

# Covid-19; Standing down MHE



Where sites are closed, maintenance, servicing, inspection and Thorough Examination of Materials Handling Equipment may not be possible. There is a legal obligation under the Provision and Use of Work Equipment Regulations 1998 (PUWER) and the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) to ensure that equipment is safe to use:

- i) Equipment should not be used if the LOLER and PUWER inspection, examination and maintenance requirements have lapsed. See BITA Fact Sheet FS05 for details,
- ii) The status of equipment that has been removed from service must be clear to users; and,
- iii) Equipment must not be returned to service until any outstanding obligations under both LOLER and PUWER have been met.

**When standing down a machine for an extended period of time, we recommend the following:**



- 1) Trucks should be parked on smooth, level ground with the load handling means, e.g. forks, lowered to the ground and with the means of starting, e.g. key, removed.
- 2) Clean thoroughly to remove any risk of the Covid-19 virus spreading through infected surfaces (refer to Covid-19: Safe Cleaning Practices for MHE and Plant on BITA website).
- 3) Refer to the operator's manual for information on shutdown and storage. Information in the operator's manual has precedence over this fact sheet.
- 4) Lead acid traction batteries
  - Fully charge the battery and complete normal battery maintenance procedures
  - Clean and dry the battery cell tops and connectors
  - Disconnect the battery connector, electrically isolating the battery from the machine unless this is prohibited in the instruction handbook
  - A fluid level check and maintenance charge should be administered every third month of storage
  - Batteries may be kept on the truck or stored separately in a dry area protected from extremes of high and low temperature, preferably indoors
  - Where batteries are used in cold or chilled stores, they should not be left in the store for extended idle periods whether on or off the truck. This may require the battery to be removed from the truck. The battery may require drying after removal due to condensation. If trucks require a permanent battery supply such as for moving part heaters, then consult the truck manufacturer for advice
  - Check correct functioning of any watering systems when topping.
  - Before reintroducing into service, check all electrical connection and cables for damage (possible rodent damage to insulation) and arrange repairs where needed
  - Before recommissioning, check the electrolyte level and density and fully charge the battery



**5) Lithium ion batteries**

- Fully inspect the battery for signs of damage
- Fully charge the battery
- Disconnect the battery isolator, electrically isolating the battery from the machine
- Disconnect the CAN communication connector from the battery, but do NOT disconnect the battery management system (BMS) from the battery
- Batteries should generally be stored indoors, away from heat sources and direct sunlight, and within the temperature range 0°C to 40°C.
- Storage areas should be dry and well ventilated (max. 85% humidity).
- Ensure there is sufficient protection against short circuit and mechanical damage.
- A maintenance charge and inspection should be administered every third month
- The battery charge should not be permitted to fall below 50% of full charge



**6) LPG powered machines**

Remove the gas bottle from the machine and ensure connector is suitably shielded from damage, contamination or oxidation.

The battery should also then be disconnected, and the terminals protected with acid-free grease.



**7) Diesel powered machines**

The fuel tank should be fully filled to prevent build-up of condensation.

The battery should then be disconnected from the machine and the terminals protected with acid-free grease.



**8) Hydraulic system**

If the machine will not be used for over 12 months, replace the hydraulic fluid.

Check the fluid for traces of condensation water before re-introduction into service.



**9) Drive unit**

Appropriately support the machine's drive unit to remove loading of the drive wheel



**10) Wheels**

- For machines with solid (non - pneumatic) wheels. Support the machine to prevent deformation of the materials and the formation of flat spots
- For pneumatic wheels, ensure tyres are inflated to the recommended operating pressure



**11) Unpainted surfaces**

- Lubricate all chains and mechanical parts
- Apply penetrating oil or suitable protective aerosol spray to all electrical connections



12) If the machine is to be stored in a dusty environment then it should be covered with a cover that does not collect condensation, e.g. a cotton cover not a plastic sheet.



13) Reintroduction to service

- Thorough Examination under LOLER and outstanding servicing, maintenance and inspection requirements of PUWER must be brought up to date before the equipment is re-activated
- The operator's manual will include information on commissioning; perform the same servicing tasks and functional testing as carried out when the truck was first commissioned
- Equipment should be checked for any deterioration which may have occurred during storage



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