



Aircraft Data Sheet: The Fairey Type Y, Rotodyne.



First flight:	6th November 1957
Rotor diameter:	27.4m/90ft 0ins
Wing Span:	14.17m/46ft 6ins
Length:	17.88m/58ft 8ins
Max weight:	14,969 kg/33,000lb
Max speed:	298 kph/161knots
Power:	Two 2,800shp/2087kW Napier N.EI. 7 turboshafts1
Accommodation:	Two pilots plus test crew
No Built:	1

The Rotodyne was a large convertiplane research vehicle, aimed primarily at the civil transport market. This unique aircraft used tip jets to power the rotor, taking off in the helicopter regime, and then once established in level flight the tip jets were extinguished and flight continued as an autogyro. Fairey achieved considerable success with the prototype and plans were in hand for a larger (56-seat) production version. Westland continued design and development work until the project was cancelled due to lack of government support in 1962.



Aircraft Data Sheet: Wasp HAS MK 1



First flight:	28th October 1962
Rotor diameter:	9.83m//32ft 3ins
Length:	12.29m//40ft 4ins
Max weight:	2,495kg/5,500lb
Max speed:	193kph/104knots
Power:	One 1,050shp/783kW Rolls-Royce Nimbus 103 turboshaft
Accommodation:	Pilot plus four
No Built:	125

The Wasp was developed to meet the Royal Navy's requirement for a five seat general purpose, shipborne helicopter for operation from small ships such as frigates. The aircraft was based on the Scout airframe and was a direct result of earlier work carried out with the Saunders-Roe P-531. In addition to the aircraft produced for the Royal navy, Wasps served with the navies of the Netherlands, South Africa, New Zealand, Brazil, Indonesia and Malaysia.



**Aircraft Data Sheet: Westland (Agusta-Bell) Sioux AH MK 1,
HT MK 2 & HT Mk 3**



First flight:	9th March 1965. (Westland built)
Rotor diameter:	11.32m/37ft 1ins
Length:	13.17m/43ft 2ins
Max weight:	1,338kg/2,950lb
Max speed:	169kph/73knots
Power:	One 260shp/194kW Avco Lycoming TVO- 435-A1A turbo-charged piston engine.
Accommodation:	Pilot plus two
No Built:	253

A three seat general-purpose helicopter and trainer, basically the Bell 47G-4 built under licence from Agusta and Bell, ordered for all three UK services. A number of the 47G-4 variant were built for Bristol Helicopters. The licence agreement for the Sioux was the first occasion where Westland worked with Agusta.



Aircraft Data Sheet: Westminster (1958)



First flight:	15th June 1958
Rotor diameter:	21.95m/72ft 0ins
Length:	26.44m/86ft 9ins
Max weight:	14,969kg/33,000lb
Max speed:	241 kph/130knots
Power:	Two 3,150shp/2,349kW Napier Eland E229A turboshaft engines
Accommodation:	2 crew & 45 passengers
No Built:	2

The Westminster extended the Westland design organisation even further in an attempt to produce a large single rotor transport helicopter. The project was based upon a research vehicle, wholly funded by Westland using the Sikorsky S-56 rotor and transmission system, powered by two large Eland gas turbines.

Two prototypes were produced, the first being a dedicated research airframe with a simple tubular steel structure, the second prototype was fully representative aerodynamically intended to lead to a production standard.

However, indications were that official support could not be guaranteed and further work did not proceed beyond the research phase.

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Aircraft Data Sheet: WG 13 Lynx (1971)



First flight: 21st March 1971
Rotor diameter: 12.8m/42ft 0ins
Length: 15.16m/49ft 9ins
Max weight: 3,863kg/8,500
Max speed: 259kph/140knots
Power: Two
900shp/671kW Rolls
Royce Gem
turboshafts
Accommodation: Pilot plus test crew.
No Built: 12 prototypes

The Lynx was the third of the trio of helicopters involved in the collaborative deal, Westland holding the design authority for the aircraft. The semi-rigid rotor was an important feature, intended to offer high manoeuvrability and good handling for shipborne operations.

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Aircraft Data Sheet: **Widgeon (1955)**



First flight:	23rd August 1955
Rotor diameter:	14.99m/49ft 2ins
Length:	17.72m/58ft 1ins
Max weight:	2,675kg/5,900lb
Max speed:	167kph/90knots
Power:	One 520shp/388kW Alvis Leonides 521/1
Accommodation:	Pilot plus four
No Built:	15

This represented Westland's first excursion into helicopter design, involving major re-design of the WS-51, including an entirely new cabin, metal rotor blades and re-engine. A new flying control system was incorporated, and the centre of gravity range was improved by fitting a rotor head based on that of the Whirlwind, to produce a five-seat general-purpose helicopter for the civil market. The first three aircraft were conversions, followed by a number of new build machines.

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Aircraft Data Sheet: W 30-Series 100 (1979)



First flight:	10th April 1979
Rotor diameter:	13.31m/43ft 8ins
Length:	15.9m/52ft 2ins
Max weight:	5,443kg/12,000lb or 5,818kg/12,800lb (160)
Max speed:	241kph/130knots
Power:	Two 1,120shp/835kW Rolls Royce Gem 42-1 turboshafts or Two 1,260shp/940kW Rolls Royce Gem 60-3 turboshafts (160)
Accommodation:	Two crew and 19 passengers
No Built:	14 Series 100 & 24 Series 160

This was the basic version of the W-30, British Airways Helicopters purchased three of the Series 100 and these were delivered in 1982. Helicopter Hire Ltd were the second customer to operate the Westland 30-100, which were involved in many excursions across the USA and India. Subsequent orders came from PanAm and Airspur in the USA. The Indian Government also expressed an interest in buying the Series 100-60, after a successful demonstration to the Helicopter Corporation of India (later known as Pawan Hans) a contract for 19 Series 160 was signed.



First flight:	3rd September 1983.
Rotor diameter:	13.31m/43ft 8ins
Length:	15.9m/52ft 2ins
Max weight:	5,443kg/12,000lb or 5,818kg/12,800lb (160)
Max speed:	241kph/130knots
Power:	Two 1,712shp/1,276kW, General Electric CT7- 2B turboshafts
Accommodation:	Two crew and 19 passengers
No Built:	14 Series 100 & 24 Series 160

The Series 200 variant powered by two 1,712hp General Electric CT-7 engines used the same basic transmission as the series 100, but required a reduction gearbox to accept the higher engine output speed, side facing intakes were fitted to provide improved icing capability. The UK government invested £41 million in to the series 200 and 300, to assist with the exploitation of a wider market. Only one prototype was produced.

Aircraft Data Sheet: W 30-Series 300 (1986)



First flight:	5th February 1986
Rotor diameter:	13.31m/43ft 8ins
Length:	15.9m/52ft 2ins
Max weight:	7,272kg/16,000lb
Max speed:	277kph/150knots
Power:	Two 1,712shp/1,276kW, General Electric CT7- 2B turboshafts
Accommodation:	Two crew and 19 passengers
No Built:	One prototype built

Like the Series 200, the Series 300 used the CT-7 engines, but included a new five bladed main rotor head with BERP blades. It was also intended to include ACSR (Active Control Structural response) vibration control equipment, which had been successfully tested on a series 100 aircraft. The main intention was to submit the design as a response to requirement ASR 404 for a possible successor to the Puma and Wessex. In addition to which it was also hoped that there would be a wide civil and military export market, the requirement did not materialise. Only the single prototype was built.



Aircraft Data Sheet: WS-51 Dragonfly (1948)



First flight:	5th October 1948
Rotor diameter:	14.63m/48ft 0ins
Length:	17.72m/58ft 1ins
Max weight:	2,675kg/5,900lb
Max speed:	167kph/90knots (Max)
Power:	One 520shp/388kW Alvis Leonides 521/1
Accommodation:	Pilot plus four
No Built:	149

Westland built version of the Sikorsky S-51, This was Westland's first venture into helicopters. The basic S-51 was adapted to UK standards, including the introduction of the Alvis Leonides engine, the Dragonfly could carry a pilot and three passengers. Versions were produced for the Royal Navy, the Royal Air Force and civil operators. Those for the Royal Navy were equipped for sea rescue and communication duties, and those for the RAF primarily and casualty evacuations. Rescue versions carried a hoist capable of lifting 375lb. (170 kg). Dragonflies entered service with No 705 Naval Air Squadron at RNAS Gosport in 1950. The RAF used the Dragonfly extensively in Malaya.



Aircraft Data Sheet: WS-55 Whirlwind (1952)



First flight:	12th November 1952
Rotor diameter:	16.15m/53ft 0ins
Length:	18.94m/62ft 1ins
Max weight:	3,402kg/ 7,500lb
Max speed:	175kph/95knots
Power:	One 600shp/447kW Pratt & Whitney Wasp R-1340-40(600hp) or One 750shp/559kW Wright Cyclone R- 1300-3
Accommodation:	Two pilots plus ten
No Built:	289

After the Dragonflies had entered service, Westland announced the agreement between Sikorsky had been finalised to build Sikorsky S-55 for the British Forces, the Westland built a version of the Sikorsky S-55 was used for Search and Rescue, Transport and Anti-submarine duties. Initial versions designated Series 1, followed closely the engineering of the US original, and were powered by the 600hp/447kW Pratt and Whitney engine. Later, 750hp/559kW (de-rated) Alvis Leonides Major engines was fitted producing a Series 2 of improved performance. Whirlwinds were supplied to the RAF to operate in the Rescue and Transport roles. The Royal Navy used the aircraft for SAR and anti-submarine duties. Two Whirlwind HCC Mk8 aircraft were used by The Queens Flight.

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**Aircraft Data Sheet: WS-55 Whirlwind Series 3,
HAR 9 & HAR 10**



First flight: 28th February 1959
Rotor diameter: 16.15m/53ft 0ins
Length: 18.94m/62ft 1ins
Max weight: 3,538 kg/7,800lb
Max speed: 175kph/95knots
Power: One 1,050shp/783kW
Rolls-Royce Gnome H-1000 turboshaft
Accommodation: Two pilots plus ten
No Built: 75

The installation of a single Rolls-Royce Gnome turboshaft engine into the Whirlwind airframe represented a considerable improvement, used primarily in the SAR role, this version was generally accepted as a major improvement on the basic S-55 from which it was derived.



Aircraft Data Sheet: WS-58 Wessex MK 1 (1957)



First flight:	17th May 1957.
Rotor diameter:	17.07m/56ft 0ins
Length:	20.04m/65ft 9ins
Max weight:	5,715 kg/12,600
Max speed:	212 kph/115knots
Power:	One 1,450shp/1,085kW Napier Gazelle 161 (N Ga 13) Turboshaft)
Accommodation:	Pilot plus three (ASW)
No Built:	167

The adoption of the Sikorsky S-58 and its complete re-design, served to strengthen the Westland design team even further. The result was a general purpose and anti-submarine helicopter, using the Sikorsky S-58 airframe and transmission, modified to accept a turboshaft engine, full autopilot and Active Dinking Sonar for service with the Royal Navy. A number of Mk 1 aircraft were adapted to operate in the commando role.



Aircraft Data Sheet: WS-58 Wessex. HAS MK 3 (1965)



First flight: August 1965
Rotor diameter: 17.07m/56ft 0ins
Length: 20.04m/65ft 9ins
Max weight: 6,181kg/13,600lb
Max speed: 222kph/120knots
Power: One
1,600shp/1,193kW
Napier Gazelle 165
Accommodation: Pilot plus three.
No Built: 3 plus 43 conversions

The Wessex Mk 3 represented a substantial rework of the basic aircraft. Although it utilised the basic airframe, the aircraft incorporated a sophisticated avionics system and Automatic Flight Control System for anti-submarine duties. Most aircraft were conversions from Mk1 standard.



Aircraft Data Sheet: WS-58 Wessex. HC MK 2, HCC MK 4 & HU MK 5 (1962)



First flight:	18th January 1962
Rotor diameter:	17.07m/56ft 0ins
Length:	20.04m/65ft 9ins
Max weight:	5,715kg/12,600lb
Max speed:	212 kph/115knots
Power:	Two 1,350shp/1,007kW Rolls-Royce Gnome Mk110/111 Turboshafths
Accommodation:	Pilot plus three (ASW). Two crew plus 16 (Transport)
No Built:	215

A general purpose transport variant of the Wessex Mk1, modified to accept two Rolls-Royce Gnome turboshafts. The twin engined Wessex, powered by twin coupled 1350shp Bristol Siddeley (later Rolls Royce) Gnome turbines, proved to be one of Westland's most successful and enduring aircraft. The type served with the RAF (HC Mk2) and the Royal Navy (HU Mk5), a number were still in service in 1998, including the two HCC Mk4s with The Queen's Flight. A version was also produced for the civil market.

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Aircraft Data Sheet: WS-70 Blackhawk (1987)



First flight:
Rotor diameter: 16.36m/53ft 8ins
Length: 19.76m/63ft 8ins
Max weight: 9,979kg/22,000lb
Max speed: 293kph/158knots
Power: Two
1,870shp/1,394kW,
General Electric T-700-
GE-701C turboshafts.
Accommodation: Two crew plus 20
troops
No Built: One example built

A direct result of the Sikorsky association was an agreement that Westland would build the Blackhawk under licence, for supply to a Middle-East customer. A single aircraft was built and flown, but events were overtaken by the outbreak of the Gulf War after which the requirement had changed.