

KES

Method of Determination of S-N Curves for Steel Sheets

KES T – L293

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1. Scope of application

This standard shall specify method of determination of S-N curves for fatigue test of steel sheets among the fatigue test such that repeated tensile and compressive load fatigue test, and repeated bending fatigue test.

2. Purpose

The purpose of this standard shall be to find the S-N curves for relations between stress S and repetition time N for fatigue test of steel sheets.

3. Test device

- (1) The tester should be stable applied weight to specimen uniformly.
- (2) It should be the device could count repetition number till specimen break.
- (3) When it stop by some reasons we should prepare a device for protecting re-operation.

4. Specimen

It shall follow in the KES T-K 021

(Tensile and compressive fatigue specimen of steel sheets).

5. Test method (Method of Determination of S-N Curves)

In fatigue test, when we determine durability limit, it is important how we decide the repetition speed of stress.

Generally, in case of test for 500~6000cycle/min it seems it isn't effect of the speed and in case of test for above 6000cycle/min it is necessary to care because of a great change of durability limit for speed.

Example : Find durability limit or fatigue limit hereby the S-N curves for relations between stress S and repetition time N for fatigue test of steel sheets.