

# **TOUGHLIFT®**



## **MATERIAL LIFTS**

**ML-10/ML-15/ML-20/ML-25**

**INSTRUCTION HANDBOOK  
(ORIGINAL INSTRUCTIONS)**

**CE UK  
CA**

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## Section 1 – Description

### 1.1 Introduction

This Instruction Handbook provides information on the safe operation of ToughLift® Material Lifts and accessories as follows:

Model/Accessory	Product Code
ML-10	600010
ML-15	600015
ML-20	600020
ML-25	600025
Standard Forks (standard on all models)	640000
Stabiliser Set (standard on ML-20 & ML-25)	620000
Load Platform	670000
Pipe Cradle	610043
Extension Forks	660000
Rough Terrain Wheel Kit	680000
Boom	650000

Before operating ToughLift® Material Lifts, you must ensure that you have read and fully understood this Instruction Handbook, paying particular attention to the **Safety Rules** in **Section 3**. You must adhere to these instructions and safety rules in every way, and have been adequately trained and authorised to operate this machine.

This manual should be considered a permanent part of this ToughLift® Material Lift and should always remain with the machine. Additional copies of this Instruction Handbook may be obtained from the manufacturer; please see the contact details on the back cover.

The information contained in this Instruction Handbook is based on the latest product information at the time of publication. The manufacturer operates a policy of continuous product improvement and reserves the right to make product changes at any time without notice.

## Section 1 - Description /continued

### 1.2 Characteristics & description

The ToughLift® Material Lifts include the following features as standard:

- ❑ Heavy-duty construction.
- ❑ Quick and simple setup; no tools required.
- ❑ Portable compact design for easy transport and storage.
- ❑ Anodised lightweight aluminium telescoping mast:
  - ◆ Corrosion resistant, as the anodic film is totally impermeable.
  - ◆ Abrasion resistant.
  - ◆ Anodised aluminium components are 100% recyclable.
- ❑ Unique inner lifting column locking mechanism offering the following benefits:
  - ◆ The lifting columns always raise in sequence working from the front to the back of the mast.
  - ◆ When the machines are laid horizontally for transport or maintenance and the carriage lock has not been deployed, the inner lifting columns cannot slide out of the stowed position.
- ❑ Mast safety braking system holds the carriage and lifting column(s) in position if the cable becomes loose or breaks.
- ❑ Extra wide aluminium first pulley wheel improves the laying of the cable on the winch drum.
- ❑ Heavy-duty castors with non-marking tyres.
- ❑ Braked swivel castors with foot-operated brake on the side and bolted foot operated straight-line lock to aid loading for transport or moving in a straight line on site.
- ❑ Long loading wheels/handles shaft so that the mast is horizontal when the machine is laid back for transport.
- ❑ Loading wheels with sealed bearings rotate with ease.
- ❑ Hard wearing steel and PU transport wheels with sealed bearings.
- ❑ Tube welded through the Standard Forks and Boom to prevent the drop nose pin jamming when fitting to the carriage.
- ❑ E-coated and then powder coated steel fabrications fitted with silicone rubber end caps.
- ❑ Colour coded decals use 3M high adhesive strength outdoor rated film and inks, and can be jet washed clean on a moderate pressure.
- ❑ Manufacturers plates with serial numbers riveted to the chassis of the machine and fitted to the load handling attachments to aid traceability for LOLER thorough examinations (UK only, regulations in other countries vary).
- ❑ Stainless-steel roller guards.
- ❑ Stainless-steel retaining pins.
- ❑ Robust solid pull rings on front legs and handles/loading wheels retaining pins.

## Section 1 - Description /continued

### 1.2 Characteristics & description /continued

- ❑ Bushed joints across the machine.
- ❑ Easy to wind dual handled manual winch with brake to hold the load in place.
- ❑ Winch handles with ergonomic grip design.
- ❑ Standard Forks can be fitted up or down in the carriage on the mast.
- ❑ All machines and load handling attachments are supplied with both EU, and in the UK, UKCA Declarations of Conformity.

The following accessories are also available for use with ToughLift® Material Lifts:

- ❑ Bushed Stabiliser Set (standard on ML-20 & ML-25)
- ❑ Extension Forks
- ❑ Pipe Cradle
- ❑ Rough Terrain Wheel Kit
- ❑ Load Platform
- ❑ Boom

### 1.3 Intended use

The ToughLift® Material Lifts have been designed to comply with the safety requirements of the European Machinery Directive 2006/42/EC and the Supply of Machinery (Safety) Regulations 2008 (UK).

The ToughLift® Material Lifts are designed solely for the purpose of lifting materials to enable work to be undertaken at height. The ToughLift® Material Lifts are designed for indoor and outdoor use, **but not in strong or gusting winds**, and must be used on level ground which is able to support the weight of the machine, any accessory fitted, and the load being lifted.

The ToughLift® Material Lifts are designed for a multitude of tasks including building and construction, particularly fit and strip out, shop fitting, general maintenance, and facilities management. The machines are used on construction sites and in hospitals, schools, airports, shopping centres, retail outlets, transport environments, factories, and offices.

#### **WARNING**

**The operator must obtain the guidance and written approval from the manufacturer in the event of any special working methods or conditions which are outside those specified in this section.**

## Section 1 - Description /continued

### 1.4 Selection and minimum attributes of operators

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Personnel operating a ToughLift® Material Lift should have either been selected, trained, and authorised to do so, or be undergoing formal training under supervision. Records of training and experience of personnel should be consulted to assist in the selection of suitable personnel.

Personnel should be instructed not to work under the influence of alcohol, drugs, or other impairment to efficiency. Personnel should also be assessed as to their physical ability to undertake the appointed tasks. The ToughLift® Material Lift operator should:

1. be physically fit.
2. have a responsible attitude.
3. demonstrate an ability to learn.
4. be able to communicate clearly with other personnel on site.
5. be able to demonstrate an understanding of relevant health and safety regulations.
6. be able to demonstrate an understanding of accident prevention and control.
7. be able to demonstrate an understanding of the need for, plus correct use and maintenance of, personal protective equipment.
8. be able to operate the ToughLift® Material Lift safely and manoeuvre the machine as required into position and carry out the tasks in a correct and proper manner.
9. be able to identify and avoid foreseeable hazards plus recognise unsafe practices and developing situations.
10. carry out pre-use checks.

#### **WARNING**

Operators of ToughLift® Material Lifts must be competent to do so. Operation by untrained or inadequately trained operators could result in serious injury or death.

## Section 1 - Description /continued

### 1.4 Selection and minimum attributes of operators /continued

---

When planning the work to be undertaken, the Site Surveyor and Planner should work through the following stages:

1. Identify the task to be undertaken.
2. Select an appropriate Material Lift.
3. Identify the hazards associated with the task.
4. Carry out a risk assessment.
5. Identify control measures.
6. Develop the method to be used.
7. Record the planning in a Method Statement.
8. Communicate the plan to all persons involved.
9. Review the plan before the job starts and incorporate any changing circumstances.

### 1.5 Modifications

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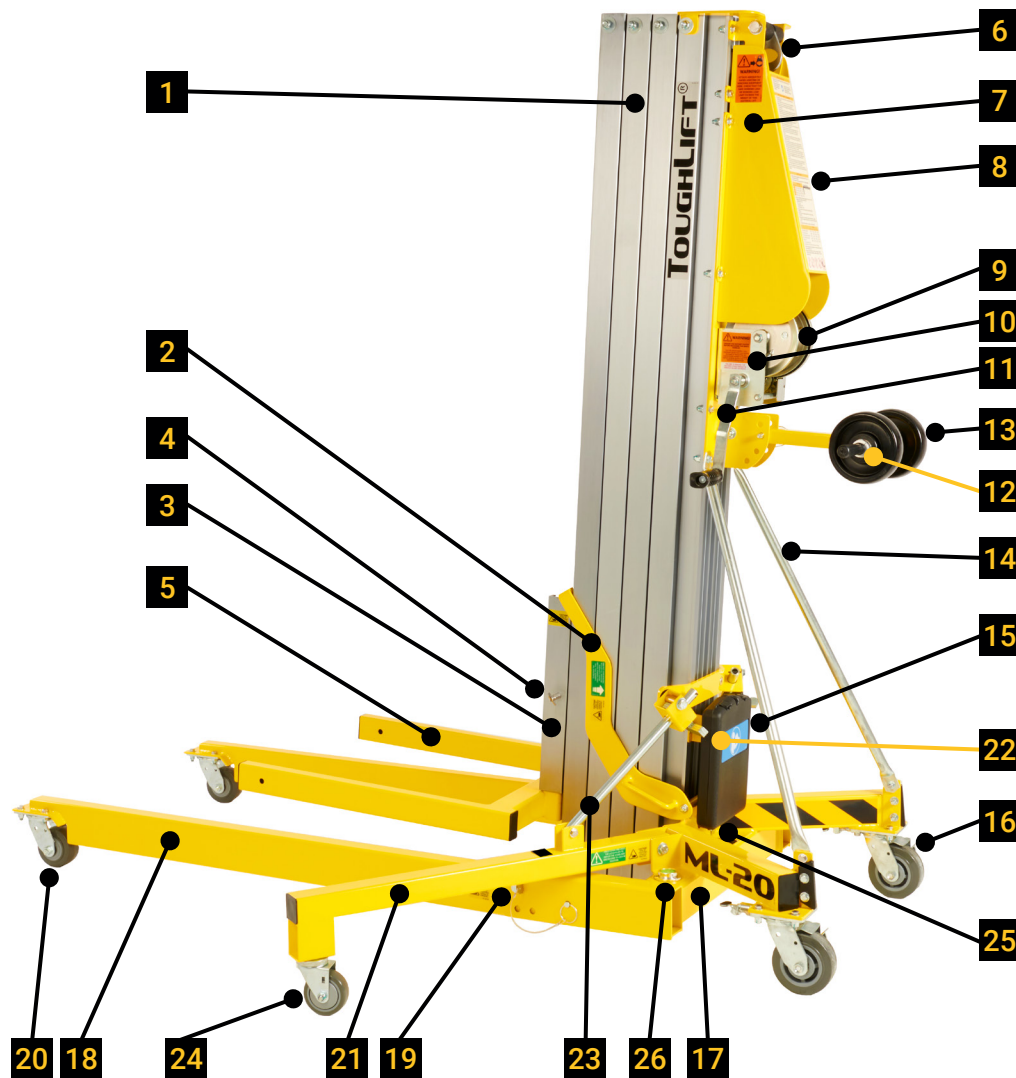
No modifications shall be made to any ToughLift® Material Lift or accessory unless the manufacturer has given full written approval. If in doubt, please contact the manufacturer for advice:

Shenzhen Anhua Limited  
A1202-1 Tianan Cyber Park  
No. 441 Huang Ge Road  
Longgang  
Shenzhen 518116  
China  
☎ +44 20 7173 9777  
✉ info@toughlift.co

## Section 1 - Description /continued

### 1.6 Terminology

*The machine below is an ML-20.*



## Section 1 - Description /continued

### 1.6 Terminology /continued

#### MACHINE:

- |                                     |   |
|-------------------------------------|---|
| 1 Mast                              | 16 Braked swivel castor   |
| 2 Carriage lock                     | 17 Chassis  |
| 3 Carriage                          | 18 Front leg  |
| 4 Standard Forks/Boom retaining pin | 19 Front leg retaining pin  |
| 5 Standard Forks                    | 20 Front leg swivel castor  |
| 6 Hoisting/winch anchor             | 21 Stabiliser (standard on ML-20 and ML-25/optional on ML-10 and ML-15) |
| 7 Cable guard                       | 22 Stabiliser brace latch plates  |
| 8 Main operational & safety decal   | 23 Stabiliser brace   |
| 9 Cable                             | 24 Stabiliser swivel castor   |
| 10 Winch                            | 25 Rough Terrain Wheel Kit support locator                              |
| 11 Winch handle                     | 26 Spirit level   |
| 12 Push & steer handle              |   |
| 13 Loading wheel                    |   |
| 14 Mast brace                       |   |
| 15 Document holder                  |   |

#### Boom accessory.



- |                                      |  |
|--------------------------------------|--|
| 27 Standard Forks/Boom retaining pin | 29 Shackle retaining pin                     |
| 28 Lifting shackle                   | 30 Lifting hook (may be removed if required) |

## Section 1 - Description /continued

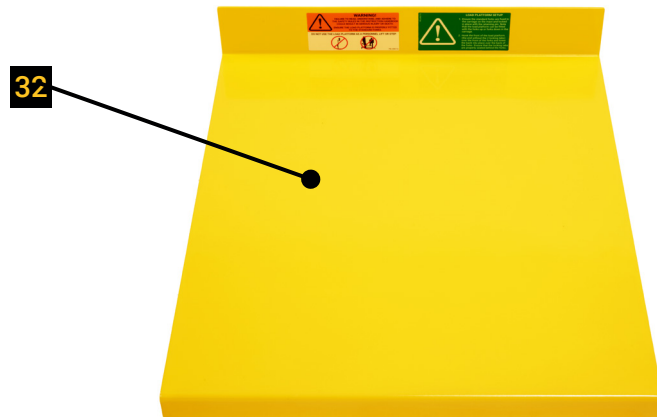
### 1.6 Terminology /continued

*Rough Terrain Wheel Kit accessory.*



31 Rough Terrain Wheel Kit

*Load Platform accessory.*

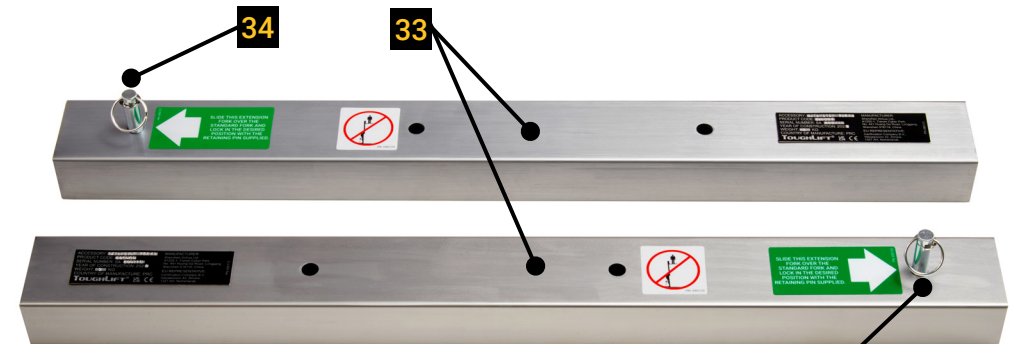


32 Load Platform

## Section 1 - Description /continued

### 1.6 Terminology /continued

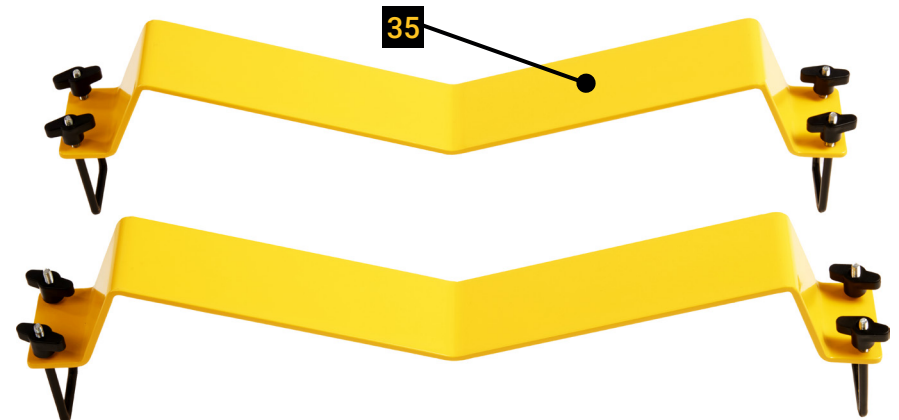
*Extension Forks accessory.*



33 Extension Forks

34 Extension fork retaining pin

*Pipe Cradle accessory.*



35 Pipe Cradle



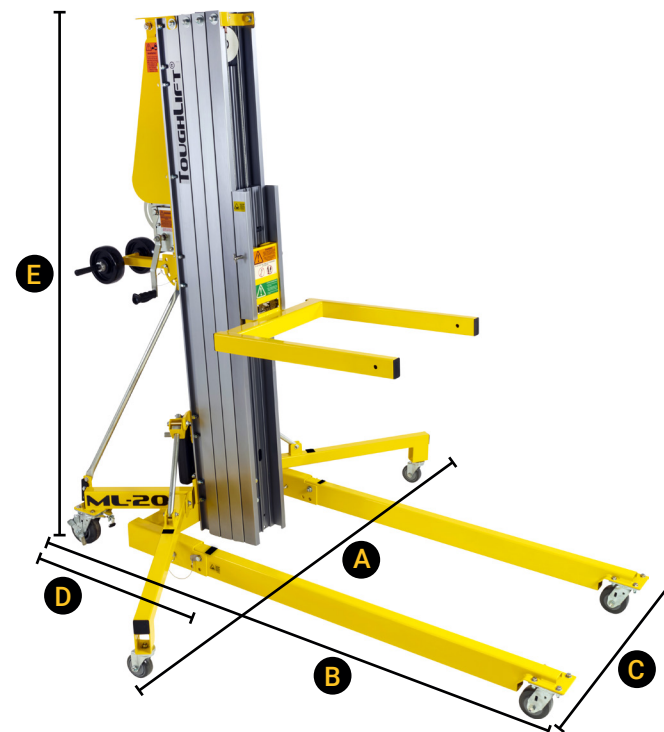
## Section 2 – Specification - Technical Data

MODELS				
	ML-10	ML-15	ML-20	ML-25
LOAD CAPACITY, WEIGHT, & OPERATING ANGLE				
Load capacity	Refer to the Load Capacity Table in Section 4.8 of this Instruction Handbook for the load capacities at different load centres.			
Machine weight <sup>(1)</sup>	129kg	153kg	190kg	214kg
Maximum allowable chassis inclination	0°	0°	0°	0°
DIMENSIONS				
Working Heights				
With Standard Forks down	2.97m	4.46m	5.94m	7.42m
With Standard Forks up	3.49m	4.98m	6.46m	7.94m
With Load Platform forks down <sup>(2)</sup>	2.97m	4.46m	5.94m	7.42m
With Load Platform forks up <sup>(2)</sup>	3.49m	4.98m	6.46m	7.94m
With Boom <sup>(3)</sup>	3.28m	4.76m	6.25m	7.42m
Other Dimensions				
<b>A</b> Width with stabilisers deployed	N/A	N/A	1.84m	1.84m
<b>B</b> Length with front legs deployed	1.51m	1.88m	2.06m	2.06m
<b>C</b> Stowed width	0.81m	0.81m	0.81m	0.81m
<b>D</b> Stowed length	0.76m	0.76m	0.76m	0.81m
<b>E</b> Stowed height	2.02m	2.02m	2.02m	2.02m
Ground clearance	52mm	52mm	52mm	52mm
AVERAGE TURNS OF WINCH PER METRE				
Carriage moving	42/m	42/m	42/m	42/m
Mast moving	19/m	19/m	19/m	19/m
NOISE EMISSIONS				
	<70dBA			

(1) - Excluding load handling attachments. (2) - With Standard Forks only.

(3) - Measurement from the ground to the bottom of the lifting shackle.

## Section 2 – Specification - Technical Data /continued



LOAD HANDLING ATTACHMENTS				
	Length	Width	Depth	Weight
Standard Forks <sup>(4)</sup>	69.3cm	58.4cm	6.45cm	18kg
Pipe Cradle	57.5cm (each)	6.9cm (each)	14.5cm (each)	4kg (set)
Load Platform <sup>(4)</sup>	70cm	58.5cm	8.5cm	15kg
Extension Forks <sup>(5)</sup>	76.2cm (each)	5cm (each)	7.5cm (each)	4kg (set)
Boom <sup>(4)</sup>	115.8cm	18cm	37.2cm	18kg
Rough Terrain Wheel Kit	54.8cm	73cm	24.6cm	8.3kg
Stabilisers	86.6cm (each)	5.1cm (each)	58cm (each)	6.3kg (each)

(4) - Length is measured from the front of the carriage to the end of the load handling attachment.

(5) - Adds 16.1cm, 39.9cm, or 63.1cm to the length of the Standard Forks.



## Section 3 – Safety Rules

### WARNING

Failure to adhere to the Safety Rules in this section could result in serious injury or death.

The operator of the ToughLift® Material Lift must read, understand, and adhere to the following safety rules in every way.

**NEVER** use a damaged or malfunctioning machine.

**NEVER** use a machine with a worn, frayed, kinked, or damaged cable.

**NEVER** use a machine with less than 4 wraps of cable on the winch drum when the carriage is fully lowered.

**NEVER** stand on, step on, or climb on the mast, Standard Forks, Pipe Cradle, Fork Extensions, Load Platform, or Boom of a ToughLift® Material Lift. **This is not a personnel lift.**



**NEVER** operate a ToughLift® Material Lift in the vicinity of live electric conductors as the machine is not electrically insulated.



**NEVER** use the machine on a moving or mobile surface or vehicle.



**NEVER** raise the mast (loaded or unloaded) unless all 4 (or 6 if stabilisers are fitted) castors are in touch with the ground.

**NEVER** use blocks to level the chassis of the machine.

**NEVER** raise the mast (loaded or unloaded) unless the machine is positioned on a firm and level surface which can support the weight of the machine, any accessory fitted, and the load being lifted. Check the work area for holes, bumps, debris, and unstable or slippery surfaces.



**NEVER** raise the mast (loaded or unloaded) unless the front legs and stabilisers (if the model being used is equipped with stabilisers) are deployed and locked in position.



**NEVER** operate a ToughLift® Material Lift in strong or gusting winds. The larger the surface area of the load being lifted, the greater the effect of wind on the stability of the machine.



## Section 3 – Safety Rules /continued

**NEVER** leave a load raised when windy conditions may occur.

**NEVER** attempt to lift a load which exceeds that shown in the table in Section 4.8 of this Instruction Handbook.

**NEVER** raise the load unless the Fork Extensions (if being used) are secured to the forks with the retaining pins supplied.

**NEVER** remove either of the front leg retaining pins when the mast is raised whether the machine is loaded or unloaded.



**NEVER** move a ToughLift® Material Lift when the carriage is loaded, whether the mast is lowered or raised (except for very minor repositioning).

**NEVER** allow works overhead of a ToughLift® Material Lift to be undertaken which are outside the control of the operator.

**NEVER** stand under or allow other personnel to stand under the machine when the load is raised.



**NEVER** lower the load unless the area below is clear of personnel and other obstructions.

**NEVER** lean ladders or other equipment against any part of the machine.



**NEVER** apply external side loads to the mast, Standard Forks, Fork Extensions, Load Platform, or Boom e.g., by raising or lowering an overhanging load.

**NEVER** stand below a ToughLift® Material Lift on an inclined surface when moving around a worksite.

**NEVER** use a ToughLift® Material Lift as a jack, prop, or tie to support other structures or machines etc.

**NEVER** use a ToughLift® Material Lift as an electrical earth when welding structures alongside it.

**NEVER** hold the mast cable.

**NEVER** interfere with the mechanical safety devices in the mast assembly and winch.

**NEVER** tilt the machine back unless the area is clear of personnel and other obstructions.

**NEVER** leave the machine unattended when it is loaded. Untrained and unauthorised personnel may attempt to operate the machine creating an unsafe situation.

**NEVER** replace machine fabrications or component parts of a different weight or specification. Only genuine parts purchased from the manufacturer or their approved distributors should be used.

**NEVER** move a raised ToughLift® Material Lift with a loaded Boom load handling attachment. The load could sway and cause the machine to topple.

### WARNING

Failure to adhere to the Safety Rules in this section could result in serious injury or death.

The operator of the ToughLift® Material Lift must read, understand, and adhere to the following safety rules in every way.

**ALWAYS** read and understand this Instruction Handbook before using the machine.



**ALWAYS** check that the LOLER certification of the machine and any removable accessories is in date before use (UK only, regulations in other countries vary).

**ALWAYS** undertake a risk assessment including assessing the route for obstacles, debris, and uneven and fragile surfaces before moving the machine from one location to another.

**ALWAYS** undertake a risk assessment before moving a ToughLift® Material Lift on an inclined surface.

**ALWAYS** ensure the safety of persons that may enter the area around the machine and keep other vehicles clear of the work area i.e., cordon off the area to prevent persons and other vehicles entering the danger area.

**ALWAYS** lock both braked swivel castors when the machine is stationary, whether or not it is in use.

**ALWAYS** use proper lifting techniques when installing or removing the Standard Forks, Load Platform, or Boom.

**ALWAYS** undertake all the pre-use checks recommended in this Instruction Handbook (see checklist in Section 6.2), prior to the operation of the machine.

**ALWAYS** be aware of the following potential finger trap points when setting up the machine:

- ☐ 2 front leg joints
- ☐ 2 stabiliser leg joints (if fitted)
- ☐ Carriage lock
- ☐ Carriage

**ALWAYS** check that the machine is level before raising the mast by ensuring the bubble in the spirit level is within the black circle.



**ALWAYS** hold the stabiliser when the lock is released as it will drop.

**ALWAYS** hold the front leg when the retaining pin is removed as it will drop.

**ALWAYS** ensure the load is properly centred on the load handling attachment.

**ALWAYS** ensure the load is properly secured to the load handling attachment.

**ALWAYS** grip the winch handles until the winch brake is locked i.e., when the weight of the load will not cause the winch handles to turn.

**ALWAYS** engage the ratchet system before releasing the winch handles by turning the winch handle ¼ turn clockwise (away from you/raising the load) to ensure that the ratchet/brake system is engaged before winding up the mast to the desired working height.

**ALWAYS** ensure that the Standard Forks or Boom are properly fitted to the carriage on the mast and locked in place with the retaining pin supplied.



**ALWAYS** keep the machine away from contact with fixed objects (e.g. ceilings etc.) or moving objects (e.g. vehicles, cranes etc.).



**ALWAYS** ensure that there are no obstructions or persons that may be struck during the raising and lowering of the mast.

**ALWAYS** use proper lifting techniques to load or tip the machine.

**ALWAYS** ensure that the ToughLift® Material Lift and transport vehicle are on the same level surface when loading the machine for transport, and always use proper lifting techniques to load the machine.

**ALWAYS** engage the carriage lock when transporting the machine around a worksite, or from site to site on a delivery vehicle.



## Section 4 – Operating Instructions

### 4.1 Operating site

---

When a ToughLift® Material Lift is delivered to site, ensure that the machine will be able to reach the work area; this is not a rough terrain machine, and unless the Rough Terrain Wheel Kit accessory is fitted, the machine should not be pushed or pulled across uneven ground as this could cause significant damage to the machine. The operator should walk the route from the machine parking place to the workplace before moving the machine.

A visual inspection of the workplace should be made before setting up the machine, paying particular attention to the following issues:

#### 4.1.1 Ground conditions

---

Ensure that the ground on which the ToughLift® Material Lift is to operate can support the weight of the machine, any accessory fitted, and the load being lifted. Be aware of specific floor areas such as manhole covers which may not be designed to withstand the point loading exerted by the castor wheels, and also be aware of the presence of slippery surfaces.

#### 4.1.2 Ground flatness

---

The ToughLift® Material Lift should be operated on a flat surface with all 4 (or if stabilisers fitted 6) castor wheels in contact with the ground at all times. The operator should pay particular attention to the presence of holes, bumps, floor obstructions, and debris.

#### **WARNING**

**NEVER** raise the carriage unless the braked swivel castors, front leg swivel castors, and in the case of the ML-20 and ML-25 models, the stabiliser swivel castors, are in touch with the ground, and ensure that the bubble on the spirit level is within the black circle. Failure to adhere to this warning will result in serious injury or death.



## Section 4 – Operating Instructions /continued

### 4.1 Operating site /continued

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#### 4.1.3 Overhead obstructions

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The operator of the ToughLift® Material Lift must always check for overhead obstructions before raising the mast and **pay particular attention to the presence of live electrical cables as this is a non-insulated machine.**



#### 4.1.4 Weather conditions

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The operator should pay particular attention to weather conditions, most notably the machine **must not be used in strong or gusting winds.**

#### 4.1.5 Segregation from other site vehicle movements

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Every worksite should be subject to a risk assessment, and where vehicle movements are likely to occur close to the ToughLift® Material Lift, measures should be taken to segregate the machine from other machines or vehicles. This might include the use of cones, barriers, signage, and rerouting measures.

#### **WARNING**

If more than one operator is going to use the machine during a single work shift, then every new operator should review the operating site for hazardous conditions before operating the machine.

## Section 4 – Operating Instructions /continued

### 4.2 Limitations of use

Please consult the manufacturer if you are unsure about any application for which a ToughLift® Material Lift is being considered.

#### WARNINGS

- ❑ ToughLift® Material Lifts have not been designed for operation in a hazardous environment where flammable or explosive gases or particulates are present. Advice should be sought from the person in charge of the site regarding the need to select equipment that is designed for use in the hazardous environment. Expert advice may need to be sought.
- ❑ ToughLift® Material Lifts are not electrically insulated and must never be used for live line working. Death or serious injury can result from contact with, or inadequate clearance from electrical conductors.



### 4.3 Pre-use checks

It is essential to carry out pre-use checks of a ToughLift® Material Lift before operation to ensure its safe condition of use.

Refer to **Section 6.2 Pre-use checks - operator checklist & other maintenance** for a guide to the pre-use checks and other scheduled maintenance of the machine and accessories.

## Section 4 – Operating Instructions /continued

### 4.4 Manoeuvring the machine

Manoeuvre the ToughLift® Material Lift into position by standing behind the mast, and with the handles raised and locked in position, hold the handles and push the machine.



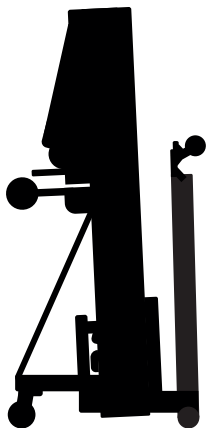
#### WARNINGS

- ❑ **NEVER** move a ToughLift® Material Lift when the carriage is loaded, whether the mast is lowered or raised (except for very minor repositioning).
- ❑ **NEVER** move a raised ToughLift® Material Lift with a loaded Boom load handling attachment. The load could sway and cause the machine to topple.
- ❑ Moving the machine up or down a slight gradient:
  - ◆ **ALWAYS** ensure that no person or obstacle is in front of the machine going down a slight gradient or behind the machine going up a slight gradient.
  - ◆ **NEVER** attempt to move the machine up or down a steep gradient.
  - ◆ **ALWAYS** undertake a risk assessment.
- ❑ Take care to avoid trapping hands or feet whilst manoeuvring the machine.

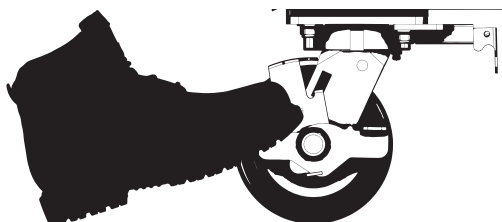
## Section 4 – Operating Instructions /continued

### 4.5 Setting up the machine

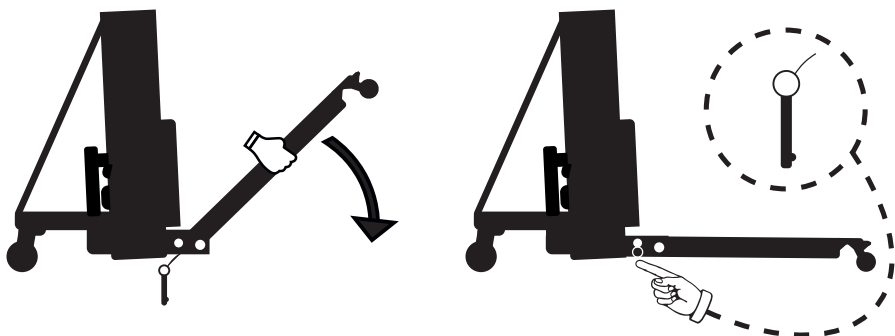
1. Commence this setup procedure with the ToughLift® Material Lift in the upright position.



2. Apply the brake to each of the 2 swivel castors on the splayed legs.



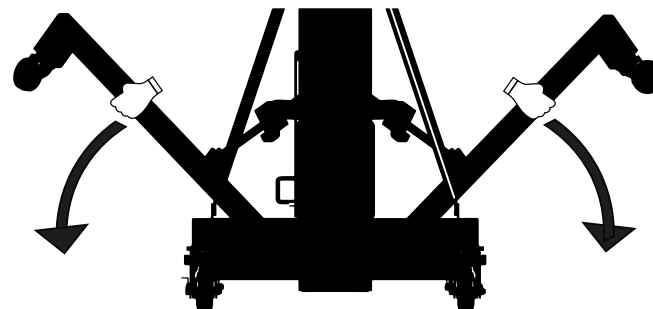
3. Deploy each of the 2 front legs by removing the retaining pin, lowering the leg to the horizontal position, and locking in place with the retaining pin.



## Section 4 – Operating Instructions /continued

### 4.5 Setting up the machine /continued

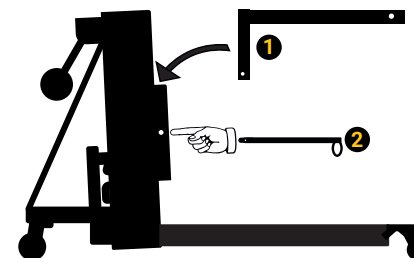
4. If fitted, deploy each of the 2 stabilisers by pressing down and holding the stabiliser latch plates, lowering the stabiliser to the horizontal position, and releasing the latch plates to lock the stabiliser in place.



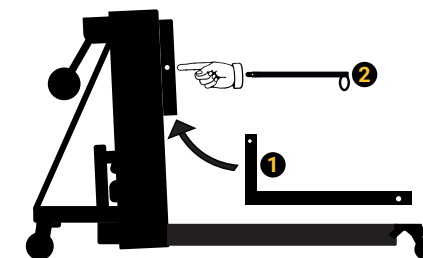
5. Lower the steering handles/loading wheels assembly by removing the retaining pin, lowering, and then locking in place in the bottom hole of the bracket on the winch mount plate with the retaining pin.
6. Turn the winch handles 2 full turns anticlockwise (towards you) to release the pressure of the carriage against the carriage lock.
7. Pull the spring-loaded carriage lock towards you, rotate clockwise, and release to latch in the fixed mast column.
8. Wind up the carriage of the mast to a comfortable height to fit the load handling attachment:

- a. **Standard Forks:** Fit the standard forks in the **forks up** or **forks down** position and insert the retaining pin as shown below.

*Forks up*



*Forks down*



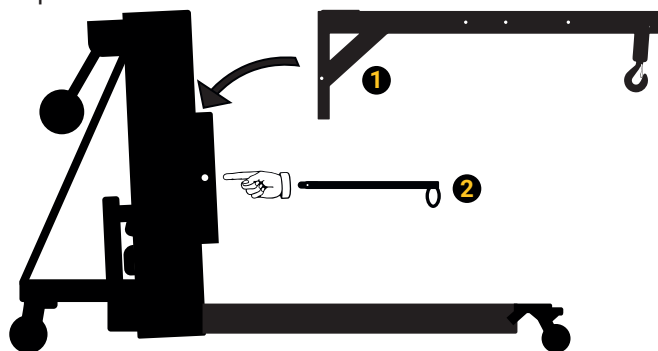
- b. **Load Platform:** Place the Load Platform on the Standard Forks (**forks up** or **forks down**) with the 2 locking tabs facing downwards at the carriage end of the Standard Forks.



## Section 4 – Operating Instructions /continued

### 4.5 Setting up the machine /continued

- c. **Fork Extensions:** Slide each extension tube onto the standard fork in the direction designated on the decal. Adjust each to the same desired position and insert the retaining pins.
- c. **Boom:** Place the Boom into the top of the carriage and insert the retaining pin through the carriage and Boom. Locate the lifting shackle to the desired hole in the Boom and lock in place with the shackle retaining pin. **Note:** There is also a lifting hook which may be removed if not required.



- 9. Raise the carriage by firmly grasping the winch handles and rotating them towards the mast. The winch should operate smoothly, free of hesitation, or binding.
- 10. Lower the carriage by firmly grasping the winch handles and rotating them away from the mast. After lowering to the desired position, turn the winch handles towards the mast (raise the load)  $\frac{1}{4}$  turn to set the brake. The winch should operate smoothly, free of hesitation, or binding.

#### Notes:

- ❑ To return the ToughLift® Material Lift to the transport position undertake the steps above in reverse order.
- ❑ The machine is fitted with a safety brake in the mast structure as standard. If the cable loosens the brake will prevent further movement of the mast until the operator winds the winch to take up the slack in the cable.

#### WARNING

The swivel castors **MUST** be locked when the machine is stationary, whether or not it is in use.

## Section 4 – Operating Instructions /continued

### 4.6 Using the machine

- 1. Load the Standard Forks or Boom attachment with the materials to be lifted, taking care to:
  - a. Centre the load – refer to the Load Capacity Table in Section 4.8 of this Instruction Handbook.
  - b. Anchor the load securely in position.
- 2. Raise the load by firmly holding both winch handles and rotating them towards the mast. **NEVER** allow the cable to wind unevenly on the winch drum.
- 3. Lower the load by firmly holding the winch handles and rotating them away from the mast. After lowering to the desired position, turn the winch handles towards the mast (raise the load)  $\frac{1}{4}$  turn to set the brake.

#### WARNING

When attaching a load to the Boom, ensure that the adequately rated straps, chains etc. are kept as short as possible to minimise the swaying of the load as the mast is raised. If this is impractical, and if using an ML-10 or ML-15 machine, stabilisers must be fitted and deployed. These can be purchased from a ToughLift® dealer or from the manufacturer.

### 4.7 Moving the machine with a load

It is strongly recommended to move the machine around the worksite with the mast lowered and the carriage unloaded (except for the Standard Forks, Pipe Cradle, Extension Forks, Load Platform, or Boom). Moving the machine with a raised load should be restricted to minor positioning for loading and unloading the load.

#### WARNINGS

- ❑ If it is necessary to move the machine loaded and with the mast raised, understand and adhere to the following safety rules in every way:
  - ◆ Make sure the area is level and clear of obstructions.
  - ◆ Make sure the load is centred on the load handling attachment.
  - ◆ Make sure the load is secured to the load handling attachment.
  - ◆ Avoid sudden starts and stops.
  - ◆ Travel with the load in the lowest possible position.
  - ◆ Keep personnel away from the machine and load.
- ❑ **NEVER** move a raised load with the Boom load handling attachment fitted.

## Section 4 – Operating Instructions /continued

### 4.8 Load capacity

#### WARNINGS

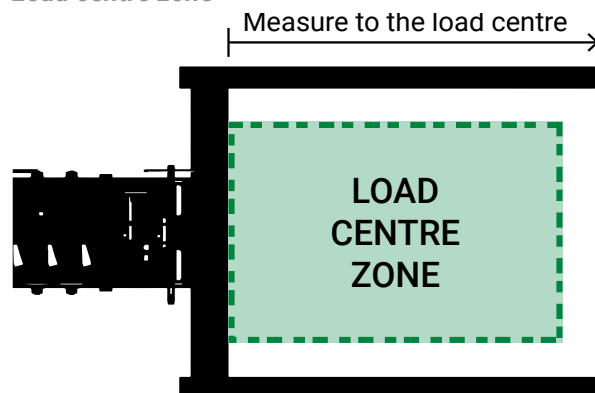
- ❑ Failure to properly position the load could result in serious injury or death.
- ❑ Always verify that the load you plan to raise does not exceed the maximum load for your load centre. See the **Load Capacity Table** later in this section.
- ❑ Raising a load that exceeds the load capacity could result in serious injury or death.
- ❑ A load centre is defined as the balancing point (centre of gravity) of a load and must be positioned within the load centre zone. See the **Load Centre Zone** graphic at the bottom of this page.
- ❑ Failure to position the load centre within the load centre zone could result in serious injury or death.

#### Standard Forks

##### Load Positioning Instructions

1. Determine the weight of the load and the location of its load centre.
2. Measure to the load centre from the side of the load that will be closest to the carriage.
3. Refer to the **Load Capacity Table** later in this section to determine if the machine can lift the weight at that location on the Standard Forks.
4. Place the load so that it rests on the Standard Forks and as close to the carriage as possible.
5. Position the load so that the load centre is within the load centre zone.

##### Load centre zone



## Section 4 – Operating Instructions /continued

### 4.8 Load capacity /continued

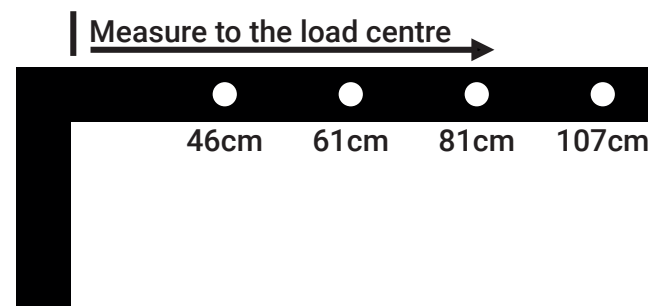
#### WARNINGS

- ❑ The maximum allowable load centre measured from the front of the carriage for the Standard Forks is 61cm.
- ❑ If using the following ToughLift® Material Lift accessories with the Standard Forks, the maximum allowable load centres measured from the front of the carriage are:
  - ◆ Load Platform: 61cm
  - ◆ Fork Extensions: 107cm

#### Boom

##### Load Positioning Instructions

1. Determine the weight of the load and the location of its load centre.
2. Refer to the **Load Capacity Table** later in this section to determine if the machine can lift the weight at the location on the Boom.
3. Secure the load to the hook or lifting shackle on the Boom.



#### WARNINGS

- ❑ The maximum allowable load centre measured from the front of the carriage for the Boom is 107cm.
- ❑ When attaching a load to the Boom, ensure that the adequately rated straps, chains etc. are kept as short as possible to minimise the swaying of the load as the mast is raised. If this is impractical, and if using an ML-10 or ML-15 machine, stabilisers must be fitted and deployed. These can be purchased from a ToughLift® dealer or from the manufacturer.
- ❑ **NEVER** move a raised load with the Boom load handling attachment fitted.



## Section 4 – Operating Instructions /continued

### 4.8 Load capacity /continued

Load Capacity Table

LOAD CENTRE							
MODEL	46cm	51cm	56cm	61cm	66cm	71cm	76cm
ML-10	454kg	454kg	454kg	454kg	414kg	374kg	335kg
ML-15	363kg	363kg	363kg	363kg	346kg	329kg	312kg
ML-20	363kg	332kg	303kg	272kg	255kg	238kg	221kg
ML-25	295kg	264kg	235kg	204kg	193kg	181kg	170kg
LOAD CENTRE							
MODEL	81cm	86cm	91cm	97cm	102cm	107cm	
ML-10	295kg	272kg	249kg	227kg	204kg	181kg	
ML-15	295kg	281kg	268kg	254kg	240kg	227kg	
ML-20	204kg	195kg	186kg	177kg	168kg	159kg	
ML-25	159kg	150kg	141kg	132kg	122kg	113kg	

#### WARNING

Lifting loads which exceed those shown in the chart above could cause serious injury or death.

## Section 5 – Transport, Handling, & Storage

### 5.1 Storage

ToughLift® Material Lifts should be stored inside in a secure, clean, and dry environment. When the machine is parked, both swivel castor brakes must be applied, and if the machine must be parked on a slight gradient the braked swivel castors must be chocked.

#### WARNING

If the machine has been in storage and out of service for any length of time, always undertake the 3-Monthly checks outlined in Section 5 of the ToughLift® Material Lifts Maintenance Manual.

### 5.2 Loading & unloading

#### WARNINGS

- ❑ The vehicle or trailer being used to transport the ToughLift® Material Lift must be parked on a level surface.
- ❑ The vehicle or trailer must be secured to prevent movement while the machine is being loaded.
- ❑ Ensure that the vehicle or trailer is adequately rated to transport the machine. See the manufacturer's plates for the weight of the machine and any accessories or refer to Section 2 of this Instruction Handbook.
- ❑ The machine must be secured to the transport vehicle or trailer with at least 2 adequately rated straps or chains which have been fully tightened.

#### Manual lifting onto a trailer or the flatbed of a vehicle

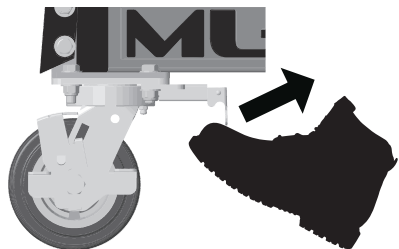
1. Remove the Standard Forks or Boom from the carriage of the machine.
2. Fully lower the carriage and rotate the carriage lock anticlockwise to hold the carriage in position for transport.
3. Raise the carriage until it securely contacts the carriage lock.
4. Lift the stabilisers (if fitted) into the stowed position.
5. Lift the front legs into the stowed position, ensuring that they are locked in place with the retaining pins.
6. Raise the loading wheels so that the leg is horizontal and insert the retaining pin.  
**Note:** It is recommended to pin the loading wheels mount into the second hole from the top of the bracket on the winch mount plate.

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## Section 5 – Transport, Handling, & Storage /continued

### 5.2 Loading & unloading /continued

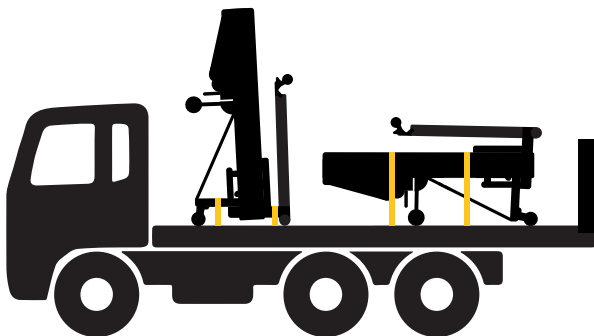
7. Lock the braked swivel castors on the splayed legs in a straight line outbound of the chassis using the toe of a boot under the pedal operated straight-line lock as shown below.



8. Place the machine against the vehicle or trailer and using proper lifting techniques load the machine onto the transport vehicle or trailer.



9. Use a minimum of 2 straps or chains to secure the machine to the flatbed of the vehicle or trailer. **If laying the machine down on the vehicle or trailer, ensure that the straps are placed over the mast, as putting them over the front legs could cause damage to the machine.**



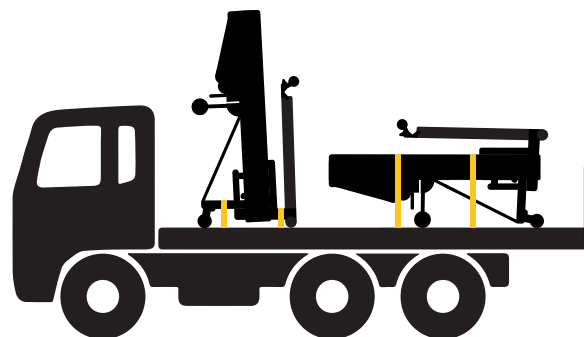
10. To unload, follow these loading instructions in reverse order.

## Section 5 – Transport, Handling, & Storage /continued

### 5.2 Loading & unloading /continued

#### Using a tail lift

1. Remove the Standard Forks or Boom from the carriage of the machine.
2. Fully lower the carriage and rotate the carriage lock anticlockwise to hold the carriage in position for transport.
3. Raise the carriage until it securely contacts the carriage lock.
4. Lift the stabilisers (if fitted) into the stowed position.
5. Lift the front legs into the stowed position, ensuring that they are locked in place with the retaining pins.
6. Raise the loading wheels so that the leg is horizontal and insert the retaining pin.  
**Note:** It is recommended to pin the loading wheels mount into the second hole from the top of the bracket on the winch mount plate.
7. Push the machine onto the tail lift.
8. Apply both swivel castor brakes.
9. Raise the tail lift, release the swivel castor brakes, and push the machine onto the flatbed of the vehicle.
10. Once located in the correct position, both swivel castor brakes should be applied.
11. Use a minimum of 2 straps or chains to secure the machine to the flatbed of the vehicle. **If laying the machine down on the vehicle, ensure that the straps are placed over the mast, as putting them over the front legs could cause damage to the machine.**



12. To unload, follow these loading instructions in reverse order.

#### WARNING

The tail lift used to lift the ToughLift® Material Lift must be adequately rated.

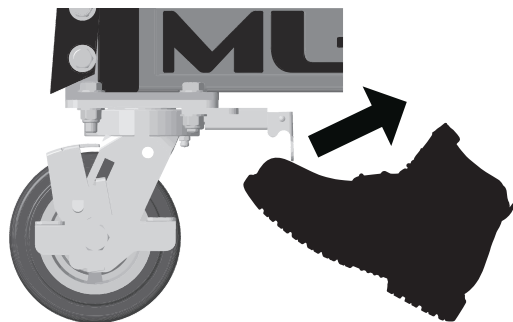
## Section 5 – Transport, Handling, & Storage /continued

### 5.2 Loading & unloading /continued

#### Winching

ToughLift® Material Lifts may be winched onto/into a trailer or onto the flatbed of a low loader by securing an adequately rated winch to the hoisting and winching anchor mounted at the top of the rear fixed mast column.

1. Remove the Standard Forks or Boom from the carriage of the machine.
2. Inspect the machine and remove any loose or unsecured items.
3. Fully lower the carriage and rotate the carriage lock anticlockwise to hold the carriage in position for transport.
4. Raise the carriage until it securely contacts the carriage lock.
5. Lift the stabilisers (if fitted) into the stowed position.
6. Lift the front legs into the stowed position, ensuring that they are locked in place with the retaining pins.
7. Raise the loading wheels so that the leg is horizontal and insert the retaining pin.  
**Note:** It is recommended to pin the loading wheels mount into the second hole from the top of the bracket on the winch mount plate.
8. Lock the braked swivel castors on the splayed legs in a straight line outbound of the chassis using the toe of a boot under the pedal operated straight-line lock as shown below.

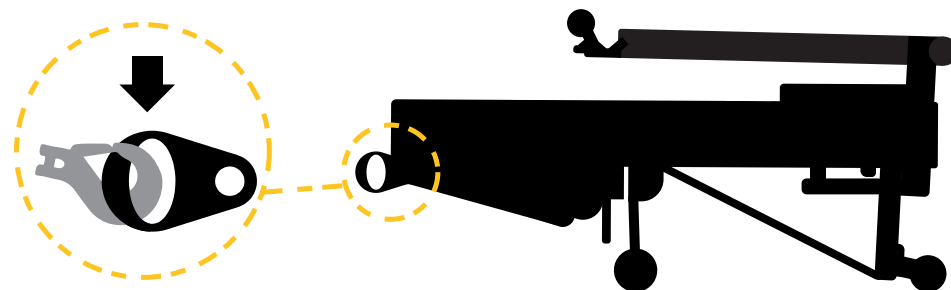


9. Lay the machine down in front of the loading ramp of the trailer or low loader so that the braked swivel castors and loading wheels are in contact with the ground, and the hoisting anchor on top of the mast is facing the loading ramp.

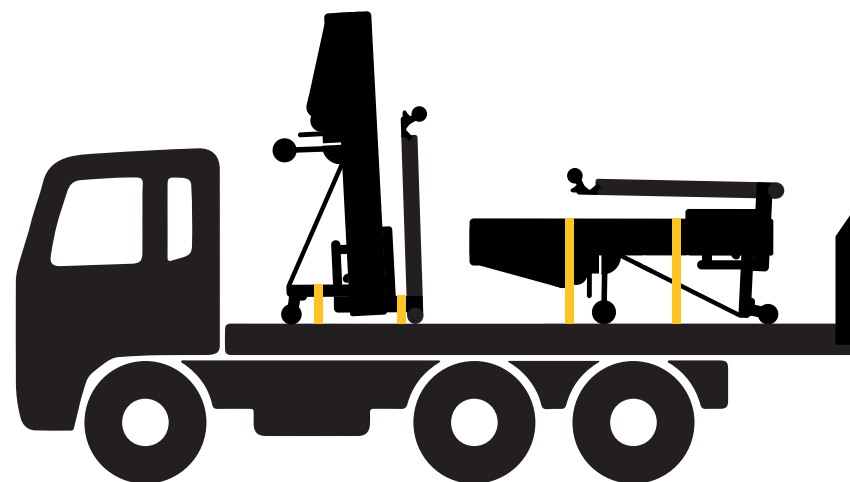
## Section 5 – Transport, Handling, & Storage /continued

### 5.2 Loading & unloading /continued

10. Attach and lock the winch hook to the hoisting and winching anchor at the top of the rear fixed mast column.



11. Winch the machine up onto the trailer or low loader.
12. Once located in the correct position, both swivel castor brakes should be applied.
13. Use a minimum of 2 straps or chains to secure the machine to the flatbed of the vehicle or trailer. **If laying the machine down on the vehicle or trailer, ensure that the straps are placed over the mast, as putting them over the front legs could cause damage to the machine.**



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## Section 5 – Transport, Handling, & Storage /continued

### 5.2 Loading & unloading /continued

#### 14. Unload the machine as follows:

- a. Remove the transit straps.
- b. Unlock the braked swivel castors.
- c. Connect the winch to the hoisting and winching anchor of the machine and let out enough cable to allow the machine to be pushed to the top edge of the ramp. **DO NOT** stand behind the machine when undertaking this step.
- d. Use the winch to lower the machine down the ramp.
- e. Lift the machine into the vertical position and lock the braked swivel castors until you go on to move the machine to the working area.

#### WARNINGS

- ☐ Check that the Safe Working Load or Working Load Limit of the winch exceeds the weight of the ToughLift® Material Lift shown on the manufacturer's plate and in Section 2 of this Instruction Handbook.
- ☐ A full risk assessment must be undertaken.

#### Loading the machine with a crane or Hiab

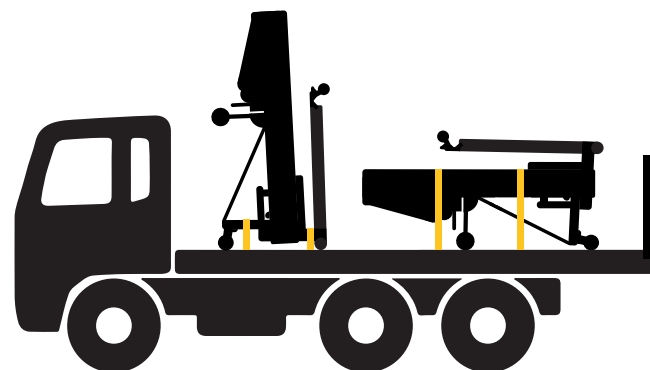
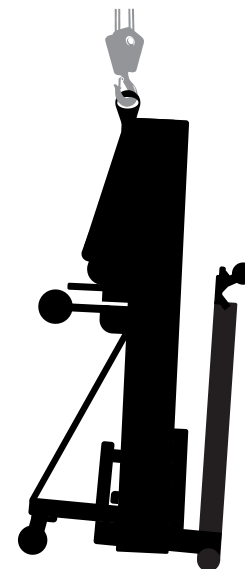
ToughLift® Material Lifts may be lifted by securing adequately rated hoisting equipment to the hoisting and winching anchor mounted at the top of the rear fixed mast column.

1. Remove the Standard Forks or Boom from the carriage of the machine.
2. Inspect the machine and remove any loose or unsecured items.
3. Fully lower the carriage and rotate the carriage lock anticlockwise to hold the carriage in position for transport.
4. Raise the carriage until it securely contacts the carriage lock.
5. Lift the stabilisers (if fitted) into the stowed position.
6. Lift the front legs into the stowed position, ensuring that they are locked in place with the retaining pins.
7. Raise the loading wheels so that the leg is horizontal and insert the retaining pin.  
**Note:** It is recommended to pin the loading wheels mount into the second hole from the top of the bracket on the winch mount plate.

## Section 5 – Transport, Handling, & Storage /continued

### 5.2 Loading & unloading /continued

8. Attach the lifting hook to the hoisting and winching anchor on the top of the rear fixed mast column as shown in the graphic on the right.
9. Hoist the machine onto the vehicle.
10. Once located in the correct position on the vehicle, both swivel castor brakes should be applied.
11. Use a minimum of 2 straps or chains to secure the machine to the flatbed of the vehicle. **If laying the machine down on the vehicle, ensure that the straps are placed over the mast, as putting them over the front legs could cause damage to the machine.**



12. To unload, follow these loading instructions in reverse order.

#### WARNINGS

- ☐ Check that the Safe Working Load or Working Load Limit of the hoisting equipment exceeds the weight of the ToughLift® Material Lift shown on the manufacturer's plate and in Section 2 of this Instruction Handbook.
- ☐ A full risk assessment must be undertaken.

Section 6 – Maintenance & Repair Record

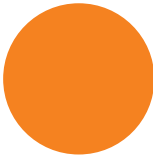
6.1 Machine plates, labelling, & manuals

Before using a ToughLift® Material Lift always undertake a visual inspection of all decals and manufacturer’s plates to ensure that they are legible and in place.

Decals on the machine are colour coded as follows:



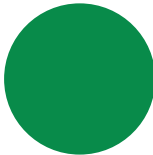
**RED** - used to indicate the presence of an imminent hazard which will result in serious injury or death.



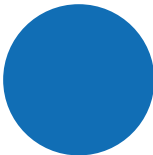
**ORANGE** - used to indicate the presence of a potential hazard which could result in serious injury or death.



**YELLOW** - used to indicate the presence of a potential hazard which could result in minor or moderate injury.



**GREEN** - used to indicate operational or maintenance information.



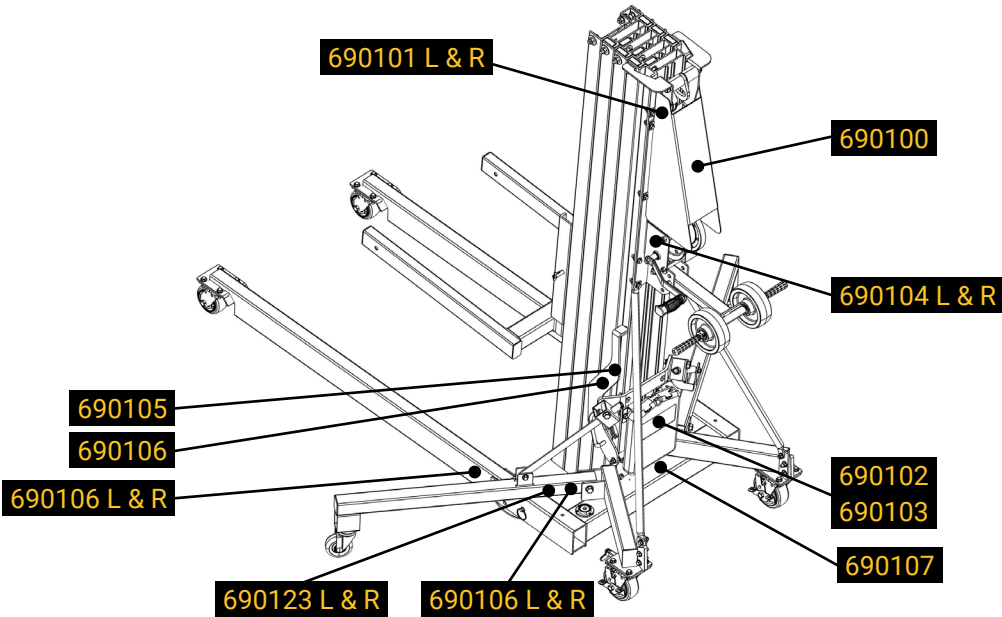
**BLUE** - used to indicate the location of and access to the Instruction Handbook for this machine.

Section 6 – Maintenance & Repair Record /continued

6.1 Machine plates, labelling, & manuals /continued

Decals & manufacturer’s plates for all 4 models (ML-10/ML-15/ML-20/ML-25)

Part No.	Description	Quantity			
		ML-10	ML-15	ML-20	ML-25
690100	Main safety decal	1	1	1	1
690101	Hoisting anchor decal L & R	2	2	2	2
690102	Instruction Handbook decal	1	1	1	1
690103	Instruction Handbook QR code decal ( <i>inside document holder</i> )	1	1	1	1
690104	Winch warning decal L & R	2	2	2	2
690105	Carriage lock use decal	1	1	1	1
690106	Finger trap decal	3	3	5	5
690107	Manufacturer’s plate for machine	1	1	1	1
690123	Stabiliser deployment decal L & R	N/A	N/A	2	2



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Section 6 – Maintenance & Repair Record /continued

6.1 Machine plates, labelling, & manuals /continued

Decals & manufacturer's plates for all 4 models (ML-10/ML-15/ML-20/ML-25) /continued

**BEFORE OPERATION**

- Operators of this ToughLift® Material Lift must be trained and authorised to do so.
- Read and understand the Instruction Handbook before operating this machine.
- Undertake the pre-use checks in the Instruction Handbook before operating this machine.

**SETTING UP & USING THE MACHINE**

- Commence this setup procedure with the ToughLift® Material Lift in the upright position.
- Apply the brake to each of the 2 swivel castors on the splayed legs.
- Display each of the 2 front legs by removing the retaining pin, lowering the leg to the horizontal position, and locking it in place with the retaining pin.
- If fitted, display each of the 2 stabilisers by pressing down and holding the stabiliser latch plates, lowering the stabiliser to the horizontal position, and releasing the latch plates to lock the stabiliser in place.
- Check that the bubble of the spirit level mounted on the chassis is inside the black circle in the centre.
- Lower the steering handle/handle wheel assembly by removing the retaining pin, lowering, and then locking in place with the retaining pin.
- Turn the winch handles 2 full turns anticlockwise to release the pressure of the carriage against the carriage lock.
- Pull the geared loaded carriage lock towards you, rotate clockwise, and release to lock in the fixed mast column.
- Fit the carriage of the Boom or Boom and lock in place with the retaining pin. **Note:** The Standard Forks may be mounted up or down into the carriage.
- Raise the carriage by firmly grasping the winch handles and rotating them towards the mast. The winch should operate smoothly, free of hesitation, or binding.
- Lower the carriage by firmly grasping the winch handles and rotating them away from the mast. After lowering to the desired position, turn the winch handles towards the mast ¼ turn to set the brake. The winch should operate smoothly, free of hesitation, or binding.
- Load the Standard Forks or Boom attachment with the materials to be lifted, taking care to centre the load and achieve an even position.
- Raise the load by firmly holding both winch handles and rotating them towards the mast. **NEVER** allow the cable to wind unevenly on the winch drum.
- Lower the load by firmly holding the winch handles and rotating them away from the mast. After lowering to the desired position, turn the winch handles towards the mast ¼ turn to set the brake.

**Note:** To return the Material Lift to the transport position, undertake the steps above, but in reverse. For further information, refer to the Instruction Handbook.

**SAFETY RULES**

- Read, understand, and adhere to the Safety Rules below, and in the Instruction Handbook.
- Do not lift loads which exceed those shown in the table below:

**LOAD CENTRE**

MODEL	454kg	454kg	259kg	191kg	191kg
ML-10	454kg	454kg	259kg	191kg	191kg
ML-15	363kg	363kg	259kg	227kg	227kg
ML-20	304kg	272kg	204kg	159kg	159kg
ML-25	295kg	204kg	159kg	113kg	113kg

Maximum allowable load centre measured from the front of the carriage by load handling attachment is:

- Standard Forks: 61cm
- Boom: 107cm
- Load Platform: 61cm
- Fork Extension: 107cm

- Ensure the load is properly centred on the load handling attachment.
- Ensure the load is properly secured to the load handling attachment.
- Always grip the winch handles until the winch brake is locked i.e. when the weight of the load will not cause the winch handles to turn.
- The maximum lift heights are shown in the table below:

**MODELS**

	ML-10	ML-15	ML-20	ML-25
With Standard Forks down	2.67m	4.46m	5.94m	7.42m
With Standard Forks up	3.46m	4.98m	6.46m	7.94m
With Load Platform forks down	2.67m	4.46m	5.94m	7.42m
With Load Platform forks up	3.46m	4.98m	6.46m	7.94m
With Boom	3.28m	4.76m	6.25m	7.42m

(1) - With Standard Forks only.  
(2) - Measurement from the ground to the bottom of the chassis.

- Always check above for obstructions or other possible hazards before raising the mast.
- Never move this Material Lift when the carriage is loaded, whether the mast is lowered or raised (except for very minor repositioning).

690100

**WARNING!**

ATTACH ADEQUATELY RATED HOISTING OR WINCHING EQUIPMENT HERE. CHECK THAT THE SAFE WORKING LOAD LIMIT EXCEEDS THE WEIGHT OF THIS MATERIAL LIFT.

690101

VIEW INSTRUCTION HANDBOOK

690103

690103

**CAUTION!**

RISK OF TRAPPING HANDS & FINGERS.

690106

690106

MODEL: ML-  
PRODUCT CODE:   
MODEL DESIGNATION: MATERIAL LIFT  
SERIAL NUMBER: SA  
YEAR OF CONSTRUCTION: 202  
MACHINE WEIGHT: KG  
LOAD CAPACITY:   
REFER TO MAIN SAFETY DECAL ON MAST  
WORKING HEIGHT:   
REFER TO MAIN SAFETY DECAL ON MAST  
COUNTRY OF MANUFACTURE: PRC

MANUFACTURER: Shenzhen Anhua Ltd., A12021, Tianan Cyber Park, No. 441 Huang Ge Road, Longgang, Shenzhen 518116, China.  
EU REPRESENTATIVE: Certification Company B.V., Veluwezoom 42, Almere, 1327 AH, Netherlands.

**ToughLift®**

UK CA CE

690107

690102

**WARNING!**

ENGAGE THE RATCHET SYSTEM BEFORE RELEASING THE WINCH HANDLES.

Turn the winch handles ¼ turn clockwise (away from you/raising the load) to ensure that the ratchet/brake system is engaged before winding up the mast to the desired working height.

**FAILURE TO ENGAGE THE RATCHET COULD RESULT IN SERIOUS INJURY OR DEATH.**

690104

690104

**PRESS DOWN AND HOLD THE LATCH PLATES TO DEPLOY THE STABILISER AND RELEASE TO LOCK IN POSITION.**

690123

690123

TO RELEASE THE CARRIAGE, PULL THIS LOCK TOWARDS YOU AND ROTATE CLOCKWISE, RELEASING TO LATCH IN THE REAR MAST COLUMN.

690105

690105

Section 6 – Maintenance & Repair Record /continued

6.1 Machine plates, labelling, & manuals /continued

Decals & manufacturer's plates for all 4 models (ML-10/ML-15/ML-20/ML-25) /continued

Part No.	Description	Quantity			
		ML-10	ML-15	ML-20	ML-25
690106	Finger trap decal L & R	2	2	2	2
690117	Standard Forks safety decal	1	1	1	1
690118	Standard Forks fitting decal	1	1	1	1
690116	Removable parts plate (riveted)	1	1	1	1

**CAUTION!**

RISK OF TRAPPING HANDS & FINGERS.

690106

**WARNING!**

FAILURE TO READ, UNDERSTAND, AND ADHERE TO THE SAFETY RULES IN THE INSTRUCTION HANDBOOK COULD RESULT IN SERIOUS INJURY OR DEATH.

ENSURE THE FORKS ARE PROPERLY SECURED TO THE CARRIAGE OF THE MATERIAL LIFT WITH THE RETAINING PIN.

**DO NOT USE THE FORKS AS A PERSONNEL LIFT OR STEP.**

690117

**FITTING STANDARD FORKS**

- Remove the retaining pin from the carriage.
- Either slide the Standard Forks into the bottom (FORKS DOWN) or top (FORKS UP) of the carriage.
- Insert the retaining pin removed in STEP 1.

690118

**ACCESSORY:**  
PRODUCT CODE:   
SERIAL NUMBER: SA  
YEAR OF CONSTRUCTION: 202  
WEIGHT: KG  
COUNTRY OF MANUFACTURE: PRC

**ToughLift®**

UK CA CE

690116

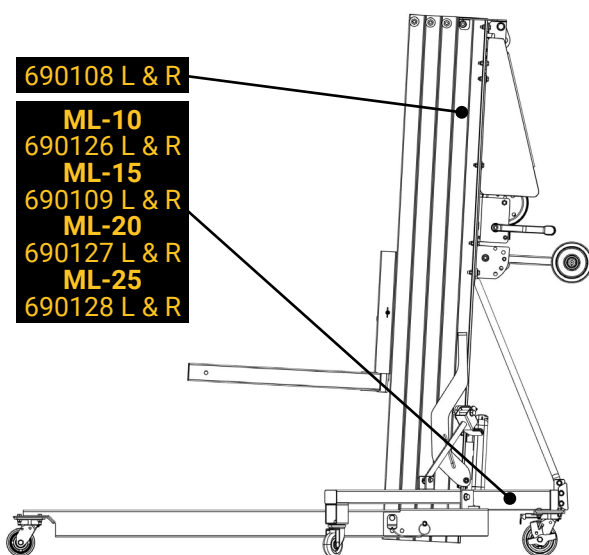


## Section 6 – Maintenance & Repair Record /continued

### 6.1 Machine plates, labelling, & manuals /continued

#### Branding decals for all 4 models (ML-10/ML-15/ML-20/ML-25)

Part No.	Description	Quantity			
		ML-10	ML-15	ML-20	ML-25
690108	ToughLift® branding decal	2	2	2	2
690126	ML-10 model decal (ML-10 only)	2	N/A	N/A	N/A
690109	ML-15 model decal (ML-15 only)	N/A	2	N/A	N/A
690127	ML-20 model decal (ML-20 only)	N/A	N/A	2	N/A
690128	ML-25 model decal (ML-25 only)	N/A	N/A	N/A	2



**ML-10**

690126

**ML-15**

690109

**ML-20**

690127

**ML-25**

690128

**ToughLift®**

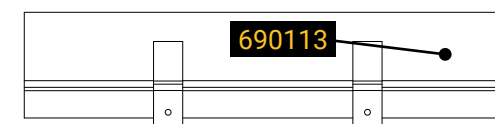
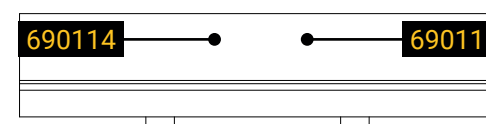
690108

## Section 6 – Maintenance & Repair Record /continued

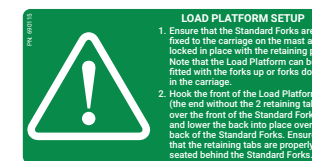
### 6.1 Machine plates, labelling, & manuals /continued

#### Decals & manufacturer's plate for Load Platform accessory

Part No.	Description	Quantity
690114	Load Platform safety decal	1
690115	Load Platform setup decal	1
690113	Removable parts plate (3M VHB tape)	1



690114



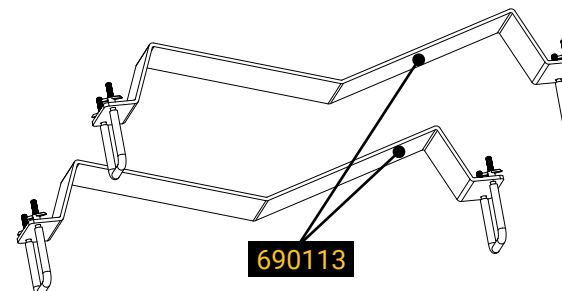
690115



690113

#### Manufacturer's plates for Pipe Cradle accessory

Part No.	Description	Quantity
690113	Removable parts plate (3M VHB tape) - left & right units	2



690113

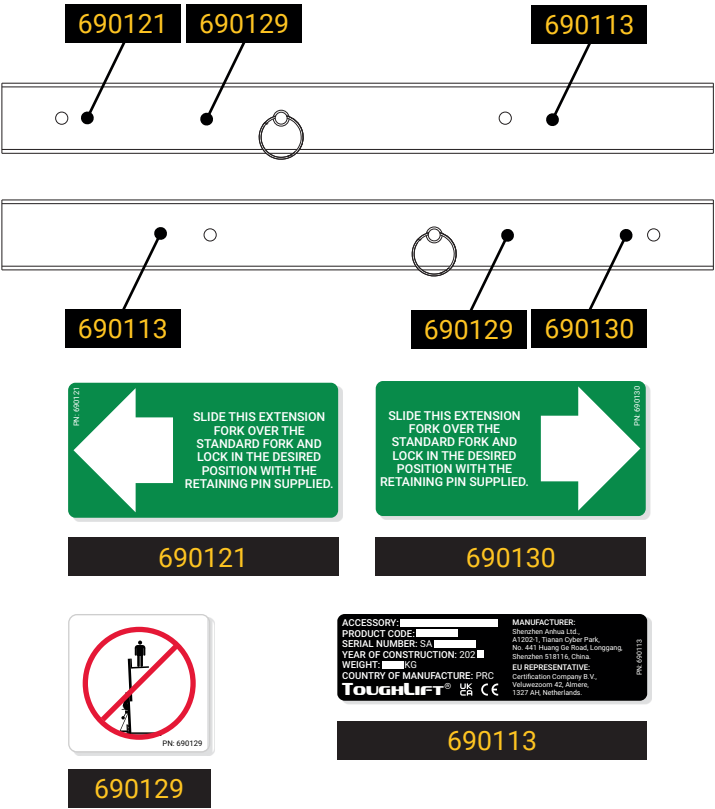


Section 6 – Maintenance & Repair Record /continued

6.1 Machine plates, labelling, & manuals /continued

Decals & manufacturer's plate for Extension Forks accessory

Part No.	Description	Quantity
690121	Extension Forks setup decal - left fork	1
690130	Extension Forks setup decal - right fork	1
690129	Extension Forks not a personnel lift decal - left & right forks	2
690113	Removable parts plate (3M VHB tape) - left & right forks	2

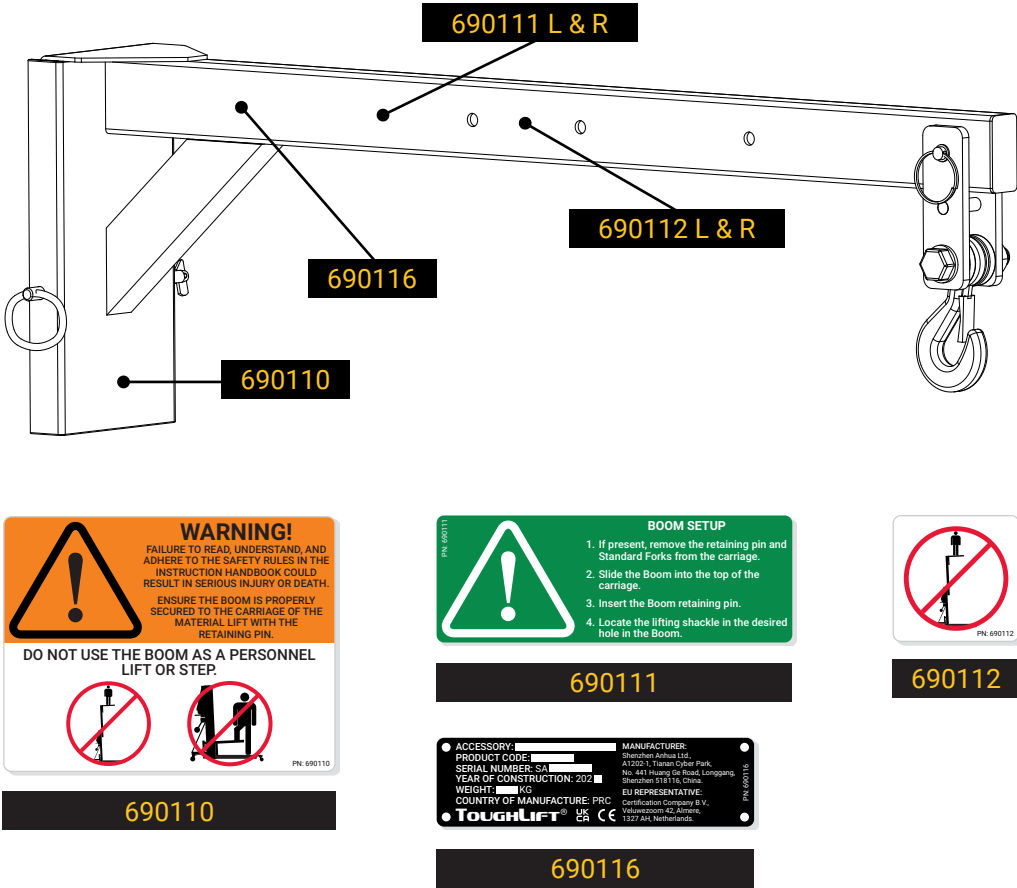


Section 6 – Maintenance & Repair Record /continued

6.1 Machine plates, labelling, & manuals /continued

Decals & manufacturer's plate for the Boom accessory

Part No.	Description	Quantity
690110	Boom safety warning decal	1
690111	Boom setup decal - left & right	2
690112	Boom not a personnel lift decal - left & right	2
690116	Removable parts plate (riveted)	1



Section 6 – Maintenance & Repair Record /continued

6.1 Machine plates, labelling, & manuals /continued

Manuals

Part No.	Description	Quantity
690201	Instruction Handbook (Original Instructions)	1
690202	Maintenance Manual	1



Section 6 – Maintenance & Repair Record /continued

6.2 Pre-use checks - operator checklist & other maintenance

WARNINGS

- ☐ Scheduled maintenance inspections shall be completed Daily/Pre-Use, 3-Monthly, and Annually, as specified in the ToughLift® Material Lifts Maintenance Manual.
- ☐ The Daily/Pre-Use Maintenance Inspection must be undertaken by the owner of the machine prior to the first use of a new ToughLift® Material Lift.
- ☐ If applicable, the Daily/Pre-Use Maintenance Inspection must be undertaken by the owner of the machine prior to each delivery to their customer.
- ☐ The Daily/Pre-Use Maintenance Inspection must be undertaken if any situation has occurred which could affect the safe operation of the machine e.g., toppling, significant impact, malfunctions etc.
- ☐ The Daily/Pre-Use Maintenance Inspection must be undertaken following any repairs to a ToughLift® Material Lift.
- ☐ If a machine has been out of service for longer than 3 months, the 3-Monthly Maintenance Inspection detailed in the ToughLift® Material Lifts Maintenance Manual must be completed.
- ☐ Failure to perform each procedure as shown and scheduled could cause death, serious injury, or substantial damage.
- ☐ Unless otherwise specified, perform each procedure with the machine in the following configuration:
  - ♦ Machine parked on a solid and level surface.
  - ♦ Carriage fully lowered.
  - ♦ Swivel castors on splayed legs locked.
  - ♦ Standard Forks or Boom fitted to the carriage.
- ☐ Immediately tag and remove from service any damaged or malfunctioning ToughLift® Material Lift.
- ☐ Repair any machine damage or malfunction before operating the machine.
- ☐ Use only ToughLift® approved replacement parts.

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## Section 6 – Maintenance & Repair Record /continued

### 6.2 Pre-use checks - operator checklist & other maintenance /continued

#### Notes:

- ❑ The Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) requires that lifting equipment must be THOROUGHLY EXAMINED every 12 months. However, removable accessories i.e., Standard Forks, Pipe Cradle, Fork Extensions, Load Platform, or Boom, must be inspected every 6 months. Please refer to the Appendix in the ToughLift® Material Lifts Maintenance Manual which details the information to be contained in a report of a thorough examination (UK only, regulations in other countries vary).
- ❑ It is essential that only ToughLift® approved replacement parts are used when maintaining and servicing ToughLift® Material Lifts and accessories. Failure to do so could result in an unsafe machine. Please provide the following information when requesting replacement parts:
  - ◆ Name of model i.e., ML-10, ML-15, ML-20, or ML-25 or name of accessory i.e., Standard Forks, Pipe Cradle, Fork Extensions, Load Platform, Boom, or Rough Terrain Wheel Kit.
  - ◆ To be found on the manufacturer's plate fixed to the chassis of the machine or fixed to the accessory:
    - Serial Number
    - Year of Construction
  - ◆ Date of purchase of machine or accessory.
  - ◆ Part number from the ToughLift® Material Lifts Maintenance Manual.
  - ◆ Description from the ToughLift® Material Lifts Maintenance Manual.
  - ◆ Quantity required.
  - ◆ Purchase order number.
  - ◆ Company invoice address.
  - ◆ Delivery address with contact name and phone number at this address.

#### Daily/Pre-Use Checks Maintenance Inspection Report

##### Instructions

- ❑ Make copies of this report to use for each inspection undertaken.
- ❑ Tick the appropriate box after each item is inspected i.e., P = Pass / F = Fail / R = Repaired & reinspected.
- ❑ Use the step-by-step procedures in this section to learn how to perform each inspection.
- ❑ If any inspection receives an "F", remove the machine from service, repair, and reinspect it. After a completed repair and reinspection tick the R box.

## Section 6 – Maintenance & Repair Record /continued

### 6.2 Pre-use checks - operator checklist & other maintenance /continued

#### Daily/Pre-Use Checks Maintenance Inspection Report /continued

<b>Model Name i.e., ML-10, ML-15, ML-20, or ML-25</b>	
<b>Model Serial Number (from plate on chassis)</b>	

Removable Part	Fitted (✓)	Serial Number
Standard Forks		
Stabiliser - Left		N/A
Stabiliser - Right		N/A
Pipe Cradle - Left		
Pipe Cradle - Right		
Extension Fork - Left		
Extension Fork - Right		
Load Platform		
Boom		
Rough Terrain Wheel Kit		N/A

Item Ref.	Activity	P	F	R
a	Inspect the Instruction Handbook, decals, and plates.			
b	Pre-operation inspection.			
c	Function tests.			

Comments:

<b>Date of Inspection:</b>	
<b>Machine Owned By:</b>	
<b>Inspector Name:</b>	
<b>Inspector Title:</b>	
<b>Inspector Company:</b>	
<b>Inspector Signature:</b>	

...continued over the page

## Section 6 – Maintenance & Repair Record /continued

### 6.2 Pre-use checks - operator checklist & other maintenance /continued

#### How to Perform Each Inspection

##### a. Inspect the Instruction Handbook, decals, and plates.

- ❑ The Instruction Handbook is stored in the document holder mounted on the back of the fixed mast column:
  - ◆ Check that the document holder is in position as shown in the image below.
  - ◆ Open the document holder by releasing the 2 clips on the top.
  - ◆ Check that the A5 Instruction Handbook shown in the image below is present.
  - ◆ Take the Instruction Handbook out of the document holder and check that each page is clearly legible.
  - ◆ Put the Instruction Handbook back in the document holder and close it.



- ❑ Referring to Section 6.1 of this Instruction Handbook ensure that all decals and manufacturer's plates are in place and legible.

#### Note:

Contact the manufacturer or your dealer for replacement document holder, Instruction Handbook, decals, or plates.

## Section 6 – Maintenance & Repair Record /continued

### 6.2 Pre-use checks - operator checklist & other maintenance /continued

#### b. Pre-operation inspection

The Pre-Operation Inspection is a visual check performed by the operator of the ToughLift® Material Lift prior to each work shift. The inspection is designed to discover if anything is wrong with a machine before the operator performs the function tests. The inspection also identifies if any routine maintenance is required.

#### Note:

The operator should only inspect what they can see with the carriage of the ToughLift® Material Lift lowered.

- ❑ Check the following fabrications and components for areas of damage, improperly installed or missing parts, and unauthorised modifications:
  - ◆ Mast columns.
  - ◆ Cable anchor.
  - ◆ Pulleys.
  - ◆ Cable (look for kinks, frays, and abrasions).
  - ◆ Winch and related components.
  - ◆ Chassis.
  - ◆ Front legs.
  - ◆ Stabilisers and latch plates (if fitted).
  - ◆ Carriage lock.
  - ◆ Wheels and castors (including Rough Terrain Wheel Kit, if fitted).
  - ◆ Nuts, bolts, and other fixings (in place and properly tightened).
  - ◆ Load handling attachments (as applicable): Standard Forks, Fork Extensions, Load Platform, Pipe Cradle, and Boom.
- ❑ Check the entire machine for:
  - ◆ Dents or damage.
  - ◆ Corrosion or oxidation.
  - ◆ Cracks in welds or structural components.
- ❑ Ensure there is a minimum of 4 wraps of cable around the winch drum when the carriage is fully lowered.

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## Section 6 – Maintenance & Repair Record /continued

### 6.2 Pre-use checks - operator checklist & other maintenance /continued

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#### c. Function tests

Undertaking the function tests below is essential to the safe operation of a ToughLift® Material Lift. These tests are designed to identify any malfunctions before the machine is used.

If any malfunctions are identified the machine must not be used, and must be tagged and removed from service until such time as it has been repaired by a trained, competent, and authorised maintenance engineer.

- ❑ If fitted, deploy each of the two stabilisers and ensure that they are locked in position when the latch plates are released.
- ❑ Deploy each of the two front legs and ensure that they can be locked in position with the retaining pins attached to the machine.  
**Helpful tip:** If a machine is fitted with stabilisers (ML-20 or ML-25 as standard and ML-10 or ML-15 fitted as an accessory), deploying the stabilisers and locking in place before deploying the front legs makes the process a lot easier, especially if you are deploying the front legs alone. After the front legs have been deployed and pinned in place with the retaining pins, tap the top of the latch plates on each stabiliser with a rubber mallet until they release from the stabiliser brace rod, and then ensure that each stabiliser is locked in the deployed position and that all 6 machine castors are in touch with the ground before raising a load.
- ❑ Check that the machine is level by ensuring the bubble in the spirit level is within the black circle.
- ❑ With the mast lowered, the swivel castor brakes applied, and on a level surface, using the handles try to push the machine to ensure that the brakes are fully functioning.
- ❑ Turn the winch handles 2 full turns anticlockwise (towards you) to release the pressure of the carriage against the carriage lock.
- ❑ Pull the spring-loaded carriage lock towards you, rotate clockwise, and release to latch in the fixed mast column.
- ❑ With the load handling attachment fitted to the carriage, raise the carriage by firmly grasping the winch handles and rotating them towards the mast (away from you). The winch should operate smoothly, free of hesitation, or binding.

## Section 6 – Maintenance & Repair Record /continued

### 6.2 Pre-use checks - operator checklist & other maintenance /continued

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6.3 Maintenance record

Date	Scheduled maintenance undertaken	Location	By

6.4 Repairs record

Date	Repairs undertaken	Location	By

6.5 Examinations & tests record

Date	Examinations/tests undertaken	Location	By	Safe to use Y/N

## Section 7 – Troubleshooting

### Issue:

**The machine has been laid down without the carriage lock engaged and the carriage and first lifting column have slid out of alignment.**

### Solution:

1. Slowly and carefully slide each mast section back into the transport position.  
**Note:** You may need to release the mast safety brake in the carriage and in each lifting column. For further guidance, refer to Section 7.4 of the Maintenance Manual.
2. Undertake a visual inspection to ensure that the cable is still properly routed over each pulley wheel.
3. Lift the machine up so that the mast is vertical.
4. Using the winch, raise the mast to full height and then lower (ensuring that the carriage is fully lowered).
5. Engage the carriage lock by releasing and rotating anticlockwise.
6. Using the winch, wind up the carriage until it engages with the carriage lock.
7. You can now lay the machine back down for transport and the mast sections will be held in place.

### Issue:

**The winch cable has become crossed on the winch drum.**

### Solution:

1. Remove the cable guard, taking care to retain the fixings.
2. Unwind the whole cable until it is loose.
3. Wearing a safety glove, hold the cable whilst slowly winding the winch clockwise, and using your hand to guide the cable to lay neatly on the winch drum.
4. When the winch starts to move the carriage, take your hand off the cable.
5. Replace the cable guard removed in Step 1.
6. You can now use the machine normally in accordance with this Instruction Handbook.

### Issue:

**The cable has become loose and the mast braking system has engaged locking the movement of the mast.**

### Solution:

Wind the winch to take up the slack in the cable and the mast brake will release. You can then use the machine normally in accordance with this Instruction Handbook.

## Section 8 – Load Platform

The Load Platform is an accessory for the ToughLift® Material Lifts, effectively filling in the gap between the Standard Forks, ideal for lifting a number of smaller items.

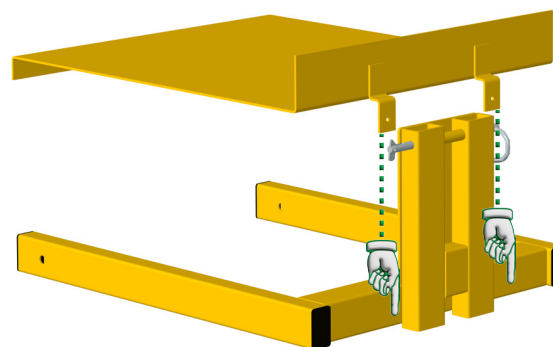
**Weight:** 15kg

**Part Number:** 670000



### How to fit the Load Platform

1. Ensure that the Standard Forks are fixed to the carriage on the mast and locked in place with the retaining pin.
2. Place the Load Platform on the Standard Forks (forks up or forks down) with the 2 locking tabs facing down behind the Standard Forks adjacent to the carriage.



### WARNINGS

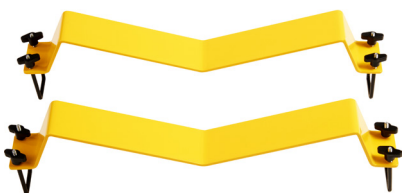
- ☐ **ALWAYS** read, understand, and adhere to the Safety Rules in Section 3 of this Instruction Handbook. Failure to do so could result in serious injury or death.
- ☐ **NEVER** use the Load Platform as a personnel lift or step.
- ☐ **ALWAYS** ensure the Load Platform is properly fitted to the Standard Forks of the machine.



## Section 9 – Pipe Cradle

The Pipe Cradle is an optional accessory for the ToughLift® Material Lifts. Once fitted to the Standard Forks, this accessory allows for the safe lifting of cylindrical shaped objects such as tubes, pipes, and ducting.

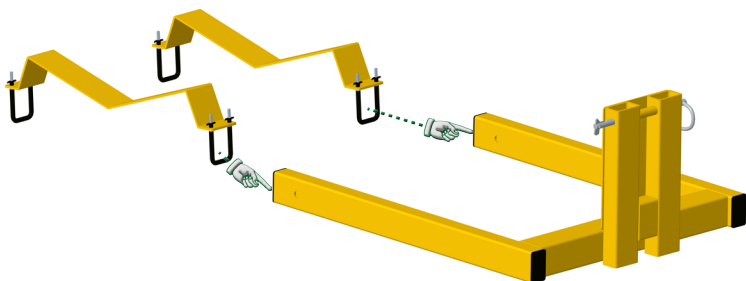
**Weight:** 4kg for set (2kg each)  
**Part Number:** 610043



### How to fit the Pipe Cradle

The Pipe Cradle can only be used with the Standard Forks.

1. Ensure that the Standard Forks are fixed to the carriage on the mast and locked in place with the retaining pin.
2. Unscrew the wing nuts on each section of the Pipe Cradle until you have enough space to slide each section of the Pipe Cradle all the way onto each of the forks.



3. Fully tighten the 4 wing nuts on each section of the Pipe Cradle.

### WARNINGS

- ❑ **ALWAYS** read, understand, and adhere to the Safety Rules in Section 3 of this Instruction Handbook. Failure to do so could result in serious injury or death.
- ❑ **NEVER** stand on or step on the Pipe Cradle or Standard Forks.
- ❑ **ALWAYS** ensure the Pipe Cradle is securely attached to the Standard Forks and that the load being lifted is secured to the Pipe Cradle and Standard Forks.

## Section 10 – Extension Forks

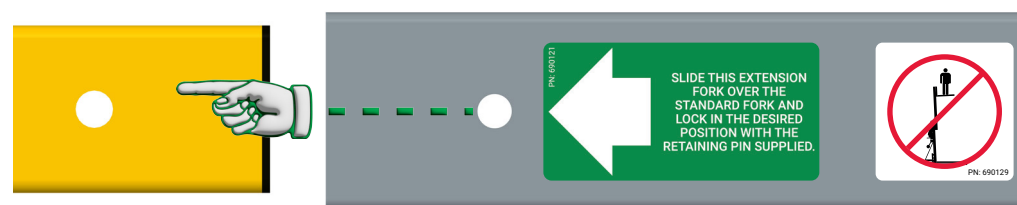
Extension Forks are an optional accessory for the ToughLift® Material Lifts. They add an extra 16.1cm, 39.9cm, or 63.1cm to the length of the Standard Forks.

**Weight:** 4kg for set (2kg each)  
**Part Number:** 660000



### How to fit the Extension Forks

Noting the direction of the arrow on the decal on each extension fork, slide the extension fork over the standard fork in that direction, and lock in place in one of the 3 positions with the retaining pin provided.



### WARNINGS

- ❑ **ALWAYS** read, understand, and adhere to the Safety Rules in Section 3 of this Instruction Handbook. Failure to do so could result in serious injury or death.
- ❑ **NEVER** use the Extension Forks as a personnel lift or step.
- ❑ **ALWAYS** ensure the Extension Forks are properly secured to the Standard Forks of the ToughLift® Material Lift with the retaining pins provided.

## Section 11 – Rough Terrain Wheel Kit

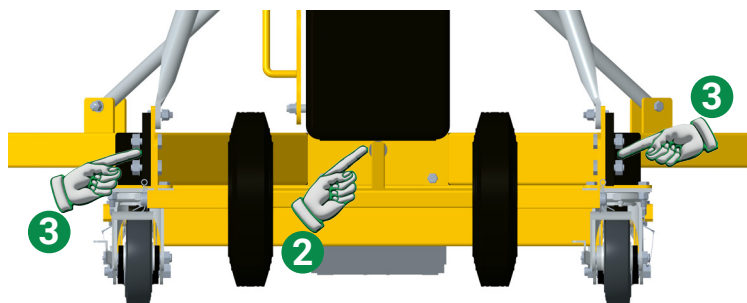
The Rough Terrain Wheel Kit is an optional accessory for the ToughLift® Material Lifts. It makes moving the machine around sites much easier, especially where the floor is uneven and/or covered in debris.

**Weight:** 8.3kg  
**Part Number:** 680000



### How to fit the Rough Terrain Wheel Kit

1. Unbolt the existing black nylon loading blocks (2 bolts at each side).
2. Slide the mounting rod into the retainer in the chassis.
3. Bolt the Rough Terrain Wheel Kit in place using the new nylon blocks with the new longer bolts supplied (2 bolts at each side).



### WARNINGS

- ❑ **ALWAYS** read, understand, and adhere to the Safety Rules in Section 3 of this Instruction Handbook. Failure to do so could result in serious injury or death.
- ❑ **NEVER** use the structure or wheels of the Rough Terrain Wheel Kit as a personnel lift or step.
- ❑ **ALWAYS** ensure the Rough Terrain Wheel Kit is properly fitted to the chassis of the machine.

## Section 12 - Boom

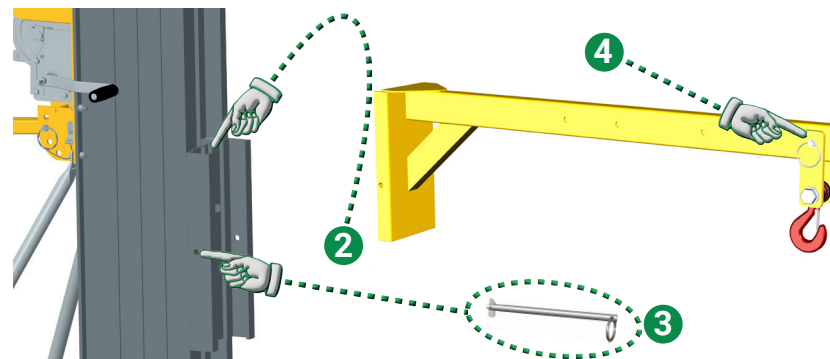
The Boom is an accessory for the ToughLift® Material Lifts and enables the machine to operate as a small crane.

**Weight:** 18kg  
**Part Number:** 650000



### How to fit the Boom

1. If present, remove the retaining pin and Standard Forks from the carriage.
2. Slide the Boom into the top of the carriage.
3. Insert the Boom retaining pin.
4. Locate the lifting shackle in the desired hole in the Boom.



### WARNINGS

- ❑ **ALWAYS** read, understand, and adhere to the Safety Rules in Section 3 of this Instruction Handbook. Failure to do so could result in serious injury or death.
- ❑ **NEVER** use the Boom as a personnel lift or step.
- ❑ **ALWAYS** ensure the Boom is properly secured to the carriage of the ToughLift® Material Lift with the retaining pin provided.

## Section 13 – Declarations of Conformity

### 13.1 EC Declarations of Conformity

EC Declarations of Conformity apply to machines that are certified for the EU and Northern Ireland market.\*

\* *The UK Government has agreed to recognise CE marking for machinery indefinitely.*

**TOUGHLIFT®**

**EC Declaration of Conformity**

We **Shenzhen Anhua Limited** of **A1202-1, Tianan Cyber Park, No. 441 Huang Ge Road, Longgang, Shenzhen 518116, China** do hereby declare under our full responsibility that the material lift or material lift accessory:

Model/Accessory:  
Serial number: **SAXXXXXX**  
Year of construction: **202X**  
Country of manufacture: **PRC**

to which this declaration refers conforms to the following directives:

- **European Machinery Directive 2006/42/EC**

The following harmonised standards and technical specifications were used:

- **BS EN ISO 12100:2010 Safety of machinery. General principles for design. Risk assessment and risk reduction.**
- **EN-ISO 14120:2015 Safety of machinery. Guards. General requirements for the design and construction of fixed and movable guards.**
- **BS EN 13001-1:2015 Cranes. General design. General principles and requirements.**
- **ISO 7010:2019 Graphical symbols. Safety colours and safety signs. Registered safety signs.**

Name and Address of the person authorized to compile the technical files:  
**Certification Company B.V. of Veluwezoom 42, Almere, 1327 AH, Netherlands.**

Signed for and on behalf of **Shenzhen Anhua Limited**:

.....

**Print name:** .....

**Position:** Quality Manager

**Date:** .....

**CE**

## Section 12 – Declarations of Conformity /continued

### 12.2 UKCA Declarations of Conformity

UKCA Declarations of Conformity only apply to machines that are certified for England, Scotland, and Wales.

**TOUGHLIFT®**

**UKCA Declaration of Conformity**

We **Shenzhen Anhua Limited** of **A1202-1, Tianan Cyber Park, No. 441 Huang Ge Road, Longgang, Shenzhen 518116, China** do hereby declare under our full responsibility that the material lift or material lift accessory:

Model/Accessory:  
Serial number: **SAXXXXXX**  
Year of construction: **202X**  
Country of manufacture: **PRC**

to which this declaration refers conforms to the following regulations:

- **The Supply of Machinery (Safety) Regulations 2008**

The following harmonised standards and technical specifications were used:

- **BS EN ISO 12100:2010 Safety of machinery. General principles for design. Risk assessment and risk reduction.**
- **ISO 14120:2015 Safety of machinery. Guards. General requirements for the design and construction of fixed and movable guards.**
- **BS EN 13001-1:2015 Cranes. General design. General principles and requirements.**
- **ISO 7010:2019 Graphical symbols. Safety colours and safety signs. Registered safety signs.**

Name and Address of the company authorised to compile the technical files:  
**Shenzhen Anhua Limited of A1202-1, Tianan Cyber Park, No. 441 Huang Ge Road, Longgang, Shenzhen 518116, China**

Signed for and on behalf of **Shenzhen Anhua Limited**:

.....

**Print name:** .....

**Position:** Quality Manager

**Date:** .....

**UK  
CA**

# TOUGHLIFT®



For further information and support, please contact the manufacturer:

Shenzhen Anhua Ltd.

☎ +44 20 7173 9777

✉ info@toughlift.co

www.toughlift.co

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Shenzhen 518116, China.

EU Representative: Certification Company B.V.  
Veluwezoom 42, Almere, 1327 AH, Netherlands.

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