KES

Torsional Stiffness and Fragile test of Axle Shaft

KES T – I837

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1. Scope of Application

This standard determines the vehicle that applies the axle casing type axle shaft.

2. Purpose

When designing axle shaft, it is to have the tortional stiffness and stationary tortional fragile strength for the tortional load on the shaft.

3. Evaluation Standard

(1) Safety when designing shall be maintained for the torsional stiffness (Strain value).

(2) Stationary torsional fragile torque shall be

T = (2.7 ~ 3.2) $\frac{1}{2}$ Temax im if

* If it doesn't satisfy the standard above, decision of acceptance employment according to the result of impact strength test of actual vehicle made in our company and axle type revolution bending durability test.

Temax : Maximum Engine Torque (kg-m)

im : Maximum Mission Gear Ratio

if : Diff Gear Ratio

4. Testing Method

4.1 Testing Equipment

(1) Set the product to be tested on the tester using a jig.

(Make the jig using the axle shaft's object part.)

(2) Load the torsional torque on the shaft taken on the tester.

(The loading torque direction shall be the vehicle's forward running direction.)

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