

HITACHI
Inspire the Next

HITACHI HOIST

Abundant types designed to fit any condition



THESE ARE IMPROVED POINTS IN THE HITACHI WIRE ROPE HOISTS SAFETY, DURABILITY, AND OPERATING EASE REALIZED!

1. BRAKE WITH AUTOMATIC ADJUSTING DEVICE

■ Introduced in the new Wire Rope Hoist is the world's first hoist brake with automatic adjusting device developed by Hitachi. This brake is automatically adjusted in proportion to the amount of lining abrasion to render it maintenance-free, eliminating hazardous brake adjustment high above floor level. This device also automatically adjusts to the wear of its link mechanism, thus achieving automatic adjustment of the overall brake mechanism, an exceptional feature.

2. AUXILIARY BRAKING DEVICE

■ Developed by Hitachi as a "first" in the industry, this mechanism is employed to absorb shock during operation. Should the main brake fail to function or should the motor shaft break, this auxiliary braking device is actuated absolutely to prevent a load from dropping. In conjunction with the brake with automatic adjusting device, this auxiliary braking device constitutes a positive, double-braking mechanism.

3. TOP HOISTING SPEED

■ To raise efficiency, hoisting speed is the fastest in Japan. Further, a standard speed type is available to conform to individual customer requirements.

4. DURABLE WIRE ROPE

■ A filler rope usable three times longer than point contact wire rope is adopted.

5. LOAD BLOCK FITTED WITH SAFETY LEVER

■ The load block is provided with a safety lever (to prevent rope from dislodging) in addition to a safety cover. Further, large sheave diameter assures rope prolonged durability.

6. HOOK WITH PUNCH MARKS

NEW IS PROVIDED

■ The punch marks are convenient for inspection of hook opening by only measuring the distance between them.

7. INTEGRATED PUSHBUTTON CABLE

■ The pushbutton cable and protective wire are built into a single assembly so that there will no longer be a broken wire by hooking the protective wire. This design also assures ease of pushbutton operation.

8. PLASTIC PUSHBUTTONS

■ The plastic pushbuttons are light and easy to use without the danger of electric shock.

9. MOTORIZED TROLLEY

■ Wear of I-beam and wheels is negligible. The hoist travels by guide rollers and flangeless wheels, remarkably reducing wear on the I-beam and wheels.

■ Since a brake is provided, travel by inertia is small, facilitating load positioning.

■ Standard headroom type and low-headroom type can be used commonly.

10. CONTROL BOX

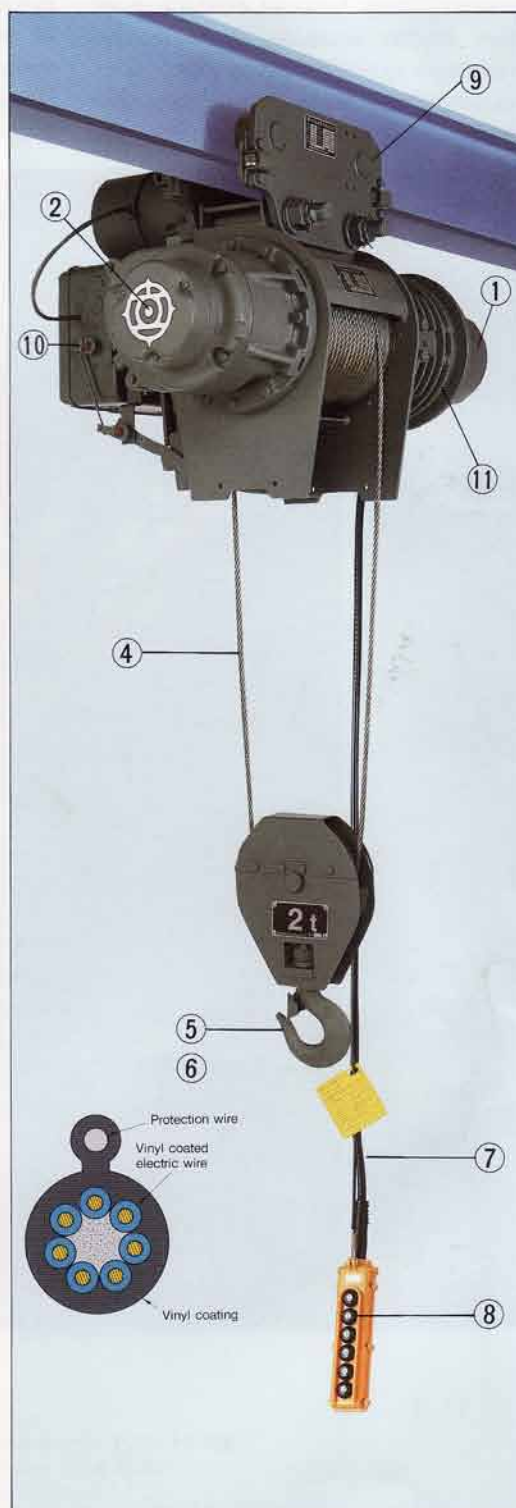
■ Double-limit switch
When the load block has reached the upper limit, the control circuit of the electro-magnetic switch is turned OFF, halting the operation. Should the circuit be short-circuited and the load block be moved further upward, the motor main circuit is cut OFF, stopping the hoist.

■ Reverse phase-prevention device

When reverse phase occurs, the motor main circuit is cut OFF, preventing accidents due to miswiring.

11. MOTOR

■ Hoisting motor is provided with a thermal protector which senses the heat of the motor coil and functions to protect the motor from burning damages caused by over work.



UNIT SYSTEM

Hitachi hoists incorporates a rationalized system in which the brake, motor, drum, reduction gear, and auxiliary braking device are designed as independent units.

Features of Unit System

- Simple to assemble and disassemble
- Increased ease of maintenance and service
- Fewer spare parts required

REDUCTION GEAR UNIT

A grease lubrication system is adopted. The hoist is greased prior to shipment and requires no grease replenishment during operation, ensuring a long period of utilization. The innovative building block system facilitates maintenance and checking.

INSPECTION PORT FOR GEARS IS PROVIDED. It is possible to check the condition of the gear teeth surface and lubrication approximately by eye measurement from the inspection.

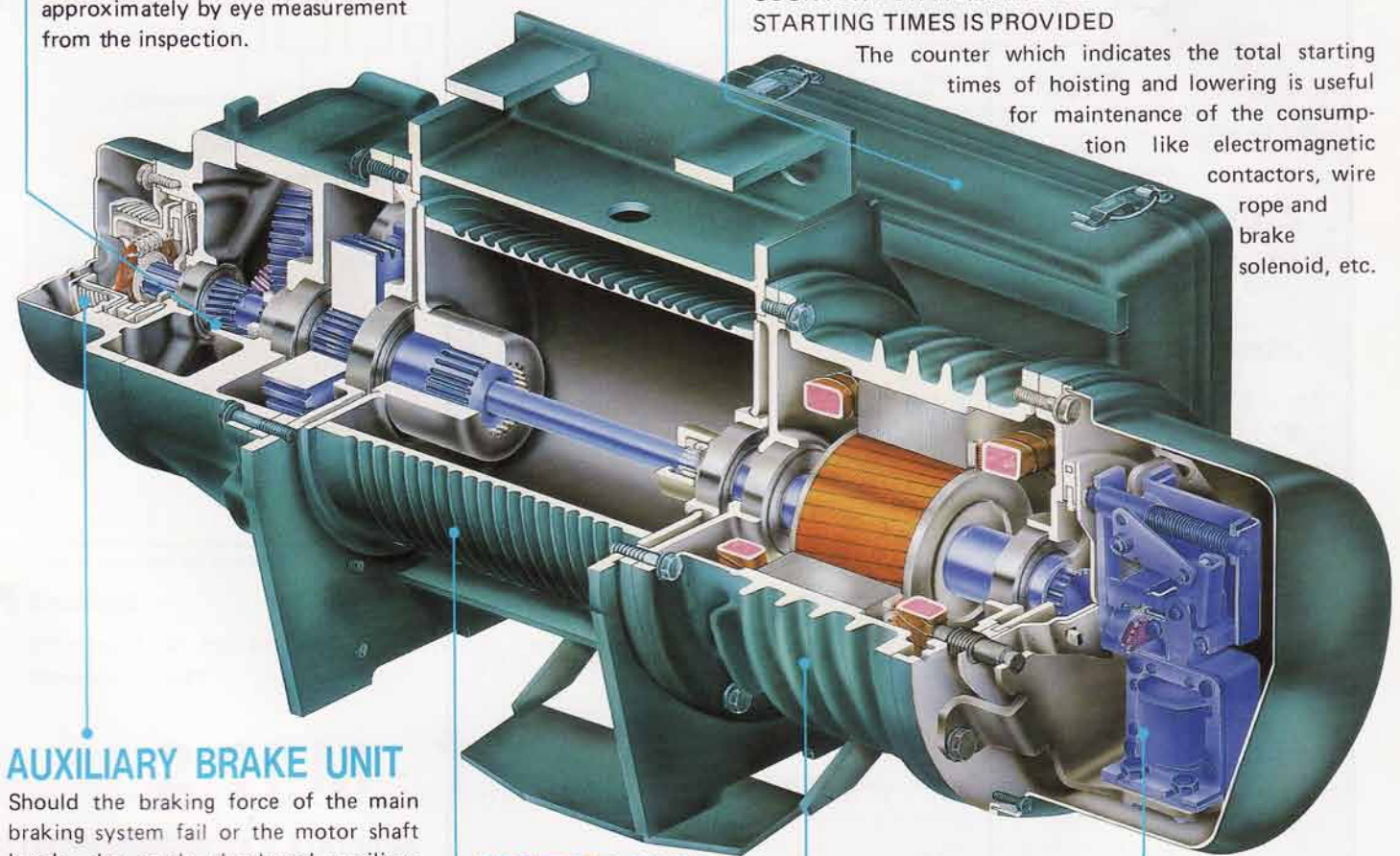
DOUBLE LIMIT SWITCH WITH REVERSE PHASE PREVENTING FUNCTION

Double Limit Switch with Reverse Phase Preventing Function.

This limit switch serves the dual purpose of preventing overhoisting, and overwinding accidents caused by reverse phase connection.

COUNTER FOR MEMORIZING STARTING TIMES IS PROVIDED

The counter which indicates the total starting times of hoisting and lowering is useful for maintenance of the consumption like electromagnetic contactors, wire rope and brake solenoid, etc.



AUXILIARY BRAKE UNIT

Should the braking force of the main braking system fail or the motor shaft break, the newly developed auxiliary brake prevents the load from dropping.

MOTOR UNIT

Each hoist is equipped with a motor which provides an optimal starting torque for the hoist. Employing cooling fans and large-capacity ball bearings, the motor can withstand severe operating conditions.

Hoisting motor is provided with a thermal protector which senses the heat of the motor coil and functions to protect the motor from burning damages caused by over work.

BRAKE UNIT

A brake with automatic adjusting device is adopted, which always exhibits constant braking force, automatically adjusting the force according to the amount of brake lining abrasion.

STEEL MADE DRUM & SHEAVE
NEW FOR UP TO 5 TON
NEW FOR 2-FALLS MODELS EXCEPT ULTRA HIGH LIFT

ARE PROVIDED
 Life of the drum and the sheave is about 3-times longer than current one, since the groove of them are processed by special press method.

OPTIMUM MODEL SELECTABLE FROM A GREAT VARIETY OF TYPES

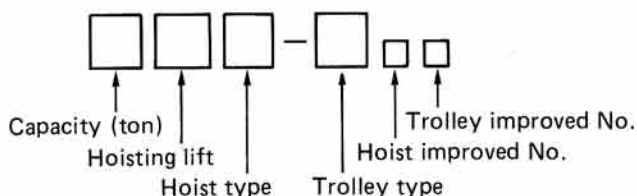
A-SERIES		V-SERIES		
STANDARD HEADROOM	LOW HEADROOM	STANDARD HEADROOM	LOW HEADROOM	DOUBLE-RAIL
		1/2 ton 6m · 12m	1/2 ton 6m	
1 ton 6m · 12m	1 ton 6m	1 ton 6m · 12m	1 ton 6m · 12m	
2 ton 6m · 12m	2 ton 6m	2 ton 6m · 12m	2 ton 6m · 12m	2 ton 12m
3 ton 6m · 12m	3 ton 6m	3 ton 6m · 12m	3 ton 6m · 12m	3 ton 6m · 12m
		5 ton 8m · 12m	5 ton 6m	5 ton 8m · 12m
		7.5 ton 8m · 12m		7.5 ton 8m · 12m
		10 ton 8m · 12m		10 ton 8m · 12m
		15 ton 8m · 12m		15 ton 8m · 12m
		20 ton 12m		20 ton 12m
				30 ton 12m

SPECIALLY DESIGNED HOISTS

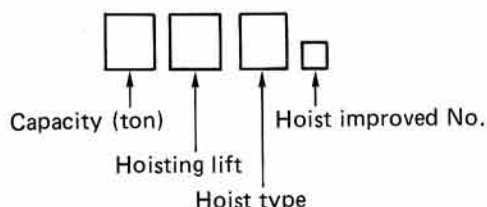
- Equipped with upper/lower limit switches
- Corrosionproof structure
- Stationary
- Extra-high lift
- Multiple-lift
- For special hoisting speeds
- For special traveling speeds
- Rainproof
- Equipped with auxiliary hoist
- Explosionproof based on JIS

PRIOR TO SELECTING HOIST

EXPLANATION OF HITACHI HOIST TYPES FOR HOIST WITH TROLLEY



FOR HOIST ONLY



Capacity	Hoisting lift		Hoist type	Trolley type
	Low lift	High lift		
Rated load indicated by tons	No mark	H	V-Series Standard headroom type M Low headroom type L Double rail type D A Series Standard headroom type AM low headroom type AL	Manual driven trolley . . P Chain driven trolley . . C Motorized trolley . . T

* Serial numbers are applied to improved No.

EXAMPLE

V-Series, 2-ton, high-lift, high-speed, ordinary-type hoist with motorized trolley

2HM-T75

STANDARD SPECIFICATIONS

- Specifications
- Control Voltage
200 V for V-Series, 24 V for A-Series
- Operating method
Push-button operation using a control panel on the floor
- Rating
30 minutes (to JIS C9620, Japanese Industrial Standard)

■ Standard push-buttons

Type	No. of push buttons	Indication
Without Motorized Trolley	2	↑ ↓
With Motorized Trolley Except 5 ton Double Rail Type (up to 5 ton)	6	↑ ↓ ← → ↻
With Motorized Trolley Include 5 ton Double Rail Type (7.5 ton and up)	8	ON OFF ↑ ↓ ← → ↻

■ Power feed system

Type	Power feed system
Suspension-type with chain-driven trolley	Cable
With motorized trolley (Both V series and N type)	Cable

- * No cable is provided in the cable power feed system.
- ** No power feed equipment such as collector or collector pole is provided to the collector power feed system. The below-mentioned for the collector power feed system.

■ Starting frequency and duty factor

Load conditions		Operating hours/day					
		~1	~2	~4	~8	~16	16~
Light	Load less than half the rating, and the rated load seldom applied	V-Series Duty Factor: 40% (40) No. of starts: 400/h (250)					
Medium	Almost the same ratio of small, medium, and full loads	A-Series Duty Factor: 25% No. of starts: 250/h					
Heavy	Load near to the rated one	V-Series 40% (25) 250/h (250)					

Obtain the duty factor, using the following formula:

$$\text{Duty factor (\%)} = \frac{\text{Total minutes of motor energized during one hour hoisting operation}}{60 \text{ minutes}} \times 100$$
 Parenthesized figures for over 15-ton models.

- Protective construction
Dustproof type
- Applicable standards
JIS C9620 (Electric Hoist) and crane construction standards
- The main body and the trolley for a hoist with a chain-driven trolley are delivered separately.
- When manually using the trolley, detach the chain from the trolley.

A-SERIES HOIST

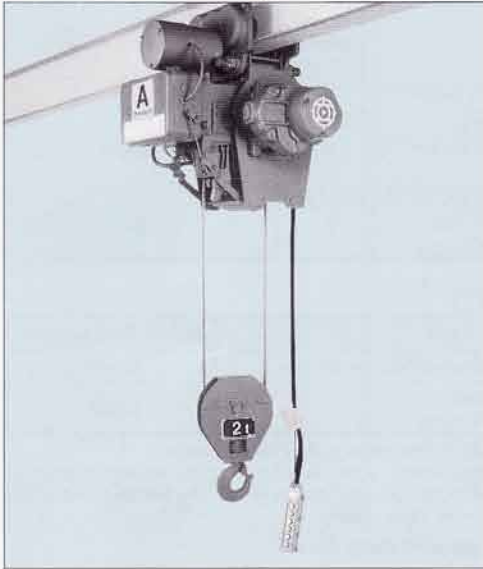
HOIST WITH MOTORIZED TROLLEY

STANDARD HEADROOM TYPE HOIST

(With suspension/chain-driven and motorized trolley)

This is an orthodox type of hoist widely utilized for general purposes. It boasts high performance for use in rugged jobs such as general production in factories, mining, railroads, and warehouses.

Standard-Headroom Type Hoist



Specifications

Capacity (ton)		1		2		3		
Hoisting lift (m)				6 and 12				
Hoisting	Speed (m/min)	50 Hz		7	6	5		
		60 Hz		8.4	7	6		
	Motor (kW)	50 Hz		1.2	2.1	2.6		
		60 Hz		1.5	2.4	3.1		
No. of poles				4				
Traveling	Speed (m/min)	50 Hz		21				
		60 Hz		25				
	Motor (kW)	50 Hz		0.30	0.30	0.45		
		60 Hz		0.36	0.36	0.55		
No. of poles				4				
Wire rope	No. of falls				2			
	Composition				6×Fi (29)-B			
	Diam. (mm)		φ8	φ11.2	φ14			
Rating				25% ED 250 Starts/h				
Operating method				Floor-controlled Pushbutton operation				
Electric source (3 phase)				220/380-415V 50Hz				
Control voltage (V)				24-27				

NOTE: These hoists are classified between Ia and II of FEM.

Dimensional Diagram Suspension Type Hoist

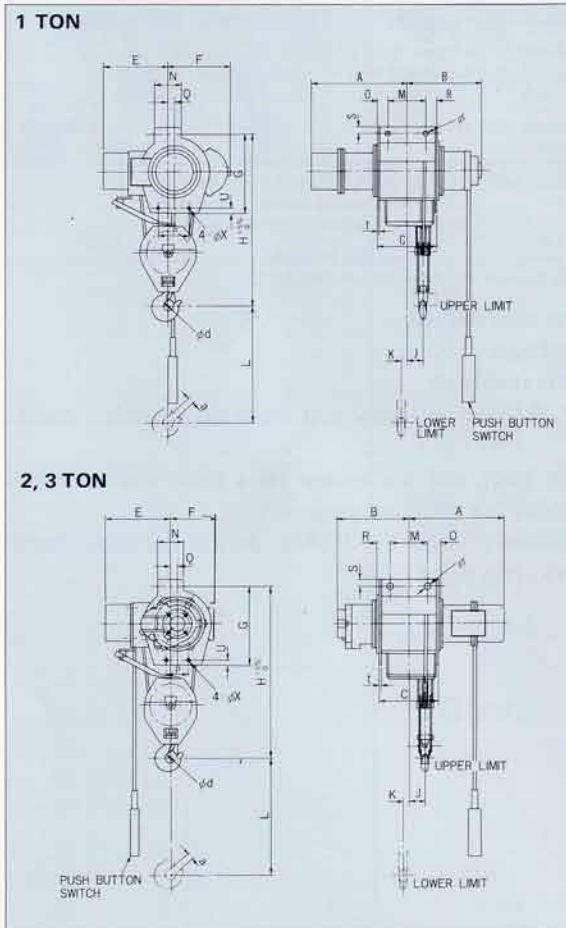


Table of Dimensions

Model	1AM ₆	1HAM ₆	2AM ₇	2HAM ₇	3AM ₈	3HAM ₈	
Capacity (ton)	1		2		3		
Approx. dimensions (mm)	L	6000	12000	6000	12000	6000	12000
	H	710		910		1050	
	A	480	650	545	580	565	605
	B	350	385	435	615	460	640
	M	200		200		200	
	φ	26		36		36	
	N	139		139		164	
	E	345		400		460	
	F	255		220		245	
	φd	45		56		71	
	a	23		36		42	
	J	85	115	75	100	80	110
	K	20	90	30	110	35	120
	O	47	217	56	91	65	106
	R	47	80	58	237	79	262
	Q	32.5		35.5		41.5	
	S	35	40	35		35	
	C	294	497	314	528	344	568
	t	9		9		9	
	G	390		500		555	
P	120		120		180		
U	28		28		35		
φX	10		10		14		
Approx. weight (kg)	115	125	190	210	230	255	
Push-button indication			↑	↓			

Dimensional Diagram Standard-Headroom Type with Motorized Trolley

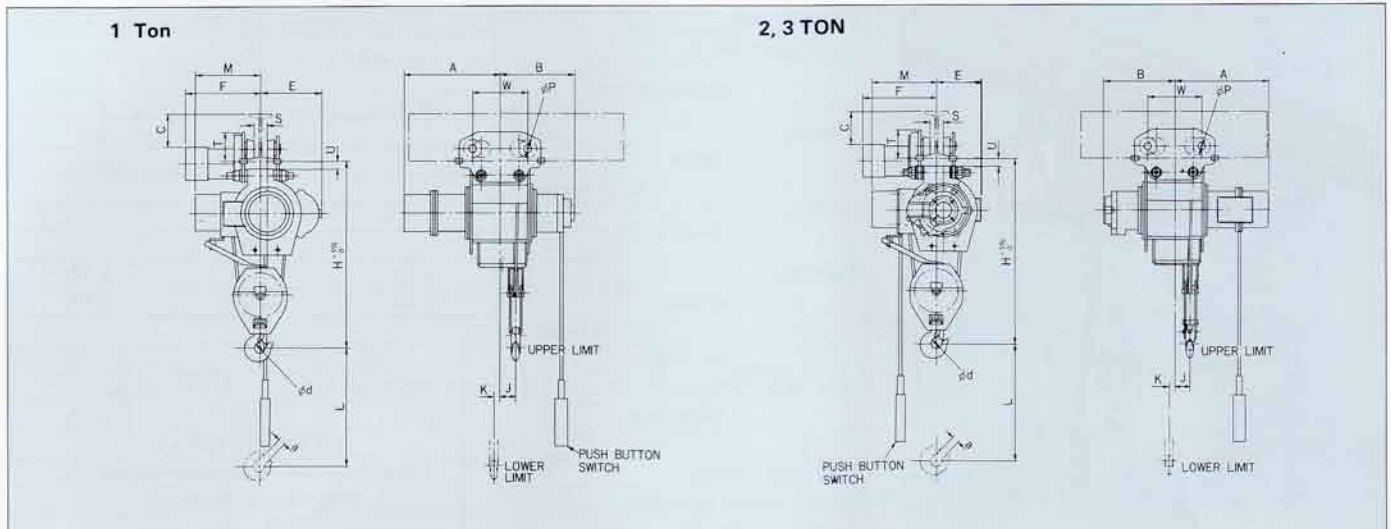


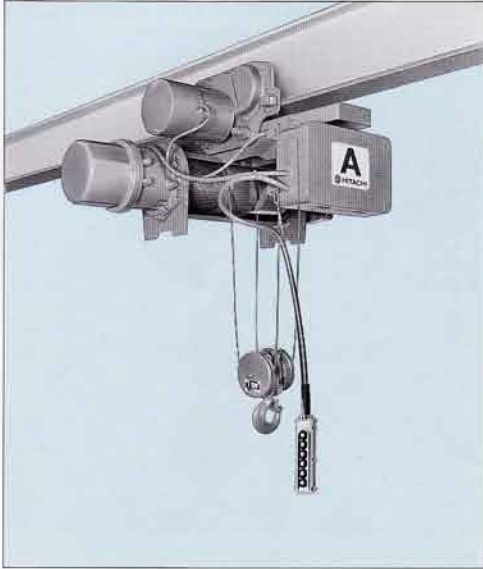
Table of Dimensions

Model	1AM-T _{6S}		1HAM-T _{6S}		2AM-T _{7S}		2HAM-T _{7S}		3AM-T _{6S}		3HAM-T _{6S}							
Hoist type	1AM ₆		1HAM ₆		2AM ₇		2HAM ₇		3AM ₆		3HAM ₆							
Trolley type	1T ₅		1T ₅		2T ₅		2T ₅		3T ₅		3T ₅							
Capacity (ton)	1				2				3									
Approx. dimensions (mm)	L	6,000	12,000			6,000	12,000			6,000	12,000							
	H	790				985				1,115								
	A	480	650			545	580			565	605							
	B	350	385			435	615			460	640							
	M	345				400				460								
	W	200/290				200/290				230/310								
	K	20	90			30	110			35	120							
	J	85	115			75	100			80	110							
	E	255				220				245								
	φd	45				56				71								
	φp	96				96				128								
a	23				36				42									
Min. curve Radius (m)	1.5				1.8				2.0									
I-Beam	Dimensions (mm)																	
		F	S	T	U	C	F	S	T	U	C	F	S	T	U	C		
	200 × 100 × 7	374	42	148	47 (42)	135	378	42	148	42	135							
	250 × 125 × 7.5	387	67	151	44 (39)	185	391	67	151	39	185	417	52	177	38	180		
	300 × 150 × 11.5	400	92	160	35 (30)	225	404	92	160	30	225	430	77	187	28	220		
450 × 175 × 11											443	102	185	30	370			
Approx. weight (kg)	165			175			255			275			320			345		
Push-button indication																		

- NOTES: 1. Dimensions W are for the drive side/driven side.
 2. Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size.
 3. () dimensions represent dimensions of 1HAM₆ (Hoist type)

LOW HEADROOM TYPE HOIST

Low-Headroom Type Hoist



Specifications

Capacity (ton)		1		2		3	
Hoisting lift (m)				6			
Hoisting	Speed (m/min)	50 Hz		7	6	5	
		60 Hz		8.4	7	6	
	Motor	50 Hz		1.2	2.1	2.6	
		60 Hz		1.5	2.4	3.1	
		No. of poles		4			
Traveling	Speed (m/min)	50 Hz		21			
		60 Hz		25			
	Motor	50 Hz		0.30	0.30	0.45	
		60 Hz		0.36	0.36	0.55	
		No. of poles		4			
Wire rope	No. of falls				4		
	Composition		6 × W (19)-B		6 × Fi (29)-B		
	Diam. (mm)		φ6.3		φ8		φ10
Rating				25% ED 250 Starts/h			
Operating method				Floor-controlled Pushbutton operation			
Electric source (3 phase)				220/380-415V 50Hz			
Control voltage (V)				24-27			

NOTE: These hoists are classified between Ia and I of FEM.

Dimensional Diagram

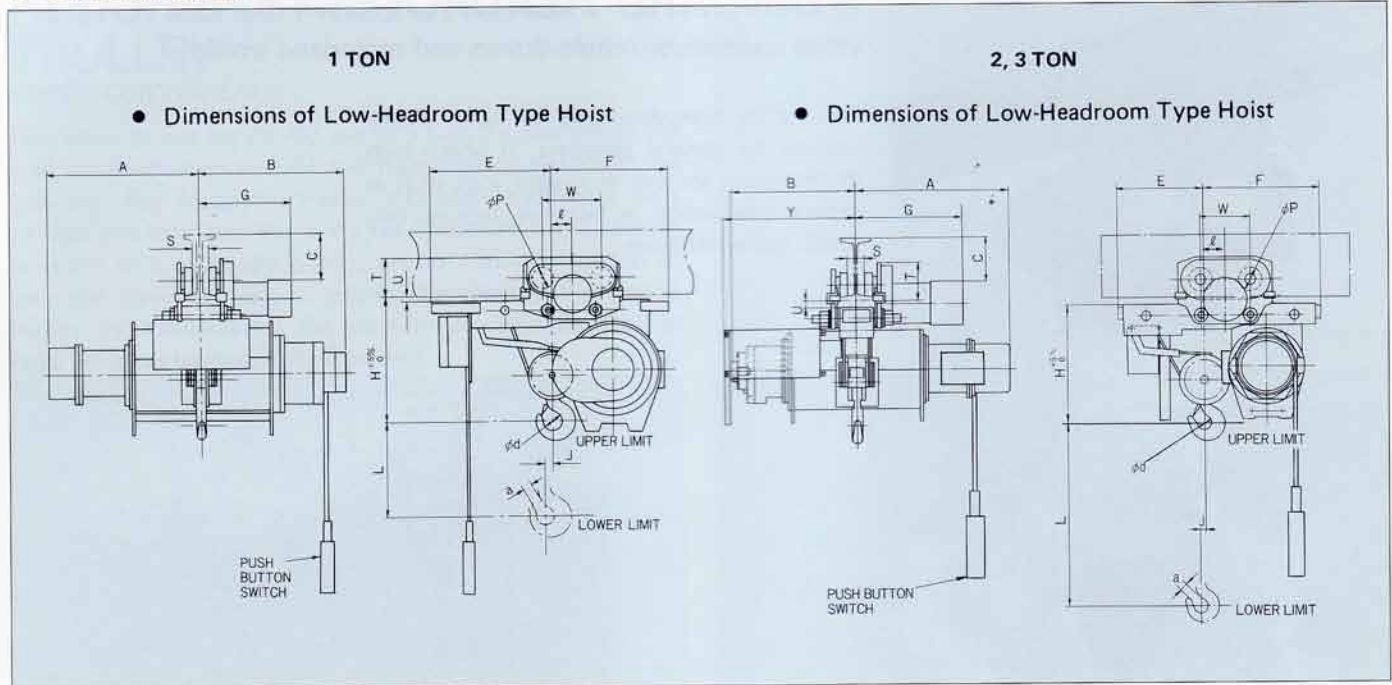


Table of Dimensions

Model		1AL-T55					2AL-T55					3AL-T55				
Hoist type		1AL5					2AL5					3AL5				
Trolley type		1T5					2T5					3T5				
Capacity (ton)		1					2					3				
Approx. dimensions (mm)	L	6,000					6,000					6,000				
	H	425					515					600				
	A	600					655					705				
	B	475					545					585				
	W	200/290					200/290					230/310				
	E	420					365					400				
	F	375					480					575				
	φd	45					56					71				
	J	28					42					46				
	Y	—					625					620				
	φP	96					96					128				
a	23					36					42					
ℓ	55					85					100					
Min. curve Radius (m)		1.5					1.8					2.0				
I-Beam		S	T	U	C	G	S	T	U	C	G	S	T	U	C	G
200×100×7		42	148	52	135	374	42	150	32	135	378					
250×125×7.5		67	151	49	185	387	67	153	29	185	391	52	177	28	180	417
300×150×11.5		92	160	40	225	400	92	163	19	225	404	77	187	18	220	430
450×175×11												102	185	20	370	443
Approx. weight (kg)		180					270					370				
Push-button indication																

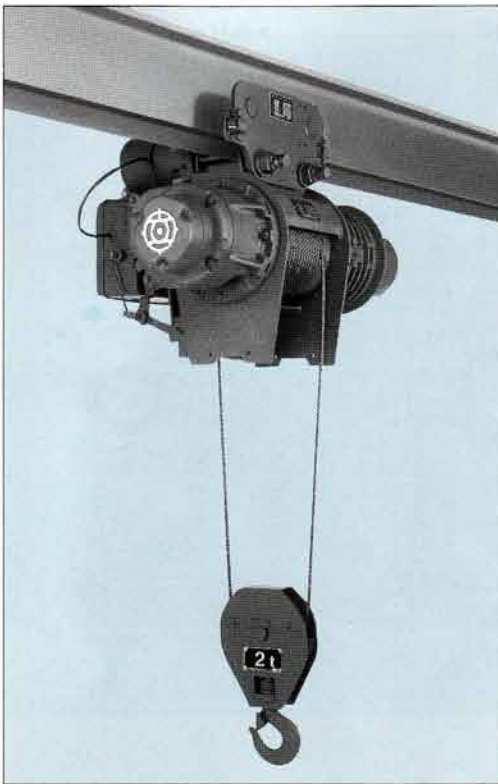
NOTE: Dimensions W are for the drive side/driven side.
 Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size.

V-SERIES HOIST

HOIST WITH MOTORIZED TROLLEY

STANDARD HEADROOM TYPE HOIST

(With suspension/chain-driven and motorized trolley)



This is an orthodox type of hoist widely utilized for general purposes. It boasts high performance for use in rugged jobs such as general production in factories, mining, railroads, and warehouses.

Specifications

Capacity (ton)		1/2	1	2	3	5	7.5	10	15	20		
Hoisting lift (m)		6 and 12					8 and 12				12	
Hoisting	Hoisting speed (m/min)	50 Hz	11	11	8.4	7.5	6.7	6.0	5.0	5.0	4.2	
		60 Hz	13	13	10	9	8	7.2	6.0	6.0	5.0	
	Hoisting motor (kW)	50 Hz	1.0	1.9	2.9	4.2	5.9	7.9	8.8	6.7×2	7.5×2	
		60 Hz	1.2	2.3	3.5	5	7	9.5	10.5	8×2	9×2	
No. of poles		4					4					
Traveling	Traveling speed (m/min)	50 Hz	21					14				
		60 Hz	25					17				
	Traveling motor (kW)	50 Hz	0.30	0.30	0.30	0.45	0.63	0.47×2	0.47×2	0.7×2	0.7×2	
		60 Hz	0.36	0.36	0.36	0.55	0.75	0.56×2	0.56×2	0.84×2	0.84×2	
No. of poles		4					6		4			
Wire rope	No. of falls		2					4				
	Composition		6×W(19)-B					6×Fi(29)-B				6×Fi(29) IWRC-B
	Diam. (mm)		φ6.3	φ8	φ11.2	φ14	φ12.5	φ14	φ16	φ20	φ22.4	
Rating		40%ED400 Starts/h							40%ED250 Starts/h			
Operating method		Push-button operation					Push-button operation					
Electric source (3 phase)		V					Hz					
Control voltage		200V 50/60Hz										

HOIST WITH MOTORIZED TROLLEY

HERE'S CONVENIENCE

This hoist proves handy for use in a busy factory where the load traveling range is wide and transporting operations are frequent. The motorized trolley efficiently transports loads to destined locations. When the rail is installed the full length or width of a building's ceiling, the hoist may be used as an overhead traveling crane. Loads can be speedily transported merely by manipulating the push-button switches. Several hoist units can be mounted on one rail.

Dimensional Diagram

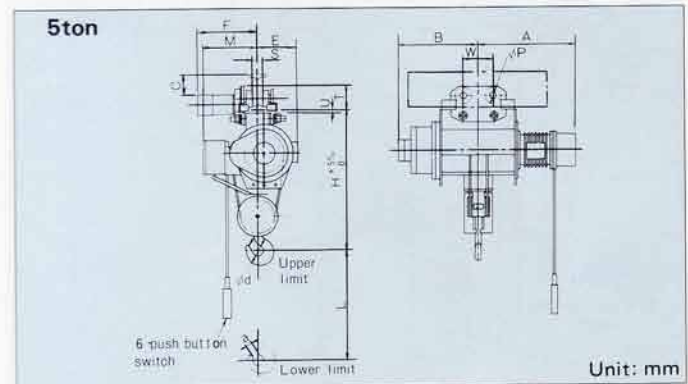
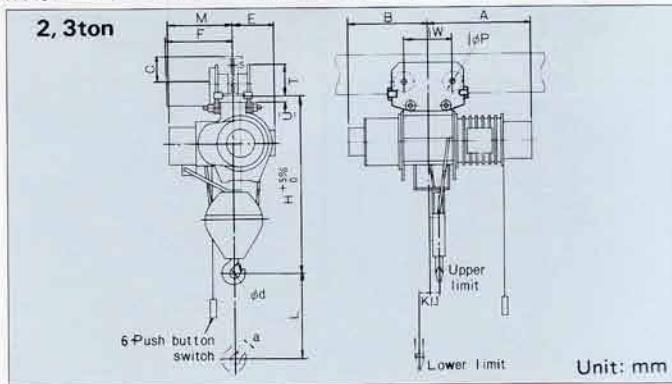
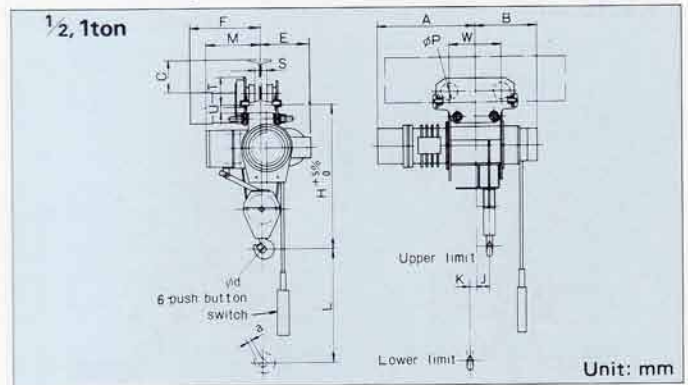


Table of Dimensions

Model	1/2M-T ₆₅	1/2HM-T ₆₅	1M-T ₆₅	1HM-T ₆₅	2M-T ₇₅	2HM-T ₇₅	3M-T ₈₅	3HM-T ₈₅	5M-T ₉₅	5HM-T ₉₅																				
Hoist type	1/2M ₆	1/2HM ₆	1M ₆	1HM ₆	2M ₇	2HM ₇	3M ₈	3HM ₈	5M ₉	5HM ₉																				
Trolley type	1/2T ₃	1/2T ₃	1T ₃	1T ₃	2T ₃	2T ₃	3T ₃	3T ₃	5T ₃	5T ₃																				
Capacity (ton)	1/2		1		2		3		5																					
Approx. dimensions (mm)	L	6,000	12,000	6,000	12,000	6,000	12,000	6,000	12,000	8,000	12,000																			
	H	740		790		985		1,115		1,190																				
	A	485	655	545	715	595	630	645	690	845	955																			
	B	355	380	350	385	435	615	475	660	690	800																			
	M	335		345		415		460		455																				
	W	200/290		200/290		200/290		230/310		250/330																				
	K	20	100	20	90	30	110	35	120	-	-																			
	J	80	105	85	115	75	100	80	110	-	-																			
	φd	40		45		56		71		90																				
	φp	96		96		96		128		156/140 (DRIVE SIDE/DRIVEN SIDE)																				
a	21		23		36		42		58																					
Min. curve radius(m)	1.3 (5.0)		1.5		1.8		2.0		3.0																					
Dimensions with respect to I-beam	E	F	S	T	U	C	E	F	S	T	U	C	E	F	S	T	U	C	E	F	S	T	U	C						
(150 × 75 × 5.5)	190	361	17	147	53 (43)	85																								
200 × 100 × 7	190	374	42	148	52 (42)	135	255	374	42	148	47 (42)	135	220	378	42	148	42	135												
250 × 125 × 7.5	190	387	67	151	49 (39)	185	255	387	67	151	44 (39)	185	220	391	67	151	39	185	245	417	52	177	38	180						
300 × 150 × 11.5							255	400	92	160	35 (30)	225	220	404	92	160	30	225	245	430	77	187	28	220	305	450	77	225	30	215
450 × 175 × 11																			245	443	102	185	30	370	305	463	102	223	32	365
Approx. weight (kg)	145		155		175		195		280		310		385		415		685		745											

- NOTES: 1. Dimensions W represent dimensions of drive side/driven side.
 2. 1/2 ton-When an I-beam (150 × 75 × 5.5) is used, the minimum curve radius is 5m.
 3. 1/2 ton-When an I-beam (150 × 75 × 5.5) is used, 50mm-thick shims are necessary between the building and the I-beam.
 4. Unless otherwise specified trolley is being assembled so as to meet sludged I-beam size.
 5. () dimensions represent dimensions of 1/2HM₆ and 1HM₆ (Hoist type)

Dimensional Drawing of Standard Headroom

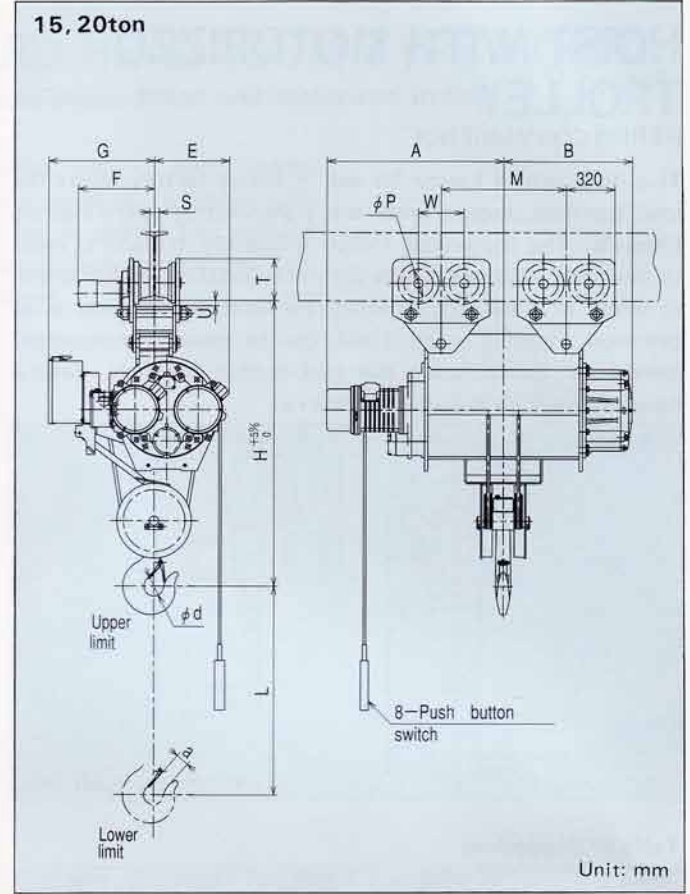
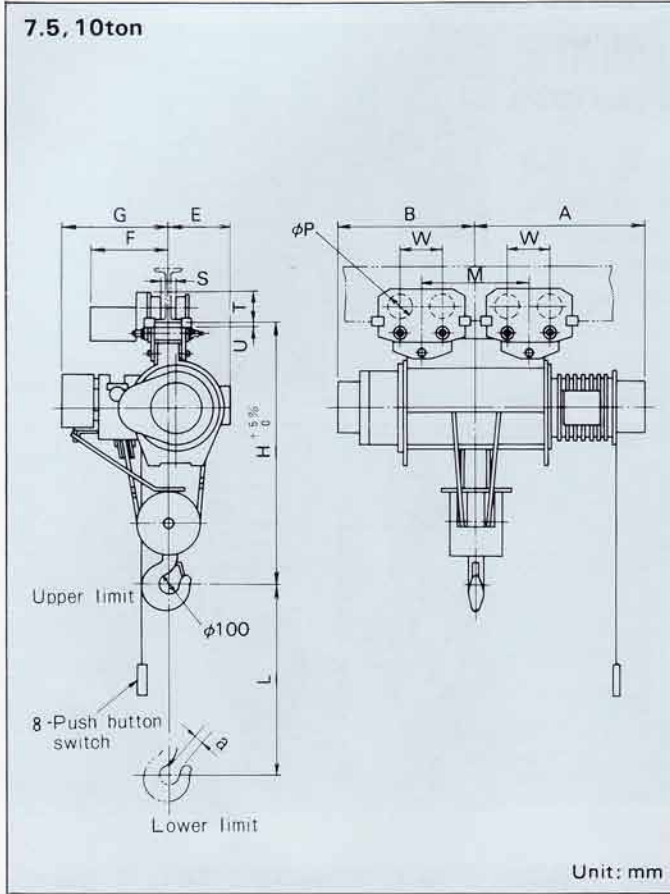


Table of Dimensions

Model	7.5M-T ₅₅	7.5HM-T ₅₅	10M-T ₅₅	10HM-T ₅₅	15M-T ₅₅	15HM-T ₅₅	20HM-T ₅₅							
Hoist type	7.5M ₅	7.5HM ₅	10M ₅	10HM ₅	15M ₅	15HM ₅	20HM ₅							
Trolley type	4FT ₅ ×2	4FT ₅ ×2	5FT ₅ ×2	5FT ₅ ×2	10AT ₅ ×2	10AT ₅ ×2	10AT ₅ ×2							
Capacity (ton)	7.5		10		15		20							
Approx. dimensions (mm)	L	8,000	12,000	8,000	12,000	8,000	12,000	12,000						
	H	1,345		1,515		1,865		2,010						
	A	1,075	1,150	1,075	1,150	1,060	1,160	1,210						
	B	830	905	885	960	750	850	900						
	E	315		355		500		500						
	G	570		590		705		705						
	M	560	760	650	786	820		900						
	W	230/310(Drive side/Driven side)		250/330(Drive side/Driven side)		300		300						
	φd	100		100		130		165						
	φp	128		156/140(Drive side/Driven side)		190		190						
a	69		69		86		108							
Min. curve Radius(m)	Straight				Straight				Straight					
Dimensions with respect to I-beam	S	T	U	F	S	T	U	F	S	T	U	F		
450 × 175 × 11	102	184	30	453	102	225	30	460	62	280	30	524		
600 × 190 × 13	117	189	25	461	117	230	25	468	77	285	25	532		
Approx. weight (kg)	930		990		1,230		1,290		2,340		2,540		2,940	

NOTE: Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size.

LUG SUSPENSION TYPE HOIST

HERE'S CONVENIENCE ...

This hoist is handy when hoisting or lowering cargo in a definite location. Transportation of the hoist main body, installation to the ceiling, and hoist removing are quite simple.

Dimensional Diagram

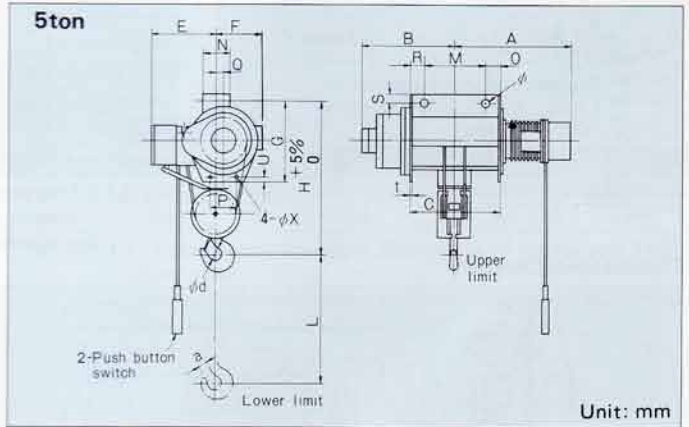
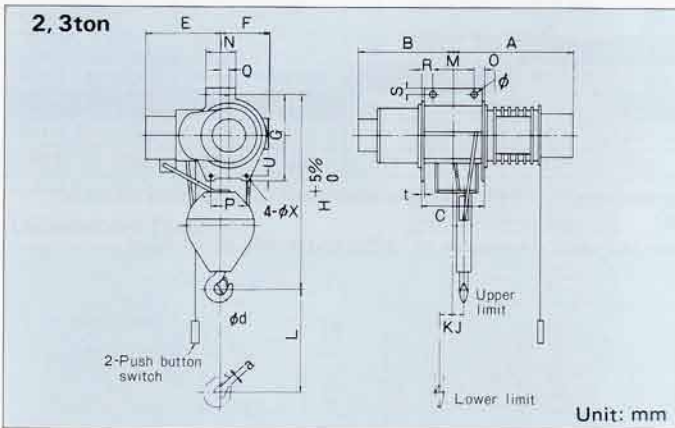
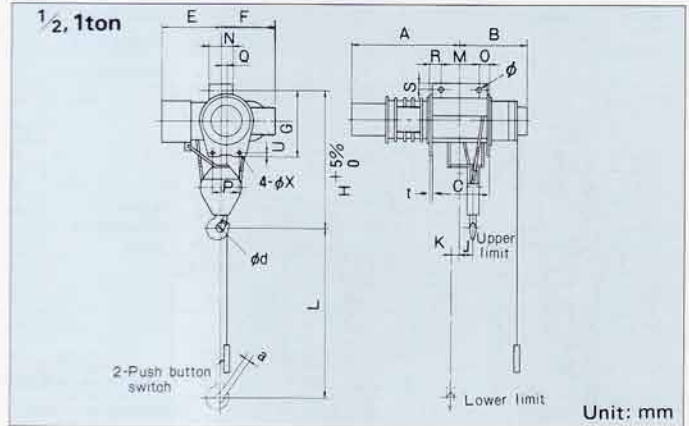


Table of Dimensions

Model	1/2M _s	1/2HM _s	1M _s	1HM _s	2M ₇	2HM ₇	3M _s	3HM _s	5M _s	5HM _s	
Capacity (ton)	1/2		1		2		3		5		
Approx. dimensions (mm)	L	6,000	12,000	6,000	12,000	6,000	12,000	6,000	12,000	8,000	12,000
	H	660		710		910		1,050		1,110	
	A	485	655	545	715	595	630	645	690	845	955
	B	355	380	350	385	435	615	475	660	690	800
	M	200		200		200		200		270	
	φ	26		26		36		36		46	
	N	114		139		139		164		189	
	E	335		345		415		460		455	
	F	190		255		220		245		305	
	φd	40		45		56		71		90	
	a	21		23		36		42		58	
	J	80	105	85	115	75	100	80	110	-	-
	K	20	100	20	90	30	110	35	120	-	-
	O	52	80	47	80	56	91	65	106	198	310
	R	52	230	47	217	58	237	79	262	198	310
	Q	25.5		32.5		35.5		41.5		52.5	
	S	30	40	35	40	35		35		50	
C	304	510	294	497	314	528	344	568	666	890	
t	9		9		9		9		12		
G	380		390		500		555		590		
P	120		120		120		180		180		
U	28		28		28		35		35		
φX	10		10		10		14		14		
Approx. weight (kg)	95	105	125	145	215	245	295	325	550	610	

HOIST WITH PUSH-DRIVEN TROLLEY

Dimensional Diagram

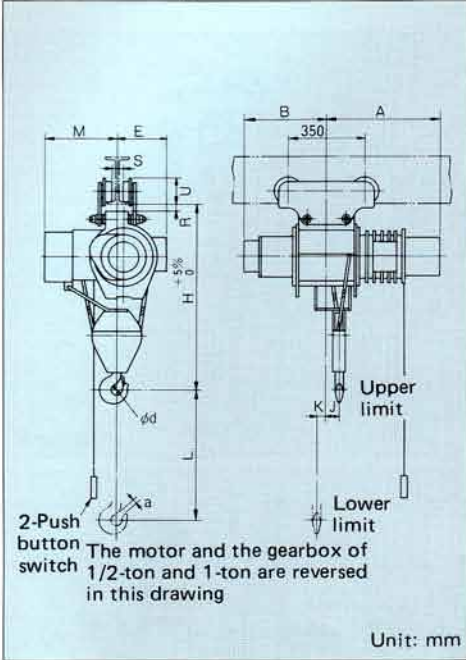


Table of Dimensions

Model	1/2M-P ₆₅		1/2HM-P ₆₅		1M-P ₆₅		1HM-P ₆₅		2M-P ₇₅		2HM-P ₇₅		3M-P ₆₅		3HM-P ₆₅				
Hoist type	1/2M ₆		1/2HM ₆		1M ₆		1HM ₆		2M ₇		2HM ₇		3M ₆		3HM ₆				
Trolley type	1P ₅		1P ₅		1P ₅		1P ₅		3P ₅		3P ₅		3P ₅		3P ₅				
Capacity (ton)	1/2				1				2				3						
Approx. dimensions (mm)	L	6,000	12,000	6,000	12,000	6,000	12,000	6,000	12,000	6,000	12,000	6,000	12,000	6,000	12,000	6,000	12,000		
	H	730		775		985		1,115											
	A	485	655	545	715	595	630	645	690										
	B	355	380	350	385	435	615	475	660										
	M	335		345		415		460											
	E	190		255		220		245											
	K	20	100	20	90	30	110	35	120										
	J	80	105	85	115	75	100	80	110										
	φd	40		45		56		71											
a	21		23		36		42												
Min. curve radius(m)	4.0				4.0				4.0				4.0						
Dimensions with respect to I-beam	U	R	S	U	R	S	U	R	S	U	R	S	U	R	S	U	R	S	
150 × 75 × 5.5	38 (28)	115	26																
200 × 100 × 7	37 (27)	116	51	32 (27)	116	51	40	140	33										
250 × 125 × 7.5	34 (24)	118	76	29 (24)	118	76	37	143	58	37	143	58	37	143	58				
300 × 150 × 11.5				19 (14)	128	101	27	153	83	27	153	83	27	153	83				
450 × 175 × 11													29	151	108				
Approx. weight (kg)	120	130	150	170	265	295	345	375											

NOTE : 1. Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size.

2. () dimensions represent dimensions of 1/2HM₆ and 1HM₆ (Hoist type)

Dimensional Diagram

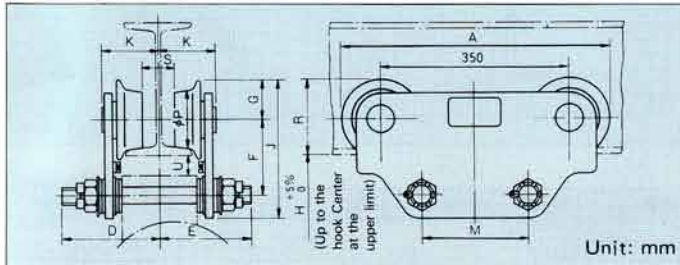


Table of Dimensions

Model	1P ₅						3P ₅												
Capacity (ton)	1/2			1			2			3									
Approx. dimensions (mm)	A	476			500														
	F	120			140														
	G	63			75														
	H	730			775			985			1,115								
	J	223			257														
	M	200			200														
φp	85			110															
Min. curve radius (m)	4.0						4.0												
Dimensions with respect to I-beam	D	E	K	U	R	S	D	E	K	U	R	S	D	E	K	U	R	S	
(150 × 75 × 5.5)	178	149	79	38 (28)	115	26													
200 × 100 × 7	178	149	92	37 (27)	116	51	178	149	92	32 (27)	116	51	198	198	93	40	140	33	
250 × 125 × 7.5	178	149	105	34 (24)	118	76	178	149	105	29 (24)	118	76	198	198	106	37	143	58	198
300 × 150 × 11.5							178	149	118	19 (14)	128	101	198	198	119	27	153	83	198
450 × 175 × 11																			198
Approx. weight (kg)	25						50												
Applicable hoist type	1/2(H)M ₆			1(H)M ₆			2(H)M ₇			3(H)M ₆									

NOTES : 1. Weight indicates empty weight of trolley.

2. This trolley is only for standard headroom type hoist.

3. I-beam (150 × 75 × 5.5) is only for 1/2-ton hoist. 4. () dimensions represent dimensions of 1/2HM₆ and 1HM₆ (Hoist type)

5. Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size.

HOIST WITH CHAIN-DRIVEN TROLLEY

Dimensional Diagram

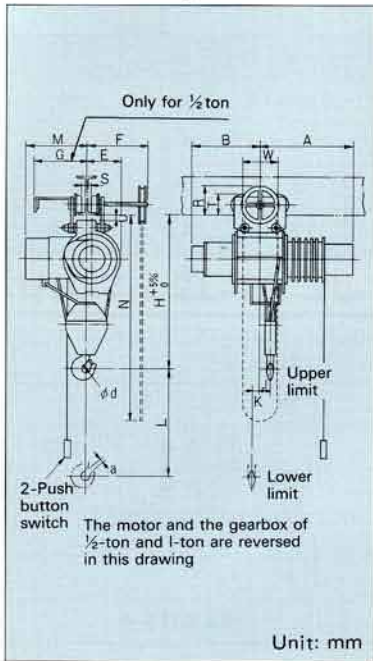
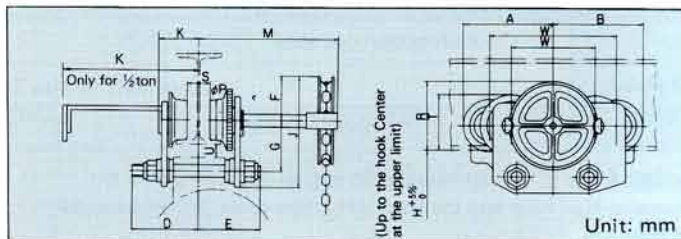


Table of Dimensions

Model	1/2M-C _{5.5}	1/2HM-C _{5.5}	1M-C _{6.5}	1HM-C _{6.5}	2M-C _{7.5}	2HM-C _{7.5}	3M-C _{8.5}	3HM-C _{8.5}																
Hoist type	1/2M ₆	1/2HM ₆	1M ₆	1HM ₆	2M ₇	2HM ₇	3M ₈	3HM ₈																
Trolley type	1/2C ₅		1C ₅		3C ₅		3C ₅																	
Capacity (ton)	1/2		1		2		3																	
Approx. dimensions (mm)	L	6,000	12,000	6,000	12,000	6,000	12,000	6,000	12,000															
	H	715		775		985		1,115																
	A	485	655	545	715	595	630	645	690															
	B	355	380	350	385	435	615	475	660															
	M	335		345		415		460																
	E	190		255		220		245																
	W	189/240		189/350		231/350		231/350																
	K	20	100	20	90	30	110	35	120															
	J	80	105	85	115	75	100	80	110															
	φd	40		45		56		71																
	a	21		23		36		42																
	N	6,300	12,800	6,300	12,800	6,200	12,700	6,200	12,700															
Min. curve radius (m)	1.3		4.0		4.0		4.0																	
Dimensions with respect to I-beam	F	G	S	T	U	R	F	G	S	T	U	R	F	G	S	T	U	R						
150 × 75 × 5.5	337	247	26	120	28 (18)	133																		
200 × 100 × 7	350	260	51	121	27 (17)	134	350	—	51	121	32 (27)	134	366	—	33	150	40	188						
250 × 125 × 7.5	363	273	76	124	24 (14)	137	363	—	76	124	29 (24)	137	379	—	58	153	37	200	379	—	58	153	37	200
300 × 150 × 11.5							376	—	101	134	19 (14)	147	392	—	83	163	27	210	392	—	83	163	27	210
450 × 175 × 11																			405	—	108	161	29	208
Approx. weight (kg)	145		155		165		185		290		320		370		400									

Dimensional Diagram



NOTES: 1. () dimensions represent dimensions of 1/2HM₆ and 1HM₆ (Hoist type)
2. Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size.

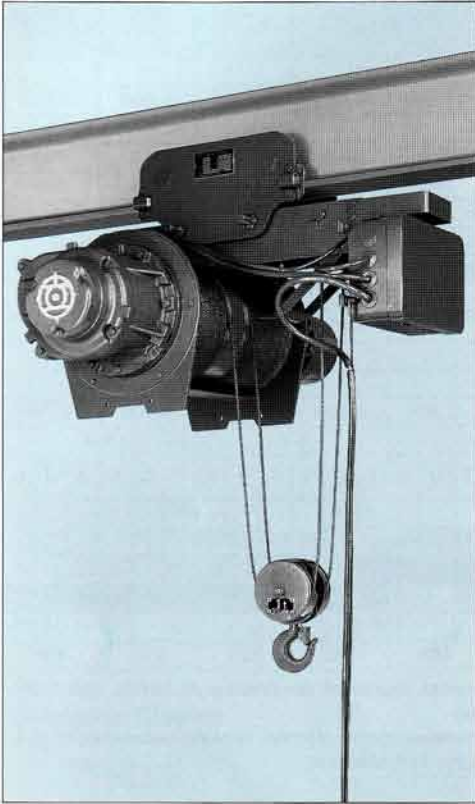
Table of Dimensions

(This table applies to the standard headroom type. For the low headroom type, contact the nearest Hitachi Representative)

Model	1/2C ₅						1C ₅						3C ₅											
Capacity (ton)	1/2						1						2						3					
Approx. dimensions (mm)	A	185						240						250										
	B	230						240						250										
	D	178						178						198										
	E	149						149						198										
	F	85						85						125										
	G	110						120						140										
	J	235						245						305										
	W/W'	189/240						189/350						231/350										
	φp	85						85						110										
H(Standard)	715						775						985						1,115					
Min. curve radius (m)	1.3						4.0						4.0											
Dimensions with respect to I-beam	K	M	R	S	T	U	K	M	R	S	T	U	K	M	R	S	T	U	K	M	R	S	T	U
150 × 75 × 5.5	247	337	133	26	120	28 (18)																		
200 × 100 × 7	260	350	134	51	121	27 (17)	92	350	134	51	121	32 (27)	93	366	188	33	150	40						
250 × 125 × 7.5	273	363	137	76	124	24 (14)	105	363	137	76	124	29 (24)	106	379	200	58	153	37	106	379	200	58	153	37
300 × 150 × 11.5							118	376	147	101	134	19 (14)	119	392	210	83	163	27	119	392	210	83	163	27
450 × 175 × 11																			132	405	208	108	161	29
Approx. weight (kg)	50						40						74											
Applicable hoist type	1/2(H)M ₆						1(H)M ₆						2(H)M ₇						3(H)M ₈					

NOTES: 1. Weight indicates empty weight of the trolley. 2. Dimensions W represent the drive side while W' equals driven side. 3. Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size. 4. () dimensions represent dimensions of 1/2HM₆ and 1HM₆ (Hoist type)

LOW HEADROOM TYPE HOIST



Being designed to enable to lift the load block up to the I-beam bottom, this hoist is suitable for handling bulky cargo under low-ceiling building.

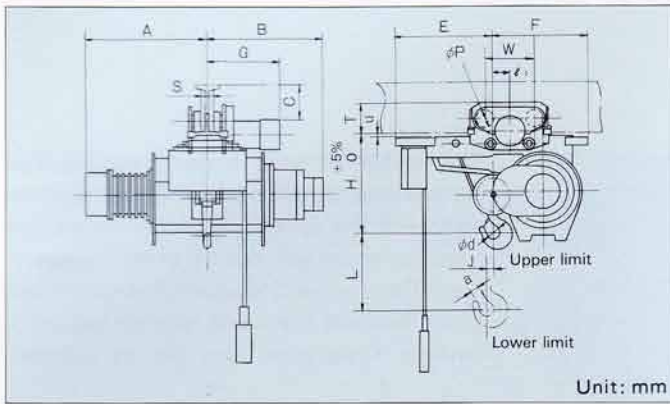
Specifications

Capacity (ton)		1/2	1	2	3	5	
Hoisting lift (mm)		6	6 and 12			6	
Hoisting	Hoisting speed (m/min)	50 Hz	11	11	8.4	7.5	6.7
		60 Hz	13	13	10	9	8
	Hoisting motor (kW)	50 Hz	1.0	1.9	2.9	4.2	5.9
		60 Hz	1.2	2.3	3.5	5	7
No. of poles		4					
Traveling	Traveling speed (m/min)	50 Hz	21				
		60 Hz	25				
	Traveling motor (kW)	50 Hz	0.3		0.45	0.63	
		60 Hz	0.36		0.55	0.75	
No. of poles		4					
Wire rope	No. of falls	4					
	Composition	6 × W (19)-B		6 × Fi (29)-B			
	Diam. (mm)	φ4	φ6.3	φ8	φ10	φ12.5	
Rating		40%ED400starts/h					
Operating method		Push-button operation					
Electric source (3 phase)		V			Hz		
Control voltage		200V 50/60 Hz					

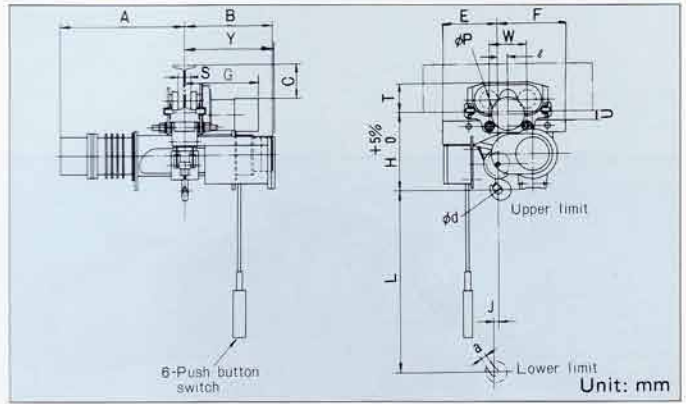
NOTES: 1. Parenthesized figure of the high hoisting lift is quasi-standard product.

2. The suspension-type hoist and the hoist with chain-driven trolley are quasi-standard products.

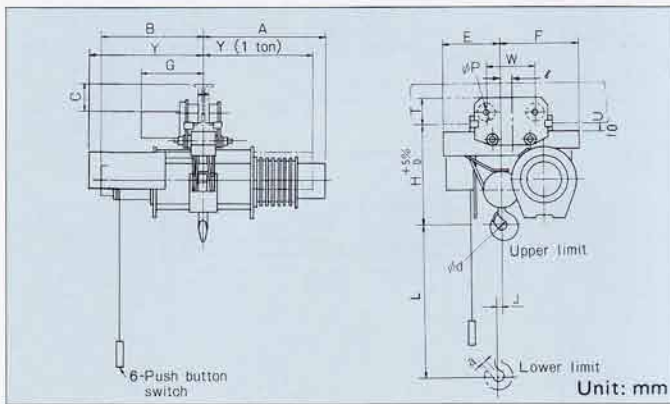
1/2 L-T₅₅



1L-T₅₅



1HL-T₅₅, 2L-T₅₅, 3L-T₅₅



2HL-T₅₅, 3HL-T₅₅, 5L-T₅₅

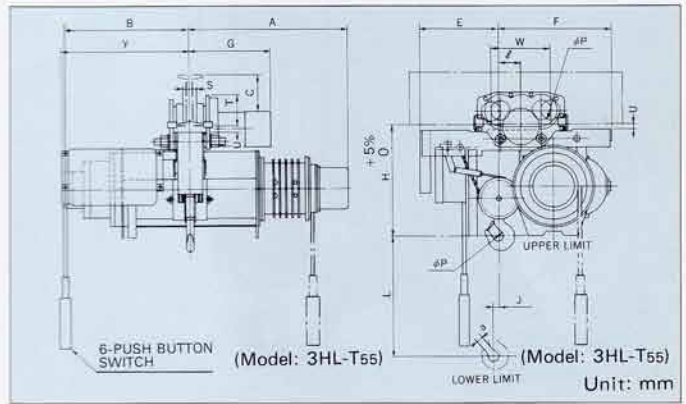
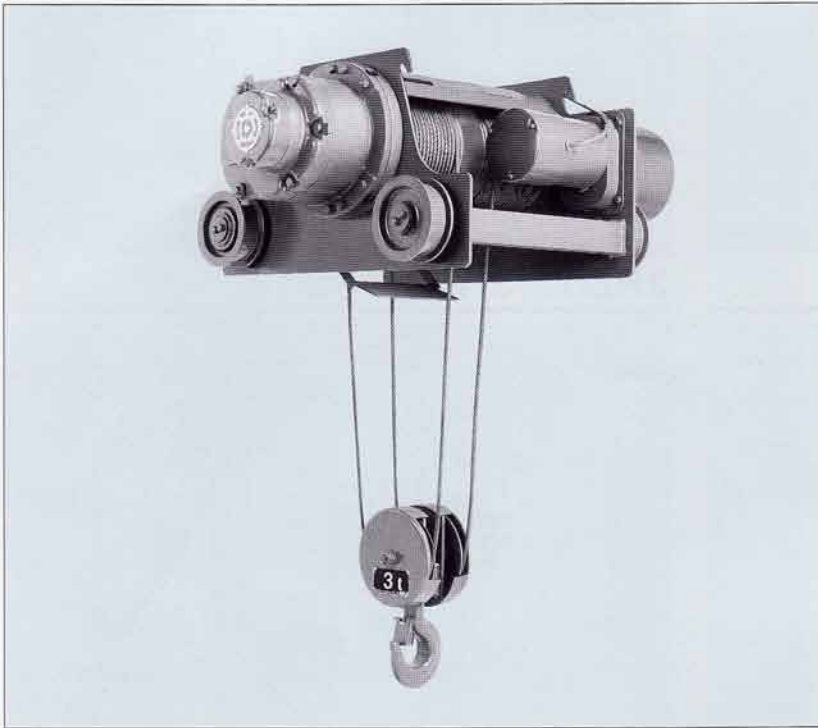


Table of Dimensions

Model	1/2L-T ₅₅					1L-T ₅₅					1HL-T ₅₅					2L-T ₅₅					2HL-T ₅₅					3L-T ₅₅					3HL-T ₅₅					5L-T ₅₅					
Hoist type	1/2L _s					1L _s					1HL _s					2L _s					2HL _s					3L _s					3HL _s					5L _s					
Trolley type	1/2T _s					1T _s					1T _s					2T _s					2T _s					3T _s					3HLT _s					5T _s					
Capacity (ton)	1/2					1					1					2					2					3					3					5					
Approx. dimensions (mm)	L	6,000					6,000					12,000					6,000					12,000					6,000					12,000					6,000				
	H	400					425					450					515					520					600					650					810				
	A	550					665					675					705					785					785					830					845				
	B	430					475					560					540					635					600					700					690				
	W	200/290					200/290					200/290					200/290					230/310					230/410					250/330									
	E	410					295					325					365					380					400					480					610				
	F	340					360					465					480					565					575					660					680				
	ϕd	40					45					45					56					56					71					90									
	J	26					28					35					42					43					46					50					35				
	Y	-					555					555					630					630					620					620					700				
ϕp	96					96					96					96					96					128					156/140(DRIVE SIDE/DRIVEN SIDE)										
a	21					23					23					36					36					42					42					58					
ϕ	40					54					108					85					104					100					99					89					
Min. curve radius (m)	1.3 (5.0)					1.5					1.5					1.8					1.8					2.0					3.5					3.0					
Dimensions with respect to I-beam (mm)	S	T	U	C	G	S	T	U	C	G	S	T	U	C	G	S	T	U	C	G	S	T	U	C	G	S	T	U	C	G	S	T	U	C	G	S	T	U	C	G	
(150 × 75 × 5.5)	17	147	53	85	361	42	148	52	135	374	42	148	32	135	378																										
200 × 100 × 7	42	148	52	135	374	42	148	52	135	374	42	148	32	135	378																										
250 × 125 × 7.5	67	151	49	185	387	67	151	49	185	387	67	151	29	185	391	52	177	28	180	417																					
300 × 150 × 11.5						92	160	40	225	400	92	160	20	225	404	77	187	18	220	430	77	225	23	215	450																
450 × 175 × 11																102	185	20	370	443	102	223	25	365	463																
Approx. weight (kg)	155					205					285					310					400					435					605					750					

- NOTES: 1. Dimensions W represent dimensions of drive side/driven side.
 2. 1/2 ton-When an I-beam (150 × 75 × 5.5) is used, the minimum curve radius is 5m.
 3. 1/2 ton-When an I-beam (150 × 75 × 5.5) is used, 50mm-thick shims are necessary between the building and the I-beam.
 4. High-lift type is semistandard.
 5. Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size.

DOUBLE-RAIL TYPE HOIST

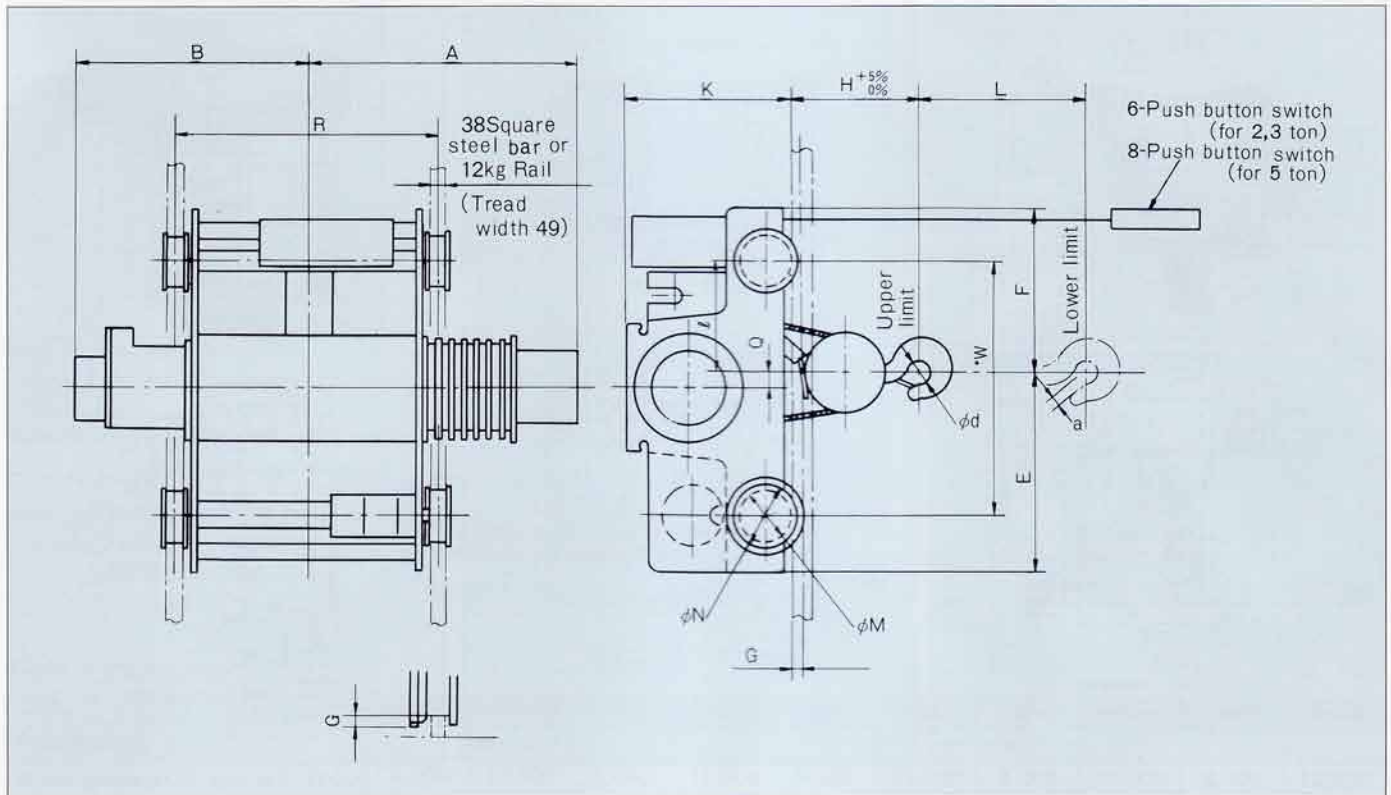


The double-rail hoist is ideally employed as an overhead traveling crane. Since the main body and the trolley are pinconnected, the traveling wheel will not derail during operation. The compact, dustproof structure occupies minimal space and requires less maintenance. Installation cost can be reduced.

Specifications

Capacity (ton)		2	3	5	7.5	10	15	20	30		
Hoisting lift (m)		12	6 and 12	8 and 12	8 and 12		8 and 12	12	12		
Hoisting	Hoisting speed (m/min)	50 Hz	8.4	7.5	6.7	6.0	5.0	5.0	4.2	2.8	
		60 Hz	10	9	8	7.2	6.0	6.0	5.0	3.3	
	Hoisting motor	(kW)	50 Hz	2.9	4.2	5.9	7.9	8.8	6.7 × 2	7.5 × 2	7.5 × 2
		60 Hz	3.5	5	7	9.5	10.5	8 × 2	9 × 2	9 × 2	
No. of poles		4									
Traveling	Traveling speed (m/min)	50 Hz	21			14					
		60 Hz	25			17					
	Traveling motor	(kW)	50 Hz	0.30	0.45	0.45	0.45 × 2	0.45 × 2	0.45 × 2	0.45 × 2	0.7 × 2
		60 Hz	0.36	0.55	0.55	0.55 × 2	0.55 × 2	0.55 × 2	0.55 × 2	0.84 × 2	
No. of poles		4									
Wire rope	No. of falls		4						8		
	Composition		6 × Fi(29)-B			6 × Fi(29)-B		6 × Fi(29)-B	6 × Fi(29)WRC-B	6 × Fi(29)-B	
	Diam. (mm)		φ8	φ10	φ12.5	φ14	φ16	φ20	φ22.4	φ20	
Rating		40%ED400starts/h					40%ED250starts/h				
Operating method		Push-button operation ↑ ↓ ← → ⊗ ⊙			Push-button operation ON OFF ↑ ↓ ← → ⊗ ⊙						
Electric source (3 phase)		V				Hz					
Control voltage		200V 50/60Hz									

Dimensional Diagram

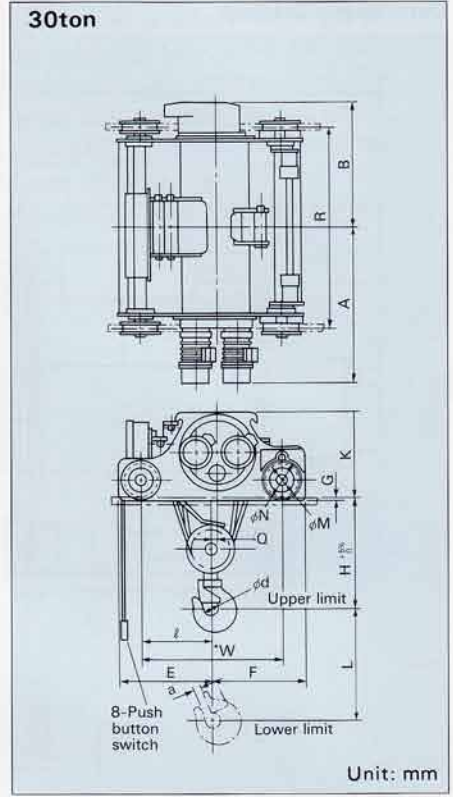
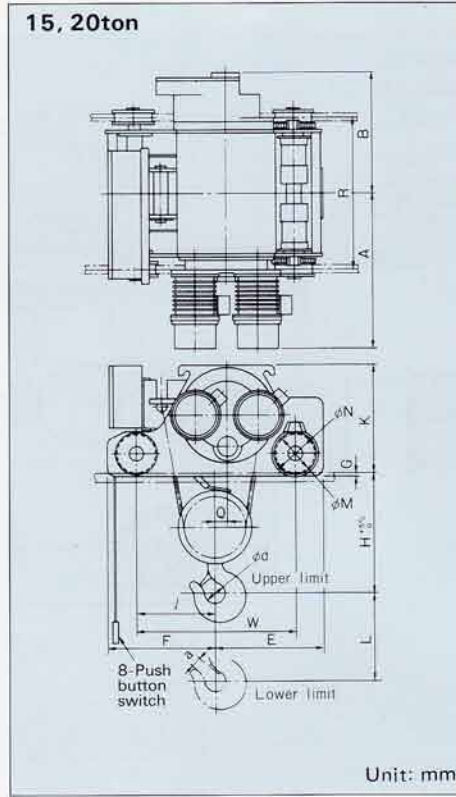
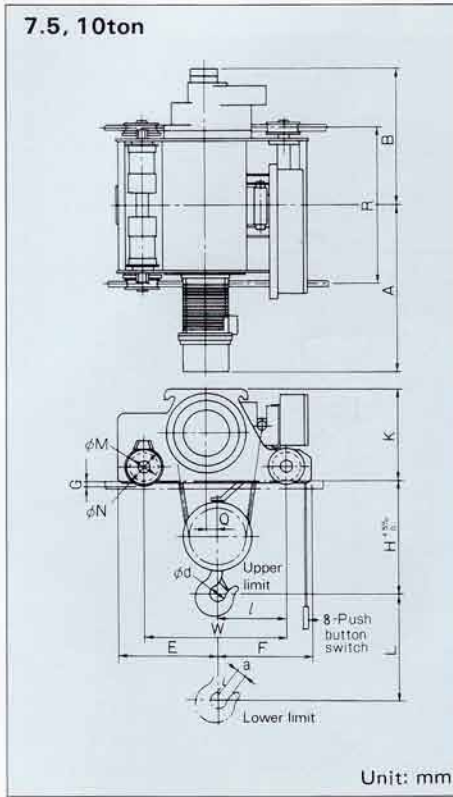


NOTE: See page 35 regarding dim. W.

Table of Dimensions

Model	2HD-T ₅₅	3D-T ₅₅	3HD-T ₅₅	5D-T ₅₅	5HD-T ₅₅	
Hoist type	2HD ₅	3D ₅	3HD ₅	5D ₅	5HD ₅	
Trolley type	2DT ₅	3DT ₅	3DT ₅	5DT ₅	5DT ₅	
Capacity (ton)	2	3	3	5	5	
Approx. dimensions (mm)	L	12,000	6,000	12,000	8,000	12,000
	H	310		360		560
	K	430		480		500
	R	900	650	950	900	1,150
	F	455		430		530
	E	425		450		550
	W	650		650		850
	A	835	755	915	845	955
	B	675	570	730	690	800
	φd	56		71		90
	Q	40		51		55
	φM	160		160		160
	φN	190		190		190
	G	26		26		26
ℓ	350		325		425	
a	36		42		58	
Rail (mm)	38 square steel bar or 12 kg rail					
Wheel tread width (mm)	49					
Approx. weight (kg)	380	420	490	680	750	

Dimensional Diagram



NOTE: See page 35 regarding dim. W.

Table of Dimensions

Model	7.5D-T _{SS}	7.5HD-T _{SS}	10D-T _{SS}	10HD-T _{SS}	15D-T _{SS}	15HD-T _{SS}	20HD-T _{SS}	30HD-T _{SS}	
Hoist type	7.5D _S	7.5HD _S	10D _S	10HD _S	15D _S	15HD _S	20HD _S	30HD _S	
Trolley type	7.5DT _S	7.5DT _S	10DT _S	10DT _S	15DT _S	15DT _S	20DT _S	30DT _S	
Capacity (ton)	7.5		10		15		20	30	
Approx. dimensions (mm)	L	8,000	12,000	8,000	12,000	8,000	12,000	12,000	12,000
	H	515		680		785		930	1,090
	K	600		600		730		730	850
	R	1,000	1,150	1,000	1,150	1,000	1,200	1,300	2,000
	F	605		615		700		700	905
	E	615		650		740		740	935
	W	865		915		1,040		1,040	1,400
	A	1,075	1,150	1,075	1,150	1,060	1,160	1,210	1,550
	B	830	905	885	960	750	850	900	1,250
	φd	100		100		130		165	165
	Q	67		70		89		91	65
	φM	195		195		250		250	350
	φN	225		225		282		282	400
	G	29		29		28		28	38
a	69		69		86		108	114	
ℓ	433		445		505		505	685	
Rail (mm)	44 square steel bar or 15 kg rail				55 square steel bar or 22 kg rail			65 square steel bar or 37 kg rail	
Wheel tread width (mm)	53		53		66		66	76	
Approx. weight (kg)	1,070	1,130	1,260	1,350	2,150	2,250	2,450	4,400	

Dimensional Diagram

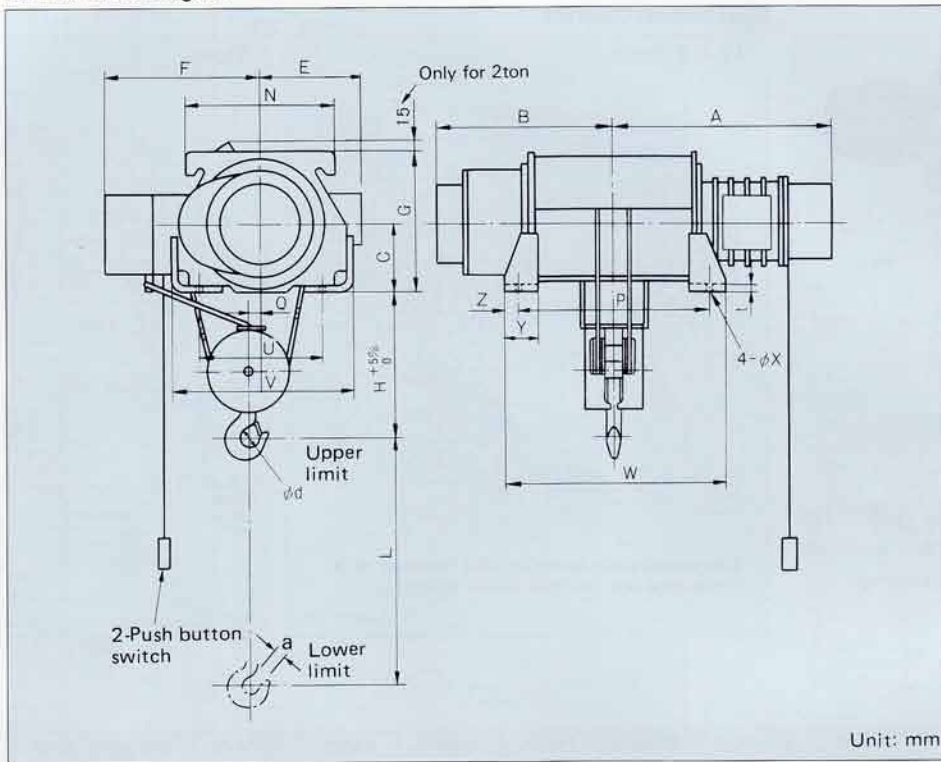


Table of Dimensions

Model	2HDW _s	3DW _s	3HDW _s	5DW _s	5HDW _s	
Capacity (ton)	2	3		5		
Approx. dimensions (mm)	L	12,000	6,000	12,000	8,000	12,000
	H	390		445		580
	A	890	785	950	845	955
	B	730	600	765	690	800
	E	225		238		278
	F	445		475		540
	C	171		195		245
	G	355		395		485
	N	340		400		420
	P	980	730	1,030	748	998
	Q	40		51		55
	U	300		300		380
	V	450		476		556
	W	1,040	790	1,125	994	1,218
	φX	26		26		26
	Y	89		115		190
	Z	30	30	47.5	123	110
	t	19		19		19
φd	56		71		90	
a	36		42		58	
Approx. weight (kg)	260	340	390	600	665	

Dimensional Diagram

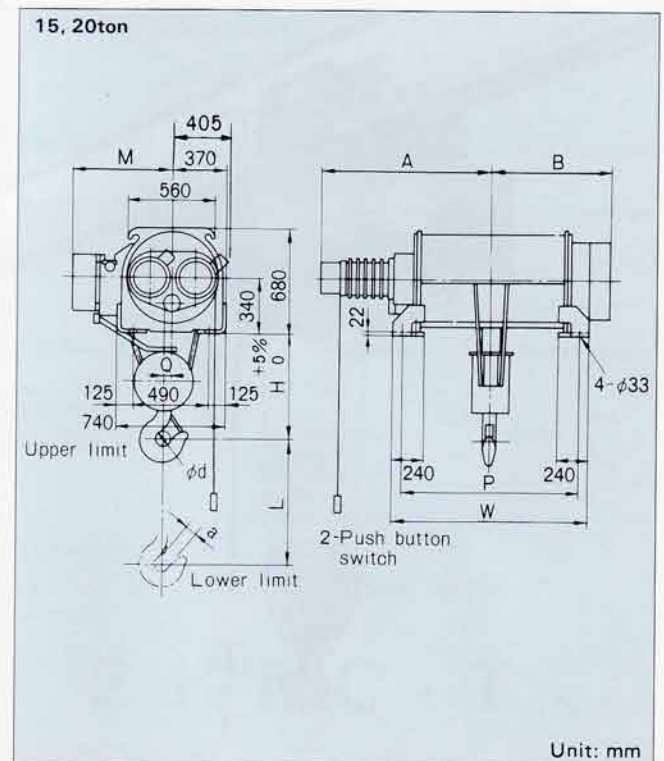
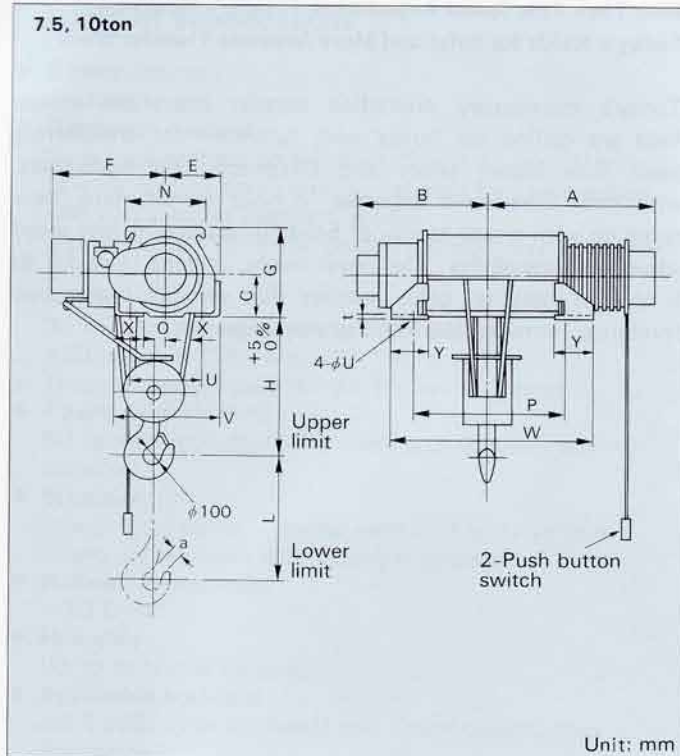


Table of Dimensions

Model	7.5DW _s	7.5HDW _s	10DW _s	10HDW _s	
Capacity (ton)	7.5		10		
Approx. dimensions (mm)	L	8,000	12,000	8,000	12,000
	H	635		690	
	A	1,075	1,150	1,075	1,150
	B	830	905	885	960
	E	278		309	
	F	660		665	
	C	250		300	
	G	500		600	
	N	460		500	
	P	945	1,095	945	1,095
	Q	67		70	
	U	380		380	
	V	556		618	
	W	1,315	1,398	1,248	1,398
	X	148		179	
	Y	255	220	207	220
	φU	4-φ26		4-φ26	
	t	19		19	
a	69		69		
Approx. weight(kg)	800	860	1,040	1,080	

Model	15DW _s	15HDW _s	20HDW _s	
Capacity (ton)	15	15	20	
Approx. dimensions (mm)	A	1,060	1,160	1,210
	B	750	850	900
	P	950	1,150	1,250
	W	1,234	1,398	1,494
	φd	130	130	165
	L	8,000	12,000	12,000
	H	840	840	990
	M	780	780	785
	a	86		108
	Q	89	89	91
Approx. weight (kg)	1,850	2,000	2,150	

HOIST WITH CREEP SPEED FOR HOISTING



With Their Fine Speed Adjustment, Hitachi's Hoists Meet Today's Needs for Safer and More Accurate Transfer Work

Today's increasingly diversified transfer operations in the field are calling for hoists with functions for transferring loads with higher safety and efficiency. Our researchers, with their time-tested expertise in hoist manufacture, have come up with a new family of hoists incorporating fine speed adjustment capability. The novel hoists, ranging from 1/2 to 5 tons in capacity, offer features that promise higher performance, better maintainability and longer life.

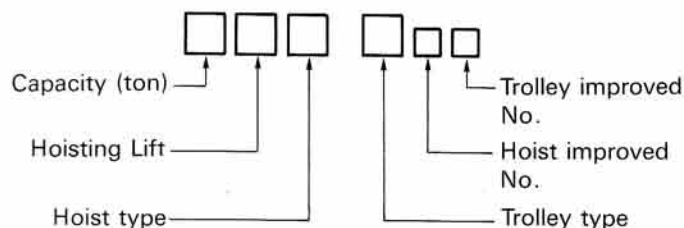
TYPE			STANDARD-HEADROOM TYPE HOIST									
Capacity (ton)			1/2	1	2	3	5	7.5	10	15	20	
Hoisting lift (m)			6, 12				8, 12				12	
Hoisting	Hoisting speed (m/min)	50 Hz	11/1.1	11/1.1	8.4/0.84	7.5/0.75	6.7/0.67	6/0.6	5/0.5	5/0.5	4.2/0.42	
		60 Hz	13/1.3	13/1.3	10/1	9/0.9	8/0.8	7.2/0.72	6/0.6	6/0.6	5/0.5	
	Hoisting motor	(kW)	50 Hz	1/0.1	1.9/0.19	2.9/0.29	4.2/0.42	5.9/0.59	7.9/1.0	8.8/1.0	6.7/1.1 ×2	7.5/1.0 ×2
		60 Hz	1.2/0.12	2.3/0.23	3.5/0.35	5/0.5	7/0.7	9.5/1.2	10.5/1.2	8/1.2×2	9/1.2×2	
		No. of poles	4/4									
Traveling	Traveling speed (m/min)	50 Hz	21				14		14			
		60 Hz	25				17		17			
	Traveling motor	(kW)	50 Hz	0.30	0.30	0.30	0.45	0.63	0.47×2	0.47×2	0.7×2	0.7×2
		60 Hz	0.36	0.36	0.36	0.55	0.75	0.56×2	0.56×2	0.84×2	0.84×2	
		No. of poles	4				6		4			
Wire rope	No. of falls		2				4					
	Composition		6×W (19)-B		6×Fi(29)-B						6×Fi(29) IWRC-B	
	Diam. (mm)		φ6.3	φ8	φ11.2	φ14	φ12.5	φ14	φ16	φ20	φ22.4	

* 1/2 - 5 ton are new types.

Standard Specifications

- **Power source**
3-phase V Hz
- **Operation method**
By 6 pushbuttons on the floor: Ⓜ, Ⓜ, Ⓜ, Ⓜ, Ⓜ, and Ⓜ
(2-step motion on Ⓜ and Ⓜ, 1st step for creep speed and 2nd step for standard speed)
8 pushbuttons on 5-ton double rail type and 7.5ton or greater
- **Rating**
30 minutes (as specified by JIS C9620)
400 times/hr (250 times/hr) 40% (40%)
Those in parentheses are for 15 ton or greater.
- **Power feed method**
By cable or collector (The cable and collector are not provided.)
- **Structure**
Indoor type Install a shelter with roof to avoid rain falling on the hoist when using it outdoors.
- **Ambient temperature**
-10°C ~ 40°C
- **Humidity**
Up to 90% (No.Dewing)
- **Applicable standard**
JIS C9620 (Electric hoist) and Crane construction Standards

Type Identification



Capacity	Hoisting lift		Hoist type	Trolley type
	Low lift	High lift		
Rated load indicated by tons	No mark	H	V-Series Standard headroom type.....MC Low headroom type.....LC Double rail type.....DC	Manual driven trolley.....P Chain driven trolley.....C Motorized trolley.....T

EXAMPLE

2-ton high-lift normal type hoist with UP (DOWN) low speed

2 H MC - T 7 5

(Note) The machine type is separately marked for the hoist and trolley.

Example: Nameplate of hoist: 2HMC₇
Nameplate of trolley: 2T₅

LOW-HEADROOM TYPE HOIST						DOUBLE-RAIL TYPE HOIST								
1/2	1	2	3	5		2	3	5	7.5	10	15	20	30	
6	6, 12			6		12	6, 12	8, 12			12			
11/1.1	11/1.1	8.4/0.84	7.5/0.75	6.7/0.67		8.4/0.84	7.5/0.75	6.7/0.67	6/0.6	5/0.5	5/0.5	4.2/0.42	2.8/0.28	
13/1.3	13/1.3	10/1	9/0.9	8/0.8		10/1	9/0.9	8/0.8	7.2/0.72	6/0.6	6/0.6	5/0.5	3.3/0.33	
1/0.1	1.9/0.19	2.9/0.29	4.2/0.42	5.9/0.59		2.9/0.29	4.2/0.42	5.9/0.59	7.9/1	8.8/1	6.7/1 x2	7.5/1 x2	7.5/1 x2	
1.2/0.12	2.3/0.23	3.5/0.35	5/0.5	7/0.7		3.5/0.35	5/0.5	7/0.7	9.5/1.2	10.5/1.2	8/1.2x2	9/1.2x2	9/1.2x2	
4/4						4/4								
21						21			14					
25						25			17					
0.30	0.30	0.30	0.45	0.63		0.30	0.45	0.45	0.45x2	0.45x2	0.45x2	0.45x2	0.70x2	
0.36	0.36	0.36	0.55	0.75		0.36	0.55	0.55	0.55x2	0.55x2	0.55x2	0.55x2	0.84x2	
4						4			4				4	
4						4								8
6xW(19)-B		6xFi(29)-B				6xFi(29)-B			6xFi(29)-B			6xFi(29) IWRC-B	6xFi(29) -B	
φ4	φ6.3	φ8	φ10	φ12.5		φ8	φ10	φ12.5	φ14	φ16	φ20	φ22.4	φ20	

* 1/2 - 5 ton are new types.

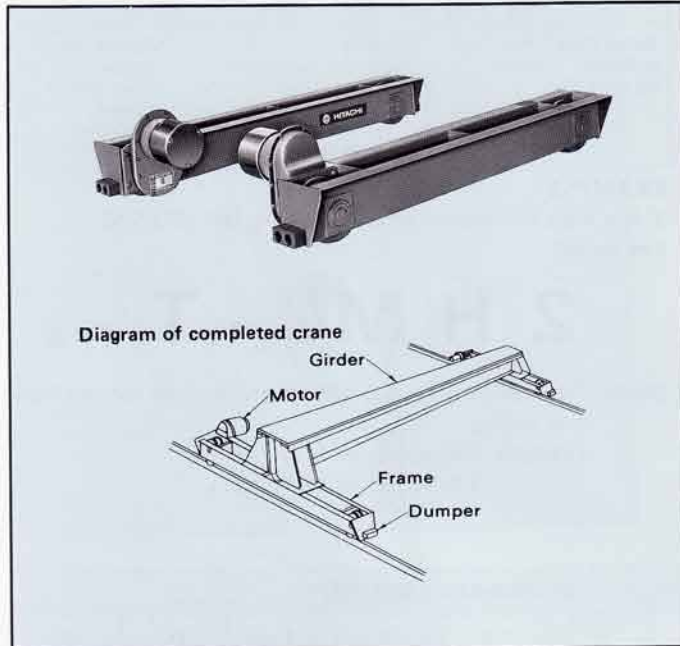
* 2 - 5 ton are new types.

Crane Saddles

Fully applying Hitachi's modern mechanical engineering technology, Hitachi Crane Saddles are designed to withstand full load under severe operating conditions. Their materials and parts down to a single screw are meticulously examined and repeatedly tested to ensure maximum durability. Excelling in performance, reliability, and durability, Hitachi Crane Saddles will definitely improve your crane's mobility, thus contributing to rationalizing your loading/unloading operations. These three types of Hitachi crane saddled are available:

- 1. Toprun type** This on-rail-type crane saddle with a wide application range is extensively used for hoist cranes.
- 2. Suspension type** Adopting a shaped-steel frame, the suspension-type saddle is used in combination with the ordinary rope hoist or the electric chain hoist.
- 3. Wheel unit for toprun-type saddle** With the driving side and the driven side of the wheel unit forming a pair, it is optionally sold for use with a crab or a traverser.

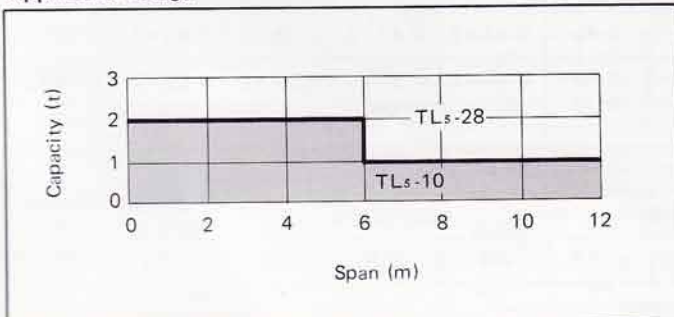
Standard Span



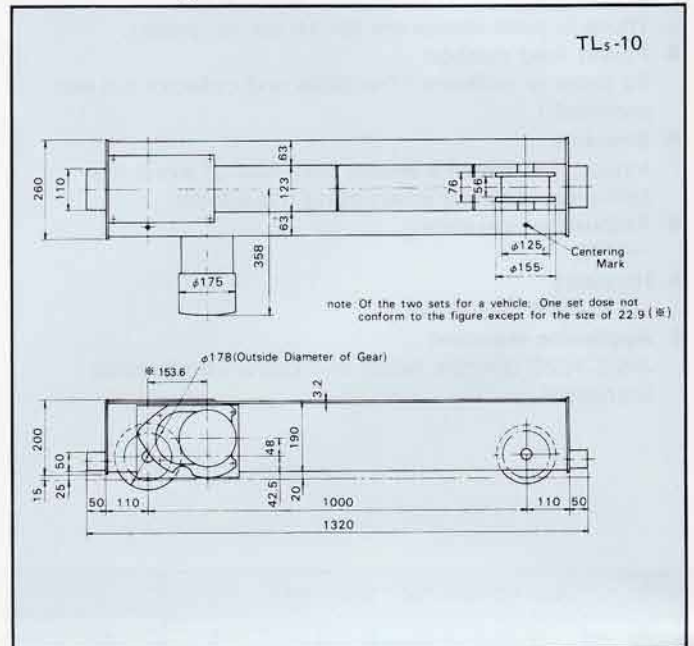
Specifications

Model	TLs-10	TLs-28
Max. wheel load (ton)	1.0	2.8
Traveling speed (50/60 Hz) (m/min.)	21/25	
Motor (with brake) (50/60 Hz) (kW)	0.30/0.36×2	
Rating	25% ED 250 Starts/h	
Electric source (3 phase)	V	Hz
Rail (kg)	15	22
Approx. weight (kg)	55 x 2	90 x 2

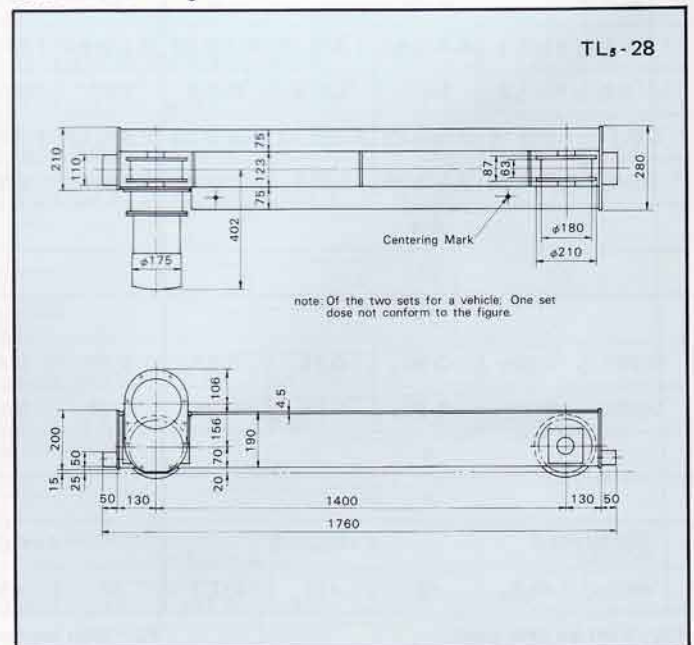
Applicable Range



Dimensional Diagram



Dimensional Diagram

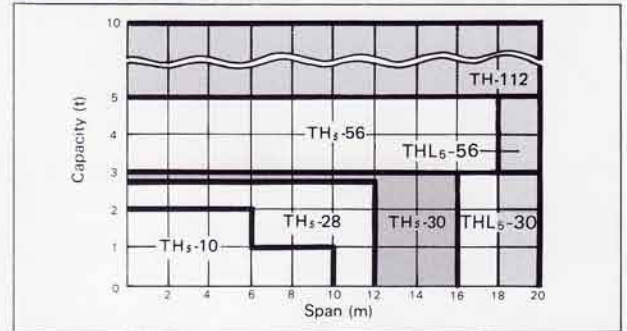


Specifications

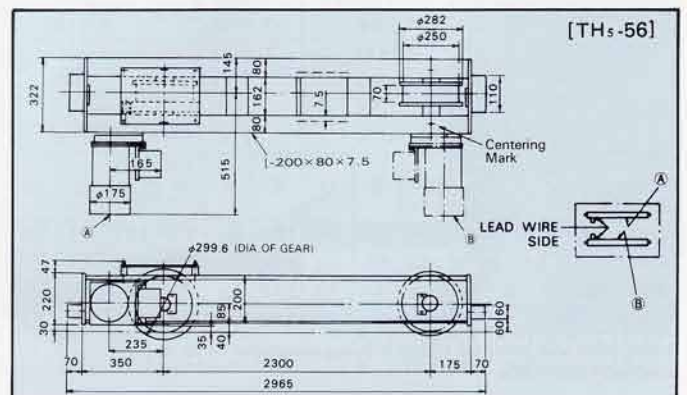
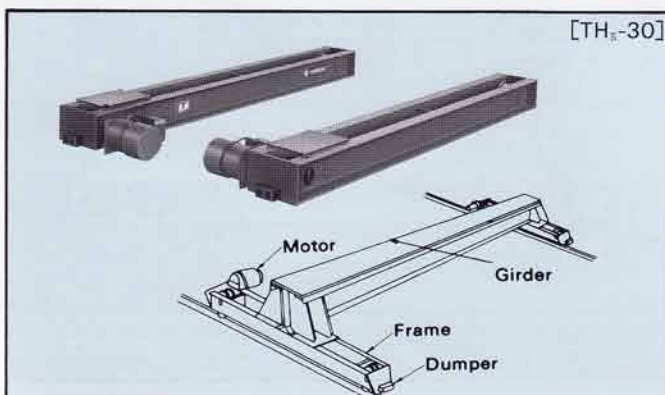
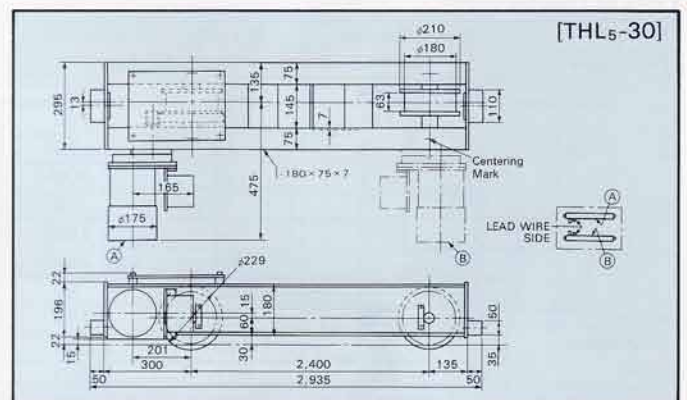
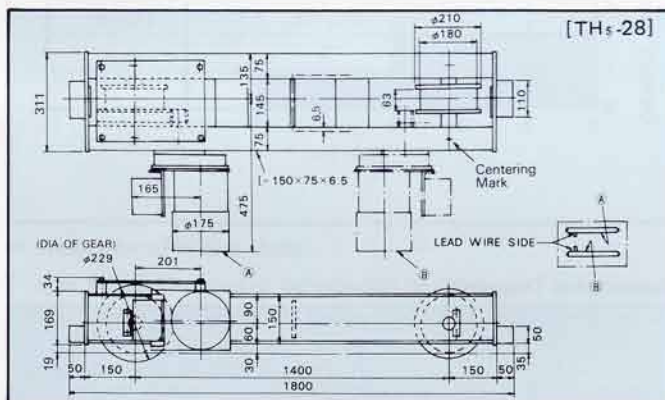
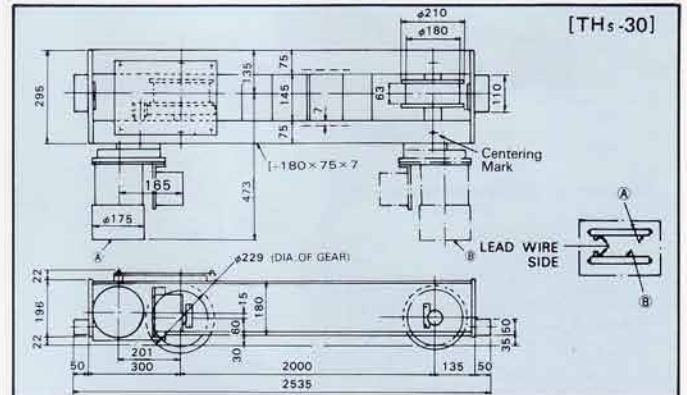
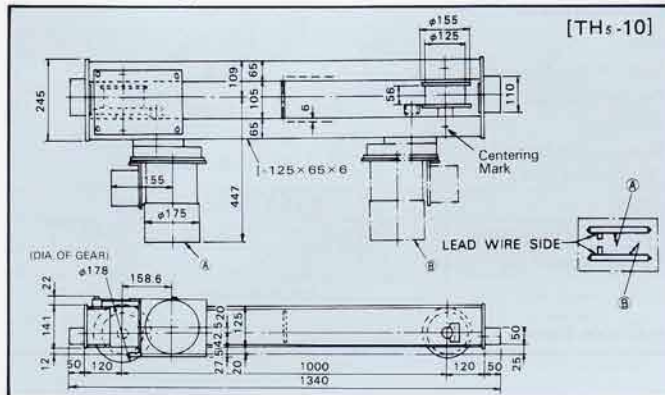
Specifications	Model	TH ₅ -10	TH ₅ -28	TH ₅ -30	THL ₅ -30	TH ₅ -56	THL ₅ -56	TH-112
Max. wheel load (ton)		1.0	2.8	3.0	3.0	5.6(4.0)*	5.6(4.0)*	11.2(7.0)*
Traveling speed (50/60Hz) (m/min.)		21/25	21/25	21/25	21/25	21/25	21/25	25/30
Motor (with brake) (50/60Hz) (kW.)		0.30/ 0.36 ×2	0.30/ 0.36 ×2	0.30/ 0.36 ×2	0.30/ 0.36 ×2	0.70/ 0.84 ×2	0.70/ 0.84 ×2	2.5/ 2.9 ×2
Rating		25% ED 250 Starts/h						
Wheel Dia. (mm)		125	180	180	180	250	250	355
Wheel tread width (mm)		56	63	63	63	70	70	80
Traveling rail (kg)		12, 15	15, 22	15, 22	15, 22	22, 30	22, 30	30, 37
Approx. weight (kg)		70×2	110×2	175×2	190×2	250×2	310×2	650×2
Electric source (3 phase)		V Hz						

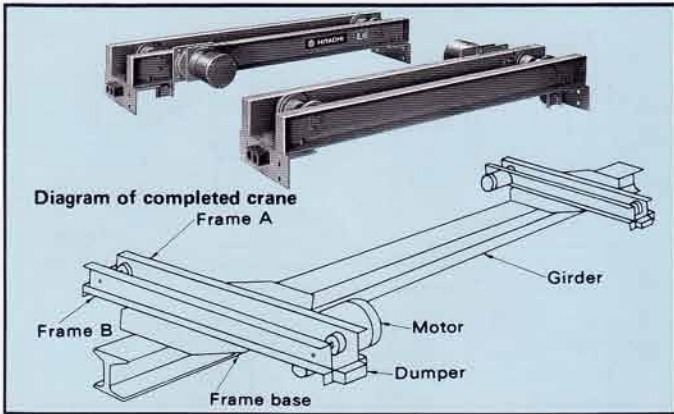
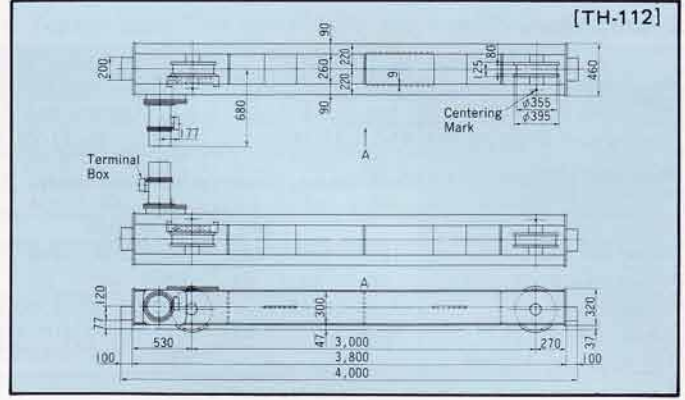
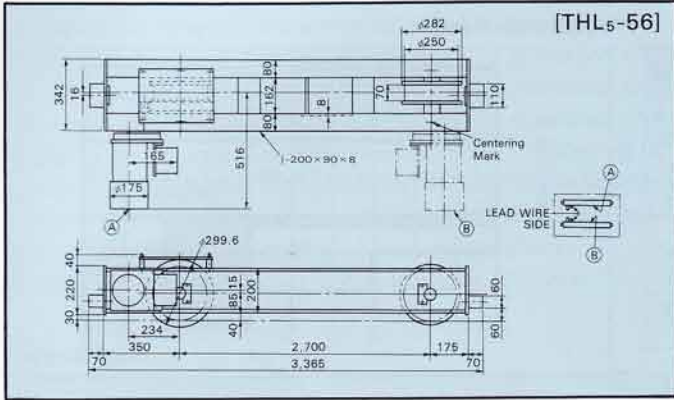
* Figure shown in () is applied for a monorail girder.

Applicable Range



Dimensional Diagram





Specifications

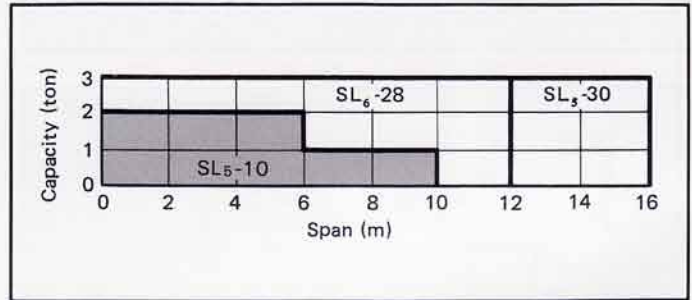
Model	SL5-10	SL6-28	SL5-30
Max. wheel load (ton)	1.0	2.8	3.0
Traveling speed (50/60Hz) (m/min.)	21/25		
Motor (with brake) (50/60Hz) (kW)	0.30/0.36×2		
Rating	25% ED 250 Starts/h		
Approx. weight (kg)	70×2	105×2	140×2
Electric source (3 phase)	V Hz		

Table of Dimensions

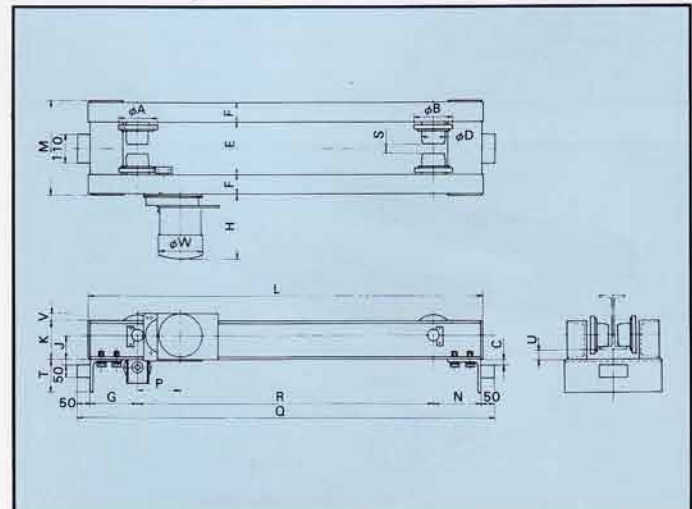
Model	SL5-10	SL6-28	SL5-30									
Flame size (mm)	125×65×6	150×75×6.5	180×75×7									
Approx. dimensions (mm)	φA	144	163	163								
	φB	144	163	163								
	C	15	20	20								
	φD	76	100	100								
	F	65	75	75								
	G	147	158	158								
	H	294	294	294								
	J	73	85	90								
	K	125	150	180								
	L	1,300	1,720	2,320								
	M	350	397	397								
	N	147	158	158								
	P	153.4	158.3	158								
	Q	1,394	1,816	2,416								
	R	1,000	1,400	2,000								
T	90	100	100									
V	36	31	10									
φW	175	175	175									
I-Beam (mm)	Dimensions (mm)			E			S			U		
	200×100×7	158	37	25	167	24	25	167	24	30		
	250×125×7.5	183	62	22	192	49	23	192	49	28		
	300×150×11.5	208	87	13	217	74	15	217	74	20		
	450×175×11				243	99	18	242	99	23		

Unless otherwise specified trolley is being assembled so as to meet smudged I-beam size.

Applicable Range



Dimensional Diagram

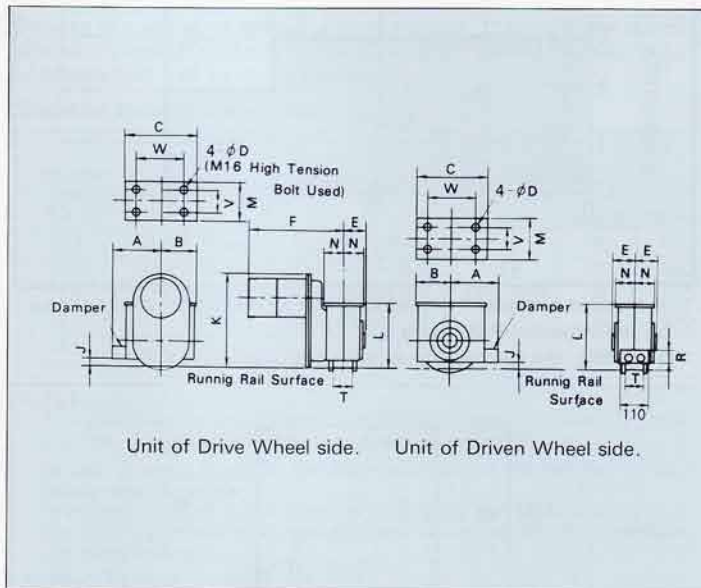
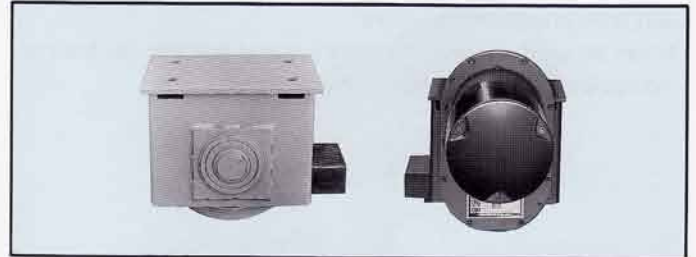


Wheel Unit for Toprun Type Saddle

Specifications

Model	TLU _s -28	TLU _s -56
Max. wheel load (ton)	2.8	5.6
Traveling speed (50/60 Hz) (m/min.)	21/25	21/25
Motor (with brake) (50/60 Hz) (kW)	0.30/0.36	0.70/0.84
Rating	25% ED 250 Starts/h	
Electric source (3 phase)	V	Hz
Rail (kg)	22	30

Wheel Unit for Toprun Type Saddle

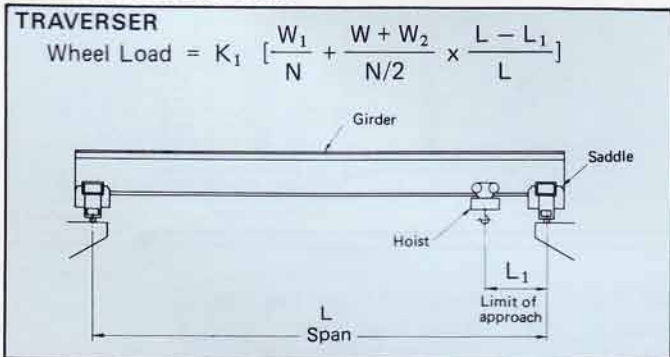


Type	TLU _s -28	TLU _s -56
A	180	230
B	135	170
C	270	340
φD	18	22
E	81	95
F	410	450
J	25	45
K	352	372
L	240	290
M	140	190
N	70	95
R	50	60
V	80	100
W	190	230
Approx. weight (kg)	65	125
Wheel tread (mm)	T	63

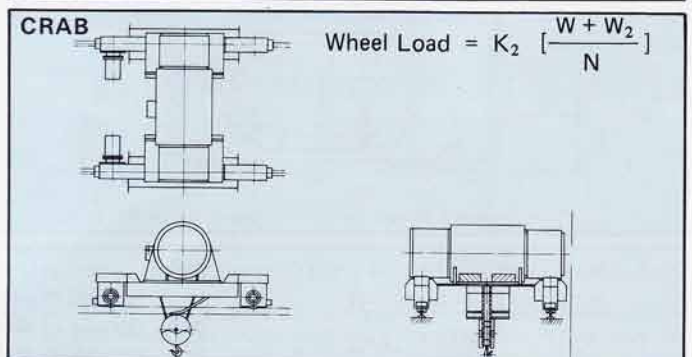
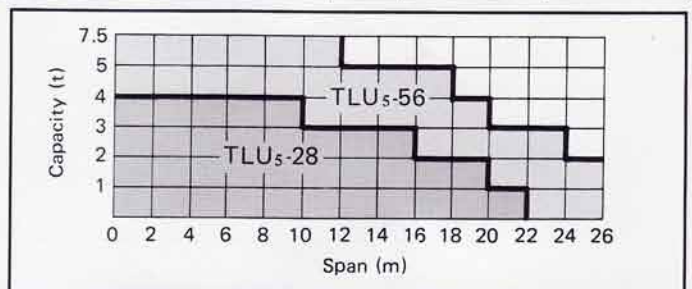
■ Selection of Wheel Units

Proper Wheel Units must be selected based on Wheel Load Calculation as shown in the following formula.

For Traversers and Crabs



N: Number of Crane Wheels = 4 W₁: Weight of Crane (ton)
 W: Rated Load (ton) W₂: Weight of Hoist (ton)



L: Span (m) K₁: Impact Coefficient (1.2)
 L₁: Limit of Approach (m) K₂: Impact Coefficient (1.6)

Specifications are subject to change without notice.

Wheel Unit for Gantry Crane Saddle

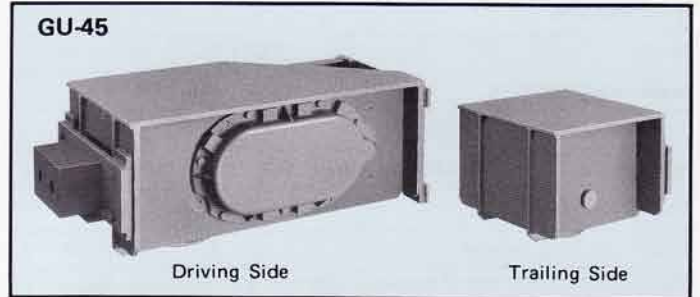
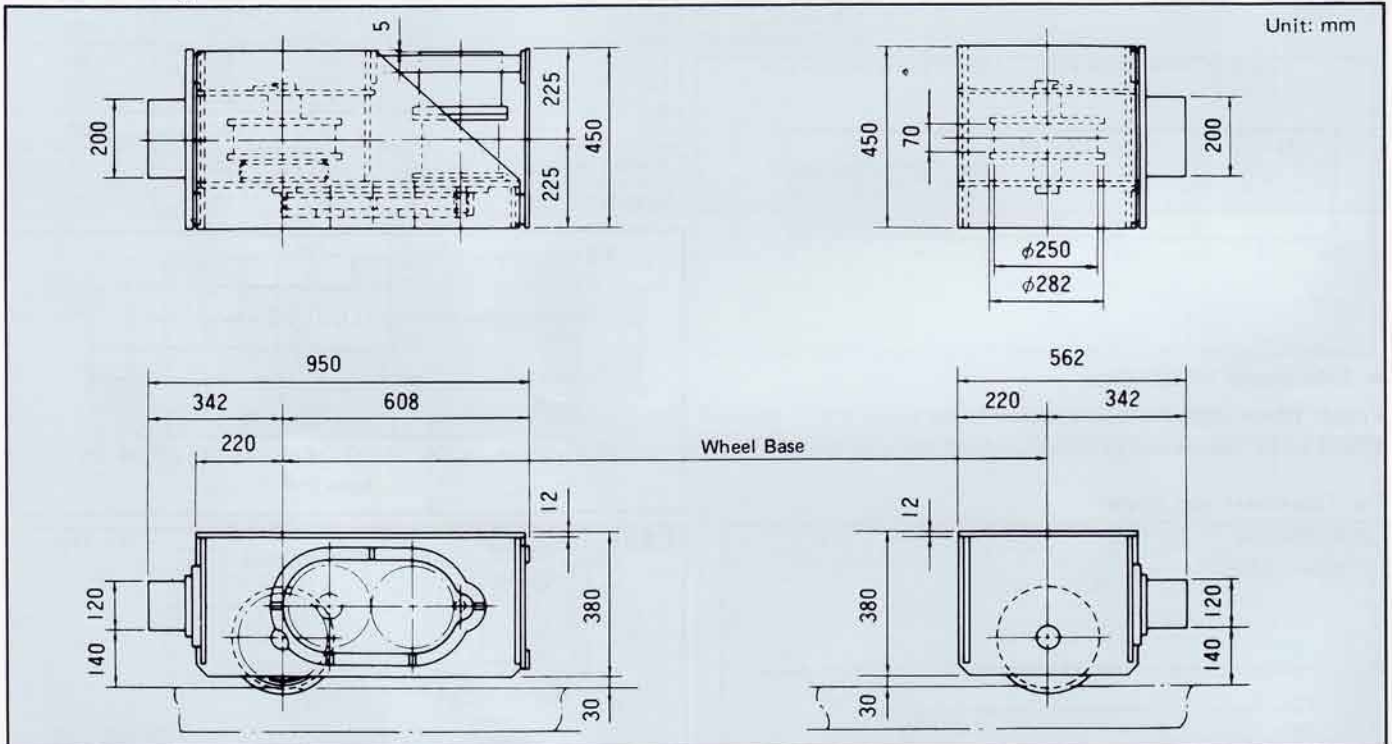
- The wheel unit for Hitachi's gantry crane saddle is a compact unit with integrated structure.
- It can be used not only for gantry cranes but also for traversing equipment of overhead traveling cranes.

Standard Specifications

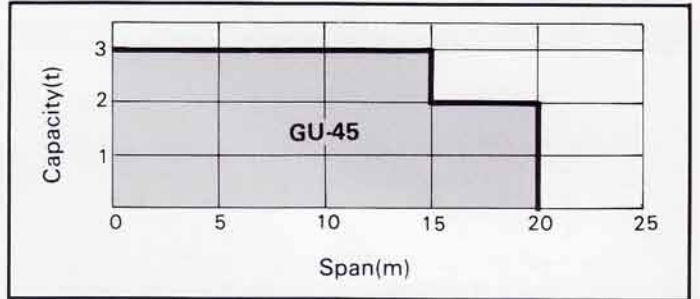
Model	GU-45
Max. Wheel Load	4.5
Traveling Speed (50/60 Hz) (m/min.)	25/30
Motor (50/60 Hz) (kW)	1.2/1.5 (With brake)
Motor Pole Number	4
Rating	25% ED 250 Starts/h
Electric Source (3 phase)	V Hz
Brake Torque (T_B/T_M)	0 ~ 60%
Traveling Rail (kg)	22, 30
Approx. Weight (kg)	340

* The coating of the main body consists of only the rust proof coating.

Dimensional Diagram

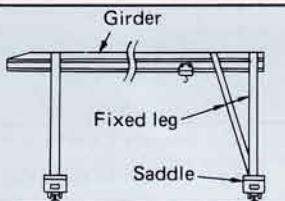


Selection of Wheel Unit



* If the span exceeds 20 m there is danger of the motor lacking output by the influence of the wind.

Therefore, the maximum span is limited to 20 m.



K_1 : Impact Coefficient (1.2)
 W_2 : Weight of Hoist (ton)
 W_3 : Weight of Girder (ton)
 W_4 : Weight of Saddle (ton)

W_5 : Weight of Fixed Leg (ton)
 W : Rated Load (ton)

$$\text{Wheel Load} = K_1 \left(\frac{W_3 + W_4}{4} + \frac{W_5 + W + W_2}{2} \right)$$

Electrical Parts for Crane Saddle

Geared Motor

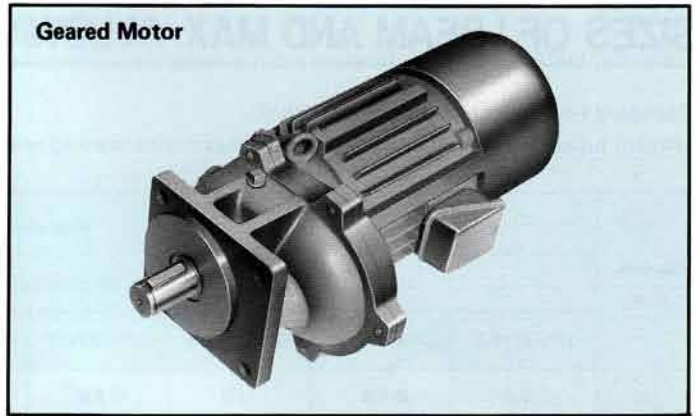
- By exclusive designing for the crane saddle, the flange dimension and fit joint diameter are designed to be convenient for attachment.
The types of units range from 0.4 – 3.7 kW, and high speed type and low speed type are made in series.

Application

- For saddle of overhead crane with hoist. (Two-motor drive system)
- For traversing and traveling of crab type overhead crane.
- For saddles of gantry crane (Two-motor drive system)

(When employed for gantry cranes and so on for outdoor operation, ascertain that an outdoor cover is used.)

Besides the above, as special geared motors, there are low speed geared motors ($50/60 \text{ min}^{-1}$), variable speed geared motors, etc., so please feel free to make inquiries.



Standard Specifications Table

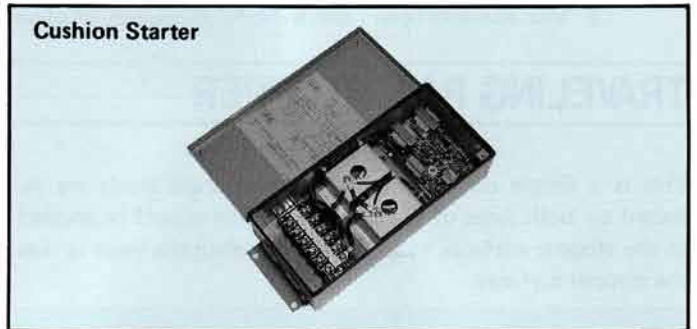
Output (kW)	Model (Low speed/High speed)	Voltage Frequency	Output Speed (min^{-1})				Rating % ED	Tolerable Starting Frequency (times/hr.)	Type From		Brake Torque (%)	
			50 Hz		60 Hz				Motor	Brake		
			Low Speed	High Speed	Low Speed	High Speed						
0.4	(N)YEGEH-0.4/(N)YJGEH-0.4	3 ϕ Less than 400V 50/60 Hz	75	160	90	190	25	120	YTOG-K	MS-HB	40	
0.75	(N)YEGEH-0.75/(N)YJGEH-0.75		75	160	90	190				100		MS-HB
1.5	(NB)YEGEH-1.5/(NB)YHGEH-1.5		75	120	90	145				95		MS-HB
2.2	(N)YEGEH-2.2/(N)YHGEH-2.2		75	120	90	145				90		MS-FE
3.7	(N)YEGEH-3.7/ —		75	—	90	—				90		YTFOG-K MS-FE

NOTES:

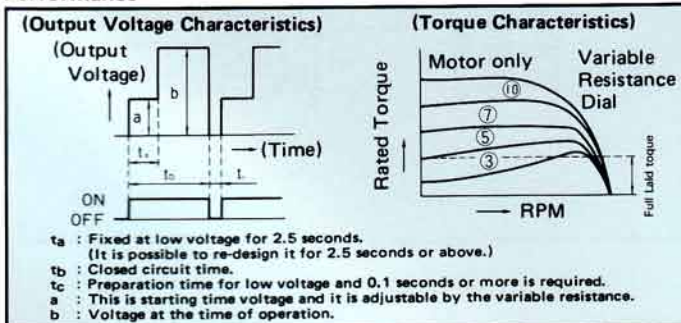
- The tolerable starting frequency is the value which makes the load GD^2 (flywheel effect) 10 times that of motor GD^2 . In case of usage in which the load GD^2 exceeds the standard value, please make inquiries.
- The joint usage of cushion starter or primary resistance will prevent the shaking of the load, and alleviate the impact shock, so always use such devices.
- The models having output of 2.2 KW and 3.7 KW are equipped with temperature relays which detect the temperature of motor coil directly. Models having output of 0.4 KW – 1.5 KW have no temperature relays. However, if you desire to have temperature relays equipped, they will be equipped to order.

Cushion Starter

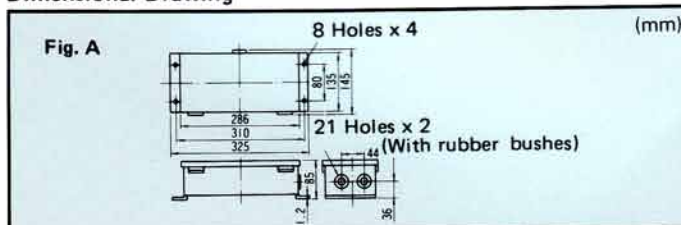
- This will alleviate the impact at the time of starting of the geared motor for crane saddles. The starting torque can be varied continuously over a broad range merely by turning the variable resistance slider for adjustment. Since this is all electronic type without any moving parts, the reliability is extremely high and hardly and maintenance is required.



Performance



Dimensional Drawing



Specifications Table

Model	Maximum Motor Output Applied	Electric Source	Dimension	Weight
HQ-0B	1.5 kW	200/220V 50, 60/60 Hz	Fig. A	3 kg
HQ-2B	3.7 kW		"	"
HQ-4B	7.5 kW		"	"
HQ-1HB	3 kW	400/440V	"	"
HQ-4HB	7.5 kW	50, 60/60 Hz	"	"

NOTES:

- HQ-0B – HQ-4B and HQ-1HB – HQ-4HB are planned production models.
- As for the applied motor, so long as the total output is less than the applied maximum motor output, more than one motor may be operated.
- As for Fig. A shown in the dimension column, refer to the dimensional drawings on the left hand side.

FOR INSTALLING THE HITACHI HOIST...

SIZES OF I-BEAM AND MAX. ALLOWABLE SPAN

Standard I-beam sizes are marked with ○.

Hitachi hoists are supplied, based on the I-beam size marked with ●, unless otherwise specified.

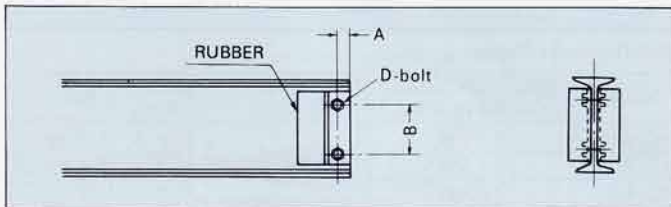
Capacity (ton)	Max. allowable I-beam span (m)								
	Dimensions of I-beam employed (mm)								
	150x75x5.5	200x100x7	250x125x7.5	250x125x10	300x150x11.5	350x150x12	400x150x12.5	450x175x11	600x190x13
1/2	○3.0	●4.5	○7.0	○7.9					
1		○3.5	●5.4	○6.4	○8.6	○9.9			
2		○2.3	●4.0	○4.9	○6.9	○8.0	○8.5		
3			○2.9	○3.8	●5.6	○6.4	○7.1	○8.0	
5					●4.1	○4.9	○5.6	○6.2	
7.5								●4.5	○7.1
10								●3.9	○6.1
15								●3.1	○4.9
20								●2.7	○4.3

NOTES: 1. Values shown in above list are applied for a telfer.

2. Max. allowable I-beam span is decided by capacity of a hoist, without affected by type of a hoist or a trolley.

TRAVELING RAIL STOPPER

This is a simple construction where two angle steels are installed on both sides of the I-beam. Rubber should be applied to the stopper surfaces to soften shocks when the hoist strikes the stopper surfaces.



I-beam (mm)	150x75	200x100	250x125	350x150	450x175
Angle steel (mm)	50x50x6			65x65x6	
A (mm)	22			30	
B (mm)	70	105	110	190	280
D (mm)	M10	M16	M16	M20	M20

HITACHI HOIST

Standard types designed to fit any condition

STOPPER FOR DOUBLE-RAIL TYPE HOIST

Accordingly, pay attention that the left and right damper surface contact the stoppers simultaneously. The dimension "a" must cover more than half of the wheel diameter.

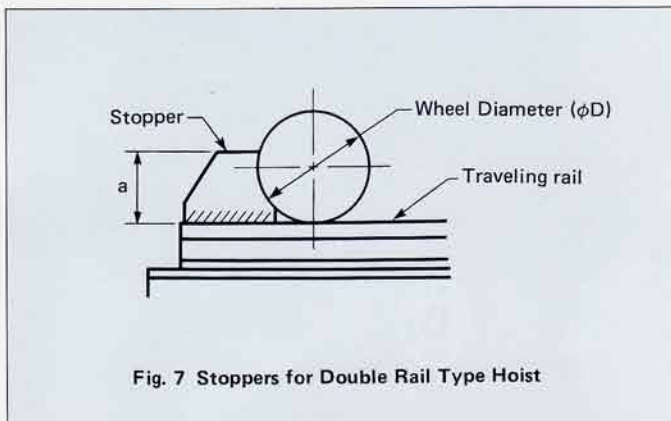
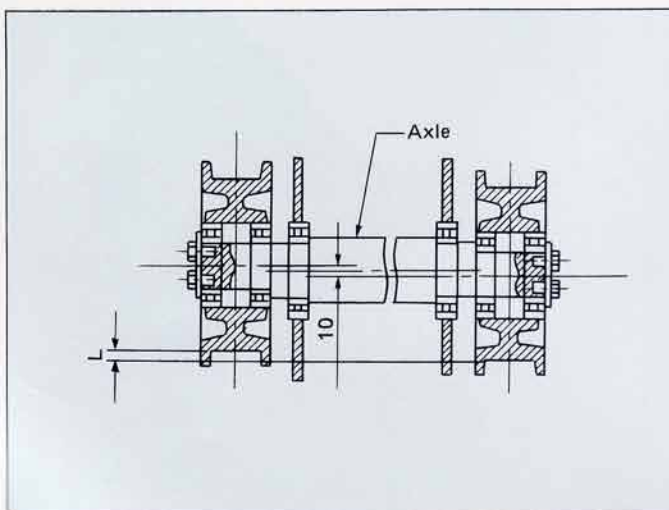


Fig. 7 Stoppers for Double Rail Type Hoist

Capacity (ton)	Wheel diameter (φD)	a (mm)
2, 3, 5	160	40
7, 5, 10	195	50
15, 20	250	65
30	350	90

The automatic center adjusting structure with an eccentric axle, as shown in the figure below, is adopted on the driven side so that the four wheels correctly contact the rail. Therefore, when height difference does not exist between the left-hand rail and the right-hand rail, there occurs the length difference of Lmm at the edges of left-hand and right-hand wheels as illustrated below. To correct this condition, place the stoppers through staggering their position by Lmm.



Capacity (ton)	L (mm)
2, 3, 5	10
7.5, 10	15
15, 20	15
30	15