



## AW 109 Trekker

The AW109 Trekker is the latest multi-role light twinengine helicopter, which guarantees superb utility through outstanding performance, payload and cabin space. The flexible, large and elegantly designed cabin can comfortably accommodate up to six passengers.



# Highlights

- Engine mounted fuel pump and filter assembly
- 3-cell crash-resistantfuel system (5751–152US gal)
- Stretcher\*1
- 2ndVOR/ILS
- Helicopter Terrain Awareness and Warning System (HTAWS)
- Option for following removable parts: hoist, hook, mirrors, searchlight and EMS interior





## **Avionics**

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
- VHF/AM
- VOR/ILS
- GPS

Transponder (Mode-S) - Pilot Intercommunication System (ICS)

Magnetic Direction indicator

ADF DME

2nd GPS

## Equipment

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

Shoulder harness with inertial reels (pilot)

Primer finished cabin walls

Portable fire extinguisher

Liners with integrated light soundproofing

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 Stretcher\*1 Air conditioning ECU Windshield Wiper

**Rotor Brake** 

## Airframe

Aluminium alloy and bonded panel fuselage

Semi-monocoque aluminium 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 wit 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 material 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 I – 152 USgal)

Submerged fuel boost pumps (2)

Airframe mounted easy access fuel filter

RH refuelling 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



# Single Pilot VFR & Dual Pilot IFR Avionics packages

#### VFR

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	Dual Inter turbine gas temperature indicator (ITT°C)	Dual Fuel pre quantity (kg)
VHF/AM		
VOR/ILS	Dual Engine torque indicator (TQ%)	Dual hydraul indicators (P
GPS	Dual Compressor speed indicator (N1%)	Outside air te indicator (°C
Transponder (Mode-S)		
Pilot Intercommunication System (ICS)	Dual Turbine speed indicator (N2%)	Dual DC voltr
	Rotor speed indicator (NR%)	Dual DC amn
Magnetic Direction indicator		
	Dual Transmission oil pressure (PSI) and temperature (°C)	
	indicator. Dual Engine oil	
	pressure (PSI) and temperature (°C) indicator	

#### Systems Data (on displays)

ressure (PSI) and fuel a) indicator

ulic pressure system PSI)

temperature C)

tmeter (VDC)

meter (Amp)



# Single Pilot VFR Avionic Package

#### Warning/Caution Advisory and Maintenance System

Master warning lights

Master caution lights

Warning, caution and advisory messages

Aural alerts

Engines fire detection system

#### **Interior Arrangement**

Crash-resistant pilot seat, fore and aft adjustable, with lap belts and headrest Shoulder harness with inertial reels (pilot)

Aluminium 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**

Finishing in accordance with manufacturer specification (NTA 89)

Primer exterior painting

#### 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)



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## Passenger Transport Cabin Interior

### **Passenger cabin** Liners with integrated light soundproofing Intercommunication system for passengers Cabin loudspeakers (Qty 2) Reading lights, emergency lights Upper and lower air vents Headset H10-13H David Clark (Qty 6) EMS/SAR configuration can be set up at cost upon request

Cockpit Equipment		
Standard cockpit interior		
Utility Equipment		
Air conditioning ECU		
Windshield Wiper		
Rotor Brake		
ELT		
External rescue hoist (272 kg/600 lb) provision		
Leonardo Helicopter painting scheme, metallic colours from		

Company selection

#### **Avionics Equipment**

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

Dual controls

Co-Pilot large colour 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
- DF
- DME
- Marker beacon
- Electronic Standby Indicator
- Co-Pilot Intercommunication
  System (ICS)
- Dual Master warning lights
- Dual Master caution lights
- 2nd Magnetic Compass
  indicator
- Digital clock
- Flight Director





















Contact Universal Vulkaan Aviaiton to discuss your large-cabin executive helicopter needs.

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