

# TTX

## TERRAIN TOUGH XTREME

### STEPPED BEARING TECHNOLOGY

#### ISSUE:



Belleville Spring Disc

Belleville spring discs are conically shaped washers, generally found in chassis components. Through their conical shape and impact resistant profile, these provide the tension which keeps the ball joint together.



Failed Spring Disc

Typically in service, the spring disc encounters a consistent load and deflection force. Over time or extremes of these may flatten or crush the washer. The loss of its impact resistant profile will manifest as 'play', indicating replacement of the component.

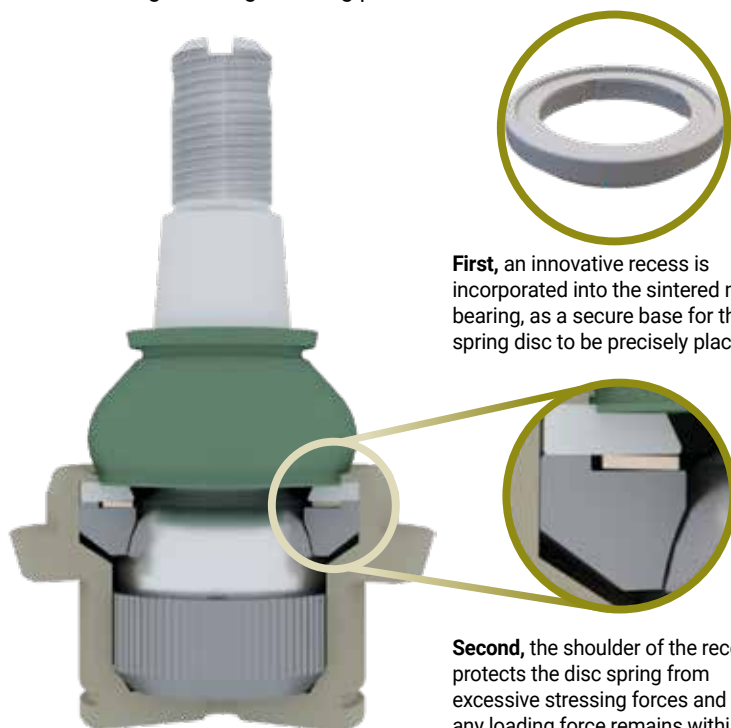
Additionally, heavy use conditions may accelerate the development of this play.

## MEVOTECH EXCLUSIVE PATENTED SOLUTION

### Ultra Strong and Longer Lasting Parts

#### Patented Stepped Bearing Technology – US Patent # 9296271

Engineered to provide exact and self-calibrating preload, the stepped bearing is designed to limit flattening of the Belleville disc spring during part service life. This creates a tighter and stiffer assembly with extra strength under all service conditions. Along with other technology available only on TTX, Stepped Bearings are part of the ultimate engineering solution for ultra strong and longer lasting parts.



**First**, an innovative recess is incorporated into the sintered metal bearing, as a secure base for the spring disc to be precisely placed.

**Second**, the shoulder of the recess protects the disc spring from excessive stressing forces and that any loading force remains within tolerances. This keeps the disc impact resistant over part service life.

Patented Stepped Bearing technology is currently available on **ALL** TTX ball joints, control arms, tie rods and stabilizer links.

Popular part numbers and applications featuring stepped bearings:



#### Ball Joints

TXMS40546 – Front Upper  
2004-2019 Ford F-150

TXMS86568 – Front Upper  
2005-2019 Toyota Tacoma



#### Control Arms

CTXMS25147/8 – Front L/R Upper  
2006-2018 RAM 1500

CTXK80669/70 – Front L/R Upper  
2007-2016 Chevrolet Silverado 1500



#### Outer Tie Rods

TXMS40646 – Front Outer  
2011-2019 Ford Explorer

TXES3614 – Front Outer  
2009-2019 Dodge Journey



#### Stabilizer Links

TXK7258 – Front  
1996-2019 Dodge Grand Caravan

TXMS308139 – Rear  
2012-2019 Nissan NV1500/2500/3500

# MEVOTECH

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