

KES

Method of Hardenability for Steels

KES T – L189

(EST.) 1989 – 03 – 30

Contents

1. Scope of Application
 2. Purpose
 3. Testing System
 4. Specimen
 5. Testing Method
 6. Data Process
 7. Recording
- Additional Rule



1. Scope of Application

This rule determines the testing method that measures hardenability of steels according to jominy type one end quenching method.

2. Purpose

It is to manufacture good quality cars by checking ahead whether there is problem with material through the steel hardenability test.

3. Testing System

- (a) Specimen holding table shall be as figure 1. Make a table that supports a bottom of specimen to be quenched at the position of 12.5 ± 0.5 mm right above the water shooting hole vertically.

Unit : mm

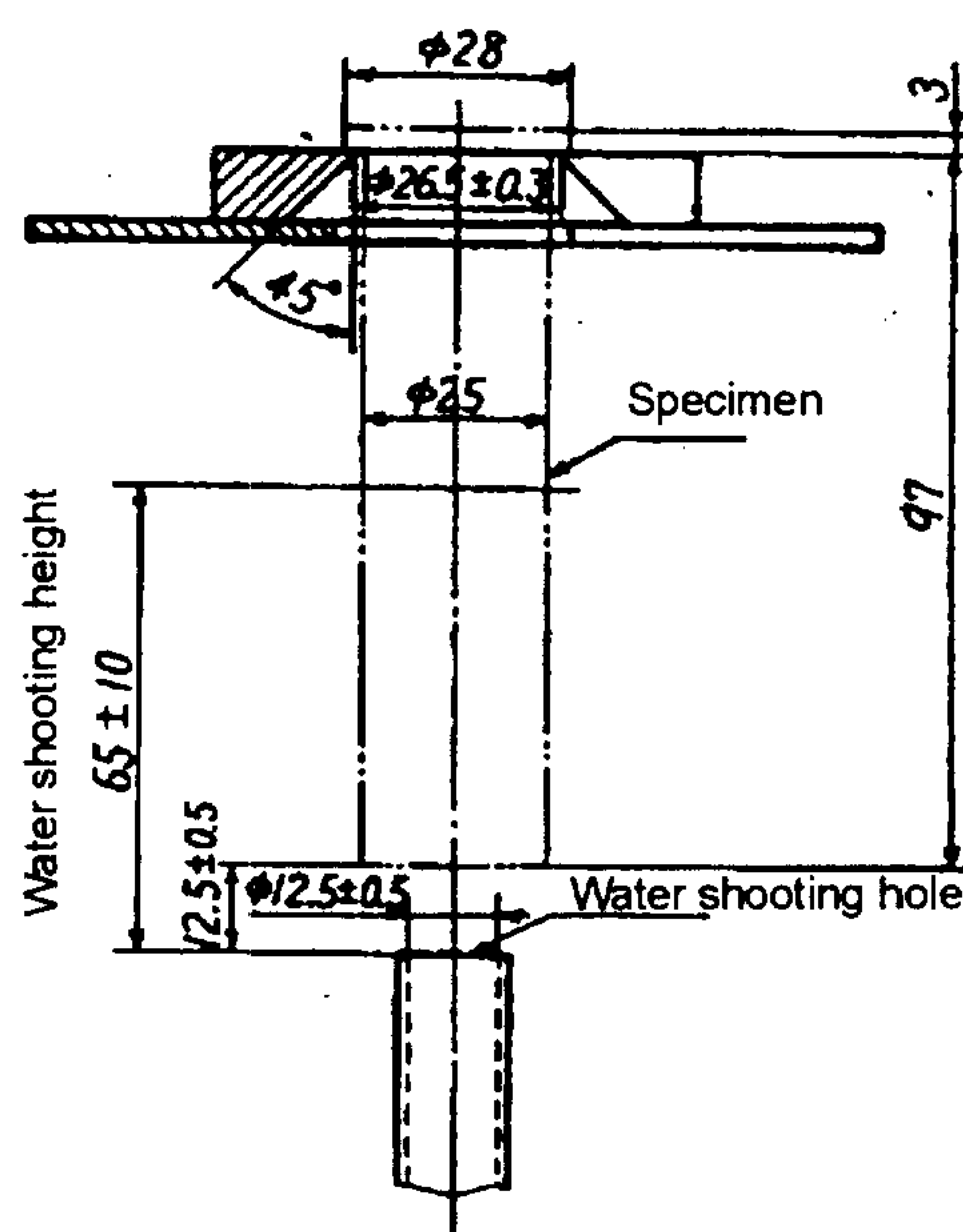


Figure 1. Quenching System

- (b) Cooling Water Shooting System : 65 ± 10 mm from the pipe hole whose inner diameter is 12.5 ± 0.5 mm shall be water shooting height.

Keep determined water-shooting height while cooling down.

4. Specimen

(a) Size : It shall be as figure 2.

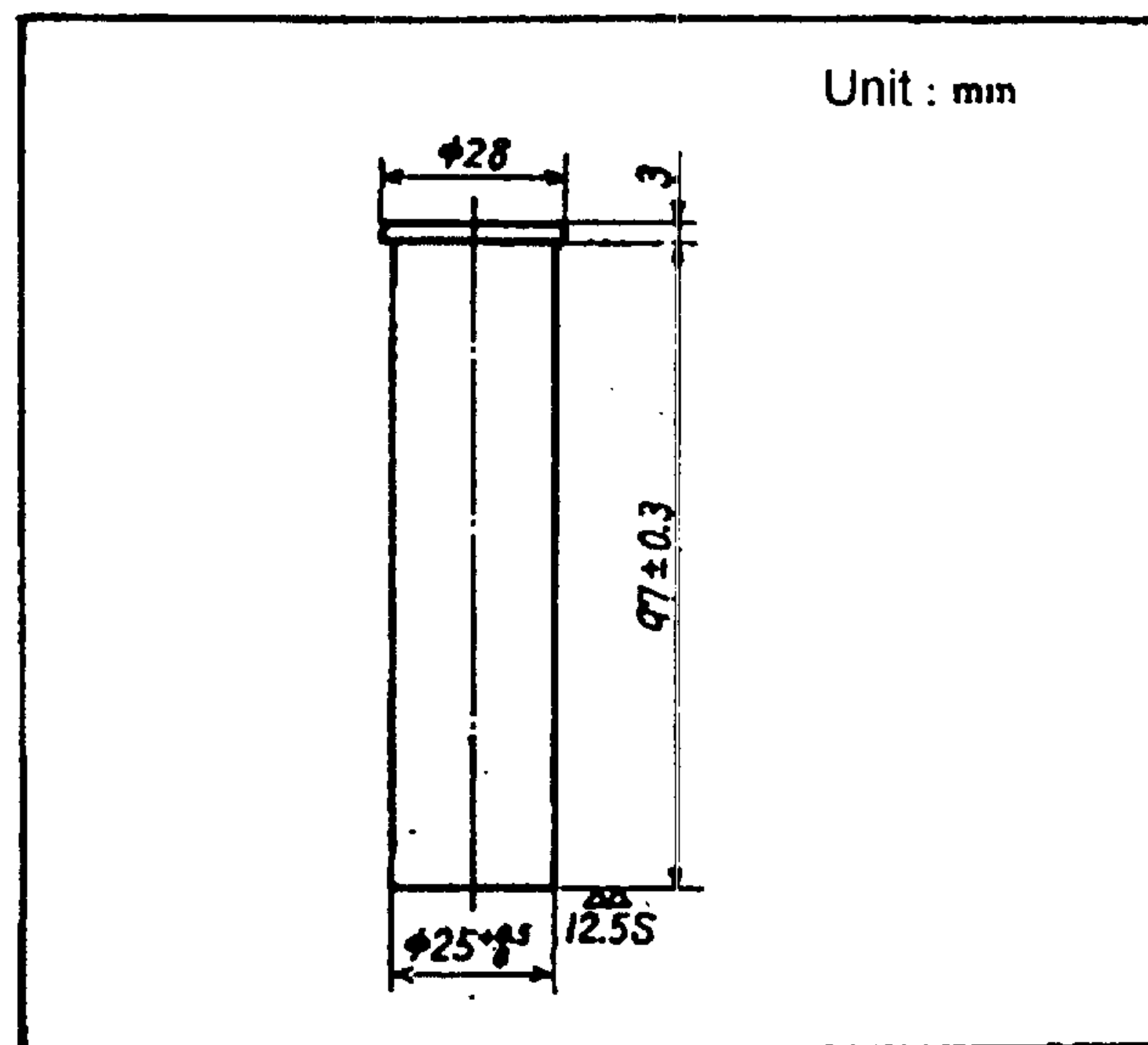


Figure 2. Specimen Size

(b) Specimen Sampling Method : In the case that steel diameter is 30 ~ 32 mm, take it for raw material as it is. In the case that steel diameter is over 32 mm, use it for raw material after forging and rolling its diameter to 30 mm. After normalizing it by maintaining the normalizing temperature on the table for 60 minutes, remove the decarburized layer. Finish precisely both ends cooling down by cutting the determined size specimen. However, according to the agreement, normalizing of raw material can be omitted. Also, if the raw material is heat processed other than normalizing, and if the specimen is just heat processed, you shall report the heat processing history.