*भारतीय मानक*

***Indian Standard***

**IS 17219 (Part 2) : 2023**
**ISO 11901-2 : 2018**

# दाबन के औज़ार — गैस स्प्रिंग्स

## भाग 2 सहायक उपकरण की विशिष्टि

*( पहला पुनरीक्षण )*

# Tools for Pressing — Gas Springs

## Part 2 Specification of Accessories

*( First Revision )*

ICS 25.120.10

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**May 2023** **Price Group 7**

Metal Forming Machines Sectional Committee, PGD 04

NATIONAL FOREWORD

This Indian Standard (Part 2) (First revision) which is identical with ISO 11901-2: 2018 'Tools for pressing — Gas springs — Part 2: Specification of accessories' issued by the International Organization for Standardization (ISO), was adopted by the Bureau of Indian Standards on the recommendation of the Metal Forming Machines Sectional Committee and approval of the Production and General Engineering Division Council.

This standard specifies the dimensions in millimeters, of mounting base plates, of two-part mounting clamps, of flange mounts and front end supports intended for use in press tool togetherwith gas springs in accordance with IS 17219-1, IS 17219-3 and IS 17219-4.

This standard was originally published in 2019 identical with ISO 11901- 2: 2004. The first revision of this standard has been undertaken to align it with the latest version of ISO 11901- 2.

The major changes in this revision are as follows:

a) addition of accessories for gas spring according to IS 17219-3 and IS 17219-4 changeof the designation of accessories; and
b) change of the designation of accessories.

Other parts in this series are:

Part 1 General specifications
Part 3 Gas spring with increased spring force and compact built height
Part 4 Gas springs with increased spring force and same built height

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in IndianStandards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker while in Indian Standards, the currentpractice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standard for which Indian Standards also exist. The corresponding Indian Standard, which is to be substituted in its place, islisted below along with their degree of equivalence for the editions indicated:

| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
|---|---|---|
| ISO 2768-1 General tolerances for linear and angular dimensions without Individual tolerance Indications | IS 2102 (Part 1) : 1993 General tolerances for linear and angular dimensions without Individual tolerance Indications (*third revision*) | Identical with ISO 2768-I : 1989 |

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*Indian Standard*

# TOOLS FOR PRESSING — GAS SPRINGS

## PART 2 SPECIFICATION OF ACCESSORIES

*( First Revision )*

## 1 Scope

This document specifies the dimensions in millimetres, of mounting base plates, of two-part mounting clamps, of flange mounts and front end supports intended for use in press tool together with gas springs in accordance with ISO 11901-1, ISO 11901-3 and ISO 11901-4.

It also gives information concerning materials and specifies the designation of the mounting accessories in accordance with this document.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 630-1, *Structural steels — Part 1: General technical delivery conditions for hot-rolled products*

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

## 3 Terms and definitions

No terms and definition are listed in this document

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

## 4 Dimensions

### 4.1 General

All dimensions are indicated in millimetres.

In Figures 1 to 9, general tolerances shall be class m in accordance with ISO 2768-1.

### 4.2 Type A — Mounting base plates

#### 4.2.1 Type A1 — Mounting base plates with two holes to clamp the gas spring

Mounting base plates with two holes to clamp the gas spring of type A1 shall conform to the indications of Figure 1 and Table 1.

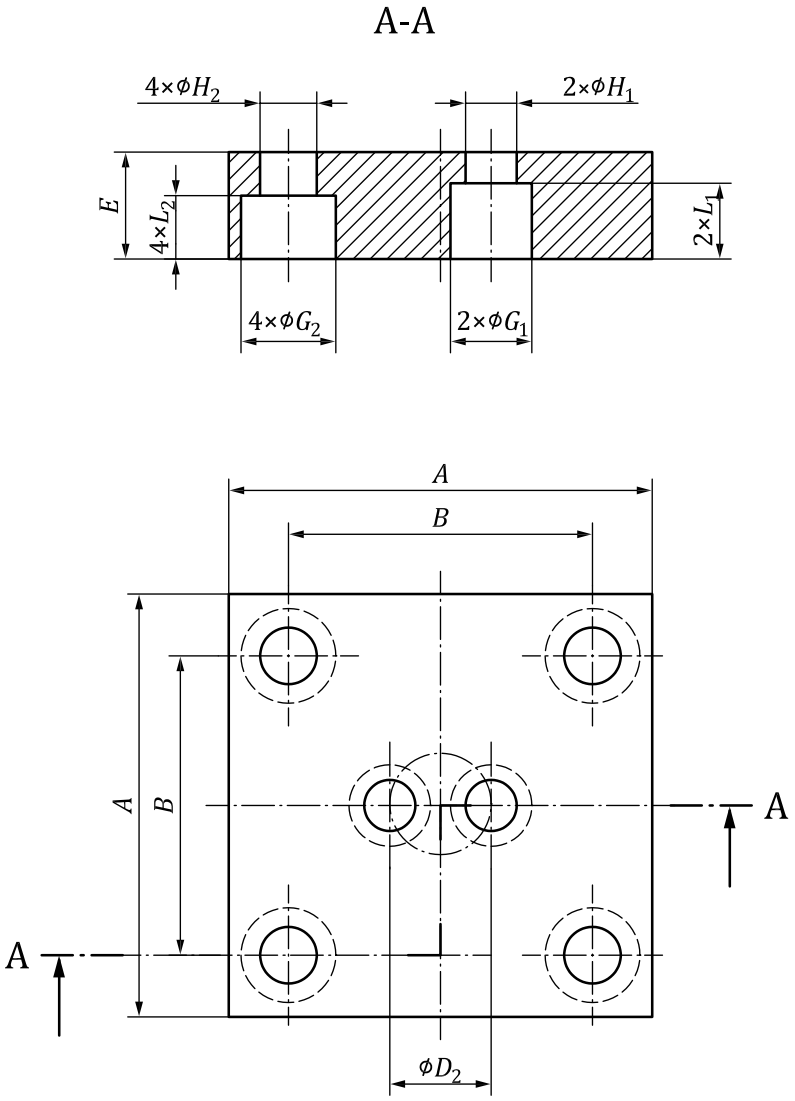



**Figure 1 — Mounting base plates – Type A1**

**Table 1 — Dimensions of mounting base plates – Type A1**

| Mount for gas spring cylinder diameter<br>±0,3 | *A* | *B* | $D_2$ | *E*<br>0<br>−0,1 | $G_1$ | $G_2$ | $H_1$ | $H_2$ | $L_1$ | $L_2$ |
|---|---|---|---|---|---|---|---|---|---|---|
| 45 | 70 | 50 | 20 | 20 | 15 | 15 | 9 | 9 | 14 | 12 |
| 50 | 75 | 56,5 | 20 | 20 | 15 | 15 | 9 | 9 | 14 | 12 |
| 63 | 100 | 73,5 | 20 | 20 | 15 | 18 | 9 | 11 | 14 | 12 |

### 4.2.2 Type A2 — Mounting base plates with four holes to clamp the gas spring

Mounting base plates with four holes to clamp the gas spring of type A2 shall conform to the indications of Figure 2 and Table 2.

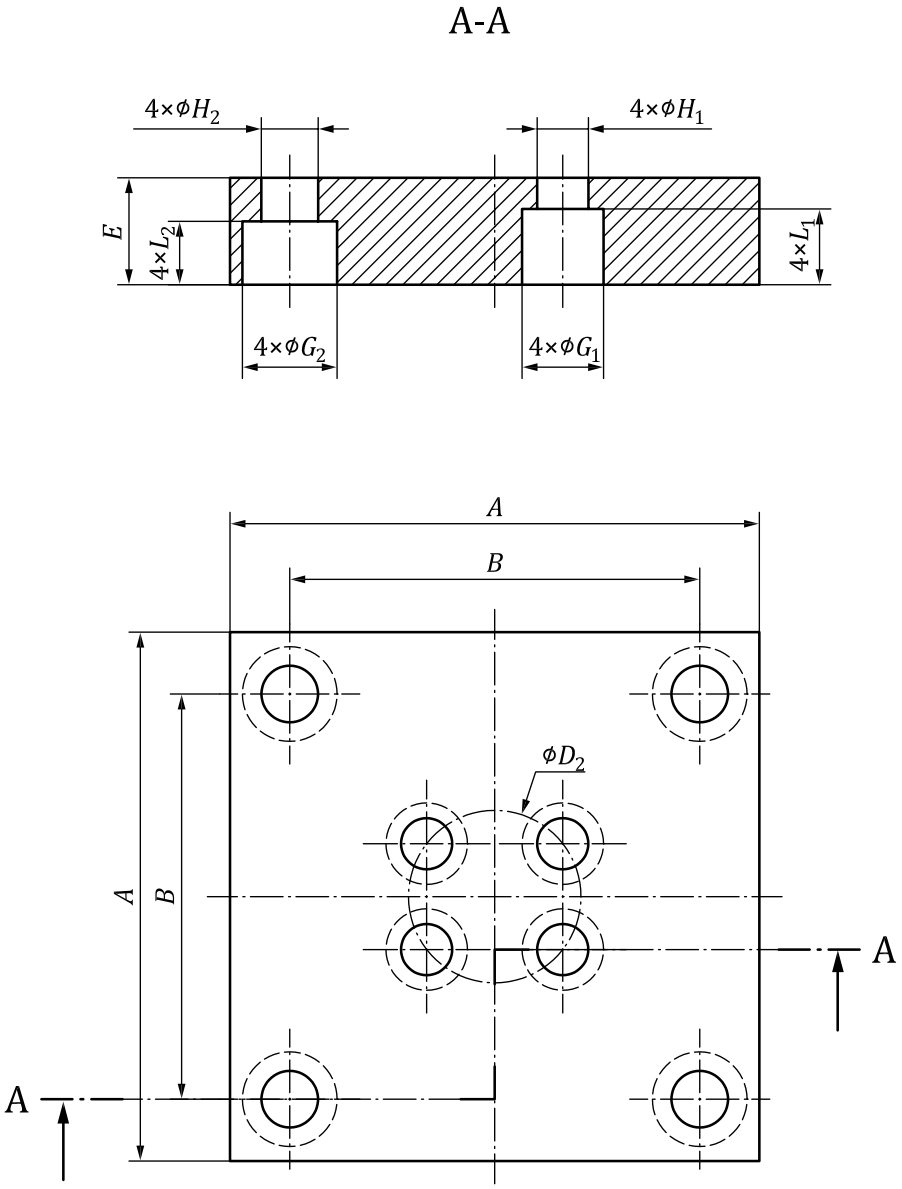



**Figure 2 — Mounting base plates – Type A2**

**Table 2 — Dimensions of mounting base plates – Type A2**

| Mount for gas spring cylinder diameter ±0,3 | *A* | *B* | $D_2$ | *E* 0 −0,1 | $G_1$ | $G_2$ | $H_1$ | $H_2$ | $L_1$ | $L_2$ |
|---|---|---|---|---|---|---|---|---|---|---|
| 75 | 100 | 73,5 | 40 | 20 | 15 | 18 | 9 | 11 | 14 | 12 |
| 95 | 120 | 92 | 60 | 20 | 15 | 20 | 9 | 13,5 | 14 | 13 |
| 120 | 140 | 109,5 | 80 | 20 | 18 | 20 | 11 | 13,5 | 15 | 13 |
| 150 | 190 | 138 | 100 | 25 | 18 | 26 | 11 | 17,5 | 15 | 17 |
| 195 | 210 | 170 | 120 | 25 | 20 | 26 | 13,5 | 17,5 | 13 | 17 |

## 4.3 Type B — Two-part mounting clamps

Two-part mounting clamps of type B shall conform to the indications of Figure 3 and Table 3.

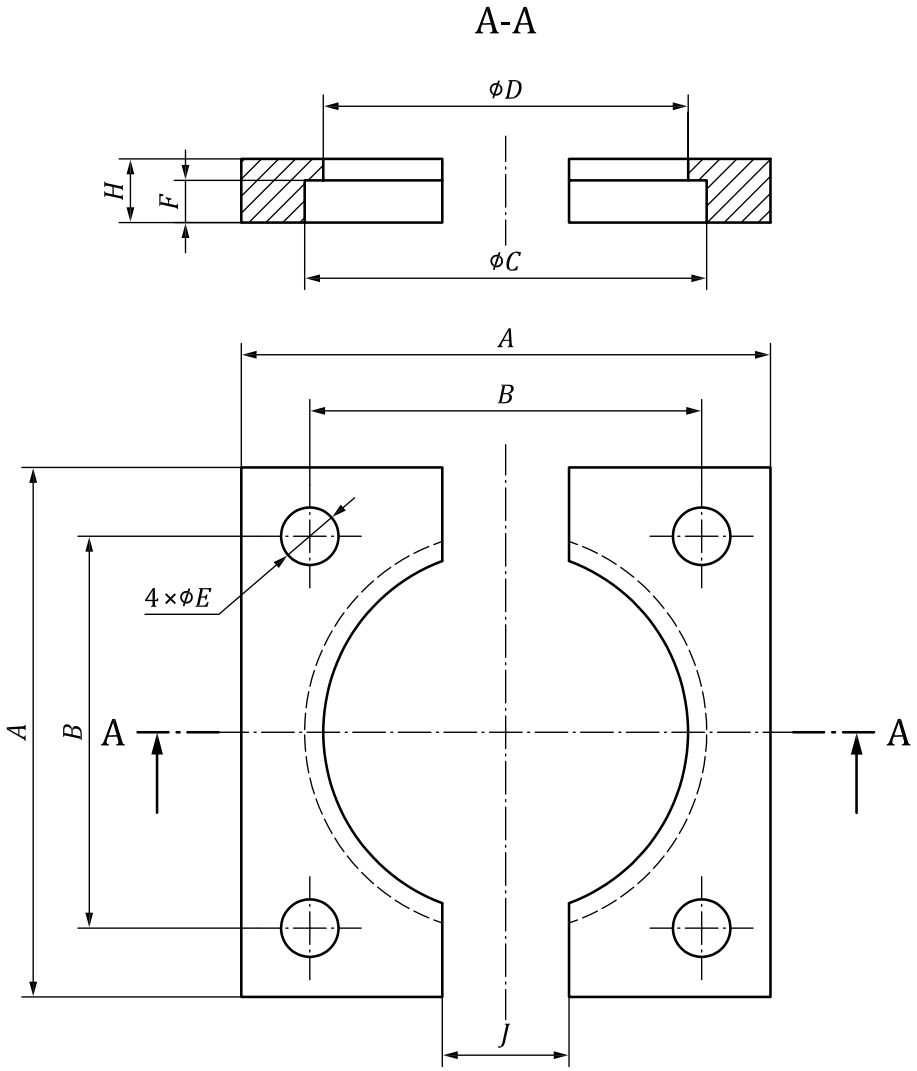



**Figure 3 — Two-part mounting clamps – Type B**

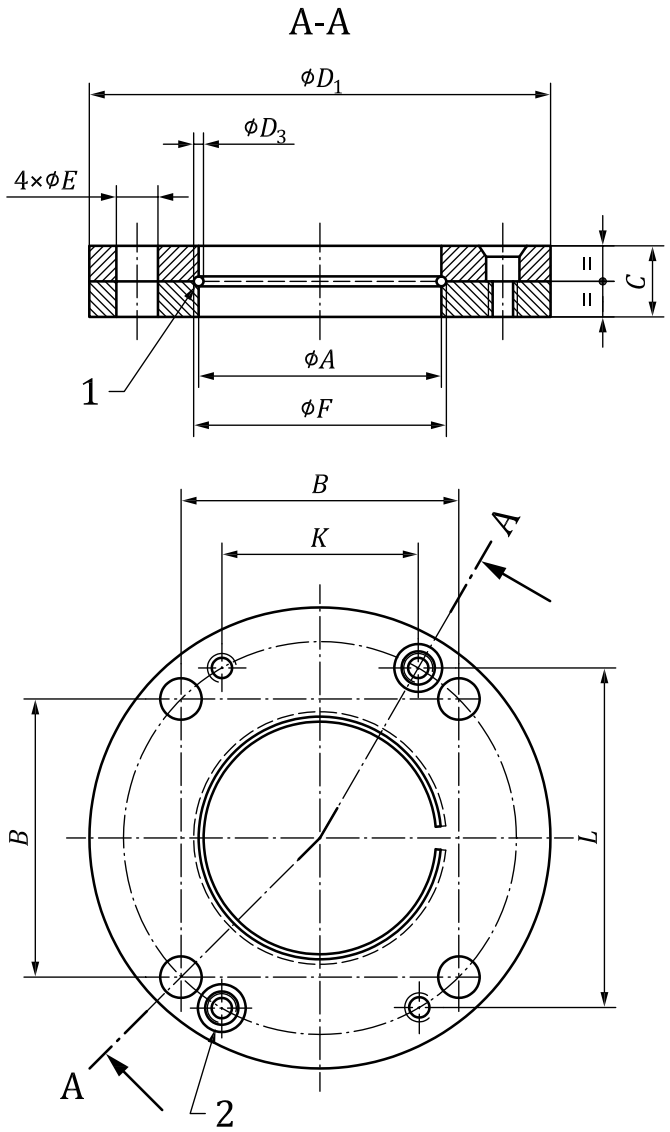
**Table 3 — Dimensions of two-part mounting clamps – Type B**

| Mount for gas spring cylinder diameter ±0,3 | *A* | *B* | *C* | *D* | *E* | *F* 0 −0,1 | *H* 0 −0,1 | *J* |
|---|---|---|---|---|---|---|---|---|
| 32 | 50 | 35 | 32,5 | 28,5 | 6,6 | 4 | 7 | 12 |
| 38 | 55 | 40 | 38,5 | 34,5 | 6,6 | 4 | 7 | 12 |
| 45 | 70 | 50 | 45,5 | 40,5 | 9 | 4 | 7 | 20 |
| 50 | 75 | 56,5 | 50,5 | 44,5 | 9 | 8 | 12 | 24 |
| 63 | 100 | 73,5 | 64 | 57 | 11 | 8 | 12 | 24 |
| 75 | 100 | 73,5 | 75,5 | 68,5 | 11 | 8 | 12 | 24 |
| 95 | 120 | 92 | 95,5 | 88,5 | 13,5 | 8 | 12 | 24 |
| 120 | 140 | 109,5 | 120,5 | 113,5 | 13,5 | 8 | 12 | 24 |
| 150 | 190 | 138 | 150,5 | 143,5 | 17,5 | 8 | 12 | 24 |
| 195 | 210 | 170 | 195,5 | 188 | 17,5 | 8 | 13 | 24 |

## 4.4 Type C — Flange mounts

### 4.4.1 Type C1 — Cylindrical flange mounts

Cylindrical flange mounts of type C1 shall conform to the indications of Figure 4 and Table 4.




**Key**

1 plain ring

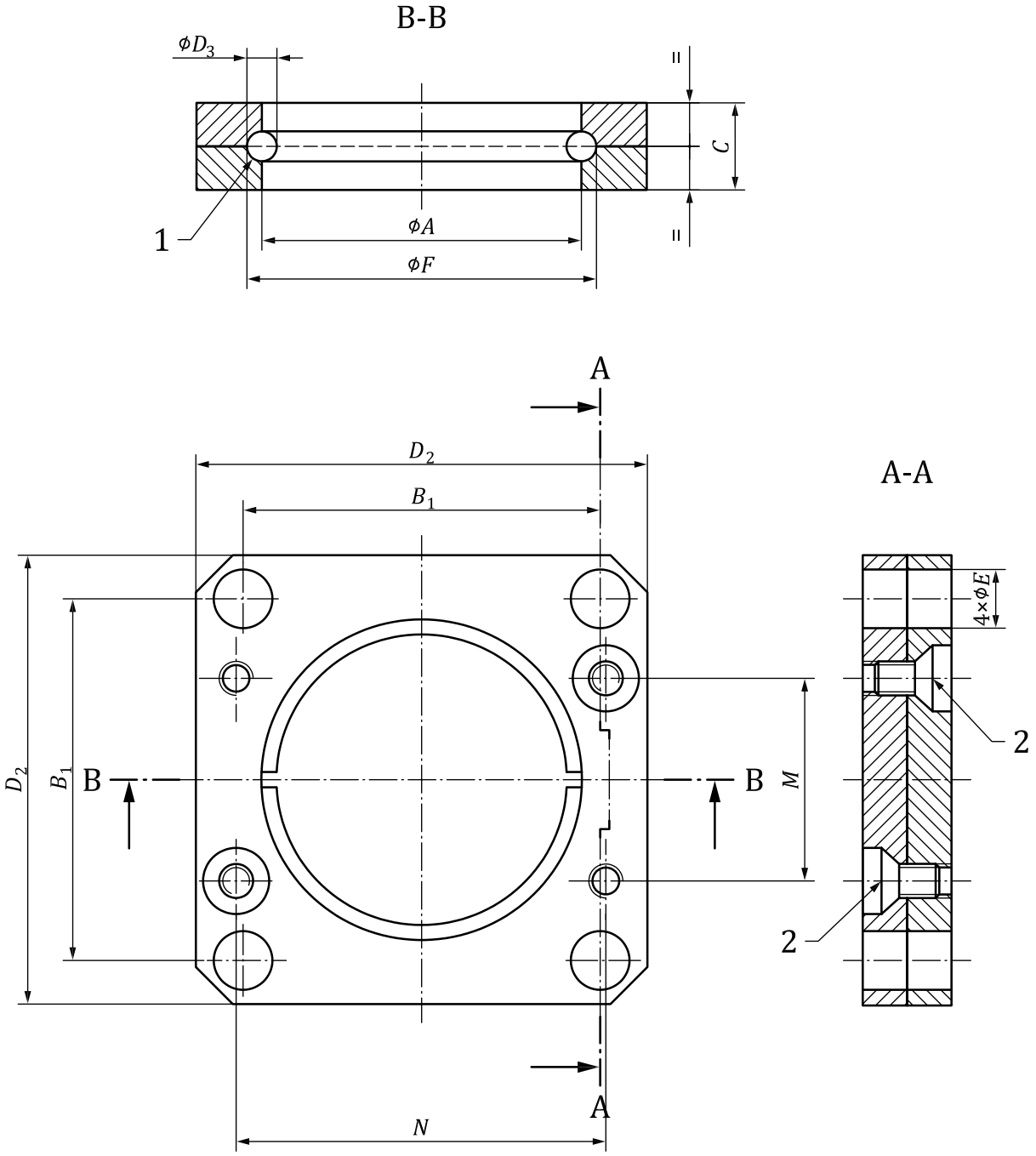
2 assembly screws

NOTE The two flange halves are held together with assembly screws.

**Figure 4 — Cylindrical flange mounts – Type C1**

### 4.4.2 Type C2 — Square flange mounts

Square flange mounts of type C2 shall conform to the indications of Figure 5 and Table 4.




**Key**

1 plain ring

2 assembly screws

NOTE The two flange halves are held together with assembly screws.

**Figure 5 — Square flange mounts – Type C2**

### 4.4.3 Mounting of the flange mounts types C1 and C2 on gas spring

Mounting of the flange mounts types C1 and C2 on gas spring shall conform to the indications of Figure 6 and Table 4.

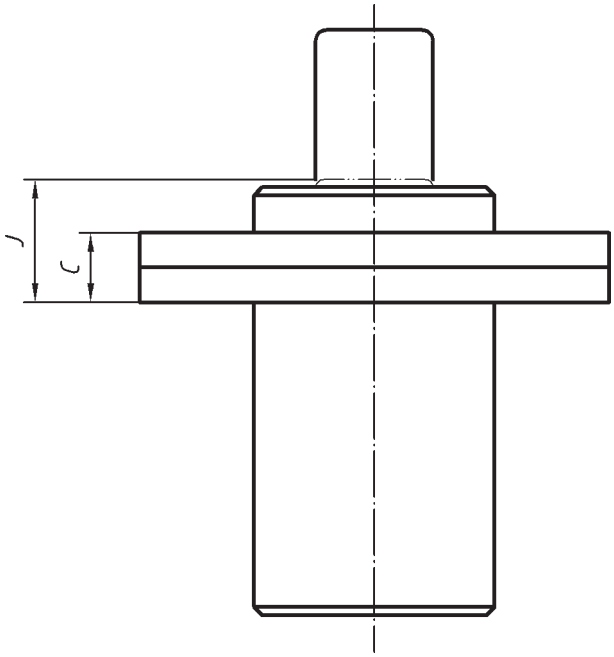



**Figure 6 — Mounting of flange mount**

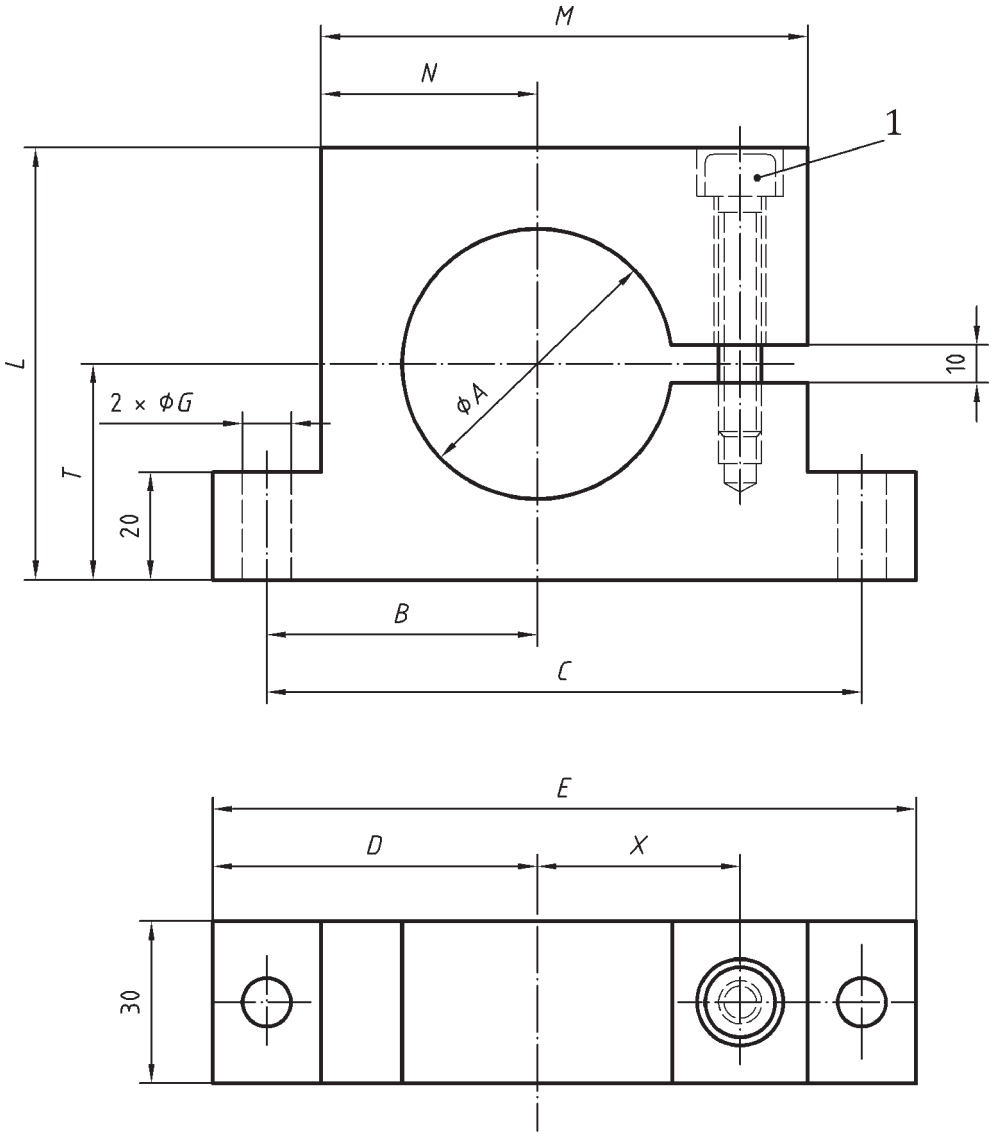
**Table 4 — Dimensions of flange mounts — Types C1 and C2**

| Mount for gas spring cylinder diameter ±0,3 | *A* ±0,1 | *B* | $B_1$ | *C* | $D_1$ | $D_2$ | $D_3$ h10 | *E* | *F* +0,1 −0,3 | *J* | *K* ±1 | *L* ±1 | *M* ±1 | *N* ±1 | Reference of mount type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 | 32,5 | 35 | 35 | 9 | 60 | 45 | 2 | 6,6 | 34 | 17 | 19 | 44 | 20 | 36 | C1 and C2 |
| 38 | 38,5 | 40 | 40 | 9 | 68 | 52 | 2 | 6,6 | 40 | 17 | 25 | 50,8 | 24 | 42 | C1 and C2 |
| 45 | 45,5 | 50 | 50 | 13 | 86 | 64 | 2 | 9 | 47 | 23 | 31,5 | 63,3 | 29,2 | 51,2 | C1 and C2 |
| 50 | 50,5 | 56,5 | 56,5 | 13 | 95 | 70 | 4 | 9 | 54 | 24 | 38,3 | 70,2 | 35,5 | 55,4 | C1 and C2 |
| 63 | 63,5 | 73,5 | 64 | 16 | 122 | 80 | 4 | 11 | 67 | 27 | 53 | 89,5 | 40,5 | 67 | C1 and C2 |
| 75 | 75,5 | 73,5 | 73,5 | 16 | 122 | 90 | 5 | 11 | 80 | 29 | 53 | 89,5 | 47,7 | 76,3 | C1 and C2 |
| 95 | 95,5 | 92 | 92 | 18 | 150 | 110 | 5 | 13,5 | 100 | 33 | 70,5 | 109,2 | 64 | 93,9 | C1 and C2 |
| 120 | 120,5 | 109,5 | 109,5 | 21 | 175 | 130 | 5 | 13,5 | 125 | 36 | 88 | 127,6 | 82 | 113 | C1 and C2 |
| 150 | 150,5 | 138 | 138 | 27 | 220 | 162 | 5 | 17,5 | 155 | 41 | 112 | 159,6 | 105 | 144,3 | C1 and C2 |
| 195 | 195,5 | 170 | 170 | 27 | 290 | 210 | 5 | 17,5 | 200 | 47 | 144 | 192,5 | 140 | 184,9 | C1 and C2 |

## 4.5 Type D — Front end supports

### 4.5.1 Type D1

Front end supports of type D1 shall conform to the indications of Figure 7 and Table 5.




**Key**

1 screw

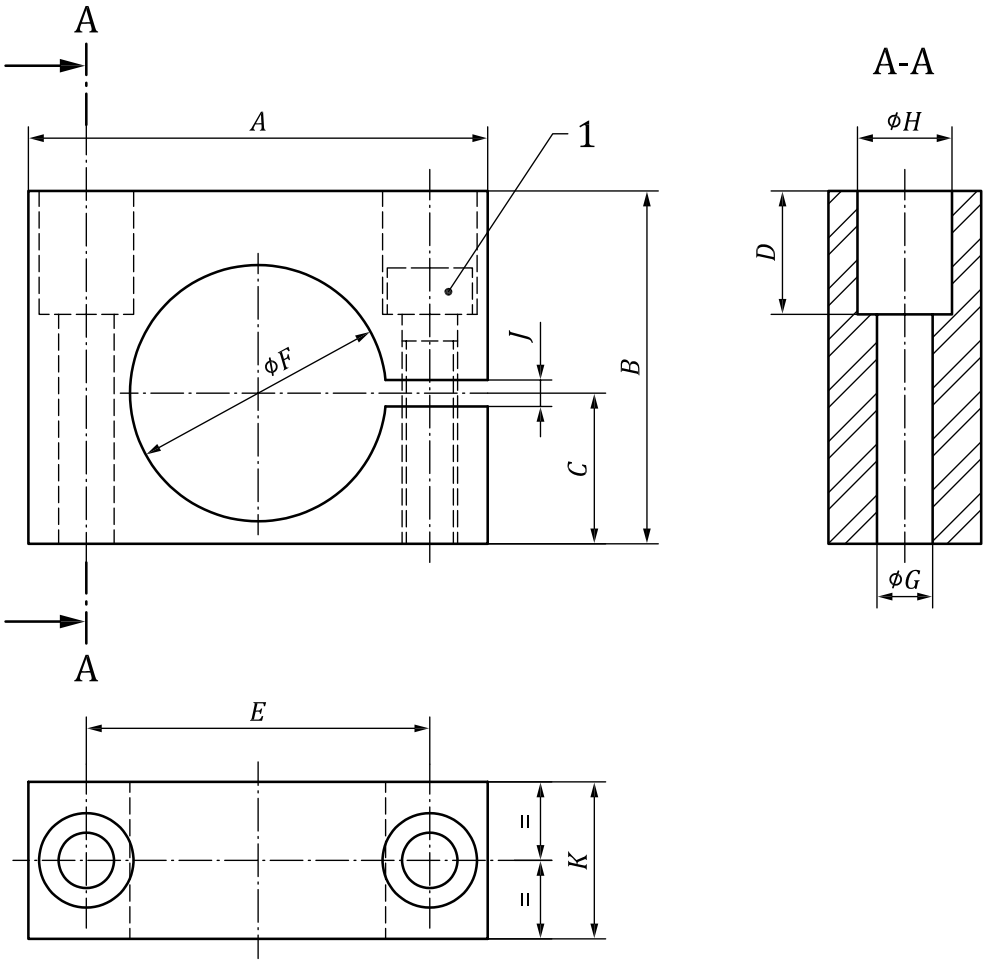
**Figure 7 — Front end supports – Type D1**

**Table 5 — Dimensions of front end supports – Type D1**

| **Mount for gas spring cylinder diameter** **±0,3** | ***A*** ±0,1 | ***B*** | ***C*** | ***D*** | ***E*** | ***G*** | ***L*** | ***M*** | ***N*** | **Screw** | ***T*** | ***X*** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50 | 50 | 50 | 110 | 60 | 130 | 9 | 80 | 90 | 40 | M8 | 40 | 37,5 |
| 75 | 75 | 63,5 | 137 | 75 | 160 | 11 | 105 | 115 | 52,5 | M10 | 52,5 | 50 |
| 95 | 95 | 80 | 170 | 92,5 | 195 | 13,5 | 125 | 145 | 67,5 | M12 | 62,5 | 62,5 |
| 120 | 120 | 92,5 | 195 | 105 | 220 | 13,5 | 148 | 165 | 77,5 | M12 | 74 | 73,7 |
| 150 | 150 | 110 | 230 | 125 | 260 | 13,5 | 200 | 200 | 95 | M12 | 100 | 90 |

### 4.5.2 Type D2

Front end supports of type D2 shall conform to the indications of Figure 8 and Table 6.




**Key**

1 screw

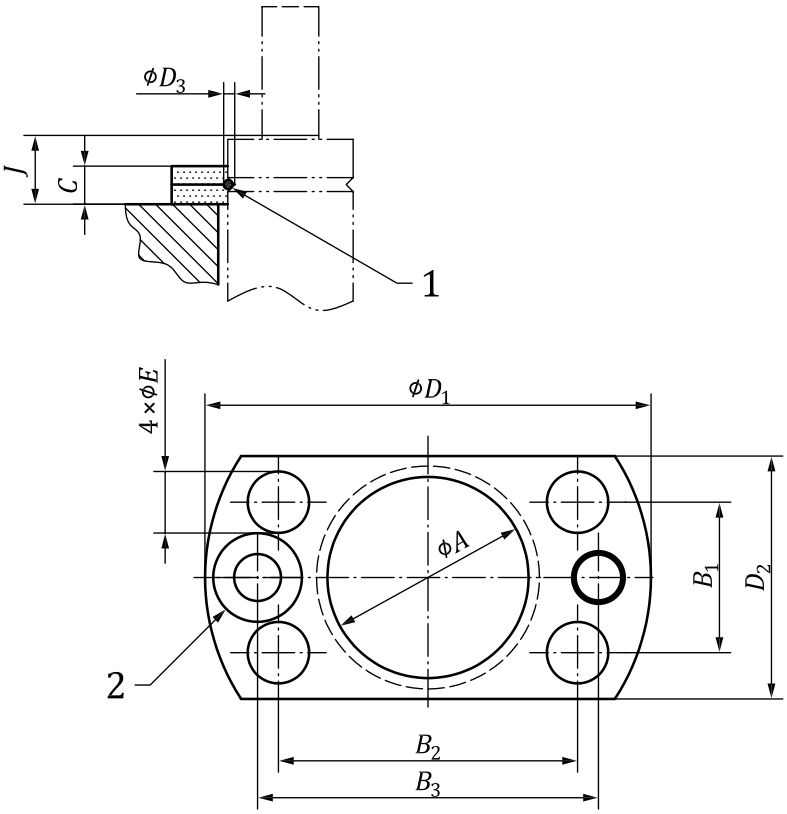
**Figure 8 — Front end supports – Type D2**

**Table 6 — Dimensions of front end supports – Type D2**

| Mount for gas spring cylinder diameter ±0,3 | *A* | *B* | *C* | *D* | *E* | *F* +0,1 | *G* | *H* | *J* | *K* |
|---|---|---|---|---|---|---|---|---|---|---|
| 32 | 68 | 48 | 20,9 | 10 | 50 | 32,5 | 9 | 15 | 4 | 20 |
| 38 | 74 | 54 | 23,9 | 16 | 54 | 38,5 | 9 | 15 | 4 | 20 |
| 45 | 80 | 60 | 27,5 | 22 | 60 | 45,5 | 9 | 15 | 4 | 20 |
| 50 | 90 | 70 | 30 | 25 | 68 | 50,5 | 11 | 18 | 5 | 30 |
| 63 | 108 | 82 | 36,5 | 27 | 84 | 63,5 | 11 | 18 | 5 | 30 |
| 75 | 125 | 94 | 42 | 32 | 100 | 75,5 | 13,5 | 20 | 5 | 30 |
| 95 | 140 | 115 | 52,5 | 33 | 115 | 95,5 | 13,5 | 20 | 5 | 30 |
| 120 | 170 | 140 | 65 | 58 | 145 | 120,5 | 13,5 | 20 | 7 | 30 |
| 150 | 200 | 170 | 80 | 68 | 175 | 150,5 | 13,5 | 20 | 7 | 30 |

## 4.6 Type E — Rectangular flange mounts

Rectangular flange mounts of type E shall conform to the indications of Figure 9 and Table 7.




**Key**

1 plain ring

2 assembly screws

NOTE The two flange halves are to be held together with assembly screws.

**Figure 9 — Rectangular flange mounts – Type E**

**Table 7 — Dimensions of rectangular flange mounts – Type E**

| Mount for gas spring cylinder diameter ±0,3 | *A* ±0,1 | $B_1$ | $B_2$ | $B_3$ | *C* | $D_1$ | $D_2$ | $D_3$ h10 | *E* | *J* |
|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 19,5 | 12 | 30 | 32 | 9 | 44 | 25 | 2 | 6,6 | 21,5 |
| 25 | 25,5 | 18 | 34 | 38 | 9 | 50 | 30 | 2 | 6,6 | 21,5 |

## 5 Material

The material shall be steel E 355C, defined in ISO 630-1, or any material with equivalent mechanical characteristics.

## 6 Designation

A mounting accessory in accordance with this document shall be designated by:

a) mounting base plate, two-part mounting clamp, flange mount or front end support;

b) a reference of this document (i.e. ISO 11901-2);

c) the type of mounting accessory;

d) the diameter of the gas spring cylinder.

EXAMPLE A mounting base plate type A1 for a gas spring with a cylinder diameter of 50 mm is designated as follows:

**Mounting base plate ISO 11901-2 – A1 – 50**

# Bibliography

[1] ISO 11901-1, *Tools for pressing — Gas springs — Part 1: General specifications*

[2] ISO 11901-3, *Tools for pressing — Gas springs — Part 3: Gas spring with increased spring force and compact built height*

[3] ISO 11901-4, *Tools for pressing — Gas springs — Part 4: Gas springs with increased spring force and same built height*

## NATIONAL ANNEX A

*(National Foreword)*

### A-1 BIS CERTIFICATION MARKING

The product may also be marked with the Standard Mark.

**A-1.1** The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act,* 1986 and the Rules and Regulations made thereunder. The details of conditions under which the license for use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

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The technical committee has reviewed the provisions of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

| *International Standard* | *Title* |
|---|---|
| ISO 630-1 | Structural steels — Part 1 : General technical delivery conditions for hot-rolled products |

The standard also makes a reference to the BIS Certification Marking of the product. Details of which are given in National Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2: 2022 ‘Rules for rounding off numerical values (*second revision*).’ The number of significant places retained in the rounded off value should be the same as that of the specified valuein this standard

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website-www.bis.gov.in or www.standardsbis.in.

This Indian Standard has been developed from Doc No.: PGD 04 (19471).

## Amendments Issued Since Publication

| Amend No. | Date of Issue | Text Affected |
|---|---|---|
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