Lock-N-Lift Road Plate Lifter

The *Lock-N-Lift Road Plate Lifting Assembly* **must be positioned on the load so that twisting or turning is avoided.**

- **For single leg lift**, the lifting point should be vertically above the centre of gravity of the load.
- **For two leg lifts**, the lifting points must be equidistant to/or above the centre of gravity of the load and a spreader bar must be used.

Load Rating (WLL)

Product Code	Model	Working Load Limit (t)	Unit Weight (kg)
500F	Weld in plate	5.0	1.0
800F	Road Plate Lifting Tool	5.0	2.1

Manufacturers Specification

#800F Lifting Tool:
4140 High Tensile Alloy Steel – Hardened and Tempered.

#500F Weld-in-plate:
AS 3679.1 Grade 300, Low Carbon Steel.

This assembly is manufactured in Australia using only heat certified steel. The Working Load Limit is clearly marked on both the #800F Lifting Tool and #500F Weld-in-plate.

Batch identification is clearly marked on both the #800F Lifting Tool and #500F Weld-in-plate.

User Instructions

- Observe WLL (Working Load Limit) and ensure proper planning before lifting operation. Do not exceed the WLL.
- The material to which the Weld-in-plate will be welded to should be of adequate strength to withstand forces during lifting without deformation.
- Ensure compatibility with other lifting components used to sling a load, both in size and capacity.
- Before installation and every use, visually inspect the Weld-in-plate and discard if there is evidence of corrosion, wear, weld cracks and deformation.
- No Modifications should be made to the assembly.
- Do not use under chemical influence such as acids, alkaline solutions and vapours. i.e. in or around pickling baths, hot dip galvanizing plants.

Inspection Criteria

Only a competent person should undertake regular inspection and the lifting point shall be removed from service and discarded if there are any signs of wear or damage. The following inspection criteria should be adhered to:

a) The WLL (Working Load Limit) and all other markings shall be clearly visible.
b) Impairment including deformation, notches, cracks, corrosion, nicks or any other signs of damage or wear.
c) Cracks or other damage to the welding or weld area.

Recommended Installation

1. Check the material to which the Weld-in-plate will be welded to. It should be of adequate strength to withstand forces during lifting without deformation.
2. Check material for any cracks, corrosion, nicks or gouges.
3. The connecting surfaces must be free from dirt, oil, paint or other contaminants.
4. Check all fittings connected to the #800F Lifting tool are free moving.
5. Inspection of the Assembly should be carried out by a competent person before each use.
6. The Manufacturer recommends that plates should be load tested after welding the forged weld in plate.

Care and Use

Safe Working Requirements
****FOR VERTICAL STRAIGHT LINE LIFTING ONLY******
DO NOT – DRAG, PULL OR PUSH

Lock-N-Lift Road Plate Lifting tools are specifically designed to be used exclusively in a vertical line, moving straight up and down.¬

This tool is **not** intended for side pulling, pushing, or dragging loads. Dragging or pushing the tool sideways or along the ground while connected to a steel plate may create stress points and void the warranty. Abusing the tool in this manner will shorten its lifespan, and the working load limit will become unknown.

Weld in Plates
The welding plate includes the connection point for the #800 lifting tool and can be easily welded into plates undergoing lifting and/or lowering. When installed correctly, the weld-in plate aligns level with the surface of the plate to which it is welded to, eliminating any potential trip hazards.

Large Plates
To ensure stability and minimize stress when handling extra-long plates, the use of two tools along with a spreader bar is recommended. Measure the plate into thirds along its longest dimension and position a #500F weld-in plate at each third division.

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Welding Instructions

Important: Welding shall be in accordance with AS1554.1: 2014 SP / 1554.5: 2014 or Equivalent. Welding performed to an approved WPS by a qualified welding Operator.

Preparation

- Prepare material by thermal cutting and grinding.
- Remove scale and other contaminants from weld area by grinding.
- Align joint and tack components.
- Feather tack ends and incorporate in the main weld.
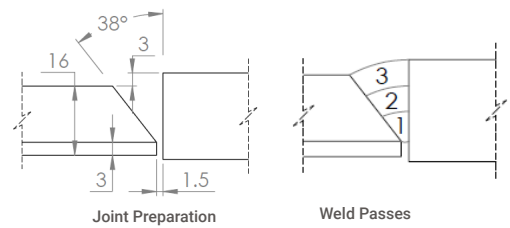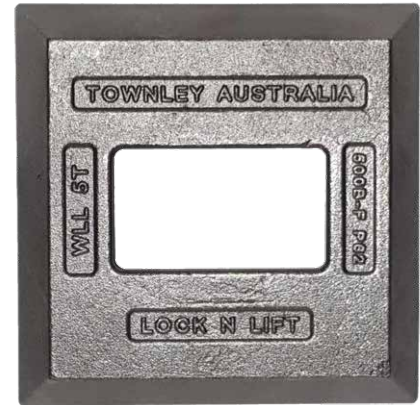
Code:	AS 1554.1 (2014) SP, or 1554.5 (2014) or equivalent.
Material:	AS 3678 Grade 300 / 350, Steel Type 1 to AS1442
Joint Type:	Single Bevel Butt Weld (Partial pen, multi run)
Welding Position:	Flat 1G

Joint Preparation

Weld Passes

F.C.A.W – Typical Settings			
Consumable:	AS/NZS ISO 17632 B-T 49 3 T1-1 M A U H10 or equivalent. **NB. Refer to consumable manufacturer for user instructions and information.**		
Shielding Gas:	Argon + 16 - 18% CO2	Consumable Size:	1.2mm
Gas Flow Rate:	15 to 18.7 l/Min	Current Type:	DC Electrode +
Electrical Stick-out:	15 mm	Preheat:	50ºC. minimum
Preheat Method:	Oxy-acetylene	Preheat Measurement:	Contact Thermometer
Amperage:	160 – 280	Volts:	24 – 30

G.M.A.W – Typical Settings			
Consumable:	AS/NZS 14341 B-G 49A 3U C S6, B-G 49A 3U M S6 or equivalent. **NB. Refer to consumable manufacturer for user instructions and information.**		
Shielding Gas:	Argon + 16 - 18% CO2	Consumable Size:	1.2mm
Gas Flow Rate:	15 - 18 l/Min.	Current Type:	DC Electrode +
Electrical Stick-out:	15 mm	Preheat:	50ºC. minimum
Preheat Method:	Oxy-acetylene	Preheat Measurement:	Contact Thermometer
Amperage:	120 – 320	Volts:	18 - 32

M.M.A.W – Typical Settings			
Consumable:	AS/NZS 4855-B - E49 16-A U H10 or equivalent. **NB. Refer to consumable manufacturer for user instructions and information.**		
Consumable Size:	3.2 mm / 4.0mm	Current Type:	AC / DC Electrode +
Preheat:	50ºC. minimum	Preheat Measurement:	Contact Thermometer
Amperage:	3.2mm = 90 – 135	Amperage:	4.0mm = 140 - 190

Qualification Method: Non Destructive Examination:	Qualify in accordance with AS1554.1 SP / AS 1554.5 requirements. • 100% visual scanning and examination. • N.D.T. method and percentage, as agreed with client.