

# OPERATING INSTRUCTIONS

## Pneumatic ASTRO HOIST Type: A88-TO

Conform to EN 1808 (1999) and Machine Directive 98/37 EC



### WARNING:

- All persons operating this equipment must read and completely understand this manual.
- All persons must be thoroughly trained in the use of the equipment, its operational and safety features, and they must also be capable of carrying out the daily checklist.
- Only authorized and physically fit persons shall operate the equipment.
- Any operation in violation of these instructions is at the operator's own risk and may result in serious injuries.
- Keep this manual with the hoist at all times.
- Only use spare parts and steel wire rope from POWER CLIMBER,
- It is not allowed to put the machinery into service until the machinery into which it is incorporated or of which it is to be a component, has been found and declared to be in conformity with the provisions of Directive 98/37/EC and with national implementing regulation.

**Manufacturer: Power Climber b.v.b.a, Satenrozen 7, B-2550 Kontich BELGIUM**

Reference: 38704-E	Issue Date: 17-feb-2004	Revision:A	Page: 1 of 8
--------------------	-------------------------	------------	--------------

## TECHNICAL DATA

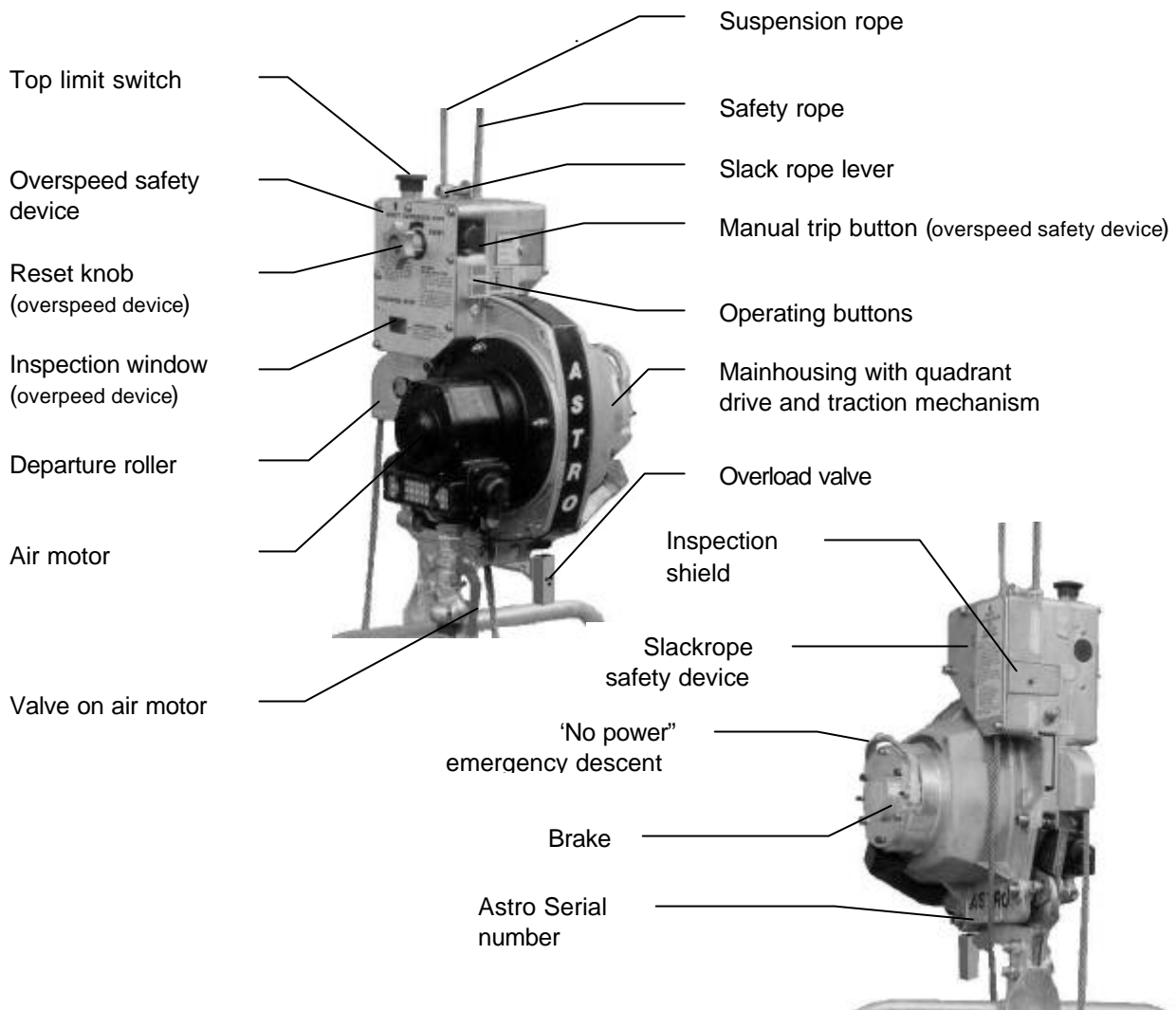
ASTRO Type	Pneumatic motor	Capacity	Suspension- and Safety Rope	
			Nom. Dia	Min. Breaking Load
A88 TO	2,8 HP vane motor	6,75 KN	9 mm	60 KN

### DESCRIPTION

The ASTRO is a self reeving scaffold hoist which has a single wrap traction sheave and a proven roller chain traction principle for multiple steel wire rope sizes.

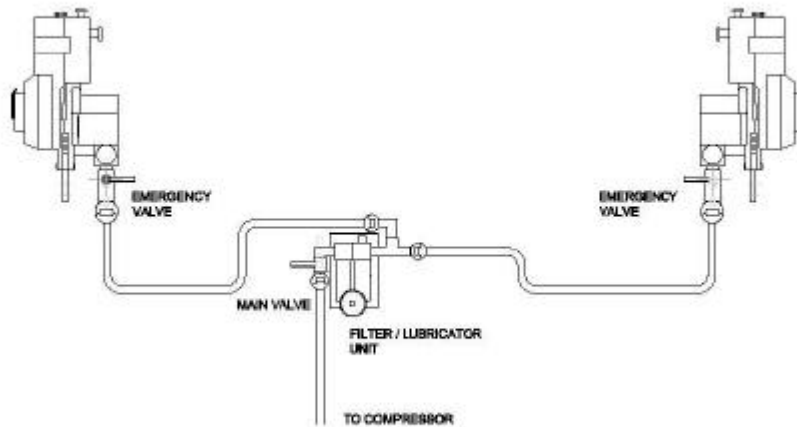
Power is supplied by an pneumatic motor via the highly efficient QUADRANT drive.

In the event of power loss, slow and controlled descent can be achieved by manual release of the main brake.

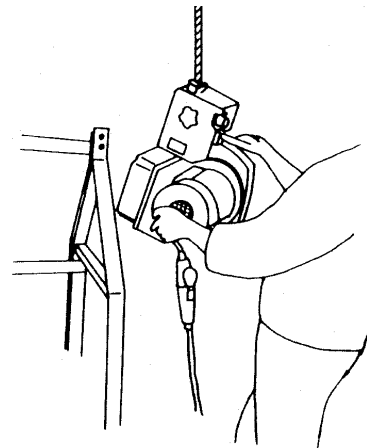
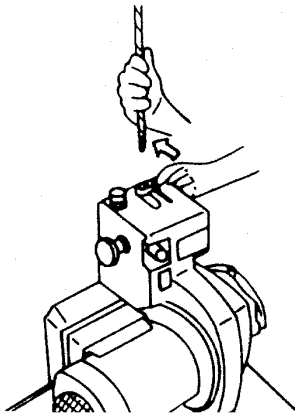


Reference: 38704-E	Issue Date: 17-feb-2004	Revision:A	Page: 2 of 8
--------------------	-------------------------	------------	--------------

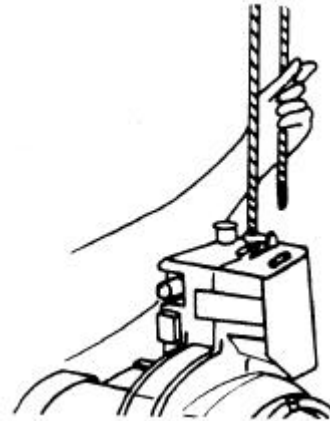
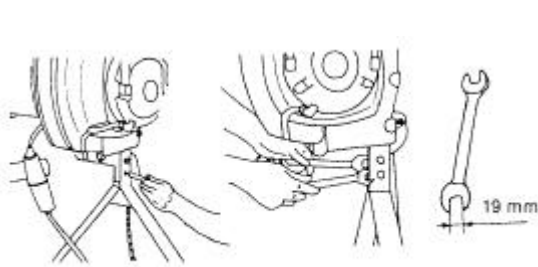
## REEVING



1. Install the filter lubricator unit . Connect the filter lubricator with the air motor.
2. Connect the air supply to the filter
3. Open the main valve on the filter lubricator and the air motor
4. The Astro hoist can now be operated



2. Check that the overspeed safety device is reset. Push slack rope lever backwards with one hand and feed the 'bullet' end of the suspension rope into the entry guide, and push firmly into the hoist. Operate the ASTRO in up direction to selfreeve the suspension rope.
3. To lift the ASTRO, operate in the up direction. Line up the holes in the stirrup bar with the holes in the stirrup and push home the bolts.



4. Bolt the ASTRO to the stirrup with the suspension rope departure roller to the outside of the platform.  
Mount the ASTRO hoist with bolts M12 and self-locking nuts on stirrup.

5. Reeve the safety rope by pushing the bullet end into the entry guide on top of the ASTRO. Push the rope through the slack rope safety device compartment. A weight of about 8 kg should be hung on the bottom of the safety rope to keep it taut.

#### NOTE:

When using platforms with fixed stirrups the ASTRO must be mounted with the departure roller to the outside of the platform to ensure correct operation of the traction system and safety devices.

#### IMPORTANT:

- When rigging is complete carry out the routine tests to ensure safe and correct operation.
- When dereeving the suspension rope, push the slackrope lever backwards, and keep tension in the rope above the hoist to avoid rope jams.

## OPERATING INSTRUCTIONS

### 1. Function description (See page 2 and 4 for pictures).

Main valve on filter lubricator, will stop supply to both hoists.  
Operating buttons: Hold to run operation for up/down direction of the hoists.  
Valve on air motor , will stop supply to air motor when closed.  
Overload valve , will stop upward direction if an overload occurs.

### 2. Operating Instructions (cont.)

#### 2.1 To start.

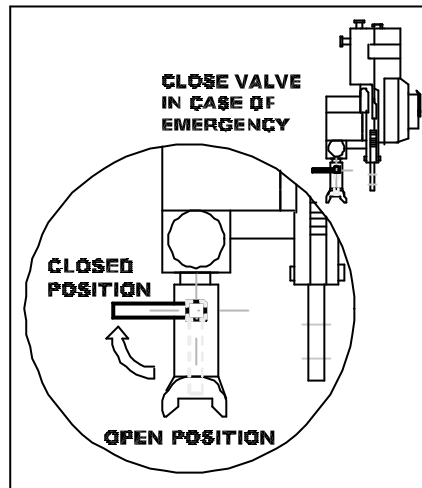
- a. Always use a filter lubricator unit.  
Adjust lubrication at 9-12 drops per minute  
Use a good quality oil with a viscosity of around 36csT at 40° C  
Recommended oil : SHELL TELLUS 37  
Before starting up the air-unit , blow out the air supply hose daily.  
Before starting up the unit after a long storage, inject some oil directly into the air supply, and operate the motor a short time without load.  
Before a long storage, also inject some oil directly into the motor and operate shortly under no load. Close the air supply to prevent dirt from entering the motor.
- b. Check if the compressor is running and providing sufficient flow & pressure.  
Flow =2,35 m3/min per hoist . Pressure = 6 bar
- c. Open the valve on the filter lubricator unit.
- d. Open the valve on the air motor
- e. The air hoist can now be operated up or down by pushing the control buttons.

#### 2.2 Overload condition.

- a. The overload valve (4) opens the up circuit , and the hoist will stop.
- c. To reset the overload device , remove the excessive weight. ( it might be necessary to lower the hoist to ground level to allow the overload spring to reset.)
- d. The hoist can now be operated again in the upward direction.

## 2.3 Emergency condition

- a. In case the hoist does not stop when the operation buttons are released  
Close the valve on the air motor immediately.



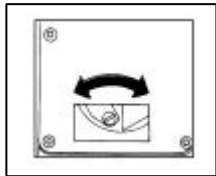
- b. Lower the hoist by releasing the brake handle manually.
- c. Contact your nearest Power Climber dealer.

## 2.4 Alternative Lubricants.

BP	Energol HLP65
Esso	Fanox 38
Regent	Ran do A
Castrol	Hyspin 70
Mobil	Almo oil No 1

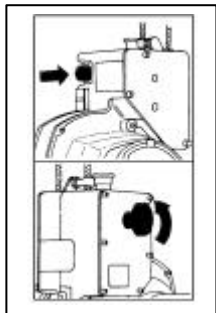
## DAILY CHECKLIST AND ROUTINE TESTS

Check before using the Astro hoist.



1. OVERSPEED GOVERNOR

Check flywheel rotation through the inspection window by powering the ASTRO up and down about 1 m.



2. OVERSPEED SAFETY DEVICE MANUAL TRIP BUTTON

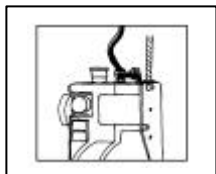
Raise the platform about 1 m. Power hoist down and press the button. Downward travel is cut-off. Release the main brake to ensure that the safety device is activated and preventing further downward movement.

To reset, power hoist up about 10 cm and turn reset knob anti-clockwise to reset. Normal operation is restored.



3. 'NO POWER' EMERGENCY DESCENT

Power the ASTRO up about 1 m. Disconnect the air supply. Operate the 'No Power' emergency descent lever in the direction shown. The ASTRO descends at controlled speed.



4. SLACK ROPE SAFETY DEVICE

Lower platform to the ground. Slacken the suspension rope. Pull up on the safety rope to make sure the safety device is gripping the rope.

5. TOP LIMIT SWITCH

Run the ASTRO in up direction and operate the top limit switch.

The ASTRO stops and can only be powered downwards, while the limit switch knob is depressed.

6. EMERGENCY STOP VALVE

Move the platform about 1 m. While close the main valve. The hoist will stop immediately and can not be driven up or down.

To reset open the main valve.

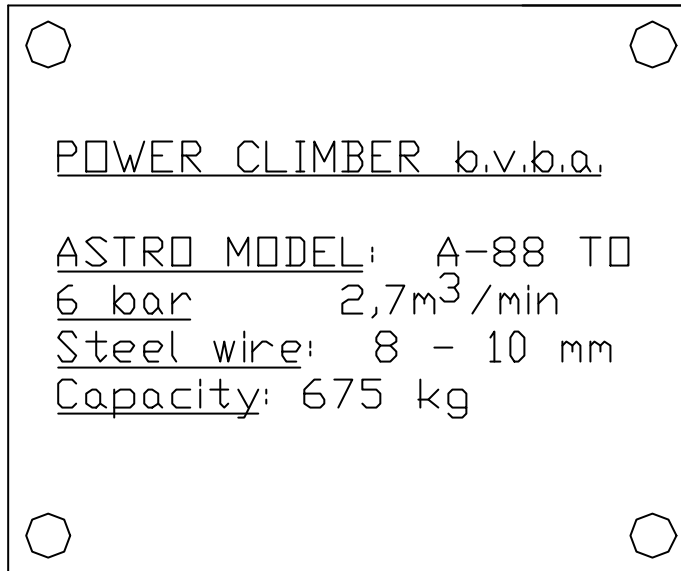
**DO NOT USE EQUIPMENT THAT IS NOT OPERATING PROPERLY!**

### SERVICE AND MAINTENANCE

In addition to the three monthly inspection the ASTRO hoist must be serviced by authorised persons every year, or every 50 working hours, whichever comes first.

Reference: 38704-E	Issue Date: 17-feb-2004	Revision:A	Page: 7 of 8
--------------------	-------------------------	------------	--------------

## NAMEPLATE



Reference: 38704-E	Issue Date: 17-feb-2004	Revision:A	Page: 8 of 8
--------------------	-------------------------	------------	--------------

