
Service Bulletin

April 17, 1992

SEB92-8

TITLE

HYDRAULIC LANDING GEAR HOSE REPLACEMENT

EFFECTIVITY

<u>Model Series</u>	<u>Year</u>	<u>Serial Numbers</u>
177RG	1973 thru 1978	177RG0283 thru 177RG1366
F177RG	1973 thru 1977	F177RG0063 thru F177RG0177
210	1970 thru 1986	21059200 thru 21065009
P210	1978 thru 1986	P21000001 thru P21000874

PURPOSE

It has been determined that certain part number S2178-4 series hydraulic hoses should be replaced. The hoses affected are those which may be installed in a location creating less than a two inch bend radius or in a position that places the hose in compression during retraction or extension of the landing gear. A kinked or damaged hose could prevent landing gear extension or retraction.

COMPLIANCE

Mandatory; shall be accomplished within the next 100 hours of operation or at the next annual inspection, whichever occurs first unless the following conditions apply:

- A. If airplane landing gear cycle times are becoming progressively longer or if the landing gear has had to be recycled to lock the gear in place, accomplish prior to next flight.
- B. For 210 and P210 model airplanes that have part number S2178-4-0067A and/or S2178C4-0150A hoses installed:

Accomplish within the next 50 hours of operation or at the next annual inspection, whichever occurs first.

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Mandatory; shall be accomplished within the next 100 hours of operation or at the next annual inspection, whichever occurs first unless the following conditions apply:

- A. If airplane landing gear cycle times are becoming progressively longer or if the landing gear has had to be recycled to lock the gear in place, accomplish prior to next flight.
- B. For 210 and P210 model airplanes that have part number S2178-4-0067A and/or S2178C4-0150A hoses installed:

Accomplish within the next 50 hours of operation or at the next annual inspection, whichever occurs first.

APPROVAL

FAA approval has been obtained on technical data in this publication that affects airplane type design.

For Reims Aviation Airplanes: DGAC approval has been obtained on technical data in this publication that affects airplane type design.

MAN-HOURS

Not Determined

MATERIAL

The following parts are available from the Cessna Supply Division thru an appropriate Cessna Service Station for the suggested list prices shown.

<u>Part Number</u>	<u>Description</u>	<u>Qty./ Installation</u>	<u>Price</u>
S2888-4-0067	Hose	* 1	\$ 92.30 (S) ea.
S2888-4-0082	Hose	* 1	\$ 98.60 (S) ea.
S2888-4-0086	Hose	* 1	\$ 98.70 (S) ea.
S2888-4-0095	Hose	* 1	\$ 93.70 (S) ea.
S2888-4-0100	Hose	* 1	\$ 83.90 (S) ea.
S2888-4-0104	Hose	* 1	\$ 82.60 (S) ea.
S2888-4-0114	Hose	* 1	\$ 84.30 (S) ea.
S2888-4-0120	Hose	* 1	\$ 99.60 (S) ea.
S2888-4-0130	Hose	* 1	\$ 93.90 (S) ea.
S2888-4-0134	Hose	* 1	\$ 88.40 (S) ea.
S2888-4-0140	Hose	* 1	\$ 81.80 (S) ea.
S2888-4-0144	Hose	* 1	\$ 90.00 (S) ea.
S2888C4-0150	Hose	* 1	\$ 94.00 (S) ea.

* Refer to the attached Accomplishment Instructions for specific quantities required per airplane.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

ACCOMPLISHMENT INSTRUCTIONS

Refer to the attached Hydraulic Landing Gear Hose Replacement Accomplishment Instructions for inspection and replacement procedures.

CREDIT

For airplanes with S2178-4-0067A, S2178-4-0082A, S2178-4-0086A, S2178-4-0095A, S2178-4-0100A, S2178-4-0104A, S2178-4-0114A, S2178-4-0120A, S2178-4-0130A, S2178-4-0134A, S2178-4-0140A, S2178-4-0144A, S2178-4-0150A, or S2178C4-0150A hydraulic hoses installed that were purchased from Cessna on or after April 17, 1987.

A prorated parts credit will be provided for replacement hoses based on the following formula:

$$\frac{\text{Months Since Hose Was Purchased From Cessna}}{60} \times \text{List Price of Replacement Hose} = \text{Credit}$$

EXAMPLE: For a S2178-4-0140A hose purchased from Cessna on October 17, 1989.

$$\frac{60 - 30}{60} \times \$81.80 = \$40.90 \text{ Credit}$$

To receive credit, the work must be completed and a Quick Claim submitted by an appropriate Cessna Service Station before the following dates.

Domestic October 19, 1992
International December 17, 1992

NOTE

The following must be included with the claim:

1. The Sales Order number for the S2178-4 series hose being replaced.
2. A copy of the logbook entry which shows when the S2178-4 series hose was installed.

OWNER NOTIFICATION

- A. On April 17, 1992, the following Owner Advisory message will be sent to applicable 177RG and F177RG owners of record in SEB92-8A1.

Dear Cessna Cardinal Owner:

It has been determined that certain part number S2178-4 series hydraulic hoses should be replaced. Hoses affected are those with less than a two inch bend radius or those placed in compression during landing gear operation. A kinked or damaged hose could prevent landing gear extension or retraction.

Compliance is mandatory; if airplane landing gear cycle times are becoming progressively longer or if the landing gear has had to be recycled to lock the gear in place, accomplish prior to next flight. Otherwise, hose replacement shall be accomplished within the next 100 hours of operation or at the next annual inspection, whichever occurs first.

A prorated hose replacement credit program is available. Please contact a Cessna Single Engine Service Station for detailed information and arrange to have this Service Bulletin accomplished on your airplane.

- B. On April 17, 1992, the following Owner Advisory message will be sent to applicable 210 and P210 owners of record in SEB92-8A2.

Dear Cessna Centurion Owner:

It has been determined that certain part number S2178-4 series hydraulic hoses should be replaced. Hoses affected are those with less than a two inch bend radius or those in compression during landing gear operation. A kinked or damaged hose could prevent landing gear extension or retraction.

Compliance is mandatory; if airplane landing gear cycle times are becoming progressively longer or if the landing gear has had to be recycled to lock the gear in place, accomplish prior to next flight. Otherwise, hose replacement shall be accomplished within the next 50 hours of operation or at the next annual inspection, whichever occurs first.

A prorated hose replacement credit program is available. Please contact a Cessna Single Engine Service Station for detailed information and arrange to have this Service Bulletin accomplished on your airplane.

.

ACCOMPLISHMENT INSTRUCTIONS



Single-Engine

SEB92-8

TITLE HYDRAULIC LANDING GEAR HOSE REPLACEMENT

EFFECTIVITY

MODEL(S)

177RG
F177RG
210
P210

SERIAL NUMBERS

177RG0283 thru 177RG1366
F177RG0063 thru F177RG0177
21059200 thru 21065009
P21000001 thru P21000874

DESCRIPTION

These instructions will designate hydraulic landing gear hose assemblies which may be installed in locations that create less than a 2 inch bend radius or are in a position that places the hose in compression during retraction or extension of the landing gear.

APPROVAL

FAA approval has been obtained on technical data in this publication that affects airplane type design.

For Reims Aviation Airplanes: DGAC approval has been obtained on technical data in this publication that affects airplane type design.

REFERENCE

SEB92-8

CHANGE IN WEIGHT AND BALANCE

MODEL 177RG, F177RG, 210, T210, P210
WEIGHT INCREASE None

April 17, 1992

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To obtain satisfactory results, procedures specified in this publication must be accomplished in accordance with accepted methods and prevailing government regulations. The Cessna Aircraft Company cannot be responsible for the quality of work performed in accomplishing the requirements of this publication.

The Cessna Aircraft Company, Product Support, P.O. Box 7706, Wichita, Kansas 67277, U.S.A. (316) 941-7550, Telex 4319022, Facsimile (316) 942-8006

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ACCOMPLISHMENT INSTRUCTIONS

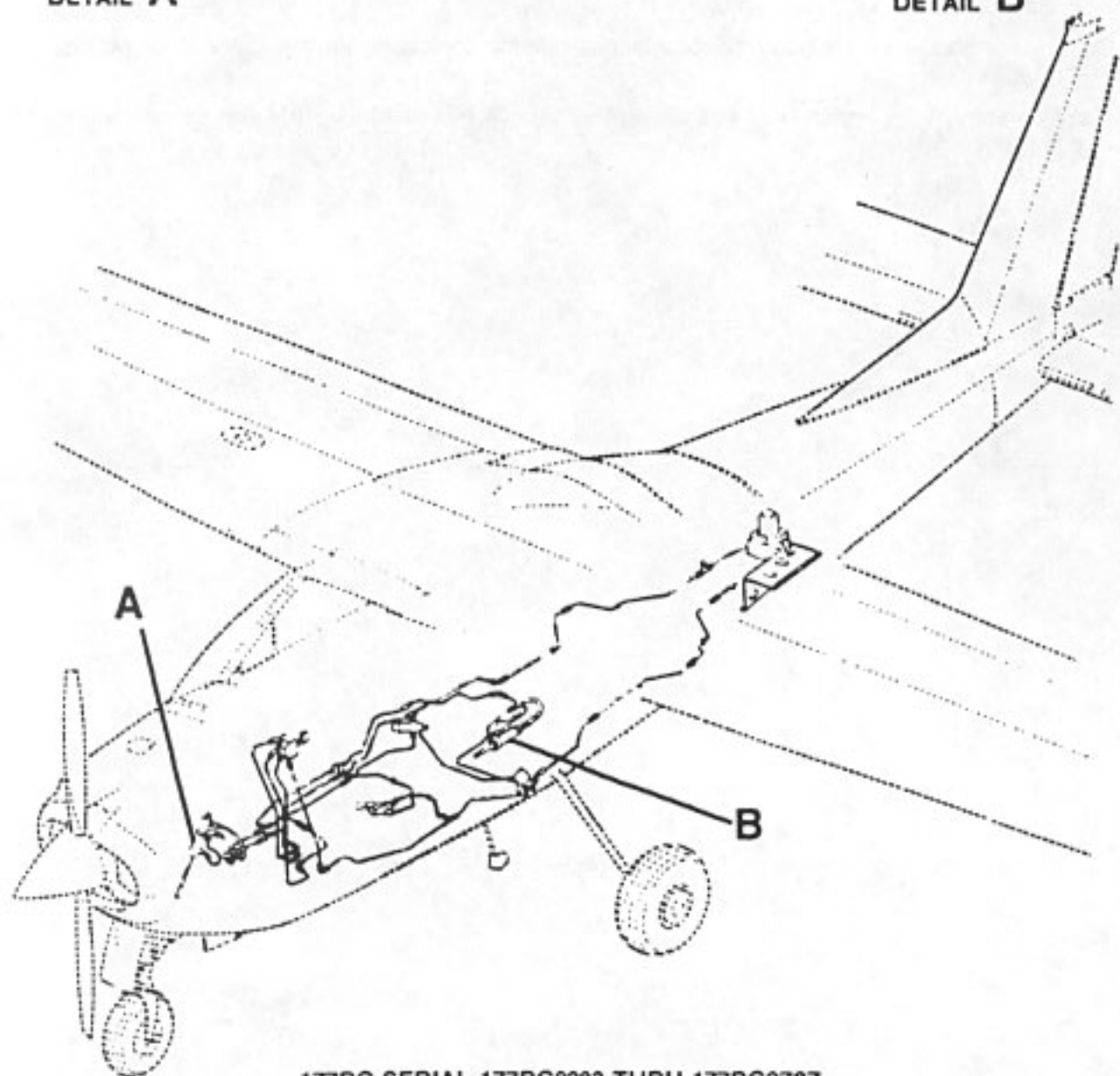
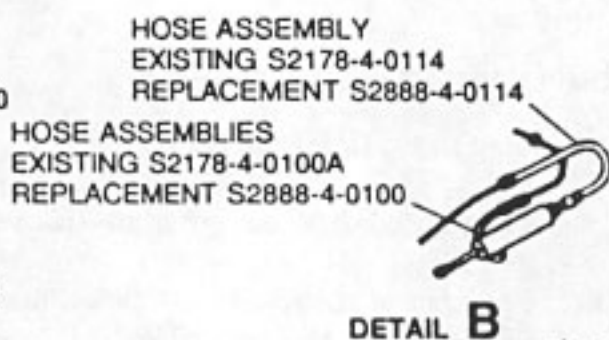
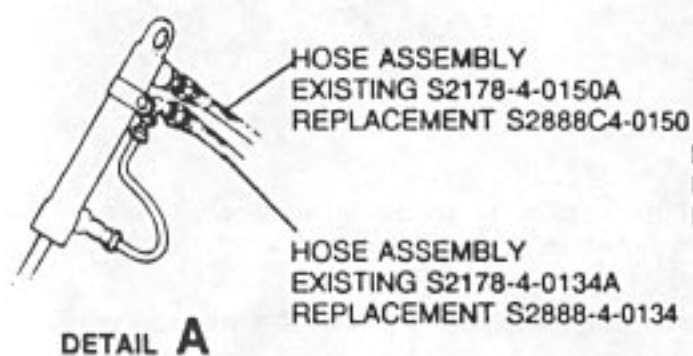
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ACCOMPLISHMENT INSTRUCTIONS

1. Hydraulic Landing Gear Hose Replacement.
 - A. Certain S2178-4 series (blue) hydraulic hose assemblies should be replaced. Refer to the following figures to determine the specific hoses requiring replacement for the affected serial number.
 - B. Replacement hoses, S2888-4 series, (black) are also shown and available as provided in the Service Bulletin Material Section.
 - C. Hoses should be replaced in accordance with the applicable airplane Service or Maintenance Manual.
2. Make an entry in the airplane logbook stating this service bulletin has been complied with and method of compliance.

ACCOMPLISHMENT INSTRUCTIONS

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177RG SERIAL 177RG0283 THRU 177RG0787
F177RG SERIAL F177RG0063 THRU 177RG0138

Figure 1. 177RG Hydraulic Landing Gear Hose Replacement (Sheet 1 of 2)

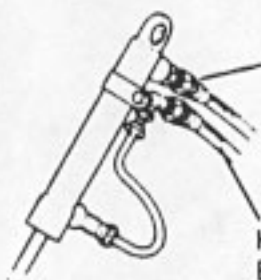
ACCOMPLISHMENT INSTRUCTIONS

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HOSE ASSEMBLY
EXISTING S2178-4-0150A
REPLACEMENT S2888C4-0150

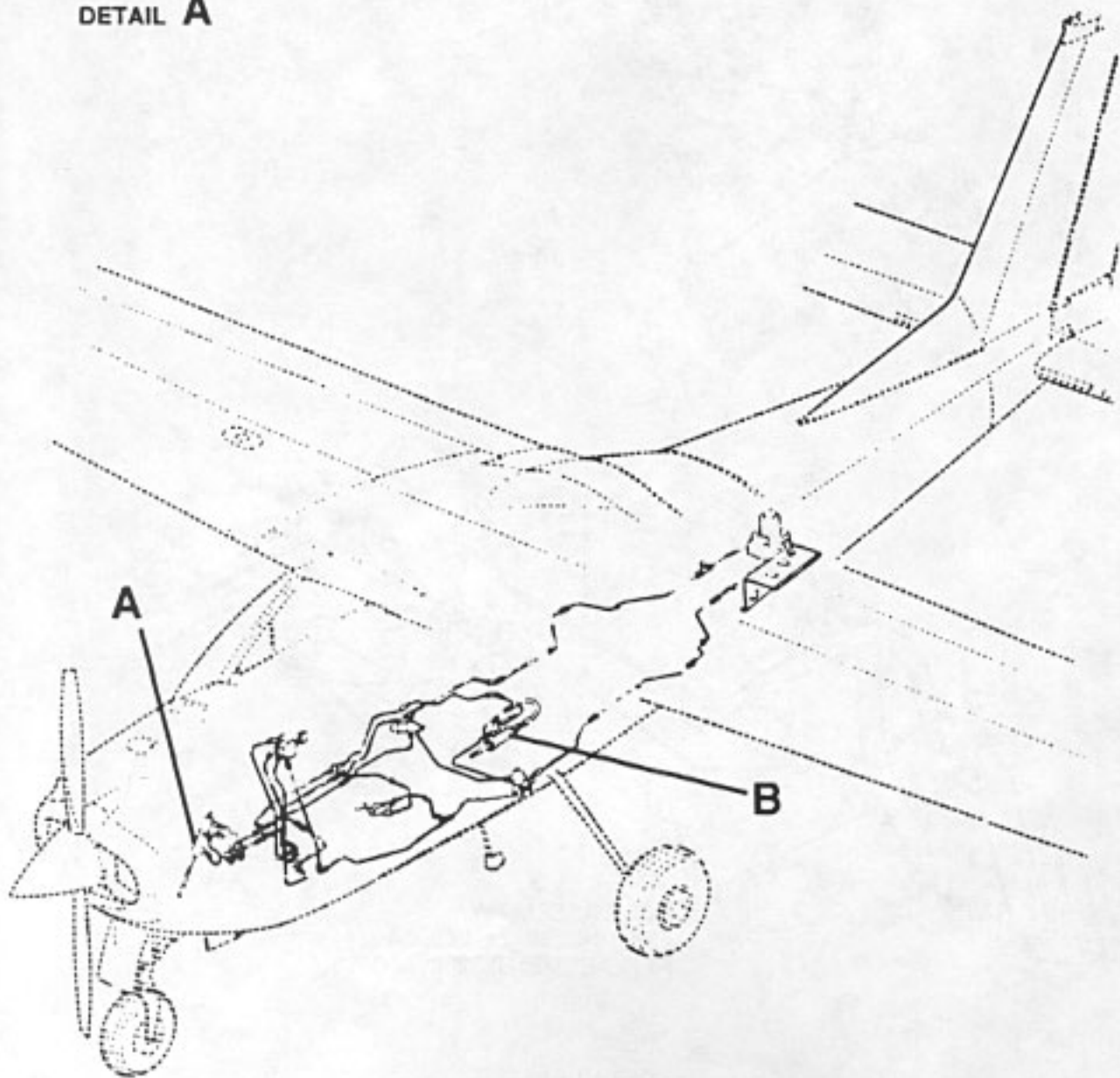
HOSE ASSEMBLIES
EXISTING S2178-4-0104A
REPLACEMENT S2888-4-0104

HOSE ASSEMBLY
EXISTING S2178-4-0134A
REPLACEMENT S2888-4-0134



DETAIL B

DETAIL A

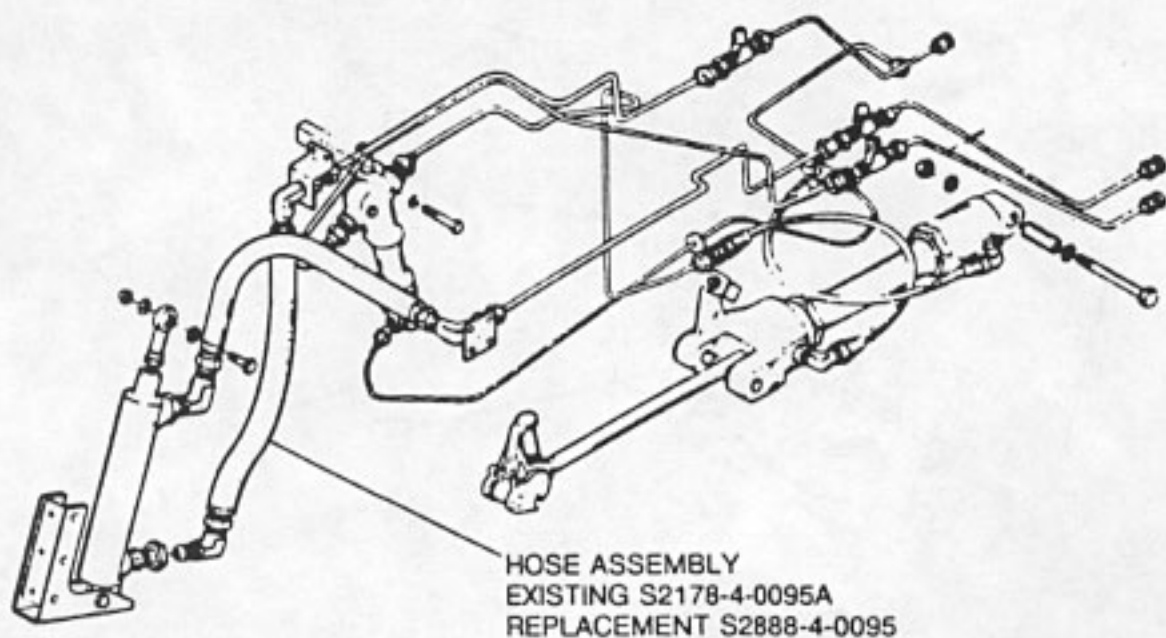
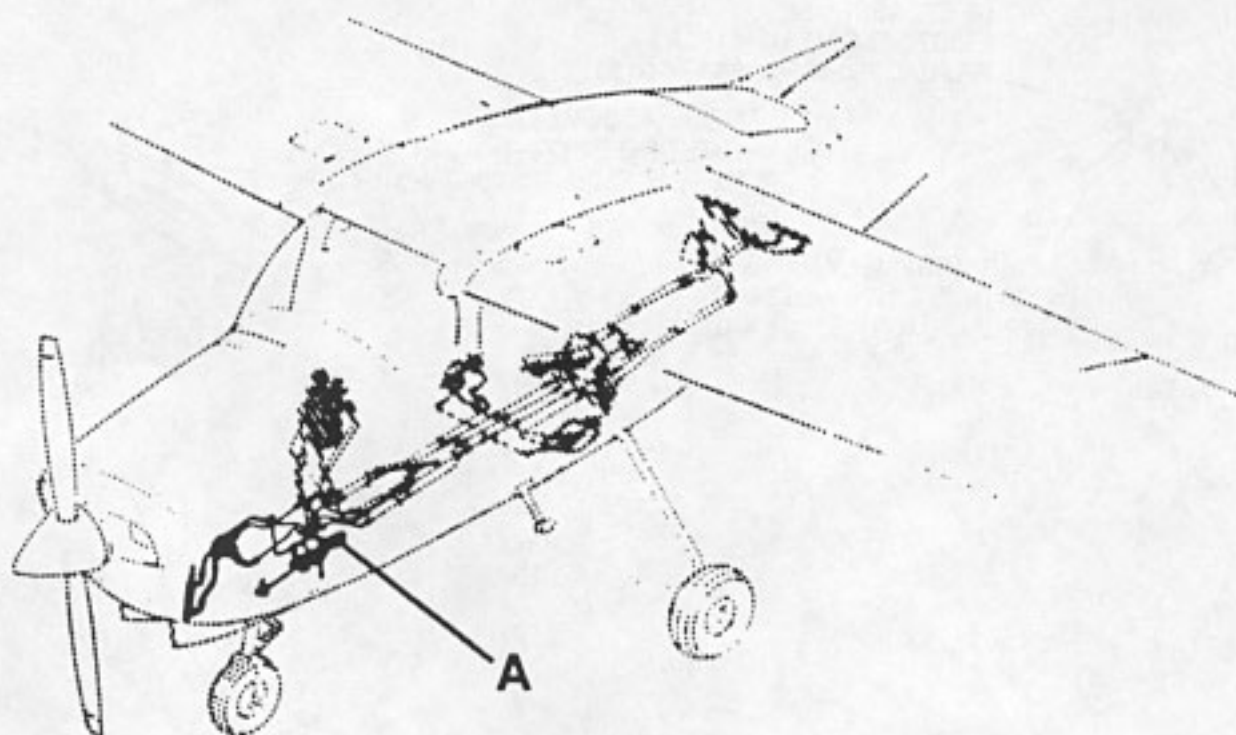


177RG SERIAL 177RG0788 THRU 177RG1366
F177RG SERIAL F177RG0139 THRU 177RG0177

Figure 1. 177RG Hydraulic Landing Gear Hose Replacement (Sheet 2)

ACCOMPLISHMENT INSTRUCTIONS

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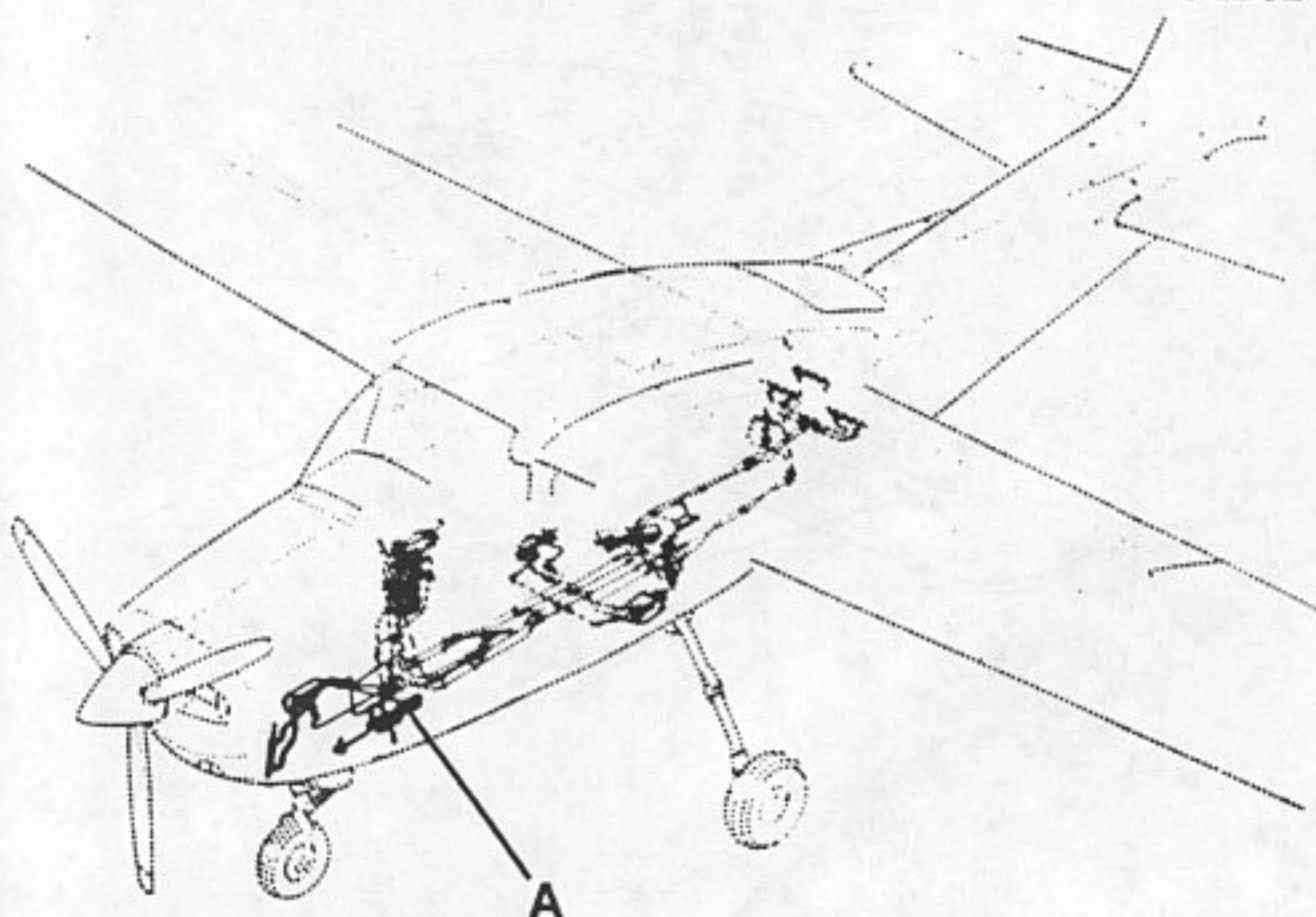
DETAIL A

210 & T210 SERIAL 21059503 THRU 21061694

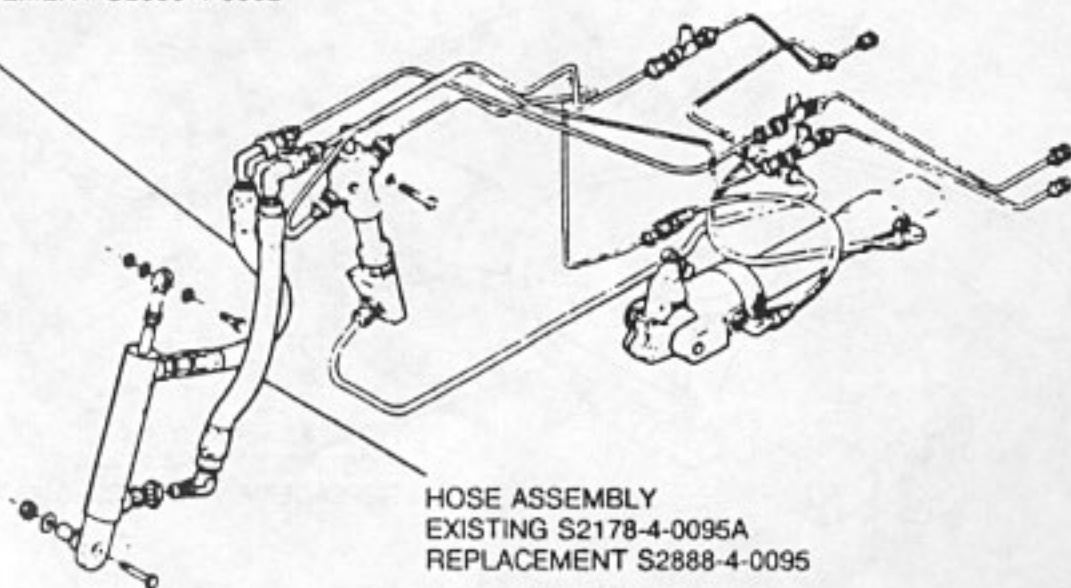
Figure 2. 210, T210 Hydraulic Landing Gear Hose Replacement (Sheet 1 of 8)

ACCOMPLISHMENT INSTRUCTIONS

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HOSE ASSEMBLY
EXISTING S2178-4-0082A
REPLACEMENT S2888-4-0082



HOSE ASSEMBLY
EXISTING S2178-4-0095A
REPLACEMENT S2888-4-0095

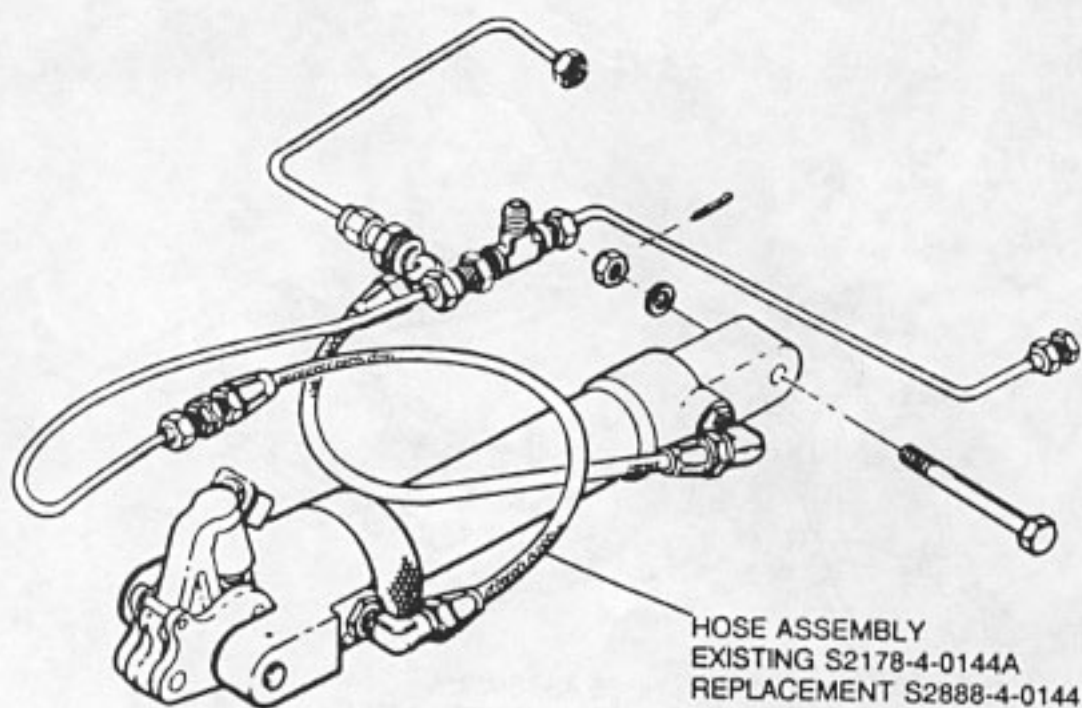
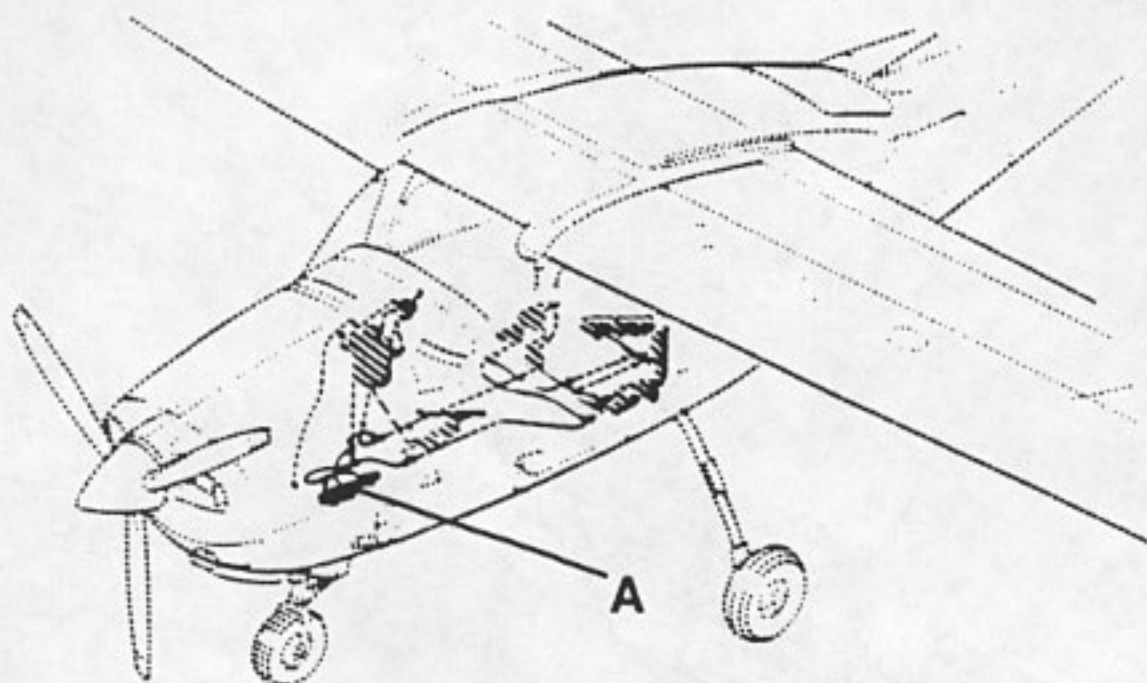
DETAIL **A**

210 & T210 SERIAL 21061695 THRU 21062954

Figure 2. 210, T210 Hydraulic Landing Gear Hose Replacement (Sheet 2)

ACCOMPLISHMENT INSTRUCTIONS

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DETAIL A

210 & T210 SERIAL 21062955 THRU 21065009

Figure 2. 210, T210 Hydraulic Landing Gear Hose Replacement (Sheet 3)

ACCOMPLISHMENT INSTRUCTIONS

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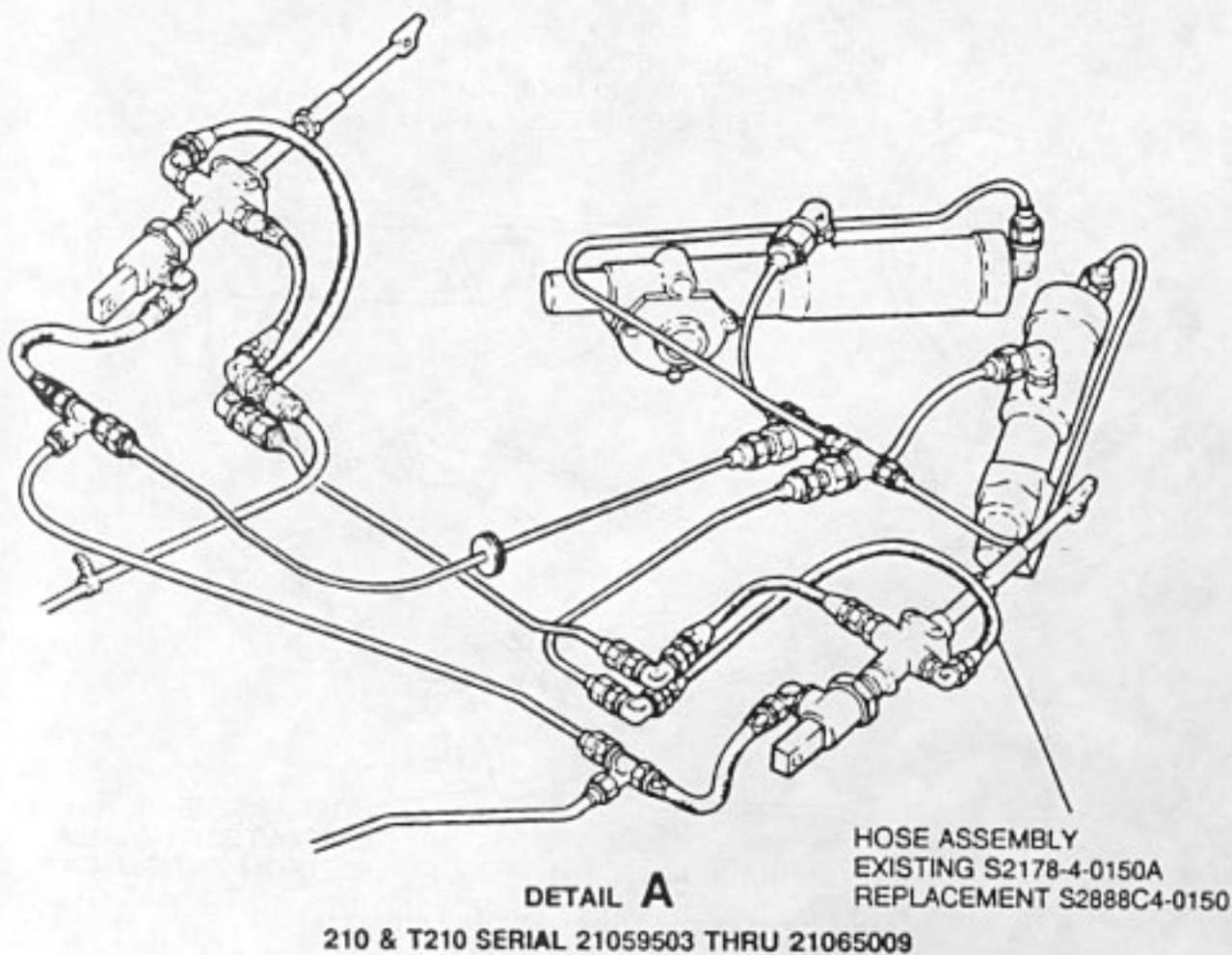
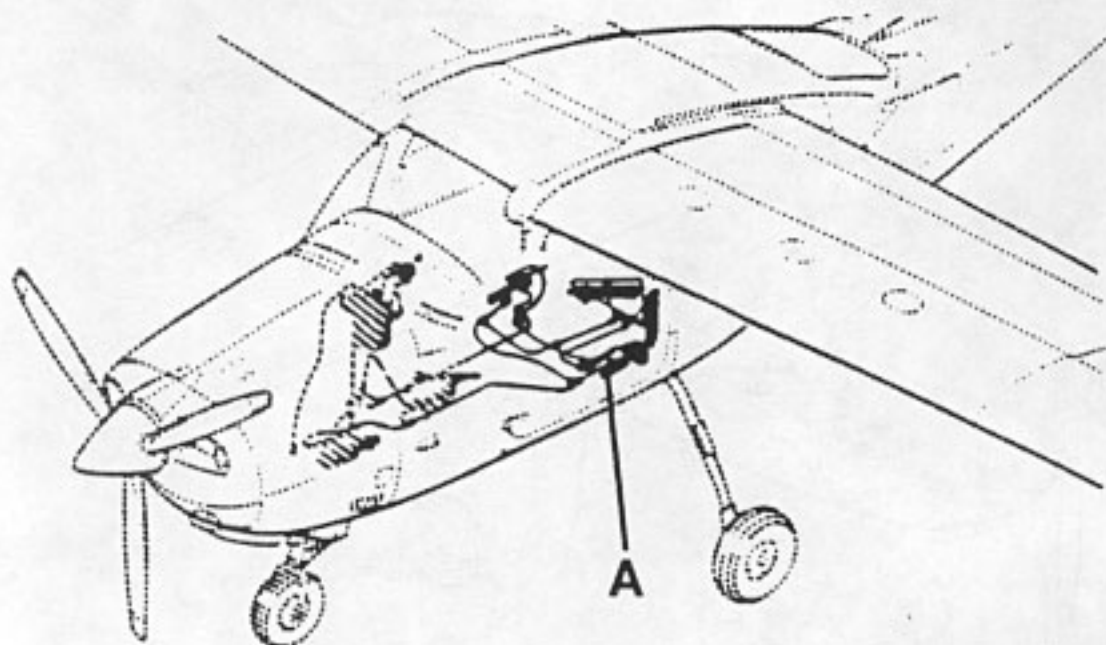
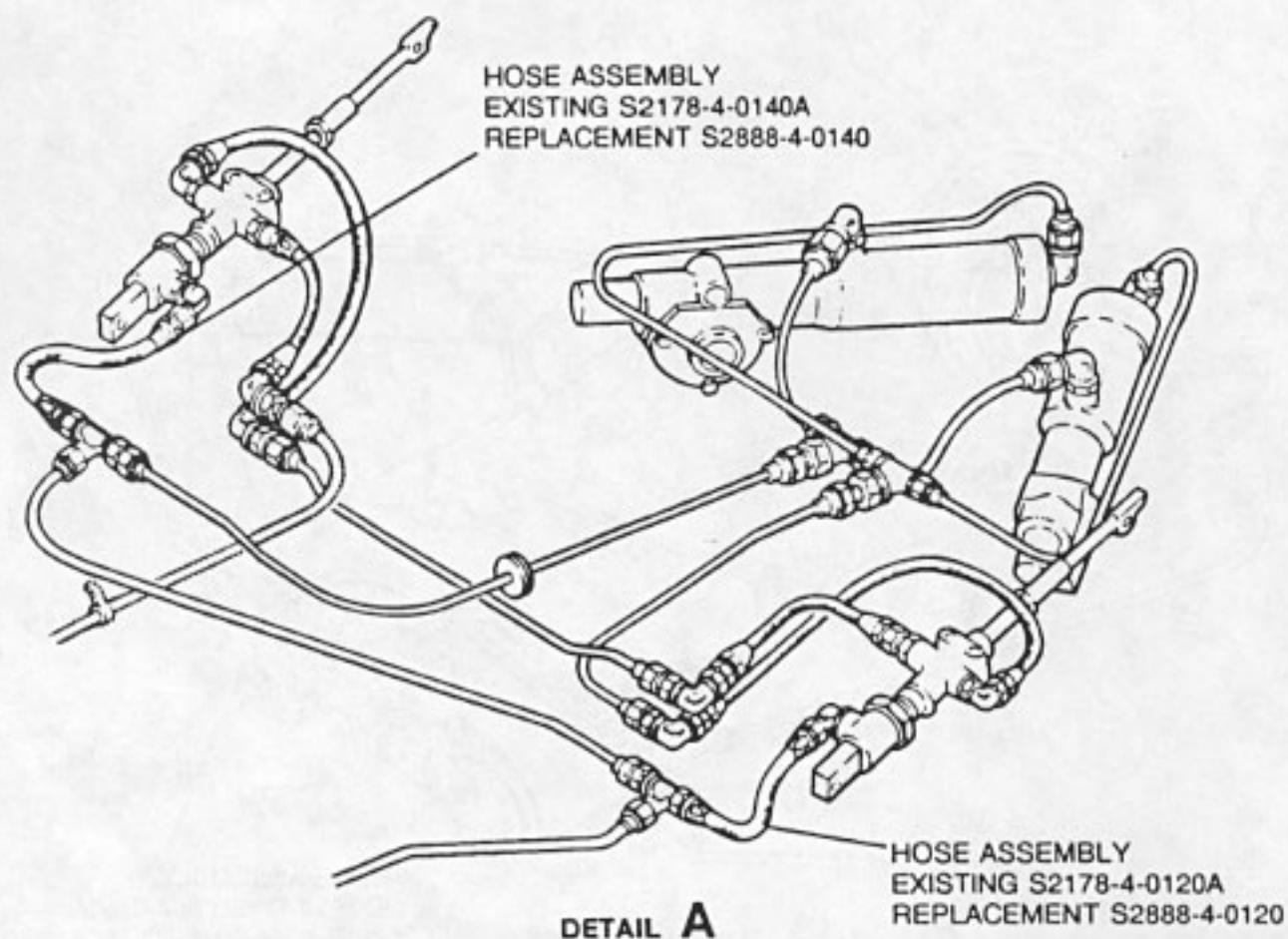
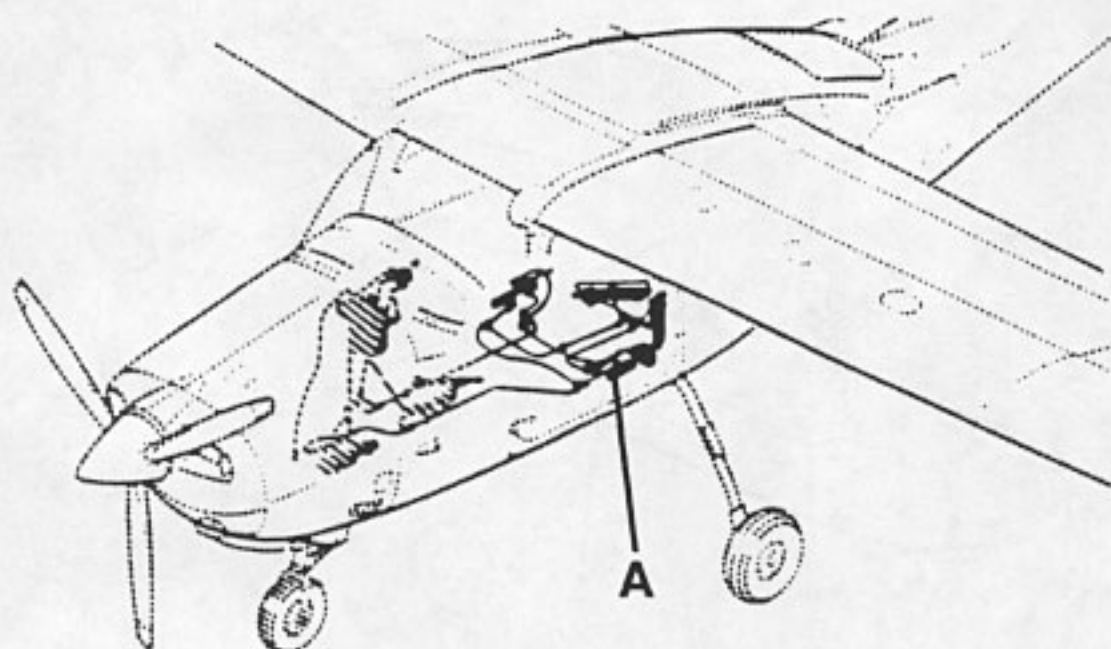


Figure 2. 210, T210 Hydraulic Landing Gear Hose Replacement (Sheet 4)

ACCOMPLISHMENT INSTRUCTIONS

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210 & T210 SERIAL 21062955 THRU 21064535

Figure 2. 210, T210 Hydraulic Landing Gear Hose Replacement (Sheet 5)

ACCOMPLISHMENT INSTRUCTIONS

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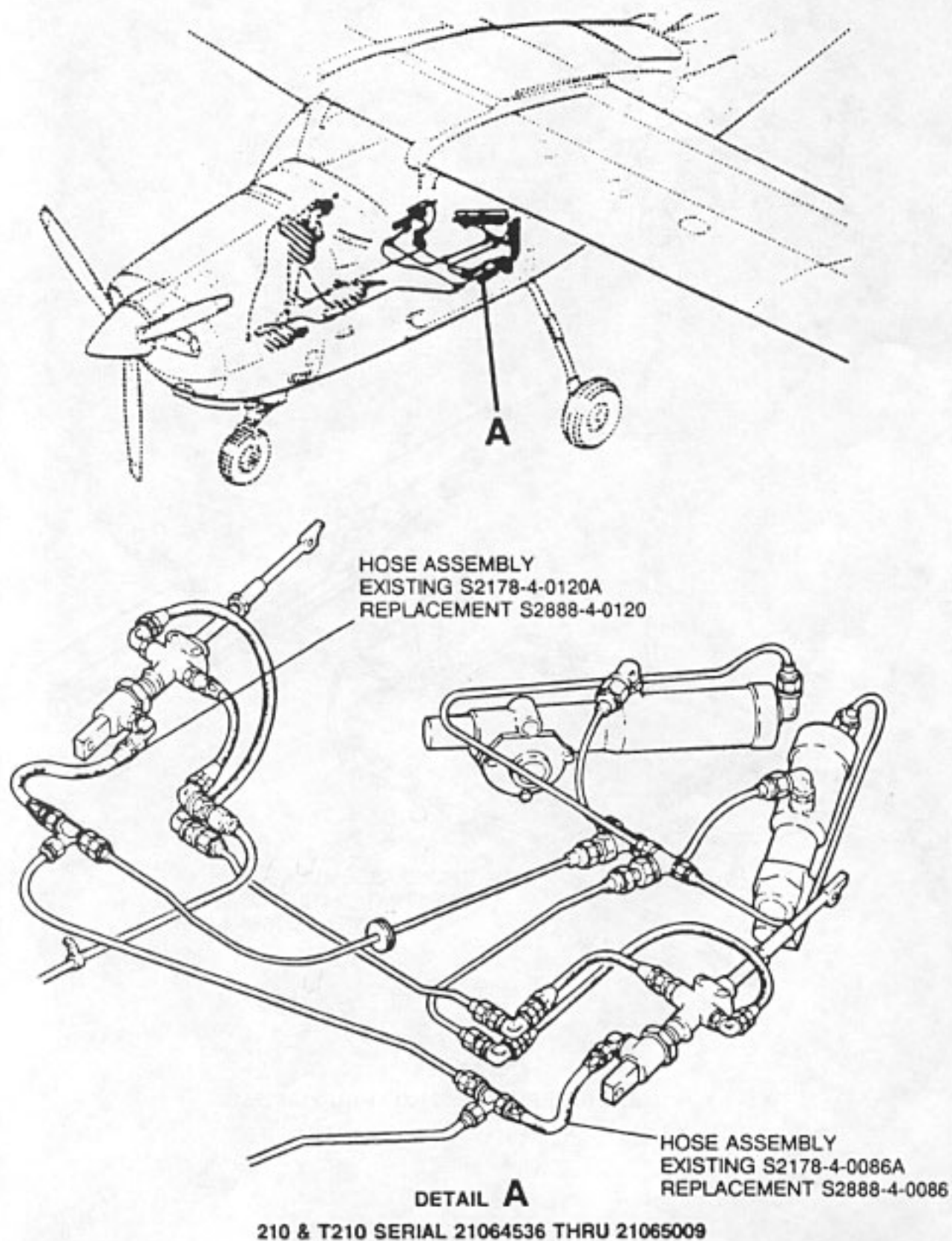
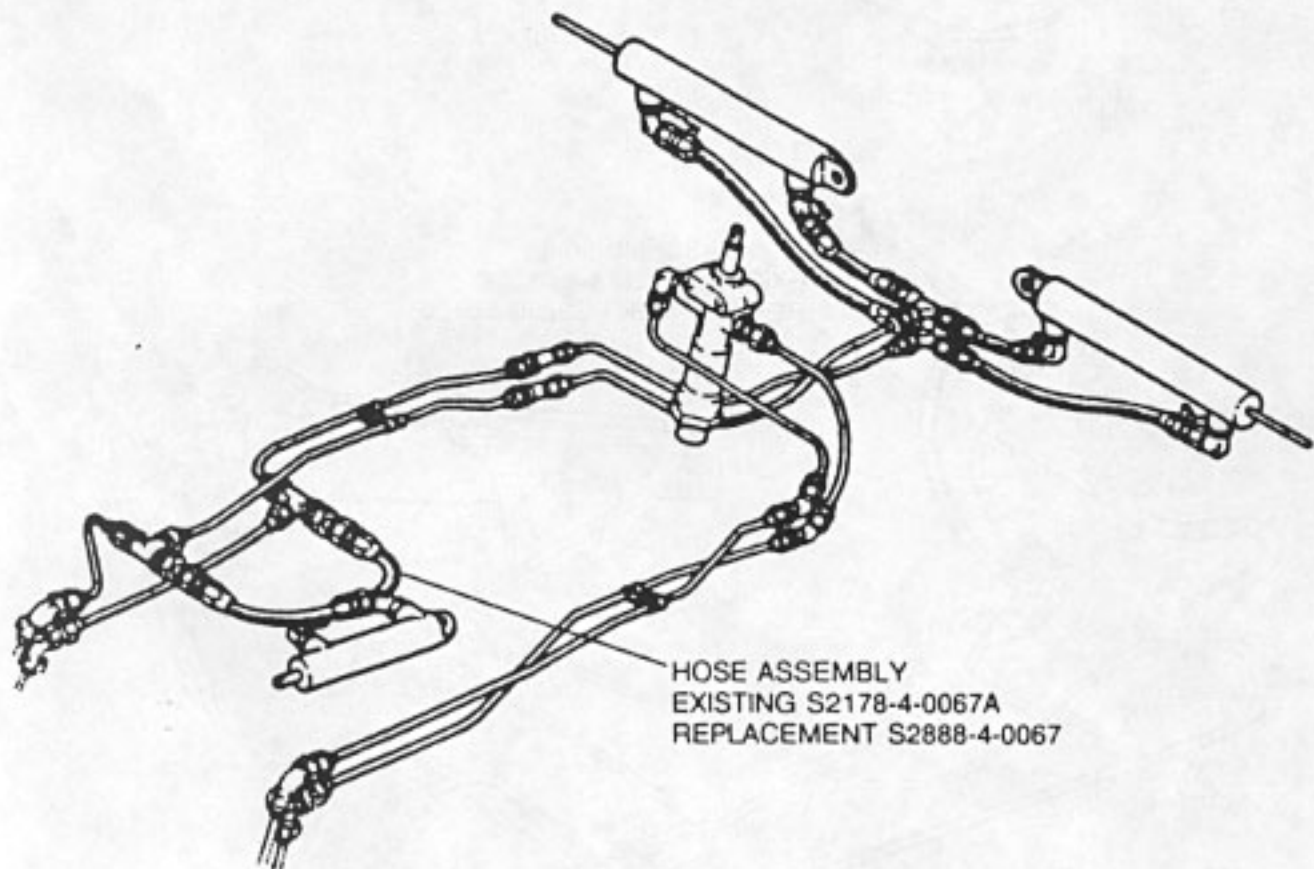
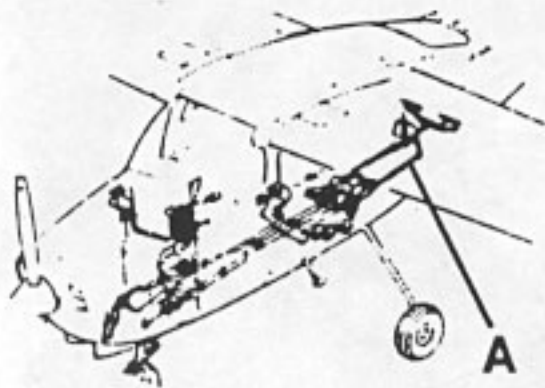


Figure 2. 210, T210 Hydraulic Landing Gear Hose Replacement (Sheet 6)

ACCOMPLISHMENT INSTRUCTIONS

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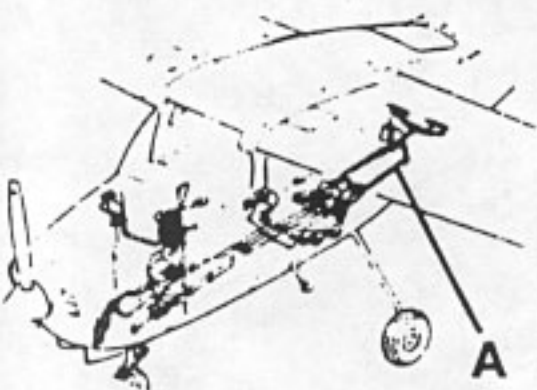
DETAIL A

210 & T210 SERIAL 21059200 THRU 21062954

Figure 2. 210, T210 Hydraulic Landing Gear Hose Replacement (Sheet 7)

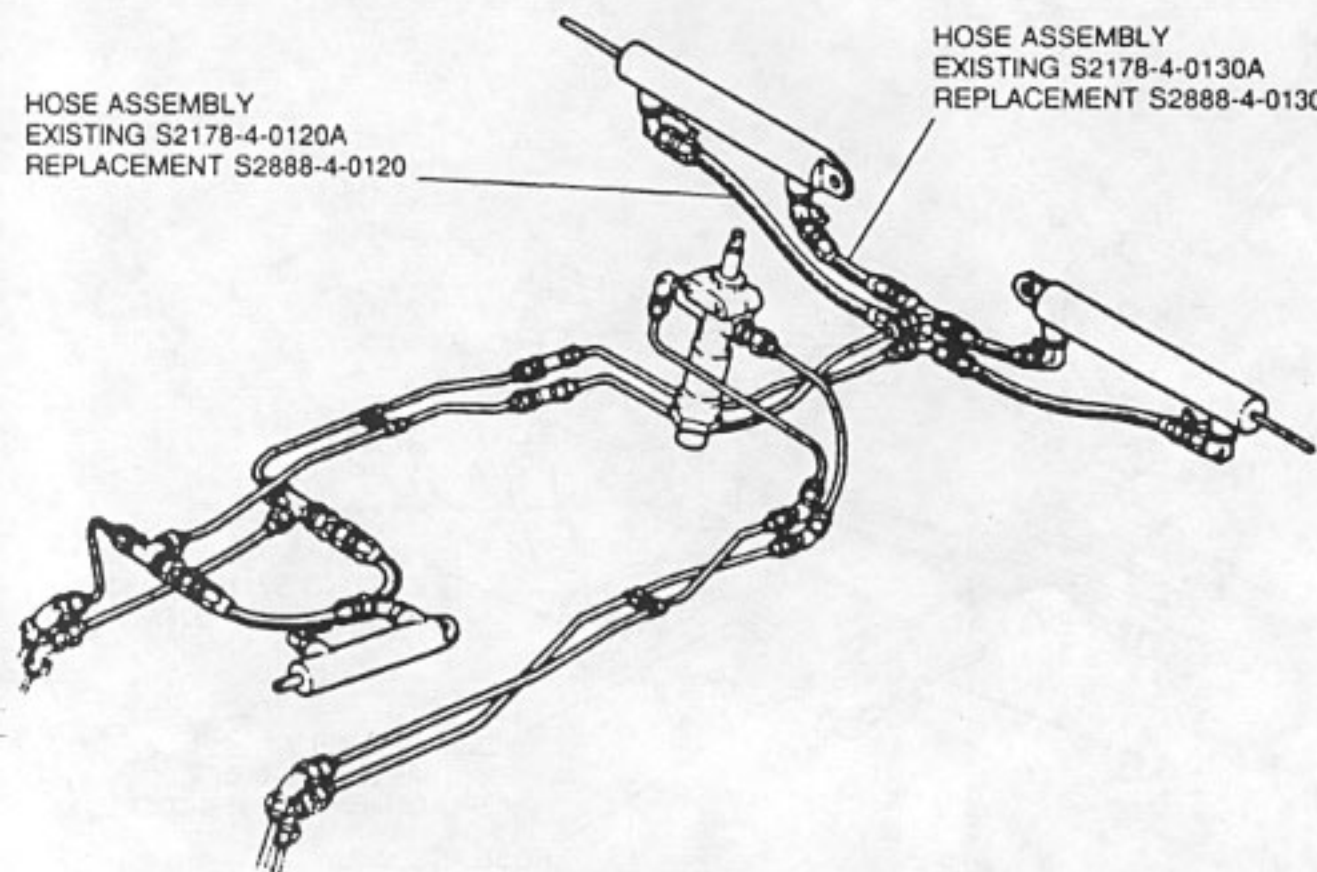
ACCOMPLISHMENT INSTRUCTIONS

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HOSE ASSEMBLY
EXISTING S2178-4-0120A
REPLACEMENT S2888-4-0120

HOSE ASSEMBLY
EXISTING S2178-4-0130A
REPLACEMENT S2888-4-0130



DETAIL **A**

210 & T210 SERIAL 21059503 THRU 21062954

Figure 2. 210, T210 Hydraulic Landing Gear Hose Replacement (Sheet 8)

ACCOMPLISHMENT INSTRUCTIONS

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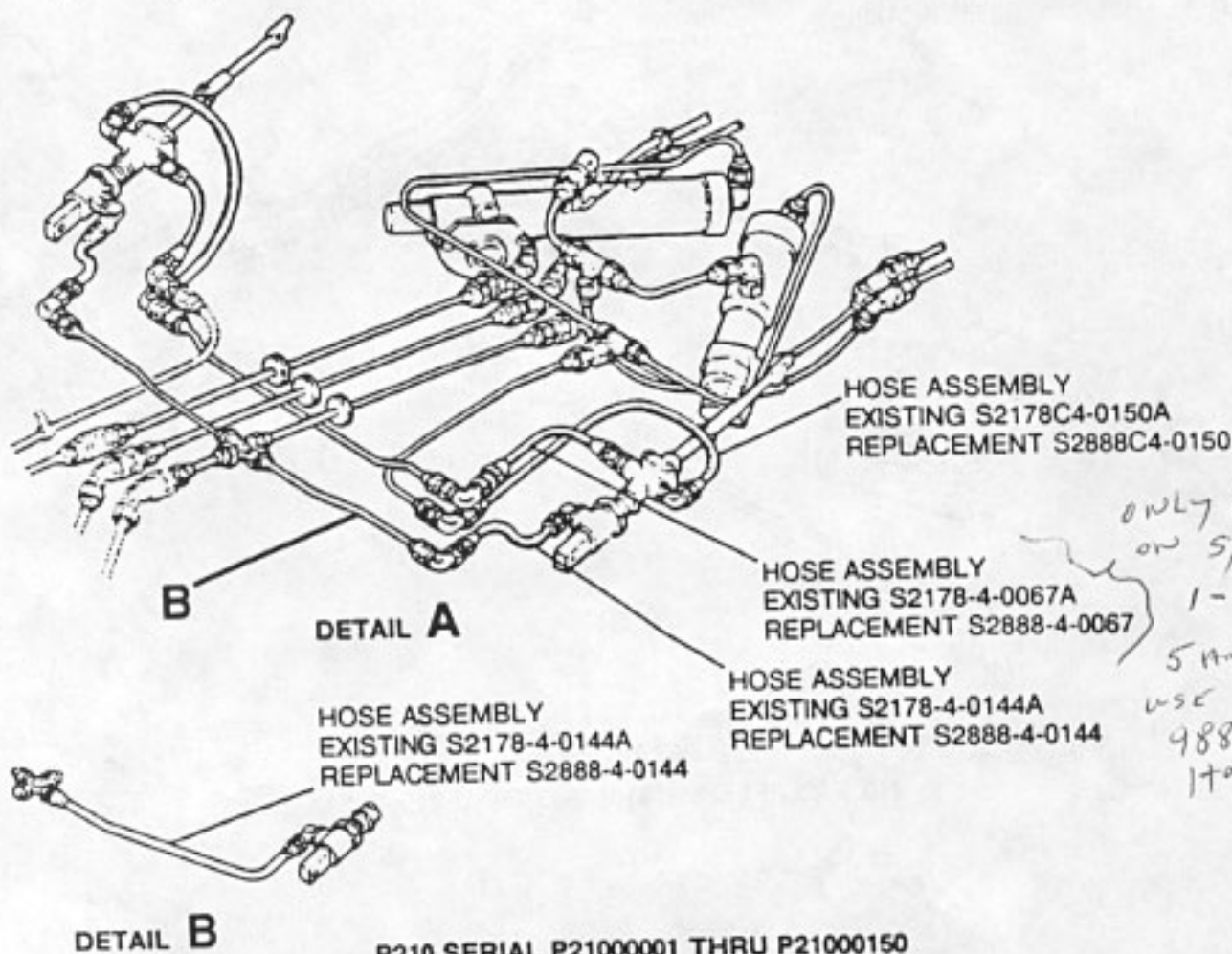
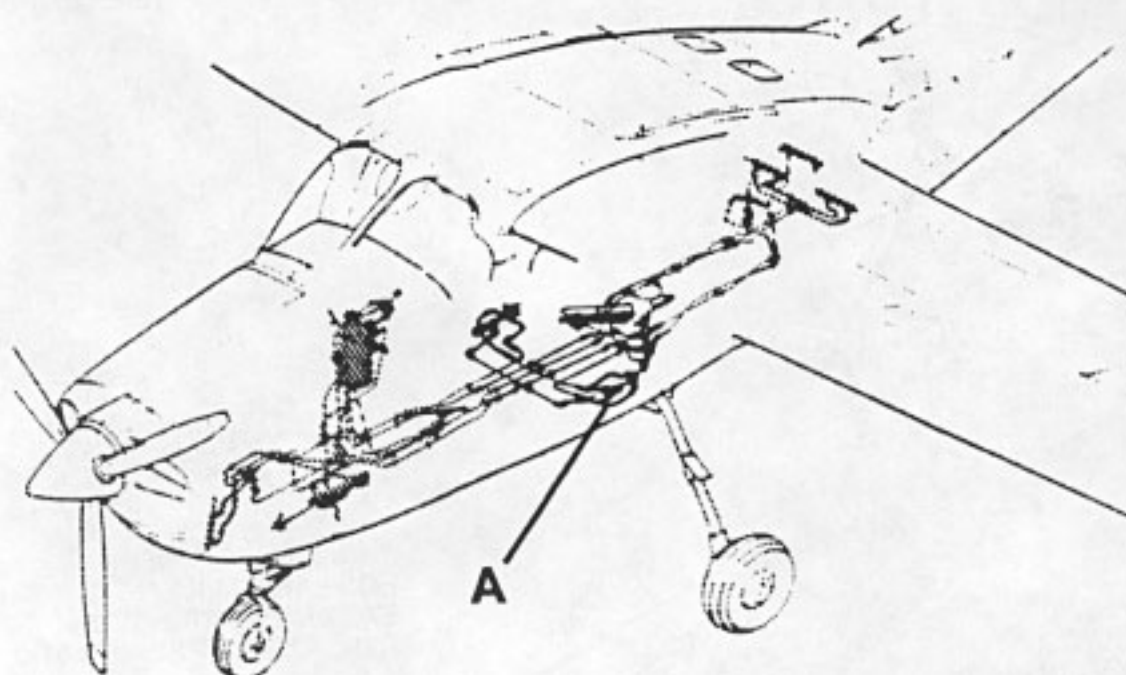
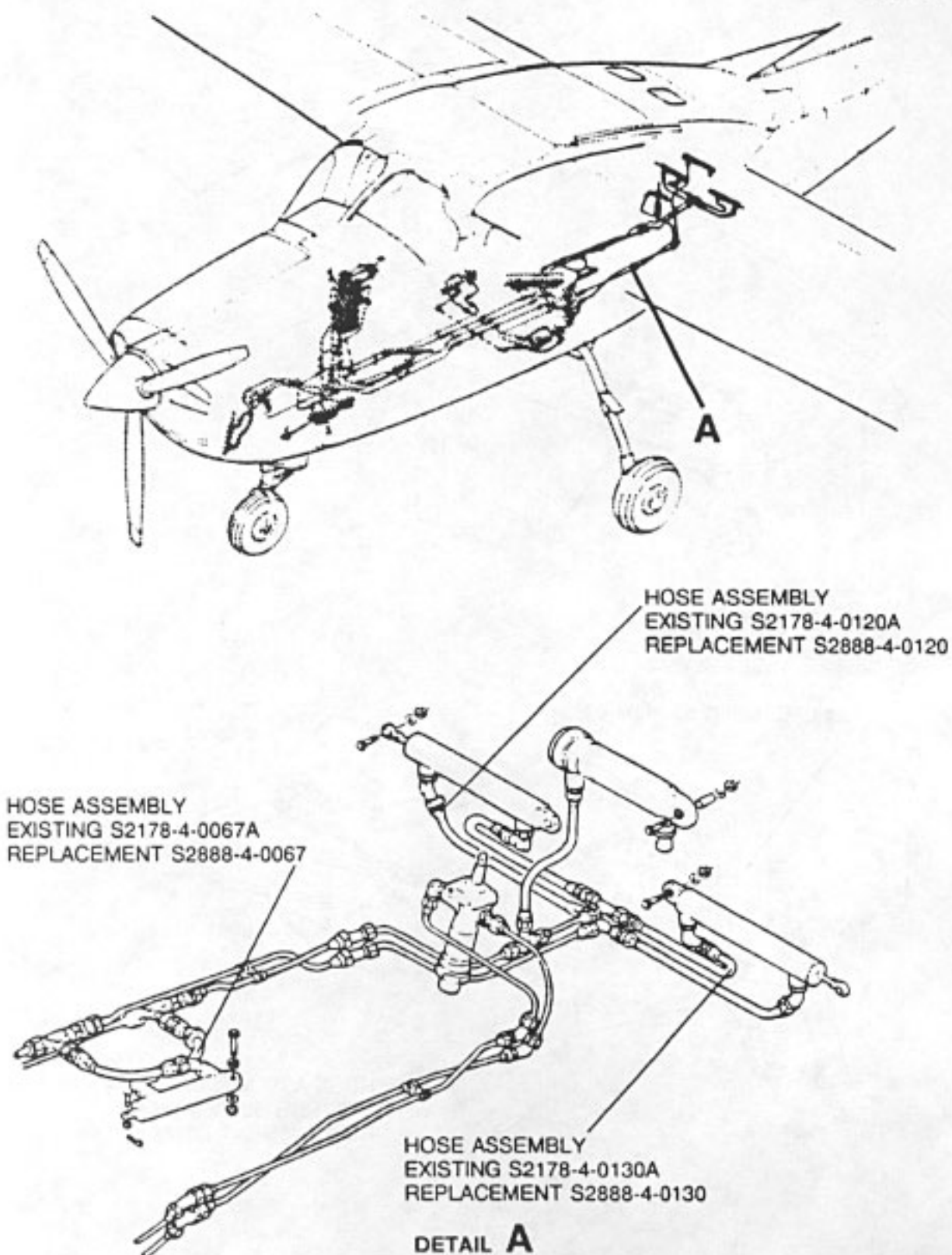


Figure 3. P210 Hydraulic Landing Gear Hose Replacement (Sheet 1 of 5)

ACCOMPLISHMENT INSTRUCTIONS

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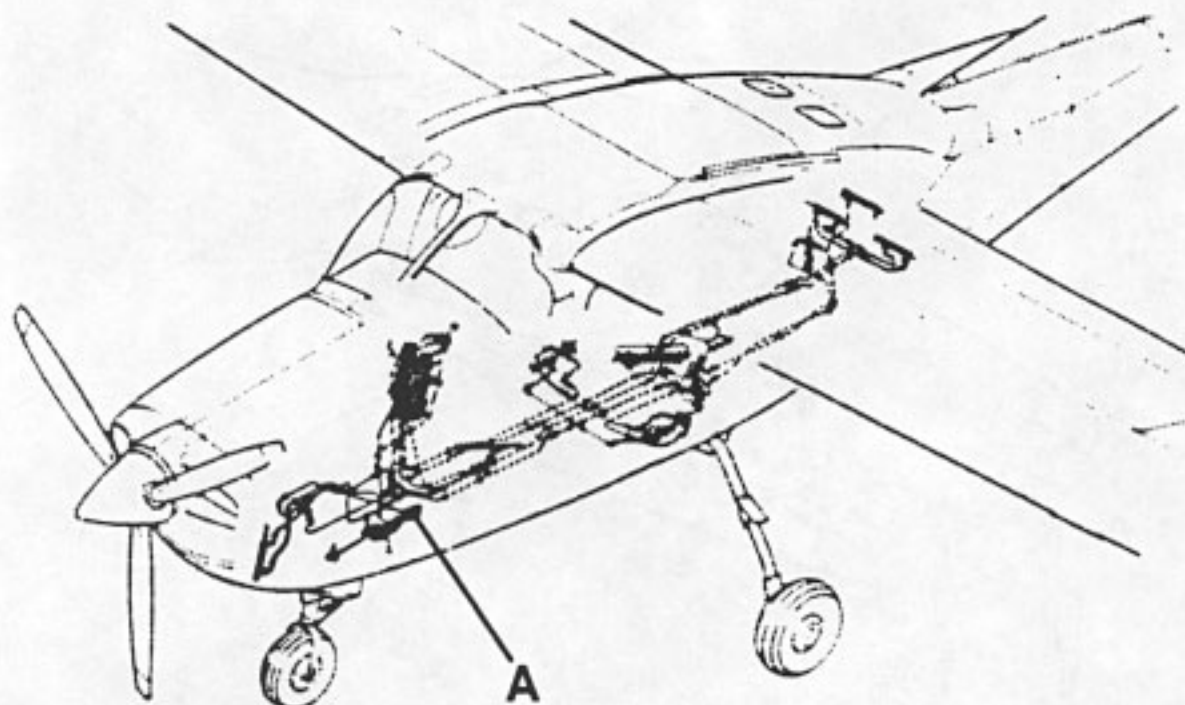


P210 SERIAL P21000001 THRU P21000150

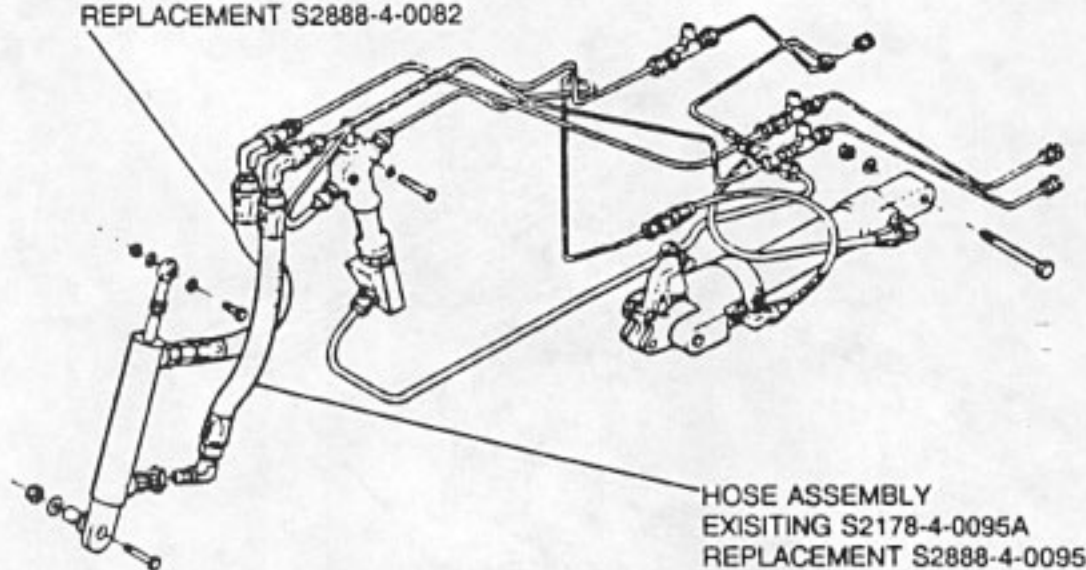
Figure 3. P210 Hydraulic Landing Gear Hose Replacement (Sheet 2)

ACCOMPLISHMENT INSTRUCTIONS

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HOSE ASSEMBLY
EXISTING S2178-4-0082A
REPLACEMENT S2888-4-0082



HOSE ASSEMBLY
EXISTING S2178-4-0095A
REPLACEMENT S2888-4-0095

DETAIL A

P210 SERIAL P21000001 THRU P21000150

Figure 3. P210 Hydraulic Landing Gear Hose Replacement (Sheet 3)

ACCOMPLISHMENT INSTRUCTIONS

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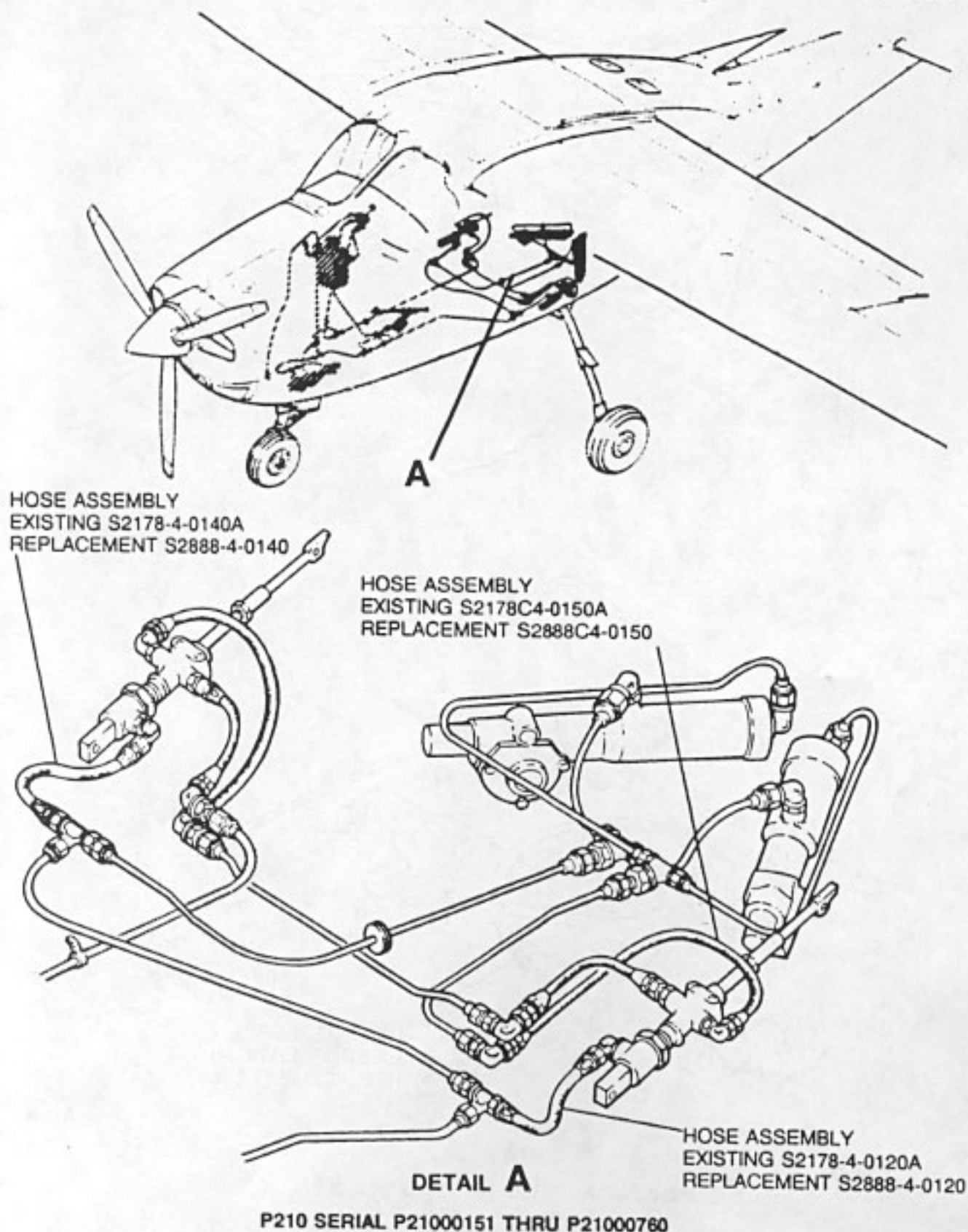
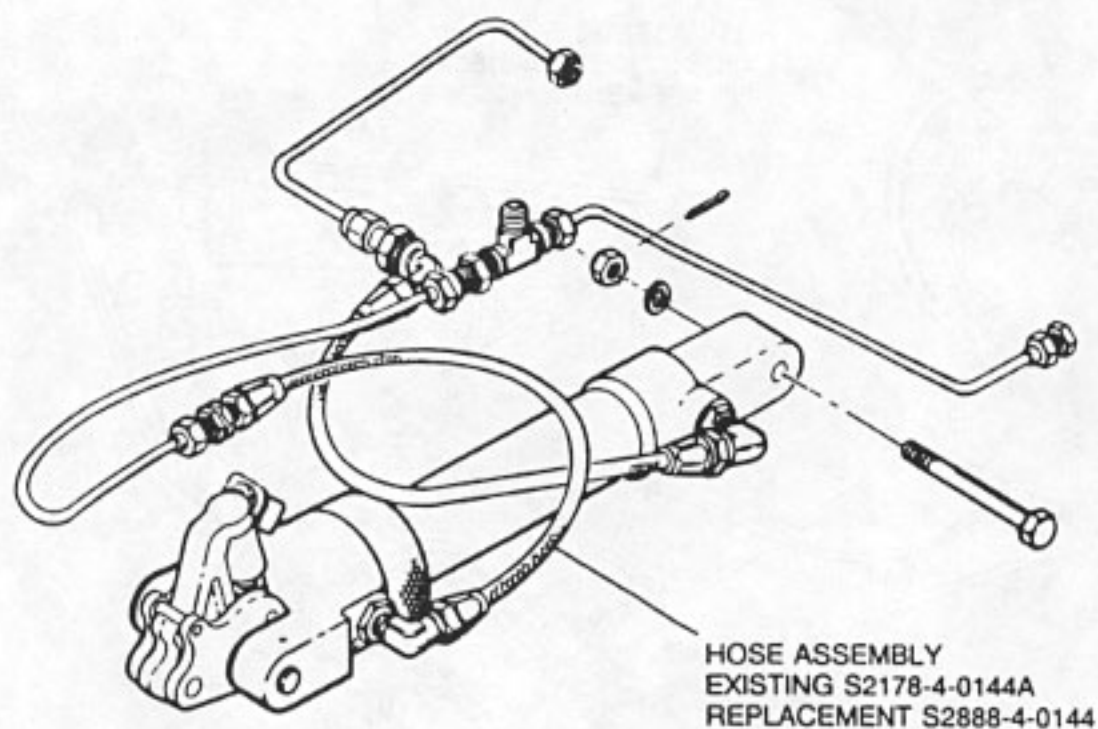
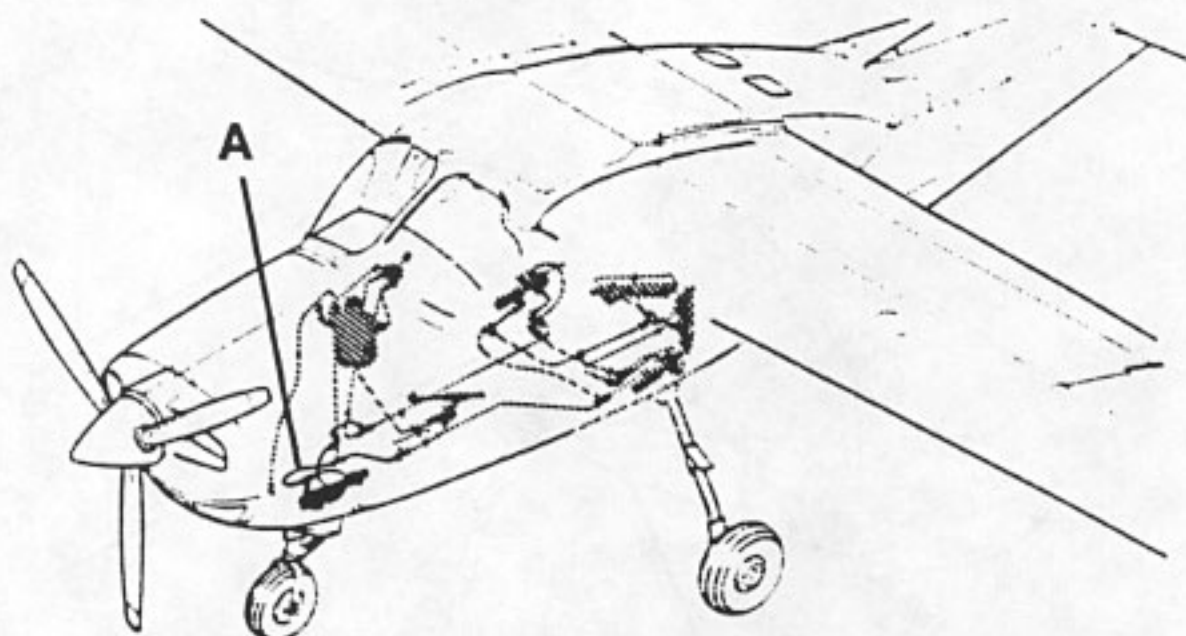


Figure 3. P210 Hydraulic Landing Gear Hose Replacement (Sheet 4)

ACCOMPLISHMENT INSTRUCTIONS

SEB92-8



DETAIL A

P210 SERIAL P21000151 THRU P21000874

Figure 3. P210 Hydraulic Landing Gear Hose Replacement (Sheet 5)