Australian Standard®

Automotive repairs—Terminology

Part 6: Constant velocity joints

This Australian Standard was prepared by Committee CS/78, Automotive Repairs Terminology. It was approved on behalf of the Council of Standards Australia on 15 November 1993 and published on 14 March 1994.

The following interests are represented on Committee CS/78:

Australian Automotive Association
Australian Automotive Aftermarket Association
Australian Federation of Consumer Organizations
Australian Transmission Rebuilders Association
Business and Consumer Affairs, N.S.W.
Institute of Automotive Mechanical Engineers
Motor Trades Association of Australia
Motor Vehicle Repair Industry Council
Society of Automotive Engineers, Australia
Victorian Automobile Chamber of Commerce

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PREFACE

This Standard was prepared by the Standards Australia Committee on Automotive Repairs Terminology. It is one of a series arising out of submissions by the automotive repairs industry, and consumer and government organizations.

The Standard aims at eliminating confusion in relation to terminology used to describe repairs to automotive constant velocity joints.

Other Standards in this series are as follows:

AS
3564 *Automotive repairs—Terminology*
3564.1 Part 1: *Automatic transmission*
3564.2 Part 2: *Manual transmission*
3564.3 Part 3: *Transaxle*
3564.4 Part 4: *Power steering*
3564.5 Part 5: *Engine*

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

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STANDARDS AUSTRALIA

Australian Standard

Automotive repairs—Terminology

Part 6: Constant velocity joints

1 SCOPE This Standard sets out a terminology for use in describing the repair and servicing of constant velocity (cv) joints and constant velocity shaft assemblies.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

IP

220 Rust Prevention Characteristics of Lubricating Greases (ST-D-3)

ASTM

D217 Test Method for Cone Penetration of Lubricating Grease

D445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)

D942 Test Method for Oxidation Stability of Lubricating Greases by the Oxygen Bomb Method

D1742 Test Method for Oil Separation from Lubricating Grease During Storage

D1831 Test Method for Roll Stability of Lubricating Grease

D2265 Test Method for Dropping Point of Lubricating Grease Over Wide Temperature Range

D2266 Test Method for Wear Preventive Characteristics of Lubricating Grease (Four Ball Method)

D2509 Method for Measurement of Extreme Pressure Properties of Lubricating Grease (Timken Method)

D2596 Method for Measurement of Extreme Pressure Properties of Lubricating Greases (Four-ball Method)

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Boot—a cover to protect working components against dust, dirt, grit or similar eroding substances and to act as a container for retaining grease around its component. Boots are generally made from rubber, plastic or similar materials.

3.2 Constant velocity joint—a device for the transmission of driving power. These CV joints consist of five different types as set out below:

3.2.1 *Disc cross groove CV joint (VL joint)*—a disc cross groove CV joint operating on the same principle as a double offset joint (DOJ) but with a flatter design and used in applications where space is minimal. It is usually attached by six bolts to a drive flange (see Figure A5).

3.2.2 *Double offset joint (DOJ), inner or end-motion type (inner) CV joint*—a radially self-supported CV joint which consists of an outer and inner race driven through six balls, located in axially straight grooves. The balls are positioned and maintained in a constant velocity plane by a cage with axially offset spherical surfaces located between the two races. The joint permits axial movement since the cage is engaged only by the inner race (see Figures A4(a) and A4(b)).