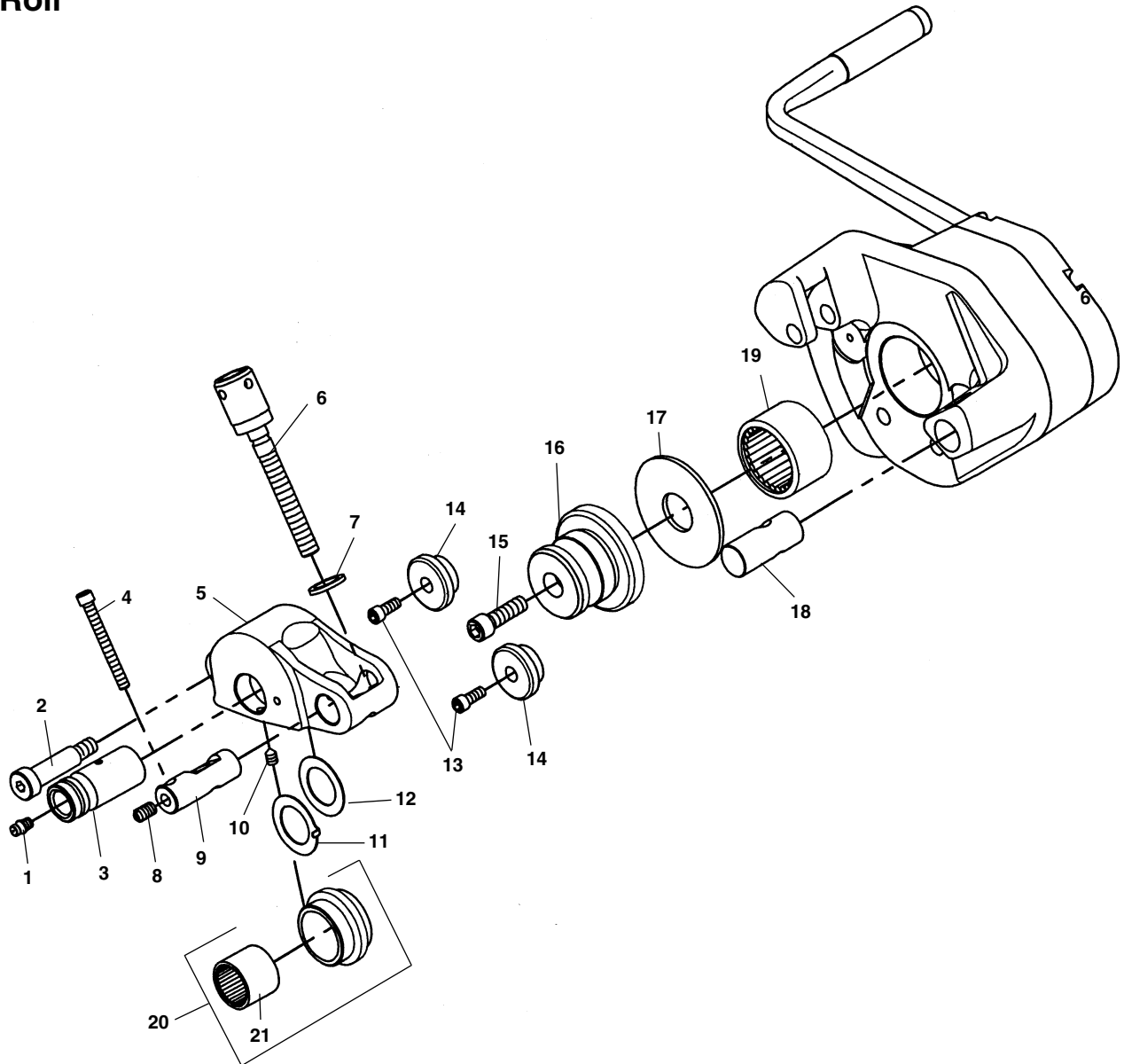


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	59847	914 Roll Groover	18	61002	Groove Roll (Includes Ref. #17)
—	59932	914 Roll Groover for Copper		61007	Groove Roll f/Copper (Includes Ref. #17)
1	60922	Gear Housing (Includes Ref. #13, 14, 26, 37)	19	62502	1 1/4"-1 1/2" Groove Roll (Includes Ref. #17)
	60932	Gear Housing f/Copper (Includes Ref. #13, 14, 26, 37)	20	61017	Shoulder Bolt 5/8" x 3 3/4"
2	60937	Rear Slide Shaft	21	61022	Adjustment Knob
3	60942	Front Slide Shaft	22	61027	Feed screw
4	60947	Thrust Washer	23	61032	Shoulder Bolt 5/8" x 1 1/2"
5	60952	Drive Roll	24	61037	Pin & Clip
	60957	Drive Roll f/Copper	25	61042	Retaining Ring
6	62507	1 1/4"-1 1/2" Drive Roll	26	62537	Depth Adjustment Label
7	46745	Soc. Head Cap Screw 3/8" - 16 x 1 1/4"		62542	Depth Adjustment Label for Copper
8	60967	Sleeve Bearing (2)	27	61047	Reaction Arm
9	34332	Roll Pin 1/8" x 5/8" (2)	28	61052	Sleeve Bearing (2)
10	60972	Release Shaft	29	61057	Input Shaft
11	60977	Release Knob	30	41500	Roll Pin
12	60982	Release Spring	31	61062	Square Drive Adapter
13	60987	Release Block (Includes Ref. #8)	32	61067	Drive Ratchet (Includes Ref. #31 & 32)
14	83685	Soc. Head Cap Screw 1/4"-20 x 1" (2)	33	27037	Shoulder Bolt
15	60992	Stabilizer (2)	34	61747	Ratchet Handle
	60927	Stabilizer f/Copper (2)	35	61072	Cover Plate (Includes Ref. #26)
16	60997	Set Screw 10-24 (2)	36	39542	Button Head Screw 10-24 x 1/2"
17	61012	Needle Bearing	37	44620	Ball Bearing
			38	61082	Output Shaft Assembly (Includes Ref. #35)
			39	87710	Roller Bearing

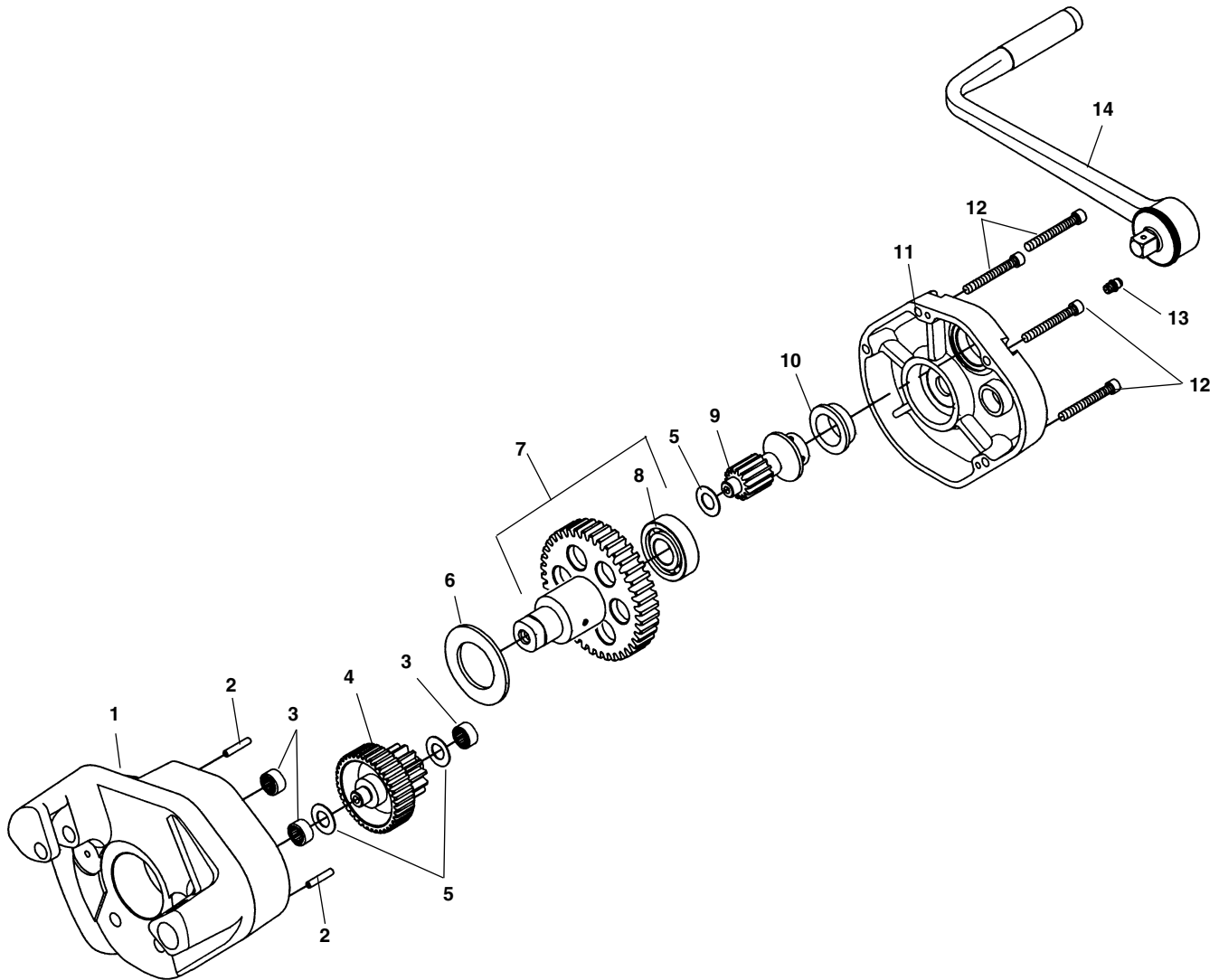
Drive Roll



**NOTE: Order parts by Catalog Number only.
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Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	88232	915 Roll Groover	12	93652	Thrust Washer
1	46860	Grease Fitting (2)	13	32205	Screw, 1/4" - 20 x 5/8"
2	93602	Shoulder Screw	14	93752	Stabilizer, 2" - 6" (2)
3	93607	Groove Roll Pin		93867	Stabilizer, 8" - 12" (2)
4	93622	Screw, Socket Head, 1/4" - 20 x 2 1/4" (1)	15	46745	Hex Soc Cap Screw 3/8" - 16 x 1 1/4" (1)
5	93627	Reaction Arm	16	93757	Drive Roll 2" - 6" Sch. 10, 2" - 3 1/2" Sch. 40
6	93632	Feed Screw	17	93762	Drive Roll Thrust Washer
7	93657	Load Thrust Washer	18	93767	Pivot Nut Pin
8	93612	Ball Detent, 5/16" - 18 (1)	19	87610	Bearing, Roller
9	93617	Pivot Pin	20	93642	Groove Roll 2" - 6" Sch. 10, 2" - 3 1/2" Sch. 40
10	45187	Set Screw, Socket Head	21	45172	Bearing
11	93647	Locking Thrust Washer			

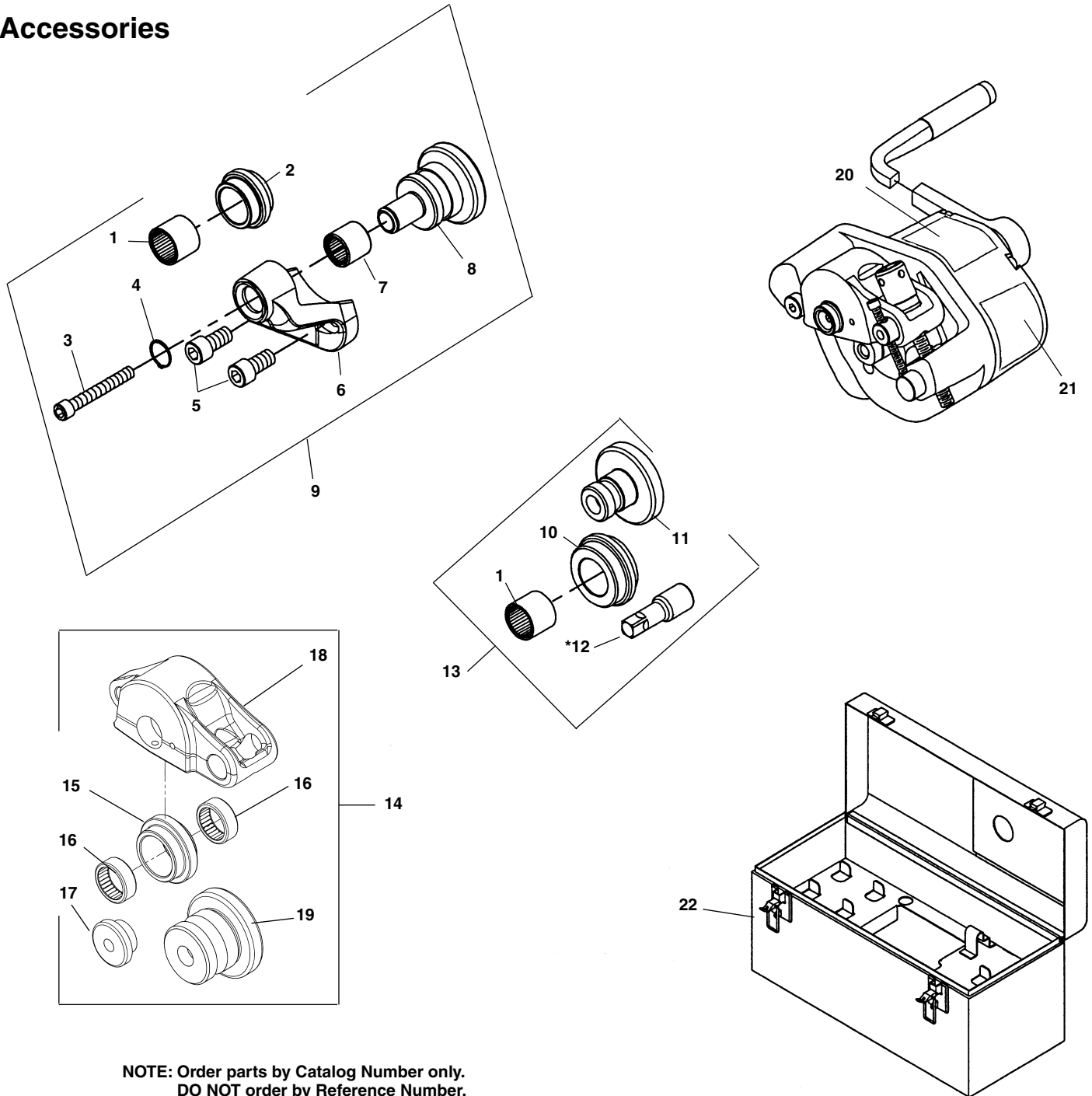
Main Housing



**NOTE: Order parts by Catalog Number only.
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Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	93772	Main Housing	8	44620	Bearing, Ball
2	77097	Pin (4)	9	93807	Input Drive Pinion
3	93777	Needle Roller Bearing (3)	10	93812	Bronze Flange Bearing
4	93787	Intermediate Gear Cluster	11	93817	Rear Cover
5	93782	Thrust Bearing Washer (3)	12	40657	Screw, 1/4" - 20 x 1 1/2" (4)
6	93792	Bronze Thrust Bearing	13	46860	Drive Grease Fitting (2)
7	16408	Drive Shaft Assembly	14	92202	Ratchet, 1/2" Drive 90°

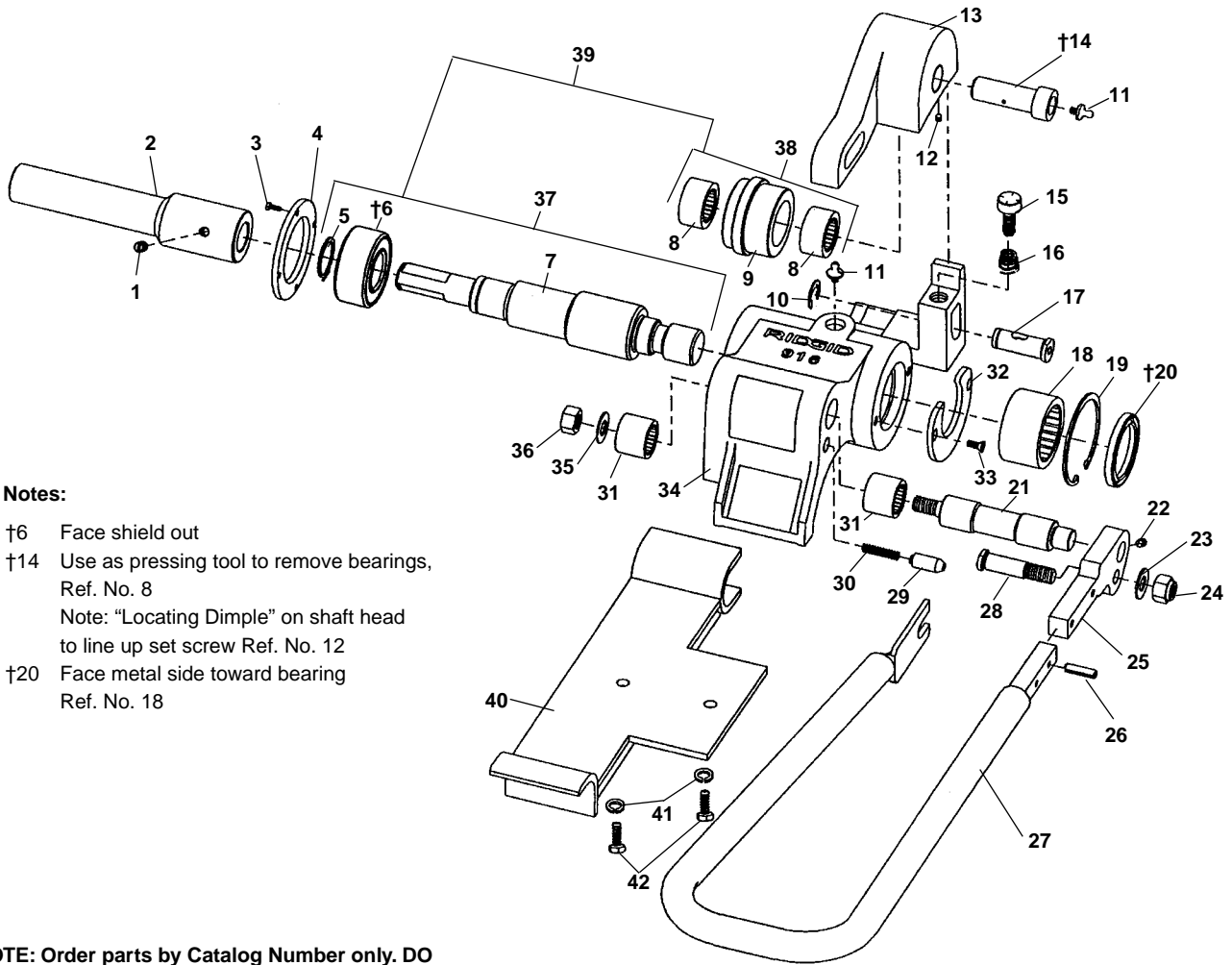
Accessories



**NOTE: Order parts by Catalog Number only.
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Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	45172	Bearing	13	92437	1 1/4" - 1 1/2" Groove Roll Set
2	93887	Groove Roll 4" - 6" Sch. 40	14	92452	2" - 8" Copper 915 Groove Roll Set
	93862	Groove Roll 8" - 12" Sch. 10	15	93892	Copper Groove Roll 2" - 8"
3	93847	Screw 3/8" - 16 x 2 3/4"	16	10368	Bearing Needle Roller (2)
4	93852	External Retaining Ring	17	10373	Copper Stabilizer
5	93857	Screw, 1/2" - 12 x 1" (2)	18	10378	Copper Reaction Arm
6	93872	Support, Drive Roll	19	93897	Copper Drive Roll 2" - 8"
7	93877	Bearing, Needle Roller	20	93822	Operating Instructions Decal
8	93902	Drive Roll 4" - 6" Sch. 40	21	93827	Warning Decal
	93882	Drive Roll 8" - 12" Sch. 10	22	93497	915 Tool Box
9	92447	4" - 6" Sch. 40 Groove Roll Set			
	92442	8" - 12" Sch. 10 Groove Roll Set			
10	93837	Groove Roll 1 1/4" - 1 1/2"			
11	93832	Drive Roll 1 1/4" - 1 1/2"			
12	93842	Extension, 1/2" Drive (for 1 1/4" - 1 1/2" Roll Set)			
			* Note Items Not Shown		
			*	49087	1/8" T-Hndle Hex Key
			*	46045	5/16" Hex Key
			*	46030	3/16" Hex Key
			*	46190	1/4" Hex Key

Notes

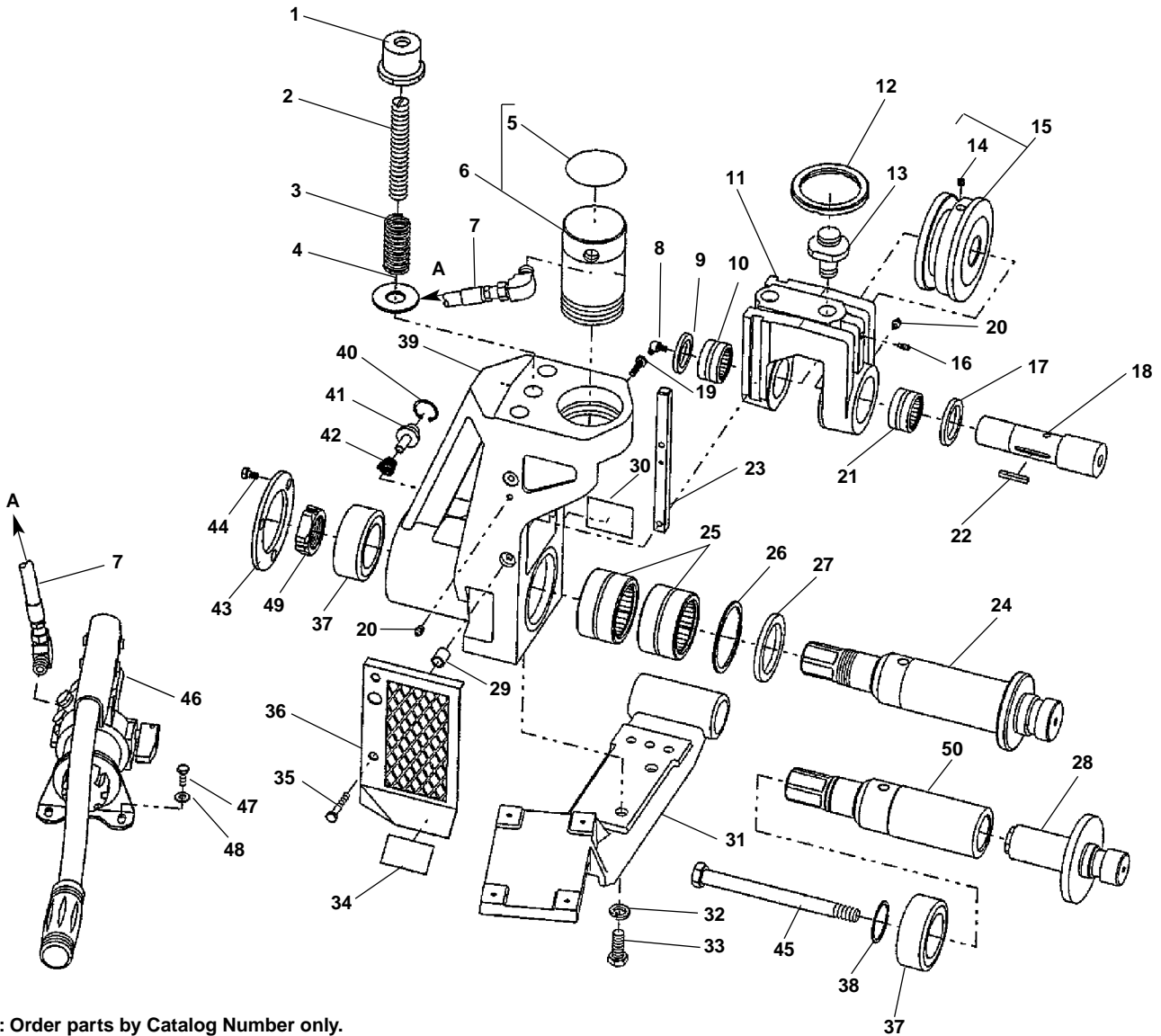


Service Notes:

- Ref. No. †6 Face shield out
- Ref. No. †14 Use as pressing tool to remove bearings,
Ref. No. 8
Note: "Locating Dimple" on shaft head
to line up set screw Ref. No. 12
- Ref. No. †20 Face metal side toward bearing
Ref. No. 18

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

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	48497	Screw 3/16" - 16 x 1/2" (2)	25	47037	Drive Link
2	48442	Coupling - Short	26	87940	Roll Pin (2)
	66547	Coupling - Long	27	45137	Handle
3	45207	Hex Hd Screw 10 - 32 x 1/2" (4)	28	45182	Drive Pin
4	45202	Retaining Ring	29	47027	Detente Pin
5	45152	Retaining Ring	30	47032	Detente Spring
†6	45147	Double Roll Ball Bearing	31	45172	Drive Link Bearing (2)
7	45122	Drive Shaft	32	70682	Positioning Plate (Europe Only)
	45652	Drive Shaft f/Copper Tubing	33	27242	Screw 10 - 32 x 1/2" (2) (Europe Only)
	45662	Drive Shaft f/1" Pipe	34	48437	Lower Roll Housing f/1822 Includes Ref. No. 11
	69647	Drive Shaft 1 1/4 to 1 1/2 (AWWA)		48507	Lower Roll Housing f/300 Includes Ref. No. 11
	69672	Drive Shaft 2 to 6 (AWWA)		70687	Lower Roll Housing f/positioning plate (Europe Only)
8	45167	Hd Caged Roller Bearing (2)	35	83420	Flat Washer
9	45127	Grooving Roll	36	78005	Hex Stop Nut 1/2" - 13 (2)
	45657	Grooving Roll f/Copper Tubing	37	45397	Drive Shaft Assembly
	45667	Grooving Roll f/1" Pipe		45557	Drive Shaft Assembly f/Copper Tubing
	69652	Grooving Roll 1 1/4 to 1 1/2 (AWWA)		45572	Drive Shaft Assembly f/1" Pipe
	69677	Grooving Roll 2 to 6 (AWWA)		69657	Drive Shaft Assembly 1 1/4 to 1 1/2 (AWWA)
10	42580	Retaining Ring		69682	Drive Shaft Assembly 2 to 6 (AWWA)
11	46860	Grease Fitting	38	45587	Grooving Roll Assembly w/Bearing
12	45187	Cone Pt. Screw 10 - 32 x 1/4"		45562	Grooving Roll Assembly w/Bearing f/Copper Tubing
13	45112	Upper Roll Housing		45577	Grooving Roll Assembly w/Bearing f/1" Pipe
†14	45132	Groove Roll Shaft includes Ref. No. 11		69662	Grooving Roll Assembly 1 1/4 to 1 1/2 (AWWA)
15	48447	Adjusting Screw		69687	Grooving Roll Assembly 2 to 6 (AWWA)
16	45402	Adjusting Screw Spring	39	45352	Roll Set f/Copper Tubing incl. Ref. No. 35 & 36
17	48452	Pivot Pin		45347	Roll Set f/1" incl. Ref. No. 35 & 36
18	45142	Caged Roller Bearing		69667	Roll Set 1 1/4 to 1 1/2 (AWWA)
19	45162	Retaining Ring		69692	Roll Set 2 to 6 (AWWA)
†20	45157	Front Seal		47492	Warning & Depth Adjusting Label
21	45117	Drive Link Shaft	40	61242	Base - 535
22	45192	Cone Pt. Screw 1/4" - 20 x 1/2"	41	40930	3/8" Locker Washer
23	77720	Washer	42	46675	3/8" x 3/4" Bolt
24	78005	Hex Stop Nut 1/2" - 13 (2)			



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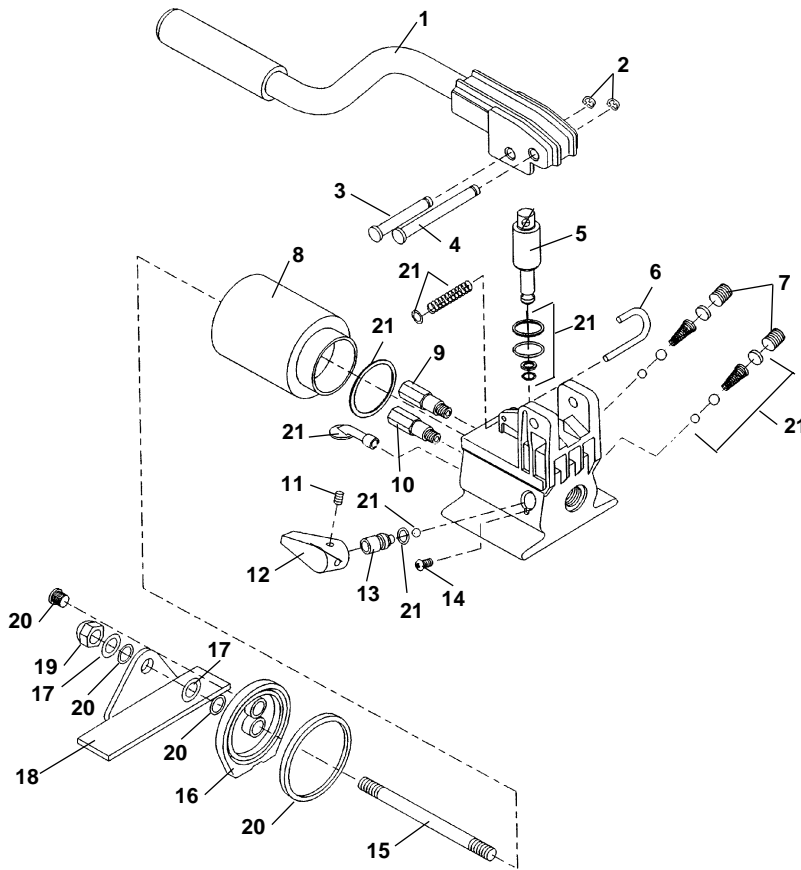
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	49117	Depth Adjustment Nut	22	27002	Key, 3/16 Sq. x 1 5/16	36	49197	Guard (Incls. Ref. 29)
2	49112	Depth Rod	23	49107	Set of 2 Slide Keys	37	49127	Bearing
3	49122	Spring	24	51427	Drive Shaft, 2-6" Sch. 10 & 40	38	49192	Spiral Retaining Ring
4	60995	Flat Washer, 3/4"		51432	Drive Shaft Assy. - same as above and includes Ref. 37, 49	39	49057	Lower Roll Housing (Incls. Ref. 20)
5	49262	Label, Depth Adjustment		51817	Drive Shaft, 8-12" Sch 10, 8" Sch 40	40	49177	Retaining Ring
6	49147	Hydraulic Cylinder		51812	Drive Shaft Assy. - same as above and includes Ref. 37, 49	41	49172	Lock Pin
7	49142	Hydraulic Hose				42	44915	Spring
8	46915	Grease Fitting - 65 Deg.				43	49132	Retaining Plate
9	87695	Seal	25	87600	Roller Bearing (2)	44	60265	Hex Screw, 1/4" - 20 x 1/2" (3)
10	87710	Roller Bearing	26	49187	Spiral Retaining Ring	45	49667	Hex Bolt 5/8" - 11 x 7"
11	49062	Upper Roll Housing (Incls. Ref. 9, 10, 16, 17, 20, 21)	27	91000	Seal	46	61132	Hydraulic Pump
12	49152	Lock Ring	28	49157	Drive Roll, 1"	47	60005	Hex Screw, 1/4" - 20 x 3/4" (4)
13	49082	Piston Rod Coupling		49072	Drive Roll, 1 1/4" - 1 1/2"	48	27402	Flat Washer (4)
14	45192	Set Screw, 1/4" - 20 x 3/8"		51732	Drive Roll, Copper 2" - 6"	49	49607	Bearing Retaining Nut
15	49162	Groove Roll, 1"	29	49202	Set of 2 Spacers	50	49067	Drive Shaft - for 1", 1 1/4", 1 1/2" rolls and copper roll 2" - 6"
	49097	Groove Roll, 1 1/4" - 1 1/2"	30	49207	Label, Warning		49627	Drive Shaft Assy. - same as above and includes Ref. 37, 38, 45
	49217	Groove Roll 2" - 6" SC 10/40	31	48292	Mounting Base Kit - 300			
	51822	Groove Roll, 8" - 12" Sch. 10, 8" Sch. 40		48392	Mounting Base Kit - 1822			
	50127	Groove Roll, Copper 2" - 6"		48397	Mounting Base Kit - 1224			
16	45265	Set Screw, 1/4" - 20 x 1/2"		48402	Mounting Base Kit - 535			
17	87690	Seal		60212	Mounting Base Kit - 1233/300 Compact			
18	49102	Upper Roll Shaft (Incls. Ref. 8, 22)	33	45500	Hex Screw, 1/2" x 1 1/4" (2)			
19	49252	Hex Screw, 1/4" - 20 x 1" (2)	32	86445	Lock Washer, 1/2" (2)			
20	46860	Grease Fitting (4)	34	49257	Label, Warning			
21	87610	Roller Bearing	35	49212	Hex Screw, 1/4" - 20 x 1 3/4" (2)			

Following Items Not Shown:

- 49087 T-Handle Hex Key, 1/8"
- 49167 Coupling - 535/1822/1224
- 53987 Roll Storage Case
- 54317 Box Wrench
- 60232 Sander Bracket

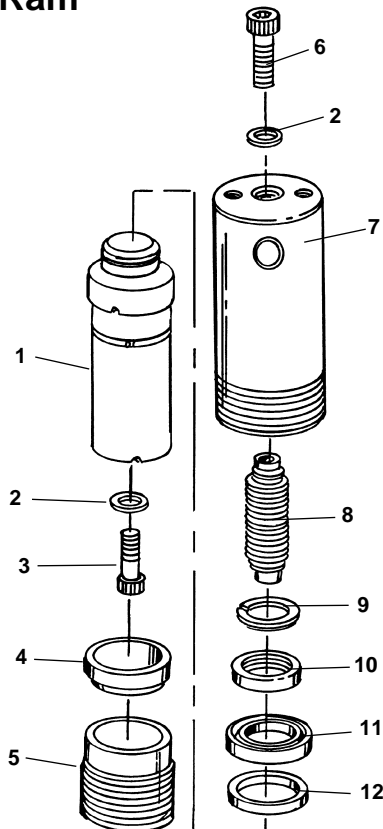
Hydraulic Pump, P392

**NOTE: Order parts by Catalog Number only.
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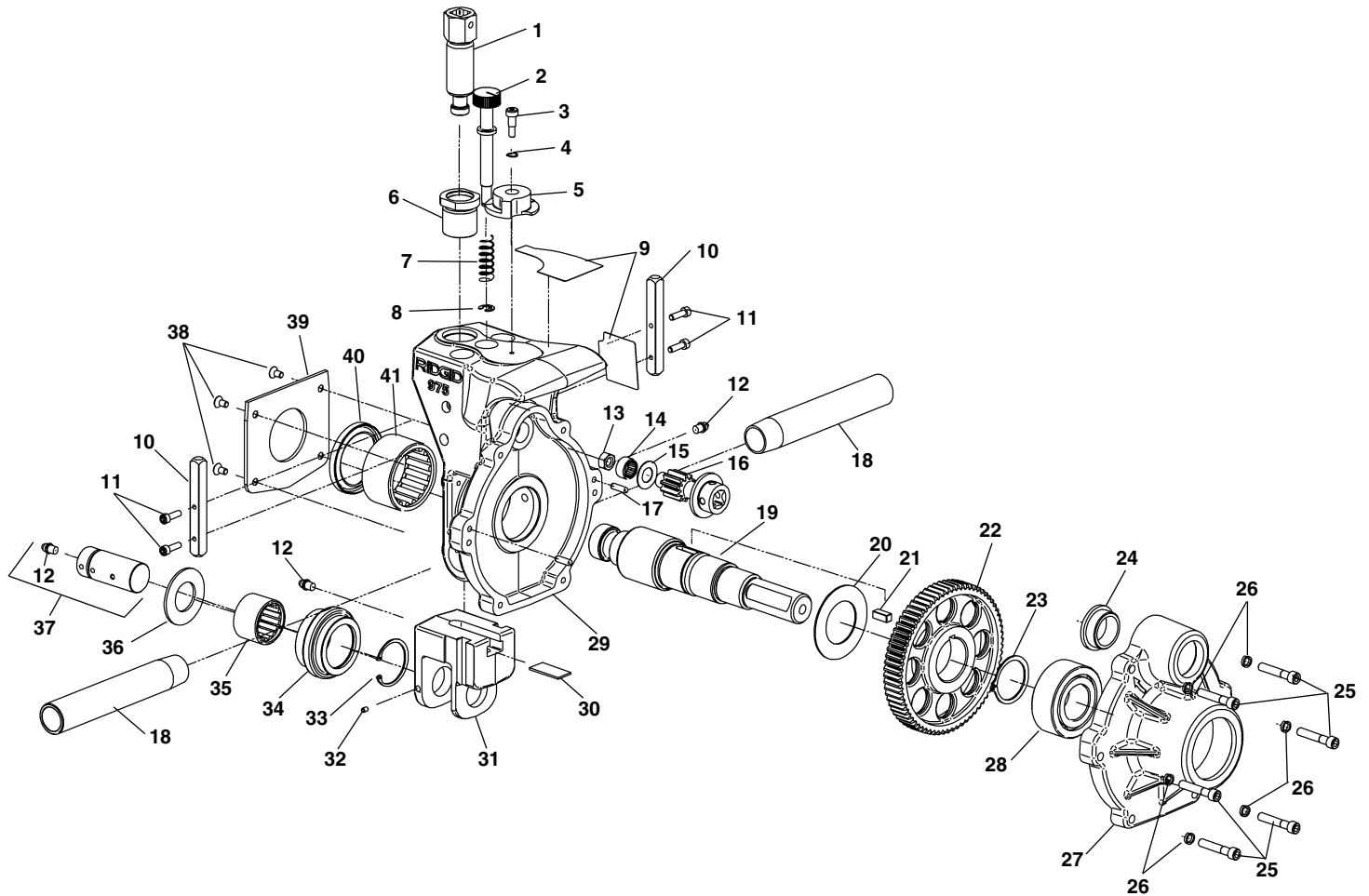
Ref. No.	Catalog No.	Description
—	61132	Pump Assembly, P392
1	64427	Handle Assembly
2	34245	Retaining Rings Set of 5
3	63762	Wrist Pin
4	64442	Pivot Pin
5	63817	Plunger Assembly
6	63747	Locking Pin
7	63742	Pipe Plug (2)
8	64412	Reservoir
9	63752	Low Pressure Relief
10	63757	High Pressure Relief
11	58720	Set Screws Set of 2
12	64437	Release Knob
13	63737	Valve Stem
14	64432	Stop Screw
15	64417	Tie Rod
16	63697	End Cap
17	63717	Washers Pack of 2
18	64422	Rear Foot
19	63707	Acorn Plug
20	63712	Fill Plug
21	63657	Repair Kit

Hydraulic Ram



Ref. No.	Catalog No.	Description
1	48622	Piston Rod
2*	48617	Copper Washer (2)
3*	48612	Cap Screw 1/4" - 20 x 1 1/4" (Torque to 100 lbs.)
4*	48607	Rod Wiper
5	48602	Retainer Nut (Torque to 100 lbs)
6	48672	Cap Screw, 1/4" - 20 x 1 1/8" (Torque to 100 lbs.)
7	48667	Cylinder Body
8	48662	Extension Spring
9*	48652	Retaining Spring
10	48647	Slip Retainer
11*	48642	U-Cup Seal
12	48637	Backup Washer
—	48677	Repair Kit

* Note: Items marked with an asterisk (*) are included in repair Kit No. 48677



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Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1†	30948	Feed Screw	17	40287	Dowel Pin (2)	32	87640	Set Screw
2	87687	Adjustment Screw	18	87682	Support Bar (2)	33†	33695	Retaining Ring
3	87947	Shoulder Screw	19	30883	Large Drive Shaft	34	30933	Groove Roll
4	87972	Wave Spring		32838	Drive Shaft F/Copper		32843	Groove Roll F/Copper
5	87932	Groove Setting Gauge	20	30888	Thrust Washer	35†	87922	Bearing
6†	93327	Feed Screw Bushing	21	30893	Key 1/4" x 5/8"	36	30938	Thrust Washer
7	87912	Spring	22	30898	Large Drive Gear	37	30943	Groove Roll Shaft
8	87937	Retaining Ring	23	30903	Retaining Ring	38	93282	#10 - 24 Screw (4)
9	30873	Labels	24	93812	Bearing Flange	39	93312	Cover Plate
10	93307	Slide Key (2)	25	30908	Screw 1/4" - 20 x 1 3/8" SHCS (6)	40	45157	Front Seal
11	93302	10 - 24 x 1/2" SHCS (4)	26	45150	1/4" Lock Washer (6)	41	45142	Needle Bearing
12	46860	Grease Fitting (3)	27	30913	Rear Cover Assembly	* Note Items Not Shown		
13	96730	Hex Nut	28	30918	Bearing			
14	93777	Needle Bearing	29	30928	Main Housing Assembly	*	30708	1/2" Ratchet Extension
15	93782	Thrust Washer	30	87977	Wear Plate	*	30703	1/2" Drive Ratchet
16	30878	Input Pinion	31	30923	Slide Block			

† Service Notes: Ref. No. 1 – Coat with EP grease.
 Ref. No. 6 – Apply Loctite #271 to external threads prior to assembly.
 Ref. No. 33 – Install Retaining Ring burr side away from bearing.
 Ref. No. 35 – Apply Loctite #271 to outside of bearing prior to assembly.