



Freightliner Clutch Adjustment Procedure

For Medium Duty Trucks with Hydraulic Release Systems only.

Background

North American truck clutches require the release bearing to move the clutch levers or diaphragm fingers a minimum of 1/2" for correct functioning. This means that a gap of at least 1/2" must be present between the rear face of the clutch release bearing and the front of the transmission or the clutch brake (if so equipped). With normal service wear, this gap will grow larger. Freightliner Medium Duty trucks with hydraulic release systems have no clutch pedal free play and therefore no signal to the driver to alert him as to when a clutch adjustment is necessary.

Valeo diaphragm spring clutches will provide the correct clutch clamping load over the full lifetime of the clutch without adjustment but the hydraulic release system will become inefficient and will eventually stop functioning altogether unless service adjustments are completed. A truck left in service too long without these adjustments will exert high side loading on the release bearing causing premature wear and damage to the clutch, release yoke and transmission input shaft.

Adjustment Procedure

As previously described, the gap behind the release bearing will grow as the clutch normally wears in service. Service adjustments are triggered by measuring how large this gap has become as follows:

	Installations <u>Without</u> a Clutch Brake	Installations <u>With</u> a Clutch Brake
Readjust the clutch whenever the release bearing travel gap has reached this value	7/8"	5/8"

When an adjustment becomes necessary, proceed as follows:

1. Loosen the locknut and rotate adjuster ring to achieve the proper amount of release bearing travel clearance (see the figure on the next page).

Freightliner Clutch Adjustment Procedure (Continued ...)

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- **Non-synchronized transmissions with a clutch brake:**
Rotate the adjuster ring to gain $\frac{1}{2}$ " clearance between the release bearing and clutch brake.
- **Synchronized transmissions without a clutch brake:**
Rotate the adjuster ring to gain $\frac{3}{4}$ " clearance between the release bearing and transmission input bearing cover.

2. Tighten the locknut against the release bearing coupler.
3. On transmissions equipped with a clutch brake, verify clutch brake engagement at bottom 1" or less of clutch pedal travel. If improper, verify $\frac{1}{2}$ " gap and refer to vehicle manufacturer's manual for proper pedal height adjustment.
4. If correct clutch functioning is not restored after adjustment, follow the shop manual procedures to correctly set up each release system element to ensure proper system proper system operation.
5. If the hydraulic release system is suspected of being faulty, contact Valeo at **(888) 71-VALEO** to receive a free service manual.

