

Figure 42. Engine Exhaust System Installation

CODE EXPLANATIONS FOR FIGURE 42

Reissued: June 1, 1990

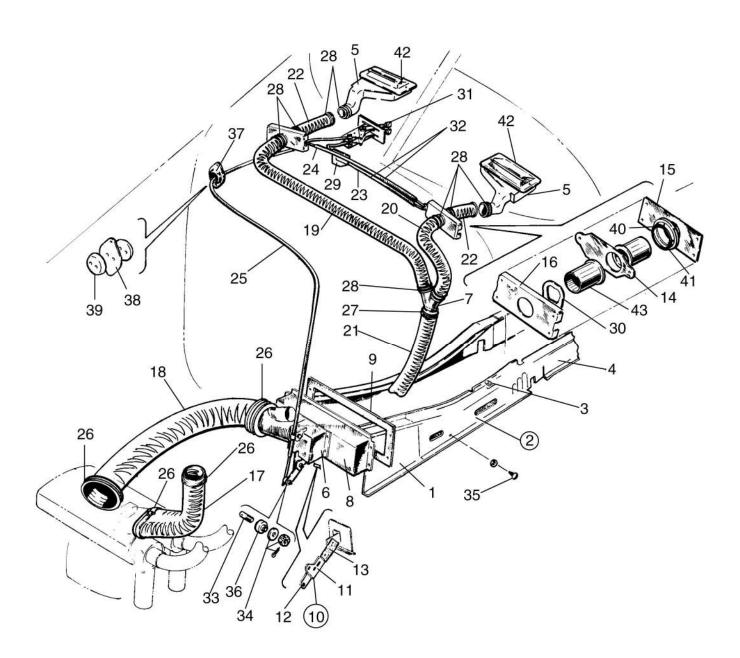


Figure 57. Cabin Heat and Defroster Installation

CODE EXPLANATIONS FOR FIGURE 57

A - When ordering, specify color ``bark II" or black.

Reissued: June 1, 1990

99024 DRAWING 76219-00 DUCT ASS 76219-01 DUCT ASS 36511-02 A DUCT ASS 36511-03 A DUCT ASS 36511-03 A DUCT ASS 36511-03 A DUCT ASS -3 66980-00 * KNOB - H -4 76129-02 DUCT - Ca 76129-01 DUCT - Ca 76129-01 DUCT - Ca 7615-02 DUCT ASS -5 79615-03 DUCT ASS -6 65545-00 BOX ASSE -7 69229-00 TAKE-OFF -8 62962-00 BOX ASSE -9 62969-00 GASKET10 36558-07 LINK ASSE -11 36558-02 LINK - Cab -12 36558-04 LINK - Cab -13 62178-00 LINK - Cab -14 67705-00 GATE - De -15 69274-00 PLATE - De -16 69273-00 HOUSING -17 63633-161 HOSE - De -18 63633-18 HOSE - Ca -19 63633-55 HOSE - De -20 63633-15 HOSE - De -21 63633-55 HOSE - De -22 63633-56 CABLE AS -24 66856-10 CABLE AS -25 66856-09 CABLE AS -24 66856-10 CABLE AS -25 66856-06 CABLE AS -26 554 772 CLAMP - H -27 554 896 CLAMP - H -28 454 985 CLAMP - H -29 69275-00 CLAMP - D -30 494 123 WASHER29 69275-00 CLAMP - D -31 66980-00 KNOB - Ca -32 63882-31 SLEEVE33 70371-03 STUD - SW -34 404 100 NUT - (AN) -35 419 681 SCREW - H	Nomenclature	No. Req.	Serial Numbers Affected
-1 76219-00 DUCT ASS 76219-01 DUCT ASS 36511-02 A DUCT ASS 36511-03 A DUCT ASS 36511-03 A DUCT ASS 36511-03 A DUCT ASS 76129-02 DUCT - Ca 76129-01 DUCT - Ca 76129-00 BOX ASSE 79615-03 DUCT ASS 79615-03 DUCT ASS 66 65545-00 BOX ASSE 9 62969-00 GASKET - LINK ASSE 11 36558-02 LINK - Cab 11 36558-02 LINK - Cab 11 36558-04 LINK - Cab 11 36558-04 LINK - Cab 11 362178-00 GATE - De 69274-00 PLATE - De 69273-00 HOUSING -17 63633-161 HOSE - Air 63633-18 HOSE - De 63633-15 HO	- Cabin Heat Installation - Defroster System Installation		
-2 36511-02 A DUCT ASS 36511-03 A DUCT ASS 36511-03 A DUCT ASS -3 66980-00 * KNOB - H 76129-02 DUCT - Ca 76129-01 DUCT - Ca 76129-01 DUCT - Ca 76129-01 DUCT - Ca 76129-01 DUCT - Ca 79615-03 DUCT ASS 79615-03 DUCT ASS 665545-00 BOX ASSE 79629-00 TAKE-OFF -8 62962-00 BOX ASSE -9 62969-00 GASKET - LINK ASSE -11 36558-02 LINK - Cab LINK - Cab -12 36558-04 LINK - Cab -13 62178-00 LINK - Cab -14 67705-00 GATE - De -15 69274-00 PLATE - De -16 69273-00 HOUSING -17 63633-161 HOSE - Air -18 63633-18 HOSE - Ca 63633-55 HOSE - De -20 63633-55 HOSE - De -21 63633-55 HOSE - De -22 63633-56 HOSE - De -23 66856-09 CABLE AS -25 66856-06 CABLE AS -25 66856-06 CABLE AS -25 66856-06 CABLE AS -25 66856-06 CABLE AS -25 63882-31 SLEEVE33 70371-03 STUD - Sw 31 66980-00 KNOB - Ca 32 63882-31 SLEEVE33 70371-03 STUD - Sw 34 404 100 NUT - (ANC 690 612 WASHER - 34 68770-14 GROMMET - 35 419 681 SCREW - H WASHER - 36 70371-02 FITTING - 37 66789-00 PLATE - Fi WASHER - 38 22105-03 GASKET - 39 68770-14 GROMMET - 40 62833-104 WASHER - 39 68770-14 GROMMET - 39 68770-14 GROMMET - 40 62833-104 WASHER - 40 62833-104 WASHER - 40 62833-104 WASHER - 50 600 M CABLE AS - 20 62833-104 WASHER - 40 62833-104 WASHER - 40 62833-104 WASHER - 50 600 M CABLE AS - 20 62833-104 WASHER - 50 600 M CABLE AS - 20 62833-104 WASHER - 50 600 M CABLE AS - 20 62833-104 WASHER - 50 600 M CABLE AS - 20 62833-104 WASHER - 50 600 M CABLE AS - 20 62833-104 WASHER - 50 600 M CABLE AS - 20 62833-104 WASHER - 50 600 M CABLE AS - 20 600 M CABLE AS	EMBLY - Cabin heat, front, left EMBLY - Cabin heat, front, right	1 1	
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-28	ose (PS10017-9-17)	2	
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-35 419 681 SCREW - H WASHER - -36 70371-02 FITTING - 37 66789-00 PLATE - Fi -38 22105-03 GASKET - -39 68770-14 GROMMET -40 62833-104 WASHER	N - (MS24665-132)	i	
WASHER36 70371-02 FITTING37 66789-00 PLATE - Fi -38 22105-03 GASKET39 68770-14 GROMMET -40 62833-104 WASHER	Heat duct (PS10012-4)	38	
-36 70371-02 FITTING -3 -37 66789-00 PLATE - Fi -38 22105-03 GASKET -39 68770-14 GROMMET -40 62833-104 WASHER	Heat duct (MS27129-1)	38	
-37 66789-00 PLATE - Fi -38 22105-03 GASKET - -39 68770-14 GROMMET -40 62833-104 WASHER	,	1	
-38 22105-03 GASKET - -39 68770-14 GROMMET -40 62833-104 WASHER		2	
-39 68770-14 GROMMET -40 62833-104 WASHER		1	
-40 62833-104 WASHER		2	
	i nowali soai	2	
+0+ 0+ i U-NING - (NA\$1503_213\	2	
	Defroster air	2	
	roster valve		
	roster valve SSEMBLY - Defroster, forward and aft	4 2	28-7911001 and up

When ordering, always specify Part Number, Description, and Serial Number of Aircraft

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CHAPTER 78- EXHAUST

TABLE OF CONTENTS/EFFECTIVITY

CHAPTER SECTION SUBJECT		SUBJECT	GRID NO.	EFFECTIVITY	
78-00-00 78-01-00	GENERAL Inspection of Exhaust System	n	2K12 2K12		

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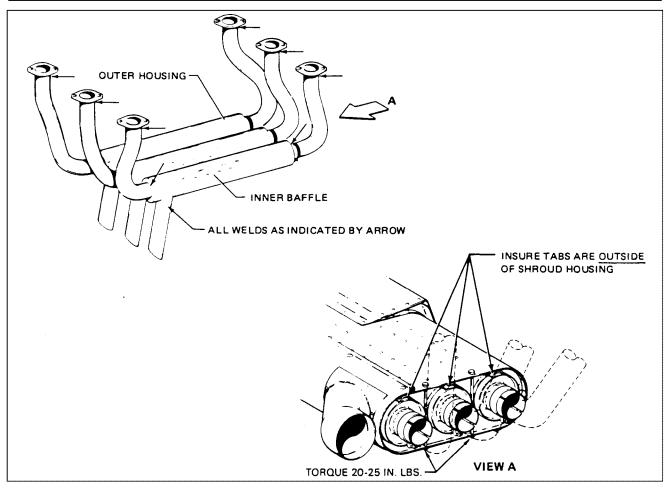


Figure 78-1. Exhaust System Inspection Points

GENERAL

INSPECTION OF EXHAUST SYSTEM (figure 78-1)

—CAUTION—

All airplanes should be fitted with a new muffler at or near 1000 hours of muffler use.

The entire exhaust system, including heat exchange shroud, muffler, muffler baffles, stacks, and all exhaust connections must be rigidly inspected at each annual or 100 hour inspection. The possibility of exhaust system failure increases with use. The system must be checked more carefully as the number of hours increases. The system must also be checked carefully before winter operation when the cabin heat will be in use.

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Removal of tail pipe and stacks is required for inspection of the muffler baffle. Remove or loosen all exhaust shields, carburetor, and cabin heat muffs, shrouds, heat blankets, etc., as required to permit inspection of the system. Clean and inspect all external surfaces for dents, cracks, and missing parts.

—CAUTION—

Apply Fel-Pro Type C5-A anti-seize lubricant to entire slip joint surface on both sides of muffler to prevent slip joint binding.

Pay particular attention to welds, clamps, supports, and support attachment lugs, slip joints, stack flanges, and gaskets. Inspect internal baffle or diffusers. Any cracks, warpage, or severe oxidation are cause for replacement.

If any component is inaccessible for a visual inspection, conduct one of the following:

- 1. Conduct a submerged pressure check of muffler and exhaust stack at 2 psi air pressure.
- 2. Conduct a ground test using a carbon monoxide indicator. Head airplane into the wind. Warm engine on the ground. Advance throttle to full static RPM with cabin heat valves open, and take readings of heated airstream inside cabin at each outlet (including rear seat heat outlet, if installed). Appropriate sampling procedures applicable to the particular indicator must be followed. If carbon monoxide concentration exceeds 0.005 percent or if a dangerous reading is obtained on an indicator not calibrated in percentages, the muffler must be replaced.

—END—

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Figure and Index Number	Part Number	Code	Nomenclature	No. Req.	Serial Numbers Affected
42-	35904		DRAWING - Exhaust System Installation		
-1	35904-03		STACK ASSEMBLY - Left front	1	
-2	35904-04		STACK ASSEMBLY - Left center	1	
-3	35904-05		STACK ASSEMBLY - Left rear	1	
-4	35904-06		STACK ASSEMBLY - Right front	1	
-5	35904-07		STACK ASSEMBLY - Right center	1	
- 6	35904-08		STACK ASSEMBLY - Right rear	1	
-7	38146-03		MUFFLER ASSEMBLY - Complete	1	
-8	67517-00		* MUFFLER ASSEMBLY	3	
-9	38159-03		* SHROUD ASSEMBLY - Muffler , top	1	
-10	38162-07		* SHROUD ASSEMBLY - Muffler, bottom	1	
-11	67652-00		* TAB - Muffler	4	
-12	35934-02		* SHROUD ASSEMBLY - Heat	1	
-13	35939-02		* BAFFLE ASSEMBLY - Heat shroud	1	
-14	415 517		* SCREW - (MS35206-227)	8	2811001 and up
14a	406 562		* NUT - (NAS696A06)	8	2811001 and up
-15	415 493		* SCREW - (MS35206-228)	7	
-16	400 466		* BOLT - (AN3-43A)	2	
	690 609		* WASHER - (NAS1149F0332P)	4	
47	404 156		* NUT - (MS21083N3)	2	
-17	400 468		* BOLT - (AN3-45A)	2 4	
	690 609		* WASHER - (NAS1149F0332P)		
-18	404 156		* NUT - (MS21083N3)	2 4	
	415 554		* SCREW - (MS35206-244) Baffle		
-19 -20	63243-02 400 103		CLAMP - Exhaust stack	3	
-20	690 611		BOLT - (AN4-6) WASHER - (NAS1149F0463P)	3 6	
	404 101		,		
	424 051		NUT - (AN310-4) COTTERPIN - (MS24665-132)	3 3	