

**TIMKEN®**

A large blue and red semi-truck is driving on a highway. The truck is the central focus, moving from left to right. The background shows a clear sky and a road with yellow double lines. The text is overlaid on a semi-transparent white box in the center of the image.

# Heavy Truck and Trailer

Reliability is King of the Road



## Driving Your Business

### Timken® Matched Wheel Bearing Sets

Your business depends on the reliability of your trucks to transport heavy loads long distances, and Timken® matched wheel bearing sets are designed to keep your trucks on the road. Our 56 matched cup and cone sets are built for superior performance and less downtime. When you use Timken, you know you're getting bearing sets specifically designed for your application that meet or exceed the original equipment manufacturer's specifications. This includes ConMet® PreSet® and Spicer® LMS™ applications.

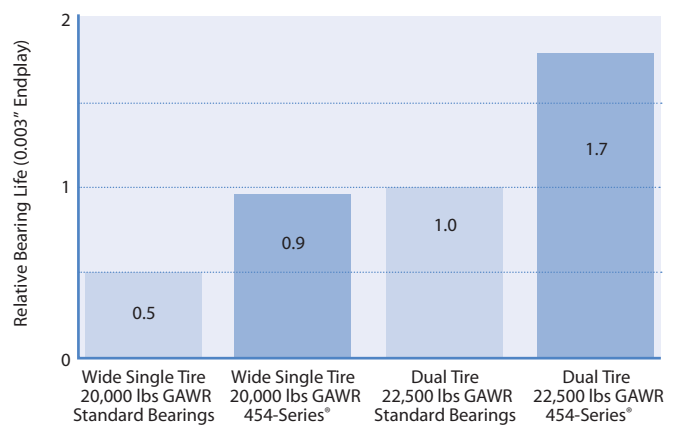
## Uptime: The Strength of Your Fleet

### High-Performance Timken® 454-Series® Wheel Bearings

Engineered with performance-enhancing features, Timken® 454-Series® wheel bearings offer extended fatigue life for the toughest applications, including waste management and logging / off-highway vehicles.

- Available for manually adjusted or pre-adjusted Timken® Set-Right® hubs
- Highly engineered raceway profiles optimize load-carrying capacity
- Can handle the 2 inch outset loads created by wide single tire configurations
- Proprietary surface finishes reduce friction and help improve fuel economy
- Interchangeable with industry standard components, allowing easy retrofit to existing equipment
- A wide range of part numbers enables consistency across your fleet

**N-Trailer Predicted Wheel Bearing Fatigue Life**





Axle Application	Set Number	Components	454-Series® Set Number	454-Series® Components*
<b>Bearings to suit Manually Adjusted Wheel Ends</b>				
FF Steer Inner	SET413	HM212049 HM212011	SET440	NP454049 NP454011
FF Steer Outer	SET406	3782 3720	SET496	NP454782 NP454720
FF(HD) Steer Outer	SET409	45280 45220	SET495	NP454280 NP454220
FL Steer Inner	SET423	6461A 6420	SET497	NP454461 NP454420
FL Steer Outer	SET424	555S 552A	SET498	NP454555 NP454552
R Drive Inner	SET403	594A 592A	SET443	NP454594 NP454592
R Drive Outer	SET401	580 572	SET442	NP454580 NP454572
N Trailer Inner	SET414	HM218248 HM218210	SET441	NP454248 NP454210
N Trailer Outer	SET413	HM212049 HM212011	SET440	NP454049 NP454011
P Trailer Inner & Outer	SET415	HM518445 HM518410	SET444	NP454445 NP454410
<b>Bearings to suit Pre-Adjusted Wheel Ends</b>				
FF Steer Inner	SET427	NP899357 NP026773	SET603	NP454357 NP454773
FF Steer Outer	SET428	NP874005 NP435398	SET605	NP454005 NP454398
FL Steer Inner	SET445	NP294109 NP039695	x	x
FL Steer Outer	SET446	NP107091 NP183330	x	x
R Drive Inner	SET429	NP034946 NP363298	SET600	NP454946 NP454298
R Drive Outer	SET430	NP840302 NP053874	SET601	NP454302 NP454874
N Trailer Inner	SET431	NP965350 NP503727	SET602	NP454350 NP454727
N Trailer Outer	SET427	NP899357 NP026773	SET603	NP454357 NP454773
P Trailer Inner & Outer	SET432	NP174964 NP593561	SET604	NP454964 NP454561

\* 454-Series® bearings sold as Sets only

Axle Application	Set Number	Components*	High-Performance Set Number	High-Performance Components*
<b>Bearings to suit BPW Trailer Wheel Ends</b>				
Lightweight (9T) Trailer Inner	33116	X33116 Y33116	x	x
Lightweight (9T) Trailer Outer	32310	X32310 Y32310	x	x
New Generation (10T) Trailer Inner	33118	X33118 Y33118	SET998	NP545100 NP672324
New Generation (10T) Trailer Outer	33213	X33213 Y33213	SET997	NP832493 NP581004

\* Components sold as Sets only



# Application Guide for Heavy

## Add Up the Advantages:

- Timken® inner and outer bearings
- 454-Series® high-performance bearings also available
- Optional seal brands
- Reduce inventory with lower component counts
- One convenient box, one invoice, one supplier

## Kits to suit Manually-Adjusted Wheel Ends

Kit Part Number	Inner Bearing	Outer Bearing	Seal Brand	Seal Part Number	Lubrication		
<b>FF Steer Axle</b>							
WBK4SCR	SET413	HM212049	SET406	3782	SKF	35066	Oil / Grease
WBK4SCRCP		HM212011		3720	SKF	35058	
<b>FF(HD) Steer Axle</b>							
WBK4SUCR	SET413	HM212049	SET409	45280	SKF	35066	Oil / Grease
WBK4SUCP		HM212011		45220	SKF	35058	
<b>FL Steer Axle</b>							
WBK4SCHA	SET423	6461A	SET424	555S	SKF	43761	Oil / Grease
WBK4SCHB		6420		552A	SKF	43764	
<b>R Drive Axle</b>							
WBK3DCR	SET403	594A 592A	SET401	580 572	SKF	47697	Oil
WBK3DCRP					SKF	47691	
WBK3DCRV					SKF	47693	
WBK3DSG					Stemco	309-0973	
<b>N Trailer Axle</b>							
WBK1TCR	SET414	HM218248 HM218210	SET413	HM212049 HM212011	SKF	46305	Oil / Grease
WBK1TCRP					SKF	46300	Oil / Grease
WBK1TSG					Stemco	307-0743	Grease
WBK1TST					Stemco	373-0143	Oil / Grease
WBK1TSTG					Stemco	STM-0743G	Grease
<b>P Trailer Axle</b>							
WBK2PCR	SET415	HM518445 HM518410	SET415	HM518445 HM518410	SKF	42623	Oil / Grease
WBK2PCRP					SKF	42627	Oil / Grease
WBK2PSTG					Stemco	STM-0723G	Grease

## Kits to suit Manually-Adjusted Wheel Ends (featuring Timken® 454-Series® Wheel Bearings)

Kit Part Number	Inner Bearing*	Outer Bearing*	Seal Brand	Seal Part Number	Lubrication		
<b>FF Steer Axle</b>							
WBK4SCR454	SET440	NP454049 NP454011	SET496	NP454782 NP454720	SKF	35066	Oil / Grease
<b>N Trailer Axle</b>							
WBK1TCRP454	SET441	NP454248 NP454210	SET440	NP454049 NP454011	SKF	46300	Oil / Grease

\* 454-Series® bearings sold as sets only

## Kits to suit Pre-Adjusted Wheel Ends

Kit Part Number	Inner Bearing	Outer Bearing	Seal Brand	Seal Part Number	Spacer Included		
<b>Set-Right FF Steer Axle</b>							
WBK7SCR	SET427	NP899357 NP026773	SET428	NP874005	SKF	35066	Yes
WBK7SCRCP				NP435398	SKF	35058	
<b>Set-Right FL Steer Axle</b>							
WBK41CHA	SET445	NP294109 NP039695	SET446	NP107091	SKF	43761	Yes
WBK41CHB				NP183330	SKF	43764	
<b>Set-Right R Drive Axle</b>							
WBK8DCRP	SET429	NP034946 NP363298	SET430	NP840302	SKF	47691	Yes
WBK8DCRV				NP053874	SKF	47693	
<b>Set-Right N Trailer Axle</b>							
WBK6TCRP	SET431	NP965350 NP503727	SET427	NP899357	SKF	46300	Yes
WBK6TSG				NP026773	Stemco	307-0743	
WBK6TST				Stemco	373-0143		
<b>Set-Right P Trailer Axle</b>							
WBK9PSRP	SET432	NP174964 NP593561	SET432	NP174964 NP593561	SKF	42627	Yes

- Timken® Set-Right® Kits are for use with Pre-Adjusted wheel ends
- These kits include a precision machined OE spacer

# Truck and Trailer Wheel End Kits



## Kits to suit BPW Trailer Wheel Ends

Kit Part Number	Axle Series	Tire Size	Hub	Inner Bearing	Outer Bearing	Seal Carrier	Lubrication
<b>Lightweight (9T) Trailer Axle</b>							
WBK90G	H9000 R9000	20/22.5"	Conventional	33116	32310	No	Grease
WBK90GSC	KH9000 KR9000	19.5"				Yes	
WBK90EC	H9000-ECO KH9000-ECO	20/22.5"	ECO			No	
WBK90ESC	KR9000-ECO	19.5"				Yes	
<b>New Generation (10T) Trailer Axle</b>							
WBK10G	H9100 H10000	20/22.5"	Conventional	33118	33213	No	Grease
WBK10GSC	R10000	20/22.5"				Yes	
WBK10	H9100 H10000		ECO			No	Oil
WBK10SC	R10000	Yes					
WBK10EC	H9100-ECO H10000-ECO	20/22.5"	ECO	No	Grease		
WBK10ESC	R10000-ECO	Yes					
WBK10PLUS	SH90 KH90 KW12	20/22.5"	ECO-Plus	SET998	SET997	No	Grease



## End Play Gauge

**How do you rate on bearing adjustment?**

**Do you know what setting you're actually achieving?**

Accurately measure and adjust to obtain the recommended wheel bearing end play or axial clearance using the Timken® end play gauge (BK211).

Contact of the dial indicator tip with the axle end is improved through a unique magnetic adapter cap, helping to avoid errors and improving precision.

- Adapts to any wheel end
- Includes durable case
- Allows rigid fixing of indicator
- Eliminates guess work
- Provides highly reliable results
- Reduces errors

Part	Description
BK211	Timken End Play Gauge



## Wheel Bearing Grease

### Timken® Premium All-Purpose Industrial Grease

Take the guesswork out of choosing the right grease for your disc and drum bearing applications. Timken has developed a premium, high-temperature grease that can handle the rigors of both.

Friction management plays a critical role in bearings and bearing-related systems. We developed our wheel bearing grease by leveraging our knowledge of anti-friction bearings, tribology (the study of friction, lubrication and interacting surfaces) and wheel end systems.

This high-temperature grease contains corrosion inhibitors, anti-wear and water-resistant additives, offering excellent protection in challenging environments. Plus, a lithium complex thickener resists softening and provides the mechanical stability required for demanding applications.



Part	Size	Description
GR217P	16kg	Pail
GR217K	55kg	Keg
GR217D	180kg	Drum

# Seals

## Standard Wheel End Seals

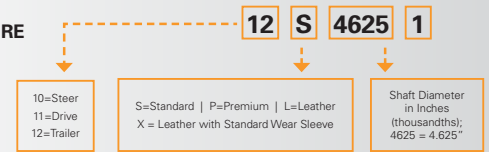
- A Rugged Durability:** Oversized double-walled metal outer diameter helps prevent the seal from spinning or walking out of the hub bore (includes black bore sealant). Heavy-duty construction enables effective heat transfer away from the sealing lip.
- B Extended Seal Life:** Corrosion-proof spacers feature multiple vent holes, enabling the free flow of lubricant to the sealing lip to help extend service life.
- C Innovative Protection:** Unique contamination exclusion system utilizing three nitrile (NBR) lip contact barrier points helps prevent seal lip damage and provides protection across a broad temperature range (-20°F to 225°F [-29°C to 107°C]).
- D Impressive Sealing:** Wide shoulder coverage provides protection on worn or damaged axle shoulders.

Steer, drive and trailer axle seals are available with tools designed to simplify accurate installations.



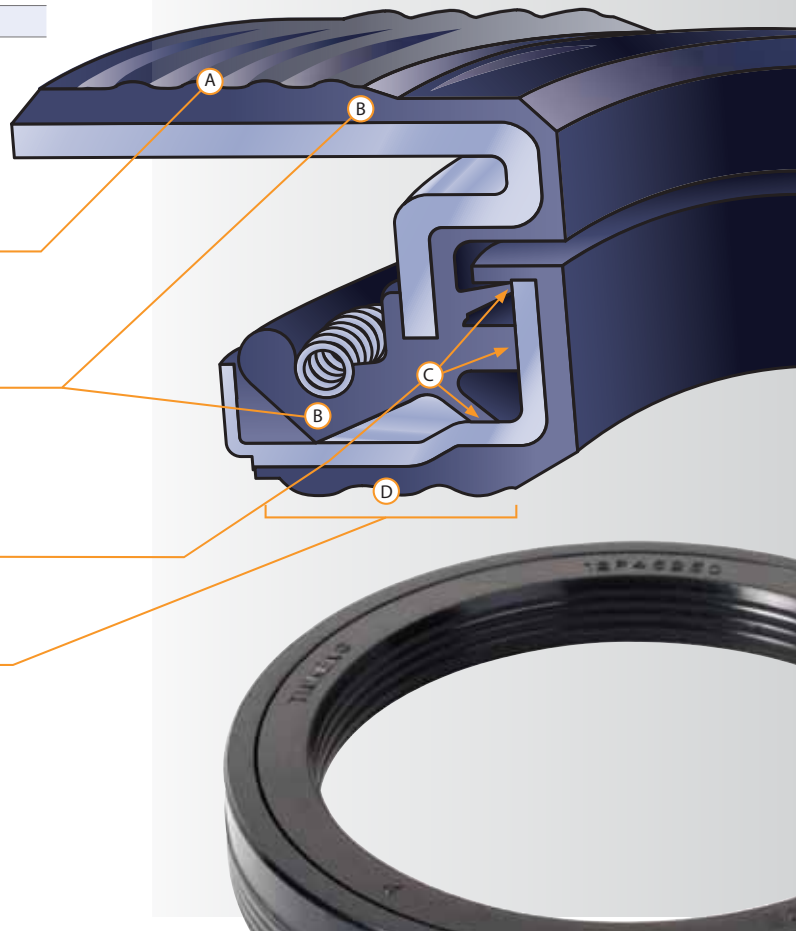
Axle Application	Timken Number	Timken Tool	SKF Interchange	Stemco Interchange
<b>Timken Standard Wheel End Seals</b>				
FF Steer	10S35000	T10S35000	35066	308-0836 / 383-0136
FL Steer	10S43750	T10S43750	43764	308-0864 / 383-0164
R Drive	11S47670	T11S47670	47697	309-0973 / 393-0173
N Trailer	12S46251	T12S46251	46305	308-0743 / 373-0143
P Trailer	12S42500	T12S42500	42623	308-0723 / 373-0123
<b>Timken Premium Wheel End Seals</b>				
FF Steer	10P35000	x	35058	383-0236
R Drive	11P47670	x	47691 / 47692	393-0273
N Trailer	12P46250	x	46300	373-0243
P Trailer	12P42500	x	42627	373-0223

### NOMENCLATURE



## Premium Wheel End Seals

- A Simplified Installation:** Installable with any flat tool including your hand, the ribbed rubber OD with piloted installation guide promotes accurate and square installation to reduce cocked seals.
- B Extended Seal Life:** Advanced material compositions (HNBR: Hydrogenerated Nitrile Butadiene Rubber) on all sealing lip and outer diameter surfaces promote longer seal life across a broad temperature range (-40°F to 310°F [-40°C to 150°C]), including hot starts and braking.
- C Advanced Protection:** Three contaminant exclusion barriers help prevent dirt and other debris from causing premature seal failure.
- D Impressive Sealing:** Wide shoulder coverage provides protection on worn or damaged axle shoulders.





## Training

Knowledge is the most powerful tool in your toolbox

Timken is committed to helping fleets build the skills of their employees. That's why we continue to expand our Timken Tech Series on-site and online training curriculums.

Training starts with tapered roller bearings. Courses covering lubricants, seals and other topics also are available.

Focused on practical applications, this program features easy-to-understand information supplemented with videos, illustrations and Timken TechTip bulletins to help industry professionals gain the skills they need.

Beyond the basics, the course teaches critical problem-solving skills, including how to select optimal replacement bearings and analyze bearing damage. At the end of each section, there's a test to earn certification in that subject.

To be successful, your employees must thoroughly understand bearings, lubricants and seals. Timken Tech Series develops the technical, analytical and problem-solving skills they need to stand out.

Whether they work in a service bay, at a sales counter or on the phone, your employees need accurate, up-to-date training to provide professional advice to your customers. Count on Timken Tech Series for practical, expert information you'll use every day.

[www.timken.com/techseries](http://www.timken.com/techseries)

[www.timken.com/techtips](http://www.timken.com/techtips)

# TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets high-performance mechanical components, including bearings, gears, chain and related mechanical power transmission products and services.

Stronger. By Design.



## Counterfeit Bearings

Join the Fight Against Counterfeit Bearings

To ensure genuine Timken® bearings, buy from trusted sources.

Counterfeit bearings are dangerous, costly, and, of course, illegal.

Only genuine Timken bearings offer:

- **Quality** – Timken products meet our exacting standards for quality. Counterfeit bearings simply don't meet the same specifications.
- **Productivity** – Lower quality results in substandard equipment performance, which can lead to unexpected downtime, lost productivity and costly repairs.
- **Safety** – Counterfeit bearings can cause catastrophic failures that result in injuries or fatalities. A lower upfront price isn't worth the associated risk or liability.

[www.stopfakebearings.com](http://www.stopfakebearings.com)

Counterfeits can look very much like the bona fide products, so a Timken expert should always be called upon to determine whether a suspicious bearing is genuine or counterfeit.

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