



Electric Chain Hoist

Operation Manual & Parts List



Series:

- ☐ SH-025-1
- ☐ SH-050-1
- ☐ SH-100-1
- ☐ SH-200-2



CHENG DAY MACHINERY WORKS CO., LTD.

SAFETY-IMPORTANT

The use of any hoist and trolley presents some risk of personal injury or property damage.

That risk is greatly increased if proper instructions and warnings are not followed. Before using this hoist, each user should become thoroughly familiar with all warnings, instructions and recommendations herein.



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND ANY PROVIDED WITH THE EQUIPMENT BEFORE ATTEMPTING TO OPERATE YOUR ELECTRIC CHAIN HOIST.



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1.FOREWORD

This manual contains important information to help you properly install, operate and maintain the Black Bear electric chain hoist and to maximize performance, economy and safety.

Please study all contents thoroughly before putting the electric chain hoist into operation.

By practicing correct operating procedures and by carrying out the preventative maintenance recommendations, you will be assured of dependable service. In order to help us to supply correct spare parts quickly, please always specify -

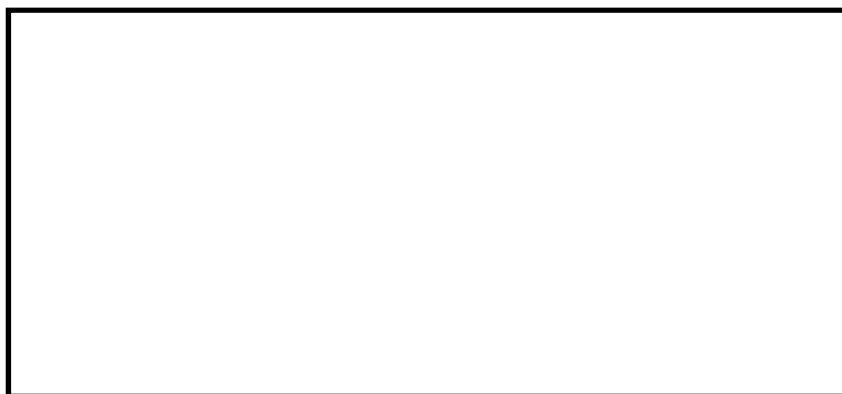
(1) Hoist model

(2) Serial number

(3) Part number, plus the description.

We will have your trust of Cheng Day's long term satisfactory service as our belief.

Should you have any queries, please contact:



(Please ask for a company's stamp from your local agent)

2.MAIN SPECIFICATIONS

2.1 Specifications

The following specifications are common to all electric chain hoists.

Table 2-1 Specifications

Item		Detail	
Working temperature range (°C)		-5 to +40	
Working humidity range (%)		85 or less	
Protection	Hoist	IP 55	
	Push button	IP 65	
Electric power supply		Three Phase, 220V~550V, 50Hz/60Hz	
Noise Level (dB)	Single speed hoist	75	
Chain Size	Type	Nominal diameter (mm)	Pitch (mm)
	SH-025-1	Ø4.0	12
	SH-050-1	Ø6.3	19.1
	SH-100-1	Ø7.1	20.2
	SH-200-2	Ø7.1	20.2

Remarks:

- (1) Contact an authorized Black Bear dealer for information on using the hoist outside the working temperature or humidity range.
- (2) Intended use: This hoist has been designed for vertically lifting and lowering loads under normal atmospheric conditions.
- (3) Noise levels are measured at a distance of 1m horizontally from the hoists during normal operation.

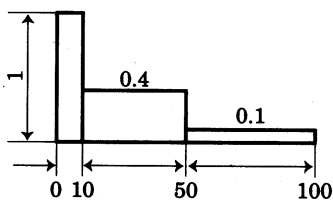
2.2 Mechanical Classification (Grade) and Life

Safety and life of electric chain hoists are guaranteed only when the equipment is operated in accordance with the prescribed grade.

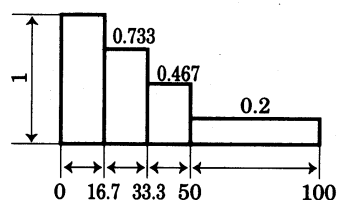
Black Bear chain hoists have been designed for grade 2m in the FEM Regulations (FEM 9.5.11). Details are provided in Table 2-2. Average daily operating time and total operating time are determined by load distribution.

Table 2-2 Mechanical classification

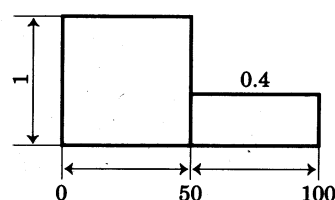
Load Spectrum (Load distribution)	Definitions	Cubic mean value	FEM 2m	FEM 2m
			Average daily Operation time (h)	Total operating time (h)
1 (light)	Mechanisms or parts thereof, usually subject to very small loads and in exceptional cases only to maximum loads.	$k \leq 0.50$	4 - 8	12500
2 (medium)	Mechanisms or parts thereof, usually subject to small loads but rather often to maximum loads.	$0.50 < k \leq 0.63$	2 - 4	6300
3 (heavy)	Mechanisms or parts thereof, usually subject to medium loads but frequently to maximum loads.	$0.63 < k \leq 0.80$	1 - 2	3200
4 (very heavy)	Mechanisms or parts thereof, usually subject to maximum of almost maximum loads.	$0.80 < k \leq 1.00$	0.5 - 1	1600



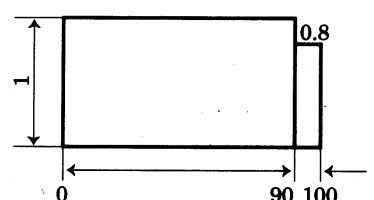
% operating time
Load spectrum 1



% operating time
Load spectrum 2



% operating time
Load spectrum 3



% operating time
Load spectrum 4

2.3 Safety Devices

(1) Motor brake

The “Electro-Magnetic Brake” is of a unique design in its field. It features simultaneous motor braking upon switching off power even under full load condition.

(2) Hook and hook latch

The hook is drop-forged from high tensile steel and heat treated for strength and toughness. Both upper and bottom hook is capable of 360° swivel and fitted with a safety latch for added security.

(3) Overload protection device

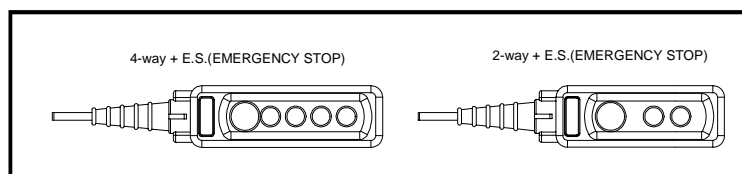
Overload protection device in the form of a slipping clutch prevents damage due to overloading.

(4) Geared Limit switches

Upper and lower limit switches are fitted for switching off power automatically in case of over lifting or over lowering.

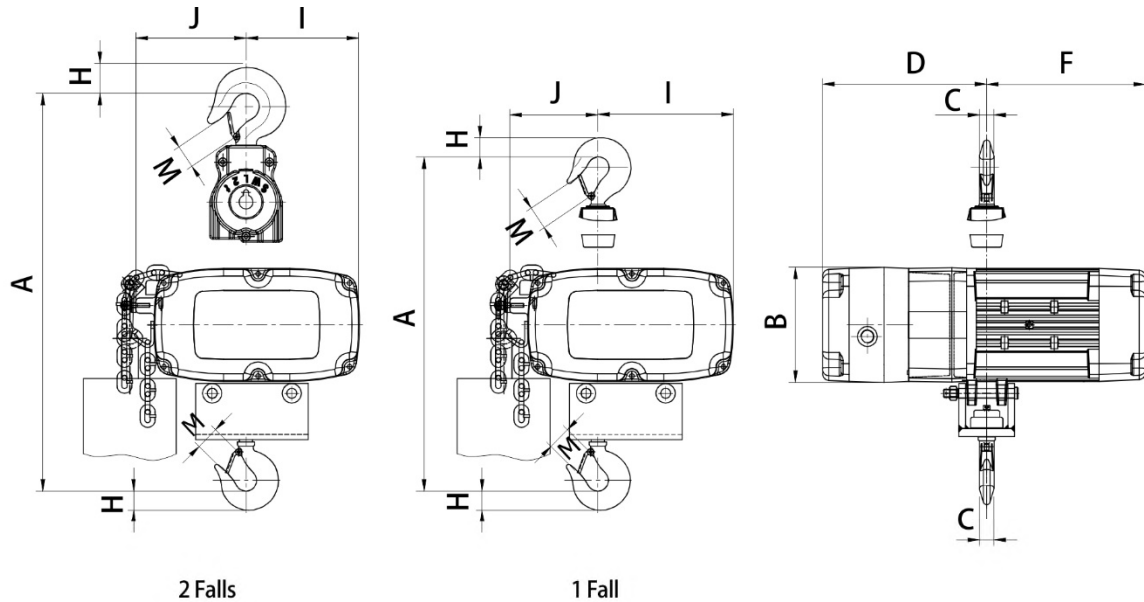
(5) Emergency stop device

This button is used to stop the hoist in an emergency situation. It is a red, mushroom type button, located in the uppermost position on the pendant. When pressed, power to the equipment is switched off and the button locks automatically. Turning it to the right will release the lock and to enable re-starting. (Illust.1)



Illust. 1

2.4 Specifications and Dimensions



■ Specification

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

3.SAFETY RULES



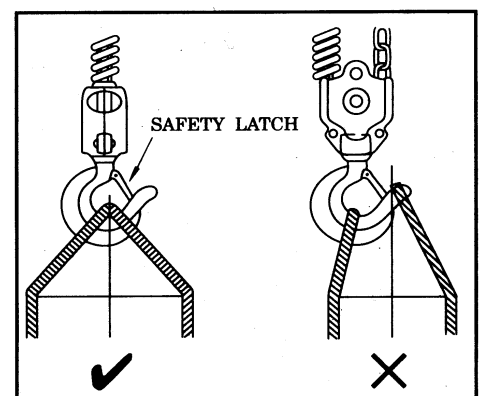
This hoist is not designed for, and should not be used for, lifting, supporting, or transporting personnel. Any modifications to upgrade, re-rate, or otherwise alter the hoist equipment must be authorized by either the original manufacturer or a qualified professional engineer.

Do not use the hoist in explosive atmosphere.

Only trained personnel are allowed to operate the hoist.

Prior to each lifting operation, it is essential to make sure that:

- The correct lifting sling is being used.
- The lifting sling is located in the hook as shown below (Illust. 1) and that a safety latch has been fitted.



(Illust. 1)

Firm and steady button operation is required. Never push the button switch intermittently.

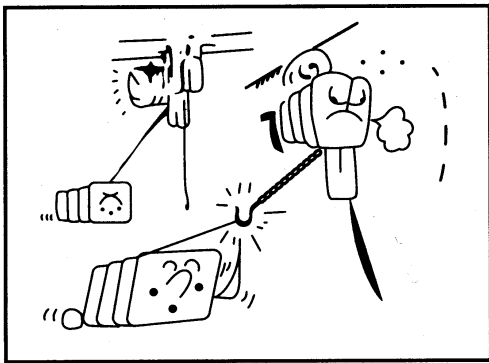
Always avoid excessive inching operation.

Always make sure the hoist motor completely stops before reversing.

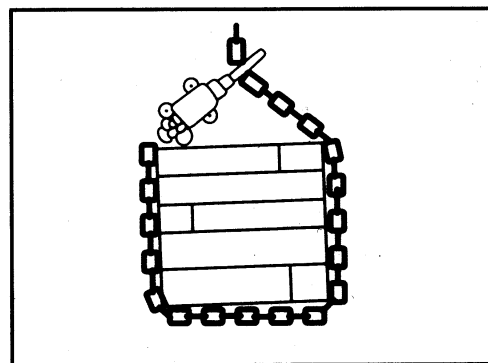
Always leave the pendant button switch cable and bottom hook load chain vertically static after completion of operation, never leave them at any position, which may allow them to swing or slip.

Slings must be applied to load evenly and centrally to ensure correct balance. Never lift any object which is insecure or out of balance.

Never use hoist to end or side pull a load. (Illust. 2)



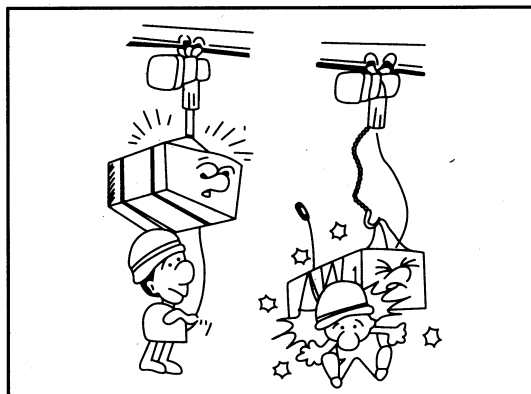
Illust. 2



Illust. 3

Do not use the hoist chain as a welding electrode.

Never stand under a raised load (Illust. 4)



Illust. 4

Lifting must always be personally attended. Never leave a raised load unattended.

Over-capacity-load lifting is hazardous and should not be undertaken.

Never lift a load when the load chain is twisted.

Regularly inspect and check the condition of load chain. Do not operate with damaged chain

4.INSTALLATION

4.1 Unpacking Information

After removing the hoist from its packing box, carefully inspect the external condition of the electrical cables, contactor, gearbox and motor casing for damage.

Check and ensure that these items are present.

Each hoist is supplied as standard with the following accessories.

1. Chain bucket	1 set
2. Power cable	3.0 meter
3. Push button control switch	1 piece

Table. 4-1

4.2 Voltage

CAUTION

If power supply deviates from standard by more than $\pm 10\%$ abnormal operation or damage to the motor may result. It is imperative to ensure correct voltage supply before commencing operation.

4.3 Installation

WARNING

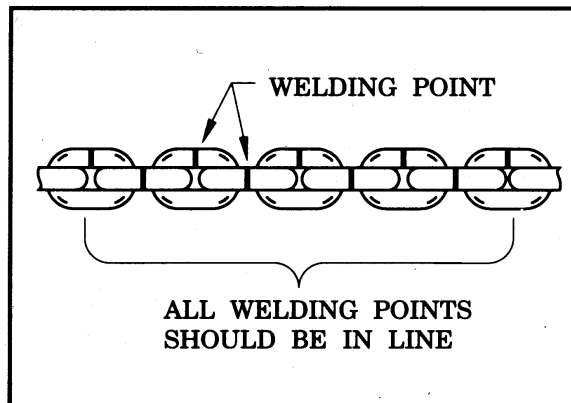
Connection to power supply before installation procedures having been completed is strictly prohibited.

Prior to installation check and ensure that the top hook assembly is securely attached to the hoist by means of the lock bolt.

Connect power supply to hoist and operate the push button switch. This operation must be carried out by a trained person.

Operation Test

- (a) Please reverse any two connections while the direction is incorrect.
- (b) Firmly push ⬇️ switch button to lower load chain until the limit spring touches the limit switch. Power should be cut off automatically.
- (c) Firmly push ⬆️ switch button to check the collection of load chain into chain bucket.
- (d) Check chain position. Weld joints on links must face the same direction (Illust. 5). Correct chain operation can only be achieved when all joints are vertically in line.



Illust. 5

5. OPERATION

After running test and checks have been completed, the hoist will be ready for normal operation.

WARNING

Since dealing with heavy loads may involve unexpected danger all of the “SAFETY RULES” (Ref 3.) must be followed and the operator must be aware of the following points while using the hoist.

- (1) The operator must have a clear and unobstructed view of the entire working area before operating the hoist.
- (2) The operator must check that the entire working area is safe and secure before operating the hoist.

6.MAINTENANCE AND INSPECTION

DANGER

Do not perform maintenance on the hoist while it is carrying a load except monthly checking for the brake or limit switch.

DANGER

Before performing maintenance do not forget to affix tags to the power source and the push button switch reading : “DANGER”, “EQUIPMENT BEING REPAIRED”.

6.1 Maintenance

- (1) The gear box lubricating oil 6 months replace one time.
- (2) Always keep the hoist unit dry and never misuse it in a manner likely to reduce its durability.
- (3) When it is necessary to keep the unit outdoors, a protective covering should be fitted.

6.2 Inspection

1. Daily inspection: Before starting daily operation, check the followings:

- (a) Correct power supply.
- (b) “Up” and “Down” (where fitted) test runs under no load.
- (c) Correct motor performance.
- (d) No abnormal or excessive noise.
- (e) No malfunction of the bottom hook safety latch.
- (f) Proper function of moving/turning parts and brake.
- (g) Well-lubricated load chain.

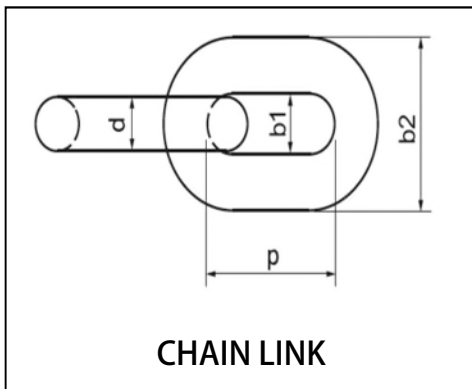
2. Monthly inspection

WARNING

Always use the hoist manufacture’s recommended parts when repairing a hoist.

(a) Load chain.

Distorted, elongated or worn chain link will not sit properly on the load sprocket wheel and may cause chain breakage and/or damage to hoist unit. To ensure safe and efficient operation, the chain links must be checked for their pitch (inside length), inside width and outside width monthly according to following table.



Model	Dia-Meter (m/m) (d)	Inside Length (m/m) (p)	Inside Width (m/m) (b1)	Outside Width (m/m) (b2)	Breaking Load (kN)
SH-025	Ø4.0	12	5	14	20
SH-050	Ø6.3	19	8.1	21.3	50
SH-100 SH-200	Ø7.1	20.2	8.2	23.2	63

Measuring

- (1) The chain gauge is useful and convenience for measuring.
- (2) Please use a chain gauge to measure the chain pitch and diameter, per Illustration (6) and Illustration (7).
- (3) Every chain ring must be measured, and the chain must be replaced when one of chain ring is wear or stretch.
- (4) It will be a cutting-out possibility if you use a chain fall either wear or stretch during operation.
- (5) Do not replace a chain fall by yourself and do please contact specific either service centers or contractors to help you out.
- (6) The chain fall must be replaced whole instead of in part.
- (7) The load sheave, regulator, and regulator plate wheel must be replaced the same time as you do a chain replacement.

Note : Chain must be in perfect condition without any defects.

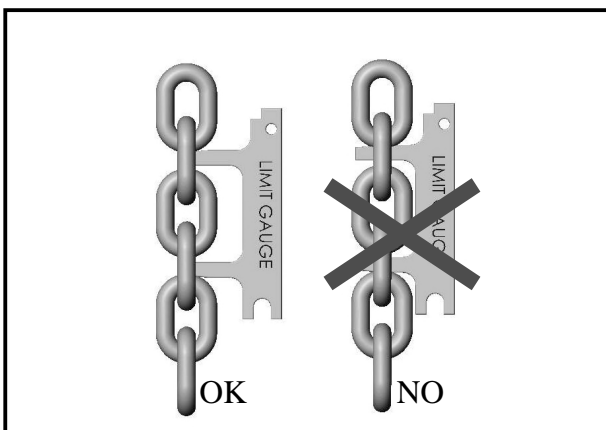


Illustration (6) Chain pitch measure

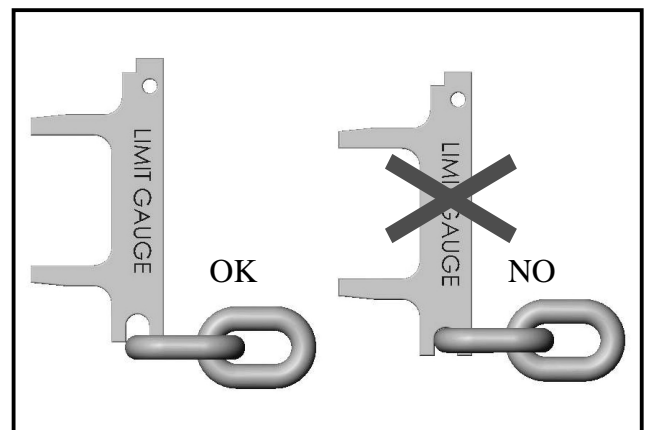
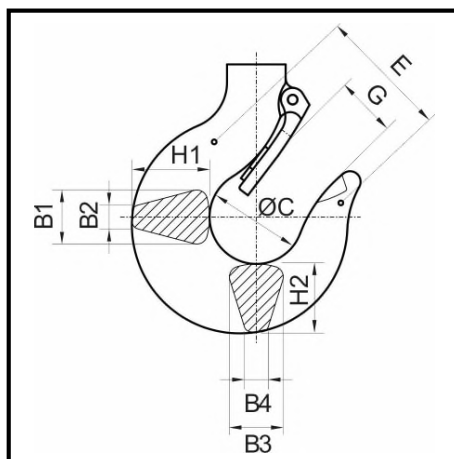


Illustration (7) Diameter measure

(b) Load hook :

Check hook with care. If hook shows crack deformation or wear in excess of 5% of its original size, it should be replaced. (Ref. following table)



Capacity (kg)	Hook	Dimensions (mm)									Allow Stress (kg/mm ²)
		H1	B1	B2	H2	B3	B4	C	G	E	
250	T	28	18	8	23	18	8	35	28	50	70
	B	20	12	6	20	12	6	36	24	42	70
500	T	28	18	8	23	18	8	35	28	50	70
	B	32	22	9	28	22	9	40	28	60	70
1000	T	45	31	10	41	31	10	46	36	75	70
	B	32	22	9	28	22	9	40	28	60	70
2000	T	45	31	10	41	31	10	46	35	70	100
	B	45	31	10	41	31	10	46	36	75	70

Top Hook=T Bottom Hook=B

3. Annual inspection



Your dealer should be asked to perform this inspection.

- (a) Check gearing for any excessive wears or damage.
- (b) Replace gearbox lubricant completely (**SH-025-1/ 400C.C., SH-050-1& SH-100-1 / 800C.C., SH-200-2 / 1400C.C.**) as following table for your reference.

※Table of recommended oils according to DIN 51354

ISO-VGDIN 51519 viscosity At 40°C mm ² /s(cST)	Approximate viscosity of the VG Categories 50°C mm ² /s(cST)	ARAL	BP	ESSO	MOBIL OIL
VG460	251	Aral Degol BG 460-BMB 460	BP Energol GR-XP 460	Spartan EP-460	Mobilgear 634

ISO-VGDIN 51519 Viscosity At 40°C mm ² /s(cST)	Approximate viscosity of the VG Categories 50°C mm ² /s(cST)	SHELL	TEXACO	I.P.	AGIP	TOTAL
VG460	251	Omala oil 460	Meropa 460	Mellana 460	Blasia	Carter EP 460

The permissible tolerance for each VG category is $\pm 10\%$ of the tabulated values.

- (c) Check brake lining for any wear or damage.
- (d) On completion of above checks, lift a load several times to ensure good performance of the hoist before starting duty operation.

7.TROUBLESHOOTING

7.1 Wiring Diagrams

- (1) 033 for connection of motor leads 15

The above listed wiring diagram for reference only.

The end user should refer to the wiring diagram stuck to the inside cover of the electric housing.

Our electric specifications apply to the following -

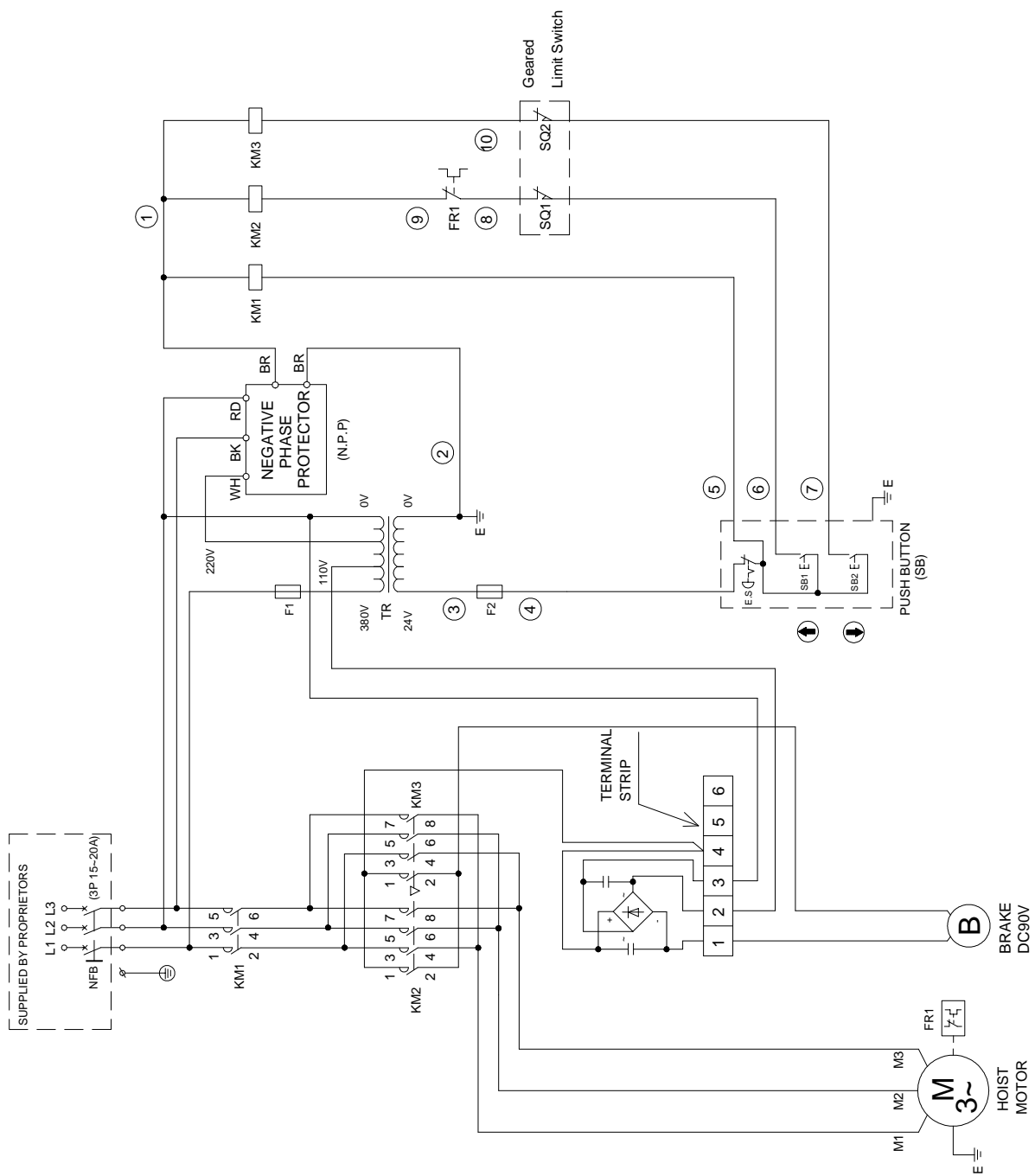
- (a) 3-Phase
- (b) 50Hz&60HZ

Hertz \ Voltage	Voltage
	Voltage
50Hz	220V~550V
60 Hz	220V~550V

Table 7-1

Warranty Details

1. Warranty Period : One year for Mechanical Spare Parts after purchase the product.
2. Non-Warranty Scope:
 - (a) Electrical Spare Parts (ex. Contactor, Pendant, Phase Error Relay, etc.)
 - (b) Expense Spare Parts (ex. Chain Bucket, Brake Lining, etc.)
 - (c) Damage caused by unsuitable operation.
(ex. Galvanize plant, Chemical Plant, Dye-work, etc.)
 - (d) Damage caused by operating on the wrong electric voltage.
 - (e) Damage caused by user amend the product.
 - (f) Damage caused by natural disaster.
3. Warranty Scope shall be permitted by Cheng Day Machinery and Within One Year of damaged Mechanical Spare Parts Repair and Replacement.
(circumstance stated in detail No. 2 are not included.)



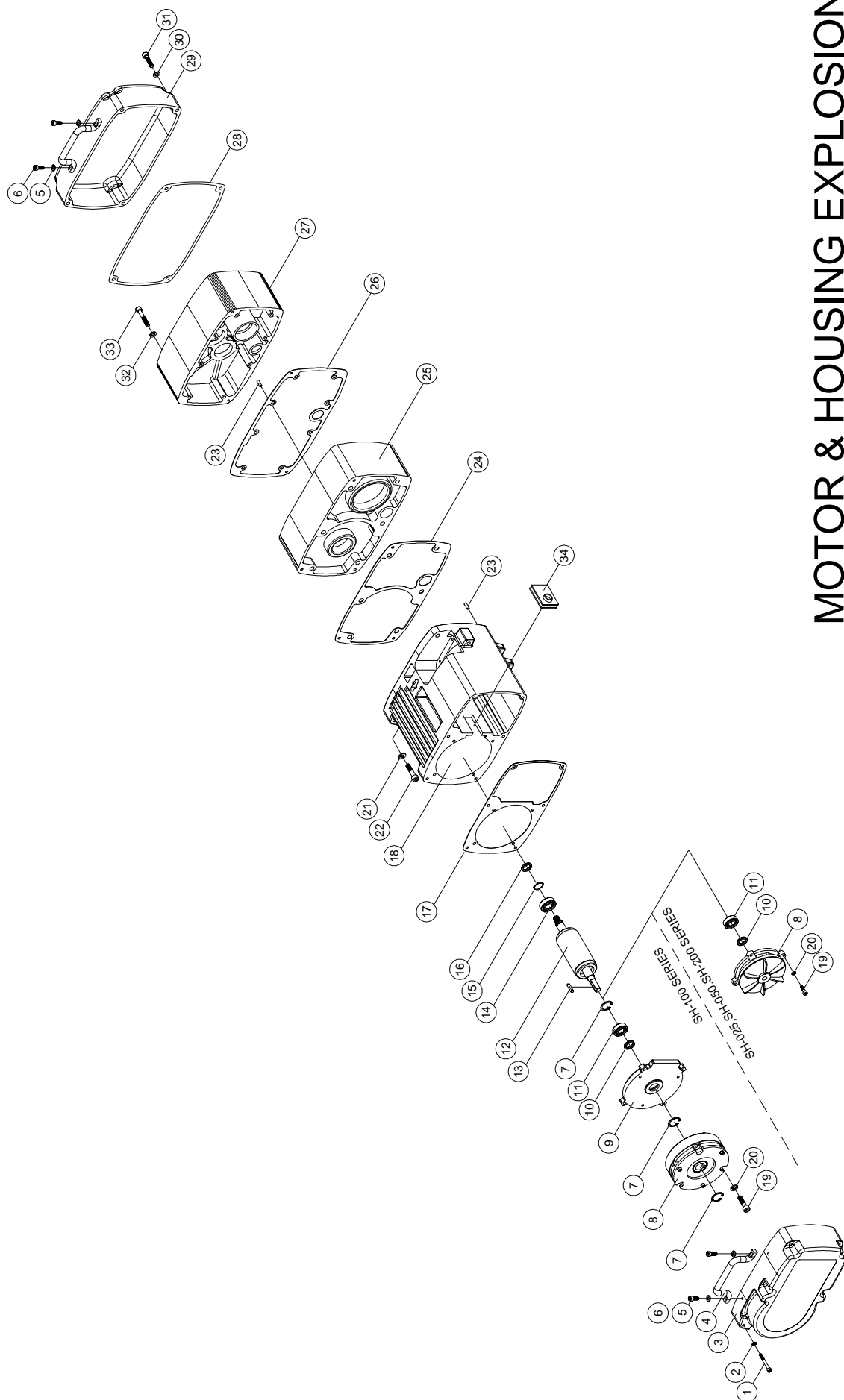
7.2 Troubleshooting and Remedial Action

SITUATION	CAUSE	REMEDY
Hoist will not operate	(1) Broken/disconnected power or control circuit wire.	Locate and repair/reconnect
	(2) Low supply voltage	Check if 10% reduction in voltage, have main supply checked
	(3) Motor hums but does not rotate	Check phases to motor-insulate and repair
	(4) Faulty contactor	Operate manually if hoist runs then control circuit/coil is faulty-locate fault and repair. If hoist does not run then check main supply. If input supply is correct but there is a faulty output supply then replace the contactor
Hoist will not stop	Welded contacts in contactor	Replace contactor
Brake slips	Abrasion of motor brake	Replace
Hoist runs but does not lift	(1) Clutch slipping	Contact your authorized Black Bear dealer – this adjustment needs to be carried out on a test rig
Abnormal sound on load chain/chain sprocket (2 falls)	(1) Chain dry	Lubricate
	(2) Worn chain sprocket (2 falls)	Replace load chain and chain sprocket (2 falls)
Electric shock	(1) Poor earth connection	Provide correct earth connection
	(2) Accumulated foreign matter/ moisture on electrical parts	Remove foreign matter/dry electrical parts

8.DRAWINGS AND PARTS LISTS

- (1) MOTOR& HOUSIN EXPLOSION18
- (2) MOTOR& HOUSIN ASSEMBLY B.O.M19
- (3) HOOK & LOAD CHAIN EXPLOSION22
- (4) HOOK & LOAD CHAIN ASSEMBLY B.O.M23
- (5) GEAR BOX EXPLOSION26
- (6) GEAR BOX ASSEMBLY B.O.M27
- (7) ELECTRIC EXPLOSION30
- (8) ELECTRIC ASSEMBLY B.O.M 31

MOTOR & HOUSING EXPLOSION



MOTOR & HOUSING ASSEMBLY B.O.M

NO.	PARTS CODE	DESCRIPTION	Q'TY			
			SH-025	SH-050	SH-100	SH-200
1	406858	Hex. Recess Bolt <M5x0.8x75>	6			
	406857	Hex. Recess Bolt <M5x0.8x30>		6	6	
	408571	Hex. Recess Bolt <M6x1.0x50>				6
2	400093	Spring Washer <M5>	6	6	6	
	400094	Spring Washer <M6>				6
3	268252	End Cover	1			
	268030			1	1	
	107710					1
4	262461	Handle	2	2	2	2
5	400094	Spring Washer <M6>	4	4	4	4
6	400006	Hex. Recess Bolt <M6x1.0x16>	4	4	4	4
7	400191	Retaining Ring <S-20>			3	
8	107343	Brake Ass'y	1			
	200855			1		
	106949				1	
	200834					1
9	100287	Bracket			1	
10	400932	Oil Seal <Ø15xØ30x7t>	1			
	404413	Oil Seal <Ø17 × Ø35 × 8t >		1		
	400186	Oil Seal <Ø20xØ35x8t>			1	1
11	400111	Bearing <6202ZZ>	1			
	400732	Bearing <6203ZZ>		1		
	400130	Bearing <6204 ZZ>			1	
	400134	Bearing <6008 ZZ>				1
12	107341	Motor Rotor <Ø70x18x80>	1			
	106968	Motor Rotor <Ø75x20x80>		1		
	100285	Motor Rotor <Ø75x20x125>			1	
	100311	Motor Rotor <Ø75x22x140>				1
13	400947	Key <5x5x25L>	1	1		
	405925	Key <6x6x20>			1	
	400960	Key <5x5x30>				1

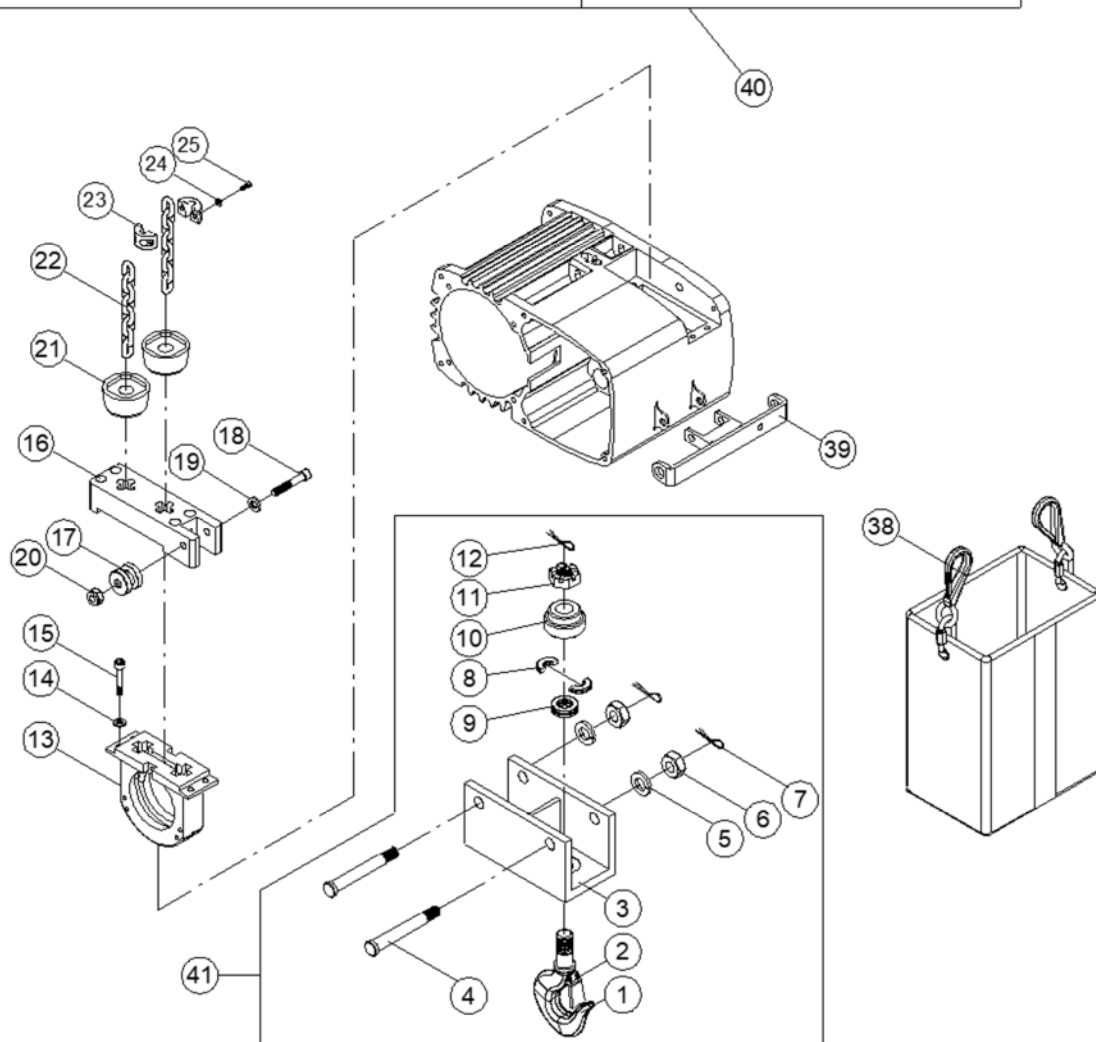
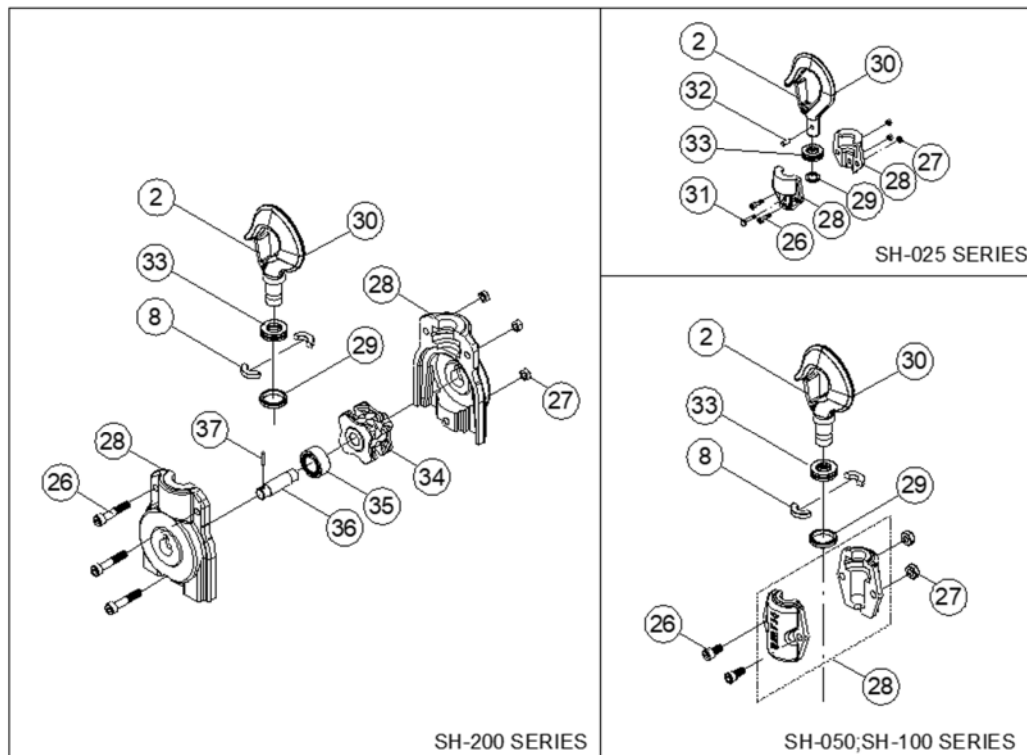
MOTOR & HOUSING ASSEMBLY B.O.M

NO.	PARTS CODE	DESCRIPTION	Q'TY			
			SH-025	SH-050	SH-100	SH-200
14	400732	Bearing <6203ZZ>	1			
	400130	Bearing <6204 ZZ>		1	1	
	400143	Bearing <6205 ZZ>				1
15	400577	Wave Washer <6204>		1	1	
	407553	Wave Washer <6205>				1
16	404487	Oil Seal <Ø17xØ28x6t>	1			
	400186	Oil Seal <Ø20xØ35x8t>		1	1	
	400891	Oil Seal <Ø25xØ45x8t>				1
17	402637	Gasket	1			
	402612			1	1	
	402607					1
18	107332	Motor Stator Ass'y	1			
	106964			1		
	106957				1	
	106950					1
19	400417	Hex. Recess Bolt <M 5x0.8x20L>	4			
	405020	Hex. Recess Bolt <M 5x0.8x25L>		4	4	
	400008	Hex. Recess Bolt <M 6x1.0x25L>				4
20	400093	Spring Washer <M5>	4	4	4	
	400094	Spring Washer <M6>				4
21	400095	Spring Washer <M8>	6	6	6	6
22	406859	Hex. Bolt <M8x1.25x20>	6			
	408346	Hex. Recess Bolt <M8x1.25x35>		6	6	
	400013	Hex. Recess Bolt <M8x1.25x25>				6
23	400615	Pin <Ø5x12L>	4	4	4	4
24	402638	Brake Gasket	1			
	402609			1	1	
	402608					1
25	268245	Gearbox	1			
	208810			1	1	
	200976C					1

MOTOR & HOUSING ASSEMBLY B.O.M

[illegible]

HOOK & LOAD CHAIN EXPLOSION



HOOK & LOAD CHAIN ASSEMBLY B.O.M

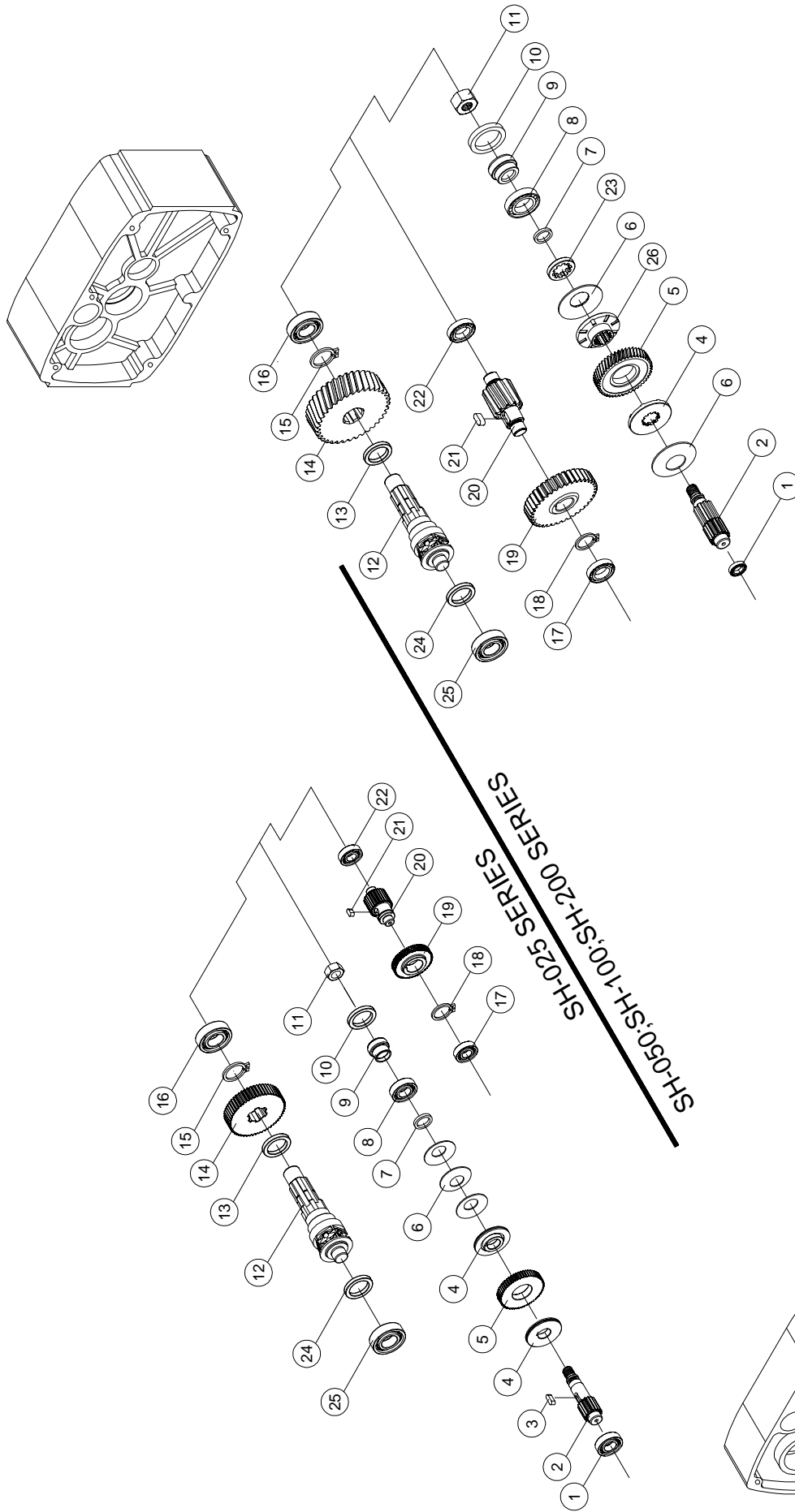
NO.	PARTS CODE	DESCRIPTION	Q'TY			
			SH-025	SH-050	SH-100	SH-200
1	268119	Hook Ass'y	1			
	268130			1		
	200702				1	
	200600					1
2	408155	Safety Latch Ass'y	2			
	400487			2	2	
	400488					2
3	268256	Hook Cover	1			
	268175			1		
	268082				1	
	201108					1
4	268257	Hook Pin <Ø15×84>	2			
	200859	Hook Pin <Ø19×116>		2	2	2
5	400096	Spring Washer <M10>	2			
	400097	Spring Washer <M12>		2	2	2
6	400082	Nut <M12×1.75>	2			
	400084	Nut <M12×1.75>		2	2	2
7	400610	Cotter Pin <Ø3×30L>	2	2	2	2
8	200212	Half Spacer	2			
	200127			4	4	
	200128					4
9	408057	Thrust Bearing <51103>	1	1		
	400157	Thrust Bearing <2904>			1	
	400158	Thrust Bearing <2905>				1
10	268116	Thrust Bearing Cover	1	1		
	200769				1	
	201967					1
11	404164	Nut <M16×1.5>	1	1		
	404163	Nut <M20×1.5>			1	
	404162	Nut <M24×1.5>				1
12	400682	Cotter Pin <Ø4×40L>	1	1	1	1
13	262469	Chain Regulator	1			
	200979			1		
	268083				1	
	102477					1

HOOK & LOAD CHAIN ASSEMBLY B.O.M

NO.	PARTS CODE	DESCRIPTION	Q'TY			
			SH-025	SH-050	SH-100	SH-200
14	400093	Spring Washer <M5>	4			
	400094	Spring Washer <M6>		4	4	4
15	408568	Hex. Recess Bolt <M5x0.8x50>	4			
	408571	Hex. Recess Bolt<M6x1.0x50L>		4	4	4
16	268248	Collision Block	1			
	268173			1		
	268088				1	
	262457					1
17	268249	Guide Wheel	1			
	200159			1	1	1
18	405023	Hex. Recess Bolt <M6x1.0x45L>	1			
	400460	Hex. Recess Bolt <M8x1.25x65>		1	1	1
19	400094	Spring Washer <M6>	1			
	400095	Spring Washer <M8>		1	1	1
20	400080	Nut <M6x1.0>	1			
	400081	Nut <M8x1.25>		1	1	1
21	265869	Limit Stopper	2			
	265868			2	2	3
22	400539	Chain <Ø4.0x12>	20.5M			
	400533	Chain <Ø6.3x19.1>		20.5M		
	400542	Chain <Ø7.1x20.2>			20.5M	41M
23	268250	Chain Stopper	2			
	200200			2	2	2
24	400093	Spring Washer <M5>	2			2
	400094	Spring Washer <M6>		2	2	
25	400003	Hex. Recess Bolt <M5x0.8x16L>	2			2
	400006	Hex. Recess Bolt <M6x1.0x16L>		2	2	2
26	400417	Hex. Recess Bolt <M5x0.8x20>	2			
	400013	Hex. Recess Bolt <M8x1.25x25>		2	2	
	400017	Hex. Recess Bolt <M8x1.25x35L>				3
27	400646	Nylon Nut <M5>	3			
	400088	Nylon Nut <M8x1.25>		2	2	3
28	201371C	Bottom Block Cover	2			
	200102C			1		
	207073C				2	

HOOK & LOAD CHAIN ASSEMBLY B.O.M

NO.	PARTS CODE	DESCRIPTION	Q'TY			
			SH-025	SH-050	SH-100	SH-200
28	207074C	Bottom Block Cover A				1
	207075C	Bottom Block Cover B				1
29	200131	End Spacer		2	1	
	200132					1
30	201372C	Hook Ass'y	1			
	209351C			1		
	209352C				1	
	209353C					1
31	200445	Hook Pin <Ø10×25.5L>	1			
32	400210	Spring Pin <Ø8×24L>	1			
33	400830	Thrust Bearing <51102>	1			
	400157	Thrust Bearing <2904>		1	1	
	400158	Thrust Bearing <2905>				1
34	200108	Sprocket				1
35	400171	Needle Bearing <HK 25/26>				1
36	200114	Sprocket Axle <Ø25×58L>				1
37	400212	Spring Pin <Ø5×16L>				1
38	268253	Chain Bucket Ass'y	1			
	265653			1	1	1
39	262462	Connect Plate		1	1	1
40	200447C	Bottom Hook Ass'y	1			
	200020C			1		
	201377C				1	
	200029C					1
41	268254	Top Hook Frame Ass'y	1			
	268174			1		
	268081				1	
	201106					1



GEAR BOX EXPLOSION

GEAR BOX ASSEMBLY B.O.M

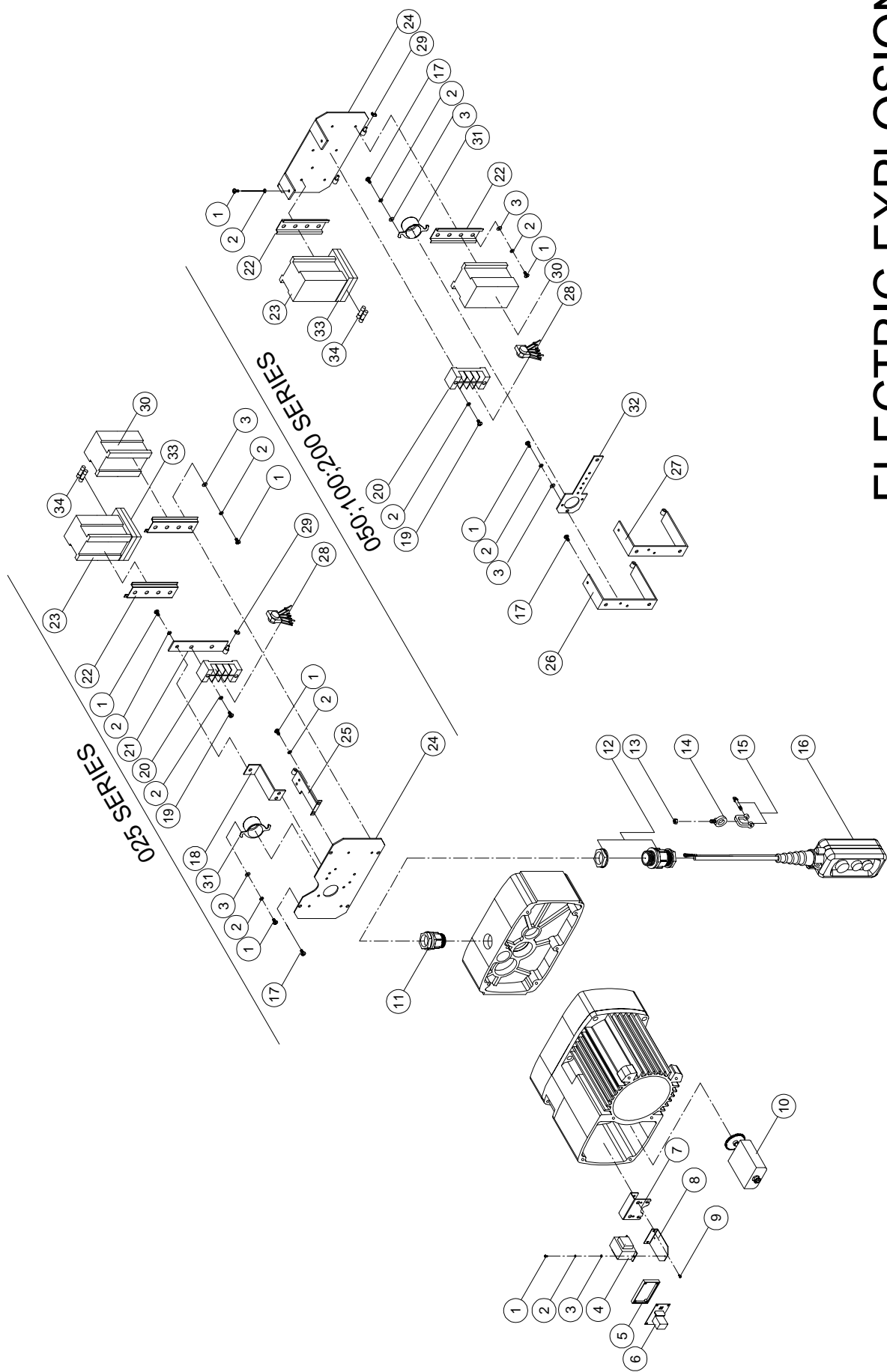
NO.	PARTS CODE	DESCRIPTION	Q'TY			
			SH-025	SH-050	SH-100	SH-200
1	407869	Bearing <6002 ZZ>	1			
	407839	Bearing <6000 ZZ>		1	1	
	400694	Bearing <6203 Z>				1
2	201360	5th Gear <M1.25x16Tx91.5L>	1			
	200942	3rd Gear <M2x10Tx90.5>		1		
	200985	3rd Gear <M2x12Tx90.5>			1	
	268432	3rd Gear <M2x10Tx119.5>				1
3	405933	Key <5x5x15L>	1			
	405914	Key <6x6x30L>				2
4	201362	Brake Disc	2			
	268424	Brake Disc B		1		
	268410				1	
	268429					1
5	268242	4th Gear <M1x59Tx9L>	1			
	268439	2nd Gear Copper Bushing Ass'y		1		
	268001				1	
	268427					1
6	407324	Disc Spring <Ø34xØ16.3x2.0t>	3			
	400579	Disc Spring <Ø50xØ22.4x2.0t>		2	2	
	408587	Disc Spring <Ø50xØ18.4x2.5t>				2
7	404343	O-Ring <Ø9xØ15x3>	1	1	1	1
8	407868	Bearing <6904 ZZ>	1			
	407858	Bearing <6905 ZZ>		1	1	1
9	201363	Oil Seal Bushing <Ø25x21L>	1			
	200937	Oil Seal Bushing <Ø30xØ15x18L>		1		
	200980	Oil Seal Bushing <Ø30xØ15x21L>			1	
	268433	Oil Seal Bushing <Ø30x25.2>				1
10	400943	Oil Seal <Ø25xØ35x5t>	1			
	404411	Oil Seal <Ø30xØ40x6t>		1		1
	404476	Oil Seal <Ø32xØ62x10t >			1	
11	404552	Nylon Nut <M12x1.25> right screw	1			
	400090	Nylon Nut <M12x1.25>		1	1	1

GEAR BOX ASSEMBLY B.O.M

NO.	PARTS CODE	DESCRIPTION	Q'TY			
			SH-025	SH-050	SH-100	SH-200
12	268258	Load Sheave	1			
	268238			1		
	268097				1	
	262452					1
13	400893	Oil Seal <Ø30xØ42x8t>	1			
	400938	Oil Seal <Ø40xØ62x12t>		1		
	404476	Oil Seal <Ø32xØ62x10t>			1	
	404401	Oil Seal <Ø40xØ72x12t>				1
14	201361	6th Gear <M1.25x56Tx16L>	1			
	201304	6th Gear <M2x43Tx32L>		1		
	268109	6th Gear <M2.25x38Tx32L>			1	
	201349	6th Gear <M2.5x45Tx30L>				1
15	400192	Retaining Ring <S-25>	1			
	404161	Retaining Ring <S-38>				1
16	407840	Bearing <6004 ZZ>	1			
	400130	Bearing <6204 ZZ>		1	1	
	400803	Bearing <6205 Z>				1
17	407867	Bearing <6001 ZZ>	1			
	400111	Bearing <6202 ZZ>		1	1	
	400695	Bearing <6204 Z>				1
18	400191	Retaining Ring <S-20>	1			
	400192	Retaining Ring <S-25>				1
19	201357	2nd Gear <M0.8x60Tx12L>	1			
	200943	4th Gear <M2x38Tx17L>		1		
	200990	4th Gear <M2x36Tx16L>			1	
	201344	4th Gear <M2x46Tx22L>				1
20	268241	3rd Gear <M1x22Tx56.1L>	1			
	201303	5th Gear <M2x12Tx73.5L>		1		
	268108	5th Gear <M2.25x11Tx75.5L>			1	
	201342	5th Gear <M2.5x12T>				1
21	400961	Key <6x6x10L>	1			
	400963	Key <6x6x15L>		1	1	
	400974	Key <8x8x20L>				1

GEAR BOX ASSEMBLY B.O.M

[illegible]



ELECTRIC EXPLOSION

ELECTRIC ASSEMBLY B.O.M

NO.	PARTS CODE	DESCRIPTION	Q'TY		
			SH-025	SH-050	SH-100 SH-200
1	400048	Cross Headed Screw <M4x0.7x6L>	11	18	18
2	400092	Spring Washer <M4>	17	24	24
3	400661	Flat Washer <M4>	8	10	10
4	300436	Transformer PS-116 <220V,380V/24V,48V>	1	1	1
	300438	Transformer PS-117 <230V,460V/48V,110V>			
	303766	Transformer PS-129 <415V/24V,48V>			
	300914	Transformer PS-159 <400V/24V,48V>			
5	300363	Negative Phase Protector Box	1	1	1
6	300205	Negative Phase Protector 50HZ 220V/380V	1	1	1
	300103	Negative Phase Protector 50HZ 400V			
	300207	Negative Phase Protector 50HZ 415V			
	300098	Negative Phase Protector 60HZ 230V			
	300203	Negative Phase Protector 60HZ 460V			
	300201	Negative Phase Protector 60HZ 220V/380V			
7	268096	Limit Bracket	-	1	
	262451				1
8	300628	Transformer Bracket	1	1	1
9	400620	Cross Headed Screw <M5x0.8x8L>	2	2	2
10	200841	Upper & Lower Limit Switch	-	1	1
11	400222	Cable Gland <M20>	1	1	1
12	400941	Cable Gland <M25>	1	1	1
13	400087	Nylon Nut <M6>	1	1	1
14	404803	Eye Bolt <M6x1.0>	1	1	1
15	400595	Shackle <3/16">	1	1	1
16	312062	Push Button Switch	1	1	1
17	400050	Cross Headed Screw < M4x0.7x10L >	4	6	6
18	201391	Terminal Plate A	1		
19	400051	Cross Headed Screw <M4x0.7x12L>	2	2	2
20	300646	Terminal Block 4P 20A	1		
	300228	Terminal Block 6P 20A		1	1
21	201392	Bracket Ass'y	1		
22	300079	Contactor Rail	2	2	2

ELECTRIC ASSEMBLY B.O.M

[illegible]



Product Service

Attestation of Conformity

No. M8A 004703 0007 Rev. 00

Model(s):

N Series

NH-012-1, NH-025-1, NH-050-2, NH-050-1,
NH-100-2, NH-100-1, NH-200-2, NH-200-1,
NH-250-1, NH-300-2, NH-500-2

NHD-012-1, NHD-025-1, NHD-050-2, NHD-050-1,
NHD-100-2, NHD-100-1, NHD-200-2, NHD-200-1,
NHD-250-1, NHD-300-2, NHD-500-2

NHV-012-1, NHV-025-1, NHV-050-2, NHV-050-1,
NHV-100-2, NHV-100-1, NHV-200-2, NHV-200-1,
NHV-250-1, NHV-300-2, NHV-500-2

NHT-025-1, NHT-050-2, NHT-050-1, NHT-100-2,
NHT-100-1, NHT-200-2

NHTD-025-1, NHTD-050-2, NHTD-050-1,
NHTD-100-2, NHTD-100-1, NHTD-200-2

NHTV-025-1, NHTV-050-2, NHTV-050-1,
NHTV-100-2, NHTV-100-1, NHTV-200-2

WNH-012, WNH-025, WNH-050, WNH-100

NT-012-1, NT-025-1, NT-050-2, NT-050-1, NT-100-2,
NT-100-1, NT-200-2, NT-200-1, NT-300-2, NT-500-2

NTD-012-1, NTD-025-1, NTD-050-2, NTD-050-1,
NTD-100-2, NTD-100-1, NTD-200-2, NTD-200-1,
NTD-300-2, NTD-500-2

NTV-012-1, NTV-025-1, NTV-050-2, NTV-050-1,
NTV-100-2, NTV-100-1, NTV-200-2, NTV-200-1,
NTV-300-2, NTV-500-2

WNT-012, WNT-025, WNT-050, WNT-100

SH-012-1-D8+, SH-025-1, SH-025-1-D8,
SH-025-1-D8+, SH-050-1, SH-050-1-D8+,
SH-100-1, SH-100-1-D8, SH-100-1-D8+,
SH-200-2, SH-200-1

Page 2 of 4

After preparation of the necessary technical documentation as well as the EC declaration of conformity the required CE marking can be affixed on the product. Other relevant directives have to be observed.

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TÜV®



Product Service

Attestation of Conformity

No. M8A 004703 0007 Rev. 00

Trade name:

Black Bear, U-MEGA, Yong Sheng



Black Bear



U-MEGA



Yong Sheng

Page 3 of 4

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No. M8A 004703 0007 Rev. 00

Parameters:

Rated voltage: 230/400 Vac
 Rated frequency: 50 Hz
 Rated power: As below
 0.12kW (NT-012-1, NT-025-1, NT-050-2, NT-050-1, NTD-012-1, NTD-025-1, NTD-050-2, NTD-050-1, NTV-012-1, NTV-025-1, NTV-050-2, NTV-050-1, WNT-012, WNT-025)
 0.18kW (NT-100-2, NT-100-1, NTD-100-2, NTD-100-1, NTV-100-2, NTV-100-1, WNT-050, WNT-100)
 0.2kW (SH-012-1-D8+, SH-025-1-D8)
 0.25kW (SH-025-1)
 0.37kW (NT-200-2, NT-200-1, NTD-200-2, NTD-200-1, NTV-200-2, NTV-200-1)
 0.4kW (SH-025-1-D8+, SH-050-1)
 0.6kW (NH-012-1, NH-025-1, NH-050-2, NHD-012-1, NHD-025-1, NHD-050-2, NHV-012-1, NHV-025-1, NHV-050-2, WNH-012, NT-300-2, NT-500-2, NTD-300-2, NTD-500-2, NTV-300-2, NTV-500-2)
 0.72kW (NHT-025-1, NHT-050-2, NHTD-025-1, NHTD-050-2, NHTV-025-1, NHTV-025-2)
 0.75kW (SH-050-1-D8+, SH-100-1, SH-100-1-D8)
 1.1kW (NH-050-1, NH-100-2, NHD-050-1, NHD-100-2, NHV-050-1, NHV-100-2)
 1.22kW (NHT-050-1, NHTD-050-1, NHTV-050-1)
 1.28kW (NHT-100-2, NHTD-100-2, NHTV-100-2)
 1.5kW (NH-100-1, NH-200-2, SH-100-1-D8+, SH-200-2, SH-200-1, NHD-100-1, NHD-200-2, NHV-100-1, NHV-200-2)
 1.6kW (WNH-025)
 1.68kW (NHT-100-1, NHT-200-2, NHTD-100-1, NHTD-200-2, NHTV-100-1, NHTV-200-2)
 2.5kW (WNH-050, WNH-100)
 3.7kW (NH-200-1, NH-250-1, NH-300-2, NH-500-2, NHD-200-1, NHD-250-1, NHD-300-2, NHD-500-2, NHV-200-1, NHV-250-1, NHV-300-2, NHV-500-2)

Tested according to:

EN ISO 12100:2010
 EN 60204-32:2008
 EN 14492-2:2019

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After preparation of the necessary technical documentation as well as the EC declaration of conformity the required CE marking can be affixed on the product. Other relevant directives have to be observed.

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TUV®

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ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

Attestation of Conformity

No. N8MA 004703 0012 Rev. 00

Holder of Certificate: **CHENG DAY MACHINERY
WORKS CO., LTD.**

No.173, Wen Chiu Rd.
Dajia Dist.
437 Taichung City
TAIWAN

Product: **Lifting equipment
Electric Chain Hoist**

This Attestation of Conformity confirms that the listed machine complies with the essential electrical safety requirements covered by the directive 2006/42/EC on machinery. These are equivalent to the applying essential protection requirements applicable at the time of issuance as set out in Low Voltage Directive 2014/35/EU relating to electrical equipment designed for use within certain voltage limits. It is issued on a voluntary basis and refers only to the particular sample submitted for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: 615202002301

Date, 2021-03-18

Li Taiwei

(Taiwei LI)

Page 1 of 4

After preparation of the necessary technical documentation as well as the EU declaration of conformity the required CE marking can be affixed on the product. The declaration of conformity is issued under the sole responsibility of the manufacturer. Other relevant EU-directives have to be observed.

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TUV®



Product Service

Attestation of Conformity

No. N8MA 004703 0012 Rev. 00

Model(s):

N Series

NH-012-1, NH-025-1, NH-050-2, NH-050-1,
NH-100-2, NH-100-1, NH-200-2, NH-200-1,
NH-250-1, NH-300-2, NH-500-2

NHD-012-1, NHD-025-1, NHD-050-2, NHD-050-1,
NHD-100-2, NHD-100-1, NHD-200-2, NHD-200-1,
NHD-250-1, NHD-300-2, NHD-500-2

NHV-012-1, NHV-025-1, NHV-050-2, NHV-050-1,
NHV-100-2, NHV-100-1, NHV-200-2, NHV-200-1,
NHV-250-1, NHV-300-2, NHV-500-2

NHT-025-1, NHT-050-2, NHT-050-1, NHT-100-2,
NHT-100-1, NHT-200-2

NHTD-025-1, NHTD-050-2, NHTD-050-1,
NHTD-100-2, NHTD-100-1, NHTD-200-2

NHTV-025-1, NHTV-050-2, NHTV-050-1,
NHTV-100-2, NHTV-100-1, NHTV-200-2

WNH-012, WNH-025, WNH-050, WNH-100

NT-012-1, NT-025-1, NT-050-2, NT-050-1, NT-100-2,
NT-100-1, NT-200-2, NT-200-1, NT-300-2, NT-500-2

NTD-012-1, NTD-025-1, NTD-050-2, NTD-050-1,
NTD-100-2, NTD-100-1, NTD-200-2, NTD-200-1,
NTD-300-2, NTD-500-2

NTV-012-1, NTV-025-1, NTV-050-2, NTV-050-1,
NTV-100-2, NTV-100-1, NTV-200-2, NTV-200-1,
NTV-300-2, NTV-500-2

WNT-012, WNT-025, WNT-050, WNT-100

SH-012-1-D8+, SH-025-1, SH-025-1-D8,
SH-025-1-D8+, SH-050-1, SH-050-1-D8+,
SH-100-1, SH-100-1-D8, SH-100-1-D8+,
SH-200-2, SH-200-1

Page 2 of 4

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TUV®



Product Service

Attestation of Conformity

No. N8MA 004703 0012 Rev. 00

Brand:

Black Bear, U-MEGA, Yong Sheng



Black Bear



U-MEGA



Yong Sheng

Page 3 of 4

After preparation of the necessary technical documentation as well as the EU declaration of conformity the required CE marking can be affixed on the product. The declaration of conformity is issued under the sole responsibility of the manufacturer. Other relevant EU-directives have to be observed.

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