
International Standard



7646

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

Commercial vehicles and buses — Gearbox flanges — Type A

Véhicules utilitaires et autobus — Brides de boîtes de vitesses — Type A

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Descriptors : road vehicles, commercial road vehicles, buses (vehicles), gearboxes, flanges, dimensions, designation.

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 7646 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.

Commercial vehicles and buses — Gearbox flanges — Type A

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1 Scope and field of application

This International Standard specifies the nominal dimensions and tolerances which affect the interchangeability between gearbox flanges and mating parts used on commercial vehicles and buses. The flanges covered by this International Standard are designated type A. They are not interchangeable with type S flanges dealt with in ISO 7647.

Dimensions not specified are left to the discretion of the component manufacturer.

2 References

ISO 286, *ISO system of limits and fits*.¹⁾

ISO 1101, *Technical drawings — Geometrical tolerancing — Tolerancing of form, orientation, location and run-out — Generalities, definitions, symbols, indications on drawings*.

ISO 7647, *Road vehicles — Gearbox flanges for commercial vehicles and buses — Type S*.

3 Dimensions and tolerances

Nominal dimensions, tolerances and bolt hole fixing positions which affect the interchangeability of type A flanges for gearboxes are shown in figures 1 to 5, and given in the table.

4 Designation

Gearbox flanges meeting the requirements of this International Standard shall be identified by the following details in the order specified:

- a) reference to this International Standard;
- b) the diameter of the flange, d_1 ;
- c) the number of fixing bolts;
- d) the size of the fixing bolts.

Example:

Designation of a gearbox flange type A with $d_1 = 150$ mm and eight 12 mm fixing bolts:

Flange ISO 7646-150 × 8 × 12

1) At present at the stage of draft. (Revision of ISO/R 286-1962.)

Position and run-out tolerances in millimetres

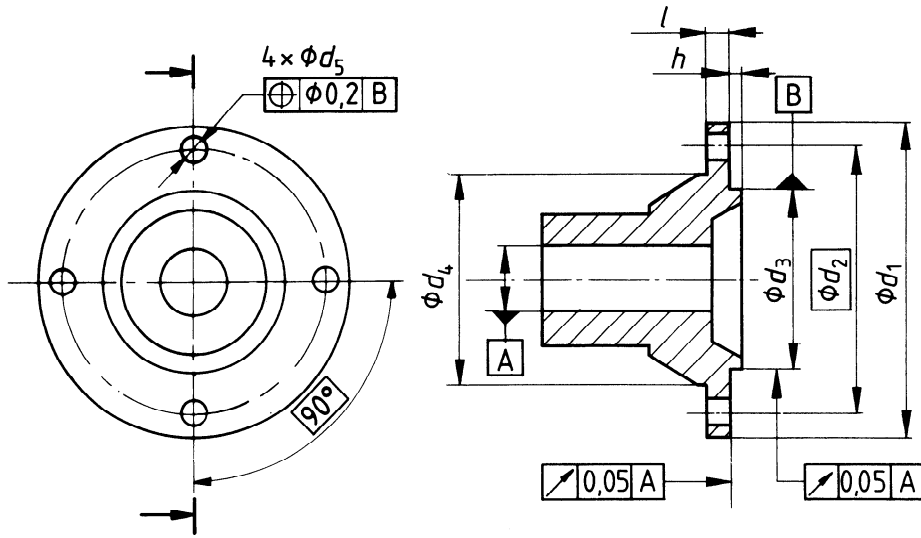


Figure 1

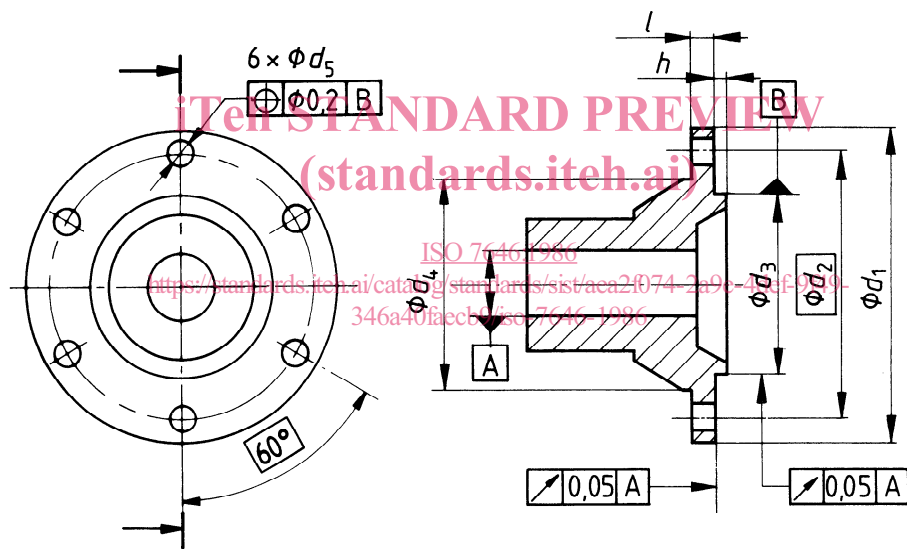


Figure 2

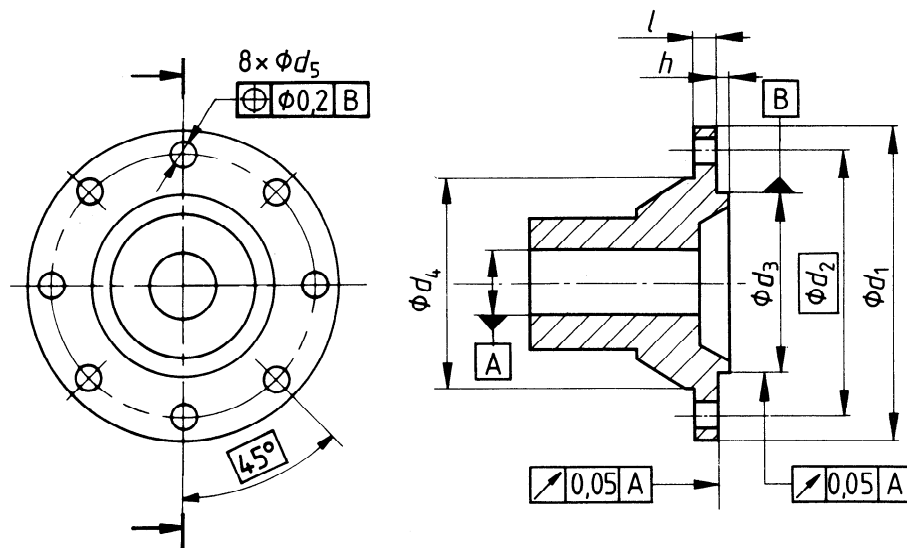


Figure 3

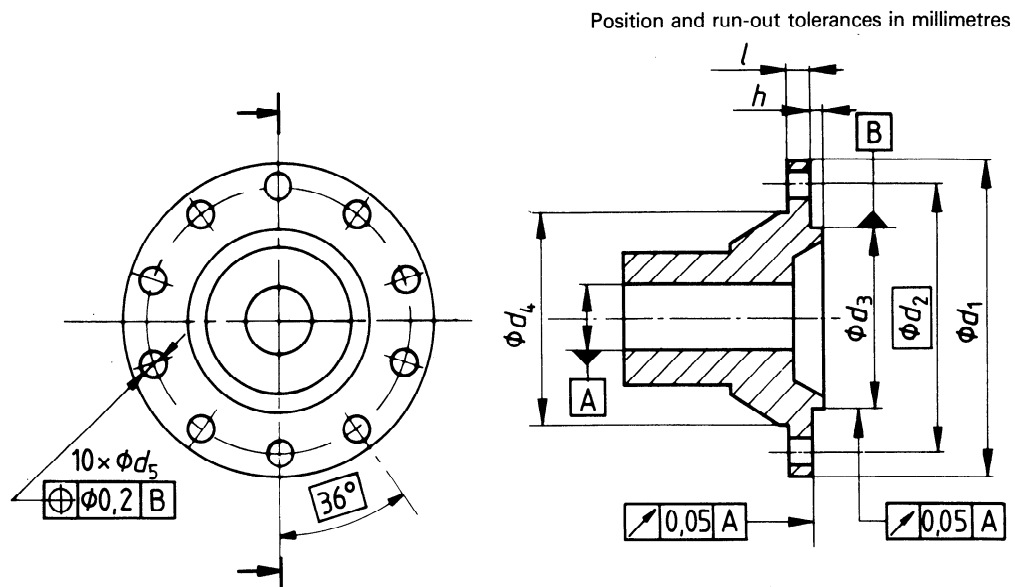


Figure 4

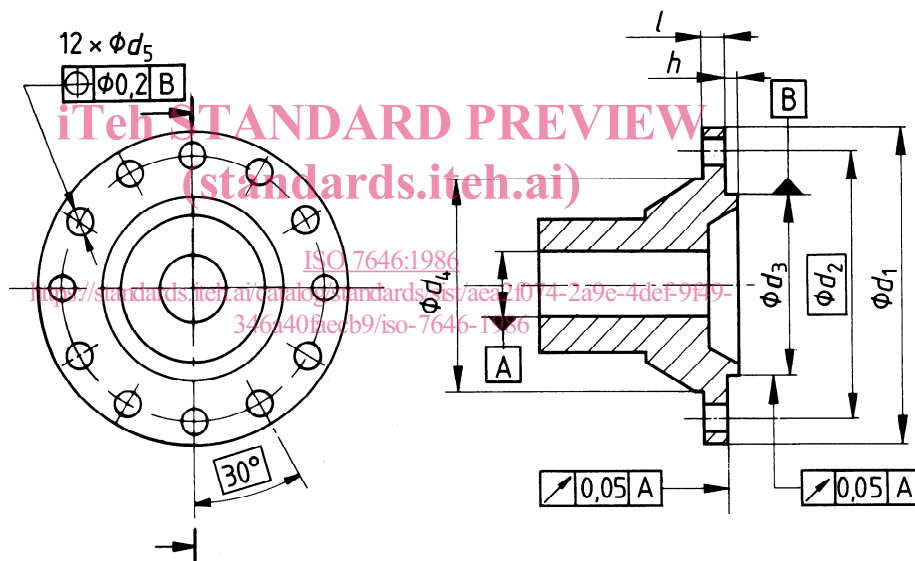


Figure 5

Table – Dimensions and tolerances

Dimensions in millimetres

| d_1 | Figure number | Number of holes | d_5 + 0,2 0 | d_2 | d_3 h7 ¹⁾ | d_4 ²⁾ 0 - 0,2 | l 0 - 0,5 | h 0 - 0,2 |
|-------|---------------|-----------------|---------------------|-------|---------------------------|-----------------------------------|-------------------|-------------------|
| 75 | 2 | 6 | 6,1 | 62 | 42 | 51,6 | 5,5 | 1,8 |
| 90 | 1 | 4 | 8,1 | 74,5 | 47 | 61 | 6 | 2,3 |
| | 2 | 6 | | | | | | |
| 100 | 2 | 6 | 8,1 | 84 | 57 | 70,5 | 7 | 2,3 |
| 120 | 3 | 8 | 10,1 | 101,5 | 75 | 84,3 | 8 | 2,3 |
| 150 | 3 | 8 | 12,1 | 130 | 90 | 110,7 | 10 | 2,3 |
| | 5 | 12 | | | | | | |
| 165 | 3 | 8 | 16,1 | 140 | 95 | 115 | 12 | 2,3 |
| 180 | 4 | 10 | 16,1 | 155,5 | 110 | 130,5 | 12 | 2,3 |
| 225 | 5 | 12 | 16,1 | 196 | 140 | 171 | 15 | 4 |

1) See ISO 286.

2) This dimension shall be used when required to prevent bolt heads from rotating.

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