

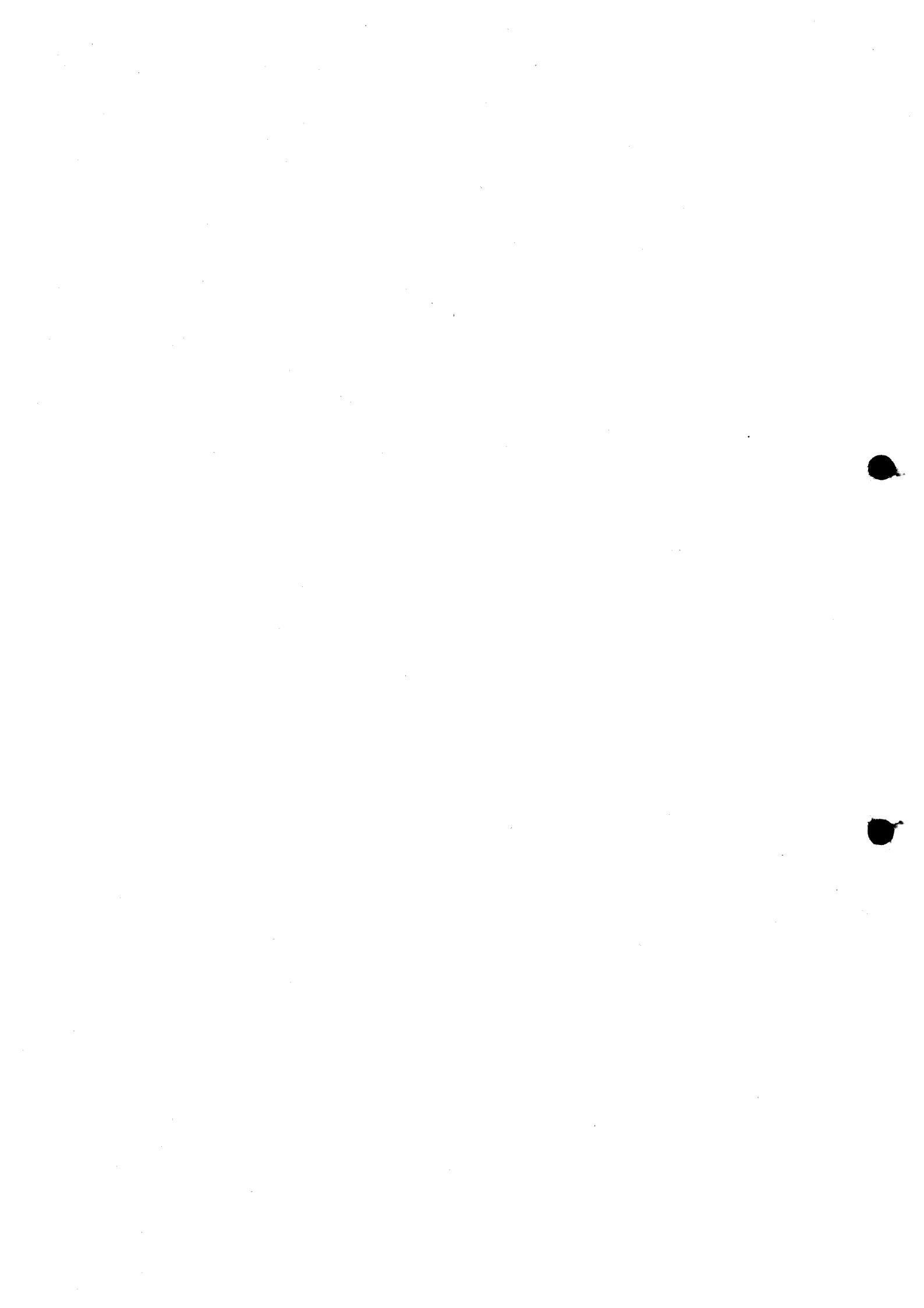
# Type Specification

dauphin 360c  
sa



Division Hélicoptères  
2 à 20 av. M. Cachin  
La Courneuve 93126  
France

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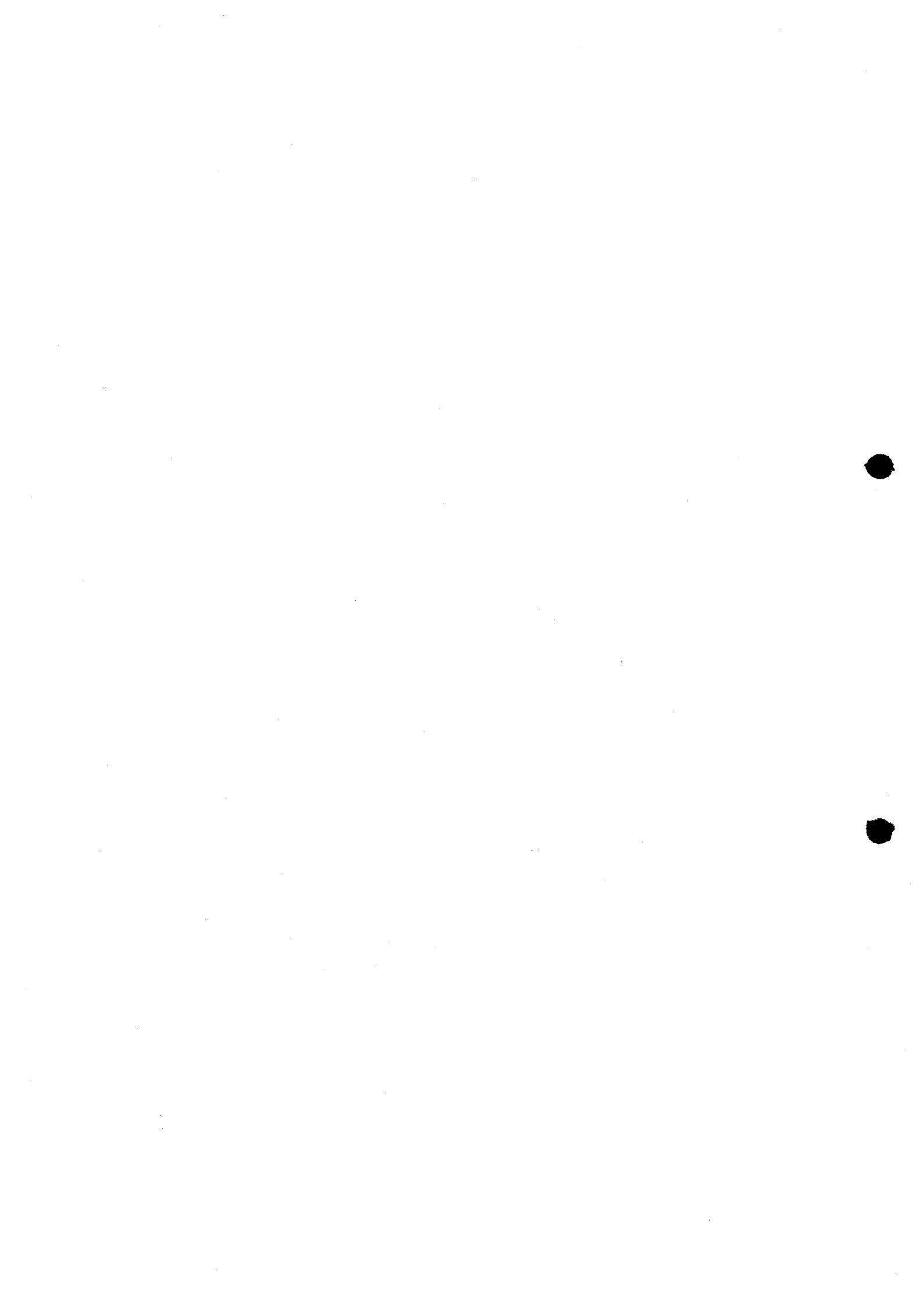


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## FOREWORD

The SA 360 C single-engined helicopter as defined in this Type Specification meets the requirements of the French regulations and the American FAR 29, cat B for day and night VFR flight.

The SA 360 C is manufactured in series by the Aerospatiale Helicopter Division.

The design of the SA 360 C was undertaken along the following criteria :

- vast cabin (10/14 seats) of easy access, affording many lay-out possibilities
- high cruise-speed (270 km/hr = 146 kts)
- substantial useful load (1,360 kg = 2,998 lb)
- spearhead technology inspired from Gazelle's, benefitting from the experience gained on this helicopter
- ease of flying
- manoeuvrability
- mechanical components whose liberal sizing makes for high T.B.O'S
- infinite life main and tail blades
- simplified maintenance which ought quickly to permit « on condition » servicing, ie. no systematic removal of the elements

All these guide-lines resulted in an aircraft with the following advantages :

- low maintenance costs with high T.B.O's
- outstanding performance
- operational flexibility
- safety

The SA 360 C holds three world speed records in its class :

- 312 km/hr over 3 km base
- 303 km/hr over 15 km base
- 299 km/hr, on closed circuit, over 100 km

The various lay-out possibilities, the useful volume of 5 m<sup>3</sup> (177 cu.ft.) in the cabin and 1 m<sup>3</sup> (35 cu.ft.) in the hold, all combined with flat floor, 4 wide doors and a door extension provide the Dauphin with true versatility.

With the suitable optional equipment, the Dauphin can fulfil the following missions :

- personnel-carrying (up to 14 passengers including the pilot)
- oil-rig provisioning
- V.I.P. carrying
- internal load carrying
- cargo-slung load carrying
- rescue
- casualty evacuation (up to 4 stretcher patients + 1 medical attendant)
- surveillance
- aerial photography
- fire fighting



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## GENERAL

The SA 360 C Dauphin is a 3,000 kg (6,615 lb) gross weight, fast, 10/14 seat helicopter designed for personnel-carrying and aerial work.

A helicopter of the new generation which stands out by its :

- moulded blades formed of a glass-fibre roving spar, a carbon fabric skin and plastic honeycomb filler. The carbon fiber, a good conductor of electricity, protects the spar against any risk of lightning strike,
- semi-rigid rotor head doing away with the conventional drag-damper, a source of maintenance-work,
- ducted tail rotor which, in relation to the traditional type, increases safety during low altitude manoeuvring and landing, and as regards ground personnel. It also makes it possible to reach high cruising speed,
- TURBOMECA Astazou XVIII turbine-engine of 770 kW (1,047 ch, 1032 HP) maximum power at ISA, SL,
- low vibration-level,
- equipment required to ensure, in operation, efficient monitoring of the operation of the mechanical units and engine,
- lay-out of the mechanical units and engine making for easier inspection and removal.



## DIMENSIONS

### Aircraft overall dimensions

■ Length, rotor rotating	13.20 m	43.30 ft
■ Main rotor diameter	11.50 m	37.72 ft
■ Height at top of fin	3.27 m	10.72 ft
■ Length with blades folded*	13.20 m	43.30 ft
■ Width with blades folded*	3.15 m	10.33 ft
■ Height at rotor head	3.50 m	11.48 ft
■ Ground clearance under cabin	0.47 m	1.54 ft
■ Width of fuselage	1.95 m	6.40 ft
■ Length of fuselage	10.98 m	36.02 ft

### Cabin dimensions

■ Maximum length	2.30 m	7.54 ft
■ Maximum width	1.92 m	6.29 ft
■ Maximum height	1.40 m	4.59 ft
■ Area available	4.20 m <sup>2</sup>	45.20 sq.ft
■ Volume available	5.00 m <sup>3</sup>	176.57 cu.ft

### Cabin door dimensions

■ Front doors		
Width	1.14 m	3.74 ft
Kξυκ]	1.16 m	3.80 ft
Area	1.32 m <sup>2</sup>	14.20 sq.ft
■ Rear doors		
Width	0.87 m	2.85 ft
Height	1.16 m	3.80 ft
Area	1.00 m <sup>2</sup>	10.76 sq.ft

### Luggage hold dimensions

■ Length	1.57 m	5.15 ft
■ Width at front	1.50 m	4.92 ft
■ Width at rear	0.70 m	2.29 ft
■ Height at front	1.00 m	3.28 ft
■ Height at rear	0.70 m	2.29 ft
■ Area available	1.15 m <sup>2</sup>	12.37 sq.ft
■ Volume available	1.00 m <sup>3</sup>	35.31 cu.ft

### Luggage hold door dimensions

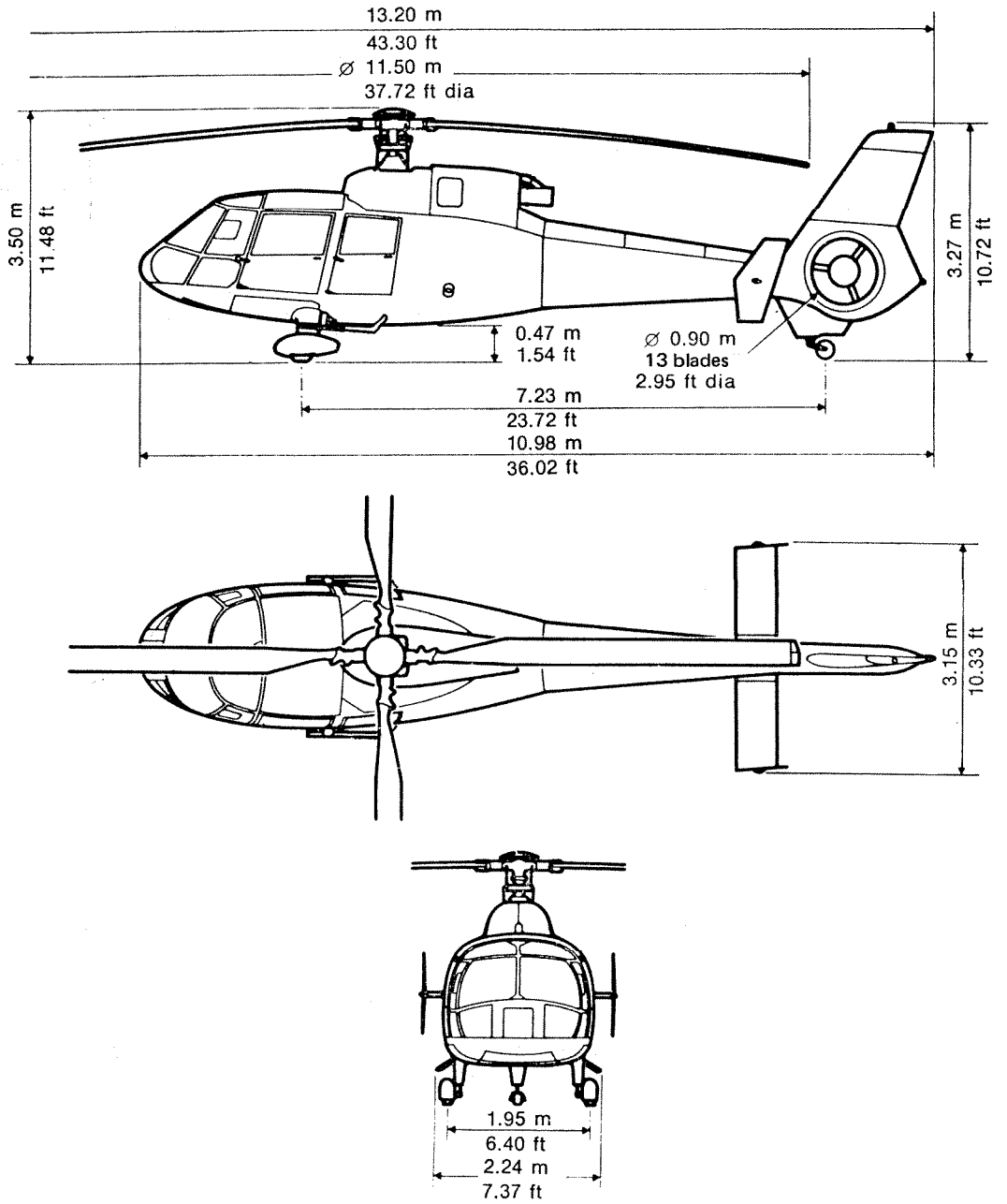
■ Height	0.57 m	1.87 ft
■ Length	0.77 m	2.53 ft

\* 2 blades forwards, 2 blades rearwards.

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MAIN DIMENSIONS



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# WEIGHT BREAKDOWN OF STANDARD AIRCRAFT

	kg	lb
<b>Airframe</b>	<b>786</b>	<b>1,733</b>
■ Main rotor blades	159	351
■ Fuselage	417	919
■ Tail unit and rotor	31	68
■ Flight controls	57	126
■ Landing gear	84	185
■ Cowlings	38	84
<b>Power unit and transmission</b>	<b>589</b>	<b>1,299</b>
■ Power unit installation	212	467
■ Mechanical units	345	761
■ Fuel systems	31	69
■ Undrainable fuel	1	2
<b>Equipment and furnishing</b>	<b>262</b>	<b>578</b>
■ Hydraulic systems	25	55
■ Electrical systems	75	165
■ Accommodation	140	309
■ Flight handling and navigation aids	22	49
■ Communications	0	0
<b>Empty, weight</b>	<b>1,637</b>	<b>3,610</b>
<b>Engine oil</b>	<b>8</b>	<b>18</b>
<b>Useful load</b>	<b>1,355</b>	<b>2,987</b>
■ Pilot	80	176
■ Payload and fuel	1,275	2,811
● Usable fuel in normal tanks : 510 kg (1,125 lb)		
<b>Maximum operating gross weight</b>	<b>3,000</b>	<b>6,615</b>

**N B :** The empty weight of the standard aircraft as defined in this Type Specification includes the lubricants, the non-consumable fuel and the Flight Manual, but not the engine oil.

The empty is correct to  $\pm 2\%$ .

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