KES

Test Standards of High Pressure Injection Pipe in Diesel Engine

KES T-C502

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1. Scope of Application

This standard applies to the test of high pressure injection pipe in diesel engine.

2. Purpose

The purpose of this standard is to enhance the reliability of high pressure injection pipe by maintaining high quality through repeated high, pulsating pressure test to constant durability.

3. Chemical Composition

Table 1

Type	Symbol	Component percentage (%)							Corresponding standard	
		C	Si	Mn	P	S	Cn	Al		
Type 1	STF11	0.07 -0.12	Less Than 0.10	0.30 -0.60	Less than 0.035	Less than 0.025	Less than 0.20	Less than 0.018	Special carbon steel pipe	SAEJ 529
Type 2	STF12	0.08 -0.18	0.01 -0.35	0.30 -0.60	Less than 0.035	Less than 0.035	Less than 0.20	—	Steel pipe for high pressure pipe laying	JIS STS35
Type 3	STF13	Less than 0.25	0.10 -0.35	0.30 -0.90	Less than 0.035	Less than 0.035	Less than 0.20	—	Steel pipe for high pressure pipe laying	JIS STS38
Type 4	STF14	Less than 0.30	0.10 -0.35	0.30 -1.00	Less than 0.035	Less than 0.035	Less than 0.20	—	Steel pipe for high pressure pipe laying	JIS STS42

4. Mechanical Properties

Table 2

Type	Tensile strength kg/cm^2	Yielding point kg/mm^2	Elongation (%) #11 specimen	Hardness Hv	Bending
Type 1	31-38	More than 18	More than 35	Less than 117 HrB less than 65	On carrying out a certain of test, there should be no flaw like scratch, crack and etc. on surface of a pipe.
Type 2	More than 35	More than 18	More than 30		
Type 3	More than 38	More than 22	More than 25		
Type 4	More than 42	More than 25	More than 25		

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