## 2016 AW109SP GrandNew

## G-KLNH

G-KLNH is a beautiful twin engine AW109SP GrandNew.

Offering 7 passenger seats with single crew full IFR capability, this superb aircraft meets all of the requirements for both private owners and charter clients



**YOM: 2016**

**Hours TT: 1800**

### Leonardo GrandNew Baseline Aircraft

### 1.1 Airframe

- Aluminium 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
- 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

**1.2 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
- 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

**1.3 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 auto-start
- Engine mounted fuel pump and filter assembly
- 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 – 152 USgal)
- Submerged fuel boost pump (2 each engine)
- Airframe mounted easy access fuel filter
- RH refuelling point
- Ground fuel drains

**1.4 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 shafts

**1.5 Electrical system**

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

**1.6 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) (1)
- Digital Audio Control System (DACS) COBHAM with one cockpit panel
- Electronic clock (1)
- Magnetic compass indicator (1)
- Magnetic sensor unit
- Pitot tube right/left

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

### 1.8 Warning/Caution Advisory and Maintenance System

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

### 1.9 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
- Anti reflection instrument panel

### 1.10 Exterior finishing

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

### 1.11 Miscellaneous/Ground Equipment

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

### 2. Standard Aircraft

### 2.1 Standard Equipment

- Active Noise Reduction (ANR) headset (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

**2.2 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 displays) 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)
- 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-40000E Collins
- VOR/ILS/ADF NAV-4000 Collins
- DME DME-4000 Collins
- Radio Altimeter ALT-4000 Collins
- Second Attitude Heading Reference System (AHRS)
- 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
- 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


**2.3 Additional Equipment**

- Airframe hour meter
- Baggage compartment extension (1.9 m)
- Engine compartment fire extinguishers (Qty 2)
- Fuel cap with key-lock
- Pulsed chip detectors (in lieu of quick disconnecting chip detectors)
- Reinforced windshields
- Retractable/rotating landing light (nose mounted)
- Rotor brake
- Windshield wipers (pilot and co-pilot) with wiper switch on cyclic grips


**2.4 Interior Trim**

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

**3. Passenger Cabin**

- All seats crash-resistant covered with leather or fabric/leather
- 3 fwd facing seats (aft bench) with foldable armrest
- 3 aft facing seats (central bench) with see-through modification and with foldable armrest
- 4-point shoulder harness with inertial reels and safety belts for all passenger seats
- Super silent soundproofing
- Liners leather/Leatherette covered
- Cabin double layer acrylic windows (azure coloured)
- Decoration trim with metal inserts
- Intercommunication system for passengers
- Headset Bose ANR type (Qty 6)
- Cabin loudspeakers (Qty 2)
- Reading lights, advisory lights, floor courtesy lights
- Passenger hooks (Qty 4)
- Upper and lower air vents
- Floor carpeting with carpeting protection
- Seat covers
- Leather headset straps in cabin

**3.1.2 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

**3.2 Painting**

- Customized painting scheme, metallic colours

**3.2.2 Utility Equipment**

- 213 USgal crash-resistant fuel system (in lieu of 152 USG)
- 24 VDC 33Ah nickel-cadmium battery (20cells in lieu of 19 cells)
- Baggage compartment extension (2.3 m)
- High-intensity white strobe lights on horizontal stabilizer

**3.2.3 Additional Equipment**

- USB charger in passenger cabin (under LH or RH side rear facing seat)
- Electrically operated passenger step (LH)
- Single drawer in cabin (under aft bench)
- Mast Vibration Absorber

**3.2.4 Avionic Equipment**

- Traffic Advisory System TAS-620 Avydine (presented on EFIS)
- Weather radar RDR 2000 Bendix/King (presented on EFIS)
- ADS-B Out Capable Transponder TDR-94 Collins (in lieu of standard transponder)
- iPad certified mount with USB charger point for USB A and C in cockpit (installed by Sloane post-delivery)