

# SMALL PANEL HANDLER Specifications



Specifications for the Thomson SPH18-02 and  
SPH20-03 track panel handlers

Issue 2

August 2022

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## Issue Record

First Issue	July 2020
Issue 2: new factory address	August 2022

# Introduction



**The Thomson Small Panel Handlers are light weight attachments designed for loading and unloading assembled sections of plain-line track, typically up to 11m (33ft) in length.**

Two models are available, the SPH18-02 with a working load limit of 7,250kg (15,950lbs) and the heavier-duty the SPH20-03 which has a working load limit of 8,250kg (18,150lbs).

Both models offer the same safety features and are physically the same overall dimensions but the SPH18-02 has a tare weight of 800kg (1,760 lbs) while the SPH20-03 is slightly heavier at 825kg (1,815lbs).

Both models are offered with a 12 tonne capacity rotator as standard but a 16 tonne rotator may be specified if required. Also available are a full range of adapter systems including options for Archimedes systems and tilt-rotators. A separate guide to adapter systems is available upon request.

The small size and light weight of this attachment means that it can be easily transported on light vehicles.

A key feature of the design is the fully enclosed, fail-safe, cam operated jaw mechanism with 'red flag' indicators which clearly show when the jaws are fully closed and the beam is ready to lift. This proven and robust mechanism is backed up by pilot operated check valves on every cylinder which lock the cylinders in the event of a hydraulic failure and a parachute valve system which shuts off the jaw mechanism once the handler is lifted preventing inadvertent or accidental release of the load.

Finally, like almost all Thomson attachments, the hydraulic system itself is protected by a built in pressure reducing valve which holds the system pressure at an ultra-safe 100 Bar regardless of the pressure delivered by the host machine.

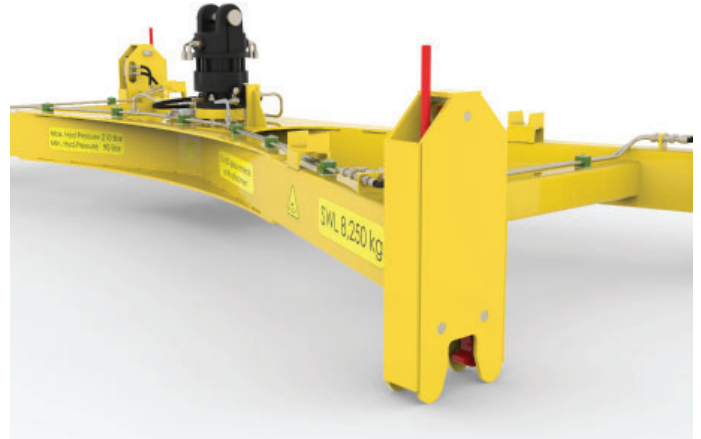
This host of safety features mean that this attachment is fully approved for use on the London Underground network, one of the most stringent safety environments in the world.

SPH models have been in production since 2012. Each unit is fully tested at the factory prior to despatch including a proof load test and is supplied with a test certificate and certificate of conformity (UKCA / CE as appropriate).

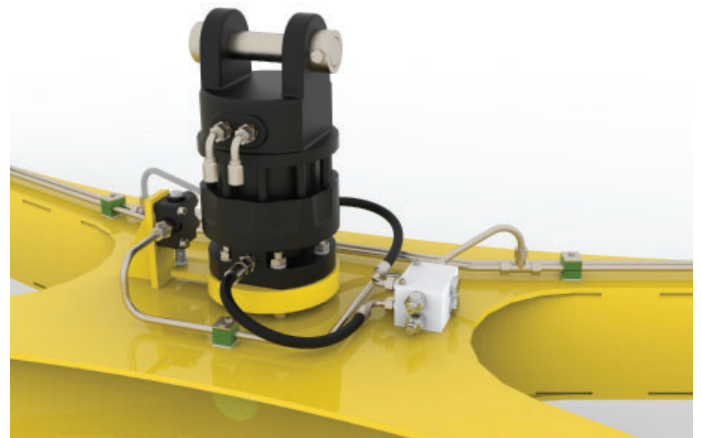
All Thomson attachments are designed, analysed, built and tested under our ISO9001:2015 approved quality assurance programme.

# Key Features

'Red Flag' indicators on each of the jaw assemblies show the status of the jaws. When the jaws are opened to release the grip on the track panel the red flag indicators rise.



A 12 tonne capacity hydraulic rotator is fitted as standard with a 16 tonne capacity unit available as option.

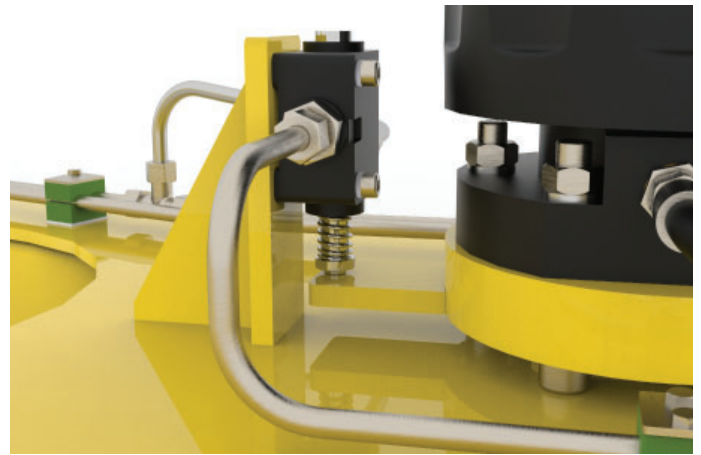


Our pressure reducing valve controls the system pressure and allows the device to be fitted to almost any excavator without having to adjust the system pressures on the host machine.



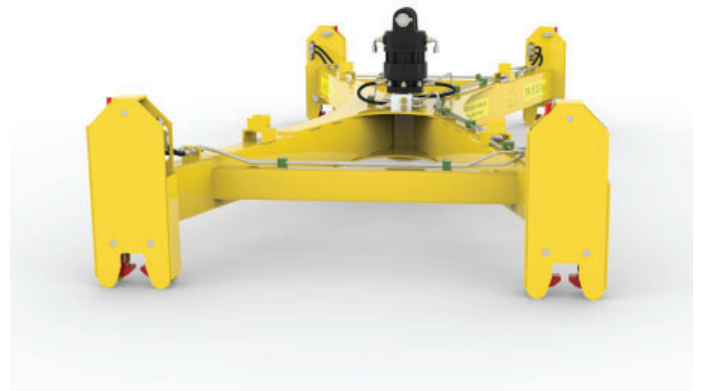
The 'parachute valve' mounted close to the rotator automatically shuts off the connection to the host machine hydraulic supply once the device is lifted.

This ensures that the load cannot be accidentally released during the lifting operation.



The jaw mechanisms are fully enclosed within 10mm thick steel 'boxes'.

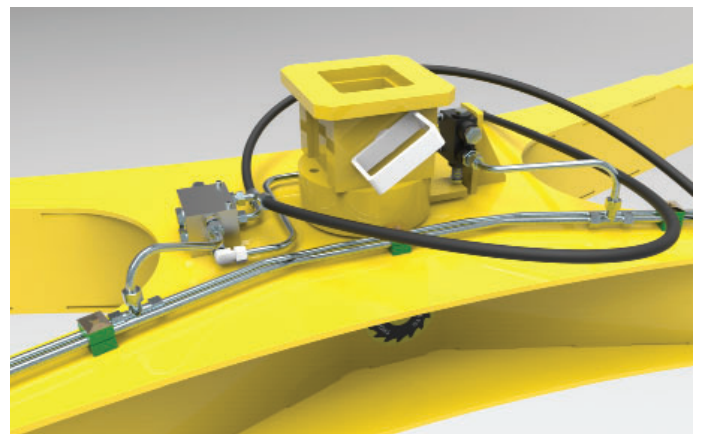
This minimises the risk of damage and improves both reliability and design life.



For transport, strap supports are provided which eliminate the risk of damage to pipework.



A full range of adapter systems is available including Archimedes rotator adapters and fittings for tilt-rotators.

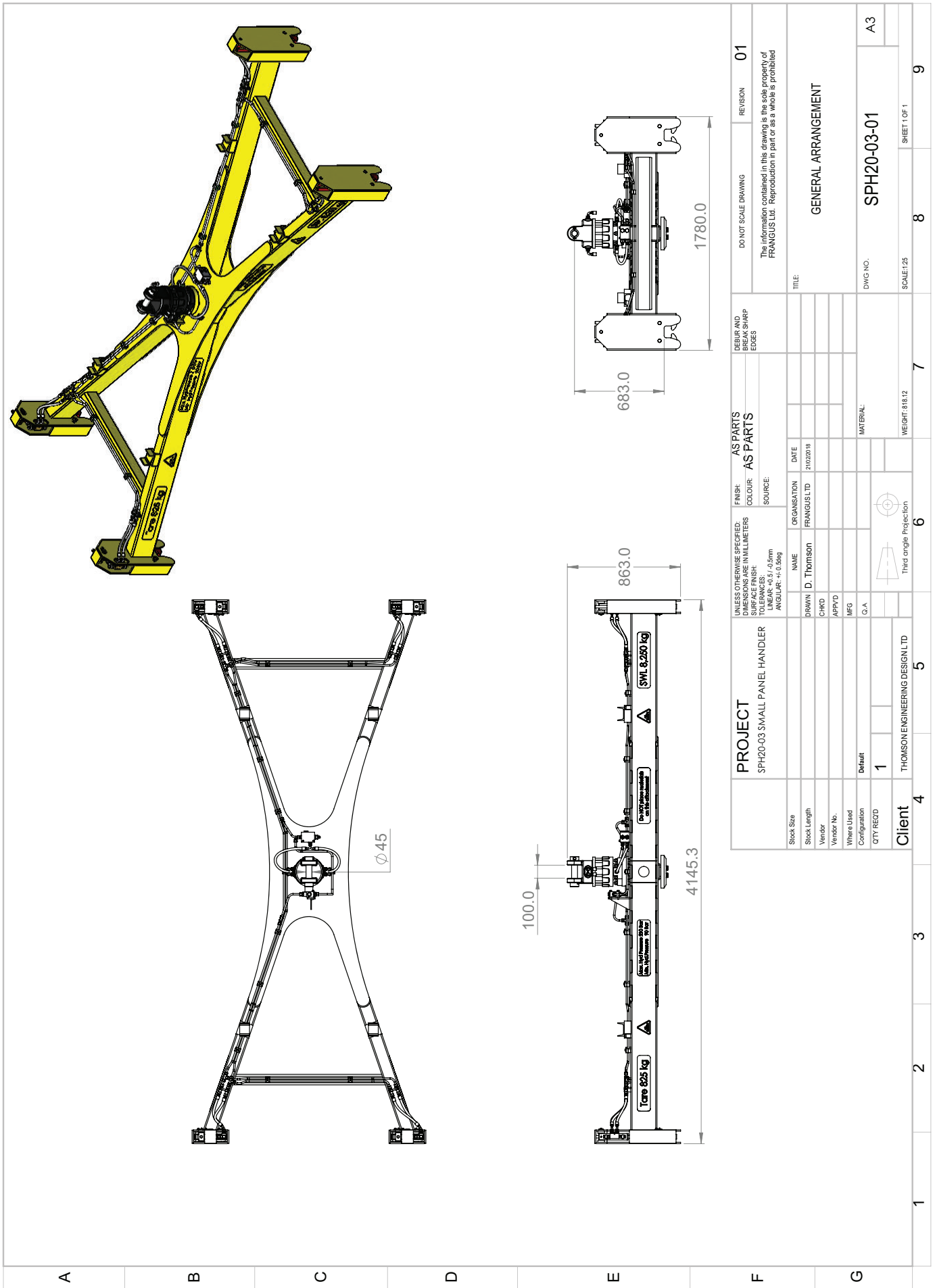


# Specifications

Tare weight (SPH18-02 with rotator but no adapter head)	800 kg	1,760 lb
Working Load Limit SPH18-02	7,250 kg	15,950 lb
Tare weight (SPH20-03 with rotator but no adapter head)	825 kg	1,815 lb
Working Load Limit SPH20-03	8,250 kg	18,150 lb
Overall Dimensions (both models) (L x W x H)	4,145 mm x 1,780 mm x 863 mm	163 in x 70 in x 34 in
Maximum Hydraulic Pressure (rotate circuit)	250 Bar	3,625 psi
Maximum Hydraulic Pressure (grab circuit)	300 Bar	4,350 psi
Minimum Hydraulic Pressure (grab circuit)	90 Bar	1,300 psi

## Notes

SPH20-03 Panel Handlers are normally supplied with an adapter head to suit the host machine. Adapters are available for all types of excavators, materials handlers and hydraulic cranes including truck mounted cranes.



<b>PROJECT</b> SPH20-03 SMALL PANEL HANDLER			<b>AS PARTS</b> AS PARTS			<b>DO NOT SCALE DRAWING</b>			<b>REVISION</b>		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS DIMENSIONS ARE IN MILLIMETERS TOLERANCES: LINEAR: -0.5 / +0.5mm ANGULAR: +0.5deg			FINISH: COLOUR: SOURCE:			DEBUR AND BREAK SHARP EDGES			The information contained in this drawing is the sole property of FRANGUS Ltd. Reproduction in part or as a whole is prohibited		
DRAWN: D. Thomson			ORGANISATION: FRANGUS LTD			DATE: 21/02/2018			TITLE: GENERAL ARRANGEMENT		
CHECKED:			APPROVED:			MATERIAL:			DWG NO.: SPH20-03-01		
MFG:			G.A.			WEIGHT: 818.12			SCALE: 1:25		
QTY REQD: 1			THOMSON ENGINEERING DESIGN LTD			Third angle Projection			SHEET 1 OF 1		
<b>Client</b>			<b>4</b>			<b>5</b>			<b>6</b>		
			<b>7</b>			<b>8</b>			<b>9</b>		





# Contact Details

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## **P**LEASE NOTE

Whilst every care is taken to ensure that the contents of this document are true and accurate, the specifications of our products and the scope of our services are constantly changing as part of our policy of continuous improvement.

We strongly recommend contacting the factory to ensure that details given are still current.

More than half our business comes from special products designed and built as one-off's and we are always pleased to discuss amended specifications should the product detailed here not meet your exact requirements.

