

- (ccclxxiv) cold formed bars and rods, designated as A-752 and entered in an aggregate annual quantity not to exceed 5,000 t; the foregoing not further worked other than cold finished, thickness 12.0 mm or more but not over 15.00 mm; having the following chemical composition (percent by weight): carbon 0.43 to 0.50, manganese 0.85 to 1.15, silicon 1.45 to 1.60, phosphorus not over 0.025, sulfur not over 0.020, chromium 0.45 to 0.65 and vanadium 0.10 to 0.17; surface finish peeled (shiny finish), free from pits, cracks or seams; smooth edges; cut to length; certified free of all surface defects and verified by 100 percent eddy current inspection;
- (ccclxxv) alloy steel round bars (42CrMo4), designated as A-767; the foregoing 24.9 mm to 95 mm in diameter; length not over 3.65 m; quenched and tempered; induction hardened; ground and polished; finished to an f7 outside diameter tolerance; having the following chemical composition (percent by weight): carbon 0.38 to 0.45, manganese 0.60 to 0.90, silicon 0.15 to 0.40, chromium 0.90 to 0.120 and molybdenum 0.15 to 0.25; core tensile strength 800 MPa minimum; induction hardened surface hardness of not less than 55 and not over 60 HRC; maximum surface roughness rating of Ra equal to 0.6 micrometer for finished round bar;
- (ccclxxvi) scaleless oil tempered finish, carbon steel flat "brush wire," designated as A-786; the foregoing with round edges, drawn and cold rolled from wire rod, and in-line oil hardened, tempered and cut to length, thickness not over 0.61 mm; width not over 3.43 mm; length not over 665 mm; having the following chemical composition to AISI 1050 (percent by weight): carbon 0.50 to 0.55, silicon 0.15 to 0.35, manganese 0.50 to 0.70, phosphorus not over 0.02, sulfur not over 0.025, chromium not over 0.05 and nickel not over 0.05; tensile strength 1300 N/mm² or more but not over 1500 N/mm², hardness not less than HRA 70.1 but not over HRA 72.4; camber not over 3.8 mm in 665 mm; smooth rolled round edges; surface finish free from scale, pits, scratches, rust, cracks or seams;
- (ccclxxvii) cold finished steel bars, of SAE 4150 DH, AQ steel, designated as A-607; the foregoing quenched, tempered and turned and polished; manufactured from killed steel, which has been vacuum degassed; forged or rolled, having undergone forging of the ingots to reduce their size before hot rolling; forged or rolled to a forging ratio of 6S from ingot or bloom; free of cracks, seams voids or inclusions, which could weaken the material or develop into a defect during further processing, after turn and polishing; residual magnetism less than 10 gauss; surface roughness less than 10S after straightening; diameter allowance tolerance 0 or more but not over 0.15 mm; physical dimensions: 10.2, 15.2, 16.2, 20.2, 22.2, 25.2, 28.2, 32.2, 36.3, 38.3, 40.2, 44.3, 45.3, 50.3 or 63.3 mm; circularity tolerance less than 0.05 mm; straightness tolerance not over 0.5 mm/m; hardness after quench and temper HRC 24 to 32 at the surface, core and throughout the bar; variation from core to surface from one end to the other not over 5HRC; macrostructure not exceeding S2, R2 and C2 of the Plate 1 of visual aid of ASTM E381-94; banding on the microstructure conforming to S5 of ASTM A534-94; average austenite grain size 6 or finer and uniform so that no grains of 3 sizes or coarser exist, according to ASTM E112-96 and ASTM E930-92; non-metallic inclusions inspected by ASTM E45-97 shall not exceed the rating in Table 2 of ASTM A534-94;
- (ccclxxviii) cold drawn aircraft quality E-4130 steel bars, designated as A-621, the foregoing having hexagonal cross section of not over 16.00 mm across flats; meeting the following specifications: MIL - S -6758, AMS-S-6758, AMS-2301, ASTM-A-331, AMS-6348, AMS-2304, and AMS-6370; condition D4, spec latest revisions; having the following chemical composition (percent by weight): carbon 0.28 to 0.33, silicon 0.15 to 0.35, manganese 0.40 to 0.60, sulfur not over 0.025, phosphorus not over 0.025, chromium 0.80 to 1.10, molybdenum 0.10 to 0.25, nickel not over 0.25 and copper not over 0.35; heat treated; length 3,000 mm to 4,000 mm;
- (ccclxxix) cold finished bars, designated as A-629 and entered in an aggregate annual quantity not to exceed 835 t; with the following characteristics: cold finished, killed steel, normalized, peeled to a tolerance of +0.6 mm, -0, and stress relieved, coarse grain practice (range of 2 to 5); having the following chemical composition (percent by weight): carbon 0.37 to 0.45, phosphorus not over 0.040, manganese 1.35 to 1.65, sulfur 0.08 to 0.13 and silicon 0.10 to 0.20; manufactured to the following sizes: 157.15 mm rolled diameter, 168.84 mm rolled diameter, 199.30 mm rolled diameter or 238.13 mm rolled diameter; certified to have a Rockwell B hardness that increases from the outer surface to the core; certified to be prepared with the following heat treatment: normalized by heating from a cold charge at the rate of 50°C per hour to 400°C, from 400°C to 850°C at any rate; hold at 850°C for 30 minutes per inch (71 s/mm) of diameter; cooled in still air and peeled; stress relieved by heating from a cold charge at the rate of 50 °C per hour to 400 °C, from 400 °C to 600°C heat at any rate; hold at 600 °C for one hour per inch (142 s/mm) of diameter; cooled down at rate of 100°C per hour to 350°C and then air cooled;
- (ccclxxx) cold finished steel bars, the foregoing designated as A-629 and entered in an aggregate annual quantity not to exceed 550 t; with the following characteristics: cold finished bars, killed steel, normalized, peeled to a tolerance of +0.6 mm, -