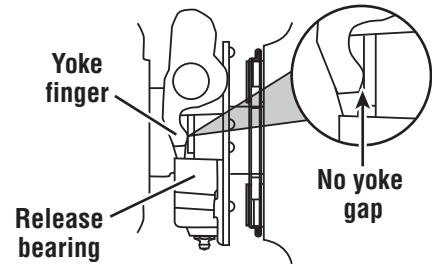


4 Set-up and Lubricate

Adjust Clutch Linkage

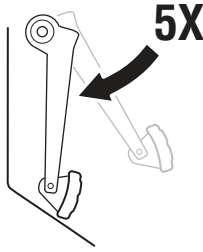
1 Hydraulic Linkages:
Skip to **Step 2**.

Mechanical Linkages Only:
Adjust the clutch linkage until the yoke fingers contact the release bearing (zero free-play in the cab).

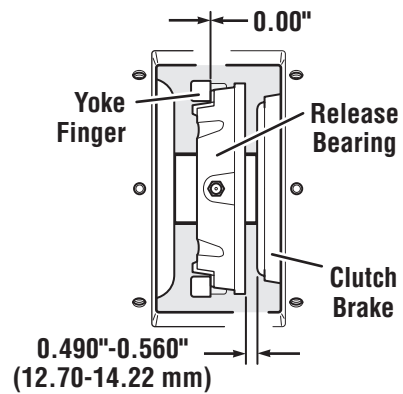


2 Press the pedal to the floor up to 5 times, this:

- Moves release bearing slightly closer to the transmission
- Gains free-play in cab



3 With the pedal up, measure the distance between the release bearing and the clutch brake. The correct distance should be 0.490" – .560" (12.70 – 14.22 mm):

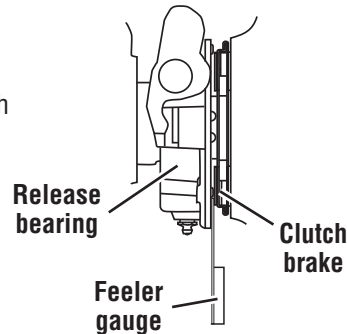


- If the distance is more than 0.560" (14.22 mm) return to **Step 1** and readjust the clutch linkage.
- If the distance is less than 0.490" (12.70 mm) consult Heavy-Duty Clutch Service Manual (CLSM0200).

Verify Clutch Brake Squeeze

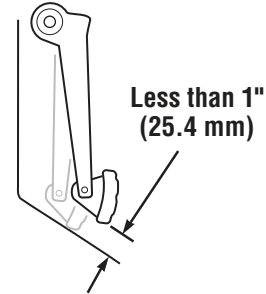
4 Have an assistant insert 0.010" (0.25 mm) feeler gauge between the release bearing and the clutch brake. Press the pedal down to clamp the gauge.

- If the gauge does not clamp, return to **Step 1** and readjust the clutch linkage.



5 Slowly let up on the pedal and check the pedal position at the moment the gauge can be removed.

- If the pedal is more than 1" (25.4 mm) from the floor, readjust the truck linkage to move the yoke fingers further from the release bearing. Return to **Step 4**.



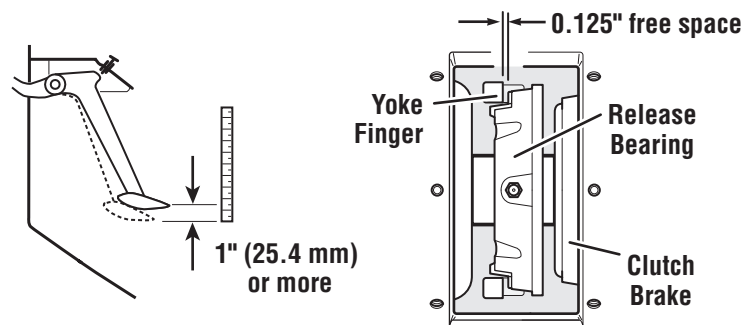
Verify Free-Play

Mechanical Linkages Only

Hydraulic Linkages: Skip to **Step 7**

NOTICE: Do not reset the clutch.

6 Verify there is 1 inch or more clutch pedal free-play with 0.125" clearance between the release yoke finger and release bearing. If not, adjust clutch linkage per OEM instructions.



Lubricate

NOTICE: Eaton recommends the use of Roadranger EP2 for release bearing lubrication, or an equivalent Lithium Complex, NLGI #2 or #3 grease with a NLGI LB/GC performance rating and a dropping Point temperature of 220° C (428° F) or higher. Failure to use the proper grease may affect bearing life and void the warranty coverage on your Eaton product.

NOTICE: Do not add lube (never seize or grease) to the input shaft splines. The discs must be free to move.

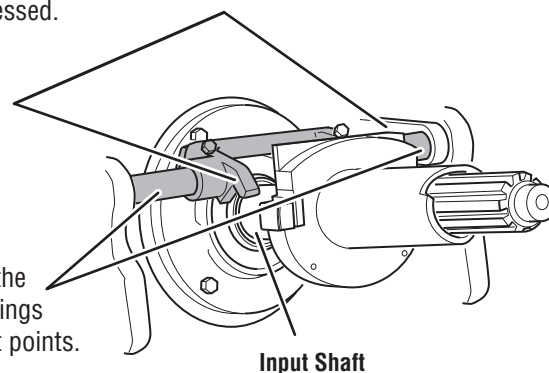
Note: Refer to CLSM0200 for lube hose installation procedures used with hydraulic clutch release systems.

Note: Refer to TCMT0021 for additional lubrication information.

7 Apply ample grease that is visibly exiting the opening and contacts the transmission shaft. This will lube the clutch brake when pedalis pressed.

8 Apply grease to the yoke fingers.

9 Apply grease to the cross shaft bushings and linkage pivot points.



Installation Procedure

Eaton 15.5" Advantage Series Self-Adjusting Clutch CLMT1280 EN-US

October 2017



BACKED BY
Roadranger
SUPPORT

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Note: Refer to CLSM0200 and CLSL1511



1 Measure

Measure Engine Flywheel Housing and Flywheel

Engine flywheel housing and flywheel must meet these specifications or it may result in premature clutch failure. Remove and replace old pilot bearing per engine manufacturer instructions. All gauge contact surfaces must be clean and dry. Clean flywheel surfaces of all grease, oil, and rust preventatives. Failure to perform this function can affect the performance of the clutch. Use a dial indicator and check the following:

Flywheel Face Runout

- 1 Secure dial indicator base to flywheel housing face
- 2 Put gage finger in contact with flywheel face near the outer edge.
- 3 Rotate flywheel one revolution. Max. runout is 0.008" (0.20 mm)

Pilot Bearing Bore Runout

- 1 Secure dial indicator base to flywheel housing face.
- 2 Put gage finger contacting pilot bearing bore.
- 3 Rotate flywheel one revolution. Max. runout is 0.005" (0.13 mm)

Flywheel Housing I.D. Runout

- 1 Secure dial indicator base to crankshaft.
- 2 Put gauge finger against flywheel housing pilot I.D.
- 3 Rotate flywheel one revolution. Max. runout is 0.008" (0.20 mm)

Flywheel Housing Face Runout

- 1 Secure dial indicator base to flywheel near the outer edge.
- 2 Put gage finger in contact with face of flywheel housing.
- 3 Rotate flywheel one revolution. Max. runout is 0.008" (0.20 mm)

2 Install Clutch to Flywheel

NOTICE: Use the Eaton Clutch Selector Guide (CLSL1511) to make ensure you have the correct clutch.

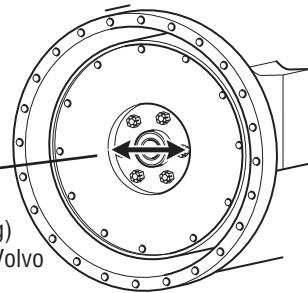
WARNING: An assembled clutch weighs about 150 lbs (68 kg). Avoid the risk of injury. Use proper equipment when lifting a clutch.

Note: When installing clutch to flywheel, position the wear indicator at the bottom of flywheel to ease future clutch servicing.

- 1** Measure the flywheel bore. Use the Eaton Clutch Selector Guide to verify that the damper will fit into the flywheel bore.

7.0" (8-spring)
8.5" (10-spring)
10.0" (7-spring and Mack 9-spring)

Note: Mack 9-spring for Mack and Volvo engines 2007 and newer only.



- 2** Insert aligning tool through bearing and rear driven disc.

- 3** Install second disc onto aligning tool. Follow the orientation instructions on the disc.

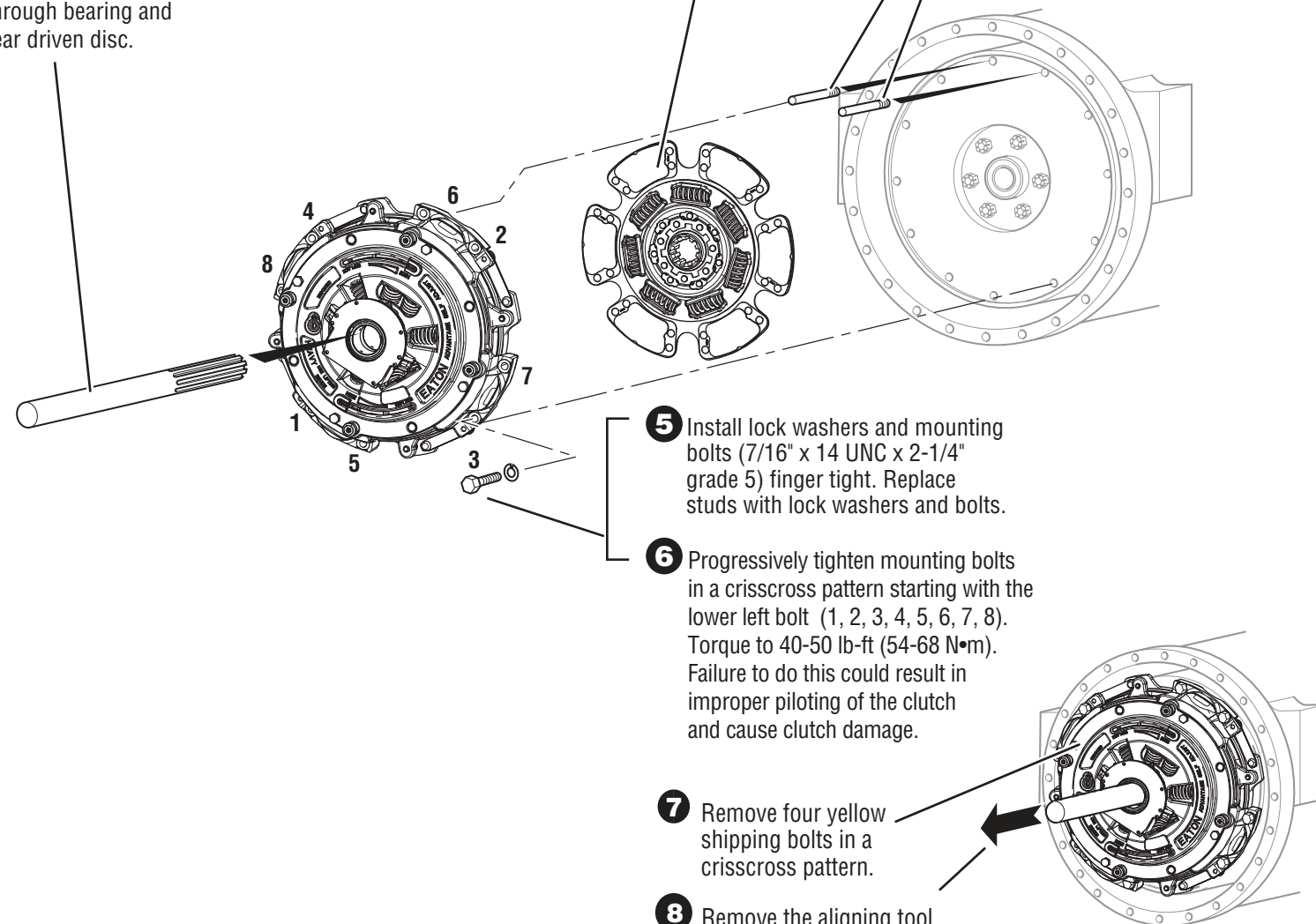
- 4** Install two 7/16" x 14 UNC x 5" studs into upper mounting holes. Install assembled clutch.

- 5** Install lock washers and mounting bolts (7/16" x 14 UNC x 2-1/4" grade 5) finger tight. Replace studs with lock washers and bolts.

- 6** Progressively tighten mounting bolts in a crisscross pattern starting with the lower left bolt (1, 2, 3, 4, 5, 6, 7, 8). Torque to 40-50 lb-ft (54-68 N•m). Failure to do this could result in improper piloting of the clutch and cause clutch damage.

- 7** Remove four yellow shipping bolts in a crisscross pattern.

- 8** Remove the aligning tool.



3 Install Transmission

Check Transmission for Wear

Replace any worn components.

Transmission Bearing Retainer Cap

A worn/rough bearing retainer cap may cause the clutch brake to wear prematurely.

Cross Shaft and Bushings

Excessive wear at these points can cause side loading on the sleeve bushing, bushing failures and yoke bridge contact with the clutch when the pedal is down.

Input Shaft Splines

Any wear on the splines will prevent the driven discs from sliding freely, causing poor clutch release (clutch drag). Slide discs full length of shaft to check for twisted shaft splines.

NOTICE: Do not add lube (never seize or grease) to the input shaft splines. The discs must be free to move.

Input Shaft Spigot

Wear will not provide proper interface with the inner race of the pilot bearing. This can result in damage to the clutch or the pilot bearing.

Clutch Brake
Replace.

Release Yoke

Worn fingers can cause bushing wear and yoke interference when the pedal is down

Input Shaft

Wear (roughness) can reduce sleeve bushing life and cause it to come out.

Measure Input Shaft

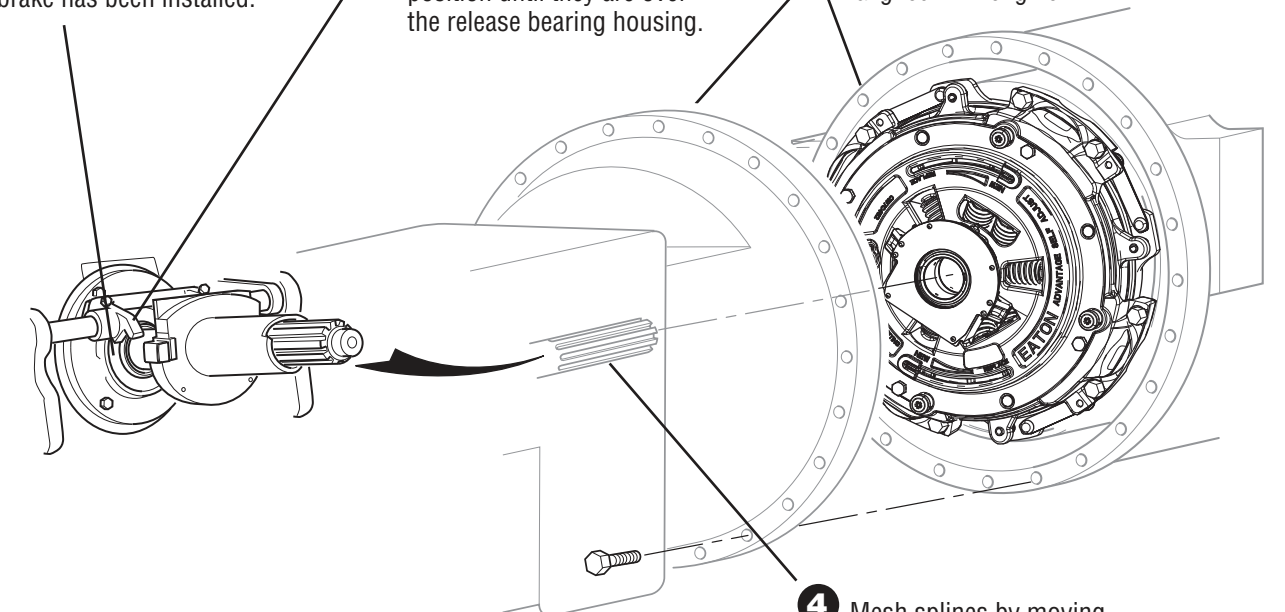
Length should be 8.657" (219.89 mm) nominal and not greater than 8.71" (221.33 mm). Ref. 1990SAE handbook 4:36.106. Replace transmission bearing retainer cap if length is greater than 8.71" (221.33 mm).

Fasten Transmission to Flywheel Housing

- 1** Put transmission in gear. Make sure new clutch brake has been installed.

- 2** Make sure that the yoke fingers remain in the up position until they are over the release bearing housing.

- 3** Position transmission so it is square to and aligned with engine.



CAUTION: Do not pull on release arm to install transmission. This will cause the clutch to over adjust.

- 4** Mesh splines by moving transmission forward and rotating the output shaft.