

SERVICE LETTER



SL 2005-001

ALTERATION OF TANK LEVEL SENSOR CONNECTION

Sales:  Date: 5-23-05

Engineering:  Date: 5-23-05

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SERVICE LETTER



No: SL 2005-001

Initial release Date: 5/20/05

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13340 NE WHITAKER WAY
PORTLAND, OREGON 97230
Phone (503) 257-3511 FAX (503) 257-8556 mail@simplexmfg.com

Date: 5/20/05

Revision: Initial Release This Service Letter is not FAA Approved.

SYSTEM MODEL: 301 FIRE ATTACK SYSTEM.

PART NUMBERS AFFECTED: 301-405 015-001,
301-405 000-001

SERIAL NUMBER: 001

COMPLIANCE: OPTIONAL.

DESCRIPTION: THIS SERVICE LETTER PROVIDES FOR THE MODIFICATION OF THE EXISTING TANK LEVEL SENSOR WIRING BY REPLACING A CONNECTOR. THIS REPLACEMENT CONNECTOR THEN ALLOWS INSTALLATION OF THE LATEST CONFIGURATION OF LEVEL SENSOR.

MANPOWER: APPROXIMATELY 2 MAN HOURS TO COMPLETE.

IF APPLICABLE, AN APPROPRIATE ENTRY SHOULD BE MADE IN THE ROTOCRAFT LOGBOOK UPON ACCOMPLISHMENT.
IF OWNERSHIP OF SYSTEM HAS CHANGED, PLEASE FORWARD TO NEW OWNER.

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MATERIAL:

The following materials are required for the accomplishment of this bulletin and may be obtained through Simplex Manufacturing:

Quantity	Part Number	Description	Item No.
1	106883-005	Connector	1
2	106885	Socket	2
3	106884	Pin	3
5		Heat Shrink labels J20B-1 thru J20B-5	4
4 inches	107860	7/8" Heat shrink tubing	5

SPECIAL TOOLS:

1. Conventional wire crimping tool.
2. Heat gun for heat shrink tubing.
3. Soldering iron.

WEIGHT AND BALANCE:

Weight and balance are not affected by this service bulletin

ELECTRICAL LOAD DATA:

Electrical load is not affected by this Service Letter

REFERENCE:

Drawings #301-405 000-001, 301-405 015-001,

PUBLICATIONS AFFECTED:

Make appropriate entries in the aircraft logbook.

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ACCOMPLISHMENT INSTRUCTIONS

WARNING!

Ensure that aircraft main power is turned off prior to starting this procedure.

- 1) Remove present p/n 301-405 015-001 from its connector on the tank wire harness.
- 2) Carefully remove any tubing, shielding, or heat shrink covering from existing connector on tank wire harness.
- 3) Remove the individual wires, and their sockets or pins, from the rubber connector body. If each wire is not already labeled, label each wire #1, 2, 3, 4, or 5 based on the number of the socket or pin-hole it was removed from.
- 4) Carefully remove from each wire the pin or socket attached to its end. Each socket will be replaced with a pin (p/n 106884), and each pin will be replaced by a socket (p/n 106885)
- 5) Position the heat shrink labels provided over each wire. Label J20B-1 goes over wire #1. J20B-2 goes on wire 2. J20B-3 goes on wire #3. J20B-4 goes on wire #4. J20B-5 goes on wire #5. Slide large heat shrink tube over harness and move out of way behind labels.
- 6) Crimp or solder replacement pins and sockets onto the appropriate wire as shown in figure 1 below. Use heat gun to shrink labels over the wires next to the hardware.
- 7) Press pins and sockets into their appropriate locations in the rubber connector boot provided (p/n 106883-005) as shown in figure 1 below. Slide large heat shrink tube up over connector end and over plastic harness tubing. Heat shrink in place.
- 8) Install replacement level sensor.

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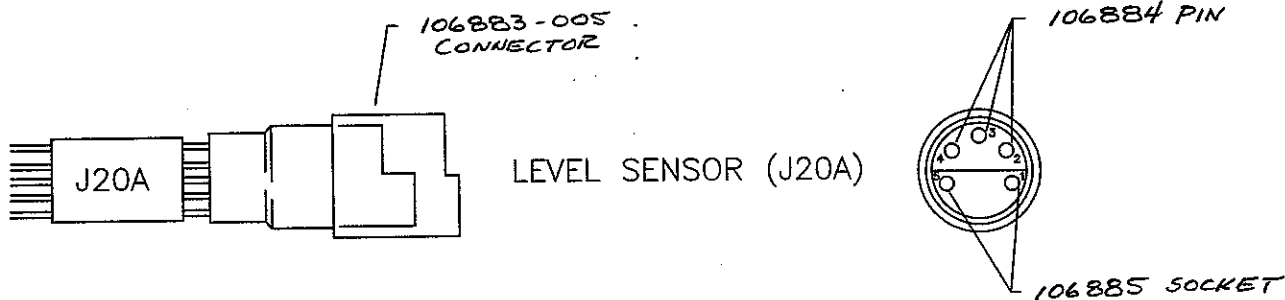
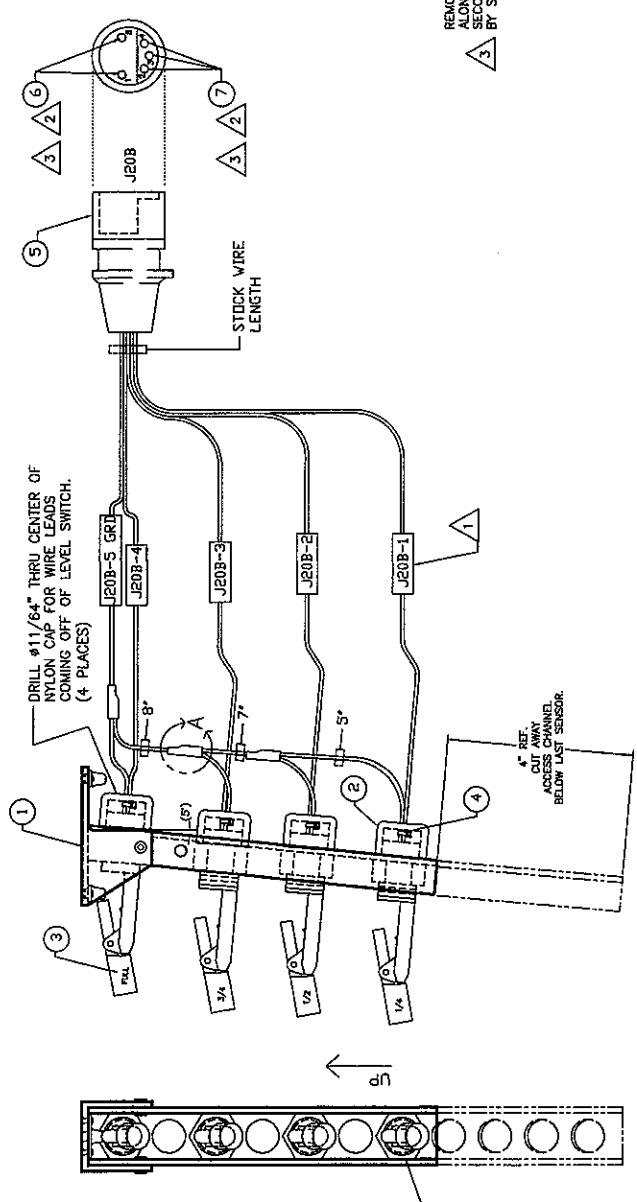


Figure 1, Modified Connector

IF APPLICABLE, AN APPROPRIATE ENTRY SHOULD BE MADE IN THE ROTOCRAFT LOGBOOK UPON ACCOMPLISHMENT.
IF OWNERSHIP OF SYSTEM HAS CHANGED, PLEASE FORWARD TO NEW OWNER.

USE PROTECTIVE COATING INFORMATION ON A PROTECTIVE COATING WHEN IT IS REQUIRED TO PROTECT THE WIRE FROM MECHANICAL DAMAGE. THE INFORMATION IS LOCATED IN THE INFORMATIONAL SECTION OF THE DRAWING. THE PROTECTIVE COATING IS NOT TO BE APPLIED TO THE WIRE UNLESS SPECIFICALLY INDICATED.

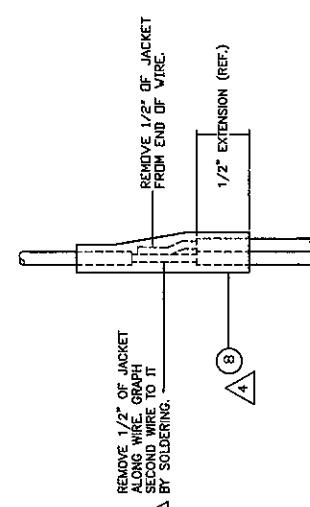


1/4" PORTION OF LEVEL SWITCH NITS TO BE REMOVED WITH THE SWITCH REINSTALLED AS SHOWN (4 PLCS)

4" SET OUT AWAY ACCESS CHANNEL BELOW LAST SENSOR.

DRILL #11/64" THRU CENTER OF NYLON CAP FOR WIRE LEADS COMING OFF OF LEVEL SWITCH. (4 PLACES)

STICK WIRE LENGTH



DETAIL A
3 PLACES

REV.	DESCRIPTION	DATE	APPROVED
A	COMPLETE RE-DESIGN	11/9/98	
B	ADDED CONNECTOR ITEM'S 7, 8 AND 9 TO ASST. 10/2/97	1/19/98	
C	ADDED ITEM'S 11 AND 12.	1/5/99	
D	PER DCN 2104 AND ADDED NOTE B.	11/16/01	
E	PER DCN 2504		

APPLICATION	USED ON
NEXT ASST.	MULTIPLE

QTY.	PART OR IDENTIFYING NO.	DESCRIPTION	ITEM
1	B 300-405 013-001	LEVEL SENSOR BRACKET ASSEMBLY	1
4	1210B5-001	NYLON CAP 1/2" NPT	2
4	107540	LEVEL SWITCH	3
1	106881-005	CABLE TIE	4
5	5	PIN PLUG	5
2	106884	PIN	6
3	106885	SOCKET	7
A/R	107850	1/8" HEAT SHRINK TUBING W/ ADH. (3 @ 1-1/2')	8

DATE	11/09/98
SIGNATURE	[Signature]
DESIGNED BY	[Name]
CHECKED BY	[Name]
PRODUCTION CONTROL	[Name]
DATE	11/03/98
SCALE	301-405 015-001
TITLE	LEVEL SENSOR ASSEMBLY
DRAWING NO.	301-405 015-001
REV	E
SHEET	1 OF 1

NOTES:
1 LABEL ALL WIRES AS SHOWN PER PROCESS SPEC. SMC-5000.

2 CRIMP PINS AND SOCKETS PER PROCESS SPEC. SMC-3000, SECTION 1.

3 SOLDERED CONNECTIONS PER PROCESS SPEC. SMC-3000, SECTION 2.

4 USE SHRINK TUBING ON ALL SOLDERED CONNECTIONS. PER PROCESS SPEC. SMC-3000, SECTION 3.

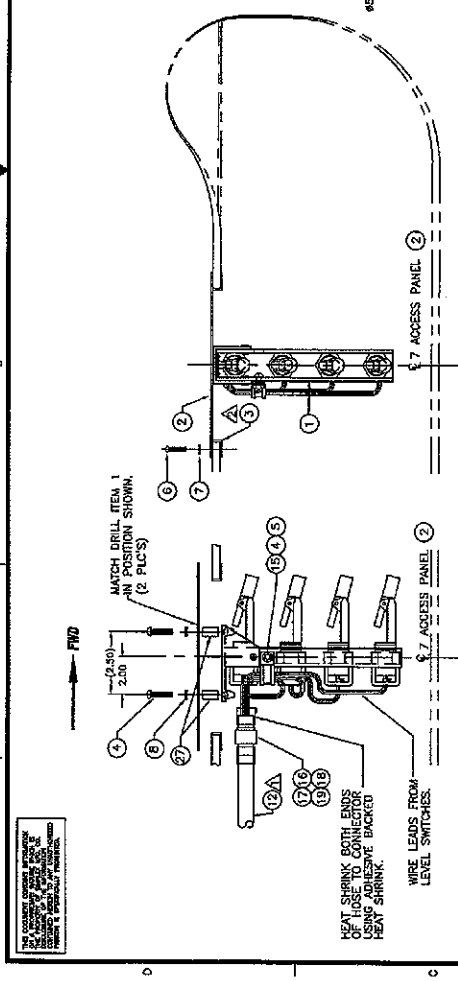
5 USE EXISTING WIRING (22GA) ON ITEM 3.

6 PERFORM CONTINUITY CHECK AFTER FINAL ASSEMBLY AND BEFORE STOCKING PER ELECTRICAL SCHEMATIC.

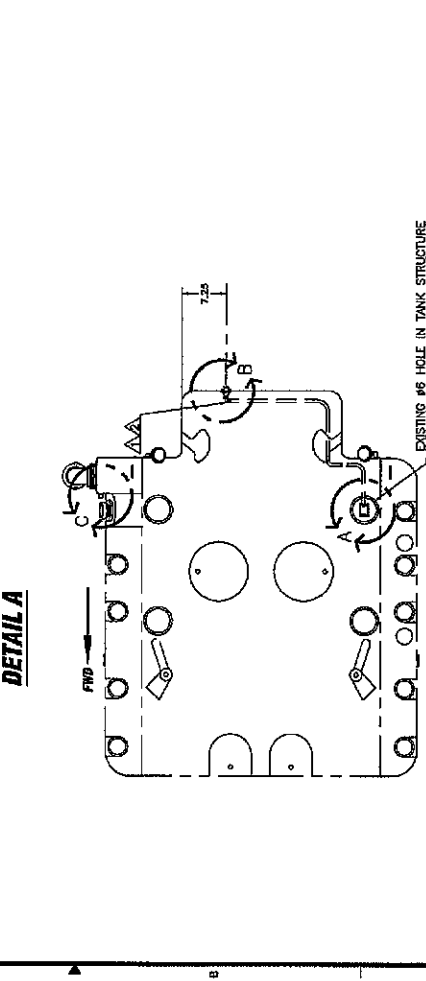
7 FOR PART NO. CLARIFICATION ON ALL SIMPLEX PURCHASE PARTS. SEE REPORT NO. SMO352. OR SIMPLEX PART IDENTIFYING SHEET.

STC APPROVED

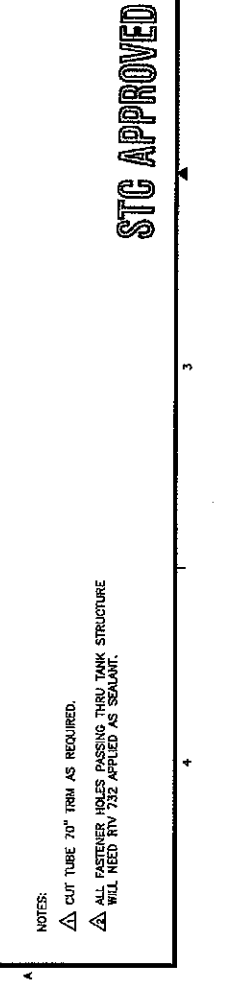
APPLICATION		REVISION HISTORY	
REV.	DESCRIPTION	DATE	APPROVED
D	301-005 000-000	10/1/78	
A	NEW LEVEL SENSOR ASSEMBLY	10/1/78	
B	ADDED 2" S.S. HOSE TO PIPING	11/1/78	
C	CHANGED FROM 1/2" S.S. HOSE TO 3/4" S.S. HOSE	1/20/79	
D	REMOVED HOLES FROM 8 TO 4	1/20/79	
E	CHANGED HOLES FROM 8 TO 4	1/20/79	
F	CHANGED HOLES FROM 8 TO 4	1/20/79	



DETAIL A



DETAIL B



REV.	DESCRIPTION	DATE	APPROVED
27	ROUND SPACER UNTHREADED 5/8" LONG		
26	7" CABLE TIE		
25	CONDUIT PLUG		
24	7/16" - 1 HOSE CLAMP		
23	SHORT GAGE MODIFICATION		
22	1/2" S.S. WASHER		
21	1/2-20 S.S. SELF LOCKING NUT (MS 21044-02)		
20	5-PIN PLUG		
19	5-PIN RECEPTACLE		
18	5-PIN RECEPTACLE		
17	SOCKET		
16	SOCKET		
15	1/2" INSERT 1/2" IMP POLY 80"		
14	1/2" ID x 3/4 OD TUBING		
13	SS HOSE CLAMP		
12	BULKHEAD FITTING WELDMENT 1/2"		
11	BULK HEAD FITTING WELDMENT 1/2"		
10	BULK HEAD FITTING WELDMENT 1/2"		
9	FLAT WASHER S.S. (ANUBOD10)		
8	FLAT WASHER S.S.		
7	10-32 x 3/4 SILV S.S. SCREW		
6	10-32 HF S.S. SELF LOCKING NUT (MS 21044-03)		
5	5/8 BOLT 10-32 X 1-9/32 HEX HD (ANUSCH-19A)		
4	6" ACCESS OPENING RING		
3	7" ACCESS PANEL		
2	LEVEL SENSOR ASSEMBLY		
1	LEVEL SENSOR ASSEMBLY		

STC APPROVED

- NOTES:
- ▲ CUT TUBE 70" FROM AS REQUIRED.
 - ▲ ALL FASTENERS HOLES PASSING THRU TANK STRUCTURE WILL NEED RIV 752 APPLIED AS SHOWN.

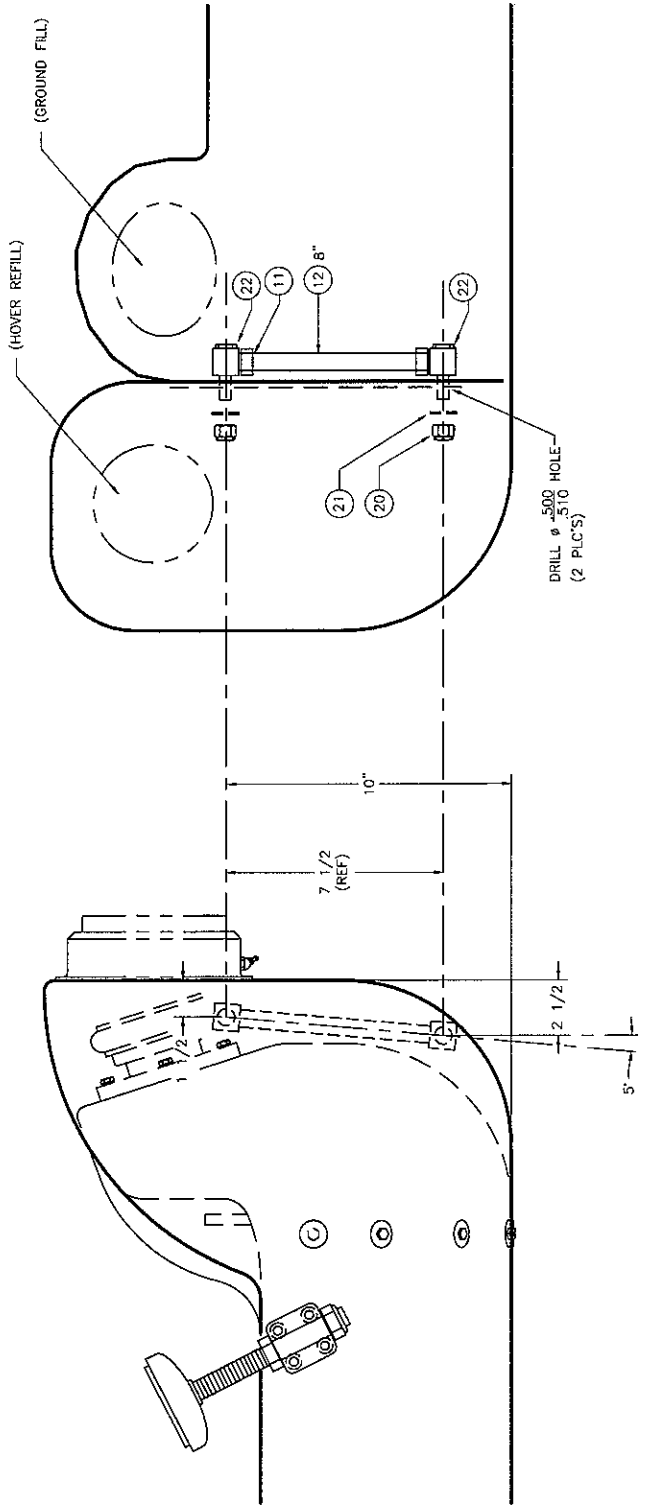
SIMPLEX
 FLUID LEVEL
 SENSOR ASSEMBLY
 DRAWING NO. 301-405 000-001
 SCALE NONE
 SHEET 1 OF 2

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APPLICATION		REVISION HISTORY	
REV.	DESCRIPTION	DATE	APPROVED
A	NEW LEVEL SENSOR ASSEMBLY	10/4/08	
B	NEW LEVEL SENSOR ASSEMBLY & POSITION	11/9/08	
C	ADJUSTED SITE CASE ON SITE #2	9/29/09	
D	OMITTED FOAM LEVEL SENSOR COMBUT	2/19/08	
E	REDUCED QUANTITY OF ITEM 5 FROM 6 TO 4.	03/09/08	
F	CHANGE PER DCR 2170, 2244, 2289, 2351, 2503, 2600, 3055, 3278	03/09/08	
G	CHANGE PER DCR #5336	11/16/08	ewg

DETAIL C

→ FWD



		DATE: 4/29/04
TITLE: FLUID LEVEL SENSOR ASSEMBLY		SIGNATURE: [Blank]
DRAWING NO: 301-405 000-001		CHECKED BY: ON FILE
SCALE: NONE		PRODUCTION CONTROL: ON FILE
SHEET 2 OF 2		PROJECT DWG: ON FILE
REV: F		PROJECT DWG: ON FILE
SIZE: C		SCALE: NONE
301-405-000-001-F.dwg		DATE: 4/29/04