



Model: 500T-750T

Serial #: All

Jun. 29, 2016

Product Bulletin # TDS-160

Alert



Blower Motor Fan Cover Secondary Retention

Issue

Fasteners on the various components of the top drive can become loose or back out over time. Periods of rough drilling could also cause fasteners to break or become loose. Loose fasteners could eventually fail in a relatively short period of time. This could lead to components becoming detached and falling away from the top drive.

The fan cover on the 15HP and 20HP blower motors are held in place by three (3) screws. Should these become loose or break, the guard could detach and fall.

Recommendation

- Check the blower motor for any loose or broken fasteners. Particularly inspect the screws that secure the fan cover for looseness or damage.
- Add secondary retention to the fan cover.

Procedure

1. If there are any signs of damage to the screws securing the motor fan cover, replace them with same type of fastener.

Alert

2. Drill 3/32" diameter holes through the heads of the screws to allow the installation of safety wire as shown in Figure 1.
3. When installing the screws,
 - use Loctite 242 Threadlock (or the equivalent) to prevent the fastener threads from rusting and prevent loosening due to vibration.

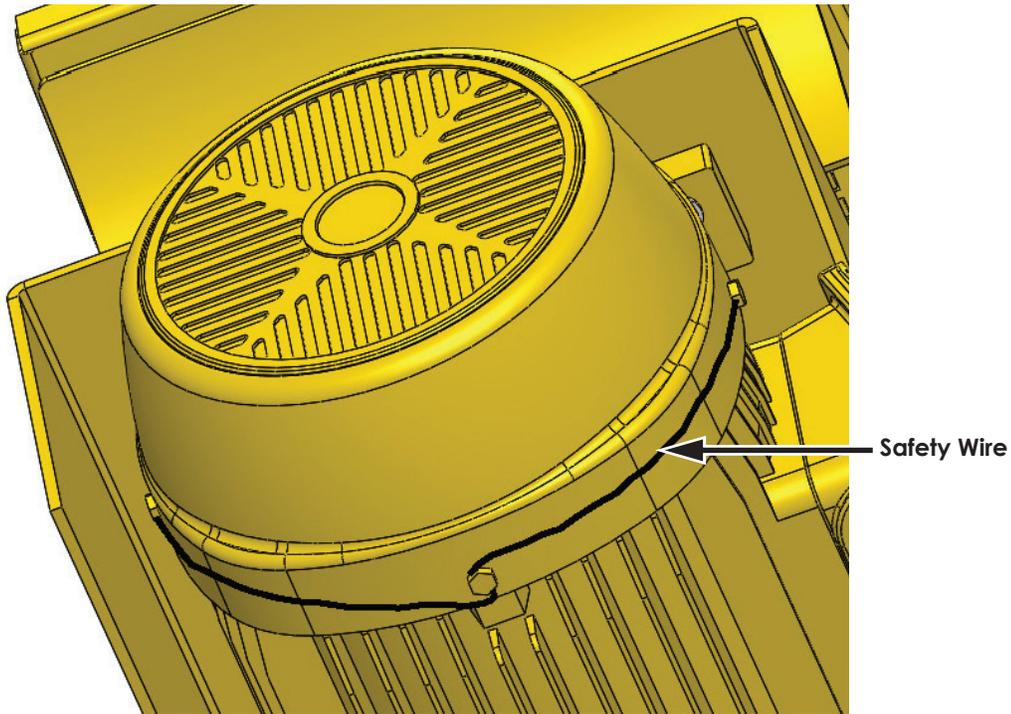


Figure 1: Safety wiring for M8 long screws

Alert

- Using 1/8" wire rope and ferrules, run a length of the wire rope through the mesh in the fan cover and create a loop to secure one end of the wire rope to the fan cover. See Figure 2.



Note: Ensure the wire rope does not interfere with the fan impeller inside the cover or any other components adjacent to the motor.

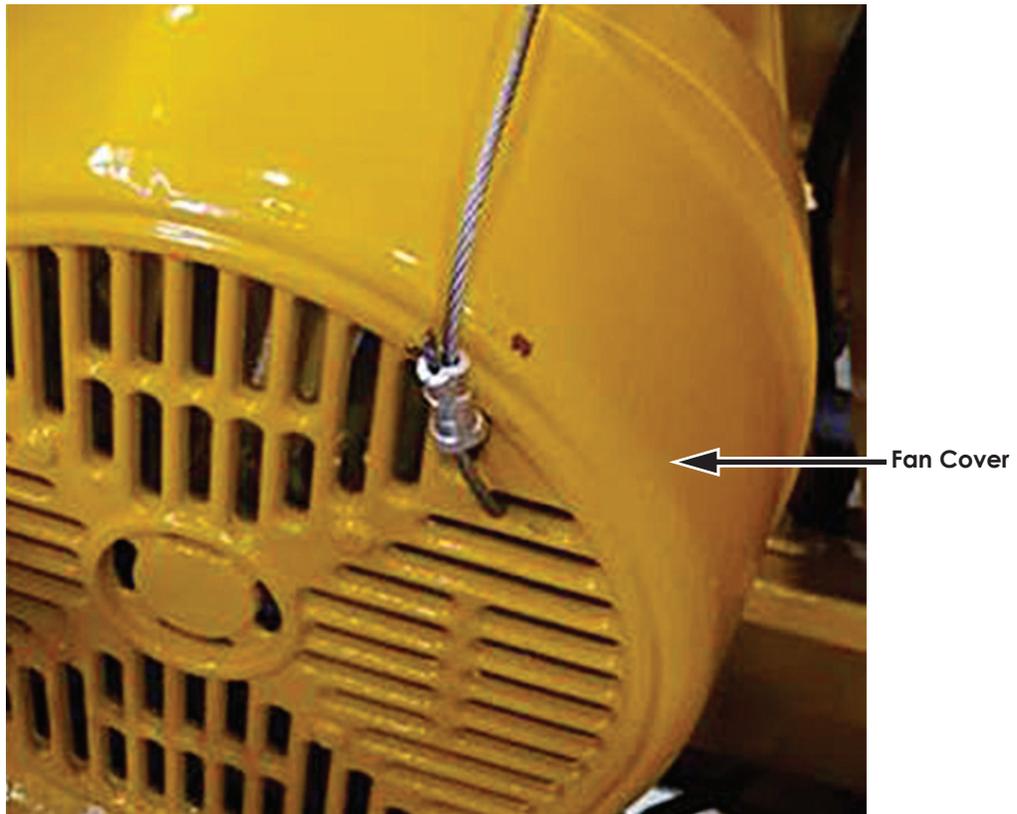


Figure 2: Safety wiring through the mesh in fan cover

Alert

5. Create another loop with the other end of the 1/8" wire rope and secure it to the existing 3/16" wire rope secured around the junction box on the side of the motor. If a 3/16" wire is not already installed, route 3/16" wire rope around the motor's junction box and crimp before securing the 1/8" wire rope. Ensure that the loop is snug around the junction box so that it will not slip off. See Figure 3.

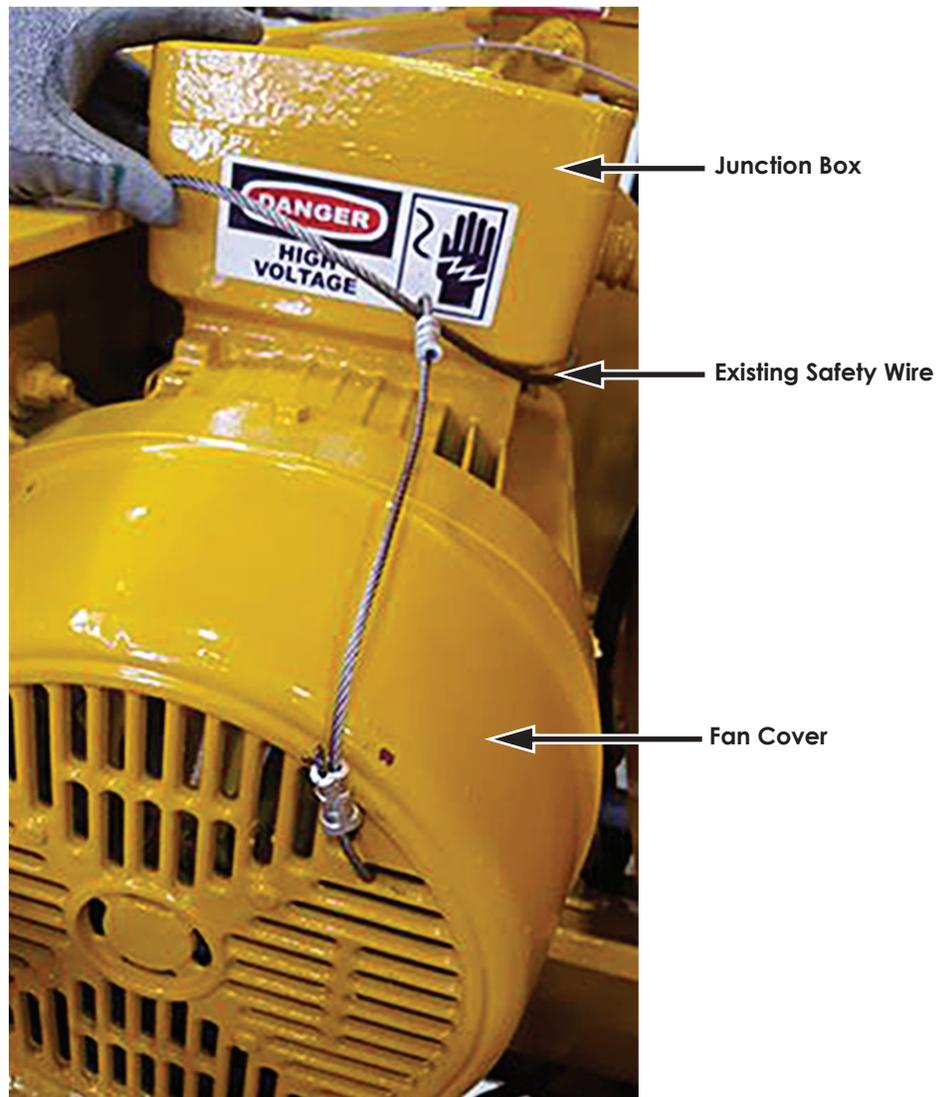


Figure 3: Other end of safety wiring secured to existing loop

Alert

6. Alternatively, drill a 1/4" hole in the motor mount, loop the 1/8" wire rope through and crimp it. See Figure 4.

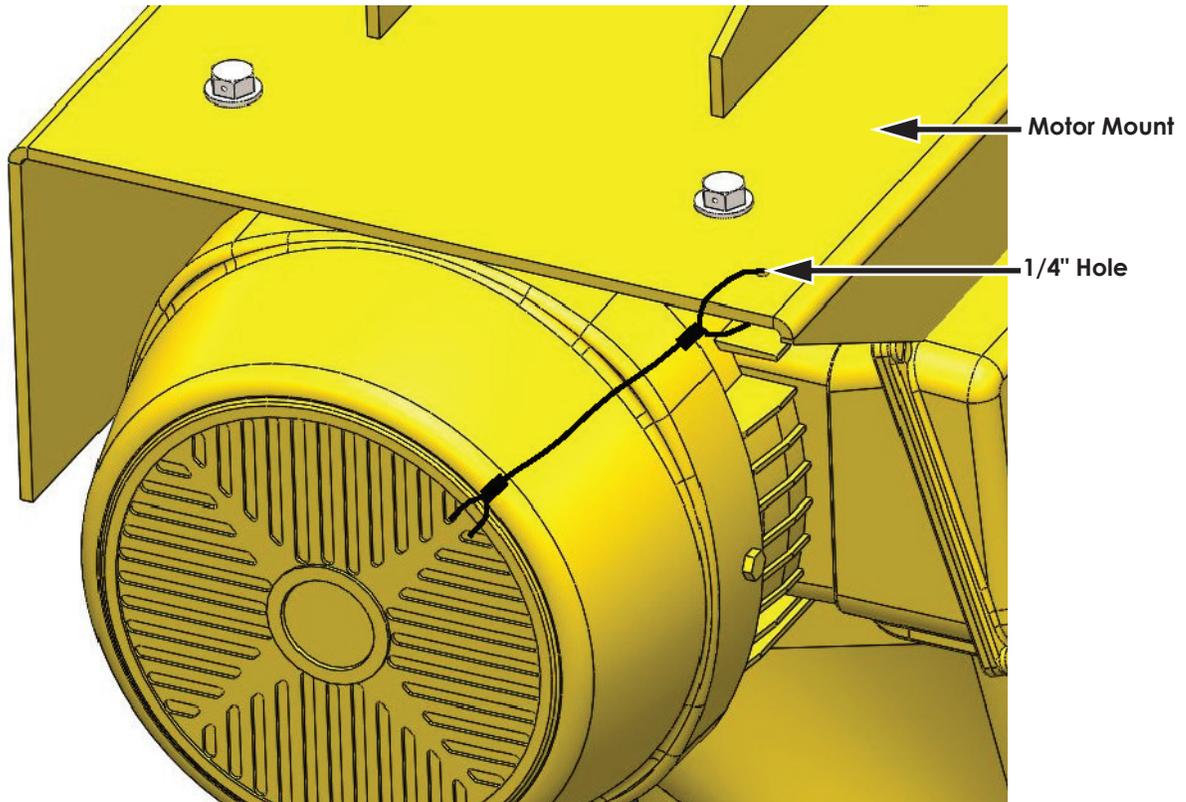


Figure 4: Fan cover secured to the motor mount



Note: To avoid putting unnecessary strain on the wire rope, there should be some slack (no more than 3 inches) in the tether. Care must be taken to ensure the wire rope does not interfere with the fan impeller inside the cover or any other components adjacent to the motor.

The top drive should be checked regularly for damage to the components, fasteners, and safety retention devices.

Refer to the Top Drive Parts Manual (Subsection 4B) for:

- inspection categories and frequencies.
- inspections to follow periods of rough drilling and jarring.