

Internal Tailpipe Addendum to PFS-14250-00
Piper PA28 Aircraft

REPORT NAME: Piper PA28
 Kit Number PFS-14150, PFS-14151
 INSTALLATION INSTRUCTION ADDENDUM
 FOR INTERNAL TAILPIPES

REPORT NUMBER: PFS-14250-01

REVISION: A
 REPORT DATE: 02/10/06

PREPARED BY: T. Strohmayer

DISTRIBUTION:
 FAA ATL ACO, End User

APPROVAL	
PFS ENG	
DATE: <i>2/10/2006</i>	
FAA	
DATE:	

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 Date *2/5/06* Initials *RS*

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IR	01/21/05	N/A	N/A
A	02/10/06	1,4-6,8	1,4-6,8

Submitted to FAA ACO

Date: 02/14/06 By: *Tom Judd*

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Introduction

NOTE:

If your cowling has been modified at all to be different than when it was originally built, please ensure our modification will be compatible before installation or flying.

Description: This addendum is to provide instruction for internal style tailpipes. The installation of all components other than the tailpipe is detailed on report PFS-14250-00. This addendum does not contain instructions for continued airworthiness. Reference the latest approved revision of PFS-14250-00 for instructions for continued airworthiness.

Note: PFS is the abbreviation for Power Flow Systems.

Please read these directions completely before starting installation.

Please call us at 386-253-8833 during normal business hours if you have any questions regarding the installation of this kit.

Please Note: The Power Flow Systems Exhaust has been designed and FAA certified to be installed in accordance with these instructions. Any modification to the exhaust system or its components, or any deviation from these instructions without express written permission from Power Flow Systems, Inc. invalidates the design and the FAA approval. Any such modifications or deviations will also void the exhaust system warranty.

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Kit Contents

In Addition to the Standard Parts Listed in PFS-14250-00 the internal tailpipe style systems are shipped with:

<i>Quantity</i>	<i>Part Description</i>	<i>Part Number</i>
1	Exhaust Clamp (2" with pin)	7020
2	Drilled Bolt	AN4C5
2	Castle Nut	AN310C4
2	Plain Washers	AN960C416
3	Drilled Bolt	AN3C12
3	Balljoint Springs	33703
3	Castle Nut	AN310C3
5	Cotter Pin	MS24665-153
4	Flat Washer	AN960C416
1	Exhaust Extension Tube	78103
1	Male Balljoint Flange	510
1	Muffler Assembly	80060
2	Support Bracket	16201-16
1	Muffler Clamp (3 1/2" without pin)	8030
2	#12 ADEL Clamp	MS21919WH-12
A/R	Strap Material	14150-8
2	Stainless Screw	MS51958-63
1	Bolt	AN3C4A
9	Stainless Washers	AN960C10
3	Locknut	MS21045C3

*NOTE THAT EQUIVALENT HARDWARE MAY BE PROVIDED.

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INSTALLATION

A. Follow Steps A through C in the latest approved revision of PFS-14250-00 for collector and header installation.

B. Tailpipe Installation

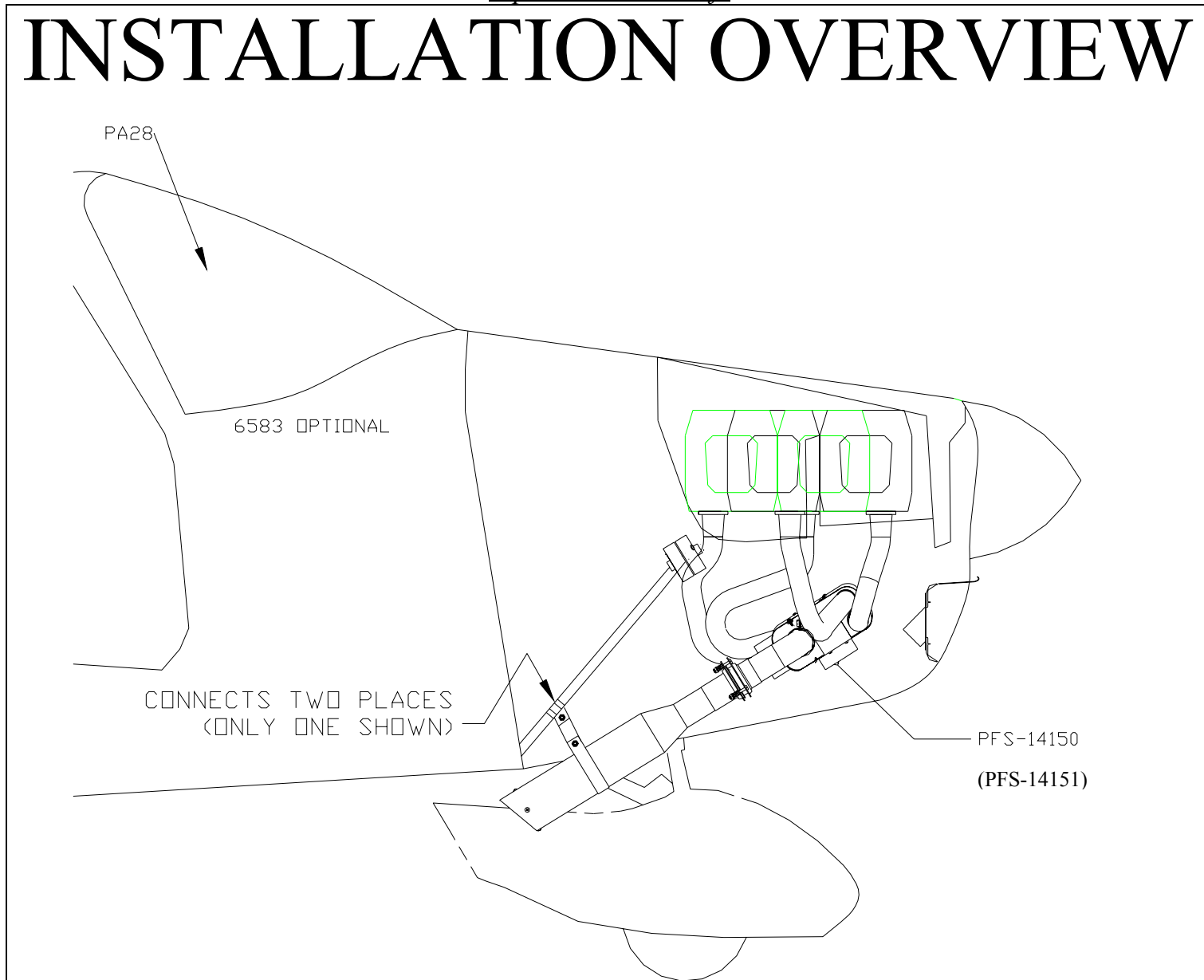
- 1) Assemble the balljoint connecting part numbers 78103 and 80060 (see Detail "A")
- 2) Slide the flared end of P/N 78103 over the 4-1 outlet on the collector assembly (P/N 41500). The tailpipe should align beneath two tubes that are part of the tubular engine mount. These tubes join at the lower passenger side firewall attach point.
- 3) Install the Adel clamps and strap bracket P/N 16201-16 (see Detail "B") on the two engine mount tubes.
- 4) Place clamp P/N 8030 over the tailpipe and trim the straps (P/N 14150-8) to length (the tailpipe will be at the proper angle when it passes about 4 inches below the firewall, pointed straight aft).
- 5) Finish assembly of the hanger (see Detail "B").
- 6) Ensure that the balljoint assembly is straight and drill a 0.25" hole through the flared end of P/N 78103 (about midway down the length of the flare) and the 4-1 outlet. This hole should be located to allow easy assembly of clamp, P/N 7020.
- 7) Install clamp P/N 7020 using AN4C5 Bolt, 1 or 2 AN960C416 Washers, AN310C4 Castle Nut, and Cotter Pin. The pin in the clamp should insert in the hole with moderate hand pressure. If the pin is difficult to insert, the hole may need further reaming.
- 8) Using two or three fixed reference points on the airframe, note the location of the tailpipe with respect to where the lower cowling would be.
- 9) Using the provided template and the reference dimension obtained in the previous step, cut an outlet hole in the lower cowling. Please note that the template is for reference only. Since all aircraft vary slightly, the installer is responsible for cutting the hole in the correct location.

MEASURE TWICE, CUT ONCE!

- 10) There should be between 0.5" and 1.0" of clearance around the tailpipe. Trim and Fit the cowling as many times as necessary to obtain this clearance.

See the latest approved revision of PFS-14250-00 for weight and balance information.

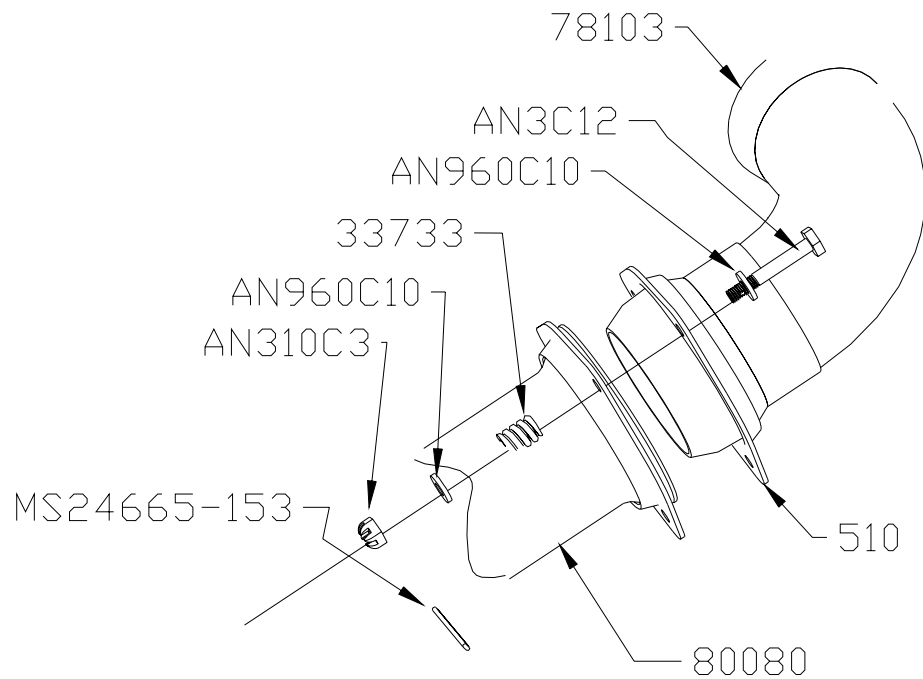
INSTALLATION OVERVIEW



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DETAIL A

BALLJOINT DETAIL

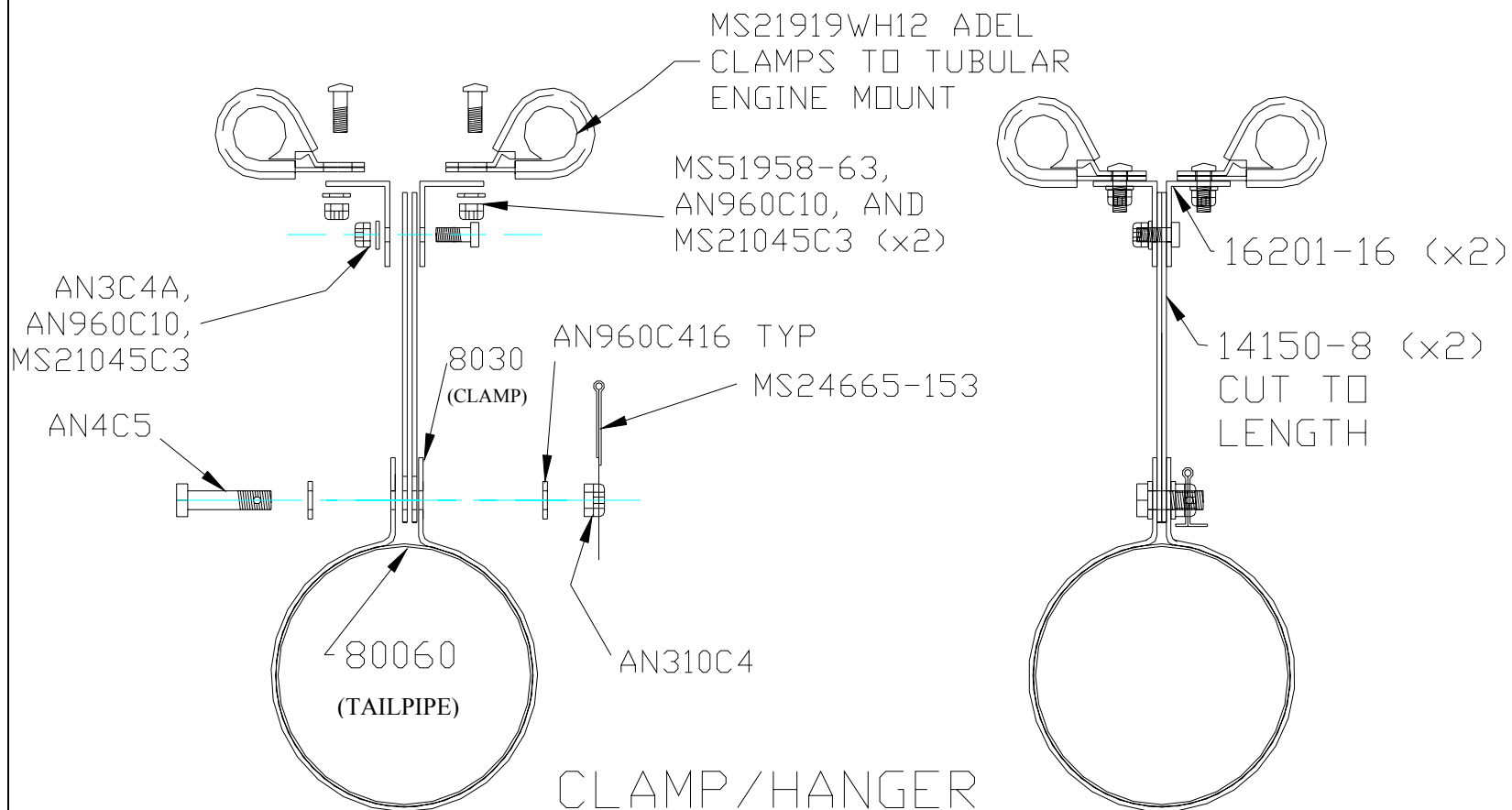


Assembled Spring Height: 0.430 to 0.475" Add or subtract washers as necessary.

HARDWARE TYP×3
(EQUIVALENT HARDWARE MAY BE USED)

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DETAIL B



CLAMP/HANGER
INSTALLATION
(EQUIVALENT HARDWARE
MAY BE USED)