

TXK®

Operating Manual



Contents

| | |
|--|----|
| ■Preface ----- | 3 |
| ■Safty Attentions ----- | 4 |
| Chapter 1 Operation Method ----- | 4 |
| Chapter 2 Regular Inspection ----- | 6 |
| Chapter 3 Problems and solvements----- | 14 |

■ Disclaimers

- We do not undertake any responsibility for the damages caused by fire, earthquake, lightning or other natural disasters, acts of third parties, accidents, the user's intent, negligence or misuse, or other damages from the conditions beyond the usage environments.
- We do not undertake any responsibility for the collateral damages caused by using this product or cannot put into use, such as the loss of business interests, business interruption, damage to lifting loads, etc.).
- We do not undertake any responsibility for the damages caused by non-compliance with the contents of the operating manuals or beyond the specified scope.
- Not involved with the company due to a mechanical malfunction caused by the combination of such damages arise, the Company does not undertake any responsibility.

■ Use restrictions

- Do not move for the transportation of persons, as this product is not designed and produced as a manned transport products.
- Please do not use outside of the designing occasion, the products is designed under the purposes of load up and down, horizontal loading and unloading in normal use environment.
- Do not use this product as parts of a non-mechanical devices with moving loads.

■ Operation and use

- Pls read carefully of this operating manual and other user manuals, understand the whole contents before you operation and use our products.
- Pls wear protective clothing and appliance before operator operation and use our products.

■ Safety precautions

- Operate any kind of lifting equipment may have caused the potential risk of loss of personnel or property.
- Dangerous substantial increase in the chance of the operators don't follow the correct operation mode and precautions. So as to ensure safe operation, before you start to use our product, each operator should be fully familiar with the description of the contents of all manuals and precautions.



When there appears warning symbols like the beside ones show in this frame in the manuals contents, and these contents have been bordered, it means these text are very important safety instructions or precautions. The operators have to be sure to fully comply with the instructions, otherwise it is likely to endanger you or other people's lives and property. Therefore, pls read carefully of our operation manuals and precautions before you use TXK electric chain hoists.



■ Preface

The contents covered in this manual can help you with correct installation, operation and maintenance of TXK electric chain hoists and let your hoists operated in the best safety, efficiency and economy.

Please thoroughly study on our manual contents, correct process, operation modes and preventative maintances before you use our hoists, you will get practical and reliable services.

In order to provide you with the necessary replacement parts in a fastest time, please kindly supply us with the bellowing information when you get in touch with us:

(1) Model type

(2) Product serial Number

(3) Name of parts which need to be replaced (It is better to enclose with explains)

You will find out that TXK electric chain hoists will offer you with many years various and satisfied services.

Whenever you have any doubts, please do not hesitate to contact with us:



(Dealer's stamp)

■ Safty attentions

Chapter 1 Operational methods

1. Main specification

1.1 Specification chart

Suitable for all kinds of TXK electric chain hoists

1-1

| Item | | Specs | |
|----------------------------------|-------------------------------|-----------------------------|------------------|
| Operating temperature range (°C) | | -20 to +40 | |
| Operating humidity range (%) | | 85 or below | |
| Protection class | Hoist | IP54 | |
| | Button switch | IP54 | |
| Power | | 3 phases, 200~600V, 50/60HZ | |
| Noise level (dB) | Single speed hoist | 81 | |
| | Double speed hoist | 81 | |
| Chain specs | Working load limit | Diameter (mm) | Chain pitch (mm) |
| | 0.3, 0.5 | Ø 6.3 | 19 |
| | 1t, 2t, 3t | Ø 7.1 | 21 |
| | 1.5t ,2t | Ø 10.0 | 30 |
| | 2.5t, 3t, 5t,7.5t,10t,15t,25t | Ø 11.2 | 34 |

- Remarks:
- (1) When the operating temperature and humidity is beyond the above table, pls get in touch with TXK agency for more details.
 - (2) Expected usage: our hoists are designed to lift up and down under the common atmospheric and working conditions.
 - (3) The noise level is measured under the normal level of one meter from the hoist working place where the hoists is proceeding with standard operation.

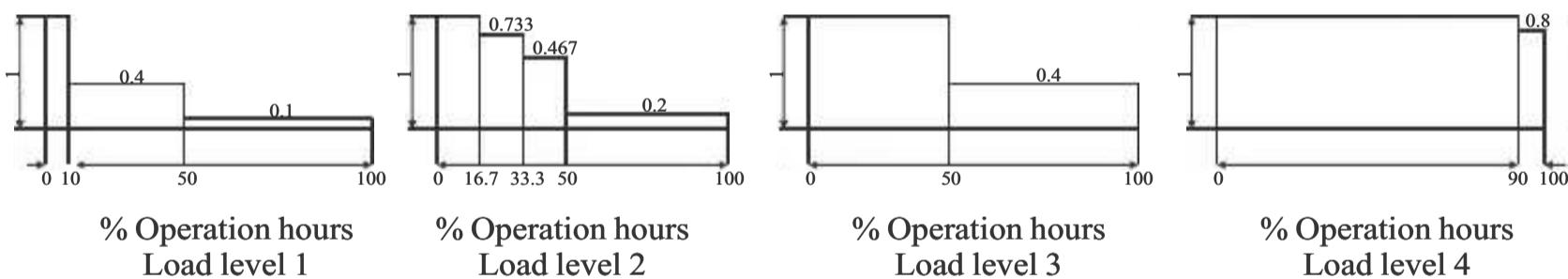
1.2 Mechanical level and service life

The guarantee of the service life and safety for electric chain hoists is based on the operator strictly follows the following operation levels.

Our electric chain hoists are designed to be 1Am level in FEM standards (FEM 9.511)

The average of the daily operation hours and total operation hours is calculated by load distribution.

| Load level | Definition | Cubic value | Average daily operation hours(hours) | | | | | |
|-------------------|--|-----------------|--------------------------------------|----------|-------|------|------|------|
| | | | ≤ 2 | 2-4 | 4-8 | 8-16 | ≥ 16 | |
| 1 (light) | The mechanism and parts are frequently under light load, and there is no max.load unless exceptional conditions. | K ≤ 0.50 | ≤ 2 | 2-4 | 4-8 | 8-16 | ≥ 16 | >16 |
| 2 (medium) | The mechanism and parts are frequently under light load, but also under max. load with low frequency. | 0.50 < k ≤ 0.63 | ≤ 1 | 1-2 | 2-4 | 4-8 | 8-16 | ≥ 16 |
| 3 (heavy) | The mechanism and parts are frequently under medium, and heavy load. | 0.63 < k ≤ 0.80 | ≤ 0.5 | 0.5-1 | 1-2 | 2-4 | 4-8 | 8-16 |
| 4 (overweight) | The mechanism and parts are frequently under max. or almost reach to max. load. | 0.80 < k ≤ 1.00 | ≤ 0.25 | 0.25-0.5 | 0.5-1 | 1-2 | 2-4 | 4-8 |
| | | | 1Bm | 1Am | 2m | 3m | 4m | 5m |



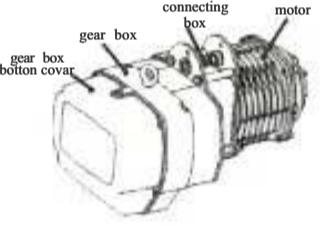
Basis of selecting motors for lifting equipments

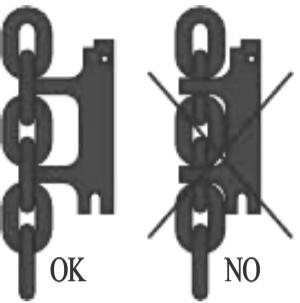
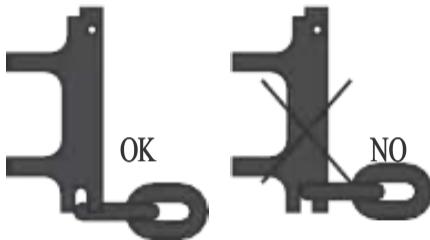
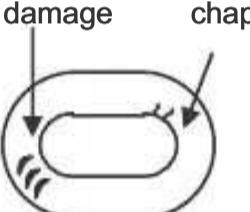
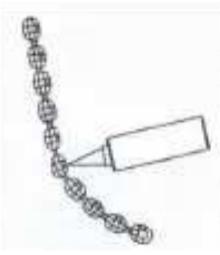
| Group | | Intermittent Service | | | Short-Time service |
|-------|-----|----------------------|----------|-------|----------------------|
| F.E.M | ISO | Cycles/h | Starts/h | (ED%) | Operation period min |
| 1 DM | M1 | 15 | 90 | 15 | 7.5 |
| 1 CM | M2 | 20 | 120 | 20 | 7.5 |
| 1 BM | M3 | 25 | 250 | 25 | 15 |
| 1 AM | M4 | 30 | 180 | 30 | 15 |
| 2 M | M5 | 40 | 240 | 40 | 30 |
| 3 M | M6 | 50 | 300 | 50 | 30 |
| 4 M | M7 | 60 | 360 | 60 | 60 |
| 5 M | M8 | 60 | 360 | 60 | >60 |

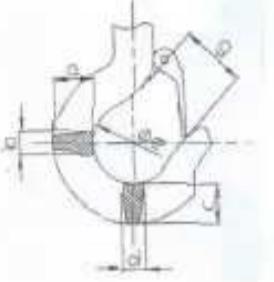
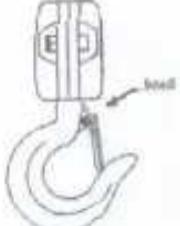
Chapter 2 Regular Inspection

2. Periodic inspection

2.1 Daily inspection on electric chain hoists

| Items | Inspection ways | Standards | Resolutions to deviations |
|--|--|---|--|
| Marks such as nameplates, labels etc. | <ul style="list-style-type: none"> - Visual check |  <ul style="list-style-type: none"> - No peeling and clear marks. | <p>Proceed with cleaning, repairing and replacing</p> <p>Pls mark the serial number for replacing.</p> |
| The deformation or damage of body parts | <ul style="list-style-type: none"> - Visual check  | <ul style="list-style-type: none"> - No remarkable deformation, damage, defect and chap. | <p>Replace the parts which are deformation, damage, defect and chap</p> |
| Bolts, nuts and cutters'loosing or falling off | <ul style="list-style-type: none"> - Visual and using tools check | <ul style="list-style-type: none"> - Practical and reliable installation. - Even an tiny bolt, when it is loosing it will cause the whole equipment falling down. - Therefore pls make sure the precise installations. - Otherwise it will lead to death or serious injury etc. | Precise installation |

| Items | Inspection ways | Standards | Resolutions to deviations |
|------------------------------|--|--|---------------------------|
| Extend of pitch | <ul style="list-style-type: none"> Check by chain measurement tool |  | |
| Attrition of chain diameters | <ul style="list-style-type: none"> Check by chain measurement tool |  | |
| deformation , damage, wind | <ul style="list-style-type: none"> Visual check <p>  Confirm the chain if or not stick to the welding spatters by visual. </p> | <ul style="list-style-type: none"> No deep cut. No deformation. No welding spatters. No wind. No chap. | Replace load chains |
| Rust and corrosion | <ul style="list-style-type: none"> Visual check | <ul style="list-style-type: none"> No remarkable rust and corrosion. | Replace load chains |
| Distortion | <ul style="list-style-type: none"> Visual check | <ul style="list-style-type: none"> No distortion due to bottom block roll over of double chain models.  | Correct distortion |
| Oil supply | <ul style="list-style-type: none"> Visual check | <ul style="list-style-type: none"> Adequate supply of oil.  | Oiling |

| Items | Inspection ways | Standards | Resolutions to deviations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|--|---------------------------|----|-----|-----|---|---|---|---------|----|----|----|----|----|----|---|----|----|----|----|----|----|---|----|----|----|----|----|----|---|----|----|----|----|----|----|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|-----|----|-----|----|-----|----|-------|-----|----|-----|----|-----|-----|--|
| The attrition and opening of the hook | <ul style="list-style-type: none"> Check by visual and vernier caliper  | <ul style="list-style-type: none"> No remarkable open. No remarkable attrition. <table border="1"> <thead> <tr> <th>load</th><th>a</th><th>b</th><th>c</th><th>d</th><th>e</th><th>g</th></tr> </thead> <tbody> <tr><td>0.3 0.5</td><td>27</td><td>18</td><td>25</td><td>17</td><td>35</td><td>28</td></tr> <tr><td>1</td><td>34</td><td>24</td><td>30</td><td>24</td><td>42</td><td>32</td></tr> <tr><td>2</td><td>46</td><td>29</td><td>39</td><td>30</td><td>49</td><td>40</td></tr> <tr><td>3</td><td>56</td><td>35</td><td>49</td><td>34</td><td>59</td><td>48</td></tr> <tr><td>5</td><td>67</td><td>43</td><td>57</td><td>44</td><td>60</td><td>48</td></tr> <tr><td>7.5 10</td><td>82</td><td>55</td><td>80</td><td>48</td><td>85</td><td>80</td></tr> <tr><td>15</td><td>110</td><td>78</td><td>120</td><td>80</td><td>120</td><td>90</td></tr> <tr><td>20 25</td><td>142</td><td>95</td><td>155</td><td>98</td><td>150</td><td>115</td></tr> </tbody> </table> | load | a | b | c | d | e | g | 0.3 0.5 | 27 | 18 | 25 | 17 | 35 | 28 | 1 | 34 | 24 | 30 | 24 | 42 | 32 | 2 | 46 | 29 | 39 | 30 | 49 | 40 | 3 | 56 | 35 | 49 | 34 | 59 | 48 | 5 | 67 | 43 | 57 | 44 | 60 | 48 | 7.5 10 | 82 | 55 | 80 | 48 | 85 | 80 | 15 | 110 | 78 | 120 | 80 | 120 | 90 | 20 25 | 142 | 95 | 155 | 98 | 150 | 115 | |
| load | a | b | c | d | e | g | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 0.5 | 27 | 18 | 25 | 17 | 35 | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 34 | 24 | 30 | 24 | 42 | 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 46 | 29 | 39 | 30 | 49 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 56 | 35 | 49 | 34 | 59 | 48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 67 | 43 | 57 | 44 | 60 | 48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.5 10 | 82 | 55 | 80 | 48 | 85 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 110 | 78 | 120 | 80 | 120 | 90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 25 | 142 | 95 | 155 | 98 | 150 | 115 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deformation, damage and corrosion | <ul style="list-style-type: none"> Visual check | <ul style="list-style-type: none"> No remarkable deformation, harmful damage and corrosion. | Replace hook | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hook safety block | <ul style="list-style-type: none"> Check by visual and fold and unfold actions | <ul style="list-style-type: none"> can exactly fold inside of the hook No deformation and work flexibly <p style="text-align: center;">Dangerous</p> <ul style="list-style-type: none"> Don't use the hook which safty block is loosing. Otherwise it will lead to death or serious injury accidents. | Replace hook safety block | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hook movements (rotate) | <ul style="list-style-type: none"> Check by visual and rotate by hands  | <ul style="list-style-type: none"> No remarkable interspace between bottom supporting and top. equal at right and left. easy to rotate 360°. | Replace hook | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Items | Inspection ways | Standards | Resolutions to deviations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|---|--|----------|---------------|--|----------|--------|--------------|------|-----|-----|-------------|----|-----|-----|-------------|----|-----|-----|-------------|----|-----|-----|--------------|------|-----|-----|-------------|----|-----|-----|--------------|------|-----|-----|-------------|----|-----|-----|-------------|----|-----|-----|-------------|----|-----|-----|--------------|------|-----|-----|-------------|-----|-----|-----|-------------|-----|-----|-----|-------------|-----|-----|-----|-------------|-----|-----|-----|----------------------|
| Limit switch | Check by pushing button | <ul style="list-style-type: none"> Keep operating until upper and lower limit where motor shutdown automatically. | Replace limit switch, Disassemble and clean the limit lever | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Movement confirmation | <ul style="list-style-type: none"> Check by pushing button | <ul style="list-style-type: none"> Load chain can roll up easily. Move towards the same direction to the button's. Motor shutdown immediately when stop operating. All movements shutdown when push the E-stop button. Push any other buttons can't cause any moves when pushing the E-stop button. All movements back to normal operation when relieve the E-STOP button. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brake | <ul style="list-style-type: none"> Check by pushing button | <ul style="list-style-type: none"> Brake quickly works and bottom hook stop movements immediately when the operation is stopped. <p>(The amount of movement of the load chain is within 2 to 3 rings)</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chain spring | <ul style="list-style-type: none"> Check by visual and measure dimensions  | <table border="1"> <thead> <tr> <th rowspan="2">Model</th> <th rowspan="2">Capacity</th> <th colspan="2">Spring length</th> </tr> <tr> <th>Standard</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>SSDHL 0.5-01</td> <td>0.5t</td> <td>145</td> <td>140</td> </tr> <tr> <td>SSDHL 01-01</td> <td>1t</td> <td>145</td> <td>140</td> </tr> <tr> <td>SSDHL 02-02</td> <td>2t</td> <td>145</td> <td>140</td> </tr> <tr> <td>SSDHL 03-03</td> <td>3t</td> <td>145</td> <td>140</td> </tr> <tr> <td>SSDHL 1.5-01</td> <td>1.5t</td> <td>135</td> <td>129</td> </tr> <tr> <td>SSDHL 02-01</td> <td>2t</td> <td>135</td> <td>129</td> </tr> <tr> <td>SSDHL 2.5-01</td> <td>2.5t</td> <td>160</td> <td>152</td> </tr> <tr> <td>SSDHL 03.01</td> <td>3t</td> <td>160</td> <td>152</td> </tr> <tr> <td>SSDHL 03-02</td> <td>3t</td> <td>135</td> <td>129</td> </tr> <tr> <td>SSDHL 05-02</td> <td>5t</td> <td>160</td> <td>152</td> </tr> <tr> <td>SSDHL 7.5-03</td> <td>7.5t</td> <td>160</td> <td>152</td> </tr> <tr> <td>SSDHL 10-04</td> <td>10t</td> <td>160</td> <td>152</td> </tr> <tr> <td>SSDHL 15-06</td> <td>15t</td> <td>160</td> <td>152</td> </tr> <tr> <td>SSDHL 20-08</td> <td>20t</td> <td>160</td> <td>152</td> </tr> <tr> <td>SSDHL 25-10</td> <td>25t</td> <td>160</td> <td>152</td> </tr> </tbody> </table> | Model | Capacity | Spring length | | Standard | Limits | SSDHL 0.5-01 | 0.5t | 145 | 140 | SSDHL 01-01 | 1t | 145 | 140 | SSDHL 02-02 | 2t | 145 | 140 | SSDHL 03-03 | 3t | 145 | 140 | SSDHL 1.5-01 | 1.5t | 135 | 129 | SSDHL 02-01 | 2t | 135 | 129 | SSDHL 2.5-01 | 2.5t | 160 | 152 | SSDHL 03.01 | 3t | 160 | 152 | SSDHL 03-02 | 3t | 135 | 129 | SSDHL 05-02 | 5t | 160 | 152 | SSDHL 7.5-03 | 7.5t | 160 | 152 | SSDHL 10-04 | 10t | 160 | 152 | SSDHL 15-06 | 15t | 160 | 152 | SSDHL 20-08 | 20t | 160 | 152 | SSDHL 25-10 | 25t | 160 | 152 | Replace chain spring |
| Model | Capacity | Spring length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Standard | Limits | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 0.5-01 | 0.5t | 145 | 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 01-01 | 1t | 145 | 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 02-02 | 2t | 145 | 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 03-03 | 3t | 145 | 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 1.5-01 | 1.5t | 135 | 129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 02-01 | 2t | 135 | 129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 2.5-01 | 2.5t | 160 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 03.01 | 3t | 160 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 03-02 | 3t | 135 | 129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 05-02 | 5t | 160 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 7.5-03 | 7.5t | 160 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 10-04 | 10t | 160 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 15-06 | 15t | 160 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 20-08 | 20t | 160 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSDHL 25-10 | 25t | 160 | 152 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2.2 Unpacking

After unpacking, pls careful check over the appearance of the cable, gear box and motor shell.

Check the quantity of the bellowing items as well.

Every set of our hoist should including the bellowing standard spare parts:

| | |
|--------------------|-------|
| 1. Chain bag (box) | 1pcs |
| 2. Control cable | 1mtrs |
| 3. Button switch | 1pcs |

2.3 Supply voltage



NOTICE

If the supply voltage exceeds $\pm 10\%$ compare to the standard voltage, operation may cause damage to the motor under this abnormal voltage. Thus operator have to confirm whether the power supply voltage within the operating range of the standard firstly before operating the hoists.

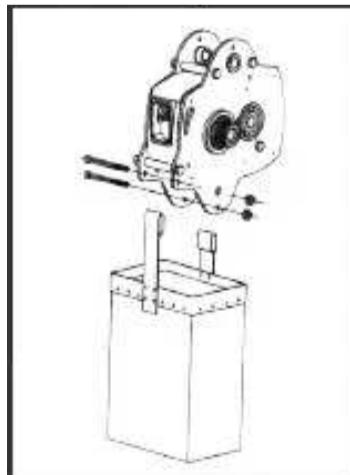
2.4 Installations



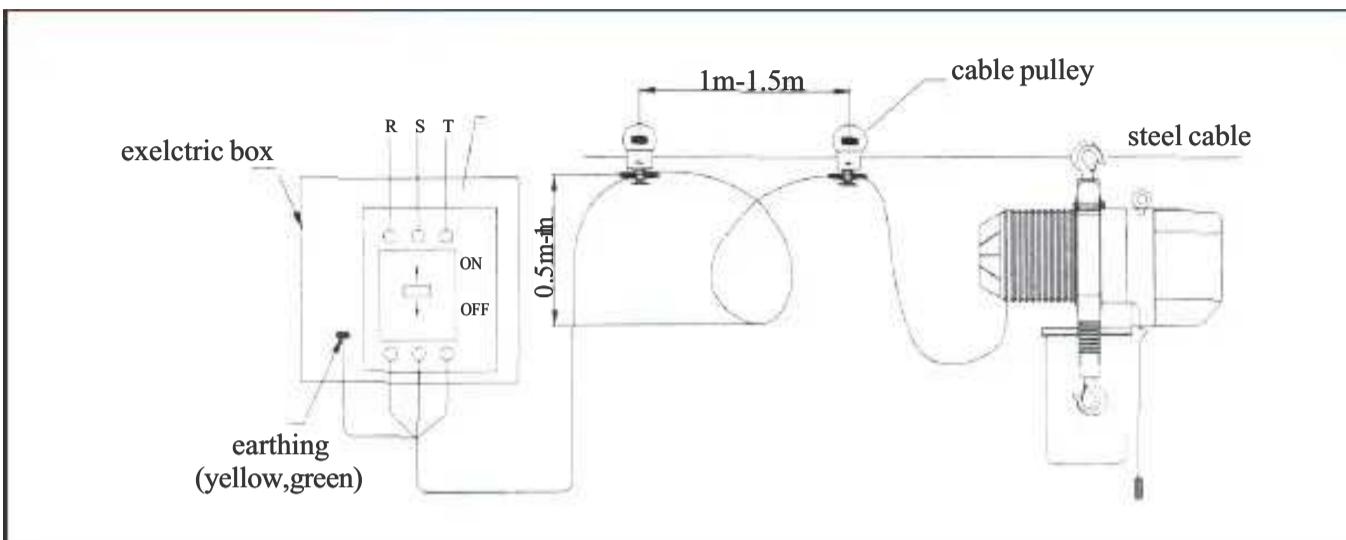
CAUTIONS

Strictly prohibited connecting to the power before the completion of the installation process.

(1) Chain bag assembly



- (2) Switch on the power supply to the hoist and operate the push button (operated by professional).



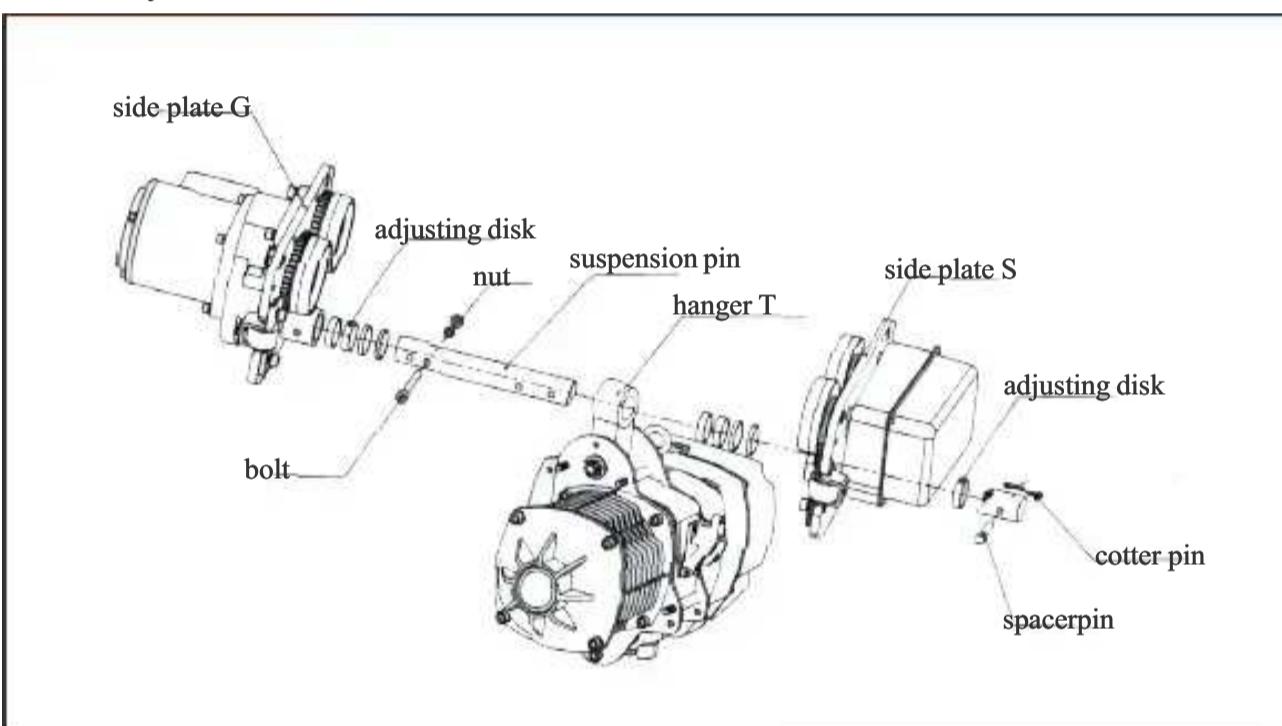
(3) Operation test

- (a) Press the button indeed, let the hook down until the limit spring touches the limit switch, the motor will stop automatically.
- (b) Press the button indeed until the chain is collected into the chain bag completely, and the motor stops.
- c) Test the function of the emergency stop switch (if the optional emergency stop switch is purchased) Press or button, meanwhile press the emergency stop switch. Check if the hoist stop running immediately or not after press the emergency stop switch, and make sure the hoist can not be started again when press this button. Rotate the emergency stop switch clockwise, make the emergency switch back to the original place. When it bounces back, the hoist can be started again. If any of tests above is failed, please check the distribution circuit and the automatic locking of the emergency switch.
- (d) Check the lubricating condition of load chain (the load chain has been lubricated before delivery, but could be dried when delivery). Any lubricant you have can be used to lubricate the chain. We suggest that infunde a little of lubricant into the chain bag to protect the load chain.
- (e) Check the directiona of the chain eyes. All welding points should be of the same direction. The hoist can not be operated properly and utterly unless all welding chain eyes are in the same line.

2.5 Installation of the trolley

(1) Install the trolley

- 1) Insert the suspension pin into the lateral plate G and lock it with suspension pin bolts and nuts.
- 2) Install the suspension pin with adjusting disk.
- 3) Install the suspension pin into the hanger T. The nameplates of hoist and trolley should be in the same direction.
- 4) Install more gaskets into the suspension pin before insert it into the lateral plate S.
- 5) Install the outside adjusting disk and spacerpin into the suspension pin, and insert the cotter pin info the spacerpin. When install the spacerpin, check if the cotter pin can be seen at the left side from the front of the trolley switch box.



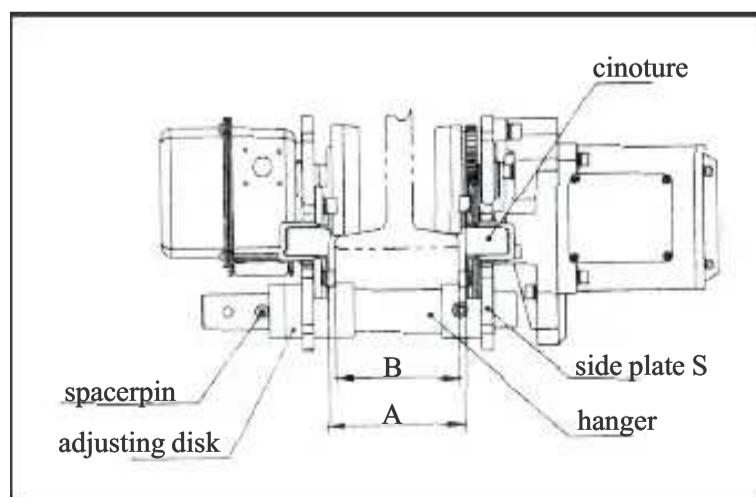
(2) Adjust width of the trolley

Please adjust width of the trolley according to below drawing to get appropriate clearance.

Size A is the dimension when two side plates stretch outside completely.

Size A must be approximate B (the width of rail flange) +4mm.

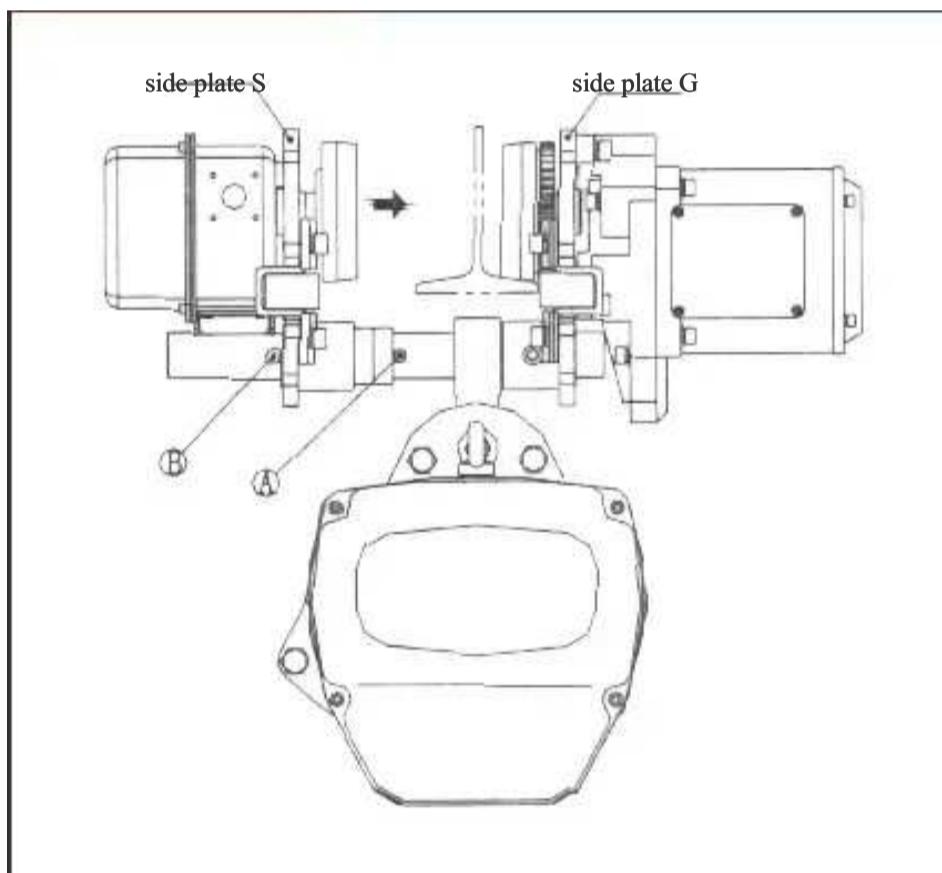
Please adjust size A by increasing or decreasing adjusting disk. Insert the cotter pin into the spacerpin and bend two branches of cotter pin if the size A is ok.



The nut must be fixed and strong, insert cotter pin and bend it completely.

(3) Install trolley into the beam.

- 1) Install the trolley at the end side of the beam and than slip the trolley which has been connected with hoist already to the appropriate place. This is the most convenient method.
- 2) If first method is unavailable, please follow drawing 5-9.
 - a) Unload the brake stopper from hole A on the suspension pin, and insert it into hole B. Insert cotter pin again and bend it completely.
 - b) Pull the side plate S and G outside then lift the trolley until the orbit wheel and orbit surface is in the same horizontal. Put the orbit wheel of side plate G onto the surface of the orbit.
 - c) Hold the side plate G and stop it from dropping from the orbit. Push side plate S harder and put its orbit wheel onto the surface of the girder.
 - d) Unload the brake stopper from hole B and insert into hole A. Do not forget to bend the cotter pin.



Chapter 3 Problems and Solvements

3. Fault Resolution

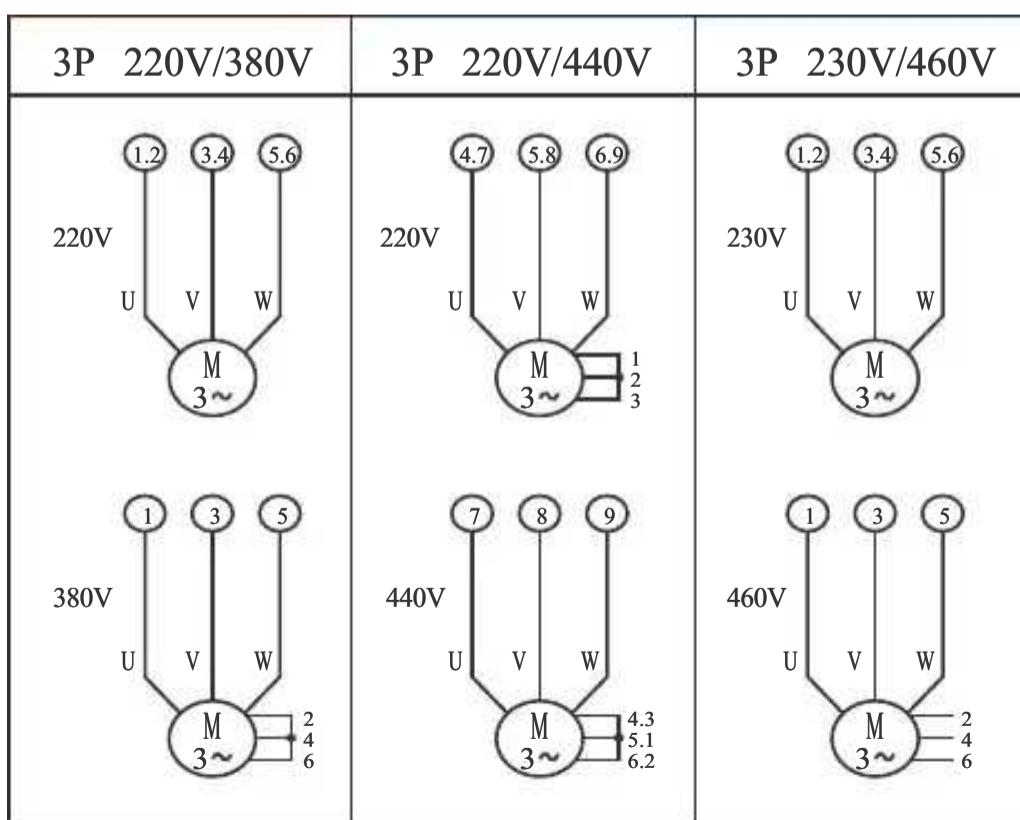
3.1 Wiring Diagram

| | |
|--|----|
| (1) 2 directions wiring diagram for single speed----- | 15 |
| (2) 4 directions wiring diagram for single speed----- | 16 |
| (3) 6 directions wiring diagram for single speed----- | 17 |
| (4) 2 directions wiring diagram for double speeds----- | 18 |
| (5) 4 directions wiring diagram for double speeds----- | 19 |
| (6) 6 directions wiring diagram for double speeds----- | 20 |
| (7) wiring diagram for single phase motor----- | 21 |

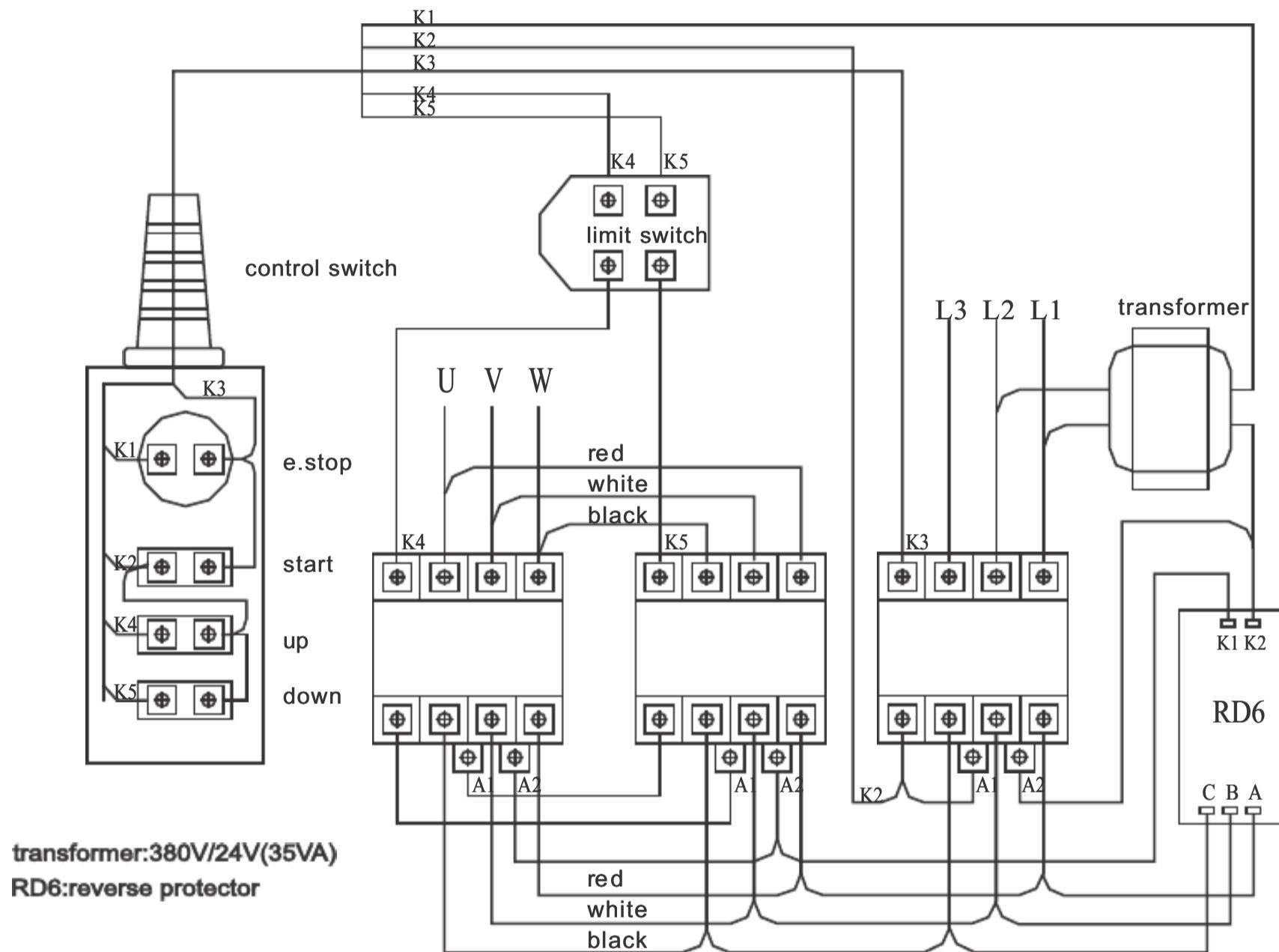
The above mentioned wiring diagrams above are only for reference, user should take the one inside the electric box as the proper one.

The electric specifications can be made according to the follows:

- (a) 3 phase
- (b) Frequence
- (c) Single or double voltage

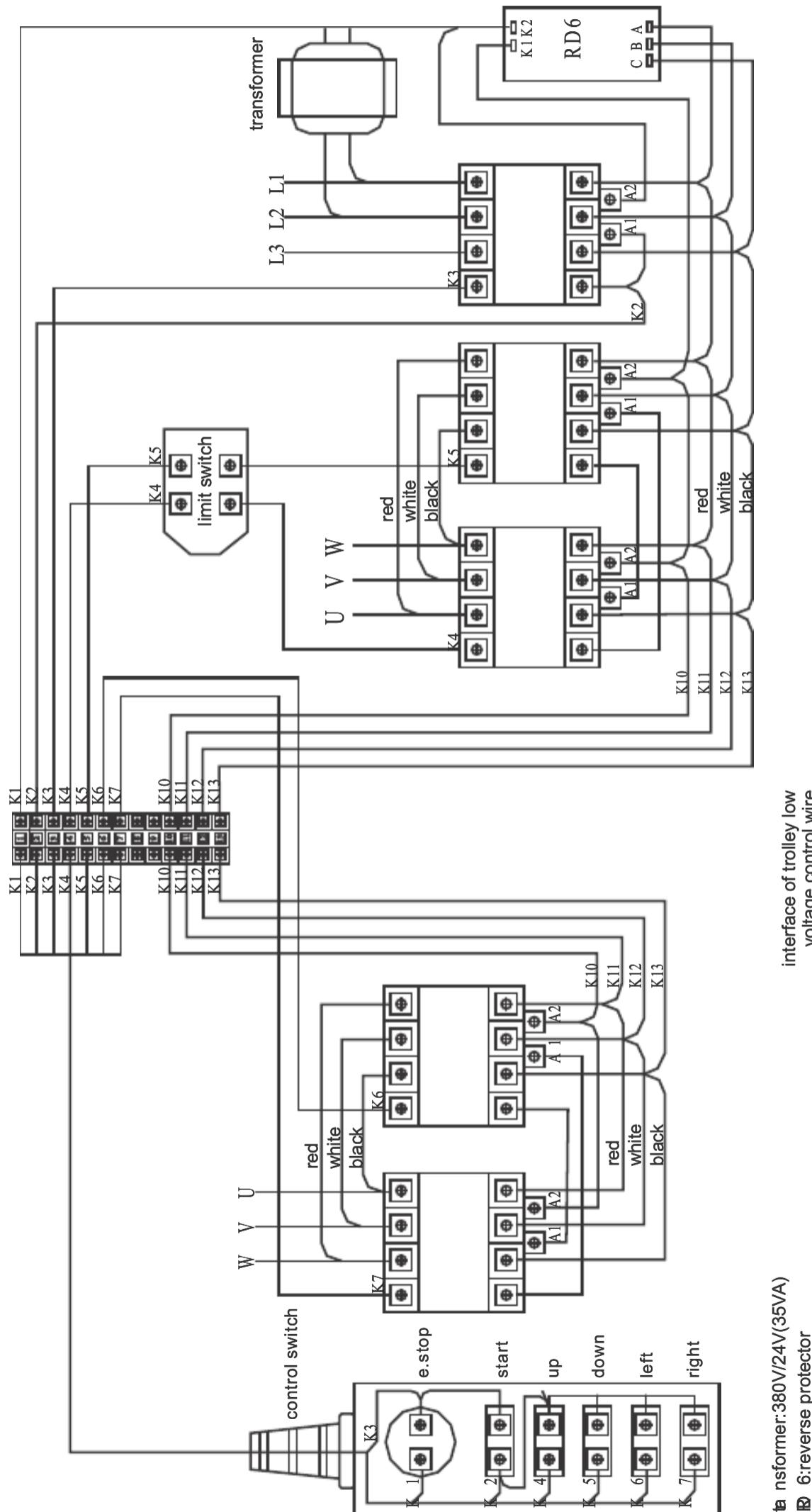


(1) 2 directions wiring diagram for single speed



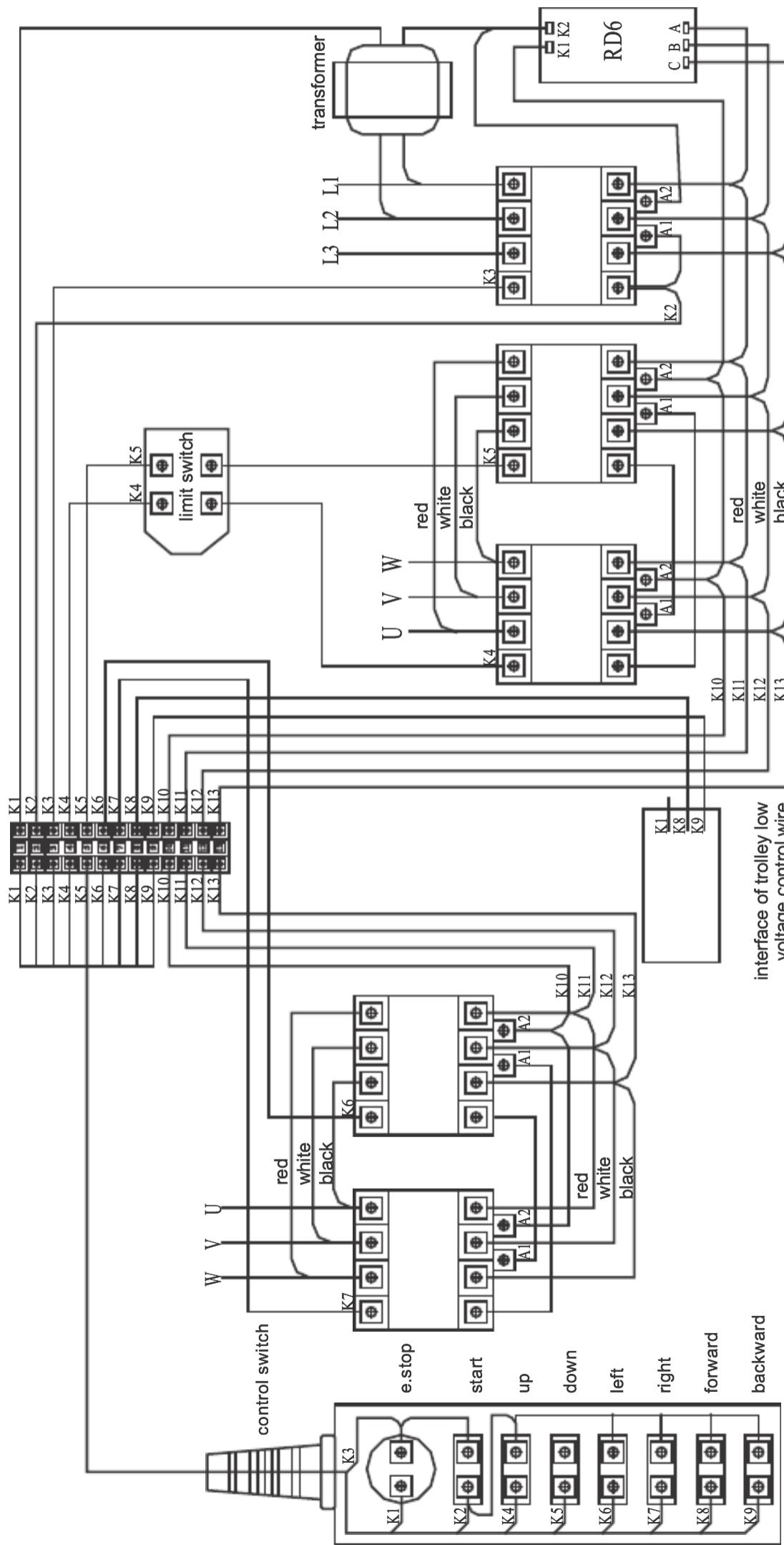
“e.stop” means emergency stop

(2) 4 directions wiring diagram for single speed

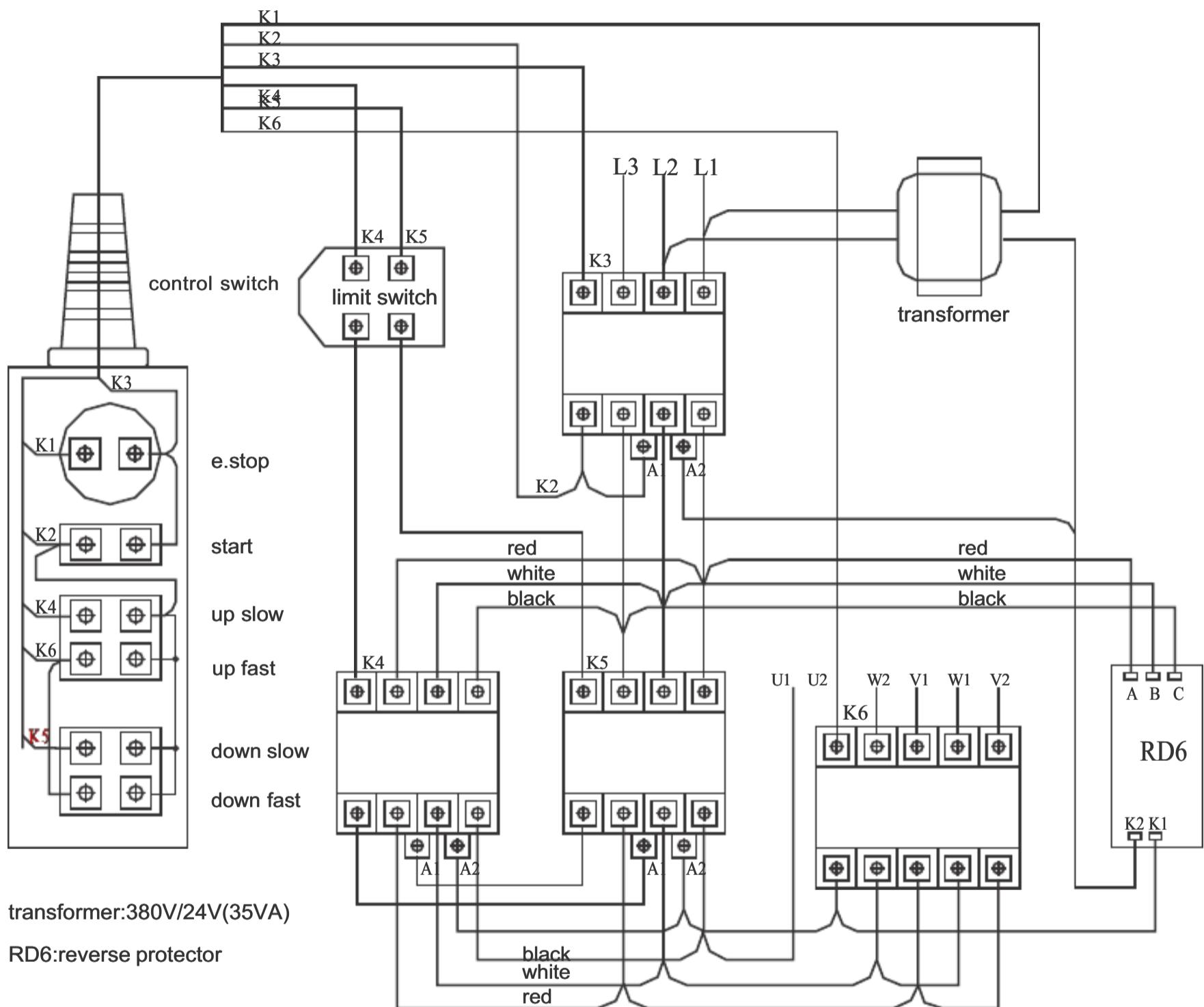


Transformer: 380V/24V(35VA)
RD6: reverse protector

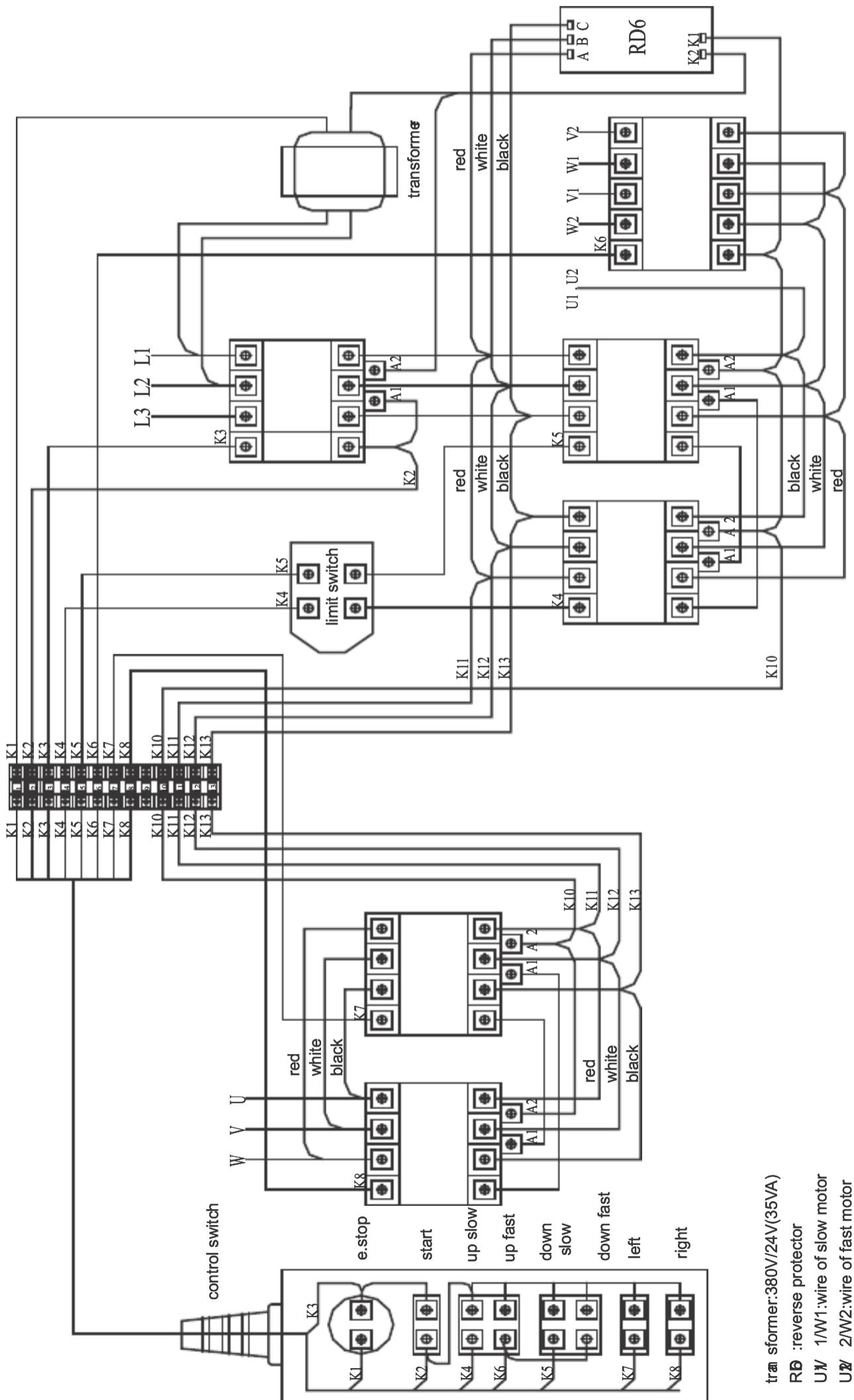
(3) 6 directions wiring diagram for single speed



(4) 2 directions wiring diagram for double speeds



(5) 4 directions wiring diagram for double speeds



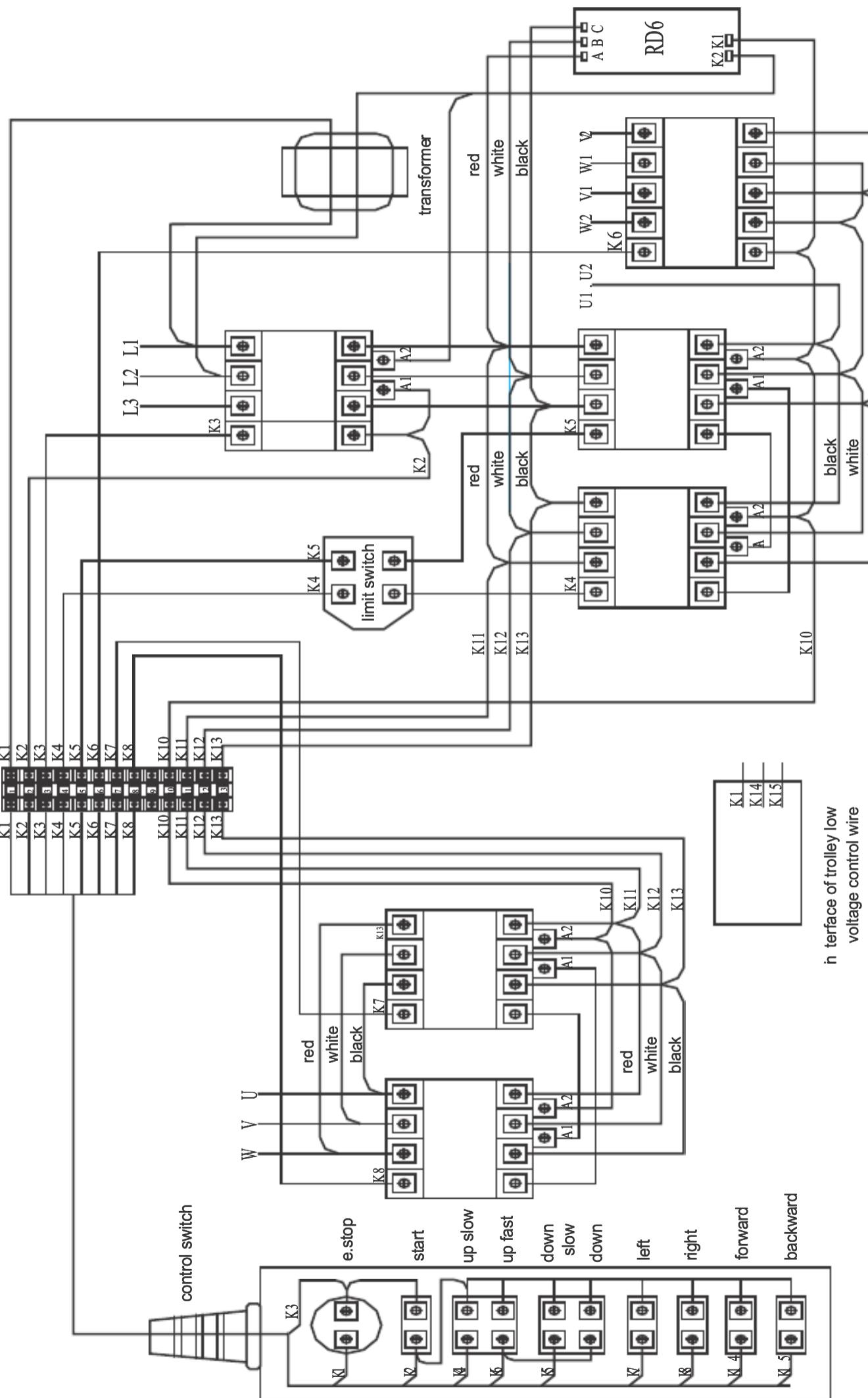
transformer: 380V/24V(35VA)

RD :reverse protector

UW 1W1:wire of slow motor

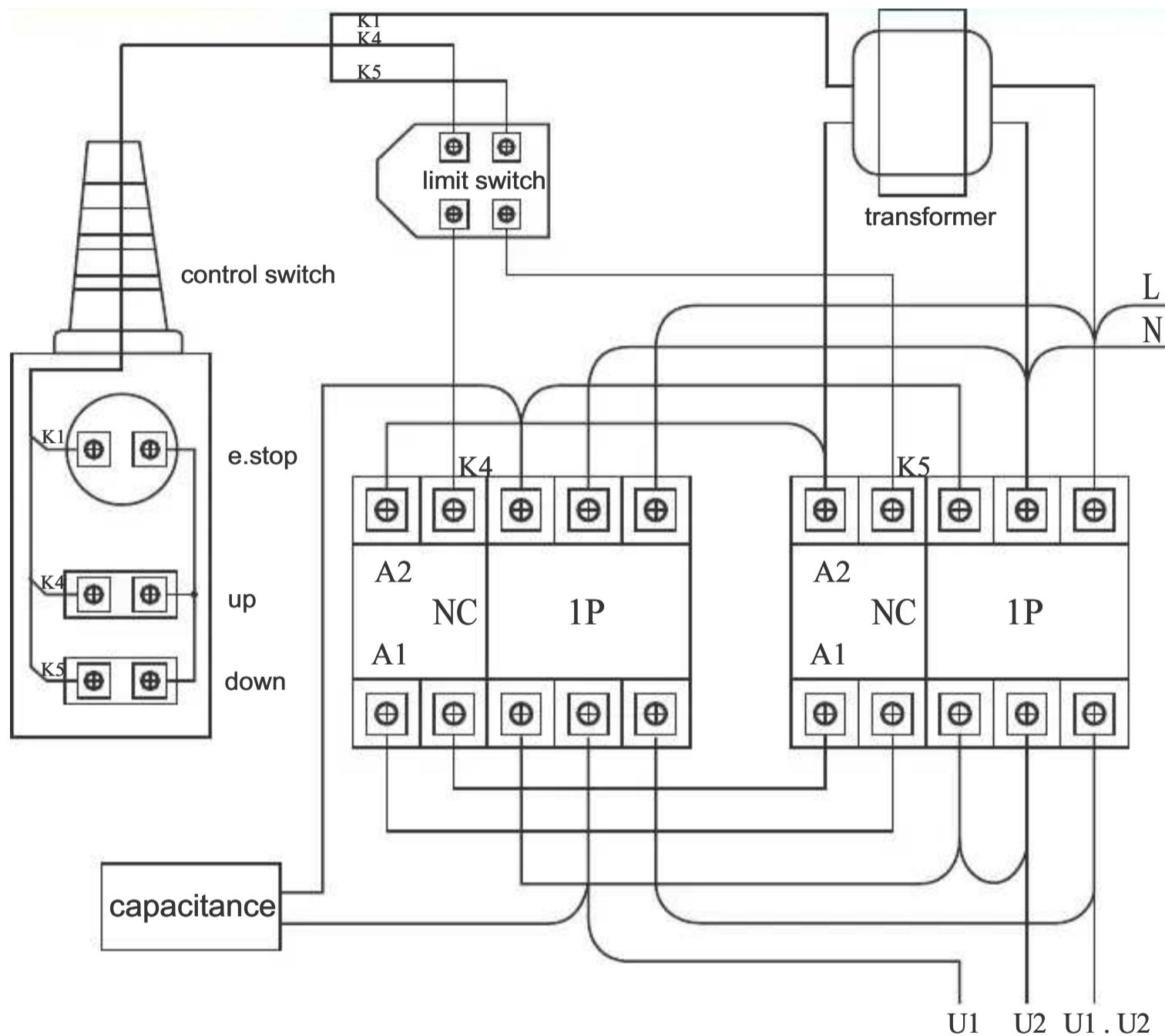
U2W2:wire of fast motor

(6) 6 directions wiring diagram for double speeds



transformer:380V/24V(35VA)
R D6:reserve protector
U 1/V1/W1:wire of slow motor
U 2/V2/W2:wire of fast motor

(7) wiring diagram for single phase motor



transformer:220V/24V(35VA)

3.2 Reason of faults and inspection

| Faults | | Major Cause | Check Items | Remarks | | |
|------------------------------------|---|--|--|----------------------------|--|--|
| Can not operate in non-load state | Brake in soundless | Contactor is soundless | Exceptional voltage | Power | | |
| | | | Fault of operating circuit break-off, electric parts overburning | Power supply | | |
| | | | | Inner wiring | | |
| | | | | Contactor | | |
| | | | | Transformer | | |
| | | Contactor is soundable | Fault of power circuit break-off, overburning motor, brake | Up and down limit switch | | |
| | | | | Button switch | | |
| | | | | Motor | | |
| | | | | Brake | | |
| | | | | Inner wiring | | |
| | Brake in soundable | Overburning of driving part's broken bearing | Contactor(junction fusing) | Contactor(junction fusing) | | |
| | | | | Gear, joint | | |
| | | | | Bearing | | |
| Can operate in non-load state | Can not lift up (motor roar) | | DefaultPhase (single phase operation) | Power | | |
| | Can lift up but very slow | | | Feed power | | |
| | Different reaction from the button (inverse reaction from the button) | | | motor | | |
| | No reaction after pressing the button | | | Contactor(junction fusing) | | |
| Different reaction from the button | Noise of brake | Anti-phase wiring | Feed power | | | |
| | | Wrong wiring | Inner wiring | | | |
| | | | Button switch | | | |
| | | Wire break of operated circuit | Inner wiring | | | |
| | | | Button switch | | | |
| | | Fault of electric installation parts | Contactor | | | |
| | | | Up and down limit switch | | | |
| | | | Contactor | | | |
| | | | Brake | | | |
| | | | Feed power | | | |
| | | | Inner wiring | | | |
| | | | Burron switch | | | |
| | | | Load chain | | | |
| | | | Load pulley, bare pulley | | | |
| | | | Gear, joint | | | |
| | | | Bearing | | | |
| | abnormal noise of rail curve (grating) | Running (grating) | Drag | Brake | | |
| | | Stop | Wear of friction plate | Brake | | |
| | Obstruction of orbit/wheel | | Operation of trolley | | | |

| | Trouble description | Reason | Inspection Items | Remarks |
|---|--|--|----------------------|---------|
| Can not move in horizontal | | Rail declining | Trolley movement | |
| | Electric trolley /manual trolley | Inclined pull (wheel is) | Trolley movement | |
| | Electric trolley /manual trolley | Gear occlusion problem | Trolley movement | |
| | Electric trolley /manual trolley | Brake fastening | Trolley movement | |
| | Electric trolley | Electric faults | Trolley movement | |
| Move at "S" way and along with abnormal noise | Electric trolley /manual trolley | Rail & wheel's | Trolley movement | |
| | | Side wheel lack oil | | |
| | | Wheel uneven wear | | |
| | | Wheel deformation | | |
| | | Rail deformation,wear | | |
| | | Bearing aging | | |
| | | Brake wear | | |
| Hook | | deformation | hook | |
| Load chain | | Wear,extension,deform | Load chain | |
| Electric shock once touching the machinery body or control switch | | Imperfect earth,cabe break-off | Electric Hands | |
| The hoist can not operation in non-loaded state | Brake is not soundable | Supply power voltage | Supply power voltage | |
| | | operating circuit break-off,electric parts overburning | Cables | |
| | | | Wiring inside the | |
| | | | Transformer | |
| | | | Electrical relay | |
| | | | Limit switch | |
| | | | Push-button switch | |
| | | Braking interval too large or small. | motor | |
| | | | Brinking | |
| | | Tripping as motor too heat | Thermal protector | |
| The movment did not coincident with as switch button | The movment did not coincident with as switch button | Bearing burning out,driving component wearing | Gea, top sub | |
| | | | Bearing | |
| | | Voltage drop | Feed cable | |
| | | Low voltage | Supply power | |
| | | Voltage drop | Feed cable | |
| | | Motor wires inverse | Motor | |
| | | Connection Error | Wiring inside the | |
| | | | Push-button switch | |
| | Operation all the switch button,the hoist did not work | operating circuit break-off | Wiring inside the | |
| | | | Push-button switch | |
| | | Electrical installation fault | Limit switch | |

3.3 Trouble & Measures

Supply Power:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurment |
|--------------|-------------------------|---|----------------------------|----------------------------------|
| NO Operation | supply voltage abnormal | Check the power supply, when each phase voltage abnormality | power supply extraordinary | Check the power supply regularly |

Power Cable:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurment |
|---|-----------------------------|--|-------------------------------------|---------------------------------------|
| NO Operation | Wire break (2 or more) | Check the wire continuity,wastage and the pressure welding terminals, Repair or change the cable if abnormal | Strong force exerted | Firmly fixed on the cable support or |
| | | | Not use the anti vibration cable | Use the anti vibration cable in |
| | | | Twisted,knotted | No twisted, no knotted |
| | | | Interference other equipment | Used the fixed cable in the case of |
| | Overburning (2 or more) | Check the cables, Exchange the it if it is overburning | Temperature rise caused by | Adopt the proper cable |
| | | | Binding cable used | Do not use the |
| Starting slow or No operation | Off-capacity | Check the suitability of the cable dia, replace the cable if the Dia is | Voltage drop caused by Off-capacity | Adopt the proper cable |
| Operation only in free load (Single-phase) | 1 wire break or overburning | To refer to above break or overburning item | | |
| The movement did not coincident with as switch button | Power line connection error | Replace 2 wire | Wiring assembly error | connecting wire as per wiring diagram |

Motor:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurment |
|--------------|------------------------------|--|--|--|
| NO Operation | Coil burning (above 2 phase) | Measure phase resistance value; change the motor if all the value is infinite. | Over-current caused by over-voltage, low | Operation under Rated voltage |
| | | | Over-current caused by over load | Operation under Rated voltage |
| | | | Beyond the short-term rating and intermittent cycle | Confirmed that short-term rating, intermittent cycle |
| | | | Micro-Motion over, reverse braking operation (Starting | Do not over-operation |

| | | | | |
|---|--|--|---|--|
| | | | Over-current caused by daggling brake | Refer to brake |
| leading wire break (above 2 phase) | Measure phase resistance value; change the motor if all the value is infinite. | leading wire break | Do not infibulate | |
| | | | Vibration ,Drop | Avoid large bumping in useing |
| Operation only in free load (Single-phase state) | Coil burning (1 phase only) | Measure phase resistance value; change the motor if infinite value exist | hierarchical Short circuiting caused by wire low insulation | Do not mix foreign matter into the motor |
| | leading wire break (1 phase only) | Measure phase resistance value; change the motor if infinite value exist | leading wire break when assembly | Do not infibulate wires when assambly |
| | | | Vibration ,Drop | Avoid large bumping in useing |

Brake:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|--------------|---|--|--|--|
| NO Operation | Braking Coil burning | Measure brake phase resistance value; change a brake if all the value is infinite. | Over-current caused by over-voltage, low Micro-Motion over, reverse braking operation (Starting) | Operation under Rated voltage Do not over-operation |
| | | | Over-current caused by over load | Operation under Rated voltage |
| | | | Micro-Motion over, reverse braking operation (Starting) | Confirmed that short-term rating, intermittent cycle |
| | | | Over-current caused by operation in single phase state | As In the single-phase operation can not load lifting.please |
| | Friction plate waste (beyond brake magnetism) | Measure brakespace, replace one if the space is over the use limit | Over Micro-operation | Do not over-operation |
| | Brake wire break | make sure wire is connected, replace it when disconnect | leading wire damaged when asamby | Do not infibulate wires when assambly |
| | Brake wire insert terminal bad | Repace the insert terminal when it loose | Bad combination when assambly | Effective combination when assambly |
| | Rust | Replace a brake when insensitivity | unused in Humidity environment | use it regularly |
| | Friction plate waste | Measure brakespace, replace one if the space is over the use limit | condensation | Pay attention when use it in the |
| | | | Over Micro-operation | Do not over-operation |

Inside wiring:

| Condition | Reasons | Confirmation & solvement | Main occurrence reasons | Measurement |
|--------------|--|--|--|---|
| NO Operation | Break | Check the cable. Repair it when wire break | Vibration,drop Leading wire damaged when assembly Connector did not pressed well | Avoid large bumping in useing |
| | | Check Connector, Repair it when wire break | | Do not infililate Wires when assambly |
| | Wiring error | Refer to wiring diagram,properly connected | | Press it by the appropriate tool |
| | | Fastenting | Wiring error Bad fastenting | Refer to wiring diagram,properly connected Effective fastening |
| | Connector screws loose (overheat burning) | Effective Combination | | Avoid large bumping in useing |
| | Connector, insert terminal bad combination | Effective Combination | Bad combination when assembly | Effective Combination |

Transformer:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|---------------------------------------|--------------------|---|---|-------------------------------|
| NO Operation (Contactor No operation) | Coil burning,break | Measure coli resistance value; Change a transformer if the value infinite. | Oversvoltage | Operation under |
| | | | Micro-Motion over, reverse braking operation (Starting) | Do not over-operation |
| | | | Over-current caused by | Refer to contactor Items |
| | | | Vibration ,Drop | Avoid large bumping in useing |
| | Wire break | Check leading wire,Repair or change transformer if wire break | Vibration ,Drop | Avoid large bumping in useing |

Contactor & electric reply

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|--------------|---------------------------|--|---|-------------------------------|
| NON-STOP | Junction welding,burn out | Star manual operation of the contactor, For contactor,Change one if continuous welding or burn out.; For Electric reply, Visual inspection of the Junction | Micro-Motion over, reverse braking operation (Starting) | Do not over-operation |
| | | | Oversvoltage | Operation under |
| | | | Overcurrent cased by overload | Operation under Rated voltage |
| NO Operation | Coil burning, | Measure coli resistance value; Change coli if the value infinite. | Micro-Motion over, reverse braking operation (Starting) | Do not over-operation |

| | | | | |
|-------------------------|---|-----------------|--------------------------------|-------------------------------|
| | | | Overtoltage | Operation under |
| | | | Shakeing caused by low voltage | Operation under Rated voltage |
| Moveable parts breakage | Star manual operation of the contactor, For contactor replaced it when the action is not smooth; For Electric reply,visual inspect if | Vibration ,Drop | Avoid large bumping in useing | |

Limit switch:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|---|--|--|---|---|
| NO Operation (Contactor No operation) | Contact fused | Operate the limit switch, Check the continuity of contactor, replace it if the result is negative | Limit switch used frequently | Do not use limit switch frequently |
| | Wire break | Inspect the cable, change it if wire break or replace limit switch | Vibration ,Drop | Avoid large bumping in useing |
| | Moveable part rusting (moveable part) | Check the movable part, like limit lever, Remove rusty or repalce it if it geting ashessive. | Place up/down limit for long time | Don not be placed in up/down limit |
| Motor did not stop even reach in Upper and down limit | Contact fused | Operate the limit switch, Check the continuity of contactor, replace if it can not stop | Limit switch used frequently | Do not use limit switch frequently |
| | Moveable part rusting | Check the movable part, like limit lever, Remove rusty or repalce it if it geting ashessive. | Not using; use in moisture places more. | Regular Checking |
| | Wiring error | Reference to the wiring diagram, if the limit switch cable is properly connected, then that is the reverse | Wiring error | Properly connect the line as per wiring diagram |

Push-button switch:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|--|-----------------------------|--|--|--|
| NO Operation (Contactor No operation) | Emergency button is pressed | If the emergency button is pressed, Turn right the button to recover. | Forgort to recover the emergency button state. | Reading "Push-button switch operationguid" First |
| | Switch gear fault | Check whether the conduction contacts, replace the switch if it is off | Vibration ,Drop | Avoid large bumping in useing |
| | Wireing break | Check if the button cable is correctly connected to the switching | Vibration ,Drop | Avoid large bumping in useing |
| | Terminal screw loose | Tighten it when loosing | Vibration ,Drop | Avoid large bumping in useing |
| | Button cable wire break | Check if it breakover. Replace a cable or button cable when wire break | Cable coating damaged | Do not touch with other equipment |
| | | | Cable forced acaused by protection line | Install protection line Firmly |

| | | | | |
|---|--------------------------------|--|-----------------|---|
| The action did not in accordance with display | Wiring error | Reference to the wiring diagram, if the limit switch cable is properly connected, then that is the reverse connection. Swap 2 wire power cords | Wiring error | Properly connect the line as per wiring diagram |
| Did not Stop even release button | Switch gear part bad restoring | Replace switch when it is not smooth. | Vibration ,Drop | Avoid large bumping in useing |

Electric shock:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|--|-----------------|---|--------------------------|---|
| Electric shocked once touching machinery or control switch | Imperfect earth | Measuring earthresistance, Groundwire need to be assembled if the earthresistance below 100 | Groundwire | Groundwire connect |
| | | | Groundwire bad conection | Assemble firmly to prevent screw |
| | | | Cable break | Do not apply excessive force on the cable |
| | Waterdrop | Clean drop first, using it after dry | Wet hands | Do not operation |

Hook:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|--------------------------|-------------------------|---|---|---|
| Hook mouth open | Hook deformation | Replace hook if the deformation beyond permitted range. | Overload | Operation under |
| | | | Lifting (ie hook lift sth. connected with earth) | Do not lift ground object. Do not let the hook hooking |
| | | | The load hanging on the hook head; hook is pull | Lifting load with hook central |
| | | | Hanger suspension errors | Lifting angle must be controled wihin |
| | | | Hanger size is inappropriate with | Using proper hook |
| Hook twist | | | Chain wrapped around the load | Do not wrap chain directly |
| Head part rotating rough | Bearing rust, corrosion | Hand rotation; maintain or replace if rotating rough | Inadequate of grease lubricant;corrosion caused by useing | Apply grease lubricant regularly; prevent the hook contamination of |
| | Bearing damage | | Dust | Prevent foreign matter entry head |

Load chain:

| | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|---------------|--------------------|--------------------------|--|--|
| Chain twisted | bottom hook upturn | Restitute the hook state | Rotate the bottom hook once during working | Check the hook state before operation, when it is multiple |



ELECTRIC CHAIN HOIST

| | | | | |
|--|------------------------------------|--|---|--|
| | Chain twisted in Machinery body | Remove the chain guide, load chain. Re-assemble it. | Improper assembly | Assembly properly |
| Limit switch sudden work when decline | Chain twisted or knot in Chain bag | Confirm the chain bag capacity (Chain bag nameplate), replace a larger one if capacity insufficient | Chain bag inadequate capacity | Confirm the lifting height and chain bag capacity first |
| Crackling sound | Change damage | Measuring wearing of the chain link diameter .Replace it when upto the wear limit | Operation under no grease lubricant long time | Apply grease lubricant regularly |
| spring's knocking sound (cracking sound) | the wear of link part | Measure the diameter on the wear of chain, and replace when arriving at the wear boundary. (referring to P67) | excessive budge operation | Do not do the excessive operation |
| | | | overload | Used under the rated load |
| | | | pull inclinedly | Don't pull inclinedly |
| | | | The wear of load pulley and empty pulley | referring to the item of load pulley and empty pulley |
| irregular abnormal sound | extension of the pitch | Measure the pitch, and replace when exceeding the limit value. | overload | Used under the rated load |
| | | | use under the transition situation | Use under the models with multiple chain |
| | | | Chain usies under the Distortions | Assemble Correctly |
| discoloration and lackluster surface | Rust, corrosion | Remove rust, daub lubricants, and replace when obvious rust and corrosion occurring | strongly hit with other equipments | Pay Attention to the surrounding environment when use to avoid the collision |
| | | | Lubricant exhausted | daub lubricating oil Regularly |
| | | | use under the rain environment | keep it under the indoor situation or places with ponchos |
| | | | influence by seawater and chemical reagent | please inform us if used in the special circumstances, and used correctly in the safeguard range |



ELECTRIC CHAIN HOIST

| | | | | |
|----------------------|-----------------------|--|-----------------|--|
| Load chain fractured | Reaching service life | Check the chain, and replace the equipments which deviate from the specifications. | Mechanical life | operate correctly and manage properly including daily inspection, regular check. |
|----------------------|-----------------------|--|-----------------|--|

Chain Wheel:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|-------------------|---------------------|--|--|--------------------------------|
| The sound of DaDa | Wear of chain wheel | Check the wear degree on the chain wheel slot and load chain, and replace it if it badly worn. | long use under the condition with grease oil exhausted n, and achieve using life | daub lubricating oil Regularly |
| | | | excessive budge operation | Do not do the excessive |
| | | | overload | Used under the |
| | | | pull inclinedly | Don't pull inclinedly |

Load pulley and empty pulley:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|--|----------------|--|--|--------------------------------|
| spring's knocking sound (cracking sound) | Wear of pulley | Measure the slot edge thickness and load chain, and replace it if it badly worn. | long use under the condition with grease oil | daub lubricating oil Regularly |
| | | | excessive budge | Do not do the |
| | | | overload | Used under the |
| | | | pull inclinedly | Don't pull inclinedly |

Chain Guide:

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|------------------------------|--------------------------------------|--|-----------------|-----------------------|
| Shaking degree become bigger | Wear of chain guide and guide pulley | Measure the benchmark size and load chain, and replace it if it badly worn and exceeding the limit size. | pull inclinedly | Don't pull inclinedly |



ELECTRIC CHAIN HOIST

Chain Wheel: Junction Part

| Condition | Reasons | Confirmation & solvement | Main occurrence | Measurement |
|---------------------|----------------|--|--|--|
| Couldn't lift loads | wear, breakage | Replace it when obvious wear or breakage occur | long time of use under the condition of insufficient lubricant | Abide by the change cycle of lubricating oil |
| | | | long time of use under the condition of insufficient lubricant (the joint part of motor shaft) | daub lubricating oil When inspect annually |
| Irregular operation | wear, breakage | | limiti switch used too frequently | Don't use the limiti switch too frequently |

Bearing:

| Condition | Reasons | Confirmation & | Main occurrence | Measurement |
|---------------------|---------------------|---------------------|---|--|
| Couldn't lift loads | Sintering, breakage | Replace the bearing | Under the environment of high temperature or high frequency usage | Avoid to use under the environment of high temperature or high frequency usage |
| Abnormal sound | Aging | Replace the bearing | | |

Trolley:

| Condition Reasons | Reasons | Confirmation & solvement | Main occurrence reasons | Measurement |
|---|--|---|---|----------------------------|
| Couldn't be drived because of the wheel skid | Rail tilt | Confirm the rail slope is within 1 ° | Rail Settings is not good | Set up the orbit correctly |
| Couldn't be drived because of the wheel skid or cannot be drived isokinetically | oil adhere above the orbit wheel tread. | Clean the sundries | use under the environment with easy adherent sundries | clean the orbit regularly |
| friction sound when travelling on the curve track | The friction resistance between the wheel and rail | Daub the thin lubricating oil on the track tread of abnormal sound. | | |



ELECTRIC CHAIN HOIST

| | | | | |
|---------------------------------------|---|--|--|--|
| Couldn't be driven on the curve track | interference of the curve track and trolley | Confirm that orbit curve's radius is minimal bending radius | used on the curve track of exceeding the limit value | Don't use on the on the curve track of exceeding the limit value |
| Wheel rised and couldn't be driven | pull inclinedly (Wheel rised) | | Operation method | Correct use |
| wheels stopped revolving | Gear's bite is bad | Remove the things between wheel andd gear | Use environment | Confirm regularly |
| abnormal sound | The adjustment of adjust circle is bad | Confirm adjustment circle number and insert position | Insufficient confirmation | Install correctly |
| | Wear of wheel | Confirm wear degrees | The travelling surface has bumps | Confirm regularly |
| | Deformation of whee | Confirm the wheels'bending and surface damage | peneumatied device collided excessively, the travelling surface has bump | Replace and use correctly |
| | aging of wheel bearings | confirm whether gu long gu long sound exist when the wheel rotates | Reach service life | Replace |
| | the deformation and wear of track | Confirm rail wear and deformation | Overload or reach service life | Replace and use correctly |

Electric Trolley:

| Condition Reasons | Reasons | Confirmation & solvement | Main occurrence reasons | Measurement |
|--------------------------|--------------------------|---|-------------------------|-------------------|
| wheels stopped revolving | Brake gelling | open the motor cover,and remove rust and dirt | Use environment | Confirm regularly |
| | electric fault | Refer to the items of electric chain hoist | | |
| abnormal sound | wear of edge guide wheel | Confirm wear degrees | Reach service life | Confirm regularly |
| | Wear of friction slices | Confirm wear degrees of friction slices | Reach service life | Confirm regularly |



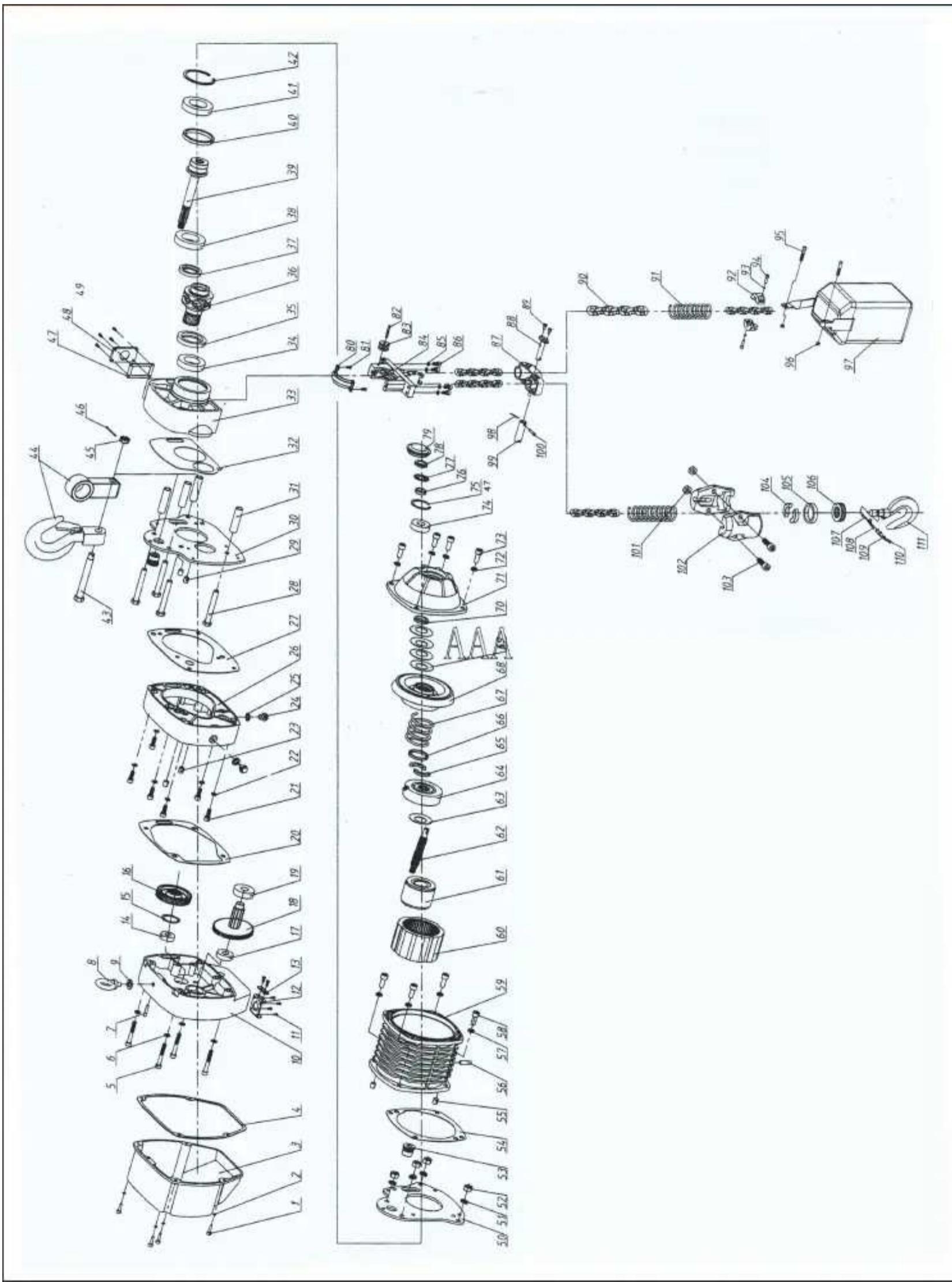
ELECTRIC CHAIN HOIST

Manual Trolley:

| Condition Reasons | Reasons | Confirmation & solvement | Main occurrence reasons | Measurement |
|---------------------------------|---|---|-----------------------------|--|
| Hand chain couldn't be moved | the bite between hand wheel and hand chain is bad | Hang the hand chain right up on the handwheel | Acuteness operation, etc | Replace the worn components with deformation |



TECLE ELÉCTRICO DE CADENA





ELECTRIC CHAIN HOIST

| S/N | PART NAME | QTY | REMARK | S/N | PART NAME | QTY | REMARK |
|-----|-----------------------------|------------|--------|------|--------------------------|-----|-------------------|
| 1 | Hexagonal circular boit | 4 | | 36 | chain wheel | 1 | |
| 2 | spring gasket | 4 | | 37 | Oil seal | 1 | |
| 3 | gearbox base cover | 1 | | 38 | Deep groove ball bearing | 1 | |
| 4 | Gasket of gearbox base | 1 | | 39 | Output shaft assemble | 1 | |
| 5 | Hexagoal circular bolt | 4 | | 40 | Bearing fixed ring | 1 | |
| 6 | Serrated gasket | 4 | | 41 | Deep groove ball bearing | 1 | |
| 7 | gearbox base cover pin | 1 | | 42 | Internal circlip | 1 | |
| 8 | Lifting eyebolt | 1 | | 43 | Hexagonal bolt | 1 | |
| 9 | lifting eyebolt gasket | 1 | | 44 | Ring | 1 | matched by choose |
| 10 | gearbox | 1 | | | up hook assembly | 1 | |
| 11 | Notch countersink bolt | 6 | | 45 | Slotted hex nuts | 1 | |
| 12 | wiring fixing ring | 1 | | 46 | Cotter pin | 1 | |
| 13 | wiring fixing ring fittings | 1 | | 47 | side cover gasket | 1 | |
| 14 | Deep groove ball bearing | 1 | | 48 | side cover | 1 | |
| 15 | Washer on shaft | 1 | | 49 | Hexagonal circular bolt | 4 | |
| 16 | Output gear | 1 | | 50 | Base plate of motor | 1 | |
| 17 | Deep groove ball bearing | 1 | | 51 | spring gasket | 4 | |
| 18 | Gear-gear shaft | 1 | | 52 | Nut | 4 | |
| 19 | Deep groove ball bearing | 1 | | 53 | Bushing | 2 | |
| 20 | Gearbox gasket | 1 | | 54 | Motor case gasket | 1 | |
| 21 | Hexagonal circular bolt | 6 | | 55 | Fitting pin | 2 | |
| 22 | spring gasket | 6 | | 56 | Hexagonal awl bolt | 1 | |
| 23 | Fitting pin | 2 | | 57 | spring gasket | 4 | |
| 24 | Hex bolt | 2 | | 58 | Hexagonal circular bolt | 4 | |
| 25 | Hex bolt gasket | 2 | | 59 | Motor case | 1 | |
| 26 | Middle pieces | 1 | | 60 | motor stator | 1 | |
| 27 | Middle pieces gasket | 1 | | 61 | motor rotor | 1 | |
| 28 | Panles bolts | 4 | | 62 | motor axle | 1 | |
| 29 | Fitting pin | 2 | | 63 | disc spring | 1 | big |
| 30 | gearbox base plate | 1 | | 64 | guide block | 1 | |
| 31 | Connection joing | 4 | | 65 | Two-piece ring | 2 | |
| 32 | connection box gasket | 1 | | 66 | Fixing ring | 1 | |
| 33 | connection box | 1 | | 67 | Brake spring | 1 | |
| 34 | Deep groove ball bearing | 1 | | 68 | Brake assembly | 1 | |
| 35 | Oil seal | 1 | | 69 | disc spring | 4 | small |
| | | | | | | | |
| | | | | | BOM | | |
| SYM | INT. | CHANGE NO. | DATE | SIGN | DWG.SYM. | | |
| DR | | INSP. | APP. | | | | |


ELECTRIC CHAIN HOIST

| S/N | PART NAME | QTY | REMARK | S/N | PART NAME | QTY | REMARK |
|-----|----------------------------------|------------|--------|------|-------------------------------|----------|--------|
| 70 | Rotor gasket | 1 | | 105 | Hook Fixing Ring | 1 | |
| 71 | End cover of motor | 1 | | 106 | Mono directional ball bearing | 1 | |
| 72 | spring gasket | 4 | | 107 | Cross recess head screw | 1 | |
| 73 | Hexagonal circular bolt | 4 | | 108 | Hook spring | 1 | |
| 74 | Deep groove ball bearing | 1 | | 109 | Safty piece | 1 | |
| 75 | Internal circlip | 1 | | 110 | Hexagonal nut | 1 | |
| 76 | Upper gasket of the ring | 1 | | 111 | Bottom hook | 1 | |
| 77 | Locking piece | 1 | | | | | |
| 78 | Screw cap | 1 | | | | | |
| 79 | Rubber cover | 1 | | | | | |
| 80 | Guide sheet iron | 1 | | | | | |
| 81 | Notch countersink bolt | 2 | | | | | |
| 82 | Pulley axle | 1 | | | | | |
| 83 | Guide pulley | 1 | | | | | |
| 84 | Chain guide | 1 | | | | | |
| 85 | spring gasket | 4 | | | | | |
| 86 | Hexagonal circular bolt | 4 | | | | | |
| 87 | Guide bracket assembly | 1 | | | | | |
| 88 | Stop pin assembly | 1 | | | | | |
| 89 | Hexagonal circular bolt | 2 | | | | | |
| 90 | chain | 7pcs | | | | | |
| 91 | Limit spring | 2 | | | | | |
| 92 | chain limit ring | 2 | | | | | |
| 93 | spring gasket | 2 | | | | | |
| 94 | Hexagonal circular bolt | 2 | | | | | |
| 95 | Hexagonal circular bolt | 2 | | | | | |
| 96 | Hexagonal Nut | 2 | | | | | |
| 97 | chain bag assembly | 1 | | | | | |
| 98 | Cotter pin | 1 | | | | | |
| 99 | Connection shaft of limit switch | 1 | | | | | |
| 100 | Pin roll | 1 | | | | | |
| 101 | Hexagonal Nut | 2 | | | | | |
| 102 | Single back-hooking case | 1 | | | | | |
| 103 | Hexagonal circular bolt | 2 | | | | | |
| 104 | Hook Two-piece Ring | 7pairs | | | | | |
| | | | | | BOM | | |
| SYM | INT. | CHANGE NO. | DATE | SIGN | | DWG.SYM. | |
| DR | | INSP. | APP. | | | | |

TXK®

Copyright © 2015. All rights reserved.
Any copying, transferring or any other usage of the contents and the artistic designing is prohibited.
Otherwise our company will have the right to pursue legal responsibilities.