




# SERVICE LETTER

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Written By: 

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Approved By: 

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**Subject:** AC Electric Hover Refill Pump Recommended Maintenance Schedule

**Applicability:** This service letter is applicable to Simplex Manufacturing Model 328 Fire Attack Systems (FAS).

**NOTE:** *The information contained in this document is for reference only and does not supersede the service instructions contained in the Instructions for Continued Airworthiness (ICA).*

**Purpose:** This document was drafted to recommend annual hover pump maintenance and 1500 hour overhaul to ensure peak performance and reduce unscheduled maintenance during periods of heavy use.

**Compliance:** Compliance of this service letter is recommended prior to heavy seasonal use on systems that are more than 18 months since new or with more than 300 hours time in service on the hover refill pump and every year or 300 hours thereafter for annual maintenance and complete assembly overhaul every 5 years or 1500 hours of hover pump use, whichever comes first.

**Weight and Balance:**  
No effect.

**Electrical Loads:**  
No effect.



**References:** Simplex System ICA, 328-102005-001 (or latest revision).

**Parts:** A list of customer replaceable parts is included in Table 1 for hover refill pump inspections. Replacement parts and equipment may be ordered through your local authorized Simplex Representative or directly from Simplex Manufacturing.

**Table 1: Replacement Parts list**

<b>Hover Refill Pump Assembly 328-704010-003(-001)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
000-153981-000	6" Axial Flow Pump	1
000-115391-000	6" Hose Clamp	4
000-112803-000	Acorn Nut, hose clamp	8
000-126431-00	6" Hose	153"
000-107459-000	Cable Tie	10
328-704005-001	Pump Support Cable (loop and nicopress ends, no adapter plate)	1
316-704004-001	6" hose connector for -001 support cable	1
328-704005-002	Pump Support Cable (swaged ends)	1
P333-704112-001	6" hose connector for -002 support cable	1
P333-704111-001	Adapter Plate (-002 cable)	1
000-110160-000	Bolt	1
000-112080-000	Washer	2
000-111045-000	Nut	1
000-110050-000	Bolt	1
000-110030-000	Bolt	1
000-112040-000	Washer	4
000-111180-000	Nut	2
000-110279-000	Bolt	1
000-112120-000	Washer	2
000-111075-000	Nut	1
000-126400-000	Sleeve, wire protection	172"

**Equipment:**

1. Typical Mechanics tool kit
2. Suitable work surface

**Consumables:**

1. Corrosion Inhibitor MIL-C-16173-D grade 4 or equivalent
2. 000-159100-000 732 Sealant

**Annual (300 Hour) Procedure:**

1. Review rotorcraft log books and determine date of initial installation, hours in service, and time in service of Fire Attack System with hover refill pump (HRP) installed.
2. Perform inspection and maintenance as described in Table 2.
3. Alternately the customer may choose to return the hover refill pump to Simplex Manufacturing for servicing.
4. Allow 24 hours for 732 Sealant to dry if used.
5. Test for water tightness by completely submerging pump assembly in water and looking for air bubbles. Investigate source of any leak and seal with 732 sealant or replace seal as required.

**Table 2: Annual (300 Hour) Inspection Procedure**

<b>ANNUAL INSPECTION and MAINTENANCE (1-year or 300 hours)</b> Initial each item after accomplishment. Record all findings and attach a copy of this inspection form to maintenance records. Sign off inspection when complete.							
Serial No.	_____ (FAS) _____ (HRP)	Total System Time	_____	HRP Time	_____	Date	_____
<b>1</b>	<b>PRE INSPECTION REQUIREMENTS</b>						INITIAL
	Review maintenance records and determine time in service and hours of operation of the Hover Refill Pump.						
<b>2</b>	<b>HOVER PUMP ASSEMBLY (AC ELECTRIC)</b>						INITIAL
	<b>ACCESS REQUIREMENTS:</b> Remove Hover Refill Pump Assembly (HRP) from rotorcraft. Clean and flush HRP and hose with fresh water. Remove hose from pump for inspection of safety cable, retain usable hardware.						
	<b>INSPECTION:</b> Inspect all attachment fittings and connections for proper operation and condition. Check for signs of stress or corrosion. Check condition of electrical harness and connections. Check condition of safety support cable attachment and shear provisions, both ends. Inspect support cable. Replace if evidence of worn spots or broken strands is found.						



<b>ANNUAL INSPECTION and MAINTENANCE (1-year or 300 hours)</b> Initial each item after accomplishment. Record all findings and attach a copy of this inspection form to maintenance records. Sign off inspection when complete.		
	<b>MAINTENANCE:</b> Hose must be replaced if worn through 50% of wall. Replace electric harnesses that contain burnt or broken wires or worn insulation. Coat aluminum fittings with corrosion inhibitor MIL-C- 16173-D grade 4. Replace damaged or missing cable ties and hose clamps. Replace damaged or missing shear provisions or safety cable. Clean pump screen	
<b>3</b>	<b>RETURN TO SERVICE</b>	INITIAL
	<b>ASSEMBLE</b> Reattach hose to pump with retained hardware. Connect cam-lock fittings at hose end and secure with safety wire or wire ties. Torque hose clamps uniformly to 14.5 ft-lbs. Verify all hardware is intact and torqued as required in ICA. Seal all hose and pump seams with 732 Sealant.	
	<b>INSTALL:</b> Install HRP assembly per ICA as desired.	
	<b>POST INSPECTION:</b> Verify operation of pump. Check for water tightness. Make the appropriate logbook entries and return to service.	
<b>Performed By: _____ Signature: _____ No.: _____</b>		
<b>Inspected By: _____ Signature: _____ No.: _____</b>		



**1500 Hour (5-year) Procedure:**

1. Review rotorcraft log books and determine date of initial installation, hours in service, and time in service of Fire Attack System.
2. Perform inspection and maintenance as described in Table 3.
3. Return rotorcraft to service and make the appropriate logbook entries.

**Table 3: Overhaul 5-year (1500 hour) Procedure**

<b>OVERHAUL or 5-YEAR PROCEDURE</b> (5-years or 1500-Hours) Initial each item after accomplishment. Record all findings and attach a copy of this inspection form to maintenance records. Sign off inspection when complete.							
Serial No.	_____ (FAS) _____ (HRP)	Total System Time	_____	HRP Time	_____	Date	_____
<b>1</b>	<b>PRE INSPECTION REQUIREMENTS</b>						INITIAL
	Review maintenance records and determine time in service and hours of operation of the Hover Refill Pump.						
<b>2</b>	<b>HOVER PUMP ASSEMBLY (AC ELECTRIC)</b>						INITIAL
	ACCESS REQUIREMENTS: Remove Hover Refill Pump (HRP) and hose assembly from rotorcraft.						
	INSPECTION: Inspect all tank interface connections for proper operation and condition. Perform scheduled maintenance on hover refill elbow as specified in ICA.						
	MAINTENANCE: Return HRP assembly to Simplex Manufacturing for overhaul or replacement. Reinstall new or overhauled pump assembly.						
<b>3</b>	<b>RETURN TO SERVICE</b>						INITIAL
	INSTALL: Install HRP assembly per ICA.						
	POST INSPECTION: Make the appropriate logbook entries and return to service.						
<b>Performed By:</b> _____ <b>Signature:</b> _____ <b>No.:</b> _____							
<b>Inspected By:</b> _____ <b>Signature:</b> _____ <b>No.:</b> _____							

