Who is that helicopter? A spotter's guide

Twelve types you may see, and the clues that name them: the tail, the undercarriage and the blades.

Three questions that name most helicopters

#	Look at	What it tells you
1	**The tail**	A ducted fan set into the tail fin (a **Fenestron**) means an Airbus: H130, H135, H145 or H160. A normal open tail rotor means almost anything else.
2	**The undercarriage**	**Skids** (two tubes) are on the Robinsons, H125, AS355, H135, H145 and Bell 429. **Wheels** that fold away are on the AW109, AW139 and most larger executive and offshore types.
3	**Count the main blades**	2 blades: Robinson. 3: H125, H130, AS355. 4: H135, AW109, Bell 429. 5: H145, AW139, AW169. Two rotors, one at each end: Chinook.

Single or twin?

You cannot count engines from the ground, but size helps. A **single** turbine or piston helicopter is small. A **twin** is usually bigger and carries more people. The heliport's Local Flying Area routings are for twin-engine helicopters only.

Words you will meet

Fenestron	Airbus' ducted tail fan, built into the fin ("fan-in-fin").
Skids / wheels	The fixed tubes or folding wheels the helicopter lands on.
Turbine / piston	Jet-type engine or car-type engine. The Robinson R22 and R44 use pistons.
eVTOL	Electric vertical take-off aircraft with many small rotors. The guide covers them at londonhelicopterguide.co.uk/helicopters/.

SPOTTING SAFELY AND KINDLY

Stay off active landing areas and out of the way of the heliport's fences. Never point a laser or shine a torch at an aircraft. Do not fly a drone near the heliport: the area around it is a flight restriction zone at all times.

Specifications are from the aircraft makers and the EASA type certificate data sheets, as listed with each type at londonhelicopterguide.co.uk/helicopters/. A spotter's guide: paint schemes and modifications vary, so treat the clues as pointers, not proof.

Who is that helicopter? The types



PISTON, 4 SEATS

Robinson R44

Two-blade main rotor, two-blade tail rotor on a short boom, skids. Piston engine.

One piston engine · 4 seats · up to 109 kt (Raven II)

Photo: ZidaneHartono / Wikimedia Commons, CC BY-SA 4.0



SINGLE TURBINE

Airbus H125

Three-blade main rotor, two-blade conventional tail rotor, skids.

One turbine · pilot + up to 6 · 136 kt fast cruise

Photo: Helicopta / Wikimedia Commons, CC BY 4.0



SINGLE TURBINE

Airbus H130

Three-blade main rotor and a Fenestron, the ducted fan set into the tail fin. Skids.

One turbine · pilot + up to 7

Photo: Charter-A Ltd



LIGHT TWIN

Airbus AS355 Twin Squirrel

Looks like an H125 but has two engines. Three-blade main rotor, two-blade conventional tail rotor, skids.

Two engines · a twin of the Squirrel family

Photo: Charter-A Ltd



LIGHT TWIN

Airbus H135

Four-blade main rotor and a Fenestron with 10 blades. Skids. Compact, with the fan-in-fin tail.

Two turbines · 1–2 pilots + 5 or 6

Photo: Charter-A Ltd



LIGHT TWIN

Airbus H145

Five-blade main rotor and a Fenestron. Skids. Bigger than the H135: up to 10 passengers high-density, or two stretchers in the medical layout.

Two turbines · up to 10 passengers (high density)

Photo: Charter-A Ltd

Who is that helicopter? The types



LIGHT TWIN

Leonardo AW109

Four-blade main rotor, two-blade tail rotor, and wheels that fold away.

Two turbines · up to 6 passengers · 153 kt

Photo: Charter-A Ltd



MEDIUM TWIN

Leonardo AW139

Five-blade main rotor, four-blade tail rotor, retractable wheels. Carries up to 15 passengers, more than the AW109.

Two turbines · up to 15 passengers · 165 kt

Photo: Charter-A Ltd



MEDIUM TWIN

Leonardo AW169

Five-blade main rotor, three-blade tail rotor, wheels or skids. Shown here in air ambulance service.

Two turbines · up to 10 passengers · 144 kt

Photo: Mike Burdett, CC BY-SA 2.0, via Wikimedia Commons



LIGHT TWIN

Bell 429

Four-blade main rotor and four-blade tail rotor, skids (wheels optional).

Two turbines · pilot + up to 7 · 155 kt

Photo: Jauhsekali / Wikimedia Commons, CC BY-SA 4.0



MILITARY HEAVY-LIFT

Boeing CH-47 Chinook

Unmistakable: two big rotors, one at each end of a long body. It flies for the RAF.

Two turbines · RAF: up to 55 troops · 160 kt max

Photo: Sarah Ward / Wikimedia Commons, CC BY 2.0



MILITARY ATTACK

Boeing AH-64E Apache

Two crew sitting one behind the other, and a Longbow radar above the main rotor blades (British Army attack helicopter).

Two turbines · crew of 2 · max about 330 km/h

Photo: Andrew Thomas from Shrewsbury, UK / Wikimedia Commons, CC BY-SA 2.0