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Belt drives — Narrow V-belts for the automotive industry — Fatigue test

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Foreword

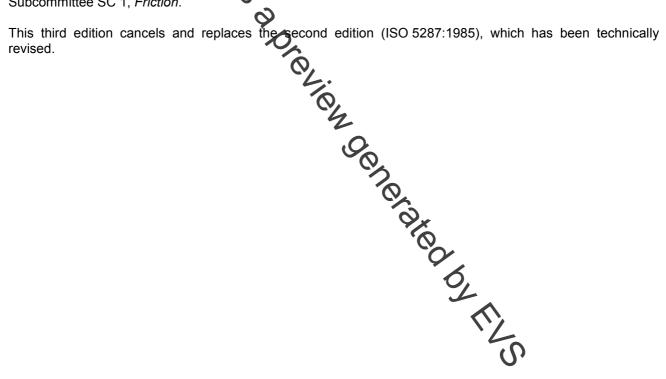
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Belt drives — Narrow V-belts for the automotive industry — Fatigue test

1 Scope

This International Standard specifies a fatigue test for the quality control of narrow V-belts (sections AV 10 and AV 13) intended for griving the auxiliaries of internal combustion engines used for automotive purposes.

NOTE The dimensional characteristics of these belts and of the corresponding pulleys are the subject of ISO 2790.

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 683-1, Heat-treatable steels, alloy steels and free-cutting steels — Part 1: Direct-hardening unalloyed and low-alloyed wrought steel in form of different black products

ISO 2790, Belt drives — V-belts for the automotive industry and corresponding pulleys — Dimensions

ISO 4287, Geometrical Product Specifications (GPS) Surface texture: Profile method — Terms, definitions and surface texture parameters

ISO 6508-1, Metallic materials — Rockwell hardness test — Rart 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)

3 Principle

Determination of the performance of a belt under specified conditions of the two- or three-pulley test machine described in 4.1.

NOTE The shortest V-belt that can be tested on the three-pulley test machine is approximately 800 mm. Shorter belts should be tested on the two-pulley test machine, as described in Clauses 4 and 6.

A number of conditions shall be agreed between the manufacturer and the user, including the power to be transmitted, the effective diameter of the idler pulley and the number of times the belt can be re-tensioned, and the minimum acceptable belt life, in hours.

As a general rule, the power to be transmitted using the two-pulley test machine shall be approximately 70 % of the power transmitted using the three-pulley test machine.

Belt failure occurs when the belt no longer satisfies the agreed conditions.