



PROTERRA



TECHNICAL SERVICE BULLETIN

ISSUE DATE:	1-10-2022
SERVICE BULLETIN SUBJECT:	Steering Gearbox Bolt Loctite Retrofit
VINs or MODELS AFFECTED:	Service Specified Buses
COMPLETE BY:	Next Service Opportunity
SERVICE BULLETIN #:	SC-22-3
Labor Operation Code:	SC50Z

NOTICE! It is expected that this process will require one (1) hours per bus. Please schedule appropriately to minimize vehicle downtime.

STEERING GEARBOX BOLT LOCTITE RETROFIT

Retrofit Description:

This procedure describes the process of checking the breakaway torque of the steering gearbox mounting bolts, replacing the bolts, and re-torquing them using thread locker.



Tools/Parts Required

Tools and Supplies Required:

- Wheel Lifts (4 Each)
- Jack Stands (4 Each)
- Calibrated Torque Wrench Capable of Recording Breakaway Torque
- Ratchet
- 1-5/16 Inch Socket
- Alcohol
- Shop Towels
- Orange Torque Stripe Paint
- Loctite 248

Parts Required and Included in the kit:

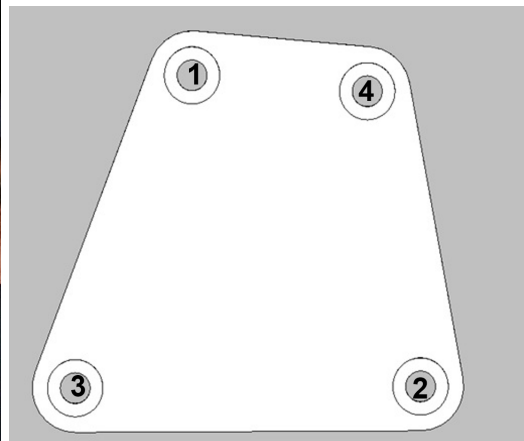
- 018758-031 BOLT, HEX, STL, 1000HSS, GRADE 8, .88-9X4.75X2.00 4 EA

Procedure

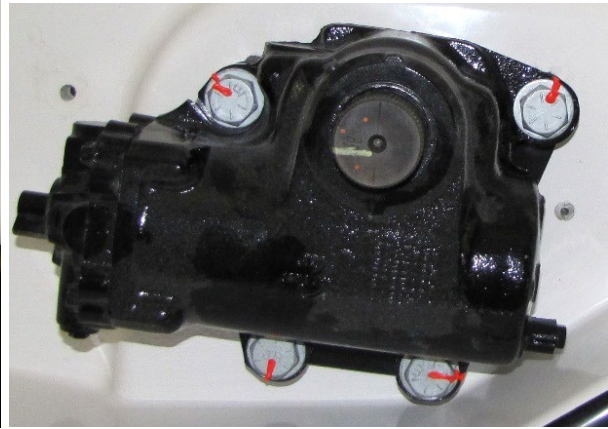
1. Complete the Proterra approved Lockout/Tagout procedure to make the bus safe for work.
2. Using four Wheel Lifts, raise the bus into the air. Using four Jack Stands, support the bus for safety.



3. Using a Calibrated Torque Wrench with a 1-5/16 Inch Ratchet/Socket, test the Breakaway Torque by loosening only one of the four bolts. Set the torque wrench to 200 ft-lb. Slowly loosen the bolt. If the bolt moves before the wrench clicks, the Work Order should be escalated to the back office so that SC-21-048 Proud Boss Check can be dispatched to that bus. The Work Order should also be escalated if any of the torque stripes were broken prior to this step.
4. Using a 1-5/16 Inch Ratchet/Socket, remove that bolt and replace it with a new one (018758-031). Add Loctite 248 to the threads. The Loctite 248 should fill the threads on the bolt where it engages the fastener.
5. Using a Calibrated Torque Wrench with a 1-5/16 Inch Socket, **torque the replaced bolt to 150ft-lb**. Then remove and replace the other three (3) bolts in the same manner in the sequence shown in the illustration on the right below; test the breakaway torque for each remaining bolt.



6. Using a Calibrated Torque Wrench with a 1-5/16 Inch Socket, **torque each of the four bolts to 300 Foot Pounds**. Cross-torque the bolts by following the sequence shown above.
7. Using a Calibrated Torque Wrench with a 1-5/16 Inch Socket, **torque each of the four bolts to 500 Foot Pounds**. Cross-torque the bolts by following the sequence shown above.
8. Using Alcohol and Shop Towels, remove any Orange Torque Stripe Paint from previous torqueing operations.
9. Using Orange Torque Stripe Paint, mark the four bolts as shown below.



10. Remove the four Jack Stands.
11. Using the four-Wheel Lifts, lower the bus to the ground.
12. Remove the Lockout/Tagout devices and return the bus to service.