Positive Displacement Pumps—Reciprocating

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Positive Displacement Pumps—Reciprocating

1 Scope

This standard covers the minimum requirements for reciprocating positive displacement pumps and pump units for use in the petroleum, petrochemical, and gas industry services. Both direct-acting and power-frame types are included. Controlled-volume pumps, hydraulically driven pumps, and rotary pumps are not included.

Note: See API 675 for controlled-volume pumps and API 676 for rotary pumps.

2 Normative References

2.1 The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Specification 5L: 2004, *Specification for Line Pipe*

API Standard 526:2002, *Flanged Steel Pressure Relief Valves*

API Standard 541:2002, *Form-wound Squirrel Cage Induction Motors — 250 Horsepower and Larger*

API Standard 546:1997, *Brushless Synchronous Machines — 500 kVA and Larger*

API Standard 611:1997, *General-purpose Steam Turbines for Petroleum, Chemical, and Gas Industry Services*

API Standard 677:1997, Reaffirmed: 2000, *General-purpose Gear Units for Petroleum, Chemical and Gas Industry Services*

API Recommended Practice 500A, *Classification of Locations for Electrical Installations in Petroleum Refineries*

API Recommended Practice 686:1996, *Machinery Installation and Installation Design*

ANSI/ABMA 7:1995 [1], *Shaft and Housing Fits for Metric Radial Ball And Roller Bearings (Except Tapered Roller Bearings) Conforming To Basic Boundary Plan*

ANSI/AGMA 2015-1:2001 [2], *Accuracy Classification System — Tangential Measurements for Cylindrical Gears*

ANSI/AGMA 6010:2003, *Standard for Spur, Helical, Herringbone, and Bevel Enclosed Drives*

ANSI/AGMA 6009:2000, *Standard for Gearmotor, Shaft Mounted, and Screw Conveyor Drives*

ANSI/AGMA 9002:2001, *Bores and Keyways for Flexible Couplings (Inch Series)*

ASA S2.19:1999 [3], *Mechanical Vibration — Balance Quality Requirements of Rigid Rotors — Part 1: Determination of Permissible Residual Unbalance, Including Marine Applications*

ASME *Boiler and Pressure Vessel Code* [4], Section V:2001, *Non-destructive Examination*

ASME *Boiler and Pressure Vessel Code*, Section VIII:2001, *Rules for Construction of Pressure Vessels, Division 1*

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2 American Gear Manufacturers Association, 500 Montgomery Street, Suite 350, Alexandria, Virginia 22314, www.agma.org.
3 Acoustical Society of America, 35 Pinelawn Road, Suite 114 East, Melville, NY 11747, http://asa.aip.org.
4 ASME International, 3 Park Avenue, New York, New York 10016-5990, www.asme.org.