

# TECH TIPS

VOLUME 6  
ISSUE 1

# TIMKEN

PROMOTING SAFE, PROPER BEARING HANDLING  
PRACTICES FOR THE HEAVY-DUTY MARKET

## MAINTENANCE PRACTICES

Industry-Accepted Practices You Should Follow

The Timken Company and TMC are dedicated to improving maintenance shop practices and making highways a safer place to drive. As the market leader and expert in tapered roller bearings, we at Timken want to provide you with the most current inspection and maintenance information. That's why we have developed the following quick index to TMC's Recommended Maintenance Practices (RPs) that pertain to TRBs. For best results and ensured safety, we encourage all maintenance professionals to refer to these guidelines when handling wheel or drivetrain bearings.



### RP 644: WHEEL-END CONDITIONS ANALYSIS GUIDE

Newly developed RP 644 offers guidelines for detecting and evaluating damage to wheel-end components: hubcaps, axle spindle nuts, wheel hubs, seals, bearings, lubricant, spindles. This RP will not make the reader an expert, but it will help them take preventative action.

### RECOMMENDED PRACTICES FOR WHEEL BEARINGS

#### RP 618: WHEEL-END ADJUSTMENT PROCEDURES

This outlines a nine-step procedure to achieve a verifiable wheel bearing end play of 0.001" to 0.005".

#### RP 622: WHEEL SEAL AND BEARING REMOVAL, INSTALLATION, AND MAINTENANCE

RP 622 provides guidelines for acceptable storage, handling, and installation of wheel seals and bearings.

#### RP 631A: RECOMMENDATIONS FOR WHEEL END LUBRICATION

Recently updated RP 631A offers operational considerations for inspecting and servicing oil, grease, and semi-fluid wheel ends.

#### RP 640: ALTERNATE WHEEL BEARING ADJUSTMENT SYSTEMS

This recently developed RP identifies and briefly explains conventional adjustable, pre-adjusted, and unitized wheel ends and is informational, not instructive.

### RECOMMENDED PRACTICES FOR DRIVETRAIN BEARINGS

#### RP 610A: DRIVELINE DESIGN CRITERIA AND MAINTENANCE GUIDELINES

This RP provides guidelines for the evaluation of drivetrain designs and installation. Loads from drivetrain universal joints are transmitted to tapered roller bearings in transmissions, transfer cases and axles. Bearing performance will be optimized at these positions by following this RP, and NVH (Noise, Vibration, Harshness) of the entire drivetrain will be minimized.

The Timken Company and TMC care about your safety and the safety of everyone on the road. Please follow recommended wheel-end and drivetrain inspections and maintenance guidelines outlined in TMC's Recommended Practices Manual. Developed by the nation's top fleet managers and vehicle engineers, this two-volume set is a must have for every maintenance professional. For pricing information, or to order, call (800) ATA-LINE or (703) 838-1763.

Use these guidelines, to 3-hole punch Tech Tips and store it in a binder.

**TIMKEN LITERATURE**

In this issue, we suggested TMC Recommended Practices for wheel and drivetrain bearings. For other maintenance and safety tips, visit [www.timken.com](http://www.timken.com) for past issues of Tech Tips. Or use the order form below to request one of the handy reference brochures listed:

**Order #6366** – *Heavy-Duty Wheel Bearing Maintenance*: This easy-to-follow brochure outlines the proper steps for removing, inspecting and maintaining wheel bearings on heavy-duty trucks.

**Order #6430** – *Bearing Safety*: Safety assurance is a partnership between user and supplier. We depend on you to install, maintain and operate our products correctly. Refer to the safety checks in this brochure to ensure that you are doing your part to keep everyone safe.

**Order Form**

To order *Heavy Duty Bearing Maintenance* or *Bearing Safety*, please complete this form and fax it to: 330-471-7032 or mail it to:

*Heavy Duty Bearing Brochures*  
 The Timken Company  
 Mail Code: GNW-37  
 1835 Dueber Avenue, SW  
 Canton, Ohio 44706-0932

**WARNING!**

Proper maintenance and handling practices are critical. Failure to follow installation instructions and to maintain proper lubrication can result in equipment failure creating a risk of serious bodily harm. Never spin a bearing with compressed air. The rollers may be forcefully expelled creating a risk of serious bodily harm.

**SAFETY CHECK**

According to the National Transportation Safety Board, the incidence of wheel separations is about 750 to 1,050 per year. The Safety Board identified improper wheel maintenance as a potential cause. Most often cited were inadequate in-service inspection guidelines and failure to adhere to recommended maintenance practices. At The Timken Company, we care about the safety of you and everyone on the road. That's why we do our best to bring you recommended inspection and maintenance guidelines that keep everyone safe.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Order No. 6366 *Heavy-Duty Wheel Bearing Maintenance* Quantity: \_\_\_\_\_

Order No. 6430 *Bearing Safety* Quantity: \_\_\_\_\_

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