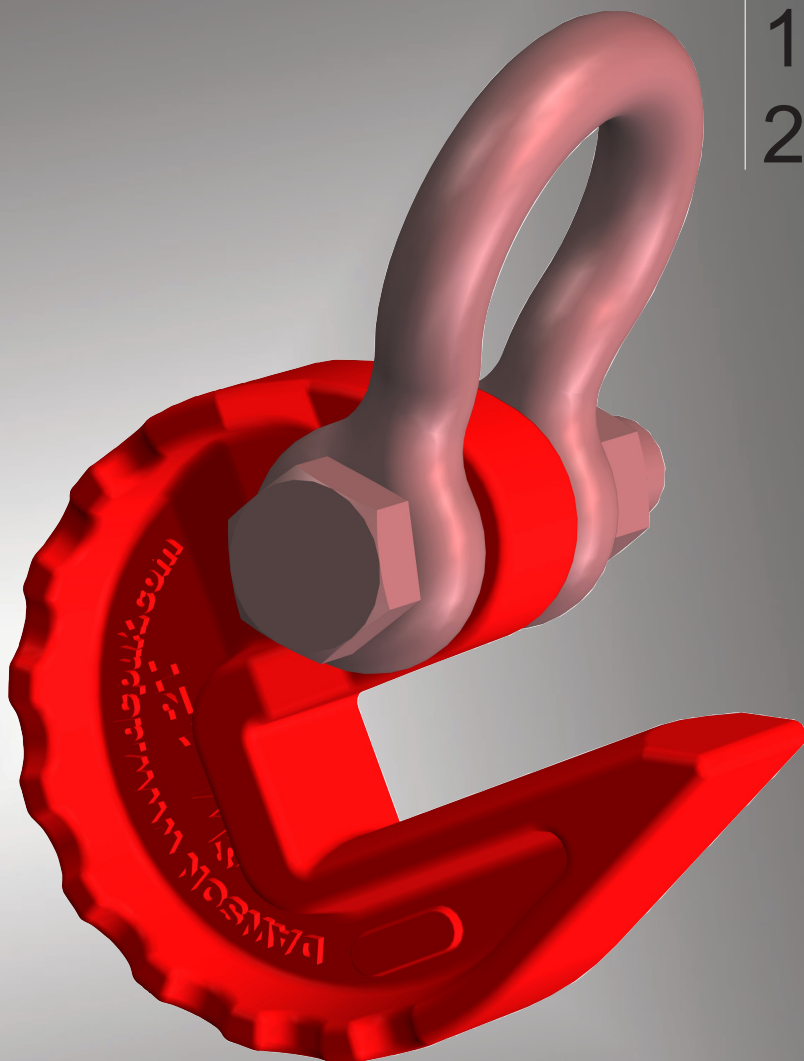


# pipe handling shoe

12t

16t

24t



## safety lifting equipment

owners manual  
operators instructions  
spare parts list  
safety precautions  
maintenance

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# EC Declaration of Conformity

EC Declaration of Conformity according to  
EC Machinery Directive 2006/42/EC of the 29<sup>th</sup> May 2006, Annex IIA.

We hereby declare that the machinery/equipment described below is designed and manufactured to comply with the Essential Health and Safety Requirements of the applicable EC Directive(s) and that the required conformity assessment procedures have been carried out. This declaration ceases to be valid if alterations are made to the machinery/equipment without agreement with Dawson Construction Plant Ltd.

**Category:** Lifting Equipment  
**Description:** Pipe Handling Shoe SWL [SWL]  
**Type:** [Part Number]  
**Serial number:** [Serial Number]

**Relevant Regulations:**  
2006/42/EC Machinery Directive

**Applied harmonised standards, in particular:**  
EN ISO 12100:2010 Safety of machinery

**Authorised representative for compiling the technical file:**  
D. A. Brown - contact details as per below.

**Signature for and on behalf  
of Dawson Construction  
Plant Limited:**

**Name:**

**Date:**

**Location:**

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Under Separate cover:	
· Individual Test Certificate	
· Pre-Despatch Examination Certificate if test certificate is older than 6 months old.	
· E.C. Declaration of Conformity.	

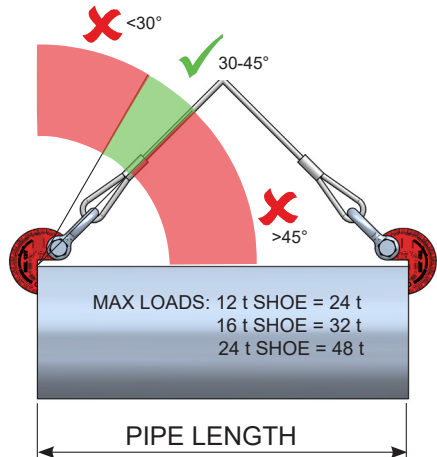
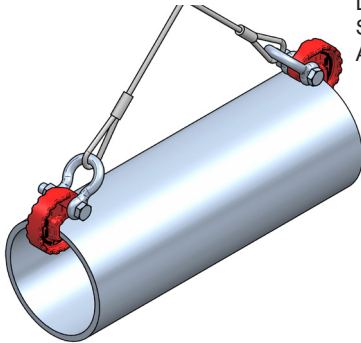
# safety checklist

## 1. PRE-INSTALLATION CHECKS

Prior to installing a Pipe Handling Shoe (PHS), check the following:

- a. Establish the weight of the lift involved and ensure an assembly with the appropriate Working Load Limit (WLL) is being utilised.
- b. The Working Load Limit rating of any Shackle or Shoe is based on a “best condition”. For uneven leg loading on slings, dynamic loading during the lift or any other factor that increases component loading, the WLL of the equipment should be de-rated in accordance with instruction from the lift planner.
2. Do not modify the Pipe Shoe or any part of the lifting apparatus.
3. The angle between the two legs of the lifting sling, where applicable should not exceed 90°.

Lifting Angle Range: 30-45° (measured from vertical).  
Sling Legs must be of equal length.  
Angles greater than 45° will result in over-loading the equipment.



Pipe Length	Min. Sling Leg Length	Max. Sling Leg Length
5 m	3.6 m	4.3 m
10 m	7.1 m	8.7 m
20 m	14.2 m	17.3 m
30 m	21.2 m	26.0 m

Min. Sling Leg Length = Pipe Length x 0.707  
Max. Sling Leg Length = Pipe Length x 0.866

4. Ensure that all appropriate laws, bye-laws and regulations are complied with.
5. Ensure the area of the pile that the PHS is in contact with is in good condition. i.e. smooth with no obstructions, and the pile is clean of any debris.
6. As with all lifting equipment, the shoe should be inspected before each lift.



Keep all personnel out of the **danger zones / fall zones** at all times, unless unavoidable.



Do not use shoes in temperatures below **-15 °C (5 °F)**.



Ensure loading & unloading areas are **kept clear** of any obstructions.

# design validation

The Dawson Pipe Handling Shoes are manufactured from high tensile strength cast steel, grade BT2 to BS 3100.

The PHS's have been designed & tested to 5x WLL. Every PHS is individually & independently proof tested to 2x WLL, and is supplied with a test certificate.

The tests are conducted such that the loads are the same as they would be in service during a worst acceptable case - i.e. with a sling angle of 45° from vertical. The test values are detailed below:

Part Number	WLL	Design test value (5x WLL / cos(45))	Proof test value (2x WLL / cos(45))
908	12 t	84.9 t	34.0 t
909	16 t	113.2 t	45.3 t
910	24 t	167.7 t	67.9 t

# training

Before allowing operators to use the Pipe Handling Shoe, it is important to ensure they have received basic training in lifting and control of heavy loads.

It is strongly recommended that the following areas are included:

1. Basic safety in lifting operations.
2. Supervision during lifting operations.
3. Dangers and mal-practices.

# maintenance & storage

The lifting accessory is manufactured from high quality material and designed to offer long service with minimal maintenance.

In order to preserve the product in this state, it is necessary to ensure that it is not mis-used or used for purposes outside its recommended use. The user must carry out regular inspection.

The shoe must be thoroughly examined in accordance with local regulations & jurisdiction. DCP recommend a thorough examination every 6 months.

A competent person should visually inspect the shoe before every single lift. It should be checked for any abnormalities as well as any distortion arising from overload. **If deformed - dispose.** The critical areas to inspect are detailed in Appendix A.

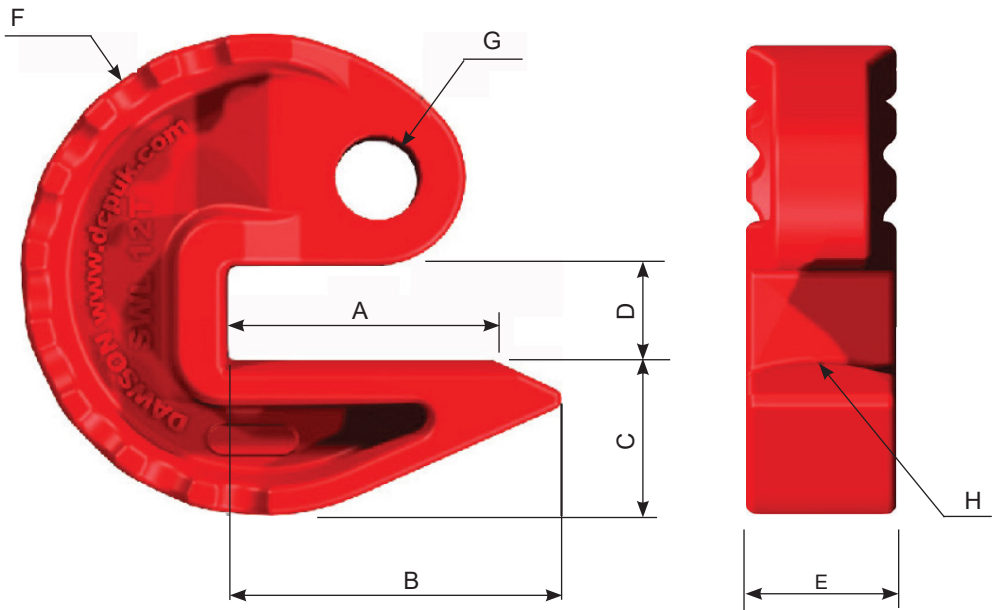
If in any doubt, return the item to the manufacturer immediately for a thorough inspection.

If the Pipe Handling Shoe is modified in any way, the test certificate is no longer valid.

Pipe Handling Shoes should be safely stored in a dry & secure environment, ensuring they are protected from adverse weather & accidental damage.



# weights & dimensions



Model	Dimensions							
	A	B	C	D	E	F	G	H
12 tonne	140	175	80	50	80	R125	Ø45	R124
16 tonne	164	190	88	60	100	R143	Ø54	R305
24 tonne	235	260	122	80	120	R187	Ø62	R305

	12 tonne	16 tonne	24 tonne
Part Number	908	909	910
Accompanying Bow Shackle	548	556	550
Combined weight of Shoe & Bow Shackle	25 kg	38.5 kg	67.5 kg
Weight of Shoe	17.25 kg	25 kg	47.5 kg
WLL per pair of Shoes	24 tonnes	32 tonnes	48 tonnes
WLL per Bow Shackle	17 tonnes	25 tonnes	35 tonnes



## appendix A: critical inspection areas

To inspect the Pipe Handling Shoe, the Safety Bow Shackle must first be removed if present.

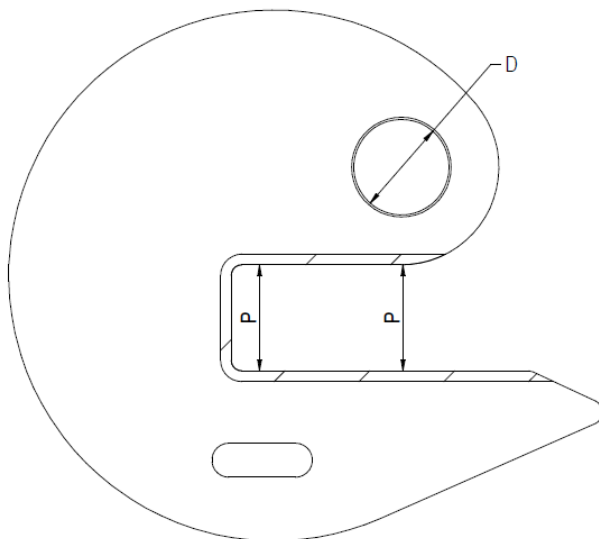
The inspection must be carried out by a suitably competent person.

1. The hatched faces, inside the throat, must be checked for visible cracks. If there are visible cracks, do not use. If in doubt, consult the manufacturer.
2. The diameter marked D must be checked for both visible cracking, and ovality. If there are visible cracks, do not use. If in doubt, consult the manufacturer.

To measure ovality, use calipers to measure & record the maximum and minimum diameters of the bore. The acceptance criteria for ovality is given by the equation below, and must be  $\leq 5\%$ :

$$\text{Ovality (\%)} = (\text{max. ID} - \text{min. ID}) / 30 \times 100$$

3. The faces dimensioned P must be checked for parallelism. Take two measurements of the throat thickness: one at either end of the throat. The acceptance criteria for throat parallelism is given by  $P_{\text{max.}} - P_{\text{min.}}$ , and must be  $\leq 1.5 \text{ mm}$ .



notes

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D.C.P. RESERVES THE RIGHT TO DISCONTINUE EQUIPMENT AT ANY TIME, OR CHANGE SPECIFICATIONS OR DESIGNS WITHOUT NOTICE OR INCURRING OBLIGATIONS

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INNOVATIVE PILING EQUIPMENT

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SHEET PILE THREADERS

CHAIN CLAMPS

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pipe handling shoe

12t / 16t / 24t

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