# INTERNATIONAL STANDARD 496

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

## Driving and driven machines — Shaft heights

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**Descriptors** : machinery, shafts (Machine elements), height.



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## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 13 has reviewed ISO Recommendation R 496 and found it suitable for transformation. International Standard ISO 496 therefore replaces ISO Recommendation R 496-1966.

ISO Recommendation R 496 was approved by the Member Bodies of the following countries:

| | | |
|---|---|---|
| Argentina | Germany | Spain |
| Austria | Greece | Sweden |
| Bulgaria | Israel | Switzerland |
| Chile | Japan | Turkey |
| Colombia | Korea, Rep. of | United Kingdom |
| Czechoslovakia | Netherlands | U.S.A. |
| Denmark | New Zealand | U.S.S.R. |
| France | Portugal | Yugoslavia |

The Member Bodies of the following countries have subsequently approved this Recommendation:

Philippines
South Africa, Rep. of

The Member Bodies of the following countries expressed disapproval of the Recommendation on technical grounds:

Belgium
India

The Member Body of the following country disapproved the transformation of ISO/R 496 into an International Standard:

India





Printed in Switzerland

# Driving and driven machines — Shaft heights



## 1 SCOPE AND FIELD OF APPLICATION

This International Standard establishes four series in millimetres and five series in inches, of shaft heights for driving and driven machines.

## 2 DEFINITION

For the purpose of this International Standard the following definition applies.

**shaft height :** The distance, measured on the machine ready for delivery, between the centre line of the shaft and the base plane of the machine itself.

It does not include the liners used for assembly but, in cases where an insulation shim is supplied with the machine, the thickness of this shim shall be included in the shaft height.

## 3 NOMINAL DIMENSION *h*

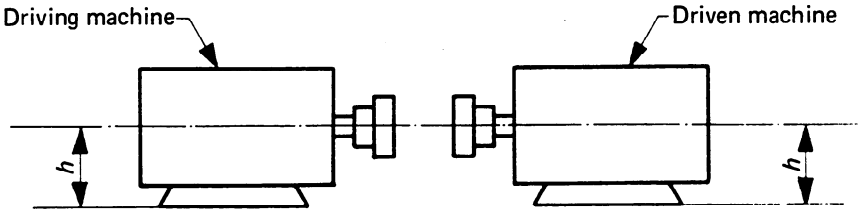

TABLE 1 — **Shaft heights in millimetres* and in inches**

| Shaft heights | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| millimetres | | | | inches | | | | |
| Series | | | | Series | | | | |
| I | II | III | IV | I | II | III | IV | V |
| 25 | 25 | 25 | 25 | 0.984 | 0.984 | 0.984 | 0.984 | |
| | | | 26 | | | | 1.024 | |
| | | 28 | 28 | | | 1.102 | 1.102 | |
| | | | 30 | | | | 1.181 | |
| | 32 | 32 | 32 | | 1.260 | 1.260 | 1.260 | |
| | | | 34 | | | | 1.339 | |
| | | 36 | 36 | | | 1.417 | 1.417 | |
| | | | 38 | | | | 1.496 | |
| 40 | 40 | 40 | 40 | 1.575 | 1.575 | 1.575 | 1.575 | |
| | | | 42 | | | | 1.654 | |
| | | 45 | 45 | | | 1.772 | 1.772 | |
| | | | 48 | | | | 1.890 | |
| | 50 | 50 | 50 | | 1.969 | 1.969 | 1.969 | |
| | | | 53 | | | | 2.09 | |
| | | 56 | 56 | | | 2.20 | 2.20 | |
| | | | 60 | | | | 2.36 | |
| 63 | 63 | 63 | 63 | 2.48 | 2.48 | 2.48 | 2.48 | 2.625 |
| | | | 67 | | | | 2.64 | |
| | | 71 | 71 | | | 2.80 | 2.80 | |
| | | | 75 | | | | 2.95 | 3 |
| | 80 | 80 | 80 | | 3.15 | 3.15 | 3.15 | |
| | | | 85 | | | | 3.35 | 3.5 |
| | | 90 | 90 | | | 3.54 | 3.54 | |
| | | | 95 | | | | 3.74 | |
| 100 | 100 | 100 | 100 | 3.94 | 3.94 | 3.94 | 3.94 | 4.125 |
| | | | 106 | | | | 4.17 | |
| | | 112 | 112 | | | 4.41 | 4.41 | 4.5 |
| | | | 118 | | | | 4.65 | |
| | 125 | 125 | 125 | | 4.92 | 4.92 | 4.92 | |
| | | | 132 | | | | 5.20 | |
| | | 140 | 140 | | | 5.51 | 5.51 | 5.25 |
| | | | 150 | | | | 5.91 | |
| 160 | 160 | 160 | 160 | 6.30 | 6.30 | 6.30 | 6.30 | 6.25 |
| | | | 170 | | | | 6.69 | |
| | | 180 | 180 | | | 7.09 | 7.09 | 7 |
| | | | 190 | | | | 7.48 | |
| | 200 | 200 | 200 | | 7.87 | 7.87 | 7.87 | |
| | | | 212 | | | | 8.35 | 8 |
| | | 225** | 225** | | | 8.86 | 8.86 | |
| | | | 236 | | | | 9.29 | 9 |
| 250 | 250 | 250 | 250 | 9.84 | 9.84 | 9.84 | 9.84 | |
| | | | 265 | | | | 10.43 | 10 |
| | | 280 | 280 | | | 11.02 | 11.02 | 11 |
| | | | 300 | | | | 11.81 | |
| | 315 | 315 | 315 | | 12.40 | 12.40 | 12.40 | |
| | | | 335 | | | | 13.19 | 12.5 |
| | | 355 | 355 | | | 13.98 | 13.98 | |
| | | | 375 | | | | 14.76 | |
| 400 | 400 | 400 | 400 | 15.75 | 15.75 | 15.75 | 15.75 | |
| | | | 425 | | | | 16.73 | |
| | | 450 | 450 | | | 17.72 | 17.72 | |
| | | | 475 | | | | 18.70 | |
| | 500 | 500 | 500 | | 19.69 | 19.69 | 19.69 | |
| | | | 530 | | | | 20.87 | |
| | | 560 | 560 | | | 22.05 | 22.05 | |
| | | | 600 | | | | 23.62 | |
| 630 | 630 | 630 | 630 | 24.80 | 24.80 | 24.80 | 24.80 | |
| | | | 670 | | | | 26.38 | |
| | | 710 | 710 | | | 27.95 | 27.95 | |
| | | | 750 | | | | 29.53 | |
| | 800 | 800 | 800 | | 31.50 | 31.50 | 31.50 | |
| | | | 850 | | | | 33.46 | |
| | | 900 | 900 | | | 35.43 | 35.43 | |
| | | | 950 | | | | 37.40 | |
| 1 000 | 1 000 | 1 000 | 1 000 | 39.37 | 39.37 | 39.37 | 39.37 | |
| | | | 1 060 | | | | 41.73 | |
| | | 1 120 | 1 120 | | | 44.09 | 44.09 | |
| | | | 1 180 | | | | 46.46 | |
| | 1 250 | 1 250 | 1 250 | | 49.21 | 49.21 | 49.21 | |
| | | | 1 320 | | | | 51.97 | |
| | | 1 400 | 1 400 | | | 55.12 | 55.12 | |
| | | | 1 500 | | | | 59.06 | |
| 1 600 | 1 600 | 1 600 | 1 600 | 62.99 | 62.99 | 62.99 | 62.99 | |
| > 1 600*** | | | | > 62,99*** | | | | |

* The values in millimetres of the series I to IV correspond respectively, taking into account some roundings, to the values of the preferred numbers R 5, R 10, R 20, R 40 (see ISO 3, *Preferred numbers — Series of preferred numbers).*

** Deviation from the series of preferred numbers which contains the number 224.

*** For values > 1 600 mm and > 62,99 in, adopt a preferred number in millimetres or its corresponding value in inches.