

ADVANCED AXLE SPINDLE NUTS

PRO-TORQ®



Longer Tread Life

Fleets save tires, wheels track truer. PRO-TORQ® controls axial motion, holding bearing end play near zero while maintaining exact cup and cone alignment on the spindle. This is good news for radial tires. PRO-TORQ® delivers the adjustment precision which experts agree is needed to maximize radial tire life.

Extended Wheel Seal and Bearing Service

PRO-TORQ® supports seal, bearing and axle manufacturers' specifications. With the tight control on wheel bearing adjustment from PRO-TORQ®, fleets minimize premature seal failure and improve extended seal and brake lining programs. PRO-TORQ® compensates for normal bearing wear, permitting precise .001" back-off increments at scheduled preventative maintenance intervals. This keeps bearings properly aligned, running cooler and lasting longer.

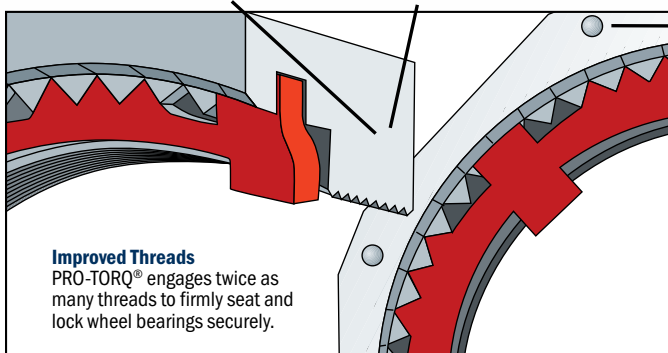
Improves ABS

Reliable low end play bearing adjustment and axial motion control with PRO-TORQ® helps ensure accurate wheel end sensor monitoring of wheel speeds on antilock braking systems.

	Spindle Nut Applications	Replacement Keeper Part Number	Thread Size	Outer Bearing Cone/Cup	Tool Socket
Trailer Axle	STEMCO No. 447-4723 Fruehauf Pro-par, Meritor TP <i>*Axle date code post January 1, 2006</i>	450-4723	3.480" – 12	HM518445/ HM518410	4-13/16" – 8 point (OTC# 1941)
	STEMCO No. 447-4724 22,500#-23,000# Eaton, EST 230-P, EST 225-P, P-22	450-4723	3-1/2" – 12	HM518445/ HM518410	4-13/16" – 8 point (OTC# 1941)
	STEMCO No. 447-4743 17,000#-22,500# Meritor, Dana, Eaton, Std Forge, Ingersoll	450-4743	2-5/8" – 16	HM212049/ HM212011	3-3/4" – 8 point (OTC# 1925)
	STEMCO No. 449-4973 Dana Est-230-P, *P22 Axles or TQ <i>*Axle date code prior to January 1, 2006</i>	450-4973	3-1/4" – 12	HM518445/ HM518410	4-3/8" – 8 point (OTC# 1917)
Steer Axle	STEMCO No. 448-4836 12,000# Meritor, Navistar	450-4836	1-1/2" – 12	3782/3720	2-1/2" – 6 point (OTC# 1921)
	STEMCO No. 448-4837 12,000# Eaton, Ford, Meritor	450-4837	1-1/2" – 18	3782/3720	2-1/2" – 6 point (OTC# 1921)
	STEMCO No. 448-4838 Meritor	450-4837	1-1/2" – 12	3782/3720	2-1/2" – 6 point (OTC# 1921)
	STEMCO No. 448-4839 12,000#, 14,300# Mack	450-4839	1-5/8" – 12	45280/45220	2-5/8" – 6 point (OTC# 1922)
	STEMCO No. 448-4864 18,000#, 20,000# Mack	450-4864	2" – 12	555S/552A	3" – 6 point (OTC# 1906)
	STEMCO No. 448-4865 Meritor FL Series	450-4865	1-3/4" – 12	555S/552A 3720/3979	3" – 6 point (OTC# 1906)
Drive Axle	STEMCO No. 449-4904 34,000#, 38,000#, 44,000# Mack	450-4904	2-7/8" – 12	47679/47620 575/572 567/563	4-1/8" – 6 point (OTC# 1915)
	STEMCO No. 449-4973 34,000#-46,000# Eaton, Meritor, Dana, Navistar, 50,000# Mack	450-4973	3-1/4" – 12	580/572	4-3/8" – 8 point (OTC# 1917)
	STEMCO No. 449-4974 Meritor, Eaton, Ford, Navistar	450-4743	2-5/8" – 12	3984/3920 39590/39520	3-3/4" – 8 point (OTC# 1925)
	STEMCO No. 449-4975 19,000# Dana, Navistar, Bluebird	450-4975	2-5/8" – 12	3984/3920 39590/39520	3-3/4" – 8 point (OTC# 1925)

Good Wear Resistance
Bearing contact surface is induction hardened. No washers required.

Flat Contact Surface
Improves wheel bearing cup and cone alignment.



Improved Threads
PRO-TORQ® engages twice as many threads to firmly seat and lock wheel bearings securely.

Highly Visible Adjustment Marks
Give mechanics precise control of nut backoff amount during installation.

Infinite Locking Positions
Nut and spring steel keeper mate and lock at any point on the axle spindle in .001" axial increments.

PRO-TORQ®

Cost Saving Installation

For more than 10 years, leading fleets have chosen PRO-TORQ® to deliver the longer service life they expect from today's tires, wheel seals and bearings. PRO-TORQ® minimizes variability in wheel bearing adjustment, which means extended maintenance intervals and trouble-free performance from steer, drive and trailer axle wheel ends.

Tight Control on Bearing Adjustment

PRO-TORQ® gives fleets the ability to standardize wheel end maintenance practices and makes repeatable, close tolerance bearing adjustment a reality. From mechanic to mechanic, PRO-TORQ® single nut systems and adjustment procedure will consistently secure the nut with wheel bearing adjustment accuracy in the range of .001-.003" end play.

PRO-TORQ® avoids the extremes of both preload and excessive bearing end play. It gives fleets the tightest adjustment standard in the industry.

Faster to Install, Easier to Lock

PRO-TORQ® assures that bearings are "positive" locked in precise position the first time. That's because PRO-TORQ® uses only one nut — no jamming, juggling or time wasted while repositioning multiple nut assemblies.

Clearance in the threads of traditional "jamming" type nuts can result in a wide range of final settings. A mechanic can unintentionally impose preload on a bearing by overtightening the jamnut. As a result, the outer bearing cone can be pushed further up the spindle and out of its intended position.

PRO-TORQ® takes the guesswork out of bearing adjustment.

ADVANCED AXLE SPINDLE FASTENER



Simplified & Fully Unitized Design

Fully unitized design means no special tooling is required. No clips, keepers, snap rings, or screws to install.

Free Spinning

ZIP-TORQ™ free spins onto the axle, engaging the extra wide tang with the axle keyway.

Prevents Back Off

Locking features prevent back off.

Secure Adjustment, Easy Removal

The fastener cannot be rotated by hand after wheelend adjustment is complete. Once the locking features are disengaged, the fastener is removable by hand.

Consistent Endplay

2-1-1 adjustment provides consistent endplay measurement of between .001" - .005", which matches TMC recommendations.

ZIP-TORQ® Cross Reference

Zip-Torq® Part No.	Description	Thread Size	Outer Bearing Cone/Cup	Tool Socket	Pro-Torq® Cross Ref.
Trailer Axle					
400-4723	"P" Parallel Trailer 22,500#	3.480" -12	HM518445/ HM518410 SET415	4-1/8" Six Point (OTC# 1915)	447-4723
400-4743	"N" Tapered Trailer 17,000# - 22,500#	2-5/8" -16	HM212049/ HM212011 SET413	3-1/4" Six Point (OTC# 1908)	447-4743
Steer Axle					
400-4836	"FF" Steer 12,000#	1-1/2" -12	3782/3720 SET406	2-1/8" Six Point (OTC# 1976)	448-4836
400-4837	"FF" Steer 12,000#	1-1/2" -18	3782/3720 SET406	2-1/8" Six Point (OTC# 1976)	448-4837
Drive Axle					
400-4973	"R" Drive 34,000# - 46,000#, 50,000#	3-1/4" -12	580/572 SET401	4" Six Point (OTC# 1914)	449-4973

ZIP-TORQ® Features



Superior Wear Resistance

Bearing contact surface is induction hardened.
No washers required.

Flat Contact Surface

Improves wheel bearing cup and cone alignment.

Infinite Locking Positions

Nut and spring steel keeper mate and lock at any point on the axle spindle in .002" axial increments.

Highly Visible Adjustment Marks

Give mechanics precise control of nut backoff amount during installation.

How Does ZIP-TORQ® Work?

The STEMCO ZIP-TORQ® axle fastener is the latest innovation from STEMCO. ZIP-TORQ is a unitized spindle nut that uses a patented self-locking ratchet system to secure the wheelend and prevent back off. ZIP-TORQ consistently delivers accurate endplay between .001" - .005" using the STEMCO 2-1-1 method.

Unitized Design

Increased simplicity and safety for end users gives you the confidence that your installation will be done right, every time.

Highly Compatible

While ZIP-TORQ is an innovative new product, you won't need to purchase new equipment to install your axle fasteners because ZIP-TORQ is compatible with most automated installation equipment.

Reliably Consistent

Works with preset and endplay applications. ZIP-TORQ minimizes variability in wheel bearing adjustment, which means extended maintenance intervals and trouble-free performance from steer, drive and trailer axle wheel ends.

Easy & Fast Install

ZIP-TORQ meets or exceeds the installation time of PRO-TORQ®, meaning even faster scheduled maintenance is possible.

Extend Your Warranty

ZIP-TORQ is also compatible with STEMCO PPS+ programs, so you can still package your wheelend products to get the best warranty offered in the industry.

Install with Confidence

STEMCO offers installation videos and manuals online – available in the STEMCO app and on the website.

Learn More about 2-1-1 Installation Instructions

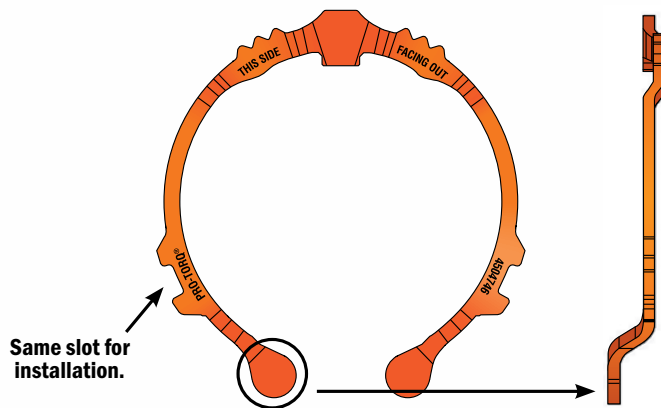
See detailed ZIP-TORQ installation instructions at www.stemco.com/211



STEMCO
YouTube
Channel

goo.gl/Kof09t

PRO-TORQ® Trailer Axle Fasteners



Protrusion Feature
Prevents Backward Installation

450-4743 Updated Design
450-4723 Updated Design
449-4973 Updated Design

TRAILER AXLE FASTENERS **447-4723**

Replacement Keeper No.	450-4723 TANG
Tool Socket	4-13/16" – 8 point (OTC# 1941)
Thread Size	3.480" – 12
Outer Bearing Cup/Cone	HM518445/ HM518410

▼ Axles ▼

Dana Spicer	P-22 <input type="checkbox"/>
Fruehauf	PROPAR Series
Hendrickson	HP
Ingersoll	F24H
Meritor	TP Series

Axle date code Prior to Jan. 1, 2006

TRAILER AXLE FASTENERS **447-4724**

Replacement Keeper No.	450-4723 TANG
Tool Socket	4-13/16" – 8 point (OTC# 1941)
Thread Size	3-1/2" – 12
Outer Bearing Cup/Cone	HM518445/ HM518410

▼ Axles ▼

Eaton	EST 230-P, EST 225-P, P-22
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TRAILER AXLE FASTENERS **447-4743**

Replacement Keeper No.	450-4743 TANG
Tool Socket	3-3/4" – 8 point (OTC# 1925)
Thread Size	2-5/8" – 16
Outer Bearing Cup/Cone	HM212049/ HM212011

▼ Axles ▼

Dana Spicer	D-20, D-21, D-22, DD-21, DD-22, K-21, K-22, K-25, K-30
Eaton	C, C2, CD, CD2, CE, ESA-225J, EST, EST-225J, EST-230J, ETA 230C, ETA 225D, ETA 225J, H23L, H25R, HCE, HJ, HJE, J, JE, JH, LA-15, T-18C, 20L-77, 22L, 22R, 23L, 23R, 25R

Hendrickson	HN
Ingersoll	A22T
Meritor	RL Series, RQ Series, TK Series, TKL Series, TKLD Series, TL Series, TLD Series, TN Series, TND Series, TQ Series, TQC Series, TQD Series

Standard Forge	A25, A26, 17,000 and 18,000 lb. Trade
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TRAILER AXLE FASTENERS **448-4836**

Replacement Keeper No.	450-4836 D-FLAT
Tool Socket	2-1/2" – 6 point (OTC# 1921)
Thread Size	1-1/2" – 12
Outer Bearing Cup/Cone	3782/3720

▼ Axles ▼

Dana Spicer	D10
Eaton	X-115
Fruehauf	Model 5, TKF
Meritor	T-1100
Standard Forge	T 8.5-S

TRAILER AXLE FASTENERS **449-4973**

Replacement Keeper No.	450-4973 TANG
Tool Socket	4-3/8" – 8 point (OTC# 1917)
Thread Size	3-1/4" – 12
Outer Bearing Cup/Cone	580/572 HM518445/ HM518410 <input type="checkbox"/>

▼ Axles ▼

Dana Spicer	EST-230-P, P-22 TQ <input type="checkbox"/>
Meritor	TR

Axle date code Prior to Jan. 1, 2006

PRO-TORQ® Steer Axle Fasteners

STEER AXLE FASTENERS

448-4836

Replacement Keeper No.	450-4836 D-FLAT
Tool Socket	2-1/2" – 6 point (OTC# 1921)
Thread Size	1-1/2" – 12
Outer Bearing Cup/Cone	3782/3720

▼ Axles ▼

Meritor	FD 900, FD 901, FD 961, FE 900, FE 903, FF 900, FF 901, FF 921, FF 931, FF 932, FF 933, FF 941, FF 942, FF 943, FF 944, FF 952, FF 961, FG 941
NAVISTAR	I100S

STEER AXLE FASTENERS

448-4838

PRO-TORQ Fastener Number	448-4836 TANG
Replacement Keeper No.	450-4837
Tool Socket	2-1/2" – 6 point (OTC# 1921)
Thread Size	1-1/2" – 12
Outer Bearing Cup/Cone	3782/3720

▼ Axles ▼

Meritor	Steer
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STEER AXLE FASTENERS

448-4863

Replacement Keeper No.	450-4863 D-FLAT
Tool Socket	3-1/2" – 6 point (OTC# 1910)
Thread Size	2-1/4" – 12

▼ Axles ▼

ArvinMeritor® FH	Steering Spindle 16,500 lbs GAW
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STEER AXLE FASTENERS

448-4837

Replacement Keeper No.	450-4837 TANG
Tool Socket	2-1/2" – 6 point (OTC# 1921)
Thread Size	1-1/2" – 18
Outer Bearing Cup/Cone	3782/3720

▼ Axles ▼

Eaton	EFA-12F4, EFA-13F5, E-1200I, FE 931, 12K, 13.2K
Ford	SIFCO 12,000 lb., FORD 6,000 lb.
Meritor	FE-931

STEER AXLE FASTENERS

448-4839

Replacement Keeper No.	450-4839 D-FLAT
Tool Socket	2-5/8" – 6 point (OTC# 1922)
Thread Size	1-5/8" – 12
Outer Bearing Cup/Cone	45220/45280

▼ Axles ▼

Mack Front	FAW12, FAWL12, FAW537, FAW5371, FAW14.3, FAW538, FAW10.5, FAW536, FAW5361
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STEER AXLE FASTENERS

448-4864

Replacement Keeper No.	450-4864 D-FLAT
Tool Socket	3" – 6 point (OTC# 1906)
Thread Size	2" – 12
Outer Bearing Cup/Cone	552A/555S

▼ Axles ▼

Mack Front	FA18, FAW18, FAW616, FA616, FA20, FAW20, FAW617, FA617, FAW16, FAW614
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STEER AXLE FASTENERS

448-4840

Replacement Keeper No.	450-4836 D-FLAT
Tool Socket	2-1/2" – 6 point (OTC# 1921)
Thread Size	1-1/2" – 18
Outer Bearing Cup/Cone	3782/3720

▼ Axles ▼

Hendrickson Auxiliary	13,000# Ultra Axle
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STEER AXLE FASTENERS

448-4865

Replacement Keeper No.	450-4865 D-FLAT
Tool Socket	3" – 6 point (OTC# 1906)
Thread Size	1-3/4" – 12
Outer Bearing Cup/Cone	552A/555S, 3979/3720

▼ Axles ▼

Meritor Front	FL
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PRO-TORQ® Drive Axle Fasteners

DRIVE AXLE FASTENERS 447-4743	
Replacement Keeper No.	450-4743 TANG
Tool Socket	3-3/4" – 8 point (OTC# 1925)
Thread Size	2-5/8" – 16
Outer Bearing Cup/Cone	HM212049/ HM212011

▼ Axles ▼	
Meritor	F Series, H Series

DRIVE AXLE FASTENERS 449-4904	
Replacement Keeper No.	450-4904 TANG
Tool Socket	4-1/8" – 6 point (OTC# 1915)
Thread Size	2-7/8" – 12
Outer Bearing Cup/Cone	563/567, 572/575, 47620/47679

▼ Axles ▼	
MACK	S-34, S-38, S-44, S-462, SW-56, SW-57, SW-441

DRIVE AXLE FASTENERS 449-4973	
Replacement Keeper No.	450-4973 TANG
Tool Socket	4-3/8" – 8 point (OTC# 1917)
Thread Size	3-1/4" – 12
Outer Bearing Cup/Cone	580/572

▼ Axles ▼	
Dana Spicer	W 230-S, W 460-S D 380, D 381, D 380-P, D 381-P, D 400, D 401, D 400-P, D 440-P, D 401-P, D 402-P, D 451-P, D 460-P, D 480-P, D 485-P DP 380, DP 381, DP 380-P, DP 381-P, DP 340, DP 341, DP 400-P, DP 401-P, DP 440-P, DP 460-P, DP 480-P, DP 550, DP 580-P, DP 650-P DS 340, DS 341, DS 344, DS 380, DS 381, DS 380-P, DS 381-P, DS 400-P, DS 401-P, DS 404-P, DS 400-P, DS 460-P, DS 480-P, DS 454-P DT 340, DT 341, DT 380, DT 381, DT 380-P, DT 381-P, DT 400-P, DT 440-P, DT 460-P, DT 480-P RS 341, RS 381, RS 402, RS 401, RS 460, RS 461, RT 402 44, 440P, 480P, 1911, 1919, 2011, 19500, 20500, 20501
Eaton	
MACK	50,000#
Meritor	Q Series, QHD, QHR, QT Series, R Series, RL-170, RS Series, RT Series, S Series, S 170, S 280, SQ 100, SQ 100-P, SQD, SQDD, SQHD, SQHP, SQHR, SQR, SQW, SR 170, SR 270, SR 280, SRD, SRDD, SRHD, SSHD, SSHP, SP, STD, STDD, STHD, SU 170, SU 270, SU 280, SUHD, SW 170, SW 270, SW 280, T Series, U Series, 58000 Series, 59000 Series, 200
NAVISTAR	14227, 14308, 14309, 14311, 14338, 14342, 14943, 14348, 14364, 14368, 14494

DRIVE AXLE FASTENERS 449-4974	
Replacement Keeper No.	450-4743 TANG Fits 3/8" Keyway
Tool Socket	3-3/4" – 8 point (OTC# 1925)
Thread Size	2-5/8" – 12
Outer Bearing Cup/Cone	3984/3920, 39590/39520

▼ Axles ▼	
Eaton	D, DT, 32M, 34M, MF, MR, RP, RT, 17800, 17801
Ford	18,000# Rear
Meritor	H-145, H-162, H-172, H-240, H-262, H-350, H-362, L-172
NAVISTAR	14044, 14186, 14351, RA44

DRIVE AXLE FASTENERS 449-4975	
Replacement Keeper No.	450-4975 TANG Fits 5/16" Keyway
Tool Socket	3-3/4" – 8 point (OTC# 1925)
Thread Size	2-5/8" – 12
Outer Bearing Cup/Cone	3984/3920, 39590/39520

▼ Axles ▼	
Dana	J190S
Ford	
GMC	
NAVISTAR	
Rear Axle School Bus Application	19,000#

PRO-TORQ® Interchange Guide

PRO-TORQ® Advanced Axle Fasteners

Seal
Section

Component
Specs

Installation
Tools

Axle
Fasteners

Long-Life
Systems

Cross
Reference

Installation
Instructions

Axlok	STEMCO
AX 12-1500	448-4836
AX 12-3250	449-4973
AX 12-3480	447-4723
AX 12-3500	447-4724
AX 16-2625	447-4743
AX 18-1500	448-4837
Batco	STEMCO
06-201	447-4743
06-203	447-4743
06-204	448-4836
06-210	448-4836
06-226	447-4723
06-348	448-4837
06-354	448-4836
06-358	448-4836
06-403	447-4743
06-404	447-4743
06-411	449-4973
06-412	449-4973
06-424	447-4743
06-425	447-4743
06-470	449-4974
06-472	449-4974
06-482	449-4973
06-484	449-4973
BWP	STEMCO
M-682	447-4743
M-684	447-4743
M-685	448-4836
M-1524	448-4836
M-1956	448-4836
M-1959	448-4836
M-1972	447-4743
M-1974	447-4743
M-1978	449-4973
M-1980	449-4973
M-1984	447-4743
M-1986	447-4743
M-1990	449-4973
M-1992	449-4973
M-1996	447-4723
Ceromet	STEMCO
150012	448-4836
150018	448-4837
262512	449-4974
262516C	447-4743
325012	449-4973
348012	447-4723
348012E	447-4724
K1501	450-4836
K1502	450-4837
K2625	450-4743
K3250	450-4973
K3480	450-4723
Dana	STEMCO
10284	447-4743
10286	447-4743
10406	447-4743
10408	447-4743

Eaton	STEMCO
F-940	447-4743
F-941	447-4743
F-1529	447-4743
F-1530	447-4743
X-115	448-4836
11249	449-4973
19186	447-4743
31927	449-4973
34090	447-4743
128333	448-4837
820394	447-4743
820395	447-4743
E-540	447-4743
E-572	447-4743
E-576	448-4836
E-1087	448-4836
E-2296	448-4836
E-2299	448-4836
E-2303	449-4973
E-2305	449-4973
E-2420	447-4743
E-2422	447-4743
E-2460	447-4743
E-2466	449-4973
E-2468	449-4973
E-2550	447-4723
E-4861	448-4837
E-6140	449-4973
Ford	STEMCO
D5HZ-3104A	448-4837
D7HZ-4255A	449-4974
D7HZ-4245A	449-4974
E4HS-4255-AA	449-4973
F2HS-3276-AA	448-4837
Fruehauf	STEMCO
ACE-8510-001	447-4723
530088	448-4836
K-B Axle	STEMCO
KBE-10227	447-4743
Kershaw	STEMCO
10284	447-4743
10286	447-4743
Leland	STEMCO
L-176	447-4743
L-178	447-4743
L-195	448-4836
L-1331	448-4836
L-1334	448-4836
L-1347	447-4743
L-1349	447-4743
L-1353	449-4973
L-1355	449-4973
L-1359	447-4743
L-1361	447-4743
L-1365	449-4973
L-1367	449-4973
L-1395	447-4723

Meritor	STEMCO
A-1227-A-105	448-4836
A-1227-S-331	449-4973
1227-B-106	448-4836
1227-B-756	447-4743
1227-B-1484	447-4723
1227-C-549	447-4743
1227-E-1045	449-4974
1227-K-947	448-4837
1227-K-1389	447-4723
1227-L-194	448-4836
1227-M-715	449-4974
1227-R-330	449-4973
1227-R-1240	449-4973
1227-T-228	447-4743
1227-T-540	447-4743
1227-U-541	448-4836
1227-W-517	449-4973
1227-X-102	448-4836
1227-Z-1040	449-4974
1227-P-1160	447-4743
Navistar	STEMCO
1607743C1	448-4836
1607744C1	449-4973
2037474C1	448-4837
2501559C1	449-4974
Spicer	STEMCO
M10HN101	447-4743
M10HN102	447-4743
M10HN128	448-4836
M10HN158	447-4743
M103102-001	447-4743
Std. Forge	STEMCO
103100-1	447-4743
103102-001	447-4743
103103-002	447-4743
103104-001	447-4743
103105	448-4836
105013	447-4743
Transit	STEMCO
TP-157	448-4836
TP-431	448-4836
TP-489	447-4743
TP-490	447-4743
TP-1572	449-4973
TP-1943	449-4973
TP-1970	448-4836
TP-1973	448-4836
TP-1977	449-4973
TP-1978	449-4973
TP-1988	447-4743
TP-1989	447-4743
TP-1997	447-4743
TP-1999	447-4743

PRO-TORQ® Axle Fastener Warranty

PRO-TORQ®



STEMCO warrants that all product shall conform to descriptions on purchase orders, and shall be free of defects in materials and workmanship which would be discovered by following STEMCO's standards of manufacture and inspection at the time said product was manufactured. This warranty shall remain in effect for one year following shipment of product. This warranty is limited to repairing or replacing product which the parties investigation show were defective at the time of delivery.

All product subject to this warranty will be returned, F.O.B.: STEMCO LP, 300 Industrial Blvd., Longview, TX 75602, for examination, repair, or replacement.

This warranty does not cover any defect, malfunction, or failure caused by or resulting from improper or unauthorized service maintenance, installation, repair, or use not within the working specifications for which product was designed, or from abuse, neglect, tampering with, or any other cause beyond the control of STEMCO.

PRO-TORQ® is the registered trademark of STEMCO.

Specifications contained in this catalog were in effect at the time the publication was approved for printing, and are subject to change without notice or liability.