

NOTE! To the installer: Please make sure you provide this manual to the owner of the equip

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**CALIFORNIA PROPOSITION 65 WARNING:**



## MODELS 361A-362A-364A

grease is recommended as lubricants for pumps operating in both wet and dry locations. Mixing of different brands of grease should be avoided due to possible chemical reactions between the brands which could damage the bearings. Accordingly, avoid grease of vegetable or animal base which can develop acids, as well as grease containing rosin, graphite, talc and other impurities. Under no circumstances should used grease be reused.

Over lubrication should be avoided as it may result in overheating and possible bearing failure. Under normal application, adequate lubrication is assured if the amount of grease is maintained at  $1/3$  to  $1/2$  the capacity of the bearing and adjacent space surrounding it.

In dry locations, each bearing will need lubrication at least every 600 hours of running time or every 6 to 12 months, whichever is more frequent. In wet locations the bearings

## MODELS 361A-362A-364A

### DISASSEMBLY

Disassemble only what is needed to make repairs or accomplish inspection. (See Figure 2 for Model 361A, Figure 3 for Model 362A and Figure 3 for Model 364A.)

1. Disconnect and lockout power source to prevent drive unit from being energized during disassembly.
2. Unscrew the two drain plugs (4) from the casing (6). On Model 362A pumps, remove plugs (74 and 75) to drain pump. Also unscrew the two plugs (4) from casing (6).
3. Remove all relief, cooling, flushing or drain lines from pump, including compression connections (1 and 2) and tubing (3). The sealing tube assembly (optional 69, 70, 71 and 76) should be removed at this time. Break suction and discharge connections unless it is intended to remove the power frame or motor assembly and leave casing (6) in the line. On Model 362A pumps, break discharge connections only, unless it is desired to remove base (73). Remove capscrews (39) and lift pump assembly from base (73). Remove gasket (72).
4. On Model 364A pumps, remove the flexible coupling from between the pump and motor. Next unscrew the bolts that hold support(s) (41 and 64) to the base and slide the pump out to be worked on.
5. Remove capscrews (5) and pull casing (6) from bracket (35) and cover (26). Remove gasket (8).
6. Unscrew impeller screw (9) and remove washer (9A), taking care not to damage gasket (9B) or capscrew seal (9C).
7. Slide impeller (11) and impeller key (12) from the shaft, again taking care not to damage gasket (10) located behind impeller. Remove gasket (10).
8. Wear ring(s) (7 and 16) are pressed into their housings with an interface fit and must be removed with a puller. New ring(s) should be used for reassembly since it is likely that during removal this fit will be lost. Do not remove wear rings if not being replaced.
9. Impeller wear rings (optional - 14 and 15) are pressed on and must be cut off if replacement is necessary. If they are turned off in a lathe, take care not to cut into the impeller.
10. The various types of stuffing boxes may be disassembled as follows:
  - A. Remove adjusting nuts (21), gland clamps (22), gland halves (23) and studs (24), if used. For standard pumps remove capscrews (65).
  - B. Unscrew capscrews (20), (Not required on 7" bore pumps), or (5) and remove cover assembly (26). The throat of cover (26) should be checked for excessive wear.

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- A. Remove capscrews (65) and slide gland (23), (Including the seal flexible cup and stationary seat), from either cover assembly (26) or water jacket (18). Take care in moving gland (23) not to damage gasket (66).
- B. Unscrew capscrews (20), (Not required on 7" bore pumps), or (5) and remove cover assembly (26). The throat of cover (26) should be checked for excessive wear.
- C. Slide sleeve (25) with rotating parts of mechanical seal (27) from the shaft. The sleeve should be carefully cleaned to remove any residue that may be remaining in

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6. If nameplate (34) was removed, install and attach with screws (33).
7. Replace wear ring(s) (7 and 16), in casing (6) and cover (26). Rings should not be hammered into place. Use a press, or clamp the parts in a bench vise, using wooden blocks to protect the rings. It may be necessary to pin or dowel the rings after assembly if the cover or casing has had rings replaced before, since each reassembly can stretch or tear metal and thereby loosen the fits. If the facilities are available, it is good practice to take a very light finish cut or to ream the inside diameter of the casing rings after pressing to restore roundness. When rings are pressed, they may get squeezed out of shape.
8. Coat the mating surfaces of impeller wear ring(s) (optional - 14 and 15) and impeller (11) with Loctite sealant grade 271. Replace wear rings, using the same care as for the case wear ring(s). If the rings are to be trued on a lathe, do not clamp the impeller so tightly that it is permanently distorted.
9. If water jacket (optional - 18) was removed it may be replaced at this time. Replace gaskets (19 and 19A) on cover (26) and carefully slide on water jacket making sure desired alignment is achieved. (See illustration C.) Snap retaining ring (17) behind water jacket (18) in groove provided on cover (26).

### 10. Reassemble the various types of stuffing boxes as follows:

#### PACKING (STANDARD, WATER COOLED AND WITH LANTERN RING)

- A. If gland studs (24) are used, thread and tighten into either cover (26) or water jacket (18). Place one ring of packing (28) into the cover (26). On successive rings of packing stagger the packing joints to prevent excessive leakage through the packing box. If a lantern ring (29) is used, place a second ring of packing (28) into the cover before installing lantern ring.

There must be two (2) rings of packing in front of lantern ring (29) to assure proper alignment between the lantern ring and the sealing tube connection (69) in the cover (26). Install remaining packing rings (28). Each ring should be tapped firmly into place with a wood or metal bushing.

- B. Replace pin (61) into the shaft sleeve (25) and slide the sleeve (25) through the packing making sure the pin (61) end of the sleeve (25) is in the cover side opposite the gland halves (23).
- C. Replace gland halves (23) and gland clamps (22) on studs (24). Tighten nuts (21) down finger tight. For standard pumps replace gland halves (23) and place gland clamps (22) over capscrews (65). Tighten capscrews (65) finger tight into either cover assembly (26) or water jacket (18).

#### NOTE

The slots in gland halves (23) should be diagonal to pump horizontal center line.

On the 364A with a 15" impeller on a #21 power frame, reverse rotation will destroy the pump.

You must make sure that the motor rotates in the proper direction BEFORE coupling the motor to the pump. Start the drive motor to make sure the direction of rotation is the same as the direction indicated by the arrow on the pump casing.

The arrow on the casing always points clockwise when the pump is viewed from the motor end.

On 3 phase motors, you can reverse one of the power leads if the motor is not rotating clockwise.

Reverse rotation will quickly destroy the pump.

After you are sure the motor is rotating clockwise you can couple the motor to the pump. Again, after coupling but BEFORE starting it is important to check coupling and shaft alignment.





**MODELS 361A-362A-364A**

**MODEL 361A LIST OF PARTS**

1. Elbow	9B. Gasket	19. Gasket	26. Cover
2. Connector	9C. Capscrew Seal	19A. Gasket	27. Seal
3. Tubing	10. Gasket	20. Capscrew	28. Packing
4. Plug, Pipe	11. Impeller	(not shown)	29. Lantern Ring
5. Capscrew	12. Impeller Key	21. Nut	32. Capscrew
6. Casing	14. Wear Ring	22. Clamp	33. Screw
7. Wear Ring	15. Wear Ring	23. Gland	34. Nameplate
8. Gasket	16. Wear Ring	24. Stud	35. Bracket
9. Impeller Screw	17. Retaining Ring	25. Sleeve	39. Capscrew
9A. Washer	18. Jacket		

**MODEL 362A LIST OF PARTS**

1. Elbow	11. Impeller	23. Gland	65. Capscrew
2. Connector	12. Impeller Key	24. Stud	66. Gasket
3. Tubing	14. Wear Ring	25. Sleeve	67. Plug, Pipe
4. Plug, Pipe	15. Wear Ring	26. Cover	68. Plug, Pipe
5. Capscrew	16. Wear Ring	27. Seal	69. Nipple
6. Casing	17. Retaining Ring	28. Packing	70. Gasket
7. Wear Ring	18. Jacket	29. Lantern Ring	71. Locknut
8. Gasket	19. Gasket	32. Capscrew	72. Gasket
9. Impeller Screw	19A. Gasket	33. Screw	73. Base
9A. Washer	20. Capscrew	34. Nameplate	74. Plug, Pipe
9B. Gasket	(not shown)	35. Bracket	75. Plug, Pipe
9C. Capscrew Seal	21. Nut	39. Capscrew	76. Coupling, Pipe
10. Gasket	22. Clamp	61. Pin	

1. Elbow	17. Retaining Ring	35. Bracket
2. Connector	18. Jacket	39. Capscrew
3. Tubing	19. Gasket	40s7N06(Gasket)12.Nameplate74.Screw
4. Plug, Pipe	19A. Gasket	
5. Capscrew	20. Capscrew	
6. Casing	(not shown)	
7. Wear Ring	21. Nut	
8. Gasket	22. Clamp	
9. Impeller Screw	23. Gland	
9A. Washer	24. Stud	
9B. Gasket	25. Sleeve	
9C. Capscrew Seal	26. Cover	
10. Gasket	27. Seal	
11. Impeller	28. Packing	
12. Impeller Key	29. Lantern Ring	
14. Wear Ring	32. Capscrew	
15. Wear Ring	33. Screw	
16. Wear Ring	34. Nameplate	

**NOTES:**

1. BRONZE FITTED CONSTRUCTION WILL BE FURNISHED AS STANDARD UNLESS SPECIFIED.
2. REFER TO FACTORY FOR SPECIAL ALLOYS.
3. AURORA PUMP RESERVES THE RIGHT TO SUBSTITUTE MATERIALS WITHOUT NOTICE
4. PIECE NUMBERS 14 AND 15 ARE NOT FURNISHED AS STANDARD, WHEN FURNISHED, IMPELLER MUST BE MODIFIED.
5. PIECE NUMBERS 39, 40, 41 USED ONLY WITH MOTOR FRAMES 143 THRU 184-JM ON MODEL 361A PUMPS.

**NOTE**

**WHEN ORDERING SPARE PARTS ALWAYS INCLUDE THE PUMP TYPE, SIZE, SERIAL NUMBER, AND THE PIECE NUMBER FROM THE EXPLODED VIEW IN THIS MANUAL.**

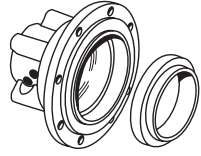
**ORDER ALL PARTS FROM YOUR LOCAL AUTHORIZED DISTRIBUTOR, FACTORY BRANCH SALES OFFICE OR THE FACTORY AT NORTH AURORA, ILLINOIS.**



MODEL 362



MODEL 364



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## WARRANTY

Seller warrants equipment (and its component parts) of its own manufacture against defects in materials and workmanship under normal use and service for one (1) year from the date of installation or start-up, or for eighteen (18) months after the date of shipment, whichever occurs first. Seller does not warrant accessories or components that are not manufactured by Seller; however, to the extent possible, Seller agrees to assign to Buyer its rights under the original manufacturer's warranty, without recourse to Seller. Buyer must give Seller notice in writing of any alleged defect covered by this warranty (together with all identifying details, including the serial number, the type of equipment, and the date of purchase) within thirty (30) days of the discovery of such defect during the warranty period. No claim made more than 30 days after the expiration of the warranty period shall be valid. Guarantees of performance and warranties are based on the use of original equipment manufactured (OEM) replacement parts. Seller assumes no responsibility or liability if alterations, non-authorized design modifications and/or non-OEM replacement parts are incorporated. If Equipment: 6674d641 0 Td(O)Tj0.721 0s1 0 Td(8d(ased)Tj0.66ation0j0.66(a)Tj0.45 T0.40