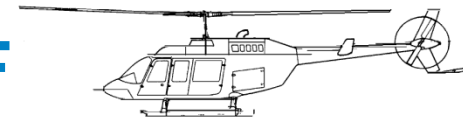


Bell 206L-3/4, L-1(C30) IBF



Donaldson
Inlet Barrier Filter (IBF) System
Bell 206L-3/4 (L-4 STC and
Bell Factory Option
Bell 206L-1 (C30) with ASI C30P
STC
Bell 206L-1 (C30) with Bell Service
Instruction BHT-206-SI-2050



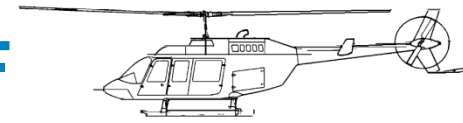
Donaldson.
FILTRATION SOLUTIONS
AEROSPACE & DEFENSE



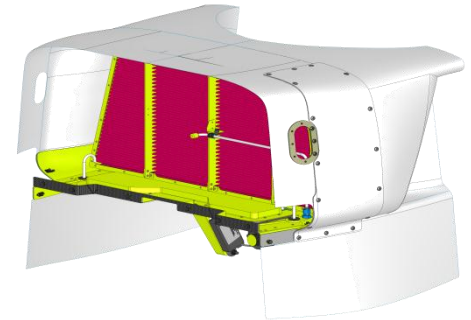
Donaldson.
FILTRATION SOLUTIONS
AEROSPACE & DEFENSE

Bell 206L-3/4, L-1(C30) IBF

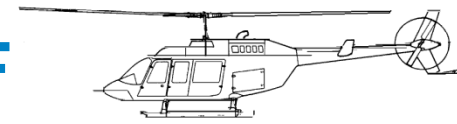
Donaldson IBF Benefits



- **Maximum engine debris/FOD protection which allows consistent flight operations and extends engine time on wing. Improved protection over an inertial design and significantly better protection than a FOD screen.**
- **Pleated barrier filter element provides improved air flow versus inertial separation vortex/swirl tubes typical with IPS/EAPS.**
- **Return on Investment (ROI):**
 - Less premature engine removals, meet expected engine TBO.
 - Long-life filter assemblies, 4,500 hour (15 - 300 hour intervals).
 - Reduction in corrosive salt air entering engine.
 - Engine overhaul cost reduction due to elimination of erosion and contamination on all rotating and pneumatic components.
 - Reduced maintenance time with improved plenum access.
 - Common Line Replaceable Units (LRU) for mixed IBF fleets.
 - Bleed air system maintenance eliminated with IBF.



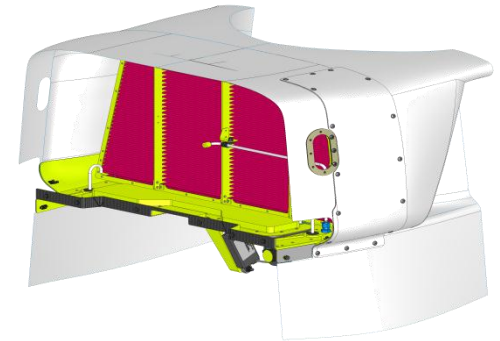
Bell 206L-3/4, L-1(C30) IBF



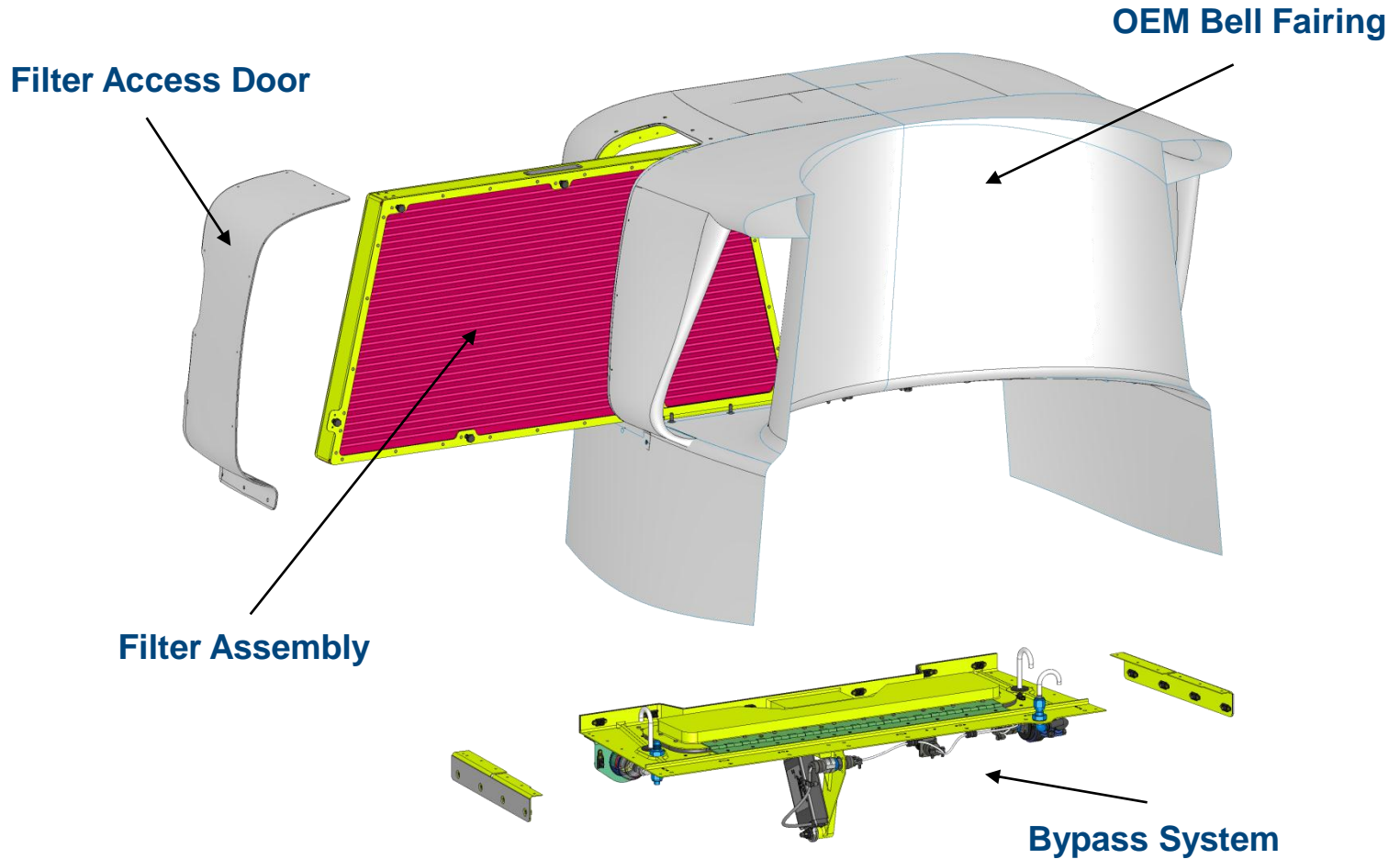
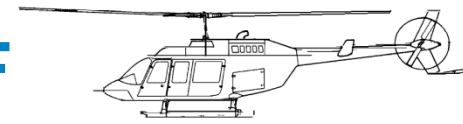
Donaldson IBF Benefits

- **Operational Considerations:**

- Approved for flight to basic inlet charts and compatible with BHT-206L4-FMS-11.
- Improved power margin for high/hot operations and confined landing zones. Filter sized for Bell 407 engine airflow.
- Engine performance retention after barrier filter installation.
- Inlet air bypass system backup not available with EAPS for added safety margin.
- Certified for flight in falling and blowing snow IAW helicopter manufacturers flight manual requirements.
- Common system for Bell 407, 206L-3/4, 206L-1/C30.
- IBF is approximately 2 lbs lighter than EAPS.



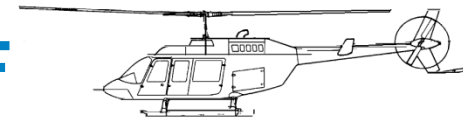
Bell 206L-3/4, L-1(C30) IBF Donaldson IBF System Description



Shown installed into Bell Fairing, looking aft.
IBF utilizes EAPS mounting provision.

Bell 206L-3/4, L-1(C30) IBF

Donaldson IBF System Considerations

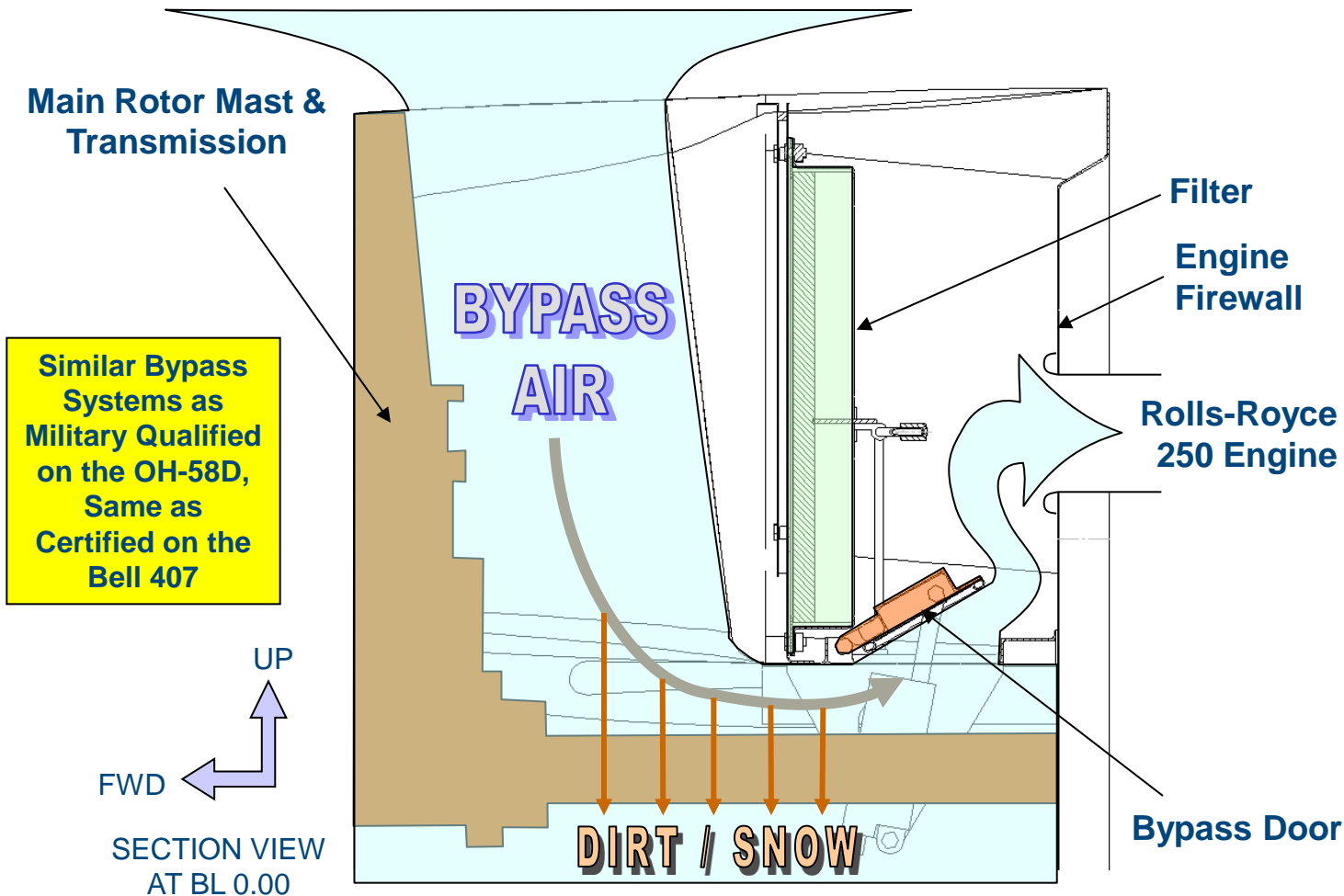
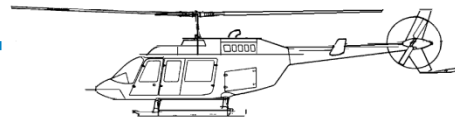


- EAPS utilize traditional inertial particle separation technology, barrier filter uses current technology and state of the art integration.
- Barrier filter does not require the use of engine bleed air as the EAPS does which reduces engine power available.
- Inertial separation vortex/swirl tubes routinely become clogged with straw, leaves and bugs degrading performance, barrier filter is immune to this type debris and operates without degradation.
- Barrier filters have significantly higher separation efficiency than inertial separators. Barrier filter typically >99% capture efficiency on ISO Coarse & Fine dust, inertial separator typically ≤96% capture efficiency on ISO Coarse dust and far less on ISO Fine dust.
- Barrier filters are effective regardless of engine power setting, inertial separators only effective when they have adequate engine bleed air typically available above flight idle power setting.
- Significant decrease in fine sand ingestion reduces engine erosion damage, offsite landings in unprepared sites no longer a concern.
- Engine bleed air system maintenance eliminated along with chance of engine stall margin reduction from leaking valves and lines.



Bell 206L-3/4, L-1(C30) IBF

Bell 206L-1/3/4 Filter Bypass System

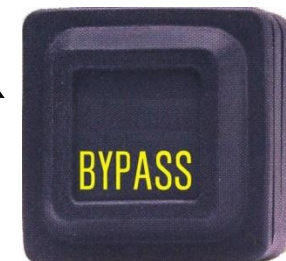


Bell 206L-3/4, L-1(C30) IBF



Donaldson IBF System Cockpit Switch

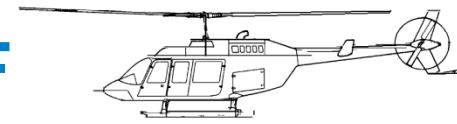
- Common cockpit switch with the Donaldson IBFs for the Bell 205A, 206L-1/3/4, 407, 430, AgustaWestland AW119, AW139, Airbus AS350, EC130.
- Easily viewed and accessed cockpit annunciator/switch for bypass operation.
- LED illuminated, momentary push button (Optional NVIS Yellow Class B compatible).
- “FILTER” - indicator illuminated based on signal from differential pressure sensor, Caution - high pressure drop indication.
- “BYPASS” - illuminates whenever the bypass door is open based on door position switch, Caution – Bypass is open.
- “FILTER” - indicator will also extinguish once door opens and pressure drop has been reduced, redundant indication for pilot.



Bell 206L-3/4, L-1(C30) IBF

Donaldson IBF System

Filter Maintenance Aid (FMA)

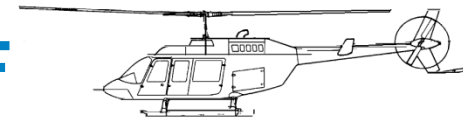


- Pre and Post flight indication of filter contamination level, maximum pressure drop.
- Allows flexibility for mission planning with predictable service cycles, particularly in high tempo desert environments.
- Verification of post cleaning effectiveness.
- Provides the capability for “On Condition Maintenance,” between established cleaning intervals, eliminating unnecessary service.
- Measures plenum pressure versus ambient, across the filter system.
- Similar FMA used on other Donaldson IBFs for the Bell 205A, 206B, 206L-1/3/4, 407, 430, AgustaWestland AW119, AW139, Airbus AS350, EC130, MD Helicopters MD500.



Bell 206L-3/4, L-1(C30) IBF

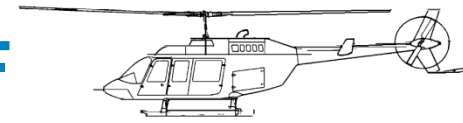
Donaldson IBF System Operators



- Arrow Aviation – Louisiana
- Chevron North America– Mississippi
- Commercial Helicopters - Australia
- Eagle Air Services – North Carolina
- Galt Ranch Aviation – Montana
- Helicopters, Inc. – Nationwide
- Helicopter Express – Nationwide
- Hillcrest Aviation – Idaho/Nationwide
- Hillsboro Aviation – Oregon
- Omega Aviation – Canada
- Southern Helicopters – Louisiana
- Summit Helicopters – Virginia
- T & M Aviation – Louisiana
- Tampa Police Dept. – Florida
- Tulsa Police Dept. – Oklahoma
- Illinois Department of Transportation, Illinois



Bell 206L-3/4, L-1(C30) IBF



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