

Issued: 09/2011
Catalog #: CQ-8181-11
Mfg Code: HFF



Fleet Solutions - Brake Shoe Catalog



2011



Table of Contents

Anatomy of a Brake Shoe	4
Brake Remanufacturing Quality.....	5
Brake Lining Options.....	6
Brake Lining Application	8
Brake Shoe Numbering System.....	10
15" Drum Diameter - Most Popular Applications	12
15" Drum Diameter - Extended Application Coverage.....	13
16 1/2" Drum Diameter - Most Popular Applications	16
16 1/2" Drum Diameter - Extended Application Coverage.....	23
Other Drum Diameters - Extended Application Coverage	25
Hardware Kits	26
Contact Information	28

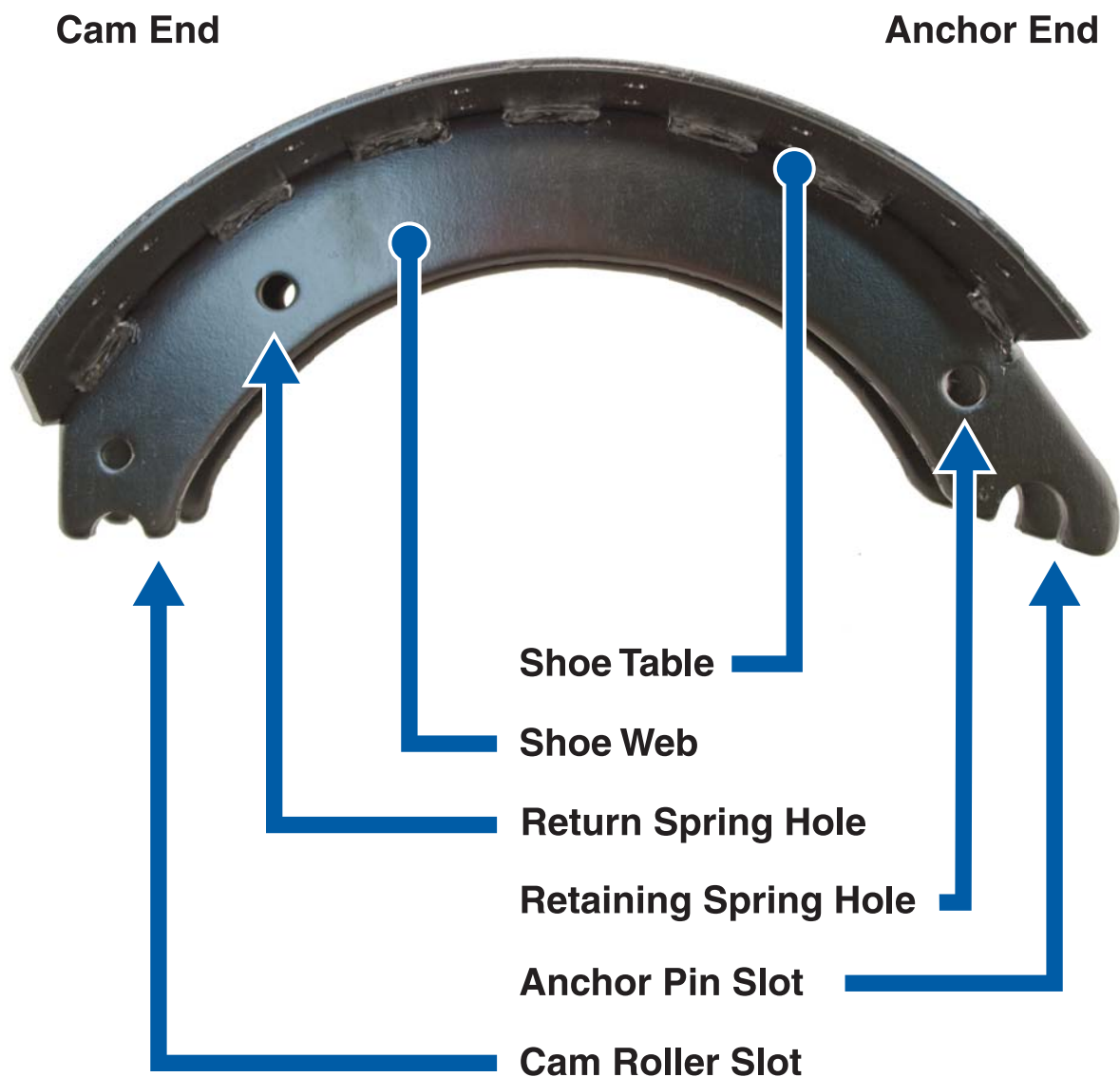
Anatomy of a Brake Shoe

Shoe Web: Shoes may have one or two webs; the web is the rail that the shoe table is welded to.

Shoe Table: The table is a flat arched metal plate welded to the web. There are rivet holes through the table for fastening the lining to the table.

Cam End: The end of the web that holds the roller which rides on the cam shaft.

Anchor End: The end of the shoe that is anchored to the brake spider with the anchor pin.



Value Added Quality

Haldex is determined to continuously provide the highest quality remanufactured brake shoes in the industry. A primary point of emphasis is adding additional, meaningful quality while minimizing the cost impact to our customers. For this reason as an example, Haldex will not “coin” brake shoes. The extra costs associated with coining do not justify the short term “benefit” of selling a brake shoe that is beyond specifications and beyond its useful life. Haldex’s answer to those who promote “coining” is simple...“scrapping”.

Over 30 Quality Checkpoints and Inspections Per Shoe:

- Table Wear & Damage
- Web Damage
- Anchor & Roller End Wear & Damage
- Shoe Stretch & Collapse
- Elongated Rivet Holes
- Coating Coverage
- Lining Fit/Rivet Torque



Rust inhibitive coating tested to exceed an aggressive 250 hour salt spray criteria

Process Fundamentals

The Haldex Way - Quality Inspection Points



A liberal core program protects your core investment.



Shoe quality begins at core check-in. Out of spec shoes are scrapped.



Automatic deliners prevent excessive table damage, protecting shoe quality at a higher level.



Individual shot blasting ensures 100% removal of external contaminants - necessary for reliable coating coverage.



Extensive investments in coatings and curing processes ensures maximum protection against corrosion.



Rivet torque specifications are critically maintained to ensure reliable lining to shoe attachment.



Haldex provides packaging options to fit the needs of your business.

Brake Lining Options



GN



GR

20,000 lbs. Brake Lining

Brake Lining	Haldex GN	Haldex GR
Lining Rated @	20,000 lbs	20,000 lbs
Temperature	625°	775°
Fade Resistance	Average	Excellent
Recovery	Average	Excellent
Lining Wear	Average	Excellent

Brake Lining Performance - Know Your Zone

GREENZone

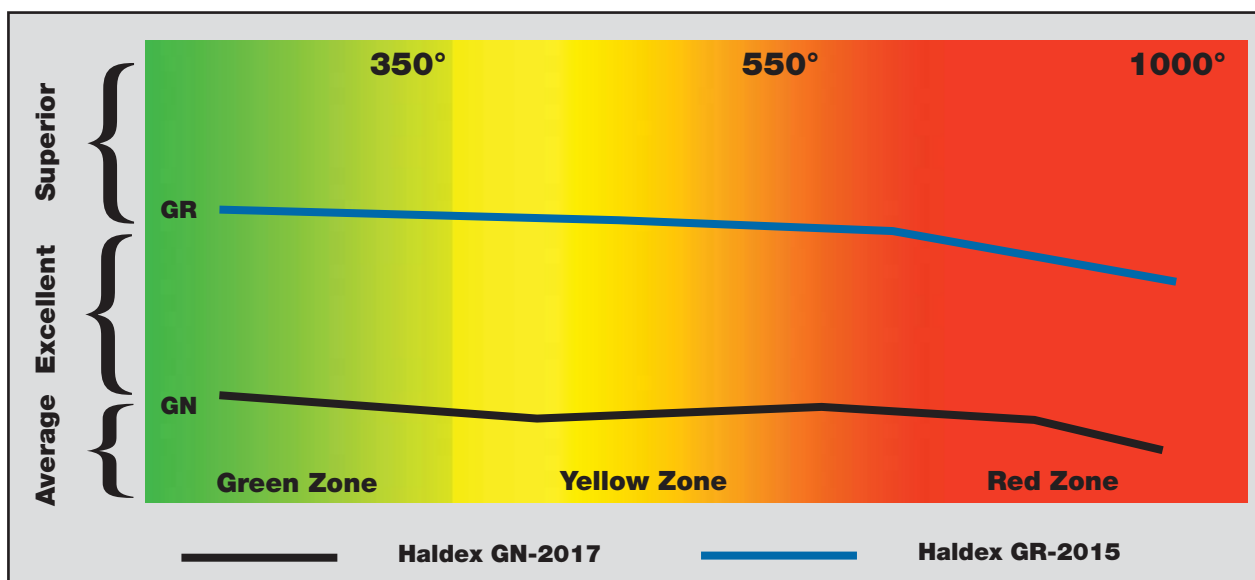
- Lighter loads - flatter roads
- Low stress on the brakes
- Brake temperatures generally stay below 350°

YELLOWZone

- Coast to coast operations
- Variable load conditions
- Moderate stress on the brakes
- Brake temperature vary up to 650° due to the variety of terrain and loads encountered

REDZone

- Extreme loads - extreme stopping
- High stress on the brakes
- Brake temperatures may approach 1000° due to the extreme conditions and variability of the application environment



Brake linings are not create equal. CARQUEST has a complete offering of brake lining options so you can make the best choice for your unique application.

The chart above depicts overall performance of the CARQUEST brake lining options at a variety of temperature ranges to help simplify the process of choosing the right lining for your application.



23,000 lbs. Brake Lining

Brake Lining	CARQUEST CB	Haldex GG	Haldex GC
Lining Rated @	23,000 lbs	23,000 lbs	23,000 lbs
Temperature	700°	975°	1000°
Fade Resistance	Excellent	Superior	Superior
Recovery	Excellent	Superior	Superior
Lining Wear	Excellent	Superior	Superior

Brake Lining Performance - Know Your Zone

GREEN Zone

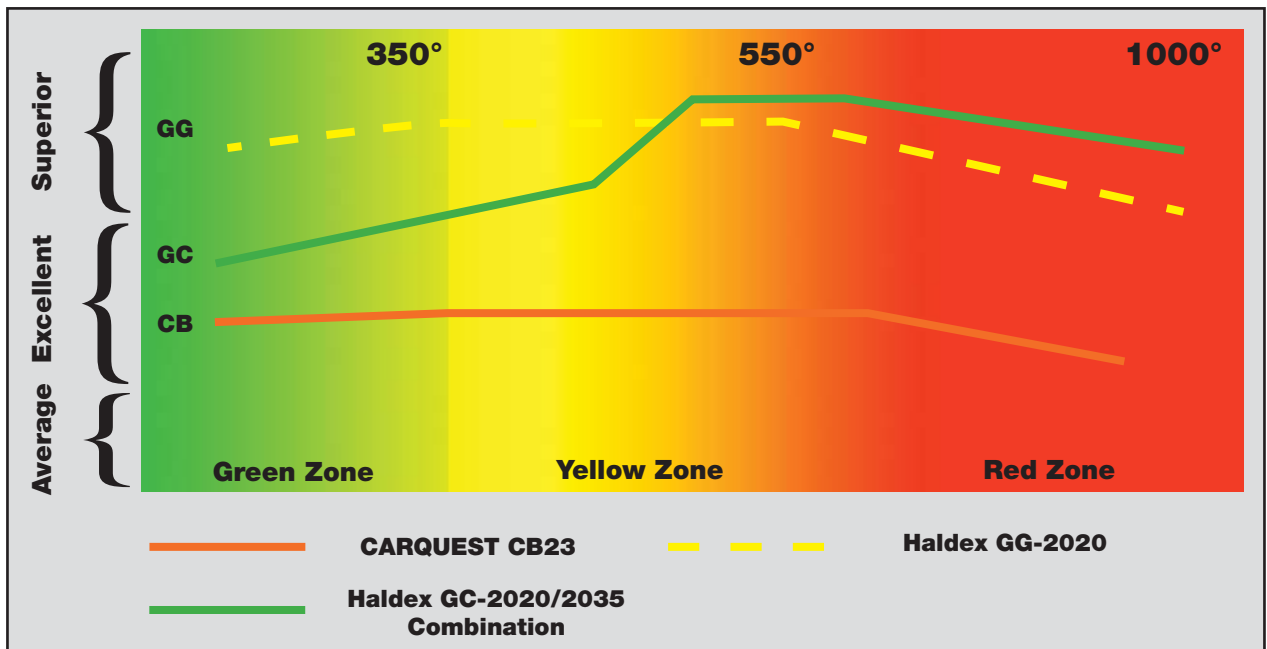
- Lighter loads - flatter roads
- Low stress on the brakes
- Brake temperatures generally stay below 350°

YELLOW Zone

- Coast to coast operations
- Variable load conditions
- Moderate stress on the brakes
- Brake temperature vary up to 650° due to the variety of terrain and loads encountered

RED Zone

- Extreme loads - extreme stopping
- High stress on the brakes
- Brake temperatures may approach 1000° due to the extreme conditions and variability of the application environment



Brake linings are not created equal. CARQUEST has a complete offering of brake lining options so you can make the best choice for your unique application.

The chart above depicts overall performance of the CARQUEST brake lining options at a variety of temperature ranges to help simplify the process of choosing the right lining for your application.

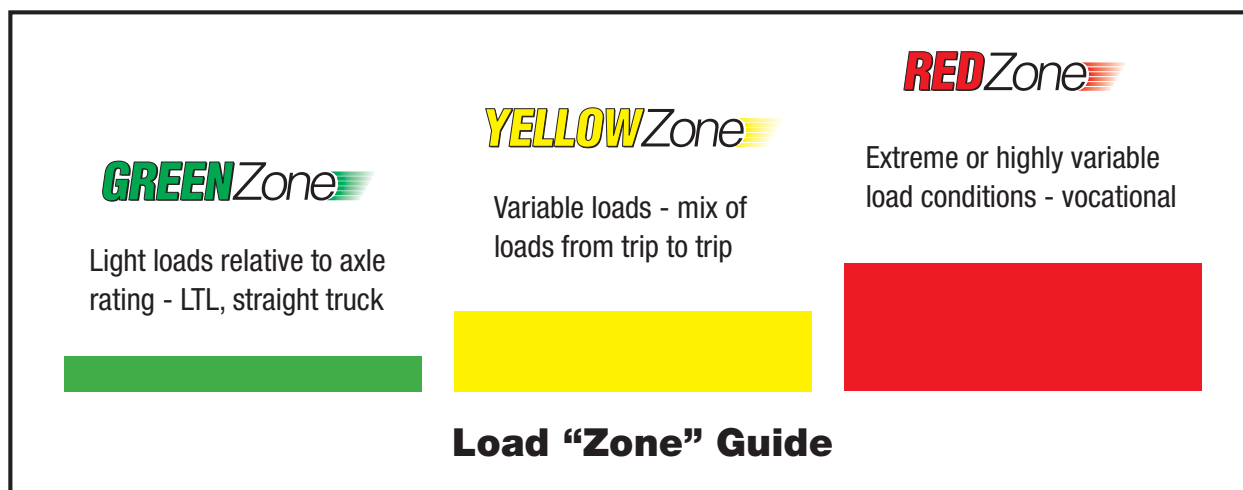
Brake Lining Application

Choosing the Proper Brake Lining

The primary factors to consider when choosing a brake lining are:

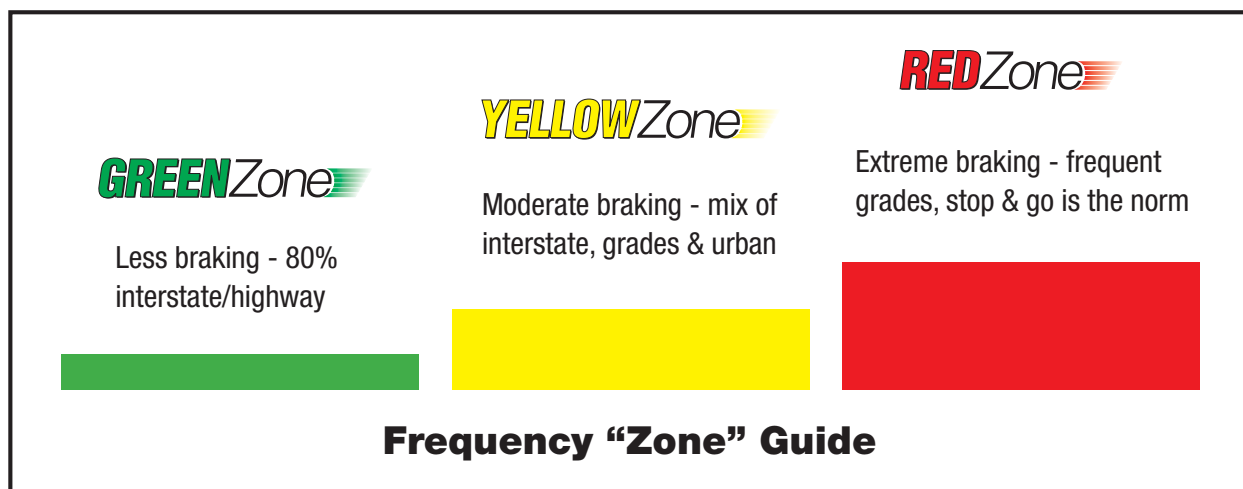
1. Load

If loads are typically light relative to the vehicles combined axle weight rating, generally brake temperatures will stay towards the lower end of the temperature spectrum (<400°). Highly variable loads mean that for at least part of the time, loads may be up to or above the vehicle's axle weight rating. To ensure maximum braking performance, a brake lining must be able to perform at a higher temperature (> 550° when heavy), however not be "too much" for those times when the vehicle is loaded lighter (<400°). Extreme load conditions are going to generate high temperatures most of the time, calling for upgraded linings to maintain top-notch braking performance (up to 1000°).



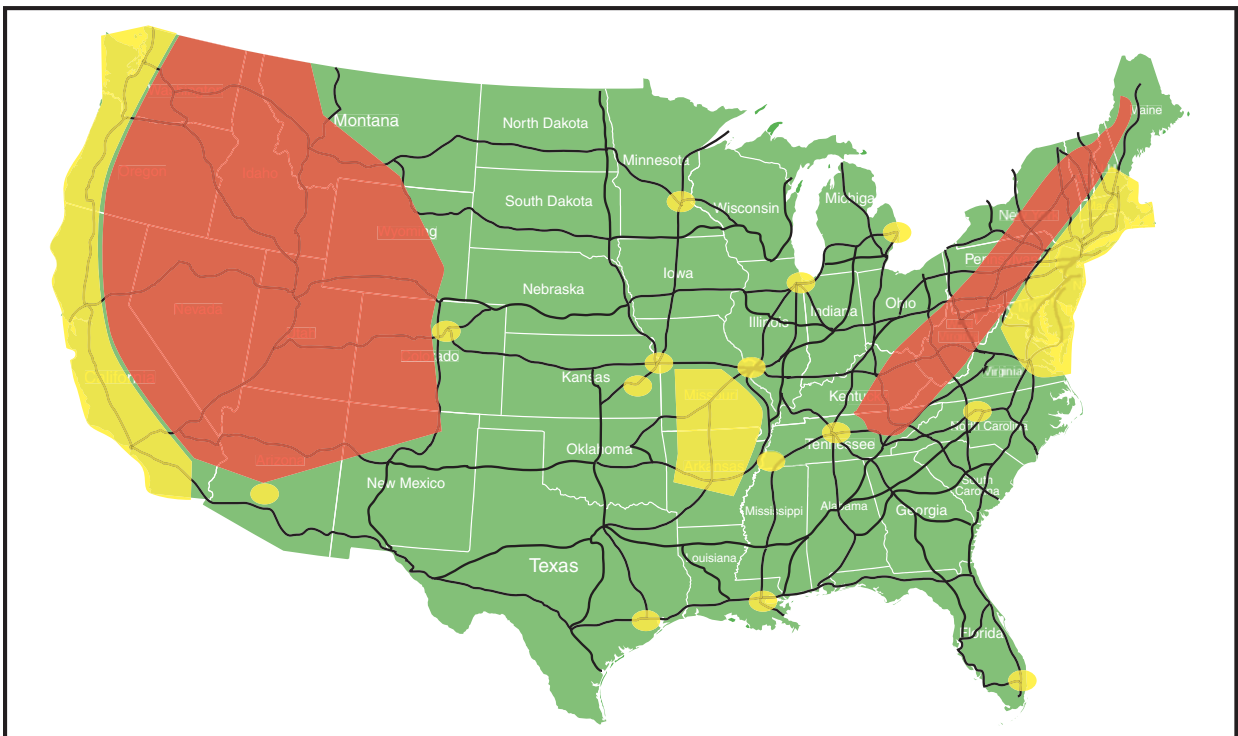
2. Braking Frequency

Are you touching the brakes once every 60 miles (interstate driving) or is the vehicle constantly subjected to stop-and-go driving (refuse pick-up)? Stopping frequency is a major influence on a brake's temperature.



3. Road

- Flat roads (Green Zone) generate less demand on your brakes keeping temperatures lower.
- Variable road conditions, such as coast-to-coast operations means that the vehicle will see the complete spectrum of application environments on any given trip. The lining must be able to withstand the extreme situations, yet not be “over-blown” for those times when flat roads and interstate speeds prevail.
- Off road and continuous steep grade environments means brake temperatures will stay elevated for extended periods of time. A lining’s resistance to brake fade is critical in these situations.



GREENZone



YELLOWZone

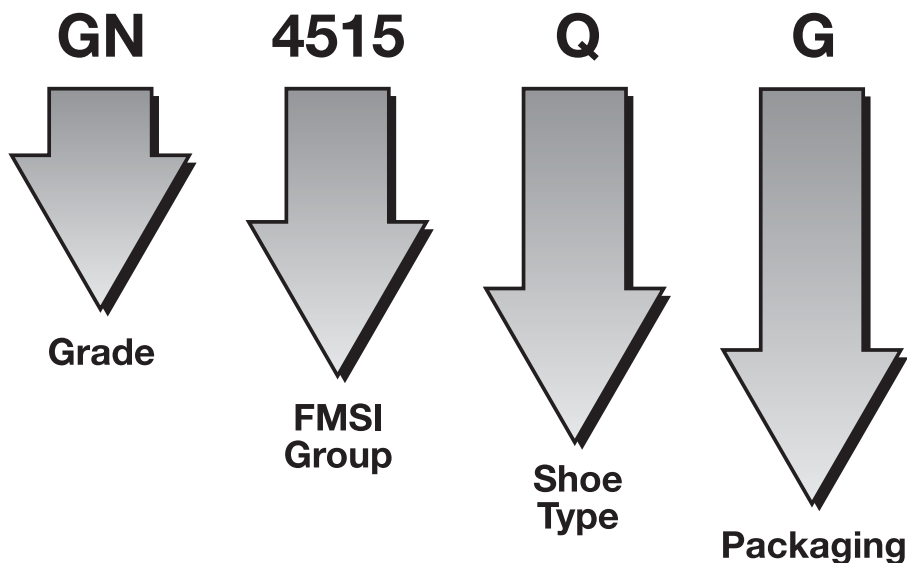


REDZone

High Performance Key

The key to successfully choosing a brake lining that will be the safest choice, maximize stopping ability and provide the best wear characteristics is to take a critical view of the “application environment” of the vehicle – Load, Road and Frequency – and choose a lining that is well suited to meet these unique demands. All 3 elements must be considered and all three are equally as important as the other. For instance, if you make a choice solely based on load, by discounting the effects of braking frequency, it is possible to inadvertently “under-brake” the vehicle which could lead to increased stopping distances, excessive brake fade and below average wear. Likewise, it would be counter-productive to choose a high temperature lining for an application where temperatures never exceed 350°.

Part Number GN4515QG



Grades of Friction Available

CB - 23,000 lb. CARQUEST Premium
GG - 23,000 lb. Haldex Premium
GC - 23,000 lb. Haldex Combination
GR - 20,000 lb. Haldex Premium
GN - 20,000 lb. Haldex Standard
GW - 23,000 lb. Haldex Wedge Brake

FMSI Groups

1308 Eaton E or Meritor Q 15x4" Steer Axle
1443 Eaton ES 15x4" Steer Axle
4311 Eaton 16 1/2" x 7" Truck or Trailer Axle
4515 Meritor Q 16 1/2" x 7" Truck or Trailer Axle & Fruehauf Trailer Axle
4707 Meritor Q-Plus 16 1/2" x 7" Truck or Trailer Axle
4709 Eaton "ES" or "ES2" 16 1/2" x 7" Truck or Trailer Axle
4725 Eaton "ES" or "ES2" 16 1/2" x 6" Steer Axle
4726 Eaton "ES" or "ES2" 16 1/2" x 8 5/8" Truck Axle

Shoe Types

E Eaton E Standard
ES2 Eaton ES 2nd Generation
Q Meritor Quick Change or Q-Plus
X3 Fruehauf Trailer XEM3

Packaging

G Gripper Kit, 2 shoes boxed with brake hardware
R Reline shoe (single shoe)

Note: FMSI Groups and Shoe Types listed are the most popular in the aftermarket, there are many other options. For more see the HFF catalog.



15" Brakes

Most Popular Applications



15" Drum Diameter - Most Popular Applications

Brake Lining	Haldex GN	Haldex GR	CARQUEST CB	Haldex GG	Haldex GC
Lining Rated @ Temperature	20,000 lbs 625°	20,000 lbs 775°	23,000 lbs 700°	23,000 lbs 975°	23,000 lbs 1000°
Fade Resistance	Average	Excellent	Excellent	Superior	Superior
Recovery	Average	Excellent	Excellent	Superior	Superior
Lining Wear	Average	Excellent	Excellent	Superior	Superior

Table further from end (Q shown)



1308Q

15" x 4" Rockwell Q - single rail early design

Relined Shoes	-	GR1308QR	CB1308QR	GG1308QR	GC1308QR
Relined Shoe Kit	-	GR1308QG	CB1308QG	GG1308QG	GC1308QG
New Shoe	-	GR1308QN	CB1308QN	GG1308QN	GC1308QN

Hardware Kit: Haldex CQ69001; Euclid E3869; BWP M-K79; WA WAE3869

Table near cam end (Q2 shown)



1308Q2

15" x 4" Rockwell Q - single rail late design - most popular - do not mix with early design

Relined Shoes	-	GR1308Q2R	CB1308Q2R	GG1308Q2R	GC1308Q2R
Relined Shoe Kit	-	GR1308Q2G	CB1308Q2G	GG1308Q2G	GC1308Q2G
New Shoe	-	GR1308Q2N	CB1308Q2N	GG1308Q2N	GC1308Q2N

Hardware Kit: Haldex CQ69001; Euclid E3869; BWP M-K79; WA WAE3869

Dual Rail



4702Q

15" x 4" Rockwell Q+ dual rail shoe

Relined Shoes	-	GR4702QR	CB4702QR	GG4702QR	GC4702QR
Relined Shoe Kit	-	GR4702QG	CB4702QG	GG4702QG	GC4702QG
New Shoe	-	GR4702QN	CB4702QN	GG4702QN	GC4702QN

Hardware Kit: Haldex CQ65642; Euclid E9064; BWP M-K98; WA WA08-5093



1308E

15" x 4" Eaton Single anchor pin-center to center on rivets is 2-3/4"

Relined Shoes	-	GR1308ER	CB1308ER	GG1308ER	GC1308ER
Relined Shoe Kit	-	GR1308EG	CB1308EG	GG1308EG	GC1308EG
New Shoe	-	GR1308EN	CB1308EN	GG1308EN	GC1308EN

Hardware Kit: Haldex CQ66917; Euclid E5139; BWP M-K77; WA WAE5139



1443E

15" x 4" Eaton ES Single anchor pin center to center on rivets is 2"

Relined Shoes	-	GR1443ER	CB1443ER	GG1443ER	GC1443ER
Relined Shoe Kit	-	GR1443EG	CB1443EG	GG1443EG	GC1443EG
New Shoe	-	GR1443EN	CB1443EN	GG1443EN	GC1443EN

Hardware Kit: Haldex CQ66917; Euclid E5139; BWP M-K77; WA WAE5139

15" Drum Diameter - Extended Application Coverage

Base Shoe Number	Shoe Size	Description
1245235R	15 X 3	Wagner Brake No Hole
1245321R	15 X 3	Wagner Brake No Hole
1279425R	15 X 3 1/2	Wagner Brake
1279455R	15 X 3 1/2	Wagner Brake
1280322R	15 X 3 1/2	Wagner With Hole
1280463R	15 X 3 1/2	Wagner Brake
1307TR	15 X 3 1/2	Arvin Meritor Front Axle Brake Pin Style
1307WR	15 X 3 1/2	Arvin Meritor Front Axle Brake Pin Style
4561BR	15 x 3 1/2	Bendix Wedge Brake
4562BWR	15 x 3 1/2	Bendix Wedge Brake
4562RWR	15 x 3 1/2	Arvin Meritor Wedge Brake
1308426R	15 X 4	Wagner Front Axle Brake
1308458R	15 X 4	Wagner Front Axle Brake
1308512R	15 X 4	Wagner Front Axle Brake
1308ER	15 X 4	Eaton Front Axle Single Pin
1308Q2R	15 X 4	Arvin Meritor Front Axle Brake Quick Change Style
1308QR	15 X 4	Arvin Meritor Front Axle Brake Quick Change Style
1308TR	15 X 4	Arvin Meritor Front Axle Brake Pin Style
1308WR	15 X 4	Arvin Meritor RSA Wedge Brake
1443ER	15 X 4	Dana Spicer/Eaton Front Axle Brake Extended Service Design
2032402R	15 X 4	Bendix
203288R	15 X 4	Bendix
2039299R	15 X 4	Bendix
4693BR	15 X 4	Bendix Brazilian Brake for Ford Cargo Series
4693DR	15 X 4	Dana Spicer/Eaton HA Series
4702QR	15 X 4	Arvin Meritor Q+ Dual Rail Shoe
4729DQR	15 X 4	Dana Spicer/Eaton Heavy Axle
4647401R	15 X 4	Kelsey Hayes
4646400R	15 X 5	Kelsey Hayes
4703QR	15 X 5	Arvin Meritor Q+ Dual Rail Shoe
4594TR	15 x 6	Wagner Brake
4704QR	15 x 6	Arvin Meritor Q+ Dual Rail Shoe
4716ESR	15 x 6	Dana Spicer/Eaton Reduced Envelope
4595TR	15 x 7	Wagner Brake
4710QR	15 X 8 5/8	Arvin Meritor Q+ Dual Rail Shoe
4710QR2	15 X 8 5/8	Arvin Meritor Q+ Dual Rail Shoe
4717ESR	15 x 8-5/8	Dana Spicer/Eaton Reduced Envelope

Contact your local Haldex Friction Center for more information on these extended applications.
See page 28 for contact information.



16½" Brakes

Most Popular Applications



16½" Drum Diameter - Most Popular Applications

Brake Lining	Haldex GN	Haldex GR	CARQUEST CB	Haldex GG	Haldex GC
Lining Rated @ Temperature	20,000 lbs 625°	20,000 lbs 775°	23,000 lbs 700°	23,000 lbs 975°	23,000 lbs 1000°
Fade Resistance	Average	Excellent	Excellent	Superior	Superior
Recovery	Average	Excellent	Excellent	Superior	Superior
Lining Wear	Average	Excellent	Excellent	Superior	Superior

Meritor/Rockwell Style



4515Q - Meritor Q - 16.5" x 7" Arvin Meritor "Q" quick change design

Relined Shoes	GN4515QR	GR4515QR	CB4515QR	GG4515QR	GC4515QR
Relined Shoe Kit	GN4515QG	GR4515QG	CB4515QG	GG4515QG	GC4515QG
New Shoe	GN4515QN	GR4515QN	CB4515QN	GG4515QN	GC4515QN
Hardware Kit: Haldex CQ66867; Euclid E2769SHD; BWP M-K39; WA WA2769SHD					



"Plus"
Typically
stamped
in table
(Q Plus)

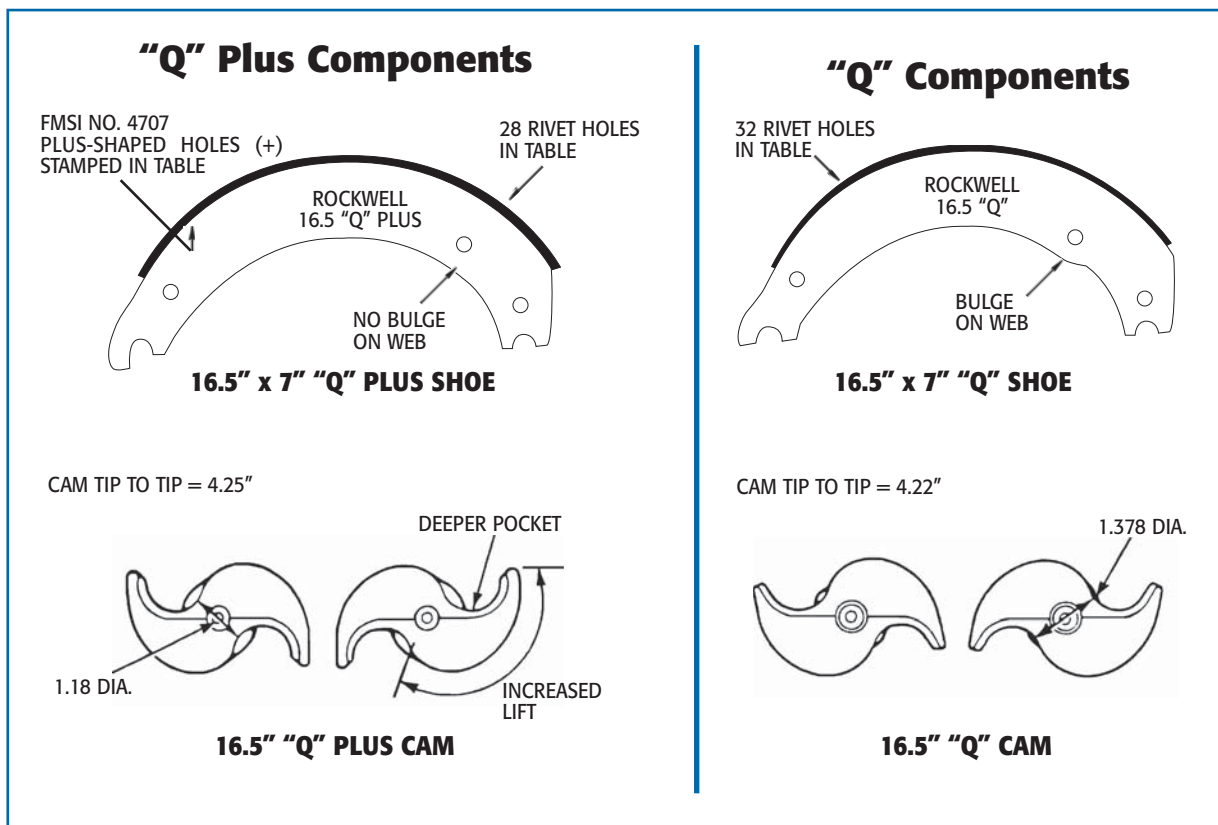
4707Q+ - Meritor Q+ - 16.5" x 7" Arvin Meritor "Q" extended service quick change design

Relined Shoes	GN4707QR	GR4707QR	CB4707QR	GG4707QR	GC4707QR
Relined Shoe Kit	GN4707QG	GR4707QG	CB4707QG	GG4707QG	GC4707QG
New Shoe	GN4707QN	GR4707QN	CB4707QN	GG4707QN	GC4707QN
Hardware Kit: Haldex CQ66867; Euclid E2769SHD; BWP M-K39; WA WA2769SHD					

Meritor Q vs. Q+ Identification Tips - Next Page

16½" Drum Diameter - Most Popular Applications

Meritor Q vs Q+ Identification Tips



All "Q" Plus Brakes have the following features that are different from "Q" Brakes:

- Thicker Linings
- High Lift Camshaft
- Offers longer service life

16.5" "Q" style brakes manufactured before 1994 can be retrofitted to the "Q" Plus style by changing the shoe and lining, the shoe return spring and the camshaft. Since 1994, the High Rise "Q" Plus camshaft design has been standard in all 16.5" "Q" Series Brakes. In this case, only the shoe/lining assembly and the return spring must be changed in order to go from the "Q" to the "Q" Plus Series Brake.

16½" Drum Diameter - Most Popular Applications

Brake Lining	Haldex GN	Haldex GR	CARQUEST CB	Haldex GG	Haldex GC
Lining Rated @ Temperature	20,000 lbs 625°	20,000 lbs 775°	23,000 lbs 700°	23,000 lbs 975°	23,000 lbs 1000°
Fade Resistance	Average	Excellent	Excellent	Superior	Superior
Recovery	Average	Excellent	Excellent	Superior	Superior
Lining Wear	Average	Excellent	Excellent	Superior	Superior

Meritor/Rockwell Style



4720Q+
16.5" x 5" Arvin Meritor "Q+" Extended Service Quick Change

Relined Shoes	-	GR4720QR	CB4720QR	GG4720QR	GC4720QR
Relined Shoe Kit	-	GR4720QG	CB4720QG	GG4720QG	GC4720QG
New Shoe	-	GR4720QN	CB4720QN	GG4720QN	GC4720QN

Hardware Kit: Haldex CQ66867; Euclid E2769SHD; BWP M-K39; WA WA2769SHD



4715Q+
16.5" x 6" Arvin Meritor "Q+" Extended Service Quick Change

Relined Shoes	-	GR4715QR	CB4715QR	GG4715QR	GC4715QR
Relined Shoe Kit	-	GR4715QG	CB4715QG	GG4715QG	GC4715QG
New Shoe	-	GR4715QN	CB4715QN	GG4715QN	GC4715QN

Hardware Kit: Haldex CQ66867; Euclid E2769SHD; BWP M-K39; WA WA2769SHD



4718Q+
16.5" x 8" Arvin Meritor "Q+" Extended Service Quick Change

Relined Shoes	-	GR4718QR	CB4718QR	GG4718QR	GC4718QR
Relined Shoe Kit	-	GR4718QG	CB4718QG	GG4718QG	GC4718QG
New Shoe	-	GR4718QN	CB4718QN	GG4718QN	GC4718QN

Hardware Kit: Haldex CQ66867; Euclid E2769SHD; BWP M-K39; WA WA2769SHD



4711Q+
16.5" x 8 5/8" Arvin Meritor "Q+" Extended Service Quick Change

Relined Shoes	-	GR4711QR	CB4711QR	GG4711QR	GC4711QR
Relined Shoe Kit	-	GR4711QG	CB4711QG	GG4711QG	GC4711QG
New Shoe	-	GR4711QN	CB4711QN	GG4711QN	GC4711QN

Hardware Kit: Haldex CQ66867; Euclid E2769SHD; BWP M-K39; WA WA2769SHD

16½" Drum Diameter - Most Popular Applications

Brake Lining	Haldex GN	Haldex GR	CARQUEST CB	Haldex GG	Haldex GC
Lining Rated @ Temperature	20,000 lbs 625°	20,000 lbs 775°	23,000 lbs 700°	23,000 lbs 975°	23,000 lbs 1000°
Fade Resistance	Average	Excellent	Excellent	Superior	Superior
Recovery	Average	Excellent	Excellent	Superior	Superior
Lining Wear	Average	Excellent	Excellent	Superior	Superior

Meritor/Rockwell Style



4515T Pin Style

16.5" x 7" Arvin Meritor Pin Style

Relined Shoes	GN4515TR	GR4515TR	CB4515TR	GG4515TR	GC4515TR
Relined Shoe Kit	GN4515TG	GR4515TG	CB4515TG	GG4515TG	GC4515TG
New Shoe	GN4515TN	GR4515TN	CB4515TN	GG4515TN	GC4515TN
Hardware Kit: Haldex CQ67390; Euclid KIT-4HD; BWP M-K4; WA WA08-5053					

Fruehauf Style

Slight bump
vs. 4515Q



4515X3

16.5" x 7" Fruehauf XEM 3

Relined Shoes	GN4515X3R	GR4515X3R	CB4515X3R	GG4515X3R	GC4515X3R
Relined Shoe Kit	GN4515X3G	GR4515X3G	CB4515X3G	GG4515X3G	GC4515X3G
New Shoe	GN4515X3N	GR4515X3N	CB4515X3N	GG4515X3N	GC4515X3N
Hardware Kit: Haldex CQ66914; Euclid E3710HD; BWP M-K42; WA WA3710SHD					

16½” Drum Diameter - Most Popular Applications

Brake Lining	Haldex GN	Haldex GR	CARQUEST CB	Haldex GG	Haldex GC
Lining Rated @ Temperature	20,000 lbs 625°	20,000 lbs 775°	23,000 lbs 700°	23,000 lbs 975°	23,000 lbs 1000°
Fade Resistance	Average	Excellent	Excellent	Superior	Superior
Recovery	Average	Excellent	Excellent	Superior	Superior
Lining Wear	Average	Excellent	Excellent	Superior	Superior

Eaton/Dana Spicer Style



4311E "Conventional"
16.5" x 7" Eaton EB Series Low Mount

No tab version shown

Relined Shoes	GN4311ER	GR4311ER	CB4311ER	GG4311ER	GC4311ER
Relined Shoe Kit	GN4311EG	GR4311EG	CB4311EG	GG4311EG	GC4311EG
New Shoe	GN4311EN	GR4311EN	CB4311EN	GG4311EN	GC4311EN
Hardware Kit: Haldex CQ67319; Euclid E1887AHD; BWP M-K10; WA WA1887ASHD					

EATON 16.5" x 7" Conventional Style Shoe

CONVENTIONAL SHOE



TAB

NO TAB

FMSI LINING 7" 4311

Eaton 4311
"conventional" style shoes may or may not incorporate tabs as shown.

The Eaton "ES" and "ESII" Extended Service 16.5" x 7" brake for drive and trailer axles is a completely redesigned brake from the standard single anchor pin type. To change from conventional to "ES" or "ESII" style, new brake shoes, hardware and camshafts are required. If "ES" or "ESII" brakes are changed back to conventional, the "ES" style camshafts can be used with the conventional style shoe and conventional shoe hardware. Even though changeover from the conventional style to the "ES" or "ESII" style is possible, each type of shoe has its own core group. Cores CANNOT be interchanged or upgraded as far as your core account is concerned.

16½" Drum Diameter - Most Popular Applications

Brake Lining	Haldex GN	Haldex GR	CARQUEST CB	Haldex GG	Haldex GC
Lining Rated @ Temperature	20,000 lbs 625°	20,000 lbs 775°	23,000 lbs 700°	23,000 lbs 975°	23,000 lbs 1000°
Fade Resistance	Average	Excellent	Excellent	Superior	Superior
Recovery	Average	Excellent	Excellent	Superior	Superior
Lining Wear	Average	Excellent	Excellent	Superior	Superior

Eaton/Dana Spicer Style



4709ESII
16.5" x 7" Eaton Extended Service 2nd Generation

Relined Shoes	GN4709ES2R	GR4709ES2R	CB4709ES2R	GG4709ES2R	GC4709ES2R
Relined Shoe Kit	GN4709ES2G	GR4709ES2G	CB4709ES2G	GG4709ES2G	GC4709ES2G
New Shoe	GN4709ES2N	GR4709ES2N	CB4709ES2N	GG4709ES2N	GC4709ES2N

Hardware Kit: Haldex CQ65477; Euclid E10244; BWP M-K105; WA WAE 10244



4709ES
16.5" x 7" Eaton Extended Service 1st Generation

Relined Shoes	GN4709ESR	GR4709ESR	CB4709ESR	GG4709ESR	GC4709ESR
Relined Shoe Kit	GN4709ESG	GR4709ESG	CB4709ESG	GG4709ESG	GC4709ESG
New Shoe	GN4709ESN	GR4709ESN	CB4709ESN	GG4709ESN	GC4709ESN

Hardware Kit: Haldex CQ65481; Euclid E5481A; BWP M-K84; WA WAE 5481

Eaton ES vs. Eaton ESII Identification Tips

EXTENDED SERVICE (ES)

Current "ES" Shoe Design

"ES" retaining spring goes Tab to Tab of the shoe

Also see 4709ES picture above

EXTENDED SERVICE 2nd GENERATION (ESII)

NEW "ESII" Shoe Design

SHOE TABLE (NO TAB)

RETAINING SPRING

(RETURN) RELEASE SPRING

Also see 4709ES11 picture above

MAJOR DIFFERENCES ON THE ESII:

- No Tabs on cam or anchor end of shoe
- New style retaining spring
- Relocation of retaining spring from Tab to the Web of the shoe

16½" Drum Diameter - Most Popular Applications

Brake Lining	Haldex GN	Haldex GR	CARQUEST CB	Haldex GG	Haldex GC
Lining Rated @ Temperature	20,000 lbs 625°	20,000 lbs 775°	23,000 lbs 700°	23,000 lbs 975°	23,000 lbs 1000°
Fade Resistance	Average	Excellent	Excellent	Superior	Superior
Recovery	Average	Excellent	Excellent	Superior	Superior
Lining Wear	Average	Excellent	Excellent	Superior	Superior

Eaton/Dana Spicer Style



4719ES2

16.5" x 5" Eaton Extended Service 2nd Generation

Relined Shoes	-	GR4719ES2R	CB4719ES2R	GG4719ES2R	GC4719ES2R
Relined Shoe Kit	-	GR4719ES2G	CB4719ES2G	GG4719ES2G	GC4719ES2G
New Shoe	-	GR4719ES2N	CB4719ES2N	GG4719ES2N	GC4719ES2N

Hardware Kit: Haldex CQ65445; Euclid E10760; MK113; WA WA08-5038



4725ES2

16.5" x 6" Eaton Extended Service 2nd Generation

Relined Shoes	-	GR4725ES2R	CB4725ES2R	GG4725ES2R	GC4725ES2R
Relined Shoe Kit	-	GR4725ES2G	CB4725ES2G	GG4725ES2G	GC4725ES2G
New Shoe	-	GR4725ES2N	CB4725ES2N	GG4725ES2N	GC4725ES2N

Hardware Kit: Haldex CQ65445; Euclid E10760; MK113; WA WAD-5038



4726ES2

16.5" x 8 5/8" Eaton Extended Service 2nd Generation

Relined Shoes	-	GR4726ES2R	CB4726ES2R	GG4726ES2R	GC4726ES2R
Relined Shoe Kit	-	GR4726ES2G	CB4726ES2G	GG4726ES2G	GC4726ES2G
New Shoe	-	GR4726ES2N	CB4726ES2N	GG4726ES2N	GC4726ES2N

Hardware Kit: Haldex CQ65477; Euclid E10244; BWP M-K105; WA WAE 10244

16½” Drum Diameter - Extended Application Coverage

Base Shoe Number	Shoe Size	Description
4549QR	16 1/2 X 4	Arvin Meritor Quick Change
4549TR	16 1/2 X 4	Arvin Meritor Pin Style
4223EHMR	16 1/2 X 5	Dana Spicer/Eaton EB Series High Mount
4223EOR	16 1/2 X 5	Dana Spicer/Eaton EB Series Low Mount
4223ER	16 1/2 X 5	Dana Spicer/Eaton EB Series Low Mount
4524DQR	16 1/2 X 5	Dana Spicer FC Style
4524QM2R	16 1/2 X 5	Arvin Meritor Q Style Mainly Used On Mack Applications
4524QMR	16 1/2 X 5	Arvin Meritor Q Style Mainly Used On Mack Applications
4524QR	16 1/2 X 5	Arvin Meritor Q Style
4524TMR	16 1/2 X 5	Arvin Meritor Pin Style - Mack
4524TR	16 1/2 X 5	Arvin Meritor Pin Style
4719ES2R	16 1/2 X 5	Dana Spicer/Eaton Extended Service 2nd Design Quick Change Style
4719ESR	16 1/2 X 5	Dana Spicer/Eaton Extended Service 1st Design Quick Change Style
4720QR	16 1/2 X 5	Arvin Meritor Q+ Style
4317EHMR	16 1/2 X 6	Dana Spicer/Eaton EB Series High Mount
4317ER	16 1/2 X 6	Dana Spicer/Eaton EB Series Low Mount
4514QMR	16 1/2 X 6	Arvin Meritor Q Style Mainly Used On Mack Applications
4514QR	16 1/2 X 6	Arvin Meritor Q Style
4514TR	16 1/2 X 6	Arvin Meritor Pin Style
4715QR	16 1/2 X 6	Arvin Meritor Q+ Style
4725ES2R	16 1/2 X 6	Dana Spicer/Eaton Extended Service 2nd Design Quick Change Style
4725ESR	16 1/2 X 6	Dana Spicer/Eaton Extended Service 1st Design Quick Change Style
4311EHMR	16 1/2 X 7	Dana Spicer/Eaton EB Series High Mount
4311ER	16 1/2 X 7	Dana Spicer EB Series Low Mount
4468TCR	16 1/2 X 7	Cast Shoe
4515BQR	16 1/2 X 7	Bendix Quick Change Primarily Ford Cargo Series
4515FQR	16 1/2 X 7	Fruehauf Quick Change Style
4515FR	16 1/2 X 7	Fruehauf Pin Style
4515HQR	16 1/2 X 7	Quick Change H Drill
4515QR	16 1/2 X 7	Arvin Meritor Quick Change Style
4515QX	16 1/2 X 7	Arvin Meritor Quick Change Style
4515SPR	16 1/2 X 7	Special Lining Variation Rarely Used
4515TBR	16 1/2 X 7	Arvin Meritor Pin Style - Bushed
4515TCR	16 1/2 X 7	Cast Shoe Arvin Meritor Pin Style
4515TR	16 1/2 X 7	Arvin Meritor Pin Style
4515UR	16 1/2 X 7	U Brake
4515X2R	16 1/2 X 7	Fruehauf XEM 2nd Design
4515X3R	16 1/2 X 7	Fruehauf XEM 3rd Design Most Popular XEM Style
4515X4R	16 1/2 X 7	Fruehauf XEM 4th Design
4515X5R	16 1/2 X 7	Fruehauf XEM 5th Design
4701DR	16 1/2 x 7	Dana Spicer Xtra Life Series

Continued on next page

Contact your local Haldex Friction Center for more information on these extended applications.
See page 28 for contact information.

16½” Drum Diameter - Extended Application Coverage Continued

Base Shoe Number	Shoe Size	Description
4701DR	16 1/2 x 7	Dana Spicer Xtra Life Series
4707QHR	16 1/2 X 7	Arvin Meritor Q+ Extended Service High Rise
4707QMR	16 1/2 X 7	Arvin Meritor Q+ Extended Service For Mack
4707QR	16 1/2 X 7	Arvin Meritor Q+ Extended Service
4708EQR	16 1/2 X 7	Dana Spicer/Eaton ES Series Quick Change
4708ETR	16 1/2 X 7	Dana Spicer/Eaton Extended Service Pin Style
4708EX3R	16 1/2 X 7	Dana Spicer/Eaton Extended Service Fruehauf XEM Replacement
4708TCR	16 1/2 X 7	Cast Shoe Dana Spicer/Eaton Severe Duty Quick Change
4709ES2R	16 1/2 X 7	Dana Spicer/Eaton Extended Service 2nd Design
4709ESR	16 1/2 X 7	Dana Spicer/Eaton Extended Service 1st Design
4625TBR	16 1/2 x 7	Pin Style Bushed
4625TR	16 1/2 x 7	Pin Style Right Side
4644TLR	16 1/2 X 8	Arvin Meritor Pin Style Left Side
4644TRR	16 1/2 X 8	Arvin Meritor Pin Style Right Side
4718QR	16 1/2 X 8	Arvin Meritor Q+ Style
4551FLR	16 1/2 X 8 5/8	Fruehauf Pin Style Left Side
4551FRR	16 1/2 X 8 5/8	Fruehauf Pin Style Right Side
4551QR	16 1/2 X 8 5/8	Arvin Meritor Q Style
4551TR	16 1/2 X 8 5/8	Arvin Meritor Pin Style
4551X3LR	16 1/2 X 8 5/8	Fruehauf XEM 3rd Design Left Side
4551X3RR	16 1/2 X 8 5/8	Fruehauf XEM 3rd Design Right Side
4674ER	16 1/2 X 8 5/8	Dana Spicer EB Series Low Mount
4711QR	16 1/2 X 8 5/8	Arvin Meritor Q+ Style
4726ES2R	16 1/2 X 8 5/8	Dana Spicer/Eaton Extended Service Quick Change Style
4726ESR	16 1/2 X 8 5/8	Dana Spicer/Eaton Extended Service Quick Change Style
4552QNR	16 1/2 X 10	Arvin Meritor Q Style
4552QOR	16 1/2 X 10	Arvin Meritor Q Style
4552T2R	16 1/2 X 10	Arvin Meritor Pin Style
4552TR	16 1/2 X 10	Arvin Meritor Pin Style

Contact your local Haldex Friction Center for more information on these extended applications.
See page 28 for contact information.

Other Drum Diameters - Extended Application Coverage

Base Shoe Number	Shoe Size	Description
1233119R	12.13 X 2 1/4	Hydraulic
4700DXQR	12 1/4 X 4	Dexter Quick Change
4700DXTR	12 1/4 X 4	Dexter PQ Style
4661DQ2R	12 1/4 X 5	Dexter Quick Change
4661DXQR	12 1/4 X 5	Dexter Quick Change
4661DXTR	12 1/4 X 5	Dexter PQ Style
4536DQR	12 1/4 X 5 1/2	Dana Spicer Quick Change
4536DQUR	12 1/4 X 5 1/2	Dana Spicer Quick Change U Brake
4536ER	12 1/4 X 5 1/2	Dana Spicer
4536SFTR	12 1/4 X 5 1/2	Dana Spicer Standard Forge Axles
4544TCR	12 1/4 x 5 1/2	Cast Shoe Standard Forge
4591DXQR	12 1/4 X 7 1/2	Dexter Quick Change
4591DXTR	12 1/4 X 7 1/2	Dexter Pin Type
4591ER	12 1/4 X 7 1/2	Dana Spicer
4591SFTR	12 1/4 X 7 1/2	Standard Forge Pin Type
4621RWR	12 1/4 X 7 1/2	Rockwell Wedge
4670QR	12 1/4 X 7 1/2	Arvin Meritor
4692DQ2R	12 1/4 X 7 1/2	Dana Spicer Quick Change 2nd Gen
4692DQUR	12 1/4 X 7 1/2	Dana Spicer Quick Change U Brake
4692DTR	12 1/4 X 7 1/2	Dana Spicer Pin Style
4692DTUR	12 1/4 X 7 1/2	Dana Spicer Pin Style U Brake
4607TCR	12-1/4 x 7-1/2	Cast Shoe Standard Forge
4649FR	12-1/4 x 8	Fruehauf Propar
1294296R	14 X 2 1/2	Wagner No Wear Hole
1294325R	14 X 2 1/2	Wagner With Hole
2060361R	14 X 2 1/2	Ford Application
4398368R	14 1/2 X 5	Arvin Meritor W Series
42281157R	14 1/2 X 6	Arvin Meritor W Series
4541406R	14 1/2 X 8	Arvin Meritor W Series
4592686R	14 1/2 X 10	Arvin Meritor W Series
4592824R	14 1/2 X 10	Arvin Meritor W Series
46651314R	15 1/8 X 6	Transit
46901314R	15 1/8 X 6	Arvin Meritor Wedge Brake Dual Rail
46661317R	15 1/8 X 10	Transit
46911317R	15 1/8 X 10	Arvin Meritor Wedge Brake Dual Rail
4561TR	16 1/4 x 3 1/2	Arvin Meritor Pin Style
4527ER	18 x 7	Cast Shoe Dana Spicer/Eaton Severe Duty Single Anchor Pin
19745R	394mm X 203mm	Orion Transit
1477TTR	420 x 180MM	Theurer/BPW Trailer Axle Shoe

Contact your local Haldex Friction Center for more information on these extended applications.
See page 28 for contact information.

Hardware Kits

Arvin Meritor "Q" & "Q+"



CQ66867

Euclid E2769SHD, BWP M-K39,
WA 2769SHD

Arvin Meritor "Q" Steer Axle - Single Rail



CQ69001

Euclid E3869; BWP M-K79,
WAE 3869

Arvin Meritor "Q+" Steer Axle Dual Rail



CQ65642

Euclid E 9064, BWP M-K98,
WA08-5093

Arvin Meritor Pin Style



CQ67390

Euclid Kit-4HD, BWP M-K4,
WA08-5053

Eaton E5 2nd Design - 7 - 8 5/8" Shoes



CQ65477

Euclid E 10244, BWP M-K105,
WAE 10244

Eaton E5 2nd Design - 5" - 6" Shoes



CQ65445

Euclid E10760, BWP MK113,
WA08-5038

Eaton ES 1st Design



CQ65481

Euclid E5481A, BWP M-K84,
WAE 5481

Eaton Steer Axle



CQ66917

Euclid E 5139, BWP M-K77,
WAE 5139

Eaton Conventional Style



CQ67319

Euclid E1887AHD, BWP M-K10,
WA 1887ASHD

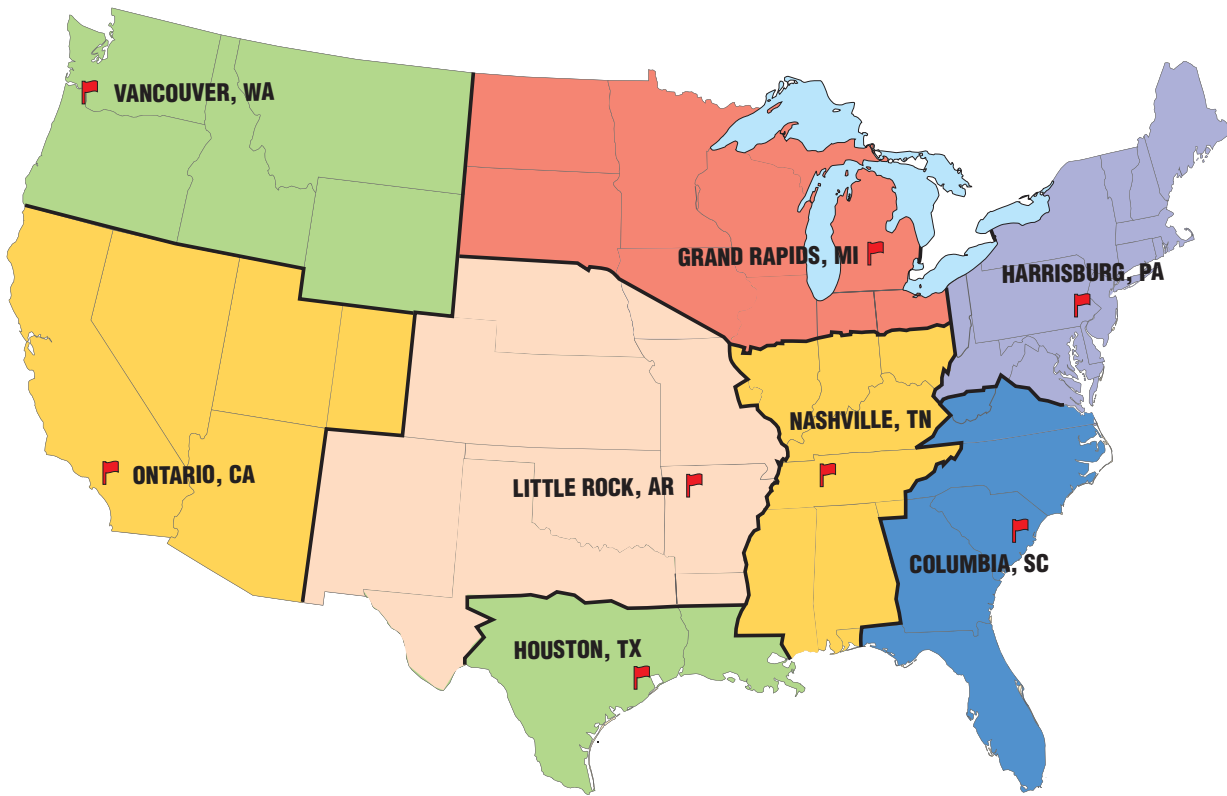
Fruehauf XEM3



CQ66914

Euclid E3710HD, BWP M-K42,
WA 3710SHD

Haldex Friction Centers



Vancouver, WA
360-944-3070

Little Rock, AR
501-221-4384

Grand Rapids, MI
616-827-9641

Harrisburg, PA
717-233-0411

Ontario, CA
909-974-1200

Houston, TX
713-672-8888

Nashville, TN
615-232-0315

Columbia, SC
803-647-1308

CARQUEST Corporation
Raleigh, North Carolina 27604
www.CARQUEST.com



HFF
2011