



# FLIGHT MANUAL

## SA 315 B LAMA

### SUPPLEMENT N° 8

#### BARRIER TYPE SAND FILTER

P/N : 3160.50.20.100

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.  
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PAGE	CODE	PAGE	CODE	PAGE	CODE	PAGE	CODE
Page 1	7.76						
Page 2	7.76						

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L'I.P. RICHARD



# General

The "barrier" type sand filters are fitted in place of the engine air intakes : nevertheless their installation can only be made if the engine is fitted with special supports.

The installation consists of two filters, preventing the engine from absorbing sand. It includes no control, and no monitoring is at the pilot's disposal.

## Section 1 **LIMITATIONS**

Limitations given in Section 1 of basic manual remain applicable.

## Section 2 **NORMAL PROCEDURES**

All normal procedures given in basic manual remain applicable. However after flying in polluted atmosphere it is recommended to check that there is no increase of  $t_4$ .

## Section 3 **EMERGENCY PROCEDURES**

Not applicable.

## Section 4 **PERFORMANCE**

Installation of "barrier" type sand filters does not affect aircraft performance.



# FLIGHT MANUAL

## SA 315 B LAMA

### SUPPLEMENT N° 9

### RESCUE HOIST

P/N : 315A.73.02.100

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PAGE	CODE	PAGE	CODE	PAGE	CODE	PAGE	CODE
Page 1	7.76						
Page 2	7.76						
Page 3	7.76						
Page 4	7.76						

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L'IP. RICHARD



# General

The crew must be composed of a pilot and a hoist operator (winchman) (never a co-pilot).

## Section 1 **LIMITATIONS**

The basic aircraft limitations given in Section 1 are applicable with the addition of the following restriction, to be added to paragraph 2 "WEIGHT" :

- "Maximum permissible load with hoist is 160 kg (352 lbs)".

## Section 2 **NORMAL PROCEDURES**

Prior to each mission, prime the hoist control servo valves by actuating the two push-buttons (1) : push right in, then release, - operate the push buttons alternately two or three times (engine off).

Drain condensation water from the filter (3) (purge valve) before starting the engine.

Before the flight, actuate the hoist with no load to unwind and re-wind approximately 1.5 m (4.5 ft) of cable.

Before using the hoist :

- Ensure that the reserve of collective pitch is sufficient to allow hovering out of ground effect without exceeding the pitch limitation, knowing that an increase of 160 kg (352 lb) in weight corresponds approximately to a collective pitch increase of 0.05.
- Engage the "Mission" and "Emergency" circuit breakers, located on the overhead panel.
- Switch the hoist "MISSION" master switch ON (overhead panel) and set the mission selector switch (2), located on the right hand side of the lower pedestal panel, to the ("treuil") "HOIST" position.

The hoist operator can then control lowering and raising of the hook by actuating the rocker switch (4), on his control grip (5).

NOTE : In certain combinations of cable length and load, vertical oscillation of the load may occur. These can be damped out by changing the length of cable unwound.

#### SPECIAL PRECAUTIONS

The hoist operator's position is on the port side ; he must wear a properly attached safety belt (6).

Hoisting operations must be carried out in hover, generally out of ground effect, and the load should be wound in before directional flight is resumed.

Do not lift more than one person at a time.

Before raising a second person, the first one should be placed behind the pilot ; if possible, to starboard.

NOTES : 1. The most unfavourable c.g. condition is :

- Wind 20 knots
- Little fuel
- Lightweight pilot and heavy hoist operator.

Even under these conditions it is still generally possible to hoist up the maximum authorized load.

2. The use of hoist is not compatible with the float type landing gear.

## Section 3

### **EMERGENCY PROCEDURES**

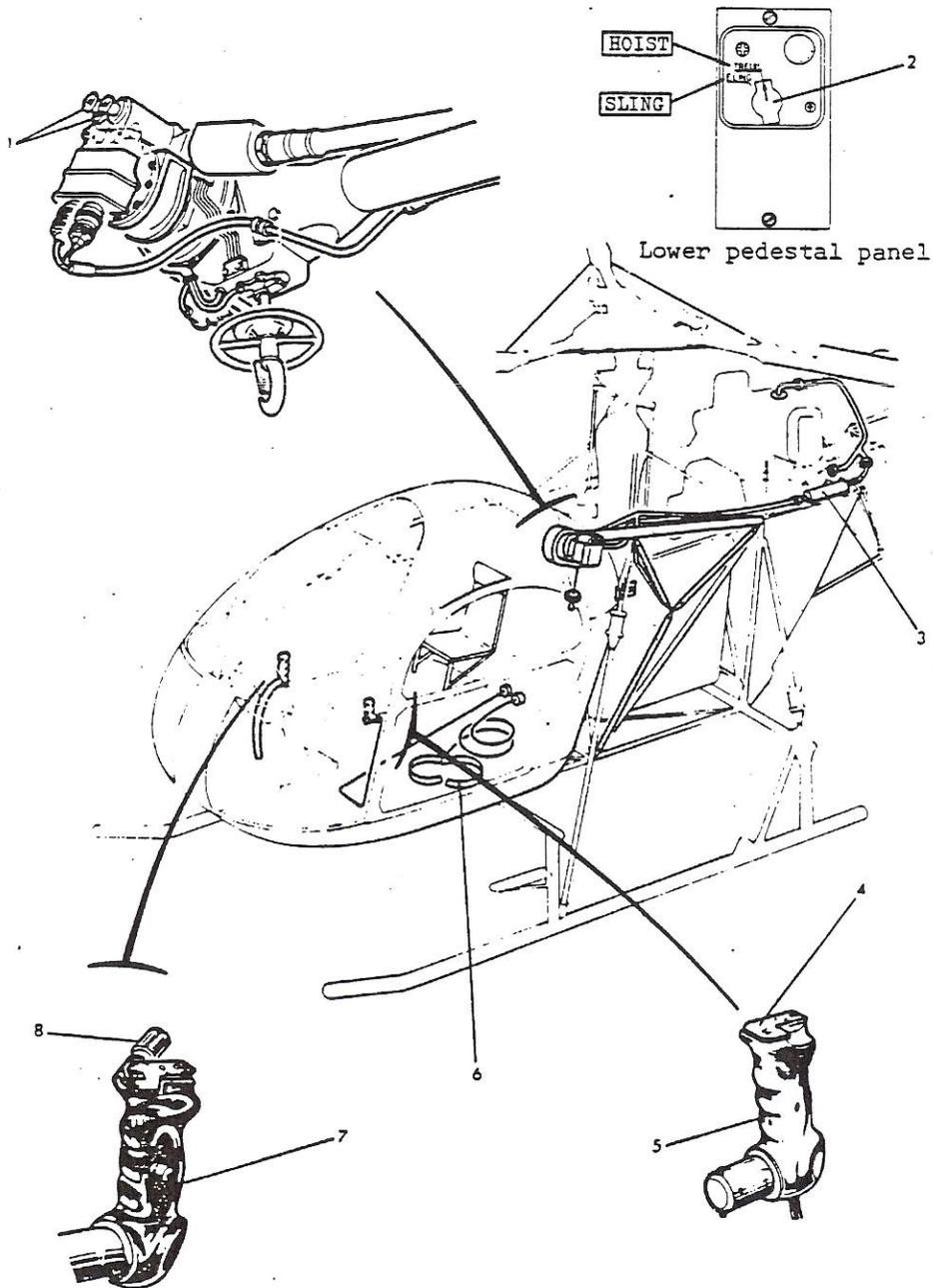
In case of emergency the pilot can command shearing of the cable by actuating the push button (8) located on the cyclic control stick grip (7).

This control is operative only if the electrical securities (circuit breaker and switch on overhead panel, and mission selector switch on pedestal panel) are in the "hoist operative" position.

## Section 4

### **PERFORMANCE**

The performance figures given in Section 4 of basic manual are applicable to the helicopter with hoist installed.



Rescue hoist installation



# FLIGHT MANUAL

## SA 315 B LAMA

### SUPPLEMENT N° 11

#### SKI INSTALLATION

P/N : 315A 73.13.000

315A 73.13.000.1

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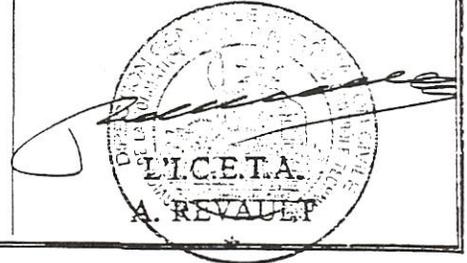
PAGE	CODE	PAGE	CODE	PAGE	CODE	PAGE	CODE
Page 1	04-88 ✓						
Page 2	07-76 ✓						
Page 3	04-88 ✓						

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# General

The installation of skis is recommended every time the aircraft is to be landed on snow, and absolutely necessary when the aircraft is to be operated on soft snow. The skis are fitted directly on the skids and allow the aircraft to land normally on ground.

## Section 1

### LIMITATIONS

All limitations given in basic manual remain applicable.

## Section 2

### NORMAL PROCEDURES

#### 1 - NORMAL LANDING

From hovering flight :

- Maintain the stick in the hovering attitude position.

#### 2 - SPECIAL PRECAUTIONS

##### A. ON FRESHLY-FALLEN SNOW

Normal take-off and landings are possible provided that the pilot looks at the ground immediately in front of him, through the windshield and not straight ahead. Irregularities of the snow surface can be easily detected by the pilot and be used as a reference for hovering.

Final approach can be facilitated by landing the aircraft near a clearly visible reference point (rock, tree, etc...).

Take-off : Do not allow the aircraft to slide, but raise the aircraft forward in a steep climb, without hovering.

Landing : Perform a sliding landing : clouds of snow will only develop after touch-down. Collective pitch should be completely reduced only after the aircraft has come to a complete stop.

**B. ON DRY SNOW**

On snow covered with a hard layer or slushy snow (partly melted throughout) : the landing will be conducted by gradually reducing collective-pitch, step by step, in order to avoid sudden sinking of one of the skis.

## Section 3

### EMERGENCY PROCEDURES

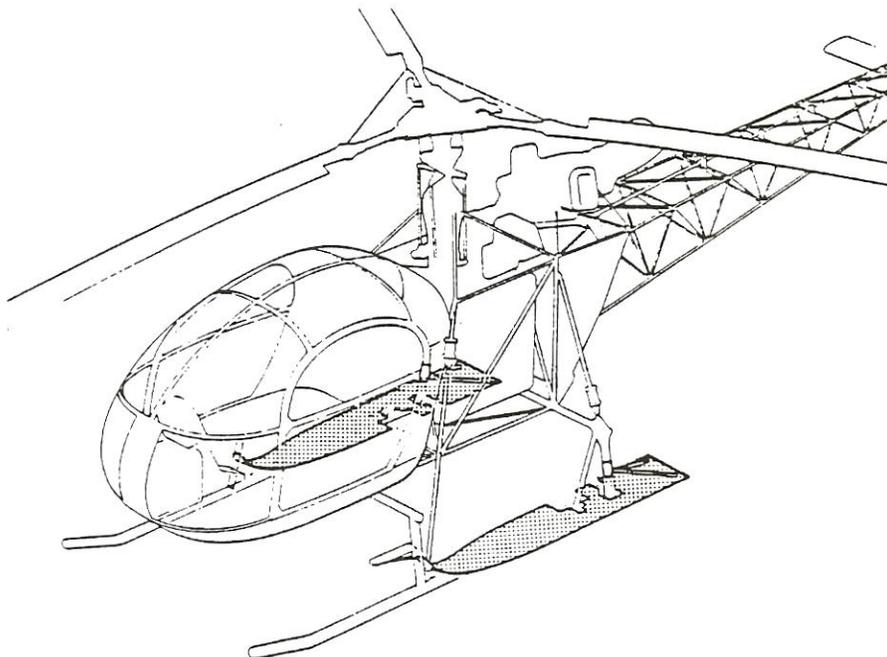
Not applicable. Refer to corresponding section in the basic manual.

## Section 4

### PERFORMANCE

For aircraft fitted with skis, increase the aircraft gross weight by 30 kg prior to using the charts in Section 4 which give ceiling values in hover IGE and OGE .

The other performance data given in Section 4 of the basic remain practically unchanged.





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# FLIGHT MANUAL

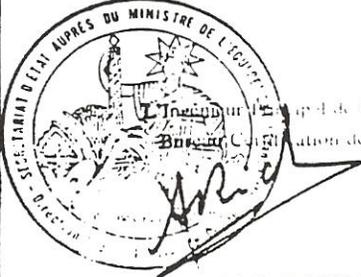
## SA 315 B LAMA

### SUPPLEMENT N°12

#### FUEL JETTISON SYSTEM

P/N : INST. 3130S 73.87.400

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.

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# General

The fuel jettison valve provides a means of quickly lightening the aircraft, particularly for rescue operation with a hoist.

Two hundred litres (53 US. gal.) of fuel can be jettisoned with this system in 1 minute 30 seconds and the amount of non-jettisonable fuel is 200 litres (53 US. gal.). Jettisoning can nevertheless be stopped before the 200-litres minimum limit is reached.

## Section 1

### LIMITATIONS

Jettisoning of fuel during descent is prohibited.

In addition to this special prohibition, the whole of the limitations given in the basic manual still apply.

## Section 2

### NORMAL PROCEDURES

To jettison fuel :

- Fly the helicopter at a speed of 40 to 100 km/h (20 to 55 knots).
- Check that the " FUEL JET. " circuit-breaker on the overhead panel is in the correct position.
- Actuate the " FUEL JET." switch, protected by a guard and located on the same panel.

## Section 3

### EMERGENCY PROCEDURES

Not applicable. Refer to corresponding Section in the basic manual.

## Section 4

### PERFORMANCE

The fuel jettison valve installation does not affect the aircraft performance.

SUPP 12



# FLIGHT MANUAL

## SA 315 B LAMA SUPPLEMENT N°15

### BATTERY TEMPERATURE DETECTION SYSTEM

(Per AMS N° 07.1096)

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.

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Page 2	4.76						

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# General

The battery temperature detection device is intended to warn the pilot in case of overheating of the battery.

It consists essentially of a detector fitted inside the battery, connected via an electric circuit to a warning light on the instrument panel.

The assembly of this device does not modify the information given in the basic manual : however the following information should be taken into account :

## Section 1 **LIMITATIONS**

Not applicable.

## Section 2 **NORMAL PROCEDURES**

When carrying out internal checks, before starting the engine :

- . Check that the "BAT. TEMP." warning light comes on normally.
- . Have the system repaired if the warning light remains out.

## Section 3 **EMERGENCY PROCEDURES**

- If the "BAT. TEMP." warning light comes on (excessive battery temperature, over 71°C) :
- . Set the "BATT" switch, on the overhead panel, to "OFF" and land as soon as possible.

## Section 4 **PERFORMANCE**

Not applicable.

**SUPP. 15**



# FLIGHT MANUAL

## SA 315 B LAMA SUPPLEMENT N° 16 EXTERNAL LOAD PANNIERS

P/N : 315B\_MR\_0173

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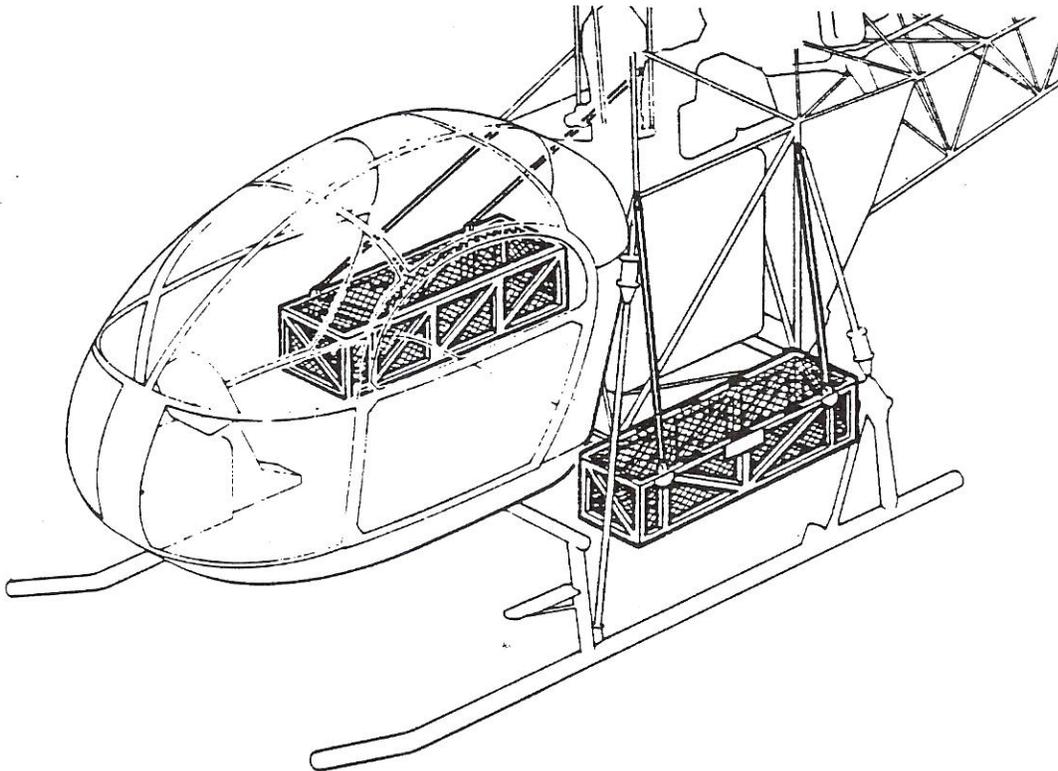


# General

Two panniers, made of a tube assembly and expanded metal sheets, are located on either side of the aircraft between the undercarriage cross-beams.

## Main dimensions :

. Length .....	1.231 metre
. Width .....	0.500 metre
. Height .....	0.320 metre



## Section 1 **LIMITATIONS**

Limitations given for the basic aircraft in Section 1 of basic manual remain applicable.

All-up weight and c.g. limits are to be observed.

- Maximum loading of the pannier ..... 100 kg
- Useful capacity ..... 0,18 cu.m

**SUPP. 16**

## Section 2

### NORMAL PROCEDURES

Before flight, check that the load is correctly secured to the rings, provided for this purpose, by means of elastic cords.

As a rule, the dimensions of the load should be limited to those of the panniers.

## Section 3

### EMERGENCY PROCEDURES

Not applicable.

## Section 4

### PERFORMANCE

Performance figures given in Section 4 of basic manual are not affected by the external load pannier installation.