

# 2016 AW 109SP GRAND NEW



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**Aircraft Total Time:** 463

**Aircraft Total Cycle:** 651

**Delivered:** February 2016

**Factory Warranty:** Expire Jan 2019

## **Airframe**

- Aluminum alloy / composite material and bonded panel fuselage
- Semi-monocoque aluminium alloy tail boom
- Three-wheeled retractable 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

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- Separate baggage compartment with hinged door
- Removable fairing and cowlings, for complete accessibility to the controls and drive components
- Swivelling front wheel with tow bar attachment
- Quick opening hinged inspection doors, to allow visual check of engine oil levels and maintenance inspection points
- Grounding points
- Jacking and hoisting points

## **Rotors and 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

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- 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
- Two independent electronic control systems (FADEC) with normal emergency and training operation modes and autostart
- Engine mounted fuel pump and filter assembly

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- Engine mounted oil pump and filter assembly
- Engine mounted fuel control and governor
- 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 pump (2 each engine)
- Airframe mounted easy access fuel filter
- RH refuelling point
- Ground fuel drains

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## Transmission Drive System and 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
- Ripple dampers (2)
- 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

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### Electrical System

- 24 V DC 33 Ah nickel-cadmium battery (19 cells) with temperature probe
- 200 A self-cooled starter generators (2)
- Voltage regulators (2) **and** 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)
- Taxiing lights (2 RH + 2 LH) and landing lights (2 RH + 2 LH) on landing gear sponsons
- Anti collision lights (2) (NVG friendly)
- Cockpit utility lights (2)
- Instrument lights with dimming switch
- Radio master switch with ground function

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### Flight/Navigation instruments

- Pilot flight/navigation EFIS (1 display) with slip indicator and Remote Bug Panel (RBP)
- Radio Management System (RMS) RTU-4210 Collins (1)
- VHF/AM VHF-4000E
- VOR/ILS NAV-4500 Collins
- Transponder (Mode S) TDR-94 Collins
- Attitude Heading Reference System (AHRS) (1) with one dual AHRS control panel
- Air Data Unit (ADU)
- Digital Audio Control System (DACS) COBHAM with one cockpit panel
- Electronic clock (1)
- Magnetic compass indicator (1)
- Magnetic sensor unit
- Pitot tube right/left

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### Instrumentation (on IDS display)

- LCD Integrated Display System (IDS)
- Dual gas generator speed indicator (N1%)
- Dual turbine outlet temperature indicator (TOT°C)
- Dual torque meter indicator (TQ%)
- Dual power turbine speed indicator (N2%)
- Rotor speed indicator (NR %)
- Transmission oil pressure (PSI) and temperature (°C) indicator
- Two engine oil pressure (PSI) and temperature (°C) indicators
- Two fuel pressure indicators (PSI)
- Two fuel quantity indicators (kg)
- Two fuel flow indicators (kg/hr)
- Two flight controls hydraulic system pressure indicators (PSI)
- Two utility hydraulic system pressure indicators (PSI)

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- Outside air temperature indicator (°C)
- Two AC voltmeters (VAC)
- Two DC voltmeters (VDC)
- Two DC ammeters (Amp)

### **Warning/Caution advisory and Maintenance System**

- Master warning lights (2)
- Master caution lights (2)
- Warning, caution and advisory messages (on IDS display)
- Aural warning generator system
- Engine fire detection system
- Exceedance recorder system (on IDS display)
- Warning horn (cabin)

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## **Interior Arrangement**

- Crash-resistant pilot seat, fore and aft adjustable, with lap belts and headrest
- Aluminium alloy honeycomb reinforced floor with anti-skid finishing
- Ventilation ram air inlets and anti reflection instrument panel

## **Exterior Finishing**

- Finishing in accordance with manufacturer specification (NTA 893 A)
- Primer exterior painting

## **Miscellaneous / Ground Equipment**

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

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## Standard Equipment

- Active Noise Reduction (ANR) headsets (pilot and co-pilot)
- Baggage compartment lights
- Crash-resistant co-pilot seat, fore and aft adjustable, with lap belts and headrest
- Crew open door actuators
- First aid kit
- Fuel drain electrical valves
- Internal structural provisions for utility equipment
- Portable fire extinguisher
- Shoulder harness with inertial reels (pilot and co-pilot)
- Tail boom strake

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### Single pilot dual controls IFR avionic package

- Pilot flight/navigation EFIS (2 displays) with embedded FMS, Synthetic Vision (SVS), HTAWS (Helicopter Terrain

Awareness and Warning System), slip indicator and Remote Bug Panel (RBP)

(\* In lieu of basic Pilot flight/navigation EFIS (1 display) with slip indicator and Remote Bug Panel (RBP))

(\* Data services subscription for the update of the Navigation databases from Jeppesen® is under Customer's responsibility.

- Co-pilot flight/navigation EFIS (2 displays) with embedded FMS, Synthetic Vision (SVS), HTAWS (Helicopter Terrain Awareness and Warning System), slip indicator and Remote Bug Panel (RBP)

- Reversionary Control Panel (RCP)

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- EFIS pilot/co-pilot navigation synchronization switch (FMS data)
- Electronic Standby Instrument System (ESIS)
- Second Radio Management System (RMS) RTU-4210 Collins
- Second VHF/AM VHF-4000E Collins
- VOR/ILS/ADF NAV-4000 Collins
- DME DME-4000 Collins
- Radio altimeter ALT-4000 Collins
- Second Attitude Heading Reference System (AHRS)

## **Single pilot dual controls IFR avionics package**

- Second Air Data Unit (ADU)
- Pilot GPS/SBAS Chelton interfaced to EFIS/FMS
- Co-pilot GPS/SBAS Chelton interfaced to EFIS/FMS
- Digital Audio Control System (DACS) COBHAM additional cockpit panel

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- 4-axis dual duplex digital AFCS with integrated Flight Director
- Second electronic clock
- Second magnetic compass indicator
- ELT C406-N HM Artex (with Navigation Interface Module embedded)
- Dual controls

## **Additional Equipment**

- Airframe hourmeter
- Baggage compartment extension (1.9 m)  
(\* It may be affected by avionic customization)
- Engine compartment fire extinguishers (Qty 2)
- Fuel cap with key-lock
- Pulsed chip detectors (in lieu of quick disconnecting chip detectors)

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## **Reinforced Windshields**

- Retractable/rotating landing light (nose mounted)
- Rotor brake
- Windshield wipers (pilot and co-pilot) with wiper switch on cyclic grips

## **Interior Trim**

- Air conditioning ECS (Environment Control System)
- Primer finished cabin walls

## **Painting**

- Standard colour scheme from Company paint selection, solid colour

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## **Passenger Cabin - CORPORATE interior - 6 places**

- All seats crash-resistant covered with leather or fabric/leather
- 3 fwd facing seats (aft bench) with foldable armrest and glass holder
- 3 aft facing seats (central bench) with see-through modification and with foldable armrest and glass holder
- Forward facing side armrests
- 4-point shoulder harness with inertial reels and safety belts for all passenger seats
- Super silent soundproofing
- Liners leather/leatherette covered
- Acoustic screen around doors
- Cabin double layer acrylic windows
- Customised Corporate cabin finishing
- Decoration trim with metal inserts
- Intercommunication system for passengers

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- Headset Bose ANR type (Qty 6)
- Cabin loudspeakers (Qty 2)
- Reading lights, emergency lights, floor courtesy lights
- Passenger hooks (Qty 4)
- Upper and lower air vents and Floor carpeting
- Carpeting protection and Seat covers

### **Cockpit equipment**

- Interseat console tray with 12 V power supply
- Multipurpose holder (with space provision for fire extinguisher)
- Right door pocket
- Headset hooks (Qty 2)
- Cyclic and collective leather gators
- Curtains in cockpit on upper windows

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### Additional Options

- 8.4 cockpit central display
- Weather radar RDR 2000 Bendix/King (presented on EFIS)
- AgustaWestland painting scheme, metallic colours
- Electrically operated passenger step (RH)
- Mast Vibration Absorber (MVA)
- 213 USgal crash-resistant fuel system (in lieu of 152 USgal)
- Baggage compartment extension (2.3 m)
- Emergency floats provision

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## Contact

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