

GULFSTREAM AMERICAN LIGHT SINGLE ENGINE AIRCRAFT SERVICE KIT NO. 145

SUBJECT: Fuel System (ATA No. 28) Mechanical Fuel Pump, Replacement of.

PURPOSE/DISCUSSION: The purpose of this service kit is to replace the 75246 mechanical fuel pump with a new fuel pump. The LW-15472 fuel pump is the replacement pump on the AA1 series, AA5 and the AA5A aircraft. LW-16335 fuel pump is the replacement pump on the AA5B aircraft. The 75246 fuel pump is no longer available. This kit is made up of three kits: AA5 and AA5A use SK145-1, AA5B use SK145-2 and AA1 use SK145-3

DESCRIPTION: This service kit consists of removing the old fuel pump and replacing with a new fuel pump, new fuel lines and complying with Lycoming Service Instruction 1110B.

SPECIAL TOOLS/
EQUIPMENT REQUIRED: None.

EFFECTIVITY: This change is effective for the following aircraft.

MODEL	SERIAL NUMBER
AA1	All AA1 series aircraft
AA5	All AA5 aircraft
AA5A	0001 through 0778
AA5B	0001 through 1184

WEIGHT AND BALANCE: Negligible

PRICE: Prices are subject to change without notice.

Price SK145-1
SK145-2
SK145-3

MODIFICATION INSTRUCTIONS:

A. Prepare the aircraft for safe ground maintenance as follows:

- A-1 Insure that the Master Switch is OFF and all aircraft system switches are OFF.
- A-2 Insure aircraft is grounded.
- A-3 Comply with all safe maintenance practices as recommended in the Maintenance Manual and FAA Regulations.

B. Rework Instruction for AA5 and AA5A-0001 through 0778.

- B-1 Remove the mechanical fuel pump.
- B-2 Remove the fittings from the old pump.
- B-3 Install the fittings with new 'O' rings to the new pump.
- B-4 Remove the 401125-502 fuel line from the carburetor. Discard the line.
- B-5 Install the new fuel pump.

CAUTION

Insure proper alignment of engine push rod and fuel actuating arm.

- B-6 Reconnect the fuel lines and install the new 401125-503 fuel line from the fuel pump to the carburetor.
- B-7 Proceed to Section E.

C. Rework Instructions for AA1 Series Aircraft

C-1 Do steps B-1 through B-3

C-2 Remove the 401125-501 fuel line from the carburetor. Discard line.

C-3 Install the new fuel pump.

CAUTION

Insure proper alignment of engine push rod and fuel pump actuating arm.

C-4 Reconnect the fuel lines and install the new SK145-501 fuel line from the fuel pump to the carburetor.

C-5 Proceed to Section E.

D. Rework Instructions for AA5B-0001 through 1184

D-1 Remove the mechanical fuel pump.

D-2 Remove the C5515X6 elbow and the AN842-4D elbow from the old pump. Discard pump and "T" fitting at pump outlet.

D-3 Remove the carburetor from the aircraft and discard the 5401116-501 line that runs from the fuel pump to the carburetor.

D-4 Comply with Lycoming Service Instruction 1110B.

D-5 Remove the plug from the right hand fuel inlet of the carburetor. Retain screen and gasket.

D-6 Install the 5901019-3 fitting into the right hand fuel inlet of the carburetor. Insure screen and gasket is in place.

D-7 Install the 5901036-501 restrictor into the 5901019-3 fitting.

D-8 Install the carburetor.

D-9 Install the C5515X6 elbow with a new 'O' ring and the AN842-40 elbow into the new pump.

D-10 Install the 2062-1-6-6S fitting into the new fuel pump with a MS29512-06 'O' ring.

D-11 Install the new pump.

CAUTION

Insure proper alignment of engine pushrod and fuel pump actuating arm.

D-12 Install the new 5401116-502 fuel line from the fuel pump to the carburetor.

D-13 Remove the GAES1325-2-0190F flex fuel line from the firewall. Discard line.

D-14 Install the new 111F417-4S-0350 flex line from the firewall to the carburetor. See Figure 1 for line routing.

D-15 Install clamps to 111F417-4S-0350 flex fuel line as shown in Figure 1 and 2.

D-16 Ty Rap the overboard drain line to the engine mount.

D-17 Apply Spirap to the carb heat cable and the mixture cable. Apply chafe tape to the top of the air box.

D-18 Reposition the clamp on the crank case breather and lace the 111F417-4S-0350 flex line to the breather line.

E. Leak Check

E-1 Check all lines and fittings for security.

E-2 Turn on the electric boost pump and check for leaks.

E-3 Correct leaks as necessary.

F. Return aircraft to flight status.

G. Record compliance in aircraft log book.

Parts Required Per Aircraft

PART NUMBER	NOMENCLATURE	QUANTITY
SK145-1		
401125-503	Line Assy	1

PART NUMBER	NOMENCLATURE	QUANTITY
SK145-2		
5401116-502	Line Assy	1
2062-1-6-6S	Fitting	1
111F417-4S-0350	Flex Line Assy	1
5901019-3	Fitting	1
5901036-501	Restrictor	1
SI 1110B	Service Instructions (Lycoming)	1
MS21919-DG10	Adel Clamps	2
-500024-1	Spirap	12 In.

SK145-3		
SK145-501	Line Assy	1

FAA (DER) Approval of this Service Kit has been granted.

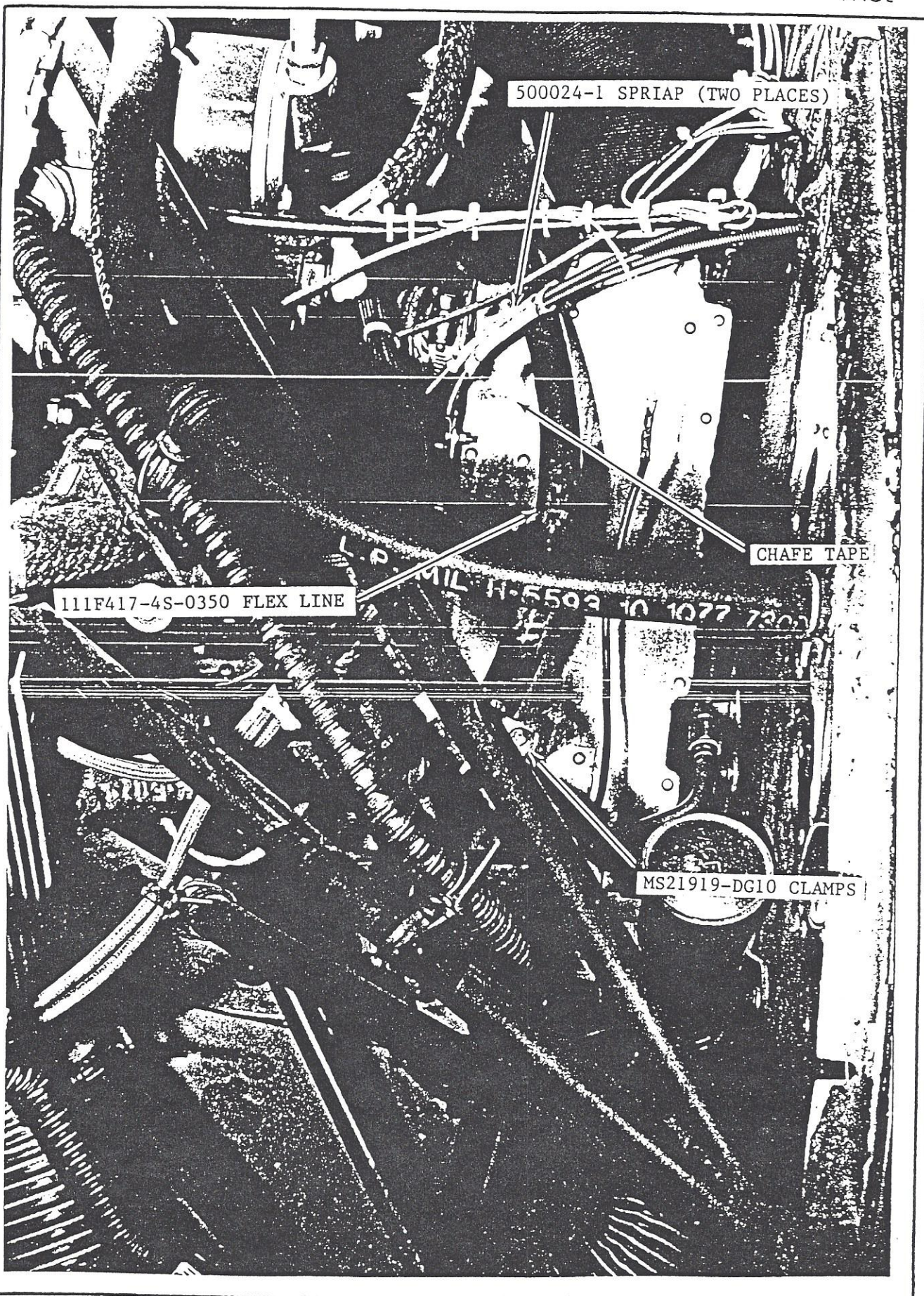


FIGURE 1

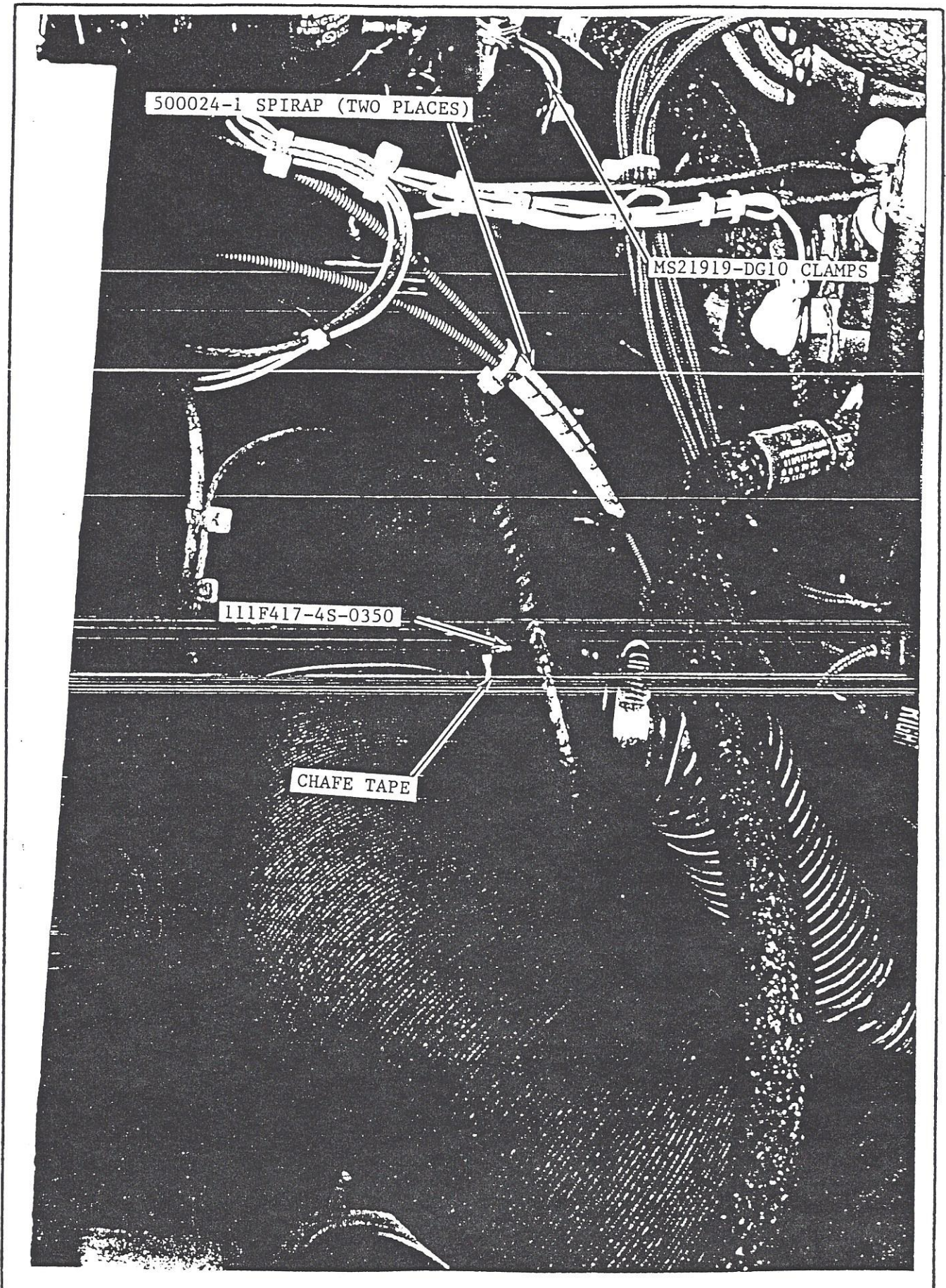


FIGURE 2

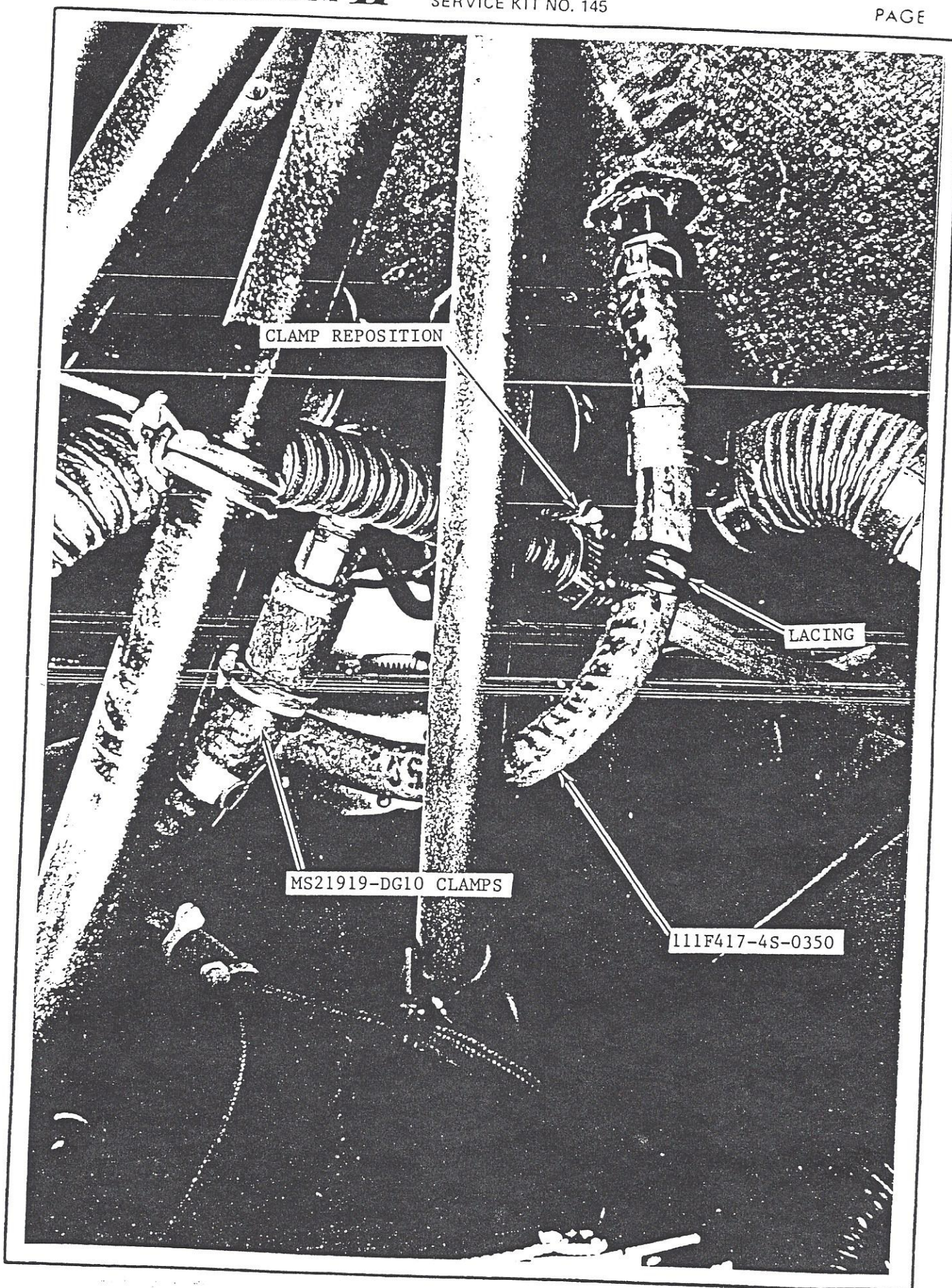


FIGURE 3

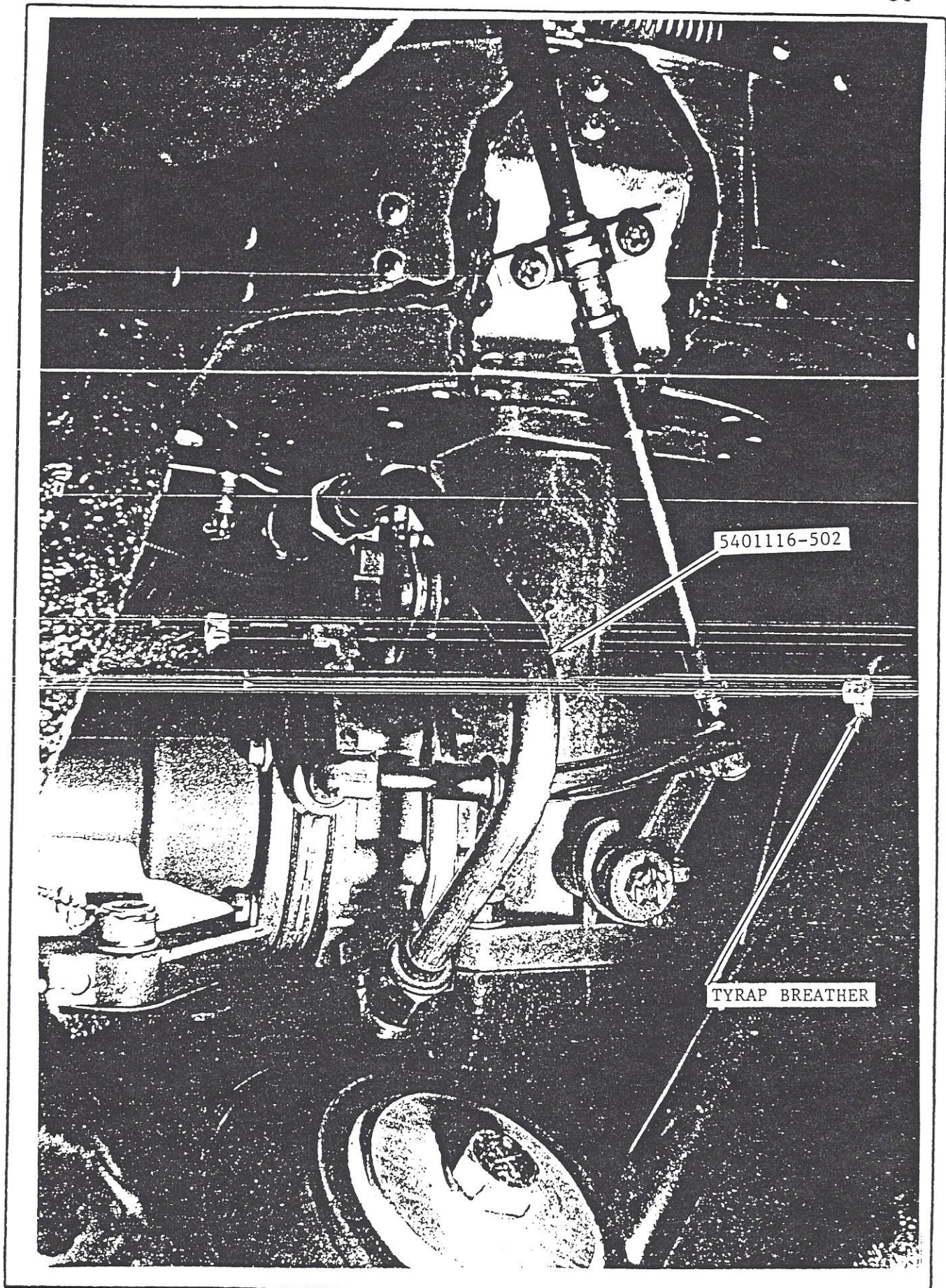


FIGURE 4