

00791027 Gearbox Servicing

Safety Precautions :

Be certain to clamp or securely support the gearbox and sub-assemblies to prevent injuries to hands and feet due to inadvertent dropping or falling over.

Always wear safety glasses and gloves to prevent eye and hand injury when chiseling or hammering on metal components. Hardened metal will chip unexpectedly.

An assembled gearbox is quite heavy. Use a hoist or get help to handle them safely. Lift carefully and properly using legs to lift-not your back.

Tools needed

Set of Snap Ring pliers

Needle nose pliers

Scrapper

Seal removal tool or flat head screwdriver

Ratchet or Air Ratchet with extension

5/8 socket and a 1 7/16 socket

Punch

Hammer

Seal Installation Tool

1/4 Allen wrench

Assembly Notes:

Output shaft bearing pre-load is 6-8 inch pounds without seal (rolling Torque).

The gearbox backlash is to be set at 6-8 thousands .

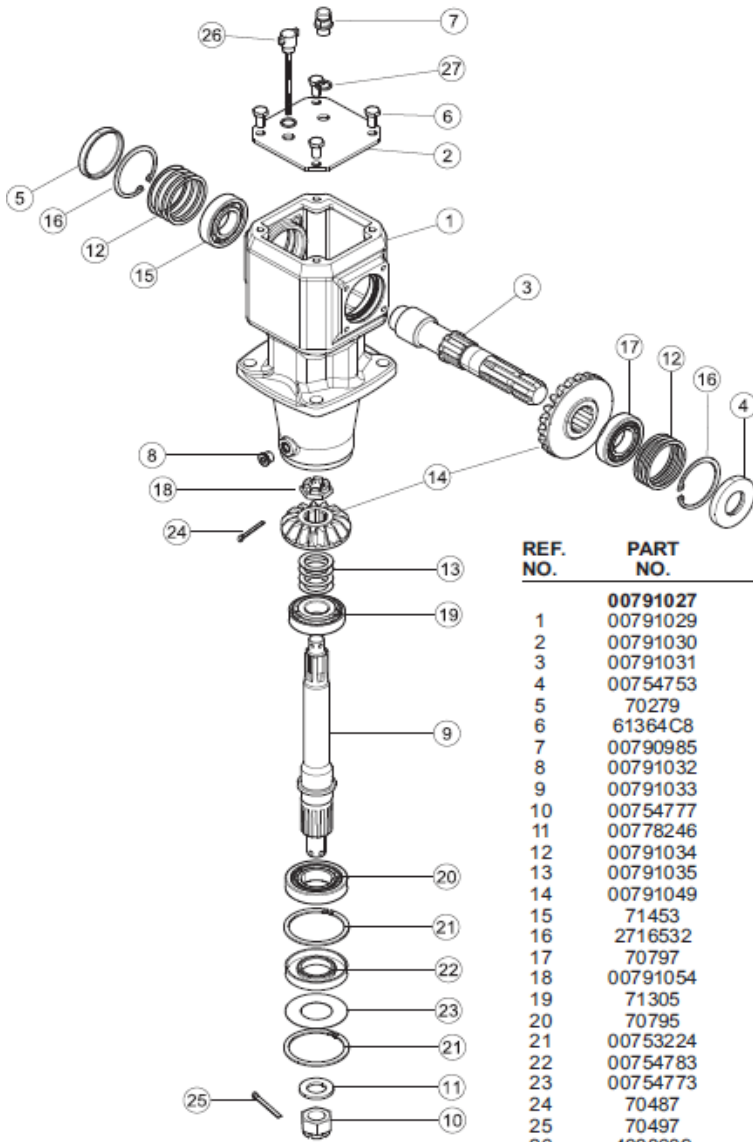
Replace any damaged components.

When assembling the bearings ,pay attention to not make any pressure on the rollers or cages in order to avoid damage.

When assembling oil seals, avoid contact with cutting parts in order to prevent any damage to the inner lip.

To add oil add by removing the dipstick item # 26 add to fill line on dipstick use EP80W-90 gear oil.

To drain oil remove item # 8 plug with a 1/4 Allen head wrench .



REF. NO.	PART NO.	DESCRIPTION	QTY.
	00791027	Gearbox Assembly	1
1	00791029	Housing, EZ40 Gearbox	1
2	00791030	Cap, EZ40 Gearbox	1
3	00791031	Shaft, Input EZ40 Gearbox	1
4	00754753	Seal, Oil 35x72x10	1
5	70279	Cap Oil 72x10	1
6	61364C8	Capscrew, M10-1.5x16Gr.8.8	4
7	00790985	Plug, Vent M16-1.5	1
8	00791032	Plug, Hex Socket Hd M6	1
9	00791033	Shaft, Output EZ40 Gearbox	1
10	00754777	Nut, Castle M24x2.0	1
11	00778246	Washer, Hardened M25x44x4	1
12	00791034	Shim Kit, Input EZ40	2
13	00791035	Shim Kit, Output EZ40	1
14	00791049	Gear Kit, (14T & 15T Gears)	1
15	71453	Bearing, Ball (35x72x17)	1
16	2716532	Snap Ring (72x75x2.5)	2
17	70797	Bearing, Roller (35x72x18.25)	1
18	00791054	Nut, Castle M20x1.5	1
19	71305	Bearing, Roller (30x72x20.75)	1
20	70795	Bearing, Roller (40x80x19.75)	1
21	00753224	Snap Ring	2
22	00754783	Seal, 40x80x12	1
23	00754773	Shield, Protective	1
24	70487	Cotter Pin M4x40	1
25	70497	Cotter Pin M5x50	1
26	4038609	Dipstick	1
27	00790983	Seal Washer	1

Disassembling Gearbox

Note : Empty gearbox of any oil before disassembling by removing bottom plug Item # 8 with 1/4 Allen wrench.

1) Remove four bolts item # 6 with 5/8 socket or wrench to remove top plate item # 2.



2) Remove input seal item #4 with seal removal tool or flat head screwdriver.

3) Remove gripping cap item #5 with seal removal tool or flathead screwdriver.

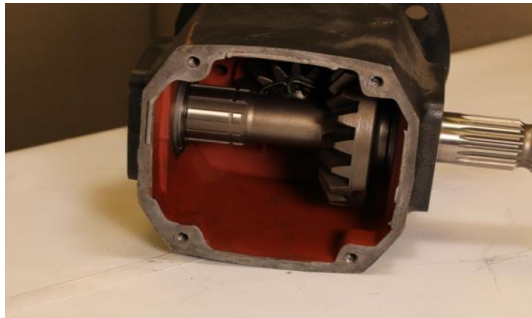


4) Remove snap ring Item # 16 front side of input shaft and shims item #12, keep shims and snap ring together label them so they can be put back same location they came out. Note picture below how shims kept together and labeled GS for gear side .

5) Remove snap ring item # 16 rear side of input shaft and shims item #12 rear and label keep together to replace as they come out.



6) Remove input shaft item # 3 driving it away from the direction the gear item #14 input is assembled.



7) Remove cotter pin item #24 from top of output shaft item #9 .



8) Remove top nut item # 18 with 1 7/16 socket with extension and wrench on opposite side to hold shaft as you loose nut.

9) Remove output gear item # 14 and shims item # 13 and bearing item # 19 keep together to put back as they came out label if needed.



10) Remove bottom snap ring item #21 and then slide item # 23 protective shield off shaft.



11) Remove bottom seal item #22 with seal removal tool or flat head screw driver.

12) Remove snap ring item # 21 behind seal item # 22.



13) Remove output shaft item # 9 pull out from bottom of gearbox housing item # 1.

14) Remove bearing item # 20 from output shaft item # 9.



Assembly Instructions

Note : Seals should be last parts installed.

1) Install race and bearing set item #20 in bottom of housing then install output shaft item #9 and then install snap ring item # 21.



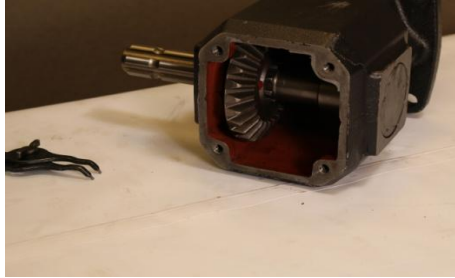
2) Install top Bearing set item #19 next install shims Item #13 next install top output shaft gear item #14 next install castle nut item #18.

3) Tighten Castle nut item #18 using 1 7/16 nut using torque wrench to set bearing pre-load at 8 inch pounds (rolling torque) without seals install cotter pin item #24.



4) Install item # 17 race on gear side of housing next install shims item #12 next install snap ring item #16.

5) Install bearing item #17 next install gear item #14 on shaft inside housing tap shaft in place.



6) Install rear bearing set item #15 next install shims item #12 next install rear snap ring item #16.



7) Check backlash before installing seals backlash should be 6-8 thousands if needed add shims to set.

8) Install bottom seal item #22 push down until you have enough room to install item #23 protective shield and snap ring item # 21.



9) Install rear cap item #5 at rear of housing.

10) Install input seal item #4.

11) Clean off old permatx from Top plate item #2 and top of gearbox housing item # 1 add a coat of fresh permatx to item #2 and item #1 and replace top cap using the 4 bolts item #6 .

12) Fill with oil to fill level on dipstick, gearbox capacity is three quarts recommended oil is EP80W-90.