PASSENGER CAR SIDE DOOR LATCHES-SAE J839

SAE Recommended Practice

Report of Body Engineering Committee approved November 1962.

1. SCOPE--The scope of this SAE Recommended Practice is to establish recommended uniform test procedures and minimum static load requirements for passenger car side door latches. It is limited to tests that can be conducted on uniform test fixtures and equipment in commercially available 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 will be periodically reviewed and revised, as additional knowledge regarding vehicle latch performance under impact conditions is developed.

2. TERMINOLOGY

2.1 Latch--A mechanical device employed to position the door in a closed position relative to the vehicle body with provisions for controlled release (or operation).

Basic Latch Components (Nomenclature) are:

Plate--The main body or frame for supporting working components, appendages and transmitting or distributing loads to the door structure.

Rotor (or Bolt)--The rotating or sliding member of the latch which engages and restrains the latch to the striker.

Ratchet--A member of the latch connected to the rotor to provide an abutment or abutments which, when properly indexed, become engaged with a related pawl to inhibit motion of the rotor in one direction.

Pawl--A member of the latch that can be caused to engage the abutments of the ratchet to inhibit relative motion between the two parts except in one direction.

2.2 Striker--A mechanical device with which the latch engages on the opposing member of the body.

2.3 Fully Latched Position--The attitude that exists between the latch and striker when the door is securely positioned in the fully closed position.

2.4 Secondary Latched Position--The attitude that exists between the latch and striker when the latch holds the door in a position less than fully closed.

NOTE: The secondary latched position may be included in the side door latch, as an added mechanical feature to reduce the possibility of the door freely opening, in the event the door is not closed to the fully latched position. It should be recognized that doors are intended to be in the fully latched position. It should be recognized that doors are intended to be in the fully latched position whenever the vehicle is in motion.

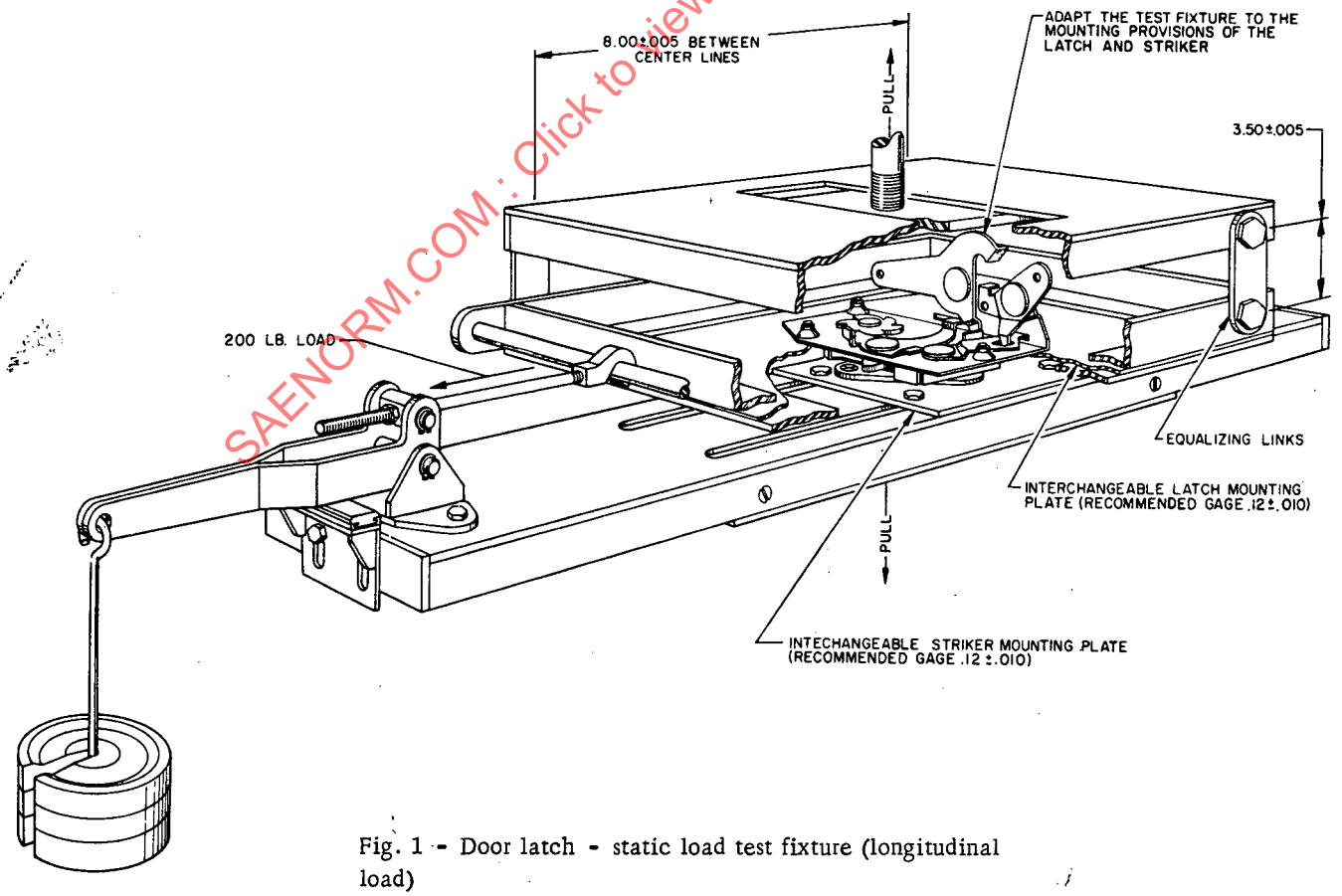

Fig. 1 - Door latch - static load test fixture (longitudinal load)