

SIDE VIEW

BOTTOM VIEW

STITCH PATTERN AS SHOWN, M40 THREAD STRAP WITH BUCKLE

**INSPECT TANK FOR CRACKS IN AREAS A & B
DO NOT USE A CRACKED TANK.**

PROCEDURE:

- 1) DRAIN TANK TO BELOW 1/2 FULL
- 2) REMOVE SKIRT
- 3) INSTALL PROTECTION PAD AT "C"
- 4) INSTALL STRAPS AS SHOWN
- 5) TIGHTEN TO LIFT TANK 3MM AT A & B
- 6) REFIT SKIRT AND REFILL TANK.

Number	DESCRIPTION / MATERIAL	DRW. NO.	QTY	PART NO. / MAT. CODE
2	M40 THREAD		1M	BT40002
2	POLYPROPYLENE WEBBING		2M	CW18002
1	MILITARY PLASTIC BUCKLE		1	PM8004

A INITIAL	4/9/00	QOWGB	Checked	Date	Name
				4/9/00	QOWGB
Description of revision			Date	Approved	
QUANTUM/QUASAR FUEL TANK				PEGASUS AVIATION	
MOUNT STRAP & FITTING				Drawing/Part No.	
DIM 1:8 SCALE: NTS			PROJ	QTM TANK	
GEN. TOL. ±: 0.2					

ISSUED BY: W. Brooks **DATE:**

Chief Engineer		Date
Production Manager		Date

Sales Director		Date
Managing Director		Date



SERVICE BULLETIN NUMBER: SB00100

ISSUE 1

PAGE 1 OF 2

TITLE: PEGASUS QUASAR AND QUANTUM FUEL TANK STRAP
CLASSIFICATION: QUASAR AND QUANTUM PRE 1998: **OPTIONAL**
TANKS FROM 1998 ON : **COMPULSORY**
COMPLIANCE: INSPECT FOR LEAKS BEFORE FLIGHT. INSTALL STRAPS WITHIN 50 HOURS.
APPLICABILITY: PEGASUS QUASAR AND QUANTUM ALL MODELS.

INTRODUCTION:

The original Quasar and Quantum rotation moulded plastic tank material was cross linked polythene. Problems with tank leakage were very rare with this material. The original material was withdrawn from use because of health & safety concerns during processing. The super linear polythene now used has given problems with environmental stress cracking (ESC) due to the effect of fuel, in some fuel tanks. Flourinating the tank to reduce the effect of the fuel has not proven totally successful. The tendency of the tank to crack due to ESC may vary with different fuel blends and additives used in different countries.

One way of preventing ESC is to reduce the stress to a very low level where cracks cannot propagate.

The tank was originally designed to be supported on ledges moulded into each end of the tank. Cracks occur at the centre root areas of the front and rear ledges.

A strap system has now been designed to lift the tank off the ledges and give additional support. The stress on the ledges is reduced to an extremely low level where cracks do not propagate.

Leakage of fuel from the tank is probably most hazardous inside a closed building with an ignition source, e.g. a garage with a domestic boiler. Always drain fuel in a well ventilated area.

ACTION:

- 1) Remove the trike skirt from the pod. Drain fuel to $\frac{1}{2}$ full or less.
- 2) Inspect the tank front and rear areas for leakage & signs of cracking where the tank lugs protrude near the tank centre, areas A & B on the drawing overleaf
- 3) At the front of the tank, where the seat frame bracket is attached, there is an 8mm bolt (area C on the drawing). Fit a self adhesive nylon protection pad HTM-002 to the tank to prevent damage to the tank wall by the bolt tail.
- 4) Fit the retaining straps as shown in the drawing overleaf. Tighten sufficiently by hand to just raise the tank ledges off the support tubes.
- 5) Refit skirt, enter "SB 0100 (fuel tank strap) carried out" in the technical log.