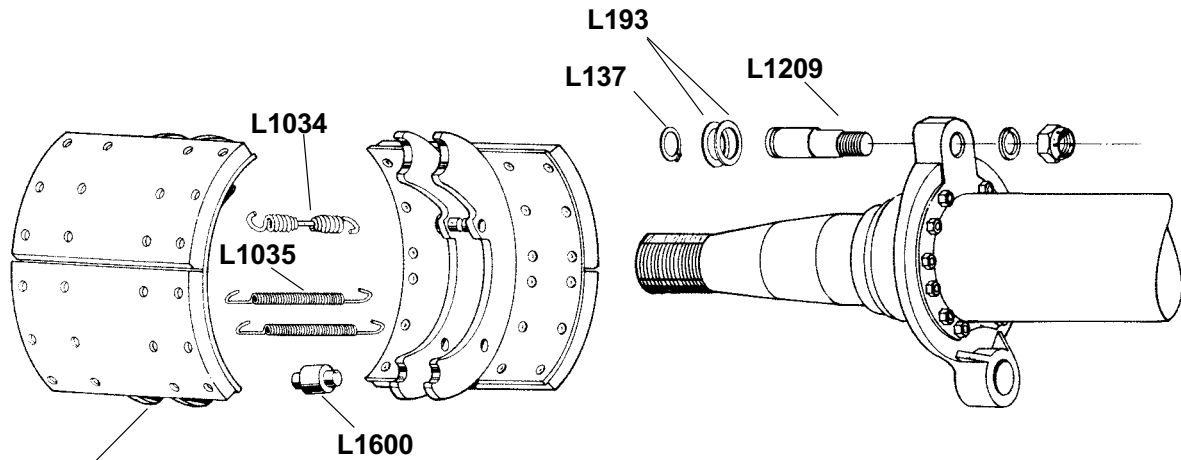


EATON

"C" & "E" SERIES , 5" ROUND AXLE WITH 12-1/4" BRAKES

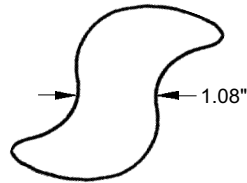


L1604 FMSI 4536AD (5-1/2")
L1605 FMSI 4591D (7-1/2")

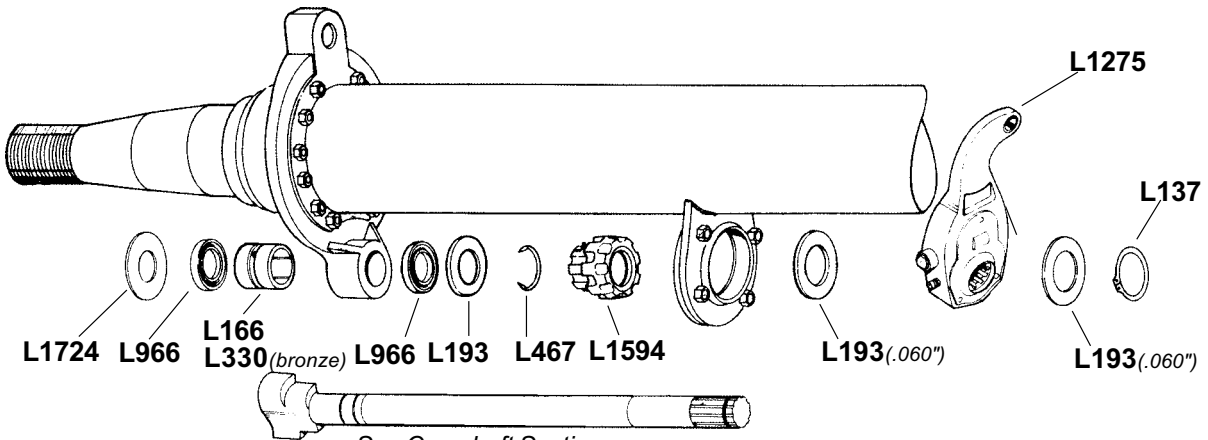
Brake Repair Kit: **K106**

Schematic
Diagram
Charts
4

EATON 12-1/4" CAMSHAFT IDENTIFICATION



Small "S-Head"
 1-1/2" - 10 Spline



See Camshaft Section
For Complete Listing

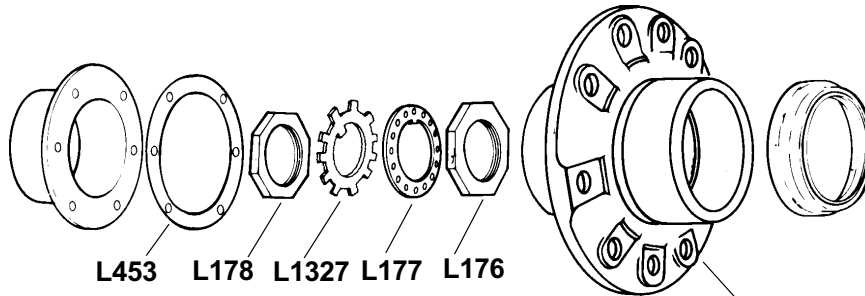
Cam Repair Kit: **K147**

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LELAND REPLACEMENT PARTS FOR
EATON (SHULER)
"C" & "E" SERIES , 5" ROUND AXLE
WITH 12-1/4" BRAKES
WHEEL HUB & AXLE ASSEMBLY PARTS

Schematic
 Diagram
 Charts

4



See Wheel Hub Section

BRAKE REPAIR KIT - EATON

K106
 For Eaton 12- 1/4" Brakes

Kit Contains:

- 1 Pc. - L137 Lock Ring
- 2 Pcs. - L193 Spacer Washer
- 1 Pc. - L1034 Return Spring
- 2 Pcs. - L1035 Return Spring
- 2 Pcs. - L1600 Roller



Contains parts to service one wheel.

CAM REPAIR KIT - EATON

K147
 For Eaton 12- 1/4" Brakes

Kit Contains:

- 1 Pc. - L137 Lock Ring
- 1 Pc. - L166 Bushing
- 3 Pcs. - L193 Spacer Washer
- 1 Pc. - L467 Lock Ring
- 2 Pcs. - L966 Neoprene Seal
- 1 Pc. - L1594 Cam Bushing
- 1 Pc. - L1724 Cam Washer

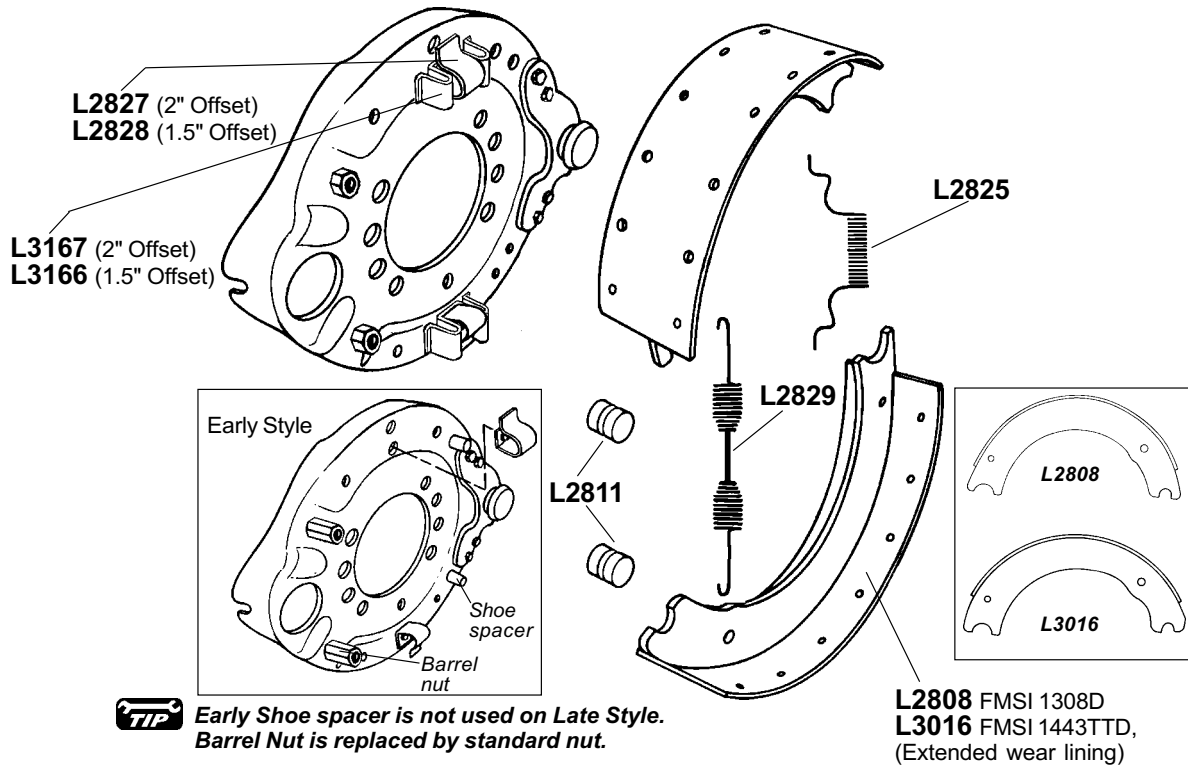


Contains parts to service one wheel.

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EATON

15" x 4", EB-150-4L "STANDARD" AND ES-150-4L "EXTENDED SERVICE" STEERING AXLE BRAKES



Schematic
Diagram
Charts
4

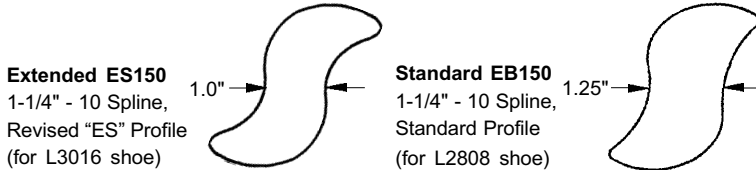
EATON

TIP Early Shoe spacer is not used on Late Style. Barrel Nut is replaced by standard nut.

L2808 FMSI 1308D
L3016 FMSI 1443TTD,
(Extended wear lining)

Brake Repair Kit: For "ES" and Standard Brake. **K263** - Wheel End

EATON 15"x 4" CAMSHAFT IDENTIFICATION



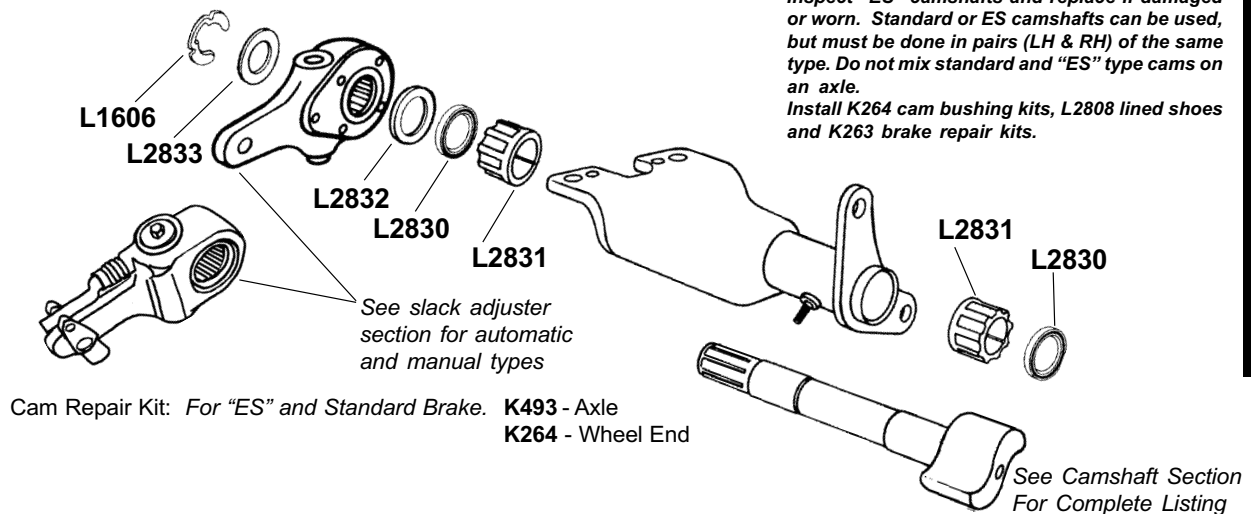
Extended ES150
1-1/4" - 10 Spline,
Revised "ES" Profile
(for L3016 shoe)

Standard EB150
1-1/4" - 10 Spline,
Standard Profile
(for L2808 shoe)

TIP CONVERSIONS

From Standard to "ES" Brake Configuration:
If early style barrel nuts and spacers are present, replace with late style shoe guides and standard nuts. (See schematic)
Install "ES" camshafts, K264 cam repair kits, L3016 lined brake shoes and K263 brake repair kits.

From "ES" to Standard Brake Configuration:
Inspect "ES" camshafts and replace if damaged or worn. Standard or ES camshafts can be used, but must be done in pairs (LH & RH) of the same type. Do not mix standard and "ES" type cams on an axle.
Install K264 cam bushing kits, L2808 lined shoes and K263 brake repair kits.



Cam Repair Kit: For "ES" and Standard Brake. **K493** - Axle
K264 - Wheel End

BRAKE REPAIR KITS

EATON

K263

For Eaton 15" x 4" EB & ES Front Brakes

Kit Contains:

- 2 Pcs. - L2811 Roller
- 1 Pc. - L2825 Shoe Retainer Spring
- 1 Pc. - L2829 Return Spring



Contains parts to service one wheel.

Schematic
Diagram
Charts

4

CAM REPAIR KITS - EATON

K493

For Eaton 15" x 4" EB (1308D) and ES (1443D) Brakes

Kit Contains:

- 2 Pcs. - L1606 Lock Ring
- 4 Pcs. - L2830 Seal
- 4 Pcs. - L2831 Bushing
- 2 Pcs. - L2832 Spacer Washer
- 2 Pcs. - L2833 Spacer Washer
- 2 Pcs. - L2940 Lock Ring



Contains parts to service one axle.

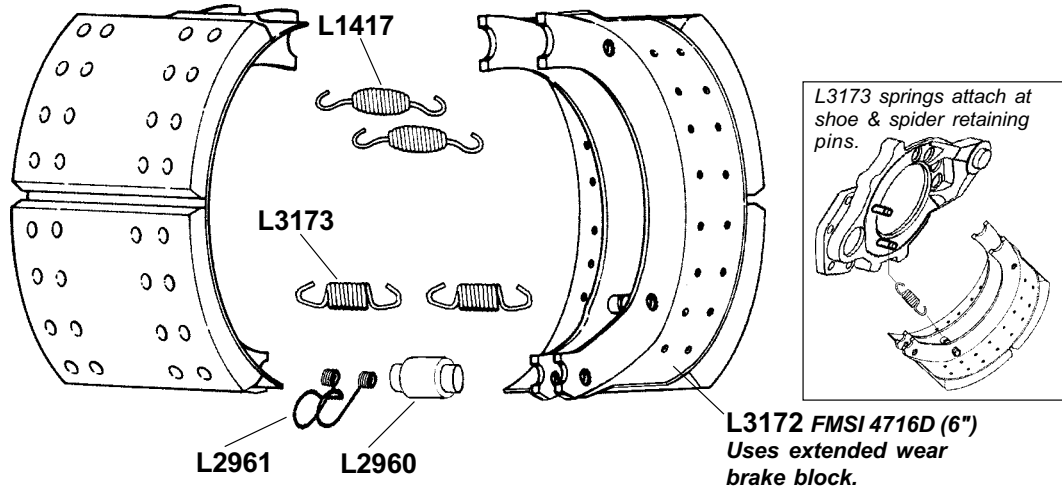
Use **K264** to service One Wheel End.

Also services Dana 15" x 4" (4693D) cam axle.

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EATON

15" X 6" ES-150-6D "REDUCED ENVELOPE" STEERING AXLE BRAKE



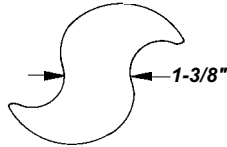
Schematic Diagram Charts
4

Brake Repair Kit: K356
Camshafts: "ES" Type.

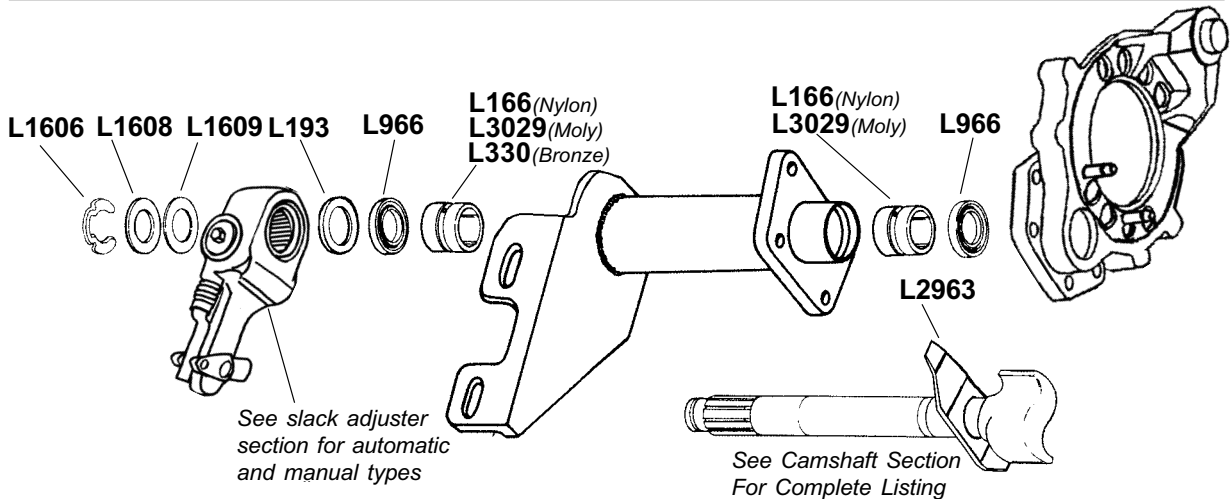
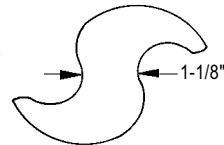
TIP The same S-Head profile is used for both 15" "Reduced Envelope" and 16-1/2" "Extended Service" Brakes. See "camshaft identification" below.

EATON "ES" CAMSHAFT IDENTIFICATION

Standard Production
16-1/2" "EB" Brakes.
(For Reference)



Both "ES" 15" RE &
"ES" 16-1/2" Brakes.
1-1/2" diameter
bearing surfaces.



Cam Repair Kits: With L3029 Molydisulfide filled Nylon bushings:

K499 - Axle, includes L2963

K296 - Wheel End, includes L2963

K357 - Axle, excludes L2963

K140 - Wheel End, excludes L2963



Severe Duty Cam Repair Kit K312 - Wheel End, contains L330 Bronze inner & L3029 Moly outer bushings



H. D. Version

BRAKE REPAIR KIT

EATON

K356

For Eaton 15" x 6"
"ES" Steer Axle Brake

Contents:

- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L2960 Roller
- 2 Pcs. - L2961 Roller Retainer
- 2 Pcs. - L3173 Return Spring



Contains parts to service one wheel

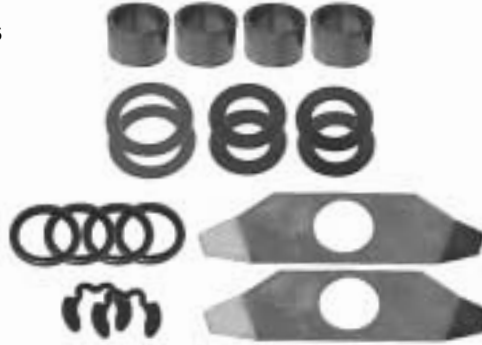
CAM REPAIR KITS - EATON

K499

For Eaton "ES" Drive and Steer Axle Brakes
using 1-1/2" Camshaft

Contents:

- 2 Pcs. - L193 Spacer Washer
- 4 Pcs. - L966 Neoprene Seal
- 2 Pcs. - L1606 Lock Ring
- 2 Pcs. - L1608 Spacer Washer
- 2 Pcs. - L1609 Spacer Washer
- 2 Pcs. - L2963 Cam Head Washer
- 4 Pcs. - L3029 Cam Bushing



Serves one axle.

Use K296 to service One Wheel End.

K357

Axle Kit for Eaton "EB" and "ES"
"ES" Steer and Drive Axle Brakes
using 1-1/2" Camshaft

Contents:

- 2 Pcs. - L193 Spacer Washer
- 4 Pcs. - L966 Neoprene Seal
- 2 Pcs. - L1606 Lock Ring
- 2 Pcs. - L1607 Cotter Pin
- 2 Pcs. - L1608 Spacer Washer
- 2 Pcs. - L1609 Spacer Washer
- 4 Pcs. - L3029 Cam Bushing



Use K140 to service One Wheel End.

K312

For Eaton "EB" and "ES"
Steer and Drive Axle Brakes
using 1-1/2" Camshaft in
Severe Duty Applications.

Contents:

- 2 Pcs. - L193 Washer
- 1 Pc. - L330 Bronze Bushing (Inner)
- 2 Pcs. - L966 Seal
- 1 Pc. - L1606 Lock Ring
- 1 Pc. - L1608 Washer
- 1 Pc. - L1609 Washer
- 1 Pc. - L3029 Bushing (Outer)



Contains parts to service one wheel.

Schematic
Diagram
Charts

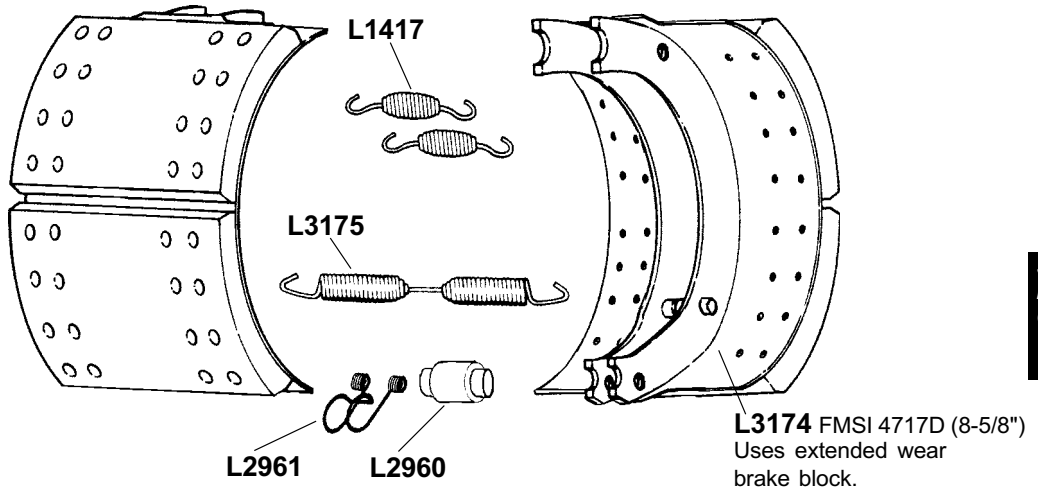
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 H. D. Version

EATON

15" x 8-5/8" ES-150-8D & 8F "REDUCED ENVELOPE" DRIVE AXLE BRAKE



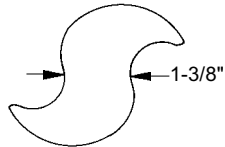
Schematic
Diagram
Charts
4

Brake Repair Kit: **K358**
Camshafts: "ES" Type.

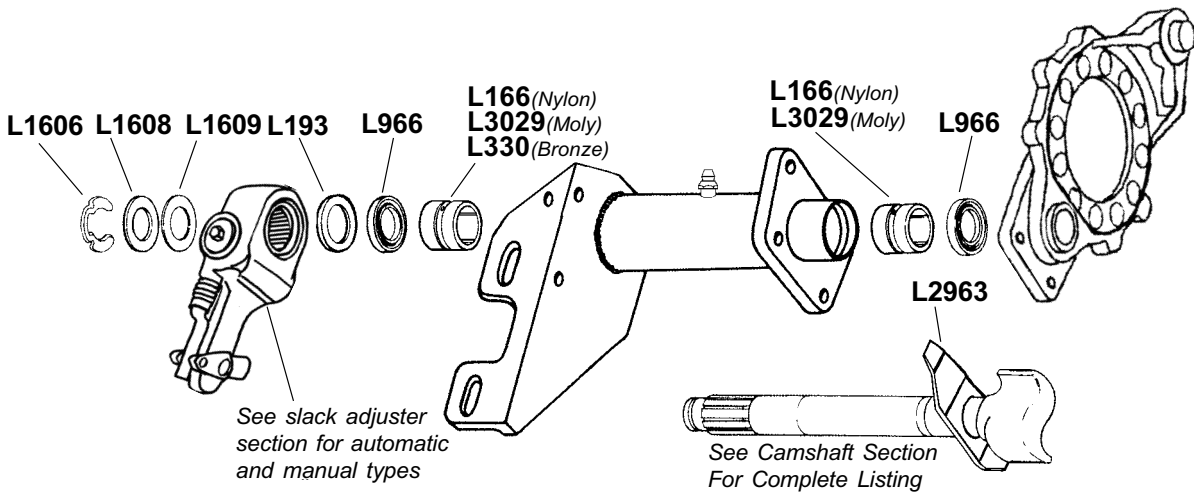
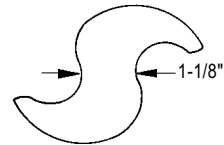
TIP The same S-Head profile is used for both 15" "Reduced Envelope" and 16-1/2" "Extended Service" Brakes. See "camshaft identification" below.

EATON "ES" CAMSHAFT IDENTIFICATION

Standard Production
16-1/2" "EB" Brakes.
(For Reference)



Both "ES" 15" RE &
"ES" 16-1/2" Brakes.
1-1/2" diameter
bearing surfaces.



Cam Repair Kits: With L3029 Molydisulfide filled Nylon bushings:

K499 - Axle, includes L2963

K296 - Wheel End, includes L2963

K357 - Axle, excludes L2963

K140 - Wheel End, excludes L2963



Severe Duty Cam Repair Kit: **K312** - Wheel End, contains L330 Bronze inner & L3029 Moly outer bushings



H. D. Version

BRAKE REPAIR KIT

EATON

K358

For Eaton 15" x 8-5/8"
"ES" Drive Axle Brake

Contents:

- 2 Pcs. -L1417 Retainer Spring
- 2 Pcs. -L2960 Roller
- 2 Pcs. -L2961 Roller Retainer
- 1 Pc. - L3175 Return Spring



Contains parts to service one wheel

CAM REPAIR KITS - EATON

With Moly spider bushings

Schematic
Diagram
Charts

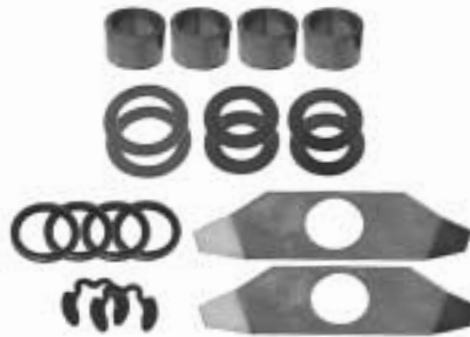
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K499

For Eaton "ES" Drive and Steer Axle Brakes
using 1-1/2" Camshaft

Contents:

- 2 Pcs. - L193 Spacer Washer
- 4 Pcs. - L966 Neoprene Seal
- 2 Pcs. - L1606 Lock Ring
- 2 Pcs. - L1608 Spacer Washer
- 2 Pcs. - L1609 Spacer Washer
- 2 Pcs. - L2963 Cam Head Washer
- 4 Pcs. - L3029 Cam Bushing



Serves one axle.

Use **K296** to service One Wheel End.

K357

Axle Kit for Eaton "EB" and "ES" Steer and
Drive Axle Brakes using 1-1/2" Camshaft

Contents:

- 2 Pcs. - L193 Spacer Washer
- 4 Pcs. - L966 Neoprene Seal
- 2 Pcs. - L1606 Lock Ring
- 2 Pcs. - L1607 Cotter Pin
- 2 Pcs. - L1608 Spacer Washer
- 2 Pcs. - L1609 Spacer Washer
- 4 Pcs. - L3029 Cam Bushing



Use **K140** to service One Wheel End.

K312

For Eaton "EB" and "ES" Steer and Drive Axle
Brakes using 1-1/2" Camshaft in
Severe Duty Applications.

Contents:

- 2 Pcs. - L193 Washer
- 1 Pc. - L330 Bronze Bushing (Inner)
- 2 Pcs. - L966 Seal
- 1 Pc. - L1606 Lock Ring
- 1 Pc. - L1608 Washer
- 1 Pc. - L1609 Washer
- 1 Pc. - L3029 Bushing (Outer)

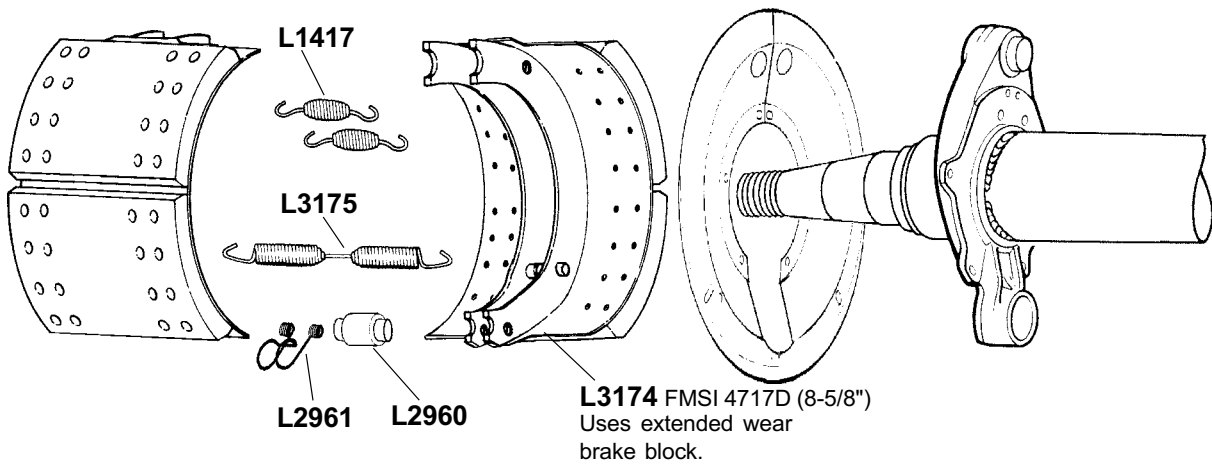


Contains parts to service one wheel.

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15" x 8-5/8" ES-150-8L REDUCED ENVELOPE TRAILER AXLE BRAKE



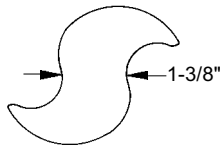
Schematic
Diagram
Charts
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Brake Repair Kit: **K358**
Camshafts: "ES" Type.

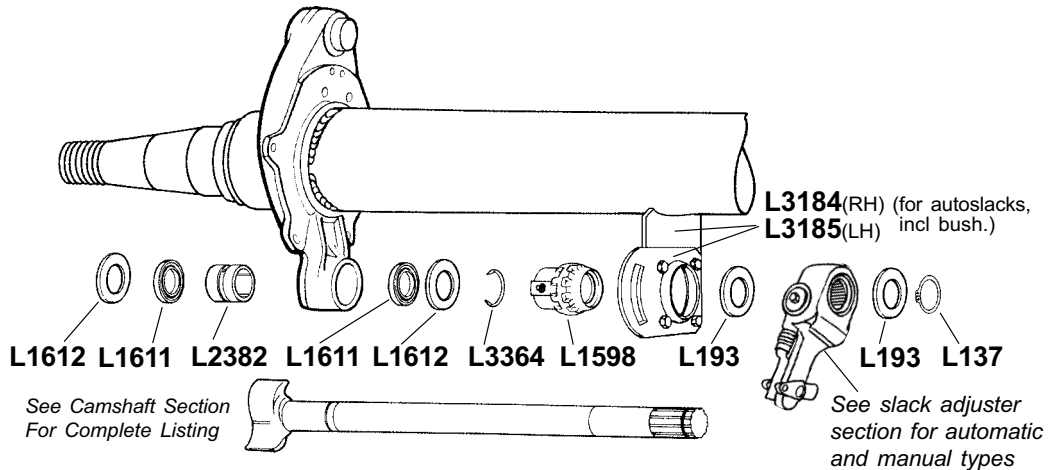
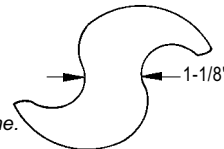
TIP The same S-Head profile is used for both 15" "Reduced Envelope" and 16-1/2" "Extended Service" Brakes. See "camshaft identification" below.

EATON "ES" CAMSHAFT IDENTIFICATION

Standard Production
16-1/2" "EB" Brakes.
(For Reference)



Both "ES" 15" RE &
"ES" 16-1/2" Brakes
1-5/8" diameter,
bearing surfaces.
1-1/2"-10 or 28 spline.

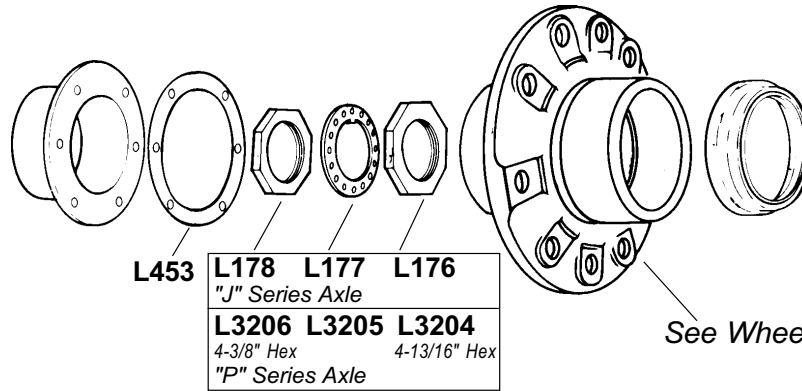


Cam Repair Kits: **K360** - Axle
K141 - Wheel End

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EATON

15" x 8-5/8" ES-150-8L REDUCED ENVELOPE TRAILER AXLE BRAKE WHEEL HUB & AXLE ASSEMBLY PARTS



Schematic
Diagram
Charts

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BRAKE REPAIR KIT EATON

K358

For Eaton 15" x 8-5/8" "ES" Trailer Axle Brake

Contents:

- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L2960 Roller
- 2 Pcs. - L2961 Roller Retainer
- 1 Pc. - L3175 Return Spring



Contains parts to service one wheel

CAM REPAIR KIT EATON

K360

Axle Kit for Eaton 15" and 16-1/2" "EB" or "ES" Trailer Brakes Services 10 and 28 Spline Cams

Contents:

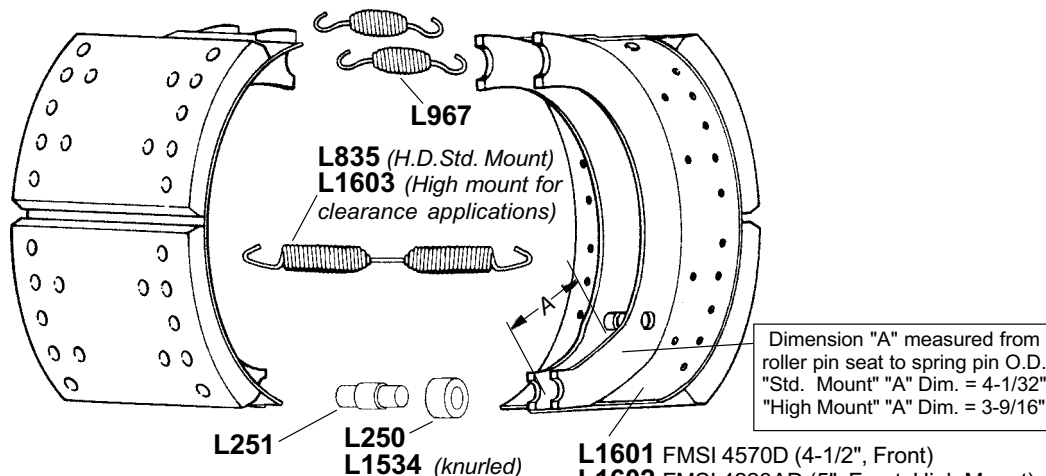
- 2 Pcs. - L137 Lock Ring
- 4 Pcs. - L193 Spacer Washer
- 2 Pcs. - L397 Lock Ring
- 2 Pcs. - L889 Anchor Pin Washer
- 2 Pcs. - L1598 Cam Bracket Bushing
- 4 Pcs. - L1611 Neoprene Seal
- 4 Pcs. - L1612 Spacer Washer
- 2 Pcs. - L2382 Spider Bushing
- 2 Pcs. - L3364 Lock Ring



Use **K141** to service One Wheel End

EATON

LELAND REPLACEMENT PARTS FOR
EATON
**16-1/2" EB-165 SELF-CONTAINED
 TRACTOR BRAKES**



Schematic
 Diagram
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4

TIP Early 16-1/2" x 7" shoe cores with a tab on the anchor end of the shoe table will not fit properly on post 1/81 design stamped (fabricated) spiders. This type shoe despite age is still found in core banks.

- L1601** FMSI 4570D (4-1/2", Front)
- L1602** FMSI 4223AD (5", Front, High Mount)
- L784** FMSI 4317GD (6")
- L3353** FMSI 4317GD (6", Front, High Mount)
- L2035** FMSI 4311JD (7")
- L2399** FMSI 4311JD (7", High Mount)

Brake Repair Kits:

- Heavy Duty, Standard Mount: **K42**
- K119** - Knurled Rollers
- High Mount: **K316**

Camshafts: Standard or "ES" type, see tip below.

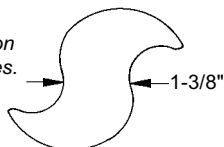
TIP "Standard Mount"
 Spring retaining pin is **aligned** with hole in opposite web.

"High Mount"
 Spring retaining pin is located above and **not aligned** with hole in opposite web.
 (For spindle clearance)
 Used on some Ford & other models.

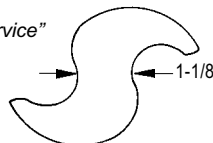
High Mount shoes can replace standard type using K316 but not vice versa.

EATON CAMSHAFT IDENTIFICATION

Standard Production
 16-1/2" "EB" Brakes.
 1-1/2" diameter
 bearing surfaces.



"ES" or "Extended Service"
 16-1/2" Brakes
 1-1/2" diameter
 bearing surfaces.



TIP Later style "ES"
 type cams can be used on
 the "EB" Standard brake in
 pairs (LH & RH) on an axle.

TIP **CONVERSION TO "EXTENDED SERVICE" BRAKES:**

Retrofits to "ES" should be done on a complete axle or tandem, if present, on the vehicle. Mixing brake types on either combination is not recommended.

Remove camshafts and determine the type present using the above S-head profile chart. Standard type cams must be replaced by the appropriate length LH and RH "ES" types. If "ES" types are present, inspect and replace if worn or damaged.

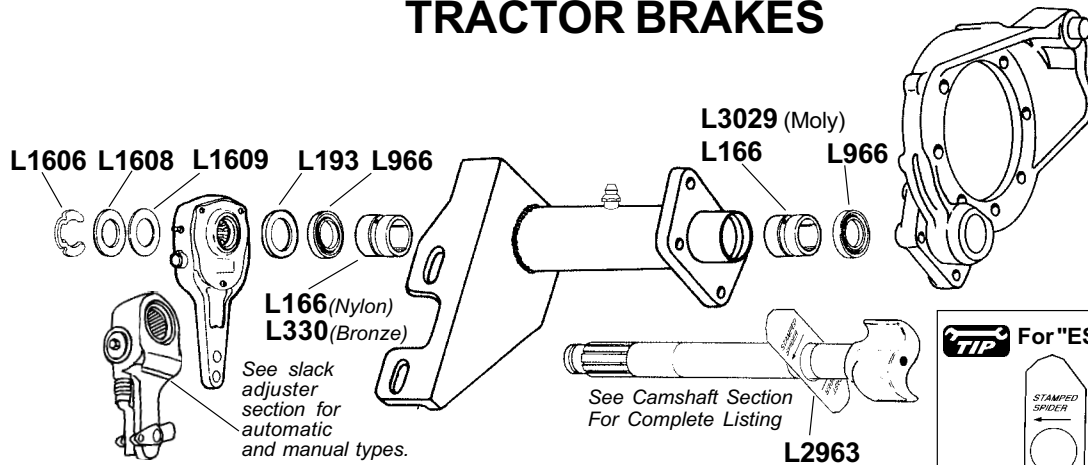
Replace cam assembly parts using one of the cam repair kits listed on page 77 adding L2963 cam head washers. Position L2963 next to the cam S-head, according to type spider, as indicated on the washer, (See diagram, pg. 76). Add a light coating of chassis grease to bushing and seal IDs. Place camshafts into bracket assemblies.

Install "ES" style lined brake shoes with corresponding brake repair kits. "ES" style shoes will retrofit both Standard and High Mount EB-165 brakes.

EATON

EATON

16-1/2" EB-165 SELF-CONTAINED TRACTOR BRAKES



Schematic Diagram Charts

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Cam Repair Kits:

With L3029 Molydisulfide filled Nylon bushings:

K499 - Axle, includes L2963

K357 - Axle, excludes L2963

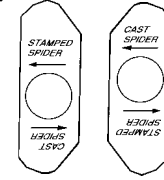
K296 - Wheel End, includes L2963

K140 - Wheel End, excludes L2963



Severe Duty Cam Repair Kit: **K312** - Wheel End, contains L330 Bronze inner & L3029 Moly outer bushings

TIP For "ES" Conversion



For Cast Spider, install washer under cam head and position with "CAST SPIDER" arrow pointing to axle spindle center.

For Stamped Spider, install washer under cam head and position with "STAMPED SPIDER" arrow pointing to axle spindle center.

BRAKE REPAIR KITS EATON

K42

For Eaton 16-1/2" EB-165 Standard Mount Brake

Kit Contains:

- 2 Pcs. - L250 Smooth Roller
- 2 Pcs. - L251 Roller Pin
- 1 Pc. - L835 Shoe Return Spring
- 2 Pcs. - L967 Shoe Retainer Spring



Use K119 for knurled roller version.
Contains parts to service one wheel.

K119

For Eaton 16-1/2" EB-165 Standard Mount Brake

Kit Contains:

- 2 Pcs. - L251 Roller Pin
- 1 Pc. - L835 Shoe Return Spring
- 2 Pcs. - L967 Shoe Retainer Spring
- 2 Pcs. - L1534 Knurled Roller



Contains parts to service one wheel.
• Same as K42 except: uses L1534 knurled rollers in place of L250 rollers.

EATON

BRAKE REPAIR KITS

EATON

K316

For Eaton 16-1/2" EB-165 High Mount Brake used on Ford and Other Models

Kit Contains:

- 2 Pcs. -L250 Roller
- 2 Pcs. -L251 Roller Pin
- 2 Pcs. -L967 Retainer Spring
- 1 Pc. -L1603 Return Spring



Contains parts to service one wheel.

CAM REPAIR KITS

K499

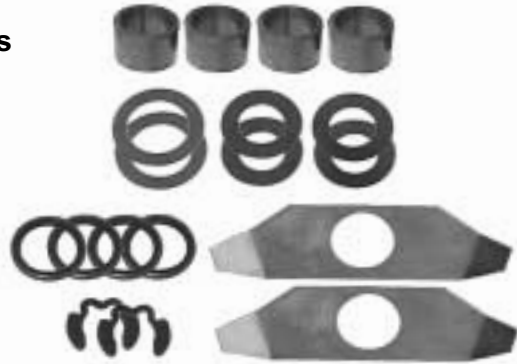
For Eaton "ES" Drive and Steer Axle Brakes using 1-1/2" Camshaft

Contents:

- 2 Pcs. - L193 Spacer Washer
- 4 Pcs. - L966 Neoprene Seal
- 2 Pcs. - L1606 Lock Ring
- 2 Pcs. - L1608 Spacer Washer
- 2 Pcs. - L1609 Spacer Washer
- 2 Pcs. - L2963 Cam Head Washer
- 4 Pcs. - L3029 Cam Bushing

Services one axle.

Use **K296** to service One Wheel End.



Schematic
Diagram
Charts

4

K357

Axle Kit for Eaton "EB" and "ES" Steer and Drive Axle Brakes using 1-1/2" Camshaft

Contents:

- 2 Pcs. - L193 Spacer Washer
- 4 Pcs. - L966 Neoprene Seal
- 2 Pcs. - L1606 Lock Ring
- 2 Pcs. - L1607 Cotter Pin
- 2 Pcs. - L1608 Spacer Washer
- 2 Pcs. - L1609 Spacer Washer
- 4 Pcs. - L3029 Cam Bushing

Use **K140** to service One Wheel End.



K312

For Eaton "EB" and "ES" Steer and Drive Axle Brakes using 1-1/2" Camshaft in Severe Duty Applications.

Contents:

- 2 Pcs. - L193 Washer
- 1 Pc. - L330 Bronze Bushing (Inner)
- 2 Pcs. - L966 Seal
- 1 Pc. - L1606 Lock Ring
- 1 Pc. - L1608 Washer
- 1 Pc. - L1609 Washer
- 1 Pc. - L3029 Bushing (Outer)

Contains parts to service one wheel.



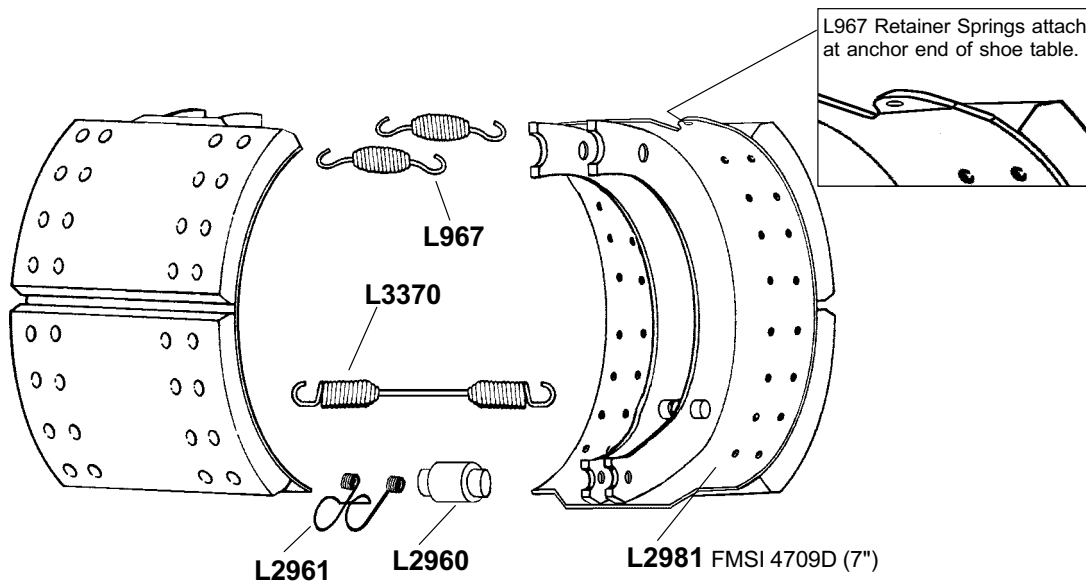
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EATON

16-1/2" ES-165 SELF-CONTAINED "EXTENDED SERVICE" TRACTOR BRAKES

Schematic
Diagram
Charts

4



L2981 Brake shoes can replace both Standard and High Mount EB-165 types using "ES" cams and mating hardware. See EB-165 schematic conversion tips for additional information.

Brake Repair Kit:

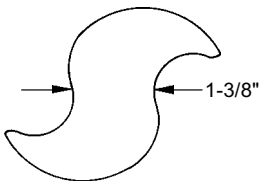


Heavy Duty, **K295**, See page 76.

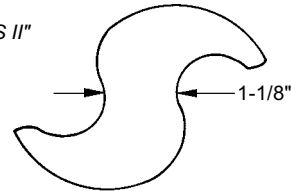
Camshafts: "ES" type Only.

EATON CAMSHAFT IDENTIFICATION

Standard Production
16-1/2" "EB" brakes
(For Reference Only)



"ES" 15" RE, "ES" & "ES II"
16-1/2" Brakes
Single Anchor Pin and
Heavy Duty OEM types
1-1/2" diameter
bearing surfaces,
10-Spline



CONVERSION TO STANDARD "EB" (FMSI 4311) TYPE BRAKES:

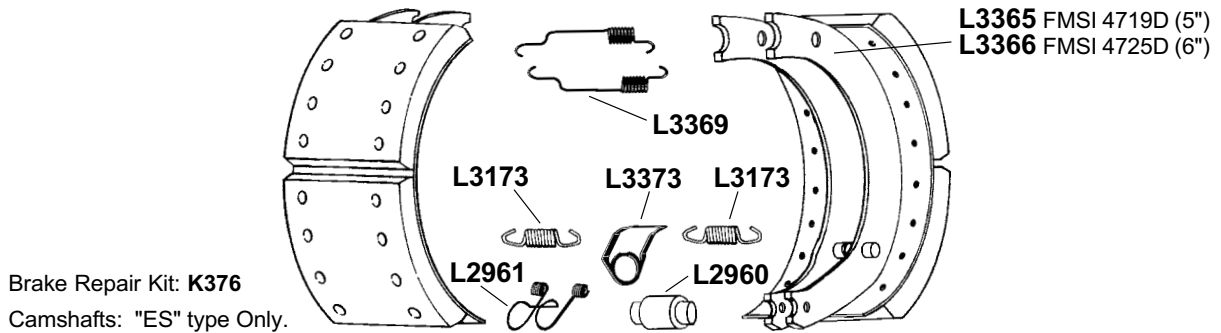
Retrofits to Standard "EB" should be done on a complete axle or tandem, if present, on the vehicle. Mixing brake types on either combination is not recommended. Some conversions such as heavy trucks require "High Mount" shoes and K316 brake repair kits for clearance.

The "ES" camshafts can be retained for Standard brakes if in good condition. Remove the L2963 cam head washer from each cam, as it is not used on the Standard brake configuration. Inspect camshafts and replace if worn or damaged. Install new cam assembly parts using K140, K312, K357 or K359. (See cam repair kits.) Add a light coating of chassis grease to bushing and seal IDs. Place and secure camshafts into bracket assemblies. Attach L2035 Lined Brake Shoes and K42 Kit components. For "High Mount" applications, see page 71.

EATON ES II

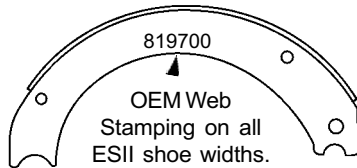
16-1/2" ES-165"EXTENDED SERVICE" DRIVE AND STEER AXLE BRAKES

STEER AXLE



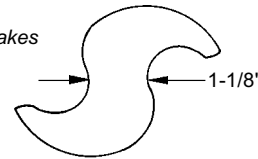
Schematic
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"ESII" SHOE IDENTIFICATION



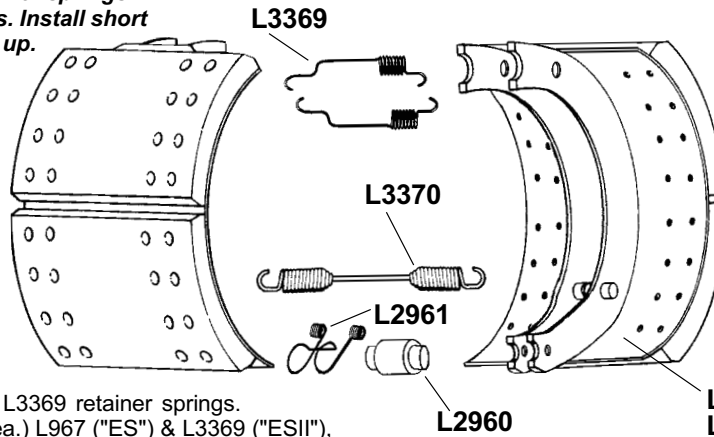
"ES" & "ESII" CAMSHAFT IDENTIFICATION

"ES" & "ES II" 16-1/2" Brakes
Single Anchor Pin and
Heavy Duty OEM types
1-1/2" diameter bearing
surfaces, 10-Spline



DRIVE AXLE

TTP **L3369** Retainer springs
attach at web holes. Install short
hook with coil end up.



Warning: **L3369** retainer
springs are for use on "ESII"
type shoes only and not for
retrofit on earlier OEM ES
style shoes. The web holes
found on most ES types were
not originally positioned for
the **L3369** type retainer
springs.

Brake Repair Kits:
K375 - Includes (2) **L3369** retainer springs.
K495 - Includes (2 ea.) **L967** ("ES") & **L3369** ("ESII"),
See page 97.
Camshafts: "ES" type Only.

L3367 FMSI 4709D (7")
L3368 FMSI 4726D (8-5/8")

K375

ESII Drive & Trailer Axle Applications

Replaces: Eaton 314147
Contains:
2 Pcs. - **L2960** Roller
2 Pcs. - **L2961** Roller Retainer
2 Pcs. - **L3369** Retainer Spring
1 Pc. - **L3370** Return Spring



Contains parts to service
one wheel.

K376

ESII Steer Axle Applications With 5" & 6" Brake Shoes

Replaces: Eaton 314146
Contains:
2 Pcs. - **L2960** Roller
2 Pcs. - **L2961** Roller Retainer
2 Pcs. - **L3173** Return Spring
2 Pcs. - **L3369** Retainer Spring



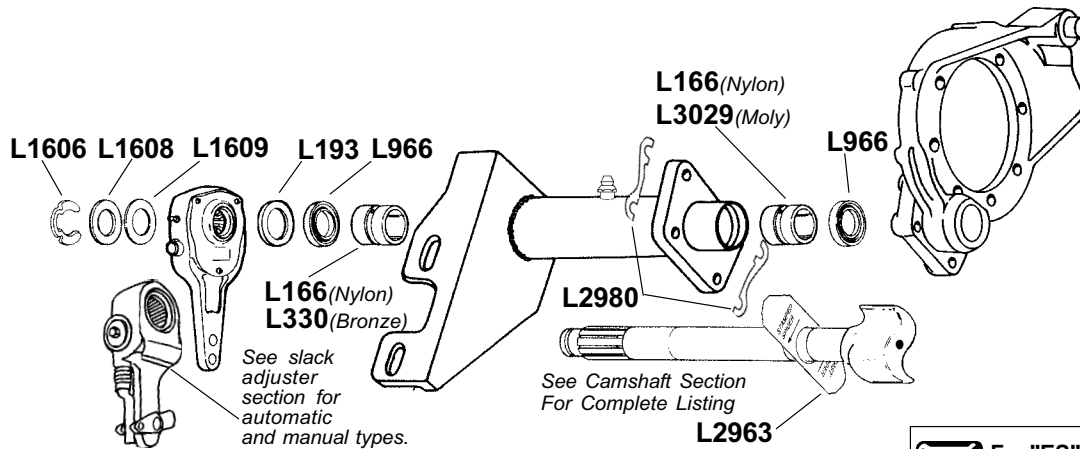
Contains parts to service
one wheel.

EATON

EATON

16-1/2" ES-165 SELF-CONTAINED "EXTENDED SERVICE" TRACTOR BRAKES

Schematic
Diagram
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Cam Repair Kits: With L3029 Molydisulfide filled Nylon bushings:

K499 - Axle, includes L2963

K357 - Axle, excludes L2963

K296 - Wheel End, includes L2963

K140 - Wheel End, excludes L2963



Heavy Duty Cam Repair Kit: **K312** - Wheel End, contains L330 Bronze inner & L3029 Moly outer bushings

TIP For "ES" Conversion

For Cast Spider, install washer under cam head and position with "CAST SPIDER" arrow pointing to axle spindle center.

For Stamped Spider, install washer under cam head and position with "STAMPED SPIDER" arrow pointing to axle spindle center.

BRAKE REPAIR KITS

K295

For Eaton "ES" 16-1/2" "Extended Service" Single Anchor Pin Brakes

Kit Contains:

- 2 Pcs. - L967 Retainer Spring
- 2 Pcs. - L2960 Roller
- 2 Pcs. - L2961 Roller Retainer
- 1 Pc. - L3370 Brake Return Spring



Contains parts to service one wheel.

EATON

CAM REPAIR KITS

EATON

K499

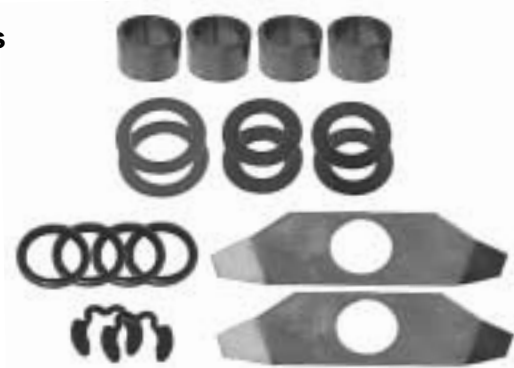
**For Eaton "ES" Drive and Steer Axle Brakes
using 1-1/2" Camshaft**

Contents:

- 2 Pcs. - L193 Spacer Washer
- 4 Pcs. - L966 Neoprene Seal
- 2 Pcs. - L1606 Lock Ring
- 2 Pcs. - L1608 Spacer Washer
- 2 Pcs. - L1609 Spacer Washer
- 2 Pcs. - L2963 Cam Head Washer
- 4 Pcs. - L3029 Cam Bushing

Services one axle.

Use **K296** to service One Wheel End.



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K357

**Axle Kit for Eaton "EB" and "ES"
"ES" Steer and Drive Axle Brakes
using 1-1/2" Camshaft**

Contents:

- 2 Pcs. - L193 Spacer Washer
- 4 Pcs. - L966 Neoprene Seal
- 2 Pcs. - L1606 Lock Ring
- 2 Pcs. - L1607 Cotter Pin
- 2 Pcs. - L1608 Spacer Washer
- 2 Pcs. - L1609 Spacer Washer
- 4 Pcs. - L3029 Cam Bushing

Use **K140** to service One Wheel End.



K312

**For Eaton "EB" and "ES"
Steer and Drive Axle Brakes
using 1-1/2" Camshaft in
Severe Duty Applications.**

Contents:

- 2 Pcs. - L193 Washer
- 1 Pc. - L330 Bronze Bushing (Inner)
- 2 Pcs. - L966 Seal
- 1 Pc. - L1606 Lock Ring
- 1 Pc. - L1608 Washer
- 1 Pc. - L1609 Washer
- 1 Pc. - L3029 Bushing (Outer)

Contains parts to service one wheel.



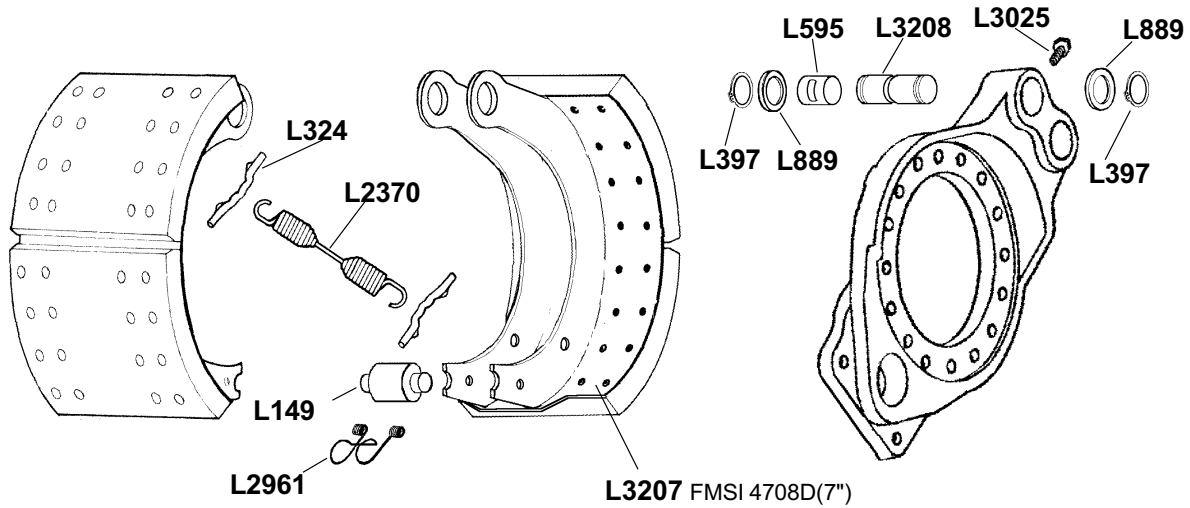
H. D. Version

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EATON

16-1/2" ES-165-7M "EXTENDED SERVICE" HEAVY DUTY BRAKES

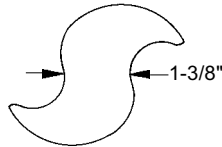
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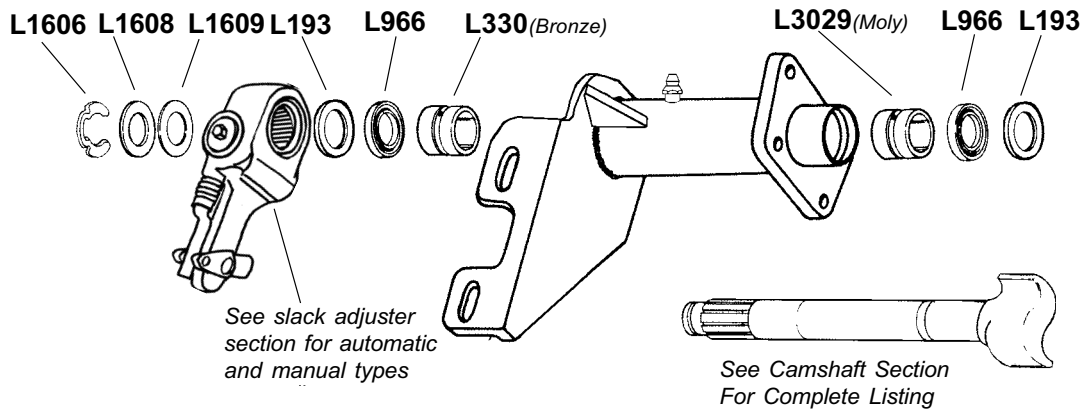
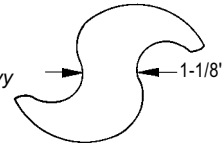
Brake Repair Kit: **K364**
Camshafts: "ES" Type Only.

EATON "ES" CAMSHAFT IDENTIFICATION

Standard Production
16-1/2" "EB" Brakes.
(For Reference Only)



Both "ES" 15" RE &
"ES" 16-1/2" Brakes,
Single Anchor Pin and Heavy
Duty OEM 1-1/2" Diameter
Bearing Surfaces.



Heavy Duty Cam Repair Kit: **K312** - Wheel End, contains Bronze inner & Molydisulfide outer cam bushings

H. D. Version

BRAKE REPAIR KIT

EATON

K364

For Eaton 16-1/2" x 7" "ES"
Heavy Duty Pressed Steel Brake

Contents:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L324 Return Spring Pin
- 4 Pcs. - L397 Anchor Pin Lock Ring
- 2 Pcs. - L595 Anchor Pin Bushing
- 4 Pcs. - L889 Anchor Pin Washer
- 1 Pc. - L2370 H.D. Return Spring
- 2 Pcs. - L2961 Roller Retainer
- 2 Pcs. - L3025 Anchor Pin Bolt
- 2 Pcs. - L3208 Anchor Pin



Contains parts to service one wheel

Schematic
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CAM REPAIR KIT - EATON

With Bronze and Molydisulfide filled cam bushings

K312

For Eaton "EB" and "ES"
Steer and Drive Axle Brakes
using 1-1/2" Camshaft in
Severe Duty Applications.

Kit Contains:

- 2 Pcs. - L193 Washer
- 1 Pc. - L330 Bronze Bushing (Inner)
- 2 Pcs. - L966 Seal
- 1 Pc. - L1606 Lock Ring
- 1 Pc. - L1608 Washer
- 1 Pc. - L1609 Washer
- 1 Pc. - L3029 Bushing (Outer)



Contains parts to service one wheel.

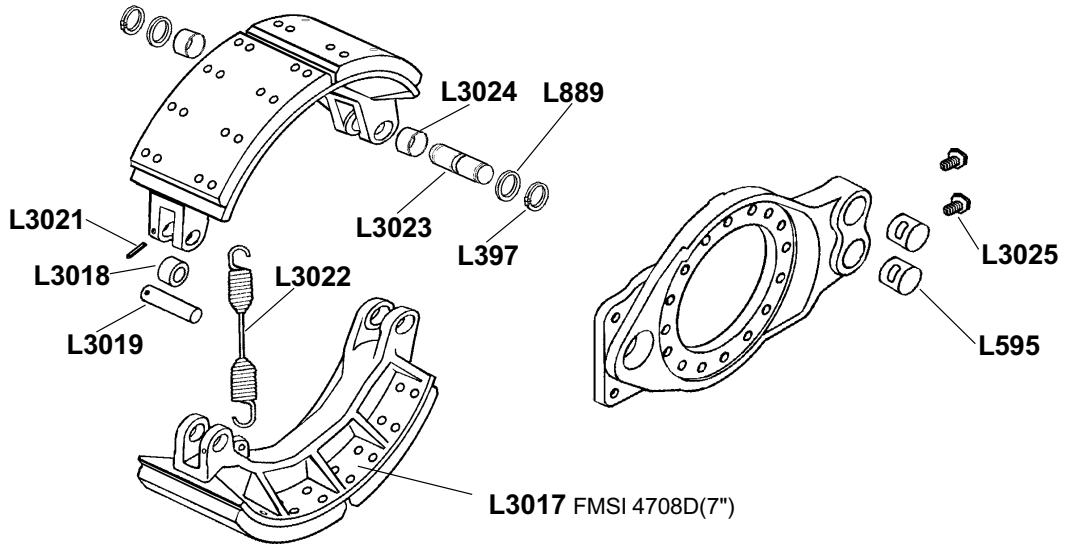


H. D. Version

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EATON

16-1/2" ES-165-7H CAST "EXTENDED SERVICE" SEVERE DUTY BRAKES



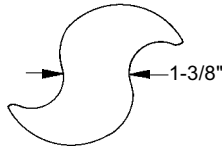
Schematic Diagram Charts
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EATON

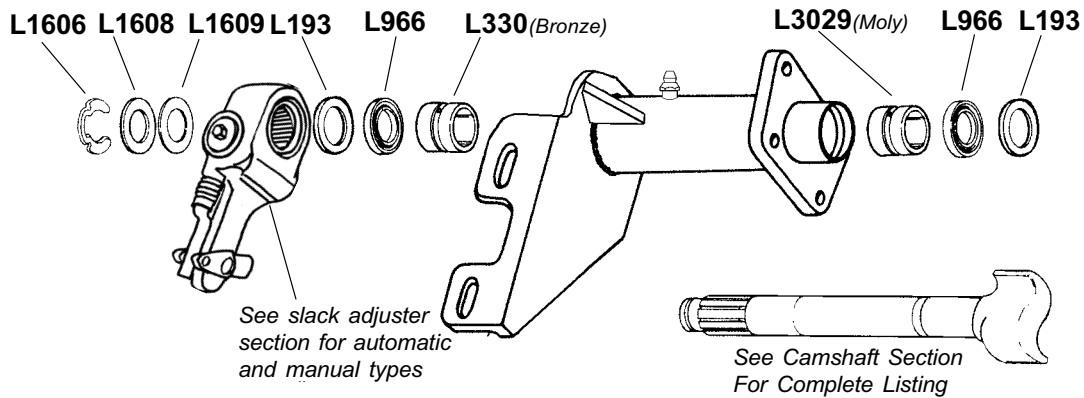
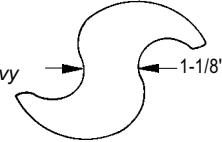
Heavy Duty Brake Repair Kit: **K307**
Camshafts: "ES" Type Only.

EATON "ES" CAMSHAFT IDENTIFICATION

Standard Production
16-1/2" "EB" Brakes.
(For Reference)



Both "ES" 15" RE &
"ES" 16-1/2" Brakes.
Single Anchor Pin and Heavy
Duty OEM 1-1/2" Diameter
Bearing Surfaces.



Heavy Duty Cam Repair Kit: **K312** - Wheel End, contains Bronze inner & Molydisulfide outer cam bushings

H. D. Version

BRAKE REPAIR KIT

EATON

K307

For Eaton 16-1/2" x 7" "ES" Cast Brake

Kit Contains:

- 4 Pcs. - L397 Lock Ring
- 2 Pcs. - L595 Anchor Pin Bushing
- 4 Pcs. - L889 Anchor Pin Washer
- 2 Pcs. - L3018 Roller
- 2 Pcs. - L3019 Roller Pin
- 2 Pcs. - L3021 Lock Pin
- 1 Pc. - L3022 Return Spring
- 2 Pcs. - L3023 Anchor Pin
- 4 Pcs. - L3024 Anchor Pin Bushing
- 2 Pcs. - L3025 Anchor Pin Bolt



Contains parts to service one wheel.

Schematic
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CAM REPAIR KIT - EATON

With Bronze and Molydisulfide filled cam bushings

K312

For Eaton "EB" and "ES"
Steer and Drive Axle Brakes
using 1-1/2" Camshaft in
Severe Duty Applications.

Kit Contains:

- 2 Pcs. - L193 Washer
- 1 Pc. - L330 Bronze Bushing (Inner)
- 2 Pcs. - L966 Seal
- 1 Pc. - L1606 Lock Ring
- 1 Pc. - L1608 Washer
- 1 Pc. - L1609 Washer
- 1 Pc. - L3029 Bushing (Outer)



Contains parts to service one wheel.



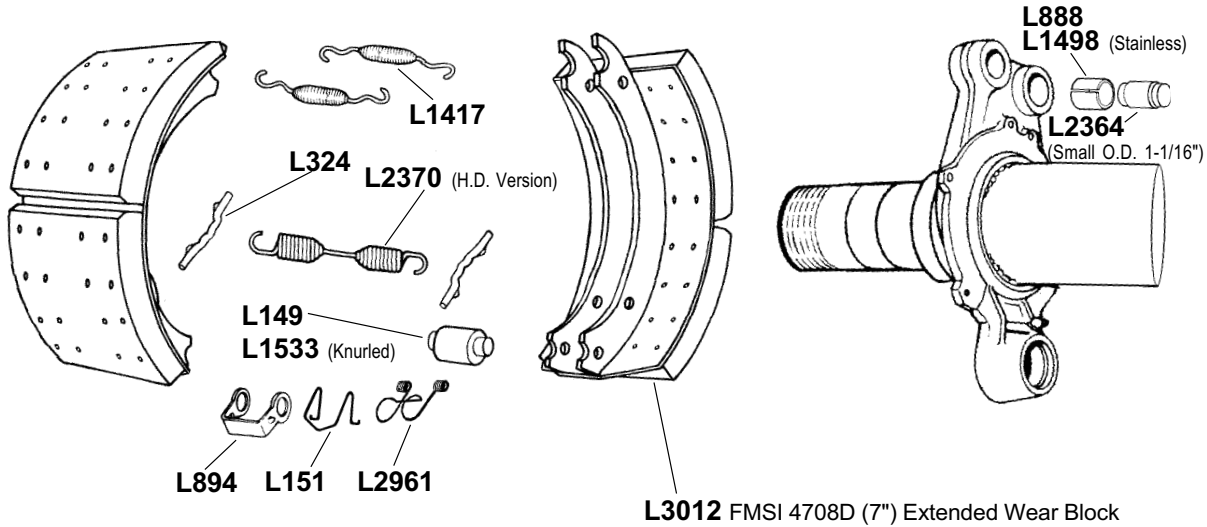
H. D. Version

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EATON

16-1/2" x 7" "ES" "EXTENDED SERVICE" RETROFIT FOR FRUEHAUF "XEM" SERIES

Schematic Diagram Charts
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Brake Repair Kits:



Heavy Duty, Heavy Duty Major Versions:

- K136 - Recommended
- K330
- K372
- K480



TIP Will retrofit early "Propar" and 1st, 2nd or 3rd series "XEM" brake assemblies.



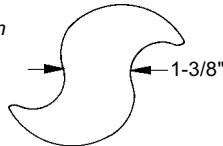
Heavy Duty, Heavy Duty Minor Versions:

- K309
- K309K
- K320
- K331
- K354
- K370

Camshafts: Standard "S" Head

CAMSHAFT TYPE

Standard Production
OEM style cams
for 16-1/2" "XEM"
series brakes



H. D. Version

EATON

BRAKE REPAIR KIT

EATON

K136

Major Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contents:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L894 Roller Retainer
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L1498 Anchor Pin Bushing
- 1 Pc. - L1762 Cotter Pin
- 2 Pcs. - L2364 Anchor Pin
- 1 Pc. - L2370 HD Return Spring

Contains parts to service one wheel.



Schematic
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K372

Major Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contents:

- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L894 Roller Retainer
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L1498 Stainless Steel Bushing
- 2 Pcs. - L1533 Knurled Roller
- 1 Pc. - L1762 Cotter Pin
- 2 Pcs. - L2364 Anchor Pin
- 1 Pc. - L2370 H.D. Return Spring

Contains parts to service one wheel.



TIP Same as K136 except L1533 knurled rollers replace L149 smooth rollers.

K330

Major Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contents:

- 2 Pcs. - L151 Roller Retainer
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L888 Anchor Pin Bushing
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L1533 Knurled Roller
- 1 Pc. - L1762 Cotter Pin
- 2 Pcs. - L2364 Anchor Pin
- 1 Pc. - L2370 H.D. Return Spring

Contains parts to service one wheel.

Same as K136 except has L151 roller retainers, L888 anchor pin bushings and L1533 knurled rollers.



 H. D. Version

BRAKE REPAIR KIT

EATON

K480 Major Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contents:

- 2 Pcs. - L149 Smooth Roller
- 2 Pcs. - L151 Roller Retainer
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L888 Anchor Pin Bushing
- 2 Pcs. - L1417 Retainer Spring
- 1 Pc. - L1762 Cotter Pin
- 2 Pcs. - L2364 Anchor Pin
- 1 Pc. - L2370 HD Return Spring

Services one wheel.



Schematic
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K309 Minor Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contents:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L151 Roller Retainer
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L2364 Anchor Pin
- 1 Pc. - L2370 HD Return Spring

Contains parts to service one wheel.



K309K Minor Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contents:

- 2 Pcs. - L151 Roller Retainer
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L1533 Knurled Roller
- 2 Pcs. - L2364 Anchor Pin
- 1 Pc. - L2370 H.D. Return Spring

Contains parts to service one wheel.



 H. D. Version

BRAKE REPAIR KIT

EATON

K320 Minor Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contains:

- 2 Pcs. - L1417 Retainer Spring
- 1 Pc. - L2370 H.D. Return Spring

Contains parts to service one wheel.



K331 Minor Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contents:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L894 Roller Retainer
- 2 Pcs. - L1417 Retainer Spring
- 1 Pc. - L2370 H.D. Return Spring

Contains parts to service one wheel.



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K354 Minor Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Contents:

- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L894 Roller Retainer
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L1533 Knurled Roller
- 1 Pc. - L2370 H.D. Return Spring

Contains parts to service one wheel.



K370 Minor Repair Kit "ES" "EXTENDED SERVICE" For Fruehauf "XEM" Series

Kit Contains:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L1417 Shoe Retainer Spring
- 1 Pc. - L2370 Shoe Return Spring

Contains parts to service one wheel.



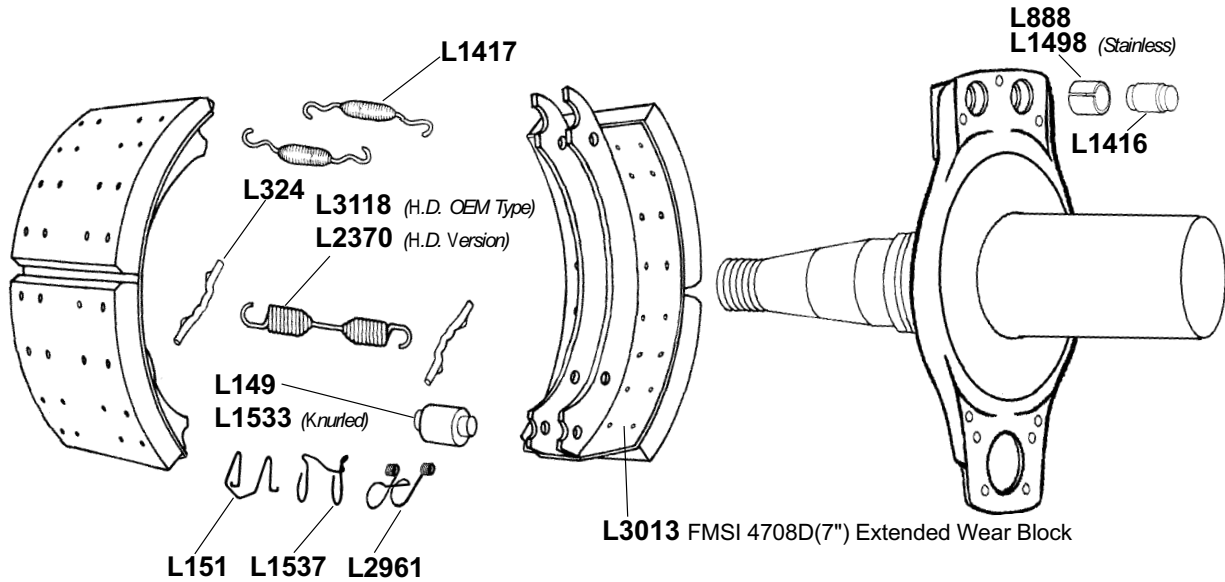
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EATON

16-1/2" x 7" "ES" "EXTENDED SERVICE" RETROFIT FOR ROCKWELL STANDARD "Q"

Schematic
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Brake Repair Kits:



Heavy Duty, Heavy Duty Major Versions:

- K128 - Recommended
- K128K
- K322 - OEM Type Return Spring
- K329
- K332



Heavy Duty, Heavy Duty Minor Versions:

- K128A
- K304
- K304K
- K320
- K370

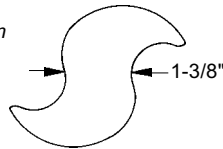
Camshafts: Standard "S" Head



TIP Not recommended for retrofit on Mack H.D. "Q" (451 5H) or existing OEM Extended Wear brakes such as "Q-Plus", "XtraLife" or "XtraLife II" types.

CAMSHAFT TYPE

Standard Production
OEM style cams
for 16-1/2" series
brakes



H. D. Version

BRAKE REPAIR KIT

EATON

K128

Major Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Contains:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L1416 Anchor Pin
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L1498 Anchor Pin Bushing
- 2 Pcs. - L1537 Roller Retainer
- 1 Pcs. - L2370 H.D. Shoe Return Spring



Contains parts to service one wheel.

K128K

Major Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Contains:

- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L1416 Anchor Pin
- 2 Pcs. - L1417 Shoe Retainer Spring
- 2 Pcs. - L1498 Anchor Pin Spider Bushing
- 2 Pcs. - L1533 Knurled Roller
- 2 Pcs. - L1537 Roller Retainer
- 1 Pc. - L2370 H.D. Shoe Return Spring



Contains parts to service one wheel.

Same as K128 except L149 roller is replaced by L1533 knurled roller.

K322

Major Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Contains:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L324 Spring Retainer Pin
- 2 Pcs. - L1416 Anchor Pin
- 2 Pcs. - L1417 Shoe Retainer Spring
- 2 Pcs. - L1498 Anchor Pin Spider Bushing
- 2 Pcs. - L2961 Roller Retainer
- 1 Pcs. - L3118 H.D. Shoe Return Spring



Contains parts to service one wheel.

K329

Major Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Contains:

- 2 Pcs. - L151 Roller Retainer
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L888 Anchor Pin Spider Bushing
- 2 Pcs. - L1416 Anchor Pin
- 2 Pcs. - L1417 Shoe Retainer Spring
- 2 Pcs. - L1533 Knurled Roller
- 1 Pc. - L2370 Shoe Return Spring



Contains parts to service one wheel.

Same as K128K except L1537 is replaced by L151
and L1498 is replaced by L888.

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BRAKE REPAIR KIT

EATON

K332

Major Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Contains:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L151 Roller Retainer
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L888 Anchor Pin Spider Bushing
- 2 Pcs. - L1416 Anchor Pin
- 2 Pcs. - L1417 Shoe Retainer Spring
- 1 Pc. - L2370 H.D. Shoe Return Spring



Contains parts to service one wheel.
Same as K128 except L1537 is replaced by L151
and L1498 is replaced by L888.

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K128A

Minor Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Contains:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L1416 Anchor Pin
- 2 Pcs. - L1417 Shoe Retainer Spring
- 2 Pcs. - L1537 Roller Retainer
- 1 Pc. - L2370 H.D. Shoe Return Spring



Contains parts to service one wheel.
Same as K128 except does not contain L1498 anchor pin bushings.

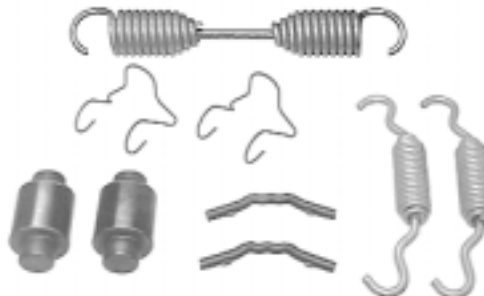
K304

Minor Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes


Contains:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L1537 Roller Retainer
- 1 Pc. - L2370 H.D. Return Spring



Contains parts to service one wheel.
Same as K128 except does not contain
L1416 anchor pins and L1498 anchor pin bushings.

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 H. D. Version

BRAKE REPAIR KIT

EATON

K304K

Minor Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Kit Contains:

- 2 Pcs. - L1533 Knurled Roller
- 2 Pcs. - L324 Return Spring Pin
- 2 Pcs. - L1417 Retainer Spring
- 2 Pcs. - L1533 Knurled Roller
- 2 Pcs. - L1537 Roller Retainer
- 1 Pc. - L2370 H.D. Return Spring

Contains parts to service one wheel.
Same as K304 except L149 roller is replaced by
L1533 knurled roller.



Schematic
Diagram
Charts

4

K370

Minor Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Kit Contains:

- 2 Pcs. - L149 Roller
- 2 Pcs. - L1417 Shoe Retainer Spring
- 1 Pc. - L2370 Shoe Return Spring

Contains parts to service one wheel.



K320

Minor Repair Kit

"ES" "Extended Service" For Rockwell
and other 16-1/2" Std. "Q" Brakes

Contains:

- 2 Pcs. - L1417 Retainer Spring
- 1 Pc. - L2370 H.D. Return Spring

Contains parts to service one wheel.

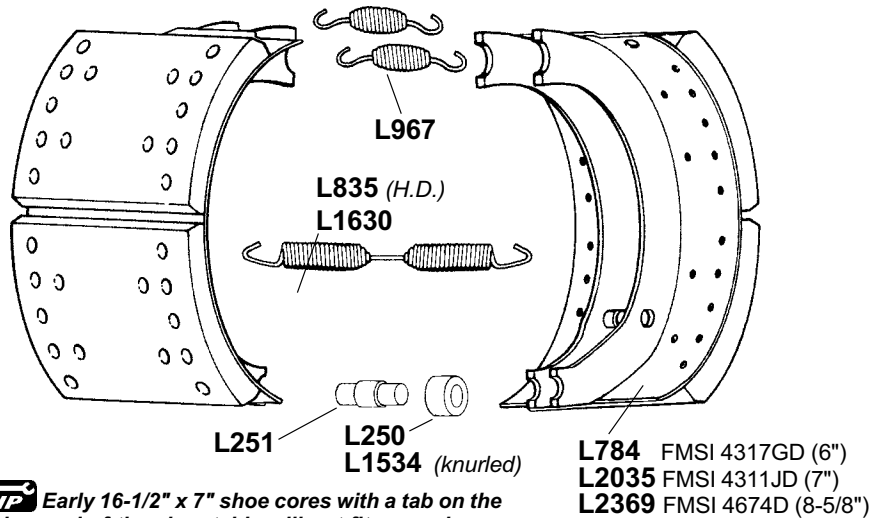


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EATON

16-1/2" EB-165 TRAILER BRAKES

5" ROUND "C", "E", "J" & "EBT", 5" SQUARE "22L",
"23L" AND 4" x 6" RECTANGULAR "23R", "25R" AXLES



TIP Early 16-1/2" x 7" shoe cores with a tab on the anchor end of the shoe table will not fit properly on post 1/81 design stamped (fabricated) spiders. This type shoe despite age is still found in core banks.

Brake Repair Kits:

Standard Duty: **K110**



Heavy Duty:

K42

K119 - Knurled Rollers

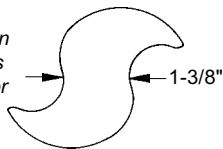


The same S-Head profile is used for both 15" "Reduced Envelope" and 16-1/2" "Extended Service" Brakes. See "camshaft identification" below.

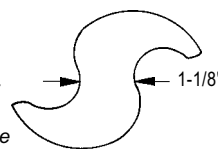
Camshafts: Standard or "ES" type, see tip below.

EATON CAMSHAFT IDENTIFICATION

Standard Production
16-1/2" "EB" brakes
1-5/8", 1-1/2" - 10 or
28 Spline.



"ES" & "ESII"
"Extended Service"
16-1/2" Single Anchor
Pin Brakes, 1-5/8",
1-1/2" - 10 or 28 Spline



Later style "ES" type cams can be used on the "EB" Standard brake in pairs (LH & RH) on an axle.



CONVERSION TO "EXTENDED SERVICE" BRAKES:

Retrofits to "ES" should be done on a complete axle or tandem, if present, on the vehicle. Mixing brake types on either combination is not recommended.

Remove camshafts and determine the type present using the above S-head profile chart. Standard type cams must be replaced by the appropriate length LH and RH "ES" types. If "ES" types are present, inspect and replace if worn or damaged.

Replace cam assembly parts using K360 (1) or K141 (2) or one of the cam repair kits listed on page 93. Add a light coating of chassis grease to bushing and seal IDs. Place camshafts into bracket assemblies.

Install L2981 lined brake shoes with K295 brake repair kits for 7" "ES". Install L3367 lined shoes with K375 for "ESII".



H. D. Version

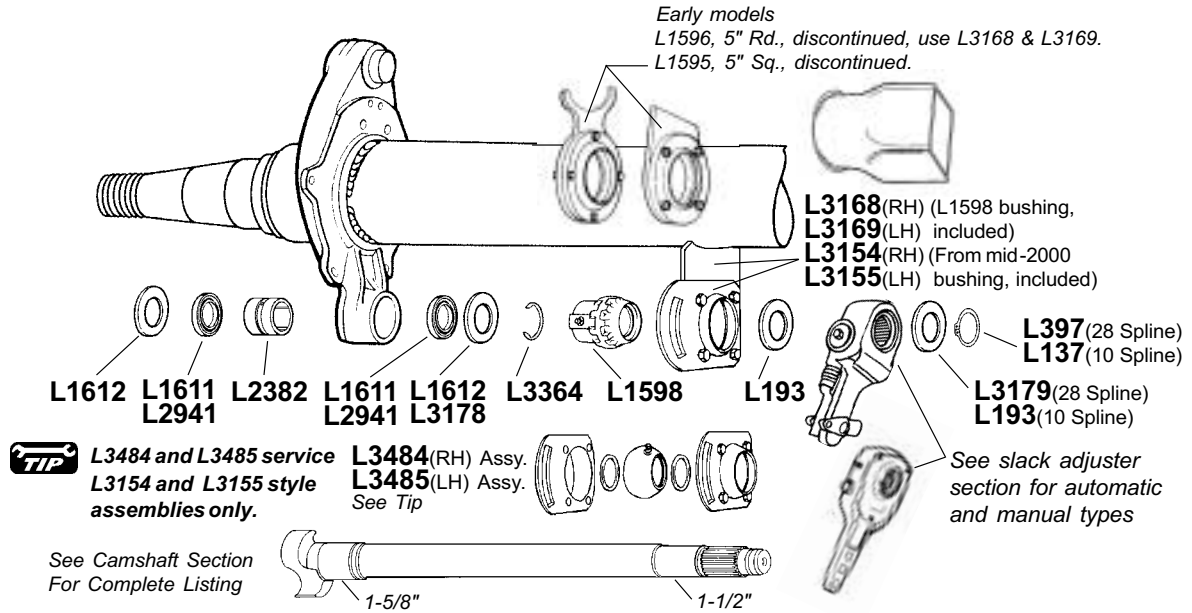
Schematic
Diagram
Charts

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EATON

16-1/2" EB-165 TRAILER BRAKES 5" ROUND "C", "E", "J" & "EBT", 5" SQUARE "22L", "23L" AND 4" x 6" RECTANGULAR "23R", "25R" AXLES

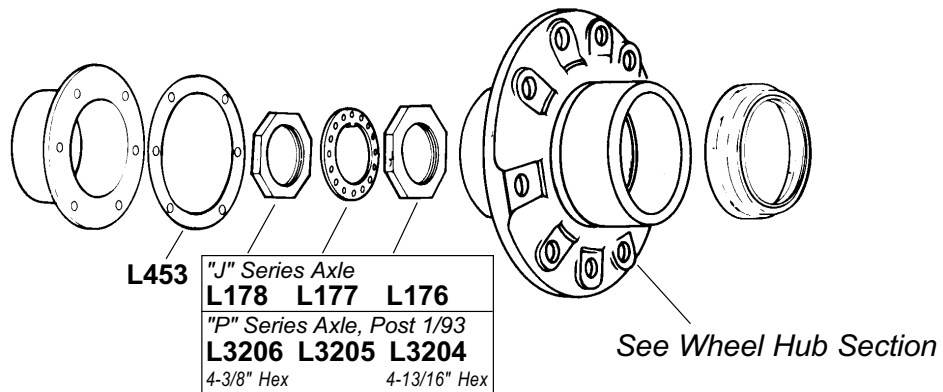


Schematic
Diagram
Charts
4

Cam Repair Kits: Using L1598 Bracket Bushing.
K360 - Axle
K141 - Wheel End

Using L3484 and L3485 Bracket Assembly
(smooth surface spherical bushing)
K507 - Axle
K508 - RH (curbside) Wheel End.
K509 - LH (curbside) Wheel End.

WHEEL HUB & AXLE ASSEMBLY PARTS



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BRAKE REPAIR KITS

EATON

K110

For Eaton 16-1/2" EB-165 Single Anchor Pin Trailer Brake

Contains:

- 2 Pcs. - L250 Roller
- 2 Pcs. - L251 Roller Pin
- 2 Pcs. - L967 Return Spring
- 1 Pcs. - L1630 Return Spring



Contains parts to service one wheel.

- Same as K42 except: L835 H.D. spring is replaced by L1630.
- Same as K119 except: L835 H.D. spring is replaced by L1630 & L1534 knurled rollers are replaced by L250 rollers.

Schematic
Diagram
Charts

4

K42

For Eaton 16-1/2" EB-165 Single Anchor Pin Trailer Brake

Kit Contains:

- 2 Pcs. - L250 Roller
- 2 Pcs. - L251 Roller Pin
- 1 Pc. - L835 Shoe Return Spring
- 2 Pcs. - L967 Shoe Retainer Spring



Use **K119** for knurled roller version.
Contains parts to service one wheel.

K119

For Eaton 16-1/2" EB-165 Single Anchor Pin Trailer Brake

Kit Contains:

- 2 Pcs. - L251 Roller Pin
- 1 Pc. - L835 Shoe Return Spring
- 2 Pcs. - L967 Shoe Retainer Spring
- 2 Pcs. - L1534 Knurled Roller



Contains parts to service one wheel.

- Same as K42 except: uses L1534 knurled rollers in place of L250 rollers.

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H. D. Version

CAM REPAIR KITS

EATON

K360

Axle Kit for Eaton 15" and 16-1/2"
"EB" or "ES" Trailer Brakes
Services 10 and 28 Spline Cams

Contents:

- 2 Pcs. - L137 Lock Ring
- 4 Pcs. - L193 Spacer Washer
- 2 Pcs. - L397 Lock Ring
- 2 Pcs. - L889 Anchor Pin Washer
- 2 Pcs. - L1598 Cam Bracket Bushing
- 4 Pcs. - L1611 Neoprene Seal
- 2 Pcs. - L2382 Spider Bushing
- 4 Pcs. - L2947 Spacer Washer
- 2 Pcs. - L3364 Lock Ring



Schematic
Diagram
Charts

4

Use **K141** to service One Wheel End

K507

For Late Eaton 16-1/2" Trailer Brake with
Revised Cam Bracket Assembly
Components for Axle Right and Left
Hand Sides.

Contents:

- 2 Pcs. - L137 Spider End Lock Ring
- 2 Pcs. - L397 Spline End Lock Ring
- 2 Pcs. - L897 Lock Ring
- 2 Pcs. - L2382 Camshaft Spider Bushing
- 4 Pcs. - L2941 Spider Seal
- 2 Pcs. - L3178 Inboard Spacer Washer
- 2 Pcs. - L3179 Spacer Washer (28 Spline End)
- 2 Pcs. - L3364 Spider End Lock Ring
- 1 Pc. - L3484 Right Hand Bracket Assembly
- 1 Pc. - L3485 Left Hand Bracket Assembly



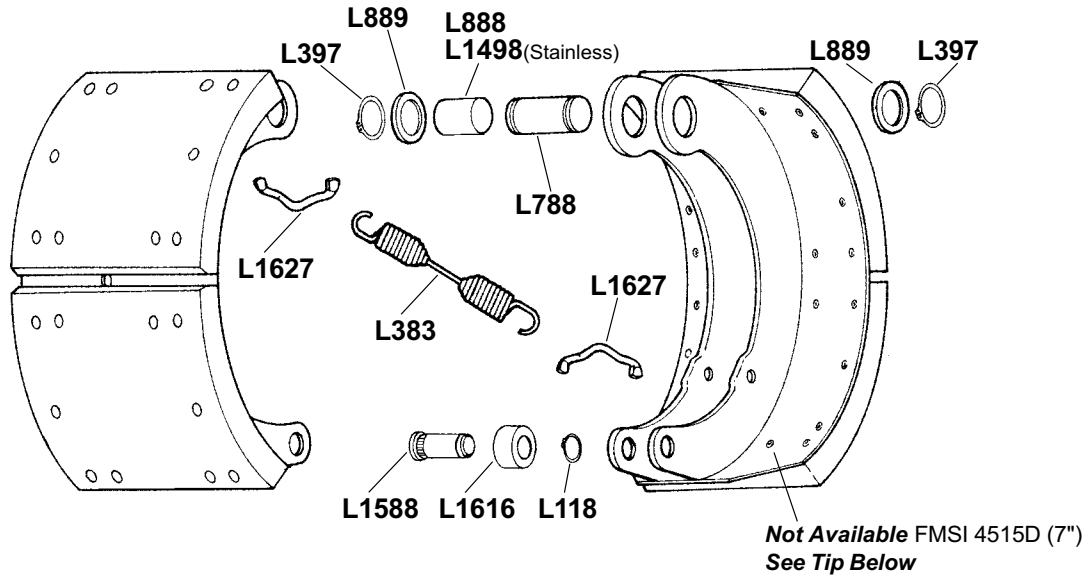
Services one axle.

Use **K508** to service RH (Curbside) Wheel End
Use **K509** to service LH (Roadside) Wheel End

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LELAND REPLACEMENT PARTS FOR
EATON (SHULER)
 16-1/2" "FTL" SELF CONTAINED
 DOUBLE ANCHOR PIN TRAILER BRAKES

Schematic
 Diagram
 Charts
4



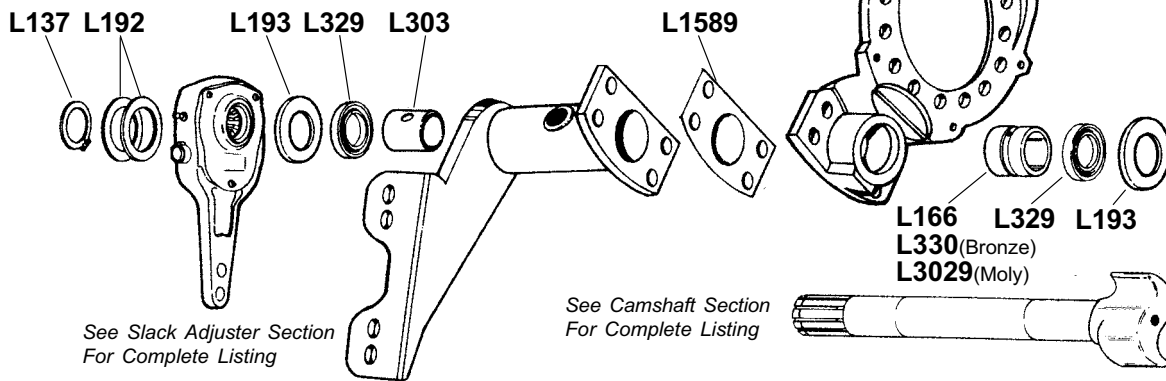
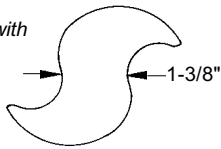
Brake Repair Kit:
K103

Camshafts: Standard type

TIP The discontinued brake shoes in this assembly can be replaced with either "P" or "Q" style shoes.
 For "P" type use L1289 lined shoes with K45 brake repair kit.
 For "Q" type use L1478 lined shoes with K70 brake repair kit.
 Using the same shoe types on an axle or tandem is recommended.

EATON CAMSHAFT IDENTIFICATION

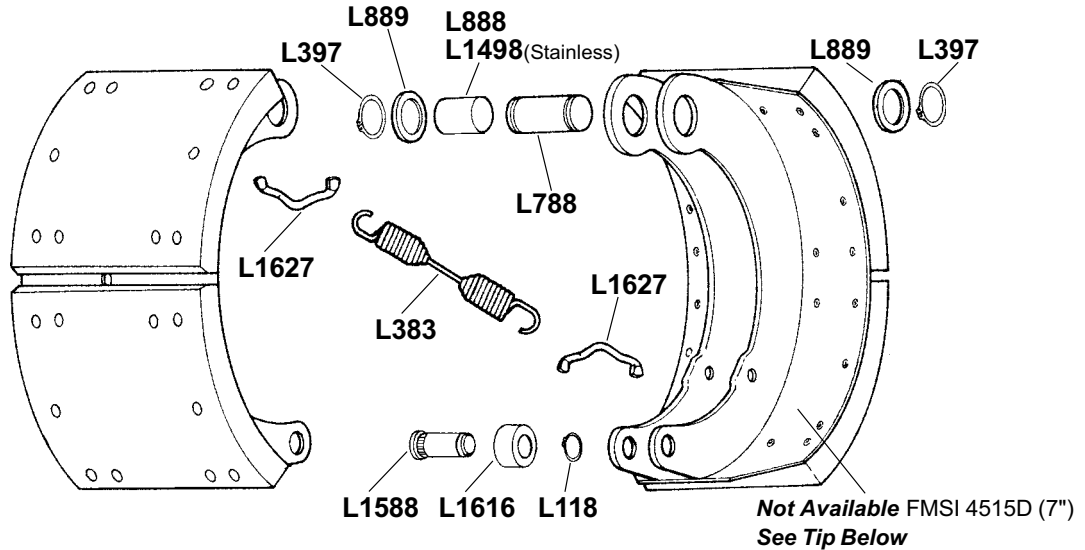
Standard "S" head with
 1-1/2" diameter
 bearing surfaces
 for 16-1/2" brake



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EATON (SHULER)

16-1/2" DOUBLE ANCHOR PIN BRAKES 5" ROUND, "C", "E" & "J" OR 5" SQUARE "22L" & "23L" AXLES



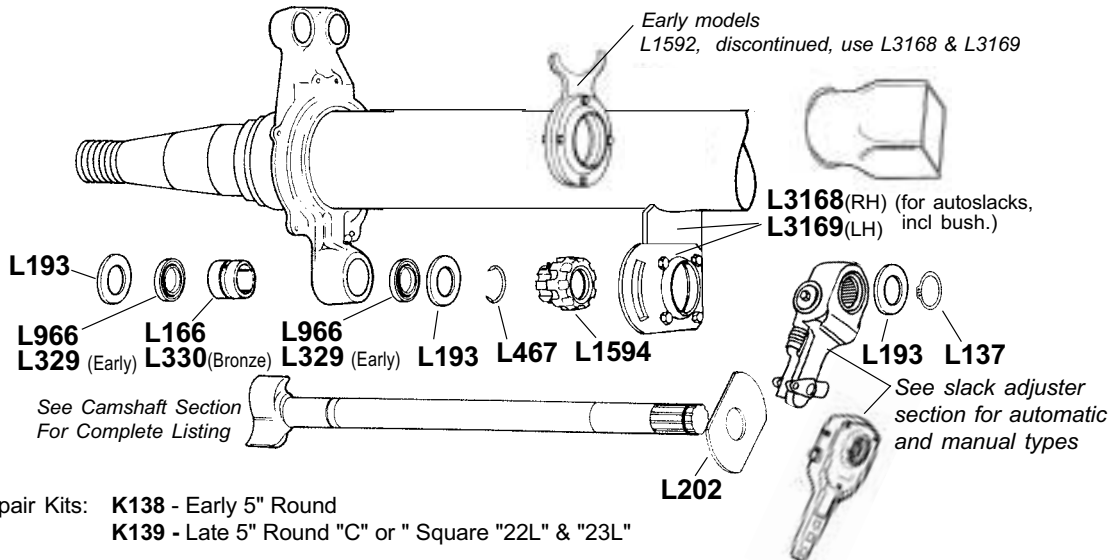
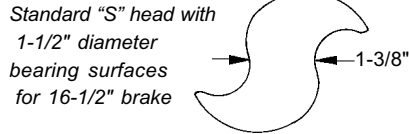
Schematic
Diagram
Charts
4

Brake Repair Kit:
K103

Camshafts: Standard type

TIP The discontinued brake shoes in this assembly can be replaced with either "P" or "Q" style shoes.
For "P" type use L1289 lined shoes with K45 brake repair kit.
For "Q" type use L1478 lined shoes with K70 brake repair kit.
Using the same shoe types on an axle or tandem is recommended.

EATON CAMSHAFT IDENTIFICATION



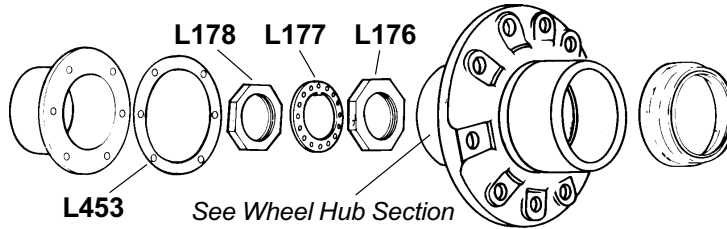
Cam Repair Kits: **K138** - Early 5" Round
K139 - Late 5" Round "C" or "Square "22L" & "23L"

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EATON (SHULER)

16-1/2" DOUBLE ANCHOR PIN BRAKES 5" ROUND,
"C", "E" & "J" OR 5" SQUARE "22L" & "23L" AXLES

WHEEL HUB & AXLE ASSEMBLY PARTS



Schematic
Diagram
Charts

4

BRAKE REPAIR KITS

K103

For Eaton (Shuler) 16-1/2" Double Anchor
Pin Brakes.

Contains:

- 2 Pcs. - L118 Lock Ring
- 1 Pc. - L383 Shoe Return Spring
- 4 Pcs. - L397 Lock Ring
- 2 Pcs. - L788 Anchor Pin
- 4 Pcs. - L889 Anchor Pin Washer
- 2 Pcs. - L1498 Anchor Pin Spider Bushing
- 2 Pcs. - L1588 Roller Pin
- 2 Pcs. - L1616 Roller
- 2 Pcs. - L1627 Return Spring Pin



Contains parts to service one wheel.

CAM REPAIR KITS

K138

For Eaton 16-1/2" Early Model 5" Round Axles,
Bolt-on Spiders

Contains:

- 1 Pc. - L137 Lock Ring
- 1 Pc. - L166 Bushing
- 4 Pcs. - L193 Spacer Washer
- 1 Pc. - L202 "D" Washer
- 2 Pcs. - L329 Neoprene Seal
- 1 Pc. - L467 Lock Ring
- 1 Pc. - L1594 Cam Bushing



Contains parts to service one wheel.

K139

For Eaton 16-1/2", Late 5" Square & 5" Round
Axles with Double Anchor Pin Brakes, Weld-on Spiders

Kit Contains:

- 1 Pc. - L137 Lock Ring
- 1 Pc. - L166 Bushing
- 4 Pcs. - L193 Spacer Washer
- 1 Pc. - L467 Lock Ring
- 2 Pcs. - L966 Neoprene Seal
- 1 Pc. - L1594 Cam Bushing

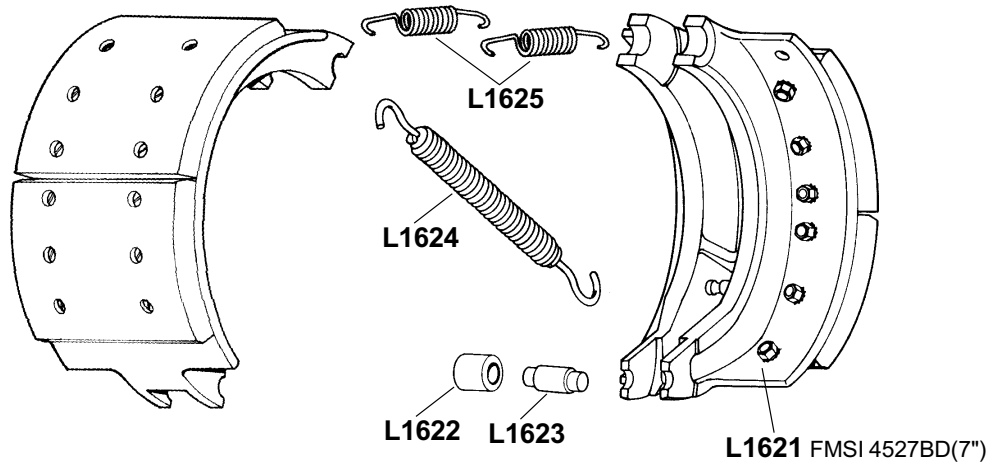


Contains parts to service one wheel.

EATON

LELAND REPLACEMENT PARTS FOR
EATON
18" x 7" EB-180-7R TRACTOR BRAKES

Schematic
 Diagram
 Charts
4

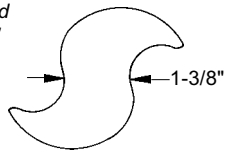


Heavy Duty Brake Repair Kit: **K275**
 Camshafts: Standard or "ES" type, see tip.

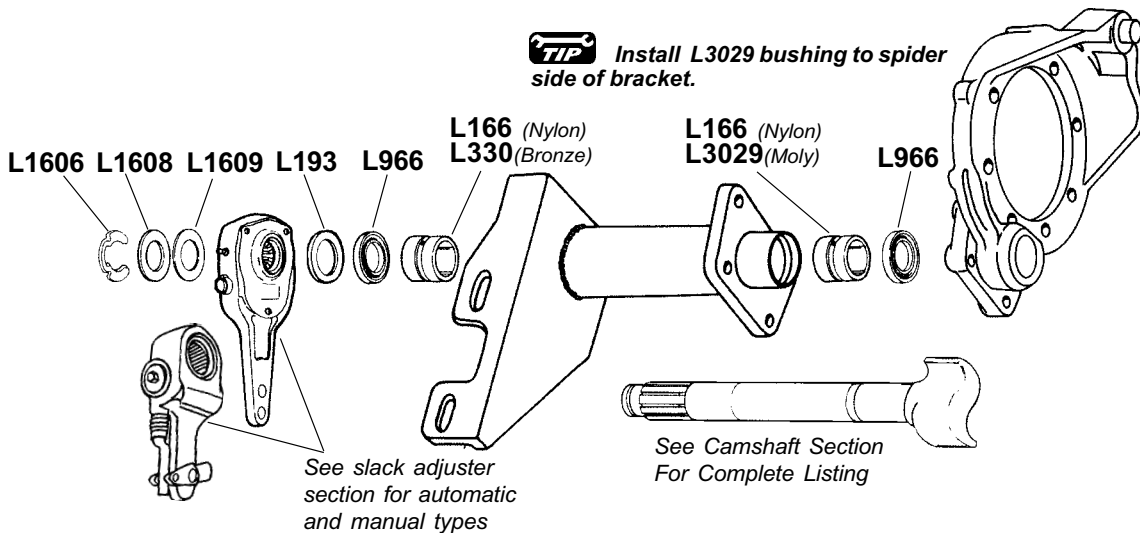
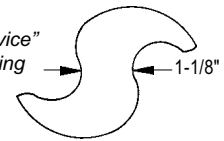
TIP Later style "ES" type cams can be used on the 18" "EB" brake in pairs (LH & RH) on an axle.

EATON CAMSHAFT IDENTIFICATION

Standard profile used on both 16-1/2" & 18" "EB" Single Anchor Pin Brakes 1-1/2" diameter bearing surfaces



ES" or "Extended Service" 1-1/2" diameter bearing surfaces



Heavy Duty Cam Repair Kit: **K312** - Wheel End, contains Bronze inner & Molydisulfide outer cam bushings

H. D. Version

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BRAKE REPAIR KIT

EATON

K275 For Eaton 18" x 7" EB-180-7R Cast Brake

Contains:

- 2 Pcs. - L1622 Roller
- 2 Pcs. - L1623 Pin
- 1 Pcs. - L1624 Spring
- 2 Pcs. - L1625 Spring



Contains parts to service one wheel.

Schematic
Diagram
Charts

4

CAM REPAIR KIT - EATON

With Bronze and Molydisulfide filled cam bushings

K312 For Eaton "EB" and "ES" Steer and Drive Axle Brakes using 1-1/2" Camshaft in Severe Duty Applications.

Contains:

- 2 Pcs. - L193 Washer
- 1 Pc. - L330 Bronze Bushing (Inner)
- 2 Pcs. - L966 Seal
- 1 Pc. - L1606 Lock Ring
- 1 Pc. - L1608 Washer
- 1 Pc. - L1609 Washer
- 1 Pc. - L3029 Bushing (Outer)



Contains parts to service one wheel.

 *H. D. Version*

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