



THOMSON ENGINEERING DESIGN LTD
VALLEY ROAD, CINDERFORD, GLOUCESTERSHIRE. GL14 2NZ

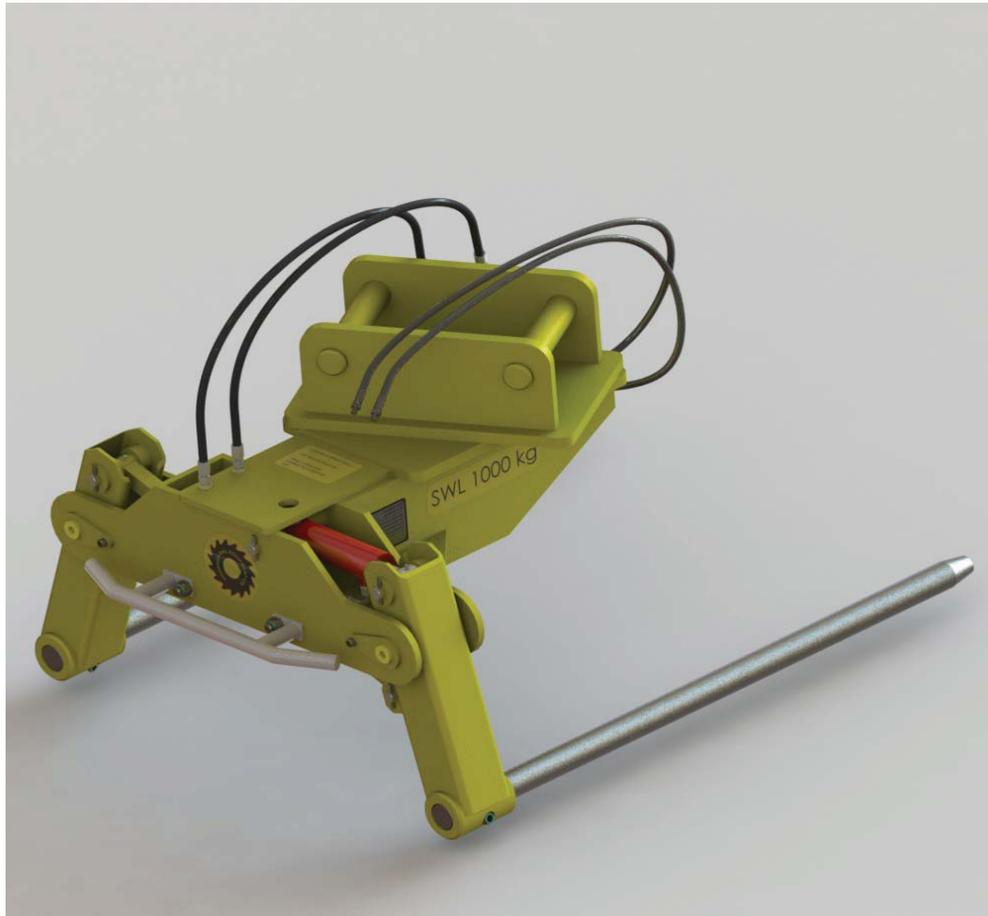
BAG HANDLING FORKS

ORIGINAL INSTRUCTIONS FOR USE IN

ENGLISH LANGUAGE

ISSUE 2

OCTOBER 2012



INTRODUCTION

The Thomson Engineering Bag Handling Forks are designed as an attachment for use with a hydraulic excavator.

The device is designed to be used in association with the Thomson Engineering Bag Holder for the handling of laden bulk bags. Instructions for the Bag Holder are available separately from Thomson Engineering Design Ltd at the address below.

PARTS

The parts of the Bag Handling Forks are illustrated (right).

The handle is used by an operator on the ground to align the forks with the Bag Support Tubes of the Thomson Engineering Bag Holder.

The device is connected to the host machine by a quick hitch fitted to the attachment head.

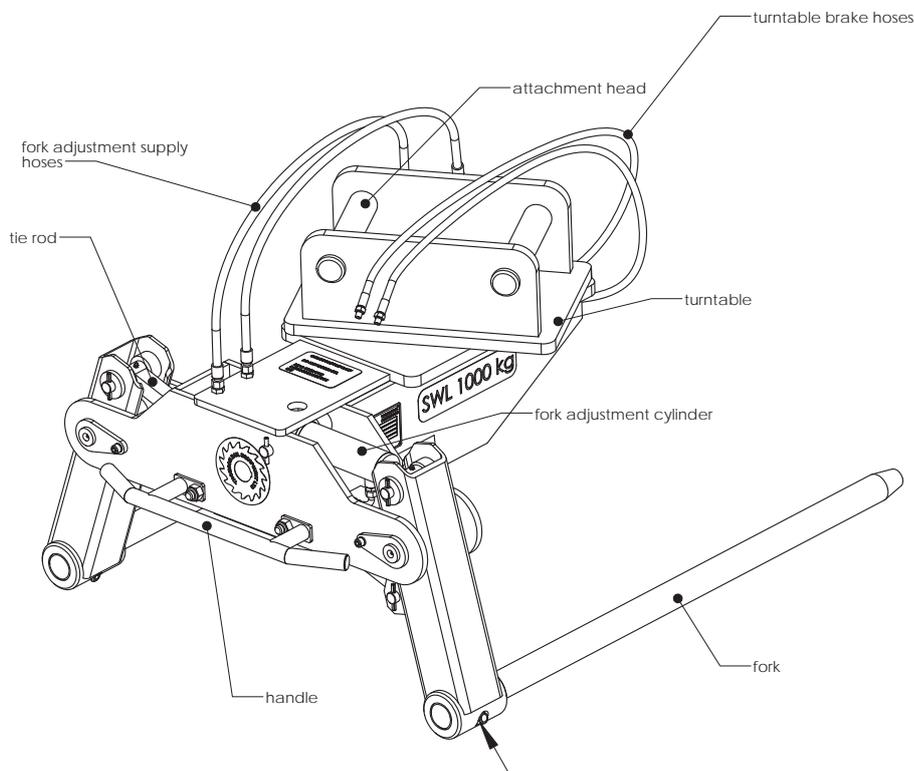
Hydraulic systems connected to controls in the cab of the host machine allow the host machine operator to alter the spacing of the forks to align with the Bag Support Tubes and to set and release the turntable brake.

Its round section forks are designed to be inserted into the bag support tubes and then to lift the bag clear of the Bag Holder and to carry it to wherever it is required.

The Bag Handling Forks can be rotated to align them with the bag support tubes by use of a white painted handle at the rear end of the device. Rotation can be prevented during the lift and carry operation by applying a

hydraulic brake controlled from the excavator cab. Before using this equipment please read this instruction manual thoroughly.

For any advice or guidance on the use and maintenance of the Thomson Engineering Bag Holder please contact the manufacturer (details below).



BEFORE USE

Before using the Bag Handling forks for the first time familiarise yourself with the contents of this instruction manual.

Before use consult the separate Bag Handling Forks Maintenance Plan for pre use inspection and maintenance instructions.

Check that the device is securely attached to the host machine and that the host

machine has sufficient lifting capacity for the combined weight of the Bag Handling Forks and the load they will carry.

Once attached to the host machine test the hydraulic functions from the cab of the machine and check that no hydraulic fluid leaks from any part of the device or host machine before commencing work.

No lifting operation should be carried out without a fully documented lifting plan being prepared in advance and all lifting

operations should be carried out under the supervision of a qualified Crane Controller or appointed person.

MANUFACTURER

The Thomson Engineering Design Bag Handling Forks are manufactured in the United Kingdom by:

THOMSON ENGINEERING DESIGN LTD
VALLEY ROAD
CINDERFORD
GLOUCESTERSHIRE
GL14 2NZ
ENGLAND

TELEPHONE: +44 (0) 1594 82 66 11
FACSIMILE: +44 (0) 1594 82 55 60
EMAIL: SALES@THOMSONRAIL.COM

WARNING

High pressure hydraulic systems are used in this device.

High pressure hydraulic fluid leaking from these systems may penetrate the skin causing subsequent severe tissue damage.

Hydraulic fluid in the eyes may cause blindness.

Hydraulic fluid may be extremely hot with consequent risks of burns or scalding.

NEVER OPERATE A HYDRAULIC MACHINE WITH DAMAGED HOSES, PIPEWORK OR FITTINGS.

SPECIFICATIONS

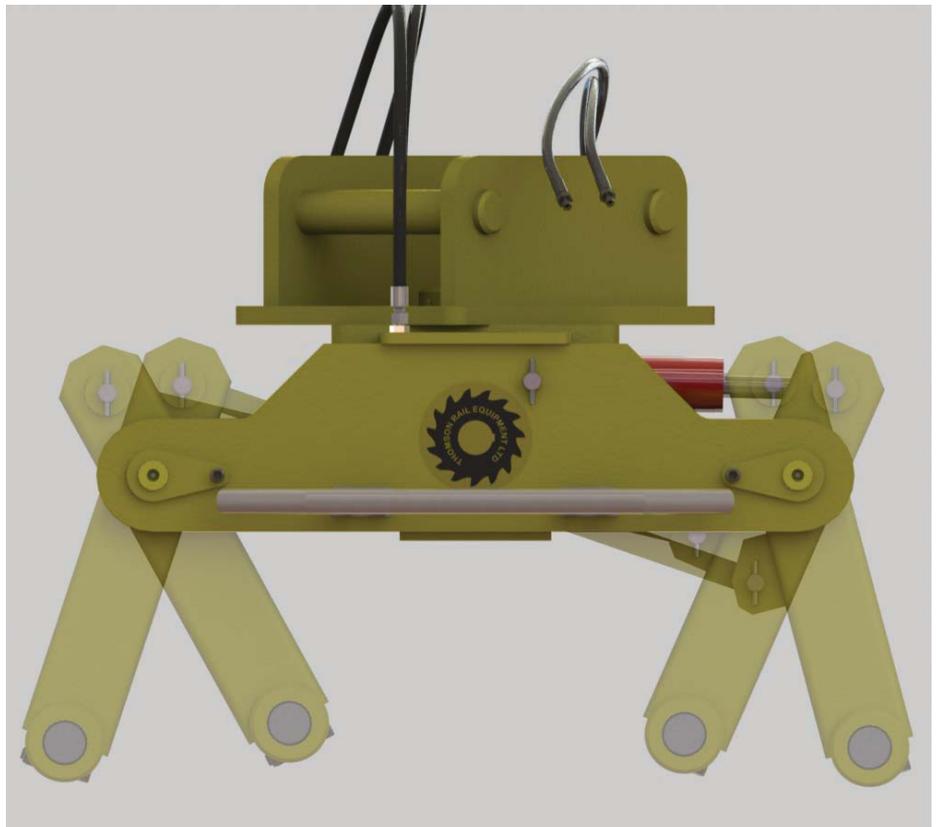
The Thomson Engineering Design Bag Handling Forks conform to the following specifications:

Tare Weight	350 kg
Safe Working Load (WLL)	1,000 kg
Max Hyd. Pressure	210 Bar
Recommended Hyd Press	150 Bar
Lubrication	8 grease points
Construction	All Steel
Hydraulic Connections	2 x bi-directional
Service 1	Fork width
Service 2	Rotation brake
Rotation system	Manual

ADJUSTABLE

The distance between the forks can be adjusted hydraulically to give a wide range of adjustment.

The hydraulic cylinder controlling fork adjustment is normally controlled by the host machine operator via a cab mounted control.



REQUIREMENTS OF THE HOST MACHINE

In order to use the Thomson Engineering Bag Handling Forks the device must be connected to a compatible host machine (typically a hydraulic excavator or Road Rail Excavator).

The host machine must have a compatible quick hitch to connect to the attachment head of the Bag Handling Forks.

The quick hitch must be compatible with the pin diameter, pin spacing and width of the adapter head fitted to the Bag Handling Forks. If in any doubt please contact the manufacturer. A range of adapter heads of different dimensions and configurations to suit a variety of host machines is available from the Thomson Engineering Design Ltd.

Always ensure that the quick hitch device is fully secure before attempting to use the Bag Handling Forks. Where appropriate ensure that the quick hitch safety pin is fitted.

Use of the Bag Handling Forks for lifting and carrying loaded bags constitutes a lifting operation as defined within the Lifting Operation and Lifting Equipment Regulations (LOLER). All parts of the lifting system including the host machine, the quick hitch and the Bag handling Forks must have current LOLER certificates of thorough examination.

The host machine duty chart will tell you what the host machine is capable of lifting. Before use make sure that the duty chart shows that the host machine has sufficient capacity to lift the combined weight of both the Bag Handling Forks and the laden bag.

Host Machines designed for lifting are fitted with Safe Load Indicators. Ensure that the Safe Load Indicator in the host machine is

in working order and that you understand the meaning of any warning outputs such as alarms or coloured lights which come from the Safe Load Indicator.

Machines such as Road Rail Vehicles may have multiple operating modes eg. road operation and rail operation where the duty charts are different for each mode. Ensure that the duty chart for the correct mode of operation is considered when deciding if the host machine is suitable for the lifting operations required.

Two, bi-directional hydraulic services are required to operate the Bag Handling Forks. The first service is used to adjust the distance between the forks, the second is used to release and apply a brake which, when applied, prevents the turntable rotating.

Both hydraulic services on the Bag Handling Forks are rated at 150 Bar minimum and 210 Bar maximum working pressure. The host machine hydraulic services must be set within this pressure range. Most importantly service pressures must not exceed 210 Bar. Service pressures in excess of 210 Bar may cause serious damage to the hydraulic systems of the Bag Handling Forks and may lead to high pressure fluid leaks which are extremely hazardous.

In order to prevent overloading of the bag lifting handles with consequent risk of failure of the bag, bags should always be carried on level forks. Ensure that the host machine can maintain the attachment head of the Bag Handling Forks in a level aspect throughout the range of movement required to pick up and transport the bag.

Because the Bag Handling Forks are rotated manually to align them with the bag to be

lifted it is important that the host machine operator is able clearly to see the assistant on the ground who will be manipulating the forks.

NOTE

Using the Bag Handling Forks to lift and carry bags is a lifting operation as defined under LOLER and therefore the host machine, the quick hitch device and the Bag Handling Forks must all have a current LOLER certificate before they may be used.

A lifting plan should be prepared and all staff briefed on its contents.

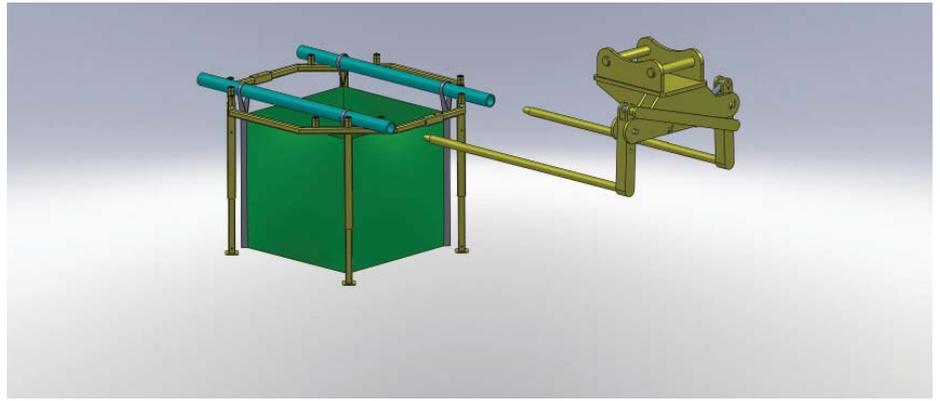
Risk assessments may also be required and these should include evaluation of the contents of the bag.

IF IN DOUBT DON'T RISK IT.

USING THE BAG HANDLING FORKS

Stage 1: the host machine operator brings the Bag Handling Forks close to the laden bag.

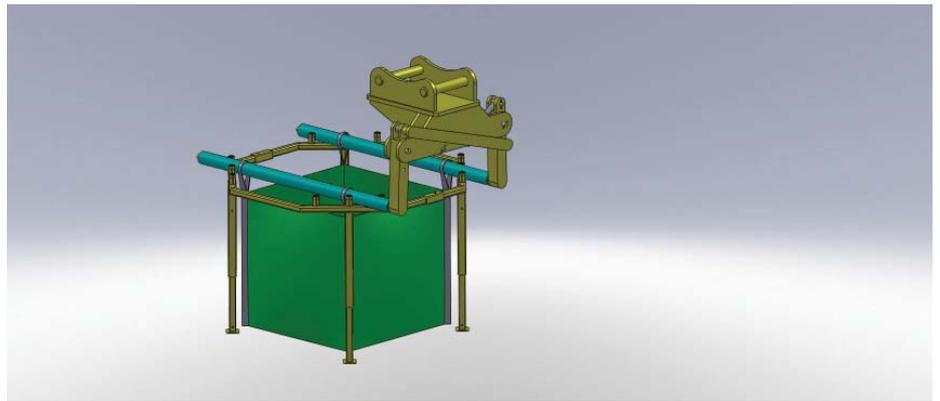
If necessary the host machine operator releases the turntable brake and the forks are aligned by the machine controller or other competent member of staff. Once aligned the host machine operator must re-apply the turntable brake.



Stage 2: the host machine operator draws the forks carefully into the bag support tubes until they are fully inserted.

If necessary the host machine operator can adjust the distance between the forks using the control in his cab.

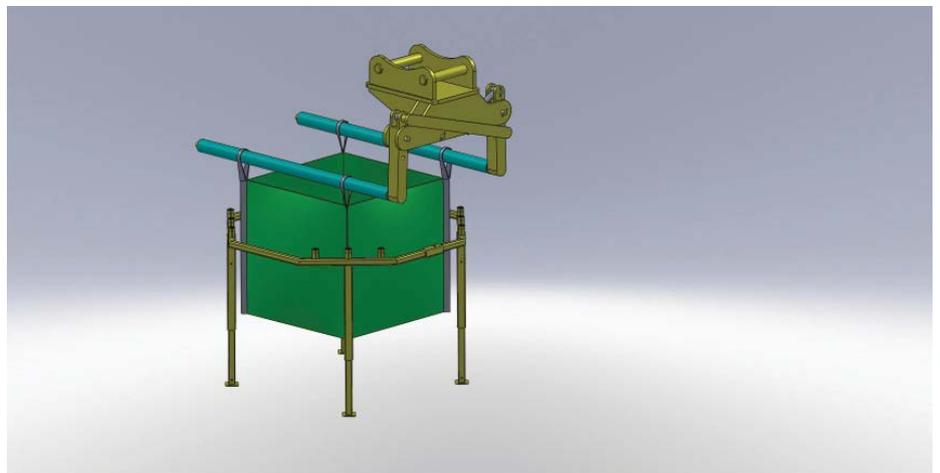
The forks must be fully inserted into both tubes prior to lifting.



Stage 3: the bag can now be lifted out of the Bag Holder.

to prevent the bag support tubes sliding off the forks it is important that the turntable brake is engaged and that the operator maintains the forks in a level to slightly point-up aspect.

Once clear of the frame the bag may be transported to the delivery point.



WARNING

Once the forks are correctly aligned keep all personnel well clear of the lifting and handling area.

WARNING

Never exceed the safe working load of the bag. Exceeding the safe working load of the bag may lead to failure of the bag lifting handles and the uncontrolled dropping of the load.

Most bags are designed for single use and should be discarded afterwards. Beware of re-using single use bags as this may lead to failure of the bag.

DECLARATION OF CONFORMITY

WE:

THOMSON ENGINEERING DESIGN LTD
VALLEY ROAD
CINDERFORD
GLOUCESTERSHIRE
GL14 2NZ

DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE PRODUCT KNOWN AS:

THOMSON ENGINEERING BAG HANDLING FORKS

TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE
FOLLOWING STANDARDS:

2006/42/EC

AUTHORISED SIGNATORY:

A handwritten signature in blue ink, appearing to read 'D. Thomson', written in a cursive style.

DAVID THOMSON BSC CENG MIMECHE
AUTHORISED SIGNATORY

