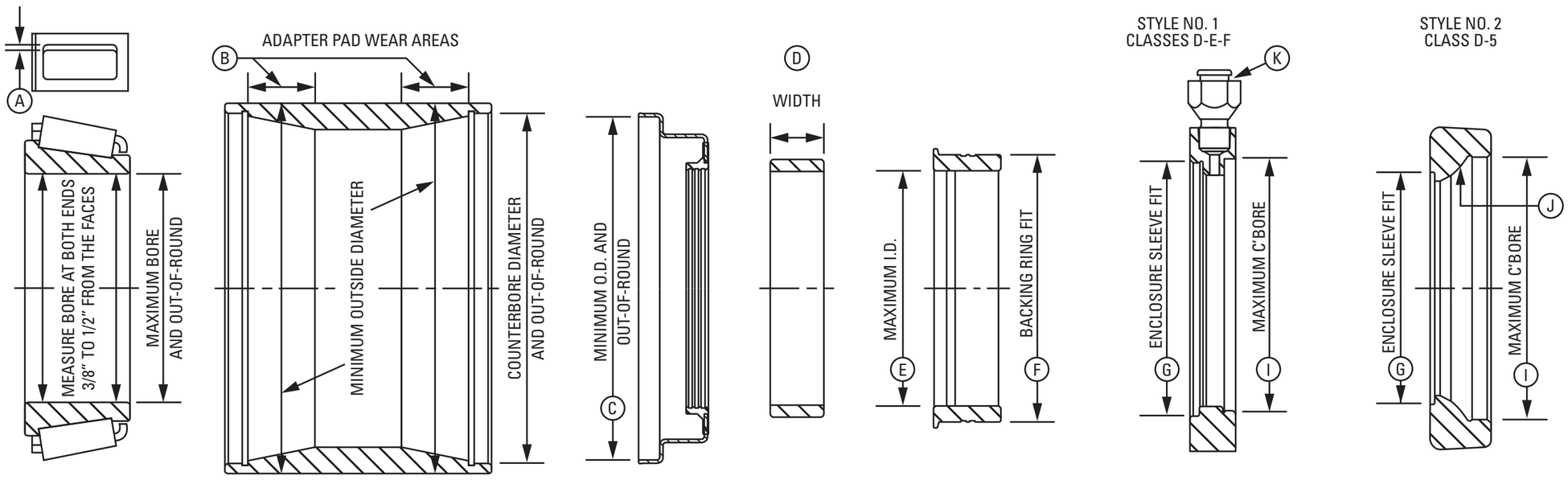
AP™ BEARINGS SERVICE LIMITS

Transit Cars Labyrinth Enclosures

TIMKEN



ROLLER ASSEMBLY | **OUTER RING (CUP)** | **ENCLOSURE** | **SPACER** | **ENCLOSURE SLEEVE** | **BACKING RINGS**

Class and Size	Diameters are Averages										Amount of Grease		
	Roller Assembly		Outer Ring				Enclosure		Enclosure Sleeve	Backing Ring	Each Roller Assembly	Around Spacer	Total Quantity
	+ Maximum Bore	Out-Of-Round	Minimum O.D.	Maximum C'bore	Minimum C'bore	Out-Of-Round	Minimum O.D.	Out-Of-Round	Maximum I.D.	Maximum C'bore			
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	oz.	oz.	oz.
D (5½ x 10)	5.1880	0.003	8.1775	7.7540	7.7450	0.005	7.7570	0.015	5.1890	5.5300	4	8	16
D-5"	5.0005	0.003	8.1775	7.7540	7.7450	0.005	7.7570	0.015	5.0020	6.2100	4	8	16
D-Short Cup	5.1880	0.003	8.2527	7.7540	7.7450	0.005	7.7570	0.015	5.1890	–	4	4	12
E (6 x 11)	5.6880	0.003	8.6775	8.2540	8.2450	0.005	8.2570	0.015	5.6885	Δ5.9370	4	8	16
F (6½ x 12)	6.1880	0.003	9.9275	9.3790	9.3700	0.005	9.3820	0.015	6.1880	7.1855	6	12	24
F-Short Cup	6.1880	0.003	9.8275	9.3790	9.3700	0.005	9.3820	0.015	6.1880	–	8	4	20

+Applies to inboard position and plated cones only. Outboard cone bores may be up to 0.0005 in. larger.
ΔStyle 1 also – 6.030 in.

A. Roller assembly – cage inspection. If the roller pocket of the cage is worn to the extent that a 0.060 in. feeler gage can be inserted between the roller and the cage bridge, the roller assembly should not be returned to service.

⚠ WARNING

Failure to observe the following warnings could create risk of death or serious injury.

Never spin a cone assembly.
The rollers may be forcefully expelled, creating a risk of bodily harm.

Proper maintenance and handling practices are critical. Always follow installation instructions and maintain proper lubrication.

Do not install on the inboard side (adjacent to the backing ring) of any bearing assembly, any Timken Axle Saver™ Seal Wear Rings P/N K151590, P/N K153392, or P/N K153391 with date code before 08 03. Installation at this position may result in galling of the axle when the bearing is pressed onto the journal, which can cause fracture of the axle in service.

B. Outer ring (cup). When outer ring shows wear from adapter, the minimum O.D. is to be measured in the adapter pad wear areas. If the outer ring is distorted in the area of the counterbore, a close visual inspection of the inside and outside surfaces is required. Outer rings that have hairline cracks must be scrapped.

C. Enclosure. Minimum O.D. to be measured. The entire circumference of the major O.D. should be checked with a square. Out-of-round -0.005 in. to +0.010 in. (0.015 in.) based on major O.D. minimum plus 0.001 in. See sheet A-43147. NOTE: Sheet metal flinger, if used, should be checked for bent condition.

D. Spacer width – bench lateral. A spacer must be selected or the spacer may be ground to provide the bearing bench lateral play specified below for type of lateral measuring equipment used:

	Power operated	Hand operated
Classes D-E-F	0.023 in.-0.029 in.	0.020 in.-0.026 in.

Where close coordination is maintained between the bearing repair facility and the bearing mounting facility, the bearing bench lateral may be set to limits necessary to provide satisfactory mounted bearing lateral.

E. Enclosure sleeve – bore. The enclosure sleeve bore must have a tight fit on the axle.

F. Enclosure sleeve – fit in backing ring. The enclosure sleeve must have a tight fit in the backing ring counterbore. Enclosure sleeve may be 0.015 in. out-of-round maximum.

G. Backing ring – fit on the enclosure sleeve. The counterbore of the backing ring must have a tight fit on the enclosure sleeve. AAR manual permits salvage of backing rings with oversize counterbores, reference AAR MSRP Section H-II, Roller Bearing Manual.

H. Backing ring. Bent or distorted backing rings must be scrapped.

I. Backing ring – size (fitted). Check counterbore.

J. Backing ring inspection (fitted Style 2). Backing rings with excessive corrosion must be scrapped. Inspect the backing radius in accordance to AAR MSRP Section H-II, Roller Bearing Manual.

K. Lubricant fittings – when used. Check lubricant fittings to see that they are properly applied and in place, and not damaged or clogged. Damaged fittings must be replaced.

NOTE: Contact your Timken representative for information on bearing parts that are not shown.

Part Numbers – Bearing Components				
Class and Size	Roller Assembly	Roller Assembly (Polymer Cage)	Outer Ring (Cup)	Spacer
D (5½ x 10)	HM127446*	HM127446F	HM127415XD	HM127446XA
D (5)	HM127440*	HM127440F	HM127415XD	HM127440XB
D - Short Cup	HM127446*	HM127446F	HM127417XD	HM127446XB
E (6 x 11)	HM129848*	HM129848F	HM129814XD	HM129848XA
F (6½ x 12)	HM133444*	HM133444F	HM133416XD	HM133444XA
F - Short Cup	HM133444*	HM133444F	HM133413XD	NP115833

*Polymer cage can be retrofitted at reconditioning.

NOTE: Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

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