



Professional cranes & hoists for lifting



Electric Chain Hoist / NHD series



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



1 Motor and Brake

- 1).IP55 TEFC motor, class F insulation, good thermal performance.
- 2).DC motor brake : with two-side single disk brake, electromagnetic brake actuates synchronously in the event of power failure to ensure the operation safety while loading.
- 3).Total enclosed construction, withstands harsh conditions like those found in chemical, and electroplating environments.
- 4).Asbestos-free brake to meet international request.

Over-Heat Protection

With built-in heat detector, when motor's inside working temperature reaches $140(\pm 5)^{\circ}\text{C}$, the protection mechanism will trigger, and not allow lifting the load. Instead, it permits coming down to release the load.

2 Chain Sprocket

5-pocket chain sprocket for load chain smooth operation.

3 Mechanical Brake and Overload Protection

- 1).2 in 1 design, have the dual function of mechanical brake and overload protections.
- 2).Mechanical brake collocate motor brake which provides fast braking function.
- 3).Friction Clutch prevent damage from overloading.
- 4).Easily adjusted by the gear box outside Overload setting.
- 5).Ensure operation safety and product life time.

4 Limit Switch

Upper and lower gear limit switches are fitted to switch off the power simultaneously in the case of over lifting or lowering position.

6 Load Chain

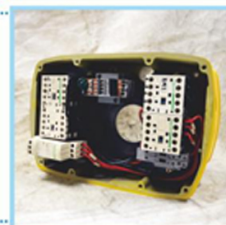
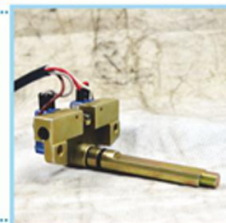
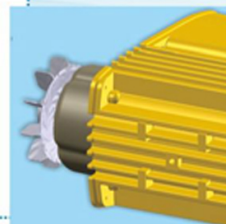
Grade 80 hardened and galvanized alloy steel chain, endures harsh conditions such as rain, saltwater and chemicals with minimal wear.

7 Hook

- 1).Hot forged from high tensile steel.
- 2).360 degree rotation.

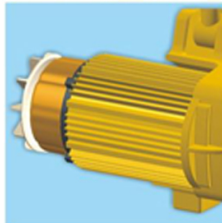
8 Pendant Control

High protection grade IP65, fully water-proof, insulated, and impact resistant.



1 Gear Limit Switch

- 1).Can precisely control stopping point at any position.
- 2). Patents :
Taiwan patent no. M466909
German patent no. Nr. 20 2014 006 109.2
Japan patent no. 3193570
China patent no. ZL 2014 2 0395985.8
United States patent no.US 9263201



2 Motor Ass'y

Light and artistic motor housing is made of aluminum extruded alloy and motor coil can simply disassemble and repair.

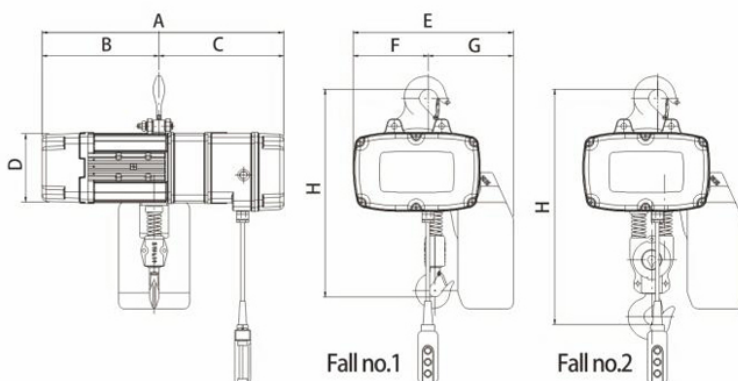


3 Chain sprocket and Regulator

Can rapidly remove and replace unlike previous model have to remove motor or other components first.



NHD series

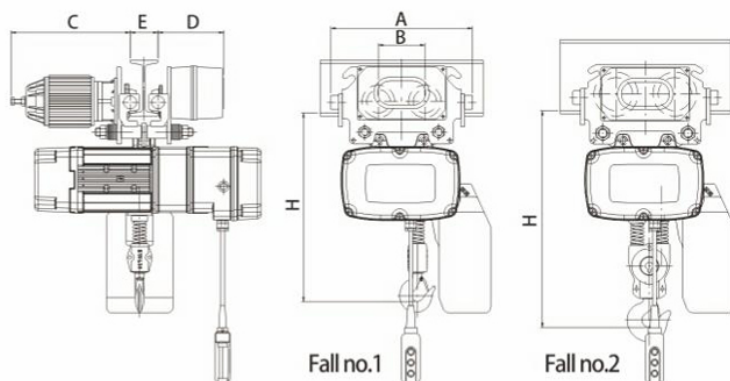


Model	Capacity (kg)	Lift (m)	%ED	Hoisting			Traversing		
				Speed(m/min)		Motor kw x pole	Speed(m/min)		Motor kw x pole
				60Hz	50Hz		60Hz	50Hz	
NHD-025-1	250	3	40/20	12/3	12/3	0.6/0.15 x 2/8P	24/6	20/5	0.12/0.03 x 2/8P
NHD-050-2	500			6/1.5	6/1.5		24/6	20/5	0.12/0.03 x 2/8P
NHD-050-1	500	3	40/20	10/2.5	10/2.5	1.1/0.28 x 2/8P	24/6	20/5	0.12/0.03 x 2/8P
NHD-100-2	1000			5/1.25	5/1.25		24/6	20/5	0.18/0.04x 2/8P
NHD-100-1	1000	3	40/20	8/2	8/2	1.5/0.37 x 2/8P	24/6	20/5	0.18/0.04 x 2/8P
NHD-200-2	2000			4/1	4/1		24/6	20/5	0.37/0.09x 2/8P
NHD-200-1	2000	3	40/20	9.6/2.4	9.6/2.4	3.7/0.9 x 2/8P	24/6	20/5	0.37/0.09x 2/8P
NHD-300-2	3000	3	40/20	6.4/1.6	6.4/1.6		24/6	20/5	0.6/0.15x 2/8P
NHD-500-2	5000	3	40/20	4/1	4/1		24/6	20/5	0.6/0.15x 2/8P

Model	Dimension (mm)								Load Chain		N.W. (kg)
	H	A	B	C	D	E	F	G	Ømm	Fall No.	
NHD-025-1	376	380	175	205	135	299	143	156	Ø 4.0x12.0	1	30
NHD-050-2	453									2	32
NHD-050-1	500	570	266	304	164	375	190	185	Ø 6.3x19.1	1	47
NHD-100-2	545									2	50
NHD-100-1	550	616	297	319	180	409	191	218	Ø 7.1x20.2	1	62
NHD-200-2	620									2	67
NHD-200-1	800	685	310	375	215	520	265	255	Ø 10x30	1	102
NHD-300-2	890	685	310	375	215	520	210	310	Ø 10x30	2	120
NHD-500-2	920	685	310	375	215	520	210	310	Ø 11.2x34	2	145

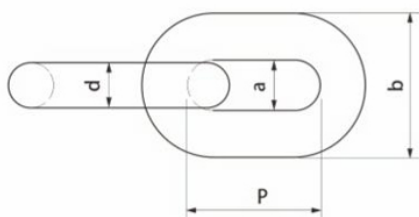


Hoist with Motorized NTD Trolley



Model	Dimension (mm)						Fall No.
	H	A	B	C	D	E	
NHD-025-1+NTD-050-2	385	382	125.5	324	180	75~125	1
NHD-050-2+NTD-050-2	462	382	125.5	324	180	75~125	2
NHD-050-1+NTD-050-1	495	382	126	324	180	75~125	1
NHD-100-2+NTD-100-2	550	382	126	324	180	75~125	2
NHD-100-1+NTD-100-1	535	382	126	324	180	75~125	1
NHD-200-2+NTD-200-2	610	392	159	357	183	100~150	2
NHD-200-1+NTD-200-1	715	392	159	357	183	100~150	1
NHD-300-2+NTD-300-2	820	512	177	407	192	125~175	2
NHD-500-2+NTD-500-2	860	540	191	410	195	125~175	2

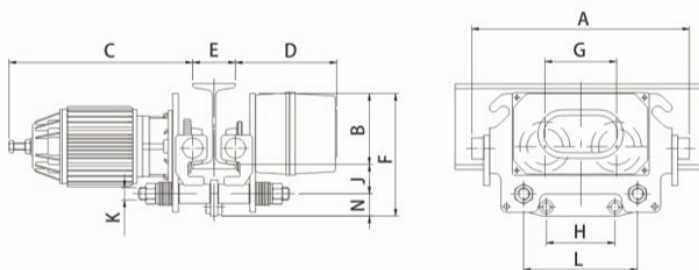
Load Chain



Diameter d(mm)	Model Reference Being Used	Inner Length p (mm)	Inner Width a (mm)	Outer Width b (mm)	Breaking Load (kn)
Ø4.0	NHD-025-1 NHD-050-2	12	4.8	13.7	20
Ø6.3	NHD-050-1 NHD-100-2	19.1	7.6	21.4	50
Ø7.1	NHD-100-1 NHD-200-2	20.2	8.4	23.6	63
Ø10.0	NHD-200-1 NHD-300-2	30	12	34	125
Ø11.2	NHD-500-2	34	14	38	158



Motorized NT(D) Trolley



Model	Speed (m/mm)		Motor kw x pole	Dimension (mm)												N.W. (kg)	Min radius of curve (m)
	60Hz	50Hz		A	B	C	D	E	F	G	H	L	J	N	K		
NT-050-1	24	20	0.12 x 2P	382	124.5	324	180	75~ 125	217	125.5	95.5	200	51.5	41	7/8"~9UNC (Ø22.2)	45	1.3
NTD-050-1	24/6	20/5	0.12/0.03 x 2/8P														
NT-050-2	24	20	0.12 x 2P	382	124.5	324	180	75~ 125	217	125.5	120	200	51.5	41	7/8"~9UNC (Ø22.2)	45	1.3
NTD-050-2	24/6	20/5	0.12/0.03 x 2/8P														
NT-100-1	24	20	0.18 x 2P	382	124.5	324	180	75~ 125	217	125.5	120	200	51.5	41	7/8"~9UNC (Ø22.2)	45	1.3
NTD-100-1	24/6	20/5	0.18/0.04 x 2/8P														
NT-100-2	24	20	0.18 x 2P	382	124.5	324	180	75~ 125	217	125.5	95.5	200	51.5	41	7/8"~9UNC (Ø22.2)	45	1.3
NTD-100-2	24/6	20/5	0.18/0.04 x 2/8P														
NT-200-2	24	20	0.37 x 2P	392	125	357	183	100~ 150	221	159	120	230	60	36	1"~8UNC (Ø25.4)	50	1.7
NTD-200-2	24/6	20/5	0.37/0.09 x 2/8P														
NT-200-1	24	20	0.37 x 2P	392	125	357	183	100~ 150	240	159	52.5	230	60	55	1"~8UNC (Ø25.4)	55	1.7
NTD-200-1	24/6	20/5	0.37/0.09 x 2/8P														
NT-300-2	24	20	0.6 x 2P	512	163	407	192	125~ 175	292	177	52.5	230	68	61	1 1/4"~7UNC (Ø31.7)	65	2.0
NTD-300-2	24/6	20/5	0.6/0.15 x 2/8P														
NT-500-2	24	20	0.6 x 2P	540	168	410	195	125~ 175	305	191	52.5	230	72	65	1 1/2"~6UNC (Ø38.1)	89	2.2
NTD-500-2	24/6	20/5	0.6/0.15 x 2/8P														

*Different flange width options available on request. Maximum:300mm.

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

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			

Class of operation time

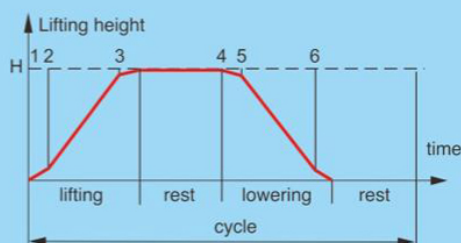
Class of operation time	Average operating time per day (in hours)	Calculated total operating time in hours
V0.06 T0	≤ 0.12	200
V0.12 T1	≤ 0.25	400
V0.25 T2	≤ 0.5	800
V0.5 T3	≤ 1	1600
V1 T4	≤ 2	3200
V2 T5	≤ 4	6300
V3 T6	≤ 8	12500
V4 T7	≤ 16	25000
V5 T8	≤ 16	50000

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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