

APPLICABLE MODELS

PA-30 & PA-39

COWL NOSE BOWL

INSTALLATION MANUAL

ISSUE DATE 05/01/95

KNOTS 2U, LTD.**709 Airport Road****Burlington, WI 53105****(262) 763-5100**REVISIONS

REV#	DATE	PAGE	EFFECT
/ FAA APPROVED AUG 04 1995 <i>Jim Acosta</i> CHICAGO AIRCRAFT CERTIFICATION OFFICE CENTRAL REGION			

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= SECTION 1.0 RIGHT SIDE INSTALLATION =

1.1 -REMOVE COWLING-

Remove Left and Right cowl doors, top cowl cover and Left and Right nose bowls from right engine. Inspect existing baffle and seals and repair or replace as necessary.

1.2 -INSTALL NOSE BOWL-

Referencing DETAIL #1 install top Nose Bowl **P/N 30CNB** using original hardware. Do not install Access Panel or top cowl cover. Confirm that all baffle seals are properly placed and overlapping. **It is imperative that the seals prevent cooling air from getting through any spaces to the bottom of the cowl, except through the cylinder fins and the oil cooler!** The seals should slide over each other when in motion. Any leaks in the engine area can be sealed using RTV.

1.3 -INSTALL NUTPLATE AND ACCESS PANEL-

Referencing DETAIL #3 inspect baffling and seals through access opening and correct any air leaks. Install Nutplate **P/N 30BNP** in position on the lower cowl access panel opening. When properly positioned the larger 6 nutplates will line up correctly with the 6 lower center cowl bolt holes. Fasten **P/N 30BNP** using existing screws. Install access panel, temporarily, to confirm proper fit. Trim and adjust as needed. Remove access panel and locate and drill five #40 holes centered between the existing cowl screw locations. Clean shavings from cowl and install (5) **P/N AN470AD-3-4** rivets. These rivets will keep Nutplate in proper position during removal of Access Panel. Do not install Access Panel at this time.

1.4 -FINAL INSPECTION AND ASSEMBLY-

Start engine and run up to determine if engine movement creates any problem with contact of baffles and /or seals during engine operation. Correct where needed and install top cowl cover using existing hardware. Install Access Panel **P/N 30ACP** using (16) **P/N 507-632R10** Screws and (16) **P/N A3236-102-24A** Washers.

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= SECTION 2.0 LEFT SIDE INSTALLATION =

Repeat 1.0 through 1.4 on left engine.

= SECTION 3.0 PARTS LIST =

PART NUMBER	NO. REQ	DESCRIPTION
30CNB	2	COWL NOSE BOWL
30ACP	2	COWL ACCESS PANEL
30NBNP	2	NUTPLATE
AN470AD-3-4	10	RIVET
507-632R10	32	SCREW
A3236-012-24A	32	WASHER

= SECTION 4.0 PAPERWORK =

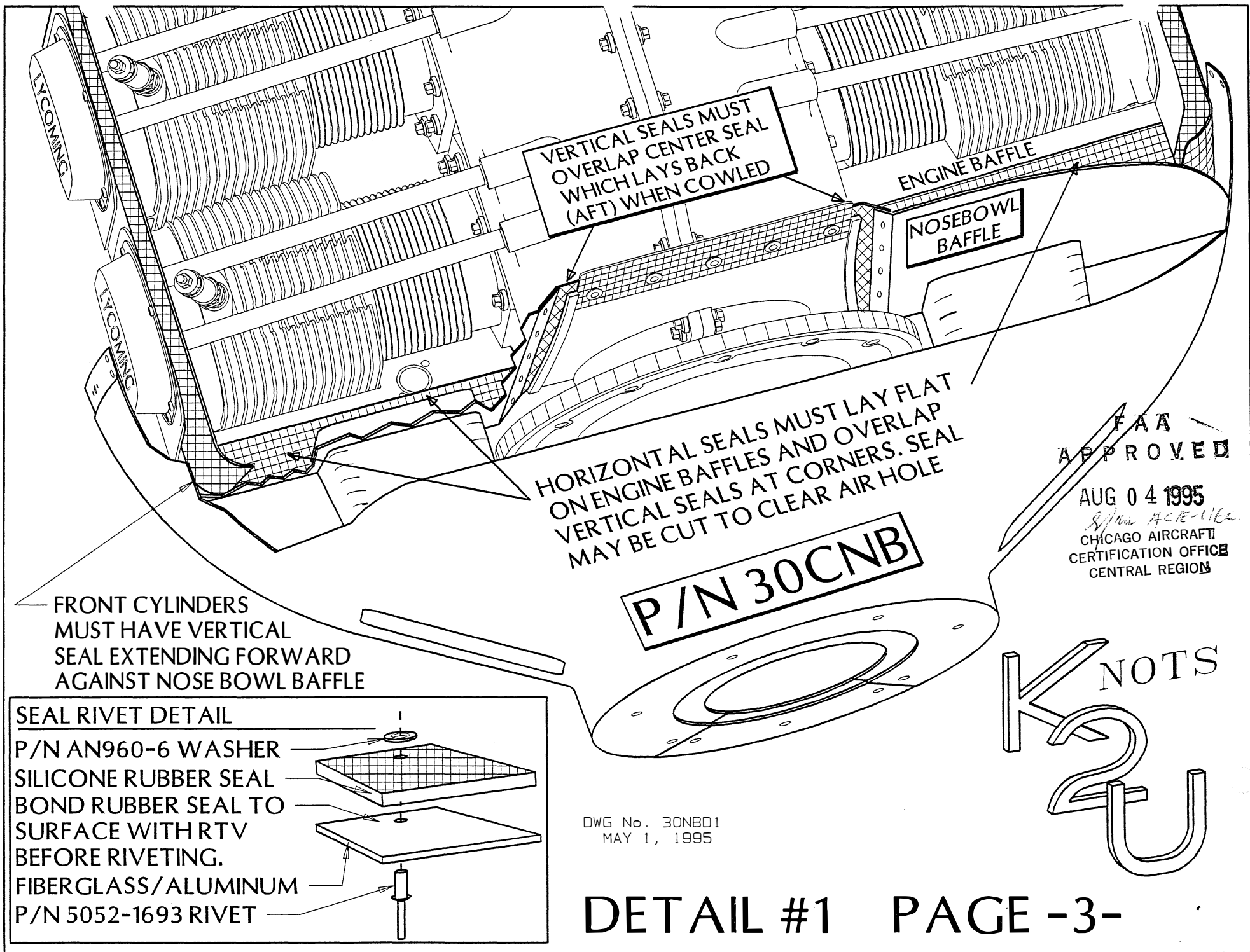
Perform paperwork (337 and log book entries). Place Supplemental Type Certificate and KNOTS 2U, INC. Maintenance Manual with log books.

WEIGHT AND BALANCE CHANGE =	WEIGHT	ARM	MOMENT
Nose Bowls, Access Panels & Hardware	6.6 LBS.	20 IN.	132.0 IN/LBS

Minus old Nose Bowls and Hardware = net change

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VERTICAL SEALS MUST OVERLAP CENTER SEAL WHICH LAYS BACK (AFT) WHEN COWLED

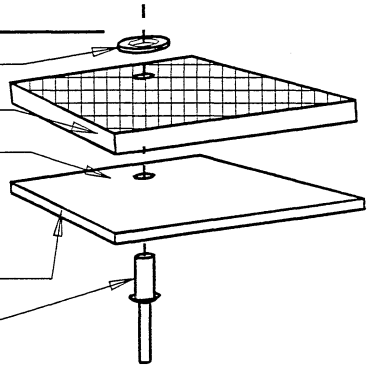
HORIZONTAL SEALS MUST LAY FLAT ON ENGINE BAFFLES AND OVERLAP VERTICAL SEALS AT CORNERS. SEAL MAY BE CUT TO CLEAR AIR HOLE

P/N 30CNB

FRONT CYLINDERS MUST HAVE VERTICAL SEAL EXTENDING FORWARD AGAINST NOSE BOWL BAFFLE

SEAL RIVET DETAIL

- P/N AN960-6 WASHER
- SILICONE RUBBER SEAL
- BOND RUBBER SEAL TO SURFACE WITH RTV BEFORE RIVETING.
- FIBERGLASS/ALUMINUM
- P/N 5052-1693 RIVET



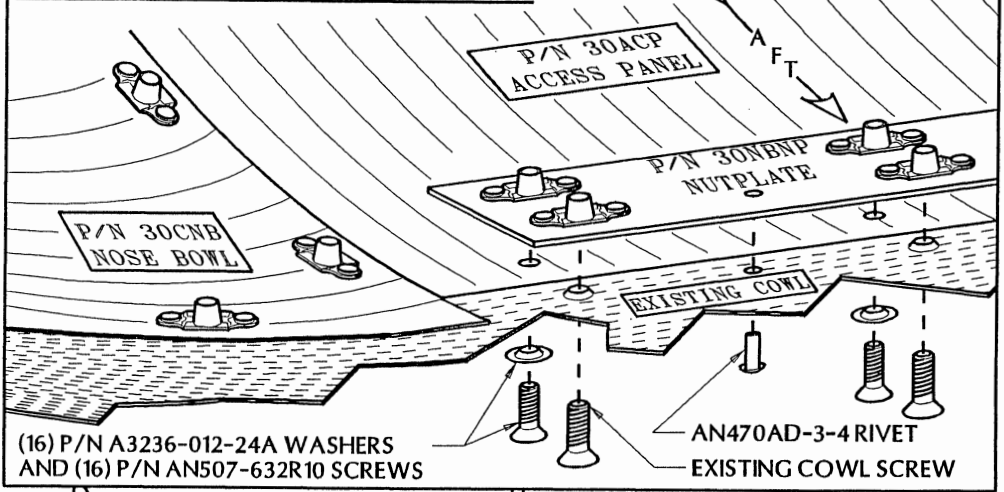
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 MAY 1, 1995

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NUTPLATE SCREW & RIVET DETAIL



P/N 30CNB NOSE BOWL

ACCESS PANEL P/N 30NBACP ATTACHES TO COWL AND NUT PLATE USING (16) P/N AN507-632R10 COUNTERSUNK SCREWS AND (16) P/N A3236-012-24A WASHERS

NUTPLATE P/N 30BNBP ATTACHES TO COWL USING EXISTING HOLES AND SCREWS AND AFTER FINAL FIT OF ACCESS PANEL IS RIVETED TO COWL USING (5) AN470AD-3-4 RIVETS CENTERED BETWEEN COWL SCREWS.

P/N 30BNBP NUTPLATE

P/N 30ACP ACCESS PANEL

BOTTOM VIEW

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DETAIL #2 PAGE -4-

= SECTION 7.0 MAINTENANCE MANUAL =

KNOTS 2 U, INC.
PIPER PA 30 & PA 39
COWL NOSE BOWL

PART A. INSPECTION

1. During annual or 100 hour inspections, inspect attachment hardware. Inspect fiberglass for cracks and checking and baffle/seals for tearing.

PART B. MAINTENANCE

1. If the attachment hardware is found to be excessively worn or loose during the 100 hour/annual inspection, it should be replaced.
2. If the baffles or seals are torn or loose they should be repaired or replaced.

PART C. CRACKING OR DEFECTS

1. If a crack or checking is found in the fiberglass, repair according to FAR 43.13 1A Acceptable Methods, Techniques, and Practices Aircraft Inspection and Repair, Chapter 2.

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