



# FLIGHT MANUAL

## SA 315 B LAMA

### SUPPLEMENT N° 2

### EMERGENCY FLOATATION GEAR

P/N: 3130.73.67.000

This supplement shall be included in the Flight Manual when the installation mentioned above has been completed.

The information contained herein supplements or cancels the information given in the Basic Flight Manual.

#### LIST OF EFFECTIVE PAGES

All pages of this supplement are listed below.  
This list is- re-issued with each amendment.

PAGE	CODE	PAGE	CODE	PAGE	CODE	PAGE	CODE
Page 1	7.76						
Page 2	7.76						
Page 3	7.76						

N°	Date code
ISS. 3	7.76
AMDt.	

The information contained in this supplement is approved by the  
DIRECTION GENERALE DE L'AVIATION CIVILE

APPROVED 10.10.76



## General

This supplement applies to the aircraft fitted with emergency floatation gear.

The installation consists essentially of two assemblies carried on either side of the body structure.

Each assembly includes :

- a cover in which the folded float is contained closed by a snap wire.
- an inflation system supplied by two CO<sub>2</sub> cylinders.

An electrical system controls inflation.

Supply is ensured via a circuit breaker and the "FLOTT" (EMERG FLOAT) switch on the overhead panel.

A push button with a guard on the pilot's collective pitch lever controls firing of a cartridge opening the CO<sub>2</sub> cylinders.

## Section 1 **LIMITATIONS**

The limitations given in Section 1 of basic manual remain applicable except for the special limitations given below.

### A. FLOATATION GEAR FOLDED - SYSTEM ARMED OR NOT

- No particular limitation.

### B. INFLATION OF FLOATATION GEAR

- No particular limitation in level flight.
- Speed limited to 150 km/hr (80 kt) in autorotation.

### C. FLOATATION GEAR INFLATED

- No particular speed limitation in level flight.
- Altitude limited to 1000 m (3000 ft) and speed to 150 km/hr (80 kt) in autorotation over water.

### D. MAXIMUM ALL-UP WEIGHT

- Limited to 1650 kg (3640 lb), with load inside cabin, for over water flight.

**SUPP. 2**

## Section 2

### NORMAL PROCEDURES

The normal procedure given in Section 2 of basic manual remains applicable except for the special instructions given below.

#### A. OUTSIDE CHECKS

On before flight check, make sure that the float covers are correctly laced.

#### B. FLYING OVER WATER

When flying over water :

- Put the "FLOTT" (EMERG FLOAT) switch on the overhead panel on.
- Maintain a cruising altitude greater than 300 m (1000 ft).

#### C. FLYING OVER LAND

When flying over land :

- Put the "FLOTT" (EMERG FLOAT) switch off.

## Section 3

### EMERGENCY PROCEDURES

- In case of ditching:
  - Reduce speed to 115 km/hr (65 kt).
  - Inflate floats using the push button under the guard on the pilot's collective pitch control lever.
    - . Inflation time is 30 seconds approx.
- On contact with the water avoid it piling up against the nose of the floats.
- Jettison doors after alighting.
- Abandon the aircraft after the rotor stops.

## Section 4

### PERFORMANCE

The performance figures given in PART 4 of basic manual are not affected when the aircraft is in the floatation gear folded configuration



# FLIGHT MANUAL

## SA 315B LAMA

### SUPPLEMENT N°5

DYNAMIC SAND FILTERS


P/N 315A 73 50 000

This supplement shall be included in the Flight Manual when the installation mentioned above has been completed.  
The information contained herein supplements or cancels the information given in the Basic Flight Manual.

#### LIST OF EFFECTIVE PAGES

All pages of this supplement are listed below.  
This list is re-issued with each amendment.

PAGE	CODE	PAGE	CODE	DGAC APPROVED 1-10-1981
1	10-81			
2	10-81			
3	10-81			
4	10-81			
5	10-81			



The information contained in this supplement is approved  
by the  
"DIRECTION GENERALE DE L'AVIATION CIVILE"

ISSUE : 1  
Amendment N° : 0  
Date code : 10-81





# General

This supplement applies to SA 315B aircraft equipped with dynamic sand filter installation N°315A.73.50.000.

The purpose of this installation is to protect the engine against ingress of sand ; it consists of :

- a filter fitted round each engine air intake
- a pressurized air supply system (P2)
- an electrical control and monitoring circuit.

When the filter is operating, the ambient air passes through an assembly of operator tubes which constitute the filter. The filtered air is ducted to the engine air intake and the sand is evacuated at the lower part of the installation by means of nozzles ventilated by the P2 system.

Control and monitoring components available to the pilot consist of :

- a protective circuit-breaker on overhead panel
- a switch and a "FILTRE ANTI SABLE" (SAND FILTER) indicator light at the lower L.H. side of the instrument panel. This switch operates the P2 system by opening and electro-valve. When the indicator light comes on, it indicates that the electro-valve is fully open.

## Section 1

### LIMITATIONS

All limitations stated in Section 1 of the Basic Manual remain applicable.

## Section 2

### NORMAL PROCEDURES

Instructions given below are to be added to the normal procedures stated in Section 2 of the Basic Manual which all remain applicable.

#### 1 - BEFORE FLIGHT

- Check the filters for security to the engine and pipes for condition
- Check the electro-valve for correct operation : switch on and ensure that the light comes on.

SUPP.5

**2 - FLIGHT IN SAND-LADEN ATMOSPHERE**

- Set the "FILTRE ANTI SABLE" (SAND FILTER) switch to "ON"
- Ensure that the warning light comes on.

**3 - POWER CHECK**

- Set the "FILTRE ANTI SABLE" (SAND FILTER) switch to "OFF" and add 10°C to the t4 temperature given by the power check curve (refer to SECTION 2 of the Basic Manual).

## *Section 3*

### **EMERGENCY PROCEDURES**

All emergency procedures given in SECTION 3 of the Basic Manual remain applicable to aircraft equipped with sand filters.

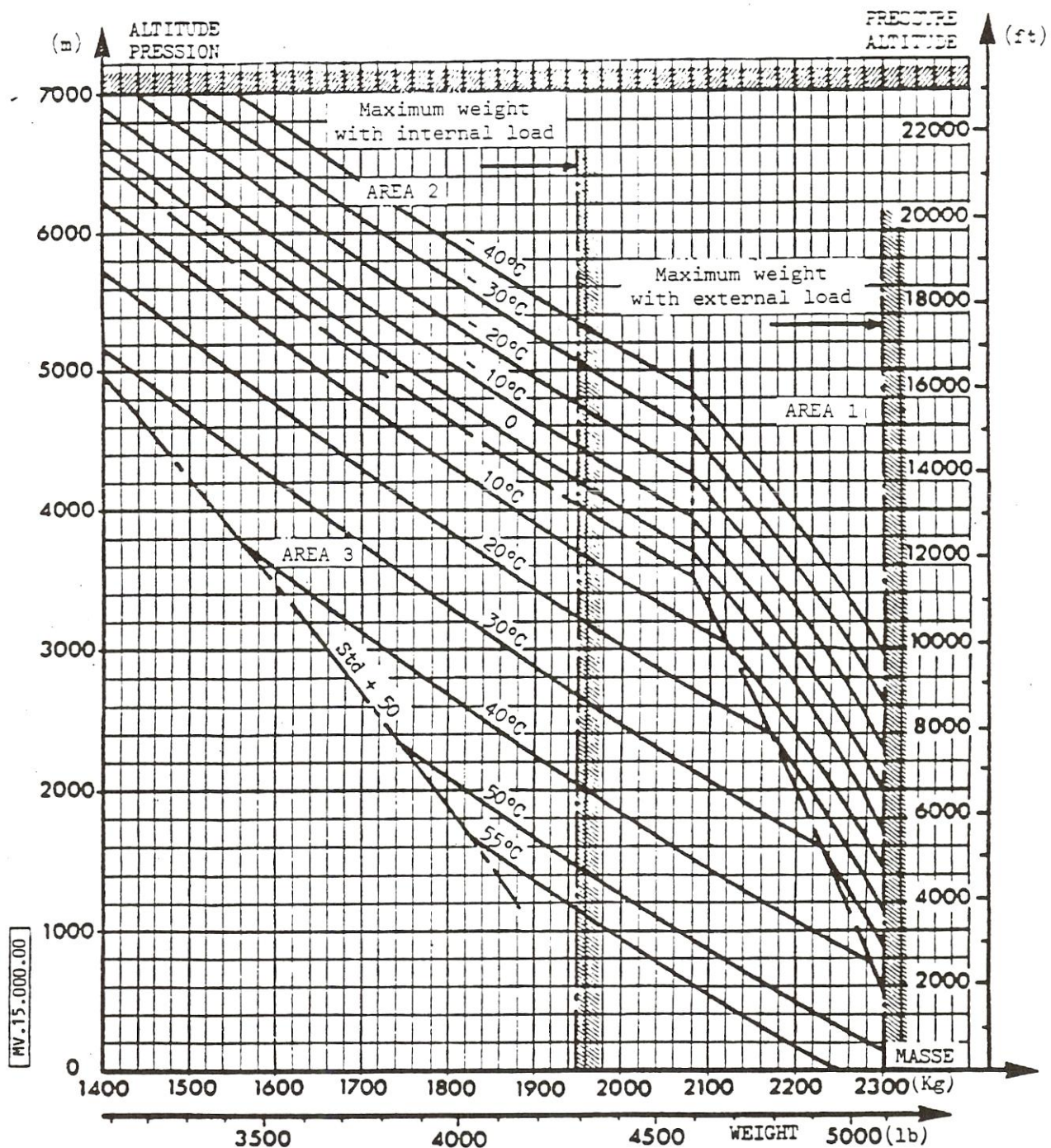
- If the P2 electro-valve fails to open (indicator light does not come on), avoid to fly in sand-laden atmosphere which could damage the engine prematurely.
- If the P2 electro-valve fails to close (indicator light does not go out), the flight may be carried out without any risk of adverse effect (The filter then remains operating).

## *Section 4*

### **PERFORMANCE**

The performance figures stated in Section 4 of the Basic Manual remain applicable except for those related to hover. The following charts shall be used for hover I.G.E. and O.G.E.

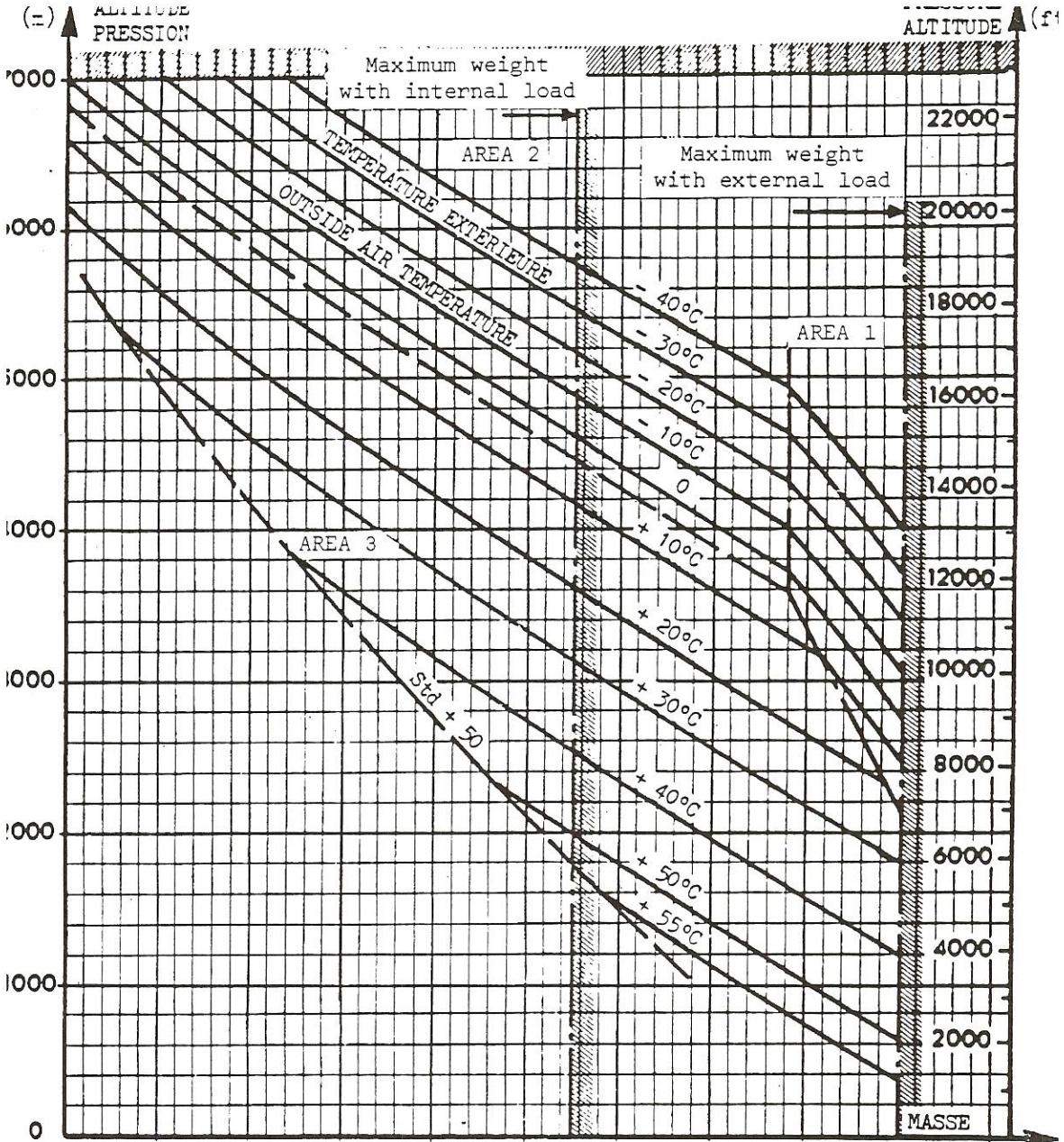




AREA 1 : Pitch law  $W \leq 420$  KW  
 AREA 2 : Maximum pitch  $D\theta = 1$   
 AREA 3 : Maximum thermal power

Ceiling in hover O.G.E.  
 with sand filter  
 (Maximum recommended take-off weight)









# FLIGHT MANUAL

## SA 315 B LAMA

### SUPPLEMENT N° 7

#### FLOAT TYPE LANDING GEAR

P/N: 315A.07.73.030

This supplement shall be included in the Flight Manual when the installation mentioned above has been completed.  
The information contained herein supplements or cancels the information given in the Basic Flight Manual.

#### LIST OF EFFECTIVE PAGES

All pages of this supplement are listed below.  
This list is re-issued with each amendment.

PAGE	CODE	PAGE	CODE	PAGE	CODE	PAGE	CODE
Page 1	7.76						
Page 2	7.76						
Page 3	7.76						

N°	Date code
ISS.	3 7.76
AMDt.	

The information contained in this supplement is approved by the  
DIRECTION GENERALE DE L'AVIATION CIVILE

APPROVED

10.10.76



# Section 1

## LIMITATIONS

Limitations specified for the basic aircraft in Section 1 of this manual are applicable except for :

- paragraph 11 - Altitude and temperature limits (page 9) - to which the following restriction has to be added :
- "The 'flight altitude limit' is 1800 metres (5950 ft) above and 500 metres (1650 ft) below the altitude at which the floats were inflated".
- The temperature envelope remains unchanged.

# Section 2

## PROCEDURES NORMALES

### 1 - INFLATION

Normal pressure : 0.25 bar (see Altitude limits, above).

Avoid leaving the aircraft on hot ground ; if unavoidable, keep a watch on inflation pressure.

### 2 - USE OF ROTOR BRAKE

In this configuration the pilot is advised to avoid using the rotor brake after alighting on water, due to the tendency of the aircraft to turn to the right about its vertical centre-line.

### 3 - GROUND TAKE-OFF AND LANDING

Ground take-off and landing instructions given for the skid type landing gear are applicable when floats are fitted (see Section 3, page 10 of basic manual more particularly for heavy weights).

Take-off weights are the same as for the aircraft without floats.

### 4 - SPINNING THE ROTOR ON WATER

The main rotor may be engaged when the aircraft is on the water if the area is clear of any obstacle. Due to the main rotor torque reaction, the aircraft will turn (up to 180 degrees) when the main rotor is engaged.

### 5 - KEEPING THE AIRCRAFT STILL WITH THE ROTOR TURNING

At 33500 r.p.m., the aircraft may tend to move forward and to the left. This tendency is easily overcome by displacing the cyclic stick and slightly increasing collective pitch.

SUPP. 7

#### 6 - TAXIING ON WATER

No special difficulty is associated with this manoeuvre. It is recommended to limit forward speed and apply a little collective pitch to avoid ramming of water at the front of the floats.

#### 7 - NORMAL ALIGHTING ON WATER

Instructions are the same as for normal landing with skid type landing gear.

## Section 3

### EMERGENCY PROCEDURES

#### 8 - AUTOROTATIONAL ALIGHTING ON WATER

Touch-down on water from autorotational flight should be accomplished at low speed to avoid ramming of water at the front of the floats.

- Initiate flare-out fairly high
- Hold nose-up attitude until the aircraft approaches water.
- Reduce nose-up angle as necessary at the moment of touch-down to maintain tail rotor clearance.

## Section 4

### PERFORMANCE

Not applicable.