

Bell 206L-3/4, L-1(C30) Inlet Barrier Filtration System



MORE OF WHAT YOU WANT,
(protection, margin, power)

LESS OF WHAT YOU DON'T.
(maintenance, erosion, cost)

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

Inlet Barrier Filtration System

A proven system

Aerospace Filtration Systems (AFS) introduces a unique Inlet Barrier Filter (IBF) system for the Bell 206L-3/4 and 206L-1 (C30) LongRanger. Using technology fielded and proven on commercial and military helicopters worldwide, the AFS IBF is an innovative, lightweight and simple to install option versus the significantly less capable Engine Air Particle Separator (EAPS) or FOD Screen. The AFS IBF system allows the optimum performance possible within the existing Bell cowling while providing dust, sand, and dirt separation efficiencies exceeding 99% to ensure your engine has the maximum protection possible. At the same time, the IBF improves air flow versus the EAPS, meaning more power, reduced operating temps and longer engine life. Performance improvements in the aircraft yield up to 20 degrees more MGT margin compared to the EAPS. 206L performance can be achieved utilizing Purge Off charts; see approved FAA Flight Manual Supplement. This IBF system is available as a factory direct option on the 206L-4 LongRanger IV.

Long-life filter

The lightweight flat filter is designed to perform with ultimate efficiency in all flight regimes. With a 4,500-hour life, the significant amount of filter area allows cleaning service cycles as long as 300 hours (service life is a function of the operating environment). A filter maintenance aid allows on-condition monitoring of filter status.

QUICK SPECS

IBF Kit Weight 17.2 pounds

Installation Time 40 man hours

Key Benefits:

- ⊙ Proven technology with over 1,000,000 flight hours
- ⊙ Up to 20 degrees MGT reduction (EAPS removed)
- ⊙ Reduced life cycle costs over alternate systems
- ⊙ Maximum engine protection with improved performance
- ⊙ Improved engine inlet plenum access
- ⊙ Improved performance, using purge off charts
- ⊙ Reduced engine maintenance/Longer TBO reduces costs
- ⊙ Filter maintenance aid (FMA) for on-condition assessment
- ⊙ Non-intrusive cockpit installation with minimal modifications
- ⊙ Common components with other AFS certified systems
- ⊙ Long lasting, flat filter assembly for easy cleaning
- ⊙ Integrated engine water wash capability
- ⊙ Easy filter removal through access door

Engineering-driven design

The assembly is self-contained and structurally integrated into the existing manufacturer's inlet plenum provisions, utilizing a forward-facing filter mounted just aft of the aircraft's engine air inlet system. IBF installation requires minimal modifications to the existing air inlet cowl assembly without impacting the integrity of Bell's forward firewall. Original mount provisions for the EAPS are used to support the IBF which includes a self-contained bypass with cockpit bypass annunciation and activation switch. The bypass system provides a new capability for the inlet not



View looking forward

Only the AFS Bell 206L-3/4 IBF system includes a unique access door and single-filter design for improved maintainability. The filter is shown above, and below left, in an OEM Bell 407/206L cowl.

previously available with the EAPS. A unique side access door provided for mounting in the inlet fairing allows easy access to the filter for servicing, without removal of the fairing. Engine water wash provisions are provided with the new IBF and function the same as the Bell original system; the filters do not require removal to perform the water wash. The bypass system, IBF components and FMA are easily viewed via the aircraft's lower side access doors.

Return on investment

Operators can attain the ROI for a barrier filter system within one engine overhaul cycle, even in a relatively clean environment.

Install before flight

Direct from OEMs, from AFS, or through our dedicated distributors, we make it easier than ever to order and install an AFS filtration system. Install before flight.



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