

**Addendum to
Operator's Manual
Model CH9030
Hillside Leveling Systems
SN CH9030-19001 thru CH9030-24999**

D-241029DMC01A
October, 2024

A blue circular icon containing a white silhouette of a person sitting and reading a book or manual.	<p>! WARNING</p> <p>Read and understand operator's manual prior to operating this equipment.</p> <p>Failure to follow operation instructions could result in personal injury or damage to the equipment.</p>
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Fasteners

Check Bolt Tightness

- After the first 10 hours of operation
- Every season

The following bolts are torqued to special specifications because of the application in which they are used:

Transmission Mounting Bolts: Case IH® torque specifications is 230-264lb/ft (#243 Medium Strength Loctite® applied on threads)

Drive Wheel Hub Bolts: Case IH® torque specifications (See Wheel Bolt Torque below)

Final Drive Housing Bolts: Case IH® torque specifications (See Final Drive Mounting Bolt Torque on page 5)

Steering Wheel Hub Bolts: Case IH® torque specifications

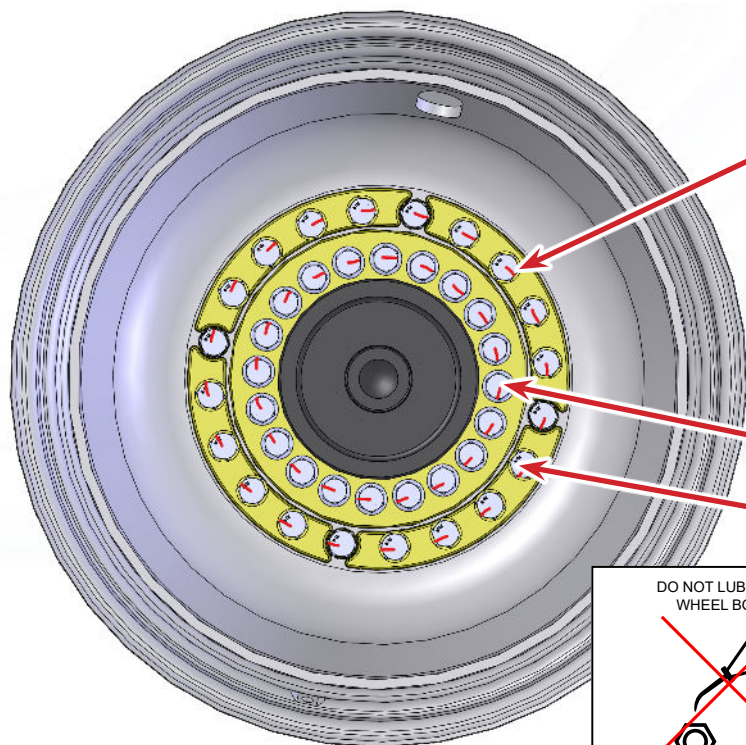
Rear Axle Wheel End Mounting Bolts: Case IH® torque specification is 575-634lb-ft (#243 Medium Strength Loctite® applied on threads) Recommend torque checking bolts at 575lb-ft. If a bolt moves before torque is reached, remove the bolt and discard, replace with a new bolt, apply #243 Medium Strength Loctite® on threads and torque to 590 lb-ft.

Notice

Consult your Case IH 7250, 8250 and 9250 Operator's Manual to verify that correct bolts and spacers are used for the Rear Wheel Application.

Use the torque charts for Metric and Standard fasteners in the fasteners section of the Operator's manual for checking torques on bolts not shown above.

Wheel Bolt Torque



Check wheel bolt torque after first 10 hrs of use if:
Wheels have just been installed
Wheels were removed for any reason.

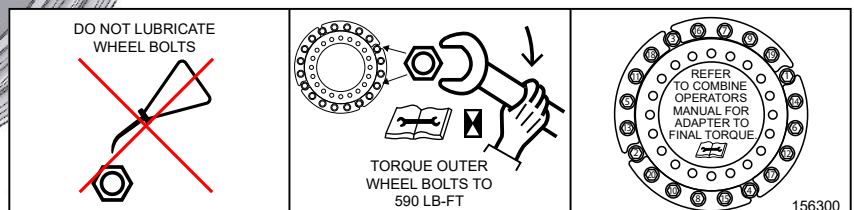
Recommend putting torque marks on the heads of the bolts after torquing in a circular pattern as shown for visual inspection.

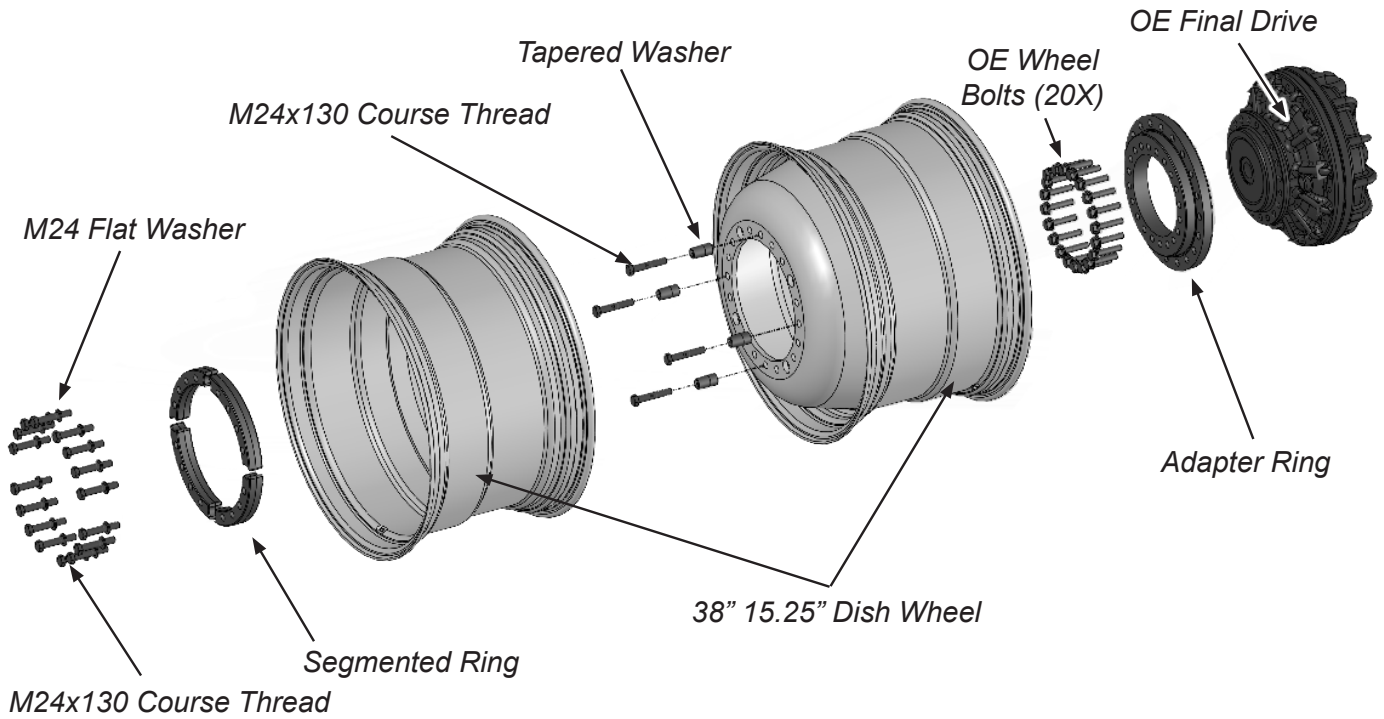
Perform daily Inspections of the torque marks.

- Look for the marks that do not line up. This is a sign of loosening.

Inner Bolts - Case IH torque spec

Outer Bolts - Torque to 590 lb-ft.

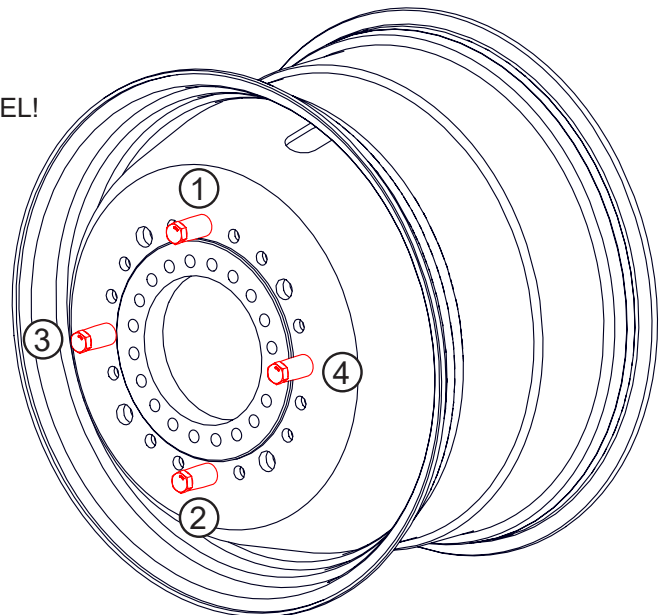
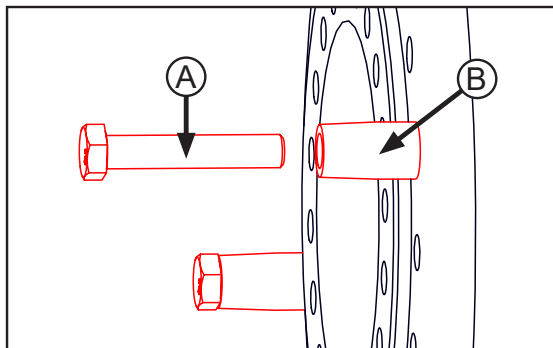




- Install adapter ring to the final using the OE fasteners and recommended OE torque. (Do not use OE Segmented Rings)
- Remove paint from inner wheel where the wheel contacts the adapter.
- Mount the inner wheel. Secure in place with (4) M24x130 bolts (A) and (4) tapered washers (B).
Install taper so that the large end is against the inner wheel and there are 4 blank holes between mounting bolts.

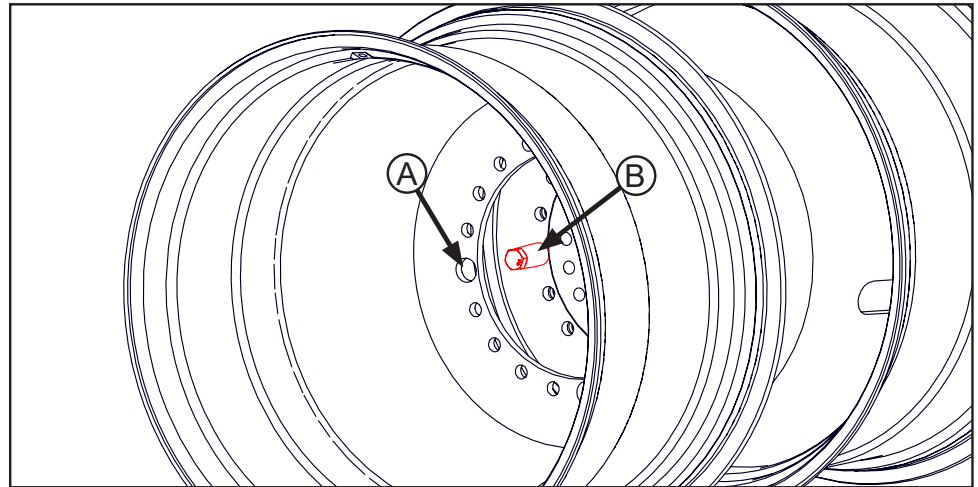
DO NOT INSTALL TAPERED WASHER ON OVERSIZED HOLES OF INNER WHEEL!

Torque to 590 lb-ft according to torque pattern shown.

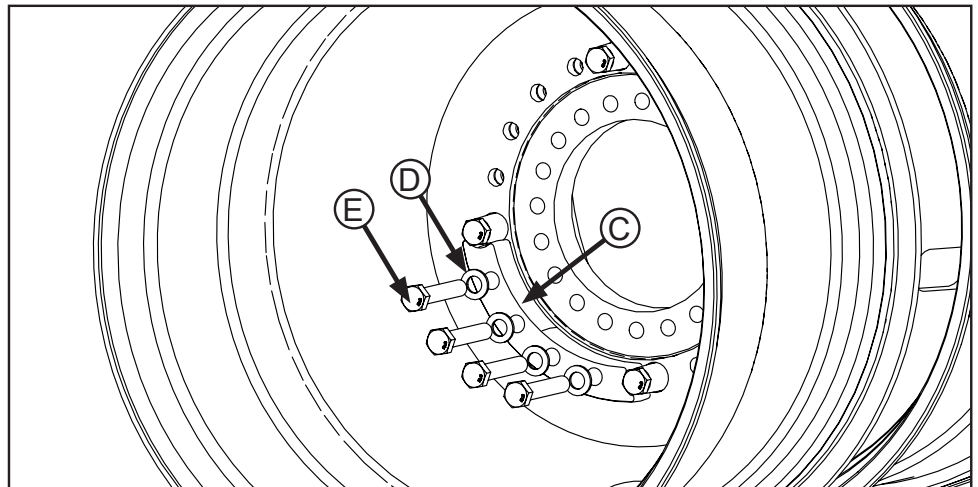


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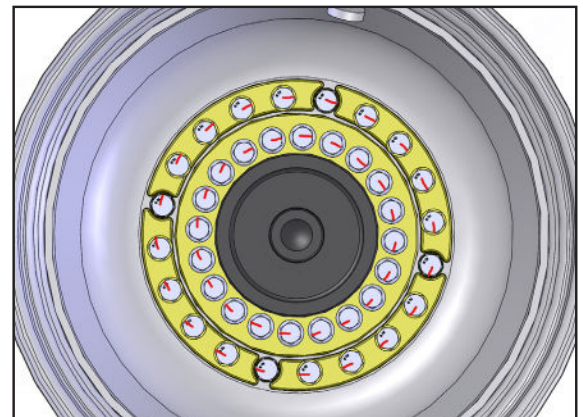
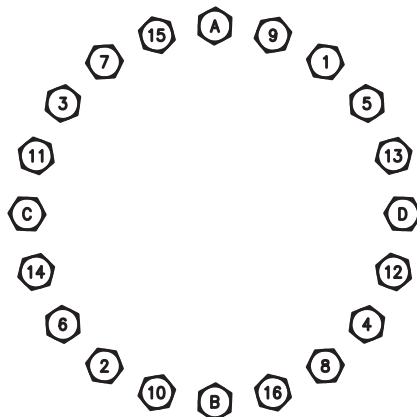
- Remove paint from inner and outer wheel where they contact. It is not necessary to remove paint from outer wheel where the segmented rings contact the wheel.
- Mount outer wheel so that the 4 oversized holes (A) line up with the 4 tapered washers (B).



- Install the (4) segmented rings (C), (16) M24 washers (D), & (16) M24x130 bolts (E).



- Torque 16 M24 bolts to 590 lb-ft. following the torque pattern shown.
- Retorque OE fasteners according to OE operator's manual for bolts going into final. Torque Hillco M24 fasteners according to same schedule.
- After bolts have been properly torqued, add a torque mark as showed for visual inspection. Inspect marks daily for signs of movement. Retorque as necessary.



Final Drive Mounting Bolt Inspection Procedure

CH9030 Leveling Systems on Case IH 250 Series Combines

NOTICE!

It is easiest to check final drive mounting bolt torque when the wheels/tires are removed. All 8 bolts on each final drive can be torqued with a $\frac{3}{4}$ " drive torque wrench and 30mm socket. No other special tools are required.

Recommended Tool List (With Wheels Installed)

#243 Medium Strength Loctite®

Permanent Marker or Paint Pen

$\frac{3}{4}$ " Drive Torque Wrench – capable of torquing at minimum 400 ft-lbs

$\frac{3}{4}$ " Drive 30mm (1- $\frac{3}{16}$ ") Wobble Socket

$\frac{3}{4}$ " Drive 12 Inch Extension

$\frac{3}{4}$ " Drive 30mm (1- $\frac{3}{16}$ ") Socket

$\frac{1}{2}$ " Drive Torque Wrench – capable of torquing to 250 ft-lbs.

$\frac{1}{2}$ " Drive 30mm (1- $\frac{3}{16}$ ") Socket

$\frac{3}{8}$ " Drive, 13mm socket

$\frac{3}{8}$ " Drive Ratchet

Block of Wood, 5" X 4" X 3"

20-ton Hydraulic Jack

Blocking to Place Under Front Axle for Safety

Inspection Procedure (With Wheels Installed)

1. Drive the combine to a level surface and set the Emergency Brake

2. Put the leveling system in manual and level the combine all the way to the right to access the bolts on the left final drive.

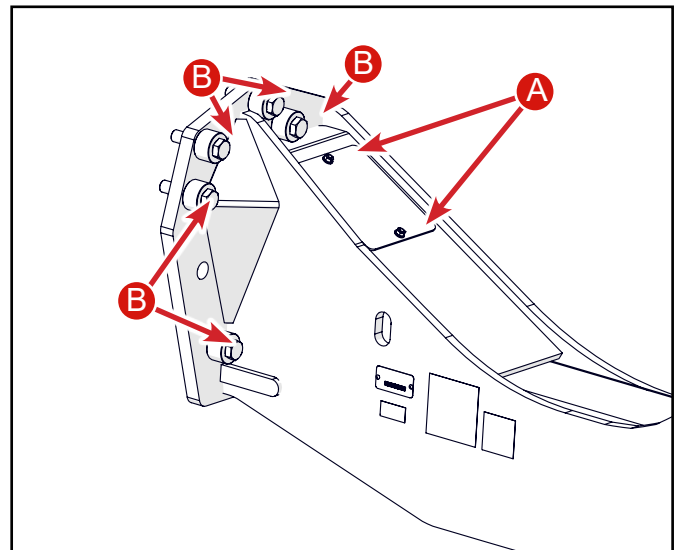
3. Set the header down on the ground.

4. Turn off the combine.

5. Place a 20-ton hydraulic jack under the front axle and lift high-enough so the wheels/tires aren't carrying the load.

6. Place safety blocking under the front axle.

7. Remove the two 8mm nuts (A) that secure the cover plate and remove.



IMPORTANT!

If any of the 20mm final drive mounting bolts are removed and replaced, start the bolt by hand and then use a $\frac{1}{2}$ " drive ratchet and 30mm socket and turn a couple of turns to ensure threads are started properly before using an impact!

8. Clean out the cavity under the cover plate so the three bolts are visible. (C)

9. Verify that all 8 bolts are intact and not missing. 5 outside of the axle tube (B). 3 inside the axle tube (C).

If any of the bolts are missing, verify if the bolt has broken off and the threaded portion is still in the hole. If the hole is clear, install a new bolt and washer per instructions. If the threaded portion of the bolt is still in the hole, first try removing the bolt with a left-handed drill bit and an easy out. If there is no access to drill, the final drive will need to be removed so the bolt can be extracted.

10. Set the 3/4 drive torque wrench to 325 ft-lbs and install a 12" extension and 30mm socket to the torque wrench. Check the torque on the 5 bolts that are outside of the axle tube.(B)

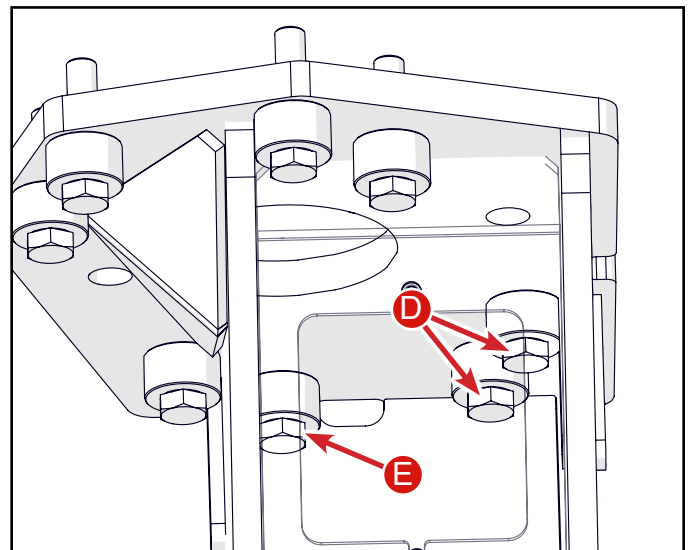
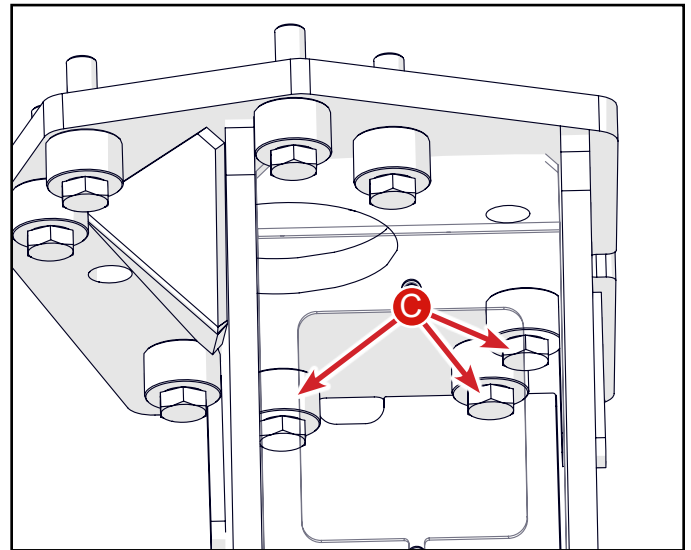
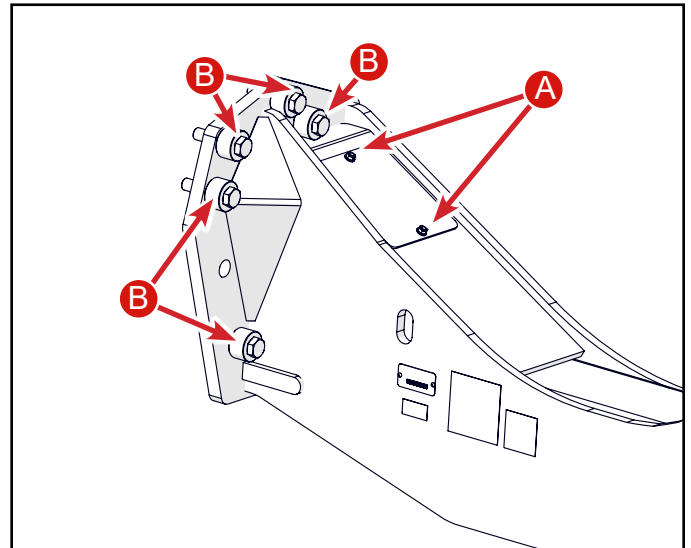
11. If the bolts do not turn before the torque is reached, place a hash mark on the head of the bolt with a paint pen or permanent marker signifying it has been torqued.

12. If any of the bolts turn before the torque is reached, remove the bolt and discard, replace with a new bolt apply #243 Loctite to the threads and torque to 360 ft-lbs. Mark the head of the bolt signifying it has been torqued.

13. Set the 3/4 drive torque wrench to 325 ft-lbs and install a 30mm wobble socket to the torque wrench. Check the torque on bolts (D). Drop the 5"x4"x3" block of wood between the torque wrench head and the wall to keep the torque wrench from twisting.

14. If the bolts do not turn before the torque is reached, place a hash mark on the head of the bolt with a paint pen or permanent marker signifying it has been torqued.

15. If any of the bolts turn before torque is reached, remove the bolt and discard, replace with a new bolt and apply #243 Loctite to the threads and torque to 360 ft-lbs., then mark the head of the bolt signifying it has been torqued.



Note: Bolt (E) is not accessible with a $\frac{3}{4}$ " drive torque wrench due to tire/wheel clearance.

16. Using a $\frac{1}{2}$ " drive torque wrench set at 250 ft-lbs. and a 30mm socket check the torque on this bolt.

17. If the bolt does not turn before torque is reached, place a hash mark on the head of the bolt with a paint pen or permanent marker signifying it has been torqued.

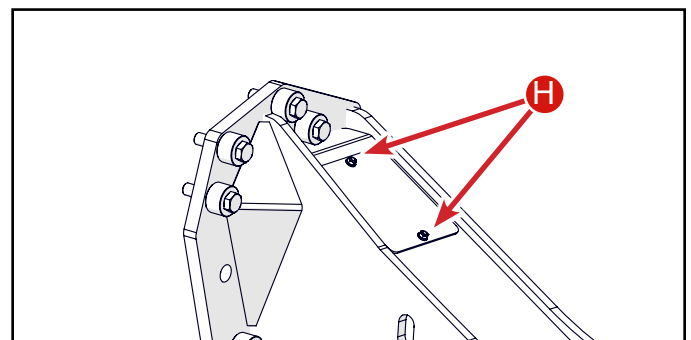
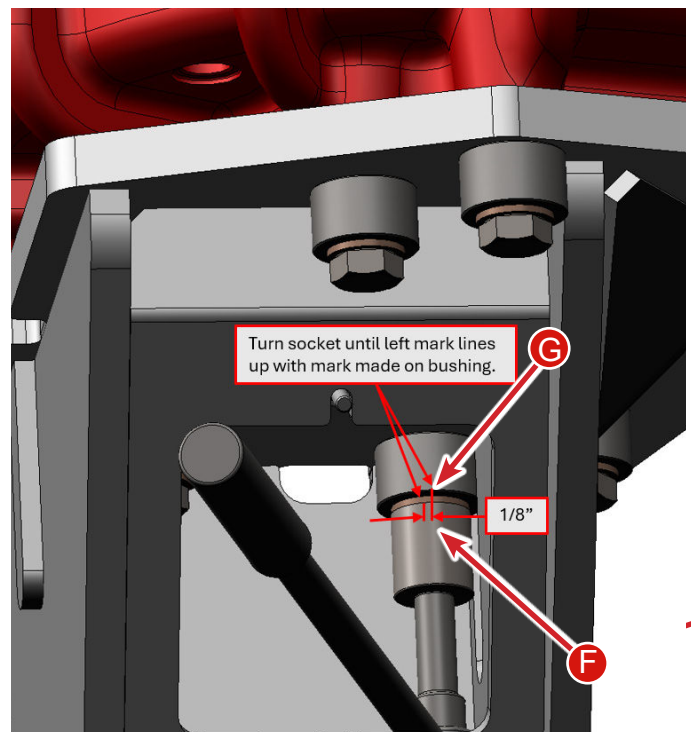
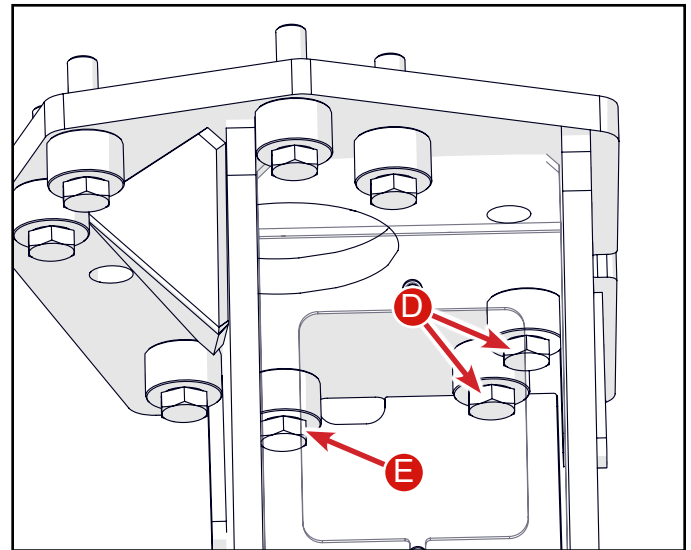
18. If the bolt moves before torque is reached, remove the bolt and discard, replace with a new bolt and apply #243 Loctite® to the threads. Torque to 250 lb-ft. To reach the final torque of 360 lb-ft, make two marks $\frac{1}{8}$ " apart on the 30mm socket and rotate the socket so they can be seen thru the access hole.(F) Make a mark on the bushing that lines up with the mark on the right.(G) Turn the socket until the mark on the left of the socket lines up with the mark that was made on the bushing. Mark the head of the bolt signifying it has been torqued.

19. Reinstall the cover plate (H) with the two M8 nuts that were removed.

20. Remove the jack and blocking.

21. Perform the same inspection on the right-hand final drive.

22. If the wheels were removed to access final drive mounting bolts, make sure they are properly installed and torqued per the instructions below.



THIS COMPLETES THE INSPECTION PROCEDURE
ON THE FINAL DRIVE MOUNTING BOLTS.