UDC 744·4 : 531·1 : 003·62

IS : 10722 (Part 2) - 1983
ISO 3952/2 - 1981

Indian Standard

(Reaffirmed 1999)

GRAPHICAL SYMBOLS FOR ELEMENTS OF KINEMATIC DIAGRAMS, PART 2

(ISO Title : Kinematic Diagrams — Graphical Symbols — Part 2)

Drawings Sectional Committee, EDC 20; Drawings Subcommittee, EDC 20 : 1 [Ref : Doc : EDC 20 (4086)]

National Foreword

This Indian Standard (Part 2), which is indentical with ISO 3952/2-1981 Kinematic diagrams — Graphical symbols — Part 2 ', issued by the International Organization for Standardization (ISO), was adopted by the Indian Standards Institution on the recommendation of the Drawings Sectional Committee and approved by the Engineering Division Council.

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

Additional Information

This standard is the national implementation of ISO 3952/2-1981, as such only the English text has been reproduced. If the French and Russian texts are required, reference should be made to the original ISO publication.

This standard includes a number of parts, each identical with the corresponding part of the International Standard ISO 3952, as follows:

Part 1 (ISO 3952/1)	Motion of links of mechanisms Kinematic pairs Links and connection of their components N-bar linkages and their components
Part 2 (ISO 3952/2)	Friction and gear mechanisms Cam mechanisms
Part 3 (ISO 3952/3)	Geneva and ratchet mechanisms Couplings and breaks

Adopted 16 August 1983

Gr 6

INDIAN STANDARDS INSTITUTION
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Introduction

The purpose of this International Standard is the creation of a system of graphical symbols for kinematic diagrams. The creation of such a system will simplify the preparation of kinematic diagrams and will facilitate the execution and understanding of such diagrams by specialists of different countries.

Scope and field of application

This International Standard establishes the graphical symbols for elements of kinematic diagrams of products in all branches of industry. The symbols established by this International Standard are to be used on diagrams in technical documentation, as well as in technical and educational literature.

This International Standard is being published in three parts, as follows:

Part 1

1 Motion of links of mechanisms

2 Kinematic pairs

3 Links and connections of their components

4 Linkage of bars and their links

Part 2

5 Friction and gear mechanisms

6 Cam mechanisms

Part 3

7 Geneva and ratchet mechanisms

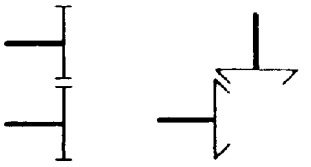
8 Couplings and brakes

5 Friction and gear mechanisms

General remarks

1 It is permissible to show the clearance at the point of contact of wheels if they are represented by one line.

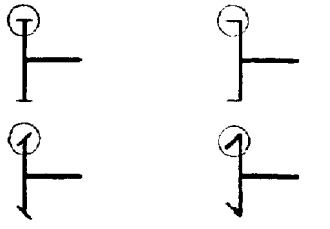
Example :



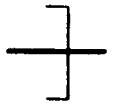
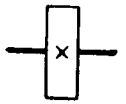
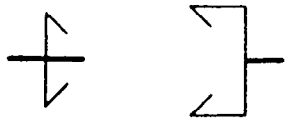
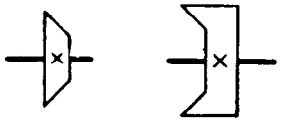
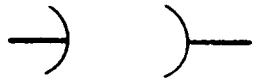
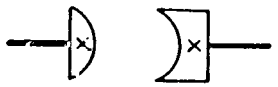
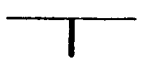
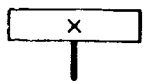
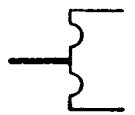
2 In the designations of friction mechanisms, the symbol of affixed connection of wheel and shaft is to be shown only on one wheel.

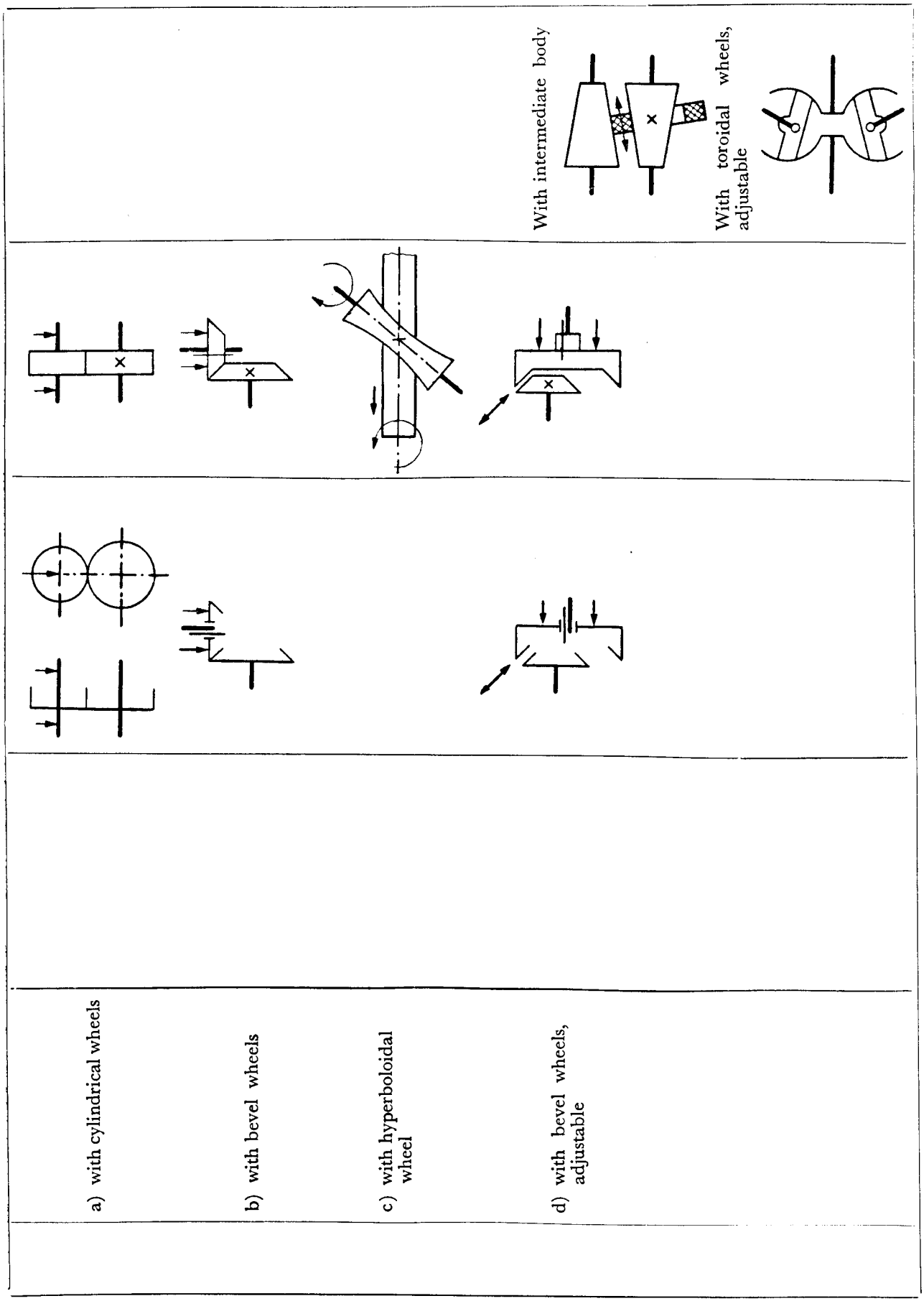
3 The symbols for gear and friction wheels differ with respect to the position of the line representing the gear rim or friction surface relative to the plane of the wheel.

Example :



gear friction wheel

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
5.1	**Friction mechanisms**				
5.1.1	*Friction wheels*				
	a) cylindrical				
	b) bevel				
	c) curvilinear				
	d) crown wheel (face wheel)				
	e) flexible				
5.1.2	*Friction transmissions*				


With intermediate body
With toroidal wheels, adjustable
a) with cylindrical wheels
b) with bevel wheels
c) with hyperboloidal wheel
d) with bevel wheels, adjustable

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
					With spherical wheel, adjustable
	e) crown wheel (face wheel), adjustable				
5.2	**Gear mechanisms**				
5.2.1	*Gear (without specification of tooth form)*				
	a) cylindrical				
	b) bevel				
	c) flexible				

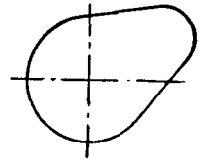
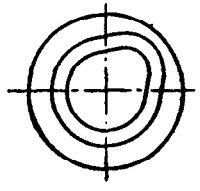
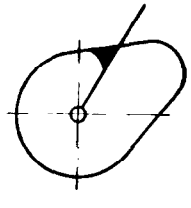
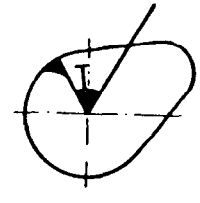
5.2.2	*Designation of tooth type*				
	a) of cylindrical wheels				
	i) straight spur				
	ii) helical				
	iii) double-helical (or herring bone)				
	b) of bevel wheels				
	i) straight toothed				
	ii) spiral				
	iii) circular (zerol)				

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
5.2.3	*Gear transmission (without specification of tooth form)*				
	a) cylindrical with circular gears				
	b) with non-circular gears				
	c) bevel				
	d) hypoid				

	e) worm-gear with cylindrical worm				
	f) double enveloping wormgear pair (globoidal)				
	g) crossed helical gears				
5.2.4	*Rack-type transmission*				
	a) general designation				It is permissible to show the wheel with a dot-dash line

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
	b) worm and worm c) toothed rack and worm				
5.2.5	*Transmission with sector gear*				

6 Cam mechanisms

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
6.1	Rotating cam plate				Grooved face cam 
6.2	Rectilinearly moving cam plate				
6.3	Fixed connection of cam with bar				Permitting adjustment 

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
6.4	**Spatial rotating cam**				
	a) cylindrical				
	b) conical				
	b) globoidal				
6.5	**Cam follower**	Translating link of cam mechanism			Designation of element of cam follower, forming a part of pair cam-cam follower
	a) knife-edge				
	b) arcuate				
	c) roller				
	d) flat-faced (or mush room)				

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