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NOTE: Viscosity classes below ISO VG 32 and ISO VG 46 cannot be tested by this technique, but require different conditions of pump inlet viscosity, and have not been included in this International Standard. This International Standard is confined to the specified limiting values defined.

2 Normative references

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.

ISO 3104:1994, *Petroleum products — Transparent and opaque liquids — Determination of kinematic viscosity and calculation of dynamic viscosity*

ISO 3170:2004, *Petroleum liquids — Manual sampling*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*

ISO 4406:1999, *Hydraulic fluid power — Fluids — Determination of the level of contamination by solid particles*

3 Principle

Approximately 70 litres of the fluid under test is circulated for 280 h by a vane pump under conditions of output flow, operational pressure and fluid temperature related to the type and viscosity grade of the fluid. At the end of the test period, the mass loss of the 12 vanes and the ring on the test cartridge are determined. Measurement of decrease in output flow during the test run, and mass loss of the two side bushings and the rotor are also taken as control measures within the limiting test conditions, but the mass losses do not constitute a requirement of method conformance.