



Fatigue Test of Stabilizer Bar Link, Stabilizer Link Bracket, and Its Attachment to Strut Tube

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. Determination of fatigue life in the endurance strength range for quality control purposes.

1.2 Applicability. Stabilizer bar link, link bracket and its attachment to the strut tube for all vehicles.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

None

3 Resources

3.1 Facilities.

3.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.1.3 Testing Machine.

3.1.3.1 Servo hydraulic test machine, or equivalent.

3.1.3.2 Load cell (10 kN).

3.1.3.3 Force control unit with closed control circuit for control of resultant and vibrational force.

3.1.3.4 System controller to monitor the force.

3.1.3.5 Preset cycle counter.

3.2 Equipment.

3.2.1 Fixture Parts. Test fixtures as per Figures 1 and 2.

3.3 Test Vehicle/Test Piece. Suspension strut reservoir structural assembly to be tested with the housing constrained similar to vehicle, allowing load actuation through the stabilizer bar bracket to reservoir tube interface. Part does not need to be complete damper. Links needed to be representative of relative stiffness and loading from actual vehicle.

3.4 Test Time.

Calendar time: 20 days to 24 days

Test hours: 500 hours to 550 hours

Coordination hours: 4 hours

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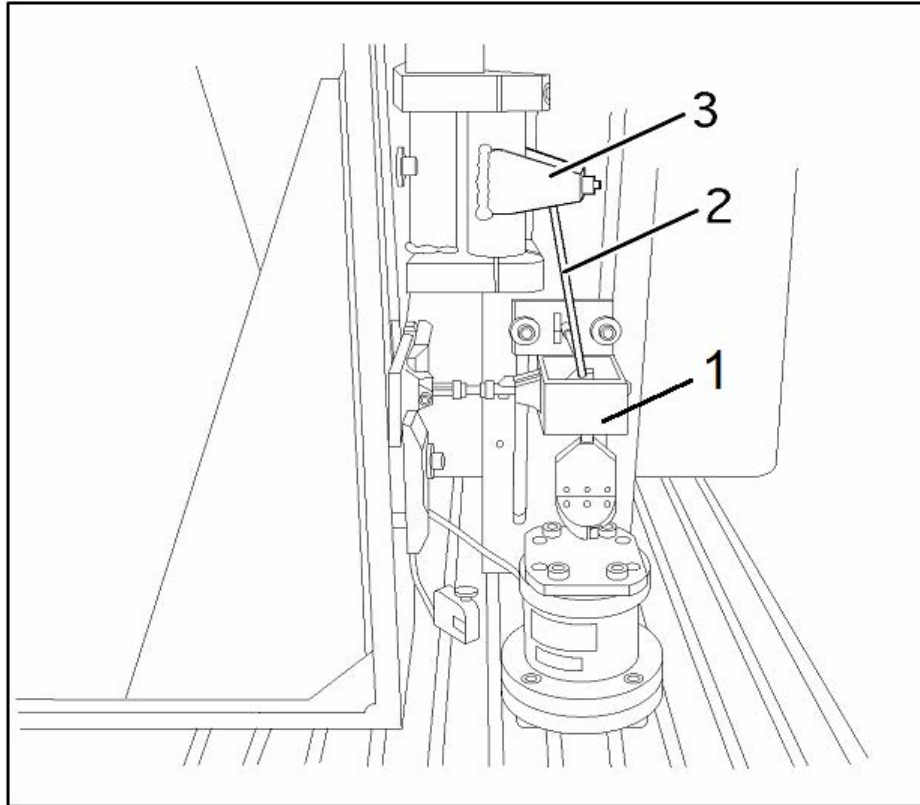
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3.5 Test Required Information. Not applicable.

3.6 Personnel/Skills. Test engineer or technician should be familiar with and capable of using, measurement and servo-hydraulic test equipment. Capabilities should include the use of math definitions to set up proper alignment, loading, and thresholds for monitoring test samples, and reporting results of the test in a clear manner.



Note:

- 1: Stabilizer bar link holding fixture.
- 2: Stabilizer bar link.
- 3: Stabilizer bar link bracket.

**Figure 1: Test Setup for Testing the Stabilizer Bar Link (2) and the Stabilizer Bar Link Bracket (3)
View in Driving Direction Left Hand Side (LHS)**

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