

JIS

JAPANESE INDUSTRIAL STANDARD

Glossary of Terms for Hoists

JIS B 0148—1984

Translated and Published

by

Japanese Standards Association

Printed in Japan

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

JAPANESE INDUSTRIAL STANDARD

J I S

Glossary of Terms for Hoists

B 0148-1984

1. Scope

This Japanese Industrial Standard specifies the terms and their meanings relating to hoists such as chain block, chain lever hoist, wire lever hoist, electric chain hoist, electric hoist, electric winch, air chain hoist, air wire hoist, etc., hereinafter referred to as the "hoists". However, except the hoists for exclusively ships.

2. Classification

Terms shall be classified as follows:

(1) Common Terms

- (a) Kind
- (b) Specifications and load
- (c) Control
- (d) Parts
- (e) Function and operation
- (f) Test and inspection

(2) Classified Terms

- (a) Chain block
- (b) Chain lever hoist
- (c) Wire lever hoist
- (d) Electric chain hoist⁽¹⁾
- (e) Electric hoist
- (f) Electric winch⁽¹⁾
- (g) Air chain hoist
- (h) Air wire hoist

Note ⁽¹⁾ This term is not shown in 3. (2) Classified Terms, but herein it is shown specially for the purpose of Standard system.

3. Terms and Definitions

The terms and definitions shall be as follows:

Furthermore, for informative reference, the corresponding English idioms equivalent, idioms and figures are shown.

(1) Common Terms

(a) Kind

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
1000	巻上機	MAKIAGEKI	The generic term of apparatuses used for the purposes of lifting, lowering, horizontal pulling, oblique pulling, etc. for load.	hoist, lifting gear	
1100	チェーンブロック	CHĒN BUOKKU	The apparatus to lift and lower the load by operating hand chain wheel through load chain wheel engaging with load chain in the act of speed reducing mechanism and braking mechanism [Reference Attached Fig. (1), JIS B 8802].	manually operated chain hoist, chain block	
1210	チェーンレバー ホイスト	CHĒN REBĀ HOISUTO	The apparatus to carry out lifting, lowering or drawing of load by repeating operation of lever, and as its load chain, the link chain or roller chain is used [Reference Attached Fig. (2)].	chain lever hoist, manually operated lever hoist, ratchet lever hoist	
1220	ワイヤ式レバー ホイスト	WAIYA SHIKI REBĀ HOISUTO	The apparatus to carry out lifting, drawing, or the like of load by using wire rope according to repeating operation of lever [Reference Attached Fig. (3)].	wire lever hoist	

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
1300	電気チェーンブロック	DENKI CHĒN BUOKKU	The apparatus to carry out lifting and lowering of load by speed-reducing revolving the load chain wheel engaging with load chain by using electric motor [Reference Attached Fig. 4, JIS B 8810].	electric chain hoist	
1400	電気ホイスト	DENKI HOISUTO	The apparatus to carry out lifting and lowering of load by speed-reducing revolving the drum wound with a wire rope by using electric motor [Reference Attached Fig. 5, JIS C 9620].	electric hoist, wire rope hoist	
1500	電動ウインチ	DENDOU UINCHI	The device to carry out lifting, lowering, horizontal pulling or the like of load by speed-reducing revolving of drum wound with wire rope by using electric motor [Reference Attached Fig. (6), JIS B 8813].	electric winch	
1610	空気チェーンホイスト	KŪKI CHĒN HOISUTO	The apparatus to carry out lifting, and lowering of load by speed-reducing revolving the load chain wheel engaged with load chain by using air motor [Reference Attached Fig. (7)].	air chain hoist, pneumatic chain hoist	EA HOISUTO
1620	空気ワイヤホイスト	KŪKI WAIYA HOISUTO	The apparatus to carry out lifting, lowering or horizontal pulling of load by speed-reducing revolving the drum wound with a wire rope by using air motor.	air wire hoist, pneumatic wire rope hoist	

JIS B 8810 84 4933608 0006966 T

B 0148-1984
3



Documents

Document Sharing Hub

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
1710	定置式	TEICHI SHIKI	The system to use by fixing the body of hoist [Reference Attached Fig. (8), JIS C 9620].	stationary type	
1720	懸垂式	KENSUI SHIKI	The system to use by suspending with the upper hook of hoist.	suspended type	
1730	トロリ式	TORORI SHIKI	The system to traverse with suspending hoist on trolley.	trolley type, trolley suspended type	
1740	モノレール式	MONO RĒRU SHIKI	The system to traverse with suspending the hoist on lower flange of one grinder of I-section steel or the like (JIS C 9620).	monorail type	
1750	ダブルレール式	DABURU RĒRU SHIKI	The system for the hoist to traverse on the rails attached with the upper parts of two girders (JIS C 9620).	double rail type	
1760	ローヘッド式	RŌ HEDDO SHIKI	The system of hoist of which the minimum distance between the hooks is made small [Reference Attached Fig. 9].	low head room type	SHŌTO HEDDO SHIKI
1771	2速式	NISOKU SHIKI	The hoist of which speed can be changed in two stages in lifting, lowering, traversing or travelling.	dual speed type, two speed type	NIDANSOKU SHIKI, DABURU SUPĪDO SHIKI
1772	微速式	BISOKU SHIKI	The hoist having dual speed of main speed and creep speed according to two units of electric motors.	dual speed type with creep speed	

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
1773	高揚程式	KOUYOUTEI SHIKI	The hoist with range of lift exceeding the standard range of lift.	high lift type	
1774	多点つり式	TATEN TSURI SHIKI	The hoist having plural hooks to suspend large shape load or long lengths.	plural load blocks type	
1781	押ボタン式	OSHI BOTAN SHIKI	The hoist to be operated by push button switch.	push button controlled type, pendant con- trolled type	
1782	引ひも式	HIKI HIMO SHIKI	The hoist to be operated by pulling the cord.	pullcord con- trolled type	
1783	直切り操作式 (じかぎりそうさしき)	JIKAGIRI SOUSA SHIKI	The hoist to control directly the electric motor.	direct con- trolled type	
1784	間接操作式	KANSETSU SOUSA SHIKI	The hoist to control the electric motor by using a contactor.	electro- magnetic controlled type	
1810	防滴形	BOUTEKI GATA	The protection style against intrusion of water, having such structure that receives no harmful influence by water drops falling in direction within 15 degrees from the vertical (JIS C 4004).	drip-proof type	

JIS B*0148 84 ■ 4933608 0006968 3 ■

B 0148-1984
5

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
1820	防雨形	BOU-U GATA	The protection style against intrusion of water, having such structure that receives no harmful influence by water drops falling in direction within 60 degrees from the vertical (JIS C 4004).	splash-proof type	
1830	防まつ(沫)形	BOUMATSU GATA	The protection style against intrusion of water, having such structure that receives no harmful influence by water drops even in any direction (JIS C 4004).	spray-proof type	
1840	防食形	BOUSHOKU GATA	Such structure that can be used even in the atmosphere of corrosive gas and the like.	corrosion-proof type	
1850	防爆形	BOUBAKU GATA	Such structure that it can be used without causing flash and explosion in a place where explosive gas, dust, vapor or the like exists (JIS C 0903, JIS C 0901).	explosion-proof type	
1860	全閉形	ZENPEI GATA	Such structure that solid foreign matters exceeding 1 mm in diameter do not intrude into the electric motor and equipments (JIS C 4004).	dust-protection type	
1870	防じん形	BOUJIN GATA	Such structure that the intrusion of dust into the electric motor and equipments is prevented extremely, and even at intrusion the normal operation is not failed (JIS C 4004).	dust-proof type	

(b) Specifications and Load

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
2110	チェーンブロックの等級	CHĒN BUOKKU NO TOUKYŪ	In chain blocks, the grade classified according to the using conditions (JIS B 8802).	grade of chain hoist	CHĒN BUOKKU NO KURASU
2120	ウインチの等級	UINCHI NO TOUKYŪ	In electric motor winches, the grade classified according to rate of loading and operating hour (JIS B 8813).	grade of winch	UINCHI NO KURASU
2210	つり上げ荷重	TSURIAGE KAJŪ	The maximum load capable of loading on the hoist.	lifting load, hoisting load	
2220	使用荷重	SHIYOU KAJŪ	In link chain, lifting sling, etc., the maximum load capable of being used (JIS B 8812).	working load limit, maximum working load, lifting capacity	
2230	定格荷重	TEIKAKU KAJŪ	The load of lifting load subtracted by the load corresponding to the mass of lifting sling such as hook (JIS B 8802, JIS B 8810, JIS B 8813, JIS C 9620).	rated load, capacity	YŌRYŌ
2240	定格ロープ張力	TEIKAKU RŌPU CHOURYOKU	The maximum rope tension capable of loading at reference layer of drum in a hoist using a wire rope (JIS B 8813).	rated wire rope tension, rated wire rope pull	

JIS B 8802 84 4933608 0006970 1

B 0148-1984

7

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
2241	掛 数	KAKE SŪ	Number of load chains or wire ropes hung between the body and the under hook or the like in a hoist (JIS B 8802).	number of falls	KAKE HONSŪ, JYŌSŪ
2250	垂直荷重	SUICHOKU KAJŪ	The load to receive in vertical direction.	vertical load	
2260	横引能力 (よこびきのうりよく)	YOKOBIKI NOURYOKU	The force capable of travelling the load horizontally.	horizontal pull capacity	
2270	作動荷重	SADOU KAJŪ	The test load to be used for working test in chain block (JIS B 8802).	test load	
2280	過 負 荷	KA FUKA	The fact that a load exceeding the rated load is applied.	over load	ŌBĀ RŌDO, KA KAJŪ
2290	安 全 率	ANZEN RITSU	The value of breaking force divided by the working load limit in link chain, wire rope, hook, etc.	safety factor	
2310	揚 程	YOUTEI	The maximum distance capable of lifting and lowering.	range of lift, lifting height	
2320	フック間最小距離	FUKKU KAN SAISHOU KYORI	The distance from load supporting point of upper hook or lower surface of traversing rail up to the load supporting point of lower hook, when the lower hook or hook block is lifted up to the upper limit (JIS B 8802, JIS B 8810).	minimum head room, drawn-up dimension	MINIMAMU DISUTANSU

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
2410	巻上速度	MAKIAGE SOKUDO	The speed of lifting the rated load at rated voltage and rated frequency (JIS B 8810, JIS C 9620).	lifting speed	
2420	定格ロープ速度	TEIKAKU RŌPU SOKUDO	The rope speed when the rope is wound by rated rope tension at the reference layer of drum (JIS B 8813).	rated wire rope speed	
2430	横行速度 (おうこうそくど)	OUKOU SOKUDO	The speed of trolley to traverse with suspending the rated load at rated voltage and rated frequency (JIS C 9620).	traversing speed	
2440	走行速度	SOUKOU SOKUDO	The travelling speed of crane or the like provided with trolley with suspending the rated load at the rated voltage and rated frequency (JIS C 9620).	travelling speed	
2510	定格電圧	TEIKAKU DENATSU	The voltage to be reference for design and using in a hoist or an electric motor (JIS C 4004).	rated voltage	
2520	定格周波数	TEIKAKU SHŪHASŪ	The frequency of a definite a.c. power source (JIS C 4004).	rated frequency	
2530	定格電流	TEIKAKU DENRYŪ	The value of electric current to flow when lifting the rated load or travelling at the rated voltage and rated frequency.	rated current	

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
2540	時間定格	JIKAN TEIKAKU	The rating at which the temperature rising limit specified for the electric motor and the like is not exceeded and further other restrictions are kept when the hoist is used at the designated conditions for a definite time (JIS C 4004, JIS B 8810, JIS C 9620).	time rating	
2550	反復定格	HAMPUKU TEIKAKU	The rating at which the temperature rise limit specified for electric motor and the like is not exceeded and further other restrictions are kept by alternatively repeating the use and stop when the hoist is used under the designated conditions (JIS B 8813, JIS C 4004).	intermittent rating	
2560	始動電流	SHIDOU DENRYŪ	This means the electric current to flow instantly at the time of starting of lifting at rated voltage and rated frequency with suspending the rated load. (Generally it is several times the rated current.)	starting current	KIDŌ DENRYŪ
2570	最低始動電圧	SAITEI SHIDOU DENRYŪ	The minimum voltage capable of lifting from the state where the rated load is suspended in air at the rated frequency.	minimum starting voltage	
2580	総合入力	SOUGOU NYŪ-RYOKU	Total input relative to electric motor, electromagnetic brake, switch, etc. (JIS B 8810, JIS C 9620).	total input power	

(c) Control

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom..
3110	運転時間	UNTEN JIKAN	The hour operated independent upon load, no load, and inching (JIS B 8813).	operating hour	
3120	総運転時間	SOU UNTEN JIKAN	Cumulative sum of operating hour.	total operating hour	
3130	1日の平均運転時間	ICHINICHI NO HEIKIN UNTEN JIKAN	The hour of total operating hours during one year divided by number of operating days.	average operating hour	
3140	負荷時間率	FUKA JIKAN RITSU	The ratio of total loading operating hour of electric motor relative to the working hour including the pause hour of electric motor.	ED percent, percentage duty cycle	PĀSENTŌ, ED
3150	始動頻度	SHIDOU HINDO	Number of starts including inching of electric motor per one hour (JIS B 8813).	number of starts per hour	
3160	負荷サイクル	FUKA SAIKURU	The cycle of loading and operating hour in a hoist (JIS B 8810, JIS C 9620).	duty cycle	
3170	基準負荷サイクル	KIJUN FUKA SAIKURU	A definite duty cycle to be carried out at rated voltage, rated frequency and rated load (JIS B 8810, JIS C 9620).	rated duty cycle	

JIS B*0148 84 4933608 0006974 9

B 0148-1984
11

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
3210	荷重率	KAJŪ RITSU	The rate of actually applied load relative to the rated load (JIS B 8821, JIS B 8813).	rate of loading	
3310	基準層	KIJUN SOU	The layer including the point of 1/2 of winding length of rope when the wire rope is tightly wound regularly on the drum in an electric winch [Reference Attached Fig. (10), JIS B 8813].	standard layer of drum	
3311	最外層	SAIGAI SOU	The outermost layer when the wire rope is wound on the drum in an electric winch [Reference Attached Fig. (10), JIS B 8813].	outermost layer of drum	
3410	給油	KYŪYU	Supplementary oil or paint oil for speed reducer, bearing, chain, wire rope, etc.	lubrication	
3420	グリースアップ	GURĪSU APPU	Supply oil by grease.	grease up	
3510	ロープの伸び	RŌPU NO NOBI	Elongation of wire rope after using.	elongation of wire rope	
3520	ロープの摩耗	RŌPU NO MAMOU	Abrasion of wire rope after using.	abrasion of wire rope	
3525	ロープのキンク	RŌPU NO KINKU	When the wire rope is loaded in the twist-deformed state, plus kink relief or minus kink relief is caused [Reference Attached Fig. (11), JIS B 8813].	kink of wire rope	

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	Idiom
3530	チェーンの伸び	CHĒN NO NOBI	Elongation of link chain or roller chain after using.	elongation of chain	
3540	チェーンの変形	CHĒN NO HENKEI	Deformation of link chain or roller chain after using.	deformation of chain	
3550	チェーンの摩耗	CHĒN NO MAMOU	Abrasion of link chain or roller chain after using.	abrasion of chain	
3555	チェーンのキンク	CHĒN NO KINKU	The state where longitudinal and lateral links of link chain are connected irregularly [Reference Attached Fig. (12)].	kink of chain	
3610	フックの開き	FUKKU NO HIRAKI	Inside dimension of opening part of hook [Reference Attached Fig. (13)].	opening of hook	
3620	フックの変形	FUKKU NO HENKEI	Deformation of hook after using such as bending, twisting, etc.	deformation of hook	
3710	取扱説明書	TORIATSUKAI SETSUMEISHO	Manual instruction arranged with items required for installation, handling, operation, etc.	operation manual instruction	

JIS B*0148 84 ■ 4933608 0006976 2 ■

B
0148-1984
13