FAA Approved

Airplane Flight Manual Supplement

for

Oxygen System Installed in

Hawker Beechcraft Model _____

Registration No. _____

Serial No. _____

This Supplement must be attached to the FAA Approved Airplane Flight Manual when Engine Technologies, Inc. Oxygen System is installed in accordance with STC No. **SA10960SC**.

The information contained herein supplements the information of the FAA Approved Airplane Flight Manual only in those areas listed herein. For limitations, procedures, and performance information not contained in this supplement, consult the basic Airplane Flight Manual.

FAA APPROVED: for _____

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Revision A
Date: September 20, 2011

LOG OF PAGES (INCLUDING REVISIONS)

Revision	Pages	Date	Description	FAA Approved
None	All (1-6)	11/9/2009	Complete Supplement Original Release	S. FRANCES COX ASW-190
A	6	09/20/2011	Change O2 bottle hydrostatic test interval from every 3 to every 5 years	for Gary A. Shaver S. Frances Cox, Manager Special Certification Office Federal Aviation Administration Fort Worth, Texas 76137-4298 Date: September 20, 2011

Section 1 GENERAL

Descriptive Data
(Aircraft with O2 bottle mounted horizontally, forward of the front spar carry-through structure)

The supplemental oxygen system consists of a 77 cubic foot composite oxygen cylinder with overpressure relief valve.
The 77 cubic foot composite oxygen cylinder is mounted horizontally on a bracket installed forward of the front spar carry-through structure. In this location a filling port is on the bottle or the bottle may be easily removed for refilling with oxygen. A remote electronic oxygen pressure gage is mounted on the instrument panel. The oxygen may be turned on and off through an electrically controlled valve. The regulator is of a continuous flow type and when turned on, delivers a continuous flow of oxygen. Low pressure tubing from the regulator valve is routed behind the cabin upholstery to outlets mounted on the upholstery side panels near each aft seat and two outlets mounted on panels located under the instrument panel.

Descriptive Data
(Aircraft with O2 bottle mounted vertically behind the aft cabin bulkhead)

The supplemental oxygen system consists of a 115 cubic foot composite oxygen cylinder with overpressure relief valve.
The 115 cubic foot bottle is mounted vertically behind the aft cabin bulkhead. For the aft mounted oxygen bottles a filling block with gage is mounted to the right side of the fuselage under a door in the baggage compartment floorboard just aft of seat 6. The filling block is connected to the bottle using a high pressure capillary line. A remote electronic oxygen pressure gage is mounted on the instrument panel. The regulator is of a continuous flow type and when turned on, delivers a continuous flow of oxygen. Low pressure tubing from the regulator valve is routed above the cabin upholstery to two outlets mounted near station 92.0/butt line L7.0, two outlets mounted near station 92.0/butt line R7.0, and two outlets near station 175.0/butt line L7.0.

Descriptive Data
(Twin engine aircraft with O2 bottle mounted in front baggage compartment)

The supplemental oxygen system consists of either a 77 cubic foot or a 115 cubic foot composite oxygen cylinder with overpressure relief valve.
The oxygen cylinder is mounted horizontally on a bracket installed at the aft bulkhead of the forward baggage compartment. A filling block with gage is mounted under a door in the baggage compartment floorboard on the starboard side of the aircraft just aft of the baggage compartment door for refilling with oxygen. The filling block is connected to the bottle using a high pressure capillary line. A remote electronic oxygen pressure gage is mounted on the instrument panel. The

Section 1 GENERAL (cont'd)

oxygen may be turned on and off through an electrically controlled valve. The regulator is of a continuous flow type and when turned on, delivers a continuous flow of oxygen. The filling block is connected to the bottle using a high pressure capillary line. A remote electronic oxygen pressure gage is mounted on the instrument panel. The regulator is of a continuous flow type and when turned on, delivers a continuous flow of oxygen. Low pressure tubing from the regulator valve is routed above the cabin upholstery to two outlets mounted near station 92.0/butt line L7.0, two outlets mounted near station 92.0/butt line R7.0, and two outlets near station 175.0/butt line L7.0.

Section 4 NORMAL PROCEDURES

OXYGEN SYSTEM

PREFLIGHT

1. Check Oxygen Pressure Gage for pressure reading.
2. Determine if oxygen cylinder has enough capacity for the intended flight. (See Oxygen Duration Table.)
3. Plug in all masks or cannulas that will be used during flight. Turn the oxygen system ON and CHECK the flow indicator of each mask/cannula.
4. Shut oxygen OFF until inflight use is required.

WARNING

NO SMOKING when using oxygen.

NOTE

The use of oxygen shall be in accordance with current FAR Section 91.211 operating rules.

IN FLIGHT

1. Oxygen valve or switch – ON
2. Mask or cannula – INSERT FITTING, DON MASK OR CANNULA (adjust mask or cannula for proper fit)
3. Oxygen – CHECK EACH INDICATOR FOR PROPER FLOW

AFTER USING

1. Discontinue use by unplugging mask/cannula from outlet.
2. Oxygen valve or switch – OFF

Section 4 NORMAL PROCEDURES (cont'd)

OXYGEN DURATION TABLE

Duration in hours with full bottle at the following altitudes:

Cylinder Volume	No. of Persons Using	10,000 Feet		15,000 Feet		20,000 Feet	25,000 Feet
		mask	cannula	mask	cannula	mask	mask
77 Cubic Feet	1	30.5	90.6	21.1	49.8	15.4	12.3
	2	15.2	45.3	10.5	24.9	7.7	6.1
	3	10.1	30.2	7.0	16.6	5.1	4.1
	4	7.6	22.6	5.2	12.4	3.8	3.0
	5	6.1	18.1	4.2	9.9	3.0	2.4
	6	5.1	15.1	3.5	8.3	2.5	2.0
115 Cubic Feet	1	45.6	135.4	31.6	74.5	23.0	18.4
	2	22.8	67.7	15.8	37.2	11.5	9.2
	3	15.2	45.1	10.5	24.8	7.6	6.1
	4	11.4	33.8	7.9	18.6	5.7	4.6
	5	9.1	27.0	6.3	14.9	4.6	3.6
	6	7.6	22.5	5.2	12.4	3.8	3.0

Duration times for masks are based upon standard flows of 1.0 liters/minute per 10,000 feet.
Duration times for cannulas are based on the use of Mountain High MH-3 or MH-4 flowmeters using the scale calibrated for cannulas. Duration times using other flowmeters may vary (consult flowmeter manufacturer's data for flow rates). Duration times listed are based upon all occupants using either masks or cannulas, but not a mixture of the two devices.

Section 8 HANDLING, SERVICING AND MAINTENANCE

OXYGEN SYSTEM

WARNING

Keep hands, tools, clothing, and oxygen equipment clean and free from grease and oil. **KEEP FIRE AND SPARKS AWAY FROM OXYGEN**. Use only recommended leak testing soaps (i.e. castile soap and water solution).

NOTE

When filling the oxygen system, use only 99.99% pure oxygen to be sure that it does not contain moisture which can cause the oxygen valve to freeze.

To service the oxygen system, use the following procedures:

1. Read the pressure gage for the oxygen system.
2. Gain access to the filler port for the oxygen system. Remove the cap from the filler valve and attach the recharging outlet. (On aircraft with the oxygen cylinder located just ahead of the front spar, the cylinder may be removed for recharging if desired. Carefully disconnect the electrical connector and low pressure oxygen line from the valve on the end of the cylinder before removing cylinder from the aircraft.)
3. Slowly fill the cylinder to 1850 ± 50 psi at an ambient temperature of 70°F. This pressure may be increased an additional 3.5 psi for each degree of increase in ambient temperature. Similarly, for each degree of drop in ambient temperature, reduce the cylinder pressure 3.5 psi.
4. Remove the recharging outlet, and replace the filler valve cap.
5. Reinstall components removed to gain access to the filler valve. (Place oxygen cylinder in holder and reconnect electrical connector and low pressure oxygen line if cylinder was removed for servicing. Close cover.)

OXYGEN CYLINDER RETESTING

The oxygen cylinder is Kevlar® wrapped aluminum specifically designed for aviation oxygen use. The oxygen cylinder must be hydrostatic tested every 5 years. A cylinder hydrostatic tested prior to July 1, 2006 must be retested within 36 months of the retest date marked on the cylinder. A cylinder manufactured or hydrostatic tested after July 1, 2006 must be reinspected and hydrostatically retested at least once every five years. The oxygen cylinder must be retired from service after 15 years.

Keep oxygen cylinder manufacturer's instructions with this AFMS for future reference.