KES

Guideline Standard of Temperature of Each Components of Engine

KES M – F013

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1. Scope of application

This standard shall specify temperature guideline of each components of engine that applied to design and test of diesel engine for automobile made in our company.

2. Purpose

The purpose of this standard shall be to use as temperature guideline when components are designed and confidence is tested in order to prevent the problem of crack of cylinder head and adhesion of piston ring by excessive heat load of engine.

3. Meaning of vocabularies

(1) $\frac{dT}{dx}$, Temperature gradient

(a) dT : Temperature drop (°C)

(b) dx : Metal thickness (mm)

(2) q, Heat flux

Watt per unit area (W / mm^2)

(3) K, Thermal conductivity

A proportional constant between temperature gradient and heat flux in material

(W / mm °K)

4. Contents

(1) Temperature measurement method

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(c) Hardness recovery methods (Templug)

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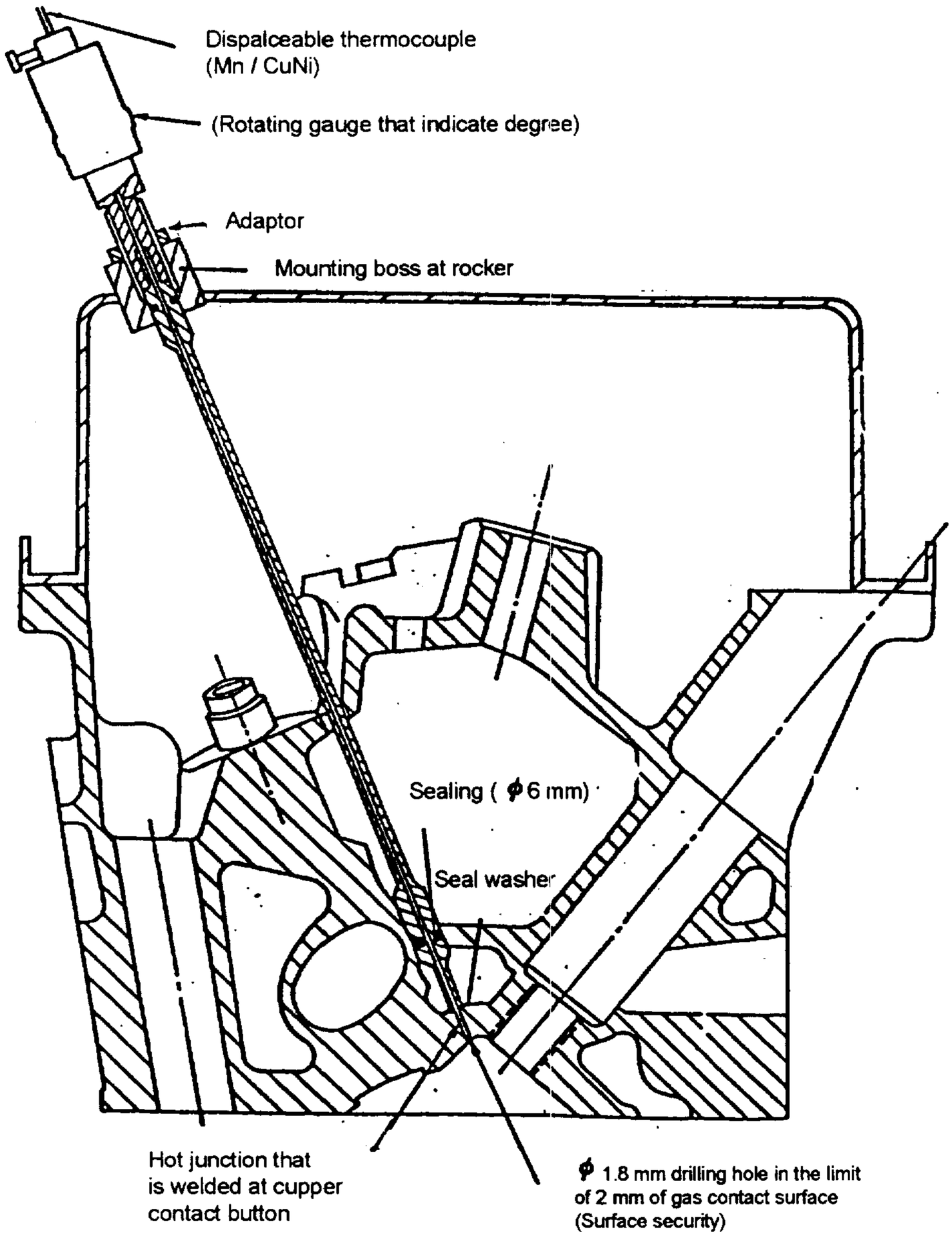

Figure 1 Traversing thermocouple

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