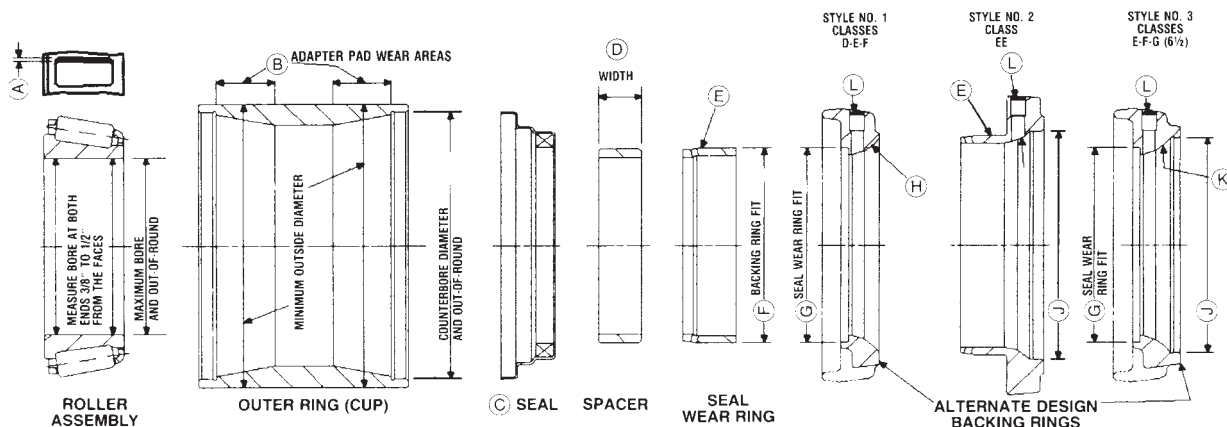


# AP™ ROLLER BEARINGS SERVICE LIMITS

## PASSENGER CARS

# TIMKEN®



CLASS AND SIZE	DIAMETERS ARE AVERAGES								AMOUNT OF GREASE (OUNCES) +		
	ROLLER ASSEMBLY			OUTER RING (CUP)				BACKING RING	Each Roller Assembly	Around Spacer	Total Quantity
	Inboard Max. Bore	Outboard Max. Bore	Out-of-Round	Minimum OD	Maximum C'bore	Minimum C'bore	Out-of-Round	Maximum C'bore			
D (5½ x 10)	5.1880"	5.1885"	0.003"	8.1750"	7.755"	7.7450"	0.005"	-	4	8	16
E (6 x 11)	5.6880"	5.6885"	0.003"	8.6750"	8.255"	8.2450"	0.005"	7.0300"	4	8	16
F (6½ x 12)	6.1880"	6.1885"	0.003"	9.9250"	9.380"	9.3700"	0.005"	7.5300"	6	12	24
G (6½)	6.5005"	6.5010"	0.003"	10.8630"	10.280"	10.2700"	0.005"	7.9030"	9	9	27
EE (5½)	5.5005"	5.5010"	0.003"	10.8630"	10.2790"	10.2700"	0.005"	6.7000"	9	9	27
EE (6)	6.0005"	6.0010"	0.003"	10.8630"	10.2790"	10.2700"	0.005"	7.2470"	9	9	27

+NOTE: ONE HALF OF TOTAL AMOUNT OF GREASE MAY BE APPLIED TO EACH SIDE OF ASSEMBLED BEARING (BEFORE SEALS ARE APPLIED).

### (A) ROLLER ASSEMBLY – CAGE INSPECTION

Place roller assembly on back face (large diameter face) when checking clearances. If the roller pocket of the cage is worn to the extent that a 0.060" feeler gage can be inserted between the roller and the cage bridge, the roller assembly should not be returned to service.

### (B) OUTER RING (CUP)

When outer ring shows wear from adapter, the minimum OD 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 hair line cracks must be scrapped.

### (C) SEAL – SCRAP ALL USED SEALS

BEARINGS EQUIPPED WITH POLYMER CAGES ARE NOT INCLUDED ON THIS CHART.  
PLEASE REFERENCE THE SPECIFIC SERVICE LIMIT CHARTS FOR THESE BEARING ASSEMBLIES.

### (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	0.023" - 0.029"	0.020" - 0.026"
Classes F-G	0.027" - 0.031"	0.024" - 0.028"
Class EE	0.021" - 0.025"	0.018" - 0.022"

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) SEAL WEAR RING – OUTSIDE SURFACE

If the outside surface of the seal wear ring is scratched or cracked or if the lip contact path has worn to a depth of 0.005" (0.010" on diameter), the seal wear ring (or backing ring on Class EE bearing size) must be scrapped.

### (F) SEAL WEAR RING – FIT IN BACKING RING

The seal wear ring must have a tight fit in the backing ring counterbore (style no. 1 and 3).

### (G) BACKING RING – FIT ON THE SEAL WEAR RING

The counterbore of the backing ring (style 1 & 3) must have a tight fit on the seal wear ring. See Fig. 3.12 of AAR Roller Bearing Manual.

### (H) BACKING RING – SIZE AND RADIUS (STYLE 1)

Backing rings that are bent or distorted must be scrapped. Check the backing ring size and the bore radius for proper axle fillet contact and excessive corrosion with the AAR gage as shown in the Roller Bearing Manual.

### (J) BACKING RING – SIZE AND RADIUS (STYLE 2 & 3)

Check major ID

### (K) Check bore radius for excessive corrosion. Light pitting and rusting is acceptable.

### (L) VENT FITTING

Check the vent fitting to see that it is not clogged, hardened, or damaged. Hardened or damaged vent fittings should be replaced. (Part Number K89716).

NOTE: Contact The Timken Company for information on bearing parts that are not shown.

## PART NUMBERS – BEARING COMPONENTS

CLASS AND SIZE	ROLLER ASSEMBLY	OUTER RING (CUP)	SPACER	SEAL	SEAL WEAR RING	BACKING RING
D (5½ x 10)	HM127446	HM127415XD	HM127446XA	K86860	K85507	K85525
E (6 x 11)	HM129848	HM129814XD	HM129848XA	K86861	K85508	K85095
F (6½ x 12)	HM133444	HM133416XD	HM133444XA	K85520	K85509	K85516
G (6½)	HM136940	HM136916XD	HM136940XA	K96501	K96537	K96539
EE (5½)	H432640	H432614XD	H432640XA	K83082	K522358	K522359
EE (6)	H432649	H432614XD	H432649XA	K83082	K83081	K83088

## THE TIMKEN COMPANY

For additional information, contact your  
Timken sales representative at 1-800-964-2626  
or 1-800-368-4401 or fax 330-471-7032 or  
visit [www.timken.com/rail](http://www.timken.com/rail).

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