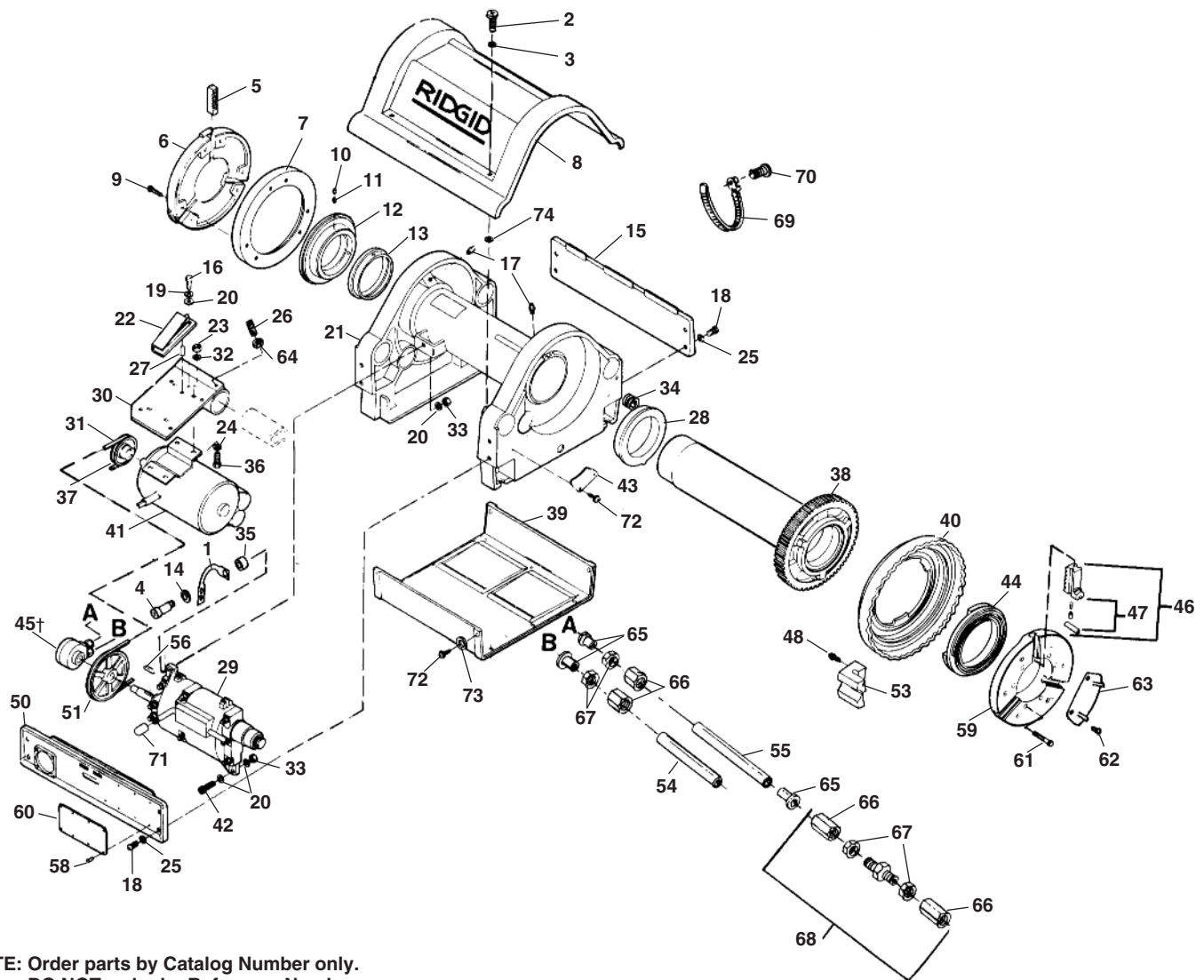


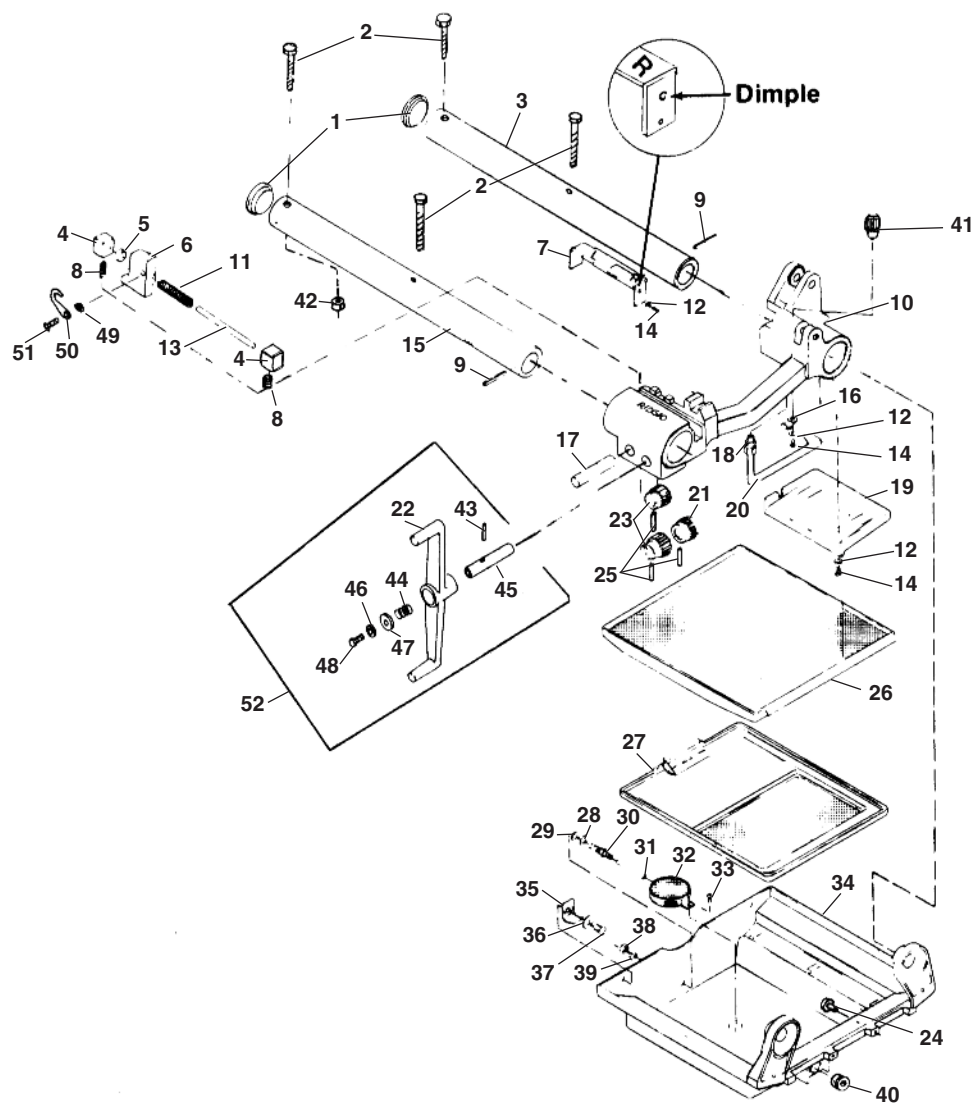
## Main Drive Components



**NOTE: Order parts by Catalog Number only.  
DO NOT order by Reference Number.**

| Ref. No. | Catalog No. | Description                      | Ref. No. | Catalog No. | Description                       | Ref. No. | Catalog No. | Description                        |
|----------|-------------|----------------------------------|----------|-------------|-----------------------------------|----------|-------------|------------------------------------|
| 1        | 33622       | Pump Bracket                     | 26       | 88265       | Set Screw 3/8" - 16 x 1"          | 47       | 26242       | Jaw Insert Set                     |
| 2        | 41597       | Screw (12)                       | 27       | 88230       | Roll Pin 1/4" x 3/16"             | 48       | 26247       | Jaw Insert Set F/Coated Pipe       |
| 3        | 55323       | Screw (New Style) 1/4" - 20 x 1" | 28       | 26767       | Front Bearing                     | 50       | 27067       | Self-Tapping Screw (2 Req. f/G.S.) |
| 4        | 41592       | Washer (10)                      | 29       | 26362       | Gear Box Assy.                    | 51       | 59722       | Front Side Plate                   |
| 5        | 33627       | Screw                            | 30       | 27062       | Motor Bracket                     | 52       | 26852       | Gear Box Pulley                    |
| 6        | 32412       | Centering Jaw Set                | 31       | 26832       | V-Belt                            | 53       | 26507       | Pinch Point Boss (2 Req. f/G.S.)   |
| 7        | 26537       | Centering Head                   | 32       | 40770       | Lock Washer 5/16" (4)             | 54       | 27007       | Inlet Hose                         |
| 8        | 26542       | Back Plate                       | 33       | 27517       | Lock Nut 5/16" - 18               | 55       | 26822       | Output Hose                        |
| 9        | 26477       | Top Cover                        | 34       | 47080       | Grommet                           | 56       | 27002       | Key                                |
| 10       | 46867       | Die Head Decal (Not Shown)       | 35       | 33617       | Spacer                            | 58       | 85920       | Rivets (8)                         |
| 11       | 40910       | Screw 1/4" - 20 x 3/4" (6)       | 36       | 85910       | Bolt 5/16" - 18 x 1 1/4"          | 59       | 26332       | Chuck Cap                          |
| 12       | 45300       | Set Screw 5/16" - 24 x 1/4" (3)  | 37       | 26857       | Motor Pulley (60 Hz)              | 60       | 88690       | Safety Plate                       |
| 13       | 45265       | Set Screw 5/16" - 24 x 1/2" (3)  | 38       | 27082       | Motor Pulley (50 Hz)              | 61       | 26522       | Screw 5/16" - 24 x 2 1/4" (6)      |
| 14       | 32407       | Scroll                           | 39       | 26347       | Drive Gear/Spindle Assy.          | 62       | 27242       | Screw 10 - 32 (6)                  |
| 15       | 26352       | Rear Bearing                     | 40       | 26482       | Bottom Cover                      | 63       | 33612       | Set of 3 Cover Plates              |
| 16       | 26307       | Washer                           | 41       | 26337       | Handwheel                         | 64       | 83545       | Jam Nut 5/8" - 16                  |
| 17       | 26487       | Rear Side Plate                  | 42       | 26237       | Motor w/Capacitor 120V, 60 Hz     | 65       | 35117       | Tube Insert (3)                    |
| 18       | 32145       | Screw 1/4" - 20 x 1/2"           | 43       | 27287       | Motor w/Capacitor 110V, 50 Hz     | 66       | 40602       | Compression Nut                    |
| 19       | 46860       | Grease Fitting (2)               | 44       | 26232       | Motor w/Capacitor 240V, 60 Hz     | 67       | 40607       | Ferrule                            |
| 20       | 26997       | Screw 3/8" - 16 x 3/4" (8)       | 45       | 27282       | Motor w/Capacitor 220/240V, 50 Hz | 68       | 26972       | Union                              |
| 21       | 44740       | Lock Washer 1/4"                 | 46       | 27078       | Motor w/Capacitor 400V, 50 Hz 3PH | 69       | 43552       | Tie Down Strap                     |
| 22       | 96740       | Washer 5/16"                     | 47       | 27037       | Shoulder Bolt                     | 70       | 45275       | Screw 10 - 24 x 1/2"               |
| 23       | 26357       | Base                             | 48       | 27012       | Pinion Guard                      | 71       | 27032       | Shifter Knob                       |
| 24       | 26492       | Belt Tensioner                   | 49       | 26517       | Scroll                            | 72       | 41597       | Screw 12 - 24 x 3/4"               |
| 25       | 96730       | Nut 5/16" - 18 (4)               | 50       | 27307       | Oil Pump                          | 73       | 41592       | Washer #12 - .250 ID               |
| 26       | 27402       | Washer 5/16" (4)                 | 51       | 40087       | Chuck Jaw Set                     | 74       | 55313       | Push Nut (4) (New Style)           |
| 27       | 40930       | Lock Washer 3/8" (8)             | 52       | 47517       | Chuck Jaw Set Pl. Ctd. Pipe       |          |             |                                    |

## Carriage and Chip Pan



NOTE: Order parts by Catalog Number only.  
DO NOT order by Reference Number.

| Ref. No. | Catalog No. | Description                                                              | Ref. No. | Catalog No. | Description                                     | Ref. No. | Catalog No. | Description                                      |
|----------|-------------|--------------------------------------------------------------------------|----------|-------------|-------------------------------------------------|----------|-------------|--------------------------------------------------|
| —        | 49992       | Carriage Assembly (Includes Ref. #4-8, 10-14, 17, 21, 23, 25, 41, 49-52) | 17       | 26777       | Sine Bar/Pinion Shaft (2)                       | 36       | 40930       | Lock Washer $\frac{3}{8}$ " (2)                  |
| 1        | 26502       | Rail Plug (2)                                                            | 18       | 26562       | Supply Line Fitting                             | 37       | 26997       | Screw $\frac{3}{8}$ " - 16 x $\frac{3}{4}$ " (2) |
| 2        | 40167       | Bolt $\frac{5}{16}$ " - 18 x $3\frac{1}{2}$ " (4)                        | 19       | 26772       | Drip Plate                                      | 38       | 83545       | Hex Nut $\frac{3}{8}$ " - 16                     |
| 3        | 49982       | Rear Rail                                                                | 20       | 26812       | Die Lubrication Tube                            | 39       | 26307       | Washer                                           |
| 4        | 26787       | Guide Block (2)                                                          | 21       | 26587       | Sine Bar Pinion                                 | 40       | 48337       | Drain Plug                                       |
| 5        | 26792       | Sine Bar Spacer                                                          | 22       | 40147       | Carriage Handwheel                              | 26842    | 26842       | Drain Plug (Rubber-Early Style)                  |
| 6        | 40242       | Sine Bar                                                                 | 23       | 26572       | Carriage Pinion (2)                             | 41       | 28462       | Ball Detente                                     |
| 7        | 26912       | Sine Bar Cover Assembly                                                  | 24       | 26837       | Stud (2)                                        | 42       | 27517       | Lock Nut $\frac{5}{16}$ " - 18 (4)               |
| 8        | 26582       | Guide Block Spring (2)                                                   | 25       | 74965       | Roll Pin $\frac{1}{4}$ " x $1\frac{1}{4}$ " (3) | 43       | 74965       | Pin                                              |
| 9        | 27052       | Roll Pin (2)                                                             | 26       | 26802       | Draw Tray Assembly                              | 44       | 89530       | Spring                                           |
| 10       | 49987       | Carriage (Includes Ref. #41)                                             | 27       | 26807       | Insert Assembly                                 | 45       | 40157       | Handwheel Shaft                                  |
| 11       | 26592       | Sine Bar Return Spring                                                   | 28       | 27252       | Washer                                          | 46       | 41582       | Lock Washer                                      |
| 12       | 41592       | Washer #10 (2)                                                           | 29       | 41715       | Seal Washer                                     | 47       | 40152       | Washer                                           |
| 13       | 26577       | Guide Bar                                                                | 30       | 26697       | Bulk Head Fitting                               | 48       | 26997       | Screw                                            |
| 14       | 79965       | Screw #10 - 32 x $\frac{1}{2}$ " (5)                                     | 31       | 26927       | Tubing                                          | 49       | 40227       | Spring Washer                                    |
| 15       | 49977       | Front Rail                                                               | 32       | 27262       | Screen Assembly                                 | 50       | 40237       | Latch                                            |
| 16       | 26652       | Oil Supply Clamp                                                         | 33       | 26797       | Screw #10 - 32 x $\frac{5}{16}$ "               | 51       | 49472       | Spiral Pin                                       |
|          |             |                                                                          | 34       | 26847       | Chip Pan Hanger Assembly                        | 52       | 42027       | Handwheel Kit                                    |
|          |             |                                                                          | 35       | 26817       | Chip Pan Bracket (2)                            |          |             |                                                  |

## “ML” Oil Pump

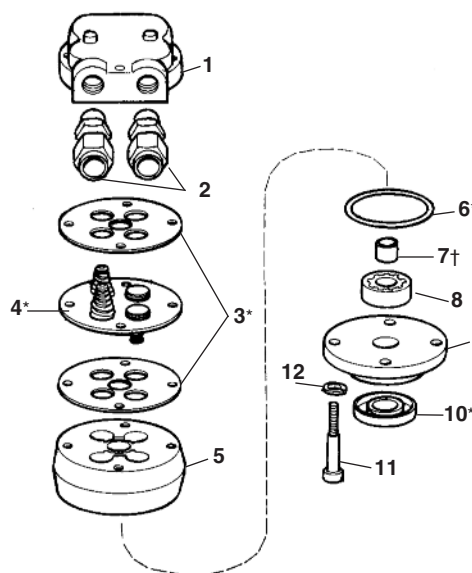
**NOTE: Order parts by Catalog Number only.  
DO NOT order by Reference Number.**

| Ref. No. | Catalog No. | Description                       |
|----------|-------------|-----------------------------------|
| —†       | 27307       | “ML” Oil Pump                     |
| 1        | 33442       | Pump Valve Body                   |
| 2        | 33432       | Compression Fitting (2)           |
| 3*       | 33457       | Gasket (Set of 2)                 |
| 4*       | 33452       | Valve Retainer Assy.              |
| 5        | 33482       | Gerotor Housing w/Bearing         |
| 6*       | 33477       | O-Ring                            |
| 7†       | 33462       | Sleeve Bearing                    |
| 8        | 33467       | Gerotor Set                       |
| 9        | 33447       | Pump Cap w/Seal                   |
| 10*      | 33472       | Oil Seal                          |
| 11       | 44510       | Soc. Hd. Cap Screw 1/4" - 20 x 2" |
| 12       | 45150       | Lock Washer 1/4"                  |
| *        | 33422       | “ML” Service Kit                  |

Note: Ref. 7 Sleeve Bearing used on older Gerotor Housings, not required on new pumps.

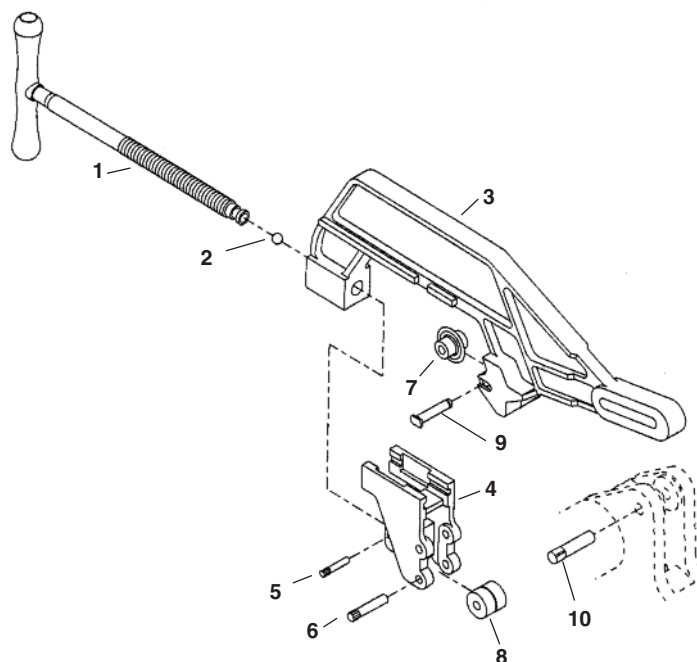
\* Indicates Part is Included in Service Kit.

† See Service Note



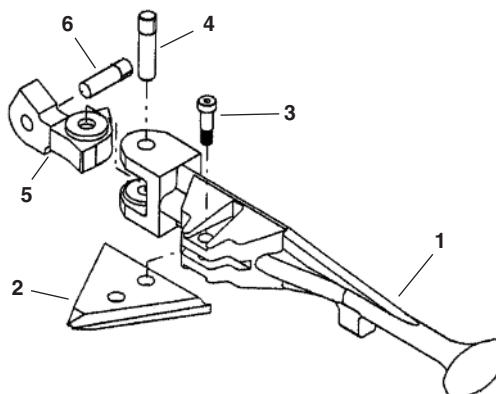
## No. 764 Pipe Cutter

| Ref. No. | Catalog No. | Description                    |
|----------|-------------|--------------------------------|
| —        | 26212       | 764 Pipe Cutter                |
| 1        | 26752       | Screw Handle                   |
| 2        | 41730       | Ball Bearing                   |
| 3        | 26742       | Cutter Frame                   |
| 4        | 26747       | Roll Housing                   |
| 5        | 26757       | Groove Pin                     |
| 6        | 26762       | Groove Pin (2)                 |
| 7        | 33125       | Cutter Wheel                   |
| 8        | 34785       | Roll (2)                       |
| 9        | 26252       | Roll F/Coated Pipe (2 per set) |
| 10       | 34790       | Wheel Pin                      |
| 10       | 27072       | Groove Pin                     |



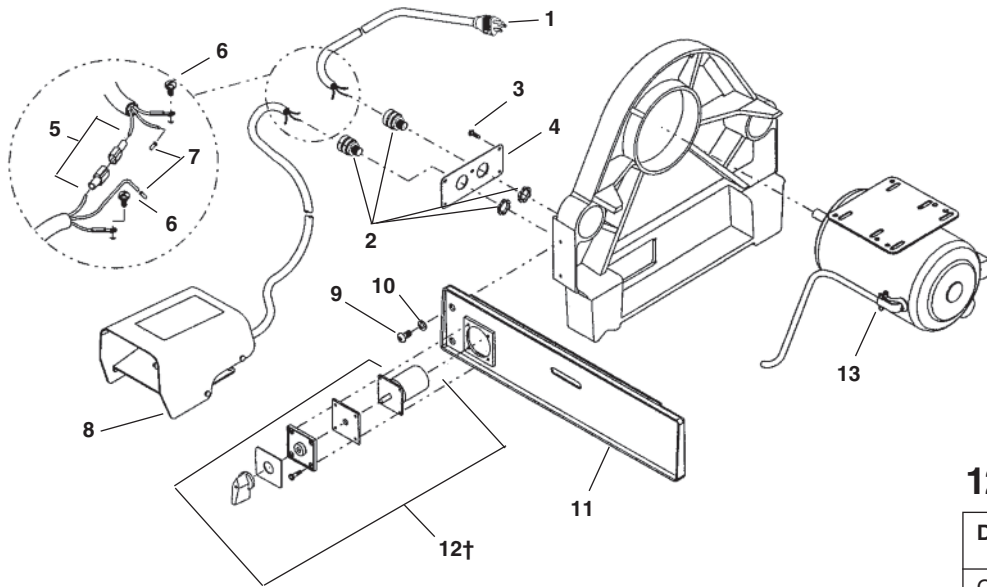
## No. 744 Reamer Assembly

| Ref. No. | Catalog No. | Description            |
|----------|-------------|------------------------|
| —        | 26217       | 744 Reamer Assembly    |
| 1        | 26602       | Reamer Arm             |
| 2        | 34577       | Reamer Blade 1/4" - 4" |
| 3        | 27037       | Shoulder Bolt          |
| 4        | 27072       | Groove Pin             |
| 5        | 26607       | Pivot Block            |
| 6        | 26727       | Groove Pin (2)         |



## 60 Hz Electrical Components

NOTE: Order parts by Catalog Number only.  
DO NOT order by Reference Number.

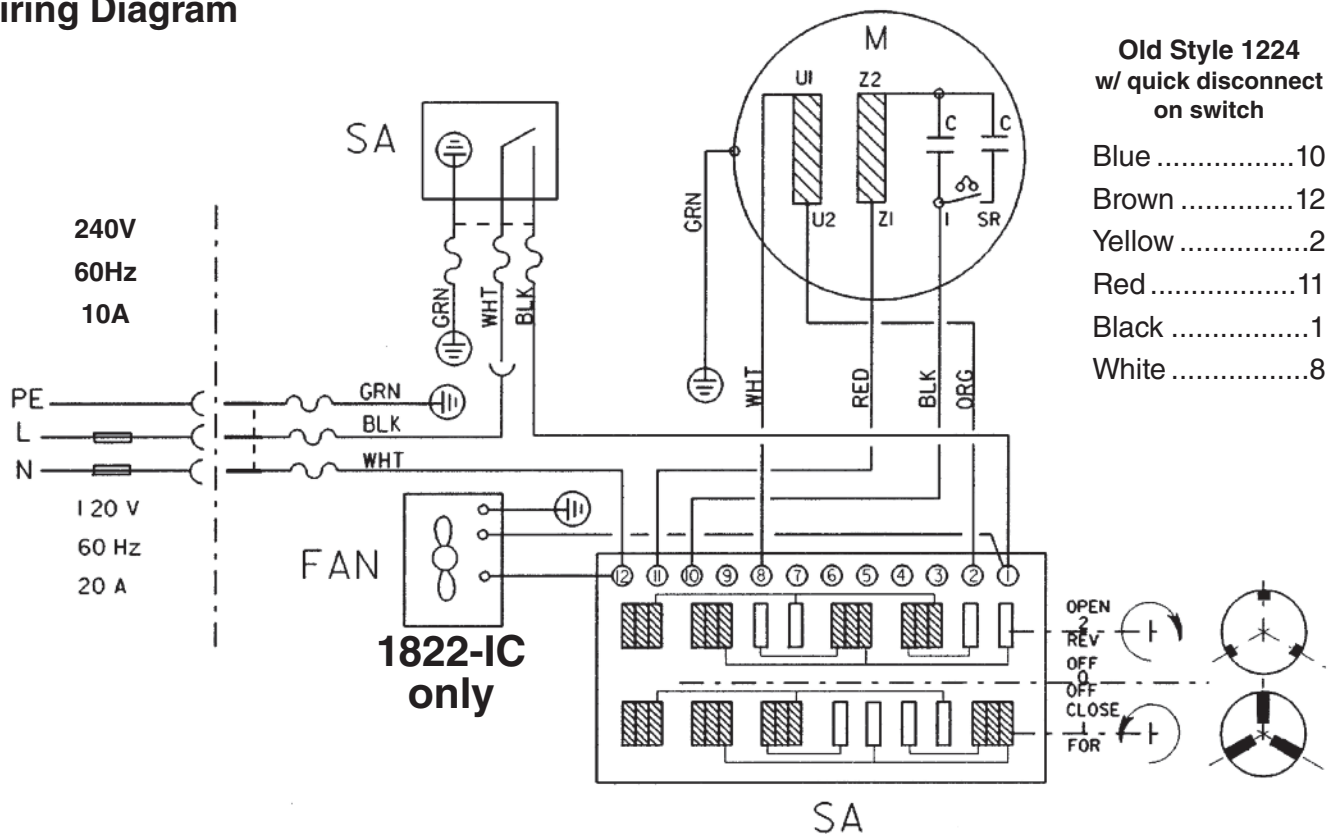


| Ref. No. | Catalog No. | Description                |
|----------|-------------|----------------------------|
| 1        | 46740       | Power Cord                 |
|          | 46410       | Power Cord                 |
| 2        | 75977       | Strain Relief (2)          |
| 3        | 41597       | Self Tapping Screw (4)     |
| 4        | 27162       | Strain Relief Bracket      |
| 5        | 56407       | Quick Disconnect Set       |
| 6        | 45420       | Ground Screw               |
| 7        | 36222       | Wire Terminal              |
| 8        | 36642       | B-294 Foot Switch          |
| 9        | 26997       | Screw 3/8" - 16 x 3/4" (8) |
| 10       | 40930       | Lock Washer 3/8" (8)       |
| 11       | 59722       | Front Side Plate           |
| 12†      | 20113       | Switch Assembly            |
| 13       | 26237       | Motor 120V 60 Hz           |
|          | 26232       | Motor 240V 60 Hz           |

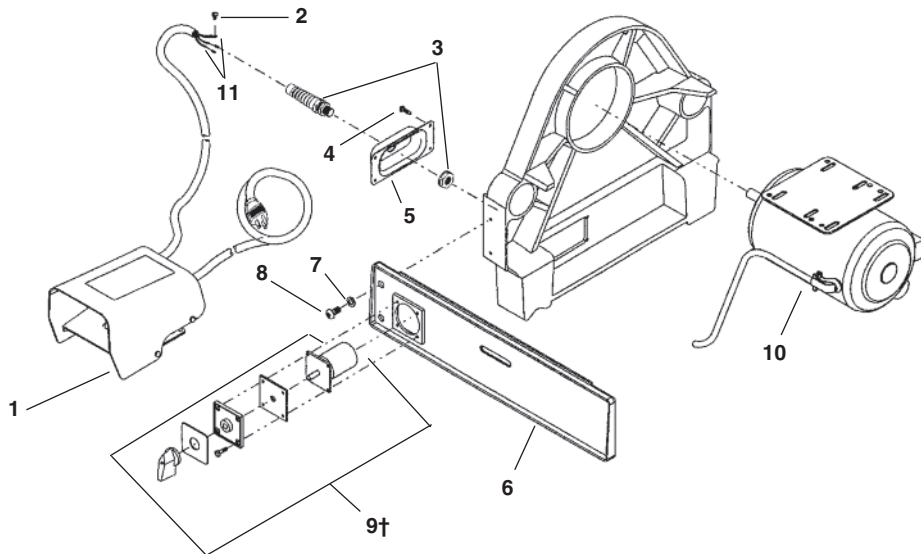
## 1224 Motor Parts

| Description          | 120V<br>60Hz | 240V<br>60Hz |
|----------------------|--------------|--------------|
| Contact Start Switch | 21148        | —            |
| Start Capacitor      | 54332        | —            |
| Run Capacitor        | 46807        | 46807        |

## 1224 &amp; 1822-I Replacement Switch Wiring Diagram



## 50 Hz Electrical Components



**NOTE:** Order parts by Catalog Number only.  
DO NOT order by Reference Number.

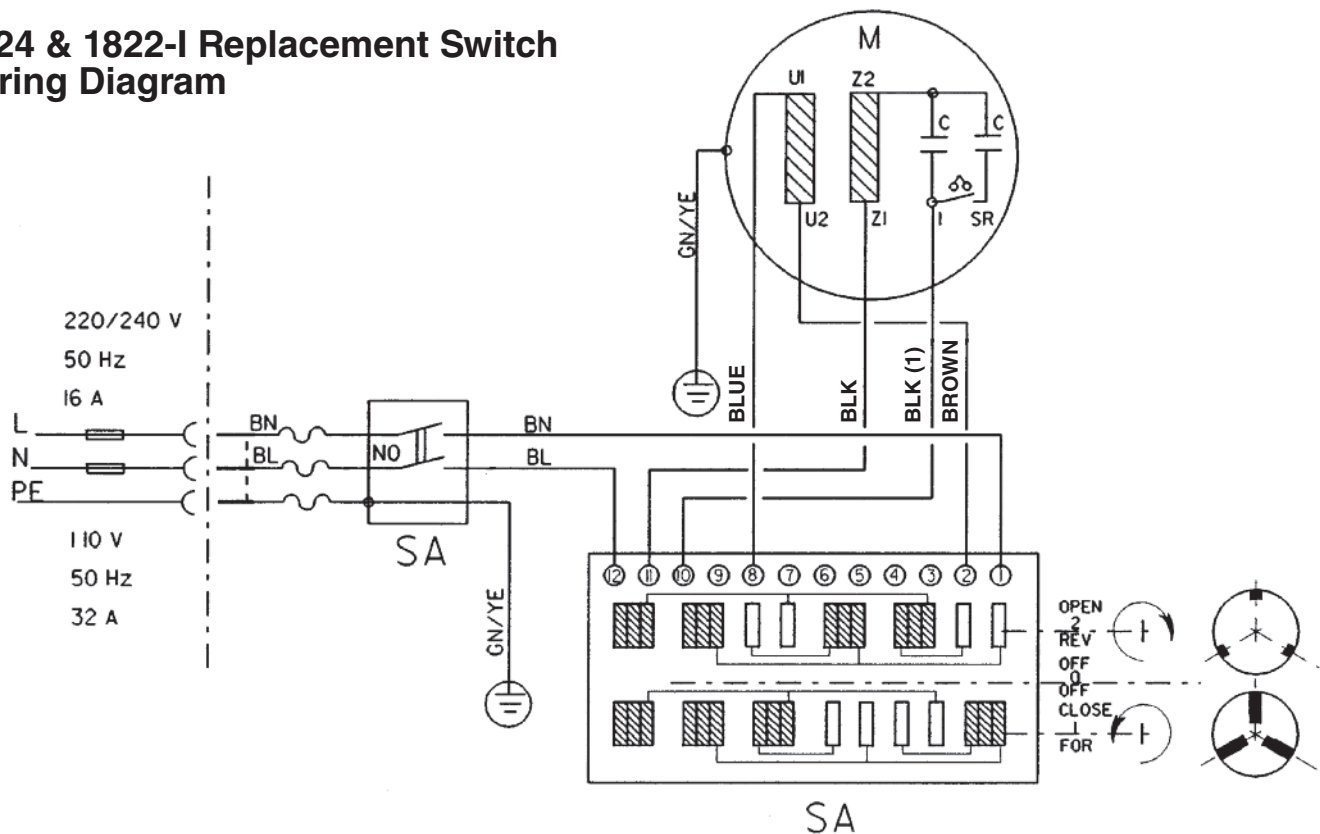
| Ref. No. | Catalog No. | Description                                      |
|----------|-------------|--------------------------------------------------|
| 1        | 36652       | B-296 Foot Switch                                |
|          | 36657       | B-297 Foot Switch                                |
| 2        | 45420       | Ground Screw                                     |
| 3        | 27187       | Strain Relief                                    |
| 4        | 41597       | Self Tapping Screw (4)                           |
| 5        | 27197       | Strain Relief Bracket                            |
| 6        | 59722       | Front Side Plate                                 |
| 7        | 40930       | Lock Washer $\frac{3}{8}$ " (8)                  |
| 8        | 26997       | Screw $\frac{3}{8}$ " - 16 x $\frac{3}{4}$ " (8) |
| 9†       | 20113       | Switch Assembly                                  |
| 10       | 27282       | Motor 220/240V 50 Hz                             |
|          | 27287       | Motor 110V 50 Hz                                 |
| 11       | 36222       | Wire Terminal                                    |

## 1224 Motor Parts

| Description               | 220V/240V<br>50Hz | 110V<br>50Hz |
|---------------------------|-------------------|--------------|
| Dual Contact Start Switch | 46772             | 46772        |
| Start Capacitor           | 46792             | —            |
| Run Capacitor             | 46807             | —            |

† Ref. No. 12 – When replacing early style switches, which have a black body, order Switch Kit, Catalog No. 59762. Kit includes 59757 Switch Assembly and 59742 Switch Adapter Plate

## 1224 & 1822-I Replacement Switch Wiring Diagram

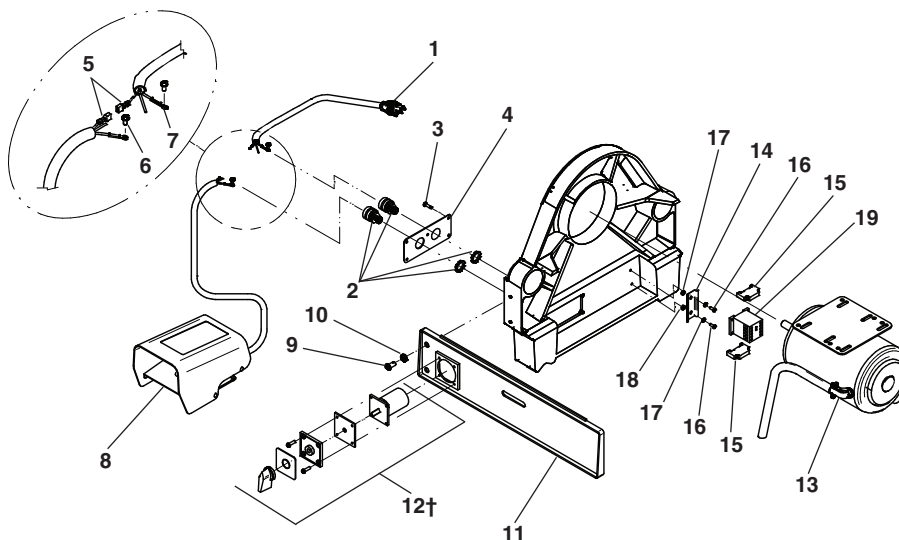




## 3 Phase Electrical Components

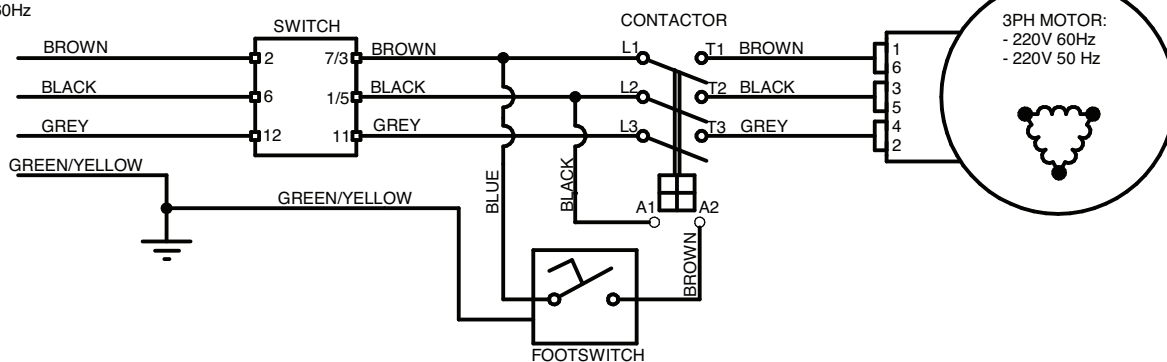
**NOTE:** Order parts by Catalog Number only.  
DO NOT order by Reference Number.

| Ref. No. | Catalog No. | Description                                      |
|----------|-------------|--------------------------------------------------|
| 1        | 54238       | Power Cord                                       |
| 2        | 55318       | Strain Relief (2)                                |
| 3        | 41597       | Self Tapping Screw (4)                           |
| 4        | 27162       | Strain Relief Bracket                            |
| 5        | 56407       | Quick Disconnect Set                             |
| 6        | 45420       | Ground Screw                                     |
| 7        | 36222       | Wire Terminal                                    |
| 8        | 36642       | B-294 Foot Switch                                |
| 9        | 26997       | Screw $\frac{3}{8}$ " - 16 x $\frac{3}{4}$ " (8) |
| 10       | 40930       | Lock Washer $\frac{3}{8}$ " (8)                  |
| 11       | 59722       | Front Side Plate                                 |
| 12†      | 54243       | Switch Assembly                                  |
| 13       | 27078       | Motor 400V 50Hz 3PH                              |
| 14       | 90517       | Din Rail                                         |
| 15       | 53388       | Din Rail Stops (2)                               |
| 16       | 79965       | Din Rail Screw 10-32 x $\frac{1}{2}$ " (2)       |
| 17       | 46985       | Din Rail Washer #10 (2)                          |
| 18       | 34722       | Din Rail Nut 10-32 (2)                           |
| 19       | 53393       | Contactor 230V                                   |
|          | 27093       | Contactor 400V                                   |

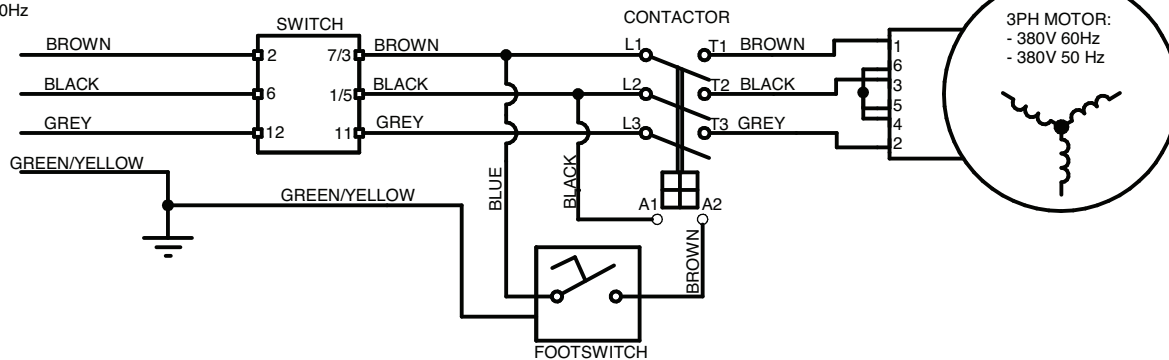


## 1224/535T 3 Phase Wiring Diagram

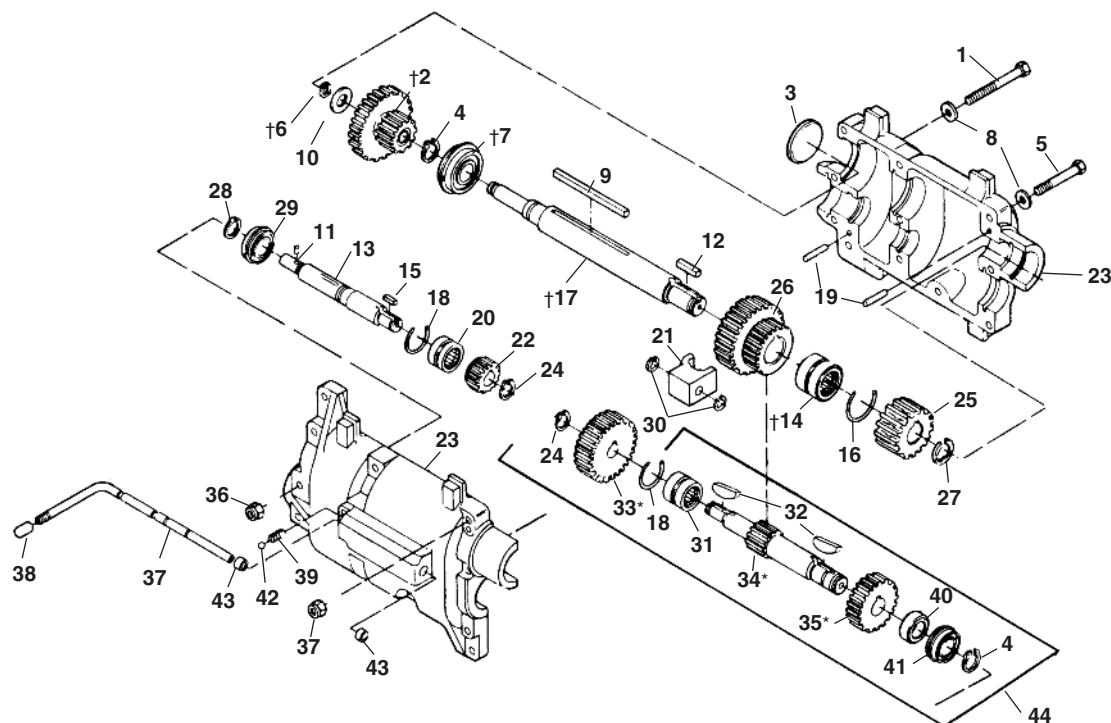
PLUG:  
220V 3Ø 50/60Hz



PLUG:  
380V 3Ø 50/60Hz



## Gear Box



**NOTE: Order parts by Catalog Number only.  
DO NOT order by Reference Number.**

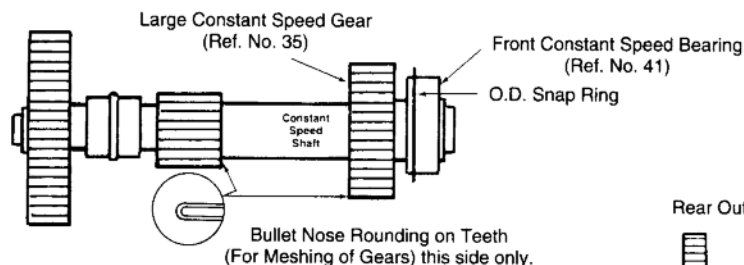
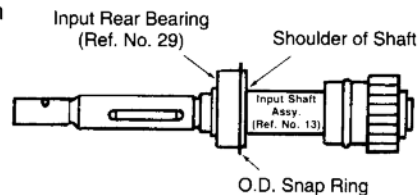
| Ref. No. | Catalog No. | Description                                        | Ref. No. | Catalog No. | Description         | Ref. No. | Catalog No. | Description                         |
|----------|-------------|----------------------------------------------------|----------|-------------|---------------------|----------|-------------|-------------------------------------|
| —        | 26362       | Gear Box Assembly                                  | 16       | 26922       | Wire Ring           | 32       | 33982       | Woodruff Key (2)                    |
| 1        | 27102       | Screw $\frac{5}{16}$ " - 18 x $3\frac{1}{4}$ " (2) | †17      | 26382       | Output Shaft        | 33*      | 33992       | 1st Gear Constant Speed             |
| †2       | 26702       | Fixed Gear Cluster Assembly                        | 18       | 26917       | Wire Ring (2)       | 34*      | 33987       | Constant Speed Shaft                |
| 3        | 26667       | Freeze Plug                                        | 19       | 26662       | Dowel Pin (2)       | †35*     | 33997       | Large Constant Speed Gear           |
| 4        | 26412       | Snap Ring (2)                                      | 20       | 26367       | Front Input Bearing | 36       | 75110       | Stop Nut $\frac{5}{16}$ " - 18 (11) |
| 5        | 27107       | Screw $\frac{5}{16}$ " - 18 x $2\frac{1}{2}$ " (9) | 21       | 26437       | Shifting Fork       | 37       | 26442       | Shift Slide                         |
| †6       | 27117       | Snap Ring                                          | 22       | 26377       | 1st Input Gear      | 38       | 27032       | Shifter Knob                        |
| †7       | 26417       | Rear Output Bearing                                | 23       | 26647       | Gear Box            | 39       | 26692       | Shifter Detente Spring              |
| 8        | 96740       | Washer $\frac{5}{16}$ " (11)                       | 24       | 26677       | Snap Ring           | 40       | 26452       | Spacer                              |
| 9        | 26552       | Shift Cluster Key                                  | †25      | 26432       | Output Pinion Gear  | 41       | 26407       | Front Constant Speed Bearing        |
| 10       | 26672       | Thrust Washer                                      | 26       | 26422       | Cluster Shift Gear  | 42       | 46925       | Steel Ball                          |
| 11       | 26907       | Spiral Pin                                         | 27       | 26557       | Snap Ring           | 43       | 26447       | Shift Slide Sleeve Bearing          |
| 12       | 26457       | Output Pinion Key                                  | 28       | 44430       | Retaining Ring      |          | 26707       | Grease (1 lb. can)                  |
| 13       | 26902       | Input Shaft Assembly                               | †29      | 26372       | Input Rear Bearing  | 44       | 28047       | Constant Speed Assembly             |
| †14      | 26427       | Front Output Bearing                               | 30       | 34245       | Rings Set of 5      |          |             |                                     |
| 15       | 26657       | Input Pinion Key                                   | 31       | 26397       | Rear Bearing        |          |             |                                     |

†See Service Notes

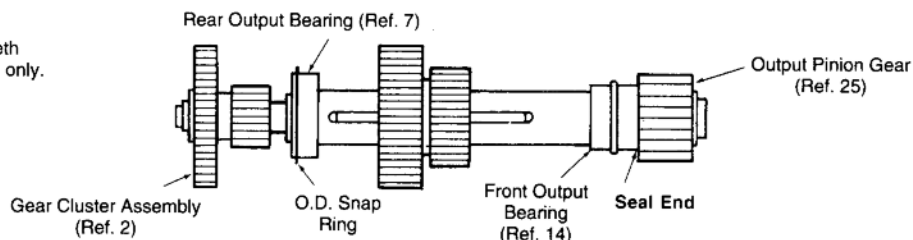
\*When replacing early style parts, using square keys, a complete shaft assembly (Ref. No. 44) should be used.

## Service Notes Transmission

Position Bearing (Ref. No. 29) with O.D. Snap Ring towards shoulder of Input Shaft.



Position Large Constant Speed Gear Ref. No. 35 so that bullet nose side of gear teeth are facing toward center of shaft.  
Position O.D. Snap Ring towards Large Constant Speed Gear.



Position Bearing (Ref. No. 7) with O.D. Snap Ring towards Gear Cluster (Ref. No. 2)

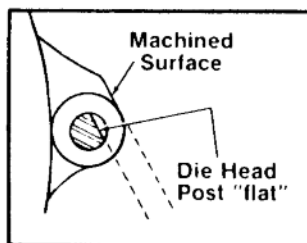
Position Seal End of Front Output Bearing (Ref. No. 14) towards Output Pinion Gear (Ref. No. 25)

## Replacement Instructions for Die Head Post

All 1224 Die Heads— 541, 542, 711, 713, 714, 911, 913, 914

### —IMPORTANT—

Post must be properly oriented to insure oil flow through head. Insert illustrates proper relationship (parallel) of "flat" on die head post to flat "machined surface" of die head casting.



## Oil Pump

### Installing Oil Pump Onto Input Shaft Assembly

1. Align Square Slot (behind seal) in the No. 27307 Oil Pump with the Drive Pin in the No. 26902 Gear Box Input Shaft Assembly.
2. Slide Oil Pump onto Input Shaft Assembly.
3. When Pump is properly engaged onto Shaft, the distance between Pump body and Keyway Slot should not exceed 1/8 inch.

