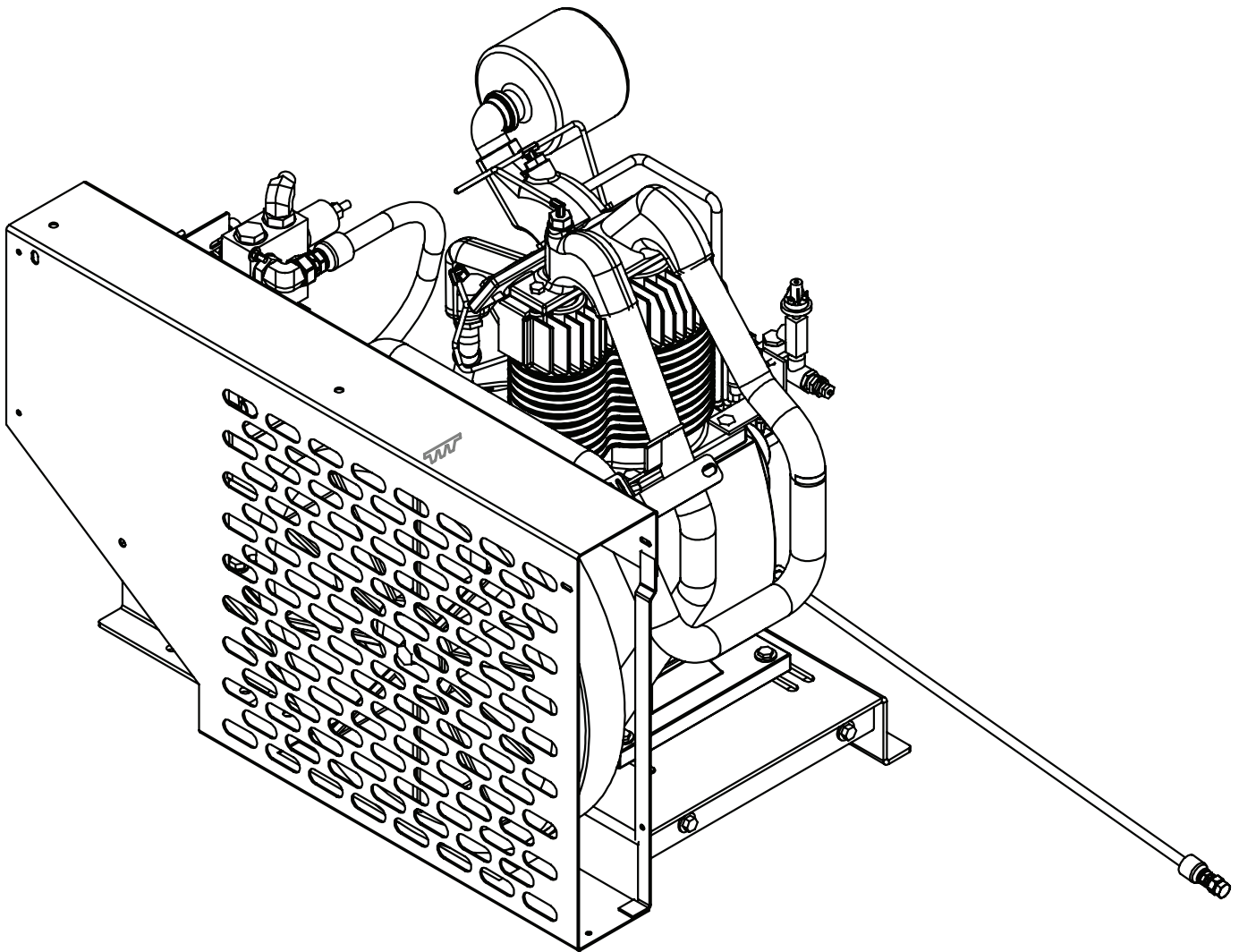


# Model 60P Two-Stage Piston Compressor Manual

Specifications • Installation • Assembly



Stellar Industries Inc.  
740 North State Street  
PO Box 169  
Garner, IA 50438  
800-392-3015

[www.stellarindustries.com](http://www.stellarindustries.com)

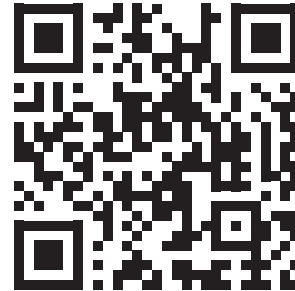
Subject to Change without Notification.  
© 2023 Stellar Industries Inc.

Rev 1  
PN 92625

# P65 Warning / Serial Tag / Cold Weather

## **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 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
60P Electrical Schematic.....	4
Hydraulic System.....	5
Air System .....	5
Typical Hydraulic Circuit for Single-Section Pump .....	6
Typical Hydraulic Circuit for Tandem (Two Part) Pump .....	7
Typical Hydraulic Circuit for Compressor with Auxiliary Cooler .....	8
<b>Chapter 3 - Assembly Drawings.....</b>	<b>9</b>
60P Assembly - PN 10646.....	9

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](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.

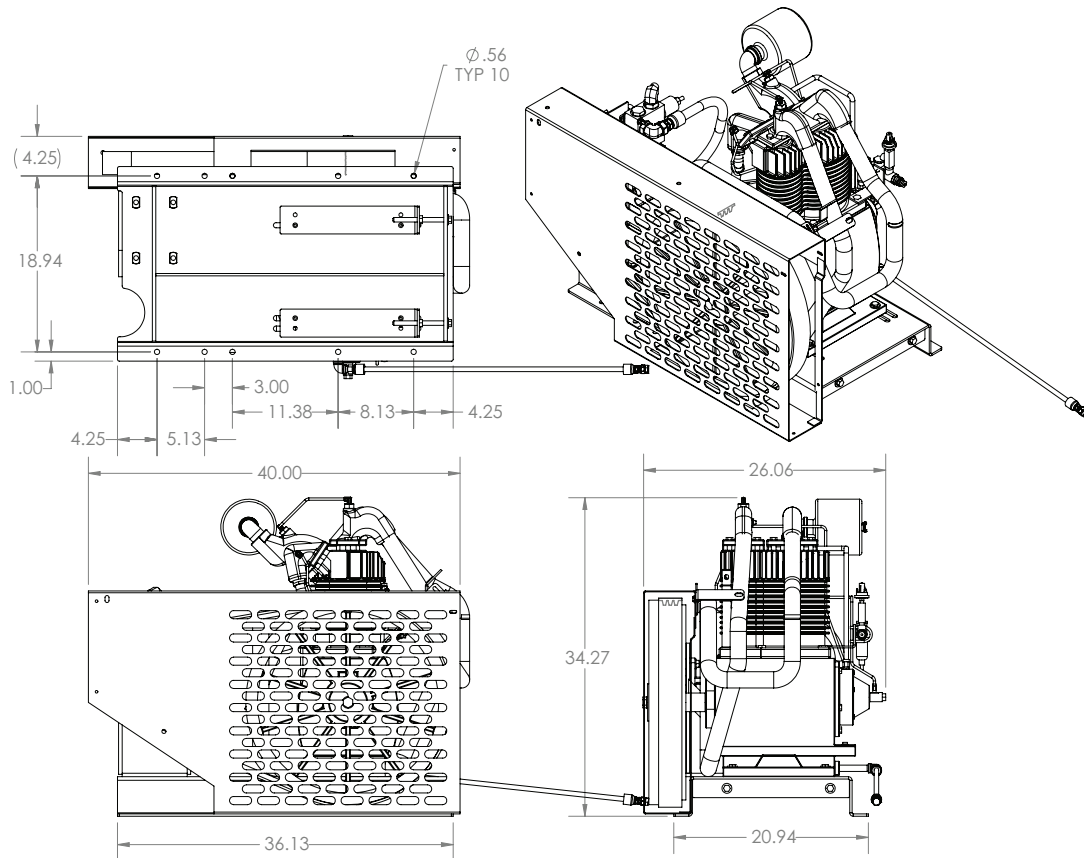
Information contained within this manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations. Please be aware that some sections of this manual contain information pertaining to Stellar Industries® manufactured air compressors in general and may or may 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	60P
Hydraulic System	16 GPM @ 2300 PSI
Max Compressor Speed	800 RPM
Hydraulic Operating Pressure	2300 PSI
Hydraulic Relief Pressure	3500 PSI
Max Working Pressure	175 PSI
Air Relief Valve	200 PSI
Air Delivery (At Max Speed)	60 CFM @ 100 PSI
Weight (Hydraulic Driven Asm)	625 lbs.
Weight (Air Pump Only)	440 lbs.
Dimensions (Length)	41.03"
Dimensions (Width)	26.06"
Dimensions (Height)	34.28"
Electrical	12V DC
Crankcase Oil Capacity	4 Quarts
Plumbing/Fittings	Steel w/ JIC Fittings
Cooler Fan	12 Volt (Pull)
Drive Type	Belt Driven

## NOTICE

Duty cycle on Piston Compressors is 50:50 over 10 minutes.

This page intentionally left blank.

# 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:

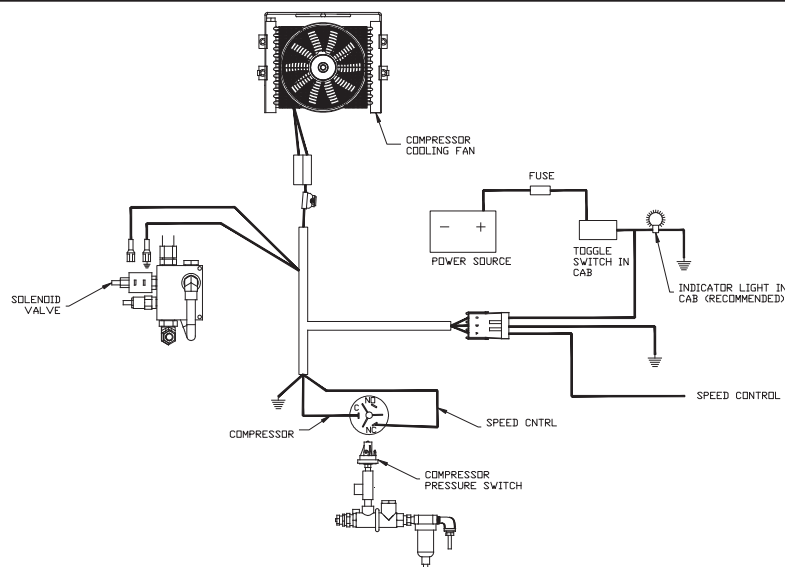
Check with the PTO manufacturer's representative for specific instructions regarding your particular make, model, and year of vehicle. As some trucks may require modification of the transmission cross member and the exhaust system, the manufacturer's instructions should be followed to ensure proper installation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

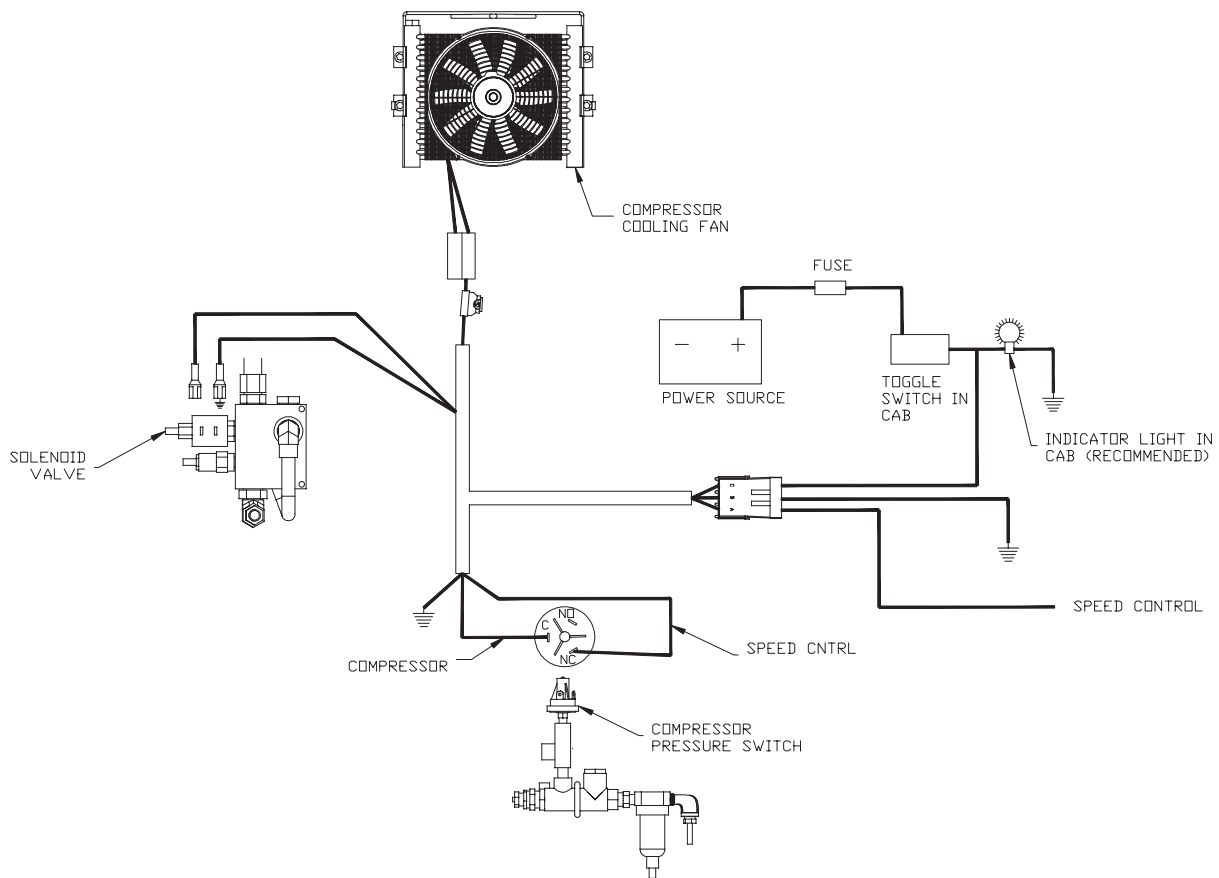
An optional electric or electronic speed control must be used to maintain proper operating speed of the air compressor. The engine speed control will automatically increase from idle to preset speed when engaged and decrease when disengaged.



# 60P 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.



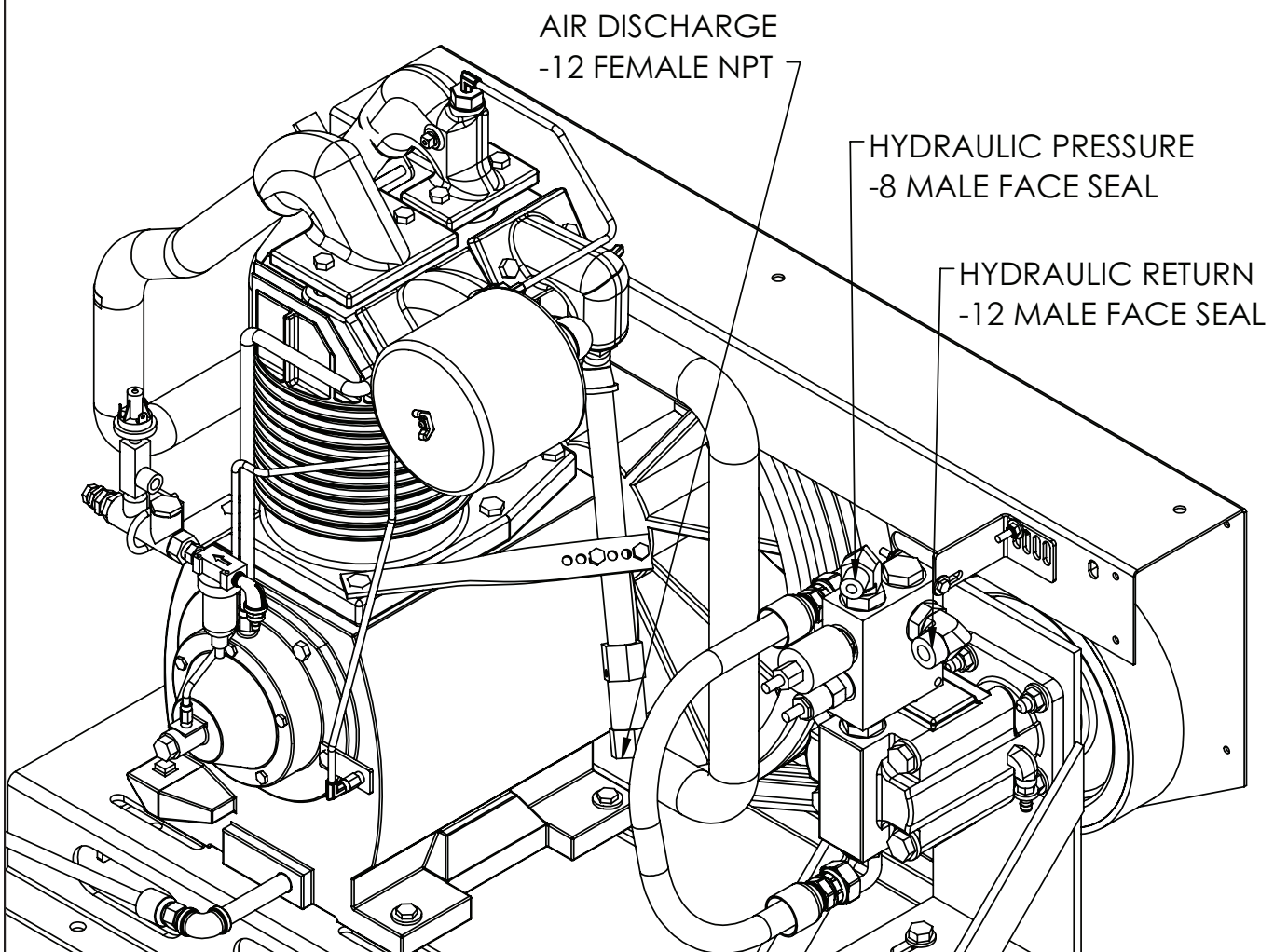


## Hydraulic System

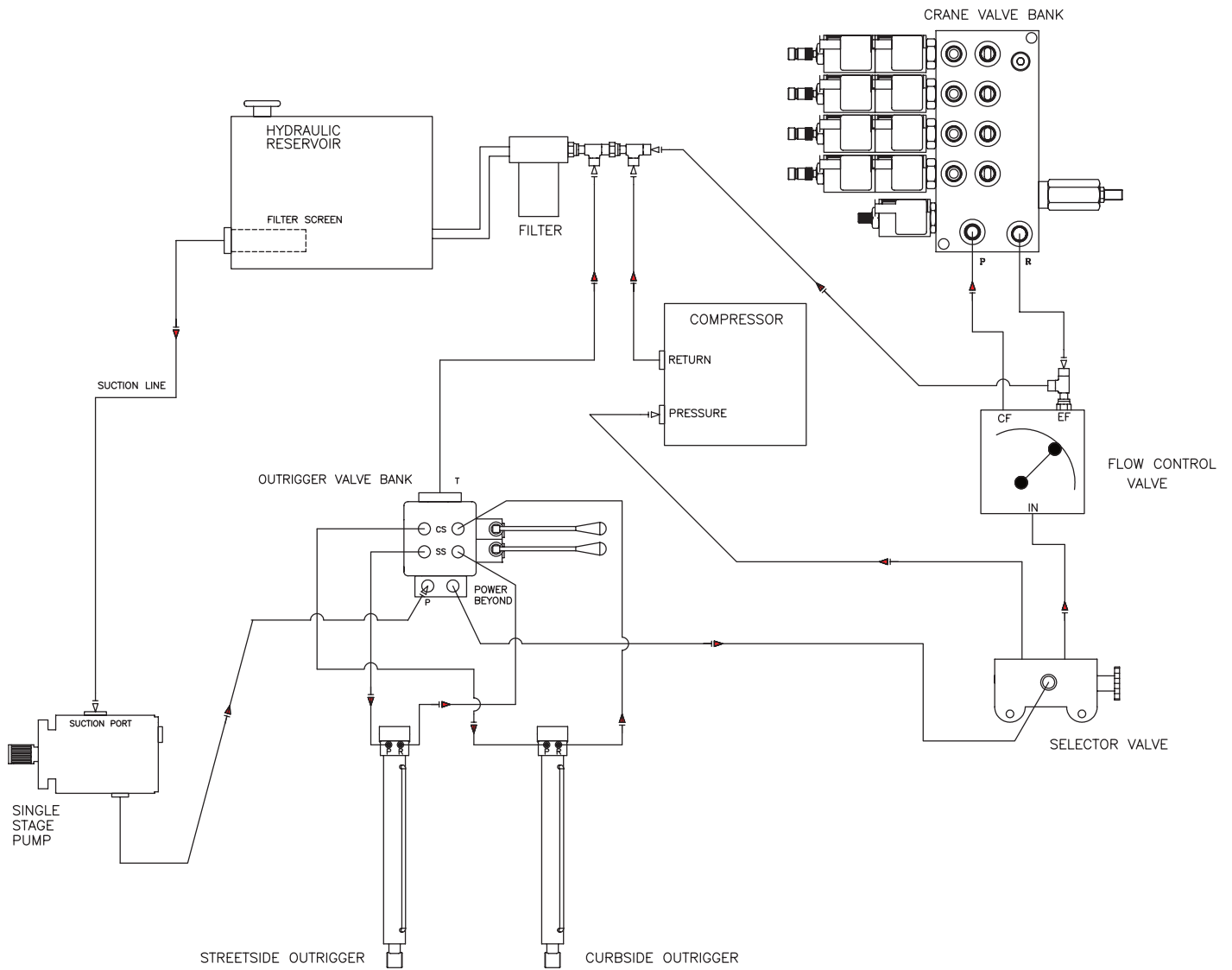
Installed on the compressor is a valve block assembly that controls the flow to the hydraulic motor. To this block, a 1/2" high-pressure hose must be attached. This hose comes from the hydraulic pumps pressure side. A 1-1/4" hydraulic suction hose must be installed from the hydraulic reservoir to the hydraulic pump. (See drawing above) Note: For compressors purchased without a reservoir a 3/4" minimum low-pressure return line is connected to the oil cooler outlet and is routed to the oil reservoir. The case drain line from the hydraulic motor is also routed to the oil reservoir. Stellar Industries recommends a sufficient sized reservoir be provided which 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

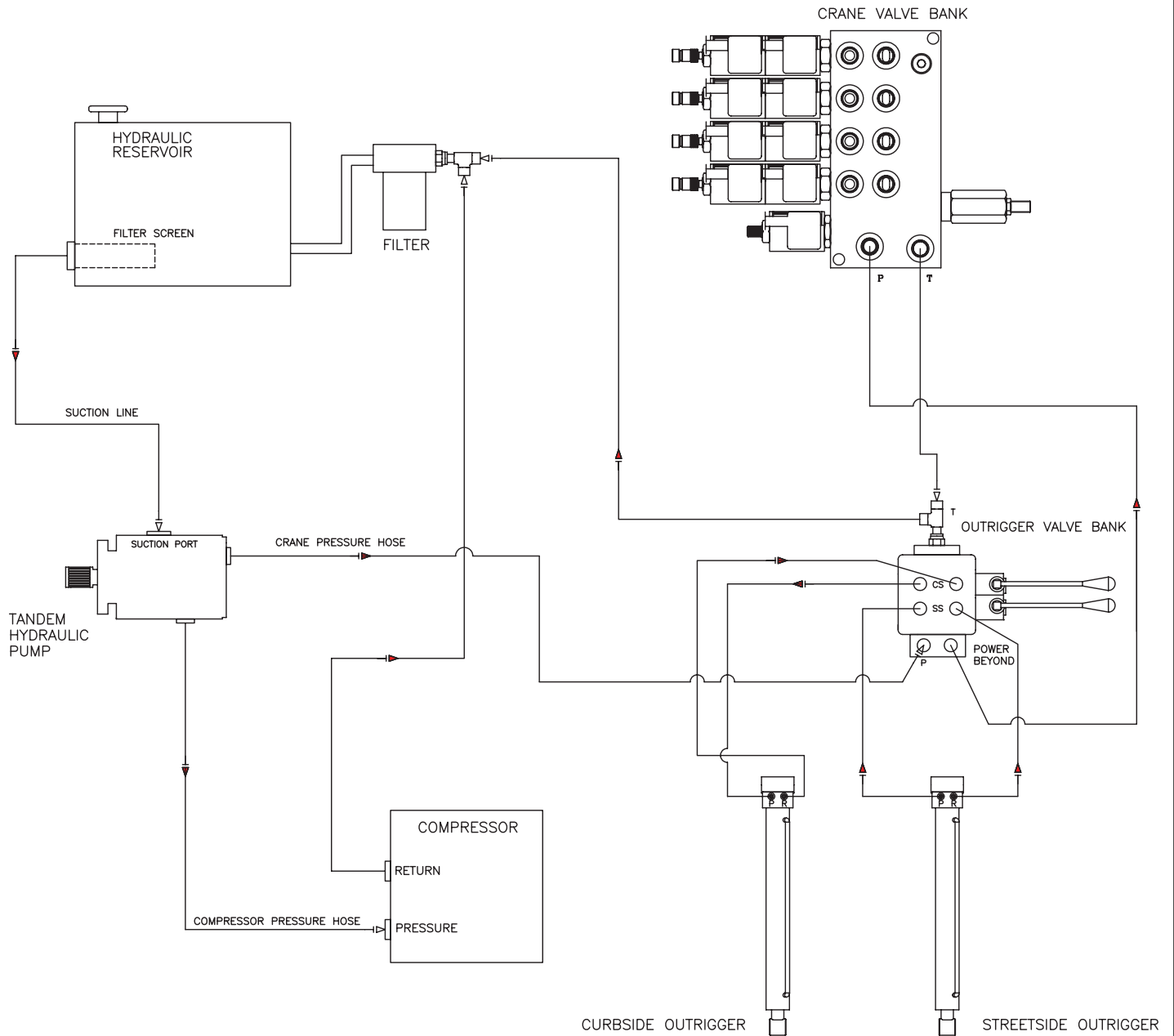
Two (2) airlines must be routed to the air tank for proper installation. The main airline is routed from the check valve to the air tank using a 3/4"(200psi) air hose. This is the main delivery line and should be free from all obstructions. A 1/4" line is routed from the air pressure valve to the air tank. This line senses the pressure in the tank and will engage and disengage the compressor automatically.



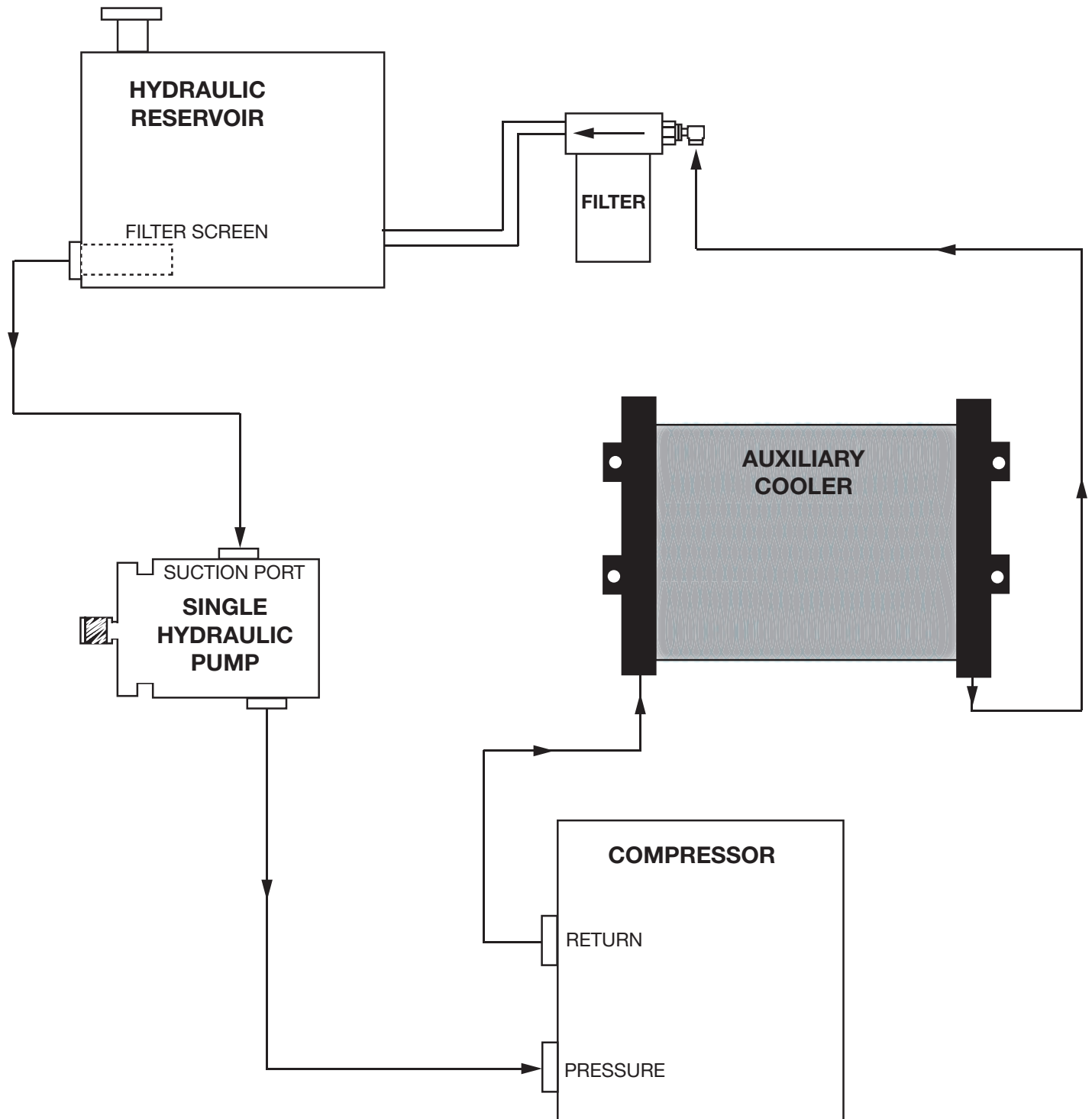
# Typical Hydraulic Circuit for Single-Section Pump



# Typical Hydraulic Circuit for Tandem (Two Part) Pump

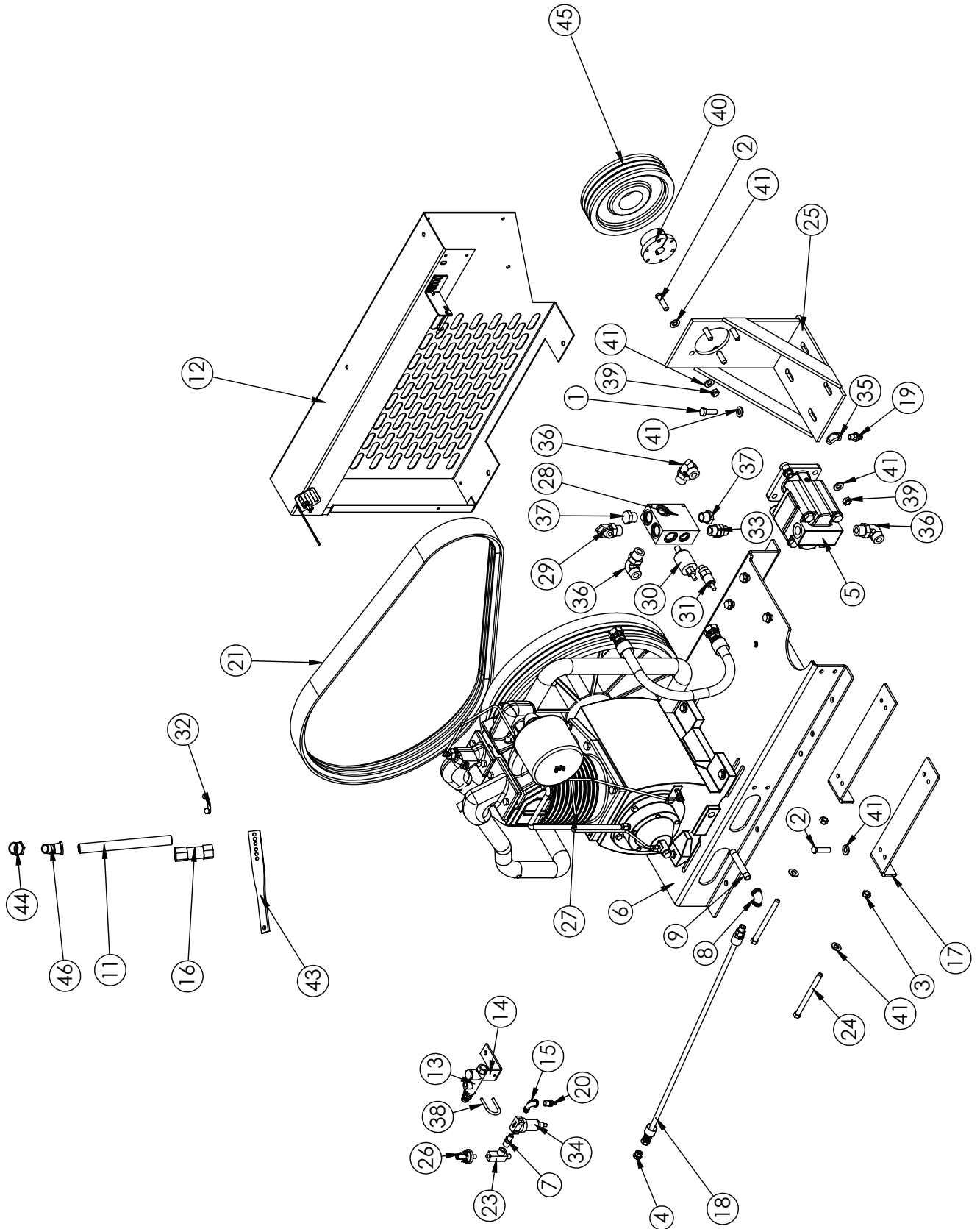


# Typical Hydraulic Circuit for Compressor with Auxiliary Cooler



# Chapter 3 - Assembly Drawings

## 60P Assembly - PN 10646



# 60P Assembly Bill - PN 10646

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	0359	CAP SCR 0.50-13X1.50 HHGR5	4	23	8277	FTG ST L 0.25 MNPT/0.125 FNPT SPL	1
2	0501	CAP SCR 0.50-13X2.00 HHGR5	8	24	8697	CAP SCR 0.50-13X6.00 ALL THREAD GR5	2
3	0537	NUT 0.50-13 HH	2	25	B0179	BRKTHYD MOTOR MOUNT CPRSR PC BLACK	1
4	0560	FTG 6 MFS PLUG	1	26	C0864	SWITCH PRES HOBBS	1
5	10093	MOTOR HYD M330A842VREB10-43 1.	1	27	C1088	CPRSR CHMP R40A-HU	1
6	10642	BASE WLDMT CPRSR R40/R70 TOP MOUNT PC BLACK	1	28	C3075	BLOCK AL CPRSR SHD 66	1
7	20330	FTG 0.38-0.25 FF HEX NIPPLE	1	29	C4227	FTG 8-12 MFS-MAORB 90	1
8	20452	FTG 6-6 FP-FP ELBOW 90 BRASS	1	30	C4913	VALVE SOLND	1
9	20456	FTG 6-6X4.00 MP-MP NIPPLE STRAIGHT BRASS	1	31	C4914	VALVE RELIEF CP-200-1-B-O-A-C	1
10	20463	FTG 20-20 MP-FP STREET ELBOW BRASS	1	32	C4941	CLAMP MUFFLER 1 1/8	1
11	21138	FTG 12-12X10.00 MP-MP NIPPLE STRAIGHT BRASS	1	33	C5549	FTG 12-12 MAORB-ORB STRAIGHT	1
12	28007	COVER KIT 110P & 60P	1	34	C5662	FILTER METAL BOWL 0.25	1
13	3853	VALVE PILOT 145/175 PSI RCL-S	1	35	C5908	FTG 4-4 MP-FP 90 STREET ELBOW	1
14	4703	BRKT UNLOADER VALVE MNT SHD66DD	1	36	C5968	FTG 12-12 MFS-MAORB 90	3
15	5418	ST EL 0.25 90 DEG BRASS 44-161	1	37	C6015	FTG 0.75 PLUG 12-P5ON	2
16	5480	VALVE CHECK 0.75 STANDARD	1	38	C6064	U BOLT 0.25X1.25X2.25	1
17	65464	FORMED ANGLE 0.25 R70 THRD CPRSR MNT PC BLACK	2	39	C6106	NUT 0.50-13 HHGR5 NYLOC	4
18	69690	HOSE 0.38(471TC-JC-01-6-6-6-52)	1	40	C6188	BUSHING 1.00	1
19	71403	FTG HOSE 6-4 PL-MP STRAIGHT BRASS	1	41	D0790	WASHER 0.50 FLAT GR8	18
20	71406	FTG HOSE 4-4 PL-MP STRAIGHT BRASS	1	42	D0830	BRKT RSRVR MOUNT SHD66DD	1
21	76312	BELT 3B90 GATES (DAYCO RBP90-3)	1	43	D0847	BRKT 11.00 TWIST 45 DEG SHD66DD	1
22	76874	HOSE 0.75(200PSI)-12FFSS SHORT-12FFSS SHORT-21.75CL	1	44	D1273	FTG 16-12 MP-FP REDUCER BUSHING BRASS	1
				45	D1303	PULLEY SHEAVE 3 GROOVE 3B 94SK	1
				46	D1869	FTG 0.75-45 DEG ELBOW BRASS	1





Subject to Change without Notification.  
© 2023 Stellar Industries