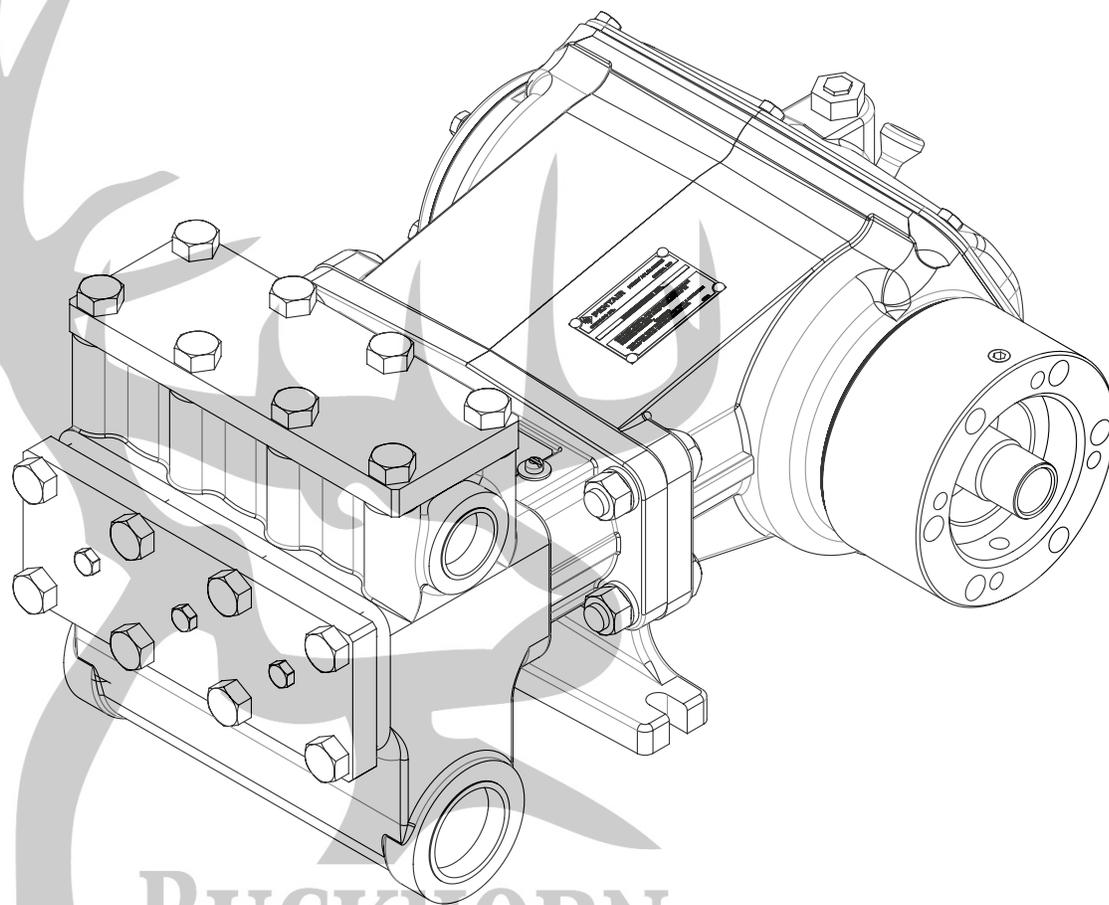




MYERS® APLEX SERIES



BUCKHORN
PUMPS, INC.

SC-35

TRIPLEX PUMP

INSTALLATION AND SERVICE MANUAL

NOTE! To the installer: Please make sure you provide this manual to the owner of the equipment or to the responsible party who maintains the system.

| SC-35 ENGINEERING DATA | |
|--|-------------------------------------|
| Power End | |
| Model Triplex Pump | SC-35 |
| Maximum Input HP at Speed | 50 at 625 rpm |
| Rated Continuous Plunger Load | 4,800 lbs. |
| Stroke | 2" |
| Maximum Rated Continuous Speed | 625 rpm |
| Normal Continuous Speed Range | 150 to 600 rpm |
| Minimum Speed | 100 rpm |
| Oil Capacity | 2 U.S. Quarts |
| Viscosity, S.S.U. at 210°F | 70 to 84 |
| Power End Oiling System | Splash |
| Power Frame, One Piece | Cast Iron |
| Crosshead, Full Cylindrical | Ductile Iron |
| Crosshead, Diameter x Length | 2-1/2" x 2-1/2" |
| Crankshaft | 4140 Heat Treated Forging |
| Crankshaft Diameters: At Drive Extension At Tapered Roller Bearings At Crankpin Bearings, Diameter x Length | 1.375" 1.752" 2.373" x 1.945" |
| Crosshead (Wrist) Pin, Case-Hardened and Ground | AISI 1018 |
| Main Bearings | Tapered Roller |
| Crankpin Bearings, Precision Automotive | Babbitt-Lined |
| Extension (Pony) Rod | 303 S.S. |
| Connecting Rod, Automotive Type | Ductile Iron |
| Average Crosshead Speed: At 600 rpm At 450 rpm | 200 fpm 150 fpm |
| Minimum Life Expectancy, Main Bearings, L ₁₀ | 10,000+hr |
| Liquid End | |
| Piston Size Range, Diameter | 2" thru 1-1/2" |
| Maximum Continuous Working Pressure | 2,700 psi |
| Discharge Connection Size | 1-1/4" NPTF |
| Suction Connection Size | 2" NPTF |
| Available Liquid End Materials, ASTM: Ductile Iron | A536 80-55-06 |

| SC-35 ENGINEERING DATA | |
|--|---------------------------------------|
| Liquid End (Continued) | |
| Piston Type | HNBR & High Strength Synthetic Fabric |
| Cylinder Liner, Field-Removable and Replaceable: | Ceramic Coated 416 S.S. |
| Valve Cover and Cylinder Head Plugs | Carbon Steel |
| Retainer Plates | Carbon Steel |
| Seals, Stuffing Boxes, Valve Covers, Cylinder Heads | Buna-N |
| Bolting, High Strength, Heat Treated | Alloy Steel |
| Valve Type, Abrasion Resistant | 17-4PH S.S. |
| Valve Seat, Liquid Passage Areas | .685 sq. in. |
| Average Liquid Velocity with 2" Pistons, Abrasion Resistant Valves: At 600 Crankshaft rpm At 450 Crankshaft rpm | 15.3 fps 11.5 fps |
| Average Liquid Velocity at 600 rpm: Suction Manifold Discharge Manifold | 4.0 fps 8.8 fps |
| General | |
| Overall Dimensions: Length Width Height | 23-1/2" 16-7/8" 12-1/2" |
| Approximate Weights: With Ductile Iron Liquid End | 250 lbs. |

INSTRUCTIONS

Positive displacement pumps must have a proper size and operable type of pressure regulating valve or pressure relief valve piped into the discharge line. This is mandatory to prevent damage to pump and piping or possible injury to personnel. Do not install any valves or shut-off devices in the bypass line from pressure regulator to the tank or supply.

All pumps should be installed level. For mobile applications the maximum angle of intermittent operation should be no more than 5 degrees in any one direction.

CALIFORNIA PROPOSITION 65 WARNING:

▲ WARNING This product and related accessories contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

It is recommended to install a pulsation dampener in the discharge line to smooth out pressure pulse. This can protect pump parts and piping for longer life and quieter operation.

BELT DRIVE

With belt drives, the pulley on both the engines and pump should be located as close as possible to the bearing to reduce bearing and shaft bending loads. Make sure that all bolts, nuts, set screws and keys are properly tightened.

STARTING PUMP

Fill pump crankcase with recommended oil (SAE 30) to the level mark on the oil saber. Replace all drain plugs in pump and piping. Inspect tank to be sure that no foreign material is in tank or suction line. Fill tank at least half full or connect suction to water supply. Open valve (if present) in suction line. Avoid prolonged dry operation which may cause excessive wear on piston packing. Be sure that an operating pressure gauge is located in discharge line. Use a heavy duty, liquid filled, pulsation-free pressure gauge. Make sure all valves, including spray gun or nozzles, are open in discharge line. Spray gun may be anchored to discharge back into tank. Completely back off pressure adjusting device on the pressure regulating valve. Check pressure rating for pulsation dampener pressure regulator and pipe fitting to make sure working pressure is not over maximum pressure rating.

After starting, close discharge valve or spray gun slowly while watching pressure gauge to make sure relief valve or unloader is operating properly. Adjust relief valve or unloader to desired pressure. Cycle nozzles or gun on and off to be sure that pressure adjustment and regulator operation is satisfactory.

Nozzle capacity should not exceed 90% of pump capacity for satisfactory regulator operation. Avoid freezing by draining all water from the pump and system in cold weather. There is a 3/8 NPT drain plug for each cylinder chamber.

SUGGESTED MAINTENANCE SCHEDULE

Check oil level – Daily

Drain and change oil (SAE 30) – 300 hrs.
Drain at operating temperature to prevent contamination from settling.

Inspect piston packing and spacer rings – 500 hrs.
Inspect frequently for leakage; piston packing is allowed to drip in order to cool and lubricate packing. Replace if there is a stream leak.

Inspect valves and springs – 500 hrs.
Replace if cracks and heavy wear are present.

Inspect connecting link bearing inserts – 1000 hrs.
Replace at first signs of fatigue or wear to prevent damage to crankshaft.

Inspect crankshaft tapered roller bearings and piston stud – 2000 hrs.
Replace if there is any pitting on the seal surface or if the surface is rough.

LUBRICATION

Pump – Fill crankcase with 2 qts of oil. Maintain oil level between the high and the low level marks on bayonet oil gauge inserted through the crankcase cover. Add extra quart for crankshaft speeds under 300 rpm.

Drain oil from crankcase after first 30 hours of operation. Refill with proper oil. Check oil levels regularly. Change oil immediately if water droplets are found on bayonet gauge.

SERVICE

Disconnect electrical leads to motor or remove spark plug leads on engine before proceeding.

REMOVING PISTON

After removing the nuts, clamp and cylinder cap, move piston assembly to the front end of the cylinder. Remove valve assembly if required, to provide clearance. Remove the cap screw and then pull the piston assembly out, using a backward-forward motion with the sliding handle bar against the bolted-anchored end. Inspect cylinders for linear grooving. If any grooving is detected, replace cylinders. New packing will rapidly cut or wear out in grooved cylinders.

INSTALLING CUP

Assemble the cup onto hub and lubricate the outside of the assembly. When installing each cup assembly, rotate the crankshaft until the piston rod is at the forward position. Place the O-ring in position onto the piston hub using a small amount of grease to hold in place. Assemble capscrew into piston assembly and push into cylinder.

REMOVING SEATS

Remove valve caps and cylinder caps, which provide access to suction and discharge valves. Remove the stainless steel cage which serves as a valve guide and spring retainer. Remove cage, spring and valve from the pump fluid end.

REPLACEMENT OF VALVES

Inspect tapered valve seat bore in fluid end for rust. Place a new lower seat into the tapered hole. Drive lower seat firmly into place. Repeat for the upper seat and inspect the tapered bore for rust. Reassemble the valve, spring and cage, and verify the springs are in the correct location. When the upper and lower valve seats are the same size, the heavier spring with larger diameter wire is always installed on the upper or discharge valve.

Be sure that cage is tightened onto valve seat.

Inspect seals on valve and cylinder caps. Replace seals if signs of wear are present. Lubricate seals and replace cap, bar and nuts. Torque cap cover's nuts to specification.

REPLACING CYLINDER LINERS

Remove piston packing and rotate crankshaft until the piston rod is in rear position. Insert puller through the inside of cylinder and insert disc into the slots on the puller. Slip plate over the threads on the puller and screw the nut on the thread in the puller. Tighten nut until the liner breaks loose and then loosen nut and slip disc out of slots. Remove puller and repeat to remove remainder of cylinder liners.

Clean out any accumulation of loose rust or corrosion in tapered cylinder. Inspect O-ring and replace it if damaged. Insert liner into position by hand then firmly drive in. Never use a hand or hydraulic arbor press as it may shrink the liner.

REPLACING PISTON ROD SEALS

The rod seal assembly contains two seals and two oil seals with lips facing power end. The oil seal can be replaced without taking the fluid end off by removing the cylinder and piston to allow access to the oil seal housing. Unscrew Allen screws and place them into

the other two tapped holes. Gradually screw them in to push the oil seal housing off the retainer. After assembling new seals in the oil seal housing, an assembly thimble should be used on the end of the crosshead rod for sliding the oil seal housing back into the retainer. Check gasket and replace if damaged.

An assembly thimble should be used on the small end of the piston rod to expand the sealing edge as it is pushed on. The thimble should be machined from high carbon steel and polished on the exterior to reduce the possibility of seal lip damage.

SERVICING CRANKCASE PARTS

To remove the crankshaft you do not need to remove the cylinder body from the crankcase. Remove the connecting link caps from the connecting links and push the free links toward the cylinder end as far as possible. Take off the bearing caps and pull the crankshaft through the bearing opening. The connecting links and link caps are mated to each other and should be reinstalled in the same position they were in before they were taken apart.

REPLACING CRANKSHAFT AND SHIMMING BEARINGS

Slide crankshaft into the crankcase and carefully rest the bearings on the sides of the crankcase. Place .045" shim on the drive side bearing cap and the O-ring onto the bearing cap. Slide the bearing cap with oil seal over the drive shaft, being careful not to cut the seal lip on the keyway. Tighten the cap screws, alternating between the screws. Install the non-drive side cap without shims or O-ring. Secure with two cap screws positioned 180 degrees apart. As the screws are alternately tightened, the crankshaft should be rotated by hand to seat the tapered roller bearings. With a feeler or tapered gauge, measure the shim gap adjacent to each of the screws. The required shim thickness for the cap is equal to the average of the two gap measurements, plus .007" constant. Remove the bolts and cap, place the correct shim thickness on this cap. Round up to an additional .003" shim if the desired shim thickness does not match .003" increment. Place the O-ring on the cap and reinstall. Tighten screws as the crankshaft is rotated by hand to seat the bearings and ensure no significant binding as a result of the shimming.

SERVICING CONNECTING LINKS

When the connecting link bearings are worn, standard replacement bearing inserts can be installed in the connecting links. Do not change the size of the bearing or the link by filing or grinding the faces. When reinstalling the links on the crankshaft be sure to place the oil holes upward for proper lubrication.

RECOMMENDED TORQUE (foot-pounds)

| Fastener Location |
|--|
| Link Bearing Caps - 25 |
| Crankshaft End Caps - 20 |
| Cap Screw Holding Piston - 20 |
| Packing Assembly to Piston Rod - 20 |
| Valve and Cylinder Cover Plate - 200 |
| Cap Screw (Fluid End to Crankcase) - 1/2"-50 and 5/8"-80 |

CROSSHEAD AND PISTON RODS

Repair parts for the crosshead and piston rod are supplied as a complete unit. If either of these parts becomes worn, it is necessary to replace both the crosshead and piston rod. Under normal conditions a crosshead will not wear, nor will the bore of the crankcase wear, to the extent that replacement will be required. A clearance of .002" to .004" is standard for the crosshead.

RECONDITIONING CRANKSHAFTS

When crank pins are slightly damaged, they can sometimes be reconditioned for further use. This can be done with emery cloth and polishing, until all ridges are completely removed. The final polishing operation should be performed by using a very fine emery cloth. This procedure can be followed only where the amount of sanding does not reduce the normal diameter of the crank pin.

Worn or corroded crank pins can be ground and polished down to .030" under the size when the cranks were new. The undersize bearing halves are made especially for turned down crankshafts.

If the surface is badly damaged, the crankshaft can often be salvaged by "metalizing" the crank pins, regrinding and polishing to the original diameter.

When installing new bushings for the crosshead pin, these bushings should be reamed to the proper size after pressing into the link.

When assembling bearings on the crankshaft, an oil seal expander thimble should be used at the end of the shaft. A thimble of this type will cause the lip of the oil seal to gradually expand up to the shaft diameter allowing it to slip onto the shaft without turning or damaging the seal in any way. A slight nick or cut in the lip can damage a seal enough that it will not retain the oil properly.

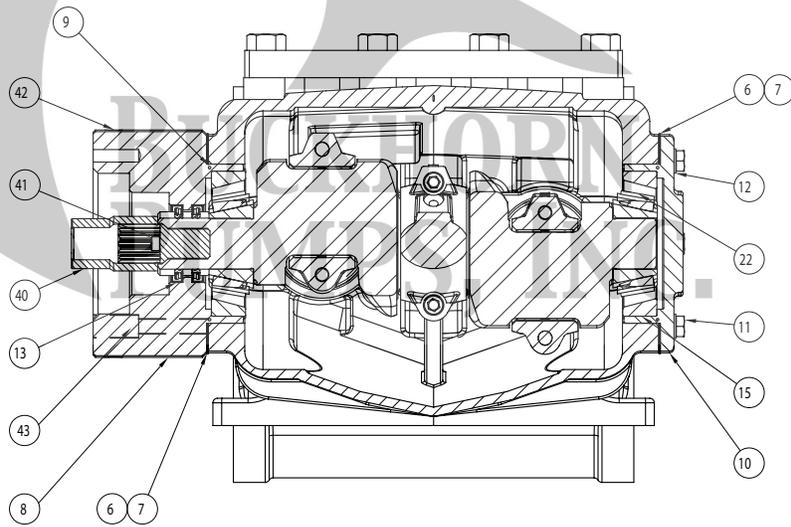
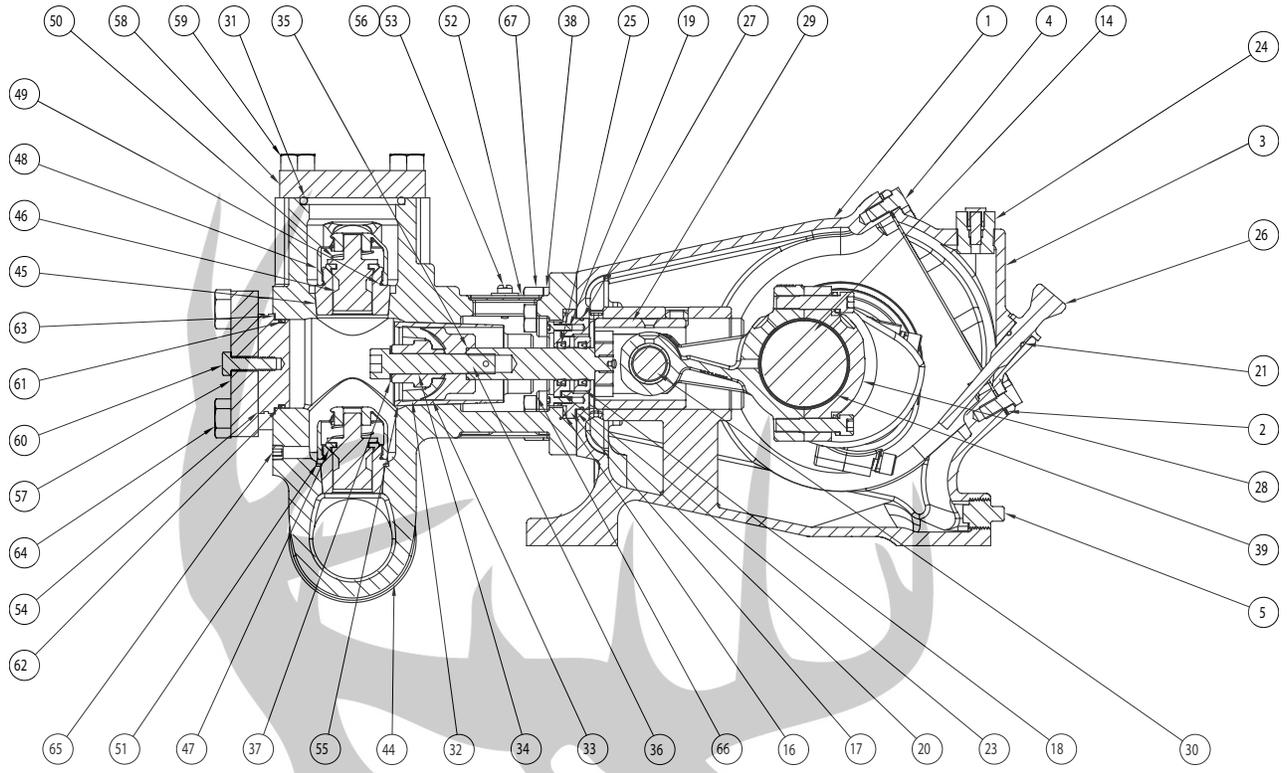
Warning – This pump must be installed with a pressure relief valve in discharge line.

5. If the pressure regulator internal bypass valve is worn, it will allow too much of the pump capacity to be bypassed and recirculated back to the tank. By examining the flow from this valve with the discharge turned on, it can be determined whether or not the valve is worn. If a heavy flow continues when the discharge is turned on, it is usually a good indication of a worn valve and should be replaced.
6. Worn plunger cups, valves or valve seats will cause a severe drop in pump capacity pressure. Worn plunger cups are detected by water leakage past the cups and should be replaced immediately. Water getting into the pump crankcase will cause severe corrosion of the bearings. Worn valves can only be detected by visual examination of each valve assembly. Abrasive liquid will cause wire cuts which begin as a very small groove, but increase rapidly once the valve starts to leak through this groove. If the valve plates are replaced as soon as they start to show this cutting action, it will prevent the valve seat from becoming cut in a similar manner.
7. Pump cylinder bodies withstand an extreme amount of shock and pulsation while in operation, but if the pump is allowed to freeze, by not being drained, the freezing may crack the cylinder body walls in almost any location. If the crack occurs on the suction valve or cylinder portion of the body, it may allow a small amount of air to enter on the suction stroke and cause noisy operation or a decrease in pumping capacity. If the crack develops in the walls between the cylinder cavities or discharge valve cavity, it may allow the water to flow from one cavity to the adjacent cavity and cause uneven displacement.
8. The holes in the gun or nozzle discs are continually subject to wear because of the high velocity of the liquid through the holes. If the holes become worn, they may allow a higher rate of discharge than the pump is able to provide, then a drop in pressure will be noticed. This can quickly be checked by reducing the number of nozzles or guns while watching the amount of overflow from the pressure regulator. If there is considerable overflow, it is an indication that the regulator valve is worn rather than the gun or nozzle disc.
9. Suction surge arresters should be installed on the suction line of reciprocating pumps, 1-1/2" or 2" can be used. A standing height of 12"-15" will be sufficient with the top end closed by an ordinary pipe cap.
10. Water may accumulate in the pump crankcase from two sources; leakage of the plunger cups or an accumulation of condensation/moisture inside the crankcase due to changes in weather or the repeated heating and cooling of the pump. Pumps used consistently, running for a considerable period of time to heat the oil and other working parts, will not normally accumulate water by condensation. Replace the plunger cups as soon as they start to leak.
11. Worn connecting link bearings are caused by unusual or adverse operating conditions and are seriously affected by corrosion if water is present in the crankcase. They will wear out from overheating if adequate oil is not provided in the crankcase. It is recommended to drain, clean and refill with new oil prior to any storage period. Replace bearings as soon as any damage is discovered to avoid possible damage to crankshaft.
12. Low oil in the crankcase can quickly cause failure of the pump's power end and result in extensive repairs. Oil level should be checked periodically during normal operation and during all maintenance work.
13. A foaming mixture will sometimes have the same effect as a small air leak in the suction line. This is because various quantities of the foam are drawn through the suction line into the pump disrupting the normal flow of water.
14. Pressure regulators and unloading valves may become sluggish in action due to the plunger sticking or fitting too tightly in its cylinder. This may happen by an accumulation of chemicals collecting in and around the plunger or due to excessive corrosion of the plunger parts. To check this condition, remove and clean the plunger and cover the parts with a waterproof grease before assembling.
15. The stuffing box nut on the unloading valve lifting post should not be tightened to severely grip or bind the packing on the post. Tighten this nut just enough to prevent leakage and chatter. The pressure regulator and unloading valves may chatter or vibrate excessively due to an unstable operation from nozzling in the high or low capacity range of the regulator or unloader. The range should be at least 50% to 90% of pump capacity. With unloader valves, nozzle capacity should be at least 20% and not exceed 90% of pump capacity.
16. If foreign matter becomes lodged between the pump valve and valve seat, a drastic drop in capacity and considerable surge or pulsation will occur in the discharge line. Examine each valve if this occurs.
17. When a pump is used for a long period of time, a waterlogged discharge surge could cause pulsation at the discharge. The suction should be opened into the atmosphere to allow air to be drawn through the pump to recharge the surge arrester. Do this with the pressure release valve open so the pump operates at no pressure.

18. Noisy pump operation can be caused by a loose plunger rod in the crosshead. This noise usually has a regular cadence timed with each stroke of the plunger. When this occurs, always replace both the rod and the crosshead.
19. Increased preload to the crankshaft bearings will reduce bearing life, require more power and generate more heat, while insufficient preload may cause a knock, timed with the crankshaft rotation. Check for loose bolts on the crankshaft end caps or adjust shims to obtain proper bearing preload.



MODEL SC-35



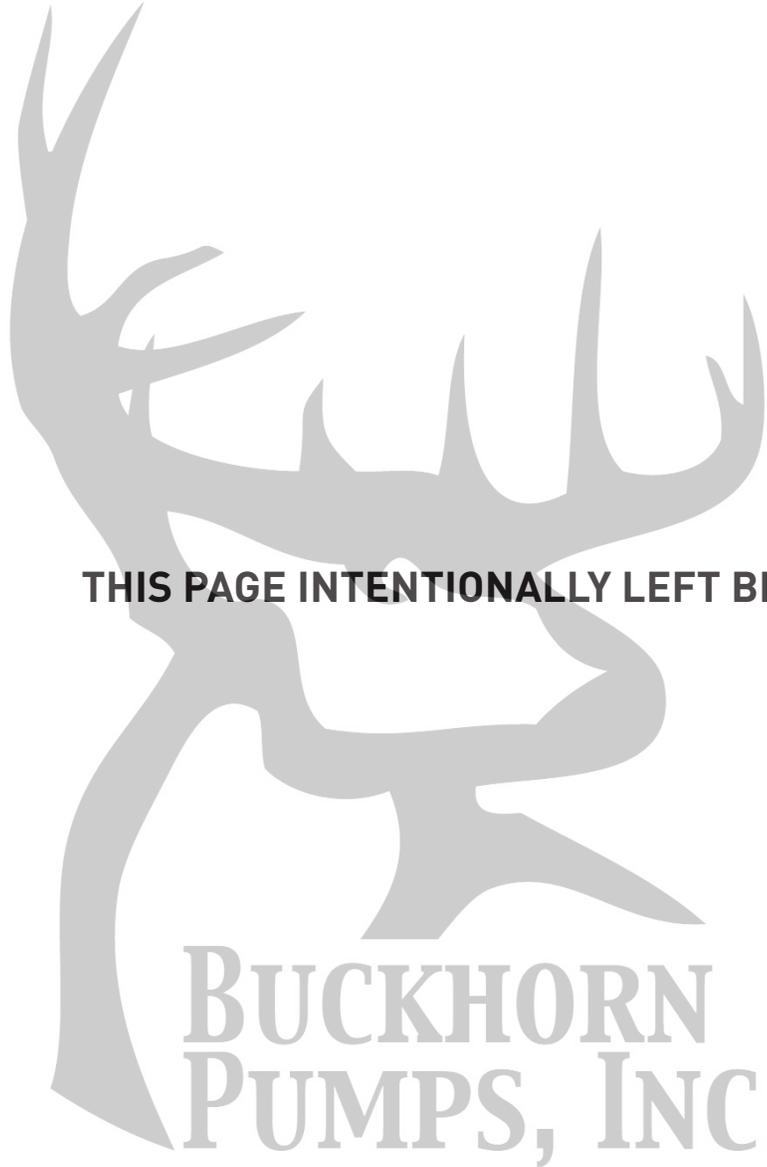
MODEL SC-35

DISCHARGE VALVE ASSEMBLY: TS15-AR0-AC0719
 SUCTION VALVE ASSEMBLY: TS15-AR0-AC0718

| Item | Description | Qty. | Eng. No. |
|------|---|------|----------------|
| 1 | CASE, CRANK | 1 | 06076D000 |
| 2 | GASKET, LID | 1 | 06089B000 |
| 3 | LID | 1 | 06077C001 |
| 4 | SCREW, CAP HEX ST PL 3/8" NC X 7/8" | 6 | 19101A008 |
| 5 | MAGNETIC PLUG, PIPE | 1 | 17481A000 |
| 6 | GASKET, SHIM-003 THK | 6 | 05011A027 |
| 7 | GASKET, SHIM-015 THK | 4 | 05011A028 |
| 8 | ADAPTER, HYD DRIVE, BRGLS. 2000 SERIES | 1 | 28160D000 |
| 9 | RING "O"; 4.379 OD X 4.239 ID X .070 | 2 | 05876A240 |
| 10 | CAP, BEARING | 1 | 10414B001 |
| 11 | SCREW, CAP HEX 3/8" NC X 1" | 6 | 19101A009 |
| 12 | WASHER SEAL .666 OD .364 ID | 6 | 14946A003 |
| 13 | OIL SEAL | 2 | 05710A045 |
| 14 | CRANKSHAFT | 1 | 28153D014 |
| 15 | BEARING CUP, TAPERED ROLLER | 2 | 05675A018 |
| 16 | SPRING FOR RETAINER | 3 | 06120A000 |
| 17 | RETAINER, OIL SEAL HOUSING | 3 | 24958A001 |
| 18 | HOUSING, OIL SEAL | 3 | 24959A002 |
| 19 | SCREW, CAP SKT HD 10-32UNF | 6 | 06106A034 |
| 20 | GASKET, VELLUMOID 2-15/16, 2-1/2 | 3 | 05059A052 |
| 21 | RING "O" NITRILE RUBBER SIZE | 1 | 110-000110-201 |
| 22 | BEARING CONE, TAPERED ROLLER | 2 | 05674A019 |
| 23 | GASKET | 3 | 05059A435 |
| 24 | BREATHER CRANKCASE | 1 | 7602-3002-10A |
| 25 | CUP, HUVA | 6 | 22835A004 |
| 26 | GAGE, OIL | 1 | 17360A014 |
| 27 | O-RING 2-1/2 OD X 2-3/8 ID | 3 | 05876A224 |
| 28 | CONNECTING ROD, COMPLETE | 3 | 27300B000 |
| 29 | CROSSHEAD & PISTON ROD | 3 | 17515B004 |
| 30 | WRIST PIN | 3 | 06116A000 |
| 31 | O-RING, NBR; 2-1/2" X 2-7/8" OD, 70 DURO. | 3 | 110-000333-201 |
| 32 | CUP, PISTON 2.00" | 3 | 7206-0392-00A |
| 33 | HUB, PISTON 2.00" | 3 | 7206-0393-01A |
| 34 | KEEPER, PISTON 2.00" | 3 | 7206-0394-00A |
| 35 | O-RING POLYURETHANE SIZE 2-018 | 3 | 110-000018-218 |
| 36 | SCREW, CAP NYLOCK M-14 | 3 | 16654A006 |
| 37 | WASHER, LOCK SHKPRF INTERNAL | 3 | 06107A013 |

| Item | Description | Qty. | Eng. No. |
|------|---------------------------------------|------|----------------|
| 38 | WASHER, LOCK 5/8" | 4 | 05454A011 |
| 39 | BEARING HALF | 6 | 06109A000 |
| 40 | SPLINE ADAPTER (COUPLING) | 1 | 7206-0440-00A |
| 41 | SPACER, HARDENED | 1 | 7206-0363-00A |
| 42 | PIPE PLUG, SOCKET HEAD, 1/4" | 2 | 170-014001-237 |
| 43 | SCREW, SOCKET HEAD; 3/8" NC X 2-1/2" | 6 | 105-038212-273 |
| 44 | FLUID END | 1 | 28143E000 |
| 45 | SEAT, VALVE DISCHARGE | 3 | 7206-0289-00B |
| 46 | VALVE, WING-GUIDED | 6 | 7206-0285-00A |
| 47 | INSERT, POLYURETHANE | 6 | 7206-0286-00A |
| 48 | CAGE, GUIDE | 6 | 7206-0287-00B |
| 49 | RING "O" NITRILE RUBBER | 6 | 110-000029-201 |
| 50 | SPRING, VALVE | 6 | 7206-0302-00A |
| 51 | SEAT, VALVE SUCTION | 3 | 7206-0288-00B |
| 52 | LID FOR CYL. BODY | 1 | 06123A000 |
| 53 | SCREW, MACH 1/4-20 X 1/2 | 2 | 05028A002 |
| 54 | CAP, CYLINDER | 3 | 18457A009 |
| 55 | LINER, CYLINDER 2" I.D. | 3 | 06124A004 |
| 56 | WASHER | 2 | 05030A020 |
| 57 | PLATE, RETAINER; CYLINDER COVER | 1 | 28144B001 |
| 58 | PLATE, RETAINER; VALVE COVER | 1 | 28144B000 |
| 59 | SCREW, HEX HEAD CAP; 5/8" NC X 1-1/2" | 8 | 100-058112-273 |
| 60 | 3/8" NC HEX HEAD CAP SCREW X 1-1/4" | 3 | 92620A626 |
| 61 | O-RING 2-7/16 OD X 2-1/4 ID | 3 | 05876A173 |
| 62 | RING BACK-UP NITRILE 2.268 ID | 3 | 18753A009 |
| 63 | GASKET | 3 | 05059A437 |
| 64 | SCREW, HEX HEAD CAP; 5/8" NC X 1-3/4" | 8 | 100-058134-273 |
| 65 | PIPE PLUG 1/8" SS | 3 | 170-018003-235 |
| 66 | SCREW, CAP HEX HEAD; 1/2" NC X 1-3/4" | 4 | 19103A069 |
| 67 | NUT, HEX 5/8" NC | 4 | 19109A041 |

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**BUCKHORN
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STANDARD LIMITED WARRANTY CENTRIFUGAL & RECIPROCATING PUMPS

Pentair Myers® warrants its products against defects in material and workmanship for a period of 12 months from the date of shipment from Pentair Myers or 18 months from the manufacturing date, whichever occurs first – provided that such products are used in compliance with the requirements of the Pentair Myers catalog and technical manuals.

During the warranty period and subject to the conditions set forth, Pentair Myers, at its discretion, will repair or replace to the original user, the parts that prove defective in materials and workmanship. Pentair Myers reserves the right to change or improve its products or any portions thereof without being obligated to provide such a change or improvement for prior sold and/or shipped units.

Seals, piston cups, packing, plungers, liners and valves used for handling clear, fresh, nonaerated water at a temperature not exceeding 120°F are warranted for ninety days from date of shipment. All other applications are subject to a thirty day warranty. Accessories such as motors, engines and auxiliary equipment are warranted by the respective manufacturer and are excluded in this standard warranty. Under no circumstance will Pentair Myers be responsible for the cost of field labor, travel expenses, rented equipment, removal/reinstallation costs or freight expenses to and from the factory or an authorized Pentair Myers service facility.

This limited warranty will not apply: (a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with the printed instructions provided; (b) to failures resulting from abuse, accident or negligence; (c) to normal maintenance services and parts used in connection with such service; (d) to units that are not installed in accordance with applicable local codes, ordinances and good trade practices; (e) if the unit is moved from its original installation location; (f) if unit is used for purposes other than for what it is designed and manufactured; (g) to any unit that has been repaired or altered by anyone other than Pentair Myers or an authorized Pentair Myers service provider; (h) to any unit that has been repaired using non factory specified/OEM parts.

Warranty Exclusions: PENTAIR MYERS MAKES NO EXPRESS OR IMPLIED WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. PENTAIR MYERS SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE.

Liability Limitation: IN NO EVENT SHALL PENTAIR MYERS BE LIABLE OR RESPONSIBLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES RESULTING FROM OR RELATED IN ANY MANNER TO ANY PENTAIR MYERS PRODUCT OR PARTS THEREOF. PERSONAL INJURY AND/OR PROPERTY DAMAGE MAY RESULT FROM IMPROPER INSTALLATION. PENTAIR MYERS DISCLAIMS ALL LIABILITY, INCLUDING LIABILITY UNDER THIS WARRANTY, FOR IMPROPER INSTALLATION. PENTAIR MYERS RECOMMENDS INSTALLATION BY PROFESSIONALS.

Some states do not permit some or all of the above warranty limitations or the exclusion or limitation of incidental or consequential damages and therefore such limitations may not apply to you. No warranties or representations at any time made by any representatives of Pentair Myers shall vary or expand the provision hereof.

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Warranty Rev. 12/13