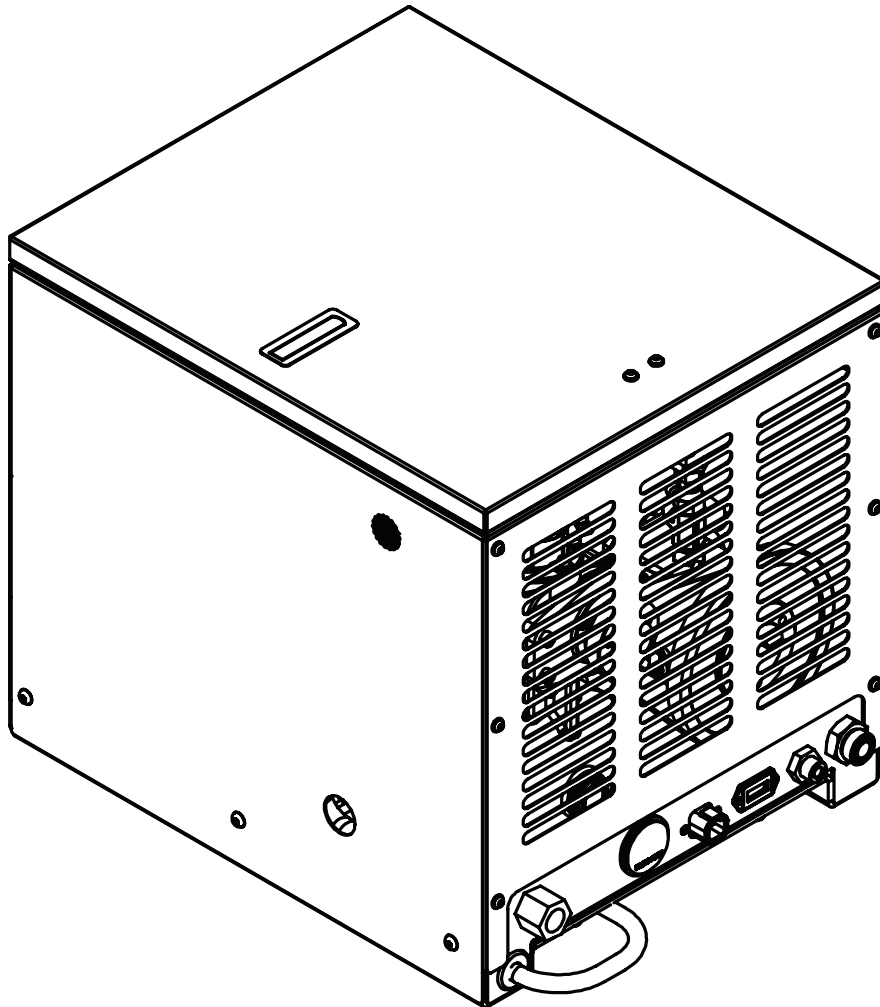


Model 30R Rotary Screw Compressor Manual


Specifications • Installation • Assembly



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Model 30R Manual Revisions

Date of Revision	Section Revised	Description of Revision
May, 2021	Specifications Assembly Drawings	Update shroud Update shroud/base assembly



SERIAL NO.

MODEL

PATENT / IP INFORMATION:
www.stellarindustries.com/ip

DATE

MADE IN THE USA
by the Employee Owners of Stellar Industries PN 112060

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For Technical Questions, Information, Parts, or Warranty, Call Toll-Free at

800-321-3741

Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m. CST

Or email at the following addresses:

Technical Questions, and Information:

service@stellarindustries.com

Order Parts:

parts@stellarindustries.com

Warranty Information:

warranty@stellarindustries.com

Introduction

Stellar Industries® Air Compressors are designed to provide safe and dependable service for a variety of operations. With proper use and maintenance, these air compressors will operate at peak performance for many years.

To promote this longevity, carefully study the information contained in this manual before putting the equipment into service. Though it is not intended to be a training manual for beginners, this manual should provide solid guidelines for the safe and proper usage of the air compressor.

Once you feel comfortable with the material contained in this manual, strive to exercise your knowledge as you safely operate and maintain the air compressor. This process is vital to the proper use of the unit.

A few notes on this manual:

A copy of this manual is provided with every air compressor and can be found in the hard plastic manual case that is installed on the chassis. A copy of this manual shall remain with the air compressor at all times.

Throughout the manual, three signal words will be used to bring attention to important items:

NOTICE

A NOTICE signal word indicates a practice not related to physical injury.

⚠ WARNING

A WARNING signal word indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ DANGER

A DANGER signal word indicates a hazardous situation which, if not avoided, will result in death or serious injury.

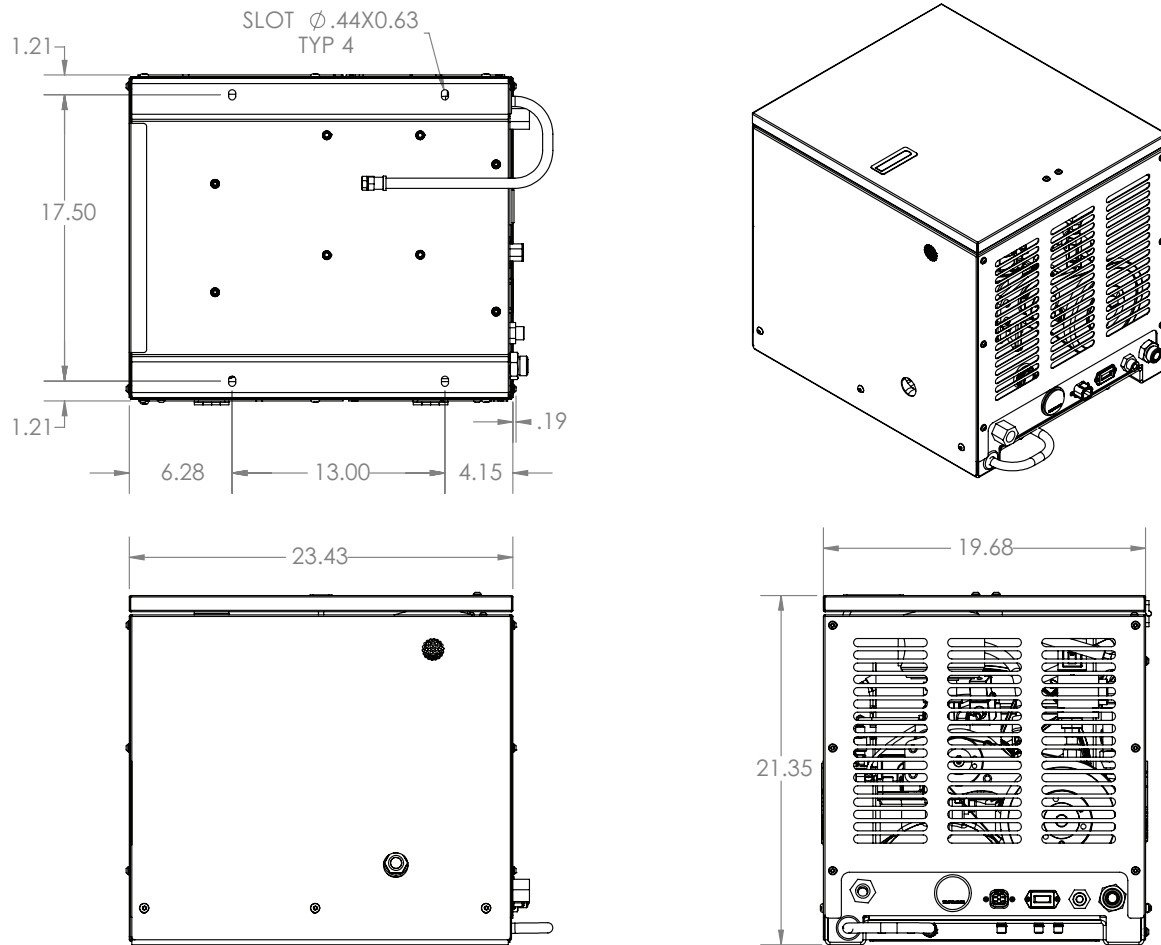
Information contained within this manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations. Please be aware that some sections of this manual contain information pertaining to Stellar Industries® manufactured air compressors in general and may or may not apply to your specific model.

This manual is not binding. Stellar Industries reserves the right to change, at any time, any or all of the items, components, and parts deemed necessary for product improvement or commercial/production purposes. This right is kept with no requirement or obligation for immediate mandatory updating of this manual.

In closing:

If more information is required or technical assistance is needed, or if you feel that any part of this manual is unclear or incorrect, please contact the Stellar Industries Customer Service Department by phone at 800-392-3015 or email at service@stellarindustries.com.

Chapter 1 - Specifications



SPECIFICATIONS	30R
Hydraulic System	12 GPM @ 1750 PSI
Compressor RPM	7500 RPM
System Pressure	1700 PSI
Hydraulic Relief	3500 PSI
Max Air Pressure	150 PSI
Air Relief	200 PSI
Delivery (At Max Speed)	30 CFM @ 100 PSI
Weight	170 lbs.
Dimensions (Length)	24.0"
Dimensions (Width)	19.68"
Dimensions (Height)	21.35"
Electrical	12 VDC
Crankcase Oil Capacity	5 Quarts
Plumbing/Fittings	Steel W/JIC Fittings
Cooler Fan	2024 CFM, 12 Volt
Drive	Belt Drive
Manifold	6061 Aluminum
Control Valve	12 VDC Solenoid

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Chapter 2 - Installation

Component Installation

This section pertains to the installation of the air compressor, PTO, pump and other related items. The instructions are intended as a guide to assist you with particular installation. These instructions will provide only general information.

Pump Assembly:

The pump assembly may either be installed directly on the PTO or as an optional method, may be driven by a driveline from the PTO. Pump manufacturers provide specific installation information for their products and should be consulted if questions arise. Note: A dual or tandem hydraulic pump is recommended when additional hydraulically operated equipment are added to the hydraulic system.

PTO Assembly:

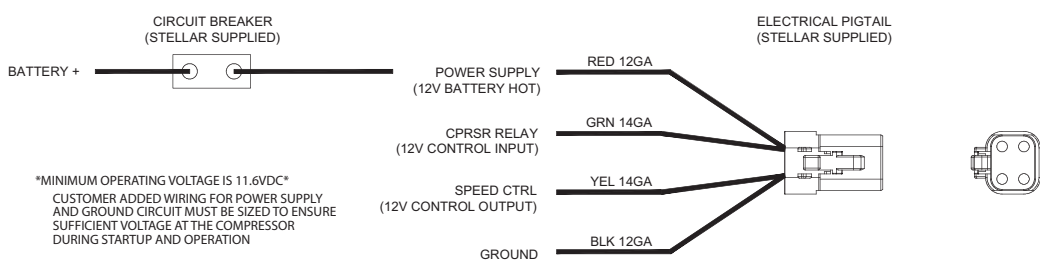
Check with the PTO manufacturer's representative for specific instructions regarding your particular make, model, and year of vehicle. As some trucks may require modification of the transmission cross member and the exhaust system, the manufacturer's instructions should be followed to ensure proper installation of the PTO.

Compressor Assembly:

Prepare the mounting location of the compressor by locating and drilling four (4) holes, 1/2" diameter as per the mounting pattern of the air compressor base. Using four (4) 3/8" x 1.25 GR-5 cap screws, 3/8" flat washer, and 3/8" nyloc nut, secure the compressor in place. The compressor is air cooled, and must have a clean supply of cooling air to the fan with minimum restrictions. Adequate space must be provided for proper circulation of air.

Electric Speed Control:

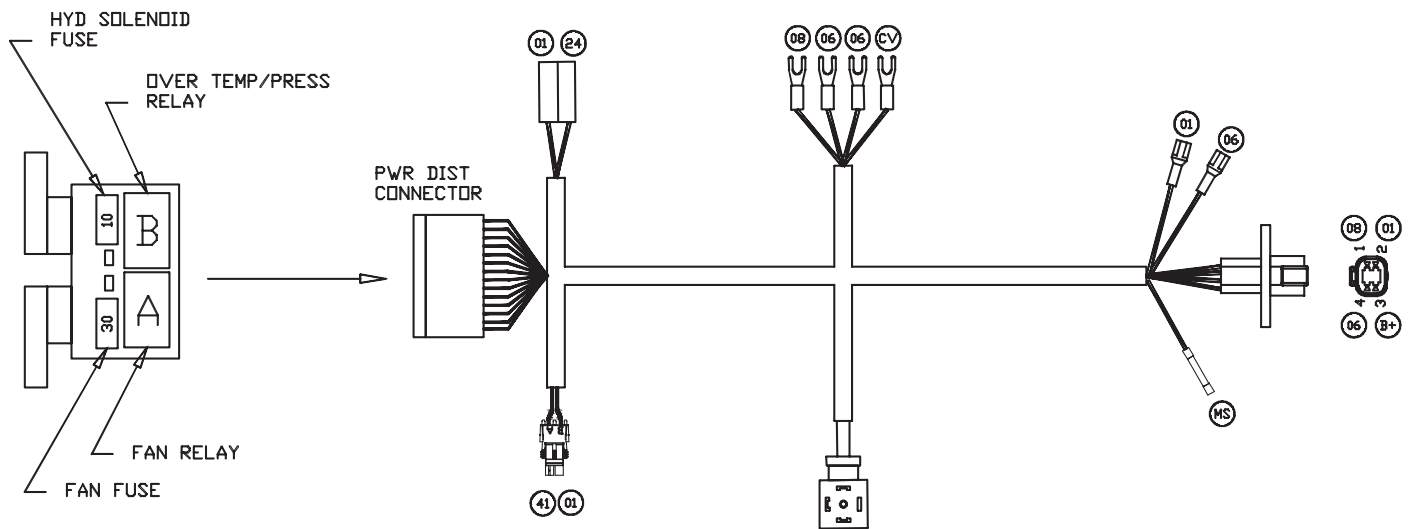
An optional electric or electronic speed control must be used to maintain proper operating speed of the air compressor. The engine speed control will automatically increase from idle to preset speed when engaged and decrease when disengaged.



30R Electrical Schematic

Electrical Connections:

From the air pressure switch there are two (2) wires, red and black, running to the outside of the compressor housing. Connect the black wire to the vehicle frame or other suitable ground. Mount a single throw toggle switch in a convenient location and connect the red wire from the compressor to this switch. Connect the other switch terminal to a fuse holder and then to a 12- volt power supply. A third wire is required from the air compressor switch when connecting the speed control into the system.



PN 76364

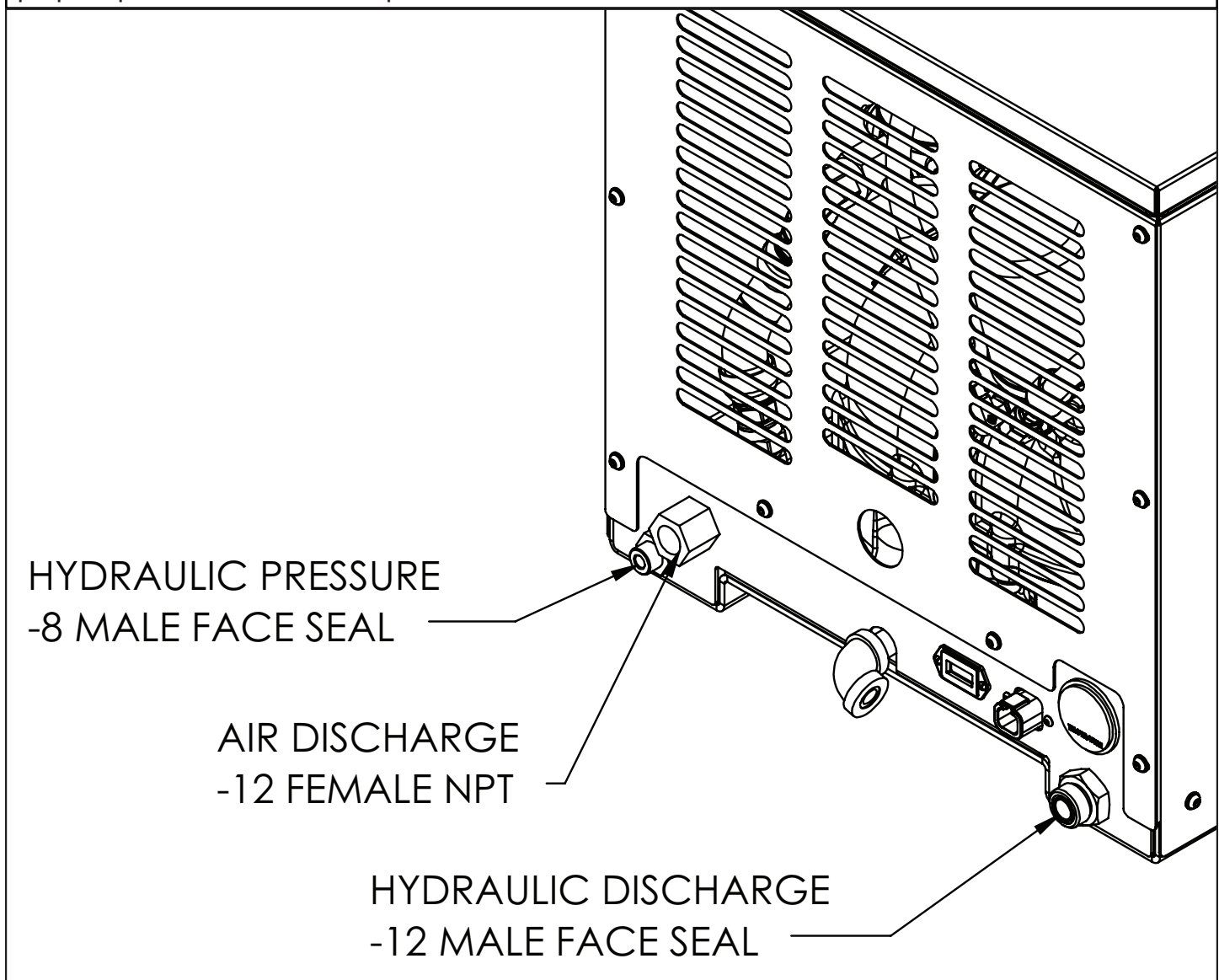
CIRCUIT #	CIRCUIT	WIRE COLOR
01	GROUND	BLACK WITH WHITE TEXT
06	COMPRESSOR	GREEN WITH BLACK TEXT
24	FAN	GREEN WITH BLACK TEXT
B+	BAT POS	RED WITH BLACK TEXT
08	SPEED CNTRL	GREEN WITH BLACK TEXT
41	HYDRAULIC SOLENOID	GREEN WITH BLACK TEXT
CV	CPRSR VALVE	GREEN WITH BLACK TEXT
MS	MURPHY SWITCH	GREEN WITH BLACK TEXT

Hydraulic System

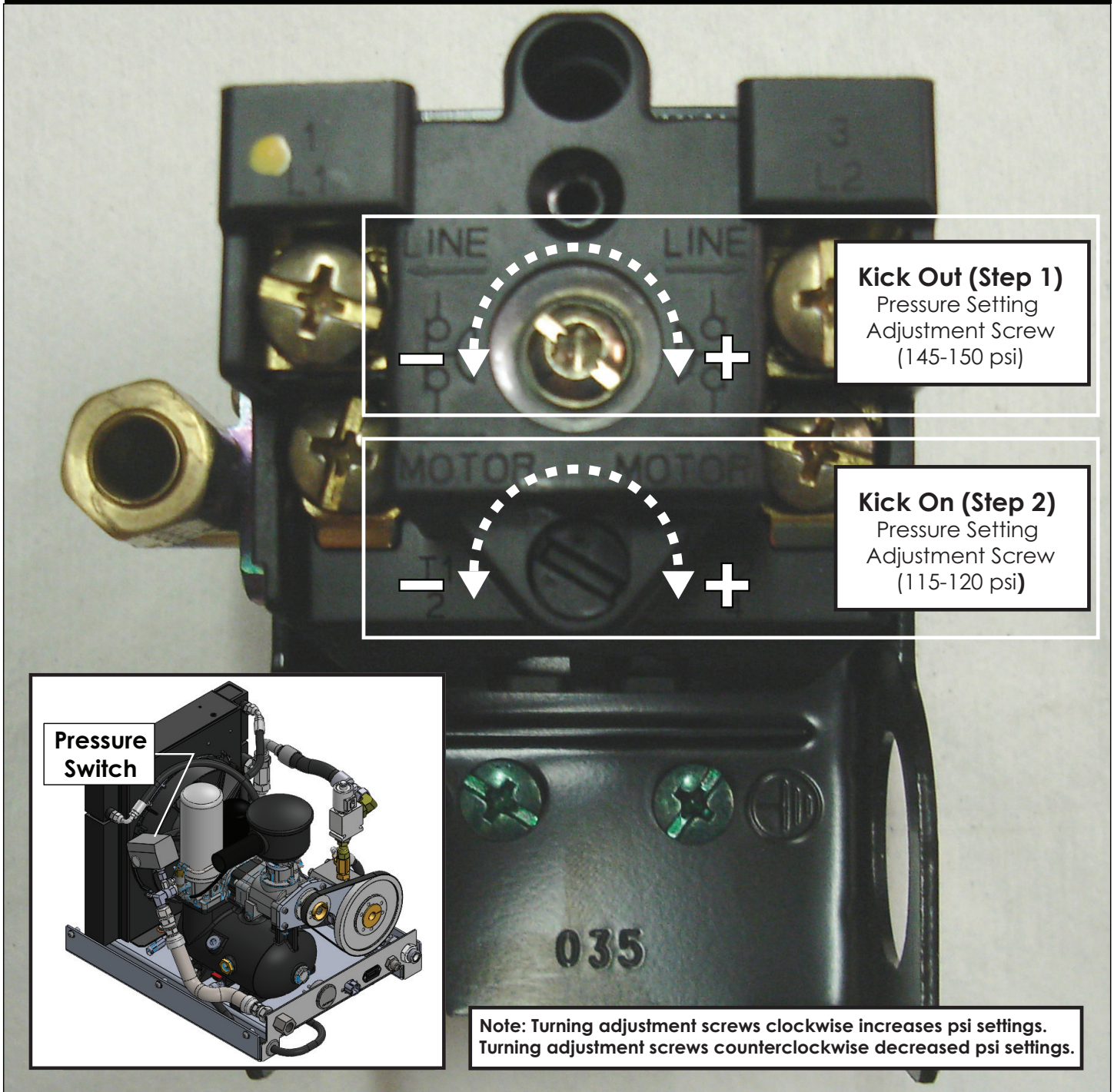
The hydraulic system consists of the pump, oil reservoir, filters and hoses. Installed on the compressor is a valve block assembly that controls the flow to the hydraulic motor. To this block, a 1/2" high-pressure hose must be attached. This hose comes from the pressure side of the hydraulic pump. A 3/4" minimum low-pressure return line is connected to the oil cooler outlet and is routed to the oil reservoir. Stellar Industries recommends a sufficient sized reservoir be provided that includes the proper suction and return filters. The cooler on the compressor is designed and sized to cool the air compressor efficiently. An auxiliary oil cooler is required when additional hydraulically operated equipment are added to the hydraulic system. Pressure on the return line exceeding 200 PSI can and will cause damage to the filter, cooler, and components of the compressor hydraulic system.

Air System

The airline is routed using a 3/4" (200 psi) air hose. This delivery line should be free from all obstructions. Note: There should be no check valve installed between the compressor and the air tank. Stellar Industries recommends the installation of a ten gallon air tank (minimum) to maintain proper operation of the air compressor.



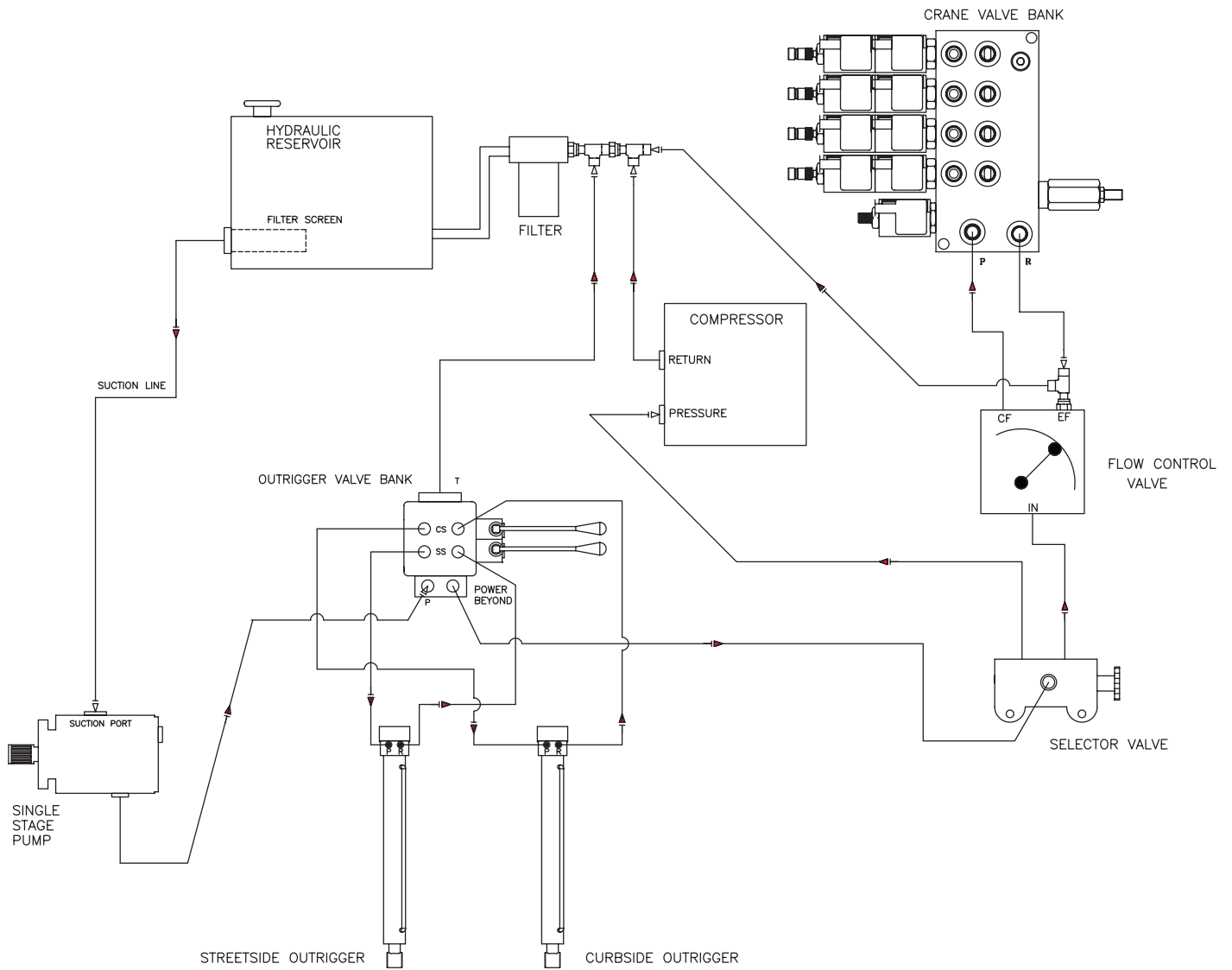
Compressor Pressure Switch



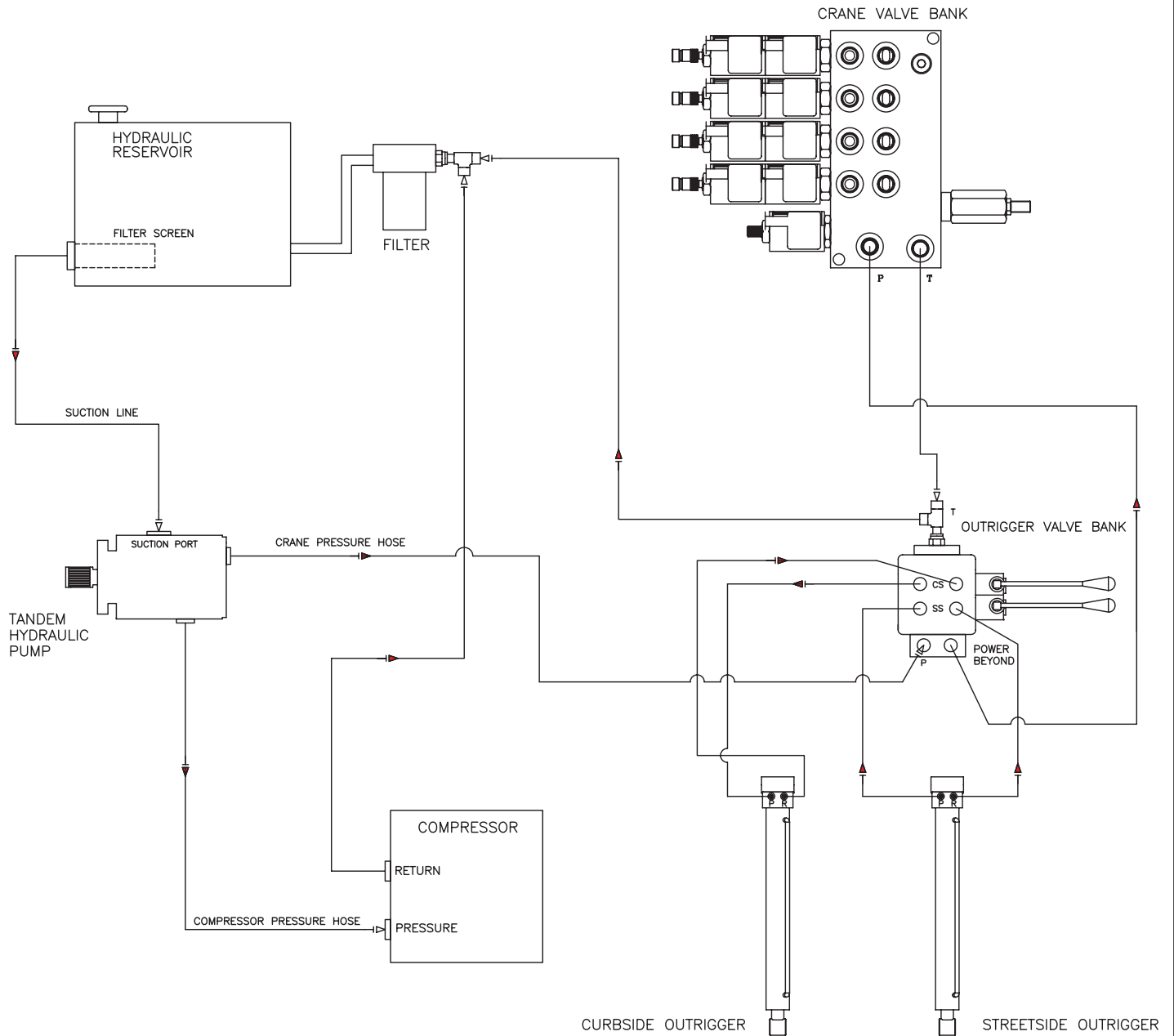
Pressure Setting Instructions:

1. Always set the kick out pressure setting first. Adjust the kick out screw setting to 145 psi minimum/150 psi maximum.
2. After kick out pressure is set, adjust the kick on screw setting to 115 psi minimum/120 psi maximum.
3. Cycle compressor to verify correct settings.
4. For questions about this procedure, please contact Stellar Industries Customer Service at 800-321-3741.

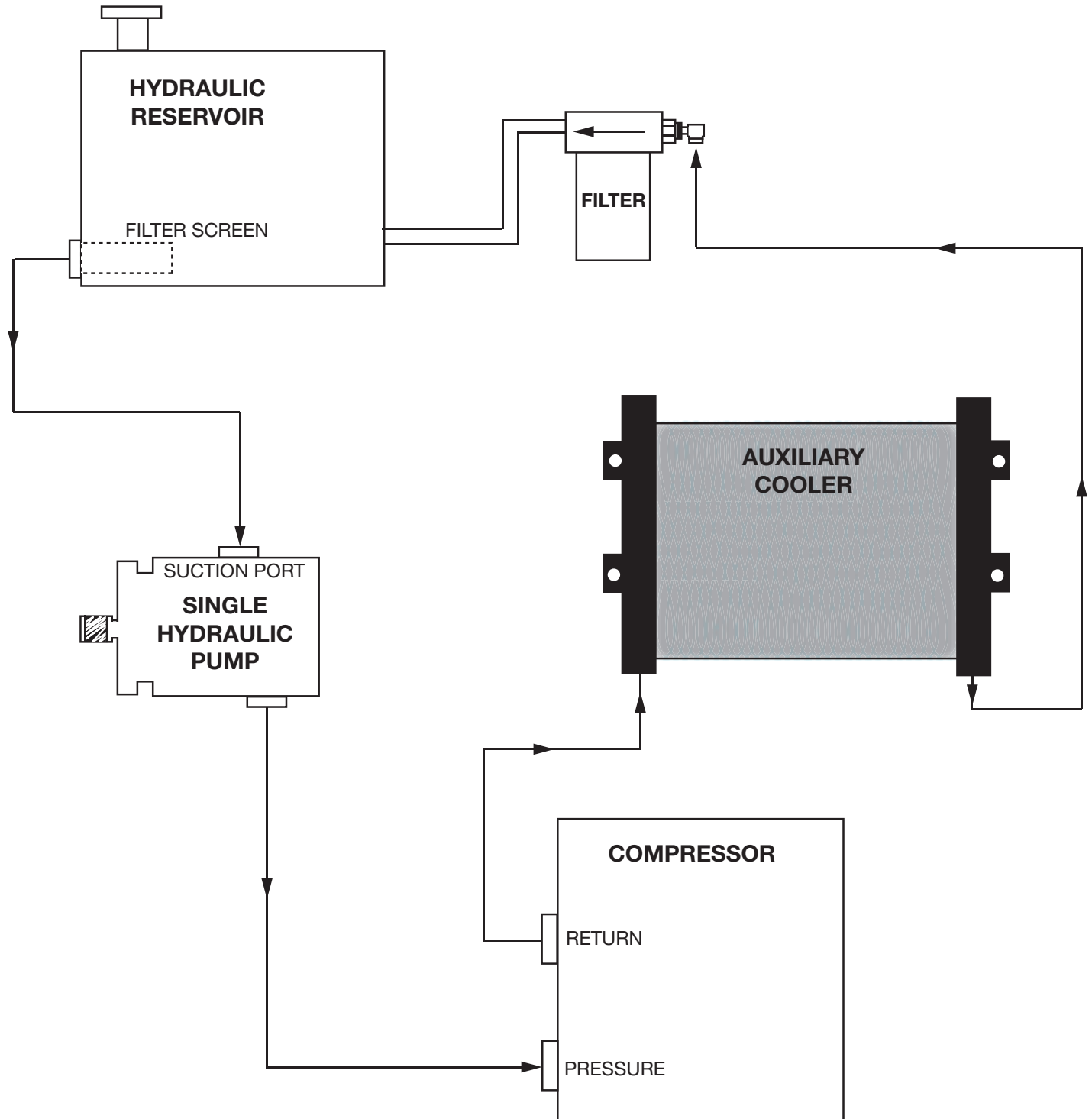
Typical Hydraulic Circuit for Single-Section Pump



Typical Hydraulic Circuit for Tandem (Two Part) Pump



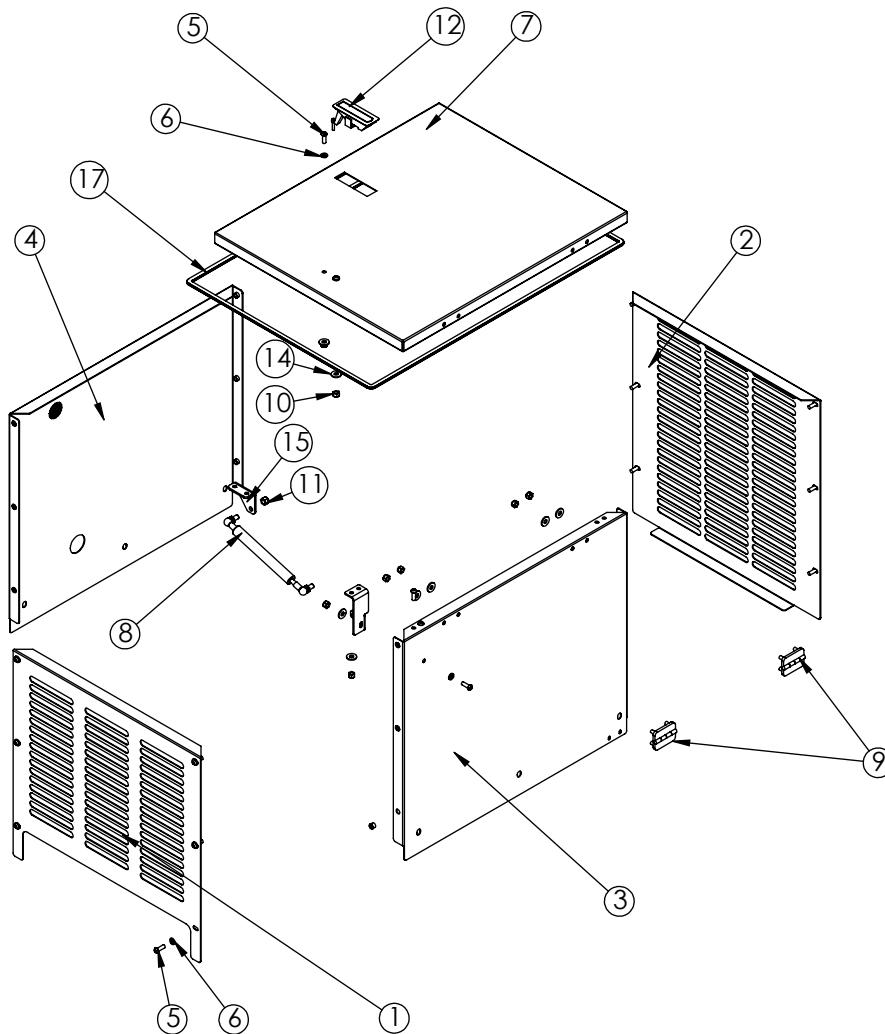
Typical Hydraulic Circuit for Compressor with Auxiliary Cooler



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Chapter 3 - Assembly Drawings

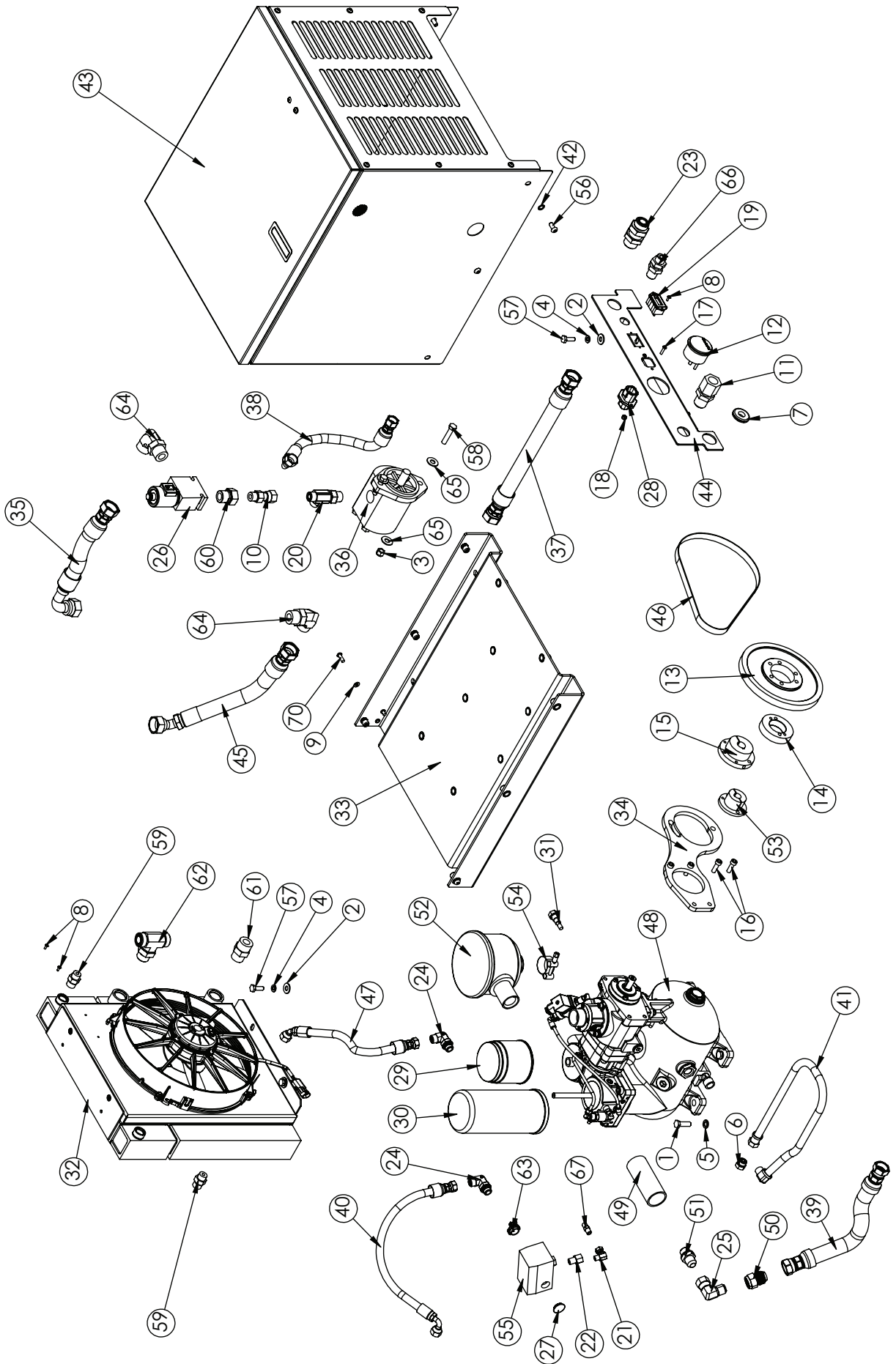
30R Case Assembly - PN 117487



PN 117487

ITEM	PART No.	DESCRIPTION	QTY.
1	117488	PANEL FRONT CPRSR 30R V2 SHROUD PC WHITE PLX3370-01-750	1
2	117489	PANEL BACK CPRSR 30R V2 SHROUD PC WHITE PLX3370-01-750	1
3	117491	PANEL SIDE RH 30R V2 SHROUD PC WHITE PLX3370-01-750	1
4	117490	PANEL SIDE LH 30R V2 SHROUD PC WHITE PLX3370-01-750	1
5	117490	CAP SCR 0.25-20X0.75 BTNHD SS	17
6	19592	WASHER 0.25 FLAT NYLON	15
7	117492	PANEL LID CPRSR 30R V2 SHROUD PC WHITE PLX3370-01-750	1
8	69103	GAS SPRING 7.50-12.00 30# FORCE	1
9	70379	HINGE ZINC BLK FLUSH SURFACE MNT DC-50-P8	2
10	0333	NUT 0.25-20 HHGR5 NYLOC	13
11	0342	NUT 0.31-18 HHGR5 NYLOC	2
12	69101	LATCH SWING LEVER FLUSH TRIGGER 0.91-1.81	1
13	19589	NUT SERT 0.25-20X0.38 OD	12
14	D0917	WASHER 0.25 FLAT SS	13
15	73654	BRKT LID GASPROP CPRSR SHROUD V2 PC BLACK	1
16	73653	BRKT LOWER GASPROP CPRSR SHROUD V2 PC BLACK	1
17	73723	WEATHERSTRIP RIBBED 0.38X0.13X90.00	1

30R Assembly Drawing - PN 77501



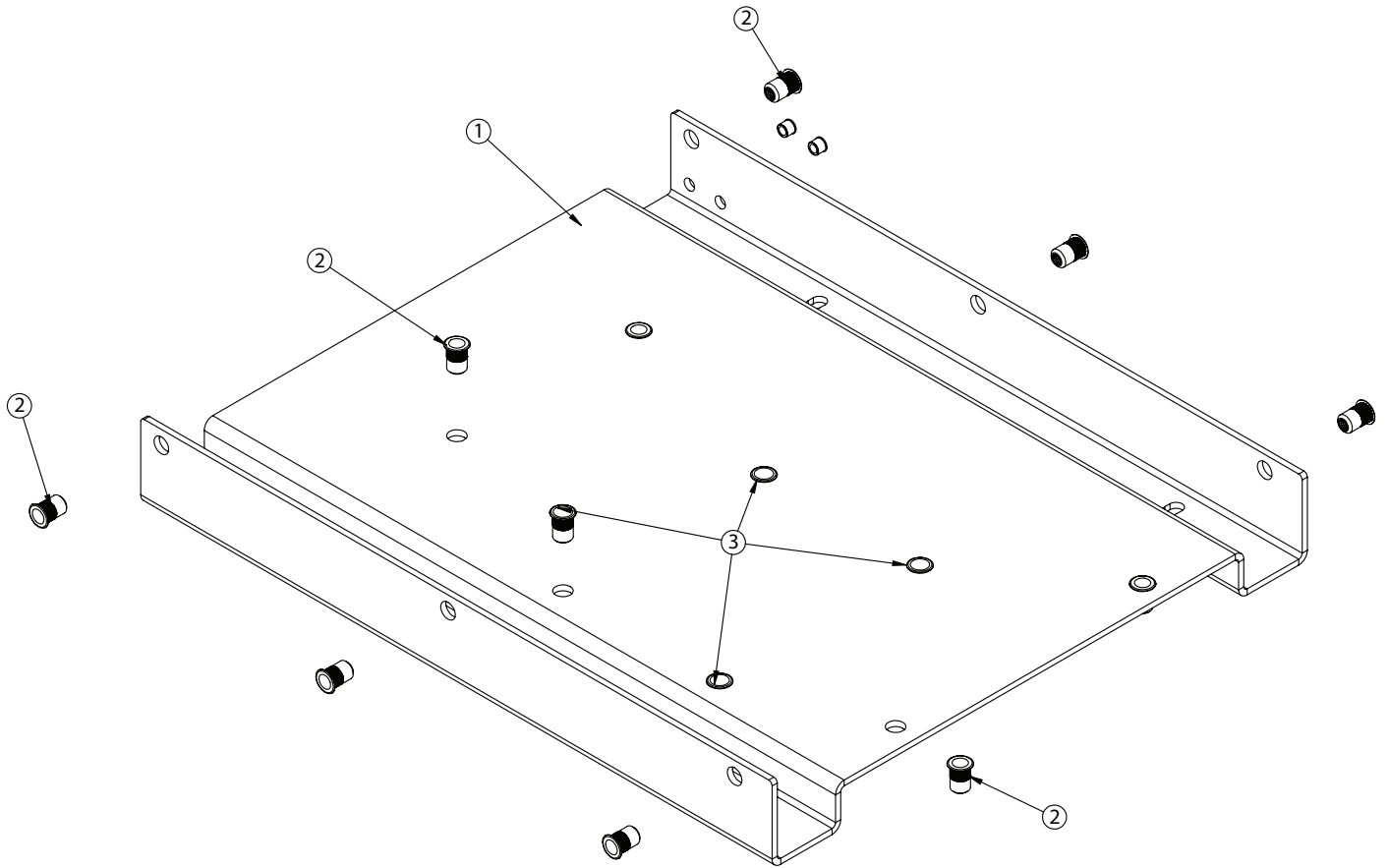
30R Assembly Bill - PN 77501

PN 77501

ITEM	PART No.	DESCRIPTION	QTY.
1	0335	CAP SCR 0.38-16X1.25 HHGR5	4
2	0343	WASHER 0.31 USS FLAT ZINC	4
3	0347	NUT 0.38-16 HHGR5 NYLOC	2
4	0522	WASHER 0.31 LOCK	4
5	0523	WASHER 0.38 LOCK	4
6	0560	FTG 6 MFS PLUG	1
7	12813	GROMMET 1.50ODX1.25GDX0.13X0.63ID	1
8	18611	SCREW #6-32X0.38 HH MACH SELF TAP	4
9	19592	WASHER 0.25 FLAT NYLON	2
10	19917	FTG 8-8 FFSS-MORB STRAIGHT	1
11	21393	FTG 12-12 FP-MJ BULKHEAD STRAIGHT	1
12	21650	GAUGE OIL TEMP TSB20TYD3006125SR240	1
13	21652	SPROKET GOODYEAR PD Y-75S-SDS	1
14	21653	SPROKET GOODYEAR EAGLE PD Y-30S-H	1
15	21655	BUSHING 0.75 SDS	1
16	22162	CAP SCR 8MMX25MM SHCS	4
17	22183	SCREW #8-32X0.75 BTNHD SS	2
18	22186	NUT #8-32 HH NYLOC SS	2
19	28855	HOUR METER 12VDC TST 180-1911	1
20	37179	FTG 8-10-8 MFS-MAORB-MFS TEE	1
21	37561	FTG 2-2 MP-FPS 90	1
22	6398	2-4 FP-MP HEX	1
23	65025	FTG 12-12 MFS-MFS BULKHEAD UNION	1
24	65586	FTG 6-6 MFS-MBSPP 90	2
25	67071	FTG 10-10 MJ-FJS 90	1
26	70472	MANIFOLD ASM SVRV10-12SAE 3500PSI ALUM BODY	1
27	73652	PLUG NICKEL PLATED BUTTON 0.88	1
28	76364	WIRE HARNESS 30R/45R/65R CPRSR	1
29	76369	FILTER OIL 30R/45R/65R	1
30	76583	FILTER SEPARATOR 30R/45R/65R	1
31	76585	FTG TEMP PROBE MOD 30R/45R/65R	1
32	76910	COOLER OIL 30R W/FAN	1
33	77144	BASE ASM 30R	1
34	77200	BRKT MOTOR MOUNT 30R	1
35	77325	HOSE 0.75(3000PSI)-12FFSS SHORT-12FFSS 90 SHORT-7CL	1

ITEM	PART No.	DESCRIPTION	QTY.
36	77397	MOTOR HYD 20.14DO-49S1-LOC/OD-N-EL-C	1
37	77441	HOSE 0.75(200PSI)-12FFSS SHORT-12FFSS SHORT-12.5CL	1
38	77442	HOSE 0.50(3000PSI)-8FFSS SHORT-8FFSS 90 SHORT-16CL	1
39	77443	HOSE STEAM 0.75-12FJIS SHORT-12FJIS SHORT-10.625CL STST	1
40	77444	HOSE 0.38(200PSI)-6FFSS SHORT-6FFSS 90 SHORT-14CL	1
41	77487	HOSE 0.38(200PSI)-6PL 90-6PL STRAIGHT-23.5CL	1
42	77490	WASHER 0.31 NYLON	6
43	117487	SHROUD ASM CPRSR 30R V2	1
44	77494	PANEL BULKHEAD 30R CPRSR PC BLACK	1
45	77495	HOSE 0.75(3000PSI)-12FFSS SHORT-12FFSS 45 SHORT-9.25CL	1
46	77496	BELT GOODYEAR EAGLE PD Y800	1
47	77497	HOSE 0.38(200PSI)-6FFSS SHORT-6FFSS 45 SHORT-10CL	1
48	77500	CPRSR V60 AIREND VMC	1
49	77502	HOSE AIR INTAKE 30R	1
50	77910	FTG 10-12 FJ-MJ STRAIGHT	1
51	77923	FTG 10-8 MJ-MSBPP STRAIGHT	1
52	78007	CPRSR V60 AIREND VMC	1
53	78150	BUSHING H X 35MM	1
54	C0075	HOSE CLAMP HC125	1
55	C0863	SWITCH PRES COMPRESSOR	1
56	C0921	CAP SCR 0.31-18X0.75 BTNHD SS	6
57	C0922	CAP SCR 0.31-18X1.00 HHGR5	4
58	C0944	CAP SCR 0.38-16X1.75 HHGR5	2
59	C1854	FTG 6-8 MFS-MORB STRAIGHT	2
60	C2053	FTG 12-8 MORB-FORB STRAIGHT REDUCER	1
61	C2142	FTG 12-12 MFS-MORB STRAIGHT	1
62	C4916	FTG 12-12-12 MFS-MFS-MAORB TEE	1
63	C5616	CLAMP ROMEX 0.50	1
64	C5968	FTG 12-12 MFS-MAORB 90	2
65	C6353	WASHER 0.38 FLAT GR8	4
66	D1318	FTG 8-8 MFS-MFS BULKHEAD UNION	1
67	C6123	2-2 MP-MP HEX	1
68	77498	DECAL 30R LS	1
69	77499	DECAL 30R RS	1
70	C6021	CAP SCR 0.25-20X0.75 BTNHD SS	2

30R Base Assembly - PN 77144



PN 77144

ITEM	PART No.	DESCRIPTION	QTY.
1	77143	BASE 30R CPRSR	1
2	78005	Nut Sert AL 0.31-18 grip range 0.150-0.312	10
3	94020A364	Nut Sert AL 0.38-16 grip range 0.150-0.312	4
4	19589	NUT SERT 0.25-20X0.38 OD	2

Chapter 4 - Replacement Parts

PN	Description
Hydraulic Components/Drive Parts	
90658	Intake Valve Kit
88597	Kit - Shaft Sealing
70472	Valve Block Assembly - Includes Manifold, Solenoid Valve and Relief Valve
77397	Hydraulic Motor
21652	Sprocket (Hyd Motor)
21653	Sprocket (Compressor)
77496	Belt
76910	Oil Cooler with Fan
Electrical/Air Pressure Component	
C0863	Pressure Switch
76364	Wire Harness
21650	Oil Temperature Gauge
89453	Fan 12.00 Pull 12 Volt 30102038
Air/Oil Filter Components	
87148	Air Filter
76369	Oil Filter
76583	Separator Filter
95179	Synthetic Compressor Oil
87985	Service Kit (Includes Items Above)



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