





Turkey Tuvasas DMU (84)
Tuvasas DMU Materials and
Standards Conversion (JIS-DIN)

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	Tuvasas DMU Materials and Standards Conversion (JIS-DIN)	DOC. NO. : REDE107851
		DATE : 14.Sep.2010
		REV. NO. : Rev. 6
		PAGE : 2/9


Revision History

Issue	Page	Revision		Date
		From	To	
0		First issue		2009. 3. 25
A(1)	4~6		Revised the machinery item no. 1~11,16,19	2009. 4. 06
	6		Added the machinery item no.21	2009. 4. 06
B(2)	4	Changed the Title 1 1.Materials and Standards Conversion (JIS-DIN)	1.Materials and Standards Conversion of <u>Drawing</u> (JIS-DIN)	2009. 7. 31
	7~8		Added the conversion of Rotem Standard	2009. 7. 31
C(3)	6		Added the material (no.22)	2009. 12. 09
D(4)	6		Added item no.23,24	2010. 02. 19
E(5)	9		Added item no.42	2010. 04. 15
F(6)	6		Added item no.25	2010. 09. 14

	Tuvasas DMU Materials and Standards Conversion (JIS-DIN)	DOC. NO. : REDE107851
		DATE : 14.Sep.2010
		REV. NO. : Rev. 6
		PAGE : 3/9

Contents

1. Materials and Standards Conversion of Drawing (JIS-DIN)	4
1.1. Machinery	4
1.2. Carbody Structure	6
2. Materials and Standards Conversion of Rotem Standard (KS-JIS-DIN)	7
2.1. Conversion for materials of fastener and fitting	7
2.2. Conversion for related standards of fastener and fitting	8


	Tuvasas DMU Materials and Standards Conversion (JIS-DIN)	DOC. NO. :	REDE107851
		DATE :	14.Sep.2010
		REV. NO. :	Rev. 6
		PAGE :	4/9

1. Materials and Standards Conversion of Drawing (JIS-DIN)

1.1. Machinery

No	Applica- tion	JIS Material		Similar DIN material (Information only)		Remark
		Materials	Stand- ards	Materials	Standards	
1	MD	A5052-BE	JIS H 4040	EN AW-5052	DIN EN 573-3:2003* DIN EN 485-2:2004**	*:chemical composition **:Mechanical properties
2	MU	A5052P	JIS H 4000	EN AW-5052	DIN EN 573-3:2003* DIN EN 485-2:2004**	*:chemical composition **:Mechanical properties
3	MD	A6063-T5 (A6063S-T5) (Tensile strength Min. 155Mpa, Proof stress Min. 110Mpa when thickness is 12mm or under)	JIS H 4100	EN AW-6063	DIN EN 573-3:2003* DIN EN 755-2:97**	*:chemical composition **:Mechanical Properties For Aluminium and aluminium alloy extruded shape
4	MD	A6063TE-T5 (Tensile strength Min. 155Mpa, Proof stress Min. 110Mpa when thickness is 12mm or under)	JIS H 4080	EN AW-6063	DIN EN 573-3:2003* DIN EN 755-2:97**	*:chemical composition **:Mechanical Properties For Aluminium and aluminium alloys extruded tubes and cold- drawn tubes
5	RS	ADC7	JIS H 5302	GD-ALSi10Mg	DIN 1725:86	


6	MU	C1220TS-1/2H (Tensile strength Min. 245~325Mpa, Rockwell hardness(HR30T) 30 to 60 when Outside diameter is 4 and over, up to and incl. 250, Wall thickness is 0.25mm and over, up to and incl.25)	JIS H 3300	SF-Cu	DIN 1787:73 DIN 1754:69 DIN 1755:69	
7	MP	C3604	JIS H 3250	CuZn39Pb3	DIN 1787:73 DIN 17672-1:83	
8	MC	C3771	JIS H 3250	CuZn40Pb2	DIN 1787:73 DIN 17672-1:83	
9	RS	S20C (Yield Point Min. 245Mpa)	JIS G 4051	C22 C22E C22R	DIN EN 10084 DIN EN 10083-1 DIN EN 10083-2	
10	MU	S45C (Yield Point Min. 490Mpa)	JIS G 4051	C45 C45E C46R	DIN EN 10084 DIN EN 10083-1 DIN EN 10083-2	
11	MU	SCM435 (Yield Point Min. 784Mpa)	JIS G 4105	34CrMo4 34CrMoS4	DIN EN 10084 DIN EN 10083-1 DIN EN 10083-2	
12	MU	SK5	JIS G 4401	C 80W1	DIN EN ISO 4957	
13	MU	SPCC	JIS G 3141	DC01	DIN EN 10139:97	
14	MU	SPHC	JIS G 3131	DD11	DIN EN 10111-98	
15	MU	SS400	JIS G 3101	S235J0W or S235J2W	DIN EN 10025-2005	
16	MF	STPG370 (STPG38)	JIS G 3454	St 37.0	DIN 1626, DIN 1629	For moderate pressure
17	MU	SUP3	JIS G 4801	55Cr3	DIN EN 10151	
18	MU	SUS304	JIS G 4313	X5CrNi18 10	DIN or EN, Steel No 1,4301	

	Tuvasas DMU Materials and Standards Conversion (JIS-DIN)	DOC. NO. : REDE107851
		DATE : 14.Sep.2010
		REV. NO. : Rev. 6
		PAGE : 6/9

19	MR	SUS304TP	JIS G 3459	X6CrTi12	DIN 17455:99	
20	MU	SUS316	JIS G 4305	X5CrNiMo17 12 2	DIN EN 10088-1, 10088-2	
21	ME	STS370	JIS G 3455	St 37.4	DIN 1630:84	For high pressure service
22	Common	AC3A	JIS H 5202	GB-ALSi12	DIN 1725-5	
23	Common	STPT370	JIS G 3454	St 35.8	DIN 17175	
24	Common	S10C	JIS G 4051	C10E, C10R	DIN EN 10084 DIN EN 10083-1,2	
25	Common	AC2B	JIS H 5202	GB-AI Si 6Cu4	DIN 1725-5	Added

1.2. Carbody Structure


No	Applica-tion	JIS Material		Similar DIN material (Information only)		Remark
		Materials	Stand-ards	Materials	Standards	
1	Main frame for Under frame	SMA490B (Yield Point Min. 365Mpa)	JIS G 3114	S355J2W (Yield Point Min. 355Mpa)	DIN EN 10025-2005	6t, 9t,12t,15t, 25t, 50t
2	Main frame for Side, Roof, Cab & End frame	SPA-H (SPA-C) (Yield Point Min. 355(315)Mpa)	JIS G 3125	S355J0WP or S355J2WP (Yield Point Min. 355Mpa)	DIN EN 10025-2005	2.3t, 3.2t, 4.5t, 6t 1.6t, 2.3t
3	Keystone plate, Roof panel	SUS301L-ST(1/2H) (Yield Point Min. 410Mpa)	JIS G 4305	X2CrNiN18-7	DIN or EN, Steel No 1,4318	1t,1.5t, 2t..etc
4	Inner frame	SUS304 (Yield Point Min. 205Mpa)	JIS G 4305	X5CrNi18-10	DIN or EN, Steel No 1,4301	1.5t, 2t..etc
5	Inner frame	SS400	JIS G 3101	S235J0W or S235J2W	DIN EN 10025-2005	2.3t(2.5t) 3.2t(3t), 4.5t

	Tuvasas DMU Materials and Standards Conversion (JIS-DIN)	DOC. NO. : REDE107851
		DATE : 14.Sep.2010
		REV. NO. : Rev. 6
		PAGE : 7/9

2. Materials and Standards Conversion of Rotem Standard (KS-JIS-DIN)

2.1. Conversion for materials of fastener and fitting

No	KS Material	JIS Material		Similar DIN material		Remark
		Materials	Standards	Materials	Standards	
1	A1070BR	A1070P	JIS H 4040	EN AW-1070 A	DIN EN 573-3 DIN EN 486-2	
2	ALDC	ADC3	JIS H 5302	GD-AISi10Mg	DIN1725:1986	
3	BMC270	FCMB270	JIS G 5702	EN-GJMB-300-6	DIN EN 1562	
4	C3771	C3771	JIS H 3250	CuZn40Pb2	DIN 1787:1973 DIN 17672-1:1983	
5	HSWR57	SWRH57	JIS G 3506	D26-2, 95-2	ISO 16120-1:2001 ISO 16120-2:2001	
6	HSWR62(A,B)	SWRH62(A,B)	JIS G 3506	D26-2, 95-2	ISO 16120-1:2001 ISO 16120-2:2001	
7	MSWR12	SWRM12	JIS G 3505	D5-1, D9-1	ISO 16120-1:2001 ISO 16120-2:2001	
8	SM20C	S20C	JIS G 4051	C22, C22E, C22R	DIN EN 10084 DIN EN 10083-1 DIN EN 10083-2	
9	SM45C	S45C	JIS G 4051	C45, C45E, C46R	DIN EN 10084 DIN EN 10083-1 DIN EN 10083-2	
10	SPP	SGP	JIS G 3452	St 33	DIN 1615:1984	
11	SPPS	STPG370	JIS G 3454	St 37.0	DIN 1626:1984, DIN 1629:1984	
12	SS400	SS400	JIS G 3101	S235J0W, S235J2W	DIN EN 10025:2005	
13	STS303	SUS303	JIS G 4303	X10CrNiS 189	DIN 970-1	

	Tuvasas DMU Materials and Standards Conversion (JIS-DIN)	DOC. NO. : REDE107851
		DATE : 14.Sep.2010
		REV. NO. : Rev. 6
		PAGE : 8/9

14	STS304	SUS304	JIS G 4303	X5CrNi18 10	DIN 17440 DIN 17441	
15	STS316Ti	SUS316Ti	JIS G 4303	X6CrNiMoTi17122	DIN 17440 DIN 17441	
16	ZDC	ZDC2	JIS H 5301	GD-ZnAl4	DIN 1743:1978	

2.2. Conversion for related standards of fastener and fitting

No	KS standard	Similar DIN or ISO Standard	Remark
1	JIS B 0203:1999	ISO 7-1:1994	
2	JIS B 1112:1995	DIN 7995:1984, DIN 7995:1986, DIN 7995:1984	
3	KS B 0201:1999	ISO 68:1973, ISO 261:1973, ISO 724:1993	
4	KS B 0203:1974	ISO 263:1973	
5	KS B 0204:2001	ISO 68-1:1998, ISO 261:1998, ISO 262:1998, ISO 724:1994	
6	KS B 0222:2007	ISO 7-1:1994	
7	KS B 0223:1986	DIN 4902	
8	KS B 0233:2005	ISO 898-1:1999	
9	KS B 0238:2001	ISO 4759-1:2000	
10	KS B 0241:2001	ISO 3506-1:1997	
11	KS B 0248:2008	ISO 1478:1983	
12	KS B 0251:1999	ISO 2702:1992	
13	KS B 1002:2001	DIN 931	
14	KS B 1003:2000	ISO 4762:1997	
15	KS B 1004:1990	DIN 478	
16	KS B 1012:2001	DIN 934	
17	KS B 1017:2007	DIN EN ISO 2009:1994	
18	KS B 1023:2001	ISO 7045:1994, ISO 7046-1:1994, ISO 7046-2:1994, ISO 7047:1994	
19	KS B 1026:1990	DIN 1587:2000	

20	KS B 1032:2001	ISO 7049:1983, ISO 7050:1983, ISO 7051:1983	
21	KS B 1037:1991	DIN 938: 1995, DIN 939:1995	
22	KS B 1043:2002	ISO 4161:1999	
23	KS B 1101:1999	DIN 660:1993	
24	KS B 1321:2000	ISO 1234:1997	
25	KS B 1324:2003	ISO 6508-1:1999	
26	KS B 1326:1980	DIN 433	
27	KS B 1522:2000	ISO 3419:1981	
28	KS B 1531:2003	ISO 49:1983	
29	KS B 1533:2000	ISO 4145:1986	
30	KS B 1543:2009	ISO 3419:1981	
31	KS C 8438:2005	IEC 61035-1:1990	
32	KS C 8461:2005	IEC 60670-1:2003	
33	KS D 3507:2008	DIN 1615:1984, ISO 65:1981	
34	KS D 3562:2009	DIN 1626:1984, DIN 1629:1984	
35	KS D 3706:2008	ISO8434-1:2007	
36	KS D 4303:2001	DIN EN 1562	
37	KS D 5101:2003	DIN 1787:1973, DIN 17672-1:1983	
38	KS D 6005:1991	DIN 1743:1978	
39	KS D 6006:2008	ISO 3522:2006	
40	KS D 8304:2003	ISO 2081:2001	
41	KS D 8517:1999	ISO 9717:1990	
42	KS B 1535:2003	DIN 2353	