

# **Electric Chain Hoist**

# OPERATION MANUAL & PARTS LIST

# Series

- BLFD-050-1
- BLFD-100-1
- ☐ BLFD-200-2





# 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 "U-MEGA" ELECTRIC CHAIN HOIST.



# **CONTENTS**

#### 1.FOREWORD

This manual contains important information to help you properly install, operate and maintain the U-MEGA electric chain hoist for maximum performance, economy and safety.

Please study its contents thoroughly before putting the electric Chain hoist into operation. By practicing correct operation, 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 U-MEGA electric chain hoists.

**Table 2-1 Specifications** 

Item		Detail				
Working temperat	ure range (°C)	-5 to +40				
Working humidity	range (%)	85 or less				
Protection	Hoist	IP 55				
Protection	Push button Switch	IP 65				
Electric power sup	ply	Single Phase , 90~130V or 190V~270V, 50Hz/60Hz				
Noise level (dB)		75				
Series No.	WLL (working load limit) (kg)	Nominal diameter (mm)	Pitch (mm)			
BLFD-050	500kg	6.3	19.1			
BLFD-100 1000kg		7.1	20.2			
BLFD-200	2000kg	7.1	20.2			

Remarks: (1) Contact an authorized U-MEGA 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 load under normal atmospheric conditions of work place.
- (3) Noise levels were measured at a distance of 1m horizontally from the hoists during normal operation.

## 2.2 Mechanical Classification (Grade) and Lift

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

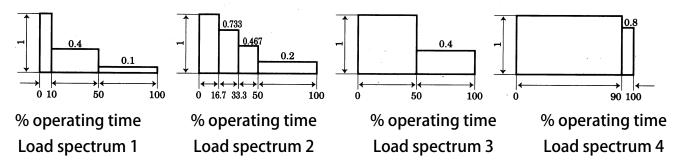
U-MEGA BLFD single phase electric chain hoists have been designed for grade

1Am in the FEM regulations (FEM 9.511). 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	Average daily operating 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≦0.50	2 - 4	6300
2 (medium)	Mechanisms or parts thereof, usually subject to small loads but rather often to maximum loads.	0.50 <k ≤0.63</k 	1 - 2	3200
3 (heavy)	Mechanisms or parts thereof, usually subject to medium loads but frequently to maximum loads.	0.63 <k ≤0.80</k 	0.5 - 1	1600
4 (very heavy)	Mechanisms or parts thereof, usually subject to maximum of almost maximum loads.	0.80 <k ≦1.00</k 	0.25 - 0.5	800



## 2.3 Safety Devices

#### (1) Mechanical load brake

The mechanical load brake can hold a full capacity load independent of motor brake. This brake assures that load does not accelerate while being lowered.

## (2) Hook and hook latch

The hook is drop-forged from high tensile steel and heat treated for strength and toughness.

The button hook is capable of 360° swivel and fitted with safety latch to ensure safe lifting.

#### (3) Limit Switches

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

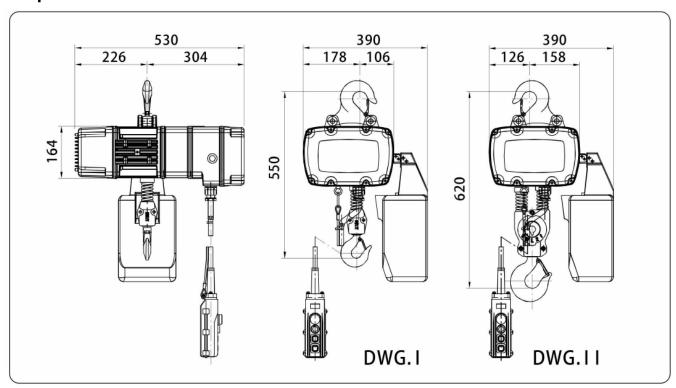
## (4) Emergency stop device

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

## (5) Shock protection

It cannot run, when you push the button for anti-direction in "UP" or "DOWN" running. You must wait over 1 second.

## 2.4 Specification and Dimensions



Rated Power	Source	Single Phase , 90V~130V or 190V~270V , 50Hz/60Hz						
			Motor	Intermittent Duty				
Model	DWG.	Capacity (kg)	Output (W)	%ED	Max. Starting Frequency (times/hr)			
BLFD-050	I	500	750	30	180			
DIED 100	BLFD-100 I		1000	30	180			
DLFD-100			1200	30				
BLFD-200	II	2000	1000	30	180			
	"	2000	1200	30				

Model	Rated Current	Lifting Speed (m/min)		Standard Lift	Load Chain Diameter	Fall	N.W.(kg)	
	(A)	Low	High	(m)	(mm)		3m	6m
BLFD-050	110V(15A)	0.7~2.7	8.0	3	6.3x19.1	1	42.7	45.5
BLFD-030	220V(10A)	0.7~2.7	8.0	3	0.3813.1		42.7	<del>4</del> 3.3
BLFD-100	110V(15A) 0.4~1.9 5.6	3	7.1,20.2	1	46 F	F0		
DLFD-100	220V(10A)	0.4~2.0	6.0	3	7.1x20.2	ı	46.5	50
DI ED 200	110V(15A)	0.2~0.9	2.8	2	7 1 20 2	2	50	F2 F
BLFD-200	220V(10A)	0.2~1.0	3.0	3	7.1x20.2		50	53.5

\*The ED values are the sum of the values from the low and high speed:
There are divided into 1/3 low speed operation and 2/3 high speed operation.

#### 3. SAFETY RULES

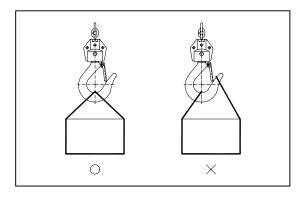


The hoist herein is not designed for, and should not be used for, lifting, supporting, or transporting personnel. Any modifications to upgrade, re-rate, or otherwise alter the hoist equipment must be authorized by either the original manufacturer or a qualified professional engineer.



Do not use the hoist in explosive atmosphere.

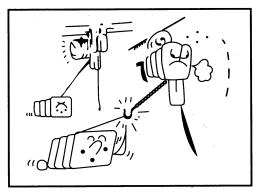
- (1) Prior to each lifting operation, it is essential to make sure that:
  - (a) The correct lifting sling is being used.
  - (b) The lifting sling is located in the hook as shown below (Illust. 2) and that a safety latch has been fitted.

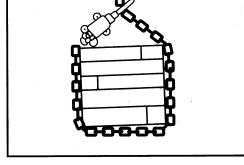


Illust. 2

- (c) The object to be hoisted is well secured for direct lifting (a proper lifting frame or apparatus is strongly recommended for direct lifting .)
- (2) Firm and steady button operation is required, never push the button switch intermittently.
- (3) Always avoid excessive inching operation.
- (4) Always make sure the hoist motor completely stops before reversing.
- (5) 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 swing or slip.

- (6) Sling must be applied to load evenly and centrally to ensure correct balance. Never lift any object which is insecure or out of balance.
- (7) Never use hoist to end or side pull a load. (Illust. 3)
- (8) Never wrap around and hook back the load chain as a sling to lift a load. (Illust. 4)





Illust. 3

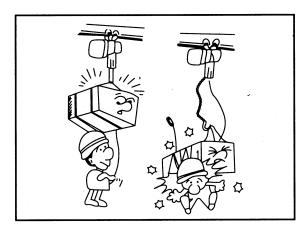
Illust. 4



Do not use the hoist chain as a welding electrode.



Never stand under a raised load (Illust. 5)



Illust. 5

- (9) Lifting must always be personally attended, never leave a raised load unattended.
- (10) Over-capacity-load lifting is hazardous and should not be undertaken.
- (11) Never lift a load when the load chain is twisted.
- (12) 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, gear box 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 piece
2. Power cable	3 meters
3. Separated control cable with PBS and male plug	1 set

Table. 4-1

## 4.2 Voltage



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



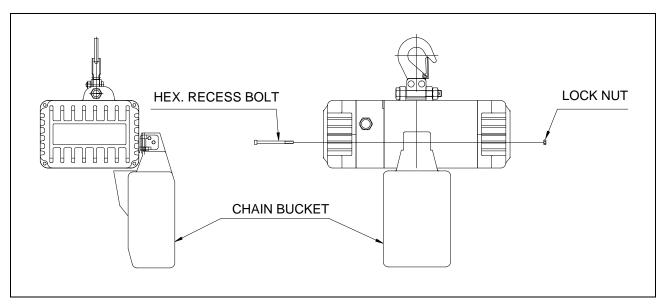
Connection to power supply before installation procedures having been completed is strictly prohibited.

The equipment safety earth connection on the plug must NEVER be removed.

(1) Prior to installation check and ensure that the top hook assembly is securely attached to the hoist by means of the lock bolt (key No.1~6, page.23).

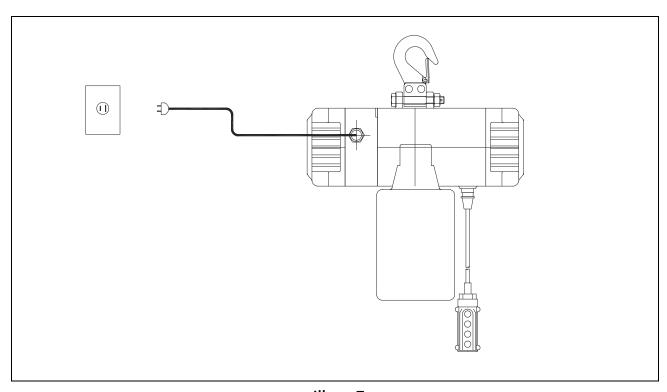
NOTE: If the hoist is to be installed under a trolley, remove the top hook and install the trolley on the hoist.

## (2) Assemble chain bucket.



Illust. 6

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



Illust. 7

#### (4) Operation Test

- (a) Firmly push switch button to lower load chain until the chain end buffer touches the limit switch. Power should be cut off automatically.
- (c) Check load chain lubrication. (It has been lubricated at our works, but the lubricant may dry out during transportation) Any readily available lubricant is recommended.

  It is further advisable to keep a small amount of lubricant in chain bucket to allow chain in oil bath.
- (d) Check the emergency stop device function:

While holding down either or button on the push button switch, push the emergency stop button. Check that the hook stops when the emergency stop button is pushed. Also, check the hoist does not move in response to the push button switch. Finally, check that the emergency stop device pops out when turned to the right and that operation can be resumed thereafter. If the equipment fails to pass another above checks, check the wiring and automatic locking function of the emergency stop device.

#### 5. OPERATION

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



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) On connection of power supply allow 15 seconds to initiate start up.
- (2) The operator must have a clear and unobstructed view of the entire working area before operating the hoist.
- (3) The operator must check that the entire working area is safe and secure before operating the hoist.
- (4) When using the hoist with a plain trolley, the operator must take care to prevent excessive load swinging by sympathetic push trolley movements.

## 6. MAINTENANCE AND INSPECTION



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

# **!** 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) Check the level of gear box lubricant after first 100 hours of operation, thereafter every 3 months and lubricant accordingly. Lubricant use ISO VG460 or equivalent.
- (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 following,
  - (a) Correct power supply.
  - (b) "Up", "Down" and "Emergency stop" (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, limit switches and brake.
  - (g) Well lubricated load chain.

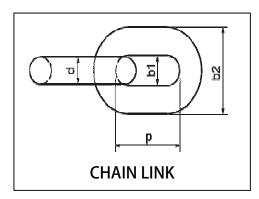
## (2) Monthly inspection



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 (mm) (d)	Inside Length (mm)	Inside Width (mm) (b1)	Outside Width (mm) (b2)	Breaking Load (kN)
BLFD-050	Ø6.3	(p) 19.1	7.9	21.4	50
BLFD-100	Ø7.1	20.2	8.1	23.2	63.3
BLFD-200	Ø7.1	20.2	8.1	23.2	63.3

## Chain Gauge — Wear and Stretch Measuring

- (1) The chain gauge is useful and convenience for measuring.
- (2) Please use a chain gauge to measure the chain pitch and diameter, such as illustrations (1) and (2).
- (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 a partial part.
- (7) The load sheave, regulator, and chain compressing wheel must be replaced the same time as you do a second time replacement.

#### Remark:

(1) Chain must be perfect condition without any defects and attachments.

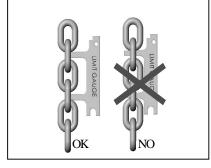


Illustration (1)
Chain pitch measure

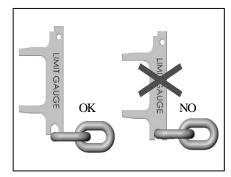
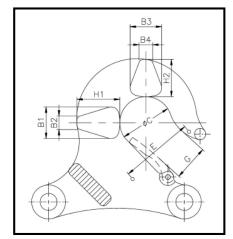
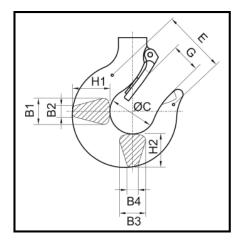


Illustration (2)
Diameter measure

#### (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)





**Top Hook** 

**Bottom Hook** 

Model	Capacity	Capacity Hook		Dimensions (mm)							Allow Stress	
Model	(kg)	поок	H1	B1	B2	H2	В3	B4	С	G	Е	( kg/mm²)
BLFD-050	500	T	38	28	12	33	28	12	46	31	65	100
BLFD-030	300	В	33	23	9	29	23	9	40	28	60	70
BLFD-100	1000	T	38	28	12	33	28	12	46	31	65	100
BLFD-100	1000	В	33	23	9	29	23	9	40	28	61	70
BLFD-200	2000	T	38	28	12	33	28	12	46	31	65	100
	2000	В	45	31	10	41	31	10	46	36	75	70

#### (3)Annual inspection



Your dealer should be asked to perform this inspection.

- (a) Check gearing for any excessive wear or damage.
- (b) Replace gear box lubricant completely (1200C.C  $\pm$  10%) as following table for your reference.

NOTE: We recommend using lubricant oil equivalent to SHELL OMALA S4 GXV 680.

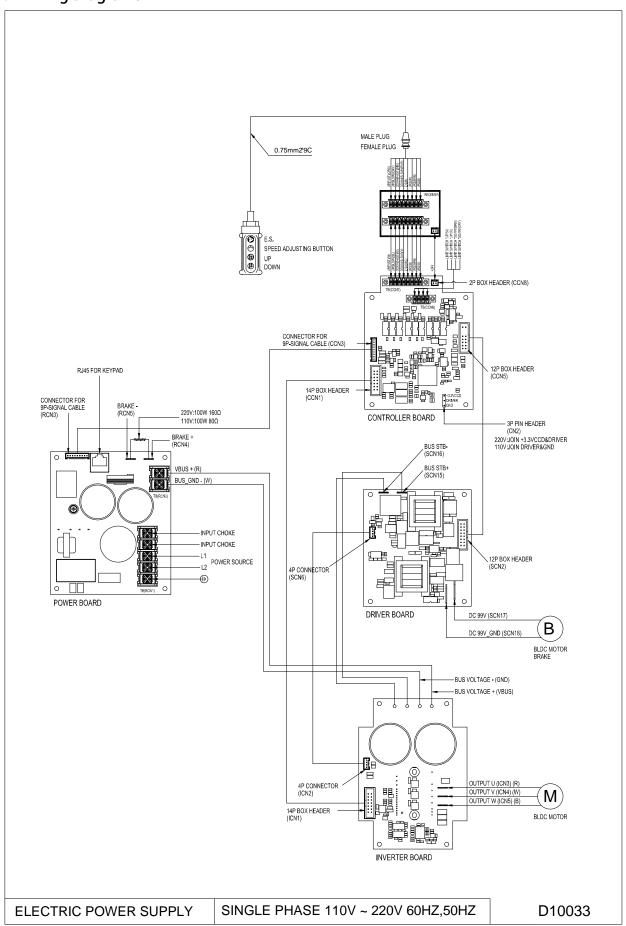
## **\*\*Table of recommended oils according to DIN 51354**

ISO-VG DIN 51519 viscosity At 40°C mm²/s (cST)	Approximate viscosity of the VG Categories 50°C mm <sup>2</sup> /s (cST)	ARAL	ВР	ESSO	MOBIL OIL	TEXACO	IP.	AGIP
VG 680	360	Aral Degol BG 680-BMB 680	BP Energol GR-XP 680	Spartan EP 680	Mobilgear 636	Meropa 680	Mellana 680	Blasia 680

- (c) Check brake lining and ratchet pawl for any wear or damage.
- (d) Check operation of pawl spring.
- (e) After reassembly of above check, lifting a load several times to ensure good performance of the hoist before starting duty operation.

## 7. TROUBLESHOOTING

#### 7.1 Wiring Diagrams



# 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 (take the power supply away until 10 min. later)
	(2) Low supply voltage	Check if 10% reduction in voltage, have mains supply checked
	(3) Emergency stop button release pushed	Check the cause as necessary
	(4) The button of PBS is fixed	Release the button of PBS
	(5) The button or Elect. wire of PBS is broken	Replace or repair it (take the power supply away until 5 min. later)
Brake slips	Abrasion of motor brake	Replace
Hoist runs but does not lift	(1) Clutch slipping	Contact your authorized " U-MEGA " dealer — this adjustment needs to be carried out on a test rig
Abnormal sound	(1) Chain dry	Lubricate
on load chain/chain sprocket	(2) Worn chain sprocket	Replace load chain and chain sprocket
Electric shock	(1) Poor earth connection (2) Accumulated foreign matter/ moisture on electrical parts	Provide correct earth connection Remove foreign matter/dry electrical parts
Oil leak	(1) No oil plug	Attach the normal oil plug
	(2) Loose fitting of oil plug	Fasten the plug tightly
	(3) No plug packing	Attach normal packing
	(4) Worn or deteriorated oil packing	Attach the new packing

## 7.3 Overload clutch adjustment instructions

This procedure requires professio	nal personnel to operate.
Description	Picture
Tool for Overload clutch adjustment	
< Open wrench no. 24>	
Setting is 125% rated load	
1. Remove the Cover.( Illust 1)	

- 2. Adjust/tighten the screw nut of clutch by using a wrench. (Illust 3)
- 3. It can be able to lift in 125% rated load.
- 4. Adjust the load to 150% rated load
- 5. Clutch is slipping, cannot lift, setting complete.
- 6. Setting the clutch does not slip when lifting a load
  - 1).Loosen the adjusting nut, and set the clutch slip, be unable to lift the load.
  - 2). Adjust load to 125% rated load, clutch does not slip and can be able to lift the load.
  - 3). Adjust the load to 150% rated load, clutch slip the loading material. Setting complete.
- 7. Setting of overload is 125% rated load can be able to lift and 150% rated load have to slip.



Illust 1



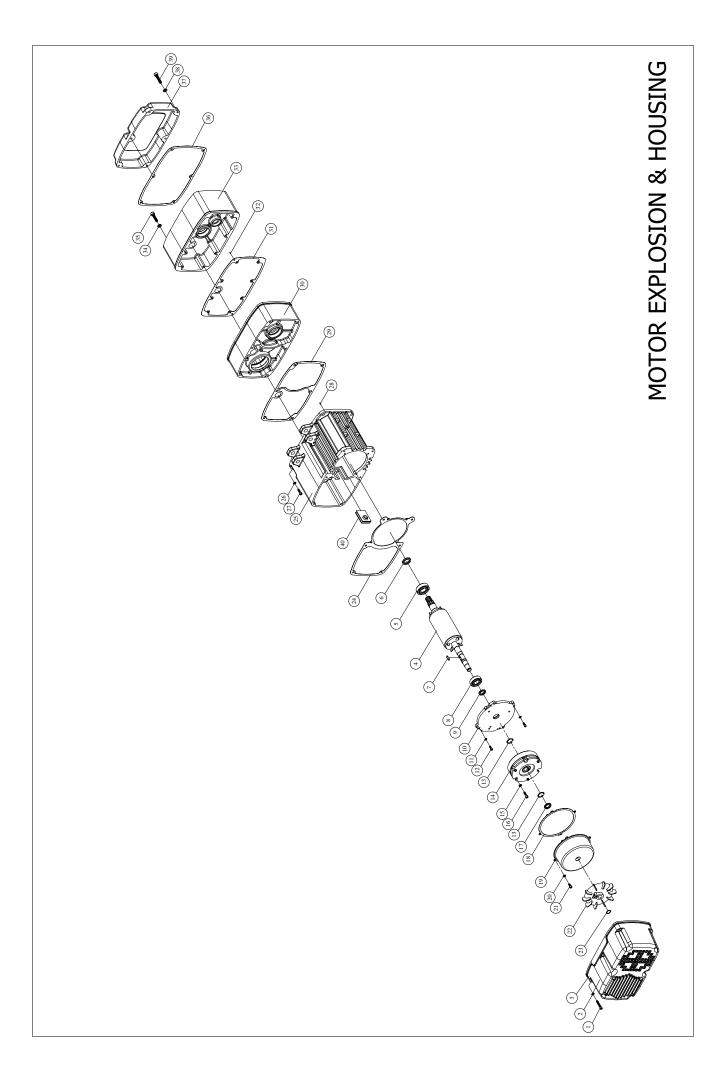
Illust 2



Illust 3

# 8. DRAWINGS AND PARTS LISTS

(1) MOTOR ASSEMBLY & HOUSING B.O.M ······	··· 20~22
(2) HOOK ASSEMBLY B.O.M ·······	··· 23~24
(3) LOAD CHAIN ASSEMBLY B.O.M ······	···· 25~26
(4) GEARBOX ASSEMBLY B.O.M ······	··· 27~28
(5) ELECTRIC ASSEMBLY B.O.M ·······	29~30

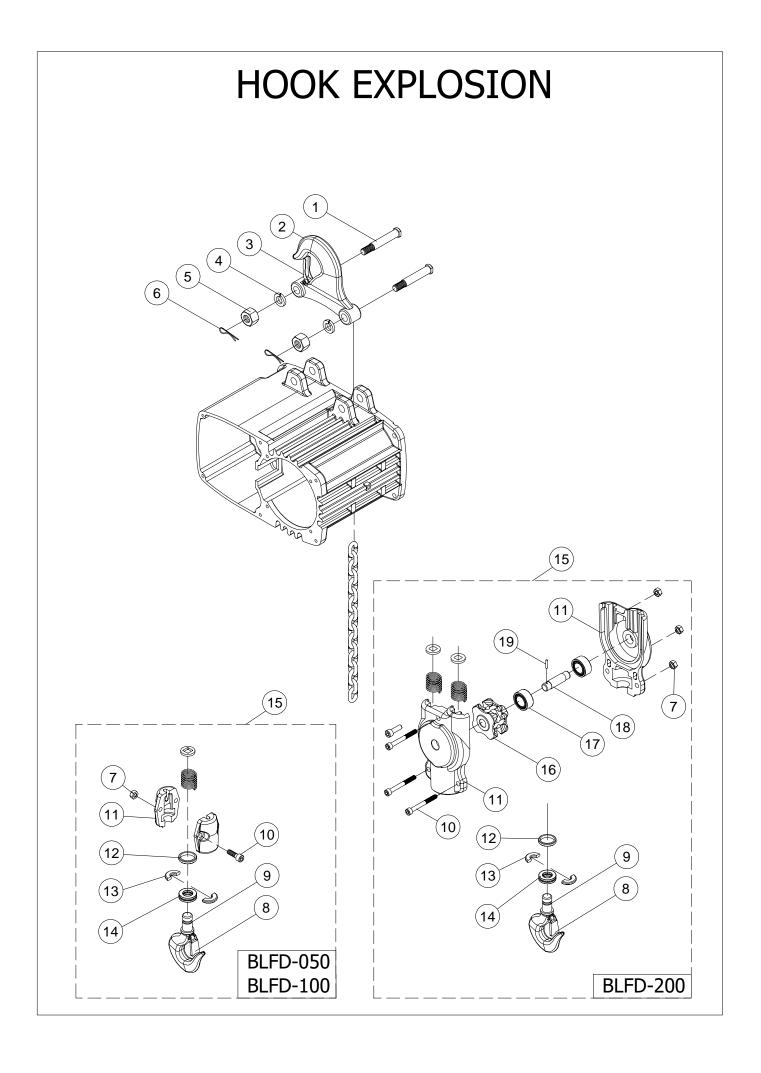


# **MOTOR ASSEMBLY & HOUSING**

NO	PARTS	DESCRIPTION	Q'TY REQ'D EACH UNIT			
NO.	CODE	DESCRIPTION	BLFD-050	BLFD-100	BLFD-200	
1	408330	Hex. Recess Bolt <m5×0.8×45></m5×0.8×45>	6	6	6	
2	400854	Spring Washer <m5></m5>	6	6	6	
3	106057V	End Cover	1	1	1	
4	101846	Motor Rotor	1			
4	101566			1	1	
5	405577	Bearing <6204 2RS>	1	1	1	
6	400186	Oil Seal < Ø20ר35×8t>	1	1	1	
7	405925	Key <6×6×20L>	1	1	1	
8	405577	Bearing <6204 2RS>	1	1	1	
9	400186	Oil Seal < Ø20ר35×8t>	1	1	1	
10	105920	Motor End Cover	1	1	1	
11	400854	Spring Washer <m5></m5>	4	4	4	
12	408329	Hex. Recess Bolt <m5×0.8×20></m5×0.8×20>	4	4	4	
13	404182	Retaining Ring <s-19></s-19>	1	2	2	
14	100516	Brake Ass'y <snt-102-075></snt-102-075>	1	1	1	
15	400855	Spring Washer <m6></m6>	-	3	3	
16	408660	Hex. Recess Bolt <m6×1.0×35></m6×1.0×35>	-	3	3	
17	404533	Oil Seal <va18></va18>	1	1	1	
18	402446	Brake End Cover Gasket	1	1	1	
19	108195	Brake End Cover	1	1	1	
20	400854	Spring Washer <m5></m5>	4	4	4	
21	408662	Hex. Recess Bolt $<$ M5 $\times$ 0.8 $\times$ 10 $>$	4	4	4	
22	100563	Fan <Ø124ר14 >	1	1	1	
23	404001	Retaining Ring <s-14></s-14>	1	1	1	
24	402660	End Cover Gasket	1	1	1	
25	101844	Motor Stator Ass'y	1			
	100693	inotol statol Ass y		1	1	
26	400856	Spring Washer <m8></m8>	6	6	6	
27	408346	Hex. Bolt <m8 1.25="" 35="" ×=""></m8>	6	6	6	
28	400615	Pin < Ø5 × 12>	2	2	2	
29	402664	Motor Gasket	1	1	1	
30	200830K	Gearbox	1	1	1	

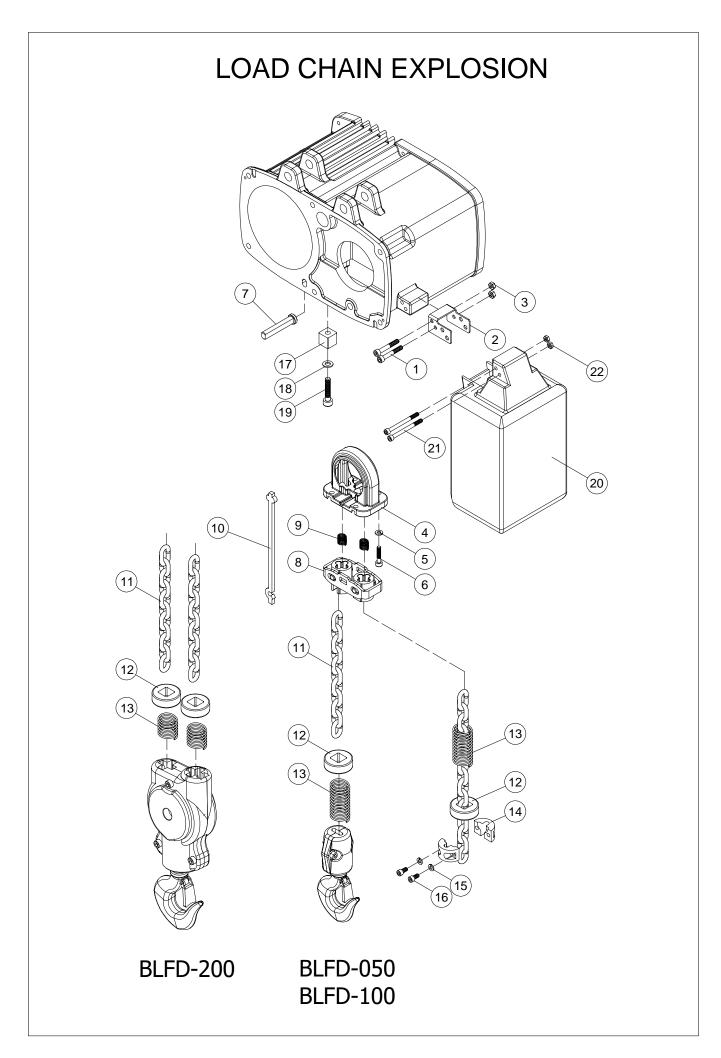
# **MOTOR ASSEMBLY & HOUSING**

10	PARTS	DESCRIPTION	Q'TY REQ'D EACH UNIT			
NO.	CODE		BLFD-050	BLFD-100	BLFD-200	
31	402445	Gearbox Gasket	1	1	1	
32	400615	Pin <Ø5×12>	2	2	2	
33	205610K	Gearbox Cover	1	1	1	
34	400094	Spring Washer <m6></m6>	6	6	6	
35	400010	Hex. Recess Bolt <m6×1.0×55></m6×1.0×55>	6	6	6	
36	402590	Electric Cover Gasket	1	1	1	
37	300430V	Electric Cover	1	1	1	
38	400855	Spring Washer <m6></m6>	8	8	8	
39	408335	Hex. Recess Bolt <m6×1.0×40></m6×1.0×40>	8	8	8	
40	400331	Waterproof rubber	1	1	1	



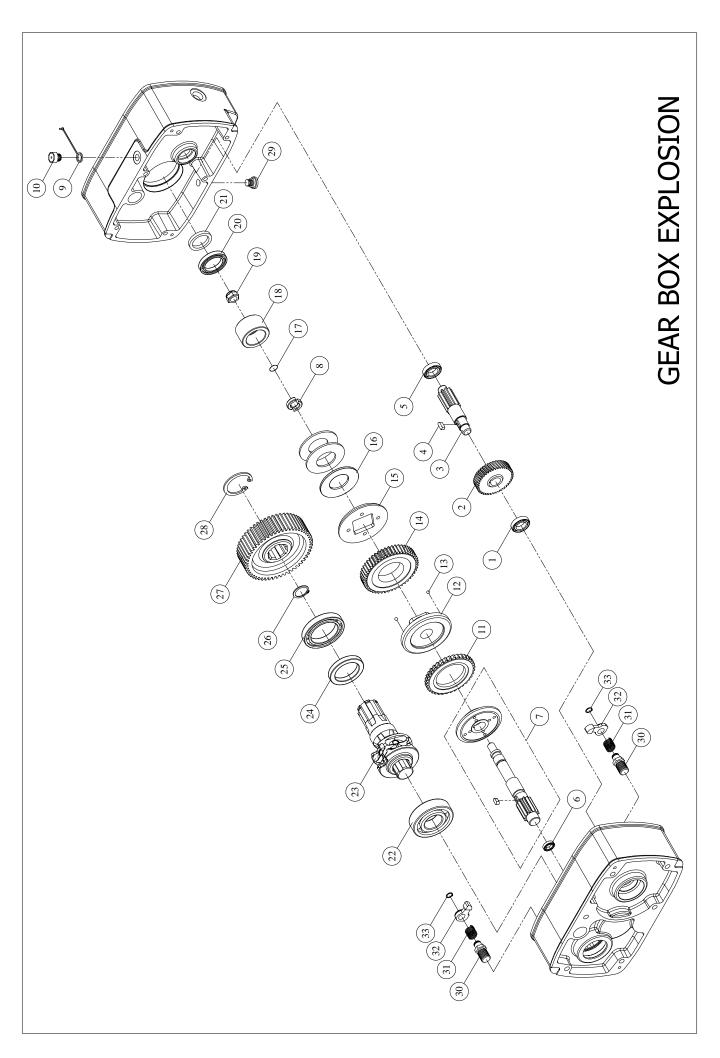
## **HOOK ASSEMBLY**

NO	PARTS	DECEDITION	Q'TY REQ'D EACH UNIT		
NO.	CODE	DESCRIPTION	BLFD-050	BLFD-100	BLFD-200
1	201310	Lock Bolt <Ø14×83>	2	2	2
2	200018K	Top Hook Ass'y	1	1	1
3	400300	Safety Latch Ass'y	1	1	1
4	400097	Spring Washer <m12></m12>	2	2	2
5	400084	Nut <m12×1.75></m12×1.75>	2	2	2
6	400610	Cotter Pin < Ø3 × 30>	2	2	2
7	400088	Lock Nut <m8×1.25></m8×1.25>	2	2	3
	400487		1	1	
8	400488	Safety Latch Ass'y			1
	209352K	Datta va Hank Asslu	1	1	
9	209353K	Bottom Hook Ass'y			1
10	408340	Hex. Recess Bolt <m8 1.25="" 30="" ×=""></m8>	2	2	
10	408345	Hex. Recess Bolt <m8 1.25="" 35="" ×=""></m8>			3
	207073K	Bottom Block Cover	1	1	
11	207074K	Bottom Block Cover A			1
	207075K	Bottom Block Cover B			1
12	200131	Fr. d Conserve	1	1	
12	200132	End Spacer			1
13	200127	Half Congress	2	2	
13	200128	Half Spacer			2
1.4	400157	Thrust Bearing <2904>	1	1	
14	400158	Thrust Bearing <2905>			1
15	201377K	Dattam Haali Comm Araka	1	1	
13	200029K	Bottom Hook Cover Ass'y			1
16	200108	Sprocket	-	-	1
17	400171	Needle Bearing <hk 25="" 26=""></hk>	-	_	1
18	200114	Sprocket Axle	-	_	1
19	400212	Spring Pin < Ø5 × 16>	-	-	1



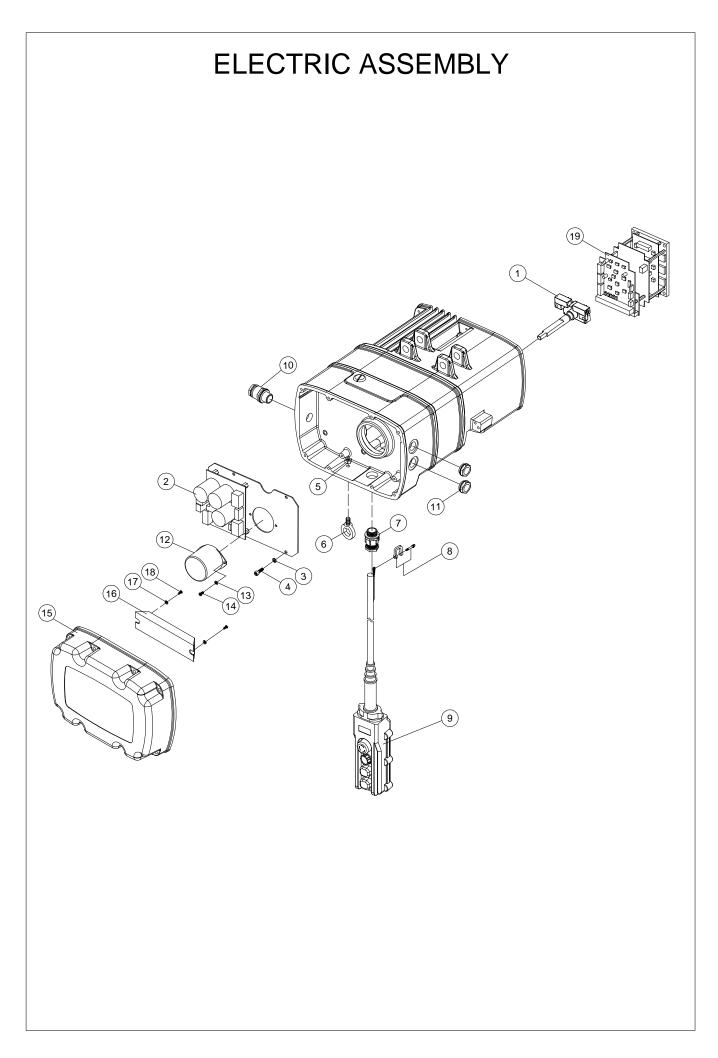
# **LOAD CHAIN ASSEMBLY**

NO	PARTS	DESCRIPTION	QTY	Q'TY REQ'D EACH UNIT			
NO.	CODE		BLFD-050	BLFD-100	BLFD-200		
1	408331	Hex. Recess Bolt <m5 0.8="" 50="" ×=""></m5>	2	2			
1	408487	Hex. Recess Bolt <m5 0.8="" 80="" ×=""></m5>			2		
2	216333	Connect Plate	1	1	1		
3	400646	Lock Nut <m5×0.8></m5×0.8>	2	2	2		
	208860	- Chain Regulator	1				
4	204860			1	1		
5	400094	Spring Washer <m6></m6>	4	4	4		
6	400006	Hex. Recess Bolt <m6x1.0x16></m6x1.0x16>	4	4	4		
7	201382	Chain Connecting Pin < Ø14 × 50>	1				
7	206926	Chain Connecting Pin < Ø16 × 66>		1	1		
	262500	c	1				
8	206549	Guide Tube Ass'y		1	1		
	408622	Service	2				
9	408640	Spring		2	2		
10	400513	Substitute Chain < Ø6.3 × 19.1>	1				
10	400511	Substitute Chain < Ø7.1 × 20.2>		1	1		
11	408723	Chain <Ø6.3×19.1>	3.5M				
11	408724	Chain < Ø7.1×20.2>		3.5M	7M		
12	200310	Limit Stopper Ass'y	2	2	3		
12	415788	Limit Spring	2	2			
13	408502	Limit Spring			3		
14	200200	Chain Stopper	2	2	2		
15	400094	Spring Washer <m6></m6>	2	2	2		
16	400007	Hex. Recess Bolt <m6×1.0×20></m6×1.0×20>	2	2	2		
17	201381	Fixed Block	1	1	1		
18	400854	Spring Washer < M5>	1	1	1		
19	408329	Hex. Recess Bolt < M5 × 0.8 × 20 >	1	1	1		
20	208780	Chain Bucket <no.3></no.3>	1	1	1		
21	408470	Hex. Recess Bolt <m6×1.0×80></m6×1.0×80>	2	2	2		
22	400646	Lock Nut <m6×1.0></m6×1.0>	2	2	2		



## **GEAR BOX ASSEMBLY**

NO.	PARTS	DECCRIPTION	Q'TY REQ'D EACH UNIT			
NO.	CODE	DESCRIPTION	BLFD-050	BLFD-100	BLFD-200	
1	407869	Bearing <6002 ZZ>	1	1	1	
2	202190	2nd Gear <m1.25×50t×14l></m1.25×50t×14l>	1	1	1	
3	202191	3rd Gear <m2×12t×88l></m2×12t×88l>	1	1	1	
4	400962	Key <6×6×12L>	1	1	1	
5	407869	Bearing <6002 ZZ>	1	1	1	
6	400132	Bearing <6204>	1	1	1	
7	202626	5th Gear Ass'y <m2×13t></m2×13t>	1	1	1	
8	200272	Load Brake Gear Spacer	2	2	2	
9	200927	Air Plug	1	1	1	
10	200926	Hex. Oil Plug	1	1	1	
11	217687	Ratchet Ass'y	1	1	1	
12	217690	Brake Bushing	1	1	1	
13	400289	Ball <Ø6>	3	3	3	
14	210434	4th Gear Ass'y <m2×49t></m2×49t>	1	1	1	
15	209440	Brake Body < Ø90×7.6L>	1	1	1	
16	400515	Disc Spring <Ø70 × Ø35.5 × 3.5t>	3	3	3	
17	404509	O-Ring <p-14></p-14>	1	1	1	
18	202632	Disc Spring Bushing	1	1	1	
19	400632	Lock Nut <m16×1.5></m16×1.5>	1	1	1	
20	405593	Bearing < 6910 ZZ >	1	1	1	
21	404460	Oil Seal < Ø50 × Ø68 × 9t>	1	1	1	
22	400108	Bearing < 6006ZZ >	1	1	1	
23	200007	Load Sheave	1			
23	260083			1	1	
24	400187	Oil Seal <Ø35ר50×8t>	1	1	1	
25	400108	Bearing < 6006ZZ >	1	1	1	
26	400192	Retaining Ring <s-25></s-25>	1	1	1	
27	202201	6th Gear <m2×42t></m2×42t>	1	1	1	
28	400906	Retaining Ring <r-55></r-55>	1	1	1	
29	300523	Lubricant Drain Bolt	1	1	1	
30	217686	Ratchet Pawl Pin	2	2	2	
31	400038	Ratchet Pawl Spring	2	2	2	
32	200415	Ratchet Pawl	2	2	2	
33	400907	Retaining Ring <s-11></s-11>	2	2	2	



# **ELECTRIC ASSEMBLY**

NO	PARTS	25550051011	Q'TY REQ'D EACH UNIT			
NO.	CODE	DESCRIPTION	BLFD-050	BLFD-100	BLFD-200	
1	300280	Upper & Lower Limit Switch	1	1	1	
2	302994	PFC Power Supply Ass'y	1	1	1	
3	400093	Spring Washer <m5></m5>	4	4	4	
4	408361	Hex. Recess Bolt <m5×0.8×10l></m5×0.8×10l>	4	4	4	
5	400080	Nut <m6×1.0></m6×1.0>	1	1	1	
6	404803	Eye Bolt <m6×1.0></m6×1.0>	1	1	1	
7	400941	Cable Gland <m25-18></m25-18>	1	1	1	
8	400595	Shackle <3/16">	1	1	1	
9	300610	Push Button Switch	1	1	1	
10	400222	Cable Gland <m20-13></m20-13>	1	1	1	
11	408436	Cable Gland <spg-m20b m20×1.5=""></spg-m20b>	2	2	2	
12	262709	Cover	1	1	1	
13	400092	Spring Washer <m4></m4>	2	2	2	
14	408394	Cross Headed Screw < M4 × 0.7 × 6L>	2	2	2	
15	300430V	Electric Cover	1	1	1	
16	301210	Brake Resistance	1	1	1	
17	400092	Spring Washer <m4></m4>	2	2	2	
18	408493	Cross Headed Screw < M4 × 0.7 × 10>	2	2	2	
19	302993	DC Motor Controller Ass'y	1	1	1	

CERTIFICAT **ERTIFICADO** చ CERTIFICATE



# **Attestation of Conformity**

No. M8A 004703 0016 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 is issued on a voluntary basis according to Council Directive 2006/42/EC relating to machinery. It confirms that the listed equipment (not Annex IV equipment) complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.:

615202001201

Date,

2021-04-09

(Taiwei LI)

L'Taiver

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.

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

**EPTU D N K A T** CERTIFICATE



# **Attestation of Conformity**

No. M8A 004703 0016 Rev. 00

Model(s):

**B** Series

BLFD-008, BLFD-012, BLFD-016, BLFD-024, BLFD-032,

BLFD-048, BLFD-050, BLFD-100, BLFD-200

Trade name:

Black Bear, U-MEGA, Yong Sheng







**Black Bear** 

**U-MEGA** 

Yong Sheng

Parameters:

Rated voltage:

230 VAC, 1P+PE

Rated frequency: Rated power:

50 Hz As below

0.3kW (BLFD-008, BLFD-012),

0.6kW (BLFD-016, BLFD-024, BLFD-032, BLFD-048)

0.75kW (BLFD-050)

1.2kW (BLFD-100, BLFD-200)

**Tested** according to: EN ISO 12100:2010 EN 60204-32:2008 EN 14492-2:2019

Page 2 of 2

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.

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany





# **Attestation of Conformity**

No. N8MA 004703 0017 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.:

615202001201

Date.

2021-04-09

L'Taiver

Page 1 of 2

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.

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany





# **Attestation of Conformity**

No. N8MA 004703 0017 Rev. 00

Model(s):

**B** Series

BLFD-008, BLFD-012, BLFD-016, BLFD-024, BLFD-032,

BLFD-048, BLFD-050, BLFD-100, BLFD-200

**Brand:** 

Black Bear, U-MEGA, Yong Sheng







**Black Bear** 

**U-MEGA** 

230 VAC, 1P+PE

Yong Sheng

Parameters:

Rated voltage:

Rated frequency:

50 Hz As below

Rated power:

0.3kW (BLFD-008, BLFD-012), 0.6kW (BLFD-016, BLFD-024, BLFD-032, BLFD-048)

0.75kW (BLFD-050)

1.2kW (BLFD-100, BLFD-200)

**Tested** 

according to:

EN ISO 12100:2010 EN 60204-32:2008

EN 14492-2:2019

Page 2 of 2

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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