



AC30A
**COMPRESSOR
OWNERS MANUAL**

Rev. 03/15/2011

Serial No. _____

Mailing Address:
P.O. Box 580697
Tulsa, OK 74158-0697

Physical Address:
4707 N. Mingo Rd.
Tulsa, OK 74117-5904
Manual No. AC30A
Rev. 07/08/2008

Phone (918) 836-0463
Fax (918) 834-5979
<http://www.autocrane.com>



Auto Crane Warranty Registration

Fax Transmission

To: Warranty Department Fax: (918) 834-5979
 From: _____ Date: _____
 Re: Product Registration Pages: _____

End User Information: (Required for Warranty Activation)

Name: _____ Phone: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Contact: _____ E-mail Address: _____

Distributor Information: (Required for Warranty Activation)

Name: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Contact: _____ E-mail Address: _____

Product Information: (Required for Warranty Activation)

Model No.: _____ Serial No.: _____
 Date Product Delivered: _____ Date Processed:* _____
 VIN # _____ * For Auto Crane use only

ONE REGISTRATION FORM PER UNIT (CRANE OR BODY)

Registration form must be mailed or faxed within 15 days of customer installation.

Mail to:
 Warranty Department
 Auto Crane Company
 P.O. Box 581510
 Tulsa, OK 74158-0697

AC30A

OWNER'S MANUAL – REVISION RECORD

Rev Date	Section(s)OrPage(s)	Description of Change
09/02/03	Last page	New 2-year warranty policy to replace 1-year warranty policy
05/09/05		2 nd Quarter New Revisions
11/28/05		3-1.0.0 Updated for new hydraulic motor
06/10/06		Updated for new machine design.
07/12/07		Bill of Materials Audit
08/13/07		Updated Drawing
11/28/11		Updated Drawing 200280-999

WARNINGS

WARNING! Federal law (49 cfr part 571) requires that the Final Stage Manufacturer of a vehicle certify that the vehicle complies with all applicable federal regulations. Any modifications performed on the vehicle prior to the final state are also considered intermediate stage manufacturing and must be certified as to compliance. The installer of this crane and body is considered on of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations, and is required to certify that the vehicle is in compliance.

WARNING! It is the further responsibility of the installer to comply with the OSHA Truck Crane Stability Requirements as specified by 29 CFR part 1910.180 (C) (1).

WARNING! NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES!

Death or serious injury will result from boom, line, or load contacting electric lines. Do not use crane within 10 feet (3.05m) of electric power lines carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less. **SEE DANGER DECAL (P/N 040529)** in this Owner's Manual.

WARNING! NEVER.....

- ◆ **EXCEED** load chart capacities (centerline of rotation to hoist hook).
- ◆ Un-reel last 5 wraps of cable from drum!
- ◆ Wrap cable around load!
- ◆ Attempt to lift or drag a load from the side! The boom can fail far below its rated capacity.
- ◆ Weld, modify, or use unauthorized components on any Auto Crane unit! This will void any warranty or liability. Also failure of the crane may result.
- ◆ Place a chain link on the tip of the hook and try to lift a load!
- ◆ Use a sling bar or anything larger than the hook throat that could prevent the hook latch from closing, thus negating the safety feature!
- ◆ Hold on any pendant Select Switch that will cause unsafe operating conditions!

WARNING! In using a hook with latch, **ALWAYS** make sure that the hook throat is closed before lifting a load! Proper attention and common sense applied to the use of the hoist hook and various slings will prevent possible damage to material being hoisted and may prevent injury to personnel.

WARNING! Failure to correctly plumb and wire crane can cause inadvertent operation and damage to crane and/or personnel!

WARNING! Auto Crane Company remote controlled cranes are not designed or intended to be used for any applications involving the lifting or moving of personnel.

WARNING! ALWAYS operate the crane in compliance with the load capacity chart. **DO NOT USE** the overload shutdown device to determine maximum rated loads, if the crane is equipped with this type of device.

READ THIS PAGE

**AC30A HYDRAULIC AIR COMPRESSOR
OWNER'S MANUAL
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GENERAL SPECIFICATIONS AC30A HYD AIR COMPRESSOR

Dimensions

Width: 25.0 in. (AT TOP)
20.0 in. (AT BASE)
Height: 24.5 in.
Length: 28.25 in.
Weight: 250 lbs. w/cage

Performance Data

28.8* cfm (Free Air Cubic Feet per Minute) @
100 psig air outlet pressure and 1800
rpm.

Piston Displacement: 48.5 cfm

***Reference Conditions:**

Absolute Inlet Pressure: 14.5 psi
Relative Air Humidity: 0 %
Air Inlet Temperature: 68° F.

Hydraulic Requirements

Flow (Max): 12 gpm (45.4 l/min)
Pressure: 2500 psi (172 bar)
Fluid Type: Anti-Wear Hydraulic
Fluid viscosity: 150 SSU @ 100° F

Electrical System Requirements

Voltage: 12 Volts DC
Current: 2.5 Amps

Rotation

Bi-rotational Radial Fan Blade

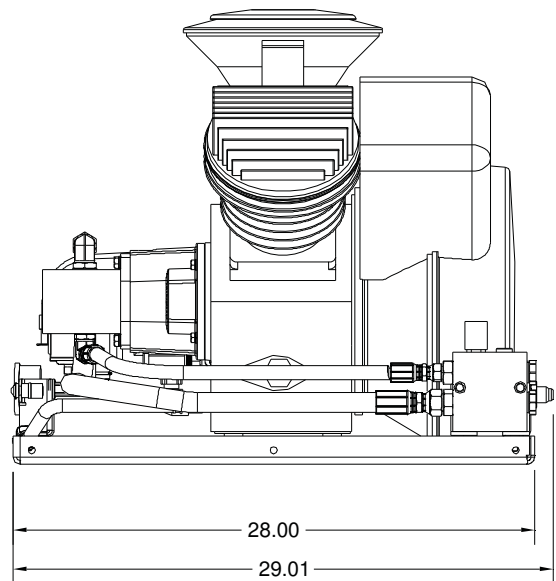
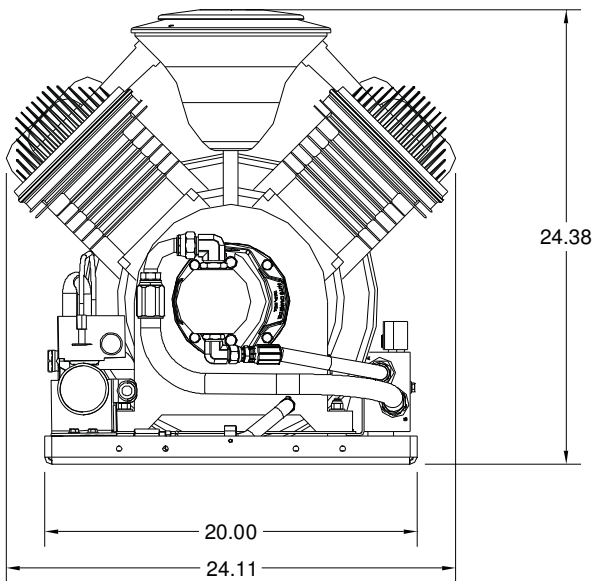
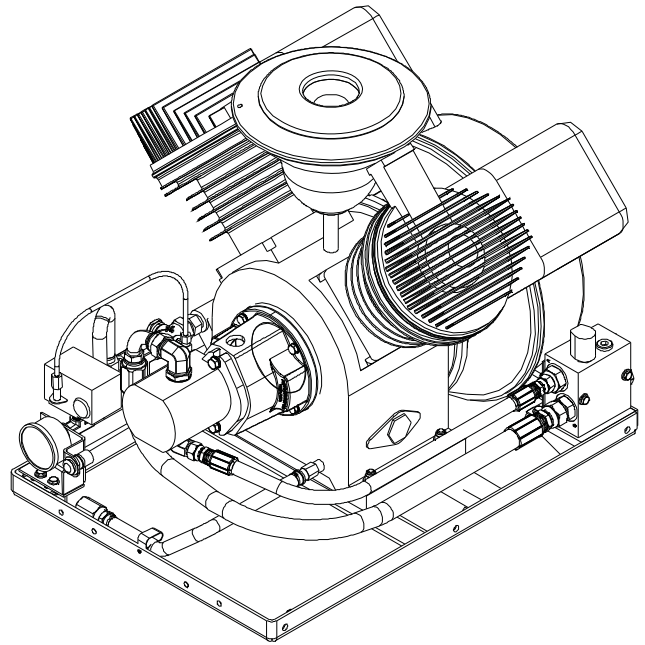
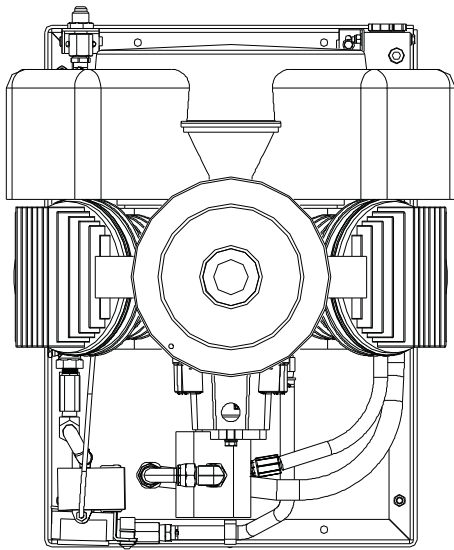
Hose Connections

Pressure: -12 JIC MALE
Return: -12 JIC MALE

Technical Data

Maximum Air Pressure: 145 psig
Nominal RPM: 1800 rpm
Crankcase Oil Capacity: 1.5 qts
Approx. Oil Consumption: .025 oz/hr
Maximum Temperature (@ Outlet): 165° F
Noise Level: 84 dB(A)

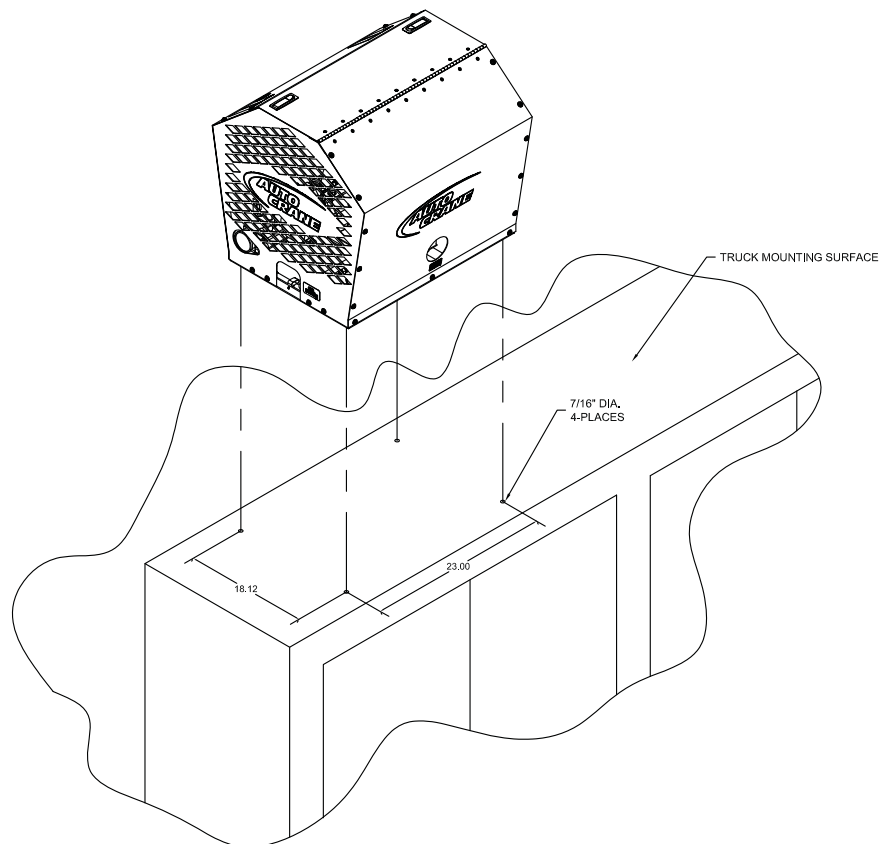
GENERAL DIMENSIONS AC30A



AC30A

INSTALLATION INSTRUCTIONS

- 1 Locate air pump in a well ventilated area on truck body.
- 2 Secure to truck body through bottom side rails using four (4) 3/8- 24 NF x 2³/₄ Grade 5 bolts. Four (4) new 7/16 diameter holes may be made in the side frame rail to allow for obstruction problems.
- 3 Remove plastic cap from “T” port in the hydraulic valve block and install return line to cooler or reservoir.
- 4 Remove plastic cap from “P” port in the hydraulic valve block and install pressure line from hydraulic pump.
- 5 The mating electrical connector has 4 wires. Red, black and orange. Run red power wire to a 10 amp fused switched ignition source. The black to a frame ground source. The orange wire is optional and is a power feed source from the compressor when the compressor is running only. This is a 10 amp max. power feed.
- 6 Attach air hose to the straight 5/8" fitting (37 degree JIC male) on the compressor discharge line.
- 7 Follow initial start-up procedure.



1-3.0.0

OPERATION — AC30A

BASIC OPERATION

Air is drawn through the intake filter, intake manifold and suction discs into the cylinders. The air is compressed, then discharged through the delivery discs to the temperature reducer, where the heat of the compressed air is partly removed. From the temperature reducer the compressed air is discharged through the 5/8" JIC customer connection points.

AUTO RUN MODE

When the demand for air is moderate, the unit should be run in the auto mode. This allows the compressor to produce air until the pressure reaches the upper limit of the pressure switch and stop. At this point it shuts the compressor off. When the tank pressure reduces to the lower limit of the pressure switch the unit will start up and continue producing air.

CAUTION: When the hydraulic system shuts down a shock wave is delivered to the return line. Locate the hydraulic coolers and filters a minimum of 10' away.

The pressure switch is preset to specified settings.

Pressure Switch:

Shutoff: 150 psig

Restart: 110 psig

AC30A

INITIAL START-UP PROCEDURE

- 1 **Read the AC30A Owner's Manual.**
- 2 **Check all wiring for loose connections.**
- 3 **Check oil level in sight gauge. It should be filled to the middle of the sight glass. If not, fill to the proper level. Fill with PAO synthetic lubricant equivalent to Chevron-Gulf GSL 838A or Summit SH-46. If petroleum based crankcase oil is required by operator, use an SAE 10W oil, API classification CD or SF, Mil Spec MIL-L-2104C or MIL-L-46152.**
- 4 **Check that pressure switch operates at the pressure limits specified.**
- 5 **Check the oil fill cap on top of compressor (yellow knob) for tightness.**
- 6 **Check hydraulic fluid flow.**
- 7 **Check all piping for leaks.**

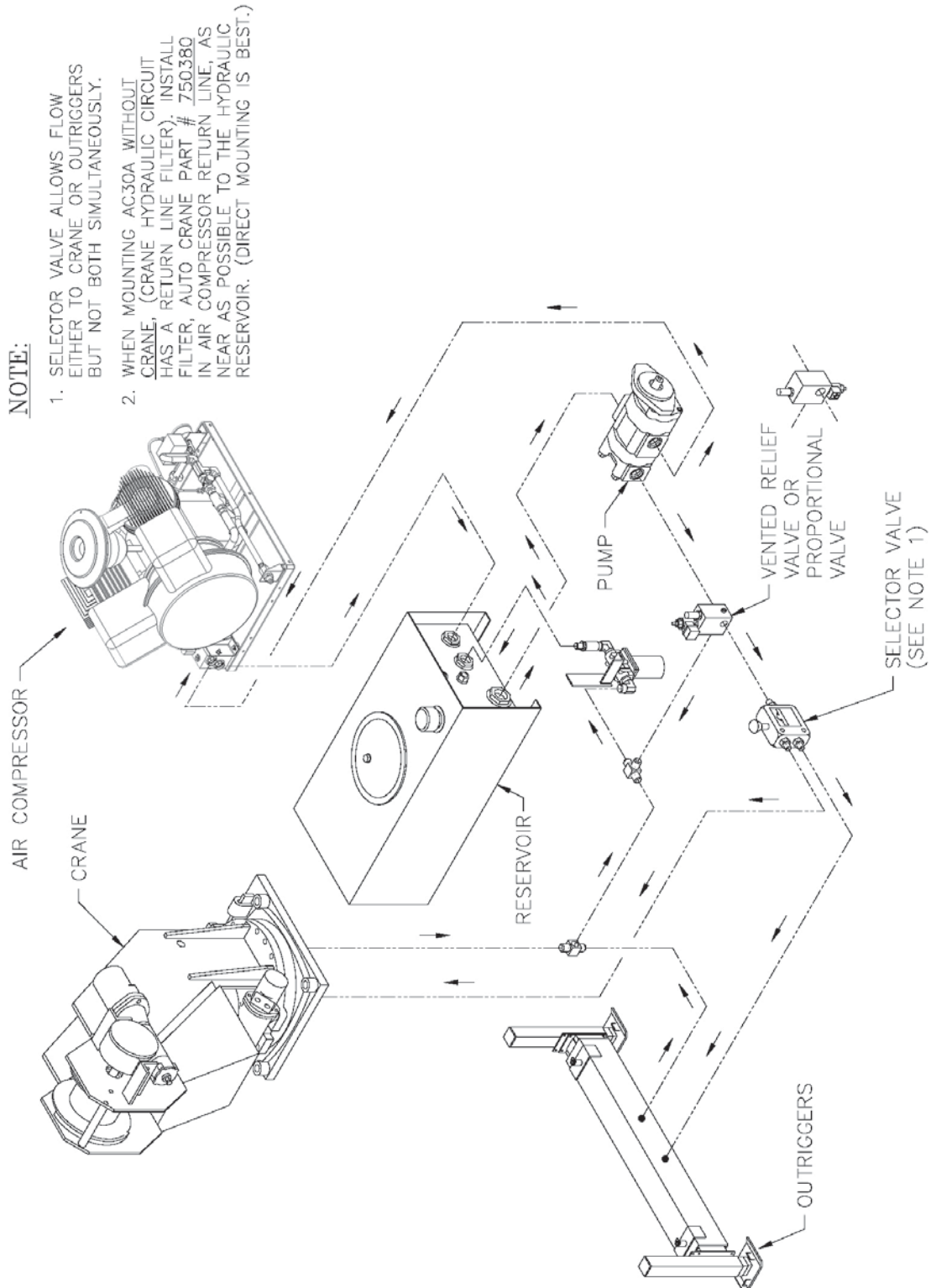
CAUTION: More than 12 GPM will build excess heat in the system.

CAUTION: Do not mix oil types.

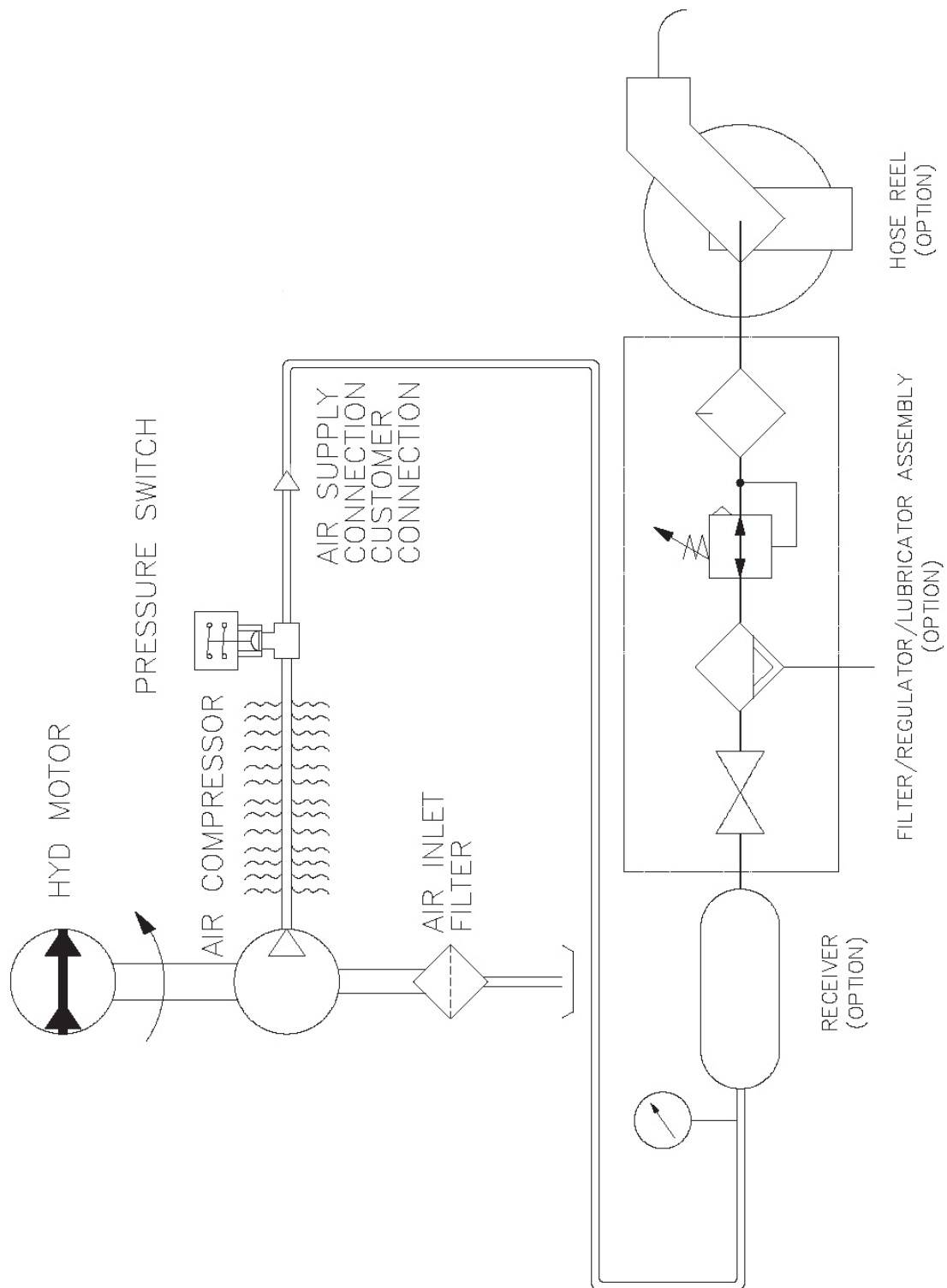
***AC30A RECOMMENDED
SINGLE UNIT SPARE PARTS LIST***

ITEM	QTY	PART NO.	DESCRIPTION
1	3	750107000	AIR FILTER
2	5	750097000	OIL, CRANKCASE (QT BOTTLES OF PAO OIL)
3	1	302688-012	COIL, HYD VALVE SOLENOID/RELIEF

TYPICAL AC30A / CRANE HYDRAULIC INSTALLATION

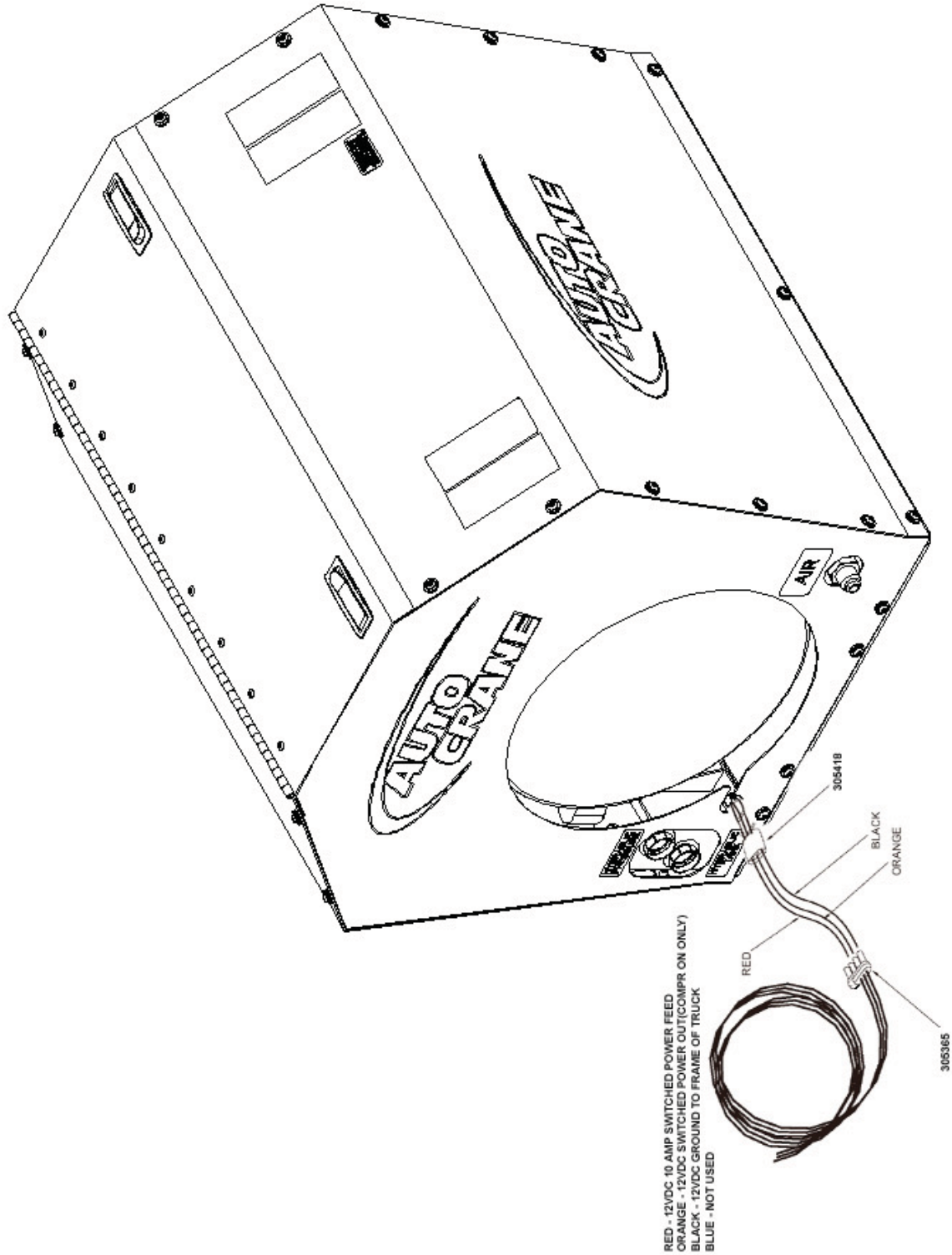


PNEUMATIC SYSTEM SCHEMATIC

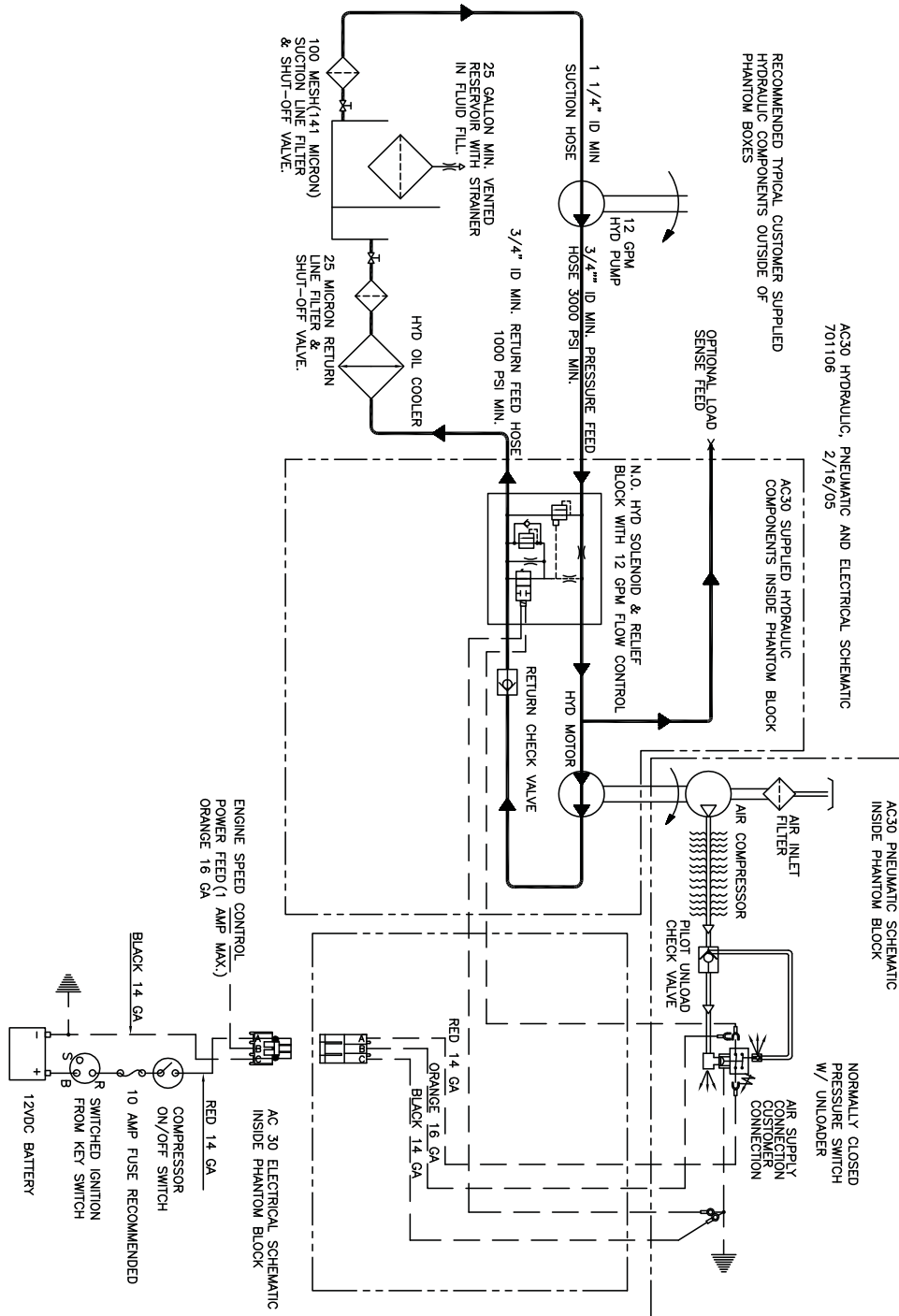


AC30A ELECTRICAL SYSTEM

P/N: 200220-999

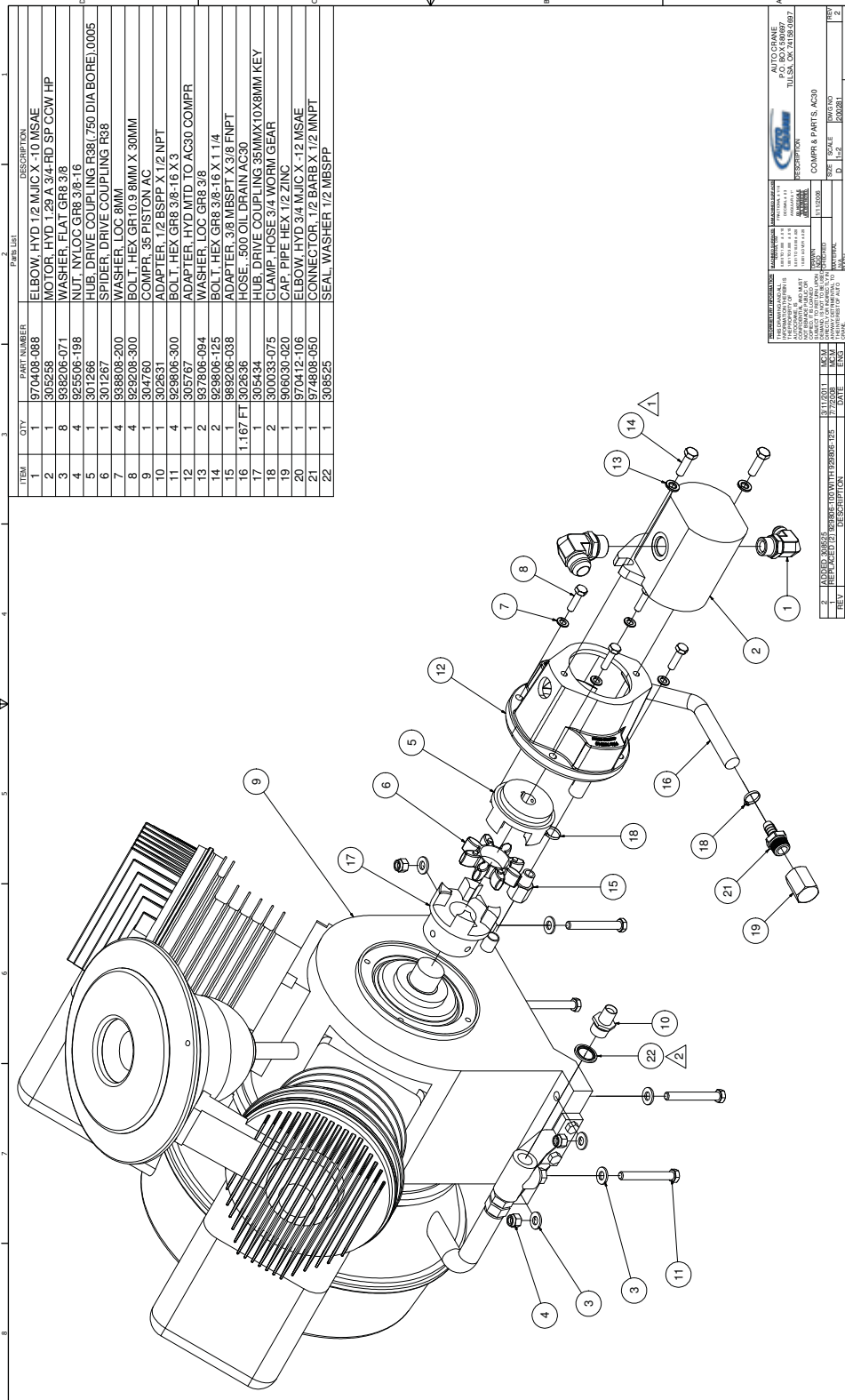


AIR/HYDRAULIC/ELECTRICAL SCHEMATIC P/N: 701106



AC30A COMPR & PARTS SYS.

P/N: 200281-999



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	970408-088	ELBOW, HYD 1/2 MJIC X 10 MSAE
2	1	305288	WCSPL, HD 1/28A 3/4-14-1/2 SP CONW HP
3	8	305206-071	WASHER, LOC GR8 3/8
4	4	305206-198	HUB, DRIVE COUPLING R38/750 DIA BORE, 0.005
5	1	301267	SPIDER, DRIVE COUPLING R38
6	1	301267	WASHER, LOC 8MM
7	4	938808-200	WASHER, LOC 8MM X 30MM
8	4	929208-300	COMPR, 35 PISTON AC
9	1	304760	ADAPTER, 1/2 BSP X 1/2 NPT
10	1	302631	BOLT, HEX GR8 3/8-16 X 3
11	4	929806-300	ADAPTER, HYD MTD TO AC30 COMPR
12	1	305767	WASHER, LOC GR8 3/8
13	2	937806-094	BOLT, HEX GR8 3/8-16 X 1 1/4
14	2	929806-125	ADAPTER, 3/8 MBSPT X 3/8 FNPT
15	1	969206-038	HOSE, 500 OIL DRAIN AC30
16	1.167 FT	302636	HUB, DRIVE COUPLING 35MMX10X8MM KEY
17	1	305434	CLAMP, HOSE 3/4 WORM GEAR
18	2	300033-075	CAP, PIPE HEX 1/2 ZINC
19	1	906030-020	ELBOW, HYD 3/4 MJIC X -12 MSAE
20	1	970412-106	CONNECTOR, 1/2 BARB X 1/2 MNPT
21	1	974808-050	SEAL, WASHER 1/2 MBSPT
22	1	308525	

REVISION HISTORY

REV	DESCRIPTION	DATE	BY
2	ADDED 308525	3/11/01	AKM
1	REPLACED 1/2 MBSPT WITH 1/2 BSP X 1/2 NPT	12/10/00	AKM

REVISION HISTORY

REV	DESCRIPTION	DATE	BY
1	REVISED TO MATCH 200281-999	11/30/00	AKM

GENERAL INFORMATION

MANUFACTURED BY: **ALCO CRANES**
 11000 W. 11th Street
 Tulsa, Oklahoma 74138-0997
 U.S.A.

COMPONENT: COMPRESSOR
DESCRIPTION: COMPRESSOR & PARTS, AC30
ITEM NO.: 113206
REV: 1
DATE: 10/02/00

SCALE: 1:1
UNIT: IN

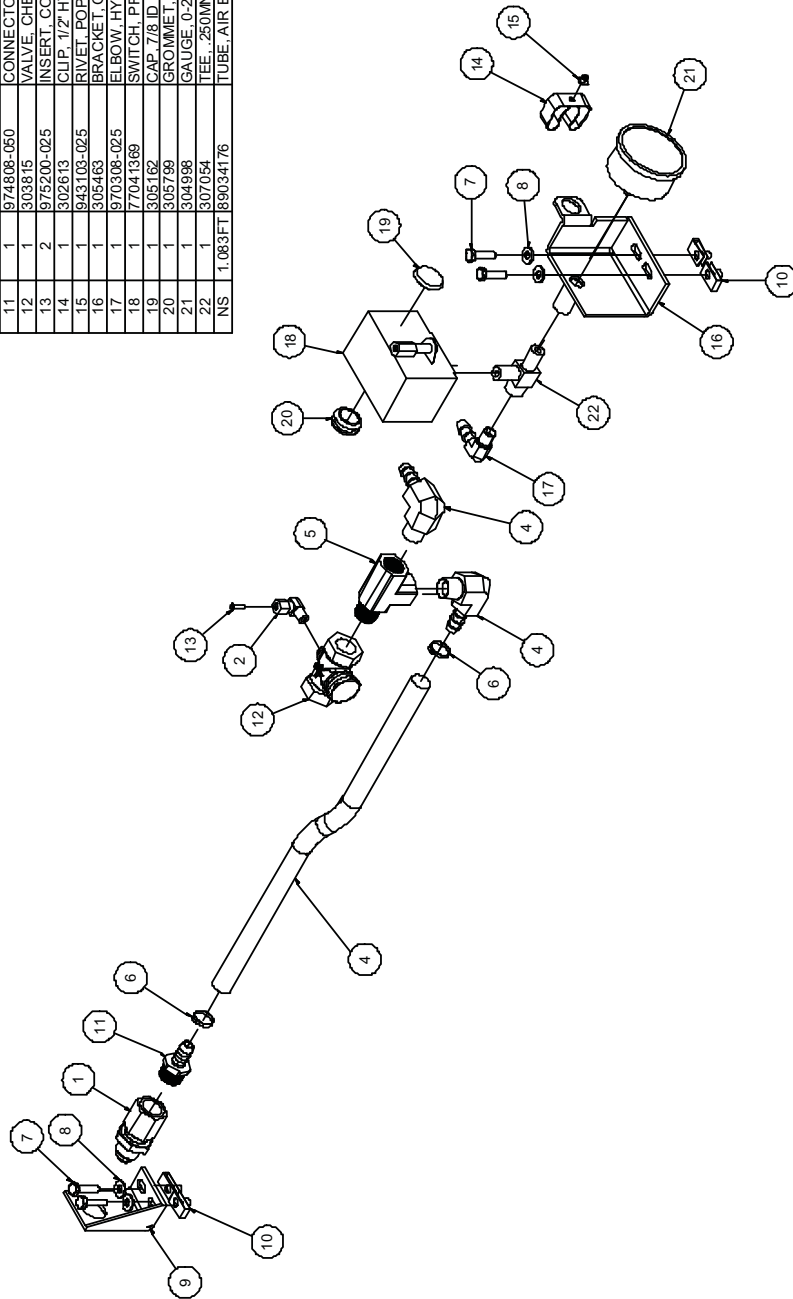
FIGURE NO.: 200281
REV: 1

SHEET 1 OF 1

AC30A DISCHARGE & PARTS SYS.

P/N: 200283-999

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	962010-050	BULKHEAD, 5/8, JIC X 1/2 FNPT
2	1	975104-072	ELBOW, COMPRSN 1/4 TUBE X 1/8 MNPT
3	3.083FT	302636	HOSE, .500 OIL DRAIN GRAY 2
4	2	970308-050	ELBOW, HYD .500 BARB X .500 MNPT
5	1	964808-050	TEE, PIPE 1/2F X 1/2M X 1/2F
6	4	300033-075	CLAMP, HOSE 3/4 WORM GEAR
7	4	929104-100	BOLT, HEX GR5 1/4-20 X 1
8	4	938604-071	WASHER, FLAT GR5 1/4
9	1	305180	BRACKET, AIR DISCHARGE AC30.06 (REV 1)
10	4	961504-080	NUT, TINNEMAN 1/4-20
11	1	974808-050	CONNECTOR, 1/2 BARB X 1/2 MNPT
12	1	303815	VALVE, CHECK 1/2
13	2	975200-025	INSERT, COMPRSN FITTING 1/2 BRASS
14	1	302613	CLIP, 1/2" HYD HOSE HOLDER
15	1	943103-025	RIVET, POP 3/16 X 1/2 ALUMINUM
16	1	305463	BRACKET, GAUGE & LIGHT (REV 2)
17	1	970308-025	ELBOW, HYD 1/2 BARB X 1/4 MNPT
18	1	77041369	SWITCH, PRESSURE WITH UNLOADER F
19	1	305182	CAP, 7/8 ID PLASTIC
20	1	305799	GROMMET, 3/4 OD X 1/2 ID X 1/8 THICK
21	1	304998	GAUGE, 0-200 PSI 1/4 MNPT LIQUID FILLED
22	1	307054	TEE, .250MNPT X .250MNPT X .250FNPT
NS	1.083FT	89034176	TUBE, AIR BRAKE .25

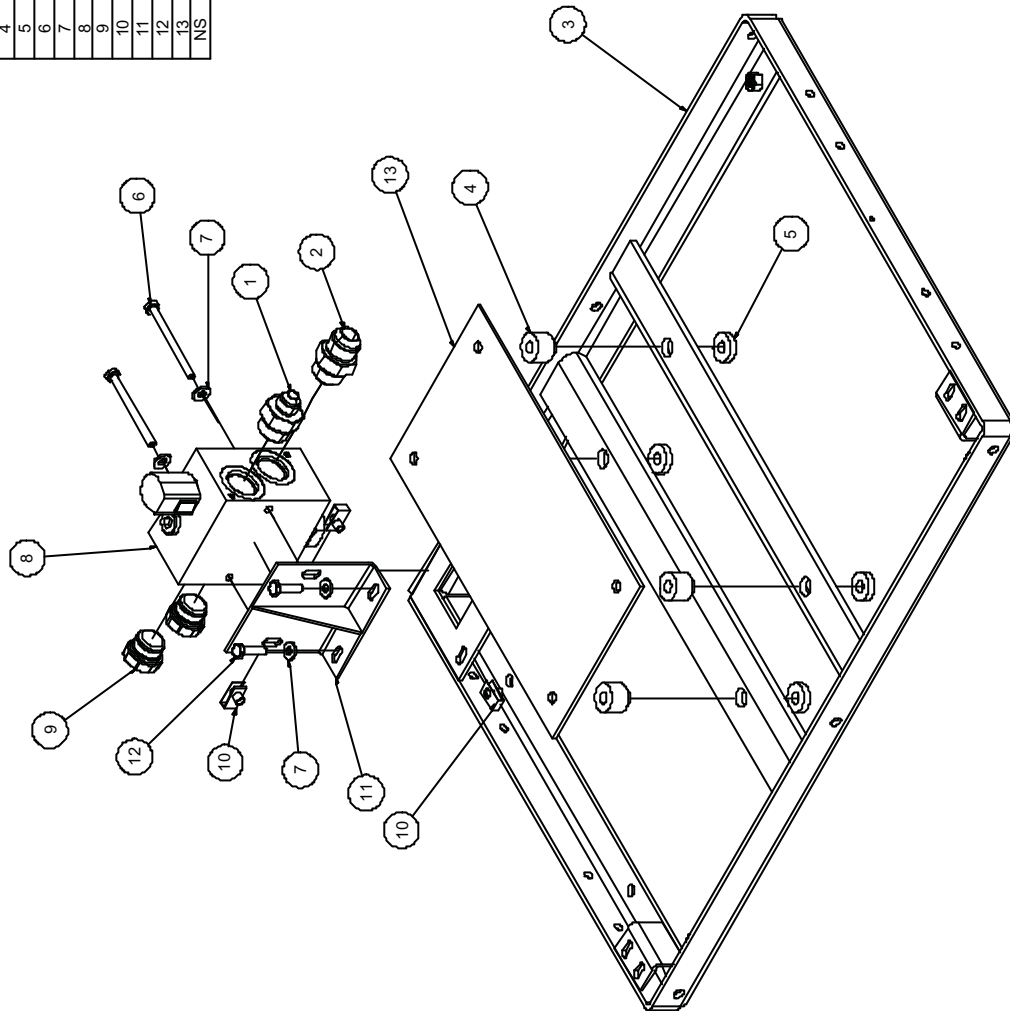


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AC30A FRAME & PARTS

P/N: 200280-999

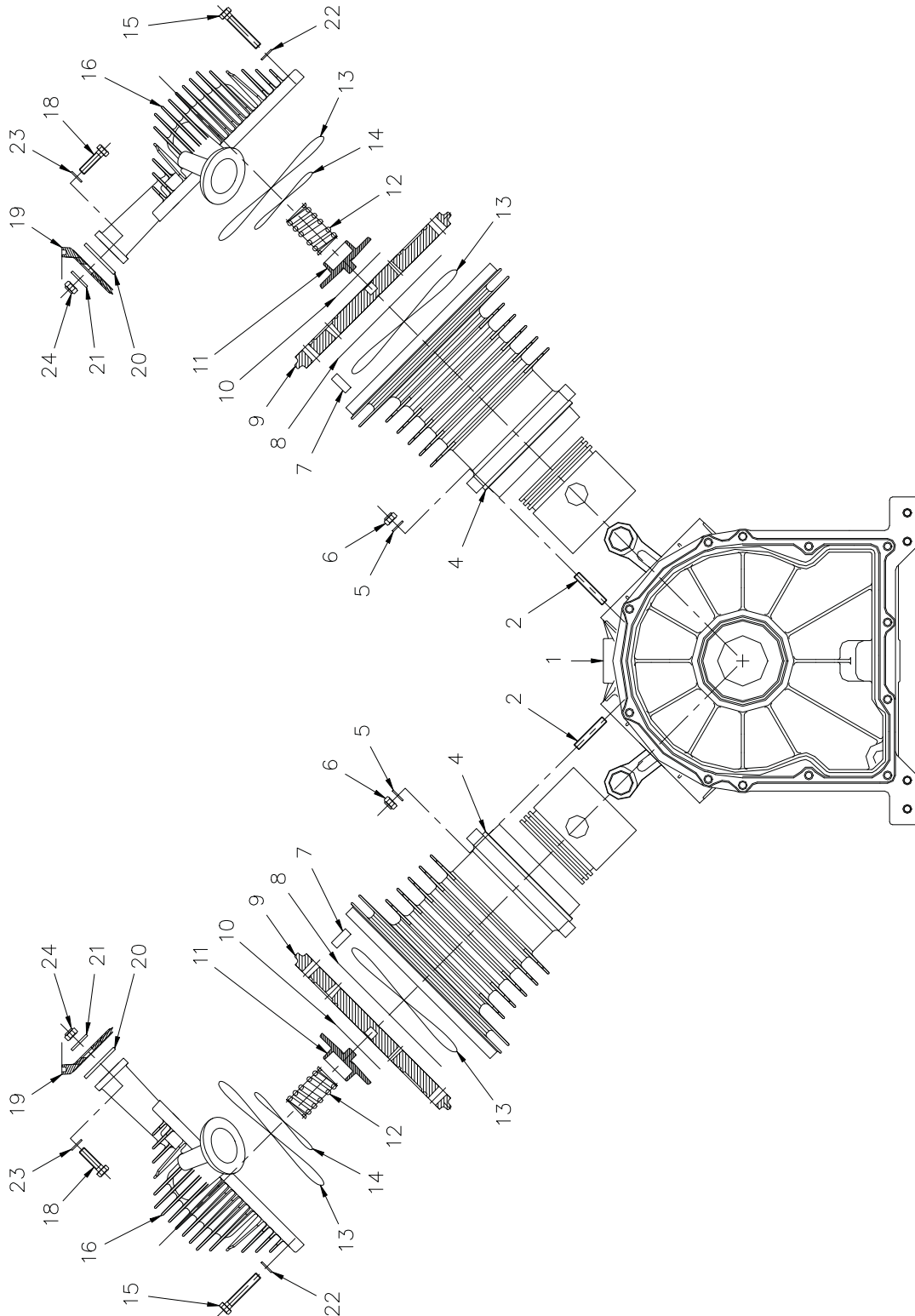
Parts List		
ITEM	QTY	PART NUMBER DESCRIPTION
1	1	970508-106 CONNECTOR, 1/2 M JIC X -12 MSAE
2	1	970512-106 CONNECTOR, 3/4 M JIC X -12 MSAE
3	1	306479 FRAME, AC30 06 (REV 1)
4	4	300540-001 ISOLATOR, 60A HARD BULLET (REV 2)
5	4	300541-001 WASHER, ISOLATOR 60A HARD (REV 2)
6	2	929104-325 BOLT, HEX GR5 1/4-20 X 3 1/4
7	4	938604-071 WASHER, FLAT GR5 1/4
8	1	80056-13-12 KIT, HYD VALVE BLOCK 13GPM FLOW CONTROL
9	2	988912-106 PLUG, 12 SAE PLASTIC
10	4	961504-090 NUT, TINNEMAN 1/4-20
11	1	304762 BRACKET, VALVE BLK 35 PISTON A (REV 2)
12	2	929104-100 BOLT, HEX GR5 1/4-20 X 1
13	1	304930 PLATE, VIBRATION ISOLATOR AC30
NS	1	306812-215 ORIFICE, SILVER .215



NOTE:
 WHEN REPLACING HYDRAULIC VALVE BLOCK (P/N 80056-13-12), YOU MUST REMOVE ORIFICE (P/N 306812-215) FROM THE OLD BLOCK AND INSTALL ON THE NEW BLOCK.

200280-999 (REV 1)

AC30A CYLINDERS & VALVES

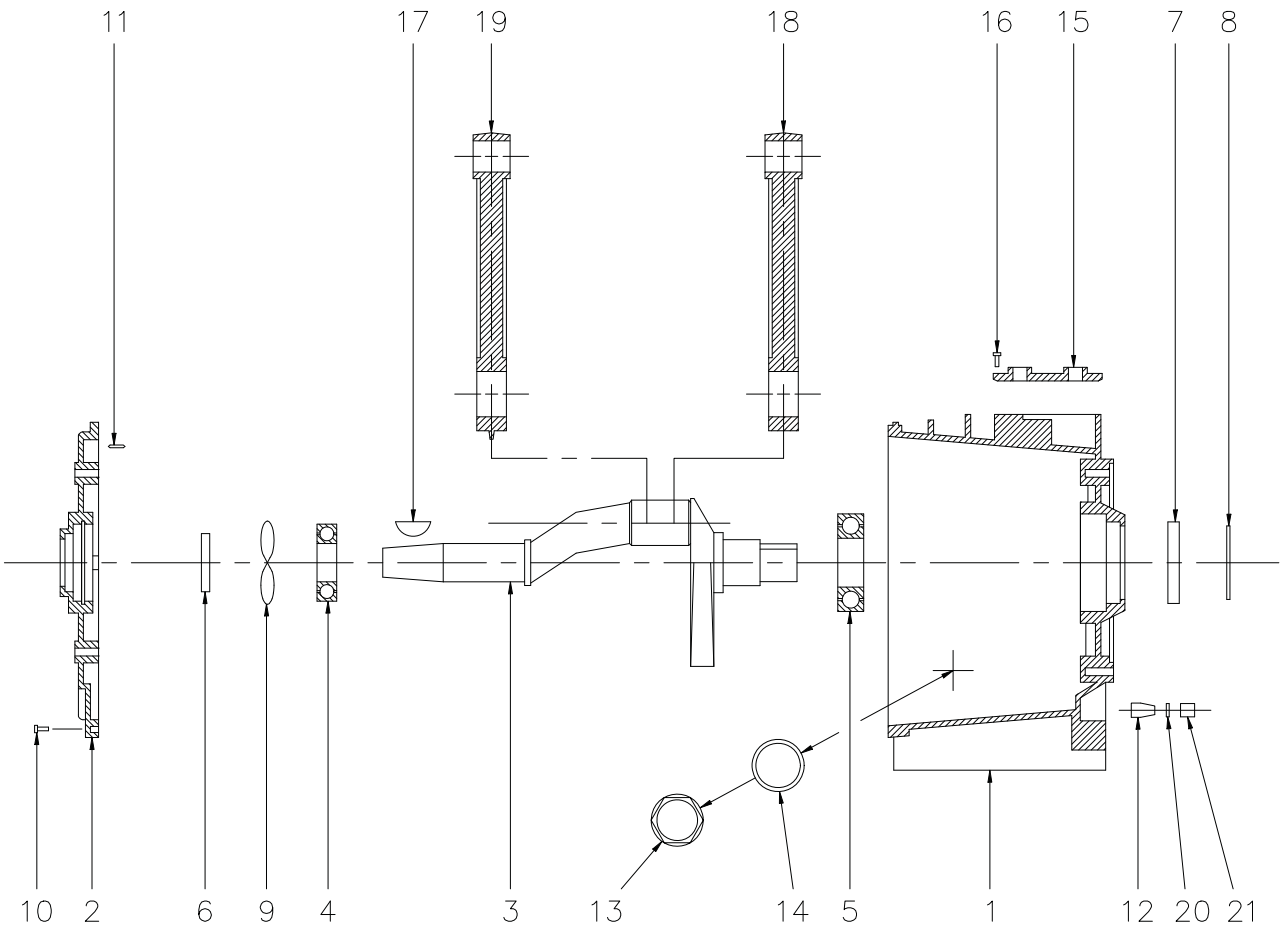


AC30A CYLINDERS & VALVES

<u>ITEM</u>	<u>KITS</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1	-	1	N/A	CRANKCASE ASSEMBLY
2	-	8	755080-001	SCREWED STUD
3	III, VI, VII	1	N/A	PISTON ASSEMBLY
4	III, VI, VII	1	N/A	CYLINDER
5	-	8	755080-002	WASHER
6	III, IV, VI, VII	8	755080-003	LOCK NUT
7	III, VI, VII	4	755080-004	PIN
8	II, VI, VII	2	N/A	SUCTION DISC
9	VI, VII	2	755080-005	VALVE SEAT
10	II, VI, VII	2	N/A	DELIVERY DISC
11	VI, VII	2	755080-006	GUARD
12	II, VI, VII	2	755080-007	SPRING
13	II, VI, VII	A/R	755080-008	CORD
14	II, VI, VII	2	755080-009	O-RING
15	VI, VII	10	755080-010	BOLT
16	VI	1	755080-011	CYLINDER HEAD LLP
17	VII	1	755080-012	CYLINDER HEAD RLP
18	-	4	755080-013	BOLT
19	-	1	REF	INLET SILENCER (SEE Aw-461)
20	II	2	755080-014	GASKET
21	-	4	755080-015	WASHER
22	VI	10	755080-002	WASHER
23	-	4	755080-016	WASHER
24	II	4	755080-017	LOCK NUT

II = PART OF VALVE KIT
 III = PART OF PISTON + RINGS + CYLINDER KIT, LOW PRESSURE
 IV = PART OF PISTON RING KIT
 VI = PART OF PISTON, CYLINDER HEAD ASSEMBLY LH
 VII = PART OF PISTON, CYLINDER HEAD ASSEMBLY RH

AC30A CRANKCASE ASSEMBLY

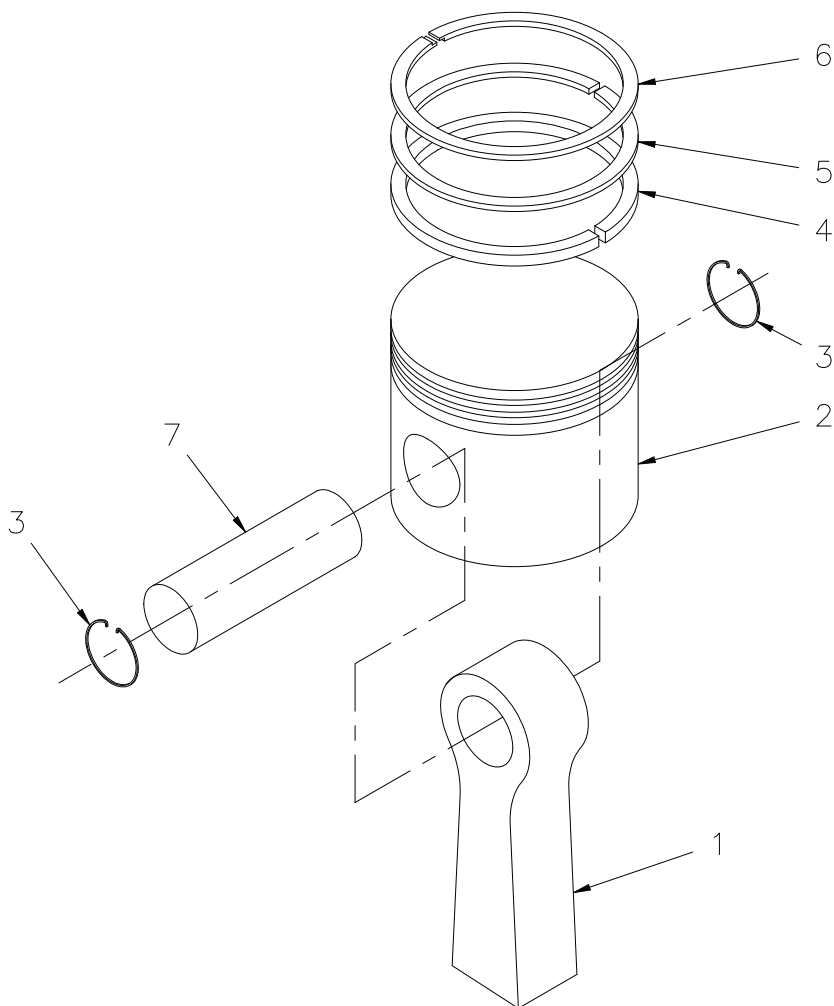


AC30A CRANKCASE ASSEMBLY

<u>ITEM</u>	<u>KITS</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1		1	755080-018	CRANKCASE
2		1	755080-019	BEARING HOUSING
3	V	1	N/A	CRANKSHAFT
4	V	1	755080-020	BEARING
5	V	1	755080-021	BEARINH
6	V	1	755080-022	SEAL
7	V	1	755080-023	SEAL
8		1	755080-024	RETAINER
9	V	1	755080-025	O-RING
10		10	755080-026	BOLT
11		2	755080-027	DOWELL PIN
12		1	755080-028	NIPPLE
13		1	755080-029	SIGHT GLASS
14		1	755080-030	GASKET
15		1	755080-031	BREATH R FLANGE
16		6	755080-032	BOLT
17	V	1	755080-033	WOODRUFF KEY
18	V	1	755080-034	CONNECTING ROD LEFT
19	V	1	755080-035	CONNECTING ROD RIGHT
20		1	755080-036	GASKET
21		1	755080-037	CAP

V = PART OF CRANKSHAFT + CONNECTING ROD KIT

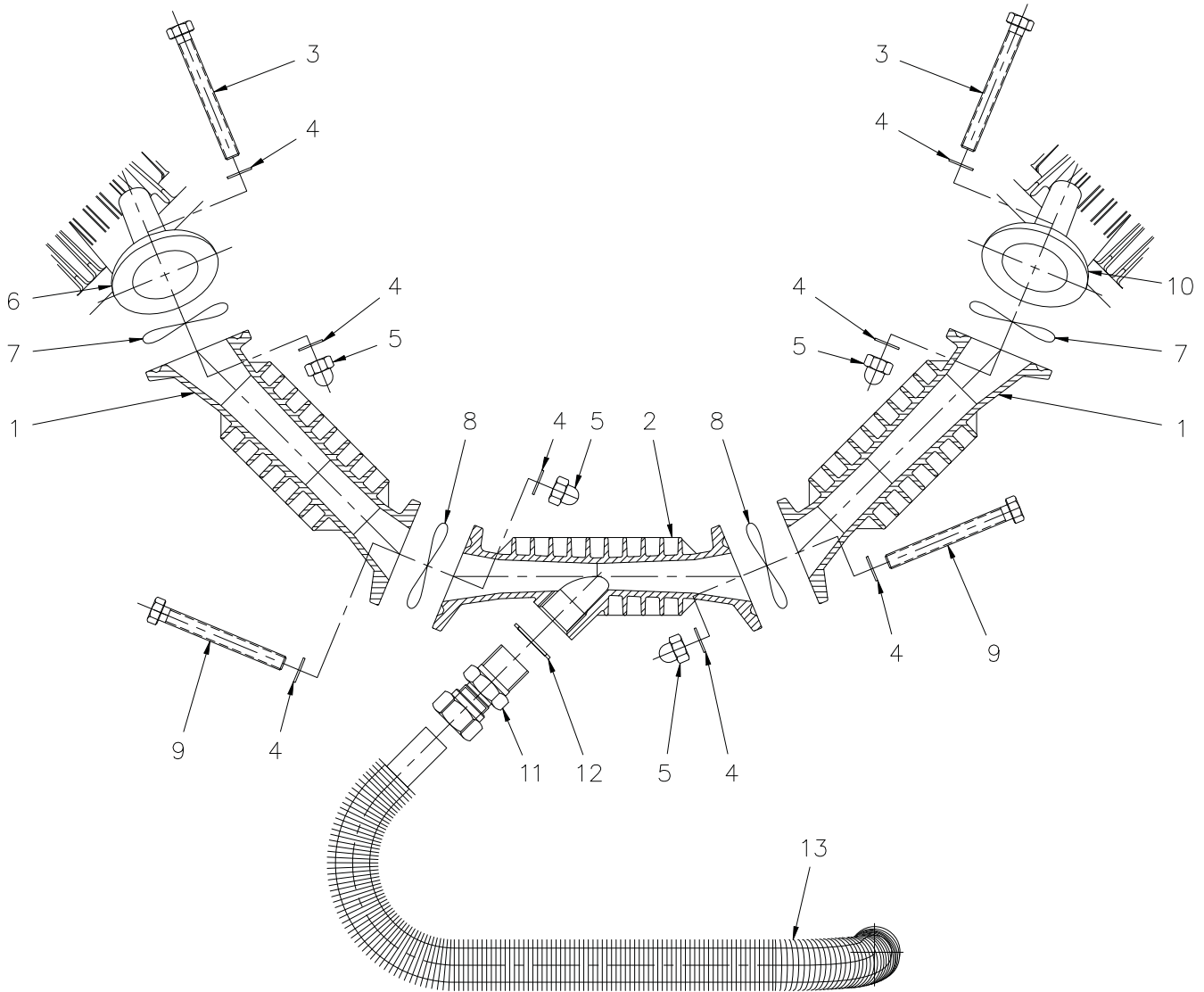
AC30A PISTON ASSEMBLY



<u>ITEM</u>	<u>KITS</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1	-	1	N/A	CONNECTING ROD
2	III	1	N/A	PISTON
3	III	2	755080-038	CIRCLIP
4	IV	1	N/A	RING SCRAPER
5	IV	1	N/A	RING COMPRESSION
6	IV	1	N/A	RING COMPRESSION
7	VI, VII	1	755080-039	GUDGEON PIN

III = PART OF PISTON + RINGS + CYLINDER KIT, LOW PRESSURE
 IV = PART OF PISTON RING KIT
 VI = PART OF PISTON, CYLINDER HEAD ASSEMBLY LH
 VII = PART OF PISTON CYLINDER HEAD ASSEMBLY RH

AC30A COOLING SYSTEM

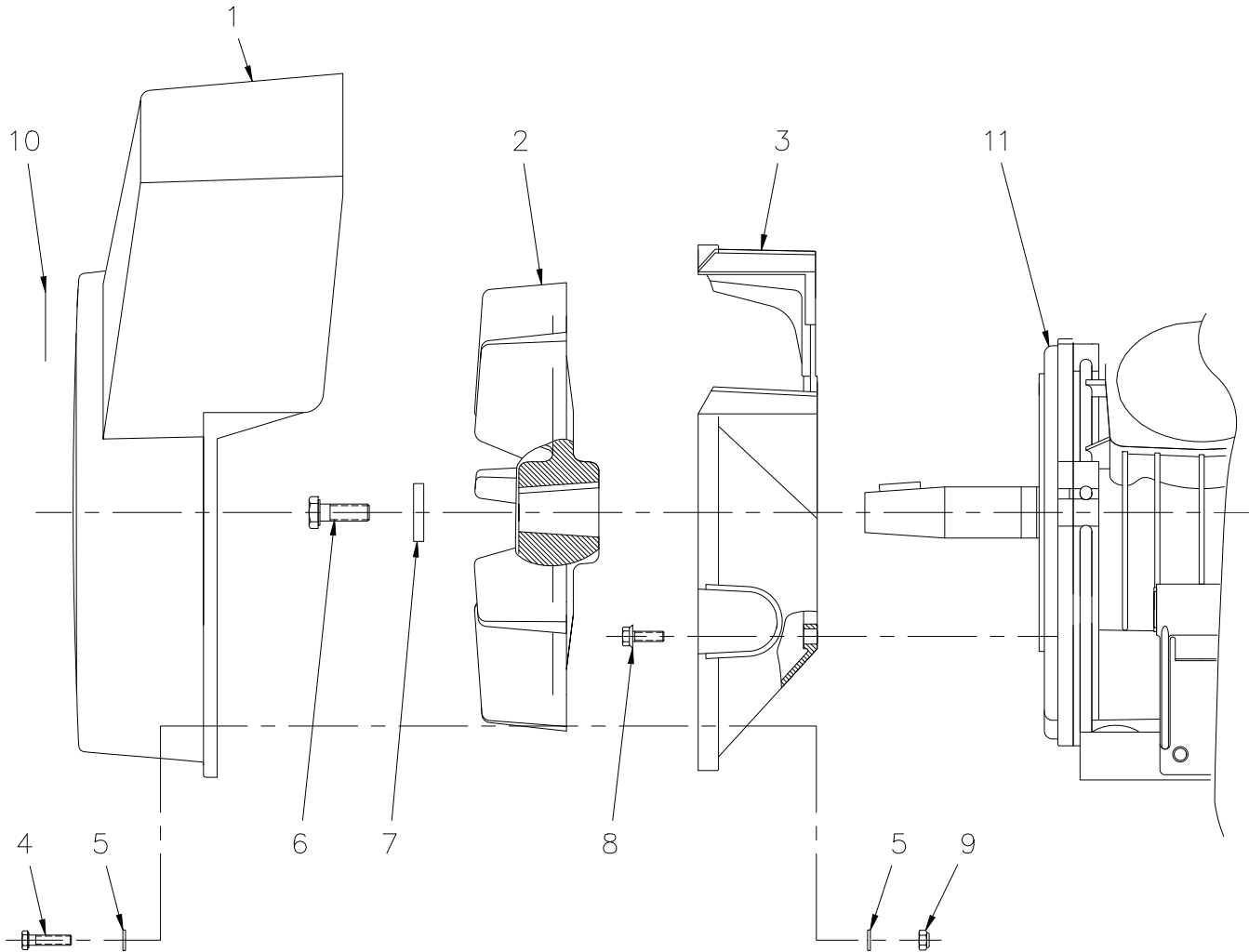


AC30A COOLING SYSTEM

<u>ITEM</u>	<u>KITS</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1		2	755080-040	CONNECTION PIPE
2		1	755080-041	DELIVERY PIPE
3		2	755080-042	BOLT
4	II, V, VI, VII	8	755080-043	WASHER
5		4	755080-044	CAPNUT
6		1	755080-011	CYLINDER HEAD LH
7	II, V, VI, VII	2	755080-045	O-RING
8		2	755080-046	O-RING
9		2	755080-047	BOLT
10		1	755080-012	CYLINDER HEAD RH
11		1	755080-048	COUPLING
12		1	755080-049	FLAT GASKET

II = PART OF VALVE KIT
V = PART OF CRANKSHAFT + CONNECTING ROD KIT
VI = PART OF PISTON, CYLINDER HEAD ASSEMBLY LH
VII = PART OF PISTON, CYLINDER HEAD ASSEMBLY RH

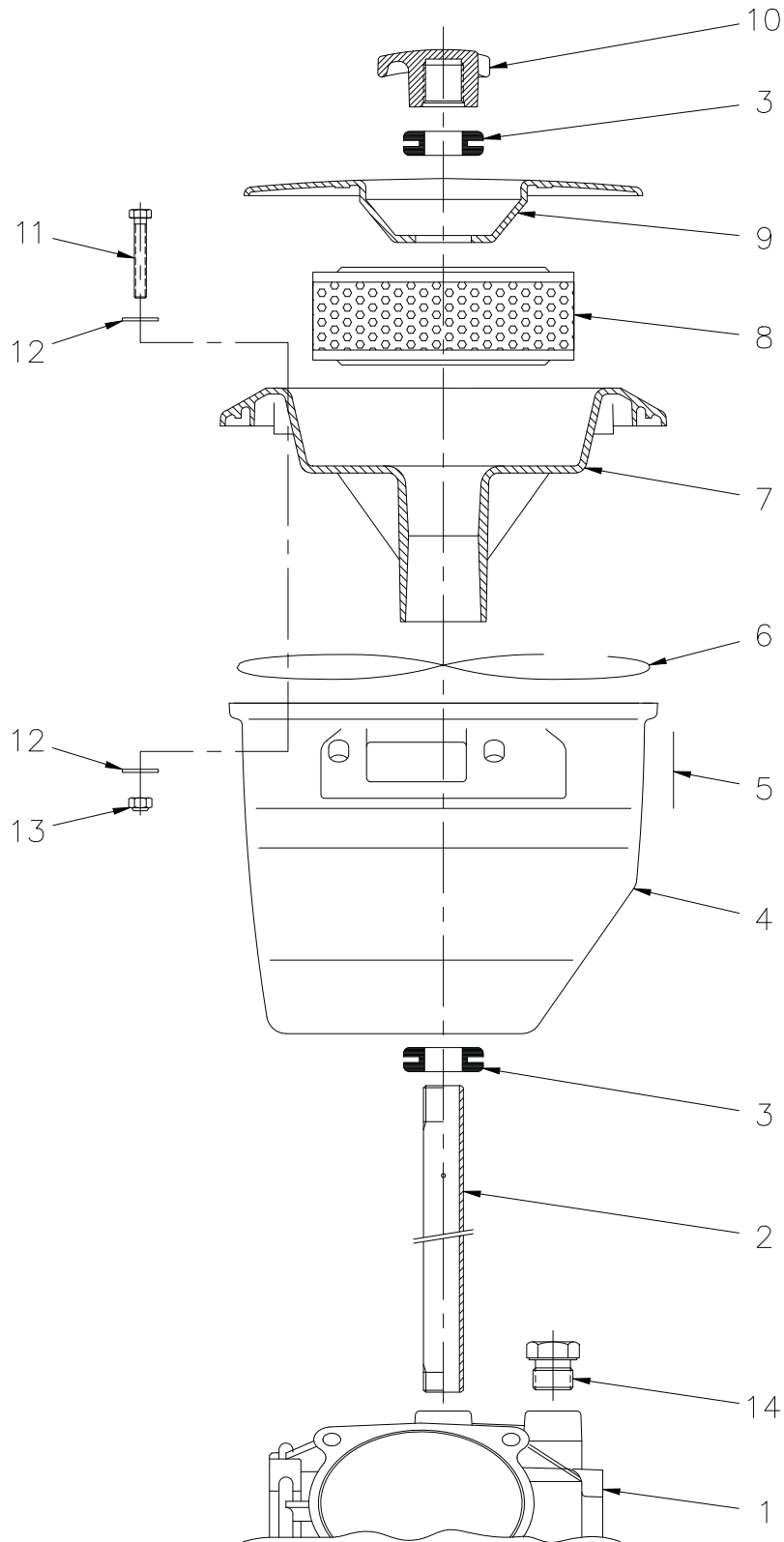
AC30A COOLING FAN ASSEMBLY



AC30A COOLING FAN ASSEMBLY

<u>ITEM</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1	1	755080-051	FAN HOUSING
2	1	755080-052	FAN
3	1	755080-053	HOUSING
4	6	755080-054	BOLT
5	6	755080-055	WASHER
6	1	755080-056	BOLT
7	1	755080-057	WASHER
8	4	755080-058	TAPTITE BOLT
9	1	755080-059	LOCK NUT
10	1	755080-060	LABEL
11	1	N/A	CRANKCASE ASSEMBLY

AC30A AIR INLET ASSEMBLY



3-9.0.0

AC30A AIR INLET ASSEMBLY

<u>ITEM</u>	<u>KIT</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1		1	N/A	CRANKCASE ASSEMBLY
2		1	755080-061	PIPE
3		2	755080-062	SEAL
4		1	755080-063	INLET SILENCER
5		1	755080-064	LABEL
6		A/R	755080-065	O-RING CORD
7		1	755080-066	FILTER HOUSING
8	I	1	750107	AIR FILTER
9		1	755080-067	COVER
10		1	755080-068	COVER
11		4	755080-069	BOLT
12		8	755080-055	WASHER
13		4	755080-059	LOCK NUT
14		1	755080-070	PLUG

AC30A SERVICE KITS

<u>KIT</u>	<u>P/N</u>	<u>DESCRIPTION</u>
I	755060	FILTER KIT
II	755061	VALVE KIT
III	755062	PISTON + RINGS + CYLINDER KIT, LOW PRESSURE
IV	755063	PISTON RING KIT
V	755064	CRANKSHAFT + CONNECTING ROD KIT
VIVII	755065	PISTON, CYLINDER HEAD ASSEMBLY LH
VII	755066	PISTON, CYLINDER HEAD ASSEMBLY RH

NOTE:

SEE PAGE 3-4.0.0 THRU 3-9.1.0
FOR INDIVIDUAL PARTS CONTAINED IN THESE SERVICE KITS.
PARTS OF A SERVICE KIT MAY BE SPREAD OVER SEVERAL LISTS.

LUBRICATION & MAINTENANCE SCHEDULE for AC30A

SERVICE PERFORMED	DAILY	PER MONTH	1/2 YEAR	1 YEAR	2 YEARS	NOTES
CHECK OIL LEVEL	X					SHOULD BE IN LOWER HALF OF SIGHT GLASS
DRAIN AIR TANK	X					WITH POWER OFF, OPEN DRAIN DEVICE TO PURGE WATER
CHECK COMPRESSOR OPERATION	X					SUDDEN CHANGE IN PERFORMANCE INDICATES A PROBLEM MAY BE DEVELOPING. INVESTIGATE PROBLEM.
CHECK SETTINGS		X				ON-OFF PRESSURES SHOULD BE VERIFIED FOR CONSISTENCY. FURNAS SWITCH ADJUSTMENT.
INSPECT AIR FILTER		X				REMOVE AND CLEAN WITH COMPRESSED AIR
				X		REPLACE AIR FILTER AFTER EVERY 600 RUN HOURS
CHANGE CRANK OIL *			X			FOR MINERAL BASED OIL EVERY 1000 RUN HOURS
						FOR PAO (SYNTHETIC) OIL EVERY 3000 RUN HOURS
CHECK HYD FILTER			X			CHANGE HYDRAULIC SYSTEM FILTER
CHANGE HYD OIL				X		HIGH TEMPERATURES AND EXTENDED SERVICE MAY SHORTEN THE TIME BETWEEN HYDRAULIC OIL CHANGES.
REPLACE VALVE DISCS					X	EVERY 6000 RUN HOURS
CAUTION	<ul style="list-style-type: none"> ◆ In the event that the unit runs over pressure, the safety valve would reduce the tank pressure to a safe level. Be sure it will work properly. Never run the unit without this safety valve. ◆ Do not use petroleum based or other flammable solvents for cleaning. ◆ Routine maintenance insures trouble-free operation and protects your investment. All warranties are void if maintenance is neglected. 					

* RECOMMENDED CRANKCASE OILS: SEE INITIAL START-UP PROCEDURE

NOTE: Use only authorized parts. Any damage or malfunction caused by the use of unauthorized parts is not covered by Warranty or Product Liability.

AC30A

TROUBLESHOOTING

PROBLEM

CAUSE/SOLUTION

COMPRESSOR DOES NOT START.

CAUSE:

No electrical power.
Receiver pressure between starting and stopping pressures.

SOLUTION:

Check or have electrical system checked.
Wait until pressure drops.

COMPRESSOR DOES NOT PUMP.

CAUSE:

Furnas Switch open.
Solenoid valve not energized.

SOLUTION:

Have electrician check wiring.

INSUFFICIENT AIR RECEIVER PRESSURE.

CAUSE:

Air leak(s).
Air intake filter clogged.
Air consumption exceeds unit capability.
Pressure gauge defective.

SOLUTION:

Check for air leak(s) and correct as necessary.
Clean or replace intake filter.
Decrease demand or add unit.
Replace gauge.
Disassemble and clean.

CAUSE:

Leaks or restrictions.
Air filter clogged.
Service hose too small.
Excessive air requirement.

SOLUTION:

Check hose and piping.
Clean or replace air filter.
Replace with larger hose.

INSUFFICIENT PRESSURE AT POINT OF USE.

AC30A

TROUBLESHOOTING

PROBLEM

CAUSE/SOLUTION

PRESSURE IN RECEIVER RISES ABOVE MAXIMUM AND CAUSES SAFETY VALVE TO BLOW.

CAUSE:

Furnas switch incorrectly set or out of order.
Solenoid valve defective.

SOLUTION:

Set switch to stop compressor at rated maximum pressure. Replace switch if it does not respond.
Remove and test valve on outside mains supply line. Replace, if out of order.

RECEIVER DOES NOT HOLD PRESSURE.

CAUSE:

Discharge check valve leaks.

SOLUTION:

Replace.

TOO FREQUENT STARTING AND TOO SHORT OPERATING PERIODS.

CAUSE:

Air pressure switch incorrectly set.
Discharge check valve leaks.
High condensate level in receiver.

SOLUTION:

Increase pressure.
See **LOADING PERIODS TOO LONG** (page 9-3.0.0).
Drain condensate more frequently.

HIGH OIL CONSUMPTION.

CAUSE:

Oil level too high.
Breather valve malfunctioning.
Piston ring(s) worn or broken.
Intake filter clogged.

SOLUTION:

Do not overfill crankcase. Keep level within lower half of sight glass.
Check valve.

AC30A

TROUBLESHOOTING

PROBLEM

LOADING PERIODS TOO LONG

CAUSE/SOLUTION

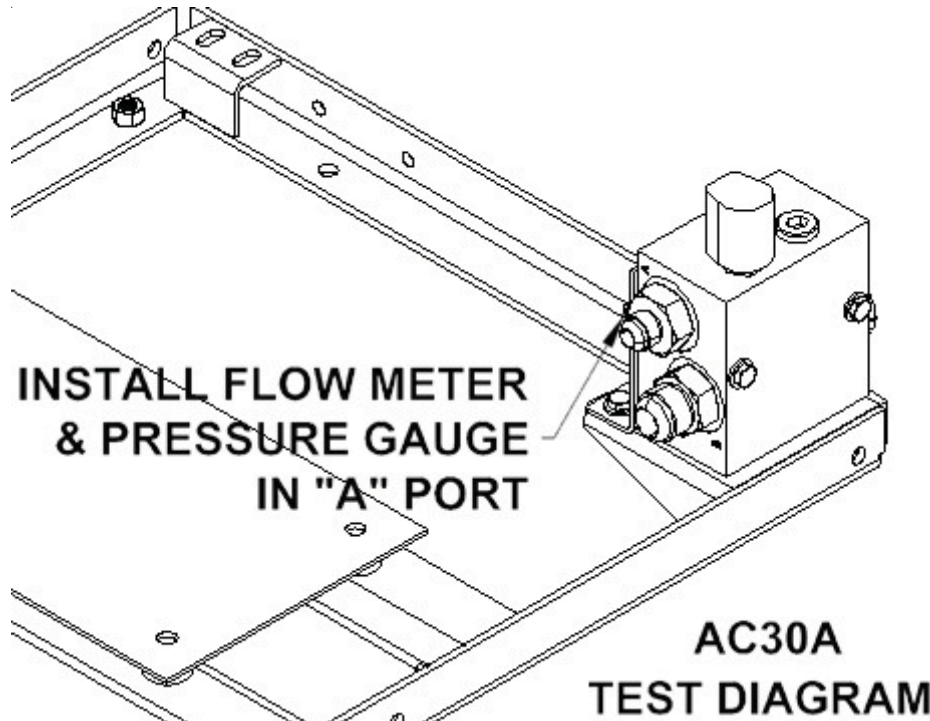
CAUSE:

Excessive air consumption.
Compressor not in optimum condition.
Sticking or damaged valves.

SOLUTION:

Decrease consumption.
Have compressor inspected.

AC30A TROUBLESHOOTING



SET UP

- 1 Install flow meter in Port "A" high pressure line to the hydraulic motor.
- 2 Install a 3000 psig pressure gauge in Port "A" before the flow meter. This will read system pressure. Install a piece of reflective tape to the drive coupling at the top access hole.

SYSTEM TEST

- 1 Engage PTO and raise the truck engine RPM to the proper setting without starting the air compressor. Record the main hydraulic flow through Port "A" and the system pressure. Record hydraulic motor/compressor RPM with a phototach.
- 2 With air compressor running, and the air tank pressure anywhere from 30 to 100 psig, record the main hydraulic flow through Port "A" and the max system pressure. The main flow should be a maximum of 12 gallons per minute. The max system pressure should be 2500 psig on startup and then from 1800 to 2000 psig while running. The motor flow should be 12 gallons per minute.

AC30A

TROUBLESHOOTING

- 7 **If the air compressor fails to start and the hydraulic pressure is low:**
 - A. **Check the red power wire for + 12 volts DC.**
 - B. **Check to see if the air tank pressure is higher than the system reset pressure (usually 110 psig).**
 - C. **Remove the ventable relief valve and check for contamination holding the valve in the open condition. Check for o-ring damage.**
- 8 **If the compressor fails to start and the hydraulic pressure is high:**
 - A. **Check power to hydraulic solenoid coil at Furnas switch**
- 9 **If the motor flow is 12 GPM and the compressor is turning less than 1700 RPM the motor has degraded enough to allow hot oil to pass through without producing speed. Rebuild or replace motor.**

VALVE REPLACEMENT PROCEDURE

Valve replacement procedure

Warning: Release the pressure from the air receiver and compressor before starting repair works. Always switch off the current.

Valves

A faulty valve must be attended to immediately. Serious damage can result if a compressor is operated with a broken valve disc. The instructions given must be faithfully followed when inspecting or replacing the valve discs.

Removal and assembly (See Drawing E)

Operation sequences

Remove the fan guard and the cover of the air intake silencer.

Disconnect cylinder head cover (11) from the in-and outlet pipe flanges. Remove cover (11).

Remove spring (10), outlet valve guard (9) and outlet valve disc (8).

Lift off valve seat (7) and remove inlet valve disc (6). Do not remove guide pins (2).

Remove and discard all the O-rings and rubber cord joints.

Remove the carbon deposits from the inlet valve guard at the cylinder top. Take care that no dirt drops into the cylinder.

Clean and inspect all the parts. Discard any valve discs that are cracked or worn.

Fit new rubber cord joint (3). Do not stretch the rubber while inserting it in its groove: the ends should meet. Lightly smear the cords, O-rings and their grooves with graphite grease.

Put inlet valve disc (6) into place and install valve seat (7).

Fit O-ring (5) and cord joint (1).

Install outlet valve disc (8), guard (9) and spring (10).

Install cylinder head cover (11). Use new flange gaskets, if necessary. Fit the flange and cylinder head bolts and tighten them alternately.

Reinstall the fan guard and the cover of the air intake silencer.

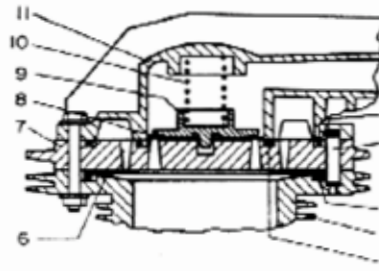


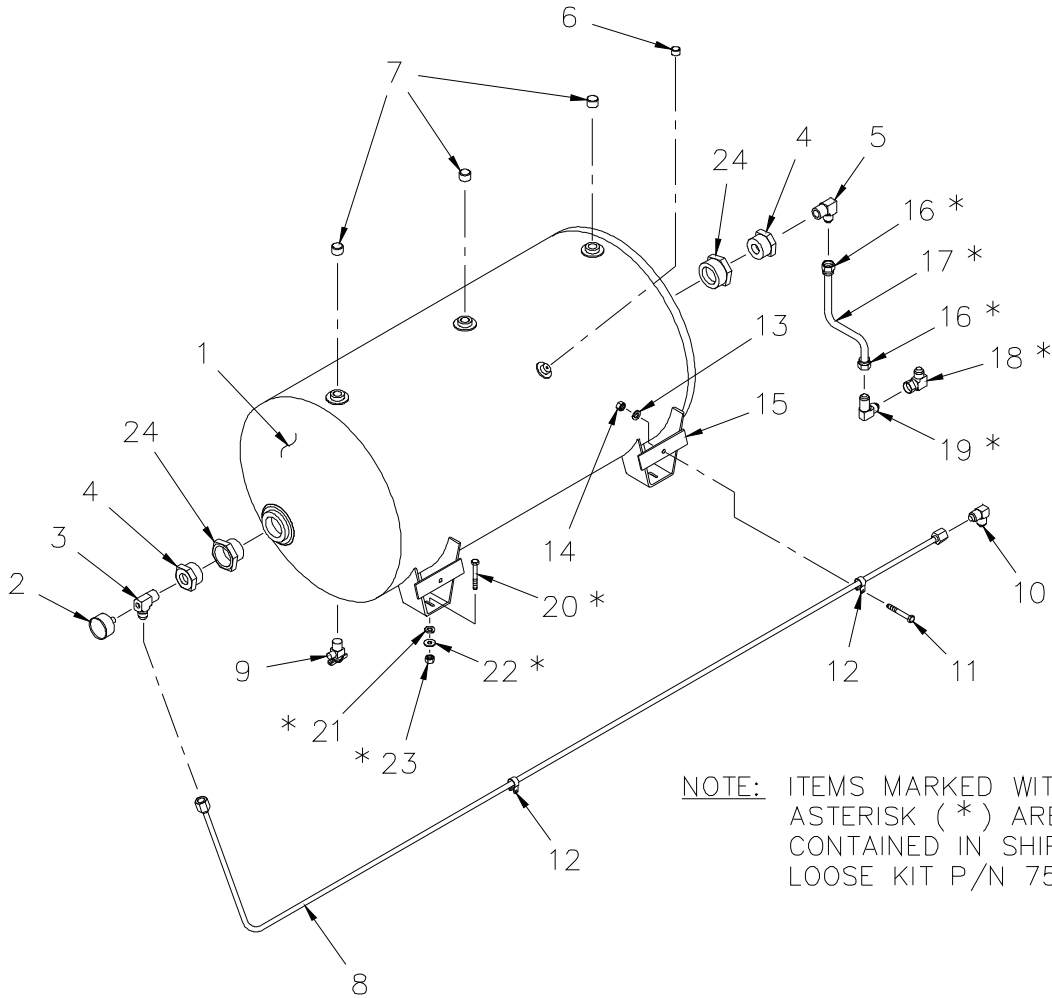
Fig. E -Cylinder head valve assembly

- | | |
|----------------------|-------------------------|
| 1. Rubber cord joint | 6. Inlet valve disc |
| 2. Guide pin (2 off) | 7. Valve seat |
| 3. Rubber cord joint | 8. Outlet valve disc |
| 4. Cylinder | 9. Outlet valve guard |
| 5. O-ring | 10. Spiral spring |
| | 11. Cylinder head cover |

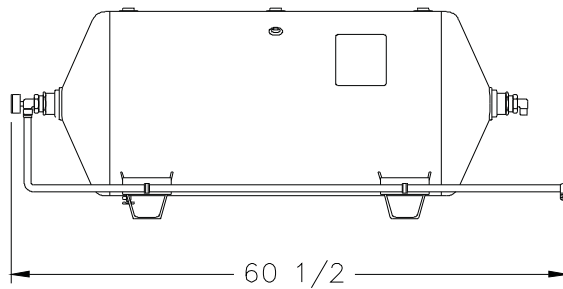
Torque chart

Key number	Torque (ft.-lb.)	Unloader valve	Torque (ft.-lb.)
6 mm	7.5	8 mm	11
8 mm	18.5		
10 mm	33		

60 GALLON RECEIVER TANK w/ SHIP LOOSE KIT



NOTE: ITEMS MARKED WITH AN
ASTERISK (*) ARE
CONTAINED IN SHIP
LOOSE KIT P/N 750186



HEIGHT: 22 1/2"
WIDTH: 20"

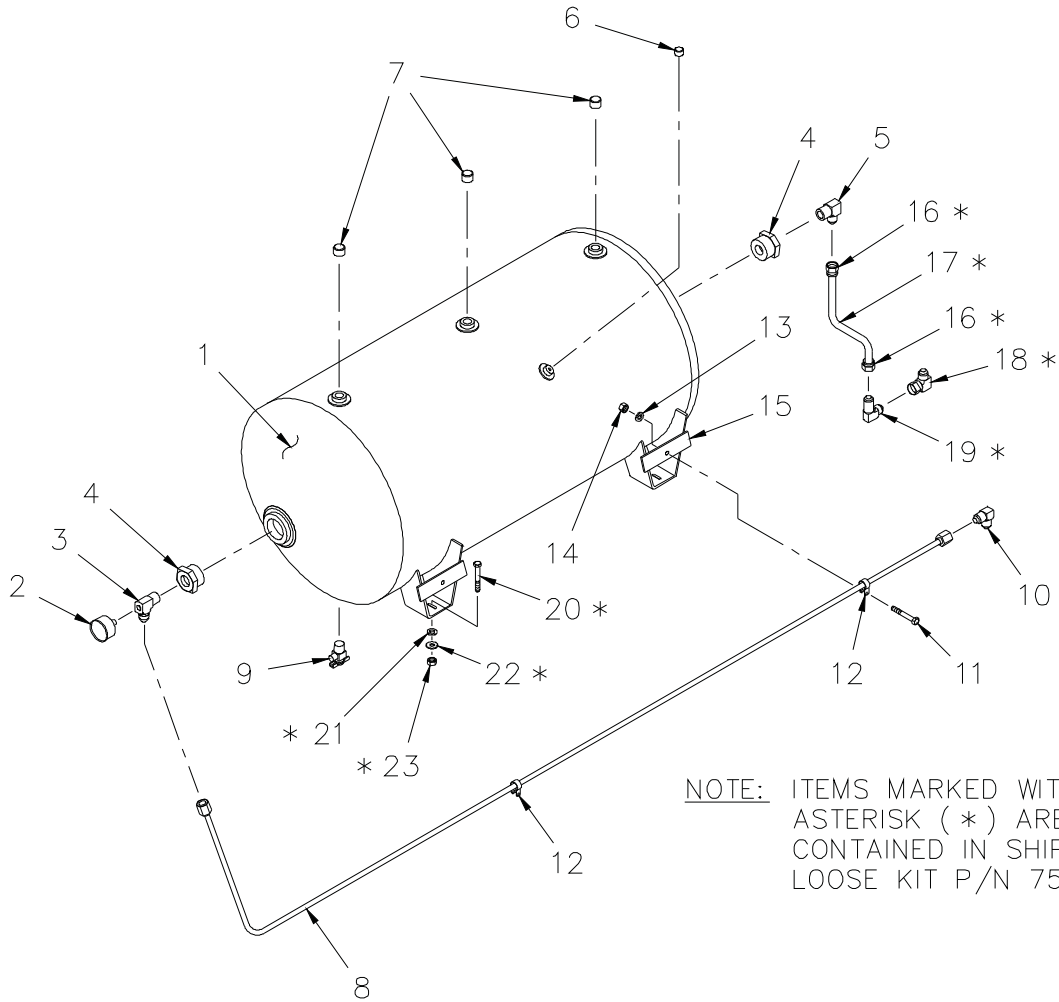
60 GALLON RECEIVER TANK

w/ SHIP LOOSE KIT

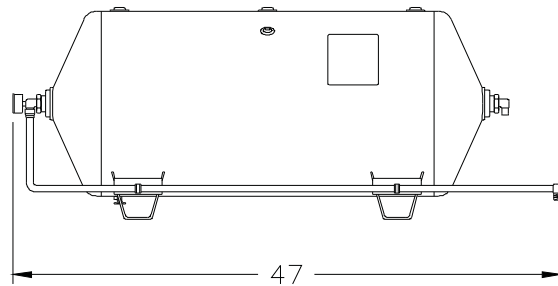
<u>ITEM</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1	1	750201	TANK, 60 GAL HORZ RECEIVER
2	1	750205-006	GAUGE, 0-200 PSI AIR
3	1	750447	FITTING, ELL GAUGE
4	2	750423	REDUCER, PIPE THREAD
5	1	360263	ELL, 90° - (AIR OUT)
6	1	000209	PLUG, PIPE 1/4 NC
7	3	750426	PLUG, 3/4 DRYSEAL PIPE
8	1	750459	TUBE, ASSEMBLY
9	1	750715	VALVE, DRAIN
10	1	750428	ELL. 90° - (AIR IN)
11	2	002200	SCREW, RD HD #10
12	2	750191	CLAMP, PLASTIC
13	2	019800	WASHER, SP LK #10
14	2	015600	NUT, HEX #10
15	2	750202	TUBE, SUPPORT
*16	2	750430	FITTING, #10 PUSH-ON/ JIC FEM
*17	1	750209-192	HOSE, 10 PUSH-ON, LOW PRESSURE
*18	1	750479	ELL, 90° -10 FEM SWIVEL/ JIC
*19	1	750429	ELL, BULKHEAD 90° -10 JIC
*20	4	009101	BOLT, HEX HD 3/8 NF x 2 3/4" LG G5
*21	4	021200	WASHER, FLAT, 3/8
*22	4	021101	WASHER, SP LK 3/8
*23	4	017100	NUT, HEX 3/8 NF
24	2	750490	REDUCER, PIPE --32 NPT/--24 NPTF

NOTE: ITEMS MARKED WITH AN ASTERISK (*)
ARE CONTAINED IN SHIP LOOSE KIT P/N 750186.

30 GALLON RECEIVER TANK w/ SHIP LOOSE KIT



NOTE: ITEMS MARKED WITH AN
ASTERISK (*) ARE
CONTAINED IN SHIP
LOOSE KIT P/N 750186



HEIGHT: 18 1/4"
WIDTH: 16"

30 GALLON RECEIVER TANK

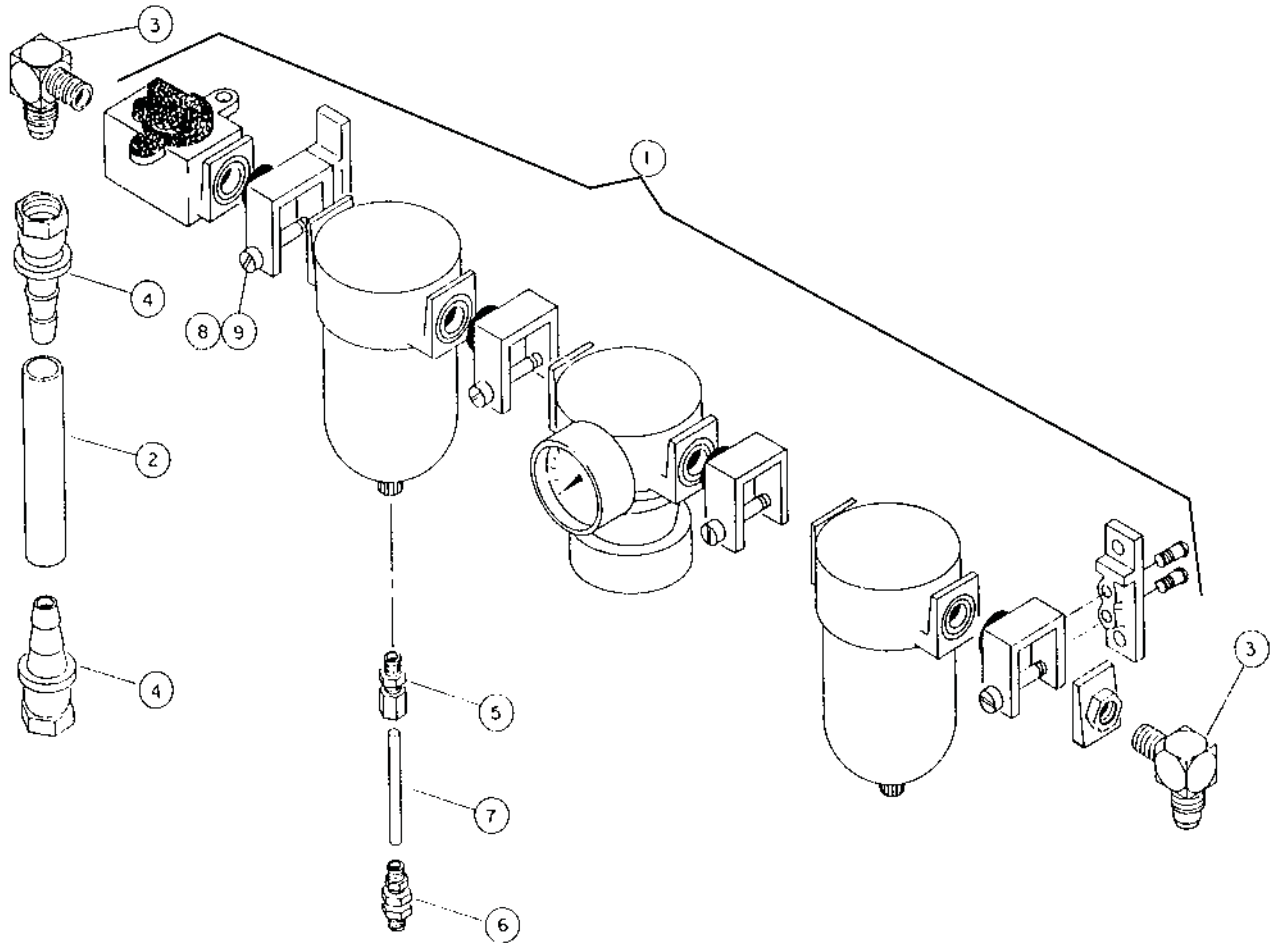
w/ SHIP LOOSE KIT

<u>ITEM</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1	1	750200	TANK, 30 GAL HORZ RECEIVER
2	1	750205-006	GAUGE, 0-200 PSI AIR
3	1	750447	FITTING, ELL GAUGE
4	2	750423	REDUCER, PIPE THREAD
5	1	360263	ELL, 90° - (AIR OUT)
6	1	000209	PLUG, PIPE 1/4 NC
7	3	750426	PLUG, 3/4 DRYSEAL PIPE
8	1	750459	TUBE, ASSEMBLY
9	1	750715	VALVE, DRAIN
10	1	750428	ELL. 90° - (AIR IN)
11	2	002200	SCREW, RD HD #10
12	2	750191	CLAMP, PLASTIC
13	2	019800	WASHER, SP LK #10
14	2	015600	NUT, HEX #10
15	2	750202	TUBE, SUPPORT
*16	2	750430	FITTING, #10 PUSH-ON/ JIC FEM
*17	1	750209-192	HOSE, 10 PUSH-ON, LOW PRESSURE
*18	1	750479	ELL, 90° -10 FEM SWIVEL/ JIC
*19	1	750429	ELL, BULKHEAD 90° -10 JIC
*20	4	009101	BOLT, HEX HD 3/8 NF x 2 3/4" LG G5
*21	4	021200	WASHER, FLAT, 3/8
*22	4	021101	WASHER, SP LK 3/8
*23	4	017100	NUT, HEX 3/8 NF

NOTE: ITEMS MARKED WITH AN ASTERISK (*)
ARE CONTAINED IN SHIP LOOSE KIT P/N 750186.

AIR MOISTURE SEP/FILTER (KIT)

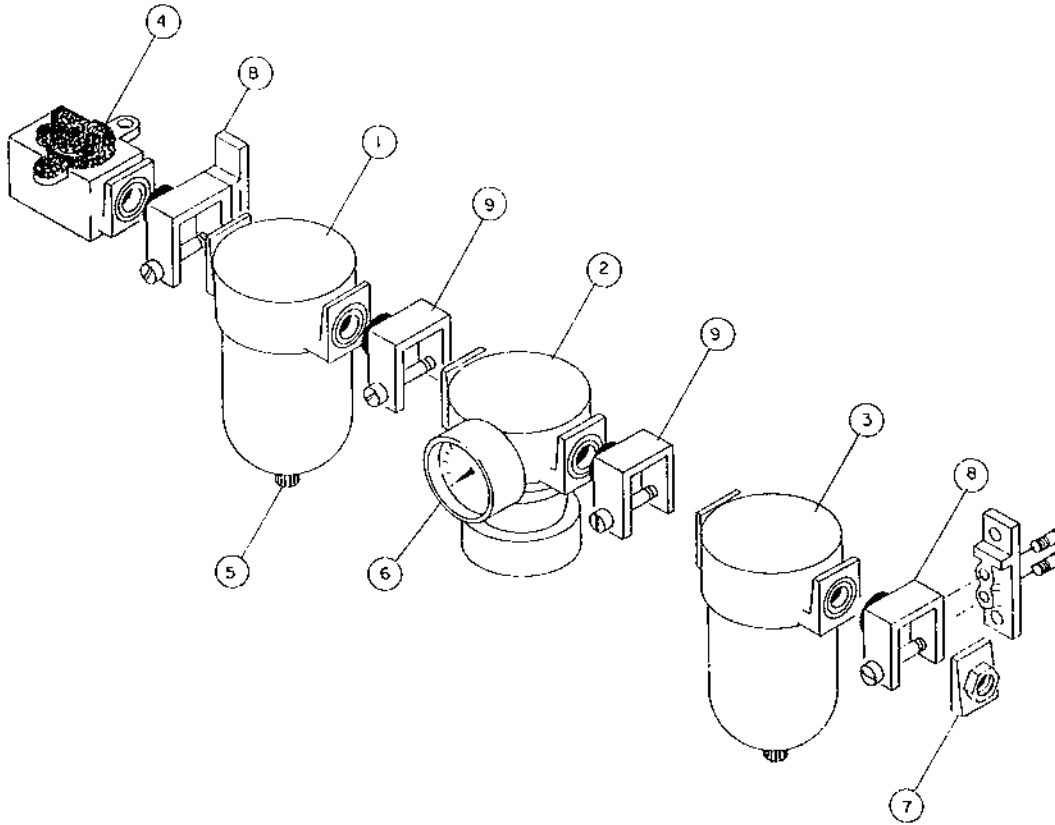
P/N: 750829



<u>ITEM</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1	1	750205	FILTER/REG/LUB ASSEMBLY (see page 6-1.1.0)
*2	1	750209	HOSE
3	2	750404	90° ELBOW
*4	2	750430	#10 JIC FEM FITTING
5	1	750444	#2 NPT / #4 COM BRASS ADAPTER
*6	1	750445	BULKHEAD UNION
*7	1	340959	PLASTIC TUBING
*8	4	005800	HEX HD SCREW 1/4 NC x 1 1/2
*9	4	020200	SP LK WASHER 1/4

* THESE ITEMS CAN BE PURCHASED AS SHIP LOOSE KIT P/N 750206

FILTER/REGULATOR/LUBRICATOR ASSEMBLY P/N: 750205

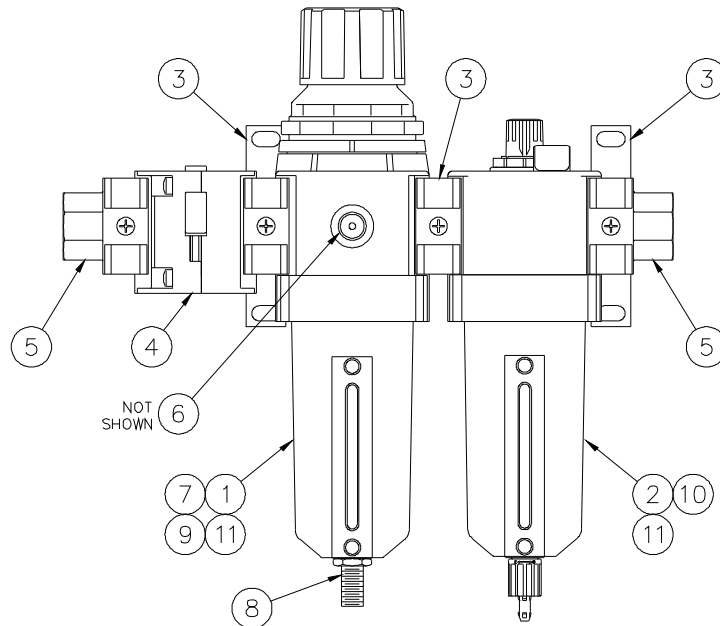


ITEM	QTY	P/N	DESCRIPTION
1	1	750205-001	FILTER
2	1	750205-002	REGULATOR
3	1	750205-003	LUBRICATOR
4	1	750205-004	SHUT OFF VALVE
5	1	750205-005	AUTO DRAIN
6	1	750205-006	GAGE 0-160 PSI
7	1	750205-007	1/2" NPT END
8	2	750205-008	SLEEVE w/ MTG BRACKET
9	2	750205-009	SLEEVE
REPLACEMENT/MAINTENANCE PARTS			
*10		750205-010	STANDARD 5 MICRON FILTER
*11		750205-014	SEAL KIT COMPLETE w/ O-RINGS, SEALS, ELEMENT

*THESE ITEMS ARE NOT INCLUDED IN P/N 750205 AND ARE NOT SHOWN ON ILLUSTRATION.

FILTER/REGULATOR/LUBRICATOR

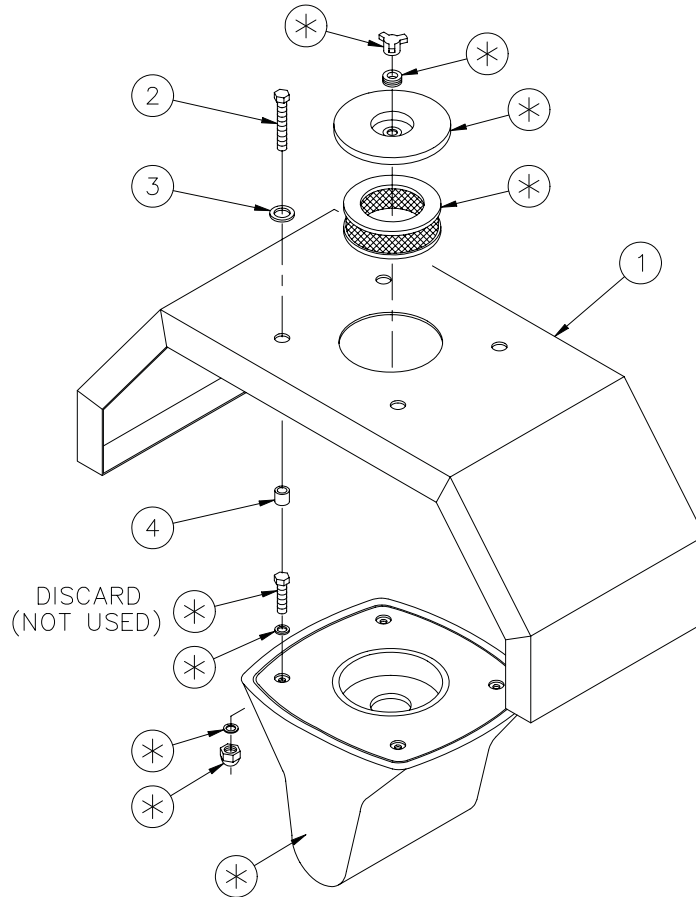
P/N: 751277



NOTE: F/R/L IS PURCHASED AS AN ASSEMBLY; (-XXX) DASH NUMBERS ARE FOR REPLACEMENT PARTS.

<u>ITEM</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1	1	751277-001	FILTER/REGULATOR
2	1	751277-002	LUBRICATOR
3	2	751277-003	JOINER SET w/ T-BRKT
4	1	751277-004	SAFETY LOCKOUT VALVE
5	5	751277-005	END BLOCK, 3/4 NPT
6	1	751277-006	PRESS, GAUGE 0-300 PSI
7	1	751277-007	FILTER ELEMENT
8	1	751277-008	AUTO MECH DRAIN (F/R)
9	1	751277-009	METAL BOWL (F/R)
10	1	751277-010	METAL BOWL (LUB)
11	2	751277-011	BOWL O-RING
12	1	751277-012	O-RING, FILL PLUG

AC30A WEATHER GUARD INSTALLATION



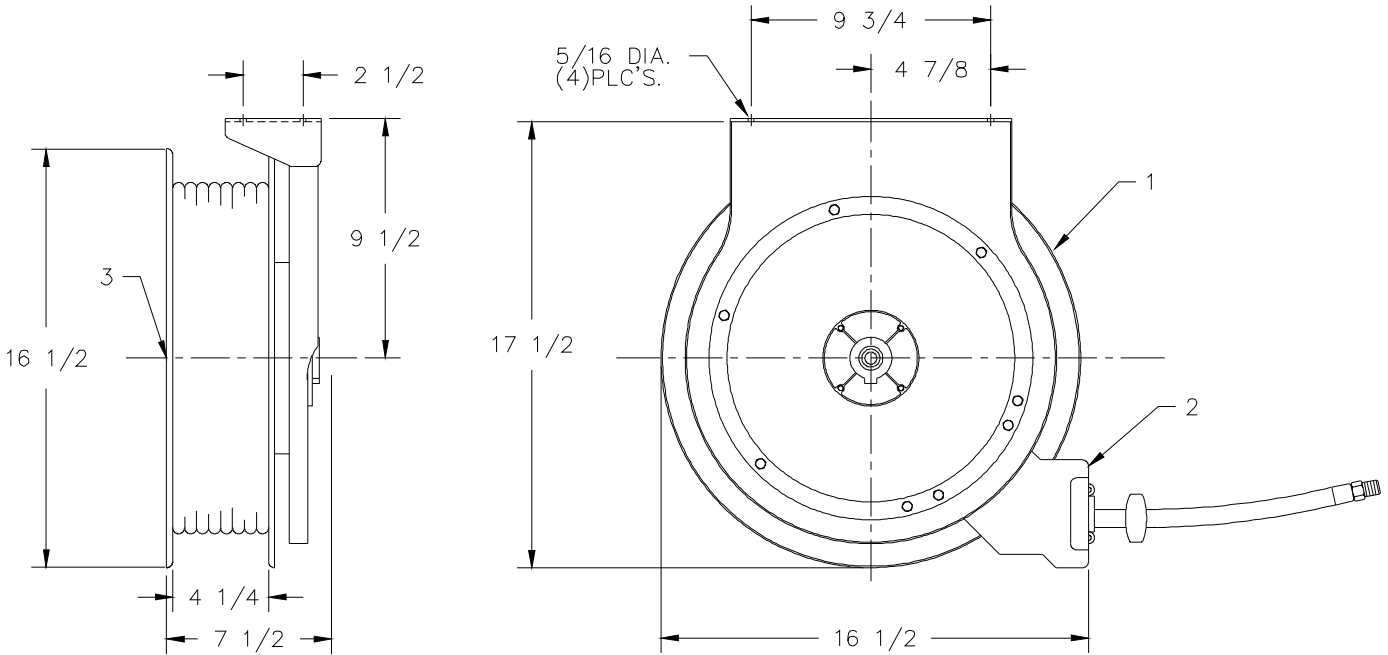
ITEM	QTY	P/N	DESCRIPTION	ITEM	QTY	P/N	DESCRIPTION
1	1	755014	GUARD, WEATHER	3	4	020400	WASHER, FLAT
2	4	750237	BOLT, 8 x 50mm	4	4	750218	SPACER, NYLON

INSTALLATION INSTRUCTIONS:

- STEP 1. UNSCREW YELLOW KNOB AND REMOVE TOP AND FILTER FROM AIR BOX.
- STEP 2. REMOVE THE FOUR BOLTS HOLDING THE AIR BOX TOGETHER AND DISCARD THE FOUR BOLTS. DO NOT DISCARD THE WASHERS AND LOCK NUTS.
- STEP 3. MAKE SURE YOU LEAVE TOP WASHERS IN PLACE, AND ADD THE FOUR SPACERS, ITEM #4.
- STEP 4. POSITION TOP ON COMPRESSOR AND ALIGN SPACERS AND WASHERS UP WITH HOLES.
- STEP 5. USE ITEMS #2 #3 & #4 ALONG WITH EXISTING HARDWARE TO FASTEN COVER TO AIR BOX.
- STEP 6. PLACE FILTER AND TOP BACK INTO POSITION AND TIGHTEN YELLOW KNOB.

NOTE: ITEMS WITH (*) ARE EXISTING EQUIPMENT SUPPLIED WITH THE ATLAS COPCO COMPRESSOR.

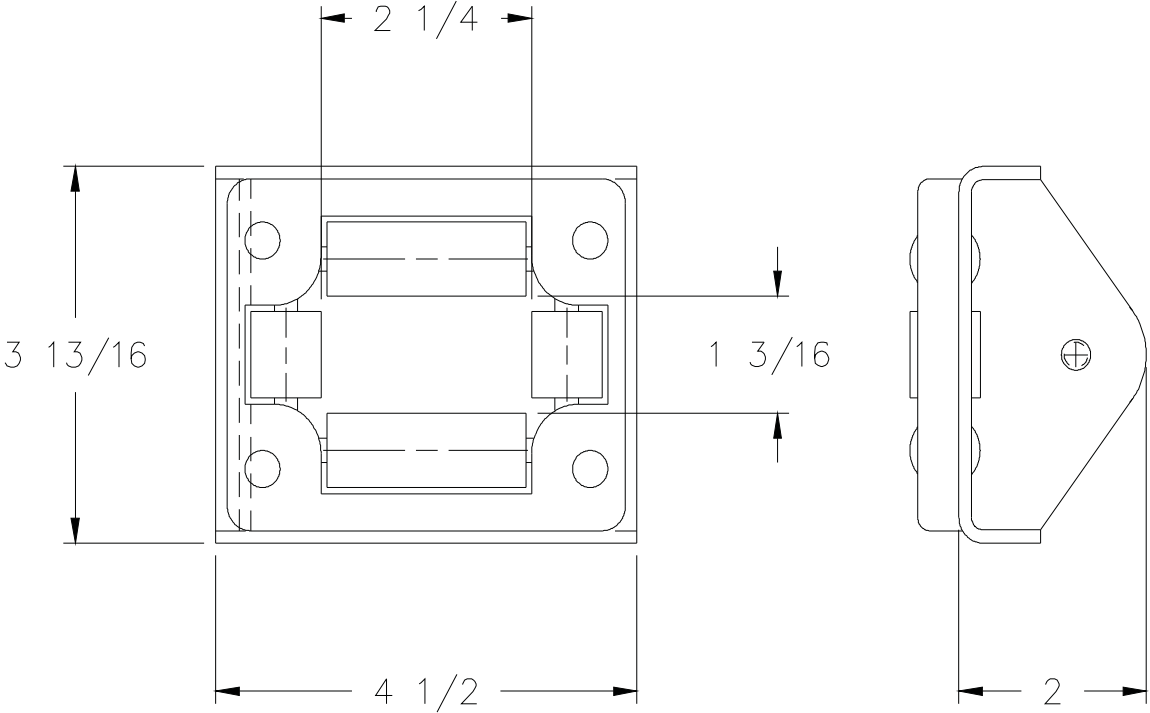
HOSE REEL 1/2" x 50'
P/N: 750212



<u>ITEM</u>	<u>QTY</u>	<u>P/N</u>	<u>DESCRIPTION</u>
1	1	750212	HOSE REEL
2	1	750212-002	GUIDE ARM ASSEMBLY (REF.)
3	1	750212-003	SWIVEL ASSEMBLY (REF.)

HOSE ROLLER GUIDE

P/N: 750213



NOTE: THIS PART IS USED WHEN HOSE REEL IS INSTALLED IN A BODY COMPARTMENT AND HOSE IS TO EXIT THRU THE BODY.



*P.O. Box 580697 * Tulsa, OK 74158-0697
4707 N. Mingo Rd. * Phone (918) 836-0463*

LIMITED WARRANTY 2 YEAR PARTS AND LABOR

Auto Crane will warranty to the consumer for a period of (2) years parts and labor from the date of purchase. Each new Auto Crane unit they sell will be free under normal use and service from defects in material and workmanship. Date of purchase will be honored as the date indicated on the Bill of Sale, which must accompany the Warranty Registration and be on file with Auto Crane. Absent a valid Warranty Registration and appropriate documentation, the original date of manufacture, as indicated by the serial number on the product, will be used to determine the effective date of the 2 year warranty.

The obligation of Auto Crane under this warranty is limited to the replacement or repair of parts that appear to the manufacturer after review and/or inspection to be defective and paid flat rate labor for replacing defective parts. This warranty does not obligate Auto Crane to bear the travel time charges in connection with the replacement or repair of defective parts. Responsibility for customer's claims arising from misapplication, abuse, misuse or alteration of equipment or parts lies with the distributor or user and no warranty obligation is assumed in these circumstances by Auto Crane.

Auto Crane will in no event be liable for any consequential damages or contingent liabilities arising out of the failure of any Auto Crane Product or parts to operate properly.

Auto Crane makes no warranty in respect to component accessories, it being subject to the warranties of their respective manufacturers.

If field service, at the request of the distributor, is rendered and fault is found not to be with Auto Crane's product, the distributor shall pay the time and expense of the field representative.

Claims for service labor or other expenses that have incurred by the buyer without approval or authorization or Auto Crane will not be accepted.

When applying for warranty, claims may be handled by contacting your nearest authorized Auto Crane Distributor. All claims are to be filed in writing on an Auto Crane Warranty Claim Form.

AUTO CRANE COMPANY IS UNDER NO OLIGATION TO EXTEND THIS WARRANTY TO ANY CUSTOMER FOR WHICH AN AUTO CRANE DELIVERY REPORT FORM HAS NOT BEEN COMPLETED AND ON FILE WITH AUTO CRANE COMPANY