

- specifications; having the following chemical composition (percent by weight): carbon not over 0.12, silicon not over 0.6, manganese not over 2.1, phosphorus not over 0.025, sulfur not over 0.015, aluminum 0.02 or more, niobium 0.02 or more but not over 0.15, vanadium not over 0.20, titanium not over 0.20, molybdenum not over 0.20 and boron not over 0.20; minimum yield strength 759 MPa in both longitudinal and transverse directions, minimum tensile strength 814 MPa, Charpy impact values greater than or equal to 17 J -40°C; elongation greater than or equal to 12 percent; minimum bendability 1.125 times thickness;
- (cclxi) hot-rolled floor plate in coils, designated as A-645 and entered in an aggregate quantity not to exceed 8,500 t; in widths greater than 1,651 mm and meeting either of the sets of properties described below:
- (i) thickness from 2 mm to 16 mm; commercial quality grade; having the following chemical composition (percent by weight): carbon of 0.02 to 0.10, silicon of 0.03 maximum, manganese of 0.15 to 0.50, phosphorus not over 0.03, sulfur not over 0.03, vanadium not over 0.008, aluminum of 0.01 to 0.08 and nitrogen not over 0.014; or
- (ii) grade A36; having the following chemical composition (percent by weight): carbon of 0.04 to 0.21, silicon not over 0.40, manganese not over 1.50, phosphorus not over 0.03, sulfur not over 0.025, vanadium not over 0.05, aluminum from 0.010 to 0.05 and nitrogen not over 0.009;
- (cclxii) hot-rolled steel, designated as A-645 and entered in an aggregate quantity not to exceed 250 t; in grade SAE 1060; thickness 1.78 mm or more but less than 2.54 mm, widths of 1016 mm to 1524 mm; having the following chemical composition (percent by weight): carbon of 0.57 to 0.65, manganese of 0.6 to 0.75, phosphorus not over 0.025, sulfur not over 0.005, silicon not over 0.25, aluminum 0.015 to 0.03, copper not over 0.1, nitrogen not over 0.01, and combined nickel, chromium and molybdenum not over 0.45;
- (cclxiii) hot-rolled steel, designated as A-645 and entered in an aggregate quantity not to exceed 250 metric tons; in grade SAE 1080/1085 with the following characteristics: thickness of at least 1.78 mm but less than 2.06 mm; widths greater than 1,500 mm to 1,650 mm; inclusion controlled according to ASTM E45 (average value on ten fields: A max 1.5, B max 1, C max 1, D max 1.5) having the following chemical composition (percent by weight): carbon 0.815 to 0.884, manganese 0.8 to 0.9, phosphorus not over 0.02, sulfur not over 0.01, silicon 0.15 to 0.25, aluminum 0.02 to 0.04, copper not over 0.35, combined nickel, chromium, and molybdenum not over 0.3; in coils;
- (cclxiv) heat treatable boron hot rolled flat-rolled steel, designated as A-645 and entered in an aggregate quantity not to exceed 250 t; the foregoing with thickness 1.7 mm or more but less than 1.9 mm; having the following chemical composition (percent by weight): carbon 0.27 to 0.33, manganese 1.15 to 1.45, silicon 0.20 to 0.30, aluminum over 0.02, phosphorus not over 0.020, sulfur not over 0.005, copper not over 0.060, nickel not over 0.050, chromium from 0.15 to 0.25, titanium from 0.02 to 0.05, nitrogen not over 0.009 and boron from 0.001 to 0.004; calcium treated;
- (cclxv) hot-rolled flat-rolled high strength low alloy grade 100 heavy gauge steel, designated as A-645 and entered in an aggregate quantity not to exceed 5,000 t; the foregoing with thickness 4.5 mm to 12.7 mm; width 1.524 m to 1.829 m, with a yield strength of 700 to 800 MPa; tensile strength of 750 to 910 MPa; elongation not less than 13 percent; guaranteed bending radius of 1.6 times a thickness less than 6 mm and 1.8 times a thickness greater than 6 mm; having the following chemical composition (percent by weight): carbon not over 0.1, manganese not over 2.0, phosphorus not over 0.025, sulfur not over 0.01, silicon not over 0.4, aluminum from 0.02 to 0.06, titanium not over 0.15, molybdenum not over 0.5, niobium (columbium) not over 0.09 and vanadium not over 0.2;
- (cclxvi) hot-rolled flat-rolled steel, designated as A-649 and entered in an aggregate quantity not to exceed 10,000 t; the foregoing with thickness 1.8 mm or more but not over 2.2 mm; width not over 1524 mm; having the following chemical composition (percent by weight): carbon 0.05 to 0.13, manganese 1.20 to 1.65 and phosphorus equal to or less than 0.035; yield strength 550 to 575 MPa; tensile strength 620 to 760 MPa; elongation minimum 20 percent; bend radius of 2 times material thickness;
- (cclxvii) hot-rolled flat-rolled steel, designated as A-649 and entered in an aggregate quantity not to exceed 8,000 t; ASTM A507 SAE-number 4130; 95 percent spheroidized annealed; thickness 2.48 mm to 6.12 mm; having the following chemical composition (percent by weight): carbon of 0.28 to 0.33, manganese of 0.40 to 0.60, phosphorus of 0.02 maximum, silicon of 0.03 maximum and chromium of 0.80 to 1.1; hardness Rb maximum of 85;
- (cclxviii) hot-rolled flat-rolled products, ASTM A1011 CS type A (modified) as rolled or tension leveled hot rolled pickled and oiled flat rolled steel coils, designated as A-680 and entered in an aggregate quantity not to exceed 1,000 t; whether temper rolled or not, with surface requirements equal to exposed, possessing non-earing properties; thicknesses from 1.37 mm but less than 1.7 mm and with thickness tolerance of one half or less than standard thickness tolerance as