
FACET FILTER KIT NO. 1741020-02

INSTALLATION AND SERVICE MANUAL SCAVENGE LUBE OIL FILTER RETROFIT SYSTEM FOR BELL 206L WITH FACET KIT 1741020 INSTALLED, BELL 206L-1 WITH FACET KIT 1741030 INSTALLED, BELL 206BIII WITH FACET KIT 1741040 INSTALLED

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INSTALLATION AND SERVICE INSTRUCTIONS
WARRANTY INFORMATION
FLIGHT MANUAL SUPPLEMENT
STC NO. SH200GL
E-957 Rev. A, APRIL 15, 1989

PUROLATOR FACET, INC.
8439 TRIAD DRIVE, GREENSBORO, NC 27409-9621
PHONE: (336) 668-4444
FAX: (336) 668-4452

NOTICE TO PERSONS RECEIVING THIS DOCUMENT:

PUROLATOR FACET, INC. CLAIMS PROPRIETARY RIGHTS IN THE MATERIAL DISCLOSED HEREON. THIS DOCUMENT IS ISSUED IN THE CONFIDENCE FOR ENGINEERING INFORMATION ONLY AND MAY NOT BE USED TO MANUFACTURE ANYTHING SHOWN WITHOUT THE DIRECT WRITTEN PERMISSION FROM PUROLATOR TO THE USER.

GENERAL INFORMATION

The purpose of the Facet Scavenge Oil Filter Retrofit is to upgrade the original kit to a newer, lighter, easier to maintain filter assembly. The filter assembly uses the same 10 micron filter element as the original kit, but does not require removal of the bowl and indicator to reset the bypass indicator.

The filter has a red indicator which provides impending bypass warning when the differential pressure on the element is above 7 plus or minus 1 PSID. The indicator is inoperative below $100^{\circ} \pm 15^{\circ}$ F. The bypass opens at 10 plus or minus 1 PSID.

FACET KIT NO. 1741020-02 FOR BELL 206L/206L-1/206B-III

REG. NO. _____

SER. NO. _____

FLIGHT HOURS _____

INSTALLATION DATE _____

It is recommended that this manual be included in the permanent records of the modified helicopter to comply with the FAA requirement that the STC be retained and to have for service reference.

At the time of installation, please fill out the warranty card and mail.

Weight Change:

Kit 1741020	Removal	Weight Change: -6.0 lbs	Moment Arm: 212.5 in.
Kit 1741030	Removal	Weight Change: -6.0 lbs	Moment Arm: 212.5 in.
Kit 1741040	Removal	Weight Change: -6.0 lbs	Moment Arm: 178.5 in.
Kit 1741020-02	206L	Weight Change: +4.6 lbs	Moment Arm: 212.5 in.
	206L-1	Weight Change: +4.6 lbs	Moment Arm: 212.5 in.
	206B III	Weight Change: +4.6 lbs	Moment Arm: 178.5 in.

Preflight Inspection Procedure Change:

1. Check red bypass indicator on external scavenge oil filter.
 - A. Inspect red button on bottom of bowl for indication of filter bypass.
 - B. If red button is not showing, proceed with preflight.
 - C. If red button is showing, reset button once and run engine until oil reaches normal operating temperature.
 - D. If red button reappears, discontinue operations and investigate reason for filter bypass indication.
 2. Red impending bypass indicator reset

Press the red indicator bypass button in and turn 90°.
-

Scheduled Maintenance:

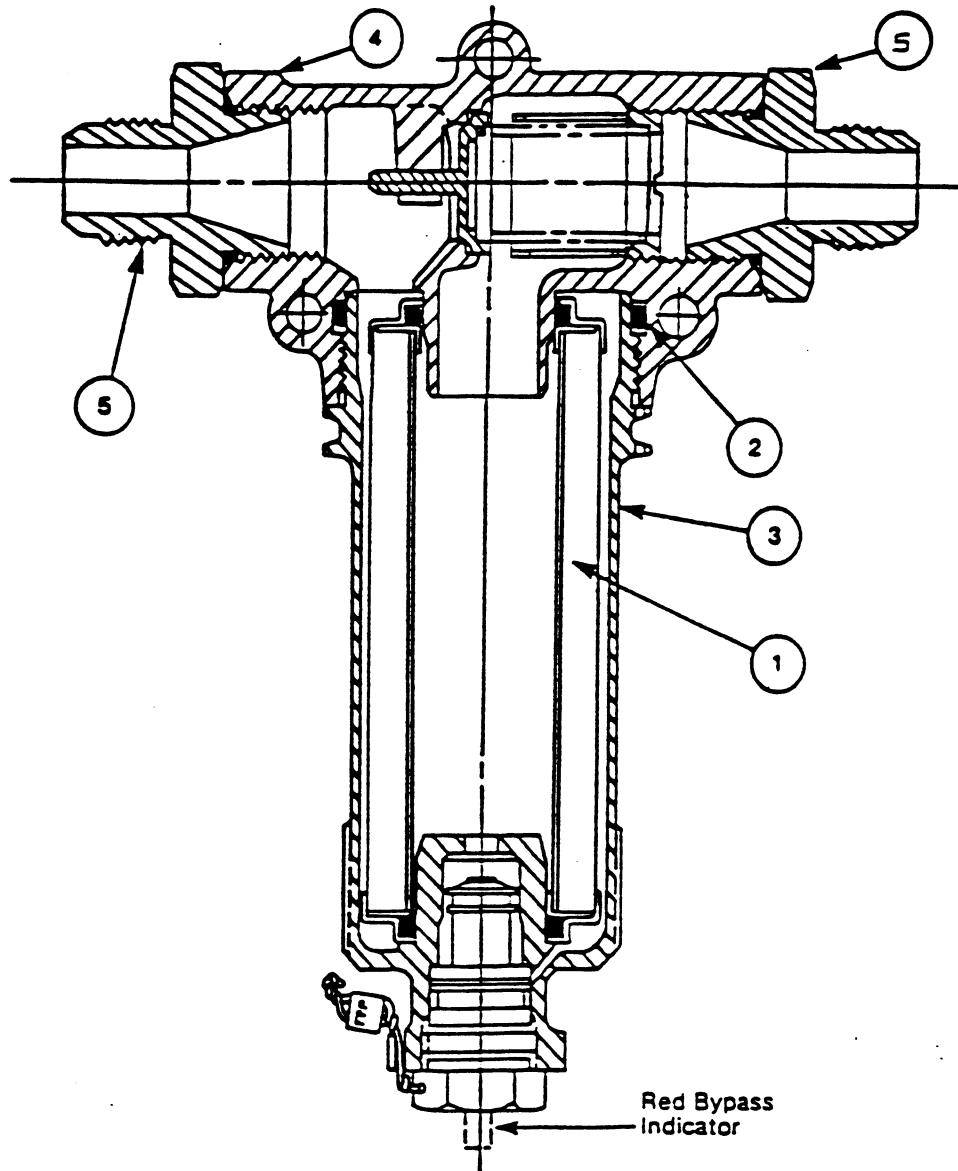
1. Scavenge oil filter element change
 - A. Replace element (038088-08) whenever the engine oil is changed. This is a maximum of 200 hours or 6 months, whichever comes first.
 - B. When filter is serviced after bypass indication, a new filter element should be installed.

2. Bypass indicator test

- A. The bypass indicator should be tested every 800 hours, as part of the oil change procedure.
 - B. Remove safety wire from filter bowl, unscrew bowl, remove and discard installed filter element.
 - C. Install test tool (No. 1741145), reinstall bowl (do not safety wire at this time), leave cowl locked open or removed for visual access to filter assembly.
 - D. Start engine, operate at ground idle until normal operating temperature is reached and filter bypass indicator extends (approximately 10 minutes). Bypass indicator must reach 100 degrees plus or minus 15 degrees Fahrenheit to operate.
 - E. If bypass indicator fails to extend or will not reset, contact Purolator Products Company, Facet Filter Products Division, or your authorized Facet distributor. Do not attempt to adjust or replace indicator.
 - F. If the bypass indicator extends, it is functioning properly. Secure the engine and remove the filter bowl and test tool. Install a new seal kit (1741125) and filter element (038088-08). Reinstall and safety wire the filter bowl. Reset the bypass indicator by pressing it in and turning it 90°. Drain and reservice the engine oil system.
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FACET FILTER ASSEMBLY

PART NO. 1740001-03



REPLACEMENT PARTS FOR
FACET FILTER ASSEMBLY
P/N 1740001-03

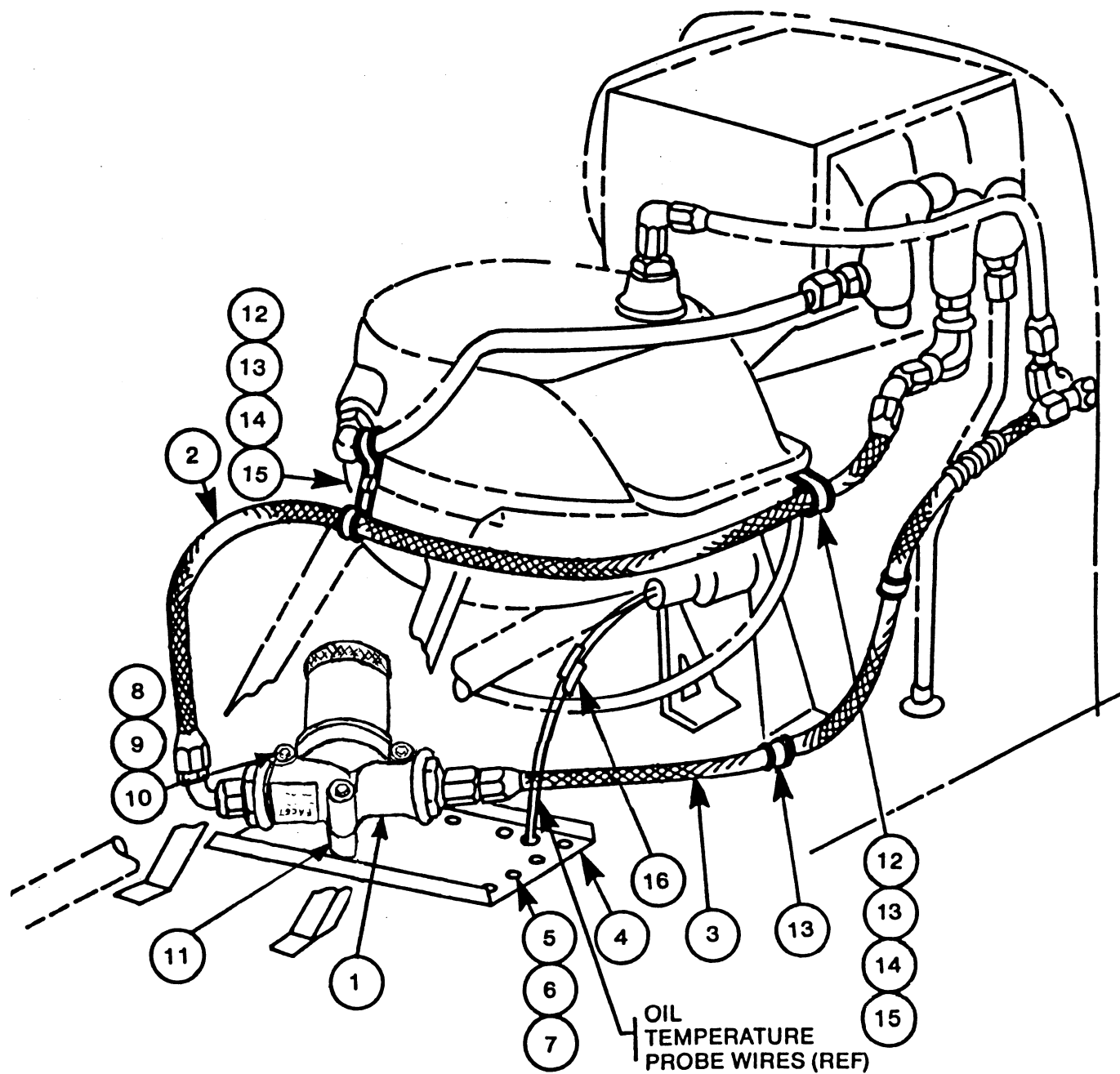
Item	Part No.	Description
1	038088-08	Element
2	1741125	Seal Kit
3	1740839-04	Bowl & Indicator Assembly
4	1742161-03	Head Assembly
5	1740235	Fitting Reducer
	040373	O-ring, FLEN-912

Filter Element Change Instruction:

- A. Remove head to bowl lockwire and unscrew bowl.
- B. Remove dirty element.
- C. Install new element.
- D. Hand tighten until tight against head and lockwire.

NOTE: Only Facet authorized FAA/PMA approved replacement parts may be used to maintain warranty. Differential pressure indicator and bowl are matched assemblies and factory set. Do not attempt to repair or replace indicator.

INSTRUCTION ILLUSTRATION SHEET
FACET KIT 1741020-02



MATERIAL LIST FOR FACET KIT NO. 1741020-02
FOR BELL HELICOPTER 206L/206L-1/206BIII

Item No.	Part Number	Description	Qty. Req'd.
1	1740001-03	Filter Assembly	1
2	1741110-16	Hose Assembly, Outlet	REF
3	1741110-15	Hose Assembly, Inlet	REF
4	1741011-01	Plate	1
5	MS35206-245	Screw, 8-32x0.50	REF
6	MS21042-08	Nut, Self-locking, 8-32	REF
7	AN960-8L	Washer, Light	REF
8	AN4-30A	Bolt, 1/4-28	3
9	MS21042-L4	Nut, 1/4-28	REF
10	AN960-416	Washer, Light	REF
11	1741111	Spacer	REF
12	MS21919WDG-10	Clamp	REF
13	MS21919WDG-13	Clamp	REF
14	MS35207-262	Screw, Rd. Hd., 10-32x.438	REF
15	MS21042-L3	Nut, Self-locking, 10-32	REF
16	1741127	Butt Splice	2
17	1741120	Label, Indicator Reset	REF
18	E-957	Installation & Document Package	1
19	1741145	Bypass Indicator Test Tool	1

REF denotes reusable components supplied in original scavenge oil filter kit.

INSTALLATION INSTRUCTIONS FOR FACET KIT NO. 1741020-02
FOR BELL HELICOPTER 206L

General:

This installation will be made easier if done during an inspection when the engine oil is completely drained from the engine oil cooler and oil tank.

The filter assembly (Item 1, 1740001-03) has been factory tested and shipped wet with MIL-L-7808, aircraft turbine engine lubricating oil.

It is recommended that the installer read through the instructions completely before starting to ensure that there will be no problem with completing this installation.

Preparation:

1. Disconnect battery.
 2. Remove panel covering oil cooler and tank.
 3. Remove inspection door from right rear side of fuselage.
 4. Disconnect oil hoses from and remove previously installed filter assembly. Discard filter assembly and bolts, retain nuts, washers and spacers for reinstallation.
-

Installation:

1. Oil temperature probe wires have to be marked, cut and tied back. The wires will be spliced during reassembly.
2. Remove previously installed filter mounting plate. Retain rubber grommet and hardware for reinstallation at final assembly. Discard plate.
3. Locate plate (Item 4, 1741011-01) in position, align left-hand outermost, .266 filter mounting hole in new plate with same hole in upper deck. Mark and drill plate to match screw holes in upper deck. Drill out using No. 20 drill (.161 dia.) as required. Mark from underneath and drill plate to match the hole for the grommet for the oil temperature wires.

-
4. Locate plate (Item 4, 1741011-01) in position and temporarily secure. Mark and drill holes (.266 dia.) in upper deck to match existing holes in the plate using Letter "H" drill.
 5. Prepare upper deck and plate (Item 4, 1741011-01) for permanent mounting. Deburr all holes. Zinc chromate bare spots on upper deck and plate. Make sure upper deck and plate are clear of all burrs, dirt and chips.
 6. Locate and secure plate (Item 4, 1741011-01) on upper deck with previously removed hardware.

Note: Rivets (not included) may be used to secure the plate. Make installation conform to FAR Part 43.

7. Mount filter assembly (Item 1, 1740001-03) using previously removed hardware. Torque nuts to 50-55 in. lbs.

CAUTION! "IN" side of the filter must be closest to tail rotor drive shaft and connected by hose to the scavenge oil line fitting on the aft side of the engine firewall.

8. Connect hose assembly (Item 3, REF) from engine firewall to "IN" side of scavenge oil filter.
9. Connect hose assembly (Item 2, REF) from "OUT" side scavenge oil filter to the oil cooler inlet.

Hoses should lay free without stress due to twist or tension. Check hose routing for clearances and chafing on structure, other hoses, etc.

10. Install rubber grommet, removed in Step 2, in hole for oil temperature probe, route wires for temperature probe through grommet and connect the wires with wire butt splice (Item 16, 1741127). Fill hole with sealer.
11. Adjust oil tank drain and scupper drain lines for clearance around filter assembly.
12. Check all fittings, bolts, clamps and components for security, proper fit and clearance. Ensure aft fuselage compartment is clear of tools, rags, etc. Install inspection door.
13. Reservice oil system and prepare helicopter for engine run-up and leak test. Connect battery. After final inspection and leak test, prepare helicopter for flight.

WARRANTY

Seller warrants that at the time of delivery products delivered under the Order will conform to applicable drawings and specifications and will be free from defects in material and workmanship. Any claim for defective material or workmanship must be made within a period of ninety (90) days from the date of delivery to Buyer. Upon prompt notice of any claimed nonconformity or defect, Seller's obligation under this warranty is limited, at its option, to repairing or replacing at this plant, with transportation charges prepaid by Buyer, the product or component part thereof that is proved to be other than as herein warranted. This warranty does not extend to any of the Seller's products which have been subject to misuse, accident or improper installation, maintenance or application, nor does it extend to products which have been repaired or altered outside of Seller's plant unless authorized in writing by Seller or unless such installation, repair or alteration is performed by Seller, nor does this warranty extend to any labor charges for removal and/or replacement of the nonconforming or defective product or part thereof. THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. In no event shall Seller be liable for special, incidental or consequential damages for any breach of warranty of this contract, including but not limited to, costs of removal and reinstallation of goods, loss of goodwill or loss of profits and loss of use. Only authorized Facet FAA/PMA approved replacement parts may be used to maintain warranty.

PUROLATOR PRODUCTS COMPANY
FACET FILTER PRODUCTS DIVISION

United States of America
Department of Transportation — Federal Aviation Administration
Supplemental Type Certificate

Number SH200GL

This certificate, issued to

Facet Filter Products Division
Purolator Products CO.
8439 Triad Drive
Greensboro, NC 27409-9621

certifies that the change in the type design for the following product with the limitations and conditions

therefor as specified hereon meets the airworthiness requirements of Part 6 of the Civil Air

Regulations. (See Type Certificate Data Sheet No. H2SW for complete
Certification Basis)

Original Product — Type Certificate Number:

H2SW

Make: Bell

Model: 206A, 206B, 206L, 206L-1, 206L-3,
206L-4

Description of Type Design Change:

Installation of Facet Enterprises, Inc. engine lubrication system
Scavenge Filter in accordance with the following Facet
Enterprises, Inc. Installation Instruction Manuals:

Kit No. 1741010 dated September 29, 1982 - Model 206A and 206B
equipped with Allison
model 250-C20 engine.

(See Page 2)

Limitations and Conditions:

This approval should not be extended to other aircraft of this
model that incorporate any previously approved modifications
unless it is determined that the interrelationship between this
change and any of those other previously approved modifications
will introduce no adverse effect upon the airworthiness of that
aircraft.

See Page 2

*This certificate and the supporting data which is the basis for approval shall remain in effect until sur-
rendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the
Federal Aviation Administration.*

Date of application: July 12, 1977

March 23, 1982;

Date issued Nov. 1, 1984, May 1, 1990

Date of issuance: November 8, 1977

Date amended Aug 3, 1978, June 22, 1978,
Dec. 10, 1992,

By direction of the Administrator



Roger D. Anderson

Roger D. Anderson
Manager, Atlanta Aircraft
Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number (SH200GL)

Description of Design Change (Continued):

Kit No. 1741040 dated September 27, 1982 - Model 206B equipped with Allison model 250-C20B or 250-C20J engines.
Kit No. 1741020 dated September 27, 1982 - Model 206L
Kit No. 1741030 dated September 27, 1982 - Model 206L-1
Kit No. 1741140 dated September 27, 1982 - Model 206L-3
Kit No. 1741010-01 dated April 19, 1988 - Model 206A and 206B
Kit No. 1741010-02 dated April 21, 1988 - Model 206A and 206B with kit No. 1741010 installed
Kit No. 1741020-01 dated April 19, 1988 - Model 206L
Kit No. 1741020-02 dated April 21, 1988 - Model 206L with Kit No. 1741020 installed
- Model 206L-1 with Kit No. 1741030 installed
- model 206B (206B III) with Kit No. 1741040 installed
Kit No. 1741030-01 dated April 19, 1988 - Model 206L-1
Kit No. 1741040-01 dated April 19, 1988 - Model 206B (206B III)
Kit No. 1741140 dated November 11, 1992 - Model 206L-4
or later FAA approved revisions of any of these kits.

Limitation and Conditions (Continued):

FAA Approved Rotorcraft Flight Manual Supplement dated November 8, 1977, or later FAA approved revision is required with this installation.

A copy of this STC must be included with the permanent records of each helicopter when it is modified in accordance with this STC.

Date Amended (Continued):

January 26, 1982; October 21, 1982
June 10, 1983; June 27, 1988
December 15, 1988, December 10, 1992

---END---

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Facet Filter Products Division
Purolator Products Company
8439 Triad Drive
Greensboro, NC 27409-9621
U S A

Approval Number: SH97-49

Issue Number: 1

Date of Approval: 1997 July 25

Date of Issue: 1997 July 25

Responsible Office: Prairie and Northern

Aircraft/Engine Type/Model: Bell 206A,B, L, L-1, L-3, L-4

**Canadian Type Certificate or
Equivalent:** H-92

Description of Design Change: Installation of Facet Enterprises, Inc. engine lubrication system scavenge filter kits in accordance with FAA STC SH200GL.

Installation/Operating Data,
Required Equipment and
Limitations: Installation of Facet Enterprises, Inc. engine lubrication system Scavenge Filter is to be in accordance with the Facet Enterprises, Inc. Installation Instruction Manuals pertinent to the rotorcraft model/engine combination, as listed on FAA STC SH200GL, or later FAA approved revisions.

FAA approved Rotorcraft Flight Manual Supplement dated November 8, 1977, or later FAA approved revision, is required with this installation.

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.



F.J.B. Wright
For Minister of Transport

Facet Filter Products Division
Purolator Products Company
8439 Triad Drive
Greensboro, NC 27409

FAA APPROVED
ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
FOR
BELL HELICOPTER TEXTRON MODEL:
206A, 206B (206-BIII), 206L, 206L-1, 206L-3 AND 206L-4

REG. NO. _____
SER. NO. _____

This supplement must be attached to the Rotorcraft Flight Manual dated _____ or later FAA approved revisions when an engine scavenge oil line filter is installed in accordance with STC No. SH200GL. The information herein supplements the information of the basic Rotorcraft Flight Manual only in those areas listed herein. For limitations, procedures and performance information not contained in this supplement, consult the basic Rotorcraft Flight Manual.

Original issued and signed by Donald P. Michal
for Manager, Chicago Aircraft Certification
Office, FAA Central Region.

Reissued: FAA Approved *Roger J. Anderson*
Manager,
Atlanta Aircraft Certification Office
Central Region, FAA

Date: DEC 11 1992

Rev. 5

Facet Filter Products Division
Purolator Products Company
8439 Triad Drive
Greensboro, NC 27409

RFM Supplement for Bell
206A, 206B (BIII), 206L,
206L-1, 206L-3, 206L-4.

Section I-Limitations:

Placard to be located adjacent to the scavenge oil filter assembly to read as follows:

Preflight Inspection of Scavenge Oil Filter:

- a. Inspect red button on bottom of filter bowl for indication of filter bypass.
- b. If red button is not showing, proceed with preflight.
- c. Red button showing, reset button once and run engine.
- d. If red button reappears, discontinue operations and investigate reason for filter bypass indication.

Section II-Procedures:

During preflight inspection, to reset the red button (impending bypass indicator):

- a. For filter assembly P/N: 037738-04:
 1. Remove lockwire securing filter bowl to filter head.
 2. Remove filter bowl.
 3. Remove Filter element.
 4. Reach down through bowl and push white plunger into hole so that plunger is flush with bowl opening.
 5. Push red bypass indicator in.
 6. Install new filter element.
 7. Install bowl and tighten to 150 in-lbs. (lubricate with lube oil).
 8. Install lockwire.
- b. For filter assembly P/N: 1740001-01 and 1740001-03:
 1. Press and turn in.

Section III-Performance:

No change.

REV. 5

FAA APPROVED:

DATE: DEC 11 1992

Facet Filter Products Division
Purolator Products Company
8439 Triad Drive
Greensboro, NC 27409

RFM Supplement for Bell
206A, 206B (BIII), 206L,
206L-1, 206L-3 206L-4.

Section I-Limitations:

For Facet remanufactured bowl and indicator assembly P/N:
1740996.

- a. No change from previous page.

Section II-Procedures:

For bowl assembly P/N: 1740996:

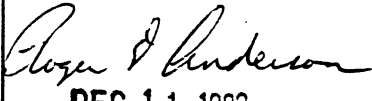
During preflight inspection, to reset the red impending bypass indicator button on filter assembly 037738-04 with Facet remanufactured bowl and indicator assembly P/N: 1740996 (indicator assembly P/N: 1740352):

- a. Press and turn in.

REV. 5
FAA APPROVED:
DATE: DEC 11 1992

Facet Filter Products Division
 Purolator Products Company
 8439 Triad Drive
 Greensboro, NC 27409

RFM Supplement for Bell
 206A, 206B (BIII), 206L,
 206L-1, 206L-3, 206L-4

LOG OF REVISIONS				
REV. NO.	PAGE	DESCRIPTION	DATE	FAA APPROVAL.
1	1	ADDED MODEL 206L-1	6/22 /79	1.
2	1	ADDED MODEL 206L-3 REVISED TEXT. DELETED REFERENCE TO LIMITATIONS, PROCEDURES & PERFORMANCE SECTIONS ADDED LOG OF REVISIONS ADDED NEW PAGE FOR LIMITATIONS, PROCEDURES & PERFORMANCE SECTIONS WITH REVISIONS.	10 /21/ 82	1.
3	ALL	CHANGED ADDRESS ADDED FILTER ASSEMBLY P/N: 1740001-03		2.
4	3A	ADDED PAGE 3A		3.
5	ALL	ADDED MODEL 206L-4. RE-SEQUENCED PAGES NAME CHANGE: WAS: FACET ENTERPRISES, INC.	 DEC 11 1992	

1. PREVIOUSLY APPROVED BY MANAGER, CHICAGO ACO.
2. PREVIOUSLY APPROVED BY MANAGER, ATLANTA ACO, 6/27/88.
3. PREVIOUSLY APPROVED BY MANAGER, ATLANTA ACO, 11/29/90.