

KI-206-3 & KI-206-4 R44 II (Aux) Fuel Pump Assembly Upgrade Kit Instructions
Previous compliance with R44 Service Bulletin SB-69 required (helicopter S/N 10001 thru 12222)

NOTE

Visit www.robinsonheli.com to verify kit instructions are current revision.

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY PER KI-206-3	QTY PER KI-206-4
KIT CONTENTS				
1	B330-25	Palnut	2	2
2	D454-6	Retainer	2	2
3	D743-3	Pump Assembly - Fuel	1	0
	D743-4	Pump Assembly - Fuel, shielded	0	1
4	KI-206INSTR.	Kit Instructions	1	1
5	AN833-6D	Elbow (aluminum)	1	1
6	MS29512-06	Packing	2	2
7	MS3367-5-9	Ty-rap	10	10

Consumables

- A257-6 fuel-resistant grease (Fuelube, ref R44 Maintenance Manual (MM) Section 1.470)
- B270-6 sealant & lubricant, thread (Titeseal 55, ref MM Section 1.480)

Kit Instructions

1. Verify kit contents match above list. Contact RHC Customer Service if parts are missing or damaged.
2. Review instructions before installation. Contact RHC Technical Support if you have questions.
3. Perform R44 Service Bulletin SB-69, as required.
4. Pull AUX FUEL PUMP circuit breaker. Turn master switch and fuel shut-off valve OFF, remove engine right cowling, and drain gascolator.
5. Clean exterior of A666-1 gascolator assembly, D743-1 or D743-2 electric (aux) fuel pump assembly, attached fittings, C741-1 line assembly, and B283-3 hose assembly.
6. Refer to R44 Illustrated Parts Catalog (IPC) Figures 8-1, 8-3, and 8-9B dated JUL 2008 (or subsequent). Remove ty-raps as required and mark and disconnect D745-1 vacuum switch and aux fuel pump wiring from airframe electrical harness at connectors. Mark and disconnect wiring from B426-2 fuel pressure switch.

Kit Instructions (continued)

7. Disconnect B283-3 hose assembly from aux fuel pump tee and protect hose inlet. Disconnect C741-1 line assembly from gascolator inlet nipple.
8. Detach and retain aux fuel pump's drain tube clamp and attaching hardware from vertical firewall. Open HTM-300 clamp securing aux fuel pump to D742-1 support and D288-1 clip on firewall. Remove and retain nut and washer(s) securing gascolator to A454-1 support. Remove aux fuel pump and attached gascolator. Protect outlet of C741-1 line assembly.
9. Separate gascolator from pump by disconnecting 6505-04-06-SS adapter from AN833-6 elbow. Protect gascolator inlet and outlet.
10. Remove and retain A729-33 tube, B426-2 pressure switch, AN833-6 elbow, and two D452-6 nuts from D743-1 or D743-2 aux fuel pump assembly. Clean retained parts.
11. Refer to Figure 1. Install AN833-6 steel elbow in inlet, and new AN833-6D aluminum elbow in outlet of new D743-3 or D743-4 aux fuel pump assembly per the following:
 - a. Install new B330-25 palnut followed by D452-6 nut (counterbore facing outboard) on inboard threads of elbow. Install new D454-6 retainer on smooth area between threads and press retainer completely into counterbore of nut. Lubricate new MS29512-06 packing with A257-6 grease and install between threads adjacent to retainer.
 - b. Rotate combined nut & retainer until packing is pushed against outboard threads. Screw elbow into pump until packing contacts pump, indicated by a sudden increase in torque. Hold nut with wrench and tighten elbow no more than one full turn until elbow points away from motor. Position the steel AN833-6 lower elbow parallel to the long axis of the pump. Per Figure 1, Detail A, position the aluminum AN833-6D upper elbow approximately 5° counterclockwise from parallel to long axis of pump (looking down). Hold elbow and special torque D452-6 nut to 150 in.-lb, special torque palnut to 75 in.-lb, and torque stripe per MM Figure 2-1.
12. Apply light coat of B270-6 sealant to B426-2 switch threads (do not apply sealant to first thread) and install switch in D743-3 or D743-4 aux fuel pump assembly. Standard torque B426-2 switch to 60 in.-lb, then tighten to orient NC terminal within 10° per Figure 1.
13. Connect gascolator 6505-04-06-SS adapter to the pump's steel AN833-6 lower elbow. Align gascolator A455-1 plug to point up and parallel with pump inlet, special torque adapter nut to 285 in.-lb, and torque stripe per MM Figure 2-1.
14. Position A455-1 plug in A454-1 support with pump motor firmly resting on D742-1 support. Note any gap between bottom of A454-1 support and shoulder of A455-1 plug; fill gap as required by installing NAS1149F0432P washers on plug. Install retaining washer and nut on plug, special torque to 70 in.-lb, and torque stripe per MM Figure 2-1.

Kit Instructions (continued)

15. Ensure HTM-300 clamp goes through clip on vertical firewall and slot in D742-1 support. Connect clamp around pump motor and torque to 100 in.-lb. Install A729-33 drain tube on pump fitting and secure tube to firewall with (retained and reoriented) clamp. Route end of tube thru hole in belly.
16. Connect C741-1 line assembly to gascolator inlet nipple, special torque nut to 285 in.-lb, and torque stripe per MM Figure 2-1. Connect B283-3 hose assembly to aux fuel pump elbow, special torque nut to 120 in.-lb, and torque stripe per MM Figure 2-1.
17. Connect vacuum switch and pump motor wiring to appropriate airframe electrical harness connectors. Attach wiring to fuel pressure switch. Reroute spirap and install MS3367-5-9 ty-raps as required to accomodate switch relocation.
18. Turn fuel shut-off valve ON. Verify no fuel leaks.
19. Push in AUX FUEL PUMP circuit breaker. With mixture control OFF and master switch ON, verify AUX FUEL PUMP caution light is illuminated. Turn ignition switch to PRIME for one minute and verify AUX FUEL PUMP light extinguishes and pump operates with a continuous, steady tone. Turn master switch OFF. Verify no fuel leaks.
20. Run-up helicopter per Pilot's Operating Handbook. Verify no fuel leaks.
21. Install engine right cowling assembly.
22. Make appropriate maintenance record entries (no change in weight and balance).

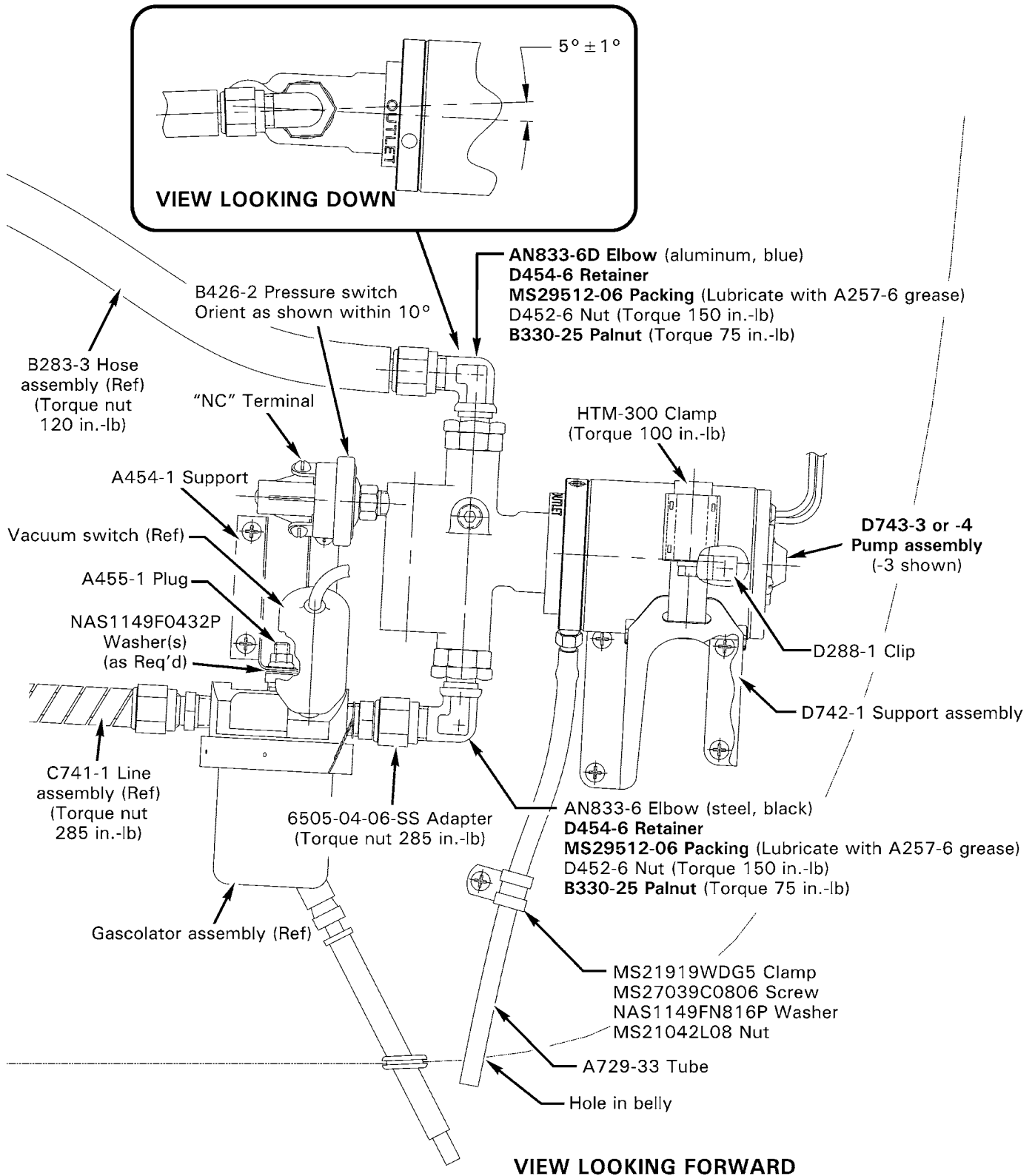


FIGURE 1