INTERNATIONAL STANDARD ISO 3287

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

Powered industrial trucks — Control symbols

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FOREWORD

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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.

International Standard ISO 3287 was developed by Technical Committee ISO/TC 110, *Industrial trucks*, and was circulated to the member bodies in September 1977.

It has been approved by the member bodies of the following countries :

Australia	India	South Africa, Rep. of
Austria	Israel	Spain
Belgium	Italy	Sweden
Brazil	Japan	Switzerland
Bulgaria	Korea, Rep. of	Turkey
Chile	Mexico	United Kingdom
Czechoslovakia	Netherlands	U.S.A.
Finland	New Zealand	U.S.S.R.
France	Poland	Yugoslavia
Greece	Romania	

The member body of the following country expressed disapproval of the document on technical grounds :

Germany

Printed in Switzerland

Powered industrial trucks — Control symbols

1 SCOPE AND FIELD OF APPLICATION

This International Standard defines symbols which will provide for the development of symbolic language of operator controls on powered industrial trucks. The symbols are divided into three sections :

Section one : Symbols for load handling;

Section two : Symbols for other operational controls involving action;

Section three : Symbols for information or identification only.

2 REFERENCE

ISO 3691, *Powered industrial trucks — Safety code.*

3 REPRODUCTION OF THE SYMBOLS

Reproduction, including enlargement or reduction of symbol size, should be by a photographic or similar process to retain exact proportion and line thickness. In order to comply with national standards, changes in proportion of the symbols are permitted, but such changes shall not alter or modify the substantive contents and meaning of the symbol.

SECTION ONE : SYMBOLS FOR LOAD HANDLING

4 USE OF SYMBOLS

4.1 Symbols shall be durable and provide contrast with surrounding materials.

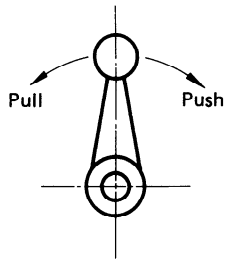
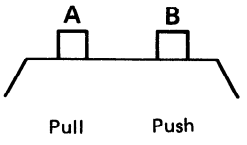
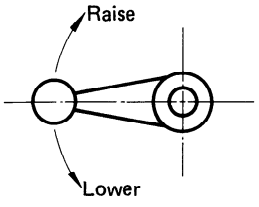
4.2 Symbols shall be located on or adjacent to the control lever for the function depicted in a manner to avoid confusion or misunderstanding.

4.3 The direction of movement of controls in relation to the movement of parts or function controlled are set forth in ISO 3691. These motions may be categorized as follows :

Type of lever	Motion of lever relative to operator	
a) Control levers where the knob moves in a substantially horizontal plane	Pull	Push
b) Control levers where the knob moves in a substantially vertical plane	Raise	Lower

4.4 The location and arrangement of push-buttons when used to control movement of parts or function controlled are set forth in ISO 3691. These arrangements may be related to the corresponding movement of levers in such a manner that the pushing of a button causes the same movement as though the button represented location of a handle after it had been moved; the horizontal arrangement of push-buttons should be related to the motion of a vertical lever while the vertical arrangement of push-buttons should be related to the motion of a horizontal lever. See the following table.

TABLE – **Relationship of button and lever motions**

Type of lever	Arrangement of buttons	Corresponding motion relative to operator
Vertical (Knob moving in horizontal plane)  	Horizontal  	Pull Push Depress A to pull Depress B to push
Horizontal (Knob moving in a vertical plane)  	Vertical  	Raise Lower Push A to raise Push B to lower

4.5 Where only one of a given pair of symbols is used, that symbol corresponding to Pull (for vertical levers – knob moving in a horizontal plane) and Raise (for horizontal levers – knob moving in a vertical plane) shall be used.

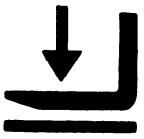
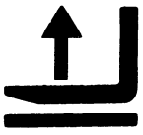
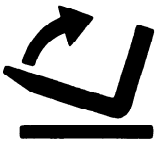
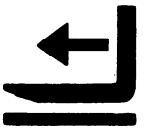
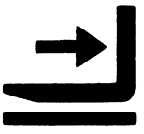
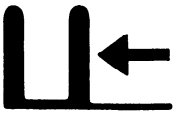
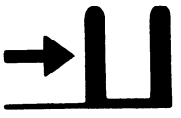
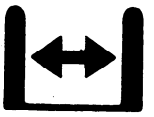
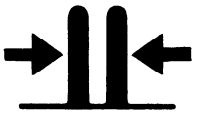
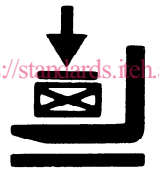
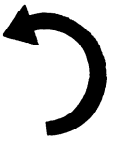
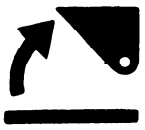
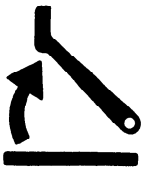
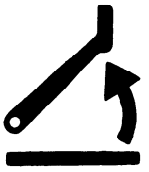
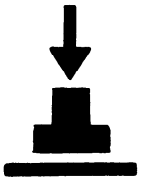
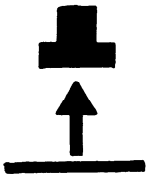
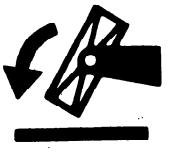
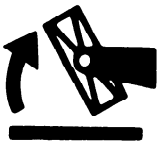
The single symbol may be used only when both directions of motion or control are accomplished by the same means. Where two means are required (for example push-buttons), both symbols shall be used.

4.6 In those unusual circumstances where it becomes necessary to deviate from the usual conventions set forth in 4.3 and 4.4, both symbols should be used. Particular attention should be given to positioning the symbols so that they avoid confusion or misunderstanding.

4.7 Typical applications of the symbols specified in clause 5 are shown in the annex.

NOTE – Symbols may be re-orientated when the symbolical representation is significantly different from the action or device represented. For example, symbols 5.1, 5.2 and 5.3 may be turned through 180° to suit side-seated trucks with fork arms pointing in the opposite direction.

5 ILLUSTRATION OF LOAD HANDLING SYMBOLS

 *Lower*  *Raise*	 *Forward*  *Rearward*	 *Extend*  *Retract*	 *To left*  *To right*	 *Open*  *Close*
5.1 Lift	**5.2 Tilt**	**5.3 Reach**	**5.4 Sideshift**	**5.5 Fork spread**
 *Anti-clockwise*  *Clockwise*	 *Release*  *Clamp*	 *Push*  *Pull*	 *Release*  *Clamp*	 *Anti-clockwise*  *Clockwise*
5.6 Swing (or pivot)	**5.7 Load stabilizer**	**5.8 Push/Pull**	**5.9 Clamp**	**5.10 Rotate**
 *Forward edge down*  *Forward edge up*	 *Lower*  *Raise*	 *Lower*  *Raise*	 *Lower*  *Raise*	 *Forward edge down*  *Forward edge up*
5.11 Scoop	**5.12.1 Left stabilizer**	**5.12.2 Right stabilizer**	**5.12.3 Alternate stabilizer**	**5.13 Upender**

NOTE — Captions in italic are for information only, not for reproduction with the symbol.

SECTION TWO : SYMBOLS FOR OTHER OPERATIONAL CONTROLS INVOLVING ACTION

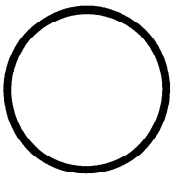
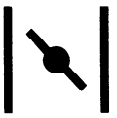
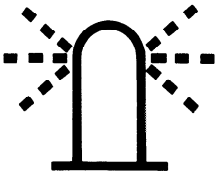
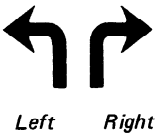
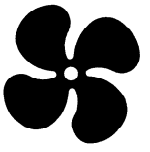
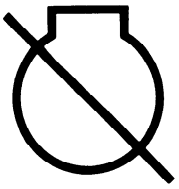
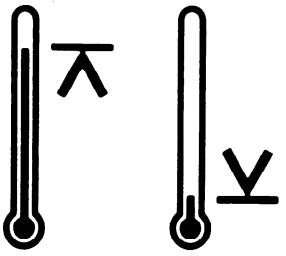
6 USE OF SYMBOLS

6.1 In the use of symbols for controls other than for load handling, the following convention shall be observed :

Except where otherwise delineated, only one symbol — identifying the control — shall be used.

6.2 Where more than one symbol is required (for example "On-Off"), the symbols shall be so located in relation to the control device that movement of the device, in a direction indicated by the relation of the symbols when such symbols are affixed to the control device, shall indicate the sense of the control.

7 ILLUSTRATION OF SYMBOLS FOR OTHER OPERATIONAL CONTROLS INVOLVING ACTION

 On  *Off* 7.1 On-Off	 7.2 Choke	 7.3 Forward/Reverse	 7.4 Speed range
	 7.5 Windshield wiper	 7.6 Windshield defroster	 7.7 Horn
 7.8 Headlights	 7.9 Parking light	 7.10 Spotlight	
 7.11 Floodlights	 7.12 Beacon	 *Left* *Right* 7.13 Turn indicators	 7.14 Blower (warm air/cold air)
 7.15 Engine stop	 7.16 Temperature control	 7.17 Fuel shut-off	 7.18 Windshield washer

NOTE — Captions in italic are for information only, not for reproduction with the symbol.

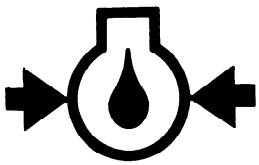
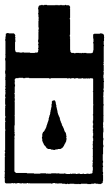
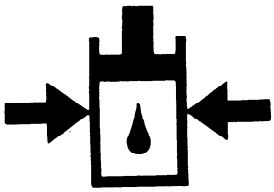
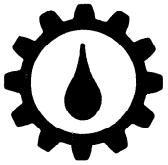
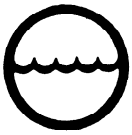
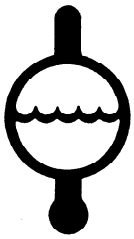
SECTION THREE : SYMBOLS FOR INFORMATION OR IDENTIFICATION ONLY

8 USE OF SYMBOLS

In the use of symbols for information or identification only, such symbols should be located on or in close proximity to the indicator or device to be identified.

Example : It is suggested that symbol 9.2, "engine oil fill", be located on or close to the filler cap where oil is to be added to the engine.

9 ILLUSTRATION OF SYMBOLS FOR INFORMATION OR IDENTIFICATION ONLY

			
9.1 Oil level	9.2 Engine oil fill	9.3 Engine oil pressure	9.4 Engine oil filter
			
9.5 Engine rotational frequency	9.6 Hydraulic oil fill	9.7 Hydraulic oil pressure	9.8 Hydraulic oil filter
			
9.9 Transmission oil fill	9.10 Transmission oil pressure	9.11 Transmission oil temperature	9.12 Transmission oil filter
			
9.13 Water fill (no pressure)	9.14 Coolant temperature	9.15 Air filter	9.16 Fuel