SCHWEIZER AIRCRAFT CORP.

Supplement to the FAA Approved
Rotorcraft Flight Manual

For

300C Model 269C Helicopters

See Page 2 for Effectivity

ROTORCRAFT AMPHIBIOUS FLOAT LANDING GEAR

Part No. 269A4300-15

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FAA APPROVED
ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
ROTORCRAFT AMPHIBIOUS FLOAT LANDING GEAR
PART NO. 269A4300-15
FOR
300C MODEL 269C HELICOPTERS

HELICOPTER SERIAL NO. EFFECTIVITY
269C Serial No. 0140 and subsequent
or Serial No. 0004 through 0139 having Schweizer Kit Part No. M10059-5 installed

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NOTE

The change bar (▌) defines the latest FAA Approved changes.

REVISION TABLE

Revision Number	Date	Description
	Issued 22 Mar 1972	Per Drawing No. 269A4300-15
	Reissued 21 Sep 1988	Updated to reformat
Revision #1	04 Oct 1996	Revised to correct typographical errors and other miscellaneous changes.
	Reissued 27 May 1998	Add limitation data for aircraft with three-piece chin skin, and miscellaneous format changes

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Section I
Introduction and General

The 269A4300-15 Amphibious Float Landing Gear Kit consists of two multiple cell type inflatable floats. landing gear skid extensions and attachment fittings.

Except as modified by this Rotorcraft Flight Manual Supplement, operation in compliance with Section II of the basic FAA Approved Rotorcraft flight Manual is mandatory. Other sections of the RFM or Supplement are recommended procedures.

Section II
Limitations

2-1. CGLimits

Longitudinal	Lateral
95.0	+2.25, -1.0
99.5	+4.0, -1.75
101.0	+1.5, -2.0

NOTE: Lateral "+" is right of centerline, lateral "-" is left of centerline when looking forward.

2-2 The cylinder head temperature probe must be moved to cylinder number three for proper indication when floats are installed. The cylinder head temperature probe must be relocated to cylinder number two for the nonfloat configuration.

2-3. Aircraft S/N's 0004 through 0139 must be modified in accordance with Schweizer Kit P/N M10059-5 incorporating a tailboom mounted static source with 269A8310 and 269A8309-11 restrictor fittings.

2-4. Night flight with floats permitted if the following equipment is installed; landing, navigation (including 2 extra side position lights), anticollision lights and instrument lights.

2-5. Night operation, to and from water, limited to aircraft equipped with dual 450-watt (GE 4580, 28-volt) landing lights.

2-6. Minimum float inflation pressure 1.5 psig; maximum float inflation pressure is 6 psig. To maintain these limits, changes in operating altitude should be considered as follows:

If the Initial Altitude Float Pressure is: (psig)	Allowable Altitude Increase is: (feet)	Allowable Altitude Decrease is: (feet)
1.5	9800	0
2	8800	1000
3	6600	3000
4	4400	5400
5	2200	7600
6	0	9800
NOTE: This will include the normal variation in ambient temperature associated with changes in altitude.		

To account for variations in ambient temperature or water temperature at a given base of operations, the following criteria should be used to maintain the minimum 1.5 psig inflation pressure:

When an ambient (air) temperature or water temperature colder than the temperature at initial inflation is anticipated, float inflation pressure should be increased 0.5 psig (above the minimum 1.5 psig) for each 15 degrees decrease in temperature anticipated.

Example: Floats inflated to 1.5 psig

70°F Ambient temperature at time of inflation
45°F Anticipated water temperature at scheduled landing or parking site
25°F Temperature decrease

Pressure change to account for:

(25° ÷15°) x 0.5 psig = 0.8 psig

Minimum float inflation pressure for this operation would be:

1.5 psig + 0.8 psig = 2.3 psig

NOTE: Temperature increases will increase float inflation pressure, and need not be considered. However, 6 psig must not be exceeded.

2-7. When a Muffler Kit (269A8801, 269A8801-3, or 269A8801-5) is installed with the Float Kit, the cooling air deflectors (269A8520, included in the 269A8801-3 or 269A8801-5 Muffler Kit) and the cooling baffle (269A5563, included in the Float Kit) must be installed and both side fairings (269A2303-3 and-4) removed.

2-8. Doors off operation permitted.

If passenger seats are not occupied the center seat back must be fastened and right seat cushion removed (or lashed in place).

2-9. Takeoff and landing to and from water not permitted above 1900 pounds gross weight or if 269A4335 Quad Searchlight is installed.

2-10. V_{NE} above 1900 pounds gross weight is 101 mph IAS at sea level. Above sea level, reduce V_{NE} 7 mph per 1000 feet of altitude.

2-11. On aircraft configured with the three-piece chin skin P/N 269A2329-7, the 269A2355-1 air scoop installation is required when the float kit is installed.

Section III
Emergency and Malfunction Procedures

3-1. Water Landing

a. Engine Failure - Altitude Above 400 Feet

(1) Enter normal autorotation.

(2) Establish a steady glide of 60 mph IAS.

(3) At about 80 to 100 feet altitude apply back cylic stick until aircraft is slightly nose high, decreasing forward speed and rate of decent.

(4) At about 2 to 10 feet altitude, increase collective to reduce sink rate. Make water contact slightly nose high.

(5) Avoid rapid lowering of collective after landing.

b. Engine failure - altitude above 7 feet and below 400 feet. Use procedure outlined in basic flight manual except make water contact slightly nose high. (If altitude and airspeed permit, the procedure outlined in 3-1a. above should be followed.)

c. Engine failure - altitude below 7 feet. Follow procedure outlined in basic flight manual.

Section IV
Normal Procedures

4-1. Pilot's Preflight Inspection - On helicopters equipped with 269A2355-1 Air Scoop Installation, inspect intake scoop for foreign objects and debris.

4-2. Rotor Engagement on Water - Determine that sufficient clearance exists between aircraft and any obstacle during rotor engagement. Tail swing before directional control is obtained will be approximately 200 degrees.

4-3. Water touchdown speed should be less than 30 mph. Reduce speed if water is rough.

4-4. On water landing the collective should not be fully lowered until forward speed is 5 mph or less.

4-5. Water taxi speed should be less than 10 mph. A slight application of collective pitch may be used to increase speed, but speed should be kept down so the bows of the floats do not submerge.

For cross-wind taxiing, apply a slight amount of cyclic in order to maintain correct control of the helicopter.

4-6. Hover for approximately 10 seconds to allow water to drain from pitot tube following operations involving moderately high bow waves.

4-7. Night Operations - Water

NOTE: Use both landing lights for all water landings.

a. Normal Night Water Landings

(1) Slow airspeed to approximately 55 mph for normal approach and reduce collective for desired rate of decent Maintain 3200 rpm.

(2) At about 80 to 100 feet altitude raise the nose of the aircraft slightly, reducing airspeed and rate of decent.

(3) Make water contact slightly nose high.

(4) Avoid rapid lowering of collective after landing.

b. During night takeoff from water, switch to aft landing light to reduce glare.

4-8. Ballast may be required when in solo flight and can be added by the use of the 269A4314-17 weight kit. Ballast consists of a 2.5-pound bag, 45-pound weight, and 20-pound weight. Maximum ballast is 65 pounds.

4-9. When ballast is air transported in or on the helicopter it should be stowed and secured.

NOTE: No storage between seats with center collective installed.

Section V
Performance Data

5-1. On aircraft S/N's 0059 and subsequent and on earlier aircraft modified in accordance with SAC Kit P/N M10059-5 with the 269A4600-9 or -13 airspeed indicator, reloacting the static source to the tailboom, the performance data in the basic Approved Rotorcraft Flight Manual " b" or " c" configurations is applicable.

Section VI
Weight and Balance

6-1. Float installation center of gravity limits are shown under Limitations, Section II. Weight and balance calculation should use the following information to ensure these center of gravity limitations are not exceeded:

ITEM		Weight (lbs)	Arm (inches)
Part No.	Description		
269A4300-15	Float Installation	58.2	118.6
269A4314-9	Ballast Bag	2.5	52.5
269A4314-7	Weight		
	In Ballast Bag	45.0	52.5
	In Seat	45.0	79.0
269A4314-9	Weight		
	In Ballast Bag	20.0	52.5
	In Seat	20.0	79.0
269A2355-1	Air Scoop Installation	1.50	46.0

Section VII
Aircraft Handling, Service, and Maintenance
Not Affected

Section VIII
Additional Operations and Performance Data
Not Affected