UNIVERSAL VULKAAN AVIATION

Green AW109 Trekker

2018 with less than 400 hours

AW109 Trekker

The AW109 Trekker is the latest Leonardo multi-role light twin-engine helicopter.

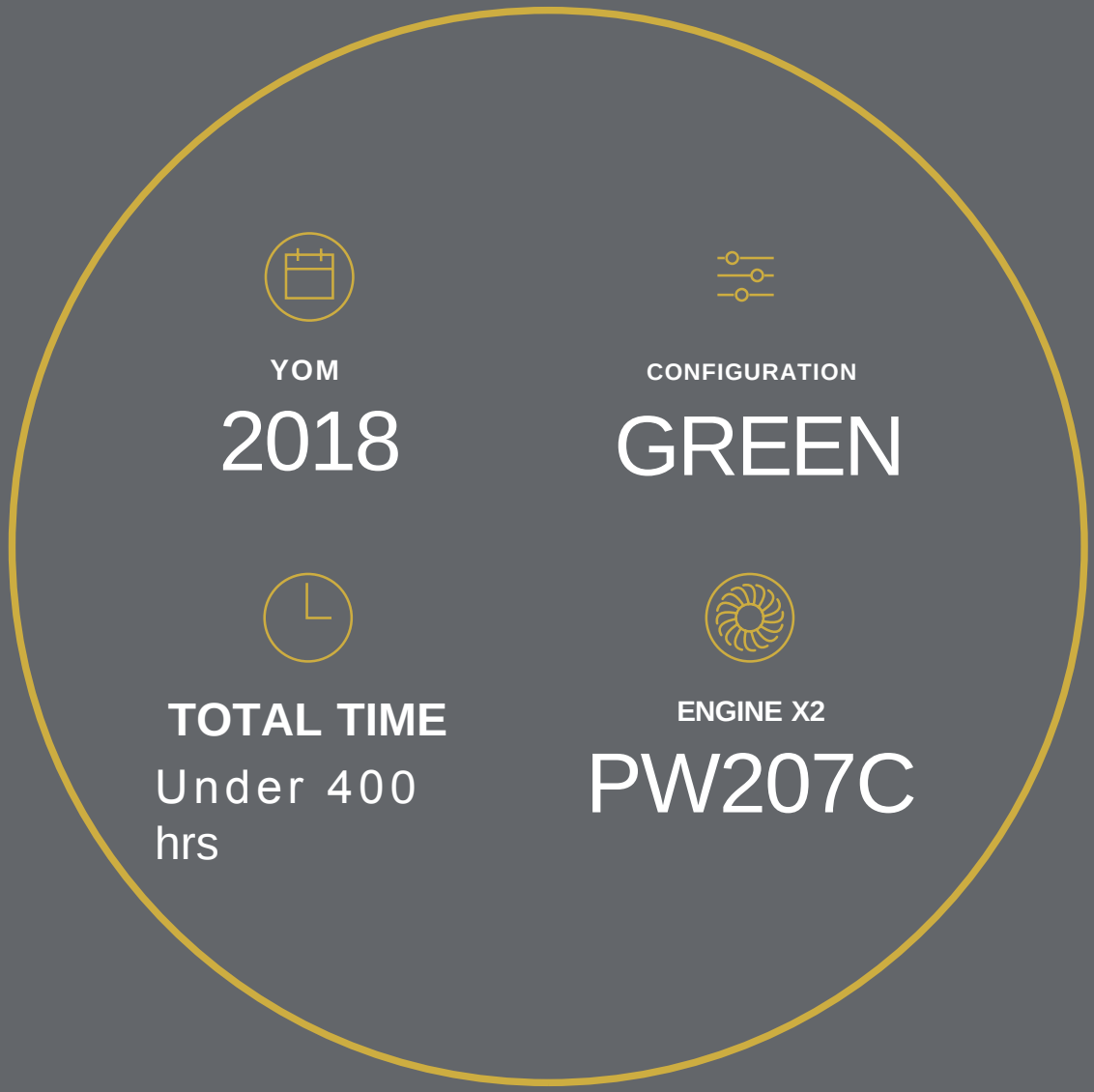
With best-in-class lifting capability, superior range and outstanding performance, the multi-role AW109 Trekker enables operators to tackle even the most demanding missions. The twin-engine AW109 Trekker is a flexible, rugged and reliable aircraft that offers a high payload and a spacious cabin that can be reconfigured quickly, making it ideally suited to a wide range of applications.

With an impressive track record of over 1,000 civil helicopters operating in over 80 countries for more than 550 customers, the AW109 Trekker enjoys extensive support from both the OEM and a global network of MROs.

It comes as no surprise that over the last decade, the AW109 has consistently maintained its position at the forefront in terms of new deliveries and pre-owned sales, underscoring its enduring liquidity and continued market appeal.

Highlights

- Only 140 hours flown since new
- Over 95% of potential on the airframe and on the engines
- Easily reconfigurable to suit your specific mission requirements
- Max cruise speed (@5,000 FT, ISA, MGW, MCP) at 274 KM/H 148 KTAS
- Max range (@5,000 FT, ISA, MGW) at 828 KM 447 NM
- Single or dual pilot, Visual Flight Rules (VFR) or Instrument Flight Rules (IFR)



Remaining Potential(Estimated)

	Helicopter Part	Time Between Overhaul	Remaining Time	Percentage Remaining
Airframe	Main Rotor Blade x4	6,000 hrs	5,860 hrs	**98%**
	Tail Rotor Blade x2	11,400 hrs	11,260 hrs	**99%**
	MGB	4,800 hrs	4,660 hrs	**97%**
	TGB	3,000 hrs	2,860 hrs	**95%**
	Main Servo	1,800 hrs	1,660 hrs	**92%**
	Tail Servo	1,800 hrs	1,660 hrs	**92%**
	Starter Generator	1,000 hrs	860 hrs	**86%**
Engine	Engine 1	4,000 hrs	3,860 hrs	**96%**
	Engine 2	4,000 hrs	3,860 hrs	**96%**

Airframe

- Aluminum alloy and bonded panel fuselage
- Semi-monocoque aluminum alloy tail boom
- New reinforced skid type landing gear
- Two hinged jettisonable crew doors (LH and RH)
- Two sliding passenger doors (LH and RH), 1.40 m opening, with jettisonable windows
- Acrylic transparent windshield and side windows
- Acrylic transparent overhead windows
- Quick removable tail rotor drive shaft cover
- Separate baggage compartment with hinged door
- Removable fairing and cowlings, for complete accessibility to the controls and drive components
- Quick opening hinged inspection doors, to allow visual check of engine oil levels and maintenance inspection points
- Grounding points
- Jacking and hoisting points

Rotors & Controls

- Titanium main rotor hub, corrosion protected, fully articulated with four composite grips, four elastomeric bearings, four individually interchangeable composite material blades, swept tips, and dampers
- Steel tail rotor hub, corrosion protected, semi-rigid delta hinged type, with two composite blades, individually interchangeable
- Cyclic and collective controls powered by two hydraulic systems
- Hydraulically powered anti-torque system
- Adjustable friction devices on cyclic and collective system
- Force trim and artificial feel system
- Adjustable directional control pedals
- Flapping and droop restraint mechanism

Power Plant and Fuel System

Two Pratt & Whitney Canada PW207C turbo-shaft engines Pratt & Whitney Canada PW207C

Two independent electronic control systems (FADEC) with normal emergency and training operation modes and auto-start

Engine mounted fuel pump and filter assembly (2)

Engine mounted oil pump and filter assembly (2)

Engine mounted fuel control and governor (2)

Lubrication and cooling system

Engine oil chip detectors (2)

Engine control panel

Two independent fuel systems with cross-feeding valve and control panel

3-cell crash-resistant fuel system (575 l – 152 Usgal)

Submerged fuel boost pumps (2)

Airframe mounted easy access fuel filter

RH refueling point RH

Ground fuel drains

Transmission Drive System % Hydraulic System

960 shp for takeoff and 900 shp continuous operation main transmission

Three-stage transmission

Free wheeling units (2)

Dual independent, redundant hydraulic systems

Transmission mounted hydraulic pumps (2) with separate reservoir

Internal dry sump transmission lubrication with pressure and scavenge pump and oil filter

Transmission oil chip detectors (2)

Single stage, bevel gear T/R 90° gear box including oil level sight glass and chip detector

Transmission cooling and lubrication system

Transmission shafts

Electrical System

24 V DC 33 Ah nickel-cadmium battery with temperature probe

200 A self-cooled starter generators (2) 200 A

Voltage regulators (2)

Battery relay

Interconnecting bus relays (2)

External power relay

Distribution buses (1 battery, 2 essential, 2 emergency, 2 main, 2 auxiliary)

External power receptacle

Position lights (NVG friendly – green, red white)

Taxing lights (1 RH) and landing lights (1 LH)

Anti collision lights (2) (NVG friendly)

Cockpit utility lights (2)

Instrument lights with dimming switch

Radio master switch with ground function

Single Pilot VFR Avionic System

Two 6” x 8” display units providing a Primary Flight Display (PFD) and a Multifunction Display (MFD) and integrating:

- Synthetic Vision System (SVS)
- Highway In The Sky (HITS)
- Helicopter Terrain Awareness and Warning System (HTAWS)
- Flight Management System (FMS)
- Radio tuning controls

Dual Data Acquisition Unit (DAU)

Dual Air Data Computer and Attitude Heading Reference System (ADAHRS)

VHF/AM

VOR/ILS

GPS

Transponder (Mode-S)

Pilot Intercommunication System (ICS)

Magnetic Direction indicator

System Data (on Displays)

- Dual Inter turbine gas temperature indicator (ITT°C)
- Dual Engine torque indicator (TQ%)
- Dual Compressor speed indicator (N1%)
- Dual Turbine speed indicator (N2%)
- Rotor speed indicator (NR%)
- Dual Transmission oil pressure (PSI) and temperature (°C) indicator. Dual Engine oil pressure (PSI) and temperature (°C) indicator
- Dual Fuel pressure (PSI) and fuel quantity (kg) indicator
- Dual hydraulic pressure system indicators (PSI)
- Outside air temperature indicator (°C)
- Dual DC voltmeter (VDC)
- Dual DC voltmeter (Amp)

Warning Advisory and Maintenance System

- Master warning lights
- Master caution lights
- Warning, caution and advisory messages
- Aural alerts
- Engines fire detection system

Premium Equipment

- Crash-resistant co-pilot seat, fore and aft adjustable, with lap belts and headrest
- Shoulder harness with inertial reels (co-pilot)
- AC power supply system (2 inverters)
- AFCS 3-axis duplex SP-711
- Radar altimeter
- Doors key lock
- Airframe hourmeter
- Baggage compartment lights
- Crew open door actuators
- Engine compartment fire extinguishers (Qty 2)
- Fuel cap with key-lock
- Pulsed chip detectors (in lieu of quick disconnecting chip detectors)
- 450 W Retractable/rotating landing light (nose mounted)

Miscellaneous / Ground Equipment

- Air intake/exhaust covers
- Ground tools kit (including tow bar, ground wheels, lifting tool)
- Pilot tubes covers
- Rotorcraft Flight Manual (RFM) and technical publications
- Tie-down fittings (main rotor retention straps)

Interior Arrangement

Crash-resistant pilot seat, fore and aft adjustable, with lap belts and headrest

Shoulder harness with inertial reels (pilot)

Aluminum alloy honeycomb reinforced floor with anti-skid Finishing

Ventilation ram air inlets

Anti reflection instrument panel

Primer finished cabin walls

Portable fire extinguisher

Exterior Finishing and Painting

Finishing in accordance with manufacturer specification (NTA 893 A)

Primer exterior painting

Standard color scheme from Company paint selection, solid color

Configuration – Green (Rigid liners)

The multi-role cabin of the AW109 Trekker enables operators to tackle even the most demanding missions.

The flexible, large and elegantly designed cabin can comfortably accommodate up to six passengers.

It can be reconfigured quickly to accommodate one stretcher and three/four medics, or two stretchers and two medics.

High power margins and full crashworthiness maximize safety in all flight conditions.

Cabin and Cockpit Configuration

- Rigid liners
- Intercommunication system for passengers
- Cabin loudspeakers (Qty 2)
- Reading lights, emergency lights
- Upper and lower air vents
- Headset H10-13H David Clark (Qty 6)
- Standard cockpit interior
- Air conditioning ECU
- Windshield Wiper
- Rotor Brake
- ELT
- External rescue hoist (272 kg/600 lb) provision
- Electrical Load Analysis document

Configuration – Green (Rigid liners)

Avionics Equipment

Dual Pilot IFR package (in addition to Single Pilot VFR STD configuration)

Dual controls

Co-Pilot large color Primary Flight Display (PFD) embedding:

- Synthetic Vision System (SVS)
- Highway In The Sky (HITS)
- Helicopter Terrain Awareness and Warning System (HTAWS)
- Flight Management System (FMS)
- Radio tuning controls

2nd VHF/AM

2nd VOR/ILS

2nd GPS

ADF

DME

Marker beacon

Electric Standby Indicator

Co-Pilot Intercommunication System (ICS)

Dual Master warning lights

Dual Master caution lights

2nd Magnetic Compass indicator

Digital clock

Flight Director

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