

Standard Operating Procedures

Portalifts and Econolifts

The Operators Manual should be readily available at all times.

SAFETY

1. The following safety requirements apply to the operation of the Portalift and Econolift hoists. All operators should be conversant with these before operating the hoists.
 - a) Read and understand the Operator Manual before using the hoists.
 - b) Ensure that all new operators receive training from an experienced operator before allowing them to use the hoists.
 - c) Never operate hoists with a faulty safety mechanism or limit switch.
 - d) Every standard set of hoists is supplied with a set of vehicle stands. These may be used to provide added security and stability when required.
 - e) The **Emergency Stop Button** at Post 1 or Control Cabinet is keyed. If during use of the hoists the operator leaves the system/unit unattended, the **Emergency Stop** button must be engaged, key locked and the key removed by the operator. This will prevent any inadvertent or unauthorised operation of the hoists by other persons.
 - f) The approved lifting weight for each hoist is stamped on the identification plate and must not be exceeded.

Special attention should be given to vehicles with uneven weight distribution to ensure approved lifting capacity per hoist post is not exceeded.

- g) The Portalift/Econolift system is designed to be used with a minimum of 2 posts at any time.
- h) Do not spray water onto the hoists.
- i) The hoists must only be used on smooth, hard, level surfaces that comply with the installation requirements. (refer Operators Manual)
- j) The lifted load must remain level at all times during lifting and lowering.
- k) All personnel must stand clear of the load during the lifting and lowering operations.
- l) Always ensure proper and positive engagement between the vehicle and the hoists. A visual inspection of this interface must be performed before and after every lifting or lowering movement of the hoist carriage.
- m) The stability of the hoists is dependent on the prevailing wind speed and the surface area the wind is acting upon. The load must be lowered when conditions exceed those illustrated in Table 1 of the Operators Manual.
- n) Always ensure that there is sufficient clearance between the vehicle and hoists as well as between the vehicle and the building during a lift.

- o) These hoists should be stored undercover when not in use. The hoists must be protected from the elements and adverse environments.
- p) The hoists must be decommissioned if any unusual noises or vibrations are detected. The source must be identified and rectified before re-commissioning the hoists.
- q) The hoists must always be operated, maintained, inspected and repaired according to the requirements of AS/NZS 2550.9:1996 Cranes – Safe Use – Vehicle hoists. The hoists should to be serviced and certified each year by a suitably qualified person.
- r) The load bearing pads on the hoist must make full and proper contact with the floor.

OPERATING INSTRUCTIONS

1. Setting Up the Hoists and Vehicle

Note

All personnel, including supervisors, must familiarise themselves with the equipment arrangement, work area hazards and layout of the hoist system.

- a. The area selected to set up the hoists must comply with the Installation Requirements, Refer to Operators Manual.
- b. Park the vehicle to be lifted in the designated position, as close as practicable to a three phase power outlet.
- c. Ensure there are no obstructions above or around the vehicle that could interfere with or obstruct the lifting procedure.
- d. Ensure the building has sufficient height to accommodate the vehicle in the raised position.

WARNING

Do not place the hoist cables in the path of vehicles. This could result in damaged cables and personal injury.

- e. Ensure that the hoists are connected to an adequate power supply outlet to suit the hoist configuration as specified in the Data Summary.
- f. Each hoist is individually numbered dependent on the configuration. When connecting the power leads it is advisable to connect each hoist to the identically numbered power socket. Failure to do so will cause the individual control buttons located on the control panel to operate the wrong hoist.
- g. Connect the hoists using only the cables supplied. Ensure that the plugs are securely locked into the sockets using the locking levers incorporated into the plug bases. Excess cable should remain loosely coiled on the cable hanger on the respective hoist and out of harm's way.

2. Phase Selection

For initial setup it is essential to check the power phase connection. Release all e-stops. With power connected and switched on, the blue light should illuminate and the orange fault light will not be illuminated. If the orange fault light is still illuminated, change the position of the Phase Reversal switch. The blue light should now illuminate and the orange light should not be illuminated, you will hear a click. Hoists will not operate if both the blue power light and the orange fault are illuminated

3. Pre-Operational Checks. Before lifting the vehicle:

- a) Check all electrical leads for damage or cuts.
- b) Visually inspect the hoists for any signs of corrosion wear or cracks.
- c) Check all fasteners, cable ties and nuts are secure.
- d) Check the Emergency Stop buttons on each hoist post and remote control are operational.
- e) Manually activate the upper limit switch, full current upper limit switch, lower limit switch and slack chain sensor (Portalifts only) on each hoist post.
- f) Check the Safety Locking Pawls (Portalifts only) penetrate the safety flats on each hoist post.
- g) Check the bellows (Econolifts only) are in good condition. (The bellows protects the shaft from dirt and grit.)

WARNING

If any faults or damage are detected during the Pre-Operational Checks, the hoists must be decommissioned immediately and any faults or damage rectified before the hoists are re-commissioned.

4. Lifting the Vehicle

WARNING

The Portalift & Econolift systems are designed to be used with a minimum of 2 hoist posts at any time.

Ensure that the vehicle to be lifted does not exceed lifting capacity of the hoists. (Special attention should be given to vehicles with uneven weight distribution to ensure the approved lifting capacity per hoist post, is not exceeded.)

- a) Ensure that everything is clear of the vehicle and hoists.
- b) Ensure that the hoist power cables are well away from the lifting assembly.
- c) Roll each hoist to a wheel of the vehicle and **centre** the wheel in the lifting assembly.
- d) Ensure steer wheels are on the Lock Position (Pneumatic wheels turn 90deg to hoist. Steel wheels' brake pedals must in the lock position) Steel steer wheels **DO NOT** turn 90deg to hoist. (On Econolifts this can put the tow handle in line with the cradle)

WARNING

Failure to centre the wheel may result in increased loading, excessive wear to the lifting assembly thrust washers and cause thermal overloading of the electrical system.

- e) Ensure that all hoist mounted **Emergency Stops** and the remote control **Emergency Stop** are disengaged.
- f) Visually check to ensure proper and positive engagement between the vehicle and hoist. This procedure should be performed before and after every movement of the hoist carriage. Vehicle is to be in neutral and handbrake off.
- g) Ensure that the vehicle remains level at all times and during lifting and lowering operations. The Operator is to monitor the vehicle and hoists during raising and lowering procedures.
- h) Press the **ALL UP** button and raise the vehicle just clear of the ground. Ensure that all hoists are operating correctly and the wheels are properly engaged in the lifting cradle before continuing the lift.
- i) Check that the vehicle is level. The hoists can be operated individually for small corrections to level the Vehicle by pressing the respective hoist **UP** or **DOWN** buttons. When the Vehicle is level it can be raised to the desired height by pressing the **ALL UP** button. The Vehicle must remain level during lifting and lowering operations.

WARNING

When adjusting individual hoist post levels, observe the hoist post(s) being adjusted to ensure the vehicle remains clear of the hoist post(s) during the adjustment.

- j) If required, place the vehicle stands under the vehicle and adjust the height as needed.
- k) The hoisted vehicle is now safe to be worked on.

Note regarding Portalifts

<p><i>DO NOT park the hoists on the safety locking pawls when the desired height has been reached.</i></p>
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WARNING

DO NOT work under the vehicle unless all safety precautions have been carried out.

5. Lowering the Vehicle:

- a) Clear all articles from under the vehicle. Ensure that all personnel are clear of the vehicle.
- b) Ensure that all hoist mounted **Emergency Stops** and remote control **Emergency Stop** are disengaged.
- c) On Portalifts: Press the **ALL UP** button again to raise the hoists slightly. This is to ensure against inadvertent engagement of the Safety Locking Pawl. Failure to raise the hoists slightly may prevent the hoist operating due to the presence of slack chain condition. Refer to section on Resetting Slack Chain Sensor if required.

- d) Press the **ALL DOWN** button and lower the hoists. Observe during initial movement that all hoists are lowering together and that the vehicle remains level. Operator must be vigilant during raise and lower procedures.
- e) If all hoists are not lowering together, stop immediately until the cause is corrected. It may be necessary to adjust the individual heights of the hoists. Lower the vehicle as in Item 4 f).
- f) If correction is required, level the vehicle using the appropriate hoist(s) **UP** or **DOWN** button(s).

CAUTION

If the lowering cycle is stopped or interrupted before reaching the lower limit switch, press the ALL UP button before continuing down.

- g) When the hoists are fully lowered, pull the hoists away from the vehicle wheels.
- h) Move the vehicle out of the area.
- j) If the hoists are not to be used for further lifting tasks, store the hoists and cables correctly to prevent damage.

6. Unlevelling of the Hoists

If the vehicle needs to be raised at one end or side to assist with the removal of gear boxes etc strict attention to the angle of the vehicle must be given.

- a) If raising/lowering the front/rear of the vehicle independent to the other end, do not exceed 200mm difference.
 - As one end raises/lowers sideways stress is added to the hoists pulling them together. **Handbrake must be off and vehicle in neutral so wheels can rotate.**
 - Common sense must be applied. A longer wheel base can tolerate a greater height difference.
- b) Unlevelling the bus sideways has many potential issues.
 - Ensure the bus never touches hoists.
 - Never lower all the hoists if the vehicle is not level. It is possible the vehicle will come in contact with the hoists.
 - Do not exceed 100mm difference between side to side.
 - Do not leave a vehicle in an uneven side to side position for an extended period of time. A leak in the air bags may cause the vehicle to come in contact with the hoists.

7. Extending life of the chains on Portalifts

- a) Use a light spray of Inox to lubricate the chains. Do not use any other product.
- b) When a vehicle is left on the hoists for more than a few hours rest the vehicle on vehicle stands to take the stress off the chains.

8. Using the Vehicle Stands

Position the Vehicle Stands under the raised vehicle according to the job being undertaken, using the incremental adjustment to raise stands to the required height. Lower the vehicle onto the stands and ensure the load is stable before removing the Portalift hoists. The vehicle must remain level as it is being lowered or raised when using the vehicle stands. When lowering/raising a vehicle onto fewer stands than the number of hoists in use, use the individual hoist up/down buttons to raise or lower the appropriate Portalift hoists.

CAUTION

Installation requirements for the vehicle stands refer to the Operator Manual.

Ensure the stands are correctly engaged and the vehicle is stable before commencing work on the raised vehicle.

If using the stands outside, operators are to be aware that the stability of the load can be affected by windspeed and extra time may be required to lower a vehicle on stands. Refer to Allowable Windspeeds at Table 1 of the Operators Manual.

9. Lifting Small Vehicles

To lift vehicles with small wheels it will be necessary to use the small wheel adapters. When lifting light vehicles it is necessary to utilise the levelling screws to prevent the hoists moving with the load. This can occur as the weight of the small vehicle may be insufficient to compress the pneumatic tyres or springs (whichever is fitted) of the hoist to allow the hoist to settle on the floor. A 19mm hexagon drive is required to engage into the socket heads of the levelling screws.

It may be more convenient to operate the hoists with reduced inflation pressures on the rear pneumatic tyres (if fitted) if a large portion of the vehicle fleet consists of light vehicles. The tyre pressure should be reduced to a level to ensure full and proper contact between the hoist load carrying pads and floor and hence avoid the use of the levelling screws.

10. Storage

The hoists are waterproof (to a point) but not weatherproof. This allows them to be used outside in wash bays etc and in inclement weather, but does not allow them to be stored for extended periods where they may be affected by weather conditions. When not in use, the hoists are to be stored away from the effects of the weather. If it is necessary to store the hoists outside, weatherproof covers are available from Endurequip.

DANGER

Do not clean the hoists with pressurised cleaning equipment.

A complete maintenance check of the hoists must be carried out before re-commissioning

USE IN WASH BAYS

Note:

Econolifts are not designed to be used in Wash Bays.

1. When using the Portalift hoists in wash bays, the following guidelines must be adhered to in order to prevent damage to the hoists.
 - a) Do not spray water, detergent or steam onto the hoist electrical equipment (including Limit Switches) or chain guide rollers.
 - b) Electric motors and electric brakes should be covered to prevent accidental high pressure ingress into these components.
 - d) Our regular maintenance requirement is not adequate for hoists used in wash bays (more frequent servicing is required).
 - e) If grease or dirt is blown onto the front roller safety flats, it must be removed before the hoists are lowered. Failure to clean the grease and dirt from the wear strips before the hoists are lowered may cause the rollers to slide and not roll as required. This will shorten the life of the rollers.
 - e) Under no circumstances will the ingress of water, detergent or steam into the electrical components or the drive component be covered by warranty if the hoists are not protected by suitable covers.
 - f) Only fully trained operators should use Portalift in wash bay areas.
 - g) The hoist should be lubricated frequently if used in a wash bay.
 - h) If any doubt arises to the use or operation of these hoists in wash bays, please contact Endurequip.