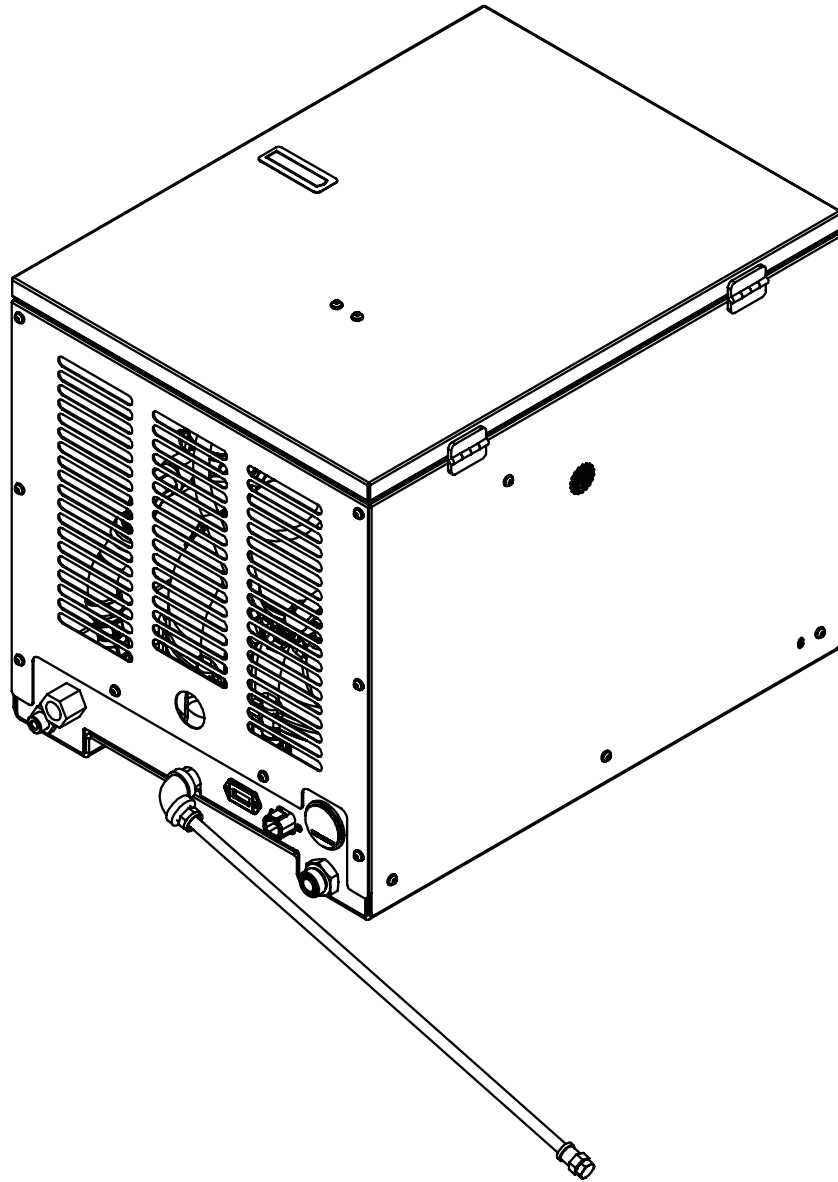


# Model 65R Rotary Screw Compressor Manual

Specifications • Installation • Assembly



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Rev 2  
PN 105276

# P65 Warning / Serial Tag / Cold Weather Notice

## **WARNING**

Operating, maintaining, and servicing a Stellar product may expose you to chemicals including, but not limited to, engine exhaust, carbon monoxide, phthalates, and lead. These chemicals are known to the State of California to cause cancer and birth defects (or other reproductive harm). To keep your exposure to a minimum, be sure to avoid breathing engine exhaust and service your Stellar product in a well-ventilated area while wearing gloves or washing your hands frequently. For more information, go to [www.P65Warnings.ca.gov/passenger-vehicle](http://www.P65Warnings.ca.gov/passenger-vehicle).




[www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

## **NOTICE**

### **Cold Weather Performance**

Although clear data on cold weather performance from every steel manufacturer is not available for all types and thicknesses of steel, Stellar Industries is confident that the weldments on our products will operate to 100% of their intended purpose to temperatures down to -40° F / C.

It is recommended if Stellar manufactured equipment needs to be used in temperatures below -40° F / C, the operator should pull the unit into a climate-controlled area and allow the weldments to warm up to and then maintain a temperature above this level.

	MODEL <input type="text"/>
SERIAL NO. <input type="text"/>	
PATENT / IP INFORMATION: <a href="http://www.stellarindustries.com/ip">www.stellarindustries.com/ip</a>	DATE <input type="text"/>
MADE IN THE USA by the Employee Owners of Stellar Industries PN 112060	

# Table of Contents

Introduction .....	iv
<b>Chapter 1 - Specifications .....</b>	<b>1</b>
<b>Chapter 2 - Installation.....</b>	<b>3</b>
Component Installation.....	3
65R Wiring Schematic.....	4
Hydraulic System.....	5
Air System .....	5
Compressor Pressure Switch .....	6
Typical Hydraulic Circuit for Single-Section Pump .....	7
Typical Hydraulic Circuit for Single-Section Pump .....	8
Typical Hydraulic Circuit for Compressor with Auxiliary Cooler .....	9
<b>Chapter 3 - Assembly Drawings.....</b>	<b>11</b>
65R Case Assembly - PN 101835 .....	11
65R Assembly Drawing - PN 101190 .....	12
65R Assembly Bill - PN 101190 .....	13

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](mailto:service@stellarindustries.com)

Order Parts: [parts@stellarindustries.com](mailto:parts@stellarindustries.com)

Warranty Information: [warranty@stellarindustries.com](mailto: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.

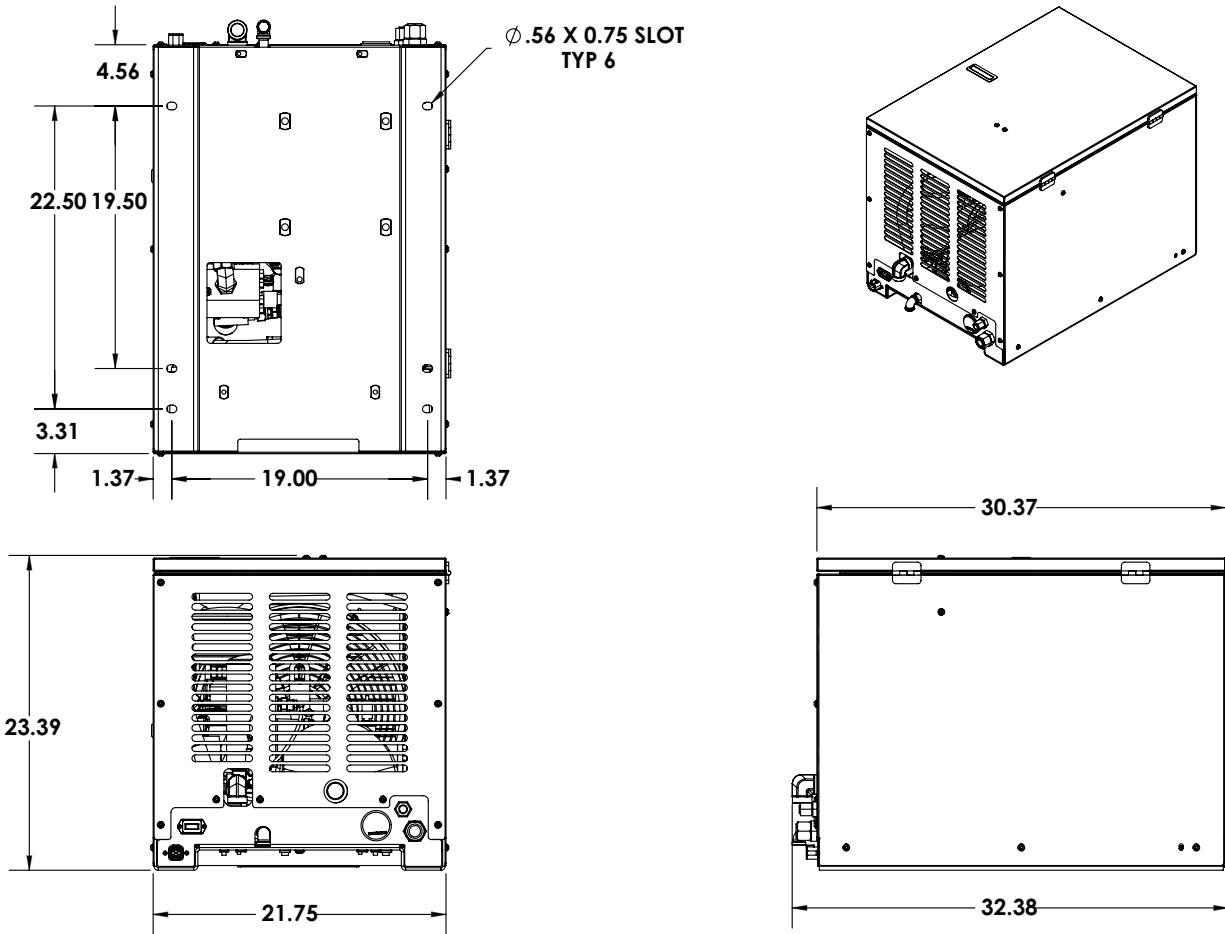
Information contained within this manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations. Please be aware that some sections of this manual contain information pertaining to Stellar Industries® manufactured air compressors in general and may or may 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](mailto:service@stellarindustries.com).

# Chapter 1 - Specifications



SPECIFICATIONS	65R
Hydraulic System	18 GPM @ 2750 PSI
Compressor RPM	7000-7500 RPM
System Pressure	2800 PSI
Hydraulic Relief	3500 PSI
Max Air Pressure	150 PSI
Air Relief	200 PSI
Delivery (At Max Speed)	55-65 CFM @ 100 PSI
Weight	345 lbs.
Dimensions (Length)	32.38"
Dimensions (Width)	21.75"
Dimensions (Height)	23.39"
Electrical	12 VDC
Crankcase Oil Capacity	6 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:

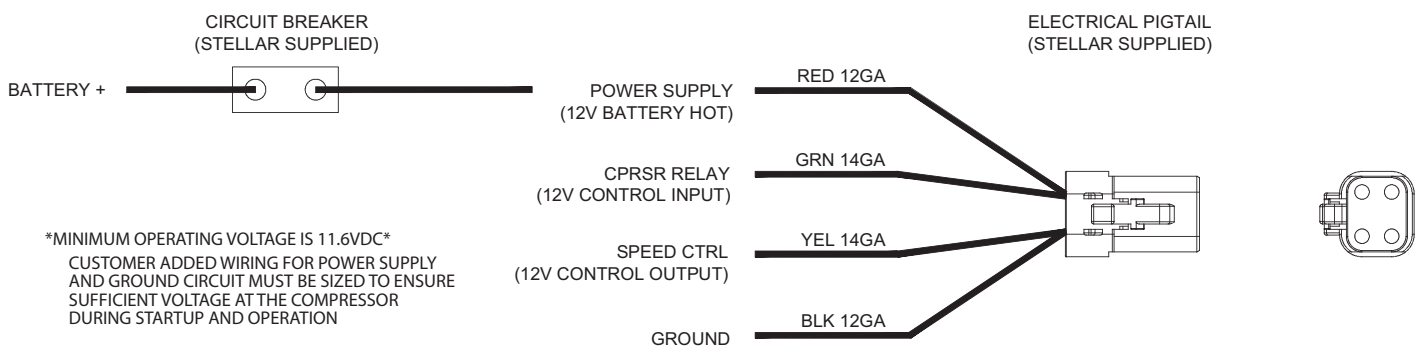
Check with the PTO manufacturer's representative for specific instructions regarding your particular make, model, and year of vehicle. As some trucks may require modification of the transmission cross member and the exhaust system, the manufacturer's instructions should be followed to ensure proper installation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

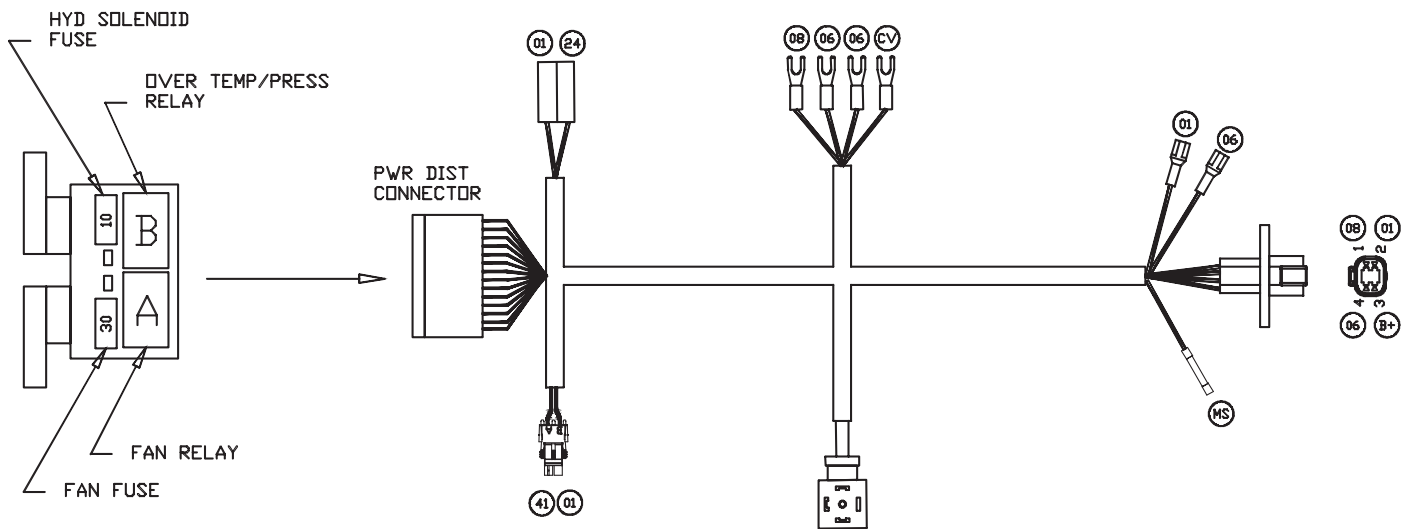
An optional electric or electronic speed control must be used to maintain proper operating speed of the air compressor. The engine speed control will automatically increase from idle to preset speed when engaged and decrease when disengaged.



# 65R Wiring 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

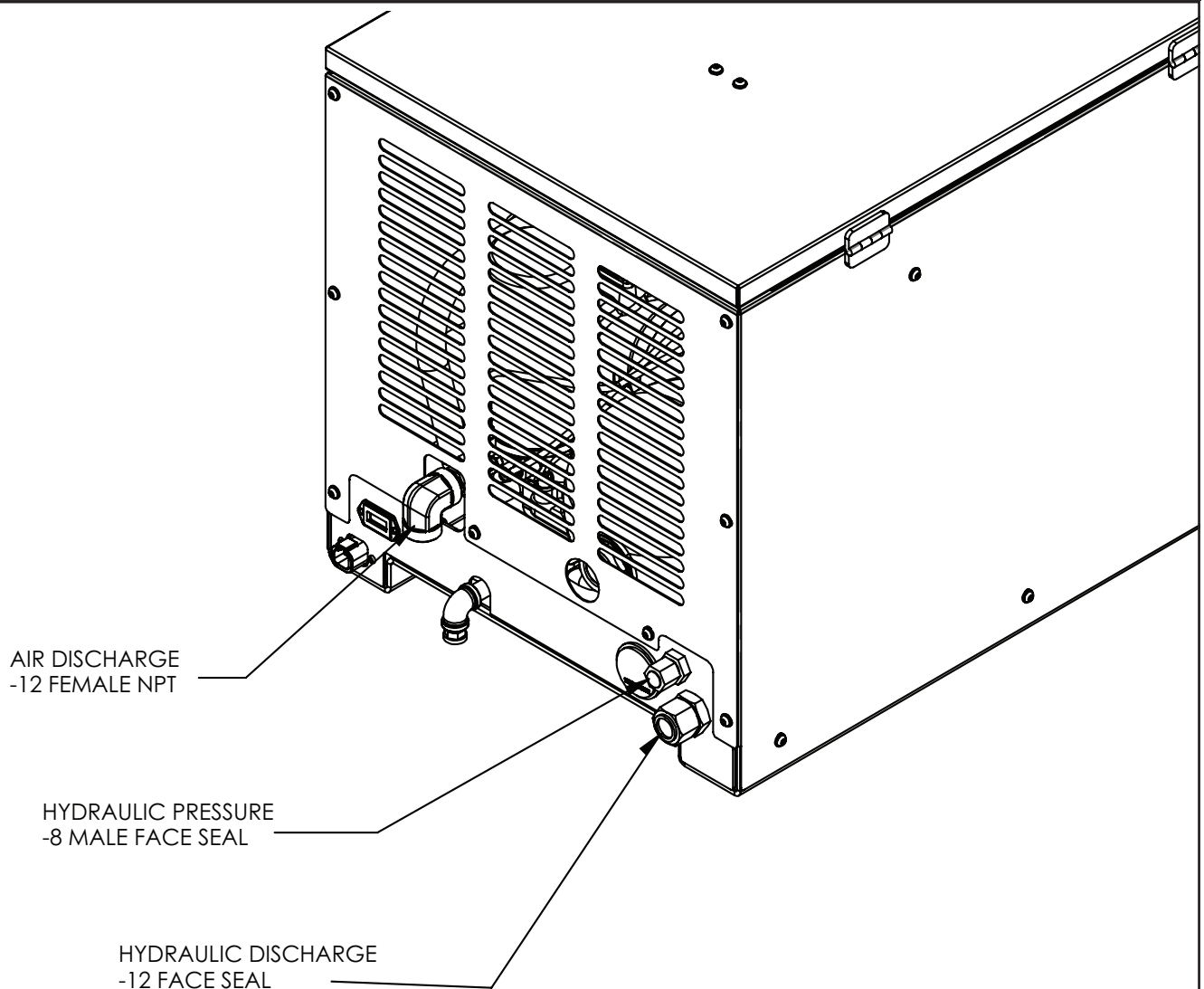


# Hydraulic System

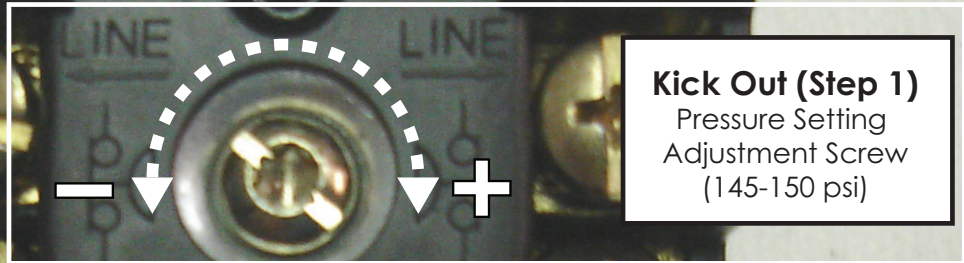
The hydraulic system consists of the pump, oil reservoir, filters and hoses. Installed on the compressor is a valve block assembly that controls the flow to the hydraulic motor. To this block, a 1/2" high-pressure hose must be attached. This hose comes from the pressure side of the hydraulic pump. A 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

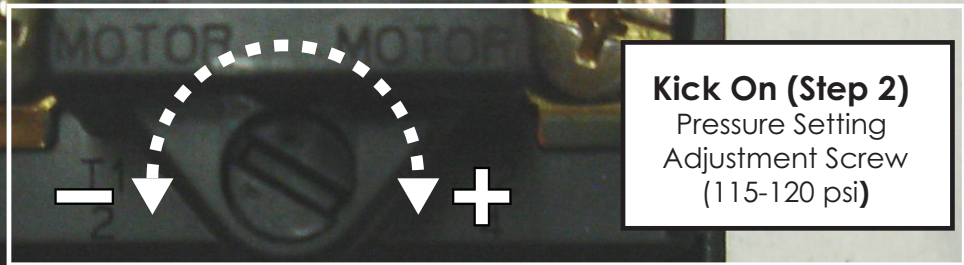
The airline is routed using a 3/4" (200 psi) air hose. This delivery line should be free from all obstructions. Note: There should be no check valve installed between the compressor and the air tank. Stellar Industries recommends the installation of a ten gallon air tank (minimum) to maintain proper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



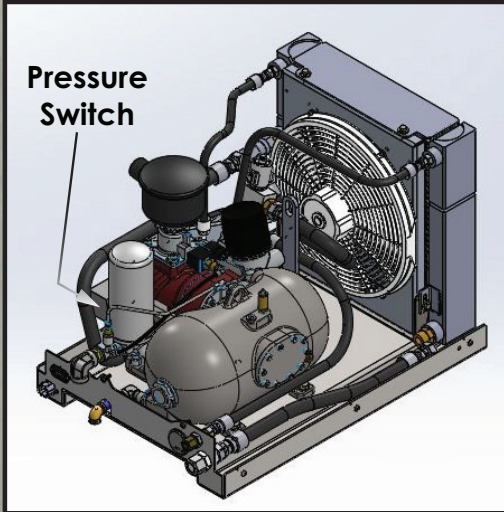
# Compressor Pressure Switch



**Kick Out (Step 1)**  
Pressure Setting  
Adjustment Screw  
(145-150 psi)

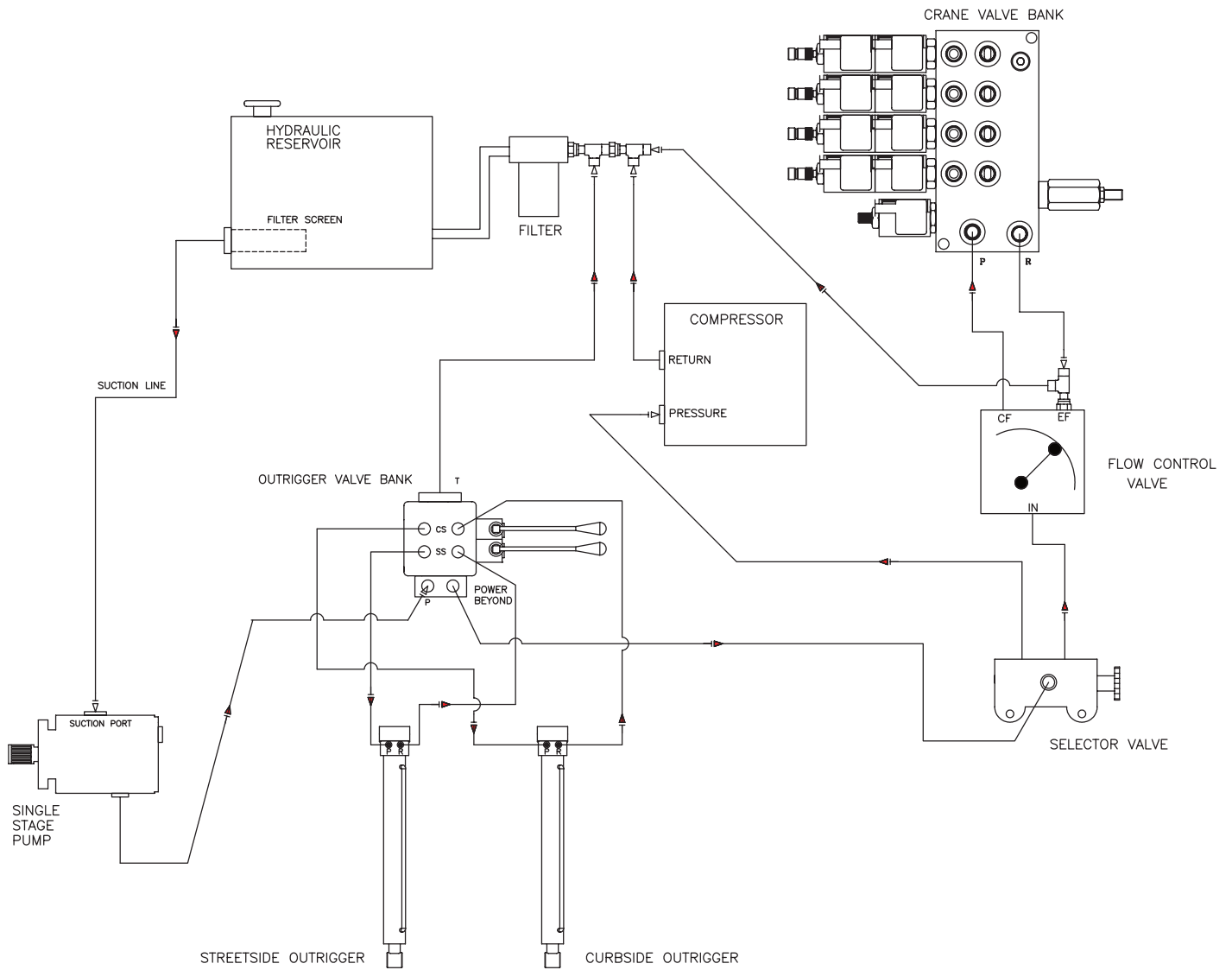


**Kick On (Step 2)**  
Pressure Setting  
Adjustment Screw  
(115-120 psi)

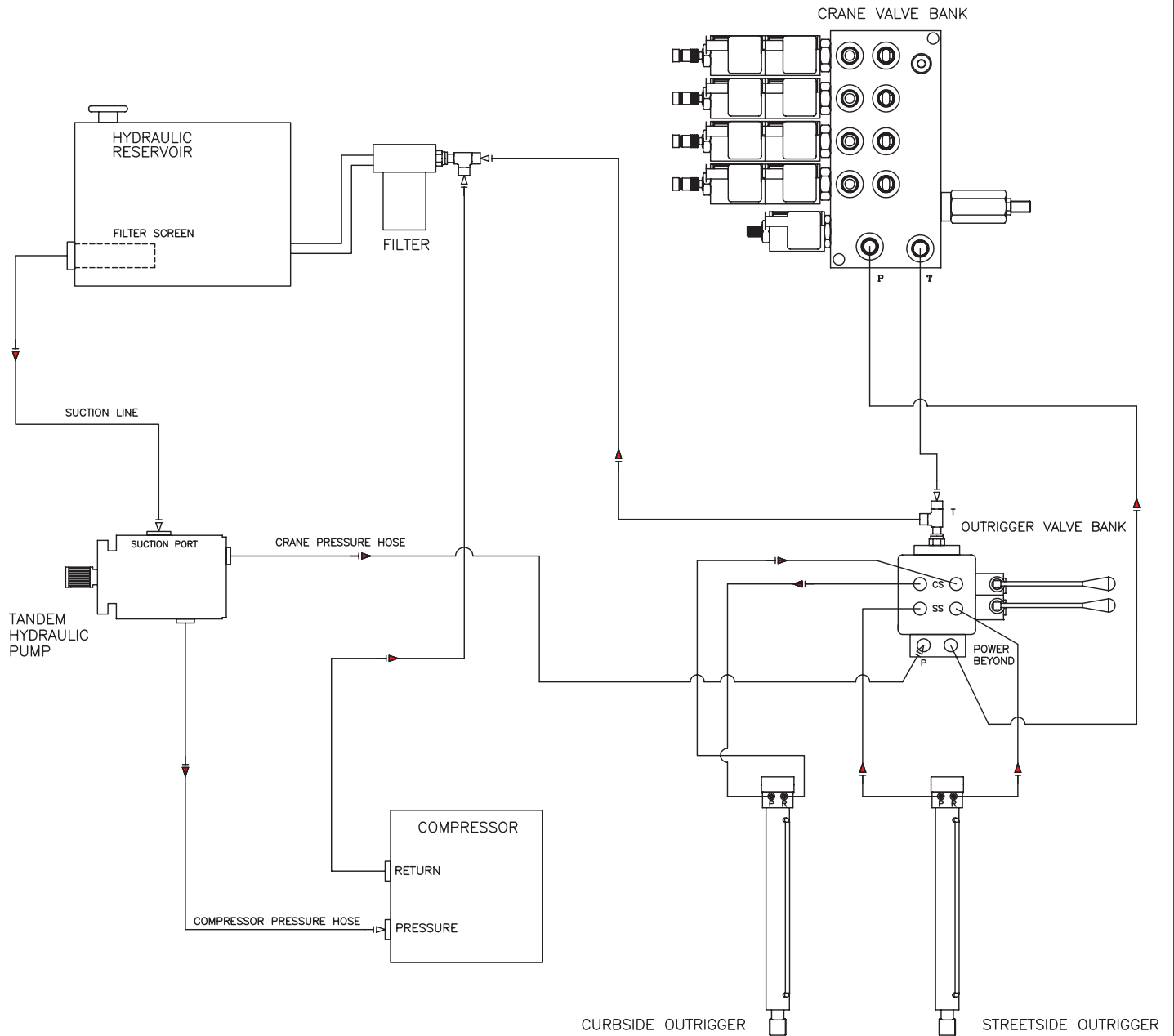


**Note:** Turning adjustment screws clockwise increases psi settings.  
Turning adjustment screws counterclockwise decreased psi settings.

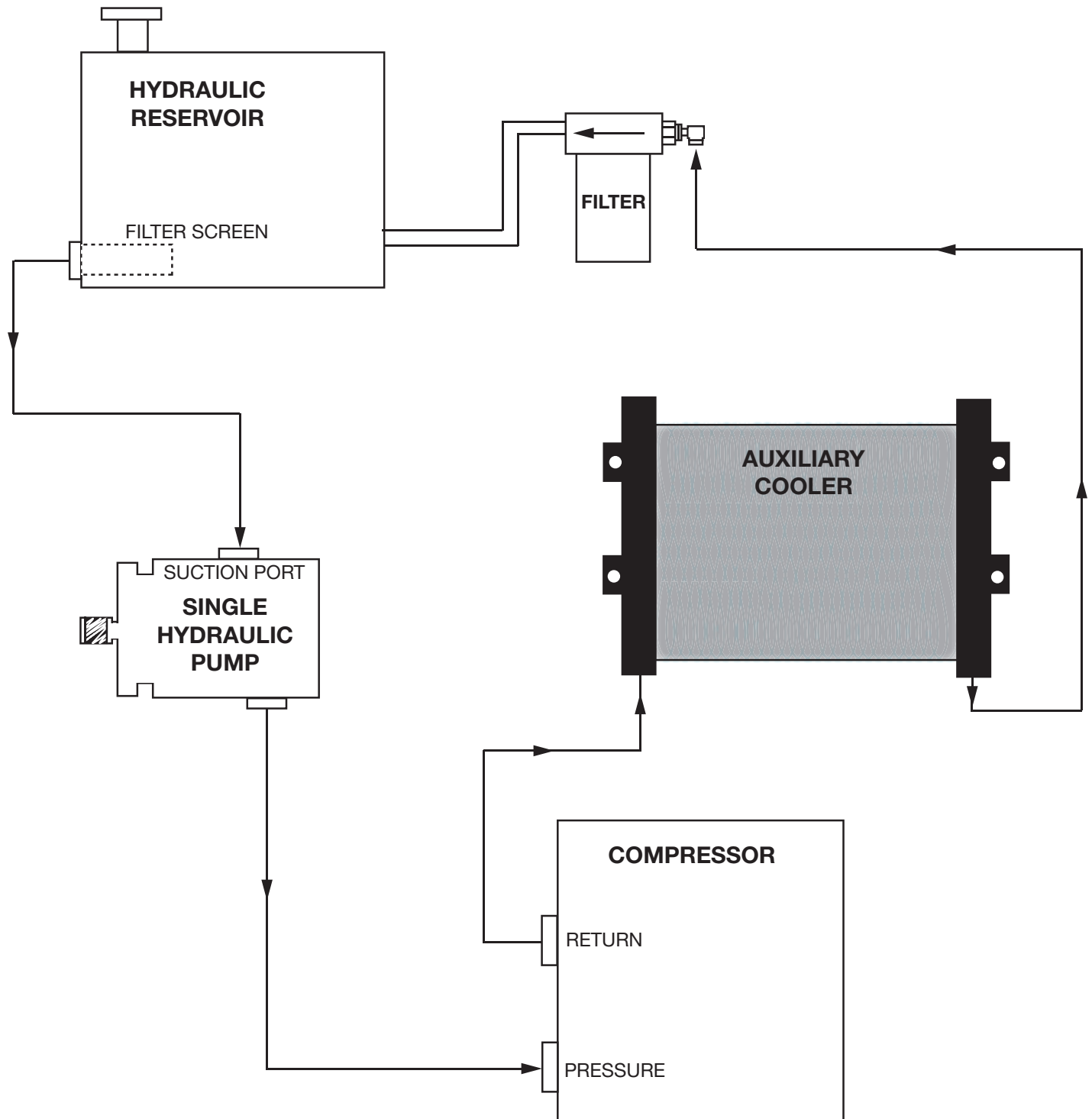
# Typical Hydraulic Circuit for Single-Section Pump



# Typical Hydraulic Circuit for Single-Section Pump



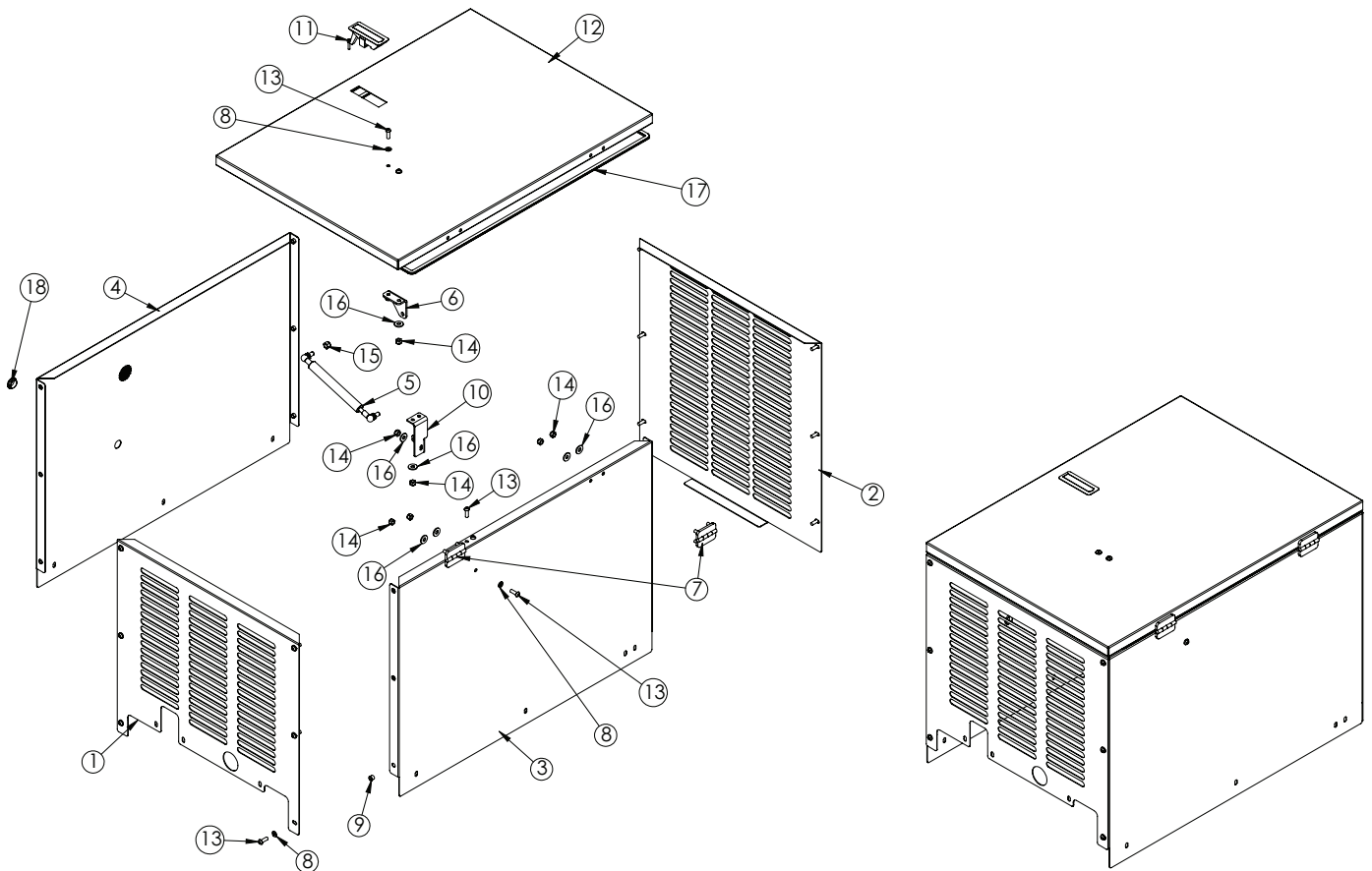
# Typical Hydraulic Circuit for Compressor with Auxiliary Cooler



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# Chapter 3 - Assembly Drawings

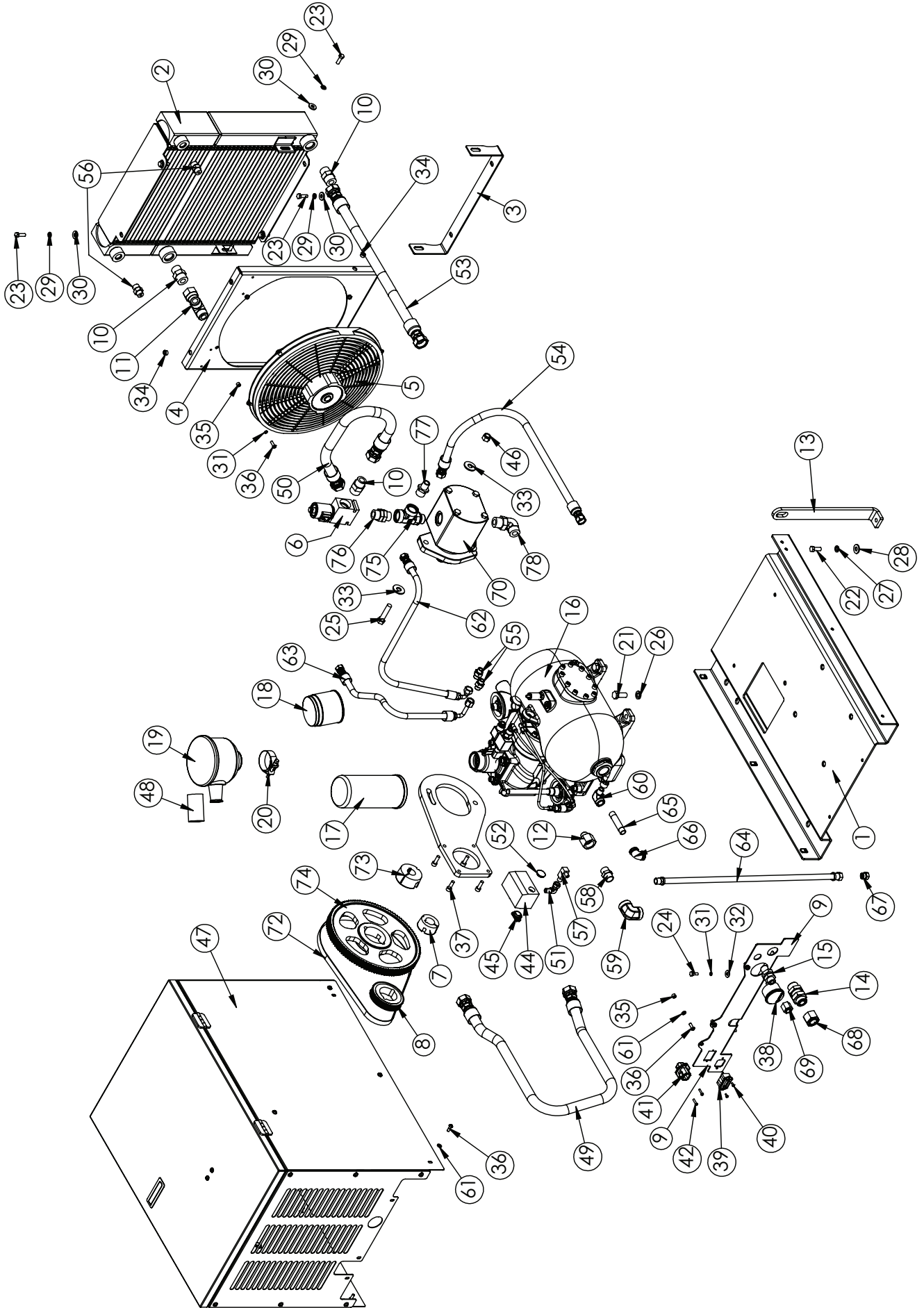
## 65R Case Assembly - PN 101835



### PN 101835

ITEM	PART No.	DESCRIPTION	QTY.
1	101836	PANEL FRONT CPRSR 45R/65R SHROUD PC WHITE V2	1
2	75586	PANEL BACK CPRSR 45R/65R SHROUD PC WHITE	1
3	101837	PANEL SIDE RH 45R/65R SHROUD PC WHITE V2	1
4	101838	PANEL SIDE LH 45R/65R SHROUD PC WHITE V2	1
5	69103	GAS SPRING 7.50-12.00 30# FORCE	1
6	73654	BRKT LID GASPROP CPRSR SHROUD V2 PC BLACK	1
7	70379	HINGE ZINC BLK FLUSH SURFACE MNT DC-50-P8	2
8	19592	WASHER 0.25 FLAT NYLON	15
9	19589	NUT SERT 0.25-20X0.38 OD	12
10	73653	BRKT LOWER GASPROP CPRSR SHROUD V2 PC BLACK	1
11	69101	LATCH SWING LEVER FLUSH TRIGGER 0.91-1.81	1
12	102402	PANEL LID CPRSR 45R/65R SHROUD PC WHITE V2	1
13	C6021	CAP SCR 0.25-20X0.75 BTNHD SS	17
14	0333	NUT 0.25-20 HHGR5 NYLOC	13
15	0342	NUT 0.31-18 HHGR5 NYLOC	2
16	D0917	WASHER 0.25 FLAT SS	13
17	75877	WEATHERSTRIP RIBBED 0.38X0.13X98.00	1
18	C4760	PLUG PLASTIC 0.75 HOLE	1

# 65R Assembly Drawing - PN 101190





# 65R Assembly Bill - PN 101190

ITEM	PART No.	DESCRIPTION	QTY.
1	101185	BASE WLDMT 45R/65R CPRSR V2	1
2	76503	COOLER OIL SRS65 W/SHROUD MNT	1
3	78008	BRKT COOLER 45R/65R PC BLACK	1
4	76586	SHROUD SRS65 FAN MNT W/AGK CLR W/SIDE MNT	1
5	34541	FAN 16.00 PULL 12 VOLT 30102049	1
6	70472	MANIFOLD ASM SVRV10-12SAE 3500PSI ALUM BODY	1
7	125836	BUSHING 28MM TL	1
8	125837	SPROCKET 36T-8P-12W-TL	1
9	101187	PANEL BULKHEAD 45R/65R CPRSR V2 PC BLACK	1
10	C2142	FTG 12-12 MFS-MORB STRAIGHT	3
11	D0525	FTG 12-12-12 MFS-FFSS-MFS RUN TEE	1
12	76363	FTG 12-8 FP-MBSPP	1
13	76717	BRKT LIFTING BAR 45R/65R PC BLACK	1
14	65025	FTG 12-12 MFS-MFS BULKHEAD UNION	1
15	D1318	FTG 8-8 MFS-MFS BULKHEAD UNION	1
16	101188	VMC PSV75C AIR END 45R/65R CPRSR	1
17	76583	FILTER SEPERATOR 30R/45R/65R	1
18	76369	FILTER OIL 30R/45R/65R	1
19	76582	FILTER AIR HOUSEING W/ FILTER 45R/65R R20E	1
20	76714	HOSE CLAMP 2.16-2.31IDX0.78	1
21	0498	CAP SCR 0.50-13X1.25 HHGR5	4
22	0351	CAP SCR 0.38-16X1.00 HHGR5	1
23	C0922	CAP SCR 0.31-18X1.00 HHGR5	6
24	0479	CAP SCR 0.25-20X0.75 HHGR5	2
25	26025	CAP SCR 0.50-13X2.25 HHGR5	2
26	0525	WASHER 0.50 LOCK	4
27	0523	WASHER 0.38 LOCK	1
28	0346	WASHER 0.38 USS FLAT	1
29	0522	WASHER 0.31 LOCK	6
30	0343	WASHER 0.31 USS FLAT	6
31	0521	WASHER 0.25 LOCK	6
32	0340	WASHER 0.25 USS FLAT	2
33	0352	WASHER 0.50 USS FLAT	4
34	5735	NUT SERT 0.31-18X0.50 OD	4
35	19589	NUT SERT 0.25-20X0.38 OD	7
36	C6021	CAP SCR 0.25-20X0.75 BTNHD SS	13
37	22162	CAP SCR 8MMX25MM SH	4
38	21650	GAUGE OIL TEMP TSB20TVD3006125SR240	1
39	28855	HOUR METER 12VDC TST 180-1911	1

ITEM	PART No.	DESCRIPTION	QTY.
40	18611	SCREW #6-32X0.38 HH MACH SELF TAP	2
41	76364-1	WIRE HARNESS 30R/45R/65R CPRSR	1
42	22183	CAP SCR #8-32X0.75 BTNHD SS	2
43	22186	NUT #8-32 HH NYLOC SS	2
44	C0863	SWITCH PRES COMPRESSOR	1
45	C5616	CLAMP ROMEX 0.50	1
46	C6106	NUT 0.50-13 HHGR5 NYLOC	2
47	101835	SHROUD ASM 45R/65R CPRSR V2	1
48	76704	HOSE AIR INTAKE 45R/65R 3"CL	1
49	102406	HOSE 0.75(3000PSI)-12FFSS SHORT-12FFSS SHORT-38CL	1
50	102407	HOSE 0.75(3000PSI)-12FFSS SHORT-12FFSS SHORT-23CL	1
51	76360	FTG 4-4 MP-FPS 90	1
52	73652	PLUG NICKEL PLATED BUTTON 0.88	1
53	102408	HOSE 0.75(200PSI)-12FFSS SHORT-12FFSS SHORT-19.00CL	1
54	55897	HOSE 0.50(3000PSI)-8FFSS SHORT-8FFSS SHORT-26CL	1
55	65587	FTG 6-6 MFS-MBSPP STRAIGHT	2
56	C1854	FTG 6-8 MFS-MORB STRAIGHT	2
57	8276	FTG 4-2 MP-MP 90	1
58	C6162	FTG 12-12 MP-MP HEX NIPPLE STRAIGHT	1
59	C6175	FTG 12-12 FP-FP 90	1
60	0553	FTG 6-6 MP-FP STREET ELBOW 90	1
61	19592	WASHER 0.25 FLAT NYLON	9
62	102405	HOSE 0.38(3000PSI)-6FFSS SHORT-6FFSS 90 SHORT-25CL	1
63	14638	HOSE 0.38(3000PSI)-6FFSS SHORT-6FFSS 90 LONG-16CL	1
64	78190	HOSE 0.38(200PSI)-6PL SHORT-6PL STRAIGHT-23.5CL	1
65	20458	FTG 6-6X3.00 MP-MP NIPPLE STRAIGHT BRASS	1
66	20452	FTG 6-6 FP-FP ELBOW 90 BRASS	1
67	0560	FTG 6 MFS PLUG	1
68	C4934	FTG 12 FFSS CAP	1
69	2772	CAP 8FNL-S	1
70	80303	MOTOR HYD PLM3027D0-33S5-LOD/OE-N-C	1
71	101183	BRKT MOTOR MOUNT 65R CPRSR V2	1
72	125839	BELT SYNCHRONOUS 8P-1120T-12W	1
73	125840	BUSHING 1.00 TL	1
74	125871	SPROCKET 112T-8P-12W-TL	1
75	30542	FTG 12-12-12 MAORB-FORB-FORB TEE	1
76	C5549	FTG 12-12 MAORB-ORB STRAIGHT	1
77	C1180	FTG 8-12 MFS-MORB STRAIGHT	1
78	22063	FTG 12-16 MFS-MAORB 90	1





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