



Professional cranes & hoists for lifting

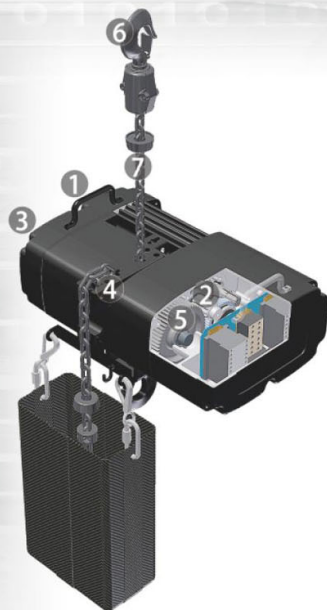


Electric Chain Hoist / SH series



TAIWAN : HOITECH MACHINERY INDUSTRIAL CO., LTD
VIETNAM : QUANG LIEN CRANE ELEVATOR CO., LTD.

D8 series



1 Motor and electromagnetic brake

- 1). Cooling fins around motor have good thermal performance.
- 2). Standard IP54 enclosure, motor winding with class F insulation and thermal protection.
- 3). Asbestos-free brake to meet international request
- 4). Electromagnetic brake actuates synchronously in the event of power failure to ensure the operation safety while loading.



2 Overload protection

Mechanical overload device - While generated torque is over the friction torque, the overload mechanism will trigger, in which motor keeps running but slipping clutch hold back the hoist from further lifting for the sake of safety.



3 Geared limit switch (Optional)

It can be handy adjusted to the required position, setting the chain travelling limits and offering the preventable method for hoist from over winding and damage.



4 Chain Guide

- 1) Made of robust material, MC Nylon, and comply with housing design to make sure the load chain operating smoothly.
- 2) The forward-curve shape of MC Nylon keeps operating chain in the central position, away from getting stuck in the farther sides.



6 Top hook

Top hooks apply material SF45C to cast which allow swiveled 360 and are equipped with safety latch to enhance the loading safety.

7 Load Chain

Premium quality and high strength alloy chain, heat treated, used in a variety of sling and tie down applications.

5 Gear

Gear is made of alloy steel with heat treatment for steady operation and less wearing and tearing.



D8 plus series



1 Gear

- 1). Gear is made of alloy steel.
- 2). Long-span, Low noise



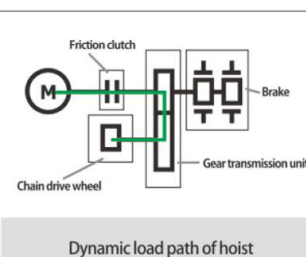
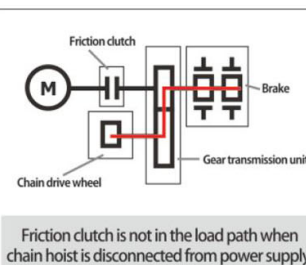
2 Dual brake system

This system is safer : allows for a secondary braking of action in the event that the primary braking system fails or demagnetized.



3 Overload protection (slipping clutch)

Friction clutch is not in the load path when chain hoist is disconnected from power supply. It's mechanical brake. (when restart, it's unable to lift up due to overload protection).



4 Chain sprocket

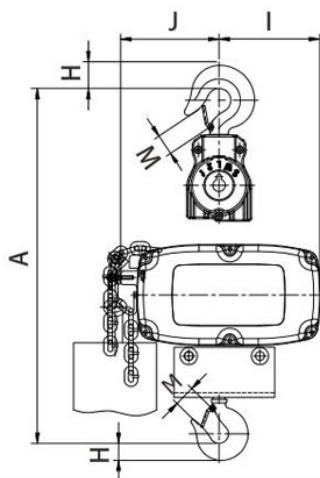
- 1). 5-pocket chain sprocket
- 2). Improve load chain wearing.
- 3). Low noise, transmission smoothly.
- 4). Sprocket and shaft separately, easy for maintenance.



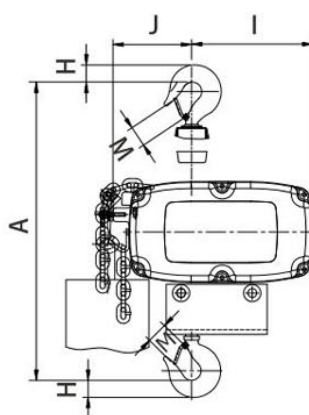


D8 series

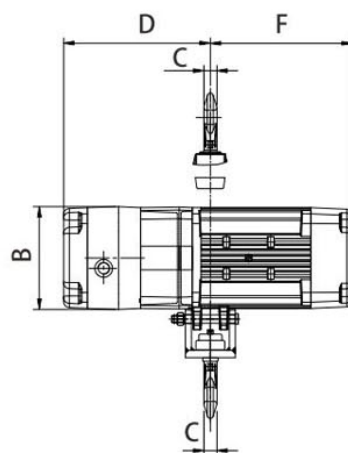
- Particularly design and operates in both upright and inverted position optimized collect chain at stage to load concert equipment.
- Comply with FEM 2m / ISO M5 classification.
- Matt-black non reflective finish chassis for rigid, compact, and durable.
- Forged hook is made of high tensile steel with heat treatment, allowing 360 degree swiveling, and equipped with safety latch to ensure proper rigging the load.
- MC Nylon chain leading plate ensures the chain links properly fit into the lift wheel, and eliminates the possibility of jamming, as well as protect the lift wheel from wet and dirt.
- Overload clutch as safety device.
- Duty cycle ED 40% high efficiency, robust motor running the hoist quietly and steady.
- IP54 rated hoist.
- Phase error relay is standard device, prevent circuit working at its wrong phased.
- Operates on single voltage between 220V~550V, 3 phase, 50 or 60 Hz. 48V operating voltage as standard & safety, depends on different countries request.



2 Falls



1 Fall



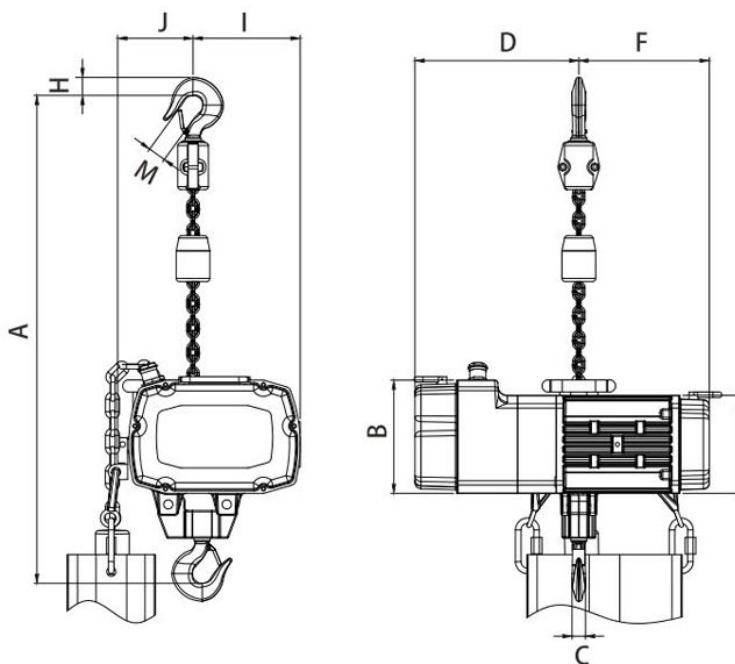
■ Specification

Capacity (kg)	Model	Speed (m/min)		Fall no.	Load Chain (Dia x Pitch) (mm)	Motor (kw x pole)	Weight (kg)	Dimension (mm)									
		50Hz	60Hz					A	B	C	D	F	H	I	J	M	
250	SH-025-1	4.0	4.8	1	Ø4X12	0.25X4	30	410	135	18	205	175	28	165	85	25	
500	SH-050-1	4.0	4.8	1	Ø6.3X19.1	0.4X4	42	600	156	23	247	221	33	185	105	30	
1000	SH-100-1	4.0	4.8	1	Ø7.1X20.2	0.75X4	47	650	156	23	247	221	33	185	105	30	
2000	SH-200-2	4.0	4.8	2	Ø7.1X20.2	1.5X2	62	860	170	27	275	240	39	170	170	30	



D8 plus series

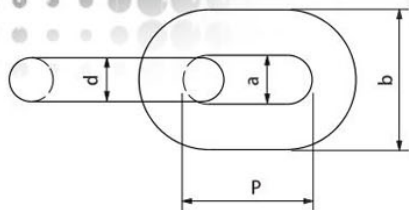
- Higher safety factor
- Overload clutch protects damage from overloading and insures product and personnel safety. The clutch design location is not in the loading path, the main purpose is to avoid overload slipping and danger in static situation. (After restart, it cannot lift up because of the overload.)
- Dual Brake System can insure higher safety level, avoid one of brake system being magnetized after a long period of time using and cause the braking spring cannot rebound (loose brake). Therefore the second brake can insure safety operation.
- Structure design is modularity. Chain sprocket and chain regulator can be disassembled independently, easily replace and maintenance. Likewise, for rapidly repair and removal on motor brake coil or other spare parts.
- 5-pocket chain sprocket arrange with chain regulator design allow the load chain run smoothly.



■ Specification

Capacity (kg)		Model	Speed (m/min)		Fall no.	Load Chain (Dia x Pitch) (mm)	Motor (kw x pole)	Weight (kg)	Dimension (mm)								
D8 plus	D8		50Hz	60Hz					A	B	C	D	F	H	I	J	M
500	1000	SH-100-1	4.0	4.8	1	Ø7.1X20.2	0.75X4	50	650	185	23	267	213	33	175	123	30

■ Load Chain



Diameter d(mm)	Model Reference Being Used	Inner Length p (mm)	Inner Width a (mm)	Outer Width b (mm)	Breaking Load (kn)
Ø4.0	SH-025-1	12	4.8	13.7	20
Ø6.3	SH-050-1	19.1	7.6	21.4	50
Ø7.1	SH-100-1 SH-200-2	20.2	8.4	23.6	63

■ VPLT. VPLT. Standard SR2.0 - Special engineering requirements

Requirements	D8	D8 plus	C1
Mechanism group	1Bm min. ¹⁾	1Bm min.	1Bm min.
Dimensioning of mechanism	1x rated load ²⁾	2 x rated load	2 x rated load
Dimensioning of load-bearing element for rated load	Safety factor 5 min.	Safety factor 10 min.	Safety factor 10 min.
Friction clutch	yes	no ³⁾	no ³⁾
Safety brake or, alternatively, dynamic transmission brake	1 X	2 X	2 X
Emergency limit switch	no	no	yes
Limit switch	no	no	yes
Overload monitoring ⁵⁾	Friction clutch	Shut-down	Shut-down at 120% of rated load
Underload monitoring	no	no	yes ⁴⁾
Speed control for vario-drives	n/a	n/a	yes
Generic requirements	Two swivel safety hooks or lifting eyes		
	Chain-storage capacity in accordance with chain length		
	Chain-storage unit can be mounted on hoist in any operating position up to a max. chain mass specified by the manufacturer		
	Load-free (loose) chain end is securely fixed to housing		
	Housing is impermeable in all mounting positions		
	Implementation of protection class in accordance with conditions of use		
	Housing has no sharp edges or corners (due to risk of injury)		
	Two transport handles for hoists weighing 20 kg or more with out chain		
	Housing construction suitable for tough operating conditions		

¹⁾ 1Bm = 400 operating hours under full load in normal use.

²⁾ Rated load = load during operation. The sum of the load plus the dynamic forces.

³⁾ A friction clutch is permitted if it is not within the load path when the electric chain hoist is disconnected from the power supply.

⁴⁾ Underload monitoring with a collective shut-down facility is required for guided loads and system loads.

⁵⁾ Overload shut-down/overload monitoring.

■ Federation Europeenne De La Manutention

Cubic mean value Definitions		Average operating time per day in hours							
1 (light)	($k \leq 0.50$) Mechanisms or parts thereof, usually subject to very small loads and in exceptional cases only to maximum loads.	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16	>16	
2 (medium)	($0.50 < k \leq 0.63$) Mechanisms or parts thereof, usually subject to small loads but rather often to maximum loads.	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16	>16
3 (heavy)	($0.63 < k \leq 0.80$) Mechanisms or parts thereof, usually subject to medium loads but frequently to maximum loads.	≤ 0.12	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16
4 (very heavy)	($0.80 < k \leq 1$) Mechanisms or parts thereof, usually subject to maximum or almost to maximum loads.	≤ 0.12	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8	
Classification of Mechanisms FEM 9.511		1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m

■ ISO/FEM (9.511)

Classification of mechanisms into groups

1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m
M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8

Class of operation time

Class of operation time	Average operating time per day (in hours)	Calculated total operating time in hours
V0.06 T0	≤ 0.12	200
V0.12 T1	≤ 0.25	400
V0.25 T2	≤ 0.5	800
V0.5 T3	≤ 1	1600
V1 T4	≤ 2	3200
V2 T5	≤ 4	6300
V3 T6	≤ 8	12500
V4 T7	≤ 16	25000
V5 T8	≤ 16	50000

Classification of mechanisms

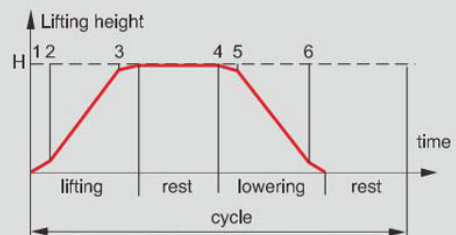
Load spectrum	Cubic mean value	Class of operation time									
		V0.06	V0.12	V0.25	V0.5	V1	V2	V3	V4	V5	
		T0	T1	T2	T3	T4	T5	T6	T7	T8	
		Average operating time per day in hours									
		≤ 0.12	≤ 0.25	≤ 0.5	≤ 1	≤ 2	≤ 4	≤ 8	≤ 16	>16	
1 L1	$k \leq 0.50$			1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	
2 L2	$0.50 < k \leq 0.63$		1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m	
3 L3	$0.63 < k \leq 0.80$	1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m		
4 L4	$0.80 < k \leq 1.00$	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m			

■ Operation Cycle

Hoist with one speed



Hoist with two speed



Professional cranes & hoists for lifting



Taiwan Black Bear Factory



QUANG LIEN Factory



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