
PRODUCT: TOP DRIVE

DATE: 03/01/2011

SUBJECT: DE / NDE GE-B20 Motor Grease Tubing

SERIAL NUMBERS: (All Standard Top Drive GE-B20 Traction Motors)

DISCUSSION: Our many years of experience has shown that not greasing the motor's bearing between overhauls does not cause bearing failure. GE recommends to periodically grease the motor's bearing.

RECOMMENDATION: Grease tubing has been added to the (DE) drive end and (NDE) non-drive end of Top Drive GE-B20 traction motors to improve accessibility to traction motor's grease ports. Follow the instructions below for this one time motor modification.

[Affected Assemblies](#)

AY10869 MOTOR ASSEMBLY, TAPERED SHAFT, 26T
AY10869-1 MOTOR ASSEMBLY, SPLINED SHAFT, 26T
AY11450 MOTOR ASSEMBLY, TAPERED SHAFT, 25T
AY11450-1 MOTOR ASSEMBLY, SPLINED SHAFT, 25T
AY12492-1 MOTOR ASSEMBLY, SPLINED SHAFT, 25T

The following kits have been created to accommodate the addition of grease tubing to GE-B20 motors:

[TAPERED SHAFT MOTOR GREASE TUBE KIT](#)

AY16807 KIT, GREASE TUBE, B20, TAPERED

[SPLINED SHAFT MOTOR GREASE TUBE KIT](#)


AY16808 KIT, GREASE TUBE, B20, SPLINED

[Preliminary Instructions:](#)

Refer to bill of materials for required parts.

Grease Tube Drive-End Installation Procedure:

1. Remove bolts securing Exhaust Plenum to the Traction Motor.
2. Drill 7/8" diameter hole next to differential pressure connection on the off-driller's side of traction motor at dimensions shown in Figure 1.

 **(Note: Ensure shavings are removed from Exhaust Plenum before re-assembly of Exhaust Plenum on the traction motor.)**

3. Weld the 1/4" NPT coupling (F06-1005-010) in 7/8" diameter hole with 1/8 fillet weld all around.
4. Remove the plug on traction motor's grease port and install adapter (H15-2001-04-04).

5. Fasten the drive-end grease tube (DT18754 or DT18754-1) to the adapter (H15-2001-04-04) on the traction motor.
6. Install the other adapter (H15-2001-04-04) on the inside of the Exhaust Plenum in the welded $\frac{1}{4}$ " NPT coupling (F06-1005-010).
7. Re-fasten Exhaust Plenum to the traction motor.
8. Reach through Exhaust Plenum's discharge opening and fasten the other end of the drive-end grease tube to the adapter (H15-2001-04-04) installed in the welded $\frac{1}{4}$ " NPT coupling (F06-1005-010).
9. When greasing of traction motor bearings is required, remove existing plug and replace with $\frac{1}{4}$ " NPT grease zerk. Refer to GE manual GEK-91694C for type, amount, and frequency of applying grease. After recommended grease has been added, remove $\frac{1}{4}$ " grease zerk and proceed to Step 10.
10. Install $\frac{1}{4}$ " plug (H15-140109E-04) on the external side of $\frac{1}{4}$ " NPT coupling as shown in Figure 3.

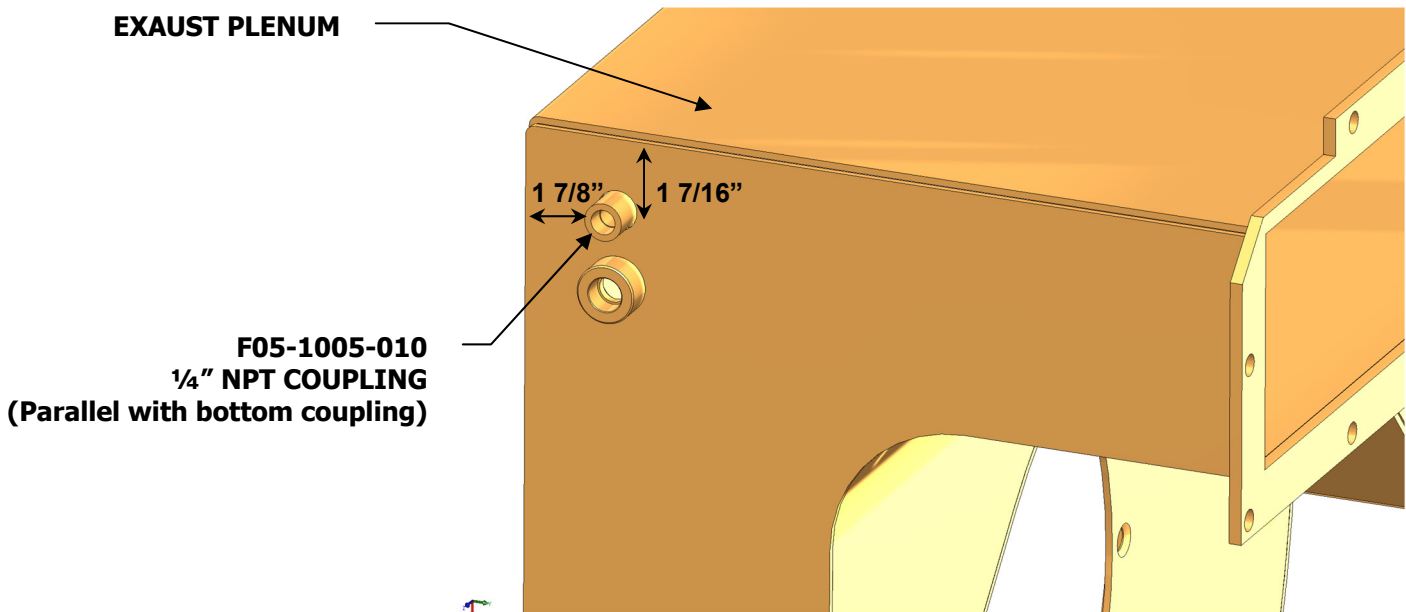


Figure 1

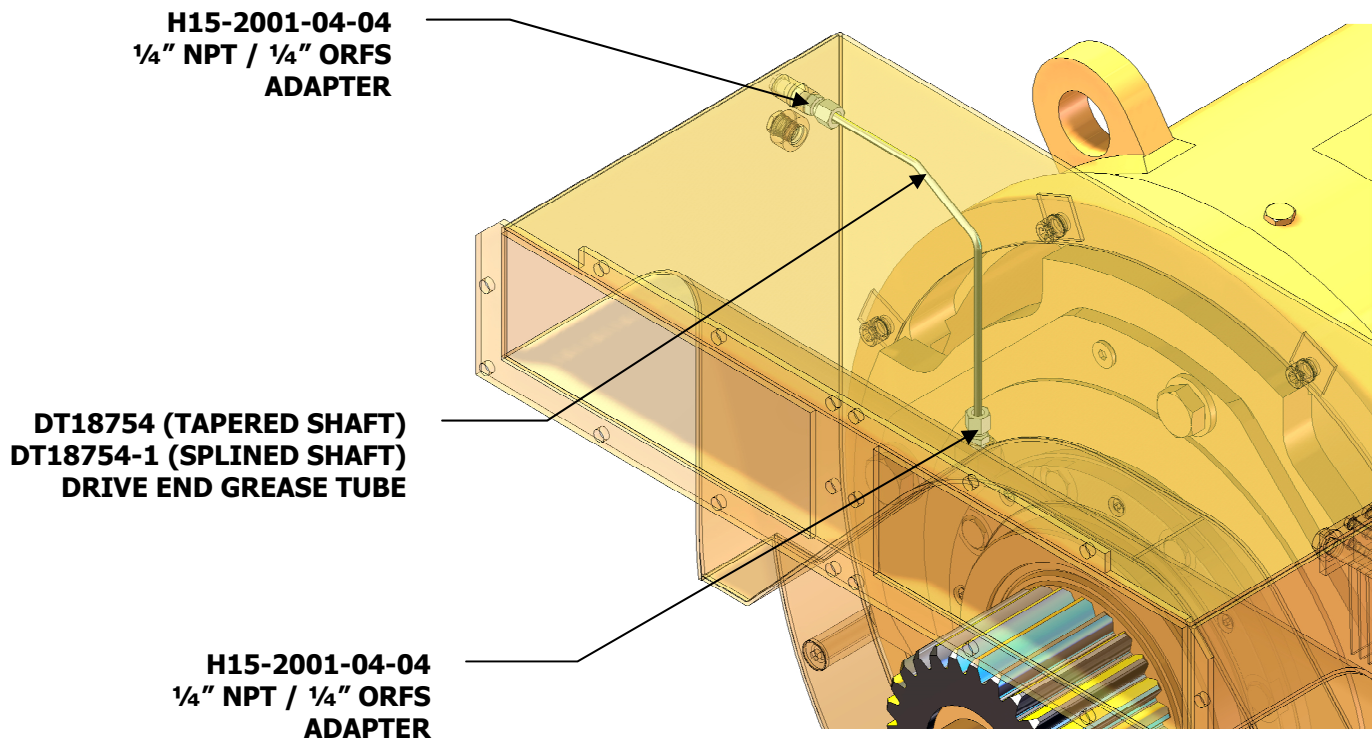


Figure 2

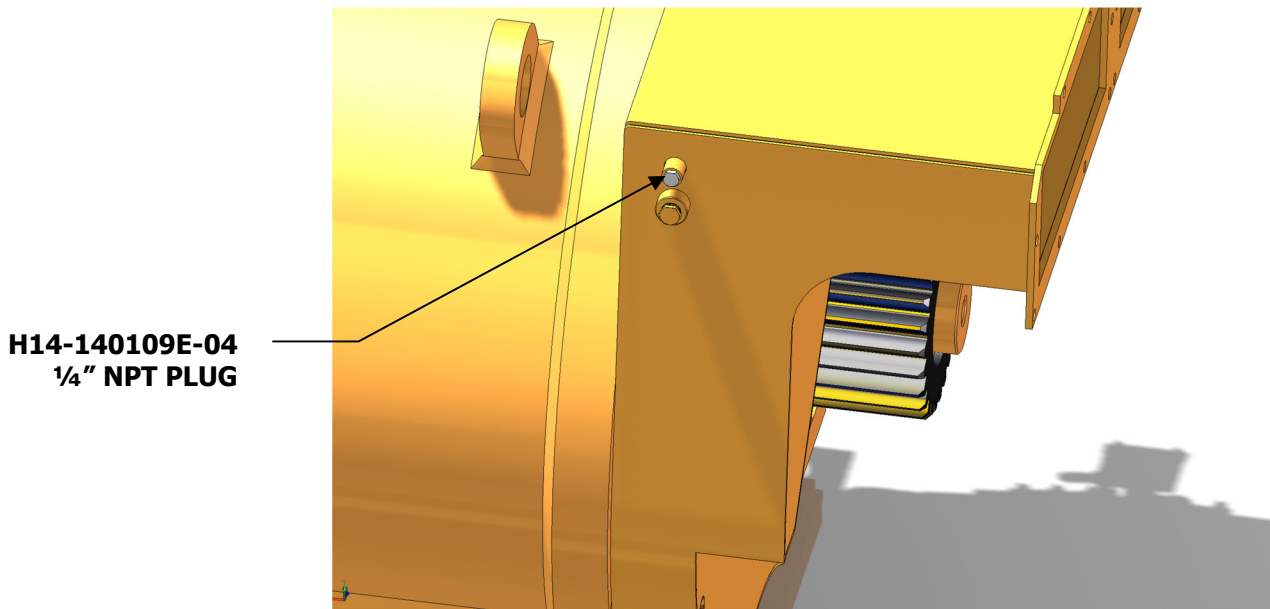


Figure 3

Grease Tube Non-Drive End Splined Shaft Motor Installation Procedure:

1. Remove Encoder and Brake assembly components.
2. Install (AY16278) to Brake Assembly Mount as shown in Figure 4.
3. When greasing of traction motor bearings is required, remove existing plug and replace with 1/4" NPT grease zerk. Pump grease amount as per Canrig Top Drive Manual recommendation. After recommended grease has been added remove 1/4" grease zerk and proceed to Step 4.

4. Install 1/4" plug (H15-140109E-04) on the external side of 1/4" NPT coupling as shown in Figure 4.
5. Re-install Encoder and Brake Assembly components on the traction motor.

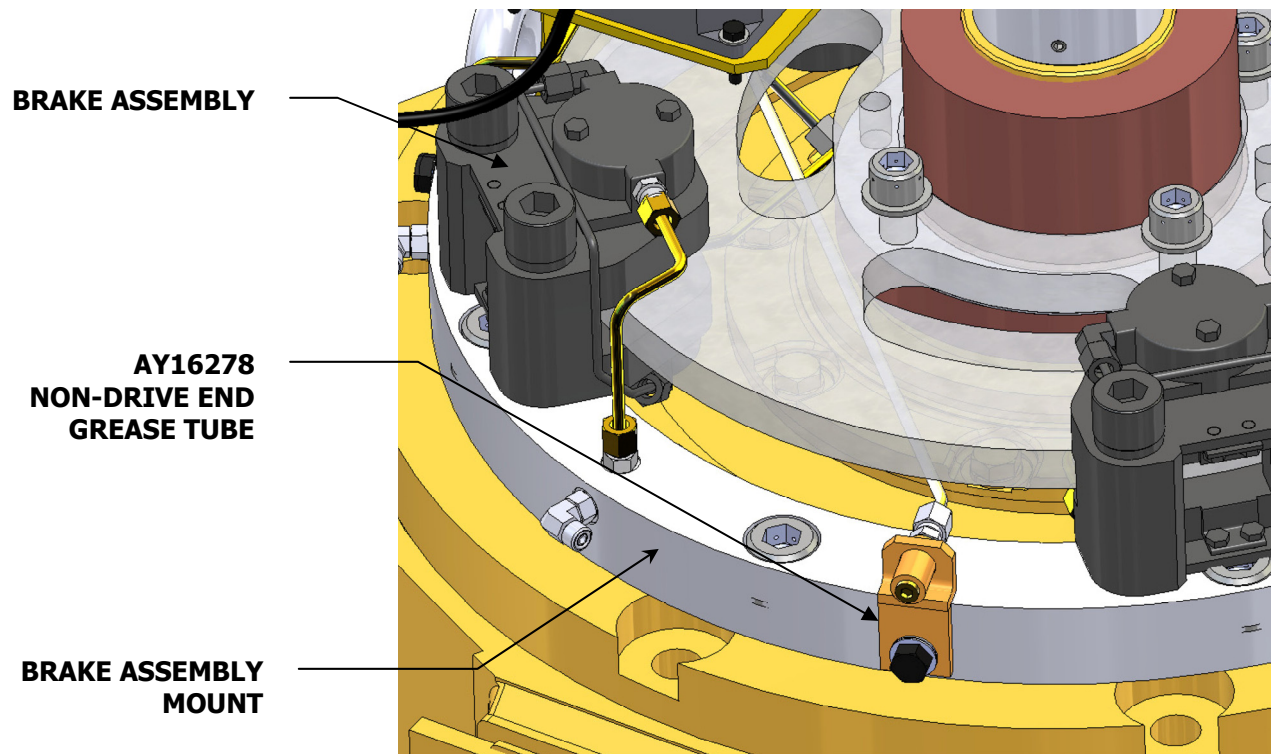
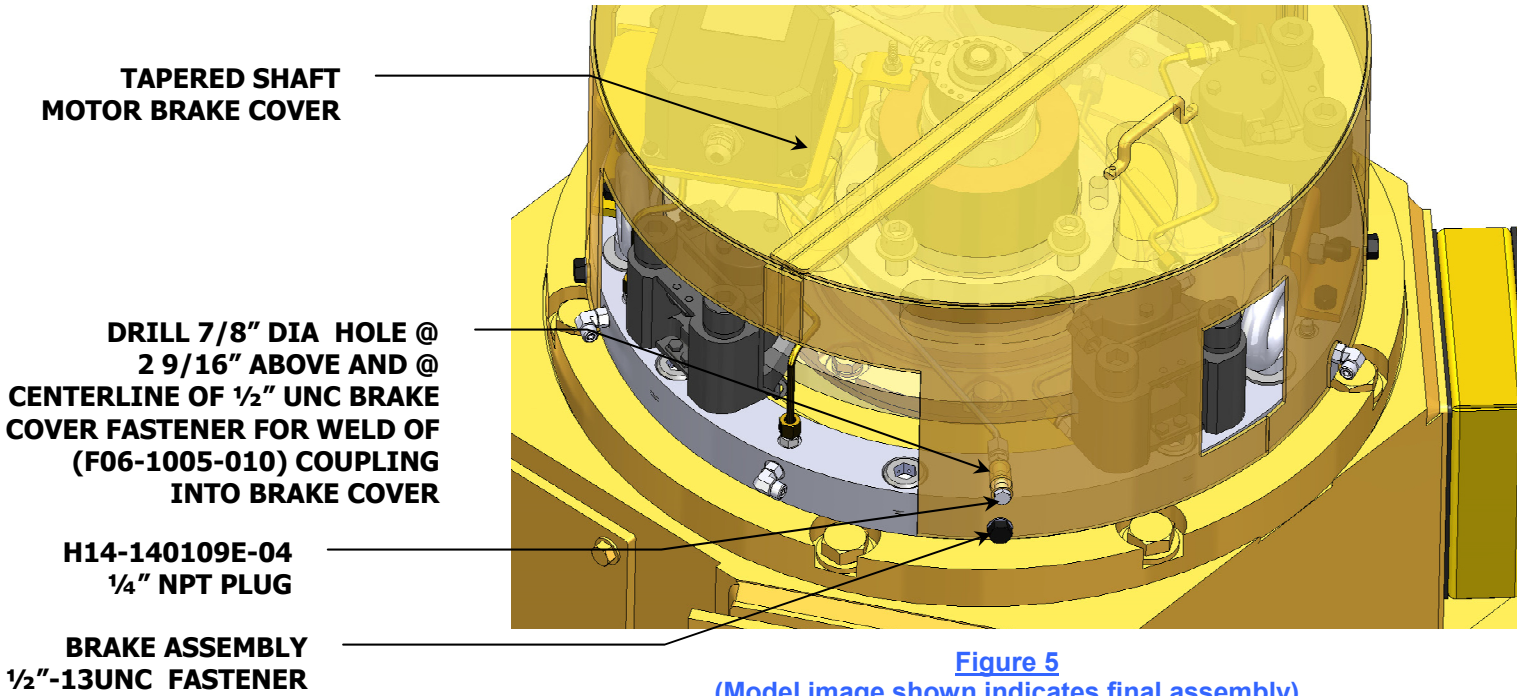


Figure 4
(Model image shown indicates final assembly with Brake Cover removed for clarity)

Grease Tube Non-Drive End Tapered Shaft Motor Installation Procedure:

1. Remove Encoder and Brake Assembly components.
2. Drill 7/8" diameter hole 2 9/16" above and center of existing 1/2"-13 UNC Brake Cover fastener and weld 1/4" NPT Coupling (F06-1005-010) into Brake Cover with 1/8" fillet weld as shown in Figure 5. Allow prior welded 1/4" NPT Coupling time to cool.
3. Install Adapter (H15-2001-04-04) in Traction Motor's grease port and also in internal side of welded 1/4"NPT Coupling in Brake Cover.
4. Install Grease Tube (DT19477) to Traction Motor and to Brake Cover as shown in Figure 5.
6. When greasing of traction motor bearings is required, remove existing plug (H15-140109E-04) and replace with 1/4" NPT grease zerk. Pump grease amount as per Canrig Top Drive Manual recommendation. After recommended grease has been added remove 1/4" grease zerk and proceed to Step 5.

5. Install 1/4" plug (H15-140109E-04) on the external side of 1/4" NPT coupling as shown in Figure 4.
6. Re-install Encoder and Brake Assembly components on the traction motor.



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