

# INTERNATIONAL STANDARD

ISO  
7803

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION  
ORGANISATION INTERNATIONALE DE NORMALISATION  
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

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## Commercial road vehicles — Steering ball joints

*Véhicules routiers utilitaires — Rotules de direction*

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[ISO 7803:1987](https://standards.iteh.ai/catalog/standards/sist/aa79635a-d20d-4605-8a9b-d76771ae8cda/iso-7803-1987)

<https://standards.iteh.ai/catalog/standards/sist/aa79635a-d20d-4605-8a9b-d76771ae8cda/iso-7803-1987>

Reference number  
ISO 7803 : 1987 (E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7803 was prepared by Technical Committee ISO/TC 22, *Road vehicles*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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# Commercial road vehicles — Steering ball joints

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### 1 Scope and field of application

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This International Standard specifies the main dimensions of steering ball joints for commercial vehicles.

The ball joint is considered as being a single piece with its socket. Thus this International Standard covers the ball-socket assembly.  
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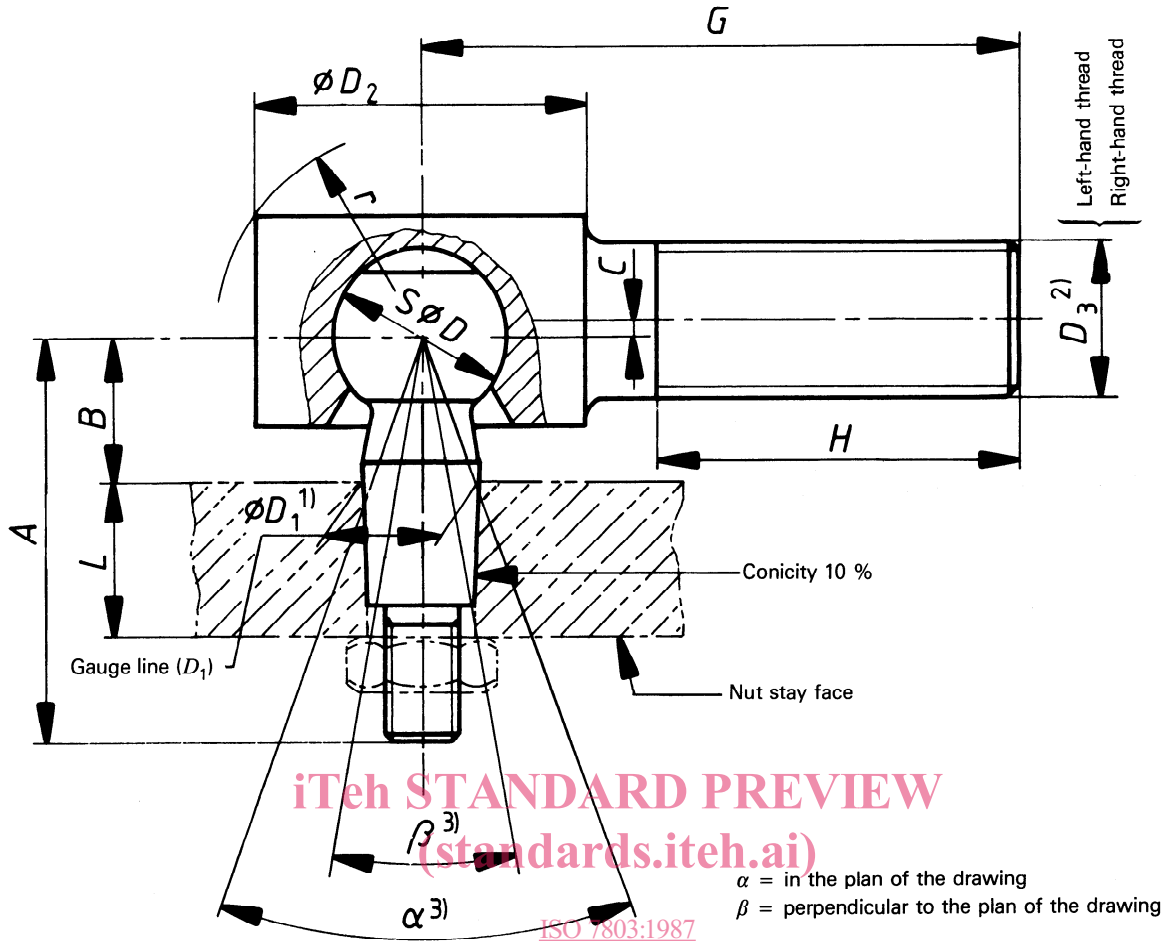
### 2 Dimensions

For dimensions, see the figure and table.

### 3 Designation

Example for the designation of a ball joint of nominal size  $S \phi D = 30$  mm, where the angles  $\alpha = 40^\circ$  and  $\beta = 20^\circ$ :

Ball joint ISO 7803 - 30 - 40 × 20



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Dimensions in millimetres

Nominal size $S \phi D$	A max.	B	C max.	$D_1^{1)}$ h9*	$D_2$ max.	$D_3^{2)}$	G $\pm 2$	H min.	L h11	r max.	$\alpha^{3)}$ min.	$\beta^{3)}$ min.
27	66	24	3	20	50	M24 × 1,5	95	60	24	32	40°	20°
30	71	26	3	22	58	M28 × 1,5	105	65	26	37		
35	81	30	3	26	67	M30 × 1,5	115	75	30	42		
40	91	34	3	30	74	M30 × 1,5	120	80	34	47		
50	109	40	3	38	85	M38 × 1,5	135	85	42	54		

\* Bore H8.

- 1) To ensure satisfactory operation of the taper drive, it is necessary for the manufacturers to provide such tolerances that the contact between the male and female cones starts from the major diameter and extends to at least 60 % of the contact area.
- 2) The stud  $D_3$  is available with either right hand thread or left-hand thread. For ball joints with left-hand thread, the designation should be supplemented by the letters LH.
- 3) The vehicle manufacturer — on consultation with the ball joint manufacturer — may specify different angles.

UDC 629.11.014.52 : 629.114.4

Descriptors : road vehicles, commercial road vehicles, ball joints, dimensions, designation.

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