

Safety Bulletin			 TESCO [®]	Tesco Corporation 5616 – 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
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Mounting Bolts from Blower Motor Become Loose and Fall Off. 750-ESI-1350, 500-ESI-1350.				

BACKGROUND INFORMATION:

An incident occurred on a 500-ESI-1350 Top Drive where the mounting bolts from the blower motor became loose; eventually falling out during a period of very rough drilling. It appears that some blower motors were mounted with 3/8" bolts and others with 1/2" bolts.

Notwithstanding the fact that this incident did not result in significant damage, if a similar failure were to occur while drilling it could potentially result in a dropped object incident causing severe injury or damage.



Figure 1 - Bolts that have come loose and fallen off an ESI 500 Ton Top Drive

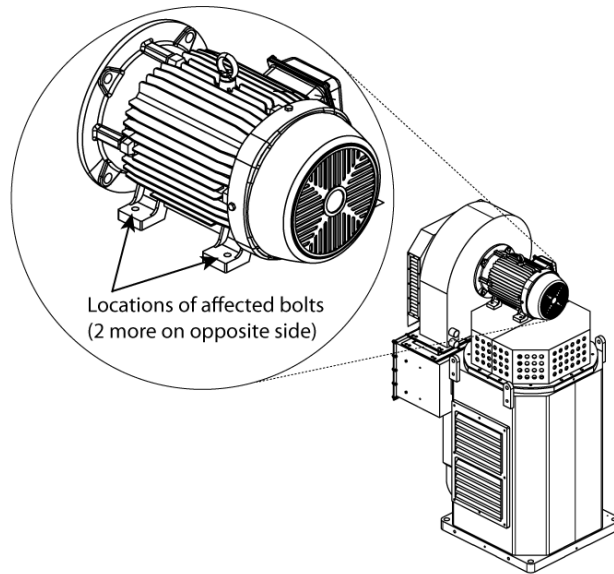


Figure 2 - Location of affected bolts

AFFECTED PRODUCTS:

All 500 ESI 1350 and 750 ESI 1350 Top Drive Systems.

Top Drive Model	Unit Numbers
ESI 500	945, 947, 961, 962, 963, 964, 980, 982, 983, 984, 986, 1000, 1002, 1003, 1004, 1007, 1102, 1103, 1104
ESI 750	991

ACTION REQUIRED:

TESCO has investigated this issue and has determined a solution. Given that the consequences of failure may be severe and include the possibility the motor coming loose from the assembly and falling, the following actions shall be implemented as soon as practicable:

1. Inspect the blower motor mounting bolts to determine whether 3/8" or 1/2" bolts were used to fasten the motor. This is best done if one bolt is removed and measured.
2. If it is determined that the bolts used were 1/2" bolts, loosen them slightly and re-torque them to 100 ft-lb with a proper torque wrench. This is to ensure the bolts were not over torqued during installation. Re-apply the lock wire.

Version	Date (D/M/Y)	ECN	Description of changes
Rev 0	31/07/2012	219-0001	Initial release of document

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3. If it is determined that 3/8" bolts were used to mount the blower motor, the blower motor assembly must be secured with a safety cable until it is practicable to replace with 1/2" bolts (see figure 3)

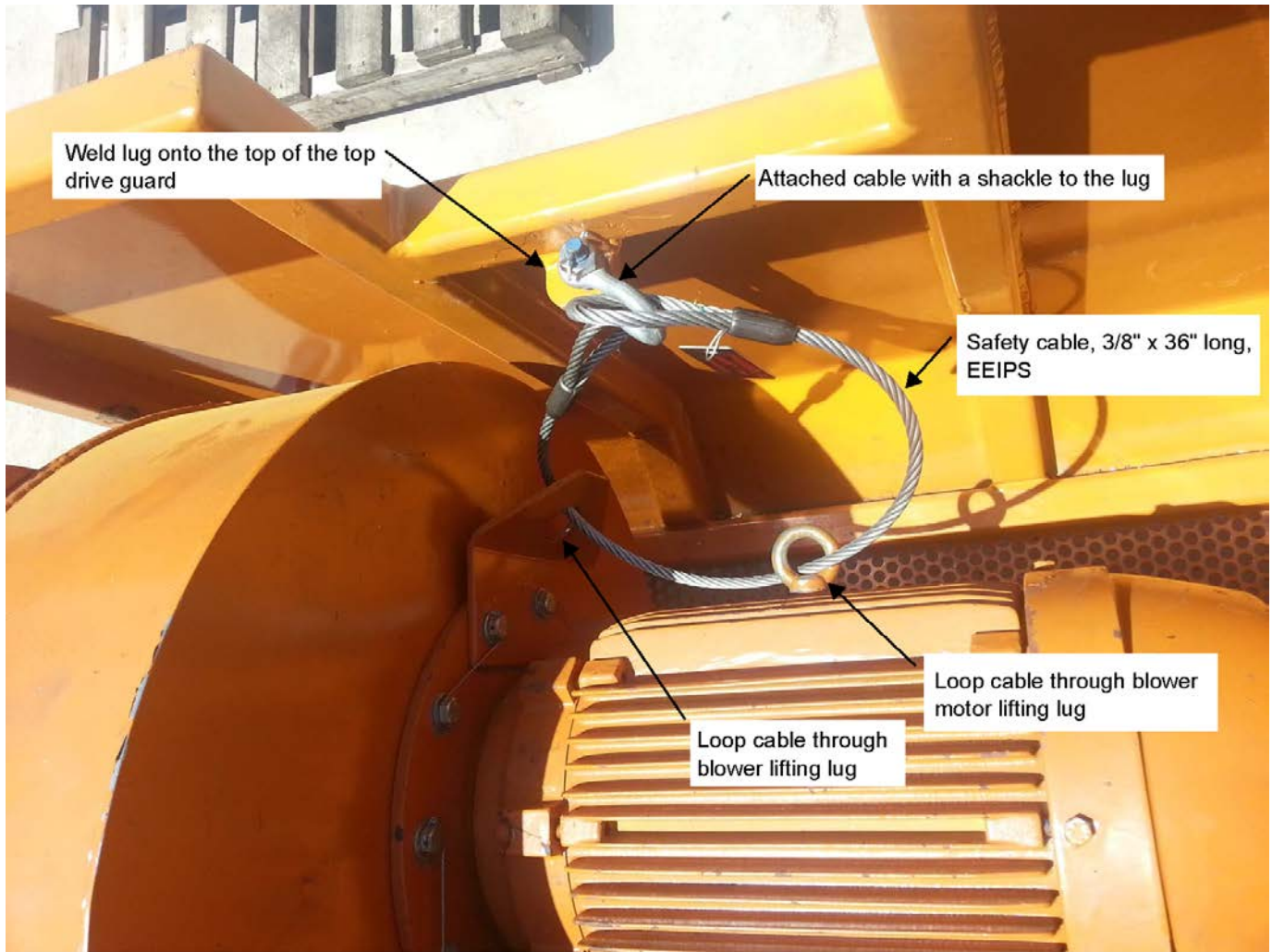


Figure 3 - Safety Cable attached to Blower Motor

4. Once it is practical, replace the 3/8" bolts with 1/2" -13UNC x 2" long grade 8, drilled head bolts (Tesco prt# 3536). (in metric countries, M14 x 2 pitch x 50mm, grade 8.8 may be used) using the following steps:
 - Remove the brake cover from the main motor
 - Drill out the blower motor mounting holes in the brake cover to 9/16" (or 16 mm) diameter
 - Weld four 1/2" (or M14) nuts to the inside of the brake cover. 1/8" fillet weld all-round should suffice.
 - Reinstall the brake cover on the main motor
 - Install the blower motor with 1/2" (or M14) bolts
 - Use a proper torque wrench and Torque the 1/2" bolt to 100 ft-lb (140 Nm for the M14 bolts). Do not lubricate the bolts. Take care not to over torque the bolts.
 - Lock wire the bolts to secure it.