

APPENDIX 2

COMPARISON OF THE MATERIALS
LISTED IN THE STANDARD DATA SHEETS
OF APPENDIX 2 TO REPORT N^o 6 WITH
BRITISH & AMERICAN SPECIFICATIONS

CLASSIFICATION AND CODE NUMBER	NAME	LIMITING SECTIONAL DIMENSION	TENSILE STRENGTH		0.2% PROOF STRESS		BRITISH AND/OR AMERICAN SPECIFICATION EQUIVALENT		PHYSICAL
			TONS PER SQ. IN.	POUNDS PER SQ. IN.	TONS PER SQ. IN.	POUNDS PER SQ. IN.	OVERALL	CHEMICAL	
1003	35 CARBON STEEL		34.90	76,900	25.40	56,700	576		
1004	45 CARBON STEEL		44.40	99,100	31.70	70,900			
1106	CASE HARDENED C STEEL		> 47.60	> 106,300	> 31.70	70,900			
1107	CASE HARDENED C-Mn STEEL		> 51.10	> 127,500	> 47.60	106,300	DTD 87		
1202	75 KILOGRAM C-Mn STEEL		47.60	106,500	38.00	65,100	DTD 226		
1202	"		70.60	158,000	65.50	146,800			
1203	90 KILOGRAM C-Mn STEEL		> 51.10	> 127,500	> 47.60	> 106,300	AN-S-14		
1401	13 Cr STAINLESS STEEL		44.40	99,100	31.70	70,900	562		
1001	COPPER BAR	< 1" NOM	13.97	31,280	3.81	8,550	B55 444		
1001	"	> 1" NOM	12.70	28,450	3.81	8,550	B55 444		
1101	NAVAL BRASS BAR	< 1 1/8" NOM	26.00	58,300	13.30	29,800	B55 251		
1101	"	> 1 1/8" NOM	22.23	49,800	6.89	19,920	B55 251		
1201	PHOSPHOR BRONZE BAR, 15% P	< 2" NOM	29.50	66,800	15.24	34,170	B55 369		
1204	Al BRONZE BAR		> 31.70	70,900	15.88	35,600	AN-B-16		
4001	ALUMINIUM BAR	< 1 1/8" NOM	6.35	14,230	2.54	5,680	L34 QQ-A-411		
4001	"	> 1 1/8" NOM	4.45	9,970	3.18	7,130	L34 QQ-A-411		
4201	ALUMINIUM ALLOY BAR, 18% Zn	< 1 1/8" NOM	24.13	54,050	13.97	31,300	L1		
4201	"	> 1 1/8" NOM	22.23	49,800	13.97	31,300			
4201	"	< 4" NOM	20.33	45,500	13.97	31,300	L39		
4201	"	> 4" NOM	19.05	42,700	13.97	31,300	L39		
4202	"	< 1 1/8" NOM	26.00	58,300	17.15	38,400	QQ-A-354 CONDITION T		
4202	"	> 1 1/8" NOM	26.67	59,700	16.50	36,970	QQ-A-354 CONDITION T		
4202	"	< 4" NOM	25.40	56,900	15.24	34,170	QQ-A-354 CONDITION T		
4202	"	> 4" NOM	24.13	54,050	14.60	32,700	QQ-A-354 CONDITION T		
4211	"	< 1 1/8" NOM	24.13	54,050	13.97	31,300	L1		
4211	"	> 1 1/8" NOM	22.23	49,800	13.97	31,300			

STEEL 9-12

COPPER ALLOY BAR

COPPER ALLOY BAR OR FORGING

ALUMINIUM ALLOY BAR OR FORGING

TS 1402

CLASSIFICATION AND CODE NUMBER	NAME	LIMITING SECTIONAL DIMENSION	TENSILE STRENGTH		0.2% PROOF STRESS		BRITISH AND/OR AMERICAN SPECIFICATION EQUIVALENT		TS 1402 CONTINUED
			TONS PER SQ. IN.	POUNDS PER SQ. IN.	TONS PER SQ. IN.	POUNDS PER SQ. IN.	OVERALL	CHEMICAL	
4 211	ALUMINIUM ALLOY FORGING, GRADE 15	4" - 6" NOM	20.33	45,500	13.97	31,300		L39	
4 211	"	> 6" NOM	19.05	42,700	13.97	31,300		L39	
	E. S. D.	< 1" NOM	33.70	75,500	28.50	63,700	D 1 D 683		
	"	1" - 1 1/16" NOM	36.80	82,500	31.70	71,000	D 1 D 363		
	"	1 1/16" - 4" NOM	33.70	75,500	28.50	63,700	D 1 D 683		
9 201	MAGNESIUM ALLOY BAR, GRADE 15	< 1 1/8" NOM	16.50	36,970	6.35	14,230			
9 201	"	1 1/8" - 4" NOM	15.24	34,170	5.72	12,800			
9 201	"	> 4" NOM	13.97	31,300	5.72	12,800			
9 202	"	< 1 1/8" NOM	19.05	42,700	7.62	17,070			
9 202	"	1 1/8" - 4" NOM	17.78	39,630	6.99	15,670			
9 202	"	> 4" NOM	16.50	36,970	6.35	14,230			

MAGNESIUM ALLOY BAR

NAME

LIMITING SECTIONAL DIMENSION

TENSILE STRENGTH TONS PER SQ IN

POUNDS PER SQ IN

0.2% PROOF STRESS TONS PER SQ IN

POUNDS PER SQ IN

BRITISH AND/OR AMERICAN SPECIFICATION EQUIVALENT

CLASSIFICATION AND CODE NUMBER	NAME	LIMITING SECTIONAL DIMENSION	TENSILE STRENGTH		0.2% PROOF STRESS		BRITISH AND/OR AMERICAN SPECIFICATION EQUIVALENT
			TONS PER SQ IN	POUNDS PER SQ IN	TONS PER SQ IN	POUNDS PER SQ IN	
0001	10 CARBON STEEL SHEET	---	21.6	48,300	15.24	34,170	S 84
0002	"	---	25.4	56,700	17.8	39,800	S 3 AN 5-11
0202	Cr-Mn STEEL SHEET	< 20 SWG	38.1	85,000	30.8	69,400	AN-QQ-S-685
0202	"	> 20 SWG	40.0	89,300	32.4	72,000	AN-QQ-S-685
0202(1)	"	---	47.6	106,300	38.1	85,000	(E) D 536 SECTION B
0202(2)	"	---	> 60.3	> 134,700	48.2	107,600	(E) D 546 SECTION A
0202(3)	"	---	73.0	163,000	58.4	130,000	(E) D 546 SECTION B
0403	17 CR STAINLESS STEEL SHT	---	> 53.9	> 120,200	30.8	69,400	AN-QQ-S-772
0521	CARBON STEEL SHT FOR SPRING	---	31.7	70,900	22.2	48,000	COMPOSITION 6 (HARD)
0531	TIN PLATE	---	21.6	48,300	15.24	34,170	RTD 187
1012	COPPER SHEET (1/2 HARD)	---	22.2	35,300	4.76	10,600	S 520
1112	BRASS SHEET	---	24.13	54,100	12.07	27,000	BSS 899 (ANNEALED)
1211	PHOSPHOR BRONZE SHEET	---	41.3	92,500	20.33	45,500	BSS 265 CG (HARD)
4001	ALUMINIUM SHT 1st GRADE (A)	---	4.44	9,980	3.18	7,130	L 17
4002	"	(B)	6.35	14,230	4.44	9,960	L 16
4002	"	(A)	5.08	11,400	3.81	8,550	L 17
4002	"	(B)	6.98	15,650	5.08	11,400	L 16
4221	ALLOY PL 1st GRADE	> 3/8 THICK	24.13	54,100	13.97	31,300	L 3
4221	"	> 3/8 THICK	22.85	51,300	13.33	30,000	L 3
4222	"	20-28 SWG	26.65	59,700	17.15	38,500	QQ-A-355 CONDITION 1
4222	"	20-14 SWG	27.32	61,200	17.78	39,830	QQ-A-355 CONDITION 1
4222	"	14-4 SWG	27.95	62,600	17.78	39,830	QQ-A-355 CONDITION 1
4222	"	4 SWG	27.95	62,600	17.78	39,830	QQ-A-355 CONDITION 1
4222	"	1/8 THICK	27.32	61,200	17.15	38,500	QQ-A-355 CONDITION 1
4222	"	1/8 THICK	27.32	61,200	17.15	38,500	QQ-A-355 CONDITION 1
4222	"	0.78-1.5 SWG	27.95	62,600	18.68	44,200	QQ-A-355 CONDITION 1
4222	"	1.5-3.0 SWG	27.95	62,600	20.33	45,500	QQ-A-355 CONDITION 1

STEEL SHEET

ALLOY SHEET

ALUMINIUM ALLOY SHEET & PLATE

CLASSIFICATION AND CODE NUMBER	NAME	LIMITING SECTIONAL DIMENSION PER SQ IN	TENSILE STRENGTH		0.2% PROOF STRESS		BRITISH AND/OR AMERICAN SPECIFICATION EQUIVALENT		TS 1403 CONTINUED
			TONS PER SQ IN	POUNDS PER SQ IN	TONS PER SQ IN	POUNDS PER SQ IN	OVERALL	CHEMICAL	
4222A	ALUMINUM ALLOY PL 2ND GRADE	4.5 MG 3/16 THICK	28.60	64,200	20.95	47,100	QC-A-355 CONDITION 1B		
4232Z	CLAD	28.14 SWG	26.65	59,100	17.15	38,500	QC-A-362 CONDITION T		
4232C		14.4	27.32	61,200	17.15	38,500	QC-A-362 CONDITION T		
4232D		4.5 MG 3/16 THICK	27.32	61,200	17.15	38,500	QC-A-362 CONDITION T		
4232A		28.14 SWG	27.32	61,200	19.68	44,200	QC-A-362 CONDITION TR		
4232B		14.4 SWG	27.95	62,600	20.33	45,500	QC-A-359 CONDITION D		
421A	CORROSION RESISTANT ALU		6.35	14,230	4.44	9,980	QC-A-359 CONDITION D		
421Z	MINIUM ALLOY SHT 1ST GRADE		8.89	19,920	6.35	14,230	QC-A-359 CONDITION 2H		
	CORROSION RESISTANT ALU								
	MINIUM ALLOY SHT 1ST GRADE								
	F S D	26.5 MG 3/16 THICK	33.65	75,600	28.60	64,200	AN-A-19 CONDITION T		
221	MAGNESIUM ALLOY SHT 1ST GRADE		16.50	36,980	6.35	14,230	D.T.D. 120		
223			19.05	42,700	7.62	17,100	AN-M-2B CONDITION H		
	C Z M.		14.87	33,400	7.12	15,970	D.T.D. 120		

ALUMINUM ALLOY SHEET & PLATE
MAGNESIUM ALLOY SHEET

CLASSIFICATION AND CODE NUMBER	NAME	LIMITING SECTIONAL DIMENSION	TENSILE STRENGTH		0.2% PROOF STRESS		BRITISH AND/OR AMERICAN SPECIFICATION EQUIVALENT		PHYSICAL
			TONS PER SQ. IN.	POUNDS PER SQ. IN.	TONS PER SQ. IN.	POUNDS PER SQ. IN.	OVERALL	CHEMICAL	
STEEL	A001Z	15 CARBON STEEL TUBE	29.20	65,100	25.40	56,700	D.T.D. 41		D.T.D. 563
	A003Z	30 CARBON STEEL TUBE	34.90	76,900	29.80	66,500			
	A202	CR-MO STEEL TUBE	41.80	93,900	34.90	76,900	AN-MW-T-850 NORMALISED		
	A202	CR-MO STEEL TUBE	39.30	89,700	31.70	71,000	AN-MW-T-850 NORMALISED		
	A202	CR-MO STEEL TUBE	38.10	85,000	28.5	63,700		AN-MW-T-850 NORMALISED	
	A202M	CR-MO STEEL TUBE	47.60	106,300	38.10	85,000	D.T.D. 178		
	A202D	CR-MO STEEL TUBE	60.30	134,700	48.20	107,600	AN-MW-T-850 HEAT TREATED		
	A202S	CR-MO STEEL TUBE	73.00	163,000	58.80	130,900	D.T.D. 108, AN-MW-T-850 HEAT TREATED		
COPPER ALLOY	F021	SEAMLESS COPPER TUBE	13.97	31,300	3.81	8,480	151		
	F121Z	SEAMLESS BRASS TUBE (HARD)	25.4 - 34.9	56,700-76,900	12.70	28,450	BSS 885		
	F122	BRASS TUBE FOR RADIATORS	17.80	39,800	15.24	34,170	147		
	F221	SILICON BRONZE TUBE	23.60	52,650	12.70	28,450	D.T.D. 307		
ALUMINIUM ALLOY	F071	ALUMINIUM TUBE	7.03	15,650	4.47	9,960	15 MW-T-783 CONDITION 0		
	F071	ALUMINIUM TUBE	5.75	12,800	3.81	8,480	15 MW-T-783 CONDITION 0		
	F271	ALUMINIUM ALLOY TUBE 1 st GRADE	24.13	54,100	8.97	31,300	14 MW-T-786 CONDITION 1		
	F272	ALUMINIUM ALLOY TUBE 2 nd GRADE	27.32	61,200	18.52	41,250	D.T.D. 273 MW-T-785 CONDITION 1		
	F272	"	27.95	62,600	20.33	45,500	D.T.D. 273 MW-T-785 CONDITION 1		
	F272	"	27.32	61,200	19.80	44,100	D.T.D. 273 MW-T-785 CONDITION 1		
	F272	"	27.32	61,200	18.52	41,250	D.T.D. 273 MW-T-785 CONDITION 1		
	F472	CORROSION RESISTANT ALUMINIUM ALLOY TUBE 2 nd GRADE	9.52	21,330	7.03	15,650	D.T.D. 310		
MAGNESIUM ALLOY	F273	E. S. D.	10.20	22,750	7.62	17,070	D.T.D. 310		
	F273	MAGNESIUM ALLOY TUBE 3 rd GRADE	33.70	75,400	28.5	63,800	D.T.D. 384 AN-T-32 CONDITION 1		
			12.70	28,450	6.35	14,230	AN-M-26		

CLASSIFICATION AND CODE NUMBER	NAME	LIMITING SECTIONAL DIMENSION	TENSILE		STRENGTH		0.2% PROOF STRESS		BRITISH AND/OR AMERICAN SPECIFICATION EQUIVALENT		PHYSICAL
			TONS PER SQ. IN.	TONS PER SQ. IN.	POUNDS PER SQ. IN.	POUNDS PER SQ. IN.	TONS PER SQ. IN.	POUNDS PER SQ. IN.	OVERALL	CHEMICAL	
1141	BRASS CASTING		16.50		36,970		8.25	18,490	BSS 932		
1243	PH. BRONZE CASTING 1 ST GRADE		12.70		28,450		6.35	14,230	BSS 421		
1246	SPECIAL SILICON BRONZE		28.50		63,700		14.60	32,700			B.S.S. 208 CLASS 2
1502 (A)	AL ALLOY CASTING 2 ND GRADE (A)		10.17		22,780		6.35	14,230	D.T.D. 281 AN 98-A-366		
1502 Z	AL ALLOY CASTING 2 ND GRADE (B)		17.78		39,850		10.80	24,200	D.T.D. 269 304		
1501	MAGNESIUM ALLOY CASTING 1 ST GRADE		11.43		25,620		5.08	11,390	D.T.D. 136 (MULTICAST)		
1502 (M)	MAGNESIUM ALLOY CASTING 2 ND GRADE		9.52		21,330		4.32	9,680	D.T.D. 59		
1502 (R)	MAGNESIUM ALLOY CASTING		13.33		29,870		6.03	13,500	D.T.D. 289		
	STEEL WIRE FOR RIVETS 2 ND GRADE		26.70 - 30.50		58,300 - 68,300				BSS 1052		
	STEEL STRIP	< 3/8 THICK	55.30 - 67.90		123,900 - 152,100				D.T.D. 124		
	STEEL PLATE	> 3/8 THICK	52.10 - 62.20		116,800 - 135,000				D.T.D. 124		
	SPECIAL STEEL CABLE	< 3/8 DIA.	55.30 - 64.80		123,900 - 145,300				W2		
	SPECIAL STEEL CABLE	> 3/8 DIA.	52.10 - 62.20		116,800 - 135,000				W2		
	MILD STEEL WIRE		27.30 - 37.50		61,000 - 84,000				BSS 1052		
	HIGH TENSILE STRENGTH STEEL WIRE		68.80 - 116.20		199,300 - 260,300				D.T.D. 215		
4081	AL RIVET MATERIAL & RIVETS		9.52		21,330		3.18	7,120			L36, AN-QQ-W-298
4181	AL ALLOY RIVET MATERIAL & RIVETS		16.50		36,980		9.52	21,330	D.T.D. 327, AN-QQ-W-298		
4281	AL ALLOY RIVET MATERIAL & RIVETS HGR		24.13		54,100		13.97	31,300	L37, AN-QQ-W-298		
	COPPER WIRE		15.88		35,570		4.45	9,970	BSS 128		
	BRASS WIRE		22.23		49,800		8.89	19,920	BSS 356		

CASTING
MAGNESIUM ALLOY
COPPER ALLOY
WIRE AND MISCELLANEOUS
STEEL
AL ALLOY

CLASSIFICATION AND CODE NUMBER	NAME	LIMITING SECTIONAL DIMENSION	TENSILE STRENGTH		0.2% PROOF STRESS		BRITISH AND/OR AMERICAN SPECIFICATION EQUIVALENT		PHYSICAL
			TONS PER SQ. IN.	POUNDS PER SQ. IN.	TONS PER SQ. IN.	POUNDS PER SQ. IN.	OVERALL	CHEMICAL	
4 241	ROLLED ALUMINUM ALLOY 1st GRADE	< 28 SWG	24.13	54,050	13.97	31,280	L 3		TS 1406
4 241	"	28-30	24.13	54,050	13.97	31,280	L 3		
4 2422	"	28 - 28	26.67	59,100	16.50	36,970	98-A-355 CONDITION T		
4 2422	"	28-34	27.30	61,000	17.15	38,400	98-A-355 CONDITION T		
4 2422	"	14-4	27.30	61,000	16.50	36,970	98-A-355 CONDITION T		
4 2422	"	1/8" THICK	27.30	61,000	16.50	36,970	98-A-355 CONDITION T		
4 242M	"	< 28 SWG	27.30	61,000	19.68	44,050	98-A-355 CONDITION TR		
4 242M	"	28-34	27.90	62,600	20.30	45,500	98-A-355 CONDITION TR		
4 242M	"	14-4	29.55	64,000	20.95	46,900	98-A-355 CONDITION TR		
4 262	EXTRD ALUMINUM ALLOY 2nd GRADE	< 1/8" THICK	25.40	56,900	17.15	38,400	98-A-354 CONDITION T		
4 262	"	> 1/8" THICK	27.30	61,000	17.76	39,850	98-A-354 CONDITION T		
4 262	E. S. D.	1/8" THICK	36.80	82,500	31.75	11,100	D.T.D. 363		
4 241	ROLLED MAGN. ALLOY 1st GRADE		14.60	32,700	7.04	15,780	D.T.D. 120		
4 241	"		15.88	35,600	7.26	16,350	D.T.D. 120		
4 243	"		10.80	24,200	5.20	11,650	D.T.D. 118		
4 243	"		12.57	27,000	5.76	12,950	D.T.D. 118		
4 261	EXTRD MAGN. ALLOY 1st GRADE	< 1/8" THICK	13.97	31,280	6.66	14,930	AN-M-24		
4 261	"	> 1/8" THICK	15.24	34,120	7.26	16,350	AN-M-24		
4 263	"	< 1/8" THICK	11.43	25,620	5.46	12,450	AN-M-26		
4 263	"	> 1/8" THICK	12.70	28,450	6.10	13,660	AN-M-26		
	L.2.M.		14.86	33,300	7.12	15,920	D.T.D. 120		

ALUMINUM ALLOY SECTIONS

MAGNESIUM ALLOY SECTIONS

ROLLED FROM SHEET OR STRIP

EXTRUDED

ROLLED FROM SHEET OR STRIP

EXTRUDED

ROLLED FROM SHEET OR STRIP

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