

**STEPHEN WOOD
TRAINING SERVICES LTD**

LORRY MOUNTED FLT MOFFETT



What is a Lorry Mounted Lift Truck, known as a Moffett Mounty after the company that invented the machine type?

Answer: Basically it's a forklift that mounts onto the back of a HGV Truck or Trailer so that wherever the vehicles travels to, the driver will have brought his/her own forklift to assist with loading and unloading of the vehicle.

This course is approved for your peace of mind that you are covered under the HSE regulations HSG6 and Approved Code of Practice L117. Records are kept by ourselves for 3 years.

Course Content

- Responsibilities under the Health & Safety at Work Act, 1974, PUWER 98 & LOLER 98
- Operators Safety code
- Re-fuelling and Re-charging of Electric or Diesel Forklift truck
- Mounting and un-mounting the forklift on the carrying vehicle
- Pre-use checks
- Factors affecting stability
- Motive and hydraulic controls of the Counterbalance
- Manoeuvring the Forklift Truck in open and confined areas
- Stacking at different levels
- De-stacking with laden and un-laden pallets
- Loading and unloading lorries with the Moffett Mounty

Course Assessment

- Theoretical assessment of 5 open and 47 multiple choice questions, pass rate 80%
- Practical Test of basic operating skills, confirming skills taught on the Forklift training course Failure will occur at 41 error faults

**THIS LINK TAKES YOU TO OUR WEB SITE TO VIEW
FULL DETAILS ON THIS MACHINE
AND TO VIEW 2 TRAINING DVDS FROM MOFFETT ON
HOW TO OPERATE A MOFFETT SAFELY**

<https://ribblevalleytrainingcentre.com/moffet-training/>

General safety information for HSE L117 technical test

This is for guidance purposes only and does not relate directly to specific HSE technical test questions. It should only be used as a refresher or as part of a training course and not in place of training. These notes are provided free for your use only and should not be reproduced or sold to another party.

Health and Safety at Work Act 1974 –

Designed to protect people and the environment from work place activities. It places certain duties and responsibilities on employers, employees, self employed people, designers and manufactures.

Employers Responsibilities

Must ensure workplaces under their control are safe and free from hazards. Ensure the safety of employees, self employed, visitors, trespassers and the general public who could be affected by the work. Everything they provide for use, tools, plant and equipment must be fit for purpose, safe to use and the personnel trained to use it

Employees Responsibilities

Must take care of themselves and others who may be affected by their acts or omissions. Co-operate with their employer. Do not tamper with or interfere with or misuse anything provided for safety

Failure to Comply with Legislation

Could result in loss of you job and all the financial implications that can bring but it could also result in prosecution. The severity of the breach of legislation and any accidents or incidents related will dictate what type of court proceedings you could face. If you have fulfilled your legal requirements and can provide proof of this in court then you would likely be found Not Guilty but if you were found guilty you could face a prison sentence or a substantial fine

To fully understand the above Act specific training and guidance is required

Method Statement

Detailed description of how to carry out a job safely and efficiently. All involved in the work must be briefed on its contents. Workers must follow the Method statement unless they fell it is not suitable then they should stop and report it and have the method statement amended. Method Statement must only be amended by competent people

Risk Assessment

Is a legal requirement before work starts. It is a detailed assessment of the risk involved in doing and job and provides information on how to reduce the risk level down to an acceptable level.

Hazards

This is anything which can cause harm to people plant or equipment.





Excavations or Trenches or Edges

Risk of collapse. The minimum distance to keep away from open excavations is at least the depth of the trench i.e. if its 2m deep you stay 2 m back

Working at Height

Any place you can fall from and be injured is considered working at height. The top of a mound, climbing into or out of a machine. Standing by the edge of an excavation

Slopes

Where ever possible the weight always faces up hill i.e. empty trucks face downhill and loaded trucks face uphill. Extreme care should be taken if working across a slope. Avoid turning on slopes if possible

Overhead Cables

The minimum distance to be maintained form over head cables mounted on wooden poles is 9m from the greatest reach of the machine and 15m from cables on metal pylons. Electricity can arc or jump a gap.

Confined Spaces

Any where there is restriction on operating area can be considered a confined space. There is a greater risk of accident or damage. The minimum distance which should be maintained between a fixed obstacle

and the machine is 600mm (this is deemed to be the smallest distance a person can go through without being injured). If this distance can't be maintained then the area should be fenced off and signs erected. Fumes, dust, noise, lack of visibility and insufficient room to manoeuvre are all hazards associated with confined areas

Plant Operations

Are regarded as "Safety Critical Operations" because of the potential risk of an accident. Plant Operators can cause harm to themselves or other people if they carry out an unsafe act.

Pedestrian Areas

Care should be taken when operating in pedestrian areas. A safe route for pedestrians should be provided with suitable signage and lighting. Enough room for material storage and vehicle movements is required. Noise, dust and fume levels should be reduced where possible. Required permits, method statements and risk assessments should be in place.

LOLER - Lifting Operations and Lifting Equipment Regs

This is an amendment to a European regulation. It deals with all aspects of lifting and has specific requirements including.

Trained people and competent people doing the job

Plant and equipment tested and certified

Work planned and supervised

SWL Clearly marked on all equipment

Thorough Examination

All plant used for lifting must be examined and certified by a competent person. If the plant is used for lifting personnel then it must be tested every 6 months if it is not used for lifting personnel then it is every 12 months. The purpose of the Thorough Examination is to check for structural damage as well as defective operation

Lifting Accessories

Must be suitable for the job, be tested and certified, be in good condition.

LOLER Register

Operators should complete the LOLER register weekly. Pre-use inspections should be carried out as per the Manufactures instructions. Recorded in the daily/weekly inspection sheet and any defects recorded

To fully understand LOLER specific training and guidance is required

PUWER – Provision And Use Of Work Equipment Regs

This is an amendment to a European regulation. It deals with the use of plant and equipment and has specific requirements including

- **Restraint Systems**

- Seat belts must be worn at all times to prevent injury in the event of the vehicle overturning

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- **ROPS (Roll over Protection Structure)**

- Prevent injury in the event of the vehicle overturning

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- **FOPS- (Falling Object Protection Structure)**

Prevents injury from falling debris. If fitted to a vehicle then you do not need to wear the hard hat inside

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- **Training and Instruction**
- You must receive adequate instruction and training on any equipment before you can operate it
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- **Fit for Purpose**
- Work equipment must be fit for purpose and safe to use
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- **Information- Operators Manuals**
- And other information relating to the safe use of equipment must be with the equipment. This is to allow operators to check and gain necessary information
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- **To fully understand PUWER specific training and guidance is required**

Environmental issues-

- **Refuelling**
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- Should only be done in a designated area. Clean containers and funnels should be used. Any spillage should be cleared up using suitable equipment. Waste should be disposed off in designated bins.
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- **Condensation**
- The machine should be refuelled at the end of the shift to prevent condensation building up in the tank as the machine cools down
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- **Reducing Environmental Damage**
- Operate safely, operate efficiently. Tip materials in designated places, don't mix materials, switch off when not in use, don't overfill when refuelling, check tyre pressures, report leaks or damage, clear

up spillage, dispose of waste in designated bins. Follow method statements and COSHH assessments

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- **Designated Routes**

- Should be adhered too. This will avoid damaging unspoilt ground, or completed work, or unnecessary contact with other plant or people
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Pre Use Inspections

Plant should be checked according to the manufacturer's specifications. The checks should be recorded in the defect book or daily check sheet. Any defects should be reported

Suitable PPE (gloves) should be worn when carrying out the prestart checks to prevent skin disease and contaminating the controls

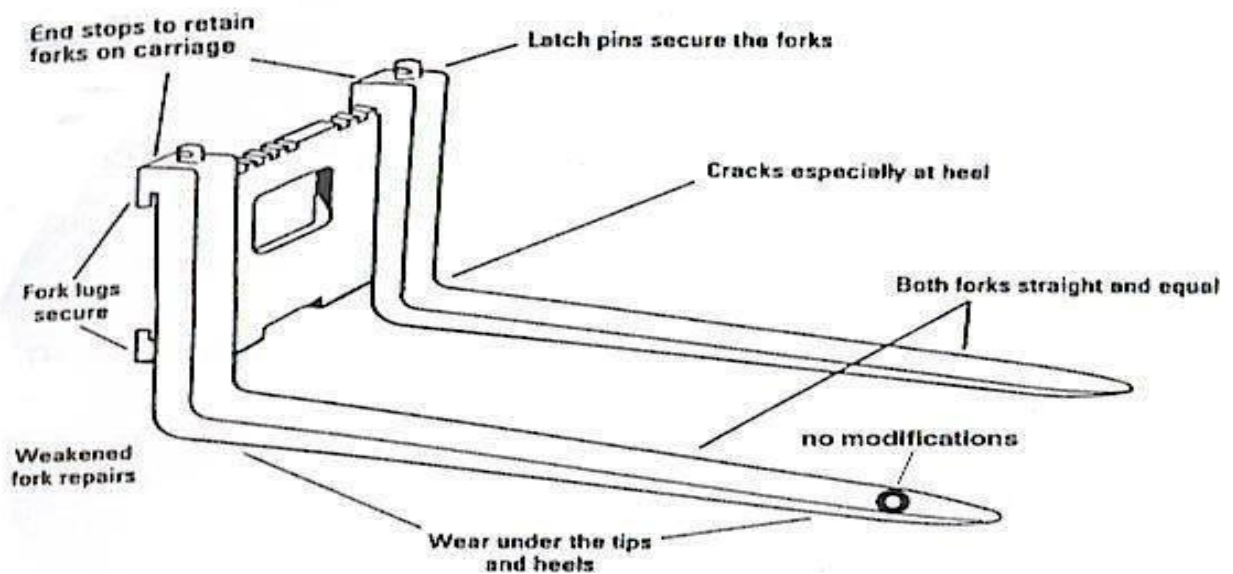
Engine oil, Hydraulic oil, Transmission oil, Coolant, Brake fluid, Tyres should be checked



Checks will vary depending on make and model always read the operator's manual)

- If topping up with oil always do so in the designated area, use clean funnels and jugs or containers and clean around

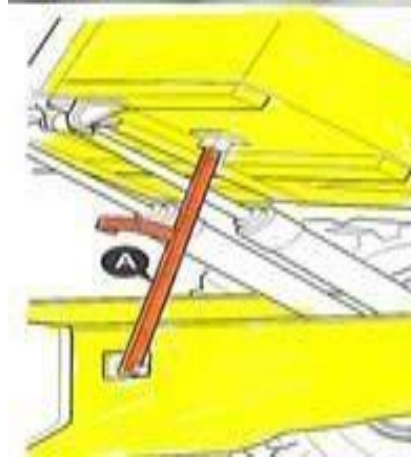
Forks check:



Filler cap to prevent dirt entering the system

Most Moffett Handlers are fitted with a radiator to keep the engine cool. This is a pressurized system which pumps water around the engine keeping temperature down. Do not open a hot radiator or filler cap as the hot liquid inside will be released under pressure and could scald or burn

If operator maintenance or servicing requires the operator to work beneath the raised forks then the fork safety strut must be used to prevent the skip falling down and crushing the operator

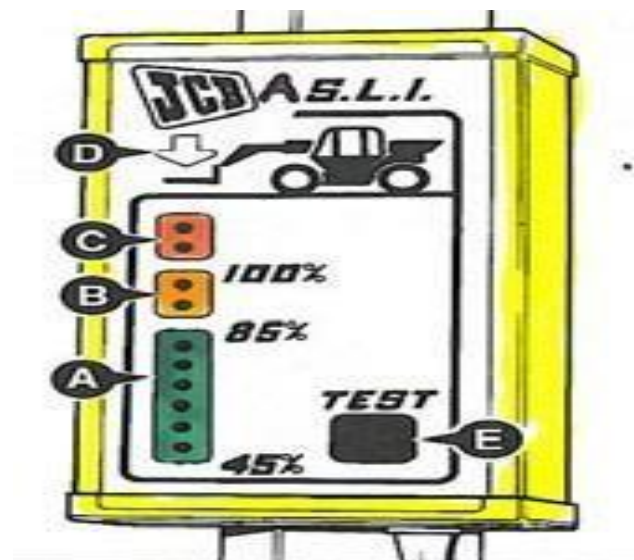


Mirrors

it is essential to maintain good all round observation when operating the Moffett Handler. To assist the machine is fitted with a variety of mirrors, they must be adjusted properly, secure, clean and free from damage

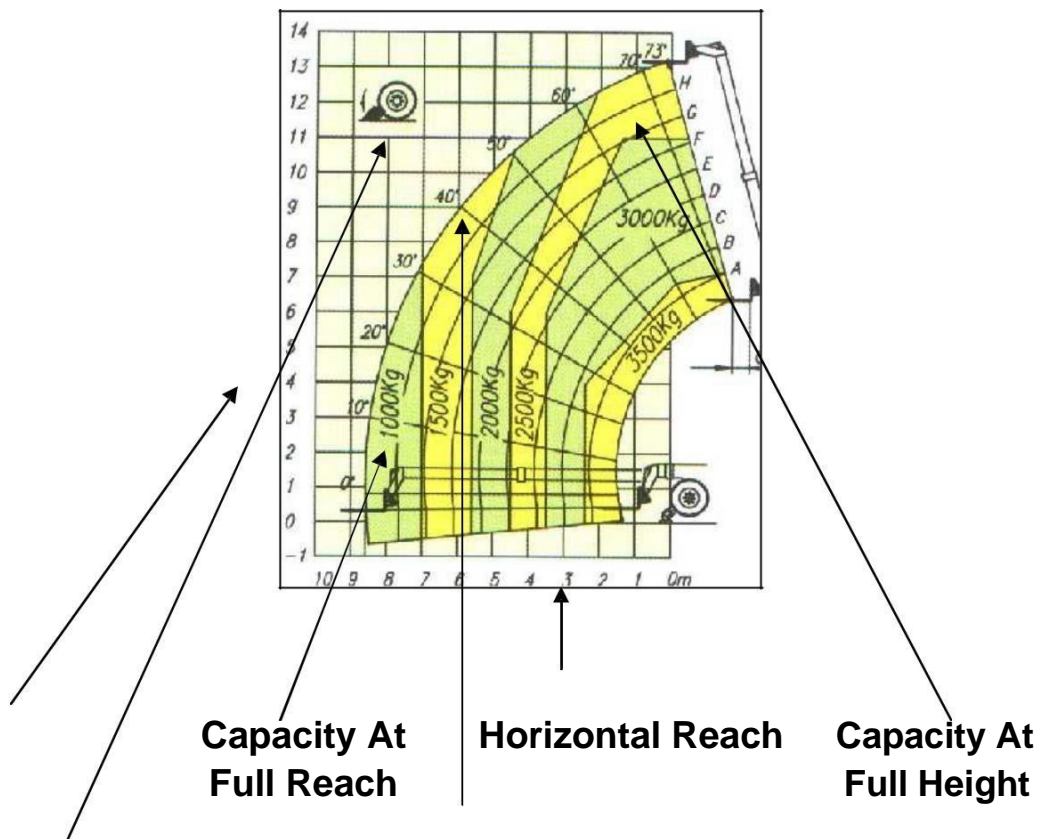
A.S.L.I (AUTOMATIC SAFE LOAD INDICATOR ALSO KNOWN AS THE RATED CAPACITY INDICATOR

Shows only forward machine stability. Gives an indication when the machine is reaching or exceeding its rated capacity. Do not use it as a guide to the weight being lifted. Test at the start of each shift and before any heavy lifts. Check the indicator lights frequently when lifting



Rated Capacity- maximum weight the machine can lift. This is set by the manufacture and is found in the handbook or on the duties chart

- **Duties Chart-All forklifts have their lifting capacities shown on duties charts located in the cab and in the manual. These charts show the maximum Height that a load be lifted depending on the reach of the machine, the angle of the boom and the weight of the load**
- **Duties charts provide information on- Tyre pressures, Maximum rated capacity when using forks, When using hooks and jib extensions, When the machine is fitted with side shift, Lifting free on wheels or lifting with the stabilizers down.**
- **Read a Duties Chart-**



Failure to Read and use the Duties Chart can have Serious Consequences



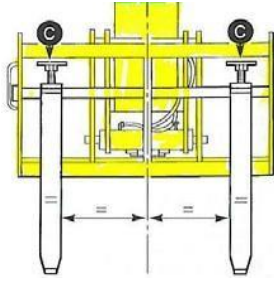
Plant Stability. • **Travelling or operating** the machine affects the stability. Overloading the machine, travelling across slopes, carrying uneven loads, turning at speed, poor tyre pressure, too close to excavations can all lead to instability and possible overturning.



- **Centre of gravity-**
- is the point of balance of a load or of the machine. The higher a load is lifted the higher the centre of gravity of the machine goes. This can affect the stability of the machine. As the load moves forward (i.e. as a MOFFETT handler booms out) the centre of gravity moves Forward this could cause the machine to tip up if the machine is over loaded or not operated on suitable ground.
- **Tyres-** tyre condition can affect stability. The lugs or tread on a tyre provide grip assist steering and help with braking. Worn or bald tyres can cause skidding or sliding, make it difficult to steer and are more susceptible to puncture. A damaged tyre could burst which would result in a loss of control and a possible accident

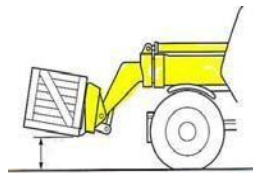
Procedure for lifting a load -

- **Approach the load squarely**
- **Stop when forks are about 200mm from the load**
- **Handbrake on and out of gear**
- **Adjust the forks to ensure the load will be central on the carriage and fully secure and supported to prevent damage to the load in transit**



Forks Central on the Carriage

- **The weight of the load should be known (see next section What you need to know about the Load)**
 - **Set the forks to level and the correct height depending on the location of the load**
 - **Drive in or boom in depending on site conditions and load**
 - **Lift the load clear**
 - **Apply sufficient tilt to stabilize the load**
 - **Retract or reverse clear**
 - **Lower the load in the correct travel position**

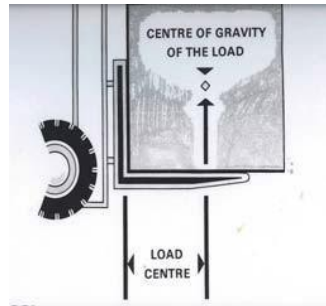


- **Travel at a speed consistent with site conditions and the load been carried**

What you need to know about the load -

- **The weight of the Load to prevent overloading**
Factors which affect the weight of the load- Shape and size,
 Type of material and density, Wet or Dry
 (water can add up to 25% to the weight of a load, Hollow or Solid, Full or Empty, Moving parts or liquid
 Load which could a change of weight distribution during a lift
Gross weight- is the weight of the load plus packaging, the pallet, any lifting accessories used in the list

- Is the material contaminated- ensuring you wear correct PPE
- Type of material- ensuring you handle it correctly
- Is it liquid- might slosh around when moving and affect stability
- Is it sharp edged- spillage might cause tyre damage
- Loose or dusty might require eye protection or respiratory protection
- Centre of gravity of the load, the point of balance of the load
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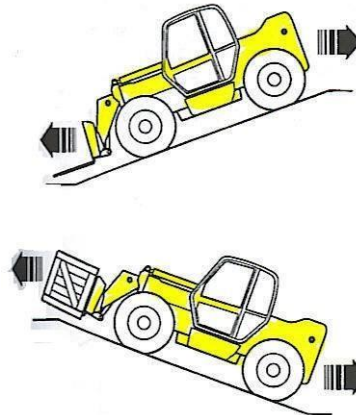
The Load Centre- is the distance between the Heel of the forks and the centre of the load

Travelling with a load-

- Check all around the Forklift is clear
- Ensure the seat belt is worn (**Seat belt** will secure operator to the seat and reduce potential injury in the event of overturning)
- Engage gear
- Sound horn to warn others in area
- Look all around to ensure its clear then release handbrake and move off
- Travel at a speed suitable for the load and the conditions
- Never operate overloaded
- Travel with the load at the correct height (approx 300mm of the ground)
- Take care when travelling on slopes (see next section for Guidance)
- Ensure route is clear and free from personnel, plant, overhead cables and obstructions, uneven ground and excavations or trenches
- **Overloading** can affect your vision, cause spillage, tyre damage, can cause overturning, put strain on the MOFFETT Handlers hydraulic when lifting, and cause structural damage

Operating on a slope -

- The heavy end should always be up the hill to maintain stability



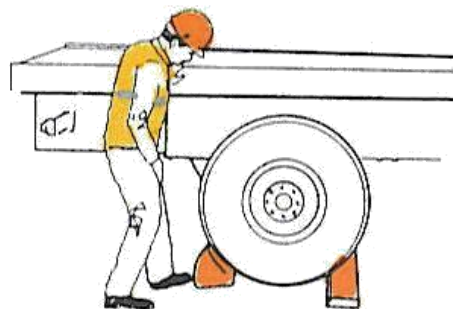
Empty forks always face DOWNHILL and loaded Forks always face UPHILL

- DO NOT driving across a slope as there is an increased risk of overturning
- Avoid landing loads downhill- the centre of gravity moves forward as the load is extended and this could cause the Forklift to tip
- Self leveling Devices-

Loading and unloading Vehicles -

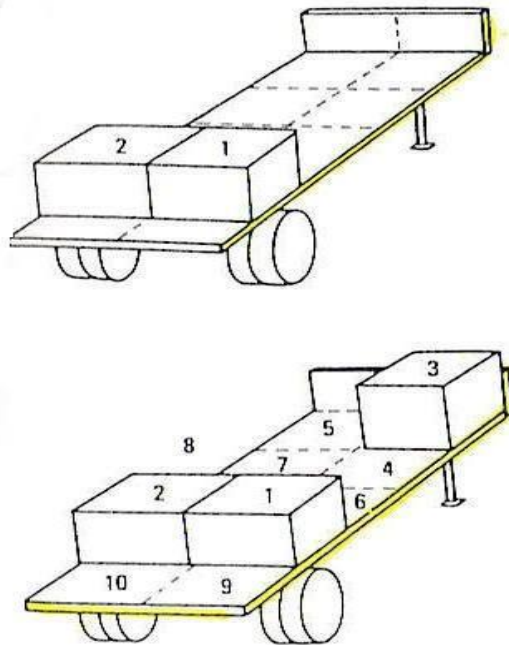
Before loading/unloading check-

- Vehicle is on level solid ground
- Vehicle is secure, handbrake on or wheels chocked



- Vehicle is capable of taking the weight
- Lorry bed is in good condition and wide enough to take the load
- The working area is Large enough to maneuver in and free from overhead obstructions
- No pedestrians or other traffic
- Access to storage area is clear
- The area is well lit for night work
- No potholes etc

Loading sequence for free standing Trailers



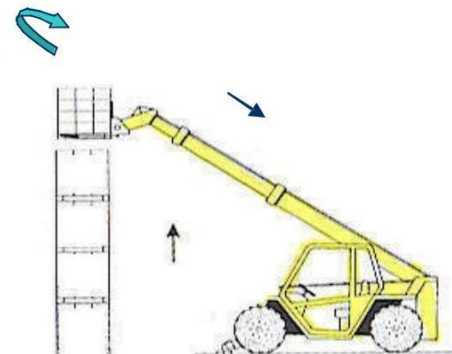
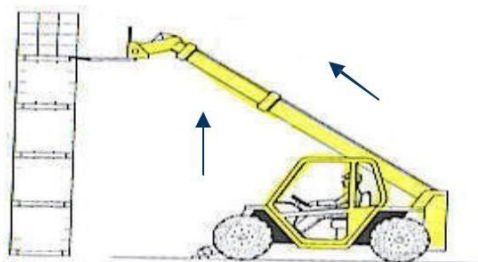
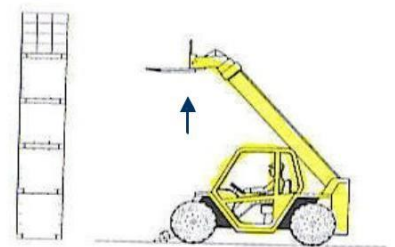
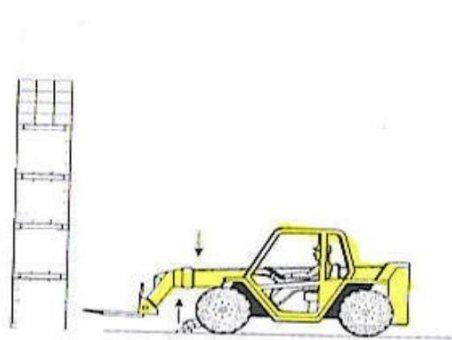
- First two loads should be place over the rear axle to maintain the stability of the trailer
- Then load the trailer as shown in the diagram, adjusting the position of loads1 and 2 when reached
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Loading and unloading Towers and bulk stacks

- **Ensure the area of operation is level and free of obstructions**
- **Tower should be in a Suitable position**
- **Capable of taking the weight**
- **Capacity clearly marked on the Tower**
- **Tower is certified and fit for purpose**
- **Gates open and secure**
- **Banks man if required, is in a safe place**
- **No unauthorized or unnecessary personnel in the area**

Loading sequence for towers and bulk stacks

- Approach the tower squarely
- Stop approximately 300mm from the tower
- Apply handbrake and place in neutral
- Lower stabilizers or set lateral leveling (if fitted) (stabilizers must be on firm compacted ground which is able to support the weight of the machine)
- Remove some of the tilt
- Raise the boom up
- Telescope out until the load is over the tower
- Take off the tilt
- Lower down gently until the load is on the tower (it may be necessary to telescope in or out to correctly position the load before lowering)
- Tilt down until the forks are loose
- Withdraw the forks from the pallet by raising the boom and telescoping in simultaneously (until experienced it is advisable to use one controls at a time)
- Withdraw the forks completely and fully retract the boom
- Lower the forks back down to travel position
- Raise the stabilizers to the travel position
- Check the area is safe before moving the machine



Parking The Moffett Handler-

- Park on level ground
- Do not block entrances or exits
- Do not park on soft or wet ground
- Do not block pedestrian routes
- Do not leave on stockpiles or close to trenches
- Handbrake on and out of gear
- Lower Forks to ground
- Allow engine to idle for 1-2 minutes before switching off to allow turbo to slow down. Failure to do this could damage the turbo
- Release hydraulic pressure
- Remove key and isolate to prevent unauthorized use

Travelling the machine on the Public Highway

- Machine must be clean
- Taxed and insured
- Tyres, brakes and lights (lights set in travel position) meeting road legal standards
- Number plate
- Forks set in the travel position
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- Mirrors set and clean
- Operator must hold the correct Full UK Driving license category B, and be over 18 for Moffett Handlers
- Carriage of Loads- if the Forklift is used to transport a load down the public highway then the operation becomes “carriage of good” and the forklift becomes a goods carrying vehicle and requires the relevant insurance and taxation