LR(1996) Hull Structural Steel Plates

(Reference to all data below shall be made to **Lloyd's Register of Shipping)**

Grade	Chemical Composition[7] %													
	C	Si	Mn[1]	P[2]	S[2]	Cu	Cr	Ni	Mo	Al[3] (Soluble)	Nb[3]	V[3]	Ti[3]	Total % (Nb+V+Ti)
	maximum unless stated													
A	0.21[4]	0.50	2.5 x C min	0.040	0.040	-	-	-	-	-	-	-	-	-
B	0.21	0.35	0.80[5] min	0.040	0.040	-	-	-	-	-	-	-	-	-
D	0.21	0.10 ~ 0.35	0.60 min	0.040	0.040	-	-	-	-	0.015[6] min	-	-	-	-
E	0.18	0.10 ~ 0.35	0.70 min	0.040	0.040	-	-	-	-	0.015[6] min	-	-	-	-
AH32	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
DH32	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
EH32	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
FH32	0.16	0.50	0.90 ~ 1.60	0.025	0.025	0.35	0.20	0.80	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
AH36	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
DH36	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
EH36	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
FH36	0.16	0.50	0.90 ~ 1.60	0.025	0.025	0.35	0.20	0.80	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
AH40	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
DH40	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
EH40	0.18	0.50	0.90 ~ 1.60	0.035	0.030	0.35	0.20	0.40	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12
FH40	0.16	0.50	0.90 ~ 1.60	0.025	0.025	0.35	0.20	0.80	0.08	0.015[6] min	0.02 ~ 0.05	0.03 ~ 0.10	0.02	0.12

Notes:

1) For AH grade steels in all strength levels and thicknesses up to 12.5mm, the specified minimum manganese content is 0.70%
2) For materials for low temperature use, the phosphorus and sulphur contents are not to exceed:
   Phosphorus 0.03 % Sulphur 0.025%
3) The steel is to contain aluminium, niobium, vanadium or other suitable grain refining elements, either singly or in any combination. The specified minimum content of each element is not applicable.
4) The maximum carbon content for Grade A steel may be increased to 0.23% for sections
5) For Grade B, when the silicon content is 0.10% or more (killed steel), the minimum manganese content may be reduced to 0.60%
6) The total aluminium content may be determined instead of the acid soluble content. In such cases the total aluminium content is to be not less than 0.020%