

**INSTRUCTION AND REPAIR MANUAL**

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**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.

**NOTE**

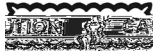
This repair manual is applicable to pump Models 421 & 485, 422, 423. All photos illustrate Model 422, except where

Your Aurora pump requires no maintenance other than periodic inspection, lubrication and occasional cleaning. The intent of inspection is to prevent breakdown, thus obtaining optimum service life.

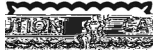


**LUBRICATION (BALL BEARINGS)**

Regreasable bearings will require periodic lubrication and this can be accomplished by using the zerk or lubrication  
Lvkpi"cv"gej"dgctkpi0"Nwdtkecvg"vjg"dgctkpiu"cv"tgiwnct"kp-  
vgtxcnu"wukpi"jki j"swcnkv{"itgcug0"Vjg"kpvkcn"dgctkpi"nwdtk-  
cation at Aurora is Chevron SRI Grease NLGI 2 (polyurea  
vjkemgpgt+\*Rgpvct"Rctv" Pwodgt" 5:6/2224/85;+0" Dghqtg"  
nwdtkecvkpi"vjg"dgctkpiu."vjqtqwi jn{"fwujkpi"vjg"qnf"itgcug"  
ykvj"vjg"pgy"itgcug"ku"tgswwtgf0" Yg"tgeqo o gpf" E jgxtqp"  
UTK" I tgcug"PN I K"4\*rqn{wtgc"vj kemgpgt+"hqt"hnny /wr"tgnw-  
dtkecvkqp"chvgt"vjg"fwujkpi0"Oquv"o clqt"dtepfu"qh" I tcf g" Pq0"  
4"dcnn"dgctkpi"itgcug"ctg"ucvkuhcevqt{"hqt"rwo r"qrgtcvqp"kp"  
dqvj"ygy"cpf"ft{"crnkcecvkqu0"



"Dg" cyctg" vjcv" okzkpi" qh" fkhhtgtpv" dtepfu" qt" dngpfu" qh"  
grease should be avoided due to possible incompatibilities  
vjcv"eqwnf"fcocig"vjg"dgctkpiu0"C"vjqtqwi j"fwujkpi"qh"vjg"  
old grease with the new grease is required to minimize this  
rqgvpkcn" kpeqo rcvkdknkv{0" "Cxqkf" wukpi" vjg" hnny ykpi<\*3+  
itgcug"qh"xgigvcdng"qt"cpkocn"dcug"vjcv"ecp"fgxgnqr"cekfu"qt"  
\*4+itgcug"eqpvckkpi"tqukpi"itcrjkvg."vcne"qt"qvjgt"korwtkvku0"  
Wpfgt"pq"ektewo uvcpegu"ujqwnf"itgcug"dg"tgwugf0



Over lubrication should be avoided as it may result in over-  
jgcvkpi"cpf"rquukdng"dgctkpi"hcakwtg0"Wpfgt"pqtocn"crnkce

korwt

Model 421 pumps are available with two options for lubricating the shaft bearings. They are:

- 1. Regreasable (standard)
- 2. Oil Lubrication

MODELS 421 & 485-422-423

Under working conditions, oil will breakdown and need to be replaced at regular intervals. The length of these intervals will depend on many factors. Under normal operation, in clean and dry locations, the oil should be changed about once a year. However, when the pump is exposed to dirt contamination, high temperatures (200°F. or above) or a

2. Close such valves or flow-control devices necessary to make certain that flow of liquid will not take place during disassembly.

NOTE

months.

unless complete pump assembly is to be removed.

The motor which drives your Aurora pump may or may not require lubrication. Consult the manufacturer's

3. Drain liquid from pump by removing plugs (1 and 2). Disconnect by-pass lines if applicable.

recommendations for proper maintenance instructions.

REPAIRS

4. Loosen and remove capscrews (6) securing casing half (8) to remainder of pump assembly.

MODELS 421 & 485-422-423

clamps (20), securing split halves of packing glands (21).  
Remove swing bolts (22).

18. Pull or press off bearing cartridge (45), grease seal  
(46), and bearing (47). Remove slinger (48), lantern ring  
(52), and bushing (56) from shaft.

10. Assuming that further work is required on shaft and  
impeller assembly, use properly secured rope slings and

19. If unit has right hand rotation, unyaw and remove

MODELS 421 & 485-422-423

thread outboard sleeve (57) onto shaft distance "A" (refer to

can be cracked by just sliding loose on shaft. To prevent this, wrap seal securely in a shop cloth or other protective covering.



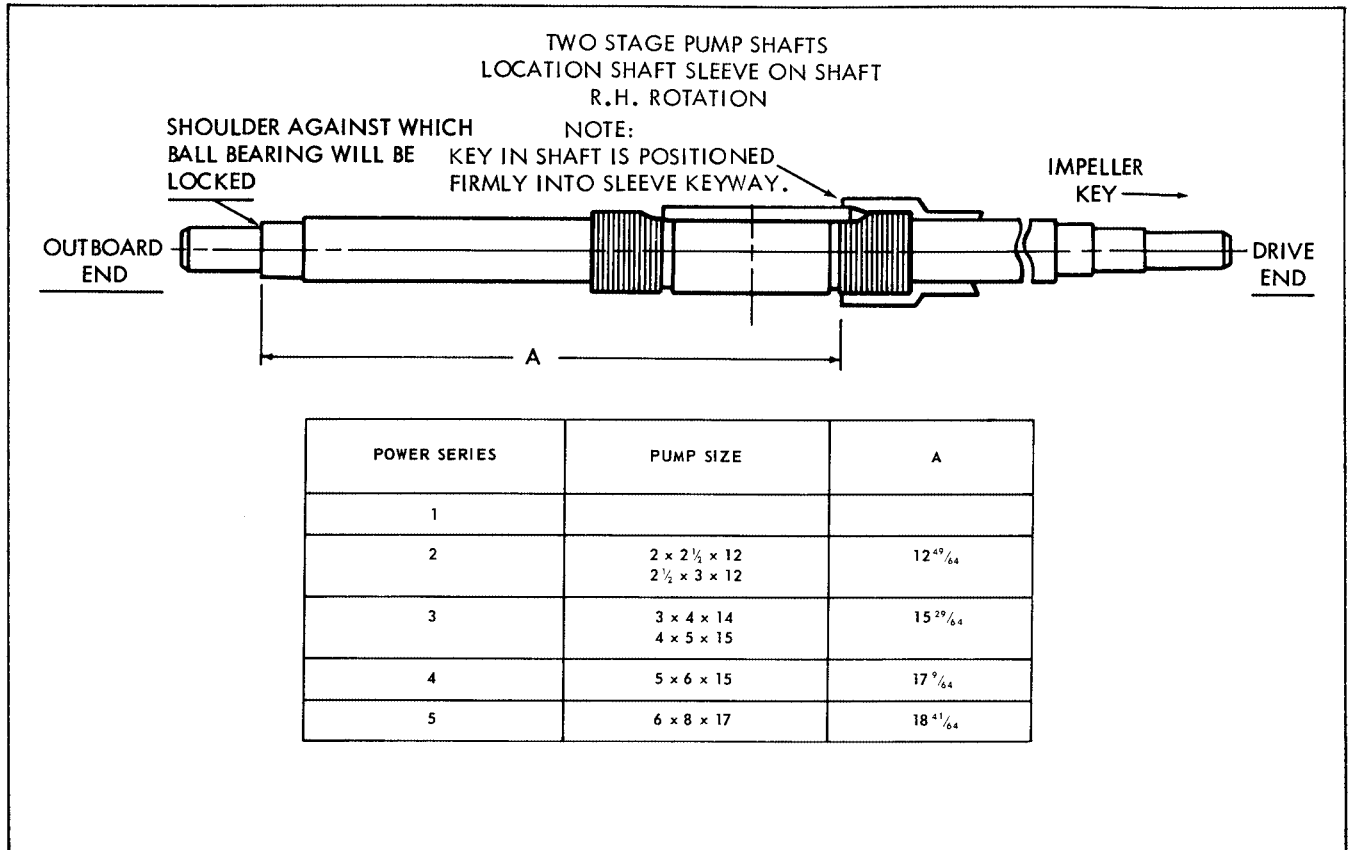
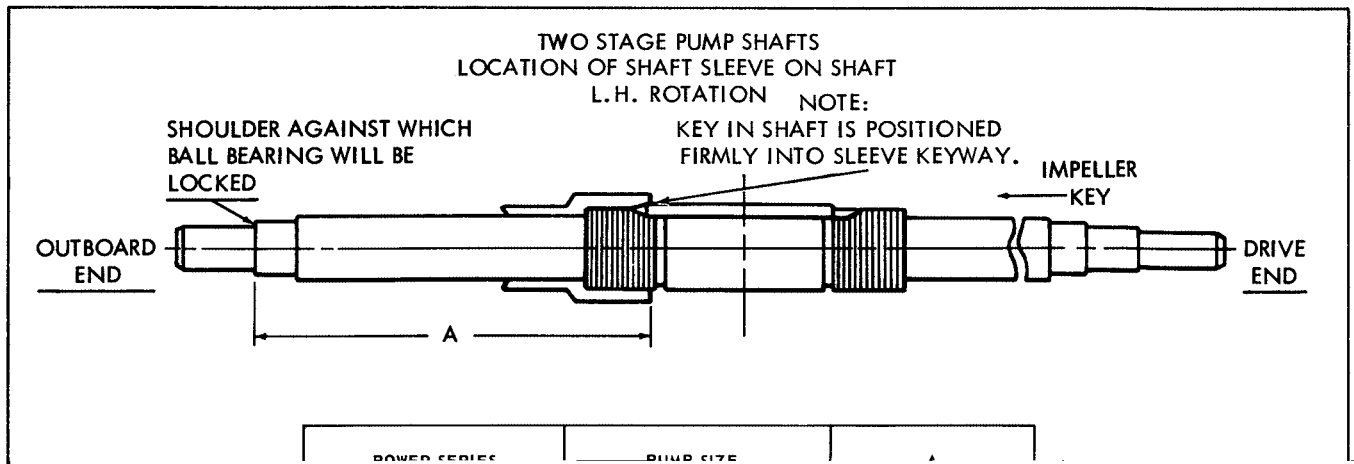


Figure 2



4. On right hand unit proceed to assemble the rotating element as follows:

Coat impeller (59) keyway with loctite sealant grade 242, slide impeller (67) onto shaft (71).

Place gasket (64) on shaft and slide separate sleeve (62) against it. Place casing bushings (61) over separator sleeve. Place gasket (60) on shaft, coat impeller (59) keyway with

I. Slide one seal lock collar (54) with setscrews (55) facing the impeller onto each end of the shaft. Position on scribe mark made during disassembly and lock in place.

II. Put a light coat of liquid dishwashing detergent on shaft sleeve. Check rotating parts of seal to make sure they are clean. Spread a light coat of liquid detergent on inside

impeller has been positioned. Place O-ring (58) in shaft sleeve (57), then thread shaft sleeve tight onto shaft (71).

III. Place the seal's spring, drive ring, retainer, flexible bellows, and washer on shaft sleeve in



III. Place "O" rings (50) around the seal glands (49) and slide seal glands onto ends of the shaft with stationary seats facing impeller.

NOTE

Grease zerks or breather tubes should face up.

6. Place slinger (39) onto outboard end of shaft (71).

7. Press grease seal (37) into bearing cartridge (36). Place outboard double row ball bearing (38) in bearing cartridge and press parts onto outboard end of shaft. Snap retaining ring



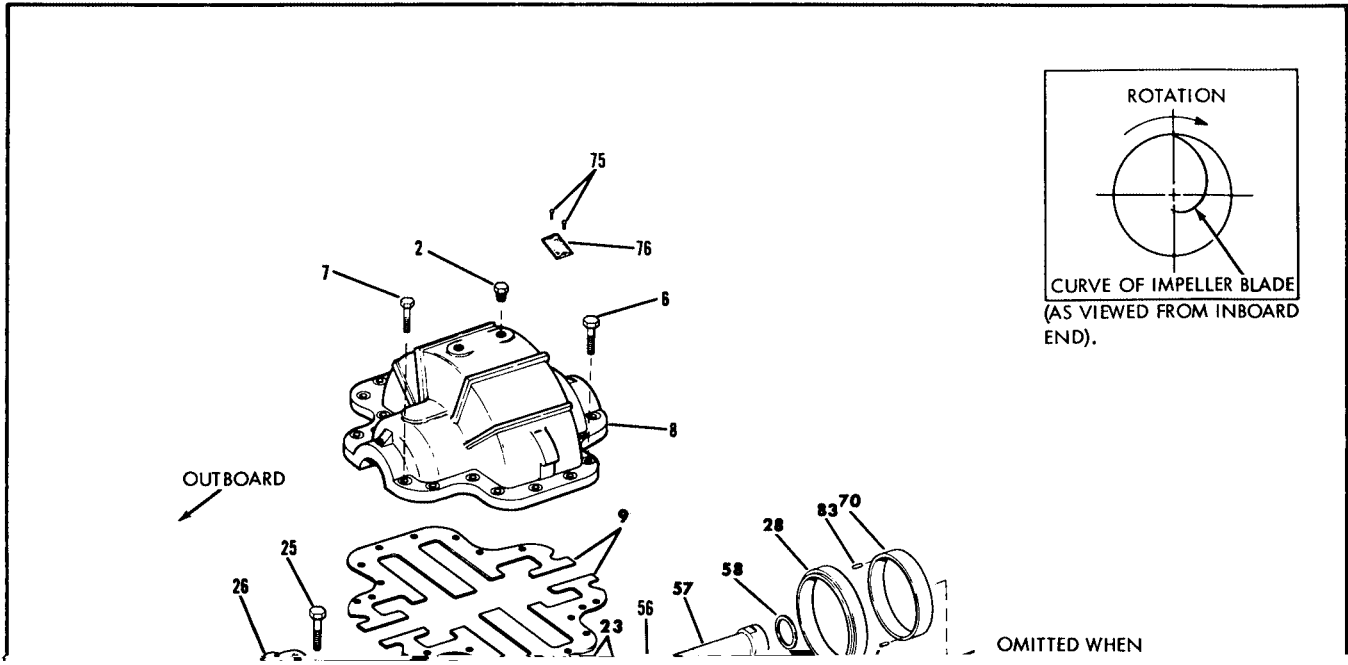


Read operating instructions carefully before

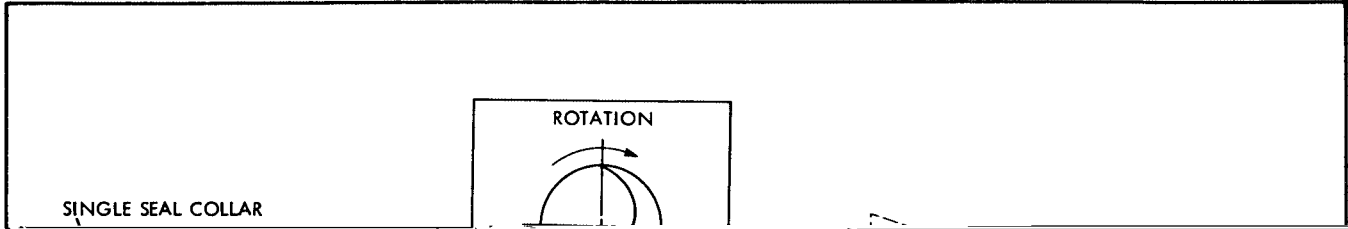


MODEL 421 & 485 LIST OF PARTS (SEE FIGURE 4)

MODEL 421 & 485



MODEL 422



SINGLE SEAL COLLAR

ROTATION



MODEL 423

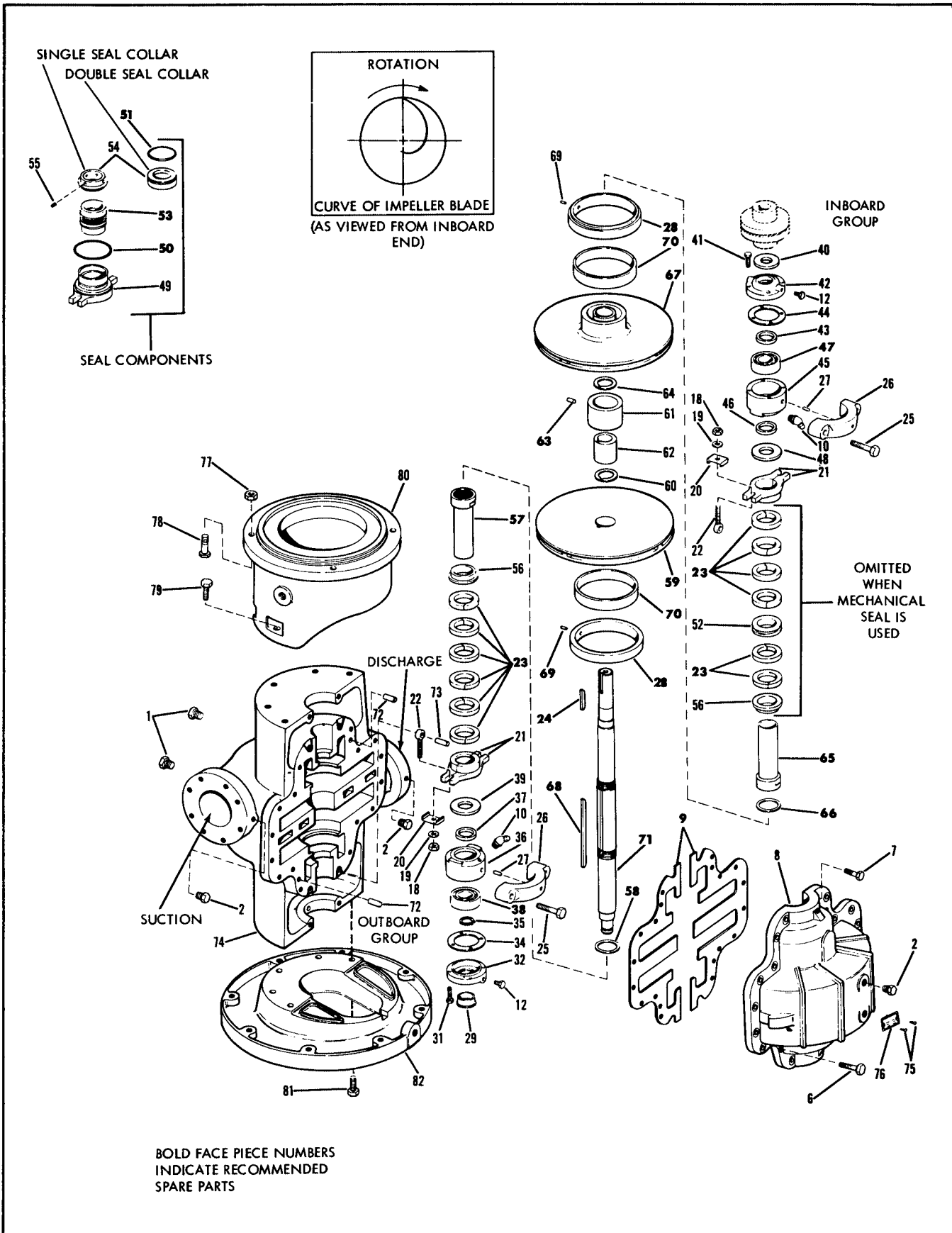


Figure 6. 423 Pump Exploded View

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## WARRANTY