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#### 1. DEFINITIONS

This HSZ-A619 Series chain block hoist has been designed for vertically lifting and lowering loads, by hand, under normal atmospheric conditions of the work place.

**⚠** DANGER

Indicates a imminently hazardous situation which, if not avoided, will result in death or serious injury.

**↑** WARNING

Indicates a imminently hazardous situation which, if not avoided, could result in death or serious injury.

**⚠** CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used alert against unsafe practices.

#### 2. SAFETY RULES

#### 2.1 General

Failure to read and comply with the contents of this manual can result in serious bodily injury or death, and property damage. Although you may be familiar with this or similar equipment, it is strongly recommended that you read this manual before installing, operating or maintaining the

Equipment described herein should not be used in conjunction with other equipment unless necessary and required safety devices applicable to the system. The company shall have no liability to the client for any loss, damage or other claims for compensation arising from this type of misuse. Modifications to upgrade, rerate, or otherwise alter this equipment shall be authorized only by the

#### A. DANGER



1 NEVER use a hoist for lifting, supporting or transporting people.



② NEVER use your foot to apply pressure on hoist.



3 NEVER use two or more hoists together to lift load beyond the rated capacity of hoist.



4 NEVER lift up load beyond the 5 NEVER lift or transport loads over rated capacity of the hoist.



or near people.

#### 2.2 Rules before use

#### **↑** CAUTION

Hoist operators shall be required to read this manual, the warning contained in this manual, instruction and warning labels on the hoist or lifting system. The operator shall also be required to be familiar with the hoist controls before being authorized to operate the hoist or lifting system.

WARNING Dot not use the hoist if there are deep nick, gouges or stretch on hook, contact our company or the distributor of the hoist and replace the hook with new parts.

#### A CAUTION

- 1. Ensure every description of name plate is clear and visible.
- 2. Check the hoist before daily use according to the Daily Inspection.
- 3. Estimate the weight of load and choose the hoist of suitable rated capacity.
- 4. Ensure hooks not be deformed and rotates freely with no roughness.
- 5. Ensure the running of the brake system is normal.
- 6. Lubricate load chain according to recommendations of manufacturer

#### 2.3 Rules for operation

#### **M** WARNING



1 NEVER use a twisted, kinked, damaged or stretched load chain.



(4) NEVER support a load on the tip of the hook ..



2 NEVER use the hoist chain as a sling.



(5) NEVER run the load chain over an sharp edge.



(3) NEVER use the hoist as a support



6 NEVER weld or cut a load suspended by a hoist.

#### **↑** WARNING

- 1. NEVER use damaged hoist or hoist that is not working properly.
- 2. NEVER swing a suspended load.
- 3. NEVER use the hoist chain as a welding electrode.
- 4. NEVER operate a hoist so far that the bottom hook touches the hoist body
- 5. NEVER operate a hoist so far that the load chain pulls the anchorage.
- 6. NEVER operate a hoist if excessive noise occurs.
- 7. NEVER allow your attention to be diverted from operating the hoist.

#### 2.4 Rules after use

Put down the load slowly and safely after lifting.

WARNING NEVER suspend a load for an extended period of time.

#### 2.5 Inspection and maintenance

**⚠** CAUTION

Ensure the qualified service personnel inspect the hoist periodically.

**M** WARNING

Do not attempt repair of a hook by heat treating, bending or attaching anything by welding. Such procedures will weaken and may cause failure of the hook.

#### 2.6 Others



Always consult the manufacturer or your dealer if you plan to use a hoist in an excessively corrosive environment (salt water, sea air and/ or acid, explosive environment or other corrosive compounds, etc.).



NEVER use a hoist which has been taken out of service until the hoist has been properly repaired or replaced.

#### 3. MAIN SPECIFICATION

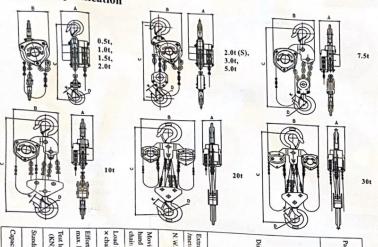
### 3.1 Operation conditions

Allowable ambient conditions

Operation temperature: -10° C to +60° C

Operation humidity: 100%RH or less, this product should not be used under water. Non-asbestos material: Friction plates are made of asbestos free material.

## 3.2 Technical specification



iffor required to lift nax. Load N(Kg)  est load (KN)  tandard lift (m)  apacity (t)	tandard lift (m)	est load (KN)		in fa	N.W. (kg)  Moving distance hand chain when hain lift Im		Extra weight /meter (kg)			Main Dimensions		# 4 1	Packing measu
	e for a load cter cter	TE STATE OF		A	В	С	D	К	urement				
0.5	2.5	6.1	200(20.5)	6.0×1	33.3	8.4	1.7	137.5	137	270	35	28	22×15×19.5
1	2.5	12.3	320(32.5)	6.0×1	41.5	10.5	1.7	146.5	162	317	35.5	26	23×18×19.5
1.5	2.5	18.4	360(36.5)	8.0×1	55.6	15.5	2.3	170	183	399	45	32.5	28×21×24
2(S)	3	24.5	328(37)	6.0×2	83	14.6	3.4	146.5	189	440	42.5	32	25×20×19.5
2	3	24.5	365(33.5)	8.0×1	72.6	18.5	2.3	170	194	414	42.5	32	28×21×24
3	3	36.8	385(39)	8.0×2	111.2	21.2	3.7	170	220	465	50	37	32×21×26
5	3	61.1	435(44.3)	10×2	163.4	41.8	5.3	190	288	618	64	46	40x21x26
7.5	3	91.9	435(44.3)	10×3	245.1	61.6	7.5	190	377	768	64	46	50x41x21
10	3	122.5	435(44.3)	10×4	326.8	81.7	9.7	190	384	798	85	50	50×41×21
20	3	235.2	435x2(443x2)	10×8	327×2	173	19.4	209	625	890	110	81	64×38×64
30	3	367.5	435x2(443x2)	10×12	490.2x2	238.5	28.2	312	691	1380	110	81	72×50×68

Note: Bottom hook in manual instruction is standard A type, if you choose another type, please contact with manufacturer directly.

Safety Working Environment: the operator must be aware of the following points while using the hoist.

- (1) The operator must have a clear and unobstructed view of the entire travel area before operating the hoist. When not possible, a second or more persons must serve as scouts in the nearby area.
- (2) The operator must check the entire travel area is safe and secure before operating the hoist.

#### 4.2 Features

Place the selector switch on the handle in the middle position when without load, then the load chain could move freely. Pull the load chain by hand to position the bottom hook.

#### 4.3 The method of operation

- 1. Place the selector switch on the handle in the middle position.
- 2. And then adjust the load chain to suitable position.

#### **M** WARNING

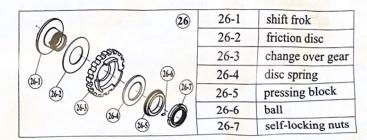
NEVER pull the load chain sharply when the selector switch in the middle position. If the chain is pulled too suddenly, the brake may set preventing further pulling... Re-set the hoist is needed when this happens.

#### 4.4 Load operation

Hoist	Selector switch	Hand lever operation
Lift	UP	Clockwise
Lower	DOWN	Counterclockwise

#### 4.5 Overload device

Overload device is optional, the effective control range is 1.3-1.8 time of rated load, the structure as follows:



#### 5. INSPECTION

#### 5.1 General

There are two types of inspection, the Daily Inspection performed by the operator before using the hoist, and the more thorough Periodic Inspection performed by qualified service personnel who have the authority to remove the hoist from service.

#### 5.2 Daily inspection

Before each work shift, check the following points:

Item	Inspection method		
Name plate	200 to 100 to 10	Discard limit/criteria  Every description should be clear and visible.	Remedy
Function	UP/down position		Replace the name plate
Hook	and ratchet the handle.  Check visually	and condition.	Repair or replace as necessary.
Hook latches		No wear, deformation or damage, and the swivels should rotate freely.	Replace the hook.
Load chain	Check visually	No deformation and harmful flaws.  No obvious rust or corrosion.	Replace the part.
Other	Check visually	No missing must be on surface.	Oil the load chain. Replace the load chain.
		No flaws or damages on the hoist surface.  No missing and/or twist chain stopper.	Replace the parts.

## 5.3 Periodic inspection

Periodic inspection shall be made at the interval shown below and should the given procedures. Periodic inspection shall be made at the interval shown belo NORMAL (Normal use): Six monthly inspection HEAVY (Frequent use): Quarterly inspection SEVERE (Excessively frequent use): Monthly inspection

Item	Inspection method							
l. Hook assembly		Measure the dimension A when new.						Remedy
1.1 Stretch		Capacity (t)	A*(mm)	B(n		C (n	nm)	
and wear		0.75	Normal 30, 0	Standard	Discard	Standard	Discard	
	Measure	1.5	36, 0	13. 0	≤12.4	21.5	≤20.3	
	ivicasure	3	40.0	25.0	≤16.2 ≤23.8	28.8	≤27.3	D1
TRO		6	50.0	32.0	≤30.4	43. 8 52. 5	≤41.6	Replace
11))		9	64.0	40.0	≤ 38.0	60. 4	≤49.9 ≤57.4	
		* These values are nominal since the dimension is not controlled to a tolerance. The A dimension should be measured when the hook is new. The A dimensions should not be greater than 1.05 times that measured and recorded at the time of purchase.						
1.2 Flaw	Check visually	Should deep ni	be free f ck, or go	rom signi uges.	ficant ru	st, weld s	platter,	Replace
1.3 Rotate	Check visually and function	Should	rotate fr	eely with	no roug	nness.		Replace
1.4 Hook yoke	Check visually and function	Should	Should not slack or miss rivets, nuts or bolts.				Replace	
1.5 Hook latch	Check visually	Proper positioning and smooth working.						Replace

2. Load chain 2.1 Wear	Measure	Measure         L (mm)         D (mm)           Capacity (t)         Standard Discard Standard Discard         Discard Standard Discard Stand	Replace
2.2 Flaws, deformations	Check visually	Should be free from twist or harmful flaw.	Replace
2.3 Rust	Check visually	Should be free from obvious rust.	Remove rust, oil the chain
Item	Inspection method	Discard criteria	Remedy
3. Bottom hook pin  3.1 Twist, deformations	Check visually, measure	Replace the hook pin if there is obvious deformation, and the screw thread of hook pin should be free of flaw and deformation.    O   Measure	Replace
3.2 Rust	Check visually	Should be free from obvious rust.	Remove rust, oil the pin
4.Top/Bottom hook pin hole 4.1 Deformation			Replace hook assembly

5.1 Rust	Check visually	All parts should be free from rust,	Remove rust,
5.2 Flaw on friction disc	Check visually	Should be free from harmful flaw.	or replace.
5.3 Wear on friction disc	Measure	Retain uniform thickness and friction disc shall not be worn more than 0.5mm.  Capacity (t) Thickness of friction disk(H) Standard Discard 0. 75-9 3.0mm ≤ 2.5mm	Replace
5.4 Flatness of friction disc	Check clearance with gauge.	Clearance should be uniform. Internal part should not be thicker than external part.	Replace
Item	Inspection method	Discard criteria	Remedy
5.5 Ratchet disc	Measure	Measure the external diameter A of ratchet disc   Capacity(t)	Replace
5.6 Pawl	Check visually	Should be free from wear on the surface.	Replace
.7 Pawl spring	Check visually	Should be free from deformation	Replace
8 Free spring	Measure	Measure the length 0.75t	Replace
6. Lifting system 6.1 Load sheave	Check visually	Should be free from large wear or deformation.	Replace
6.2 Gear	Check visually	Tooth should be free from large wear or flaw.	Replace
6.2 Gear box	Check visually	Should be free from wear or deformation.	Replace

7.2 Top hook pin	Measure	$ \begin{array}{ccc} 0.5t & D \leqslant 9.5 mm \\ 1t, 2t & D \leqslant 11.5 mm \\ 1.5t, 2t & D \leqslant 13.4 mm \end{array}  \qquad  \begin{array}{c} \text{Measure the external} \\ \text{diameter of the top} \\ \text{hook pin.} \end{array} $	Replace
0	Media	5°30t D≤17,5mm	Replace
7.3 Guide plate	Check visually	Should be free from wear or deformation.  Should be free from wear or deformation.	Replace
7.4 Chain stopper	Check visually	Should be free Iron wear of devan	
8. Function 8.1 Lifting and	Lift and lower a light load.	No abnormal difficulty in lifting and lowering.	Overhaul and service.
lowering 8.2 Brake	Lift and lower a light load.	Confirm that none of the problems listed below occur during lifting and lower: (1) Lifting impossible. (2) Load slips down slowly. (3) Load falls when the operator releases the hand lever.	Overhaul and service.

## 6. MAINTENANCE

#### 6.1 General

Incorrect maintenance may result in serious bodily injury or death. Only trained and competent personnel could maintain this equipment.



After performing any maintenance on the hoist, always test the hoist according to this manul before returning to service.

## **▲** CAUTION

- (1) Always take care hand or clothes will not be caught in a chain, idle sheave or other moving parts.
- (2) Never operate the hoist when maintenance.
- (3) Always inspect all the items if abnormal difficulty in lifting and lowering.
- (4) Never perform maintenance on the hoist while it is supporting a load.
- (5) Always wipe off all dirt and water.
- (6) Always store the hoist in dry and clean place.

#### 6.2 Lubrication

Make sure to lubricate load chain, hook latches, top/bottom hook pin and hook yoke, etc.. Load chain is one of the important parts of a hoist, it is should be lubricated well with machine oil.

#### **▲** CAUTION

- (1) Lubricate load chain weekly, or more frequently, depending on severity of service.
- (2) Lubricate load chain more frequently than normal in a corrosive environment.

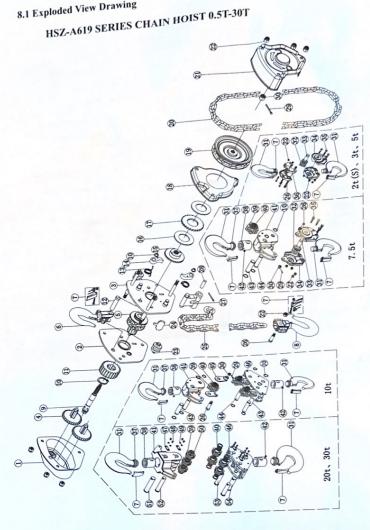
Notes: Recommended lubricant of this product is lithic grease #3.

# 7. TROUBLESHOOTING

Trouble	Cause and cont	
The pawl makes the	Cause and explanation  Worn friction plates. When used at high frequency without performing maintenance records.	Remedy
proper clicking sound but fails to lift the load.	gaps between the friction disc and hand wheel and	Disassemble and replace the friction plates.
The pawl produces absolutely no sound and fails to lift the load	The pawl has been improperly assembled. If the pawl is assembled facing the otherwise assembled incorrectly, it will not cleanly the pawl is	Disassemble and then reassemble parts correctly.
The chain is tight	The pawl is not moving smoothly. Unless maintenance is performed regularly, dirt will adhere to the grease on the pawl and pawl shaft. Movement will become sluggish and the pawl will remain stuck in the kicked out position.	Disassemble and then reassemble parts correctly.
when lifting, even without a load. (A squeaking noise can be heard at times.)	Worn gear teeth or worn bearing. Unless maintenance is performed regularly, greased parts will dry, resulting in wear and damaged, and improper meshing of gears.	Disassemble and replace the pinion, load gear, gear case, side plate and ball bearing.
Improper lowering or the chain is extremely tight when	The brake is too tight. Due to shock during work, or because the load was left suspended for a long period of time, the brake tightened.	Free the brakes forcibly by jerking the hand chain,
lowering.	The brake is rusted. Unless maintenance is performed regularly, rusting will occur.	Disassemble and replace parts where necessary.
The hoist drops the load when the instant	The braking surface is dirty. During assembly, the braking surface must be wiped cleaned of dirt.	Disassemble and then reassemble parts correctly.
lowering is started.	The braking surface is oily. The braking surface must not be allowed to become soiled with grease or machine oil because it is a dry-type brake.	Disassemble and then reassemble parts. Do not oil or grease the braking surface or friction plates.
Load slipping	The braking surface is oily. The braking surface must not be allowed to become soiled with grease or machine oil because it is a dry-type brake.	Disassemble and then reassemble parts. Do not oil or grease the braking surface or friction plates.
	The braking surface is dirty. During assembly, the braking surface must be wiped cleaned of dirt.	Disassemble and then reassemble parts correctly.

## 8. PARTS LIST

8.1 Exploded View Drawing



## 8.2 Parts list

No.	Parts Name	No.			
1	Gear case assembly		Parts Name	1	
2	Gear side plate assembly	19	Hand chain wheel	No.	Parts Name
3	Brake side plan	20	Hand chain	37	Roll ball
4	Brake side plate assembly	21		38	Top hook frame
5	Disc gear assembly	22	Hand wheel cover	39	
	Load sheave assembly	23	Lock nut	40	Top hook wheel
6	Top hook assembly	-	Guide roller	-	Roller needle
7	Safety latch assembly	24	Stripper	41	Top hook frame set
8	Bottom hook assembly	25	Load chain	42	Holding screw
9	Drive shaft	26	Bottom hook pin	43	Top hook shaft
10		27	End anchor	44	Top hook wheel shaft
	Snap ring	28		45	Chain sling plate
11	Splined gear	29	Tail chain pin	46	Bottom hook frame set
12	Top hook shaft	-	Split pin	47	Stripper
13	Pawl spring	30	Castle nut	48	
14	Pawl	31	Bottom hook	49	Hex bolt
15	Brake Seat	32	Bottom hook wheel		Spring washer
16		33	Bottom hook wheel pin	50	Snap ring
VALUE OF THE PARTY	Friction disc	34	Bottom hook frame set	51	Top hook shaft
17	Ratchet disc	35	Hex bolt	52	Top hook wheel shaft
18	Ratchet disc cover	36		53	Bottom hook wheel pin
1/21		30	Top hook frame set	54	Bottom hook pin