



## ULTIMATE ENGINEERING FOR WORKING VEHICLES

Engineered in-house to be the strongest, most durable steering and suspension parts, TTX delivers extreme performance.

- 12 patented technologies – setting TTX apart
- Exclusive designs and LaborSaver™ advantages
- Built to address failure modes often experienced in high-usage commercial vehicles



**2-3x**  
times more durable than other standard bearings

**TTX**  
Sintered metal upper and lower bearings

**OE-Style**  
Plastic bearing

### PATENTED BEARING TECHNOLOGIES

TTX parts are engineered with patented self-lubricating greaseable sintered metal bearings, made from a proprietary formulation which offers increased density and strength. Self-lubrication allows oils to be absorbed and released for continuous low-friction and low-wear operation.

**DYNAMIC CONTROL BEARING™**  
US Patent N° 9296271

**DIRECTIONAL BEARING TECHNOLOGY**  
US Patent N° 1052789

**SNAP-IN BEARING**  
US Patent N° 10605309

### PATENTED BOOT TECHNOLOGIES

TTX parts feature robust, patented dust boot designs for ultimate protection against water, debris and other road wash. Application-specific analysis allows for the right boot selection, ensuring longer part service life.

**TTX LOCKING BOOT**  
US Patent N° 9296271  
Advanced method bonds housing to boot to create a tight seal.

**TTX INTEGRI-BOOT®**  
Boot is adhered to a plate and integrated into lamination, preventing contaminants from entering.

**TTX ADAPTIVE BOOT**  
US Patent Pending  
Multi-lipped design diverts contaminants from the ball pin and knuckle mating area.

### STRONGER PARTS: TTX parts are built for durability and ease of installation

- Thicker and wider ball joint housing flanges improve strength and provide a larger working surface for press-in.
- Patented hex forging increases rigidity by 15-20% and provides a convenient wrench flat.
- Where applicable, control arms are converted to a solid forging, compared to the original equipment stamped steel design.
- Improved bushing profiles reduce potential of tearing and cracking.



### REPEL-TEK™: Superior Anti-Corrosion Protection

Formula protects the entire assembly and fastening hardware against rust and contamination. Exceeds over 500 hours of salt spray testing.



### SOLID FORGINGS

Where applicable, TTX control arms are built with upgraded, solid forged bodies and filled-in bushing profiles, providing additional assembly rigidity and increasing component life.





## ENGINEERED FOR THE TECHNICIAN

Exclusive LaborSaver™ advantages help speed-up install, provide enhanced value and maximize vehicle uptime.



### INSTALLATION PRESS-IN ADAPTORS

Where applicable, custom designed press-in adaptors are included in the box. These reduce repair time, cost and the need to search for an adaptor. Compatible with all common press-in kits.



### INSTALLATION TOOLS FOR RAM 4500 & 5500

Installing upper and lower ball joints for the RAM 4500 & 5500 is easy and precise with TTX.

Socket is included to remove original and install TTX upper, and a press-in adaptor overcomes challenges of lower bore with stepped design.



### BOOTSTALLER™

Bootstaller™ makes fitting boots trouble-free in small spaces



### STABILIZER BAR LINK WRENCH

Slim profile, open-ended multi-sized wrench eliminates need to search for a counter-hold tool. Included in the box with TTX ball and socket stabilizer bar links



### PREMIUM FASTENING HARDWARE

Premium fastening hardware in the box reduces install time and provides added value. Hardware is Repel-Tek™ anti-corrosion coated for longer life.

TTX also features unique hardware such as:

- Easy-Snap cotter pin and castle nut
- Quick-loader plate
- SAE-compliant grease fittings with protective cap
- Grade 12 and 12.9 rated fasteners
- Fasteners with pre-applied thread locking compound

