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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
407PX PEDAL EXTENSION INSTALLATION

BELL MODEL 407 HELICOPTERS

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RECORD OF REVISIONS

REVISION NO.	ISSUE DATE	DATE INSERTED	BY
1	ORIGINAL		
2	05/13/98	05/13/98	PTI
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REVISION CONTROL PROCEDURE

Revisions to this document are mailed to owner of record. Before inserting a change, ensure this manual is correct. Check the existing List of Effective Pages in this manual to ensure that all prior revisions are inserted. **Do not insert this revision if prior revisions are not inserted.**

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LIST OF EFFECTIVE PAGES

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These Instructions for Continued Airworthiness (ICA) except for the Airworthiness Limitations Section, have been reviewed and found to comply with the applicable requirements of Appendix A to the Federal Aviation Regulations Part 27.

FAA Acceptance Manuel Perez Date 12/01/00
 Fort Worth Aircraft Evaluation Group

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AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations Section is FAA approved and specifies inspections and other maintenance required under §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No airworthiness limitation associated with this type design change.

This system has no life-limited components.

REVISION	DATE	APPROVED
0	02/06/98	Roger A. Caldwell
1	04/16/98	Melissa Sandow
2	05/22/98	Melissa Sandow
3	12/01/00	David T. Grossman
4	01/07/06	<i>David Grossman</i>

1.0 SYSTEM DESCRIPTION

The 407PX-100-X Pilot's or Copilot's anti-torque pedals installations provide greater pedal adjustment than is possible with standard directional control installations. The anti-torque control mechanism is modified to install a parallel arm and beam assembly, and movable pedal assembly. The pedal assemblies (2 per installation) are moved to the alternate locations for large adjustments in pedal position. The original equipment pedal adjuster remains as a useful intermediate position adjustment.

NOTE: Aircraft which incorporate 206-001-748 (-001/-002) require 407PX-100-1/-2 Pedal Extension Kit. Aircraft which incorporate 206-001-703 (-005/-006) require 407PX-100-3/-4 Pedal Extension Kit.

2.0 INSPECTION AND MAINTENANCE

2.1 The objectives of Pedals Extension inspection and maintenance are to assure that the component installations are secure, the pedals move freely through full travel, and that excessive component wear has not occurred.

NOTE: Control pedals installation can be removed as a unit or as individual components. The instructions found in the airframe manufacturer's manual are generally applicable, except where specific differences occur due to 407PX-100 components.

2.2 Refer to Figure 1, Items 1- 4 for Inspection and Maintenance of Anti-Torque control pedals and link arm assemblies. Examine each component for dents, scratches, corrosion, or other damage. Any of these are cause for component replacement. Refer to airframe manufacturer's manual for acceptable bearing wear limits.

2.3 Refer to Figure 2, Items 16 & 17 for Inspection and Maintenance of Heel Flanges and Heel Rests. Examine Heel rests for deformation, scratches, corrosion, or fastener looseness. Replace any defective parts

2.3 Report structural discrepancies to Paravion Technology, Inc. Replacement parts are available.

3.0 RIGGING INSTRUCTIONS:

The information contained in these instructions describe the differences in measured pedal angle between the standard Bell tail rotor pedal and the Paravion Technology, Inc. Tail Rotor Pedal extension Kit.

Compliance with applicable revision of BHT ASB# 407-99-33 is required, except as follows:
Indicated pedal angle for Paravion Pedal Extension Kit is 8.5° less than the Bell standard pedal installation, when measured from the vertical plane (Reference: Figure A).

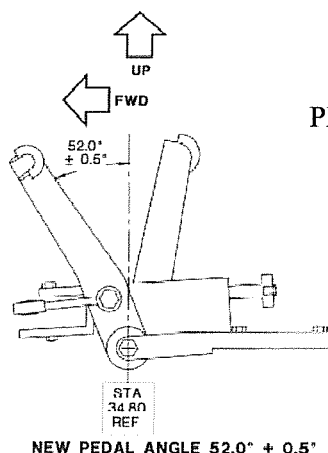
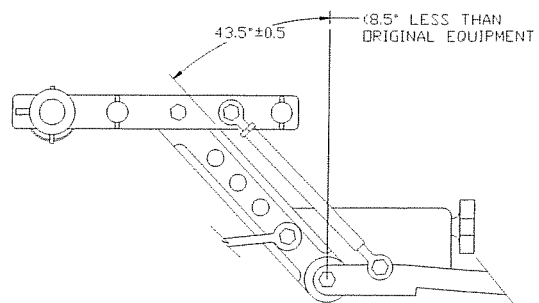


FIGURE A
PEDAL GEOMETRY



NEW PEDAL ANGLE 52.0° ± 0.5°

4.0 COMPONENT REMOVAL AND REPLACEMENT

4.1 Anti Torque Pedal Removal

- 4.1.1 Remove the retaining pin from the inner end of the pedal.
- 4.1.2 Use the roll-pin, installed in the forward side of the pedal, to slide the inner shaft out of the adjustment channel.

4.2 Pedal Linkage Removal

- 4.2.1 Pedal Linkage components are assembled using the specified Military Standard hardware. The cotter pin in each fastener must be removed for disassembly reference Figure 1.
- 4.2.2 Amend weight and balance if required.

4.3 Pedal Linkage Assembly

- 4.3.1 When reassembling the control linkage, refer to Figure 1 to assure proper fasteners.
- 4.3.2 Install linkage components using the specified fasteners and washers, torque per AC43.13-1 standardized torque values.
- 4.3.3 Install the specified cotter pin.

4.4 Anti Torque Pedal Installation

- 4.4.1 Place Pedal Assemblies into the adjustment channels at extreme locations. Use the protruding pin to slide the inner shaft through the holes in the channel. The pin must face forward when the pedal is installed.
- 4.4.2 Install the Retaining pin in the shaft end to secure the pedal assembly.
- 4.4.3 Verify that pedal travel is not restricted at all extreme locations.
- 4.4.4 The pedals can be moved to the location most comfortable for the pilot by removing the Retaining Pin and reinstalling the pedal in the desired location.

4.5 Heel Rest/Flange Removal

- 4.5.1 Remove attaching hardware and remove heel rests and flanges.
- 4.5.2 Replace defective components and amend weight and balance if required.

4.6 Heel Rest/Flange Installation

- 4.6.1 Reinstall heel rests and flanges (Figure 2) using indicated hardware.

TABLE I

TROUBLESHOOTING PROCEDURE		
PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
CONTROLS BINDING OR ROUGH OPERATION	BEARING FAILURE	REPLACE DEFECTIVE PARTS
	EXCESSIVE TORQUE OF FASTENERS	RETORQUE OR REPLACE DEFECTIVE PARTS
CONTROLS EXHIBIT EXCESSIVE LOOSENESS	BEARING WEAR	REPLACE DEFECTIVE PARTS
	FASTENER WEAR	REPLACE DEFECTIVE PARTS

TABLE II

WEIGHT AND BALANCE DATA; 407PX-100 INSTALLATION					
ITEM	WEIGHT (lb)	LONGITUDINAL		LATERAL	
		F.S. (in)	MOMENT (in.-lb.)	B.L. (in.)	MOMENT (in.-lb.)
407PX-100-1 (LEFT)	3.5	34.8	121.8	11.25 (LBL) (-11.25)	-39.4
407PX-100-2 (RIGHT)	3.5	34.8	121.8	14.0 (RBL) (+14.0)	+49
407PX-100-3 (LEFT)	3.4	34.8	118.3	11.25 (LBL) (-11.25)	-38.3
407PX-100-4 (RIGHT)	3.4	34.8	118.3	14.0 (RBL) (+14.0)	+47.6

FIGURES

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*NOTE: AIRCRAFT WHICH INCORPORATE 206-001-748 (-001/-002) PEDAL ASSEMBLIES REQUIRE 407PX-100-1/-2 PEDAL EXTENSION KIT. AIRCRAFT WHICH INCORPORATE 206-001-703 (-005/-006) PEDAL ASSEMBLIES REQUIRE 407PX-100-3/-4 PEDAL EXTENSION KIT.

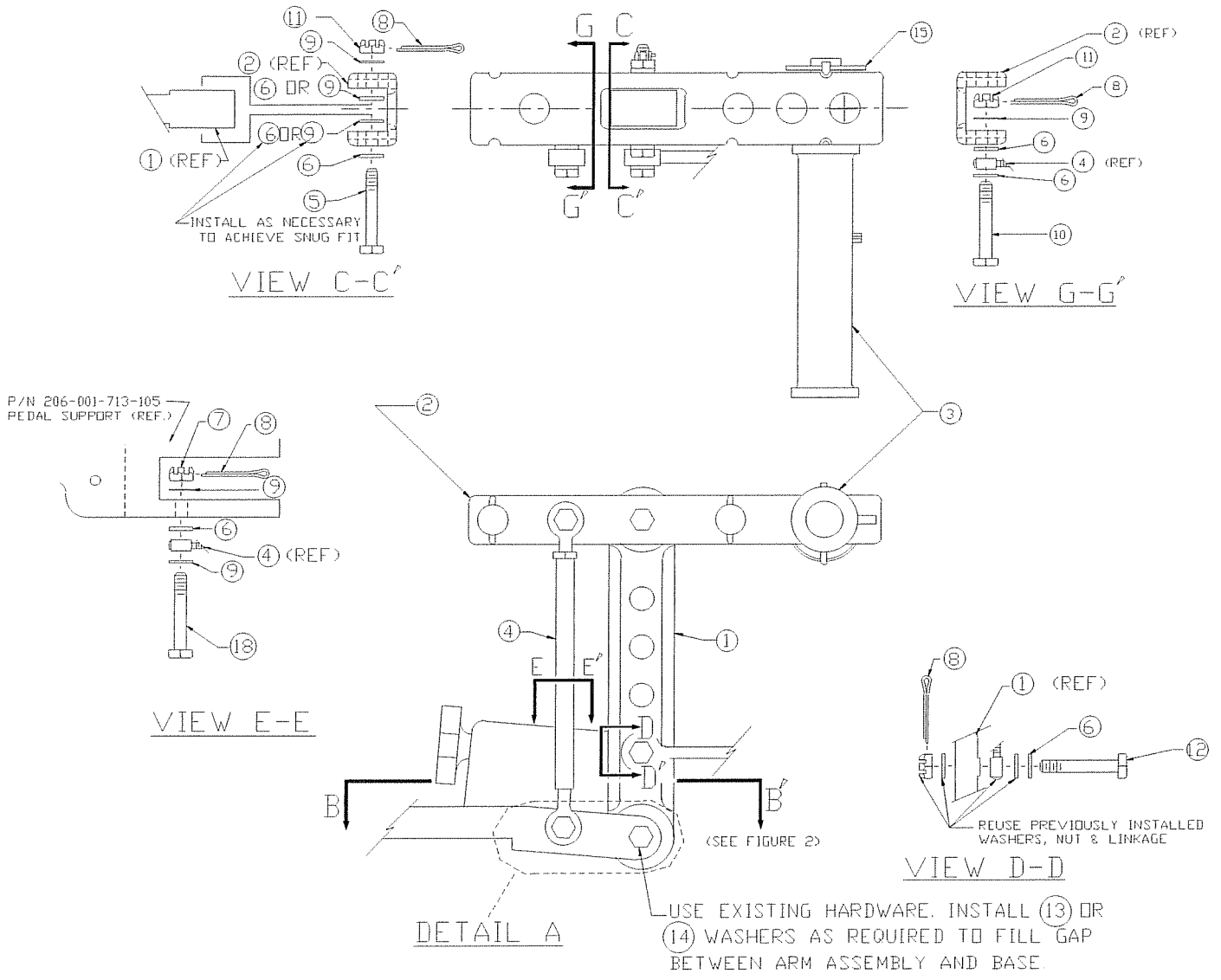


FIGURE 1: PEDAL EXTENSION

PARTS LIST FOR FIGURE 1 (-1/-2 INSTALLATIONS)

ITEM NO	PN	DESCRIPTION	QTY	TYP
1	407PX-200-1	LINK ARM ASSEMBLY	2	EA.
2	206PX-201-1	LINK ARM ASSEMBLY	2	EA.
3	407PX-202-1	PEDAL ASSEMBLY	2	EA.
4	407PX-203-1	ROD ASSEMBLY	2	EA.
5	AN4-17	BOLT	2	EA.
6	NAS1149F0463P	WASHER	14	EA.
7	MS17825-4	NUT	2	EA.
8	MS24665-132	COTTER PIN (ALT. MS24665-151)	10	EA.
9	NAS1149F0432P	WASHER	12	EA.
10	AN4-11	BOLT	2	EA.
11	MS17826-4	NUT	4	EA.
12	AN4-14	BOLT	2	EA.
13	NAS1149F0563P	WASHER	8	EA.
14	NAS1149F0532P	WASHER	8	EA.
15	ES34100-1	PIN	2	EA.
16	206PX-204-1	HEEL FLANGE	2	EA.
18	AN4-12	BOLT	2	EA.

PARTS LIST FOR FIGURE 1 (-3/-4 INSTALLATIONS)

ITEM NO	PN	DESCRIPTION	QTY	TYP
1	407PX-200-1	LINK ARM ASSEMBLY	2	EA.
2	206PX-201-1	LINK ARM ASSEMBLY	2	EA.
3	407PX-202-1	PEDAL ASSEMBLY	2	EA.
4	407PX-203-1	ROD ASSEMBLY	2	EA.
5	AN4-17	BOLT	2	EA.
6	NAS1149F0463P	WASHER	14	EA.
7	MS17825-4	NUT	2	EA.
8	MS24665-132	COTTER PIN (ALT. MS24665-151)	10	EA.
9	NAS1149F0432P	WASHER	12	EA.
10	AN4-11	BOLT	2	EA.
11	MS17826-4	NUT	4	EA.
12	AN4-14	BOLT	2	EA.
13	NAS1149F0563P	WASHER	8	EA.
14	NAS1149F0532P	WASHER	8	EA.
15	ES34100-1	PIN	2	EA.
16	206PX-204-1	HEEL FLANGE	2	EA.
18	AN4-12	BOLT	2	EA.

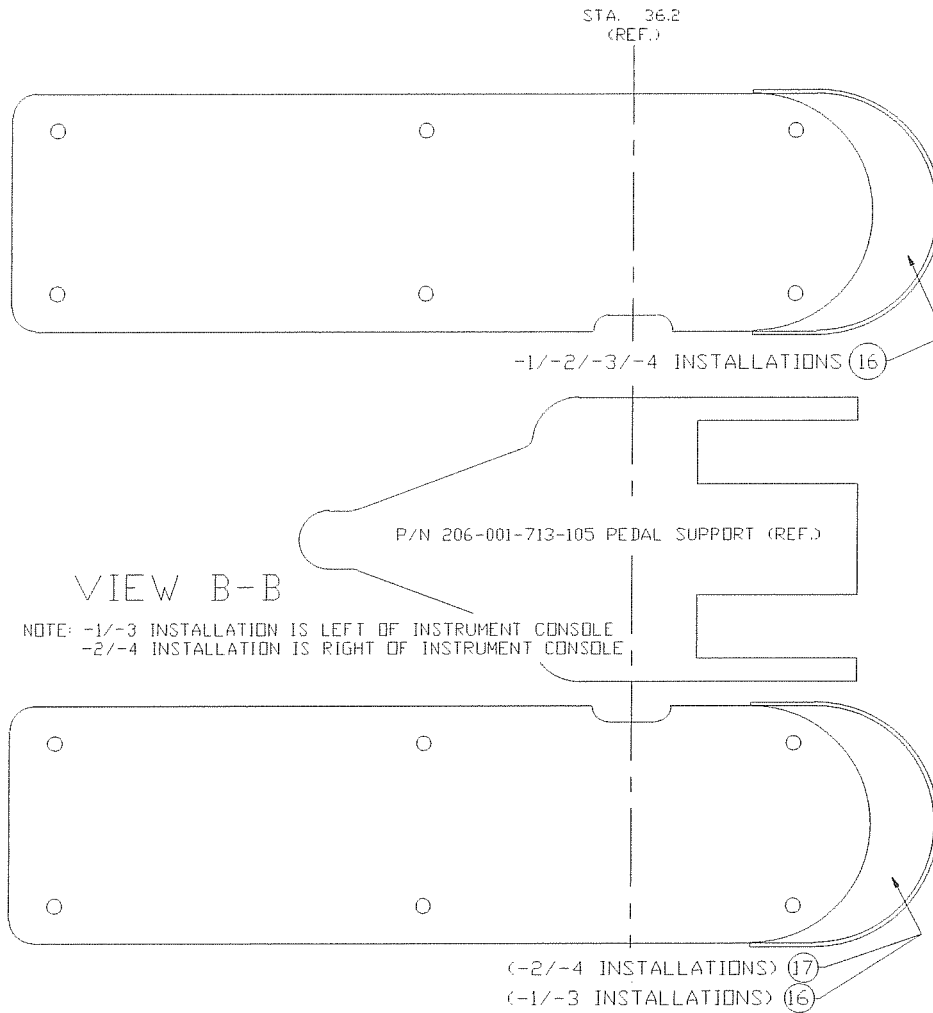


FIGURE 2: HEEL FLANGE

PARTS LIST FOR FIGURE 2

ITEM NO	PN	DESCRIPTION	QTY	TYP
16	206PX-204-1	HEEL FLANGE	1	EA.
17	206PX-204-2	HEEL FLANGE	1	EA.

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APPENDIX A

STANDARD TORQUE VALUE CHART

These charts removed

Torque all loose and/or replaced fasteners and fittings per standardized torque values as shown in AC43.13-1, as revised.

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APPENDIX B

ANNUAL/300 HOUR INSPECTION CHECKLIST

Annual/300 Hour Inspection Checklist

INSPECTION	COMMENTS	INITIALS
1. Inspect all hardware for deformation and corrosion.		
2. Check torque of all fasteners.		
3. Inspect all bearings for wear.		

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