34 Passenger Car Components and Systems

VEHICLE PASSENGER DOOR HINGE SYSTEMS—SAE J934 JUL82

SAE Recommended Practice

Report of the Body Engineering Committee, approved July 1965, second revision by the Latch and Hinge Subcommittee July 1982.

1. Scope—The scope of this SAE Recommended Practice is to establish recommended uniform test procedures and minimum static load requirements for vehicle passenger door hinge systems. Tests are described that can be conducted on test fixtures and equipment in laboratory test facilities.

The test procedures and minimum performance requirements outlined in this recommended practice are based on currently available engineering data. It is intended that all portions of the recommended practice be periodically reviewed and revised as additional knowledge regarding vehicle hinge system performance under impact conditions is developed.

2. Terminology

2.1 Hinge System—That system used to position the door relative to the body structure and control the path of the door swing for passenger ingress and egress.

2.2 Hinge Assembly—That portion of the hinge system comprised of a pair of pivotally interconnected hinge members.

2.3 Hinge Components

2.3.1 Door Member—That portion of the hinge assembly normally affixed to the door structure and constituting the swinging member.

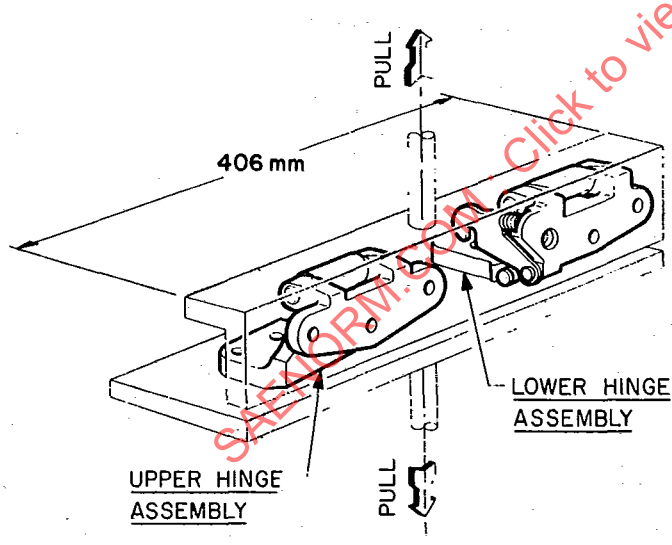
2.3.2 Body Member—That portion of the hinge assembly normally affixed to the body structure and constituting the fixed member.

2.3.3 Hinge Pin—That portion of the hinge assembly normally interconnecting the body and door members and establishing the swing axis.

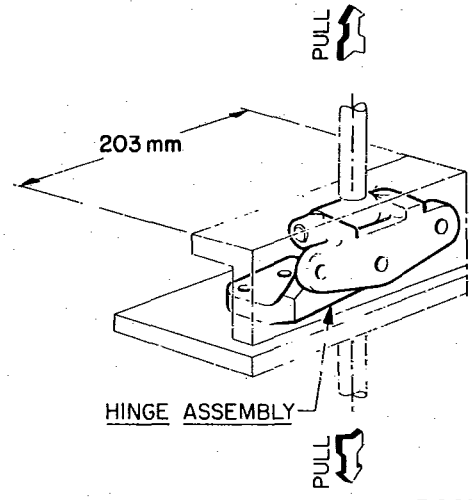
3. Basic Requirements

3.1 Longitudinal Load—A vehicle passenger door hinge system, when tested as prescribed under test procedure in paragraph 4.1, must be capable of withstanding an ultimate longitudinal load of 11 100 N. ϕ

3.2 Transverse Load—A vehicle passenger door hinge system, when



DOOR HINGE SYSTEM



DOOR HINGE

ϕ FIG. 1—STATIC LOAD FIXTURES (TRANSVERSE LOAD)