

ELECTRIC ROPE HOIST

The number in the following text correspond with the pictures Fig.1~Fig.7

FEATURES

Fig. 1

- | | |
|-------------------------|-----------------------------|
| 1. Bracket | 7. Hook |
| 2. Down limit pole | 8. Mains cable |
| 3. Lever automatic stop | 9. Remote control |
| 4. Limit block | 10. Push button |
| 5. Drum | 11. (Emergency) stop switch |
| 6. Steel cable | 12. Motor |

TECHNICAL DATA

	PA1000D
Voltage	230V,50Hz
Current	7.4A
Input power	1600W
Rated load	500/999kg
Lifting height	18/9m
*Rated speed	8/4m/min
Cable diameter	5.6mm
Cable tensile strength	$\geq 1770 \text{ N/mm}^2$
Insulating grade	B
Protecting grade	IP54
*Work rate	S3 25%-10min
Group of mechanisms	M1
Net weight	31kg

*Rating speed is lowest speed of the hoist.

*Work rate e.g. S3-25%-10min: S3=intermittent periodic duty. Means during a period of 10 minutes the machine may run max. 25%(2.5min.)

GENERAL

- The electric rope hoist is an ideal appliance in your garage, shed or similar location for hoisting all kinds of loads.
- This rope hoist is not used for transporting hot molten masses. It is not used for operating in aggressive environment and low temperatures.

- Group of mechanisms is M1.
- The useful life of the hoist is above 8000 cycles (except wearing parts). If the hoist has run 8000 cycles, it must have all mechanisms inspected and maintained.
- Read and understood the instruction manual completely and clearly, before using the hoist.
- Ensure that operator know how the machine works, and how it should be operated.
- The user shall always work in compliance with the operating instructions.
- The hoist is not designed for continuous use. The work rate is intermittent periodic duty.
- The rated capacity of the machine does not vary with the position of the load.

SAFETY INSTRUCTIONS

1. Always check that the voltage corresponds to the voltage on the rating plate. In case the mains voltage is not suitable may cause working abnormally or personal injury.
2. Your socket plug must be grounded and your electric system must be supplied with an earth leakage circuit breaker.
3. It is forbidden to lift loads above the rated load of the hoist.
4. Use the device only for its intended purpose. Never carry persons with the hoist.
5. Do not pull cord to disconnect the plug. Keep cord from heat, oil and sharp edges.
6. Do not try to lift fixed or obstructed loads.
7. Pull out the mains plug when not in use.
8. Keep children and other unauthorized persons away from the machine.
9. Do not side-pull loads. Avoid swinging the load or hook.
10. Make sure hook travel is in the same direction as shown on the controls.
11. Inspect the hoist regularly; check the switches are in good operating conditions.
12. Have your tool repaired by an expert; otherwise it may cause danger for the user.
13. Avoid switch-on / switch-off quickly sequences.
14. Not allow your attention to be diverted from operating the hoist.
15. Do not stand or work under a lifted load.

INSTALLATION & USE

Unpacking

After opening the carton, carefully inspect the hoist frame, cords, hooks and control station for damage that may have occurred during shipment.

Mounting See *Fig.4*

The hoist is provided with a bracket system which allows holding rectangular beams. The beam dimensions must be in accordance with the distance between the hoist's hinge and its strength can hold the rating load. We recommend contacting a skilled technician for help and checking the solidity of the beam construction.

The bolts must be properly tightened. Before the start-up a skilled technician should check that the support and the coupling of the hoist are well sized.

Pulley block using See *Fig.5+6*

The electric rope hoist is provided with an extra pulley and hook. When used correctly, the machine can hoist double load.

Assemble the pulley with help of the bolts as shown in the picture.

The fixed hook on the machine can be attached on the rack's cover: there is a special hole for that purpose. The load is now lifted with help of 2 steel cables: the machine can hoist a double load.

Operating instructions

1. Before first using, remove the adhesive tape from the cable drum.
2. The value of the A-weighted emission sound pressure level at the operator's position is lower than 85dB.
3. Supplying power need: voltage $230V \pm 10\%$, frequency $50Hz \pm 1\%$.
4. The hoist is used at ambient temperatures, among $0^{\circ}C$ and $40^{\circ}C$, relative humidity below 85%, height above sea below 1000 meters.
5. The hoist's transportation and storage temperature may be above $-25^{\circ}C$, below $55^{\circ}C$. It's highest temperature can not exceed $70^{\circ}C$.
6. The user shall lift the loads from the ground with the minimum speed available at the hoist. Shall be tightened and shall not be in the slack-condition when the load is being lifted from the ground.
7. The electric motor of the hoist is equipped with a thermostat switch for protection.

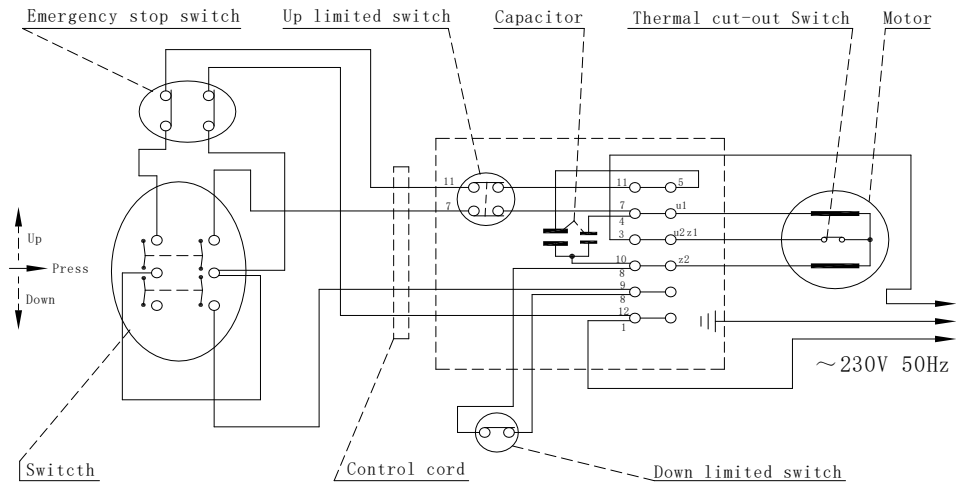
During operating the hoist may stop, it will only become operational again after a break for cooling.

8. The hoist electric rope hoist is not supplied with any rated capacity limiter. Therefore, if you are unable to hoist a load do not insist and let the motor cool down. It means the load exceeds the hoist max. capacity.
9. Not leave load supported by the hoist unattended unless specific precautions have been taken.
10. Be supplied with a 10 A fuse or 10 A over-current circuit-breaker to protect your electric system.
11. Not use limit switches as routine operating stops. They are emergency devices only.
12. Before starting the work, make sure that the steel cable is correctly wound around the drum and the pitch is equal to the cable diameter (*See fig. 2*)
13. Make sure that the load is properly secured to the lifting hook (7) or return pulley and always stay at a distance from the load and the steel cable (6).

Operation

- Check if the (emergency) stop switch (11) is pressed. Turn the red stop switch clockwise to engage.
- Press the push button ▲(10) to lift the load.
- Press the push button ▼(10) to lower the load.
- For up limited system, when the hoisted load is almost in top position, the limit block (4) will move the lever (3) upward. A switch on the motor is now engaged and the motor up direction moving will stop running.
- For down limited system, when the load is almost in low position (about two turns of cable around the drum), the down limit pole (2) will move. A switch on the motor is now engaged and the motor down direction moving will stop running. In case the cable moving direction is not as shown on the controls, which caused by the cable hold down by the side cable, the down limited system may work also.
- When the push button (11) is pressed, the machine will stop.
- In case of an emergency, immediately press the red stop switch (11) to stop the machine. Operating the machine is not possible when this red switch is pressed.

CIRCUIT DIAGRAM



PERIODIC INSPECTION & MAINTENANCE

Attention! Always make sure that the machine is not connected to the mains electricity when you carry out any maintenance of the mechanism.

- Hereinafter, per cycle means that the operator operates the load up and down one time. Periodically checking usually means it has checked after the hoist work per 100 cycles.
- Periodically make sure the hoist limit switches function properly. Testing see below.

When the hoist is hoist, moves the lever (3 see fig. 1) upward lifting direction. The motor must be stopping running.(with no load)

When the hoist is lower, moves the down limit pole, the motor must be stopping running.

- Periodically check power cord and control cord.
- Per 200 cycles may lubricate the steel cable and pulley.
- Per 30 cycles check (re. fig. 3) that the entire steel cable is in good condition. If the cable is damaged, replace the cable immediately according the technical data form.
- Per1000 cycles checks that the screws securing the brackets and pulley are well tightened.
- Per 1000 cycles check that the hook and the pulley are in good condition.
- Check that the (emergency) stop switch and push button panel are in good

operating conditions before every using the hoist.

- Per 1000 cycles check brake function system. If motor with abnormal noise, or hoist without hold the rated load, the brake function system may have some overhaul.
- Replace damaged or worn parts, and keep appropriate records of maintenance.
- For extraordinary maintenance contact an authorized service center.

PA SERIES ELECTRIC ROPE HOIST LIST

No.	Description	Qua.	No.	Description	Qua.
1	Fixing Rack	1	31	Stator	1
2	Fixing Ring	2	32	Chassis	1
3	Hex Head Bolt	4	33	Brake Spring	1
4	Socket Cap Screws	2	34	Brake Assembling	1
5	Bearing	1	35	Bearing	1
6	Embed Pin	2	36	Motor Cover	1
7	Rope Drum	1	37	Long Hex Head Bolt	4
8	Spring Buffer	1	38	Fan Cover	1
9	Limit Block	1	39	Fan Blade	1
10	Steel Cable	1	40	Moving Limit Shaft	2
11	Fastening Sleeve of Rope	2	41	Limit Shaft seal	2
12	Shrink-Ring of Rope	1	42	Up limit switch	1
13	Hook	1	43	Down limit switch	1
14	Limit Lever Assembling	1	44	Connecting Housing	1
15	Down limit Pole	1	45	Base of Connecting House	1
16	SOCKET CAP SCREWS	1	46	TERMINAL BLOCK	1
17	Rope Tube Shaft	1	47	Four Core Cable	1
18	Plain Pin	1	48	Plug	1
19	Bearing	1	49	Cord Clip (Small)	1
20	Gear Box	1	50	Cord Clip (Big)	2
21	Cap Screws	8	51	Shaft for Pulley	2
22	Grade 1 Gear	1	52	Preventing Slip Screws	2
23	Paper Seal	1	53	Pulley Assembling	1
24	Bearing	1	54	Hook for Pulley	1
25	Intermediate Shaft	1	55	Positive and Negative Switch	1
26	Grade 2 Gear	1	56	Emergency Stop Switch	1
27	Bearing	1	57	Handle	1
28	Front Cover	1	58	Capacitor	1
29	Bearing	1	59	Connecting Housing Cover	1
30	Rotor	1	60	Down limit Box	1

