

Carbon Steels and Alloy Steels for Machine Structural Use

Japan Industrial Standards		Steel Types in foreign standards					
Standard No. Name	Symbol	I S O 6837/10-1(F)	SAE	BS 970 BS EN 10083-1,2	DIN EN 10084 DIN EN 10083-1,2	NF A35-561 NF EN 10083-1-2	Γ O C T 4540
JIS G 4051 Carbon steels for machine structural use	S10C	C10	1010	040A10 045A10 050M10	C10E	XC10	—
	S12C	—	1012	040A12	—	XC12	—
	S15C	C15E4 C15M2	1015	055M15	C15E	—	—
	S17C	—	1017	070M20	—	XC18	—
	S20C	—	1020	C22E C22E C22R	C22 C22E C22R	—	—
	S22C	—	1023	—	—	—	—
	S25C	C25 C25E4 C25M2	1025	C25 C25E C25R	C25 C25E C25R	—	—
	S28C	—	1028	080A30	—	—	25Γ
	S30C	C30 C30E4 C30M2	1030	080M30 C30 C30E C30R	C30 C30E C30R	—	30Γ
	S33C	—	—	—	—	—	—
S35C	C35 C35E4 C35M2	1035	C35 C35E C35R	C35 C35E C35R	—	30Γ	
S38C	—	1038	—	—	—	35Γ	
S40C	C40 C40E4 C40M2	1039	080M40 C40 C40E C40R	C40 C40E C40R	—	35Γ	
S43C	—	1043	080M42	—	—	40Γ	
S45C	C45 C45E4 C45M2	1045	C45 C45E C45R	C45 C45E C45R	—	40Γ	
S48C	—	—	080A47	—	—	45Γ	
S50C	C50 C50E4 C50M2	1049	090M50 C50 C50E C50R	C50 C50E C50R	—	45Γ	
S53C	—	1050	090M52	—	—	50Γ	
S55C	C55 C55E4 C55M2	1055	070M55 C55 C55E C55R	C55 C55E C55R	—	50Γ	
S58C	C60 C60E4 C60M2	1059	080E C60E C60R	C60 C60E C60R	—	60Γ	
S90X	—	—	045A10	—	—	—	
S15CK S90CK	—	—	045M10	—	—	—	

ISC: International Organization for Standardization
 IAS: International Association of Scientific and Technical Institutes
 SAE: Society of Automotive Engineers
 BS: British Standards

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JIS G 4102 Nickel chromium steels	SNC423E	—	—	—	—	—	40XH
	SNC415	—	—	—	—	—	30XHFA
	SNC431	15NiCr13	—	65NiM13	15NiCr13	—	—
JIS G 4103 Nickel chromium steels	SNCM220	20NiCrMo2 20NiCrMoS2	8615 8617 8620 8622	805A20 805M20 805A22 805M22	20NiCrMo2 20NiCrMoS2	20NiCrMo2	—
	SNCM240	41CrNiMoS2	8640	—	—	—	—
	SNCM415	—	—	—	—	—	—
	SNCM420	—	4320	—	—	—	20NiCrMo20MnL
	SNCM431	—	—	—	—	—	—
	SNCM439	—	4340	—	—	—	—
JIS G 4104 Chromium steels	SNCM416	—	—	—	—	—	—
	SNCM625	—	—	—	—	—	—
	SNCM630	—	—	—	—	—	—
	SNCM815	—	—	—	—	—	—
	SC415	20Cr4 20Cr5A SC420 SC460	20Cr4 20Cr5A 5132	5120 5130 5132	34Cr4 34Cr5A 34Cr5A	34Cr4 34Cr5A 34Cr5A	— — —
JIS G 4105 Chromium niobium steels	SC445	—	—	—	—	—	45X
	SCM415	—	—	—	—	—	—
	SCM418	18CrNiMo4 18CrNiMoS4	—	—	18CrNiMo4 18CrNiMoS4	—	20XM
	SCM420	—	—	70Mn20	—	—	20XM
	SCM421	—	—	—	—	—	—
	SCM430	—	4131	—	—	—	30XMA 30XMA
	SCM432	—	—	—	—	—	—
JIS G 4106 Chromium molybdenum steels	SCM435	34CrNiMo4 34CrNiMoS4	4137	34CrMo4 34CrMoS4	34CrNiMo4 34CrNiMoS4	34CrNiMo4	35XM
	SCM440	42CrMo4 42CrMoS4	4142	70Mn40 42CrMo4	42CrMo4 42CrMoS4	42CrMo4	—
	SCM445	—	4145	—	—	—	—
	SCM422	—	—	4147	—	—	—

DIN: Deutsches Institut für Normung
 EN: European Standards
 NF: Norme Française
 Γ O C T: National standard of the former USSR

