



SURFACE VEHICLE INFORMATION REPORT

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Clutch Requirements for High-Torque Truck and Bus Engines

RATIONALE

This document is being submitted for cancellation. When originally written in 1997, the Heavy-Duty Clutch Committee and the Heavy-Duty Transmission Committee met and jointly anticipated the future need for a class of low-speed, high power engines (e.g., 450kW, 600Hp at speeds below 1100 RPM). Such engines could require higher torque clutch capabilities; on the order of 4300 Nm (3100 Lb-ft). The anticipated class of engines has not materialized in the years following the release of this document nor has the development of the anticipated higher-torque clutches occurred. As a result, it is still not possible to resolve the "unknown" technical requirements cited in 4.2 of this document and it does not appear that any useful resolution is likely in the foreseeable future.

CANCELLATION NOTICE

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Foreword—Recent technological developments in diesel engine design have made higher torque output and lower operating speed engines readily available. As these engines push driveline components to their practical limit, it has become necessary to formulate a “Next Generation” clutch installation system to handle higher levels of output torque. While relating component torque capacity to design configuration is beyond the scope of SAE Recommended Practices, it is to be noted that the current truck and bus clutch heavy-duty clutch standards are considered to provide torque capacity to about 2850 N·m (2100 lb-ft) and the “Next Generation” clutch installation system is expected to provide torque capacity to about 4200 N·m (3100 lb-ft).

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