



# SURFACE VEHICLE RECOMMENDED PRACTICE

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## Clutch Installation and Release Linkage Requirements for Truck and Bus Application

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**Foreword**—This document is presented in response to OEM requests for uniform installation parameters. It also identifies truck clutch release linkage performance standards required for successful clutch operation.

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**1. Scope**—Although not limited to, these installations are normally used on trucks considered as Medium Duty (Class 6 and 7), as well as Heavy Duty (Class 8).

**1.1 Purpose**—This SAE Recommended Practice defines vehicle assembly plant clutch installation procedures, adjustment criteria, and clutch-release linkage performance parameters required to obtain optimum clutch operation and to promote standardization for pull type single- and twin-plate truck clutches.

## 2. **References**

**2.1 Applicable Publications**—The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated the latest revision of SAE publications shall apply.

The following publications define the existing clutch system design configuration used in trucks and busses:

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth, Warrendale, PA 15096-0001

SAE J373—Housing Internal Dimensions for Single and Two Plate Spring Loaded Clutches

SAE J617—Engine Flywheel Housings

SAE J1463—Pull Type Clutch—Transmission Installation Dimensions

SAE J1479—Automotive Pull Type Clutch Terminology

SAE J1731—Pilot Bearings for Truck and Bus Applications

SAE J1806—Clutch Dimensions for Truck and Bus Applications

SAE J1857—Flywheel Dimensions for Truck and Bus Applications

**3. Definitions**—The following specific terms as used in this document are defined as follows:

**3.1 Alignment Tool**—An arbor or shaft made to fit into the clutch disc splines and having a front pilot diameter made to fit closely in the flywheel pilot bearing.

**3.2 Clutch Cover Assembly Guide Pins**—Steel rods threaded to fit into the flywheel threaded clutch-mounting holes with a body diameter closely fitting within the cover assembly mounting screw holes and having a length longer than the normal clutch-mounting screws. The exposed end of the pins is rounded or chamfered and contains a screwdriver slot or similar feature to aid in their removal.

**3.3 Clutch Shipping Blocks or Shipping Clips**—Devices inserted into the clutch cover assembly by its' manufacturer to hold the pressure plate partially retracted to aid in its' installation. These shipping blocks or clips are to be reinstalled whenever the clutch is removed.

**3.4 Heavy-Duty (Class 8) Trucks**—A truck or tractor rated by the manufacturer and certified to the US federal government to be for operation at a gross vehicle weight or a gross combination weight of 14 969 kg (33 001 lbs) and over.

**3.5 Lube Tube**—A rubber hose with fittings at each end used to remotely locate a grease fitting away from the threaded hole it is usually inserted in.

**3.6 Medium-Duty (Class 6 and 7) Trucks**—A truck or tractor rated by the manufacturer and certified to the US federal government to be for operation at a gross vehicle weight or a gross combination weight of 8846 kg (19 501 lbs) to 14 969 kg (33 000 lbs).

**3.7 OEM Original Equipment Manufacturer**—The term used to identify a vehicle's manufacturer.