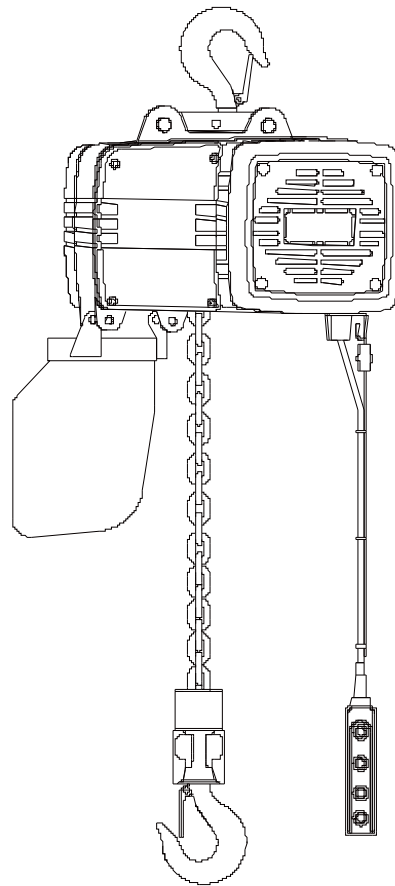

SHH 816 SERIES ELECTRIC CHAIN HOIST

USER MANUAL (OPERATOR)

INSTRUCTION MANUAL



⚠ WARNING

This equipment should not be installed, operated or maintained by any person who has not read and understood all the contents of this manual. Failure to read and comply with the contents of this manual can result in serious body injury or death, and property damage.

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1. MARK DEFINITION

SHH 816 series electric chain hoist was designed to apply in normal work condition, lifting load in vertical direction, it can not lift mankind.

The manual use the below mark to authenticate the lever and grade of danger.



very dangerous status, if it is inevitable, it will lead to human being injury or series human wounded and property loss.



Potential dangerous status, if it is inevitable, if may lead to human being injury or serious human being wounded and property loss.



Potential dangerous status, if it is inevitable, if may lead to human being injury or serious human being wounded and property loss.

According to the operating situation, Caution Mark would lead to series human being injury also, hence, whatever mark you meet, the safe operation is the most important, and you should put the manual in the place where the operator could use conveniently as reference.

2. FORBIDDEN PRINCIPAL

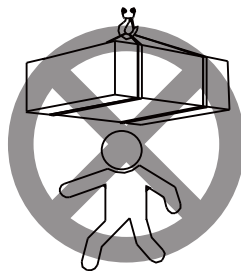
2.1 GENERAL RULES

Wrong use or forget to maintain the hoist, it may lead to dangerous situation. For example, the dangerous situation as lifting load can not land on the earth. Before install operate or maintain, please read all the text of the manual and conform the principal of safety and operating instruction.

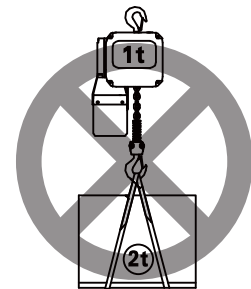
We will not be responsible for the problem which was due to wrong use .If the products was not use in non standard application, please negotiate with the local distributor in advance.



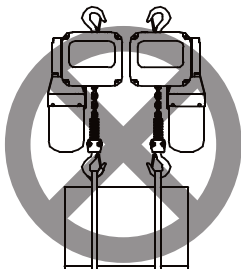
Hoist can not transfer Human being or use as Supporting mechanism



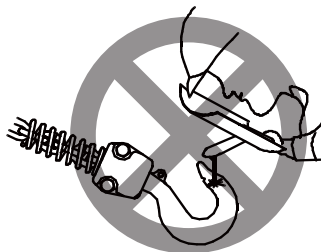
don't pass through the beneath side of lifting weight, Also, don't move the Lifting weight to the up side of human being



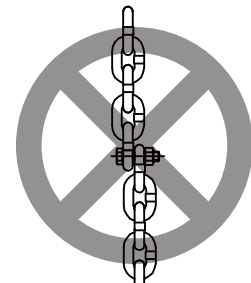
Lifting weight can not over the rated lifting capacity.



Forbidden to use multi pieces of hoists to lift which was over the rated capacity of the single hoist.



forbidden to weld the hook and the lifting chain



do not use bolt, screw screw driver etc to knot or shorten the lifting chain

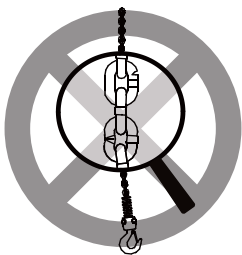
Caution: Before you move the weight, please warn all the human being to be careful in the nearby zone, if it is necessary, please set lifting special operating area, only operator could enter in this zone. The person, who has not known all the text of the manual and the warning mark, can not operate the hoist.

2.2 PREOPERATIONAL CHECK

- ⚠ CAUTION** this manual was formulated for hoist operator. Before operator start to work, he should know all the contents of safety and operation instruction.
- ⚠ WARNING** If the products has deformation of crack problem on the hook, hoop, please do not use, you should contact the seller or our company, change the new parts, please do not change the new parts which were not supplied by our seller or us.
- ⚠ WARNING** forbidden to repair the lifting chain which was installed in the hoist
- ⚠ CAUTION** before load, please fill 0.7 Kg L-CKD-100 close type gear oil into the reducer, L-CKD-100 gear oil or Calcium base grease in chain surface.
- ⚠ CAUTION** the electric hoist must use when it was earth well
- ⚠ CAUTION** When the lifting chains twist, knot; please do not start the machine to lift goods.
- ⚠ CAUTION** Preoperational procedure; please assure carry out all the contents of project inspecting classification.
- ⚠ CAUTION** Asses the weight of the lifting goods; select the hoist which is suitable for your application and capacity.
- ⚠ CAUTION** Check the upper hook shaft and down hook shaft to assure that they have no deformation or loose
- ⚠ CAUTION** Check the position limit work situation manually, to confirm that it is normal.
- ⚠ CAUTION** Load chain was made by special alloy steel can not weld or refit
- ⚠ CAUTION** When the temperate is below 0°C, check the brake whether it has ice or not.

2.3 CAUTIONS IN OPERATION

⚠ WARNING



Forbidden to use the hoist which has deformation or crack in lifting chain



do not use lifting chain as have duty rigging



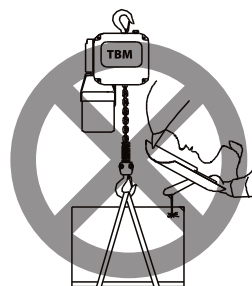
do not lift the goods slant the angle can not over 12 than vertical direction



Can't hang the weight directly on the hook tip



do not let the lifting chain pass through the obstacle surface such as steel plate



Forbidden to do welding or cutting operation when the weight was lifted in the air.

⚠ WARNING

don't wave the lifting goods

⚠ WARNING

don't use hoist which was broken or with abnormal sound

⚠ WARNING

don't do repeat quick up and down operation when lifting the goods.

⚠ CAUTION

forbidden to put the weight in the air without supervisor in long time.

Please assure the load was in hook cavity correctly

Before lifting the weight, must assure eliminate the lifting chain clearance, in order to avoid the occurrence of impacting load

2.4 FINISHED OPERATION

⚠ CAUTION

After operation, please make sure the weight was land on the earth safely to avoid the goods drop

⚠ WARNING

when the operation finished, cut off the control pendant in order to avoid wrong operations by others.

2.5 PROJECT INSPECTION AND MAINTAIN

⚠ CAUTION

Assure special inspector inspect and maintain the hoist regularly according to the rules in chapter 4 and chapter 5, otherwise, please contact our seller or us to make sure the inspect and maintain item.

⚠ WARNING

the load chain was made by special alloy steel, do not weld or refit.

2.6 OTHER ITEMS

⚠ CAUTION

if you want to use the hoist in special condition (such as salt water, sea water, acid material, basic material, explosive environment), please contact our seller or us to confirm.

⚠ WARNING

forbidden to use the hoist which has problem or need to be maintained.

3. TECHNICAL DATA

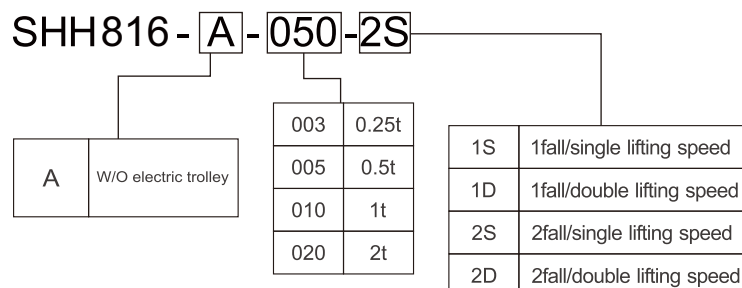
3.1 OPERATION CONDITION AND ENVIROMENT

TEMPERATURE RANGE: -20°C ~ +40°C, if you need hoist work in extreme work environment, please consult on our seller or us.

Relative humidity ≤85%, this product was not under-water operating product.

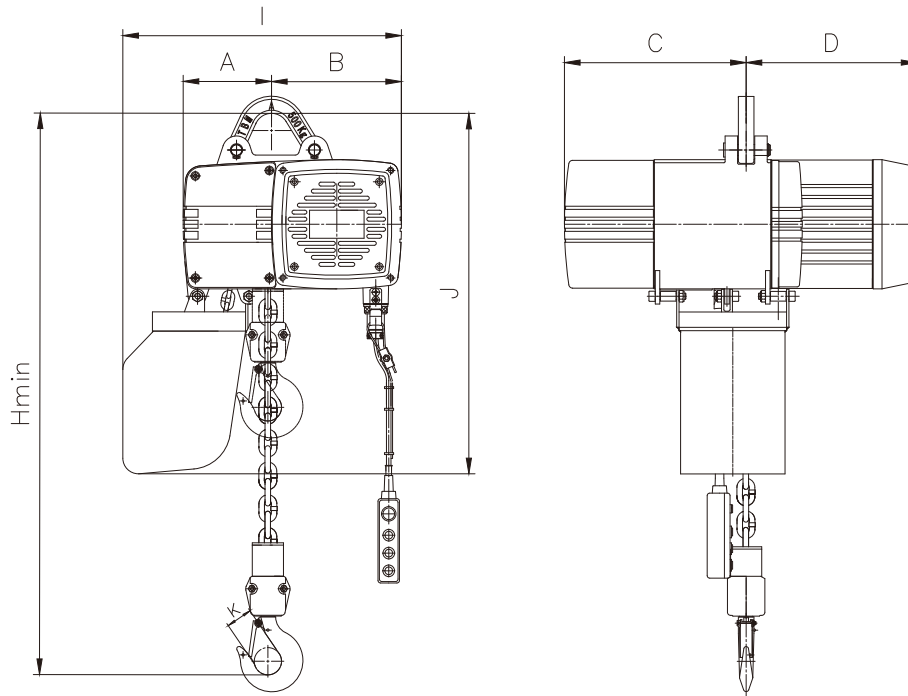
Altitude height: ≤1000m

It was not suitable to use in condition where has fire disaster, explosion risk or corrosive gas, also It can not lifting melted steel and poisonous, inflammable, explosive goods.



3.2 TECHNICAL PARAMETER

1> ELECTRIC CHAIN HOIST



Model	Capacity (t)	Classification FEM/ISO	Duty Rating (ED)	Lifting Speed (m/min)	Hoist Motor (Kw)	Load Chain Dimension (mm)	Load Chain Falls	Net Weight (Kg) with 3m Load Chain
SHH816-A-003-1S	0.25	2m/M5	40	8	0.4	φ4×12	1	19
SHH816-A-003-1D			26.6/13.4	8/2	0.4/0.1			22
SHH816-A-005-2S	0.5	2m/M5	40	4	0.4	φ4×12	2	23
SHH816-A-005-2D			26.6/13.4	4/1	0.4/0.1			26
SHH816-A-005-1S	0.5	2m/M5	40	8	0.72	φ5×15	1	29
SHH816-A-005-1D			26.6/13.4	8/2	0.72/0.18			32
SHH816-A-010-2S	1	2m/M5	40	4	0.72	φ5×15	2	31
SHH816-A-010-2D			26.6/13.4	4/1	0.72/0.18			34
SHH816-A-010-1S	1	2m/M5	40	8	1.6	φ7.1×21	1	47
SHH816-A-010-1D			26.6/13.4	8/2	1.6/0.4			51
SHH816-A-020-2S	2	2m/M5	40	4	1.6	φ7.1×21	2	52
SHH816-A-020-2D			26.6/13.4	4/1	1.6/0.4			56

Model	Capacity (t)	Hmin	A	B	C	D	I	J	K
SHH816-A-003-1S	0.25	325	109	124	215	210	290	374	31
SHH816-A-003-1D						240			
SHH816-A-005-2S	0.5	410	109	124	215	210	290	384	31
SHH816-A-005-2D						240			
SHH816-A-005-1S	0.5	440	108	172	238	201	360	485	31
SHH816-A-005-1D						217			
SHH816-A-010-2S	1	545	133	147	238	201	360	485	38
SHH816-A-010-2D						217			
SHH816-A-010-1S	1	449	127	188	262	238	420	530	38
SHH816-A-010-1D						329			
SHH816-A-020-2S	2	600	127	188	262	238	420	530	38
SHH816-A-020-2D						329			

3.3 MAIN CHARACTERISTIC

This hoist has overload limited mechanism, could avoid the bad effect due to overload.

Lifting hook has self lock mechanism; it could prevent the rigging to slide.

The electric moor has thermal protector, when the electric motor temperature rise too high by over use, this mechanism would cut down the motor in order to protect the motor would not be burn out.

The hoist has hooked upper and down position limit mechanism.

The hoist has sudden stop button, could let the operation cut down the power when he was in extremely dangerous situation.

3.4 MACHINE CLASSIFICAION AND USE PERIOD

You could protect the safety and use period of hoist only if you operate the equipment as demand grade .TBM SHH series electric chain hoist was suitable for the ISO/JIS and FEM classification

1> ISO/JIS CLASSIFICATION

Load Spectrum	Cubic Mean Value	Average Daily Operating Time (Hour)							
		≦0.12	≦0.25	≦0.5	≦1	≦2	≦4	≦8	≦16
Light	$K \leq 0.125$	/	/	M1	M2	M3	M4	M5	M6
Moderate	$0.125 < K \leq 0.25$	/	M1	M2	M3	M4	M5	M6	/
Heavy	$0.25 < K \leq 0.50$	M1	M2	M3	M4	M5	M6	/	/
Very Heavy	$0.50 < K \leq 1.00$	M2	M3	M4	M5	M6	/	/	/

1> FEM CLASSIFICATION

Load Spectrum	Cubic Mean Value	Average Daily Operating Time (Hour)							
		≦0.12	≦0.25	≦0.5	≦1	≦2	≦4	≦8	≦16
L1	$K \leq 0.5$	/	/	1Dm	1Cm	1Bm	1Am	2m	3m
L2	$0.50 < K \leq 0.63$	/	1Dm	1Cm	1Bm	1Am	2m	3m	4m
L3	$0.63 < K \leq 0.80$	1Dm	1Cm	1Bm	1Am	2m	3m	4m	5m
L4	$0.80 < K \leq 1.00$	1Cm	1Bm	1Am	2m	3m	4m	5m	/

4、SAFE OPERATION

4.1 DECLARATION

Operating the overload weight may lead to dangerous situation. Before operation, please read all the contents of this chapter and forbid principal of chapter 1.2, then you could operate.

Before operating the hoist, please make sure the work space meet the follow demand

Ensure the work space could let the hoist work stably.

Ensure with good eye sight, and arrange special person to observe.

4.2 INSTALL AND TEST

Put the hoist into a reliable frame, connect power plant, then push the up or down button of control pendant, observe the hoist work situation. if the hook move up or down, it means that the connection of electrical wire is correct. if push the control pendant button, the hook did not move, it means the electrical wire phase was connected wrong, then just switch the two phase wire, and the hoist would run correctly.

4.3 LOADED OPERATION

The hoist which was running first time (or it has been a long time to be used), first run 15 minutes with load, observe the hoist work situation, if it is running normally, then you could use with load.

5. PROJECT INSPECTION

If you want to operate continually and satisfied, you have to inspect the hoist at period, change the broken parts, so that it will not be the potential danger of safe operation.

The project inspection interval should determine according to the use situation and work classification, also should check according to the use environment and the broken, ageing level of key parts, the inspection type is separated as daily inspection, periodic inspection.

Daily inspection: Before daily use, operator or specialist to visual inspect.

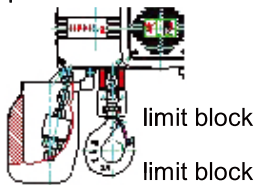
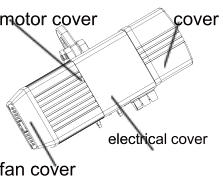
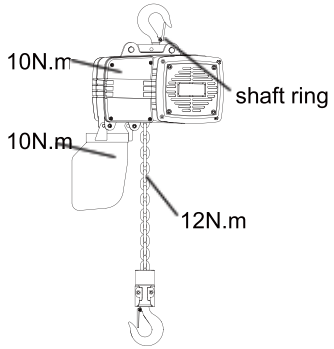


Periodic Inspection: Check by the special engineer or technical staff according to the user work situation.

5.1 FREQUENT INSPECTION

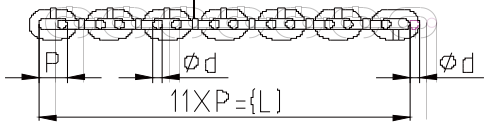

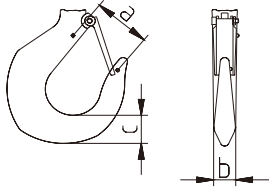
Project	Method	Judge Standard	Solution
Label Warning Mark	Visual inspection	Stick correctly clean and clearly read	Change
Control Pendant	Visual inspection	Without fraction	Change
	Push stop button without load	Hoist stop, right direction rotate, after push stop button, hoist could run	Change
	Push start button without load	Bottom hook could lift and land	Repair or change
Brake	Lift and land 2 or 3 times without load	Brake effect is good or not	Repair or change
Up Down position limiter	Operate the hook into the limit position without load	When touch the down position limit, the electric motor stop, but could work in the reverse direction	Repair or change
Lifting chain	Visual inspection	Surface with lubricate grease Without deformation, without crackle	Clean, lubricate, if necessary, change
Hook	Visual inspection function inspection	Without deformation could move slide and rotate	Change
Position limit spring	Visual inspection	Without deformation	Change


5.2 DAILY INSPECTION

subjects	means	standards	solutions
template, warning sign	visual inspection	no peel off, readable	•clean, repair or replace
			•replace and record
control pendant	•visual inspection	•no crack	•replace
	•push emergency stop without load	•stop immediately	•replace
		•no movement pushing other buttons	
•push start without load	•bottom hook canlift/descend	•fix or replace	

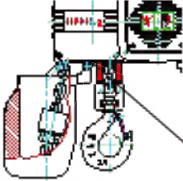
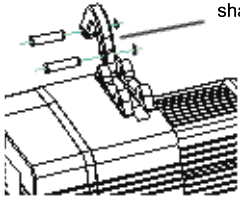

subjects	means	standards	solutions
load chain	visual inspection	•no serious rust, no deformation, no crack	•replace
		•apply light lubricate oil to the surface	•clean and lubricate
limit block	visual inspection 	•no peel off of rubber, no deformation, no crack.	•replace limit block
up/down limit switch	bottom block move to limit without load	•motor stop when the bottom hook reaches limit, opposite direction movable	•fix or replace
template, warning sign	visual inspection	no peel off, readable	•clean, repair or replace •replace and record
spare parts	visual inspection 	no deformation, crack, damage	•replace deformed, cracked and damaged parts
bolt, nut, shaft ring, cotter pin	•visual inspection and special tools •adjust the torque of bolt, nut	•torque reaches the rated value, ring tight 	•fix tightly  Hazard  Mandate •any peeling off of bolt could cause hoist or spare parts to fall down, please check carefully.
friction clutch	•short distance load movement under SWL	•no slipping	•disassemble and check
brake	•lift/descend 1-3 times without load	•brake is sensible and stable	•replace
hook	•visual inspection, friction	•no deformation, rotate smoothly	•fix or replace
hook safety clutch	•visual inspection	•no deformation	•replace safety clutch
	•check performance	•able to close inside hook	
hook support	•visual inspection	•bolt, nut not loose	•fix tightly
load chain deformation, cut	•visual inspection	•no distortion or deformation	•replace load chain
		•no scratch or dent	
		•no welding particles	
load chain rust	•visual inspection	•no obvious rust	•replace load chain

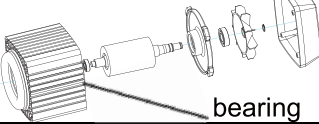
5.3 MONTHLY INSPECTION

subjects	means	standards	Solutions																										
earth connection	•check earth resistor	•<0.1MΩ	•adjust or replace																										
insulation	•measure by insulation resistance meter	•>1.5MΩ	•replace fault parts																										
brake	•lift/descend/stop under SWL	•stop while descending,slipping distance should be less tha 1% of lifting speed	•repair																										
friction clutch	•lift load connected to the ground and make it slip less than 5 seconds	•slip	•adjust or replace																										
	•lift SWL	•able to lift SWL	•adjust or replace																										
limit switch	•lift SWL to limit position	•hoist stops,opposite direction movable	•repair or replace																										
load chain weariness	•measure		<div style="border: 1px solid black; padding: 5px;"> <p>Information </p> <p>If load chain wears out, make sure to check chain wheel.</p> </div>																										
	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th rowspan="2">Capacity (t)</th> <th colspan="2">d(mm)</th> <th colspan="2">L(mm)</th> </tr> <tr> <th>standard</th> <th>invalid</th> <th>standard</th> <th>invalid</th> </tr> </thead> <tbody> <tr> <td>0.25、0.5(2falls)</td> <td>4</td> <td>≤3.6</td> <td>132</td> <td>≥134</td> </tr> <tr> <td>0.5、1(2falls)</td> <td>5</td> <td>≤4.5</td> <td>165</td> <td>≥167.5</td> </tr> <tr> <td>1、2(2falls)</td> <td>7.1</td> <td>≤6.4</td> <td>231</td> <td>≥234.5</td> </tr> </tbody> </table>			Capacity (t)	d(mm)		L(mm)		standard	invalid	standard	invalid	0.25、0.5(2falls)	4	≤3.6	132	≥134	0.5、1(2falls)	5	≤4.5	165	≥167.5	1、2(2falls)	7.1	≤6.4	231	≥234.5		
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1、2(2falls)	7.1	≤6.4	231	≥234.5																									
hook bend,deformation and rust	•visual inspection 	<ul style="list-style-type: none"> •no bend,deformation, crack, •no deep scratch •no welding particles •no rust and corrosion 	•replacehook																										
hook open angle and weariness	•measure 	<div style="border: 1px solid black; padding: 5px;"> <p> Information</p> <ul style="list-style-type: none"> •record size a、 b、 c check if it deiates the standard <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>value (mm)</th> <th>invalid standard</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>do not exceed original data</td> </tr> <tr> <td>b</td> <td rowspan="2">exceed within 5%</td> </tr> <tr> <td>c</td> </tr> </tbody> </table> </div>	value (mm)	invalid standard	a	do not exceed original data	b	exceed within 5%	c	•replacehook																			
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<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th rowspan="2">specification (t)</th> <th>a(mm)</th> <th colspan="2">b(mm)</th> <th colspan="2">c(mm)</th> </tr> <tr> <th>normal</th> <th>standard</th> <th>invalid</th> <th>stand ar d</th> <th>invalid</th> </tr> </thead> <tbody> <tr> <td>0.25、0.5(2falls)</td> <td>30</td> <td>18</td> <td>≤17.1</td> <td>21</td> <td>≤19.95</td> </tr> <tr> <td>0.5、1(2falls)</td> <td>37</td> <td>20</td> <td>≤19</td> <td>24</td> <td>≤22.8</td> </tr> <tr> <td>1、2(2falls)</td> <td>45</td> <td>26</td> <td>≤24.7</td> <td>42</td> <td>≤39.9</td> </tr> </tbody> </table>	specification (t)	a(mm)	b(mm)		c(mm)		normal	standard	invalid	stand ar d	invalid	0.25、0.5(2falls)	30	18	≤17.1	21	≤19.95	0.5、1(2falls)	37	20	≤19	24	≤22.8	1、2(2falls)	45	26	≤24.7	42	≤39.9
specification (t)		a(mm)	b(mm)		c(mm)																								
	normal	standard	invalid	stand ar d	invalid																								
0.25、0.5(2falls)	30	18	≤17.1	21	≤19.95																								
0.5、1(2falls)	37	20	≤19	24	≤22.8																								
1、2(2falls)	45	26	≤24.7	42	≤39.9																								

subjects	means	standards	Solutions
fix chain bag andbolt、 nut bolt、 nut	•visual inspection and special tools	•no damage,crack or deformation	•replace chain box
		•chain box and hoist properly fixed	•tighten nut(see to daily inspection)
		•no forengn matters inside	•clean dirt
		•chain box is big enough to store the chain <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">  Information •Do not use broken box. •Use chain box big enough to collect the chain. </div>	•replace chain box
control pendant	•visual inspectionand push buttons	•no crack、 deformation •no fastener is loose •confirm the cerrectness of button push	•replace chain box andcontrol pendant •fix and tighten nut •fix or replace
control pendant	•visual inspection	•control pendant is fixed properly	•fix control pendant cable properly
		•protective rope fixed to hoist properly	•fix cprotective rope properly
		control pendant doesn't bear load	
		•no damage	•replace control pendant cable
main cable	•visual inspection	•no damage	•replace power cable
		•fixed properly	•fix main cable properly
abnormal noise	•check sound of gear, motor and load chain without load	•no big noise of motor and brake	•replace abnormal parts
		•no abnormal rotating noise	
		•no abnormal noise of load chain	•check load chain

5.4 MONTHLY INSPECTION

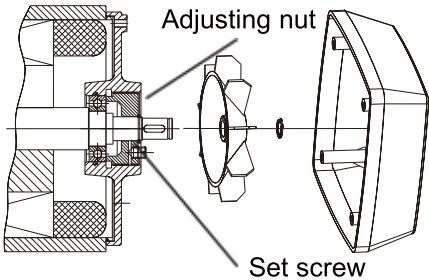
subjects	means	standards	solutions																																												
chain guide support	<ul style="list-style-type: none"> visual inspection and special tools  <p>chain guide support</p>	<ul style="list-style-type: none"> no bend, no deformation, no crack, 	<ul style="list-style-type: none"> replace the support 																																												
lifting eye	 <p>pin roll</p> <p>shaft ring</p>	<ul style="list-style-type: none"> pin roll weariness within 0.5mm no obvious deformation or crack 	<ul style="list-style-type: none"> replace pin roll 																																												
		<ul style="list-style-type: none"> shaft ring has no deformation, damage or weariness shaft ring fixed tightly 	<ul style="list-style-type: none"> replace shaft ring 																																												
oil leakage	<ul style="list-style-type: none"> visual inspection 	<ul style="list-style-type: none"> gear oil leakage from oil seal 	<ul style="list-style-type: none"> replace oil seal 																																												
		<ul style="list-style-type: none"> gear oil leakage from cover 	<ul style="list-style-type: none"> replace sealing pad 																																												
oil level	<ul style="list-style-type: none"> remove the cover and check gear oil level 	<ul style="list-style-type: none"> gear oil level is higher than big gear 	<ul style="list-style-type: none"> renew gear oil 																																												
	<p style="text-align: center;">renew gear oil consuming time table</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" rowspan="2">load \ gear oil renew running time</th> <th>every 120h</th> <th>Every 240h</th> <th>every 360 h</th> </tr> <tr> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>light</td> <td>usually applied to light load, seldom to rated load</td> <td></td> <td></td> <td style="text-align: center;">○</td> </tr> <tr> <td>medium</td> <td>frequently applied to rated load, more often to medium load</td> <td></td> <td style="text-align: center;">○</td> <td></td> </tr> <tr> <td>heavy</td> <td>frequently applied to rated load, more often to heavy load</td> <td style="text-align: center;">○</td> <td></td> <td></td> </tr> <tr> <td>extreme</td> <td>always applied to rated load</td> <td style="text-align: center;">○</td> <td></td> <td></td> </tr> </tbody> </table> <div style="margin-top: 10px;"> <p style="text-align: center;">oil level</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>model</th> <th>oil level (ml)</th> </tr> </thead> <tbody> <tr> <td>SHH816-A-003-1S</td> <td rowspan="4" style="text-align: center;">250</td> </tr> <tr> <td>SHH816-A-003-1D</td> </tr> <tr> <td>SHH816-A-005-2S</td> </tr> <tr> <td>SHH816-A-005-2D</td> </tr> <tr> <td>SHH816-A-005-1S</td> <td rowspan="4" style="text-align: center;">330</td> </tr> <tr> <td>SHH816-A-005-1D</td> </tr> <tr> <td>SHH816-A-010-2S</td> </tr> <tr> <td>SHH816-A-010-2D</td> </tr> <tr> <td>SHH816-A-010-1S</td> <td rowspan="4" style="text-align: center;">330</td> </tr> <tr> <td>SHH816-A-010-1D</td> </tr> <tr> <td>SHH816-A-020-2S</td> </tr> <tr> <td>SHH816-A-020-2D</td> </tr> </tbody> </table> </div>			load \ gear oil renew running time		every 120h	Every 240h	every 360 h				light	usually applied to light load, seldom to rated load			○	medium	frequently applied to rated load, more often to medium load		○		heavy	frequently applied to rated load, more often to heavy load	○			extreme	always applied to rated load	○			model	oil level (ml)	SHH816-A-003-1S	250	SHH816-A-003-1D	SHH816-A-005-2S	SHH816-A-005-2D	SHH816-A-005-1S	330	SHH816-A-005-1D	SHH816-A-010-2S	SHH816-A-010-2D	SHH816-A-010-1S	330	SHH816-A-010-1D	SHH816-A-020-2S
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SHH816-A-020-2S																																															
SHH816-A-020-2D																																															
friction clutch	<ul style="list-style-type: none"> visual inspection 	<ul style="list-style-type: none"> no deformation, damage of friction plate <div style="border: 1px solid black; padding: 5px; text-align: center;">  Hazard </div> <ul style="list-style-type: none"> TBM genuine clutch only Do not adjust friction clutch 	<ul style="list-style-type: none"> replace friction clutch 																																												
magnetic brake outlook	<ul style="list-style-type: none"> remove the cover, visual inspection 	<ul style="list-style-type: none"> no deformation and damage 	<ul style="list-style-type: none"> replace magnetic brake 																																												
		<ul style="list-style-type: none"> bolt is tight 	<ul style="list-style-type: none"> fasten bolt 																																												

subjects	means	standards	solutions
weariness and damage of load wheel	•visual inspection	•no obvious deformation、 wear and damage of chain wheel •no obvious wear or damage of flat ring groove	•replace load chain wheel
overload limit bearing	•visual inspection and turn by hand to check 	•no obvious wear or damage •bearing turns freely	•replace bearing
electrical parts	•remove the cover, visual inspection。	•no damage or burn	•replace broken and burned parts
		•bolt isn't loose	•fasten bolt
connection		•no disconnection or burn	•replace cable
		•cable is properly fixed to electrical components	•properly fixed
		•contact is properly fixed	
foreign matters		•no waterdrop or dust mixed	•clean foreign matters

6. MAINTENANCE

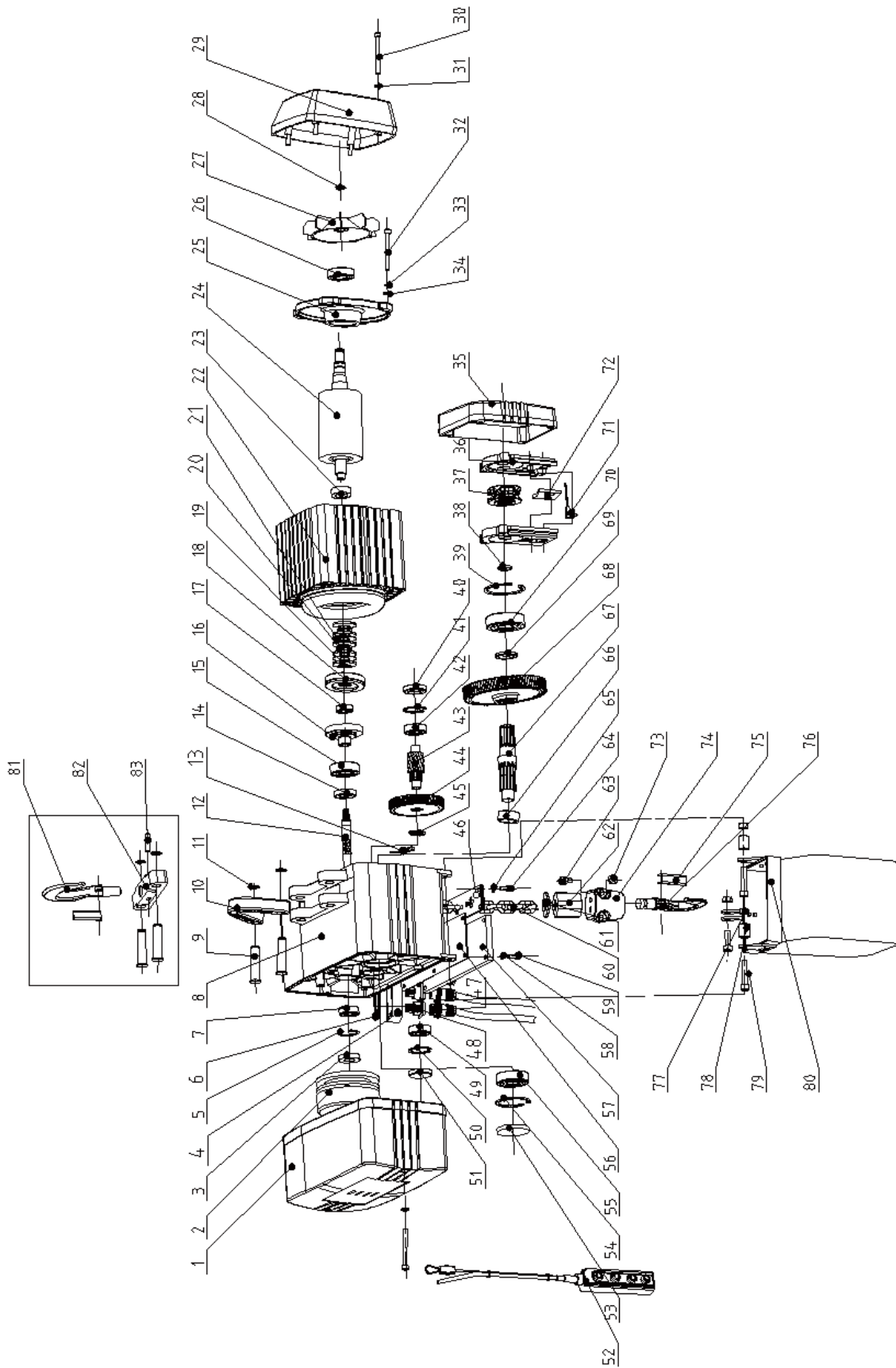
6.1 FAULT TREATMENT

Error	Possible cause	Solution
Chain hoist doesn't work after connecting to power supply.	•Loose connection leads to poor conductivity	•check and fasten all the connection points
	•electrical parts damaged	•replace the damaged parts
	•breaker trips due to short circuit	•repair or replace the components
	•breaker trips in lack of capacity	•replace breaker with larger capacity
	•connection terminal drops	•check and fasten all the connection points
	•connection terminal is loose	•fix and tighten
	•contactor coil burns out due to over inching	•replace contactor
	•power supply breaks	•check and fasten all the connection points
	•main cable burns out in lack of capacity	•replace cable with larger capacity
magnetic brake can't release	•air gap is too wide	•replace brake rotator
	•coil breaks	•replace brake
magnetic brake acts retard	•false connection of rectifier	•check the diagram and connect correctly

Error	Possible cause	Solution
Unable to hoist load	•cluth fails due to overload	•keep load under SWL
load slides after stoppage	•too much overload makes the friction plate worn out	<ul style="list-style-type: none"> •replace the friction clutch <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">⚠ Hazard</p> <p style="text-align: center;"> •Do not adjust regulating nuts. Forbidden </p> </div> 
chain runs with abnormal noise	•chan is not well lubricated	•apply lubricate oil to chain
	•hoist sprocket wears out	•replace hoist sprocket
	•chain abrasion reaches the limit	•replace load chain
leakage of control pendant	•false earth connection	•provide better earth connection
	•over humidity in the air	•avoid working in over humid conditions
	•too much dust on the electrical parts	•keep them clean
	•water drops over control pendant	•clean water drop and make it dry
bottom hook neck can't swivel freely	•bearing breaks	•replace bearing
	•little grease on bearing.	•apply grease regularly
bottom hook distorts and opens larger	•wind load chain around load	•do not wind load chain
	•bear the load on top of hook beak	•put the load in the center of the hook
	•false suspension of sling.	•keep the angle of sling under 120°
load chain breaks	•load chain reaches its service life	•check daily and regularly
load chain changes color	•grease is used up	•apply grease regularly
load chain distorts	•chain distorts inside the hoist	•reassemble chain guide cover and load chain
	•bottom hook overturns	•Ensure hook not turned over with dual chain
load swings violently	•chain guide cover wears from side pull	•side pull forbidden

7. APPENDIX

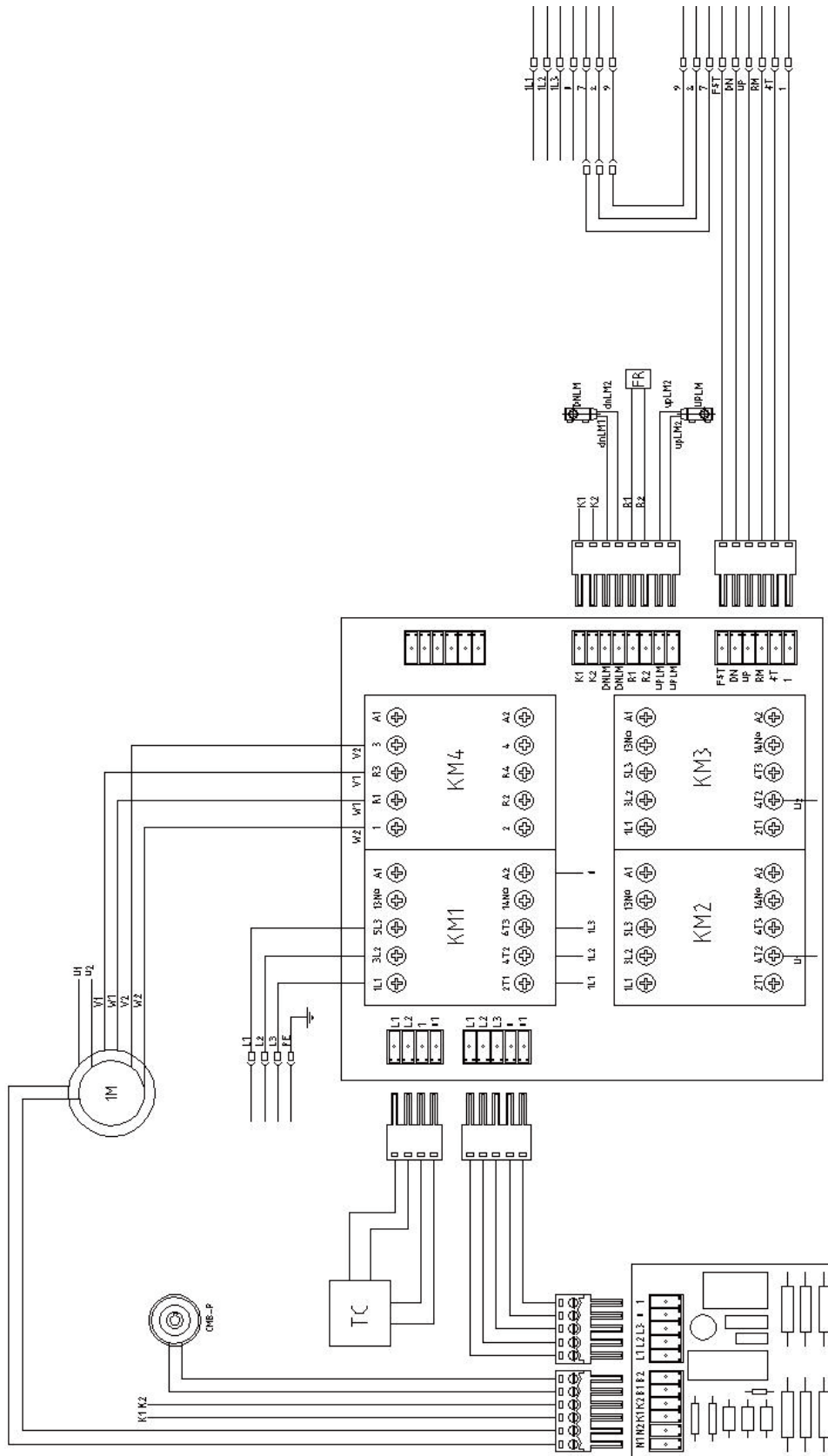
7.1 PART LIST - ELECTRIC CHAIN HOIST SHH 816 (0.25T~2T)



No.	name	No.	name	No.	name
1	electrical equipment cover	29	motor end cover	57	gear box cover
2	brake	30	bolt	58	spring washer
3	rotary lip ring	31	spring washer	59	bolt
4	aviating plug cover	32	bolt	60	load chain
5	hole spring	33	spring washer	61	ring
6	aviating plug cover pat	34	flat washer	62	limit block
7	antifriction bearing	35	chain wheel cover	63	bolt
8	cover	36	chain guide cover	64	bolt
9	bolt shaft	37	load wheel	65	spring washer
10	suspension bracket	38	load wheel spacer	66	spacer
11	shaft ring	39	hole ring	67	output shaft
12	grade one gear shaft	40	small end cover	68	grade two gear
13	cable hook	41	hole ring	69	rotary lip ring
14	rotary lip ring	42	antifriction bearing	70	antifriction bearing
15	antifriction bearing	43	grade two gear shaft	71	micro switch
16	overload protection connection flange A	44	grade one gear	72	chain guide plate
17	antifriction bearing	45	shaft ring	73	self-lock nut
18	Overload protection flange B	46	chain guide support	74	bottom block
19	dish spring	47	aviation plug	75	safety clutch
20	small spacer	48	aviation plug	76	bottom hook
21	big spacer	49	antifriction bearing	77	self-lock nut
22	motor cover	50	shaft ring	78	spacer
23	motor spacer	51	small end cover	79	bolt
24	motor rotator	52	control pendant	80	chain bag
25	motor end cover	53	big end cover	81	top hook
26	antifriction bearing	54	holr ring	82	hanger plate
27	motor fan	55	antifriction bearing	83	hook pin
28	shaft ring	56	seal washer		

7.2 ELECTRIC DIAGRAM

1>Wiring Diagram of foot-mounted chain hoist



2>Electrical schematic diagram of foot-mounted chain hoist

