

## TIMKEN SOLUTIONS FOR THE AGRICULTURE INDUSTRY

### HELPING YOUR EQUIPMENT PERFORM RELIABLY AND EFFICIENTLY – EVEN IN HARSH ENVIRONMENTS

As a technical leader in the agriculture market, Timken has supported farmers and original equipment manufacturers (OEMs) for more than a century – delivering high performance, helping extend equipment life and enhancing productivity.

Few industries have a greater variety of equipment types and sizes; all of which operate in dusty, dirty environments. Our experienced engineering team understands the complexities of the agriculture market, including the unique challenges facing each application. This in-depth application knowledge helps us design products that run reliably and efficiently, whether you're tilling, planting or harvesting.

Our comprehensive portfolio of bearings, chains, augers and couplings are engineered to enhance the performance of agriculture equipment – from tractors and harvesting equipment to a full range of farming implements.

### PROVEN PERFORMANCE FOR TRACTORS, HARVESTERS AND IMPLEMENTS

Tractors	Harvesters	Implements	
<ul style="list-style-type: none"> <li>• 4WD</li> <li>• Row crop</li> <li>• Utility</li> </ul>	<ul style="list-style-type: none"> <li>• Grain combine</li> <li>• Cotton harvester</li> <li>• Sugar cane harvester</li> </ul>	<ul style="list-style-type: none"> <li>• Tillage</li> <li>• Nutrient application</li> <li>• Seeding</li> </ul>	<ul style="list-style-type: none"> <li>• Spraying</li> <li>• Cutters and shredders</li> <li>• Hay and forage</li> </ul>

### Timken Advantages

- **Extensive Product Portfolio.** Whether you're designing – or redesigning – a tractor, harvester or implement, we can provide a high-performance product for your agriculture application.
- **Customization.** We can engineer customized solutions and bearing configurations that meet the evolving demands and challenges of your agriculture applications.
- **Problem-Solving.** You have challenges. We have solutions. Our experienced team can work with you to identify the root cause of your problems – and deliver the optimum solution for your application.

### Gain Solutions That Can Help:

#### Manage high loads.

In demanding agriculture applications, you need a reliable bearing solution that can manage both high radial and axial loads in a power-dense package. Timken® tapered roller bearings feature optimized internal geometries, custom profiles and clean steel materials – resulting in a higher load capacity and the potential for longer bearing life.



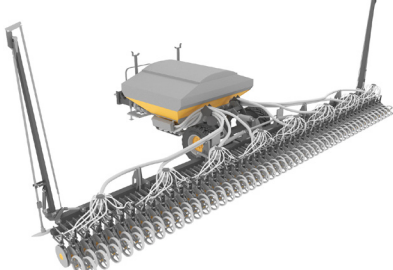
#### Reduce contamination.

Farming is a dirty job. That's why it's important to use integrated bearing and seal designs that keep contamination out, and lubrication in. Timken® Fafnir® mounted ball bearings are available with a range of innovative sealing solutions designed for long-lasting performance in wet or dusty environments.

#### Improve service life.

Timken offers a comprehensive line of bearings, chains, augers and couplings designed specifically for farm equipment. Each is engineered to deliver optimum performance and productivity – helping you avoid equipment downtime and reduce maintenance costs.



Applications	Timken Solution		Opportunities
<b>Harvesters</b>			
Transmissions Axles Wheels	Timken tapered roller bearings		<ul style="list-style-type: none"> <li>Enhanced internal geometries to distribute load and minimize bearing stresses minimize weight and improve your system efficiency</li> <li>Debris-resistant with up to 3.5 times longer bearing life</li> </ul>
Corn & Grain Head	Timken ball bearings		<ul style="list-style-type: none"> <li>Specific geometry of raceways and shoulders creates ball contact angles that support higher axial loads</li> <li>Special lubricants and cage materials available for additional corrosion resistance</li> </ul>
	Helicoid or sectional augers		<ul style="list-style-type: none"> <li>Available with a hard face weld on the outer edge of the auger, designed to extend equipment life</li> <li>Helicoid augers feature smooth hard surfaces that reduce friction, wear and power requirements</li> </ul>
<b>Tractors</b>			
Transmissions Axles Wheels	Timken tapered roller bearings		<ul style="list-style-type: none"> <li>Enhanced internal geometries to distribute load and minimize bearing stresses minimize weight and improve your system efficiency</li> <li>Debris-resistant with up to 3.5 times longer bearing life</li> </ul>
<b>Implements</b>			
Disc Harrow Baler Planter Cultivator	Timken Fafnir mounted ball bearings		<ul style="list-style-type: none"> <li>Engineered to keep contamination out, and lubrication in</li> <li>Seals protect against contamination and loss of lubricant</li> </ul>
Hay Baler	Drives Extended Life CHP chain		<ul style="list-style-type: none"> <li>Chrome-hardened pins to reduce chain elongation and improve wear life up to three times longer than conventional premium chains</li> <li>Broad line of superior quality precision roller chains, attachment chains and engineered conveyor chains</li> </ul>

# TIMKEN

The Timken Company partners with customers to design and manufacture advanced motion technology systems and components for critical end markets including aerospace and defense, power and electrification, and automation and industrial solutions. With more than 125 years of specialized engineering expertise, we power performance across the application lifecycle.