



Operation & Service Manual

**Model: 08-0138-4000
PW306A Engine Sling**

Parts List With Illustrations



04/2007 - Rev. 01

****When ordering replacement parts/kits, please specify model, serial number and color of your unit.****

TABLE OF CONTENTS

	<u>PAGE</u>
1.0 Description	1
2.0 Specifications	1
3.0 Safety	1
4.0 Engine Hanging Instructions	2
5.0 Inspection	2
6.0 Load Test	2

**Model: 08-0138-4000
PW306A Engine Sling**

REVISION
OR
01

DATE
03/2002
04/2007

TEXT AFFECTED
Original Release
Modified Parts List Illustration

**Model: 08-0138-4000
PW306A Engine Sling**

This product can not be modified without the written approval of Tronair, Inc. Any modifications done without written approval voids all warranties and releases Tronair, Inc., its suppliers, distributors, employees, or financial institutions from any liability from consequences that may occur. Only Tronair OEM replacement parts shall be used.

1.0 DESCRIPTION

The Tronair 08-0138-4000 Engine Sling is designed for the Pratt-Whitney PW306A engine. Always follow manufacturer's instructions for proper engine handling.

2.0 SPECIFICATIONS

- Sling weight: 80 lbs (36 kg) *approximate*
- Capacity: 1,400 lbs (635 kg)
- Length: 47-3/8 in (120 cm)
- Width: 27 in (69 cm) *Z-4450*
- Height: 24 in (61 cm) *top of bar to engine*
- Finish: Zinc chromate with clear overcoat

3.0 SAFETY

Safety instructions specifically pertaining to this unit appear throughout this manual highlighted by the signal words **WARNING** and **CAUTION** which identify different levels of hazard.

WARNINGS!

Denote practices which if not carefully followed, could result in **SERIOUS** personal injury or death, and/or minor personal injury or damage to this equipment.



- **NEVER** exceed rated load or lift a load not intended for this sling.
- **NEVER** use sling if any damage or excessive wear is found.
- **NEVER** lift suspended loads over personnel.
- **NEVER** make any alterations or modifications to sling.
- **ALWAYS** stay clear of suspended loads.

CAUTIONS!

Ensure engine is balanced on sling. If engine is unbalanced, check that the orientation of sling is correct. In the event of an unbalanced condition, loss of control and/or damage may occur to the engine along with injury to operator.



- **NEVER** use sling to lift personnel.
- **NEVER** leave suspended loads unattended.
- **NEVER** remove or obscure warning labels.
- **DO NOT** use sling until you have read and understood this manual.
- **NEVER** lift loads higher than necessary.

4.0 ENGINE HANGING INSTRUCTIONS

1. Attach sling to engine as shown in **Figure 1** - Page 3.
2. Place lift clevis (Item 3) in desired hole (stamped on bar) per engine configuration (see Chart below).
3. Before lifting engine, ensure all ball-lok pins and shackles are secure.

Lift Clevis Position	Engine configuration
1	Engine with Inlet Cowl only
2	Engine only
3	Engine with Inlet Cowl & Thrust Reverser
4	Engine with Thrust Reverser

5.0 INSPECTION

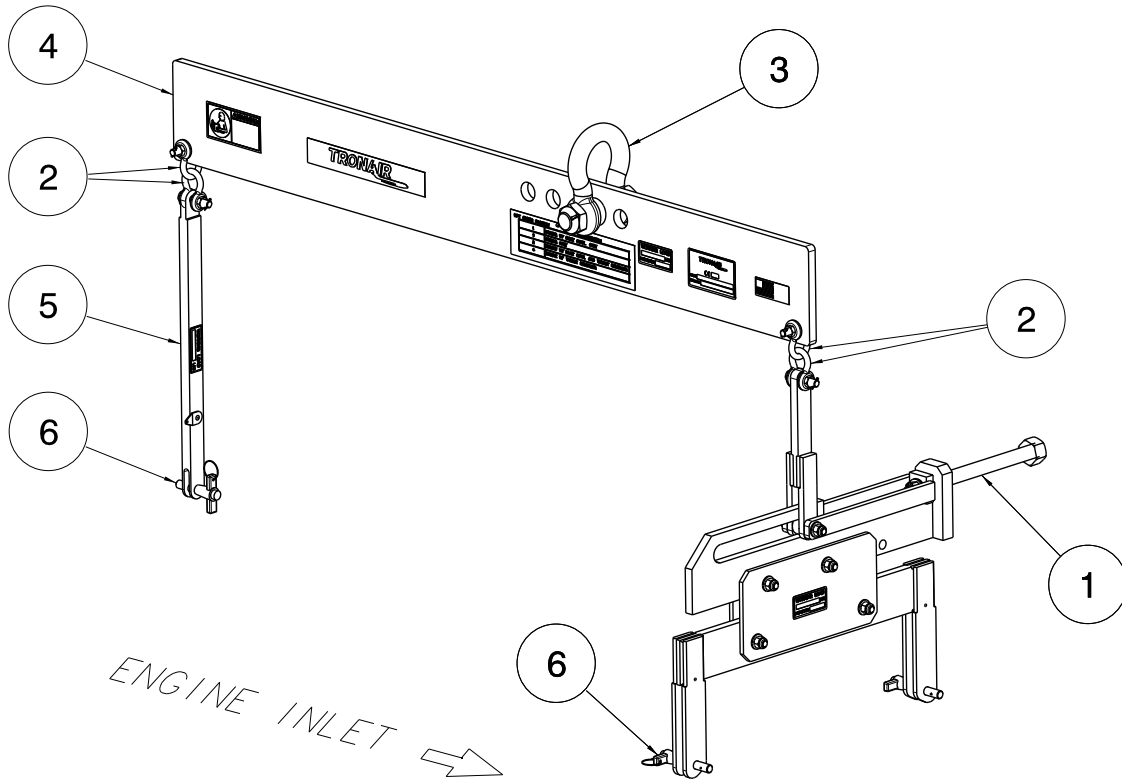
This sling needs to be inspected per the following:

1. Every Lift Inspection (performed visually by operator):
 - a. Missing parts (pins, fasteners, labels, etc).
 - b. Operation of all ball-lok pins & shackles.
 - c. Inspect sling components for any signs of material deformation, cracks, or excessive wear.
2. Frequent & Periodic Inspections (performed by designated personnel):
 - a. Visual (performed monthly): same as 6.1 Every Lift Inspection
 - b. Record (Semi-Annually):
 - i. Loose bolts and fasteners
 - ii. Cracked or excessively worn straps, bars & plates
 - iii. Excessive wear at hoist points and load support clevis & pins.

6.0 LOAD TEST

This sling was proof tested to 200% (2,800 lbs/1,270 kg) of rated load; test certification is included with documentation. If it is found necessary to load test sling, use a fixed fixture and load cell (due to sling arms not being centered on sling bar which may result in an unbalanced load condition). Load test to at least 125% (1,750 lbs/793 kg) of rated load, or return to Tronair.

Parts List & Illustration



REPLACEMENT PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
1	Z-4450	Assembly, Front Mount	1
2	H-2652-03	Shackle, 5/16	4
3	H-2652-09	Shackle, 7/8	1
4	J-3405	Bar, Sling	1
5	Z-5039	Assembly, Engine Strap	1

Note: Lanyards not shown for clarity

REPLACEMENT KITS

ITEM	PART NUMBER	DESCRIPTION	QTY
6	K-2375	Kit, Ball Lok-T Pin Replacement; consists of	
	H-1026*07.0	Assembly, Lanyard	1
	G-1310-0710	Pin, Ball Lok-T, 7/16" diameter x 1.0" Grip	1
	G-1351-04	Rivet, 1/8 Open-End Steel	1



APPENDIX II

**Declaration
of
Conformity**



DECLARATION of CONFORMITY

The design, development and manufacture is in accordance with European Community guidelines

08-0138-4000
Engine Sling
PW306A

Relevant draft complied with by the machinery:
EN ISO 12100-1

Relevant standards complied with by the machinery:
EN ISO 12100-1
EN 1915-1:2001 (5.20)

Identification of person empowered to sign on behalf of the Manufacturer:

A handwritten signature in black ink that reads "Patrick Funch". The signature is written in a cursive style and is positioned above a horizontal line.

Quality Assurance Representative