

# Thomson Engineering Design Ltd Signal Head Hoist



## Operating Instructions

ISO 9001:2008



Issue 3  
January 2013



# Thomson Engineering Design Ltd Signal Head Hoist



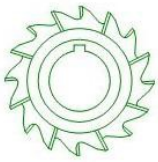
## Operating Instructions

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# Thomson Engineering Design Ltd Signal Head Hoist



## Operating Instructions

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### Introduction

The Thomson Engineering Design Signal Head Hoist is designed for the raising and lowering of signal heads during the maintenance or renewal of signaling equipment. It consists of a sectional mast incorporating a hand winch in the bottom-most section and, for each section, a specially designed clamping system for affixing the hoist to a signal post.

The hand winch is of a fail-safe type which incorporates an automatic braking system to ensure that the load is instantly brought to a stop if the handle of the winch is released.

Two stem section lengths are available, 1.8m and 0.9m. These can be used in any combination to obtain the best height of hoist for the job.

At the top of the hoist is a jib which can rotate in the mast to allow the signal apparatus to be swung on and off its mounting base and swung clear of the signal post when lowering it to or raising it from the ground.

Please read and understand this document before using the signal head hoist. As with any lifting equipment, safety must be the first consideration. If you are in any doubt about any aspect of the safe operation of the Thomson Engineering Design Signal Head Hoist or if you have concerns regarding its condition please DO NOT USE IT but contact either your supervisor or Thomson Engineering Design Ltd IMMEDIATELY.

Thomson Engineering Design Ltd may be contacted on:

Telephone: +44 (0) 1594 82 66 11

Fax: +44 (0) 1594 82 55 60

Email: [sales@thomsondesignuk.com](mailto:sales@thomsondesignuk.com)

Out of Hours Emergency Line: +44 (0) 7973 518 371

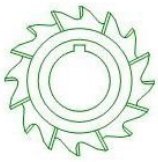
Or by writing to: Thomson Engineering Design Ltd

Valley Road

Cinderford

Gloucestershire

GL14 2NZ



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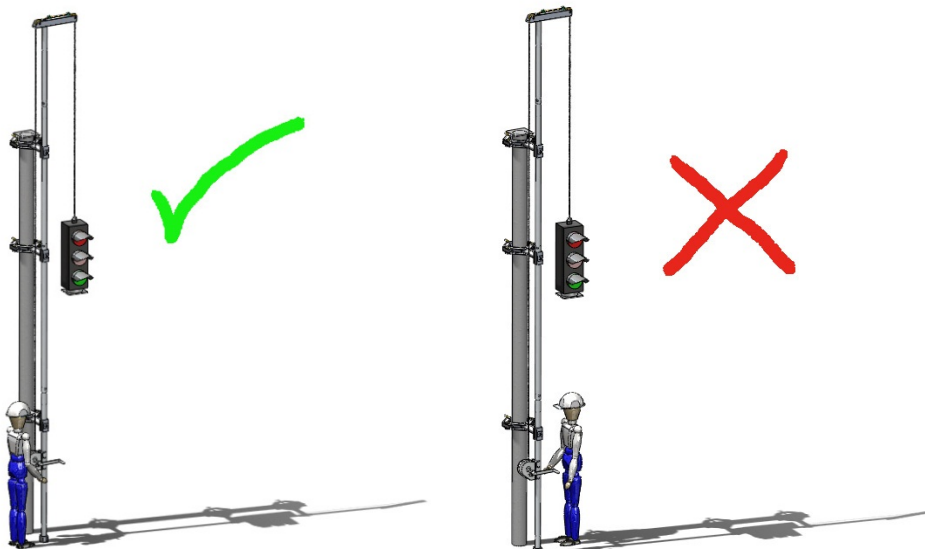
### Warnings

#### Always:

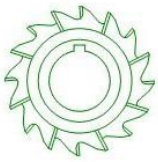
- Prepare or obtain a lifting plan and risk assessment for the Job in hand
- Wear appropriate PPE including Hard Hat, Gloves and Safety Boots
- Ensure that you have a valid LOLER certificate covering all parts of the hoist
- Consider the ground conditions before setting up
- Consider obstructions when setting up
- Check for Overhead Live Equipment
- Check for cables in the ballast below the hoist
- Allow adequate time for the job
- Fit at least one clamp device to each mast section
- Examine the equipment carefully prior to use
- Ensure that the Safe Working Load (SWL) of the hoist is not exceeded
- Handle, transport and stow the equipment carefully to avoid damage

#### Never:

- Stand directly below a suspended load
- Set the hoist up with the winch directly below a suspended load
- Erect the hoist near to power lines or Overhead Live Equipment
- Use damaged lifting equipment
- Use the hoist if it is damaged, cracked, bent or distorted
- Use the hoist without checking that the LOLER certificate is in date and valid
- Exceed the SWL of the hoist
- Erect the hoist next to a working line
- Handle wire rope with bare hands



**KEEP CLEAR OF DROP ZONE AT ALL TIMES!!!**

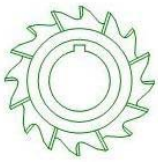


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## Specifications

The following is a list of the basic specifications of the signal head hoist but these may be changed at any time as new legislation and technologies are implemented. Always check the manufacturer's plate for the correct SWL and Weight.

|                        |  |
|------------------------|--|
| Safe Working Load      | According to Manufacturer's Plate  |
| Base Section           | 1.8 m  |
| Extension Sections     | 1.8m and 0.9m  |
| Winch Type             | Hand operated fail safe lifting winch  |
| Proof load             | 200% Safe Working Load   |
| Documentation Supplied | LOLER certificate<br>Certificate of Conformity<br>Operating Instructions (this document) |
| Support sections       | Ratchet Strap type (standard)<br>Clamp type (optional)                                   |
| Inspection period      | Six monthly  |

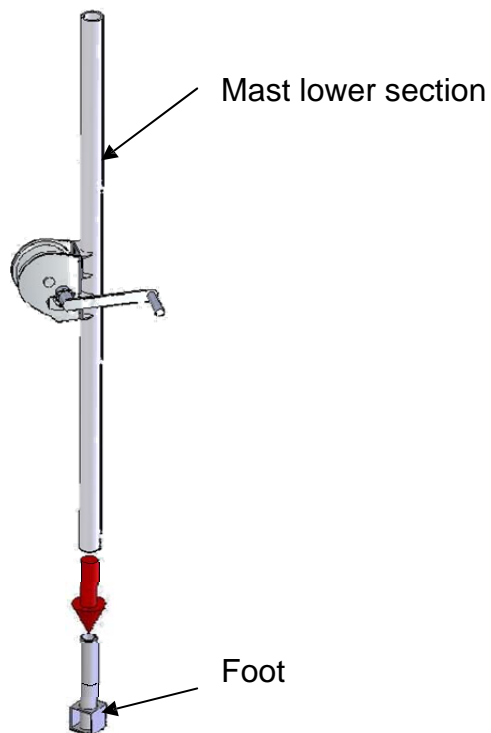


## Assembly Instructions

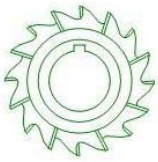
**1. Prior to assembly, carefully inspect all components of the hoist for damage, cracking, distortion. DO NOT USE ANY DAMAGED OR DEFECTIVE COMPONENT.**

If in any doubt contact the manufacturer, Thomson Engineering Design Ltd for advice. See page 13 for contact details.

**2. Insert the spigot of the foot into the lower section of the mast.**



Note that the foot should insert without effort into the base of the mast lower section. If any resistance is encountered it may be due to dirt or to damage of one or both components. Investigate and rectify any problems before continuing.



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### ***3. Fit saddle assembly to mast lower section and offer up the hoist to the signal post.***

Note that the saddle assembly may be placed at any convenient position on the lower section above the winch but ideally should be as close to the winch as possible.

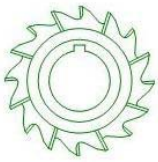
If necessary the saddle assembly may be fitted directly below the winch.



At this stage it is important to consider where, on the ground, the signal head will be lowered to and then to position the hoist so that the operator is not standing directly under the suspended load at any time during the lifting operation.

The foot must stand on good firm ground and it may be necessary to prepare a small level area for it.





## Operating Instructions

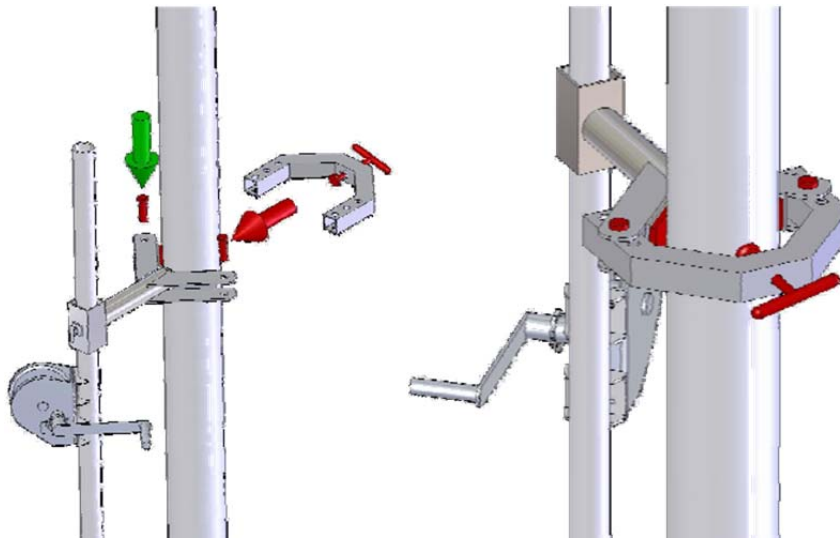
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### **4. Fit clamp assembly to saddle assembly and tighten clamp onto signal post.**

Insert the clamp assembly into the yokes of the saddle assembly and fit the retaining pins and R-clips. Then tighten the clamp screw to secure the mast to the signal post.

Note that the tapered gripping surface of the saddle assembly gives a good friction grip on the post. Do not overtighten the clamp as damage may result.

Firm hand force is all that is required.

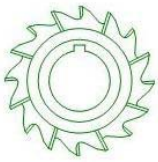


### **Note that on some models the clamp assembly is replaced with a ratchet strap.**

In this case the strap should be hooked into one of the holes provided in the end of the yoke, wrapped around the signal post one and a half times before the other end is hooked to the other hole in the yoke and firmly tightened to secure the mast to the post as shown below.



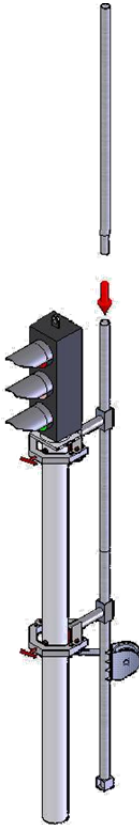




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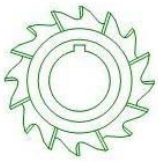
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**5. Add further mast sections as required until sufficient height is obtained for the lift. Fit one clamp assembly and saddle assembly for each extension section and ensure that one of these is as close to the base of the signal as possible.**



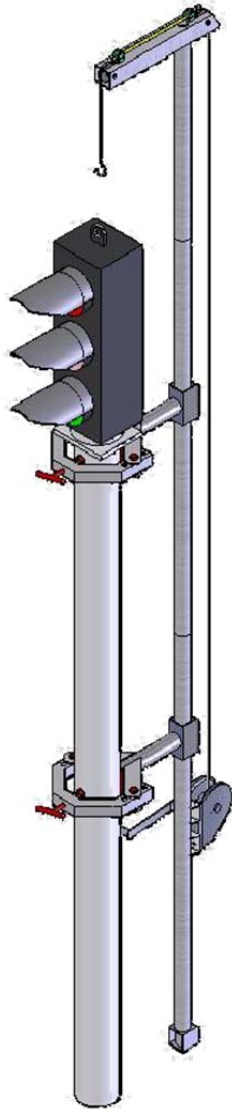
Note that the topmost mast section may be impossible to secure using a saddle assembly. This is acceptable as long as all the other sections are securely attached to the post.

Use 1.8m and 0.9m mast sections in any combination to achieve the most suitable mast height.

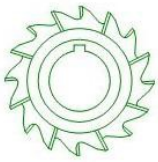


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**6. Fit the Jib assembly into the top of the uppermost mast section.**



The signal head hoist is now assembled but before it is put to use it must be inspected by a competent person as defined in the Lifting Operation and Lifting Equipment Regulations (LOLER).



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## Operating Instructions

The signal head hoist is fitted with a lifting quality hand winch.

This type of winch is simple and fail-safe in operation and requires the operator simply to turn the handle clockwise to raise the load and anti-clockwise to lower the load.

Releasing the handle will instantly apply an automatic brake to hold the load.

It is important, however, that the winch rope is wound onto the drum in the correct direction. When raising the load the ratchet mechanism on the winch should emit a clicking sound, when lowering the load the ratchet should be silent.

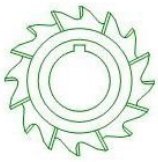
Check before use that this is the case. If the action is reversed the rope **must** be unwound from the winch entirely and rewound in the correct direction.

### ***To remove a signal head from the post.***

1. Attach the loop on the end of the winch rope to the lifting eye on the signal head using a suitably rated shackle if necessary.
2. Take up the slack in the rope but do not attempt to lift the signal head.
3. Ensure that all power cables, tethers, etc. are disconnected and remove the signal head mounting bolts.
4. Wind the winch handle gently to take the weight of the signal head. If resistance is felt, check to make sure that nothing is still tethering the head to the post.
5. Using the winch, lift the signal head just clear of the post and swing the jib to slew the head clear of the post. NOTE: THE SIGNAL HEAD SHOULD NOT BE DIRECTLY ABOVE THE WINCH OPERATOR
6. Turning the winch handle in the opposite direction, lower the signal head gently to the ground.

### ***To lift and fit a signal head***

Replacing the signal head on to the top of the signal post is a reverse of the instructions above.



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## Dismantling the Hoist

Dismantling the hoist is the reverse of the assembly but be sure to check all components for any signs of damage due to overloading during use.

## Care and Maintenance

Daily maintenance of the signal head hoist is limited to inspection of the components at the beginning and end of every shift.

Check for cracks, burrs, distortion and wear in all parts.

Check that the winch operates smoothly and that the wire is wound the correct way onto the drum (see Operating Instructions).

Lubricate the winch in accordance with the winch manufacturer's instructions provided at time of delivery.

Check the rope for fraying, kinks and crush damage.

If any defect is noted **DO NOT USE THIS EQUIPMENT.**

Care of the hoist is limited to cleaning, as required, with a mild detergent solution.

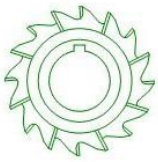
If the hoist is to be stored for any length of time, ensure that it is kept in a dry storage area.

***Important: this equipment must be thoroughly inspected at six monthly intervals by a competent person and a certificate issued stating its condition and fitness under the Lifting Operation and Lifting Equipment Regulations (LOLER).***

## Disposal

Any components found to be defective should be returned to Thomson Engineering Design Ltd for disposal.

Thomson Engineering Design Ltd undertake to recycle all possible components in line with their Environmental Policy.



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### Manufacturer's Details

The Signal Head Hoist is manufactured in the UK by:

Thomson Engineering Design Ltd  
Valley Road  
Cinderford  
Gloucestershire  
GL14 2NZ

Telephone: 01594 82 66 11  
Fax: 01594 82 55 60

Email: [sales@thomsondesignuk.com](mailto:sales@thomsondesignuk.com)

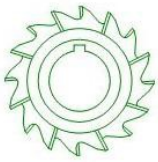
If dialing from outside the UK the manufacturer's telephone number is:  
0044 1594 82 66 11

### Competence Requirements for Inspectors

It was noted on Page 10 that the crane should not be used until it has been inspected by a Competent Person as defined under the Lifting Operations and Lifting Equipment Regulations (LOLER).

LOLER does not define any specific training requirements or qualifications for 'Competent Persons' but leaves this to the discretion of employers.

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### Issue Record

|         |               |  |
|---------|---------------|--|
| Issue 1 | November 2007 | First Issue  |
| Issue 2 | April 2008    | Amended to include consideration of LOLER requirements             |
| Issue 3 | January 2013  | Amended to clarify LOLER requirements and maintenance requirements |