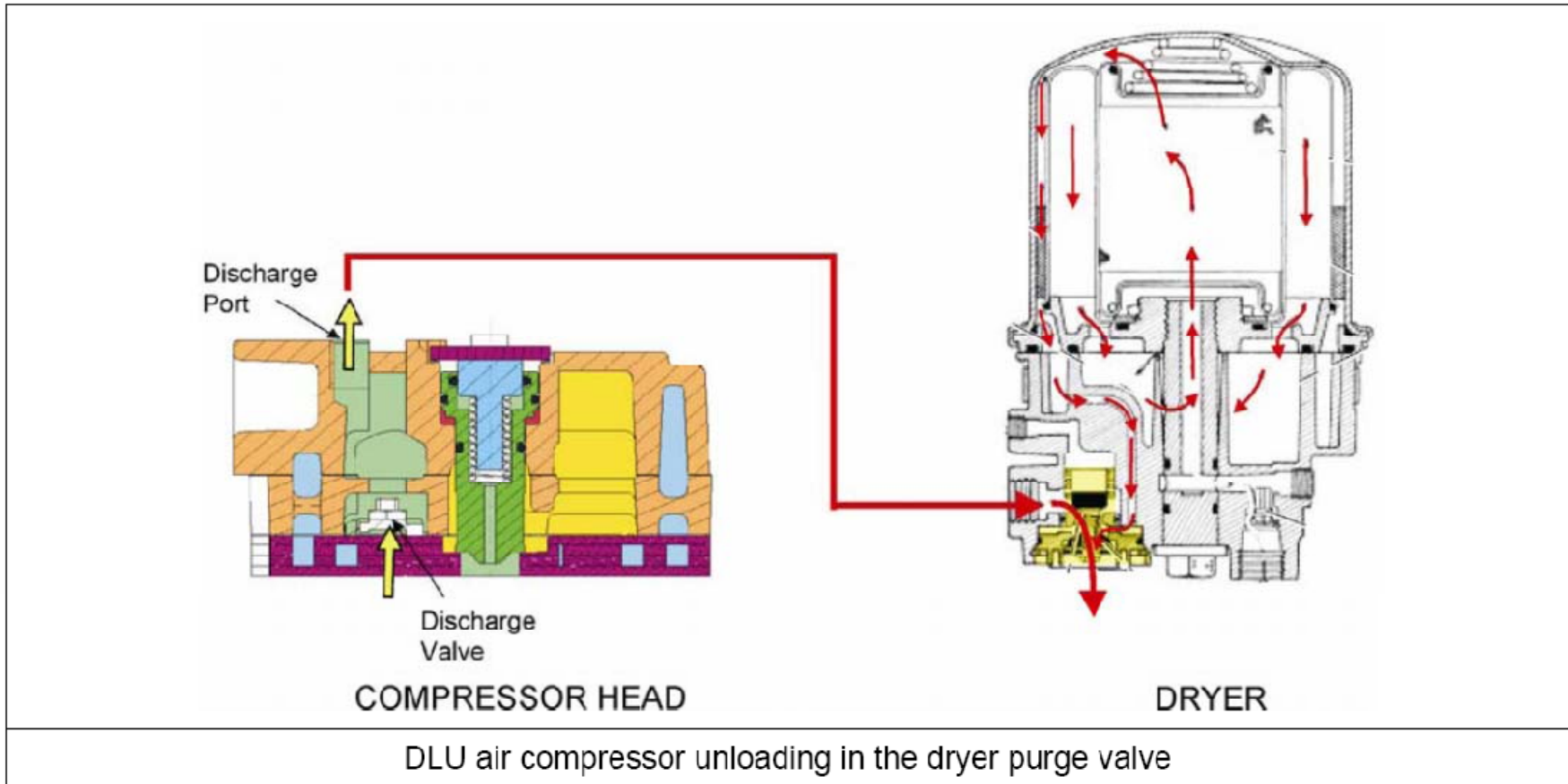


Purge valve comparison

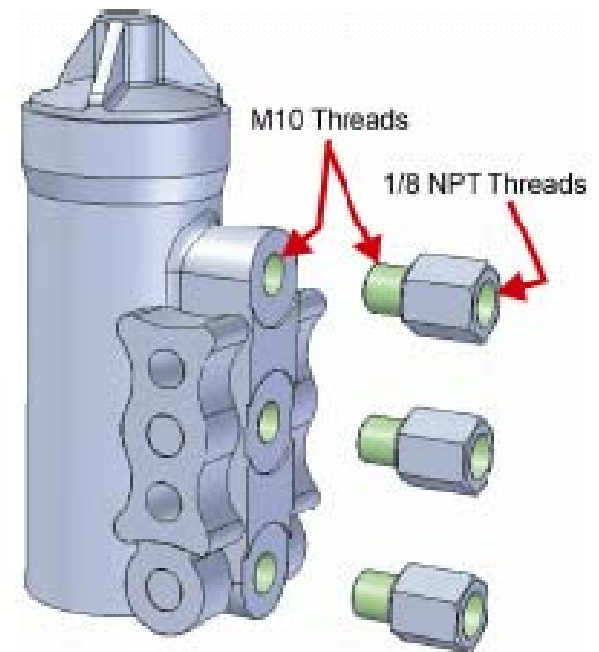
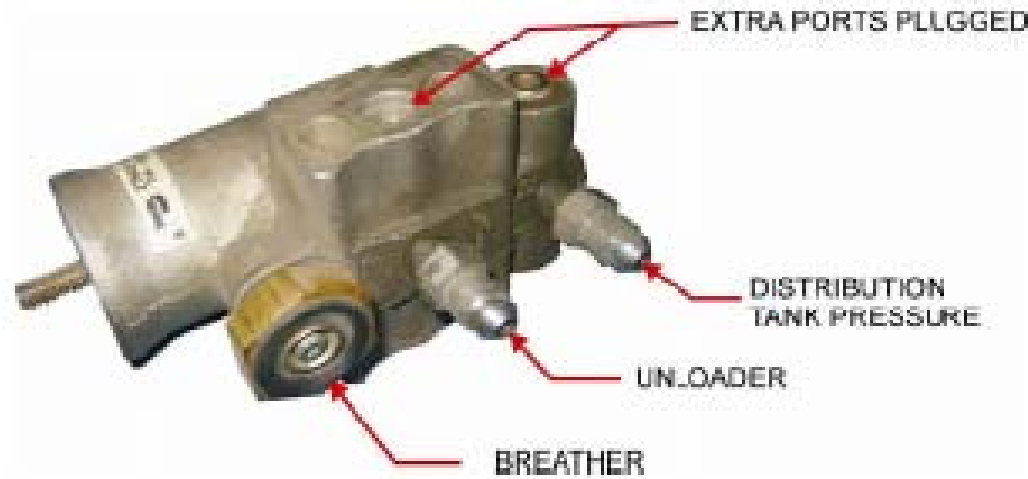
AIR DRYER DLU [DISCHARGE LINE UNLOADER]



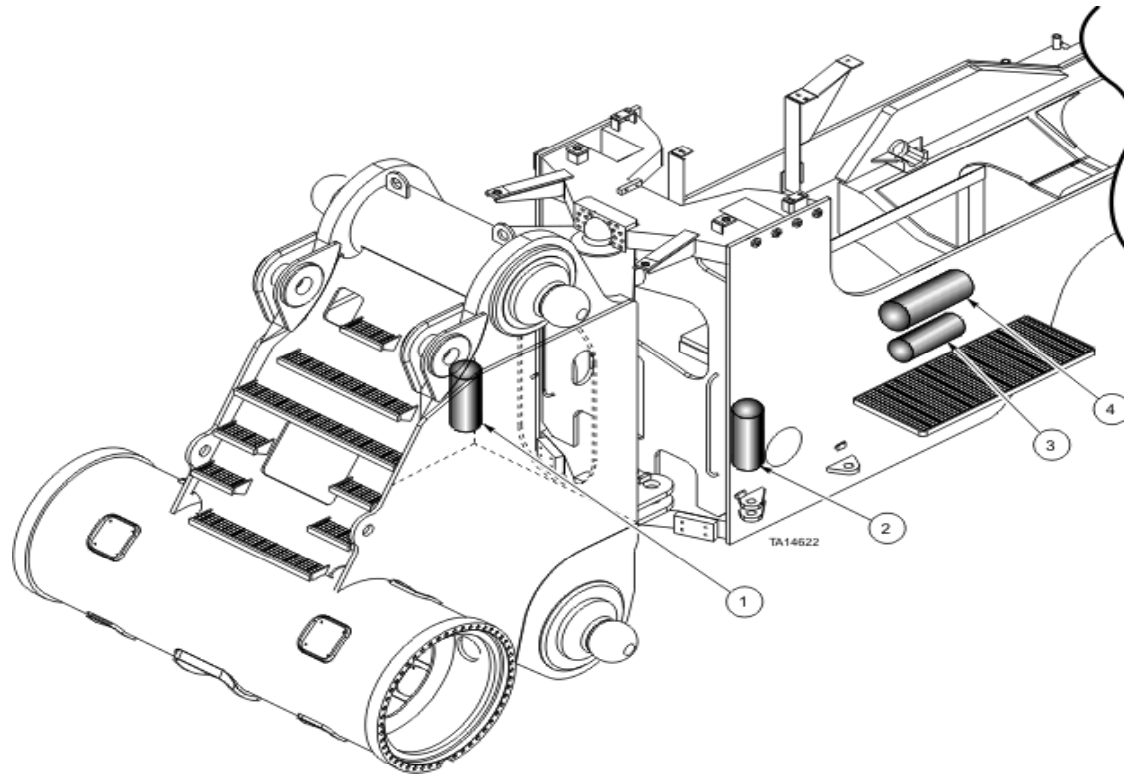
Dryer Operation Cycle - System Charging



Dryer Operation Cycle – System Unloading and Purge



Governor Description



1. Front Brakes
2. Main Receiver
3. KLENZ
4. Rear Brakes

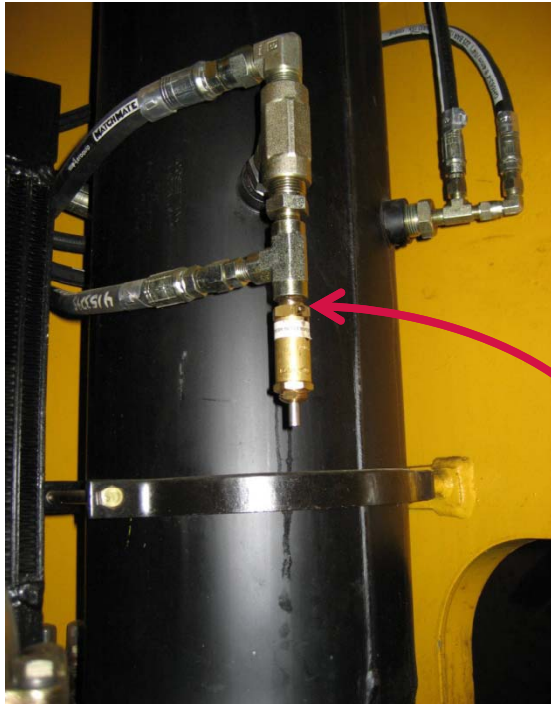
950 [Except KLENZ] = 1791 cu.in.

1350-1850-2350 [Except KLENZ] = 2146 cu.in.

KLENZ = 557 cu.in.

Distribution Tanks - General Location

Check Valve



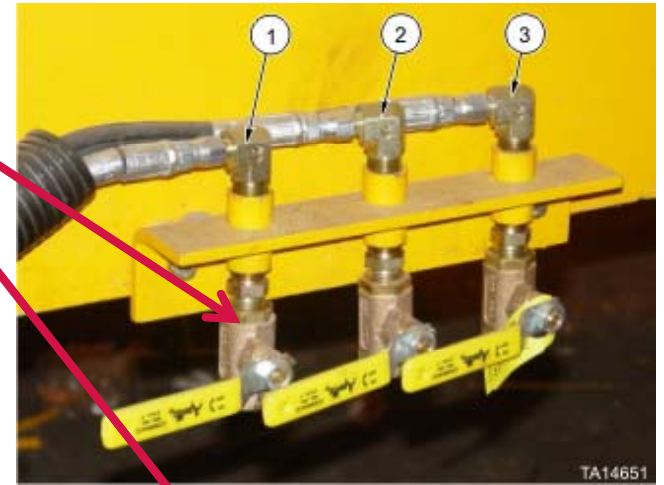
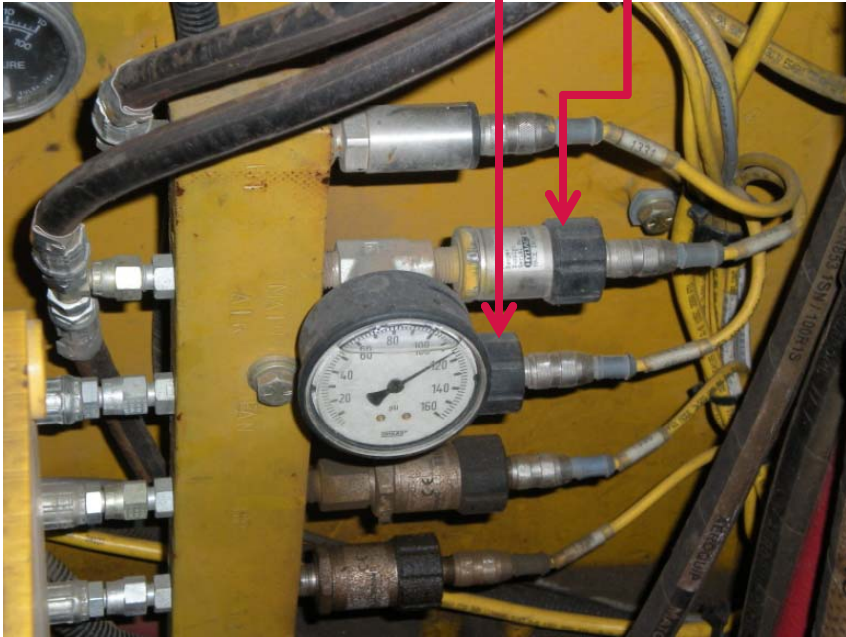
175 psi Safety Valve

DISTRIBUTION TANKS VALVES

Distribution Tank Drain Valve

Gauge

Transducer



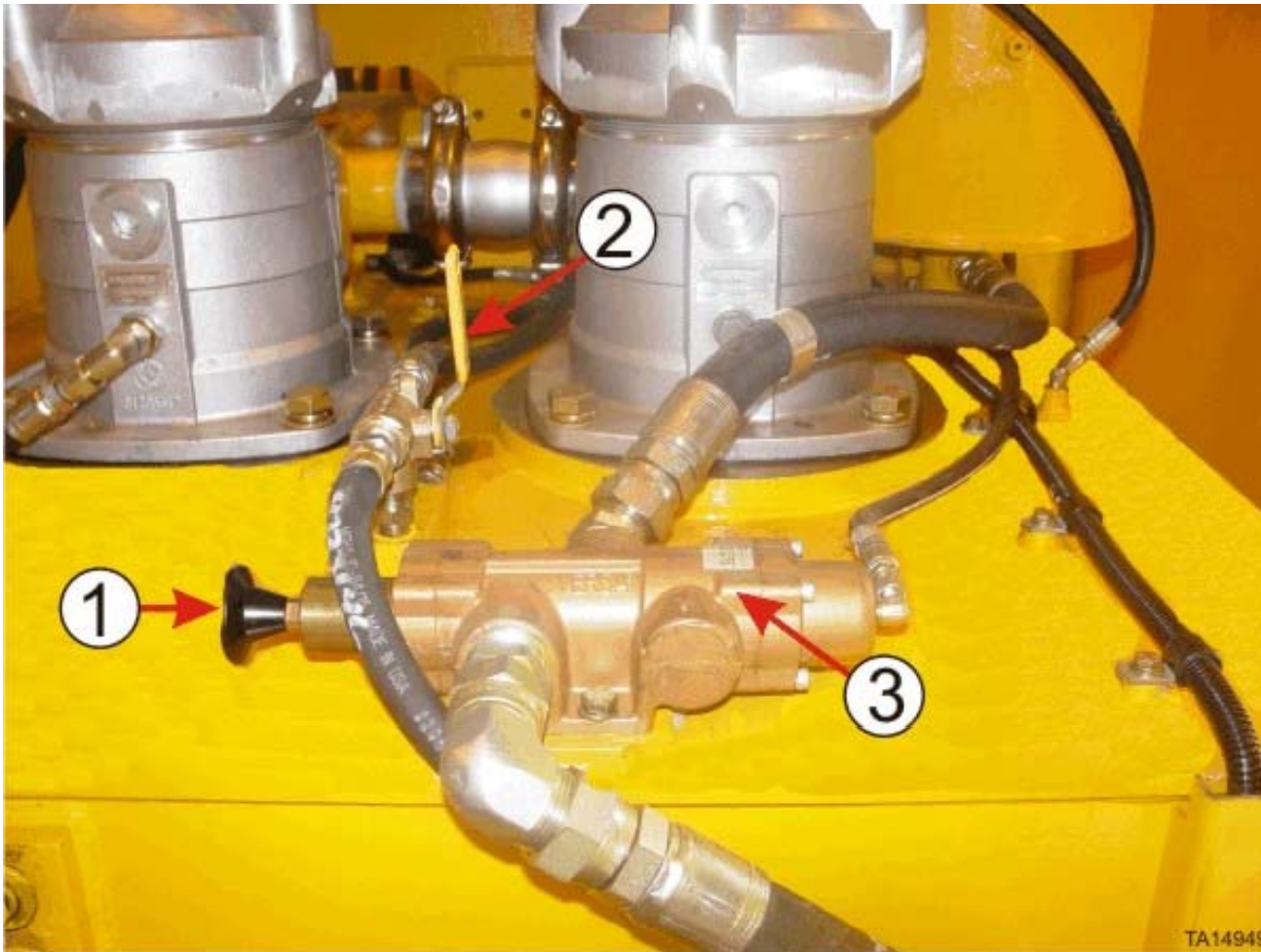


Air Horn Solenoid 30

Cab Cleanout



AUXILIARY FUNCTIONS - AIR HORN AND CAB CLEANOUT



1. Shuttle Valve Actuator
2. Manual Valve
3. Valve Body

AUXILIARY FUNCTIONS - DUMP VALVE SOLENOID 37

- Brake Pedal
- Park Brake Solenoid (Front Solenoid # 34 Rear Solenoid # 35)
- Brake Relay Valve
- Brake Actuator
- Pressure Transducer

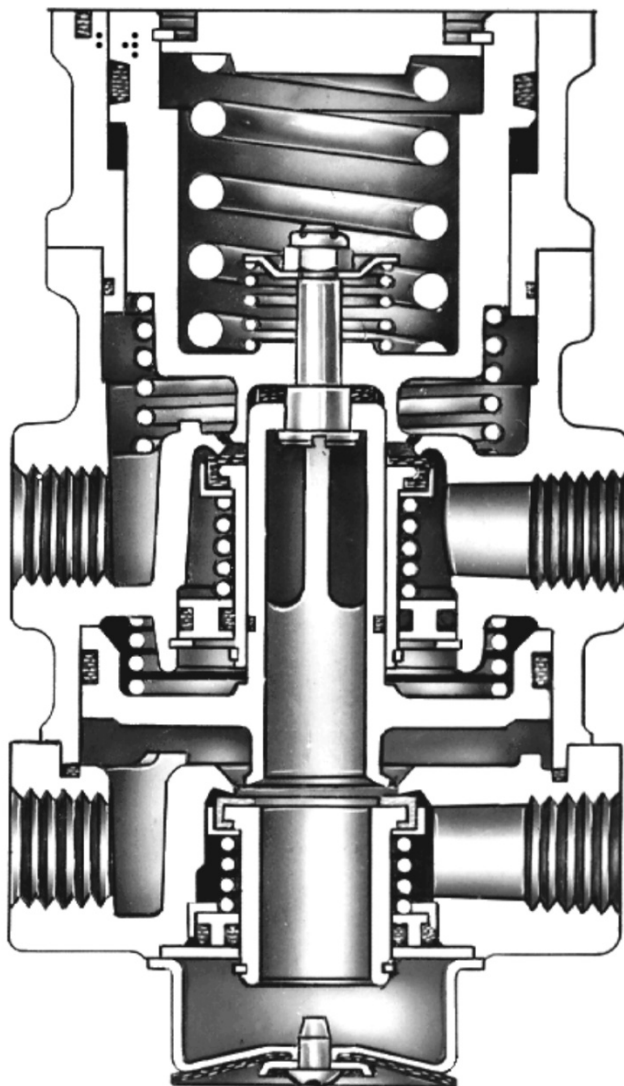
Air System Brake Components



BRAKE PEDAL

Component Descriptions

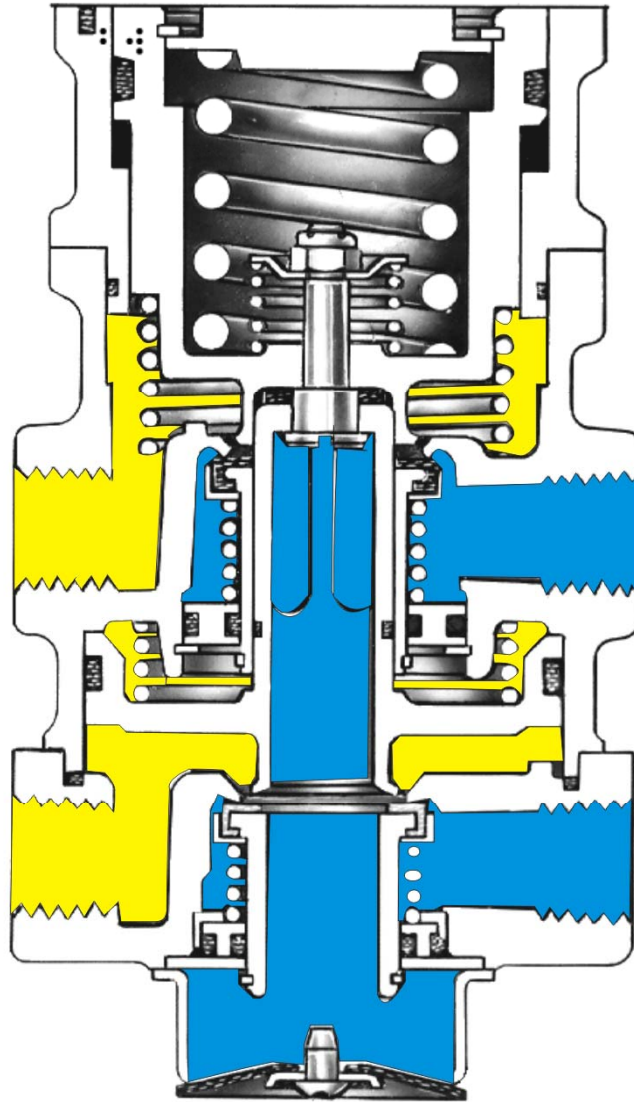
LeTourneau Technologies, Inc.



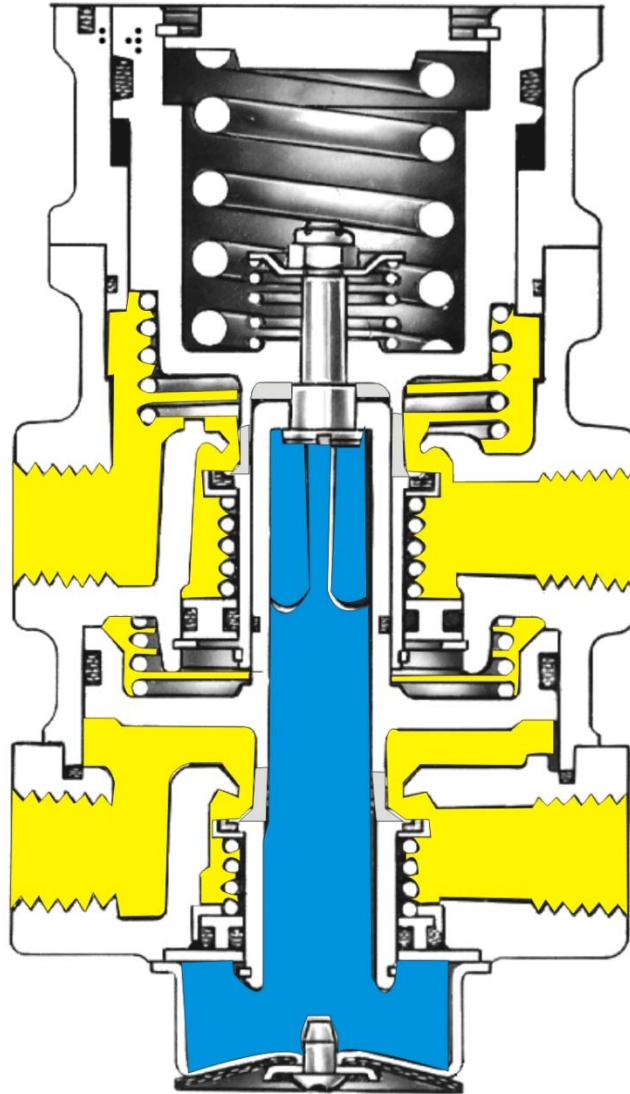
TREADLE VALVE

Component Descriptions

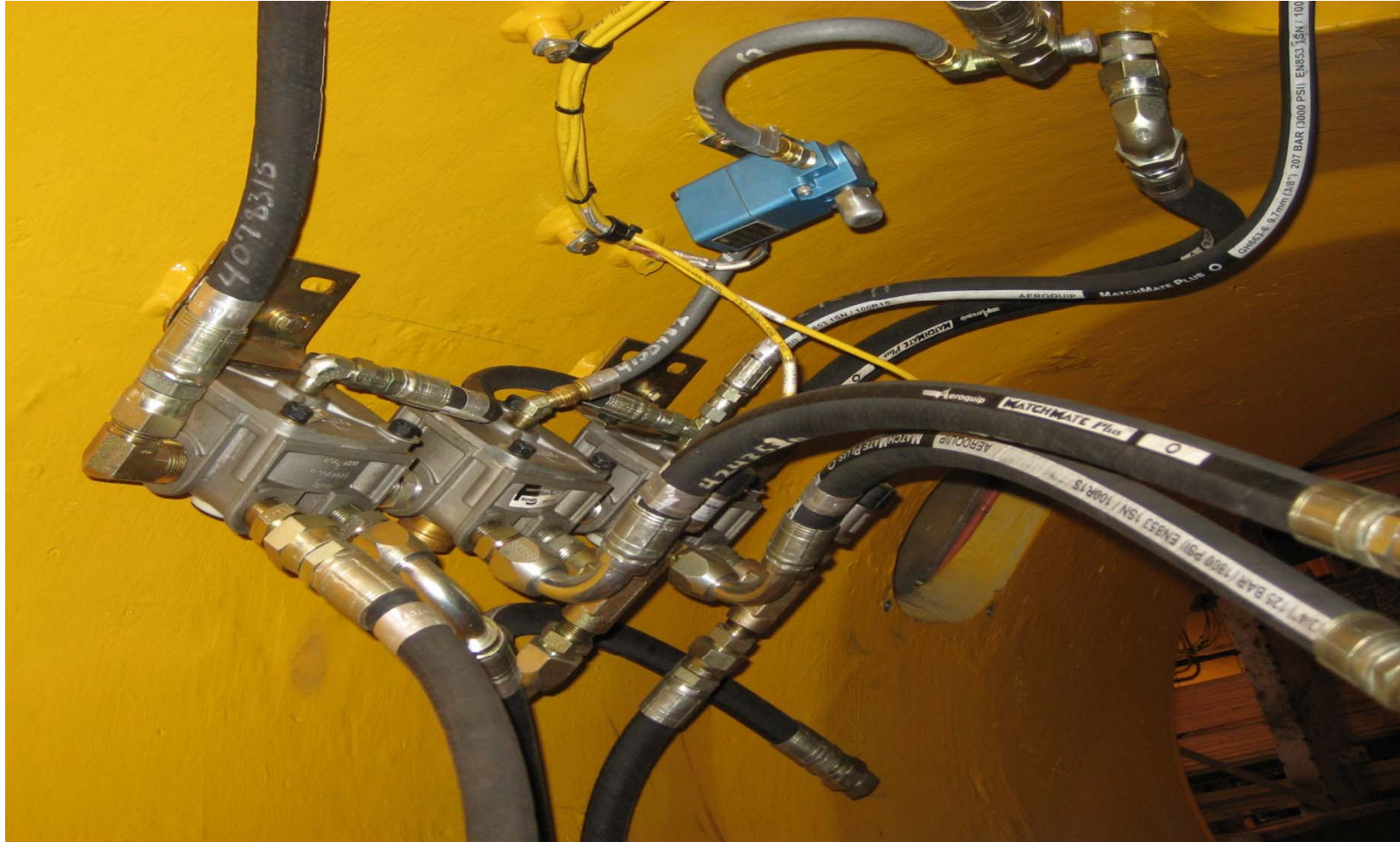
LeTourneau Technologies, Inc.



TREADLE VALVE



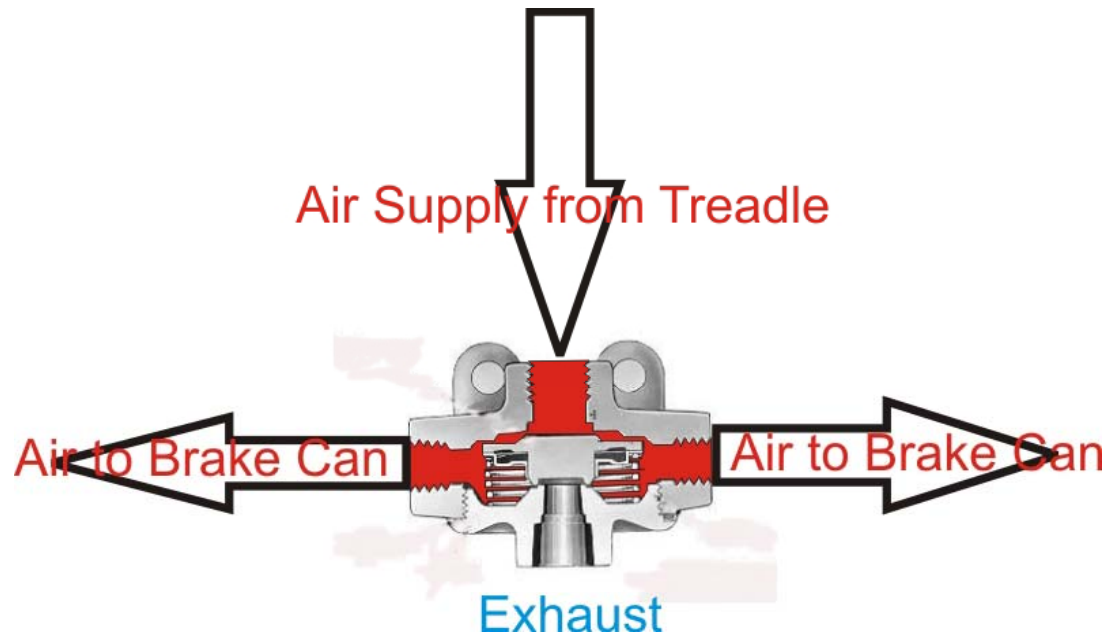
TREADLE VALVE



BRAKE RELAY VALVES

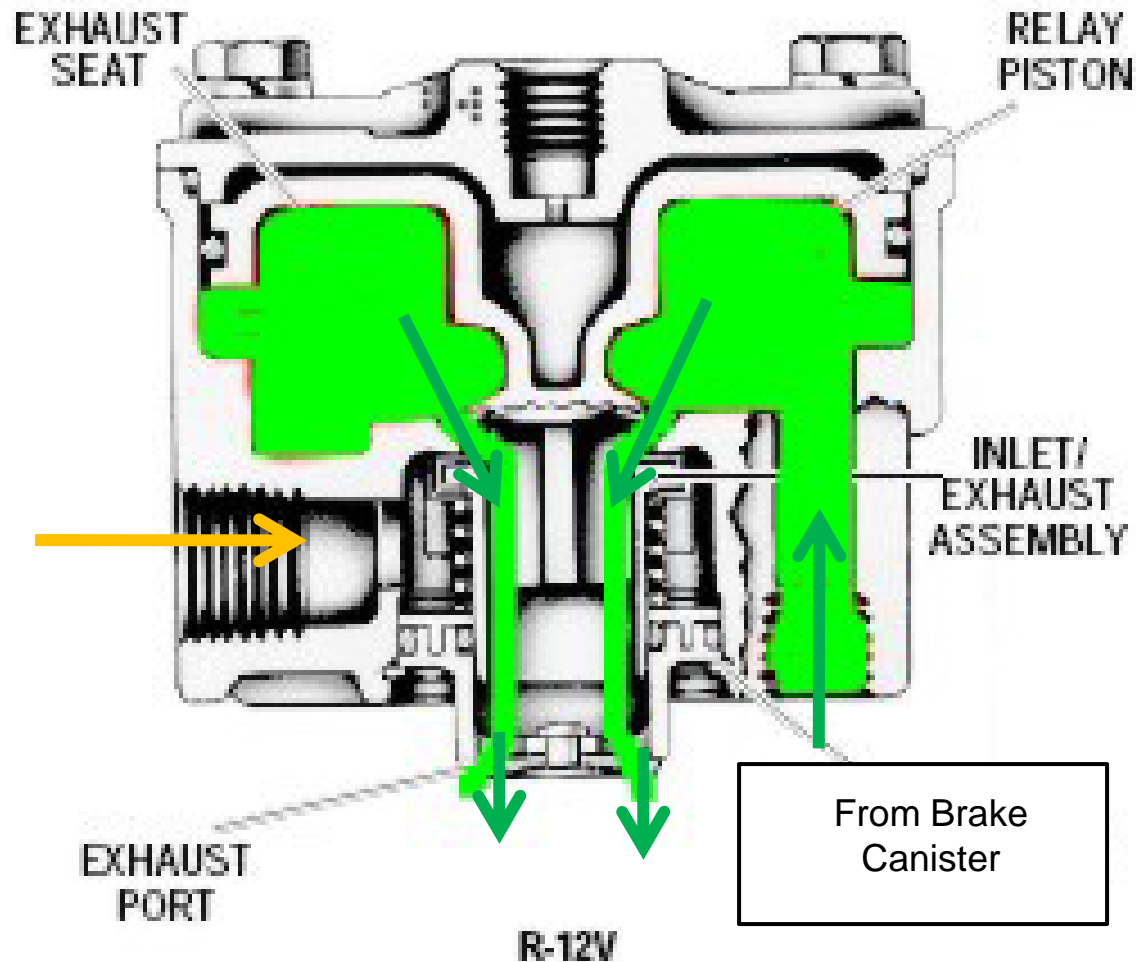
Component Descriptions

LeTourneau Technologies, Inc.

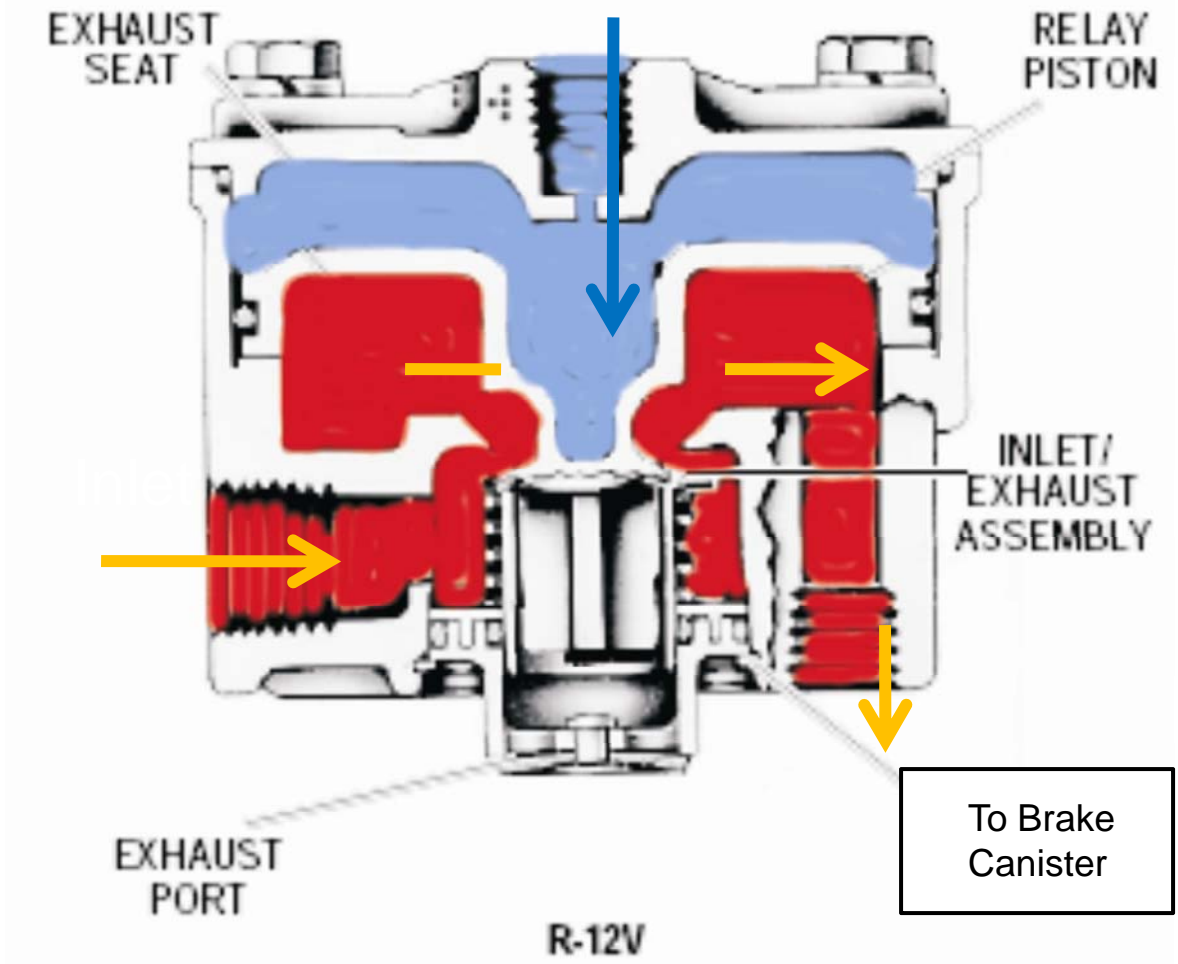


Brake Treadle Supply





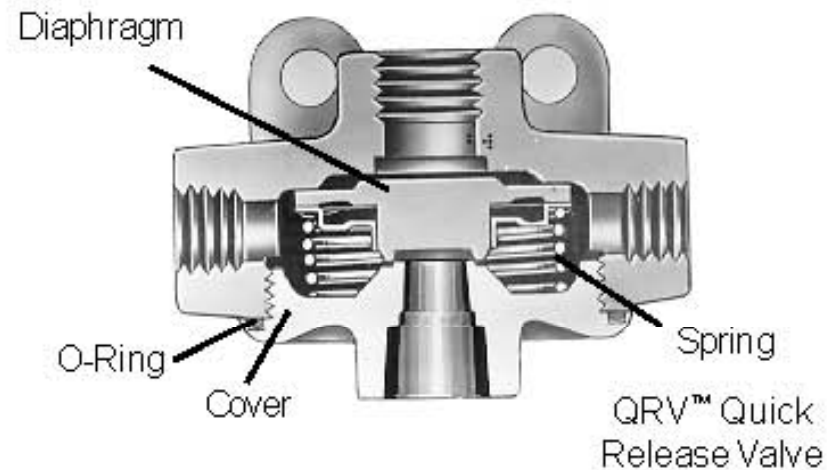
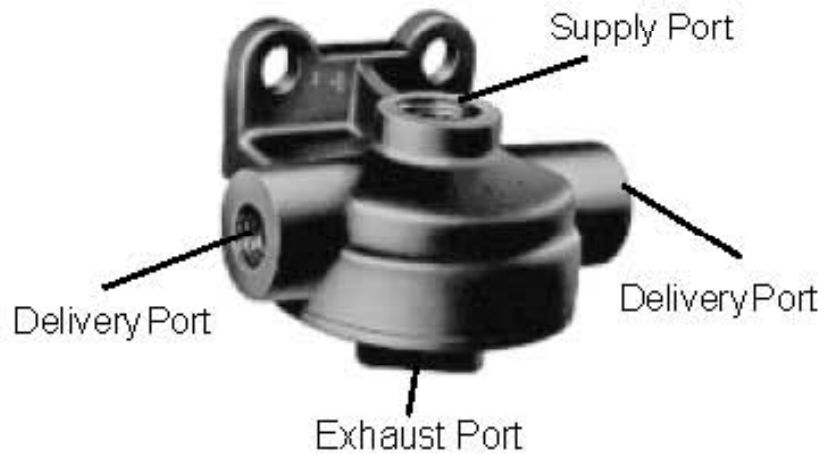
Brake Relay Valve - Not Actuated

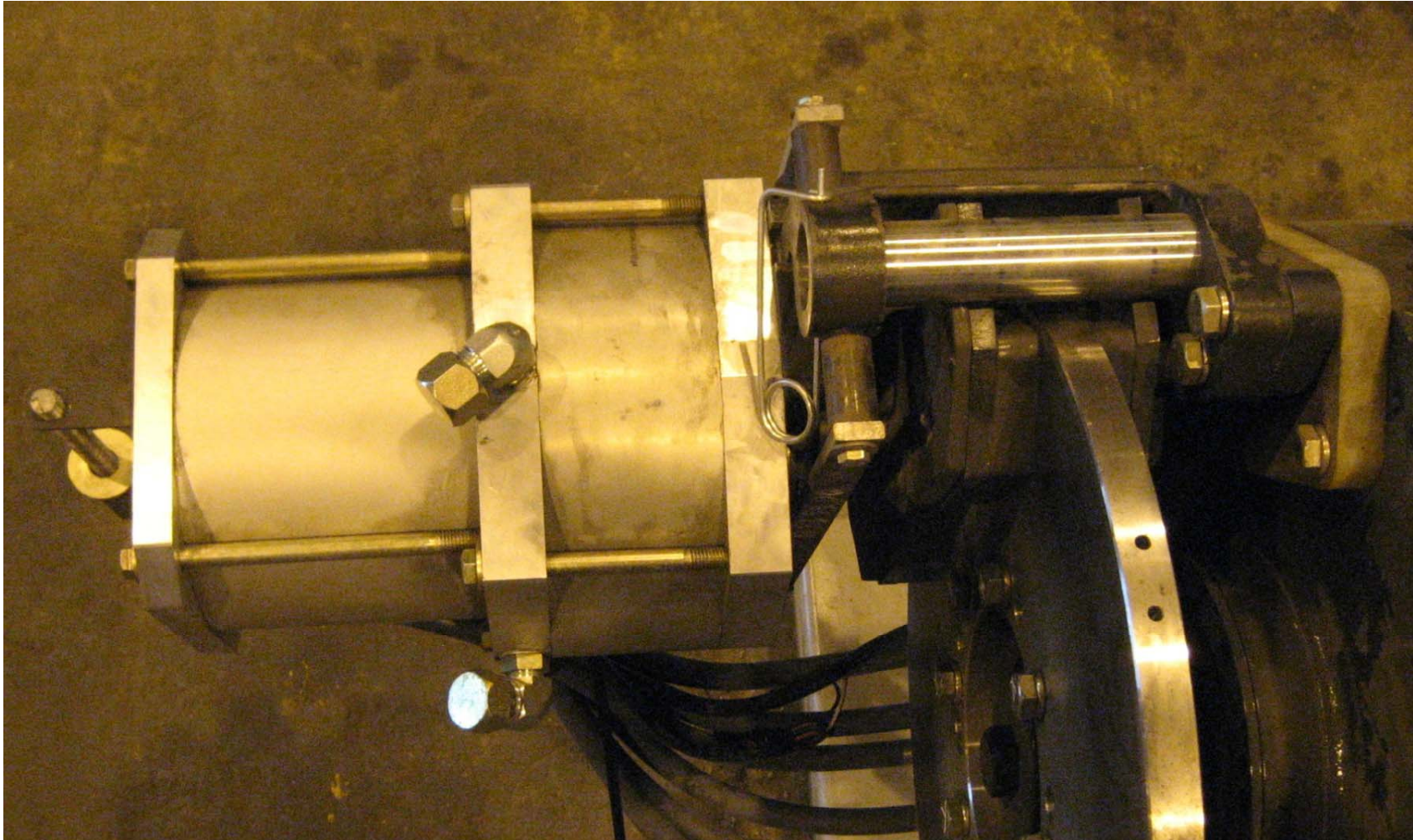


Brake Relay Valve - Actuated

L-950 QUICK REACTION VALVE

QRV™ Quick Release Valve

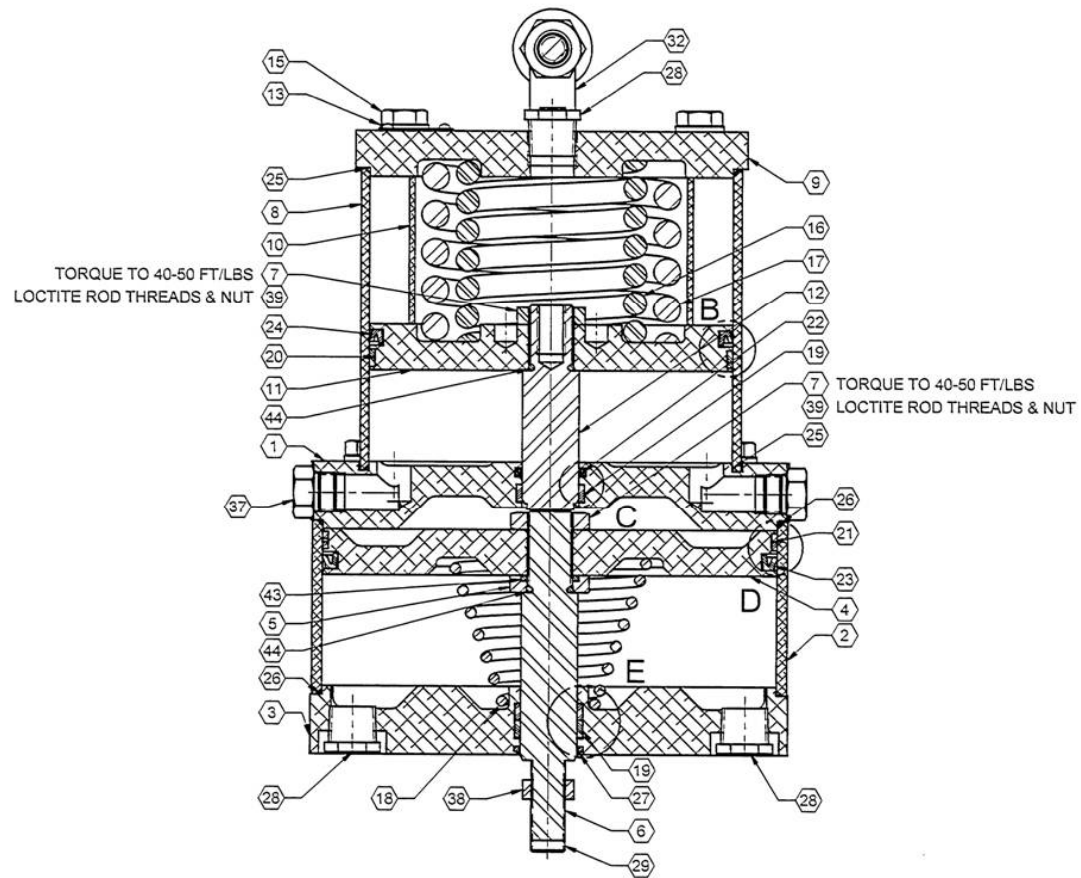




Brake Actuator

Component Descriptions

LeTourneau Technologies, Inc.



SECTION A-A

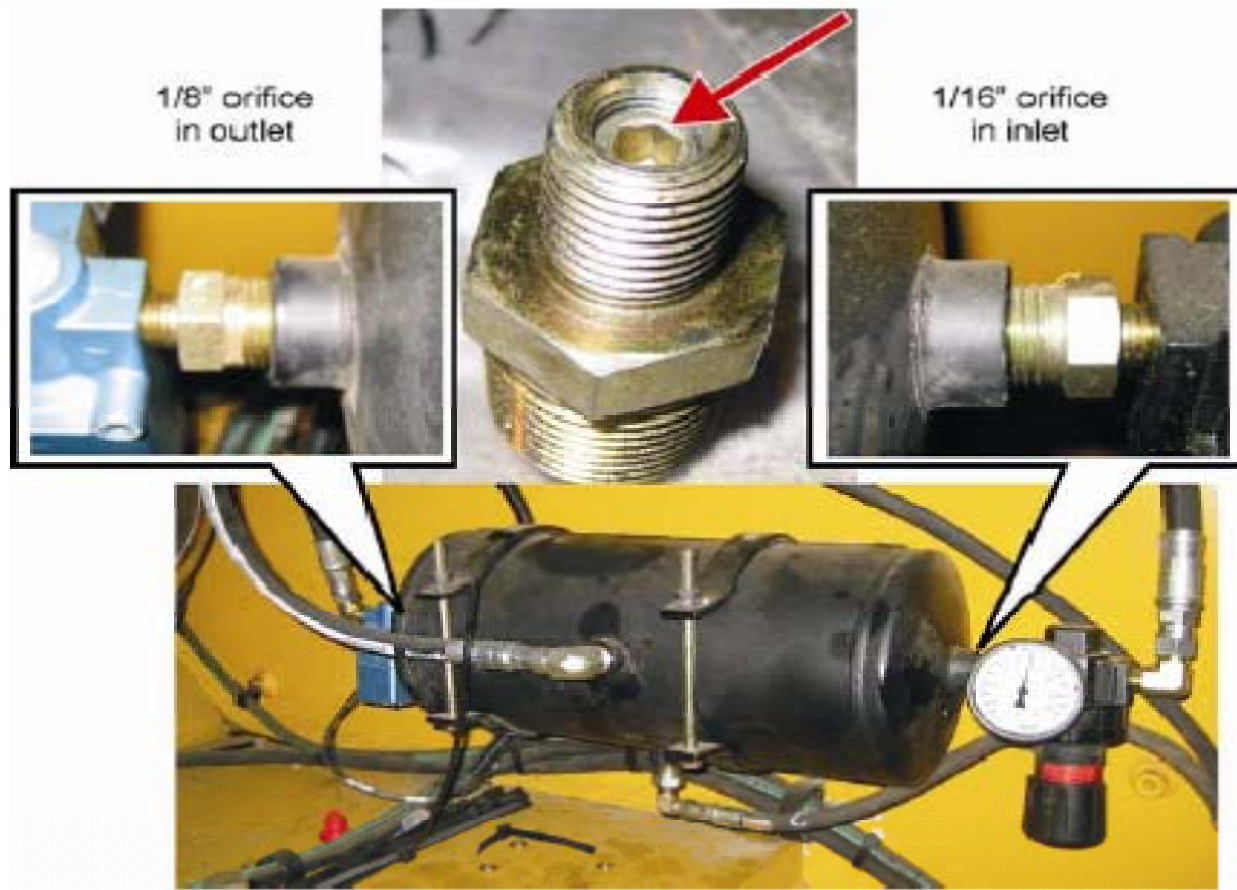
Brake Actuator



Brake Pressure Transducer

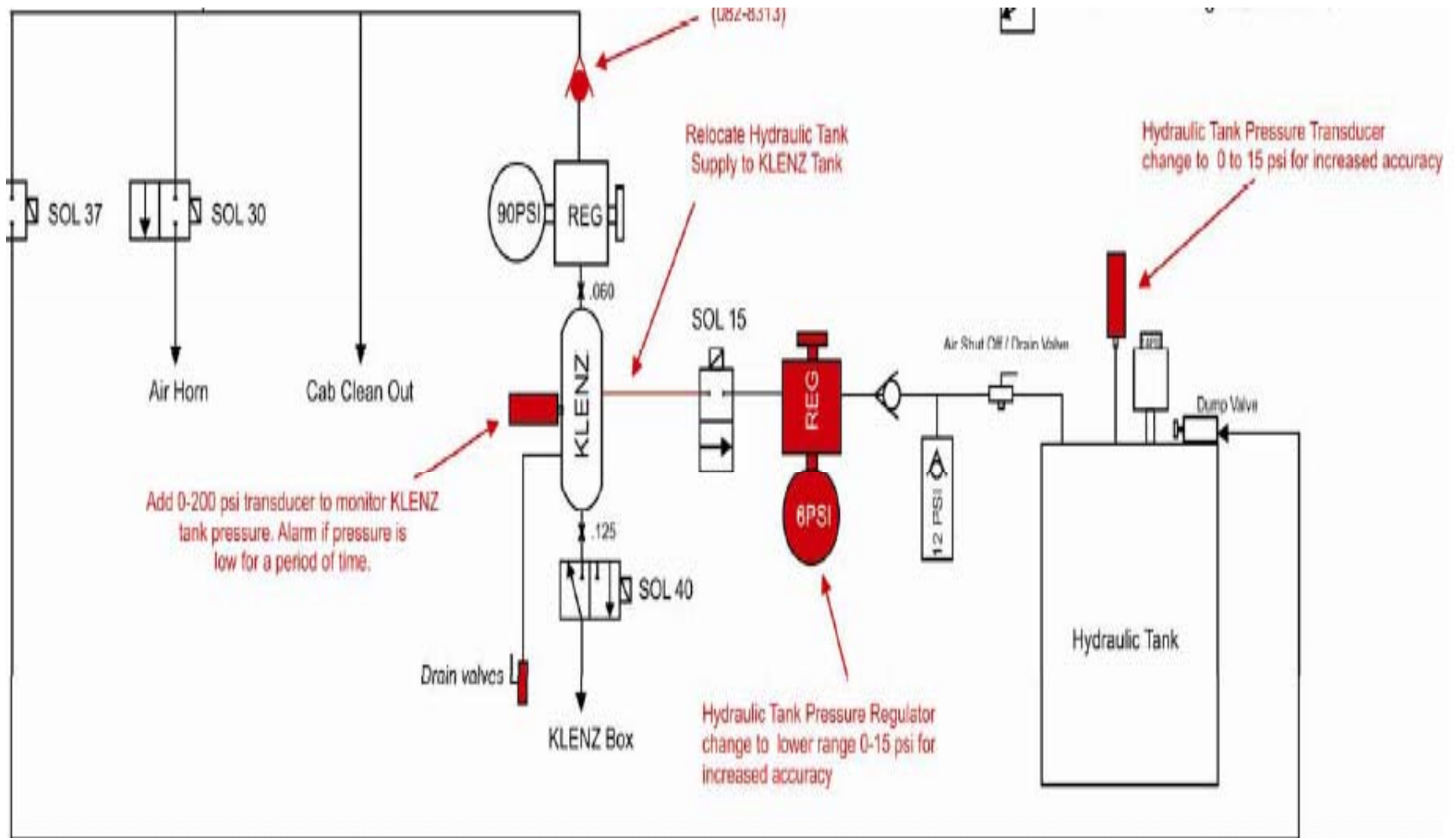
Component Descriptions

LeTourneau Technologies, Inc.



KLENZ tank orifices

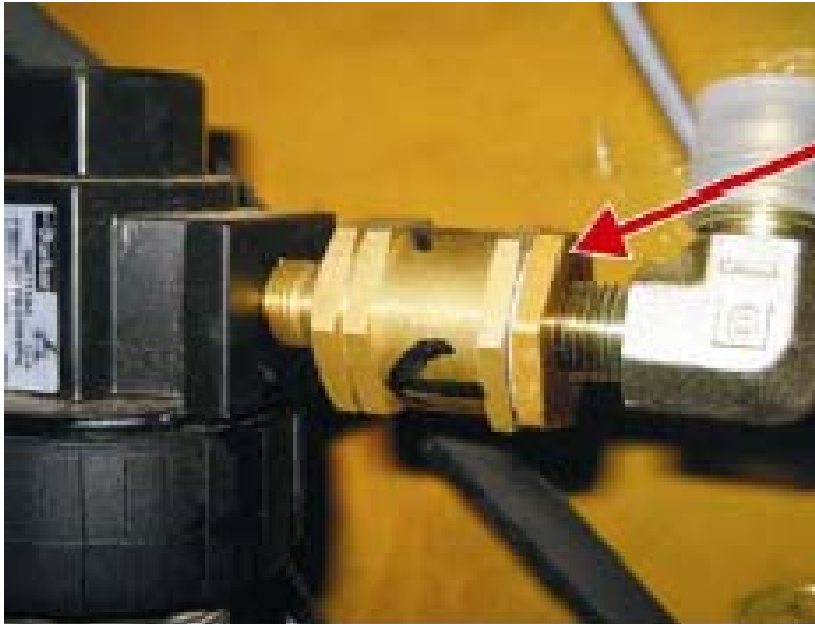
KLENZ Tank



New KLENZ Components

Component Descriptions

LeTourneau Technologies, Inc.

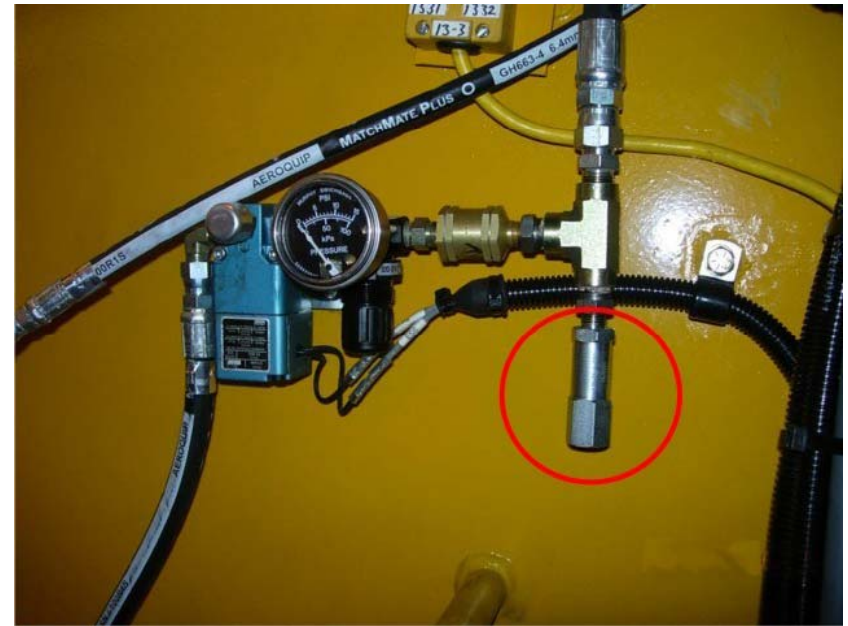


- Check inlet
- Set at 90 psi

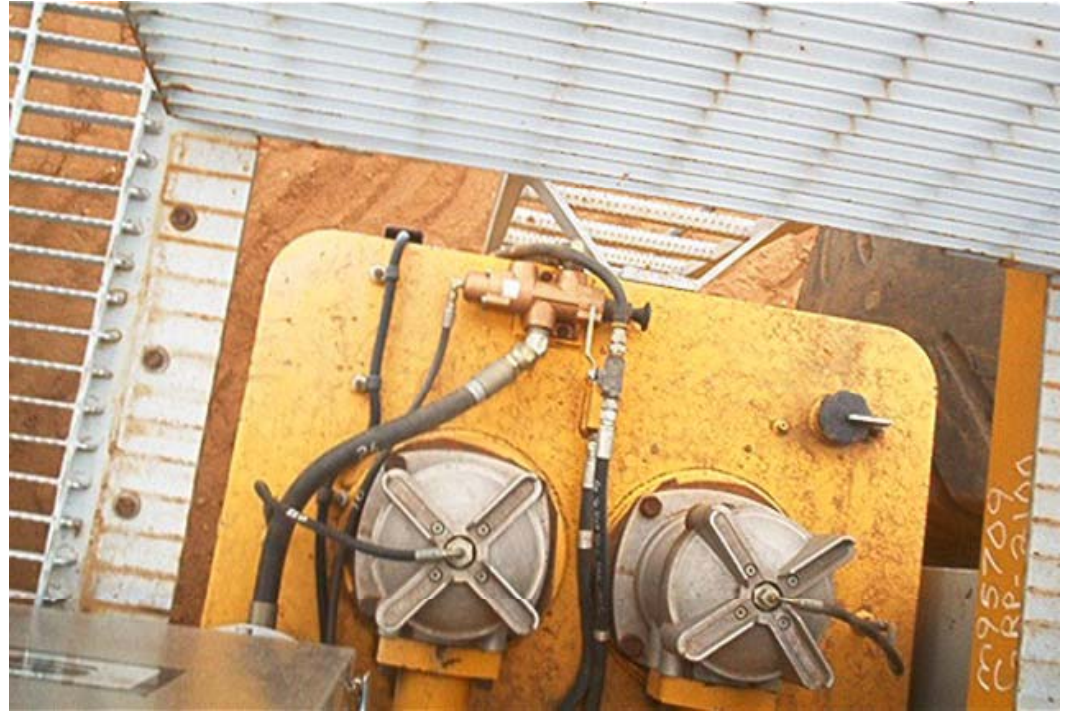


KLENZ REGULATOR

- Solenoid 15
- 6 psi Regulator
- 12 psi Check Valve



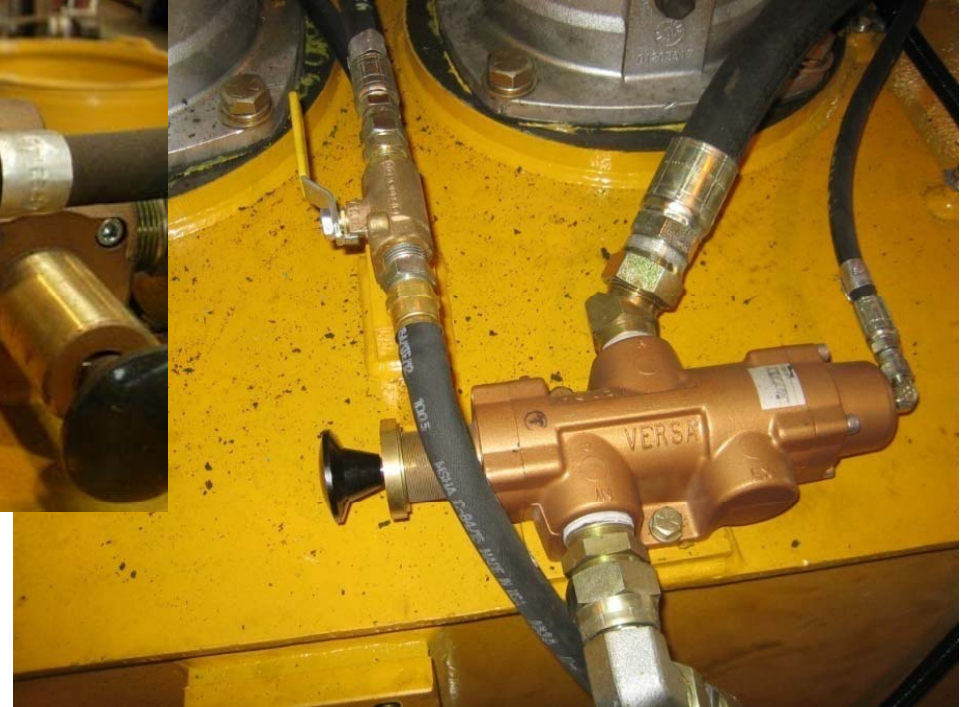
KLENZ TANK TO HYDRAULIC TANK



AIR SYSTEM - HYDRAULIC TANK AIR

Component Descriptions

LeTourneau Technologies, Inc.



AIR SYSTEM - HYDRAULIC TANK DUMP VALVES

Component Descriptions

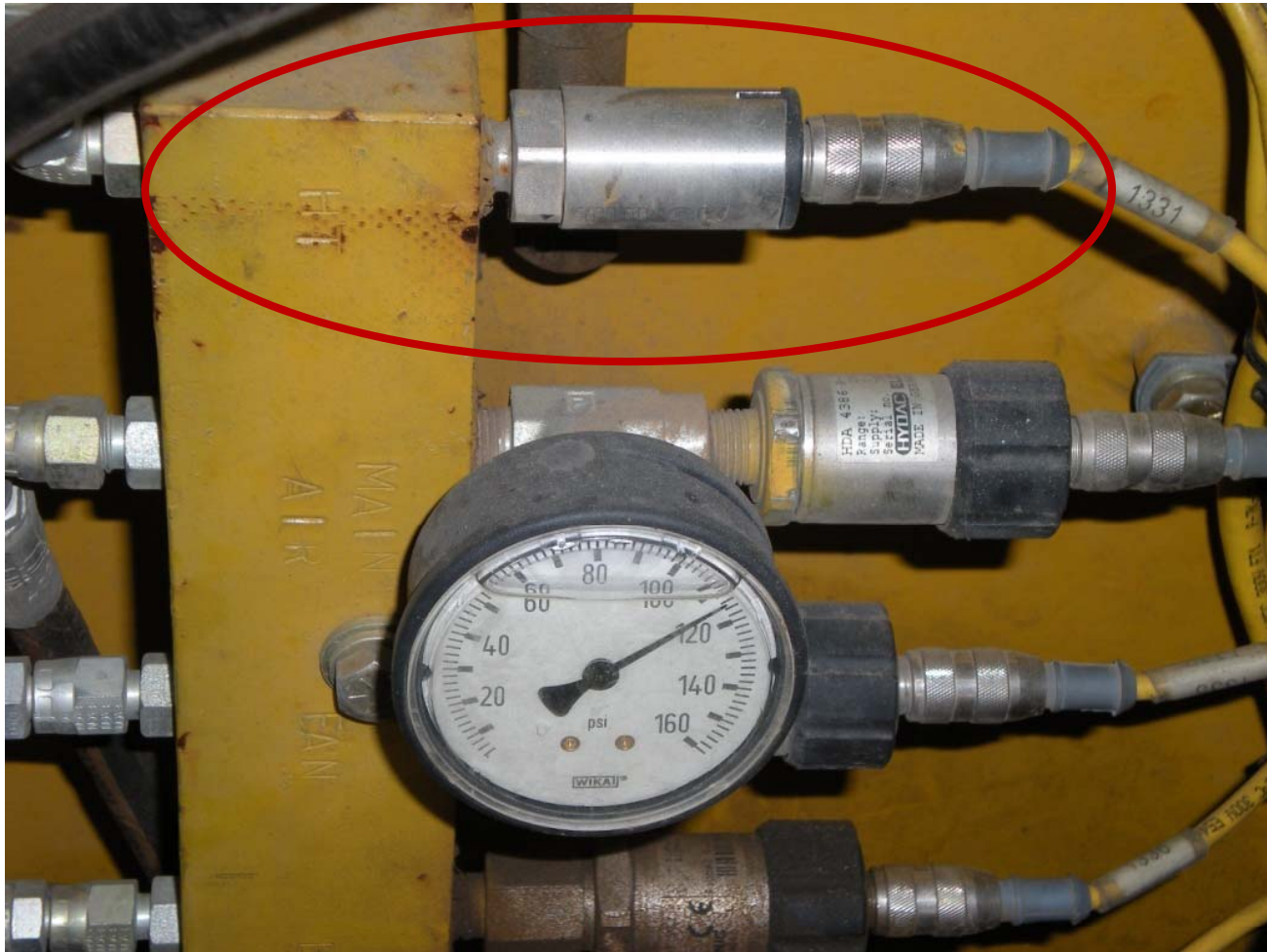
LeTourneau Technologies, Inc.



AIR SYSTEM HYDRAULIC SURGE TANK

Component Descriptions

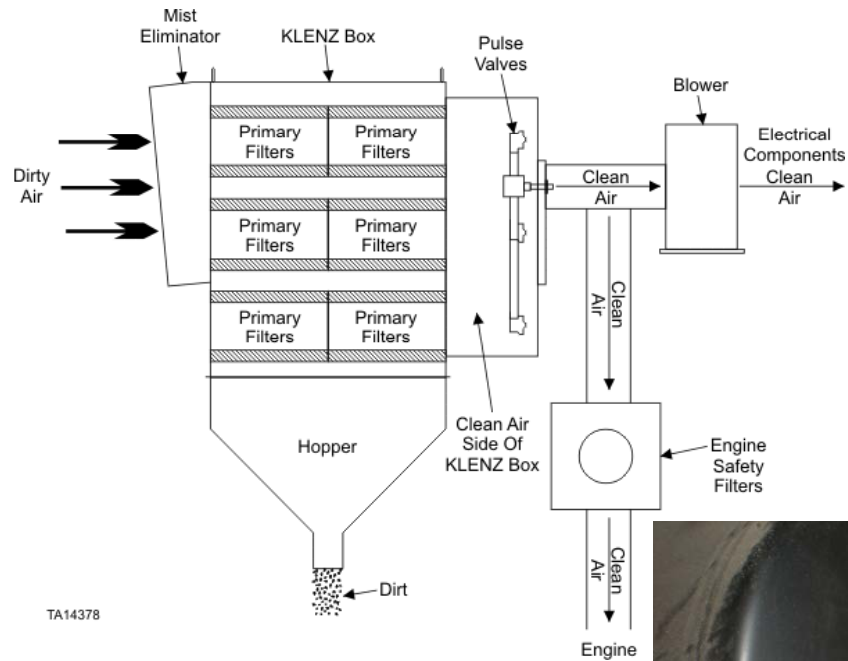
LeTourneau Technologies, Inc.



AIR SYSTEM HYDRAULIC TANK TRANSDUCER

Component Descriptions

LeTourneau Technologies, Inc.



AIR SYSTEM KLENZ

Component Descriptions

LeTourneau Technologies, Inc.

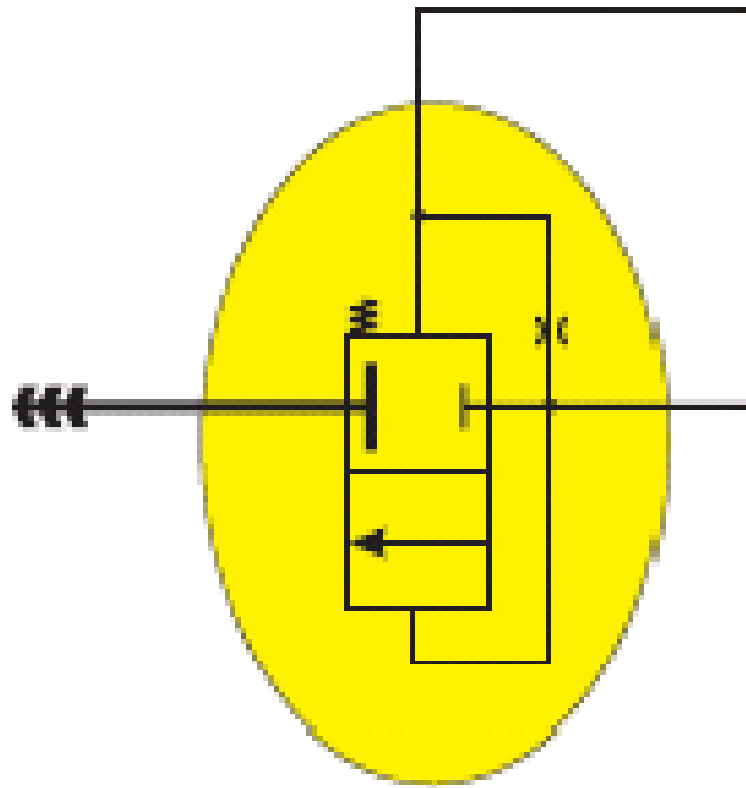


Old Style

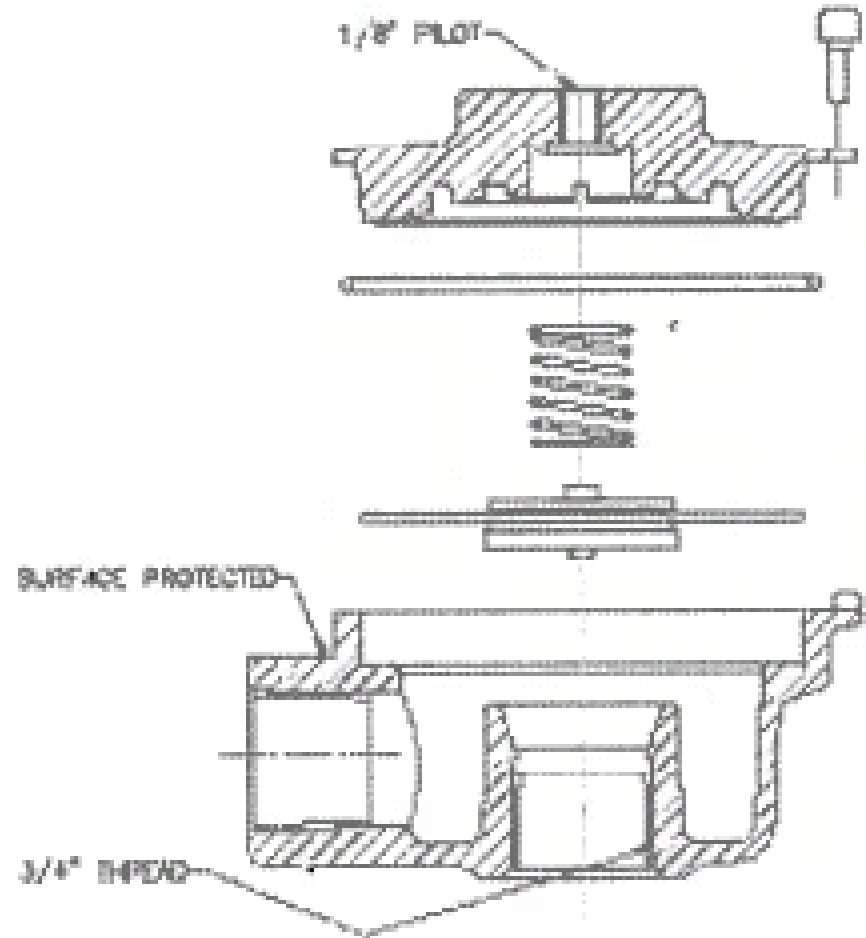
New Style



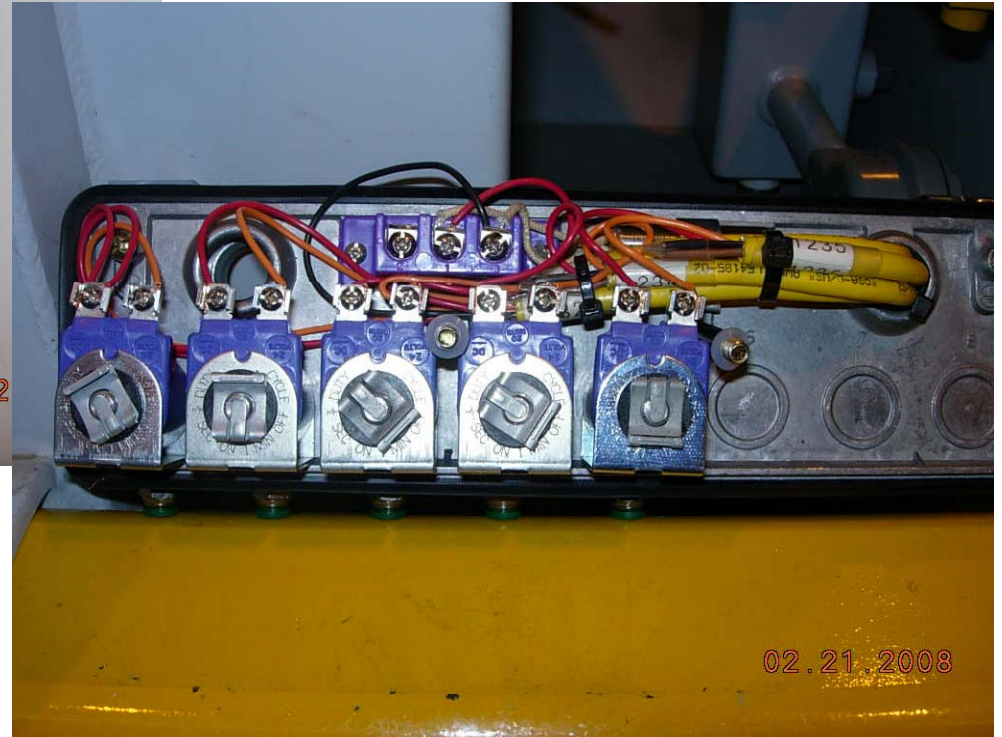
AIR SYSTEM KLENZ PULSE VALVE



Diaphragm Valve



Air System Pulse Valve Operation



Component Descriptions

LeTourneau Technologies, Inc.

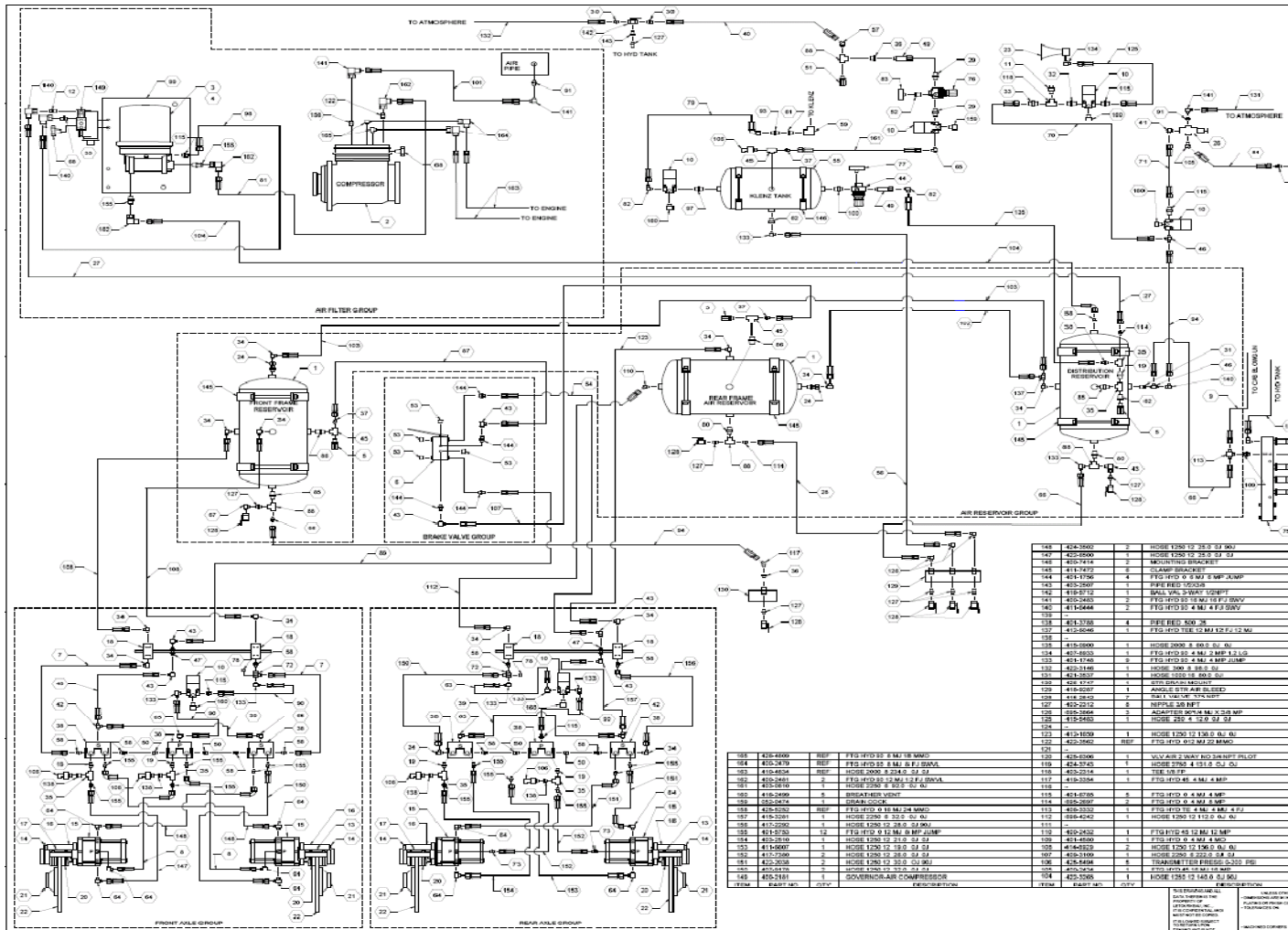
Parts

Large Style



Small Style





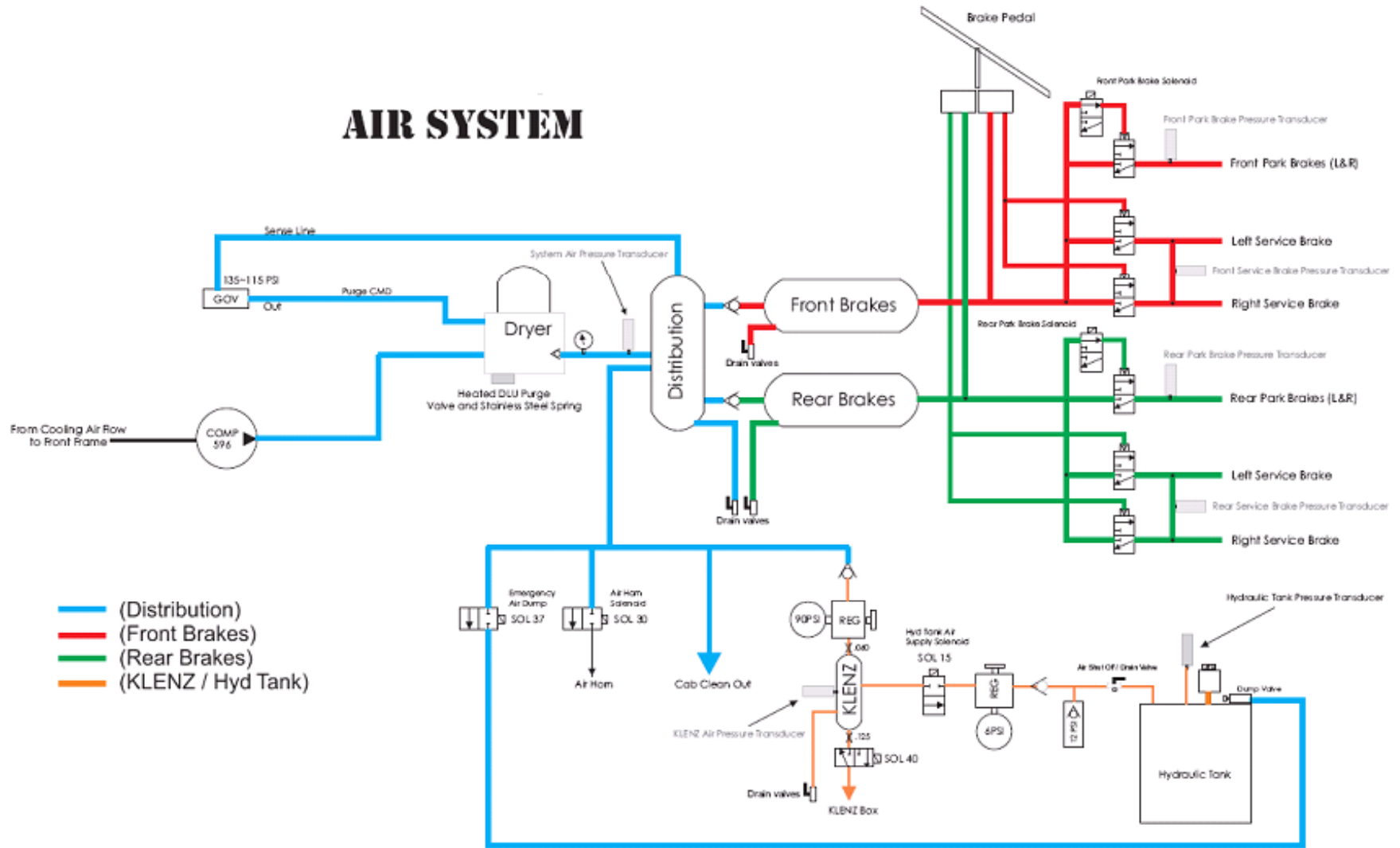
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103	418-0005	1	HOSE 1200 12 1/4" O.D. AU				
104	418-0006	1	HOSE 1200 12 1/4" O.D. AU				
105	421-0357	1	HOSE 1000 10 4/8" O.D. 4 MP				
106	421-0358	1	HOSE 1000 10 4/8" O.D. 4 MP				
107	421-0400	1	HOSE 1000 10 4/8" O.D. 4 MP				

CIRCUIT DESCRIPTIONS



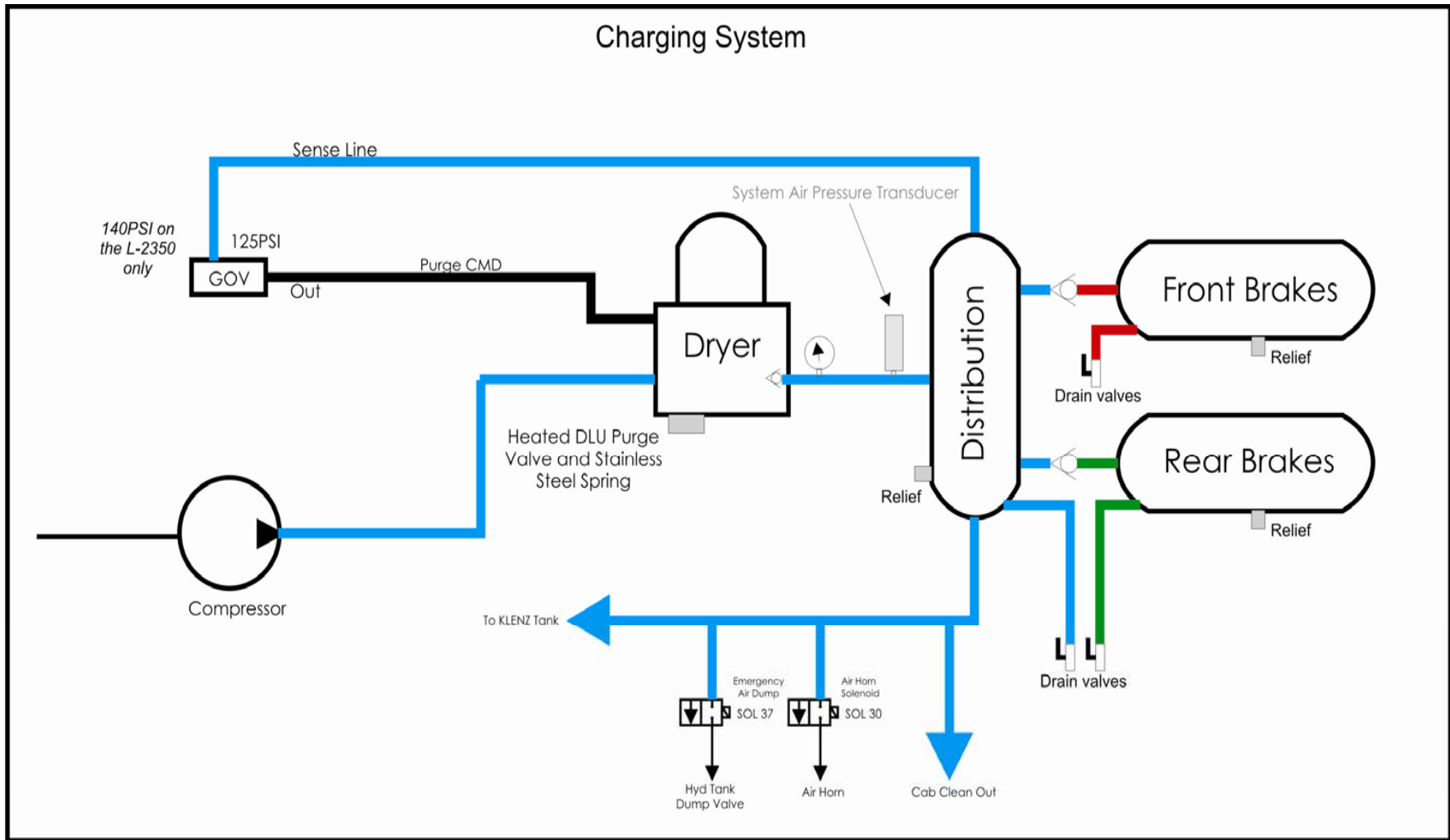
AIR SYSTEM



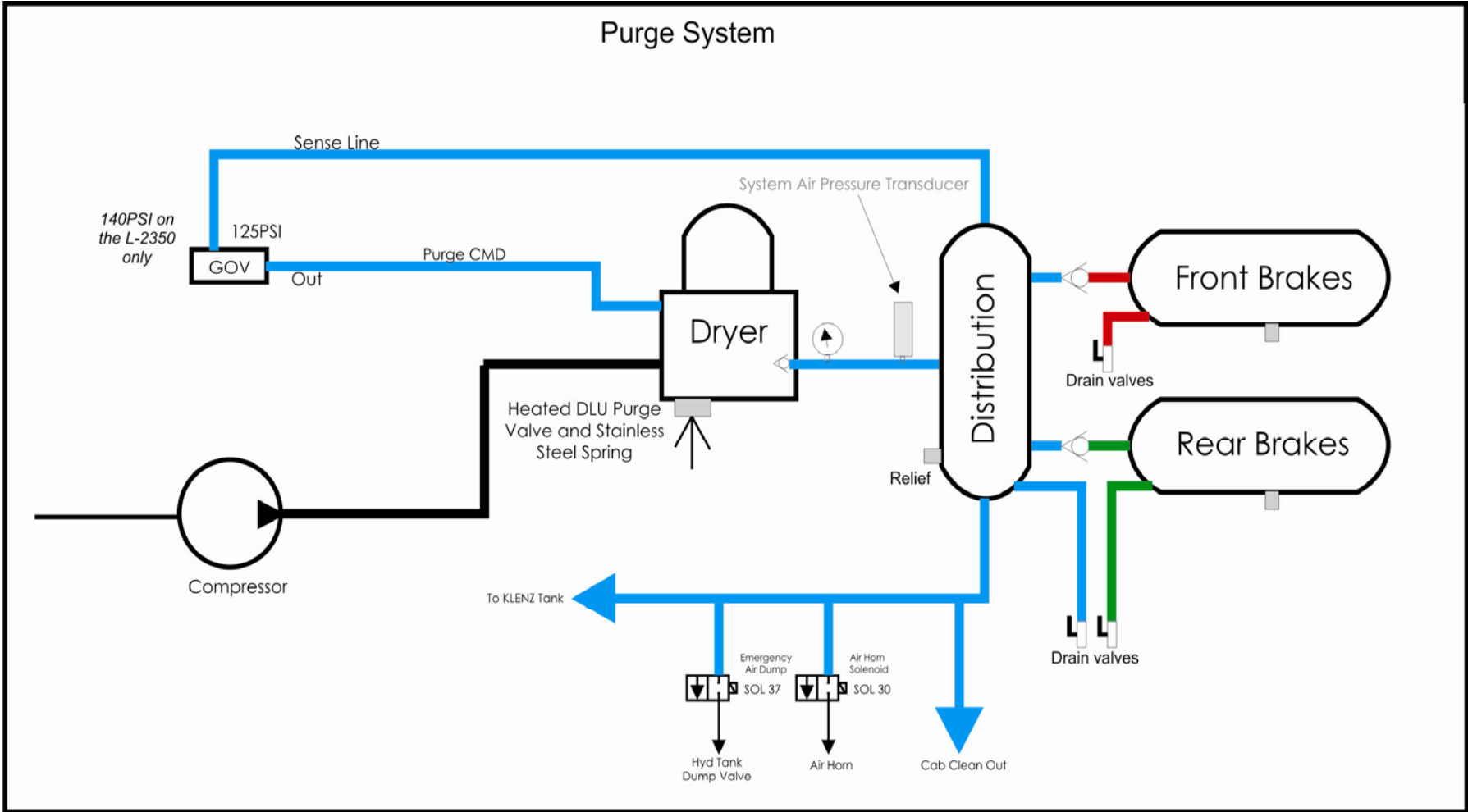
50 Series Air System

Circuit Description

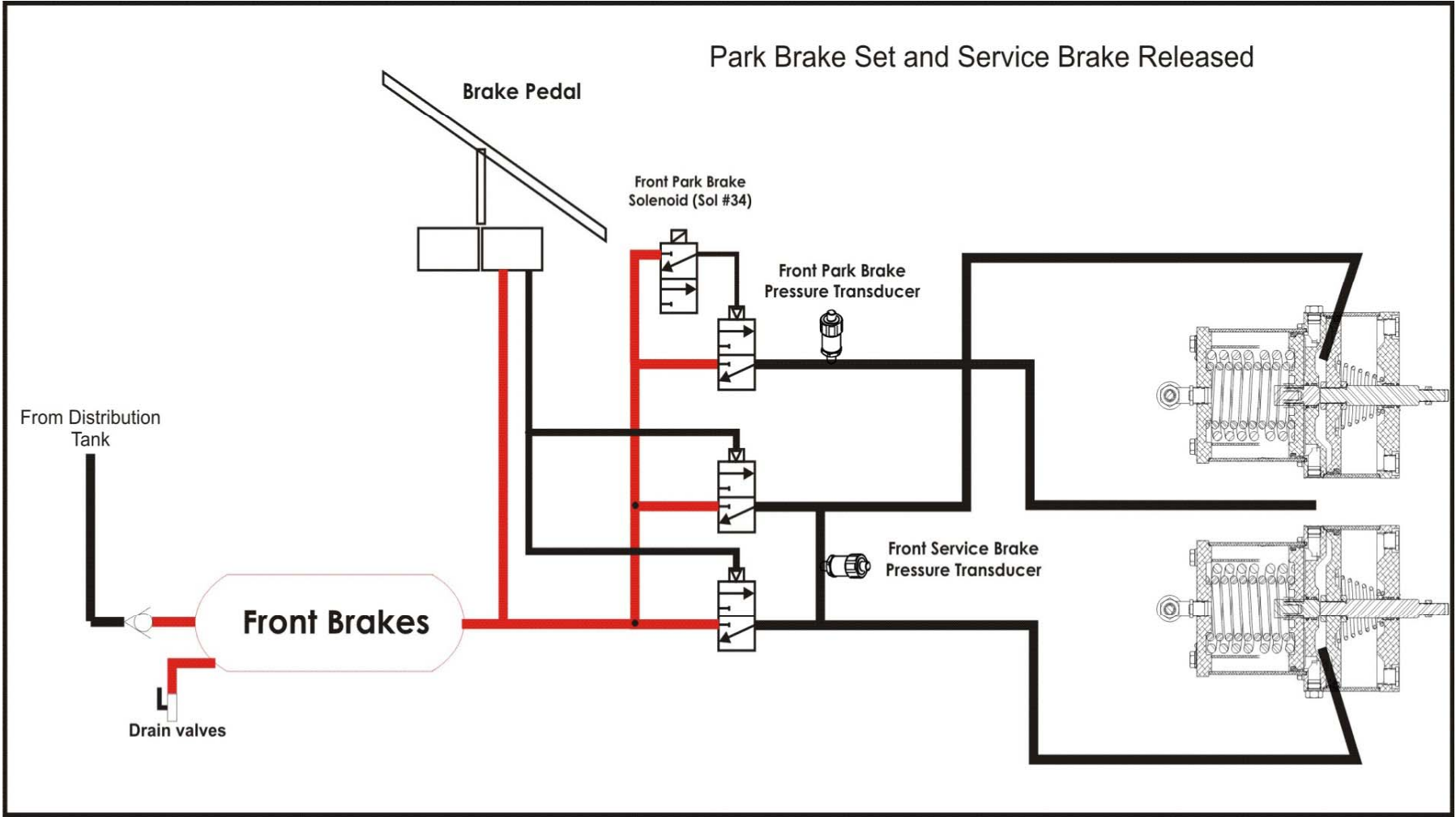
LeTourneau Technologies, Inc.



Air System Charging



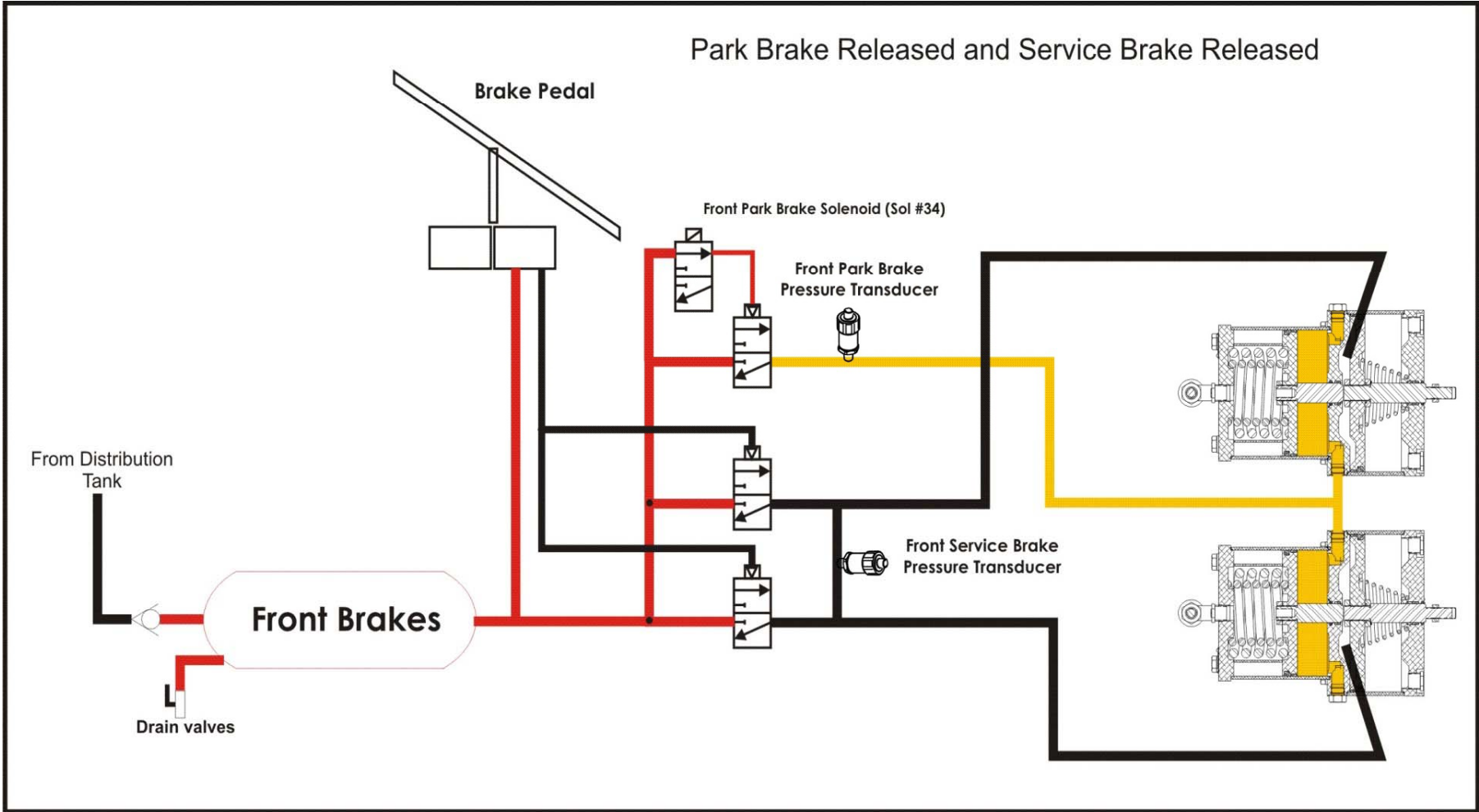
Air System Purge



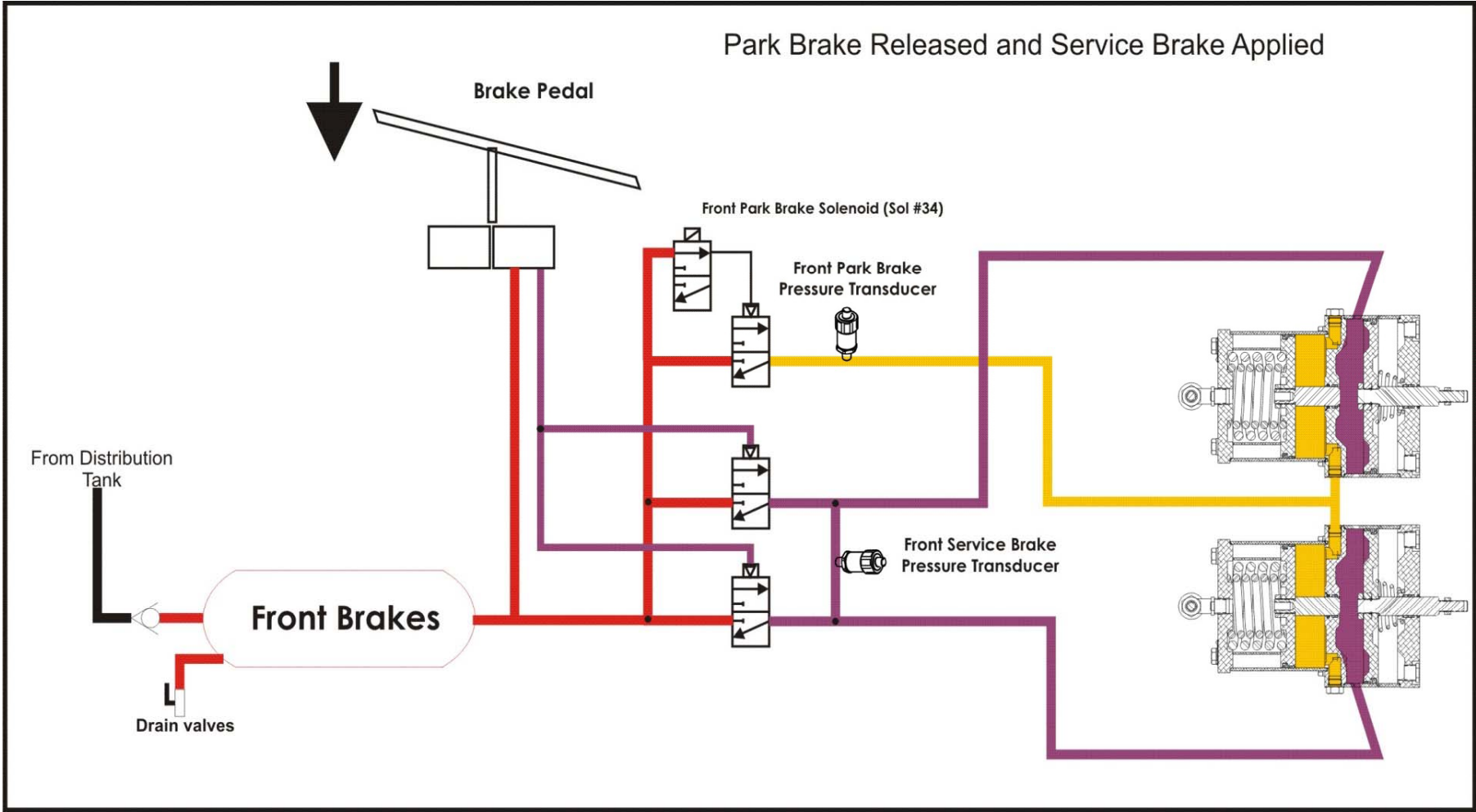
Air System Park Brake Set

Circuit Description

LeTourneau Technologies, Inc.



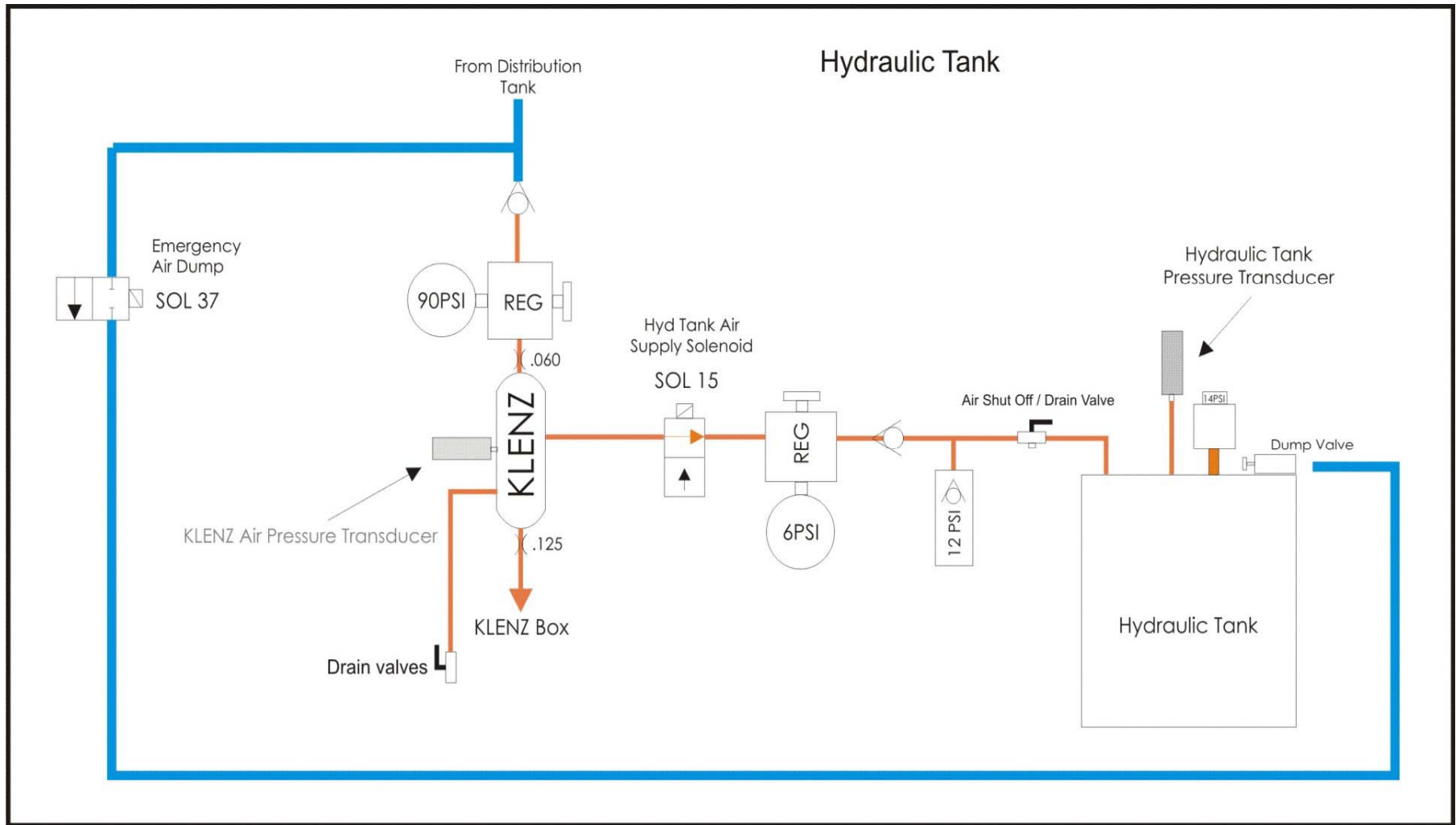
Air System Park Brake Released



Air System Service Brake Applied

Circuit Description

LeTourneau Technologies, Inc.

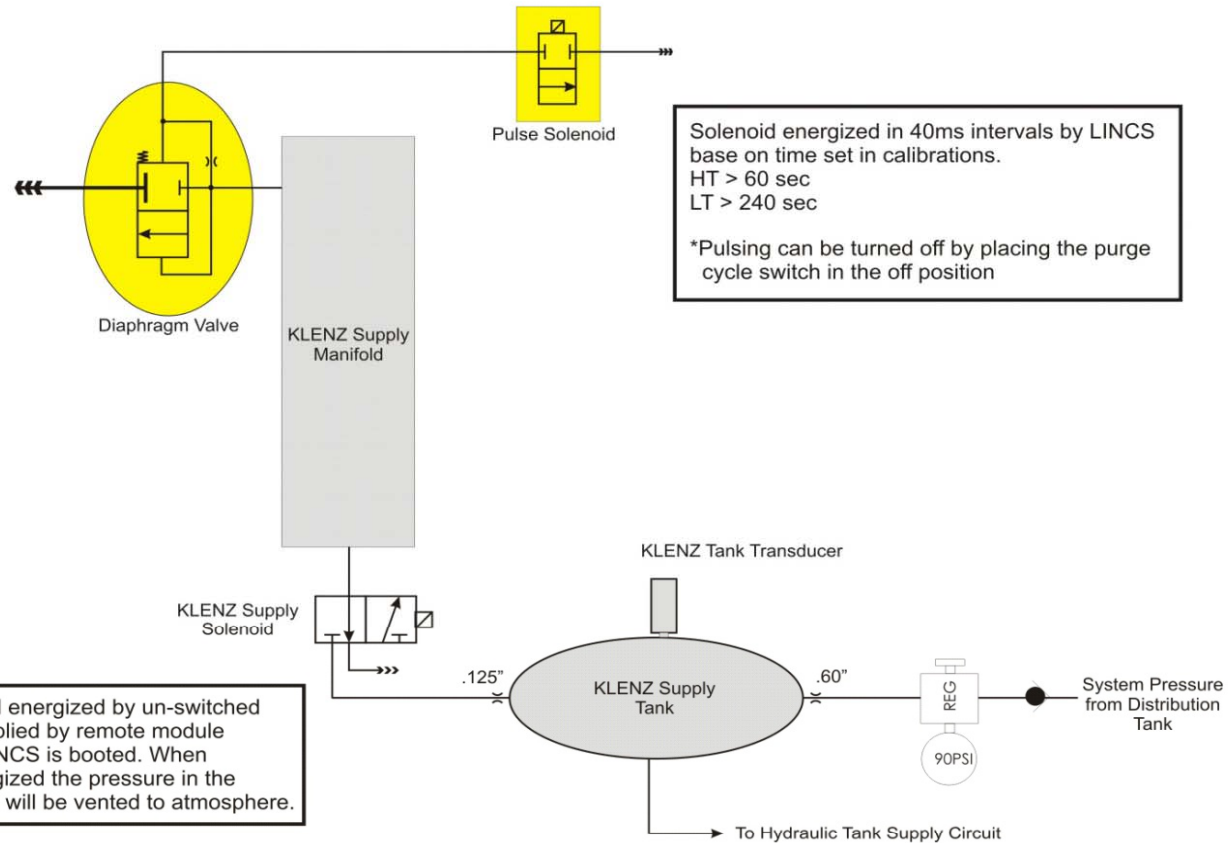


Air System Hydraulic Air Supply

Circuit Description

LeTourneau Technologies, Inc.

KLENZ Pulse Valve Circuit



KLENZ Circuit Operation

SETTINGS AND ADJUSTMENTS



	L-950, L-1350, L-1850	L-2350
Compressor Governor	130~135 psi	140~145 psi
Hydraulic Tank	6 to 8psi	6 to 8psi
Klenz System	90 psi	90 psi



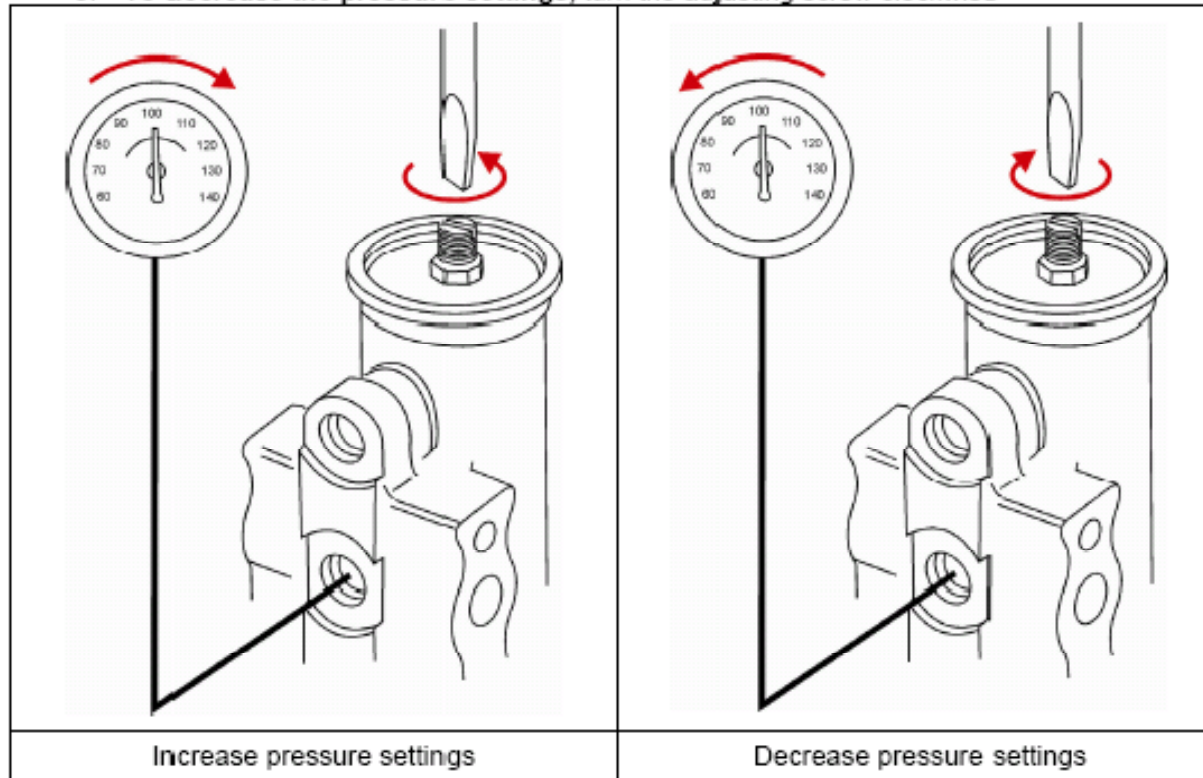
- Old style governor settings
 - L1350, L1850, and L2350 = 140 to 145 psi
 - L950 = 130 to 135 psi
- New style governor settings
 - L2350 = 140 to 145 psi
 - L1850, L1350, L1150, and L950 = 125 to 130psi
- KLENZ Tank Regulator = 90 psi
- Hydraulic Tank Regulator = 6 to 8 psi

Air System Adjustments



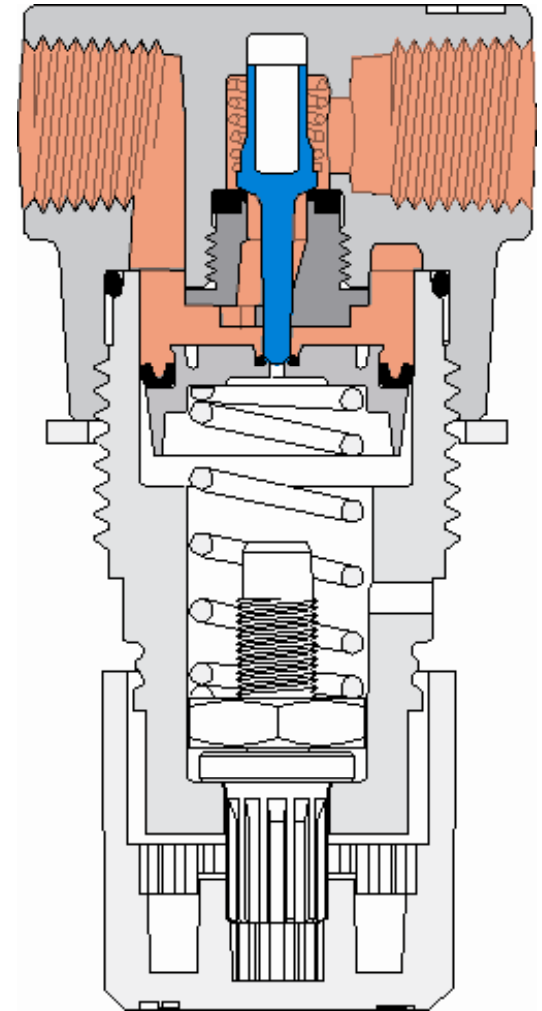
Adjustment of D-2 governor:

1. Remove the waterproof cap
2. Use a flat blade screwdriver to hold the adjusting screw.
3. Loosen the adjusting screw jam nut
4. To increase the pressure settings, turn the adjusting screw counter-clockwise
5. To decrease the pressure settings, turn the adjusting screw clockwise



Air System Main Governor Setting



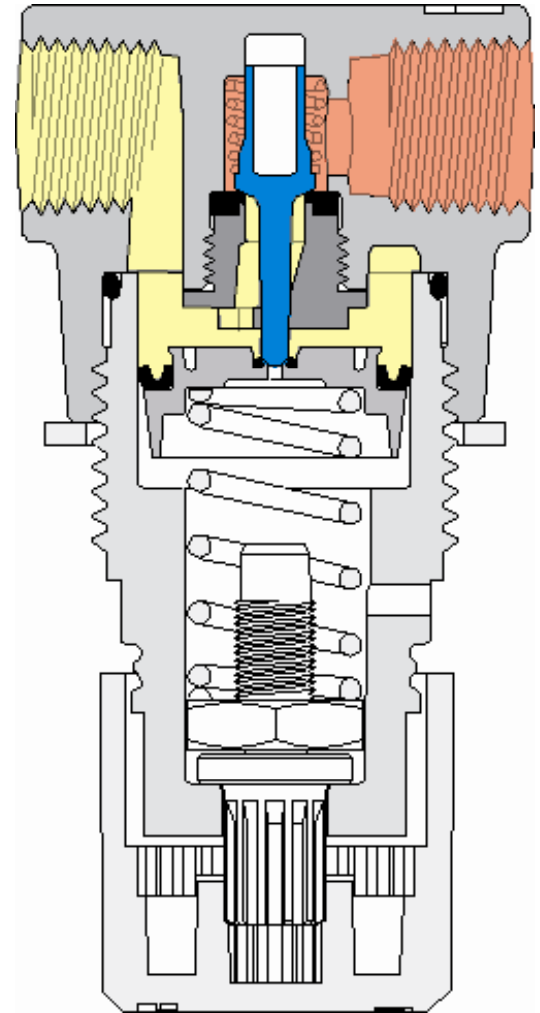


Air System Regulator Settings

Settings and Adjustments

LeTourneau Technologies, Inc.





Air System Regulator Settings

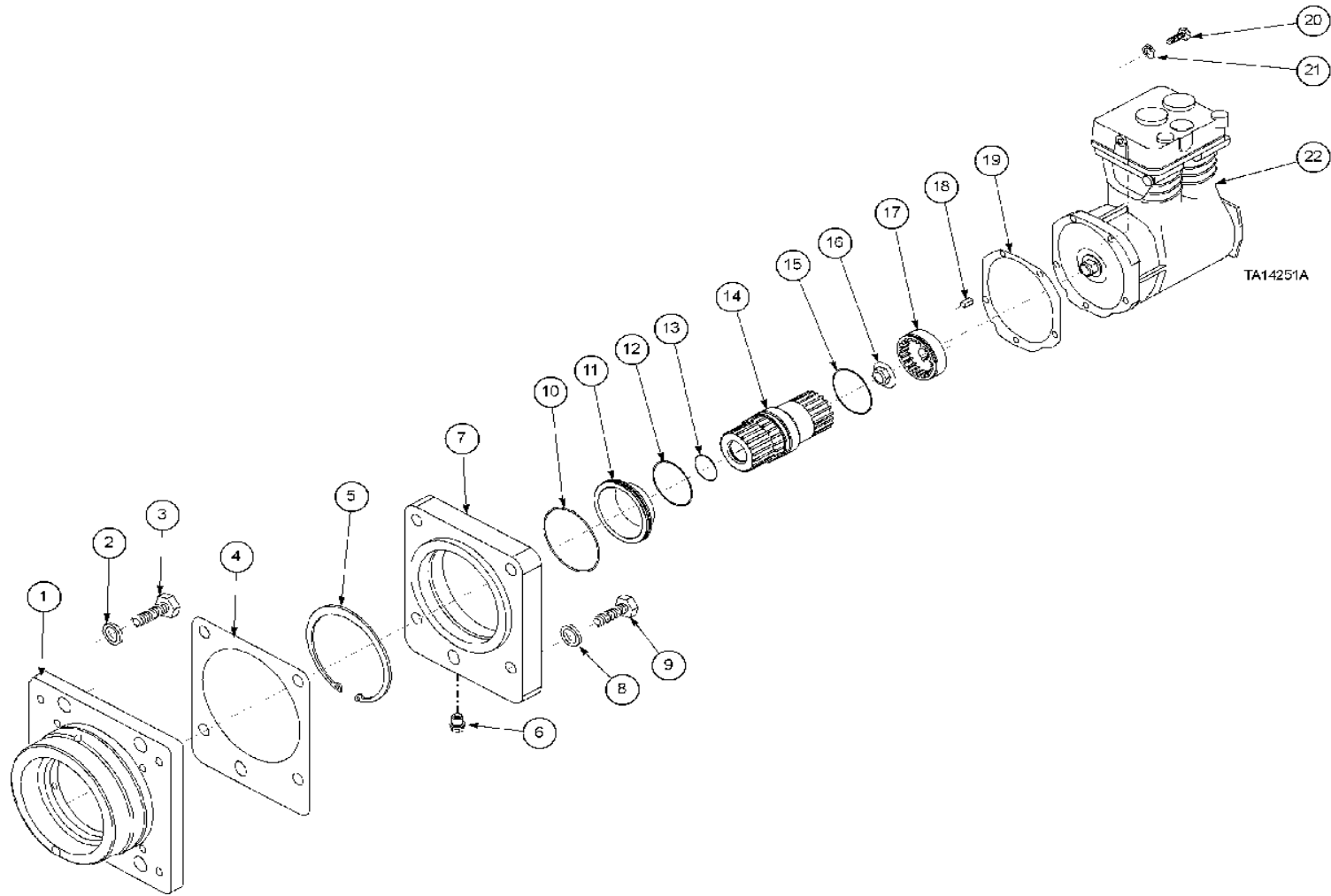
Settings and Adjustments

LeTourneau Technologies, Inc.



INSTALLATION AND REMOVAL



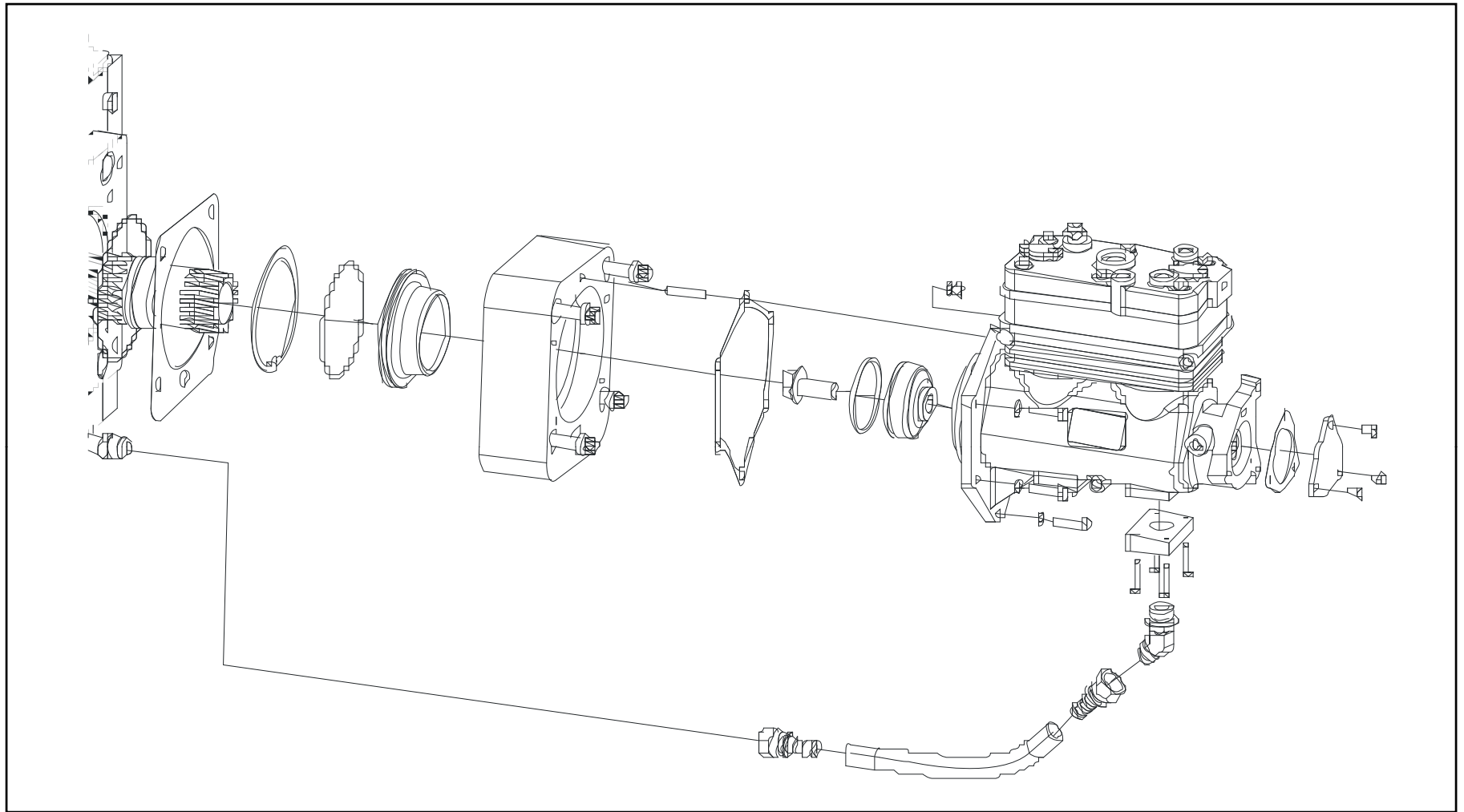


Air System Bendix 596 Break Down

Installation and Removal

LeTourneau Technologies, Inc.





Air System Bendix 922 Break Down

Installation and Removal

LeTourneau Technologies, Inc.



TROUBLESHOOTING



50 Series Diagnostic Tool



