From Section 1: Iron and Steel — Featuring standards for steel pipe that requires high-temperature service, ordinary use, and other special applications, included are specifications on steel tubes for boiler and superheater tubes, general service tubes, still tubes in refinery service, heat exchanger and condenser tubes, mechanical tubing, and structural tubing. Steel casting specifications address standard properties for valves, flanges, fittings, and other pressure containing parts for high-temperature and low-temperature service. Included are some specifications that fix the requirements for various types of structural steel, such as high-strength, low-alloy, rolled steel floor plates, and carbon-silicon steel plates along with the properties of assorted types of steel wire and industrial sizing screens. Some standards focus on plates and forgings used in boilers and pressure vessels, while others deal with steel for concrete reinforcement and prestressed concrete and specifications that set the properties for railway service rails and accessories. Some featured specifications are for internally and externally threaded fasteners, and non-threaded driven fasteners. Also included are standards on rolling element bearings, establishing properties for bearings used in automotive and aerospace applications.

From Section 2: Nonferrous Metal Products — Featuring standards on copper and copper alloy plate, sheet, strip, rolled bar, rod bar, and shapes. Some detail the property requirements for seamless and welded tubes for ordinary use, water service, condensers, and special uses. Others cover various types of wire, including hard-drawn copper, copper-silicon alloy, and phosphor bronze.

Some included specifications in this area cover aluminum, aluminum alloys, and aluminum-covered steel, including bars, rods, wire, shapes, castings, forgings, fasteners, pipes, tubes, sheet, plates, foil, and cable. Other standards fix the property requirements for magnesium-ingot and magnesium-alloy castings, including sheet, forgings, anodes, bars, rods, and shapes; and measure indentation hardness, shear testing, tension testing, and ultrasonic inspection.

From Section 3: Metals Test Methods and Analytical Procedures — Featuring standards that cover tests and practices for mechanical testing procedures, including: machine calibration, bend and flexure testing, compression, ductility, formability, elastic properties, impact, linear thermal expansion, shear, torsion, residual stress, tension testing, structural films for MEMS, and electronic applications.

Other standards cover fatigue and fracture testing of materials, including crack tip opening displacement (CTOD), fracture toughness measurement, and linear elastic plane-strain fracture toughness of metallic materials. Also featured are metallography tests and practices that define standard optical, electron, and X-ray procedures for determining the constituents and structure of metals and alloys.

Included are some procedures for obtaining and reporting chemical analyses of ferrous and nonferrous metals, metal-bearing ores, and refractories. Standards also cover analytical equipment, practices for conducting proficiency tests and reporting statistical test results. Translated standards are continuously added to this collection every year. Once part of the collection, a translated standard is maintained up to date with the English version.