

Specification BS3146 PT 1 1974	Grade	Type of Steel	Composition % MAX						UTS MIN N/mm2	0.2% PS MIN N/mm2	Hardne ss MIN HB	Comparable Specifications				Typical Applications
			C	Si	Mn	Ni	Cr	Mo				EN	AISI	Werkst off	BS 970	
CLA 1	A		0.25	0.6	1	0.4*	0.3*	0.1*	430	195#	121	3	C 1020	1.0443	050a22	Engineering steels for low and medium strength applications, eg brackets
CLA 1	B		0.35	0.6	1	0.4*	0.3*	0.1*	500	215	143					
CLA 1	C	Carbon Steel	0.45	0.6	1	0.4*	0.3*	0.1*	540	245	163					
CLA 2		1.5% Mn Steel	0.25	0.5	1.7	0.4*	0.3*	0.1*	550	310#	152	14A	C 1027	1.506	150M 19	Medium strength applications where a degree of shock resistance is required, e.g. links, levers
CLA 3		700/850 N/mm2 alloy steel							700	495	201	19	9840	1.6582	816M 40	Alloy steels for medium to high strength applications, where ductility and good shock and fatigue strengths are required, e.g. brackets, levers, air-frame parts, hydraulic machinery.
CLA 4		850/1000 Nmm2 alloy steel							850	585	248	24	4337	1.658	823M 30	
CLA 5	A	High tensile steel							1000	880	269				826M 31(Z)	
CLA 5	B								1160	1000	341					
CLA 7		3% Cr Mo steel	0.25	0.8	0.6	0.4*	3.5	0.6	620	480	179			1.7273	722M 24	Structural parts & parts operating at the same temperature up to 400°C. Low to medium strength components requiring a high local surface hardness e.g. pawls, ratchets, triggers.
CLA 8		Carbon steel Surf Hardening	0.45	0.6	0.8	0.4*	0.3*	0.1*	540	245#			C 1040			
CLA 9		Carbon steel for case hard	0.18	0.6	1	0.4*	0.3*	0.1*	495	215#		3	C 1016	1.1141	080A 15	Components requiring good shock resistance with high surface hardness e.g. ratchets and operating levers.

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CLA 10		3% Ni Case Hard. Steel	0.18	0.6	0.6	3.5	0.3**	0.1**	700	350#		33		1.5637		Parts subject to reciprocating or intermittent loading, e.g. high speed connecting links and levers.
CLA 11		3% Cr Mo Nitriding steel	0.3	0.8	0.6	0.4**	3.5	0.7	850	600	248	40		1.7365	722M 24	Moving parts where abrasion or wear resistance are required e.g. crank-pins, crank-shafts, sewing machine loops etc
CLA 12	A & B	1% Cr Abrasion	0.55	0.8	1	0.4**	1.2	0.1**	700		207		5147	1.7228		Hardened parts subject to wear and abrasion. Grades B and C are suitable for heavy duty conditions
CLA 12	C	Resisting Steels	0.65	0.8	1	0.4**	1.5	0.4	700				4150	1.7229		
CLA 13		Ni Mo case hardening steel	0.2	0.6	0.7	2	0.3**	0.3	700	350#		34	4617		665H 17	Parts subject to reciprocating or intermittent loading, e.g. high speed connecting links and levers.

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Where indicated thus, 0.2% Proof Stress values are for information only
~ Registered trademark and/or proprietary alloy. Similar material.
* Residuals