

Use With:  
OM-03989  
MR-03991

PUBLICATION NUMBER PL-04073-01  
May 9, 1994; Rev. A - 07/30/98



**PUMP MODEL  
RD3A31 - BAR**

**MANUAL  
PART 2 of 3**

**PARTS  
LIST  
WITH  
PERFORMANCE CURVE**

**THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO**

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## PERFORMANCE CURVE – SECTION A

### RECORDING MODEL AND SERIAL NUMBERS

Please record the pump model and serial number in the spaces provided below and in the separate Installation/Operation Manual accompanying your pump. Your Gorman-Rupp distributor needs this information when you require parts or service.

Pump Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

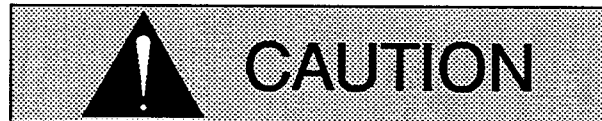
### WARRANTY INFORMATION

The pump warranty is provided as part of Gorman-Rupp's support program for customers who operate and maintain their equipment as described in this manual and other accompanying literature. Please note that should the equipment be abused or modified to change its performance beyond the original factory specifications, the warranty will become void and any claim will be denied.

### PERFORMANCE CURVES

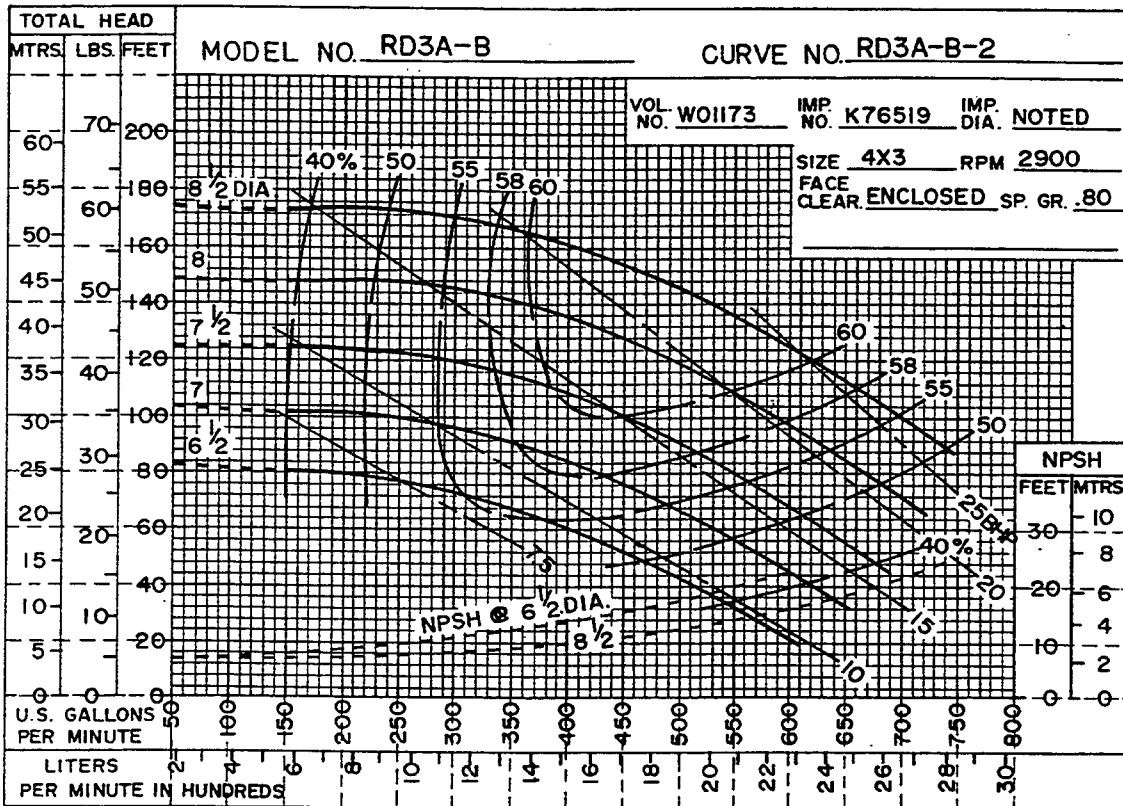
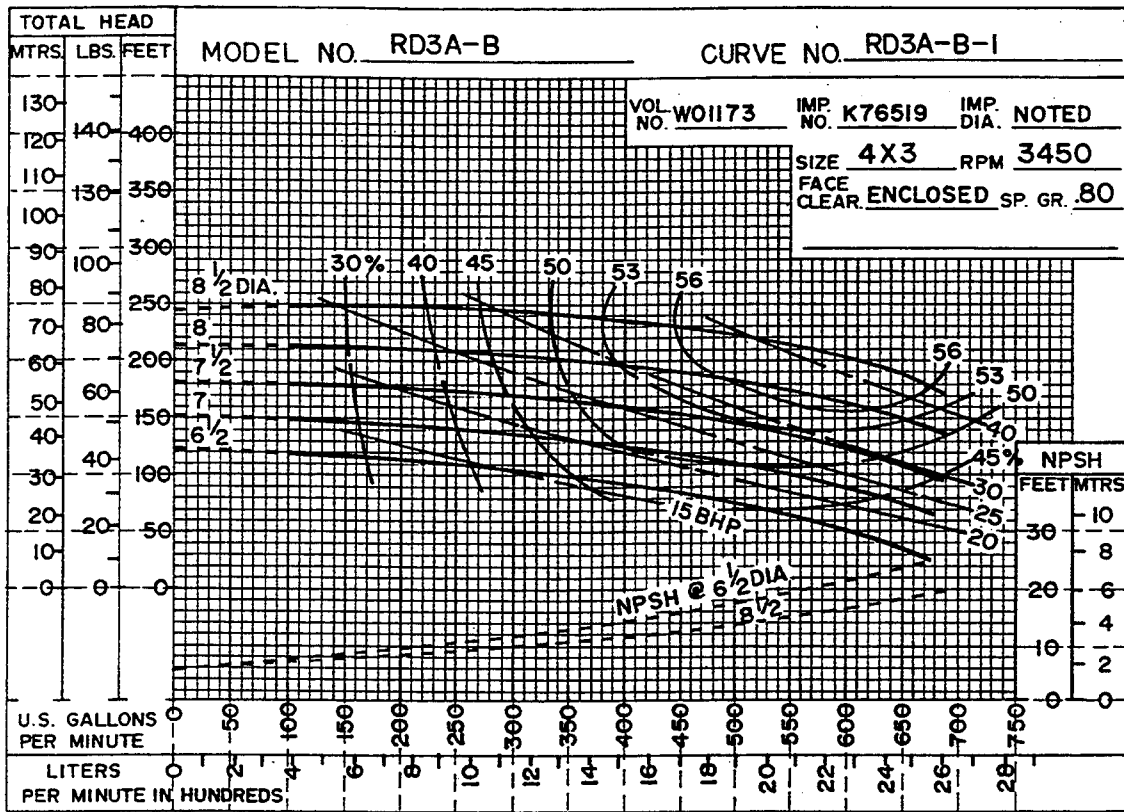
The performance curves on the following page are based on 70° F (21° C) clear water at sea level, corrected to 0.80 specific gravity, with minimum suction lift. Since pump installations are seldom identical, your performance may be different due to such factors as viscosity, specific gravity, elevation, temperature, and impeller trim.

If your pump serial number is followed by an "N", your pump is **NOT** a standard production model. Contact the Gorman-Rupp Company to verify performance or part numbers.

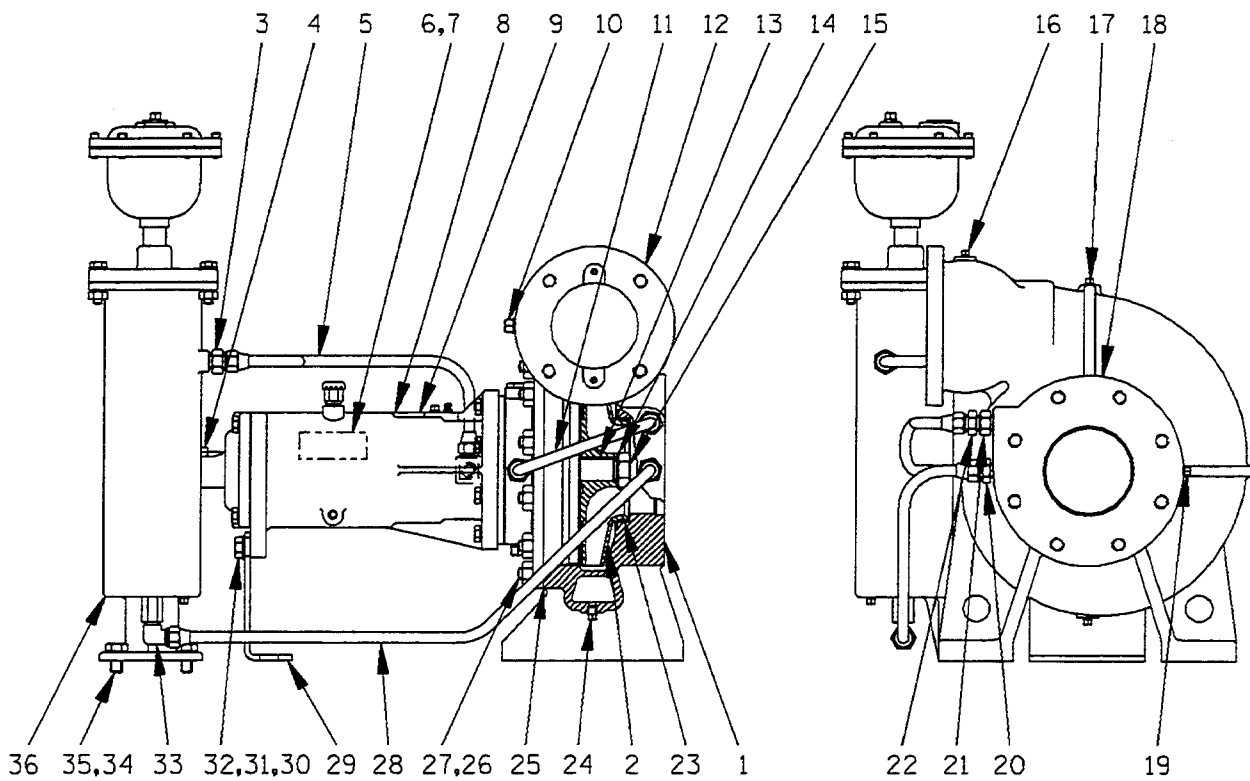


Pump speed and operating condition points must be within the continuous performance range shown on the curve(s).

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Performance Curve - Model RD3A31-BAR



**S/N 1095452 Up  
PUMP ISSUE 1**

**PARTS LIST  
Pump Model RD3A31 – BAR**

If your pump serial number is followed by an "N", your pump is **NOT** a standard production model. Contact the Gorman-Rupp Company to verify part numbers.

| ITEM NO. | PART NAME         | PART NUMBER   | MAT'L CODE | QTY | ITEM NO.                               | PART NAME            | PART NUMBER | MAT'L CODE | QTY |
|----------|-------------------|---------------|------------|-----|--|----------------------|-------------|------------|-----|
| 1        | PUMP CASING       | W01173-02     | 11010      | 1   | 25 *                                   | PUMP CASING GASKET   | R12531      | 20000      | 1   |
| 2 *      | IMPELLER          | K76519        | 13040      | 1   | 26                                     | STUD                 | C0807       | 15991      | 12  |
| 3        | CONNECTOR         | 26351-062     | ----       | 1   | 27                                     | HEX NUT              | D08         | 15991      | 12  |
| 4 *      | SHAFT KEY         | N0611         | 15990      | 1   | 28                                     | RETURN TUBE ASSY     | T08701      | ----       | 1   |
| 5        | DISCH TUBE ASSY   | T09941        | ----       | 1   | 29                                     | BEARING HSG SUPPORT  | R12852-01   | 15990      | 1   |
| 6        | NAME PLATE        | 2613DZ        | 13990      | 1   | 30                                     | HEX HD CAPSCREW      | B0805       | 15991      | 2   |
| 7        | DRIVE SCREW       | BM#04-03      | 15990      | 2   | 31                                     | LOCKWASHER           | J08         | 15991      | 2   |
| 8        | LUBE DECAL        | 38816-081     | ----       | 1   | 32                                     | FLAT WASHER          | K08         | 15991      | 2   |
| 9        | BRG HOUSING ASSY  | 44143-108     | ----       | 1   | 33                                     | MALE ELBOW           | 26351-133   | ----       | 1   |
| 10       | PIPE PLUG         | P06           | 15079      | 1   | 34                                     | HEX HD CAPSCREW      | B0805       | 15991      | 2   |
| 11       | SUCT TUBE ASSY    | R12859        | ----       | 1   | 35                                     | LOCKWASHER           | J08         | 15991      | 2   |
| 12       | DISCHARGE STICKER | 6588BJ        | ----       | 1   | 36 ●                                   | AIR RELEASE VALVE    | GRP33-06A   | ----       | 1   |
| 13 *     | IMPELLER KEY      | K79329-23     | 15990      | 1   | NOT SHOWN:                             |                      |             |            |     |
| 14       | LOCKWASHER        | 23962-506     | ----       | 1   | *                                      | DISCH CHK VALVE GSKT | 11589GA     | 18000      | 1   |
| 15       | IMPELLER NUT      | K75776        | 15111      | 1   | *                                      | DISCH FLANGE GASKET  | N14147      | 18000      | 1   |
| 16       | PIPE PLUG         | P02           | 15079      | 1   |  | INSTRUCTION TAG      | 38817-011   | ----       | 1   |
| 17       | PIPE PLUG         | P02           | 15079      | 1   |  | ROTATION DECAL       | 2613M       | ----       | 1   |
| 18       | SUCTION STICKER   | 6588AG        | ----       | 1   | OPTIONAL:                              |                      |             |            |     |
| 19       | PIPE PLUG         | P02           | 15079      | 1   | COMPANION FLANGES (SUCT AND DISCHARGE) |                      |             |            |     |
| 20       | CONNECTOR         | 26351-062     | ----       | 1   | -                                      | COMPANION FLG KIT    | K33850      | ----       | 1   |
| 21       | STRAINER          | 26841-074     | ----       | 1   |  | BRONZE IMPELLER      | T06235-22   | 14150      | 1   |
| 22       | CONNECTOR         | 26351-062     | ----       | 1   |  | HARDENED IMPELLER    | K76519      | 1304T      | 1   |
| 23 †     | WEAR RING         | NOT AVAILABLE |            | 2   |  |                      |             |            |     |
| 24       | PIPE PLUG         | P02           | 15079      | 1   |  |                      |             |            |     |

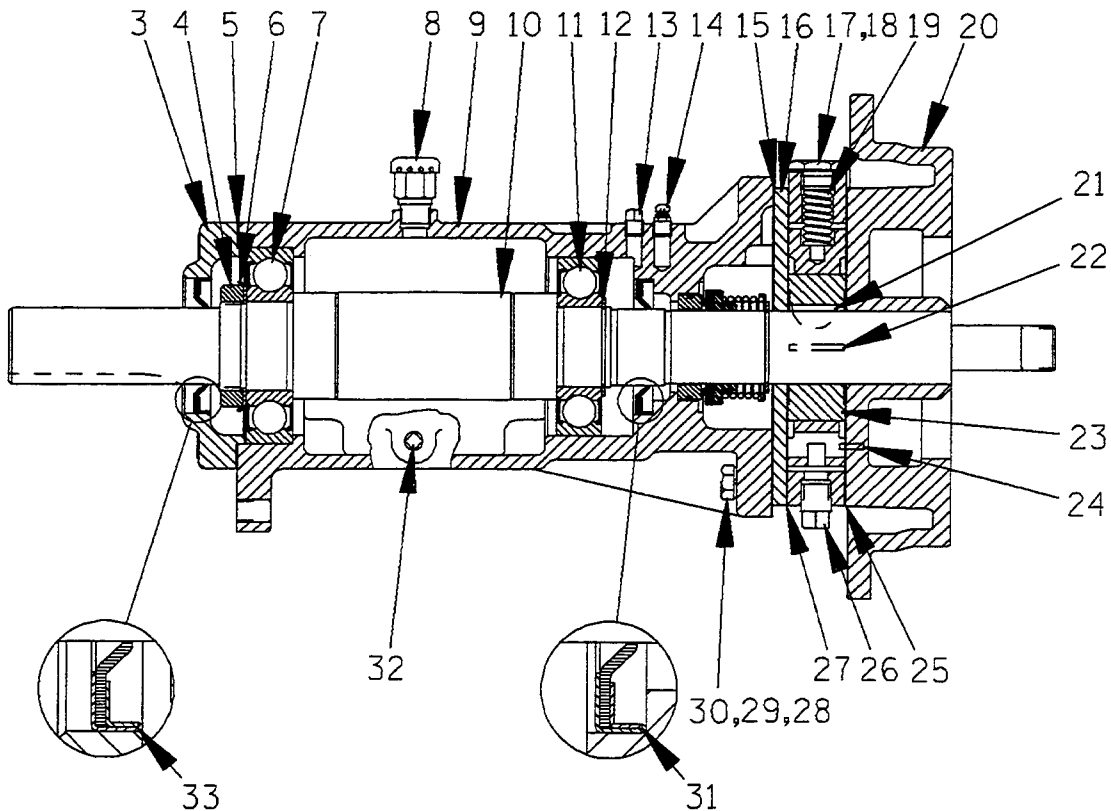
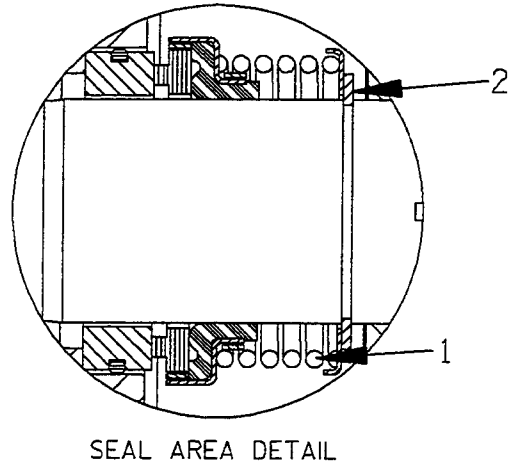
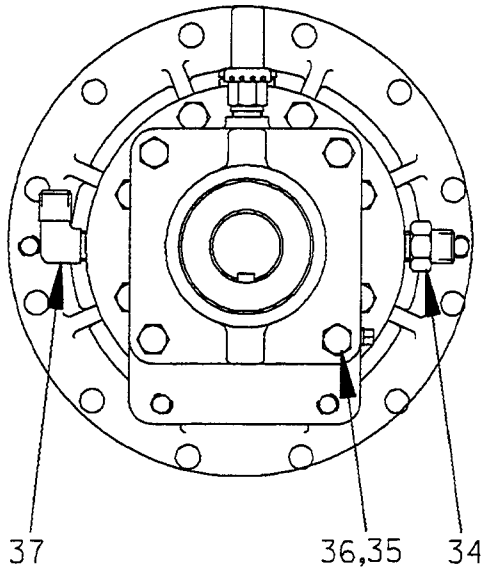
\* INDICATES PARTS RECOMMENDED FOR STOCK

Above Serial Numbers Do Not Apply To Pumps Made In Canada.

CANADIAN SERIAL NO. .... AND UP

† ALL ROTO-PRIME® IMPELLERS ARE TRIMMED AND INCLUDE WEAR RINGS AND GROOVE PINS. WEAR RINGS ARE NOT SOLD SEPARATELY.

● SEE ACCOMPANYING LITERATURE FOR INDIVIDUAL PARTS, MAINTENANCE AND REPAIR.



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S/N 1095452 Up  
PUMP ISSUE 1

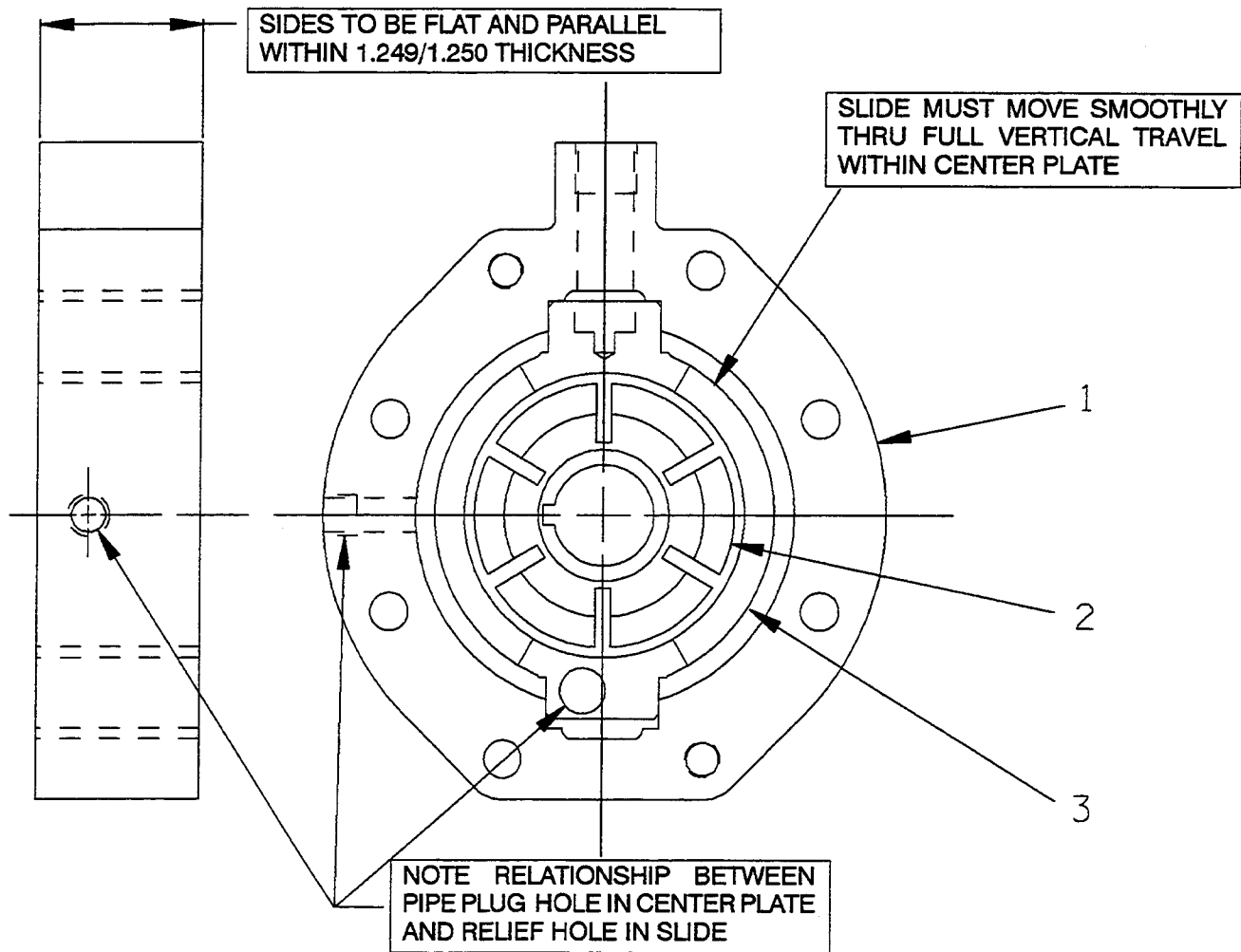
**PARTS LIST**  
**44143-108 Bearing Housing Assembly**

| ITEM NO. | PART NAME            | PART NUMBER | MAT'L CODE | QTY | ITEM NO. | PART NAME                           | PART NUMBER | MAT'L CODE | QTY |
|----------|----------------------|-------------|------------|-----|----------|-------------------------------------|-------------|------------|-----|
| 1 *      | SEAL ASSEMBLY        | 25271-921   | ---        | 1   | 25 †     | CENTER PLATE GASKET                 | N14145      | 18010      | 2   |
| 2        | SEAL RETAINING RING  | 24124-243   | ---        | 1   | 26       | PIPE PLUG                           | P06         | 15079      | 1   |
| 3        | BEARING CAP          | R12770-02   | 10010      | 1   | 27 *     | CENTER PLATE GASKET                 | N14145      | 18010      | 1   |
| 4        | BEARING LOCK NUT     | 23962-011   | ---        | 1   | 28       | HEX HD CAPSCREW                     | B0612       | 15991      | 8   |
| 5 *      | BEARING CAP GASKET   | N18938-01   | 18000      | 1   | 29       | LOCKWASHER                          | J06         | 15991      | 8   |
| 6        | TAB WASHER           | 23962-511   | ---        | 1   | 30       | DOWEL PIN                           | 21133-073   | ---        | 2   |
| 7 *      | OUTBOARD BEARING     | 23282-011   | ---        | 1   | 31 *     | OIL SEAL                            | 25227-240   | ---        | 1   |
| 8        | AIR VENT             | S1703       | ---        | 1   | 32       | PIPE PLUG                           | P02         | 15079      | 1   |
| 9        | BEARING HOUSING      | W01172-03   | 11010      | 1   | 33 *     | OIL SEAL                            | 25227-240   | ---        | 1   |
| 10 *     | IMPELLER SHAFT       | T08467-02   | 15010      | 1   | 34       | CONNECTOR                           | 26351-062   | ---        | 1   |
| 11 *     | BALL BEARING         | 23282-010   | ---        | 1   | 35       | HEX HD CAPSCREW                     | b0605       | 15991      | 4   |
| 12       | BEARING RET RING     | 24124-245   | ---        | 1   | 36       | LOCKWASHER                          | J06         | 15991      | 4   |
| 13       | PIPE PLUG            | P02         | 15079      | 1   | 37       | MALE ELBOW                          | 26351-133   | ---        | 1   |
| 14       | AIR VENT             | S2162       | ---        | 1   |          |                                     |             |            |     |
| 15 *     | SPACER PLATE GASKET  | N14144      | 18000      | 1   |          | OPTIONAL:                           |             |            |     |
| 16       | SPACER PLATE         | N14129-02   | 11010      | 1   |          | SST IMPELLER SHAFT                  | T08467-02   | 17080      | 1   |
| 17       | PRESS REG SPRING CAP | K68064      | 15991      | 1   |          | TEFLON SEAL ASSY                    | 25271-743   | ---        | 1   |
| 18 *     | SPRING CAP GASKET    | K86067      | ---        | 1   |          | ● OIL LUBE BEARING HOUSING ASSEMBLY |             |            |     |
| 19 *     | PRESS REG SPRING     | K76301      | ---        | 1   |          |                                     | 44143-111   | ---        | 1   |
| 20       | BODY COVER           | T07826-04   | 11010      | 1   |          | -- INBOARD BEARING                  | S1088       | ---        | 1   |
| 21 *     | ROTOR WOODRUFF KEY   | K61559      | 15990      | 1   |          | -- OUTBOARD BEARING                 | S1077       | ---        | 1   |
| 22 *     | ROTOR BLADE          | K79300-22   | ---        | 6   |          | -- OIL CUP                          | 26713-051   | ---        | 1   |
| 23       | GROUP GRIND          | 42212-014   | ---        | 1   |          | GROUP GRIND WITH C.I. ROTOR         |             |            |     |
| 24 *     | LOCATING PIN         | 21154-666   | ---        | 1   |          | -C.I. GROUP GRIND                   | LK05267     | ---        | 1   |

\* INDICATES PARTS RECOMMENDED FOR STOCK

† 2 GASKETS REQUIRED WHEN ROTOR OR SLIDE IS THICKER THAN CENTER PLATE.

● ALL OTHER COMPONENTS SAME AS STANDARD BEARING HOUSING ASSEMBLY.



**PARTS LIST**  
**42212-014 Group Grind**

| ITEM NO. | PART NAME    | PART NUMBER   | MAT'L CODE | QTY |
|----------|--------------|---------------|------------|-----|
| 1        | CENTER PLATE | NOT AVAILABLE | -----      | 1   |
| 2        | ROTOR        | NOT AVAILABLE | -----      | 1   |
| 3        | SLIDE        | NOT AVAILABLE | -----      | 1   |

**NOTE:** THE GROUP GRIND MUST BE REPLACED AS A COMPLETE UNIT: INDIVIDUAL PIECE PARTS ARE NOT SOLD SEPARATELY.

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**For U.S. and International Warranty Information,  
Please Visit [www.grpumps.com/warranty](http://www.grpumps.com/warranty)  
or call:  
U.S.: 419-755-1280  
International: +1-419-755-1352**

**For Canadian Warranty Information,  
Please Visit [www.grcanada.com/warranty](http://www.grcanada.com/warranty)  
or call:  
519-631-2870**