AIRBUS HELICOPTERS

# FLIGHT MANUAL

# EC 155 B1

TYPE CERTIFICATE EASA.R.105

REGISTRATION No RDPL 34237 SERIAL No. 6997

APPROVED BY:

The DIRECTION GENERALE DE L'AVIATION CIVILE ( DGAC )

L'I.C.E.T.A.
A. REVAULT

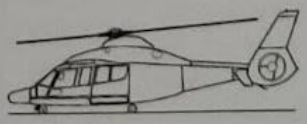
Date of approval: 31 JUL 2002

The Rotorcraft Flight Manual consists of all pages marked "DGAC approved" or "EASA approved" or "APPROVED"

**IMPORTANT NOTE**

The practical value of this manual depends entirely upon its being up-dated correctly by the operator.

The effectivity of the manual at the latest revision is specified on the List of Effective Pages.



AIRBUS HELICOPTERS Direction Technique Support
Aéroport international Marseille-Provence 13725 Marignane Cedex - France

# SECTION 2.2
# WEIGHT AND CENTER OF GRAVITY LIMITS

## 1 WEIGHT LIMITS

- Maximum approved gross weight .....4920 kg (10846 lb).

CAUTION

USE OF WEIGHT ABOVE 4850 KG (10692 LB) IS SUBJECT TO EMBODIMENT OF ALL EXTREME COLD WEATHER KITS, MOD DESCRIBED IN SECTION 2-3 PAGE 3, AND IS LIMITED TO -30°C < OAT ≤ +50°C.

- Maximum Take-Off and landing Weight:

Depending on outside conditions (altitude and temperature) and on the number of installed passenger seats, the maximum takeoff and landing weight shall be limited as follows:

| **Aircraft with 9 installed passenger seats or less** | **Aircraft with 10 installed passenger seats or more** |
|---|---|
| Weight limited by:<br>**TWIN ENGINE HOVER PERFORMANCE IGE MAXIMUM WEIGHTS**<br>(refer to Section 5.1, figure 4)<br>without exceeding 4920 kg (10846 lb) | Weight limited by:<br>**TWIN ENGINE HOVER PERFORMANCE IGE MAXIMUM WEIGHTS**<br>(refer to Section 5.1, figure 4)<br>without exceeding 4920 kg (10846 lb)<br>**and**<br>**TAKEOFF WEIGHTS PERMITTING CLIMB AT 150 ft/min, 1000 ft ABOVE GROUND WITH ONE ENGINE INOPERATIVE**<br>(refer to Section 5.1, figure 10)<br>without exceeding 4920 kg (10846 lb) |

- Minimum approved gross weight .....OAT ≥ -5°C: 3000 kg (6614 lb),
  -5°C > OAT ≥ -25°C: 3200 kg (7055 lb),
  -25°C > OAT ≥ -40°C: 3400 kg (7496 lb).
- Maximum gross weight for taxiing.....4950 kg (10913 lb).

## 2 CENTER OF GRAVITY LIMITS

### 2.1 LONGITUDINAL CG POSITION

Figure 1 plots the approved extreme CG positions versus aircraft weight.

The CG datum is located 4 m (157.5 in) forward of the main rotor centerline.

## 2 LIMITATIONS

The limitations specified in the Basic Flight Manual and in the Supplements used remain applicable and are supplemented or modified by the following limitations.

### 2.1 PROHIBITED FLIGHT CONDITIONS

The following are prohibited:

- switching sand filters on again during takeoff or landing phases following an automatic shutoff,
- simultaneous operation of the cabin heating system and active sand filters in flight.

### 2.2 WEIGHT LIMIT

Depending on outside conditions (altitude and temperature) and on the number of installed passenger seats, the maximum takeoff and landing weight shall be limited as follows:

| **Aircraft with 9 installed passenger seats or less** | **Aircraft with 10 installed passenger seats or more** |
|---|---|
| Weight limited by:<br>**TWIN-ENGINE HOVER PERFORMANCE IGE MAXIMUM WEIGHTS**<br>With sand filters inactive:<br>Refer to Figures 7 and 8<br>With sand filters active:<br>Refer to Figures 9 and 10 | Weight limited by:<br>**TWIN-ENGINE HOVER PERFORMANCE IGE MAXIMUM WEIGHTS**<br>With sand filters inactive:<br>Refer to Figures 7 and 8<br>With sand filters active:<br>Refer to Figures 9 and 10<br>**and**<br>**TAKEOFF WEIGHTS PERMITTING CLIMB AT 150 ft/min, 1000 ft ABOVE GROUND WITH ONE ENGINE INOPERATIVE**<br>With sand filters inactive:<br>Refer to Figure 19<br>With sand filters active:<br>Refer to Figure 20 |

### 2.3 LIMITATIONS OF ENGINES (SAND FILTERS ACTIVE)

The FADEC units AUTOMATICALLY reduce Maximum Takeoff Power N1, Maximum Continuous Power N1 and continuous OEI N1 by 0.31% to comply with T4 limits.