

Safety Bulletin

No: SB028 Rev 1 Date: 11 April 2011

Description: Proper Use and Maintenance for Torque Tube Lifting Bracket Assembly and Torque Track Lifting Bar



Tesco Corporation
5615 – 80th Avenue SE
Calgary, Alberta, Canada T2C 4N5
Tel: 1-877-TESCO-77 (North America)
Tel: 1 (713) 359-7195 (AMSS 24-hour support)
Tel: 1 (713) 359-7295 (International)
Email: bulletins@tescocorp.com
www.tescocorp.com
www.tescoparts.com

BACKGROUND INFORMATION:

It has been determined that the incorrect assembly and installation of the old-style Torque Tube Lifting Bracket Assembly (TESCO part number 4086) may cause a section of the torque track to fall. Investigation of one such occurrence showed that the failure was caused by a fastener falling out of the Torque Tube Lifting Bracket Assembly after being improperly installed and assembled.

After reviewing the information received on this incident TESCO is releasing this bulletin that outlines the proper use and maintenance of the Torque Tube Lifting Bracket Assembly.

This bulletin also outlines proper inspection of the new-style Torque Track Lifting Bar (TESCO part number 970153).



Figure 1: Old-style torque tube lifting bracket assembly



Figure 2: New-style torque track lifting bar

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The following chart details the safe working load depending on the factor of safety:

Part Number	Description	Factor of Safety	Maximum Force (Mass)
4086	Safe Working Load	5.0 : 1	4,800 lb (2177 kg)
970153	Safe Working Load	5.0 : 1	14,000 lb (6350 kg)

AFFECTED PRODUCT:

Assembly

Part Number	Description	Serial Number	Manufacturing Date
4086	Torque Tube Lifting Bracket Assembly	All	All
970153	Torque Track Lifting Bar	All	All

Component

Part Number	Description	Serial Number	Manufacturing Date
13085	Screw, Cap, Hex Head ½-13 UNC x 3 1/4" long, Grade 8, Plated	N/A	N/A
0990	Screw, Cap, Hex Head ½-13 UNC x 2" long, Grade 8, Plated	N/A	N/A

ACTION REQUIRED:

A. Old-Style Torque Tube Lifting Bracket Assembly

The welds that fuse the Lifting Bracket Lugs to the Lifting Bracket Pipes are required to be inspected by magnetic particle inspection or wet fluorescent magnetic particle inspection (in accordance with API 8C/ISO 13535), and such inspection is required forthwith to be included as part of a regularly scheduled maintenance and non-destructive examination program.

It is extremely important that the use of this equipment is controlled in the same way lifting gear (slings, shackles, clevis, etc.) is controlled. This includes proper use and scheduled maintenance of the components.

The following guidelines should be reviewed with personnel that use this Torque Tube Lifting Bracket Assembly:

1. This bracket is only to be used for lifting TESCO 8" x 12" and 4" x 12" torque tracks. Using it for any other application may damage or elevate the potential for failure of this bracket.
2. The use of two separate lift slings is required; one for each lifting lug/shackle on the lifting bracket/lifting bar. This presents a more stable lift, and should one sling fail the remaining sling may prevent the track from falling.
3. Never lift using only one lug/shackle. This assembly is meant to be used with both lugs/shackles loaded equally.

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4. Ensure that all retaining and safety bolts/pins are in place before lifting and that the lifting bracket is assembled correctly as shown in Figures 3. The inner two holes of the lifting bracket are for the lifting lug retaining bolts. The outer two holes are for safety bolts. If the lifting lug with the retaining bolt installed covers the outer safety bolt hole, the lifting lug is on backwards. Remove the lifting lug and reinstall the other way. The correct distance between the lifting lugs should be approximately 12 ½”.

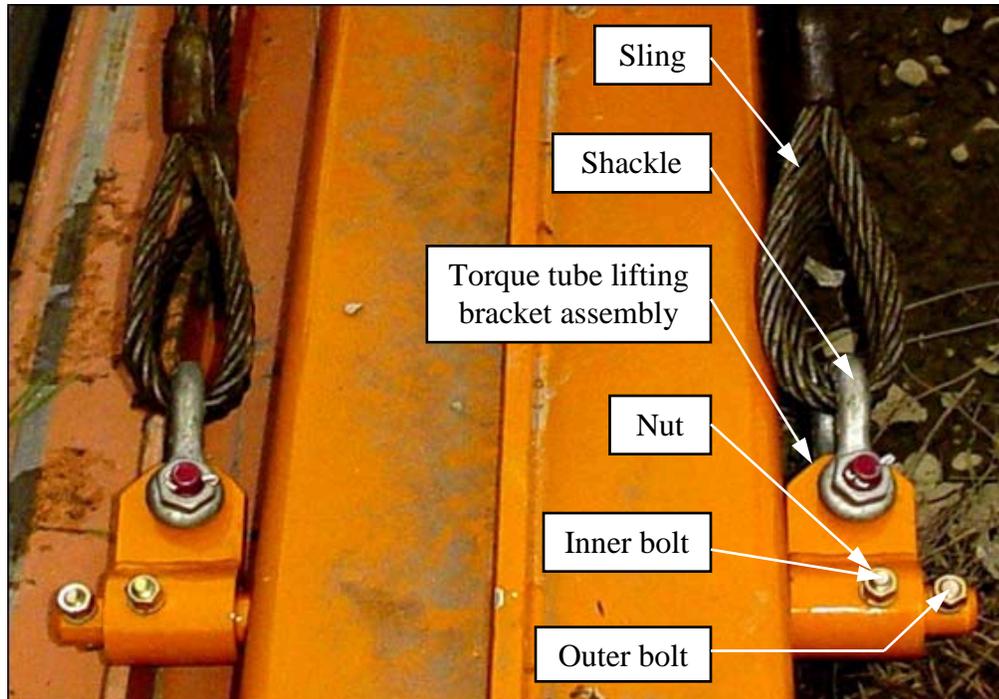


Figure 3: Typical arrangement of torque tube lifting bracket assembly (non-fabricated parts)

Typical arrangement (**non-fabricated parts**)

Torque Tube Lifting Bracket Assembly (Qty. 1): TESCO # 4086 contains,

- Nuts: TESCO # 0968 – 1/2” UNC Gr. 8 plated
- Outer bolts: TESCO # 0990 - 1/2” UNC x 2” Gr. 8 plated
- Inner bolts: TESCO # 13085 - 1/2” UNC x 3-1/4” Gr. 8 plated
- Lock Washer: TESCO # 5881 - 1/2” plated (not shown)

Overhead shackle (Qty. 2) with safety pins or cotter pins,

- Shackle: TESCO # 4770 – 3/4”, 4 3/4 ton

Slings (Qty. 2) to the traveling block through the hook,

- Sling: TESCO # 1846 - 5/8” x 8’, W/6 Eyes

5. This device should be maintained in the same manner as other lifting gear. Visually damaged or worn components are to be discarded. Any replacement parts must meet or exceed original manufacturing specifications. Non-destructive examination is to be regularly performed as per lifting gear requirements including magnetic particle inspection of the aforementioned welded lift ears.
6. MPI inspection frequency of the Torque Tube Lifting Bracket Assembly shall be the same as for all other parts of the torque arrest system as indicated in chapter 3, “Non-Destructive Testing and Inspection Schedules”, of the Top Drive Maintenance Guide. The inspection type for the Torque Tube Lifting Bracket Assembly shall be type A and/or B for every inspection interval (each 250, 500 and 750 operating days). Refer to the Top Drive Maintenance Guide for inspection type details.

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B. New-Style Torque Track Lifting Bar

MPI inspection frequency of the Torque Track Lifting Bar shall be the same as for all other parts of the torque arrest system as indicated in chapter 3, "Non-Destructive Testing and Inspection Schedules", of the Top Drive Maintenance Guide. The inspection type for the Torque Track Lifting Bar shall be type A and/or B for every inspection interval (each 250, 500 and 750 operating days). Refer to the Top Drive Maintenance Guide for inspection type details.



Figure 4: Torque track lifting bar

IMPORTANT NOTE: The bolts supplied with this Torque Tube Lifting Bracket Assembly/ Torque Track Lifting Bar are of Grade 8 material. Any replacement bolts must be of the same grade. The use of a lock washer with a plain nut (as supplied), locking nut with a plain washer, or a safety pin is required. Failure to do this may result in the nut backing off, the bolt falling out, and subsequent potential of dropping the torque track. Refer to STD0015 for more information regarding tightening torque for fasteners.

Version	Date (D/M/Y)	ECN	Description of Bulletin Changes
Rev 0	01/08/2007		Initial release of document
Rev 1	11/04/2011	171-0025	Updated pictures, added Torque Track Lifting Bar information, other general edits

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