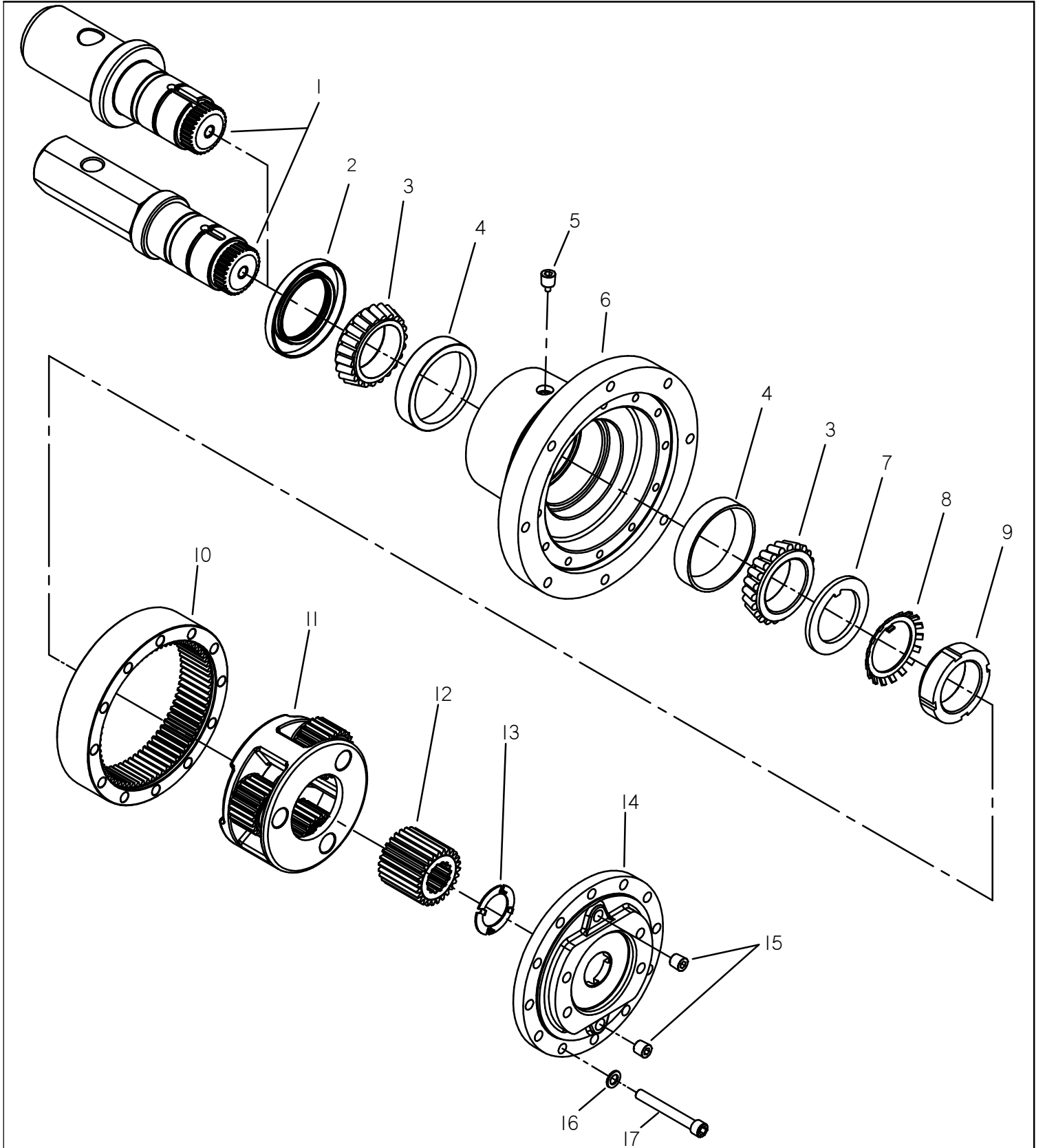


Power Wheel® Service Manual
Model 4
Single Reduction
Shaft Output Drives



PHONE: (260) 925-3200
FAX: (260) 925-4725



IDENTIFICATION

IMPORTANT: All Power Wheel units and kits are shipped with a label that includes the Auburn Gear part number and order code.

Example:



In addition to the label, Power Wheel drives are stamped with the last four digits of the part number and the date code, which appears on the cover or hub flange as shown.

Example: 3136 11240

When ordering parts, the information included on the label or the stamped identification number is necessary to accurately identify the drive and obtain the correct replacement parts. Once this information has been obtained, contact Auburn Gear for the appropriate parts list.

DISASSEMBLY OF POWER WHEEL

STEP 1

Remove twelve socket head cap screws (17) and washers (16) from cover (14). Lift cover (14) from assembly. Thrust washer (13) usually remains with cover (14).

STEP 2

Lift sun gear (12) from secondary carrier assembly (11).

STEP 3

Remove secondary carrier assembly (11) from ring gear (10).

STEP 4

Remove ring gear (10) from hub (6).

STEP 5

One tab of lock washer (8) will be engaged in slot of bearing nut (9); bend back to release. Remove the bearing nut (9), lock washer (8) and thrust washer (7). Note: A special locknut wrench (P/N: 613A) is required for the removal of the bearing locknut. Contact Auburn Gear for procurement of wrench and other service tools.

STEP 6

Care should be taken to avoid damaging splines and threads on shaft. Note: Bearing cone (3) has been designed with a slip fit with respect to shaft (1).

STEP 7

Remove seal (2) and bearing cones (3) from hub (6). Inspect bearing cups (4) in hub (6) and remove only if replacement is required.

ASSEMBLY OF POWER WHEEL

STEP 1

Press new bearing cups (4) in each side of the hub (6). It is recommended that bearing cups (4) and cones (3) be replaced in sets.

STEP 2

Assemble outer bearing cone (3) into cup (4) at seal end of hub (6) and press a new seal (2) into hub (6).

STEP 3

Lubricate shaft oil seal (2) and lower hub (6) onto output shaft (1). Keep hub (6) centered to prevent damage to oil seal. NOTE: [On heavy duty seals there is to be no lubricant on seal (2), output shaft (1), or hub (6)].

STEP 4

Assemble inner bearing cone (3) over output shaft (1). Place bearing cone (3) over output shaft bearing journal. Press bearing cone (3) down until rollers just touch cup (4). Take care to avoid pressing cone (3) too far.

STEP 5

Install thrust washer (7) with tab in keyway of output shaft and lock washer (8). Install lock nut (9) and tighten to 30 ft-lbs (41 Nm). Rotate hub clockwise twenty turns then counter-clockwise twenty turns. Tighten lock nut (9) to 50 ft-lbs (68 Nm). Repeat rotation process and tighten to 70 ft-lbs (95 Nm).

STEP 6

Secure lock nut (9) by bending lock washer tab (8) into one of the 4 slots of lock nut (9). If no tab from lock washer (8) aligns with slot of lock nut (9), lock nut (9) may be tightened until one of the slots aligns with lock washer tab (8).

STEP 7

Clean mating surface and apply a bead of silicone sealant to face of hub (6) that mates with ring gear (10). See instructions on sealant package. Assemble ring gear (10) to hub (6), being careful to align bolt holes.

STEP 8

Assemble the secondary carrier assembly (11) into ring gear (10) aligning the gear teeth. Carrier splines mesh with splines on output shaft (1).

STEP 9

Install sun gear (12) into secondary carrier assembly (11). Sun gear (12) should turn freely by hand when assembled.

STEP 10

Apply a bead of silicone sealant to cover face of ring gear (10). Secure thrust washer (13) with tangs engaged in cover (14). Note: Washer (13) can be secured to cover (14) with a small amount of grease or silicone sealant. Assemble cover (14) to ring gear (10).

STEP 11

Install twelve socket head cap screws (17) and washers (16), and torque to 45-50 ft-lb (60-68 Nm).

STEP 12

Position filler opening vertically and fill with lubricant to proper level.

CARRIER ASSEMBLIES

It is recommended that the secondary carrier assembly (11) be serviced in their entirety to protect the integrity of the Power Wheel drive.

LUBRICATION RECOMMENDATIONS

IMPORTANT: POWER WHEEL PLANETARY DRIVES ARE SHIPPED WITHOUT LUBRICANT AND MUST BE FILLED TO THE PROPER LEVEL PRIOR TO START UP.

Observe lubrication recommendations given by the original equipment manufacturer. When specific recommendations are not available, use mild extreme pressure lubricant API-GL-5, No. 80 or 90 when filling the Power Wheel under normal temperature ranges between 0 - 120°F (-18 to 49°C). See specifications below for oil fill requirements for various Power Wheel mounting orientations. Use drain and fill plugs located in hub and cover. Oil is to be changed after first 50 hours of operation with subsequent changes every 1000 hours or yearly, whichever comes first. If ambient conditions are outside the specified range or if the oil temperature exceeds 200°F (93°C), contact Auburn Gear for oil and level recommendations.

STORAGE

A protective film is applied to the Power Wheel at the factory to prevent rust during shipment. Additional protection may be required if the Power Wheel is to be stored for an extended period of time.

SEALING COMPOUND

Silastic RTV732 sealer and General Electric Silimate RTV No. 1473 or RTV No. 1503 are currently recommended for sealing gasket surfaces. Sealant should be applied in a continuous bead, which should be centered on the surface to be sealed but should move to the inside of the hole at each bolthole location. For service requirements order Auburn Gear part number 604101.

SPECIFICATIONS

Maximum intermittent output torque	40,000 lb. in. (4,520 Nm)
Maximum input speed	3,500 RPM
Oil capacity (vertical, shaft down).....	25 oz (740 CC)
Oil capacity (horizontal).....	14 oz (414 CC)

ITEM NO.	DESCRIPTION*	NO. USED IN ASS'Y.
1	Output Shaft	1
2	Oil Seal	1
3	Bearing Cone	2
4	Bearing Cup	2
5	Magnetic Plug	1
6	Hub	1
7	Thrust Washer	1
8	Lock Washer	1
9	Lock Nut	1
10	Ring Gear	1
11	Secondary Carrier Assembly	1
12	Sun Gear	1
13	Thrust Washer	1
14	Cover	1
15	Pipe Plug	2
16	Washer	12
17	Screw, Socket Head Cap	12

*Contact Auburn Gear with part number and order code of drive to obtain the appropriate parts list. Refer to parts list for the specific part numbers and quantities.

Model 4 Power Wheel® Service Kits

Part No.	Description	Included Items
641089**	SEAL KIT	2
641090**	SEAL & BEARING KIT	2, 3, 4, 8
613A	BEARING LOCKNUT TOOL	Not Shown
613B	SEAL DRIVER (Hex shaft only)	Not Shown
613C	BEARING CUP DRIVER	Not Shown

**Indicates kit also includes a tube of sealant, part number 604101