



Comparison Table for Common Iron & Steel Grades in China and Abroad (Section 2: Structural Steels and Alloy Steels)

Table 1 Approximate comparison for **Carbon Structural Steels**

Serial No.	China GB/T 700-2006	Russian ГОСТ 380-1994	Japan JIS G3101: 2004 (JIS G3106:2004)	U.S.A. ASTM A573/ A573M: 2000	ISO ISO 630:1995	EU EN 10025-2: 2004
1	Q235A U12352	Ст3Гпс	SS400	Gr.65 [240]	E235A	S235JR 1.0038
2	Q235B U12355	Ст3Гпс	SS400	Gr.65 [240]	E235B	S235JR 1.0038
3	Q235C U12358	Ст3Гпс	(SM400A)	Gr.65 [240]	E235C	S235J0 1.0114
4	Q235D U12359	Ст3Гпс	(SM400B)	Gr.65 [240]	E235D	S235J2 1.0117
5	Q275A U12752	Ст5Гпс	SS490	Gr.70 [290]	E275A	S275JR 1.0044
6	Q275B U12753	Ст5Гпс	(SM490A)	Gr.70 [290]	E275B	S275JR 1.0044
7	Q275C U12758	Ст5Гпс	(SM490B)	Gr.70 [290]	E275C	S275J0 1.0143
8	Q275D U12759	Ст5Гпс	(SM490B)	Gr.70 [290]	E275D	S275J2 1.0145

Table 2 Approximate comparison for **Quality Carbon Structural Steels**

Serial No.	China GB/T 699-1999	Russian ГОСТ 1050-1988	Japan JIS G4051:2005 (JIS G3506:2004)	U.S.A. ASTM A29/ A29M: 2005	ISO ISO 683-18: 1996	EU EN 10083-1: 1991+A1: 1996 (EN10084: 1998)
1	30 U20352	30	S30C	1030	C30E4	C30E 1.1178
2	35 U20352	35	S35C	1035	C35E4	C35E 1.1181
3	40 U20402	40	S40C	1040	C40E4	C40E 1.1186
4	45 U20402	45	S45C	1045	C45E4	C45E 1.1191
5	50 U20502	50	S50C	1050	C50E4	C50E 1.1206
6	55 U20552	55	S55C	1055	C55E4	C55E 1.1203



(To be continued)

Serial No.	China GB/T 699-1999	Russian ГОСТ 1050-1988	Japan JIS G4051:2005 (JIS G3506:2004)	U.S.A. ASTM A29/ A29M: 2005	ISO ISO 683-18: 1996	EU EN 10083-1: 1991+A1: 1996 (EN10084: 1998)
7	60 U20602	60	S58C	1060	C60E4	C60E 1.1221
8	65 U20652	65 (ГОСТ14959-1979)	S65C-CSP (JIS G4808:2005)	1065	C60E4	C60E 1.1221
9	70 U20702	70 (ГОСТ14959-1979)	S70C-CSP (JIS G4808:2005)	1070	DC (ISO 8458-3: 1992)	C70D 1.0615 (EN10016-2:1994)
10	75 U20752	75 (ГОСТ14959-1979)	S70C-CSP (JIS G4808:2005)	1075	DC (ISO 8458-3: 1992)	C76D 1.0614 (EN10016-2:1994)
11	80 U20752	80 (ГОСТ14959-1979)	SK5-CSP (JIS G4808:2005)	1080	DC (ISO 8458-3: 1992)	C80D 1.0622 (EN10016-2:1994)
12	40Mn U21402	40Г (ГОСТ 4543-1971)	SWRCH 40K (JIS 3507-: 2005)	1043	C40E4	C40E 1.1186
13	45Mn U21452	45Г (ГОСТ 4543-1971)	SWRCH 43K (JIS 3507-: 2005)	1046	C45E4	C45E 1.1191
14	50Mn U21502	50Г (ГОСТ 4543-1971)	SWRCH 50K (JIS 3507-: 2005)	1053	C50E4	C50E 1.1206
15	60Mn U21602	60Г	S60C-CSP (JIS G4802:2005)	1060	C60E4	C60E 1.1221
16	65Mn U21652	65Г	S65C-CSP (JIS G4802:2005)	1565	C60E4	C60E 1.1221
17	70Mn U21702	70Г	S70C-CSP (JIS G4802:2005)	1572	DC (ISO 8458-3: 1992)	-

**Table 3** Approximate comparison for **High Strength Low Alloy Structural Steels**

Serial No.	China GB/T 1591-2008	Russian ГОСТ19281-1989	Japan JIS G3124: 2004 (JIS G3135:1986)	U.S.A. ASTM A572/ A572M: 2004	ISO ISO 4951: 2001 (ISO 4950-3: 1995)	EU EN 10025-6:2004 (EN 10025-2: 2004)
1	Q345A	17Г1С	SEV245	Gr.50 [345]	E355CC	(E355) 1.0060
2	Q345B	17Г1С	SEV245	Gr.50 [345]	E355CC	(S355JR) 1.0045
3	Q345C	14Г2АФ	SEV245	Gr.50 [345]	E355DD	(S355J0) 1.0553
4	Q345D	14Г2АФ	SEV245	Gr.50 [345]	E355DD	(S355J2) 1.0577
5	Q345E	14Г2АФ	SEV245	Gr.50 [345]	E355DD	(S355NL) 1.0546
6	Q420A	16Г2АФ	SEV345	Gr.60 [345]	E420CC	S420N 1.8902 (EN10025-3:2004)
7	Q420B	16Г2АФ	SEV345	Gr.60 [415]	E420CC	S420N 1.8902 (EN10025-3:2004)
8	Q420C	16Г2АФ	SEV345	Gr.60 [415]	E420DD	S420N 1.8902 (EN10025-3:2004)
9	Q420D	16Г2АФ	SEV345 [430]	Gr.60 [415]	E420E	S420NL 1.8912 (EN10025-3:2004)
10	Q420E	16Г2АФ	SEV345 [430]	Gr.60 [415]	-	S420NL 1.8912 (EN10025-3:2004)
11	Q460C	16Г2АФ	SM570 (JIS G3106:2004)	Gr.65 [450]	E460CC (ISO 4950-2: 1995)	S460Q 1.8908
12	Q460D	16Г2АФ	SM570 (JIS G3106:2004)	Gr.65 [450]	E460DD (ISO 4950-2: 1995)	S460QL 1.8906
13	Q460E	16Г2АФ	SM570 (JIS G3106:2004)	Gr.65 [450]	E460E (ISO 4950-2: 1995)	S460QL1 1.8916

**Table 4** Approximate comparison for **Alloy Structural Steels**

Serial No.	China GB/T 3077-1999	Russian ГОСТ 4543-1971	Japan JIS G4053: 2003	U.S.A. ASTM A29/ A29M: 20045	ISO ISO 683-18: 1996	EU EN 10083-1:2004 +A1: 1996
1	30Mn2 A00302	30Г2	SMn433	1330	28Mn6	28Mn6
2	35Mn2 A00352	30Г2	SMn438	1335	38Mn6	-
3	45Mn2 A00452	45Г2	SMn443	1345	42Mn6	-
4	15Cr A20152	15X	SCr415	5115	20Cr4	17Cr3 1.7016
5	20Cr A20202	20X	SCr420	5120	20Cr4	17Cr13 1.7016
6	30Cr A20302	30X	SCr430	5130	34Cr4	34Cr4 1.7033
7	35Cr A20352	35X	SCr435	5135	37Cr4	37Cr4 1.7034
8	40Cr A20402	40X	SCr440	5140	41Cr4	41Cr4 1.7035
9	50Cr A20502	50X	SCr445	5150	-	55Cr3 1.7176 (EN10089: 2002)
10	12CrMo A30122	12XM	-	-	13CrMo4-5 (ISO 9329-2: 1997)	13CrMo4-5 1.7355 (EN10216-2:1998)
11	15CrMo A30152	15XM	SCM415	4118	13CrMo4-5 (ISO 9329-2: 1997)	13CrMo4-5 1.7355 (EN10216-2:1998)
12	30CrMo A30302	30XM	SCM430	4130	25CrMo4	25CrMo4 1.7218
13	35CrMo A30352	35XM	SCM435	4137	34CrMo4	34CrMo4 1.7220
14	42CrMo A30422	38XM	SCM440	4170	42CrMo4	42CrMo4 1.7225
15	15CrMn A22152	18XГ	SMnC420	5115	16MnCr5	16MnCr5 1.7131 (EN10084: 1998)
16	20CrMn A22202	18XГ	SMnC420	5115	20MnCr5	20MnCr5 1.7141 (EN10084: 1998)
17	20CrMnMo A34202	25XГМ	SCM421	4121	25CrMo4	25CrMo4 1.7218 (EN10263-4:2001)



(To be continued)

Serial No.	China GB/T 3077-1999	Russian ГОСТ 4543-1971	Japan JIS G4053: 2003	U.S.A. ASTM A29/ A29M: 20045	ISO ISO 683-18: 1996	EU EN 10083-1:2004 +Al: 1996
18	40CrMnMo A34402	-	SCM440	4140	42CrMo4	42CrMo4 1.7225
19	40CrNi A40402	40XH	SNC236	8640	36CrNiMo4	36CrNiMo4 1.6511
20	40CrNiMoA A50403	40XH2MA	SNCM432	4340 G43400	36CrNiMo4	-
21	20Cr2Ni4 A43202	20X2H4A	-	3316	-	-

Table 5 Approximate comparison for **Carburizing Steels of Bearings**

Serial No.	China GB/T 3203-1982	Russian	Japan JIS G4503: 2003	U.S.A. ASTM A534: 2004	ISO ISO 683-17: 1999	EU EN ISO 683-17: 1999
1	G20CrMo B10200	-	SCM418	4118H	20CrMo4	20CrMo4
2	G20CrNiMo B12200	-	SNCM220	8520H	20NiCrMo2	20NiCrMo2
3	G20CrNi2Mo B12210	-	SNCM420	4320H	20NiCrMo7	20NiCrMo7
4	G10CrNi3Mo B12100	-	-	9310H	18NiCrMo14-6	18NiCrMo14-6

Table 6 Approximate comparison for **High Carbon Chromium Bearing Steels**

Serial No.	China GB/T 18254 -2002	Russian ГОСТ 801-1978	Japan JIS G4805: 1991	U.S.A. ASTM A485:2003 (ASTM A295: 1998)	ISO ISO 683-17: 1999	EU EN ISO 683-17: 1999
1	GCr15 B00150	IIIX15	SUJ2	52100	100Cr6	100Cr6
2	GCr15SiMn B01150	IIIX15CT	SUJ3	100CrMnSi6-4	100CrMnSi6-4	100CrMnSi6-4
3	GCr15SiMo B03150	-	SUJ4	100CrMnMoSi18- 4-6	100CrMnMoSi18- 4-6	100CrMnMoSi18- 4-6
4	GCr18Mo B02180	-	SUJ5	100CrMo7	100CrMo7	100CrMo7
5	G102Cr18Mo B21810 GB/T 3086-2008	-	SUS440C JIS G4403:2003	440C ASTM A756:1994	X105CrMo17 ISO/TS 15510: 2003	X105CrMo17 1.4125 EN10088-1:2005