



**AURORA PUMP**  
A member of PENTAIR PUMP GROUP

# INSTRUCTION MANUAL

## REPAIR

### MODEL 134-135 (04-05 SERIES)

# 6

#### SERVICE

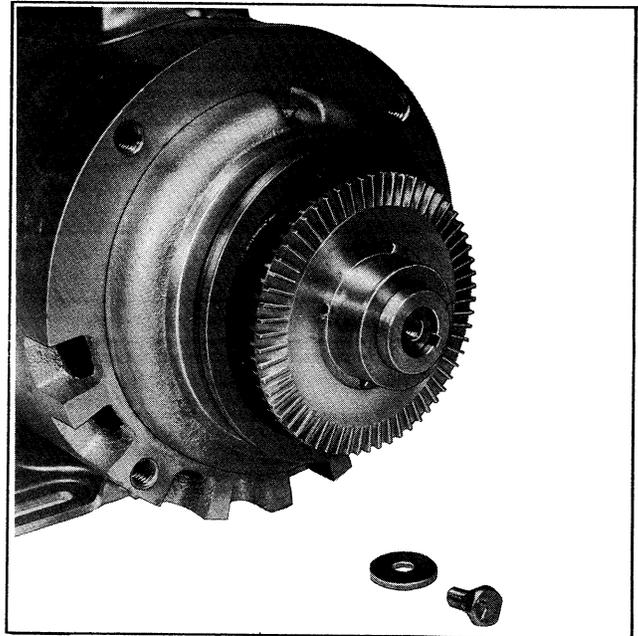
Your Aurora pump requires no maintenance other than periodic inspection and occasional cleaning. The intent of inspection is to prevent breakdown, thus obtaining optimum service life. The pump is lubricated by the liquid being pumped and therefore does not require periodic lubrication. The motor, however may require lubrication, in which case, the motor manufacturer's recommendation should be followed.

#### REPAIRS

The pump may be disassembled using the illustrations and text provided. Although complete disassembly is covered, it will seldom be necessary to completely disassemble your Aurora pump.

The illustrations accompanying the disassembly instructions show the pump at various stages of disassembly. The illustrations are intended to aid in the correct identification of the parts mentioned in the text.

Inspect removed parts at disassembly to determine their reusability. Cracked castings should never be reused. All packing and gaskets should be replaced

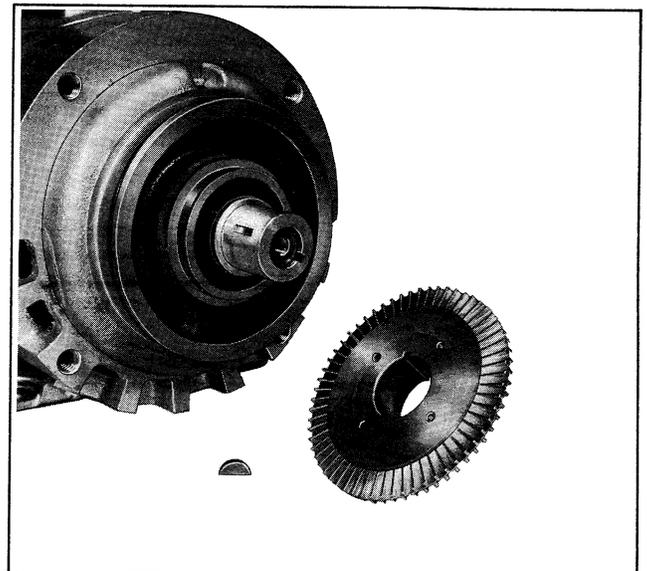


Impeller screw and washer removed.

with new ones at reassembly simply as a matter of economy; they are much less expensive to replace routinely than to replace as the need occurs. In general it is economical to return to the manufacturer for repair only the motor and motor controller.



Pump casing and outer ring removed.

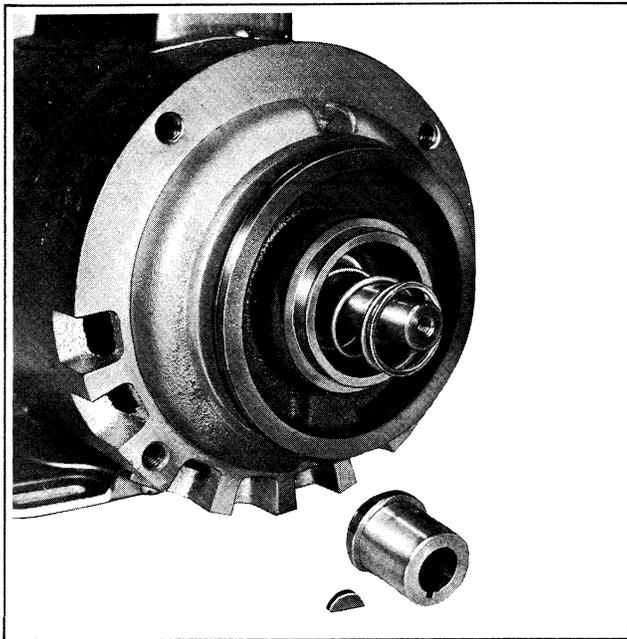


Impeller and key removed.

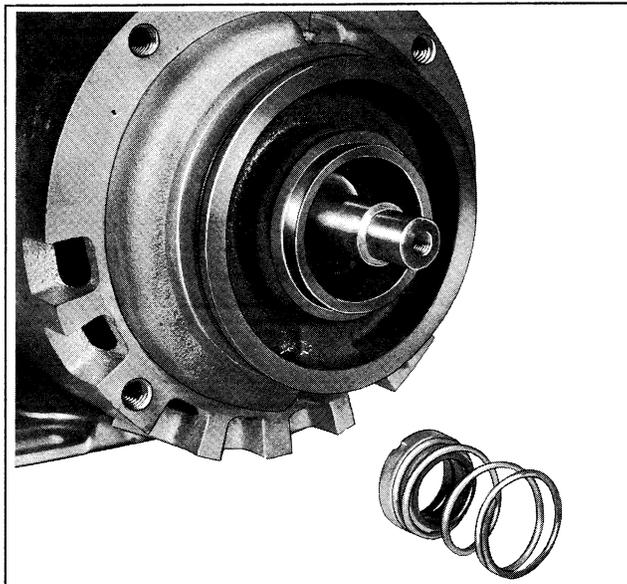
Disassembly. Disassemble only what is needed to make repairs or accomplish inspection.

Disassembling the Model 134 and 135 pumps (See Figure 3).

1. Remove the four screws (2) and separate the casing (6) from the motor bracket (19, 20).
2. Remove the two plugs (3), screws (4), and nameplate (5) only if replacement is necessary. Remove pin (15).
3. Remove outer ring (7).



Sleeve and key removed from shaft.



Mechanical seal and spring removed.

4. Remove screw (8) and washer (9) and remove impeller (10) with key (13) from impeller sleeve.
5. Remove impeller sleeve (12) with key (11) from shaft.
6. Carefully remove the mechanical seal (14). The stationary portion of the seal may be removed in Step 9.

**CAUTION**

The mechanical seal (see Figure 1) is a precision product and must be treated as such. During removal great care must be taken to avoid dropping any part of the seal. Take particular care not to scratch the lapped faces on the washer or the sealing seat. Do not put a seal back into service until the sealing faces of the washer and seat have been relapped or replaced.

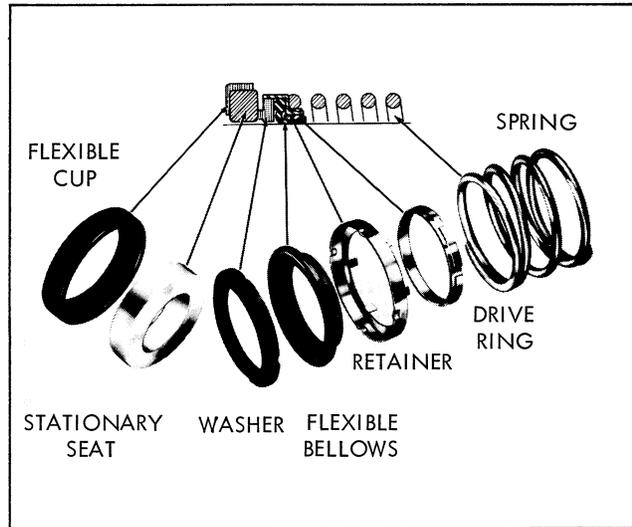
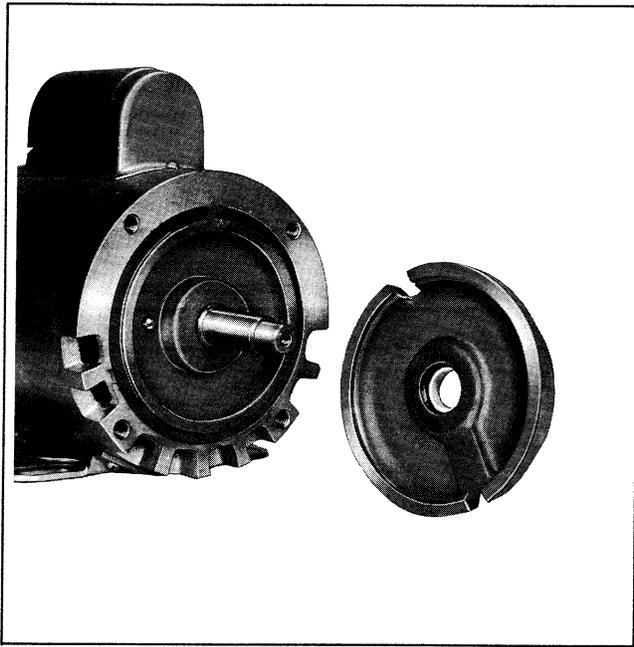


Figure 1. Mechanical Seal

7. Remove inner ring (16).
8. Gasket (17) may be removed from bracket if replacement is necessary.
9. Remove the four screws (18) (Model 135, 1-1/8 inch shaft only). Motor bracket with stationary portion of seal may now be removed by applying a steady force separating bracket and motor.

Reassembly. Clean and inspect all parts thoroughly prior to reassembly. Replace gasket. Check that all mating surfaces are free of nicks and burrs.



Bracket removed.

Inspect the impeller hub carefully for signs of excessive wear. Proceed to reassemble the pump as follows: (See Figure 3)

1. Position the motor bracket (19, 20) on the motor and secure with screws (18). Tighten screws evenly. (Screws used on 135 Series, 1-1/8 inch shaft only).

2. Attach nameplate (5) with screws (4), and replace plugs (3) if these were removed.

**NOTE**

The mechanical seal (14) cannot be installed as an assembly; the seal seat must be properly in place before the balance of parts can be added.

3. Thoroughly inspect the seal cavity in the motor bracket, checking for burrs or nicks which could damage the seat of the mechanical seal (14). Apply a film of liquid dishwashing detergent to the seal seat and install, taking care to seat it evenly and squarely.

**NOTE**

If it is not possible to insert seat with fingers, place cardboard protecting ring, furnished with seal, over lapped face of seat and press into place with a piece of tubing having end cut square. Tubing should be slightly larger than the diameter of the shaft. Remove cardboard ring after the seat has been firmly seated.

4. Apply a film of liquid dishwashing detergent to allow remaining seal parts to be pushed onto shaft. Check the proper sequence of assembly as shown in Figure 1.

5. Position gasket (17) on the motor bracket (19, 20) and gradually slip into its groove.

6. Install inner ring (16).

7. Replace shaft key (11) and impeller sleeve (12). Be sure spring of mechanical seal is properly positioned on back side of impeller sleeve.

8. Slip on impeller (10). Line up impeller keyway with key (13) so that key is not pushed out of keyway when the impeller is replaced. Secure impeller with washer (9) and screw (8).

9. Place the pin (15) and outer ring (7) in casing (6); slide casing into position over motor bracket (19, 20) being careful not to damage gasket (17).

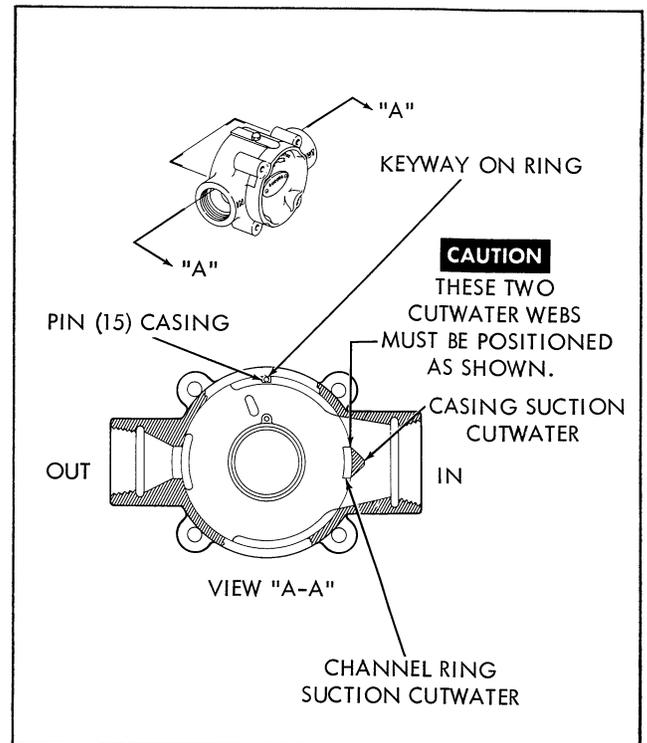


Figure 2. Model 134-135 Installing Inner and Outer Rings in Casing

Attach casing with screws (2). (See Figure 2 for proper positioning of inner and outer rings in casing.)

10. Replace pipe plug (3), and install nameplate (5) and attach with screws (4), if these were removed.

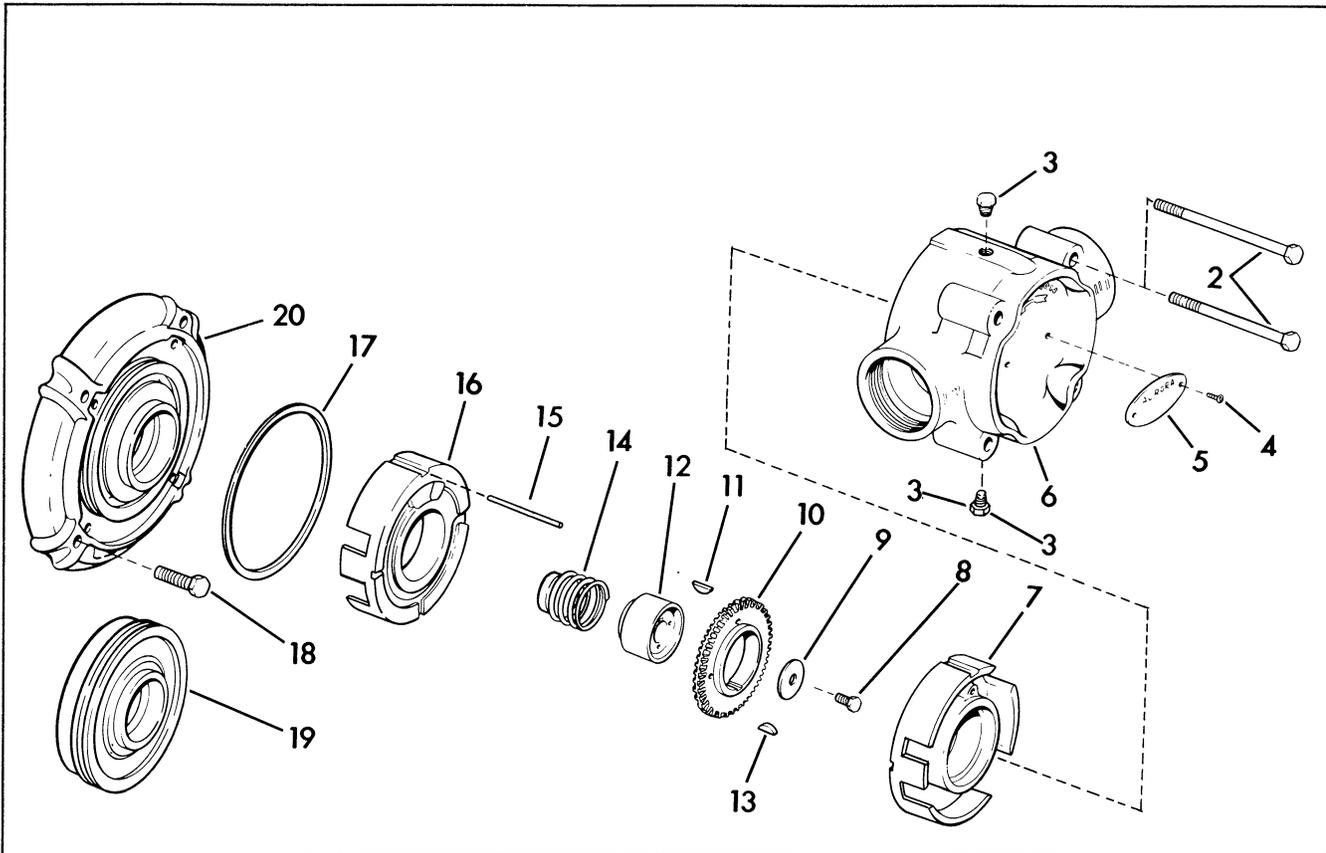


Figure 3. 134 and 135 Series Pump Exploded View

List of Parts For Model 134-135

- |                |                |
|----------------|----------------|
| 2. Capscrew    | 11. Key        |
| 3. Pipe Plug   | 12. Sleeve     |
| 4. Drive Screw | 13. Key        |
| 5. Nameplate   | 14. Seal       |
| 6. Casing      | 15. Pin        |
| 7. Outer Ring  | 16. Inner Ring |
| 8. Capscrew    | 17. Gasket     |
| 9. Washer      | 18. Capscrew   |
| 10. Impeller   | 19. Bracket    |
|                | 20. Bracket    |