

INSTALLATION - SERVICE INSTRUCTIONS



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P/N's 50900-EV4.1, 50900-EV4.1-B, 50600-EV4.1, 50600EV4.1-B **EVOLUTION 4.1 AXLE HOUSING END SYSTEM**

Issues from the field use of the original product were:

- 1) Customers had experienced chipping on the edge of the roller retainer allowing the bearing rollers to fall out when axle was removed from the housing.
- 2) When the axle was removed the bearing race could become misaligned with the rollers requiring carefully spinning the outer race while holding the rollers down to re-align the bearing. This was unacceptable because of time limitations of between round maintenance.

Solution Requirements:

- 1) In order to prevent excessive forces on the outer race when removing the axle it was necessary to create a method that would pull the race out of the housing by the race rather than the rollers pulling on the race.
- 2) In order to prevent the race from becoming out of alignment when removed something needed to control the spherical movement of the outer race in relation to rollers and inner bearing race.

Improvements/Features:

The assemblies now utilize a shell cup retainer that is attached to the caliper bracket. This prevents damaging forces on the outer race when removing the axle. The retainer also prevents the race from becoming out of alignment when removed. Retaining ring installation process was improved to a heat shrink operation. The improved product is noted as Evolution 4.1 assembly. The additional benefits of the EV4.1 (four dot one) assemblies are:

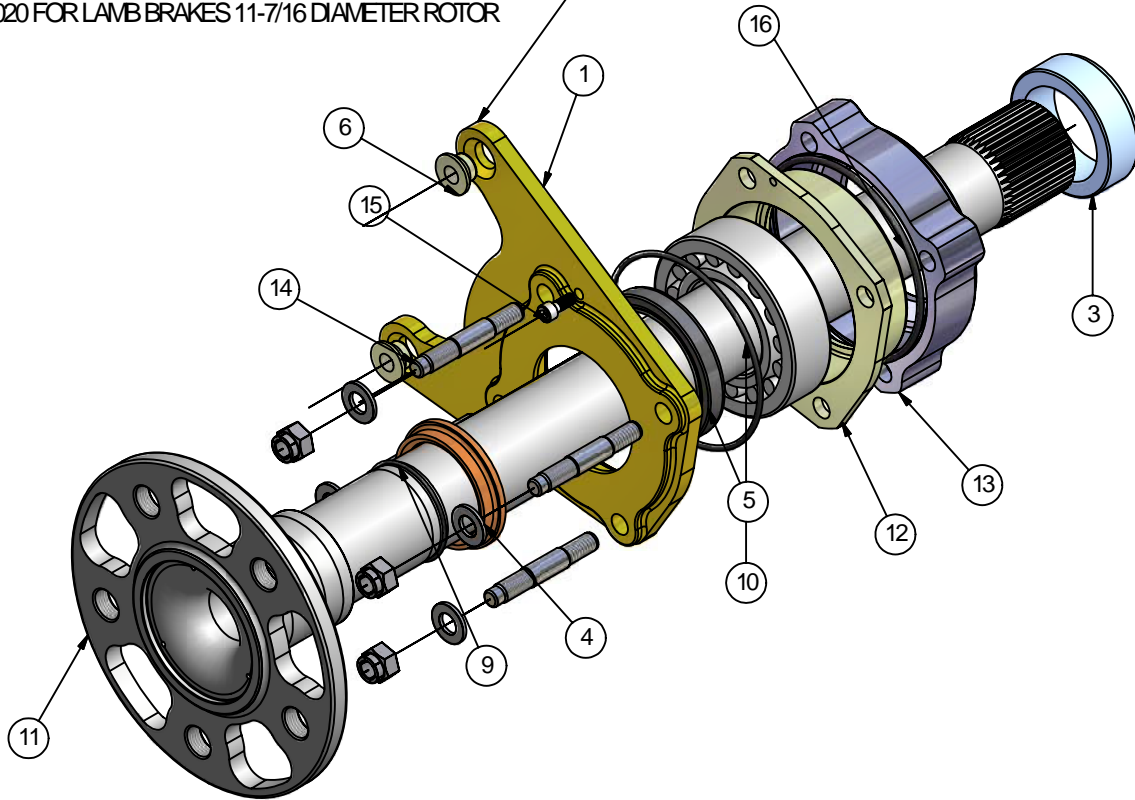
- 1) Shell retainer eliminates having to align the outer race before installing axle and eliminates retainer damage when removing axles. Keeps the bearing and caliper bracket in one package for easy assembly and disassembly.
- 2) Shell retainer is more durable for continued assembly and disassembly for between round maintenance. Protects the bearing from damage by handling.
- 3) Housing now has studs that guide the axle and bearing into the housing ends for faster re-assembly.
- 4) Sealing o-ring between axle assembly and housing is not subject to cutting when re-installed. Seal is on corner edge.
- 5) When used with the 50900 300M Axle we have increased the flange thickness, re-profiled pocketing windows for increased material around wheel stud, 1" diameter Gun Drilled bore further increases axle strength.
- 6) Utilizes a self-aligning bearing that reduces axle-bowing forces due to housing distortion. Eliminates axle lock ring "walking".
- 7) Rotating weight of one-piece forged axle assembly is significantly reduced compared to two-piece designs.
- 8) Lock ring utilizes a heat shrink for installation rather than press-on. Increases the holding force from 9815 pounds to 19,635 pounds force to remove.

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71019 FOR MW BRAKES 11-3/4" DIAMETER ROTORS
71020 FOR LAMB BRAKES 11-7/16" DIAMETER ROTOR



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	71019	Caliper Mount for Spherical End
3	1	58505RH	Heat Treated Lock Ring
4	1	58526	Spherical Bearing Spacer
5	1	58527	Outer Seal for Spherical End
6	2	55007	INSERT, CALIPER MOUNT
9	1	-031	O-RING, SPACER RING
10	1	-153	O-RING CALIPER MOUNT SEAL
11	1	50900-1	AXLE, 300MEV4.1 SERIES 1" GUN DRILLED
12	1	58576-1	SHELL, RETAINER FOR GENERATION 4 HOUSING END
13	1	58577-1	HOUSING END FOR SHELL RETAINER GENERATION 4.1 AXLES
14	4	58577-2	STUD, HOUSING END FOR FOR GEN 4 SHELL RETAINER
15	2	91251A242	10-24 X 1/2 SOCKET CAP SCREW
16	1	9262K318	90mm ID X 3mm SECTION O-RING
17	4	AN122584	WASHER, HARD 3/8 .078 THICK
18	4	21FC-624	3/8-24 FLEXLOCK NUT
19	1	NSK SRB-222H_22209H	SPHERICAL RLR BRG, 222H SER

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