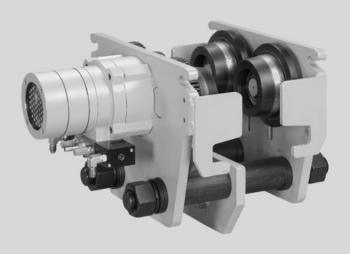


Air Trolley



OPERATION MANUAL
&
PARTS LIST

SERIES:

AT-100 AT-200

□ AT-320 □ AT-630



SAFETY-IMPORTANT

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

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



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



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I. FOREWORD

This manual contains important information to help you properly install, operate and maintain the AT air motor driven trolley for maximum performance, economy and safety.

Please study its contents thoroughly before putting the trolley into operation.

By practicing correct operation procedures and by carrying out the recommended preventative maintenance suggestions, you will be assured of dependable service.

In order to help us to supply correct spare parts quickly, please always specify:

1).Trolley Model, 2). Serial Number and 3). Part Number, as well as the description.

We trust that you will find this AT air motor driven trolley satisfies your requirements. Should you have any queries, please contact:



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

II. OPERATING AND SAFETY PROCEDURES

The following are operating and safety procedures for safe operation of the AT air motor driven trolley. Taking precedence over and specific rules listed here, however is the most importance rule of all. A few minutes spent reading these rules can make an operator aware of dangerous practices to avoid and precautions to take for his own safety and others.

- Immediately after installation, operate trolley with safe working load over the entire length of runway or monorail system to be sure that all adjustments and operations are satisfactory.
- 2. Rail stops must be installed for all trolleys operating on open end beams. These stops must be positioned such that impact forces are absorbed by trolley side frames only.
- 3. When preparing to lift a load, be sure that the attachments to the hook are firmly seated in hook saddle. Avoid off center loading on the point of hook.
- 4. When lifting, raise the load only enough to clear the floor or support and check to be sure that the attachments to hook and load are firmly seated. Continue lift only after you are assured the load is free of all obstructions.
- 5. When applying a load, it should be directly under the trolley. Avoid off center loading of any kind.

- 6. Take up a slack load chain carefully and start lifting load slowly to avoid shock and jerking of hoist load chain. If there is any evidence of overloading, immediately lower the load and remove the excess load.
- 7. Do not allow the load to swing or twist while hoisting.
- 8. Do not load trolley beyond the rated capacity. Overload can cause immediate failure of load carrying parts of cause damage resulting in future failure at less than rated capacity.
- 9. Do not use this or any other overhead materials handling equipment for lifting or transporting people.
- 10. Stand clear of all loads and avoid moving a load over the heads of other people. Warn people of your intention to move a load in their area.
- 11. Do not leave the load suspended in the air unattached.
- 12. Permit only qualified personnel to operate the unit.

III. GENERAL INFORMATION

The AT air motor driven trolley are designed for use with the YSA Air Chain Hoists. The trolleys are available in the following capacities: 1-Ton, 2-Ton, 3.2-Ton, 6.3-Ton These trolleys are similar except for the size of the load carrying members.

The trolleys have rugged steel side plates with anti-drop fins, steel wheel axles, steel suspension bolts, construction steel load plate seated in middle of two suspension bolts for top hook of hoist to hook on. The hot forged travelling wheels machine to suit both I-beam and flat beam. Hardened steel gears are attached to two track wheels and driven by a hardened steel pinion. The pinion is driven by planetary gear reducer in high quality grease. A weather proof motor drive the gear reducer.

IV. INSTALLATION

1. UNPACKING INFORMATION

After removing the trolley from the shipping carton/crate, gear reducer, motor and brake for damage that may have occurred during shipment and handling. Check to make sure all parts are furnished., side frame with reducing gear motor, position tube, spacer washer, stay-bolts, nuts and load plate for hoist top hook.

Generally, the hoist and trolley are packed separately. Except when the order indicates the requirement of 4-way control for the hoist with trolley.



For all trolley suspended hoist rail stops must be installed at each end of the rail. Failure to install rail stops will allow the hoist and trolley to fall off the end of the rail and thus cause an accident that may result in injury and/or property damage. The stops must be positioned as to not exert impact force on the hoist frame or trolley wheels. They must contact the ends of the trolley side frames.

2. TROLLEY TO BEAM

It is recommended that the trolley be mounted on the beam prior to attaching the hoist to the trolley. Before attempting to mount the trolley on the beam, measure the actual width of the beam flange on which the trolley is to operate. Using this measurement determine the arrangement of spacer washers between the two trolley side frames. First loosely assemble the side frames, position tubes, spacer washers and nuts on the stay bolts.

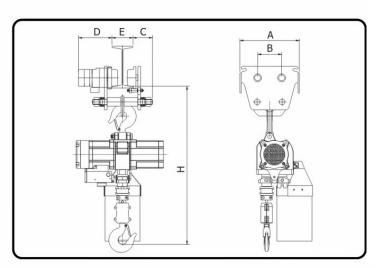
!WARNING

The trolley and beam should be inspected periodically to assure their continued operations. Operating a malfunctioning trolley and/or operation the trolley on a beam with an excessively worn flange may allow the trolley to fall from the beam causing an accident that may result in injury and/or property damage.

Due to the variations in beam flange widths, it is suggested that the beam flange width be measured to determine the exact distribution of spacer washers. The distance between track wheel flanges should be 3-5 mm greater than the beam flange width for straight runway beams, and 5-7 mm greater than the beam flange width if runway includes sharp curves. Now install the trolley on the beam by sliding one side frame out far enough to allow the track wheels to clear beam flange. Lift the trolley up so that the track wheels are riding on the beam and draw the side frames together and tighten the nuts snugly.

3. HOIST TO TROLLEY



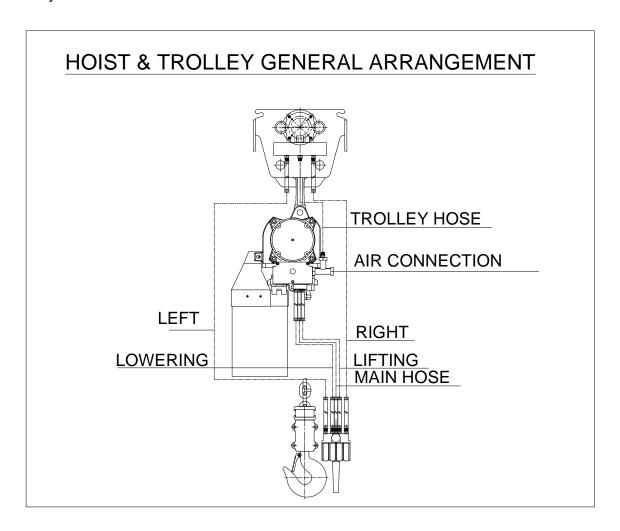


| Model | Capacity (kg) | Motor (kw) | Air supply pressure (kg/cm²) | Traversing (m/min) | Brake type | Air inlet |
|--------|------------------|---------------|------------------------------|--------------------|-----------------|-----------|
| AT-100 | 1000 | 0.2 | 6 | 20 | Disk type brake | 5/16" |
| AT-200 | 2000 | 0.2 | 6 | 20 | Disk type brake | 5/16" |
| AT-320 | 3200 | 0.2 | 6 | 10 | Disk type brake | 5/16" |
| AT-630 | 6300 | 0.2 | 6 | 4 | Disk type brake | 5/16" |

| Model | Capacity | Dimensions (mm) | | | | | |
|----------------|----------|-----------------|-----|-----|-------|-------|---------|
| Model | (kg) | Н | Α | В | С | D | E |
| YSA-100+AT-100 | 1000 | 645.5 | 294 | 116 | 95 | 208 | 75~125 |
| YSA-200+AT-200 | 2000 | 785.5 | 322 | 135 | 100 | 209.5 | 100~150 |
| YSA-320+AT-320 | 3200 | 945 | 356 | 144 | 117.5 | 217 | 125~175 |
| YSA-630+AT-630 | 6300 | 1168 | 386 | 183 | 132.5 | 219 | 125~175 |

4. TEST RUNNING

After trolley to beam, hoist hook to trolley and wiring connection completed, operate the trolley forward and backward over a short distance. Then you can operate the trolley over the entire length of runway or monorail system to be sure that all adjustment and operations are satisfactory.



V. INSPECTION

To maintain continuous and satisfactory operation, a regular periodic inspection procedure must be initiated so that worn or damaged parts can be replaced before they become unsafe. The frequency of inspection must be determined by the individual application.

The following list gives an inspection procedure for normal usage under normal conditions. When the unit is subjected to heavy usage or duty, moist or other adverse atmospheric conditions, shorter time periods must be assigned. Inspection must be made of all parts for unusual wear, corrosion or damage in addition to those specifically mentioned in the succeeding list.

It is suggested that the unit be inspected monthly for wear damage and corrosion effects to all parts with particular attention to the following:

- 1. Tightness of all fasteners.
- 2. Terminal board for loose or corroded connections.
- 3. Track wheels for wear of tread, flange and bearings.
- 4. Gear portion of track wheel and pinion for wear.
- 5. Check the wear of top hook to load plate in trolley.

VI. MAINTENANCE

The following three steps are recommended for maintenance:

- 1. Once a month lubricate track wheel gear and pinion with grease or graphite grease.
- 2. Motor reducing gearbox uses planetary gear lubricated with Shell Gadus S2 V220 grease.

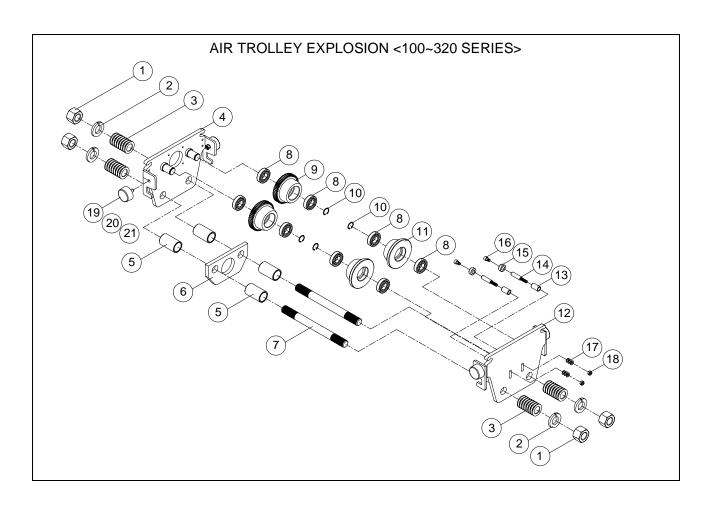
It is highly recommended that the motor gearbox grease should be changed after 100 hours of operation, then every 6 months or 2500 hours of normal service, whichever comes first, the grease needs to be changed as well.

VII. TROUBLE SHOOTING

| Malfunction | Main Causes | Solution |
|---|---|--|
| Motor does no run. Slow rotation or no rotation of Motor. | Insufficient air pressure. Supplied air volume is insufficient. Inner diameter of pipe is too small. | Increase air pressure. Increase compressor output. Replace pipe with a larger inside diameter. Clean Strainer. |
| | Strainer in Adapter at air inlet port is clogged. Silencer is clogged. Powder or dust in Motor. Vanes have be enlarged due to moisture or long term storage. | Replace with new Silencer. Clean Motor then lubricate. Clean air filter and replace filter element. Replace Vanes. Discharge drain water from air filter. Or clean air filter and replace filter element. |
| | Vanes are burned due to the dry operation. Vanes are worn or damaged. Main valve does not open. Reduction gear: Incorrect assembly. Or gears, Bearings, etc., are worn or damaged. | Clean Motor and polish Vanes Replace Vanes if required. Supply oil to lubricator or clean lubricator. Replace Vanes. Tighten connecting bolt on the respective part. Or disassemble and check. Disassemble and check. Replace the worn or damaged parts. |
| Brake does not work sufficiently | Lining is worn. Oil on lining. Air exhaust hole on brake cover is clogged. | Replace with new Brake disc. Clean. Replace oil seal if required Clean. See Chapter IX "2.(3) Inspection of Brake and Service Limit". |

VIII. PARTS LIST (BOM)

| 1. Air Trolley Parts List <at-100~at-320 series=""></at-100~at-320> | P.8~P.9 |
|---|-----------|
| 2. Air Trolley Parts List < AT-630 Series> | P.10~P.11 |
| 3. Air Motor Parts List | P.12~P.14 |
| 4. Air Hose Assembly's Parts List | P.15~P.16 |

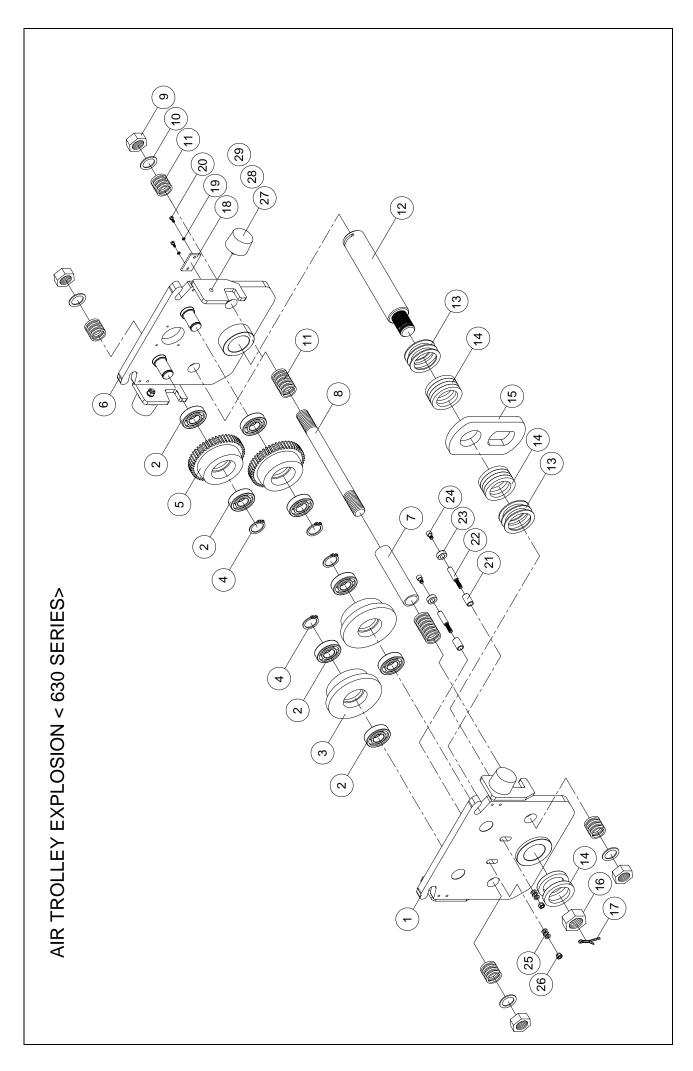


AIR TROLLEY PARTS LIST

| NO | PARTS | DESCRIPTION | Q'TY R | EQ'D EAC | H UNIT |
|----------|-------------|-------------------------------|--------|----------|--------|
| NO. CODE | DESCRIPTION | AT-100 | AT-200 | AT-320 | |
| | 400070 | Hex. Nut <7/8"×9UNC> | 4 | | |
| 01 | 400071 | Hex. Nut <1 "x8UNC> | | 4 | |
| | 400072 | Hex. Nut <1 1/4"x7UNC> | | | 4 |
| | 400102 | Spring Washer < 7/8"> | 4 | | |
| 02 | 400103 | Spring Washer <1"> | | 4 | |
| | 400105 | Spring Washer <1 1/4"> | | | 4 |
| | 203221 | Spacer Washer <Ø40ר24×1/8"> | 32 | | |
| 03 | 203222 | Spacer Washer <Ø46ר27×1/8"> | | 32 | |
| | 203223 | Spacer Washer <Ø54xØ34x1/8"> | | | 32 |
| | 217046 | | 1 | | |
| 04 | 217015 | Trolley Frame <motor></motor> | | 1 | |
| | 216927 | | | | 1 |
| | 203151 | Position Tube <Ø34xØ24x56> | 4 | | |
| 05 | 203152 | Position Tube <Ø38xØ28x69> | | 4 | |
| | 203153 | Position Tube <Ø40xØ52x83.5> | | | 4 |

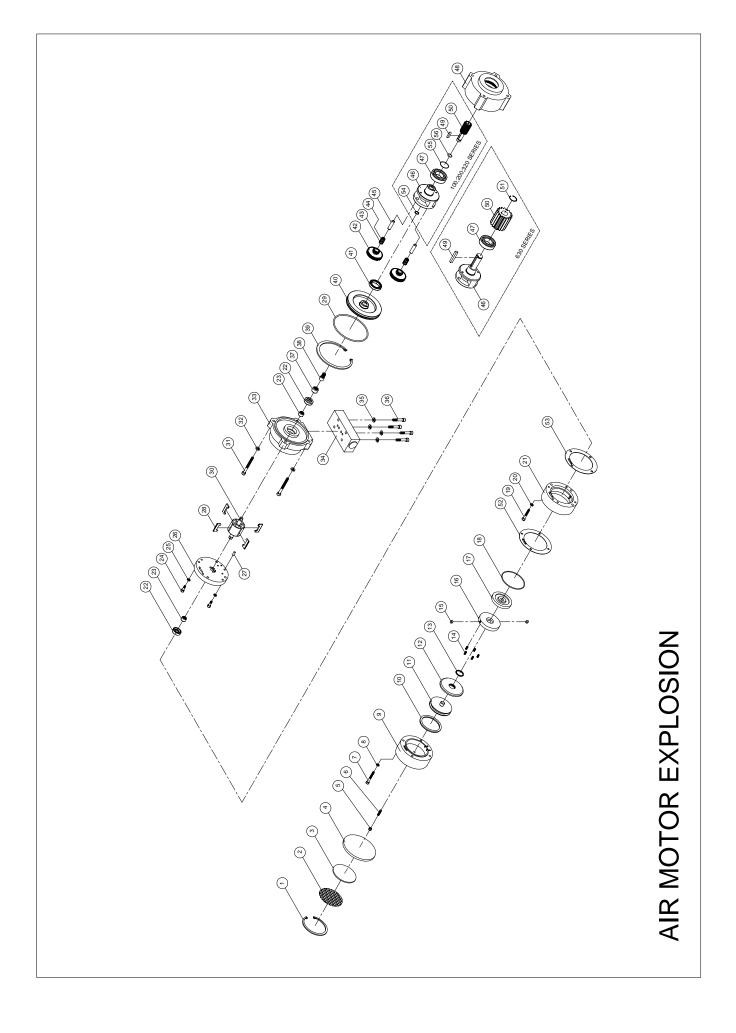
AIR TROLLEY PARTS LIST

| NO | PARTS | DESCRIPTION | Q'TY R | EQ'D EAC | H UNIT |
|-----|---------|--|--------|----------|--------|
| NO. | CODE | | AT-100 | AT-200 | AT-320 |
| | 203186K | | 1 | | |
| 06 | 203187K | Load Bracket | | 1 | |
| | 203188K | | | | 1 |
| | 408366 | Stay Bolt <7/8"x9UNCx265> | 2 | | |
| 07 | 408369 | Stay Bolt <1 "x8UNCx300> | | 2 | |
| | 400063 | Stay Bolt <1 1/4"×7UNC×360> | | | 2 |
| | 407835 | Bearing <6204 Z> | 8 | | |
| 08 | 407830 | Bearing <6205 Z> | | 8 | |
| | 407824 | Bearing <6206 Z> | | | 8 |
| | 217044 | | 2 | | |
| 09 | 217028 | Gear Wheel | | 2 | |
| | 216926 | | | | 2 |
| | 400191 | Retaining Ring <s-20></s-20> | 4 | | |
| 10 | 400192 | Retaining Ring <s-25></s-25> | | 4 | |
| | 400193 | Retaining Ring <s-30></s-30> | | | 4 |
| | 203131 | | 2 | | |
| 11 | 203132 | Plain Wheel | | 2 | |
| | 203133 | | | | 2 |
| | 217047 | | 1 | | |
| 12 | 217018 | Trolley Frame <electric></electric> | | 1 | |
| | 216928 | | | | 1 |
| 13 | 216930 | Position Tube | 2 | 2 | 2 |
| 14 | 216929 | Stay Bolt | 2 | 2 | 2 |
| 15 | 216931 | Steel Roller | 2 | 2 | 2 |
| 16 | 400430 | Hex. Headed Bolt <m10x1.5x16></m10x1.5x16> | 2 | 2 | 2 |
| 17 | 400865 | Flat Washer <m10></m10> | 6 | 6 | 6 |
| 18 | 400089 | Lock Nut <m10×1.5></m10×1.5> | 2 | 2 | 2 |
| 10 | 207572 | Rumper | 4 | 4 | |
| 19 | 400313 | Bumper | | | 4 |
| 20 | 400857 | Spring Washer <m10></m10> | 4 | 4 | |
| 20 | 408064 | Spring Washer< 1/2"> | | | 4 |
| 21 | 408073 | Nut <m10×1.5></m10×1.5> | 4 | 4 | |
| ۷ ا | 400077 | Nut < 1/2"×13UNC> | | | 4 |



AIR MOTOR DRIVEN TROLLEY PARTS LIST

| NO. | PARTS | DECODIDATION | Q'TY REQ'D EACH UNIT |
|-----|--------|--|----------------------|
| | CODE | DESCRIPTION | AT-630 |
| 1 | 207567 | Trolley Frame <electric></electric> | 1 |
| 2 | 407817 | Bearing<6307 Z> | 8 |
| 3 | 207756 | Plain Wheel | 2 |
| 4 | 400194 | Retaining Ring <s-35></s-35> | 4 |
| 5 | 207757 | Gear Wheel | 2 |
| 6 | 207565 | Trolley Frame <motor></motor> | 1 |
| 7 | 207993 | Stay Bolt Position Tube< Ø50xØ40x167.3> | 2 |
| 8 | 408374 | Stay Bolt<1 1/2"x6UNCx435L> | 2 |
| 9 | 400073 | Hex. Nut<1 1/2"x6UNC> | 4 |
| 10 | 400106 | Spring Washer<1 1/2"> | 4 |
| 11 | 203224 | Spacer Sleeve< Ø60ר40×1/8"> | 64 |
| 12 | 207995 | Load Shaft A< Ø70×413L> | 1 |
| 13 | 206967 | Spacer Sleeve< Ø101xØ76x3.175> | 6 |
| 14 | 203225 | Spacer Ring< Ø100ר71×12.5> | 10 |
| 15 | 207759 | Load Bracket | 1 |
| 16 | 400639 | Nut < M48×5.0> | 1 |
| 17 | 400611 | Cotter Pin<Ø8×65L> | 1 |
| 18 | 200635 | Stopper For Load Shaft <t6x38x70l></t6x38x70l> | 1 |
| 19 | 400095 | Spring Washer <m8></m8> | 2 |
| 20 | 400012 | Hex. Recess Bolt <m8×1.25×20l></m8×1.25×20l> | 2 |
| 21 | 216930 | Position Tube | 2 |
| 22 | 207994 | Stay Bolt <m10×1.5×94></m10×1.5×94> | 2 |
| 23 | 216931 | Steel Roller | 2 |
| 24 | 400430 | Hex. Headed Bolt <m10×1.5×16></m10×1.5×16> | 2 |
| 25 | 400865 | Flat Washer <m10></m10> | 6 |
| 26 | 400089 | Lock Nut <m10×1.5></m10×1.5> | 2 |
| 27 | 400313 | Bumper | 4 |
| 28 | 408064 | Spring Washer< 1/2"> | 4 |
| 29 | 400077 | Nut < 1/2"×13UNC> | 4 |
| | | | |
| | | | |
| | | | |

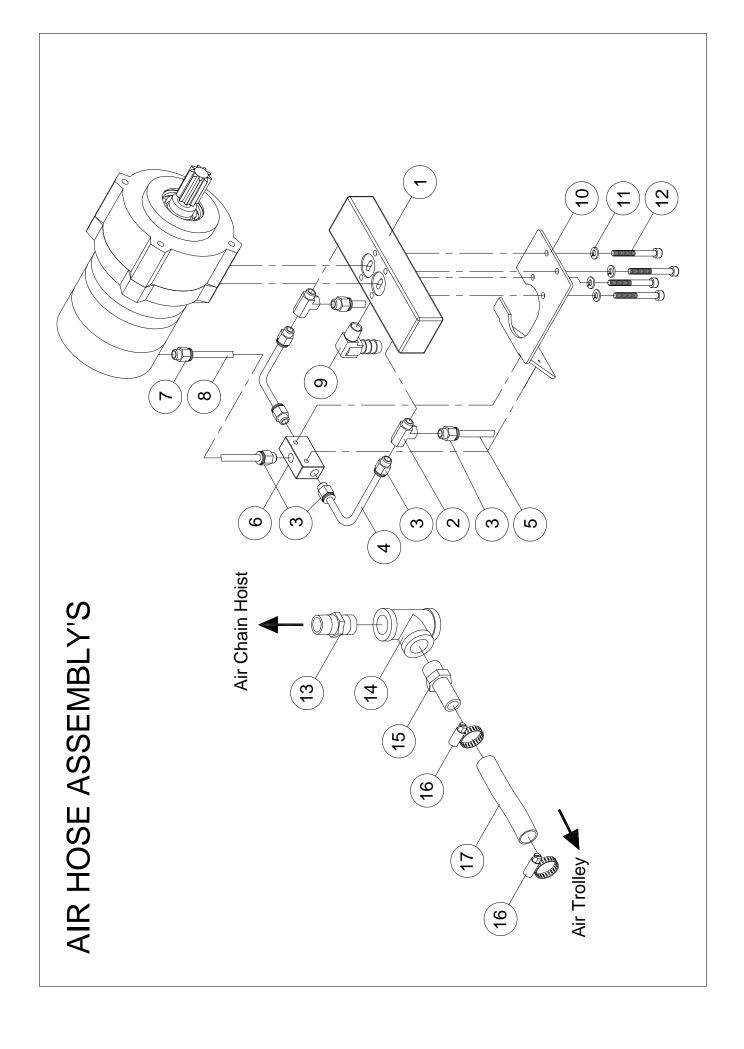


AIR MOTOR PARTS LIST

| NO. PARTS | DECORUPTION | Q'TY REQ'D EACH UNIT | |
|-----------|-------------|--|-----------------|
| NO. | CODE | DESCRIPTION | 100 200 320 630 |
| 1 | 400923 | Retaining Ring <r-72></r-72> | 1 |
| 2 | 216920 | Grids | 1 |
| 3 | 216685 | Silencer | 1 |
| 4 | 201144 | Silencer | 1 |
| 5 | 400087 | Lock Nut <m6×1></m6×1> | 1 |
| 6 | 408453 | Set Screw <m6×1×20></m6×1×20> | 1 |
| 7 | 400429 | Hex. Headed Bolt <m5×0.8×40></m5×0.8×40> | 4 |
| 8 | 400093 | Spring Washer <m5></m5> | 4 |
| 9 | 106742 | Brake Back Cover | 1 |
| 10 | 404436 | O Ring <p-56></p-56> | 1 |
| 11 | 106215 | Brake Gudgeon | 1 |
| 12 | 106218 | Baffle | 1 |
| 13 | 404425 | O Ring <p-20></p-20> | 1 |
| 14 | 408521 | Brake Spring | 5 |
| 15 | 405958 | Key <t5x5x8></t5x5x8> | 2 |
| 16 | 106219 | Brake Plate | 1 |
| 17 | 106214 | Brake Disc | 1 |
| 18 | 404432 | O Ring <Ø2-0.24M> | 1 |
| 19 | 405021 | Hex. Headed Bolt <m5×0.8×35></m5×0.8×35> | 4 |
| 20 | 400093 | Spring Washer <m5></m5> | 4 |
| 21 | 106741 | Brake Body | 1 |
| 22 | 404440 | Oil Seal <Ø10xØ22x6> | 2 |
| 23 | 405592 | Needle Bearing <hk1010></hk1010> | 2 |
| 24 | 400003 | Hex. Headed Bolt <m5x0.8x16></m5x0.8x16> | 4 |
| 25 | 400093 | Spring Washer <m5></m5> | 4 |
| 26 | 106756 | Motor End Cover | 1 |
| 27 | 400615 | Parallel Pin <Ø5×12> | 1 |
| 28 | 106748 | Vanes | 4 |
| 29 | 404314 | O Ring <g-100></g-100> | 1 - |
| 30 | 106749 | Rotor | 1 |
| 31 | 408458 | Hex. Headed Bolt <m6×1×70></m6×1×70> | 4 |
| 32 | 400094 | Spring Washer <m6></m6> | 4 |

AIR MOTOR PARTS LIST

| NO | PARTS | DESCRIPTION | Q'TY REQ'D EACH UNIT | | | |
|-----|--------|---|-------------------------|---|-----|-----|
| NO. | CODE | DESCRIPTION | 100 | | 320 | 630 |
| 33 | 106746 | Motor Cylinder | 1 | | | |
| 34 | 216921 | Intake valve | | 1 | | |
| 35 | 400093 | Spring Washer <m5></m5> | | 4 | | |
| 36 | 400429 | Hex. Headed Bolt <m5×0.8×40></m5×0.8×40> | | 4 | | |
| 37 | 400168 | Needle Bearing < HK 1210> | | 1 | | |
| 38 | 216914 | 1st Gear | | 1 | | |
| 39 | 404193 | Retaining Ring <r-105></r-105> | | - | | 1 |
| 40 | 216915 | Bearing Cap | | 1 | | |
| 41 | 405589 | Bearing <6805> | | 1 | | |
| 42 | 216916 | 2nd Gear & 3rd Gear | | 2 | | |
| 43 | 405590 | Needle Roller and Cage Assemblies <kt8118n></kt8118n> | | 2 | | |
| 44 | 405591 | Needle Roller and Cage Assemblies <kt81110></kt81110> | | 2 | | |
| 45 | 216917 | Lock Pin | | 2 | | |
| 40 | 202228 | | | 1 | | - |
| 46 | 207569 | Reduction Gear Frame | | - | | 1 |
| 47 | 407724 | Bearing <6005 ZZ> | | 1 | | |
| 48 | 202212 | Internal Gear | | 1 | | |
| 49 | 405924 | Key <5×5×20> | | 1 | | - |
| 49 | 405979 | Key <6×6×40> | | - | | 1 |
| 50 | 202270 | Pinion < M2×9T> | | 1 | | - |
| 30 | 207782 | Pinion < M3×14T> | | - | | 1 |
| 51 | 400901 | Retaining Ring <s-18></s-18> | | - | | 1 |
| 52 | 402496 | Gasket | | 1 | | |
| 53 | 402497 | Gasket | | 1 | | |
| 54 | 400189 | Retaining Ring <s-12></s-12> | | 1 | | - |
| 55 | 408106 | O Ring <s-25></s-25> | | 1 | | - |
| 56 | 404474 | O Ring <p-12></p-12> | | 1 | | - |
| | | | | | | |
| | | | | | | |
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AIR HOSE ASSEMBLY'S PARTS LIST

| NO. | PARTS | DESCRIPTION | Q'TY | REQ'D | EACH | UNIT |
|-----|--------|---|------|-------|------|------|
| NO. | CODE | DESCRIPTION | 100 | 200 | 320 | 630 |
| 1 | 216921 | Intake valve | 1 | | | |
| 2 | 408164 | Inside and outside teeth tee <1/8"> | | 2 | 2 | |
| 3 | 408165 | Quick connector <spc6-01></spc6-01> | | 2 | 2 | |
| 4 | 408165 | Quick connector <spc6-01></spc6-01> | | ţ | 5 | |
| 5 | 408182 | PU Tube <Ø4x Ø6x120> | | 2 | 2 | |
| 6 | 408167 | Shuttle Valve <pt 1="" 8"=""></pt> | | , | 1 | |
| 7 | 408166 | Quick connector SPC6-M5 | | , | 1 | |
| 8 | 408182 | PU Tube <Ø4x Ø6x60> | | , | 1 | |
| 9 | 408180 | Straight head <pt 1="" 2="" 4"×1=""></pt> | | | 1 | |
| 10 | 209026 | Shuttle Valve Plate | | • | 1 | |
| 11 | 400093 | Spring Washer <m5></m5> | 4 | | | |
| 12 | 400429 | Hex. Headed Bolt <m5×0.8×40></m5×0.8×40> | 4 | | | |
| 13 | 300138 | Hose Connector <pt 1="" 2"=""></pt> | | • | 1 | |
| 14 | 408161 | Equal Tee < PT 1/2"> | 1 | | | |
| 15 | 300910 | Hose Connector <1/2" WBG-17> | 1 | | | |
| 16 | 408169 | Hose Clamp < PT 1/2"> | 2 | | | |
| 17 | 408168 | Braided Air Hose <pt 1="" 2"-800mm=""></pt> | | , | 1 | |
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No. M8A 004703 0027 Rev. 00

Holder of Attestation: CHENG DAY MACHINERY

WORKS CO., LTD.

No.173, Wen Chiu Rd.

Dajia Dist. 437 Taichung City

TAIWAN

Product: Lifting equipment

Air Chain Hoist, Air Trolley

This Attestation of Conformity is issued on a voluntary basis according to Council Directive 2006/42/EC relating to machinery. It confirms that the listed equipment (not Annex IV equipment) complies with the principal protection requirements of the directive and is based on the technical specifications applicable at the time of issuance. It refers only to the particular sample submitted for conformity assessment. For details see: www.tuvsud.com/ps-cert

Test report no.: 615202300601

Date. 2024-09-12

(Taiwei LI)

L'Taiver

Page 1 of 4

This Attestation does not replace the regulatory EU Declaration of Conformity (DoC) and does not allow for CE marking. After preparation of the necessary documentation and establishing compliance to requirements of all applicable directives, the manufacturer may sign a DoC and apply the CE marking. The DoC is issued under the sole responsibility of the manufacturer.





No. M8A 004703 0027 Rev. 00

Model(s):

- 1) YSA-x series (Air Chain Hoist) x denote to capacity: 025, 050, 100, 200, 320, 630, 1000, 1600, 2000, 2500, 2500T, 3750, 3750T, 5000, 5000T, 025E, 050E, 100E, 150E, 200E, 300E, 600E, 025Ex, 050Ex, 100Ex, 200Ex, 320Ex, 630Ex, 1000Ex, 1600Ex, 2000Ex, 2500Ex, 2500TEx, 3750Ex, 3750TEx, 5000Ex, 5000TEx;
- YSMA-x series (Air Chain Hoist)
 x denote to capacity: 250, 300, 400, 600, 800, 1000, 1200;
- 3) AT-x series (Air Trolley) x denote to capacity: 100, 200, 320, 630, 1000, 1600, 2000, 2500, 3750, 5000, 100Ex, 200Ex, 320Ex, 630Ex, 1000Ex, 1600Ex, 2000Ex, 2500Ex, 3750Ex, 5000Ex

Trade name: Black Bear, U-MEGA, Yong Sheng







Black Bear

U-MEGA

Yong Sheng

Parameters: Rated capacity: S

Rated capacity: See below Rated power: See below Rated supply pressure: See below

Remark: To ensure the accuracy and consistency of the tests, we will use the YSA-320 model test machine with serial number 2024020320. This primary test machine will serve

as the benchmark equipment for all tests.

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| Model | Capacity (ton) | 6bar/4bar Power (kW) | 6,bar / 4bar, Speed, m/min |
|-------------|-------------------|-------------------------|-------------------------------|
| YSA-025 | 0.25 | 1.5/0.8 | 18/8 |
| YSA-050 | 0.5 | 1.5/0.8 | 11/5 |
| YSA-100 | 1 | 2/1.0 | 7.6/3.4 |
| YSA-200 | 2 | 2/1.0 | 3.8/1.7 |
| YSA-320 | 3.2 | 3.5/1.8 | 4.8/2.2 |
| YSA-630 | 6.3 | 3.5/1.8 | 2.4/1.1 |
| YSA-1000 | 10 | 3.5/1.8 | 1.6/0.7 |
| YSA-1600 | 16 | 3.5/1.8 | 1.0/0.4 |
| YSA-2000 | 20 | 3.5/1.8 | 0.8/0.3 |
| YSA-2500 | 25 | 6.3/4 | 1.1/0.7 |
| YSA-2500T | 25 | 6.3/4 | 1.1/0.7 |
| YSA-3750 | 37 | 6.3/4 | 0.7/0.4 |
| YSA-3750T | 37 | 6.3/4 | 0.7/0.4 |
| YSA-5000 | 50 | 6.3/4 | 0.5/0.3 |
| YSA-5000T | 50 | 6.3/4 | 0.5/0.3 |
| YSA-025E | 0.25 | 1.5/0.8 | 18/8 |
| YSA-050E | 0.5 | 1.5/0.8 | 11/5 |
| YSA-100E | 1 | 1.5/0.8 | 6.9/3.1 |
| YSA-150E | 1.5 | 2/1 | 5.8/1.8 |
| YSA-200E | 2 | 1.5/0.8 | 3.4/1.6 |
| YSA-300E | 3.2 | 2/1 | 2.9/0.9 |
| YSA-600E | 6.3 | 2/1 | 1.45/0.5 |
| YSA-025Ex | 0.25 | 1.5/0.8 | 18/8 |
| YSA-050Ex | 0.5 | 1.5/0.8 | 11/5 |
| YSA-100Ex | 1 | 2/1.0 | 7.6/3.4 |
| YSA-200Ex | 2 | 2/1.0 | 3.8/1.7 |
| YSA-320Ex | 3.2 | 3.5/1.8 | 4.8/2.2 |
| YSA-630Ex | 6.3 | 3.5/1.8 | 2.4/1.1 |
| YSA-1000Ex | 10 | 3.5/1.8 | 1.6/0.7 |
| YSA-1600Ex | 16 | 3.5/1.8 | 1.0/0.4 |
| YSA-2000Ex | 20 | 3.5/1.8 | 0.8/0.3 |
| YSA-2500Ex | 25 | 6.3/4 | 1.1/0.7 |
| YSA-2500TEx | 25 | 6.3/4 | 1.1/0.7 |
| YSA-3750Ex | 37 | 6.3/4 | 0.7/0.4 |
| YSA-3750TEx | 37 | 6.3/4 | 0.7/0.4 |
| YSA-5000Ex | 50 | 6.3/4 | 0.5/0.3 |
| YSA-5000TEx | 50 | 6.3/4 | 0.5/0.3 |

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| Capacity (ton) | 6bar/4bar Power (kW) | 6,bar / 4bar, Speed, m/min |
|-------------------|---|---|
| 2.5 | 2.8/1.2 | 2.3/1.6 |
| 3 | 2.8/1.2 | 3.75/2.5 |
| 4 | 3/1.5 | 3.4/2.4 |
| 6 | 2.8/1.2 | 3.4/2 |
| 8 | 3/1.5 | 1.7/1.2 |
| 10 | 2.8/1.2 | 0.9/NA |
| 12 | 3/1.5 | 0.8/NA |
| 1 | 20 | 0.2 |
| 2 | 20 | 0.2 |
| 3.2 | 20 | 0.2 |
| 6.3 | 20 | 0.2 |
| 10 | 12 | 0.7 |
| 16 | 12 | 0.7 |
| 20 | 12 | 0.7 |
| 25 | 12 | 1.4 |
| 37 | 12 | 1.4 |
| 50 | 12 | 1.4 |
| 1 | 20 | 0.2 |
| 2 | 20 | 0.2 |
| 3.2 | 20 | 0.2 |
| 6.3 | 20 | 0.2 |
| 10 | 12 | 0.7 |
| 16 | 12 | 0.7 |
| 20 | 12 | 0.7 |
| 25 | 12 | 1.4 |
| 37 | 12 | 1.4 |
| 50 | 12 | 1.4 |
| | (ton) 2.5 3 4 6 8 10 12 1 2 3.2 6.3 10 16 20 25 37 50 1 2 3.2 6.3 10 16 20 25 37 50 1 2 3.2 6.3 7 50 1 2 3.2 6.3 10 16 20 25 37 | (ton) Power (kW) 2.5 2.8/1.2 3 2.8/1.2 4 3/1.5 6 2.8/1.2 8 3/1.5 10 2.8/1.2 12 3/1.5 1 20 2 20 3.2 20 6.3 20 10 12 16 12 20 12 25 12 37 12 50 12 1 20 2 20 3.2 20 6.3 20 10 12 16 12 20 3.2 20 12 16 12 20 12 16 12 20 12 25 12 37 12 |

Tested Machinery Directive 2006/42/EC Annex I

according to: EN ISO 12100:2010 EN 14492-2:2019

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