

Carbon, Alloy Steel Categories

CLASSIFICATION	TYPE	COMPOSITION
Simple carbon steel	10xx	Plain carbon (maximum 1% manganese)
Simple carbon steel	11xx	Resulfurized
Simple carbon steel	12xx	Resulfurized and rephosphorized
Simple carbon steel	15xx	Plain carbon (maximum 1.65% manganese)
Simple carbon steel	13xx	1.75% manganese
Molybdenum steel	40xx	Molybdenum 0.20%, 0.25%, or molybdenum 0.25% and sulfur 0.042%
Molybdenum steel	41xx	Chromium 0.50%, 0.80%, or 0.95%; molybdenum 0.12%, 0.20%, 0.25%, or 0.30%
Molybdenum steel	43xx	Nickel 1.82%; chromium 0.50–0.80%; molybdenum 0.25%
Molybdenum steel	43BVxx	Nickel 1.82%; chromium 0.50%; molybdenum 0.12%, or 0.35%; vanadium 0.03% minimum
Molybdenum steel	44xx	Molybdenum 0.40%, or 0.52%
Molybdenum steel	46xx	Nickel 0.85%, or 1.82%; molybdenum 0.20%, or 0.25%
Molybdenum steel	47xx	Nickel 1.05%; chromium 0.45%; molybdenum 0.20%, or 0.35%
Molybdenum steel	48xx	Nickel 3.50%; molybdenum 0.25%
Chromium steel	50xx	Chromium 0.27%, 0.40%, 0.50%, or 0.65%
Chromium steel	50xxx	Chromium 0.50%; C 1% min
Chromium steel	50Bxx	Chromium 0.28%, or 0.50%; and added boron
Chromium steel	51xx	Chromium 0.80%, 0.87%, 0.92%, 1%, or 1.05%

Chromium steel	51xxx	Chromium 1.02%; carbon 1% minimum
Chromium steel	51Bxx	Chromium 0.80%; and added boron
Chromium steel	52xxx	Chromium 1.45%; carbon 1% minimum
Chromium-vanadium steel	61xx	Chromium 0.60%, 0.80%, 0.95%; vanadium 0.10%, or 0.15% minimum
Nickel-chromium-molybdenum steel	81xx	Nickel 0.30%; chromium 0.40%; molybdenum 0.12%
Nickel-chromium-molybdenum steel	81Bxx	Nickel 0.30%; chromium 0.45%; molybdenum 0.12%; and added boron
Nickel-chromium-molybdenum steel	86xx	Nickel 0.55%; chromium 0.50%; molybdenum 0.20%
Nickel-chromium-molybdenum steel	87xx	Nickel 0.55%; chromium 0.50%; molybdenum 0.25%
Nickel-chromium-molybdenum steel	88xx	Nickel 0.55%; chromium 0.50%; molybdenum 0.35%
Silicon-manganese steel	9xx	Various SAE grades
Silicon-manganese steel	92xx	Silicon 1.40%, or 2%; manganese 0.65%, 0.82%, or 0.85%; chromium 0%, or 0.65%
Silicon-manganese steel	93xx	Nickel 3.25%; chromium 1.20%; molybdenum 0.12%
Silicon-manganese steel	94xx	Nickel 0.45%; chromium 0.40%; molybdenum 0.12%
Silicon-manganese steel	97xx	Nickel 0.55%; chromium 0.20%; molybdenum 0.20%
Silicon-manganese steel	98xx	Nickel 1%; chromium 0.80%; molybdenum 0.25%
High-strength, low-alloy steels	xxBxx	Boron steels
High-strength, low-alloy steels	xxLxx	Leaded steels