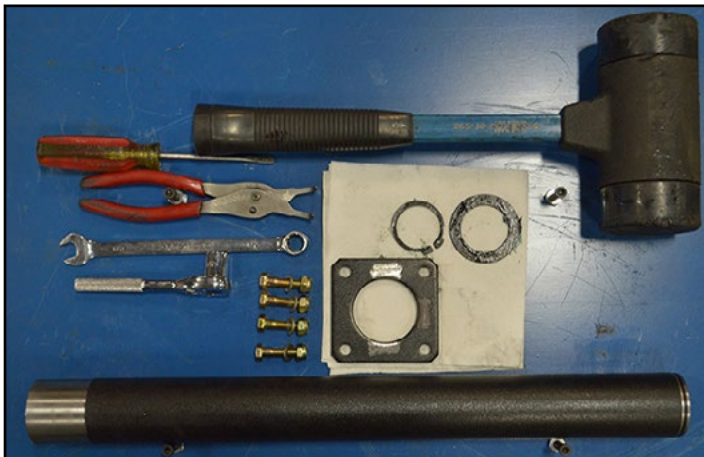


DRUM BRAKE AXLE – CAM ENCLOSURE REPLACEMENT PROCEDURE



Drum Brake Axle - Cam Cover Service Kit includes the brake cam enclosure, the brake cam support bracket and hardware components for one cam cover replacement .

| | |
|---|--|
|  | RIDEWELL SUSPENSIONS The Engineered Suspension Company |
| PART NO: | |
| SUSP. NO: | |
| SERIAL NO: | |
| GROSS AXLE WEIGHT RATING CERTIFICATION IS PER THE FINAL STAGE MANUFACTURER OR ALTERER. | |
| THIS PRODUCT MAY BE COVERED UNDER ONE OR MORE PATENTS, ADDITIONAL PATENTS MAY BE PENDING. | |
| www.ridewellcorp.com (800) 641-4122 | |

Suspension Identification Tag

Part Number:

The 606-Installation/Assembly Number is listed when additional suspension system components are factory installed.

Suspension Number; Serial Number:

The Suspension (Model) Number and the Serial Number refer to the date of manufacture of the suspension system.

Trailer Preparation

Park trailer on level surface. Set trailer parking brakes. Chock wheels on the axle that is not being raised. Disconnect linkage from the height control valve(s), if necessary. Exhaust all air from the air system.

CAUTION Failure to provide support, chock vehicle's wheels or exhaust the air system could allow vehicle movement that could result in serious injury.

Drum Brake Axle - Cam Enclosure Replacement

All work should be completed by a properly trained technician using the proper tools and safe work procedures. Ridewell Suspensions recommends replacing the cam enclosures on both sides of the drum brake axle at the same time.

1. Raise the side of the vehicle (axle) on which the cam cover is to be replaced until the wheel(s) clear the surface. Support with safety stands.
2. Remove the tire/wheel assembly and the hub/drum components to access the axle spider. Remove the slack adjuster/clevis assembly and brake components to access the inboard brake cam mounting bracket.
3. Use snap-ring pliers and a flat-head screwdriver to remove snap-ring and flat washer(s) from splined end of brake cam (slack adjuster end).
4. Remove bolts; flat washers and, locknuts holding the Cam Cover Support Bracket to the Brake Cam Mounting Bracket.



NOTE: Inspect hardware for damage. Replace components as necessary.

5. Tap on splined end of brake cam with a rubber mallet to loosen. Pull brake cam out from the outboard side of cam enclosure. Inspect brake cam for damage. Replace if necessary.

Continued on next page

Remove hardware from mounting bracket. Tap the splined end of brake cam with rubber mallet. Pull cam out of the outboard side of cam enclosure.



Notes and Cautions

This instruction uses two types of service note definitions:
"NOTE" Provides additional instructions or procedures to complete tasks and make sure suspension system components function properly.

CAUTION Indicates a hazardous situation or unsafe practice that could result in equipment damage and serious injury if not avoided.

Continued from previous page

6. Remove cam cover from mounting brackets. Inspect O-Ring Seal and Lip Seal for damage/excessive wear. Replace as necessary.
7. Inspect the Thrust Washer, the Cam Bearing, outboard cam seal and inside axle spider for damage. Replace components as necessary.
8. Welding preparation - Grind away a small amount of paint on three (3) sides of the hole in the cam cover support bracket.
9. Place the cover support bracket on the end of cam cover with lip seal. Rotate the bracket so that one weld area is on outside of the mounting bracket away from the axle.
10. Insert the ground (shiny) end of cam cover through the inboard side of the mounting bracket into the bearing inside the axle spider. Hold the cam cover support bracket against the mounting bracket. Tap the inboard side of the cam cover with rubber mallet to firmly seat cover inside the axle spider.
11. Bolt the cam cover support bracket to the mounting bracket.
12. Push the brake cam through the outboard opening of cam cover until the groove on the splined end of cover appears on the inboard side of the cam cover support bracket.
13. Thread flat washer over splined end of cam until it rests against the end of the cam cover.
14. Push snap ring onto splined end of cam until it rests against groove. Use flat head screwdriver to push snap ring into groove.
15. Tack-weld the cam cover to the cover support bracket on the top, bottom and the bracket side that is away from the axle.
16. Lubricate brake cam using the axle spider grease fitting. Add grease until grease purges out the slack adjuster side of the cam cover support bracket. Wipe away excess.
17. Reattach brake components. Reassemble hub/drum assembly and reattach other wheel-end components that were removed.
18. Replace the tire/wheel assembly. Raise vehicle and remove support stands. Lower vehicle to ground.

Repeat brake cam cover replacement procedure on other side of axle.

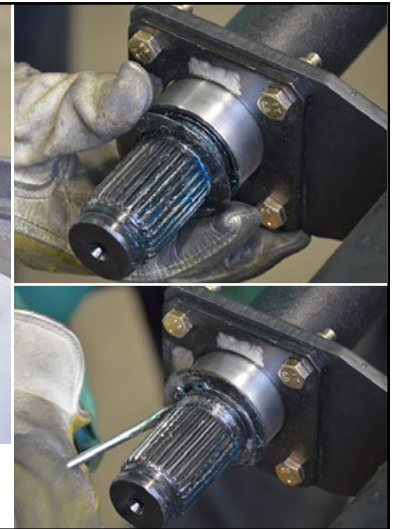


Inspect cam bearing inside the spider; cam bearing seal; and, thrust washer for damage. Replace components as necessary.

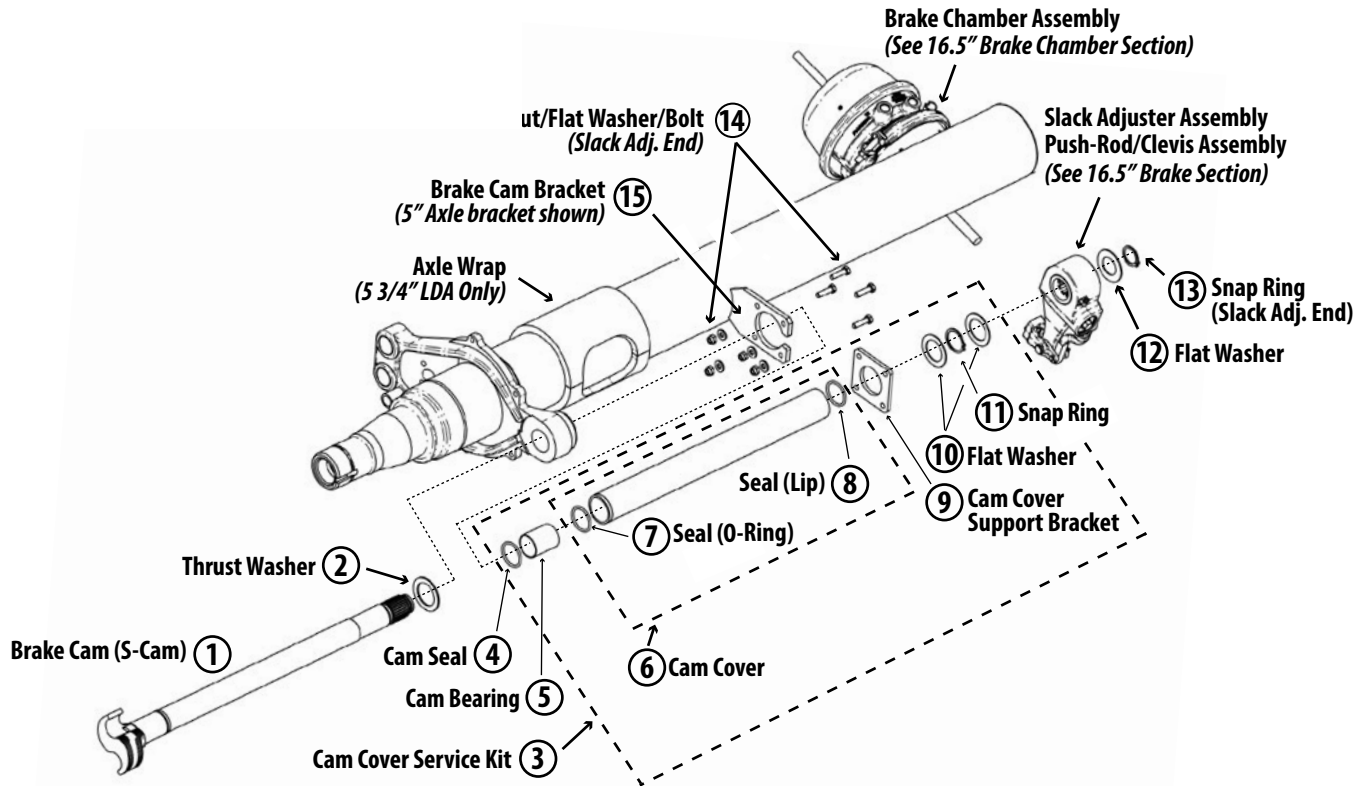
Insert cam cover with cam cover support bracket in-place through mounting bracket until cam cover is seated in axle spider. Tap firmly with mallet to secure.



Insert splined end of cam through outboard side of cam enclosure. Secure cam in cover with flat washer and snap ring.

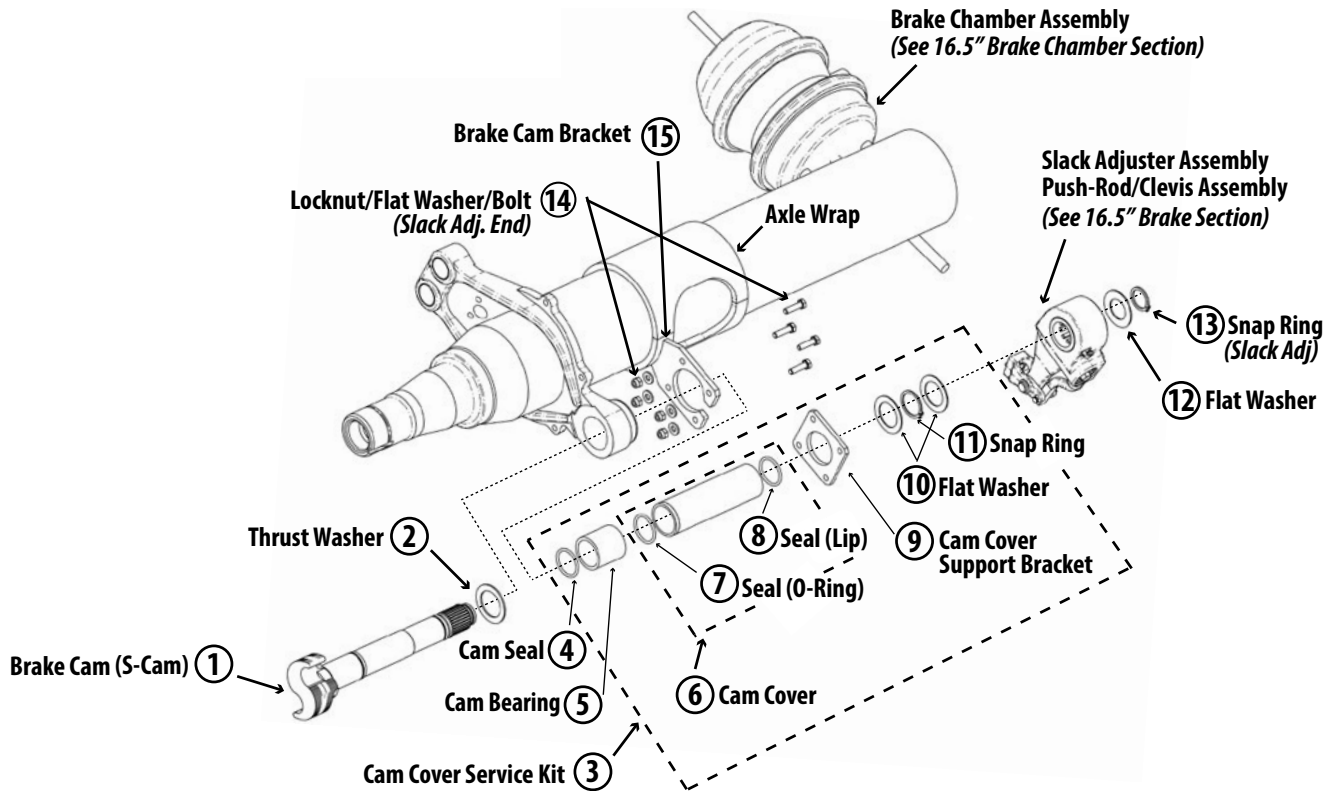


5" Standard Axle; 5 3/4" Large Diameter Axle (LDA) with Tapered Spindle (N); S-Cam (613mm) Enclosure



| DWG No. | QTY PER AXLE | 5" – STANDARD AXLE 5 3/4" – LARGE DIAMETER AXLE (LDA) | ITEM DESCRIPTION |
|---------|--------------|--|--|
| 1 | 1 | 1667591B106 | S-Cam (613 mm), Left-Hand |
| | 1 | 1667591B206 | S-Cam (613 mm), Right-Hand |
| 2 | 2 | 1667591B043 | Thrust Washer - S-Cam |
| 3 | 2 | 1660306 Cam Cover Service Kit (613mm Cam) | |
| 4 | 1 | 1667591B038 | S-Cam - Seal (Axle Spider End) |
| 5 | 1 | 1667591B039 | S-Cam - Bearing (Axle Spider End) |
| 6 | 1 | 1667591B036 | Cam Cover Assembly (536 mm); bushings included |
| 7 | 1 | 1660633 | Seal (O-Ring) - Cam Cover (Axle Spider End) |
| 8 | 1 | 1660634 | Seal (Lip) - Cam Cover (Slack Adjuster End) |
| 9 | 1 | 1667591B037 | Support Bracket (2" Universal) - Cam Cover |
| 10 | 10 | 1667591B044 | S-Cam - Spacer Washer (Slack Adjuster End) |
| 11 | 1 | 1667591B009 | S-Cam - Snap Ring (Slack Adjuster End) |
| 12 | 2 | 1667591B016 | S-Cam - Spacer Washer (Slack Adjuster) |
| 13 | 2 | 1667591B017 | S-Cam Snap Ring (Slack Adjuster) |
| 14 | 8 | 1150063 | Locknut - M8 (Slack Adjuster End) |
| | 8 | 1140081 | Bolt (HHCS) – M8 x 30mm (Slack Adjuster End) |
| | 8 | 1160031 | Flat Washer (Slack Adjuster End) |
| 15 | 2 | 7720039 | Cam Bracket - 5" Standard Axle |
| | 2 | 7004538 | Cam Bracket - 5 3/4" LDA |

5 3/4" Large Diameter Axle with Tapered Spindle (N); Short S-Cam (283mm) Enclosure



| DWG No. | QTY PER AXLE | 5 3/4" – LARGE DIAMETER AXLE (LDA) | ITEM DESCRIPTION |
|---------|--------------|--|--|
| 1 | 1 | 1667591B108 | Short S-Cam (283 mm), Left-Hand |
| | 1 | 1667591B208 | Short S-Cam (283 mm), Right-Hand |
| 2 | 2 | 1667591B043 | Thrust Washer - S-Cam |
| 3 | 2 | 1660387 Cam Cover Service Kit (283mm Cam) | |
| 4 | 1 | 1667591B038 | S-Cam - Seal (Axle Spider End) |
| 5 | 1 | 1667591B039 | S-Cam - Bearing (Axle Spider End) |
| 6 | 1 | 1667591B049 | Short Cam-Cover Assembly (169.5 mm); bushings included |
| 7 | 1 | 1660633 | Seal (O-Ring) - Cam Cover (Axle Spider End) |
| 8 | 1 | 1660634 | Seal (Lip) - Cam Cover (Slack Adjuster End) |
| 9 | 1 | 1667591B037 | Support Bracket (2" Universal) - Cam Cover |
| 10 | 10 | 1667591B044 | S-Cam - Spacer Washer (Slack Adjuster End) |
| 11 | 1 | 1667591B009 | S-Cam - Snap Ring (Slack Adjuster End) |
| 12 | 2 | 1667591B016 | S-Cam - Spacer Washer (Slack Adjuster) |
| 13 | 2 | 1667591B017 | S-Cam Snap Ring (Slack Adjuster) |
| 14 | 8 | 1150063 | Locknut - M8 (Slack Adjuster End) |
| | 8 | 1140081 | Bolt (HHCS) – M8 x 30mm (Slack Adjuster End) |
| | 8 | 1160031 | Flat Washer (Slack Adjuster End) |
| 15 | 2 | 7002997 | Brake Cam Bracket-LDA (B13-6301) |