DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H-1
Revision 42
Scotts – Bell 47
47
47B
47B3
47D
47D1
47E
47G
47G-2
47H-1
June 3, 2010

HELICOPTER SPECIFICATION NO. H-1

This data sheet which is part of Type Certificate No. H-1 prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder	Scotts-Bell 47 Inc. 780 S Elmwood Ave Le Sueur, Minnesota 56058-2169
Type Certificate Holder Record	Bell Helicopter Textron Inc. transferred TC H-1 to Scotts-Bell 47 Inc. on June 3, 2010.

I. Model 47 Approved May 8, 1946

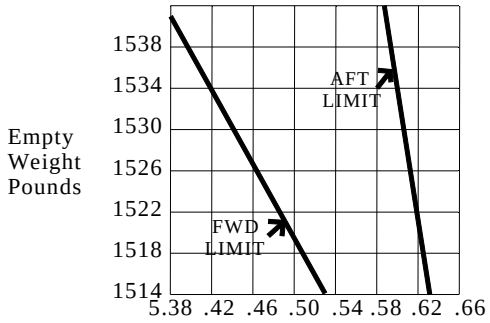
Serial Nos. eligible 1 through 9

II. Model 47B, 2 PCL-SH, Approved November 4, 1947; Models 47B2, Deleted June 15, 1950; (See NOTE 8 for Float Information)

Engine	Aircooled Motors Franklin 6V4-178-B3 (Becomes 6V4-178-B32 with Item 119)			
Fuel	80 minimum octane aviation gasoline			
Engine limits	Maximum r.p.m. 3000 (178 hp.)			
Carburetor	Marvel MA4-5			
Rotor limits & operational engine speeds	Power On (Engine Tach.)		Power Off (Rotor Tach.)	
	Maximum	3000	Maximum	350
	Minimum	2800 (S.L.)	Minimum	285
Airspeed limits	Never exceeds speed 92 m.p.h. (80 knots) True Ind.			
C.G. range	(-2.0) to (+2.9)			
Empty weight C.G. range	See Figure			

II – Model 47B (cont'd)

MODEL 47B (without floats)



(In order to maintain empty weight C.G. limits, up to 25 lbs. of fixed ballast can be added in forward baggage compartment (Sta. -68) in addition to the maximum capacity 30 lb.)

Maximum weight	2200 lb.	
No. of seats	2 (Pilot and passenger) (-32)	
Maximum baggage	Aft compartment 40 lb. (+43); Fwd. compartment 30 lb. (-68)	
Fuel capacity	33 gal. (24 gal. at +25), (9 gal. at -24)	
Oil capacity	3 gal. (+12), (including 1 gal. unusable)	
Control movements	(Tolerances +1/2°)	
Swashplate travels for cyclic pitch for basic configuration (for other configs., see appl. Bell Dwg. & Serv. instr.)	Stick Position	Swashplate Angle from Level
	Full forward	9° Down and forward
	Full aft	9° Down and aft
	Full left	8° Down and aft
	Full right	6° Down and right
Collective pitch	Blade average pitch settings; High 10°, low 1/2°	
Anti-torque rotor pitch	- Measured at tip; High +10-1/2° to +12-1/2°, low -8-1/2° to -9°	
Serial Nos. eligible	2 and up	
Required equipment	In addition to the pertinent required basic equipment specified in CAR 6, the following items of equipment must be installed (see section titled "DATA PERTINENT TO ALL MODELS" following section VIII): 2, 3(b), 5, 6, 110, 112, 113(a), 114, 117, 130, 135, 202(1), 203, 204, 205, 213, 305, 306(a), 402.	

III. Model 47B3, 2 POLH, Approved July 2, 1948; Model 47D, 2 PO-CLH, Approved February 25, 1948 2 PO-CLH, Approved November 18, 1948; (See NOTE 8 for Float Information)

Model 47B3 is similar to the Model 47B except for revised cockpit enclosure and furnishings, engine compartment fairings and cowling, and other miscellaneous items.
Model 47D is similar to the Model 47B3 except for revised cockpit enclosure, revised wheel installation incorporating brakes, 24 volt electrical system, and minor changes to the fuel system and cowling.

Engine	Aircooled Motors Franklin 6V4-178-B32 (See Item 137 for optional engines)			
Fuel	80 minimum octane aviation gasoline			
Engine limits	Maximum r.p.m. 3000 (178 hp.)			
Carburetor	Marvel MA4-5			
Rotor limits & operational engine speeds	Power On (Engine Tach.)		Power Off (Rotor Tach.)	
	Maximum	3000	Maximum	350
	Minimum	2800 (S.L.)	Minimum	285
Airspeed limits	Never exceed speed 92 m.p.h. (80 knots) True Ind.			
C.G. range	(-2.0) to (+2.9)			
Empty weight C.G. range	None			
Maximum weight	2200 lb.			
No. of seats	2 (Pilot and passenger) (-32)			
Maximum baggage	40 lb. (+43), Models 47D, 47D (Floats)			
	None, Models 47B3 (all configurations), 47D (Litters)			
Fuel capacity	33 gal. (24 at +25), (9 at -24)			
Oil capacity	3 gal. (+5) (including 1 gal. unusable)			

III – Model 47B3 & Model 47D (cont'd)

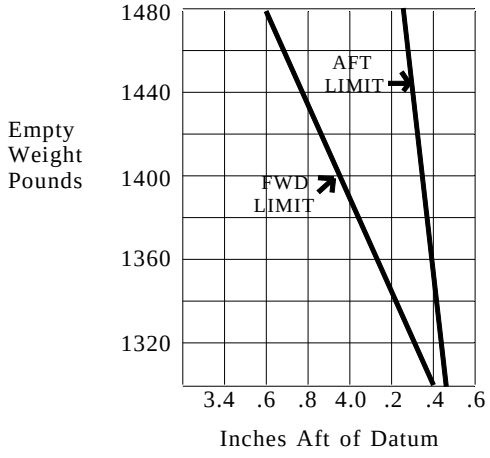
Control movements	(Tolerance +1/2°)	
Swashplate travels for	Stick Position	Swashplate Angle from Level
cyclic pitch for basic	Full forward	9° Down and forward
configuration (for other	Full aft	9° Down and aft
configs., see appl. Bell	Full left	8° Down and aft
Dwg. & Serv. instr.)	Full right	6° Down and right
Collective pitch	Blade average pitch settings: High 11°, low 1/2°	
Anti-torque rotor pitch	- Measured at tip: High +10-1/2° to +12-1/2°, low -8-1/2° to -9°	
Serial Nos. eligible	Model 47B3: 29 and up.	
	Model 47D: 1 and up.	
Required equipment	In addition to the pertinent required basic equipment specified in CAR 6, the following items of equipment must be installed (see section titled "DATA PERTINENT TO ALL MODELS" following section VIII):	
	Model 47B3: 2, 3(b), 5, 6, 112, 113, 114, 118, 119, 130, 135, 202(a), 203, 204, 205, 213, 305, 306(b), 404.	
	Model 47D: 2, 3(b), 5, 6, 112, 118, 119, 121, 122, 130, 135, 202(b), 203, 208, 209, 213, 313, 314, 407.	

IV - Model 47D1, 3 PCLH, Approved March 29, 1949; (See NOTE 8 for Float Information)

Model 47D1 is similar to Model 47D, except for three-place seating arrangement, revised cockpit enclosure, gravity type fuel system, addition of ventral fin-fixed tab combination, main rotor counterweights, roller-bearing type transmission, movable battery, and elimination of cowling and tail boom covering.

Engine	Aircooled Motors Franklin 6V4-178-B32 (See Item 137 for optional engines)			
Fuel	80 minimum octane aviation gasoline			
Engine limits	Maximum r.p.m. 3000 (178 hp.)			
Carburetor	Marvel MA4-5			
Rotor limits & operational	Power On (Engine Tach.)		Power Off (Rotor Tach.)	
engine speeds	Maximum	3000	Maximum	350
	Minimum	2800 (S.L.)	Minimum	285
Airspeed limits	Never exceed speed 95 m.p.h. (80 knots) True Ind.			
C.G. range	(-2.0) to (+2.9)			

Empty weight C.G. range — See Figure



(In order to maintain empty weight C.G. limits, fixed ballast may be added at Sta. -62 and +210 as required.)

Maximum weight	2200 lbs.	
No. of seats	3 (Pilot and 2 passengers) (-30)	
Maximum baggage	none	
Fuel capacity	29 gal. (+24)	
Oil capacity	3 gal. (+5), (including 1 gal. unusable)	
Control movements	(Tolerance +1/2°)	
Swashplate travels for	Stick Position	Swashplate Angle from Level

IV – Model 47D1 (cont'd)

cyclic pitch for basic	Full forward	9° Down and forward
configuration (for other	Full aft	9° Down and aft
configs., see appl. Bell	Full left	7 1/2° Down and aft
Dwg. & Serv. instr.)	Full right	6 1/2° Down and right
Collective pitch	Blade average pitch settings; High 11°, low 1/2°	
Anti-torque rotor pitch	- Measured at tip: High +10-1/2° to +12-1/2°, low -8-1/2° to 9°	
Serial Nos. eligible	47; 82; 145 and up. Copters Unlimited Bell 47D, S/N CS-1; Big State Industries, S/N 1001, 1002; Rep-Air S/N 001; Utility Copters, S/N 200; World Wide Helicopters S/N 15 and 57; Agrotors, Inc. S/N 895; Rebel Rotors S/N B-101-R and B-109-R; Kitz Kopters, S/N T-121, T-122, T-123, and B-110-R; Cavalier Helicopter Corp., S/N CH-2004; Nat'l Helicopter Serv. & Engr., S/N NH963; Shelby Aero., S/N SA-2; Gulf Coast Helicopters, S/N 1; World Helicopters, Inc., S/N WH5001, WH5003 thru WH5011, and WH5016. Louis Wm. Cottriel 5501, Kitz Kopter, Inc., S/N T558 and T610, and Florida Helicopters, S/N 001, K Copters S/N K732, K853 S/N K6112, Timothy Moriarty, S/N M-1; Houston Helicopter, S/N 101. Action Bell S/N N211	
Required equipment	In addition to the pertinent required basic equipment specified in CAR 6, the following items of equipment must be installed (see section titled "DATA PERTINENT TO ALL MODELS" following section VIII): 2, 3(c), 5, 6, 112, 118, 119, 122, 132, 135, 202(b), 203, 208, 209, 213, 313, 314, 410. See Note 13.	

V - Model 47E, 2 PO-CLH, Approved April 19, 1950.

Engine	Aircooled Motors Franklin 6V4-200-C32			
Fuel	91 minimum octane aviation gasoline			
Engine limits	Maximum r.p.m. 3100 (200 hp.)			
Carburetor	Marvel MA4-5			
Rotor limits & operational	Power On (Engine Tach.)		Power Off (Rotor Tach.)	
engine speeds	Maximum	3100	Maximum	360
	Minimum	2900 (S.L.)	Minimum	294
Airspeed limits	Never exceed 98 m.p.h. (85 knots) True Ind.			
C.G. range	(-2.0) to (+2.9)			
Empty weight C.G. range	None			
Maximum weight	2350 lbs.			
No. of seats	2 (Pilot and passenger) (-32)			
Maximum baggage	40 lbs. (+43)			
Fuel capacity	33 gal. (24 at +25), (9 at -24)			
Oil capacity	3 gal. (+5) (including 1 gal. unusable)			
Control movements	(Tolerance +1/2°)			
Swashplate travels for	Stick Position	Swashplate Angle from Level		
cyclic pitch for basic	Full forward	9° Down and forward		
configuration (for other	Full aft	9° Down and aft		
configs., see appl. Bell	Full left	7 1/2° Down and aft		
Dwg. & Serv. instr.)	Full right	6 1/2° Down and right		
Collective pitch	Blade average pitch settings: High 11°, low 1/2°			
Anti-torque rotor pitch	- Measured at tip: High +10-1/2° to +12-1/2°, low -8-1/2° to -9°			
Serial Nos. eligible	165 thru 173			
Required equipment	In addition to the pertinent required basic equipment specified in CAR 6, the following items of equipment must be installed (see section titled "DATA PERTINENT TO ALL MODELS" following section VIII): 2(a), 3(c), 5, 6, 112, 118, 119, 122, 132, 134, 135, 202(b), 203, 208, 209, 213, 323, 328, 413.			

VI - Model 47G, 3 PCLH, Approved June 19, 1953.

Model 47G is similar to the Model 47D1, except for saddle type fuel tanks, new and relocated battery, synchronized elevator, electrical system, ventral fin, tail rotor gear box and other minor items.

Engine	Aircooled Motors Franklin 6V4-200-C32
Fuel	91 minimum octane aviation gasoline

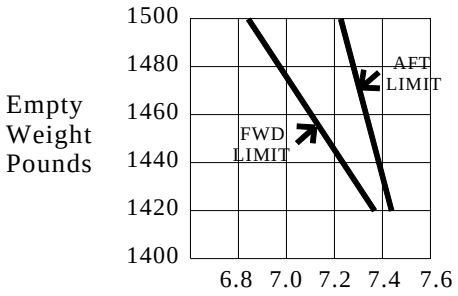
VI – Model 47G (cont'd)

Engine limits	Maximum r.p.m. 3100 (200 hp.)
Carburetor	Marvel MA4-5

Rotor limits & operational engine speeds

Power On (Engine Tach.)		Power Off (Rotor Tach.)	
Maximum	3100	Maximum	360
Minimum	2900 (S.L.)	Minimum	294

Airspeed limits	Never exceed 100 m.p.h. (87 knots) True Ind. (Large Area Synchronized Elevator) 90 m.p.h. (78 knots) True Ind. (Small Area Synchronized Elevator)
C.G. range	(-3.0) to (+4.0)
Empty weight C.G. range	See Figure



Maximum weight	2350 lb.
No. of seats	3 (Pilot and 2 passengers) (-30)
Maximum baggage	none
Fuel capacity	43 gal. (+5)
Oil capacity	3 gal. (+5), (including 1 gal. unusable)
Control movements	(Tolerance +1/2°)

Swashplate travels for cyclic pitch for basic configuration (for other configs., see appl. Bell Dwg. & Serv. instr.)

Stick Position	Swashplate Angle from Level
Full forward	9° Down and forward
Full aft	9° Down and aft
Full left	7 1/2° Down and aft
Full right	6 1/2° Down and right

Synchronous elevator travels for cyclic pitch (Cable tension 25 lb.+5 lb.)

Stick Position	Synchronous Elevator Angle of Chord from Level
Full forward	Leading edge up 14° +1/2°
Full aft	Leading edge down 27° +3° with min. travel of 37 1/2°

Collective pitch: Blade average pitch settings: High 11°, low 1/2°

Anti-torque rotor pitch: - Measured at tip: Metal blades - High +12-1/2° to +13-1/2°, low -10-1/2° to 11-1/2° (See S.I. 438)
Wood blades - High +8-1/2° to +10-1/2° to -11°

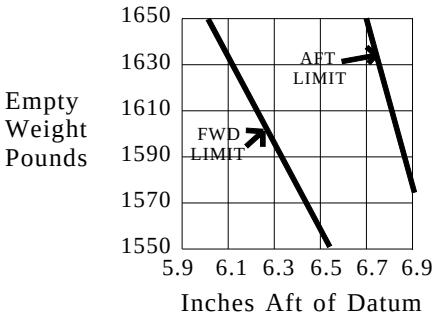
Serial Nos. eligible: 7; 295; 604; 666 and up; Continental Copters El Tomcat Mark II, S/N 1 thru 4 and 9, See Note 11; Continental Copters, S/N CCI-163, CCI-263, CCI-463, CCI-563, CCI-69-1; World Wide Helicopters, S/N 1209; Carson, S/N C5001 thru C5012, C5015; A.L. Hicks, CD-1, S/N 1; Shelby Aero, S/N SA3; Wiggins Airways, S/N 665-1; Agrotors, Inc., S/N 19; Gulf Coast Helicopters, S/N 2GC; Monahan, S/N 208; Carson Helicopters, Inc. C5016, C5018 and K Copters, S/N K651; Versatile, S/N 27; March Associates, S/N 5503; Versatile, S/N VH-2.

Required equipment: In addition to the pertinent required basic equipment specified in CAR 6, the following items of equipment must be installed (see section titled "DATA PERTINENT TO ALL MODELS" following section VIII):
2, 3(c), 5, 6(b), 118, 129, 120(a), 132, 135, 215(a), 323, 328(a) or (b), 417.

VII - Model 47G-2, 3 PCLH, Approved January 20, 1955.

Model 47G-2 is similar to the 47G except for the installation of the Lycoming Model VO-435-A1A engine and the relocation of the fore, aft, and lateral cyclic hydraulic boost controls and installation of Lock and Load valves.

Engine	Lycoming VO-435-A1A, VO-435-A1B, VO-435-A1D, VO-435-A1E or VO-435-A1F			
Fuel	80 minimum octane aviation gasoline			
Engine limits	Maximum r.p.m. 3100 (200 hp.)			
Carburetor & carb. settings	Marvel MA4-5 (setting #10-3856)			
Rotor limits & operational engine speeds	Power On (Engine Tach.)		Power Off (Rotor Tach.)	
	Maximum	3100	Maximum	360
	Minimum	2900 (S.L.)	Minimum	294
Airspeed limits	Never exceed 100 m.p.h. (87 knots) True Ind.			
C.G. range	(-3.0) to (+4.0)			
Empty weight C.G. range	See Figure			



Maximum weight	2450 lb.	
No. of seats	3 (Pilot and 2 passengers) (-30)	
Maximum baggage	none	
Fuel capacity	43 gal. (+5)	
Oil capacity	3.5 gal. (+26.5) (1.5 gal. unusable)	
Control movements	(Tolerance +1/2°)	
Swashplate travels for cyclic pitch for basic configuration (for other configs., see appl. Bell Dwg. & Serv. instr.)	Stick Position	Swashplate Angle from Level
	Full forward	9° Down and forward
	Full aft	9° Down and aft
	Full left	7 1/2° Down and left
	Full right	6 1/2° Down and right

Synchronous elevator travels for cyclic pitch (Cable tension 25 lb. +5 lb.)	Stick Position	Synchronous Elevator Angle of Chord from Level
	Full forward	Leading edge up 14° +1/2°
	Full aft	Leading edge down 27° +3° with min. travel of 37 1/2°

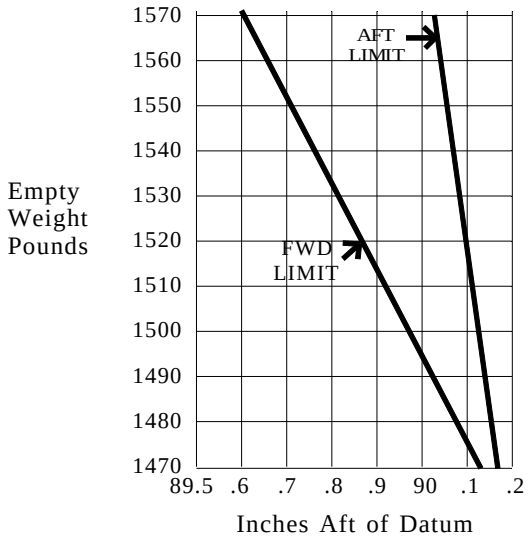
Collective pitch	Blade average pitch settings: High 11°, low 1/2°
Anti-torque rotor pitch	- Measured at tip: High +12 1/2° to +13-1/2°, low - 10 1/2° to 11 1/2° (See S.I. 438)
Serial Nos. eligible	1342 and up, Scarborough G-21, S/N 1. Campbell CH-G2 S/N 1, Petroleum Helicopters, Inc. S/N 52, 491, 1282, Ronald Rogers, S/N RR-100, and Durkee Skeetercopter, Model DGH, S/N V-1. Continental Copters, S/N CCI-165 and CCI-101. K Copters, S/N K821, Ballew and Briggs S/N BB 2383, Action Bell, S/N M210.
Required equipment	In addition to the pertinent required basic equipment specified in CAR 6, the following items of equipment must be installed (see section titled "DATA PERTINENT TO ALL MODELS" following section VIII): 2(b), 3(c), 5, 6(b), 120(a), 132, 139, 140, 215(a), 323, 328(b), 418.

VIII - Model 47H-1, 3 PCLH, Approved March 21, 1955.

Model 47H-1 is similar to the 47G, except for semi-monocoupe tail boom, increased cabin width, contour fuel tanks, revised skid type landing gear, addition of baggage compartment.

Engine	Aircooled Motors Franklin 6V4-200-C32 (See Item 137(b) for opt. eng.)			
Fuel	91 minimum octane aviation gasoline			
Engine limits	Maximum r.p.m. 3100 (200 hp.)			
Carburetor	Marvel MA4-5			
Rotor limits & operational engine speeds	Power On (Engine Tach.)		Power Off (Rotor Tach.)	
	Maximum	3100	Maximum	360
	Minimum	2900 (S.L.)	Minimum	294
Airspeed limits	Never exceed 100 m.p.h. (87 knots) True Ind.			
C.G. range	(+81.5) to (+88.0)			
Empty weight C.G. range	See Figure			

MODEL 47H-1



In order to maintain empty weight C.G. limits fixed ballast may be added at Sta. +6 and +282 as required.

Maximum weight	2350 lbs.		
No. of seats	3 (Pilot and 2 passengers) (+56.5)		
Maximum baggage	200 lbs.		
Fuel capacity	35 gals. (+95)		
Oil capacity	2.7 gals. (+90) (including 0.7 gal. unusable)		
Control movements	(Tolerance +1/2°)		
Swashplate travels for cyclic pitch for basic configuration (for other configs., see appl. Bell Dwg. & Serv. instr.)	Stick Position	Swashplate Angle from Level	
	Full forward	9° Down and forward	
	Full aft	9° Down and aft	
	Full left	7° Down and left	
	Full right	7° Down and right	
Synchronous elevator travels for cyclic pitch (Cable tension 30 lb. +35 lb.)	Stick Position	Synchronous Elevator Angle of Chord from Level	
	Full forward	Leading edge down 0° + 2°	
	Full aft	Leading edge down 26° + 28°	
Collective pitch	Blade average pitch settings: High 11°, low 1/2°		
Anti-torque rotor pitch	- Measured at tip: High +12-1/2° to +13-1/2°, low -10-1/2° to 11-1/2°		
Serial Nos. eligible	1347 and up. (See NOTE 12 on S/N's 1368 and 1370.)		

VIII - Model 47H-1 (cont'd)

Required equipment: In addition to the pertinent required basic equipment specified in CAR 6, the following items of equipment must be installed (see section titled "DATA PERTINENT TO ALL MODELS" following section VIII):
2(b), 3(c), 5, 6(b), 118, 120(b), 129, 132, 140, 215(b), 323, 328(a) or (b), 419.

DATA PERTINENT TO ALL MODELS

Datum: All models except Model 47H-1:
Station 0; Centerline of weld cluster just forward of leveling lugs (weld cluster approximately 2 in. forward of centerline mast)
Model 47H-1:
Station 0; 82 in. forward of centerline of weld cluster just forward of leveling lugs (weld cluster approximately 5 in. forward of centerline mast)

Leveling means: Leveling lugs lower left-hand longeron aft of mast and adjacent cross tube

Certification basis: Type Certificate No. H-1 (CAR 6, effective May 24, 1946) (structural loading cond. skid) Landing Gear dated 11-12-74)

Production basis: None. See Note 15 for serial numbers produced under Bell Helicopter Textron Inc. Production Certificate No. 100

Equipment: A plus (+) or minus (-) sign preceding the weight of an item indicates the net weight change when that item is installed.
"- -" indicates "same as preceding model."
"—" indicates "does not apply."
An E. indicates eligible.
An N.E. indicates not eligible.
The first number under a model indicates weight in pounds.
The second number indicates location.

Rotors & Rotor Equipment	47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
1. (a) Wood main blades Bell 47-110-120	E.	- -	- -	- -	- -	- -	- -	- -
(b) Metal main blades Bell 47-110-250	—	—	—	—	—	—	E.	—
2. (a) Tail rotor wood Bell 47-642-020	N.E.	- -	- -	- -	- -	- -	—	—
(b) Tail rotor metal Bell 47-642-102 Eligible as indicated in Bell Serv. Instr. 185SI	E.	- -	- -	- -	- -	- -	- -	- -
3. 2 Stabilizer Bar Dampners (a) Deleted								
(b) Houde Mfg. Co. A12141	4 (+2)	- -	- -	—	—	—	—	
(c) Houde Mfg. Co. A13965	4 (+2)	- -	- -	- -	- -	- -	- -	4 (+87)
4. Deleted								
5. 2 Main rotor counter-weights (a) Bell Dw. 47-110-120 installed in accordance with Bell Serv. Instr. 117SI	Use act. wt. ch.	- -	- -	- -	- -	- -	- -	- -
6. Main rotor hub (a) Bell 47-120-164 (Alum. alloy yoke)	N.E.	- -	- -	- -	- -	—	—	—
(b) Bell 47-120-184 (Steel yoke)	75 (+2)	- -	- -	- -	- -	- -	- -	75 (+87)
7. Deleted								
8. Metal Main Rotor Blades Bell 47-706-590 Serv. Inst. 320SI	—	—	—	—	—	—	3 (0)	—

Rotors & Rotor Equipment (cont'd)	47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
9. Tail Rotor Blade 47-642-117 S.I. 438						Use act wt. chg.	Use act wt. chg.	
Engine and Engine Accessories - Fuel and Oil Systems								
Starter								
110. Delco-Remy 1109659	16 (-4)	—	—	—	—	—	—	—
111. Deleted, included in Item 119								
119. Delco-Remy 1109661	+2 (-4)	- -	- -	- -	- -	—	—	—
129. Delco-Remy 1109662	—	—	—	17 (-4)	- -	- -	—	17 (+80)
139. Eclipse-Pioneer 756-22C	—	—	—	—	—	—	19 (+4)	—
Oil Cooler								
112. Clifford E-36778	12 (+8.5)	12 (-12)	12 (-9)	- -	- -	—	—	—
120. (a) Harrison 8520470 (oil cooler valve included with this cooler)	—	—	—	9 (-8)	—	9 (-8)	- -	—
(b) Bell 47-671-025	—	—	—	—	—	—	—	5 (+81)
Oil Cooler Valve								
114. United Aircraft UA32257V	3 (+7)	3 (-12)	—	—	—	—	—	—
122. Clifford U3225V DUB	—	—	2 (-12)	2 (-9)	2 (-12)	—	—	—
131. Deleted								
Auxiliary Fuel Pump								
113. (a) Auto pulse 6V521	6 (-12)	- -	—	—	—	—	—	—
(b) Auto pulse 12V511	No wt. ch.	- -	—	—	—	—	—	—
121. Weldon 4013A	—	—	3 (-12.5)	—	—	—	—	—
134. Weldon 4013C	—	—	—	—	3 (-16)	—	—	—
2 Fan Belts								
115. Deleted, included in Item 130								
123. Deleted, included in Item 130								
130. Bell 47-661-026	1 (-9)	- -	- -	—	—	—	—	—
132. Bell 47-661-041	—	—	—	No wt. ch.	- -	- -	- -	- -
Fuel Filter and Drain - Deleted								
Oil Filter								
117. Air Maze B15358	1 (0)	—	—	—	—	—	—	—
118. Air Maze 02S07	—	1 (+7)	- -	- -	- -	- -	—	1 (+93)
125. Deleted, included in Item 118								
128. Fram PB-5 (Fram Inst. Dwg. 61974)	3 (+24)	—	—	—	—	—	—	—
Muffler								
126. Bell 47-706-023 installed in accordance with Serv. Bull. 47011	5 (+14)	- -	- -	—	—	—	—	—
Carburetor Air Filter								
127. Deleted								
140. Purolator 51845 Bell Kit No. 47-2883-2, installed in accordance with Bell Service Instruction 235SI.	—	—	—	—	—	—	1 (+100)	- -

Carburetor Air Filter (cont'd)	47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
135. Air Maze 13218	1 (-10)	- -	- -	- -	- -	- -	—	—
136. Deleted								
Engine								
137. (a) Aircooled Motors Franklin 6V4-200-C32 inst. in accordance with Bell Dwg. 47-706-061 and Serv. Instr. indicated. The same limitations on fuel, eng. limits, rotor limits & operational engine speeds, & max. wt. listed under Model 47E are applicable when this engine installed.	—	—	Use actual (62SI)	weight Ch. (150SI)	Std.	Std.	—	Std.
(b) Aircooled Motors Franklin 6V-335-A per Bell Dwg. 47-600-025. Engine Limits - 3100 r.p.m. (200 hp.) 28.0" Hg. for all operations. Cooling Fan Assy., P/N 47-661-037-13, & Flight Manual Supplement dated July 15, 1957 required. When floats (Item 207(3)) are installed Flight Manual Supplement dated Oct. 6, 1959, required.	—	—	—	—	—	—	—	Use actual weight
Winterization Cowlings								
138. (a) Bell 47-340-172 Inst. in accordance with Serv. Instr. 83SI. Supplemental pages are required in Flight Manual.	—	—	—	37 (+3)	—	—	—	—
(b) Bell 47-340-175 Inst. in accordance with Serv. Instr. 189SI. Supplemental pages are required in Flight Manual.	—	—	—	—	—	37 (+9) or 40 (+10)	—	—
Landing Gear								
2 Main Wheels & Brakes								
204. 12.50, Type I, Wheel Assy. Goodrich (Formerly Hayes) No. D-3-46M	4 (+47)	- -	—	—	—	—	—	—
208. 5.00-6, Type III, Wheel-brake Assy. Goodyear Model L5HBM (Total assy. wt. shown opposite resp. brake)								

2 Main Wheels & Brakes (cont'd)	47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
208. (cont'd)								
Wheel Assy. No. 9520265								
Brake Assy. No.:								
9520264	7 (+47)	- -	- -	- -	- -	__	__	__
9520425	__	__	__	__	-3 (+47)	__	__	__
9520908	__	__	No wt. ch.	- -	__	__	__	__
For Models 47B & 47B3 install in accordance with Bell 47-726-023 & Serv. Instr. 40SI.								
211. Deleted, included in Item 208.								
214. Deleted, included in Item 208.								
2 Main Wheel Tires								
202. (a) 12.50, Type I. 4-ply rating, with regular tubes	10 (+47)	- -	__	__	__	__	__	__
(b) 5.00-5, Type III, 4-ply rating, with regular tubes	3 (+47)	- -	- -	- -	- -	__	__	__
2 Front Wheels, 12.50, Type I								
205. Goodrich (Formerly Hayes) Wheel Assy. D-3-79-M)	4 (-42 1/2)	- -	- -	- -	- -	__	__	__
209. (a) General Wheel Assy. VG-1250-1	__	__	No wt. ch.	- -	- -	__	__	__
(b) Deleted, identical to Item 205.								
(c) General Wheel Assy. 204A42	__	__	No wt. ch.	- -	- -	__	__	__
(d) Firestone Wheel Assy. C0200FM	__	__	No wt. ch.	- -	- -	__	__	__
2 Front Wheel Tires								
203. 12.50, Type I, 4-ply rating, with reg. tubes	10 (-42 1/2)	- -	- -	- -	- -	__	__	__
2 Shimmy Dampeners								
206. (Deleted, included								
210. (in Item 213.								
213. Bell 47-518-001	4 (-47)	- -	- -	- -	- -	__	__	__
Use actual weight for all float kits except those listed under Item 207(4)								
2 Floats								
207. (a) Air Cruiser Model 2199								
(b) Air Cruiser Model 2383								
(c) Goodyear Model SK106-409								
All floats to be installed in accordance with the following dwg. & the appl. Serv. Bulletin or Instr. indicated in the adjacent table.								

2 Floats (cont'd)	47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
207. (cont'd)								
Supple pages are required in Flight Manual								
(1) Bell 47-350-005-3 & -8 Serv. Instr.	28SI	- -	__	__	__	__	__	__
(2a) Bell 47-350-009-1 & Serv. Instr.	__	53SI	- -	__	__	__	__	__
(2b) Bell 47-350-009-13 & Serv. Instr.	__	__	__	148SI	- -	__	__	__
(3) Bell 47-350-012-1 & Ser. Instr.	__	__	__	__	__	__	__	212SI
(4) Bell 47-350-009-19 & -31 & Serv. Instr.	28SI	53SI	- -	148SI	- -	200SI	- -	__
47-350-009-19	110 (0)	- -	- -	- -	- -	- -	- -	__
47-350-009-31	102 (0)	- -	- -	- -	- -	- -	- -	__
212. Deleted, included in Item 207.								
2 Skids								
215. (a) Bell 47-500-003 Installed in accordance with Serv. Instr. 151SI	Use act. wt ch.	- -	- -	- -	- -	Std.	Std.	__
(b) Bell 47-500-022	__	__	__	__	__	__	__	50 (+75)
Electrical Equipment								
Generator								
305. Autolite GFU 4105-12V 12 (+3)		- -	__	__	__	__	__	__
308. Frankline 17556, 25 amp +2 (+3)		- -	__	__	__	__	__	__
313. Pierson E2411, 24V 15 amp	__	__	15 (+2)	15 (-3)	__	__	__	__
319. Pierson E2425, 24V 25 amp., Bell 47-706-034 installed in accordance with Serv. Instr. 100SI	__	__	8 (+2)	- -	__	__	__	__
324. Deleted.								
328. (a) Type M-3 Leece Neville or Eclipse-Pioneer 24V 50 amp., Bell 47-706-242. Installed in accord. with Serv. Instr. 147SI	__	__	__	Use Act. wt. ch.	- -	- -	- -	- -
(b) Leece Neville #G-001-2591-GA	__	__	__	__	__	Use act.	- -	__
Battery								
306. (a) Reading R-55, use with Item 110 only	47 (+39)	__	__	__	__	__	__	__
(b) Reading R-37 use with Item 119 only	-11 (+39)	-11 (-68)	__	__	__	__	__	__
314. Reading S12, two required	__	__	30 (-66)	30 (-67) or (+96)	__	__	__	__
323. AN3154-1A	__	__	__	__	34 (-66)	34 (use act. arm)	- -	- -
327. AN3151-2	__	__	__	__	__	54 (use act. arm)	- -	

Night Flying Installations	47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
321. Bell 47-706-007, installed in accordance with Serv. Instr. 54SI. Supple. pages are required in Flight Manual.	—	—	Use act. wt. ch.	—	—	—	—	—
322. Bell 47-706-075, installed in accordance with Serv. Instr. 146SI. Supple. pages are required in Flight Manual.	—	—	—	Use act. wt. ch.	—	—	—	—
326. Bell 47-755-022, installed in accordance with Serv. Instr. 24SI. (Not eligible when floats installed) Supple. pages are required in Flight Manual.	Use act. wt. ch.	—	—	—	—	—	—	—
329. Bell 47-706-335, and Serv. Instr. as indicated. Supplemental pages are required in Flight Manual.	—	—	—	146SI	—	201SI	201SI	—
330. Bell 47-706-498, installed in accordance with Serv. Instr. 210SI. Supple. pages are required in Flight Manual.	—	—	—	—	—	—	—	Use act. wt. ch.
331. Bell 47-706-633-3 Anti-Collision Beacon Kit installed in accordance with Serv. Instr. 347SI. Flight Man. Supple. dated January 28, 1960 required.	—	—	—	—	—	—	7 (+82)	—

Interior Equipment

402. "Bell Helicopter Model 47B & 47B-S CAA Appv'd Flight Manual," dated Nov. 4, 1947, Revision 1, dated May 12, 1950 latest approved.
403. Deleted.
404. "Bell Helicopter CAA Appv'd Flight Manual for Models 47B3 & 47B3-S," dated Nov. 4, 1948, Rev. 4 dated Oct. 9, 1950 latest approved.
405. Deleted.
406. Deleted.
407. "Bell Helicopter Model 47D & 47DS CAA Appv'd Flight Manual," dated Feb. 25, 1948, Rev. 13 dated Jan. 5, 1951, latest approved.
408. Deleted.
409. Deleted.

Interior Equipment (cont'd)		47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
410.	For 178 HP - "Bell Helicopter Model 47D1 CAA Appv'd Flight Manual," dated March 29, 1949, Rev. 7, dated December 15, 1952, latest approved. For 200 HP - Rev. 6 dated Jan. 5, 1951 to above 178 HP Manual, or Bell Helicopter Model 47D1, 200 HP, CAA Appv'd Flight Manual, dated January 14, 1953, Rev. 3, dated August 6, 1953, latest approved.								
411.	Deleted.								
412.	Deleted.								
413.	"Bell Helicopter Model 47E (Navy HTL-3) Flight Manual apprv'd May 12, 1950, Rev. 2 dated Jan. 12, 1951, latest approved.								
414.	(a) Cabin heater. Bell 47-706-116 & Serv. Instr. 198SI. Supple. pages are required in Flight Manual.	—	—	—	Use act. wt. ch.	—	—	—	—
	(b) Cabin heater. Bell 47-706-428 & Serv. Instr. 194SI. Supple. pages are required in Flight Manual.	—	—	—	—	—	Use act. wt. ch.	—	—
	(c) Cabin heater. Bell 47-706-636, installed in accordance with Bell Serv. Instr. 348SI; supersedes 47-706-543-1, installed in accordance with Bell Serv. Instr. 232SI.	—	—	—	—	—	—	36 (+4.5)	—
415.	Deleted, included in Item 414.								
416.	Deleted, included in Item 414.								
417.	"Bell Helicopter Model 47G CAA Appv'd Flight Manual" dated June 16, 1953, Rev. 1 dated Aug. 25, 1954 latest approved.								
418.	"Bell Helicopter Model 47G-2 CAA Appv'd Flight Manual," dated Dec. 31, 1957.								
419.	"Bell Helicopter Model 47H-1 CAA Appv'd Flight Manual." dated March 31, 1955, Rev. 1 dated July 8, 1955 latest appv'd.								

Miscellaneous Equipment		47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
604.	(a) Rotor Brake Bell 47-706-506 installed in accordance with Serv. Instr. 92SI, Flight Manual Sup'l dated Feb. 15, 1957 req'd.	—	—	—	6 (-9.5)	—	—	6 (-9.5)	—
	(b) Rotor Brake, power operated Bell 47-706-589 -9 installed in accordance with Serv. Instr. 262SI. Flight Manual Sup'l dated May 28, 1958 required.	—	—	—	—	—	10 (-21.5)	—	—
	(c) Rotor Brake 47-706-542 installed in accordance with Serv. Instr. 224SI Flight Man. Sup'l dated Feb 2, 1956 req'd.	—	—	—	—	—	—	—	9 (+79)
605.	Deleted.								
606.	Deleted.								
607.	Deleted.								
608.	Fixed ballast (Total wt. to be determined for each helicopter)								
	(a) Bell 47-739-091	Use act. wt. ch.	—	—	—	—	—	—	—
	(b) Bell 47-739-020	—	Use act. wt. ch.	—	—	—	—	—	—
	(c) Bell 47-739-029	—	—	Use act. wt. ch.	—	—	—	—	—
	(d) Bell 47-739-043	—	—	—	Use act. wt. ch.	—	—	—	—
	(e) Bell 47-260-015	—	—	—	—	—	—	—	Use act. wt. ch.
609.	Deleted, included in Item 615.								
610.	Deleted, included in Item 615.								
611.	(a) Spray kit, Bell 47-705-029 & Serv. Instr. 47014. Supple. pages required in Flight Man.	—	Use act. wt. ch.	—	—	—	—	—	—
	(b) Spray kit, Bell 47-706-004 & Serv. Instr. 52SI. Supple. pages are required in Flight Manual.	—	Use act. wt. ch.	—	—	—	—	—	—
	(c) Spray kit, Bell 47-706-070 & Serv. Instr. as indicated. Supple. pages are required in Flight Manual.	—	—	—	141SI	—	202SI	—	—
	(d) Cargo sling 47-706-660 installed in accordance with Bell Serv. Instr. 308SI.	—	—	—	—	—	—	29 (-6)	—

Miscellaneous Equipment (cont'd)		47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
612.	Cabin enclosure kit, Bell 47-360-170 & Serv. Instr. 43SI. Supple. pages are required in Flight Manual.	—	Use act. wt. ch.	—	—	—	—	—	—
613.	Deleted.								
614.	Deleted, included in Item 615.								
615.	(a) Dust kit, Bell 47-706-003 and Serv. Instr. as indicated. Supple. pages are required in Flight Manual.	—	—	51SI	140SI	—	—	—	—
	(b) Deleted, included in (a) above.								
	(c) Dust kit, Bell 47-706-461 & Serv. Instr. 199SI. Supple. pages required in Flight Manual.	—	—	—	—	—	Use act. wt. ch.	—	—
	(d) Dust Kit, Bell 47-705-106 & 47-105-109. Supple. pages are req. in Flight Manual.	—	Use act. wt. ch.	—	—	—	—	—	—
	(e) Dust kit, Bell 47-706-612-3 installed in accordance with Serv. Instr. 322SI. Flight Supple. dated July 9, 1958, required.	—	—	—	—	—	—	36 (+4.5)	—
616.	Deleted.								
617.	(a) Cargo Carrier, Bell 47-706-009 & Serv. Instr. as indicated. Supple. pages are required in Flight Manual.	—	—	55SI	96SI	—	96SI	—	—
	(b) Cargo Carrier, Bell 47-708-012 & Serv. Instr. 184SI. Supple. pages are required in Flight Manual.	—	—	—	Use act. wt. ch.	—	Use act. wt. ch.	—	—
618.	Deleted.								
619.	Adjustable horizontal stabilizer kit, Bell 47-267-046 & Serv. Instr. 57SI. Supple. pages are required in Flight Manual.	—	—	—	—	—	—	—	—
620.	Deleted.								
621.	(a) Fog Kit, Bell 47-706-040. Supple. pages are required in Flight Manual.	—	—	Use act. wt. ch.	—	—	—	—	—

Miscellaneous Equipment (cont'd)	47B	47B3	47D	47D1	47E	47G	47G-2	47H-1
621. (cont'd)								
(b) Fog Kit, Bell 47-706-066 & Serv. Instr. 142SI. Supple. pages required in Flight Manual.	—	—	—	Use act. wt. ch.	—	—	—	—
622. (a) Litter carrier, Bell 47-706-044 and Serv. Instr. as indicated. Supple. pages are required in Flight Manual.	—	56SI	56SI	144SI	—	144SI	144SI	—
(b) Litter carrier, Bell 47-706-334 and Serv. Instr. 193SI. Supple. pages are required in Flight Manual.	—	—	—	—	—	Use act. wt. ch.	—	—
(c) Litter carrier floats, Bell 47-350-011 and Serv. Instr. 206SI. Supple. pages are required in Flight Manual.	—	—	—	—	—	206SI	—	—
623. Deleted.								
624. Dual control kit, Bell 47-706-069 and Serv. Instr. 149SI. Supple. pages are required in Flight Manual.	—	—	—	Use act. wt. ch.	- -	Use act. wt. ch.	Std.	Std.
625. Deleted.								
626. Deleted.								
627. Deleted.								
628. Deleted.								
629. Vibration isolator, Bell 47-706-398, installed in accordance with Serv. Instr. 94SI.	—	—	—	Use act. wt. ch.	—	Use act. wt. ch.	—	—
630. Deleted, included in Item 617.								
631. Snow-Shoe, Bell 47-706-373 and Serv. Instr. 162SI. Supple. pages required in Flight Manual.	—	—	—	Use act. wt. ch.	—	—	—	—
632. Deleted, included in Item 622.								
633. Hydraulic boost control, Bell 47-706-479 and Serv. Instr. 203SI. Supple. pages are required in Flight Manual.	—	—	—	—	—	Use act. wt. ch.	—	—

NOTE 1. Current weight and balance report, including list of equipment included in certificated weight empty, and loading instructions when necessary, must be in each helicopter at the time of original certification and at all times thereafter. In order to obtain the most consistent weight and balance results, all model helicopters should be weighed on jack-points rather than on wheels or floats. The applicable Bell Maintenance and Overhaul Instructions contain complete information on this subject.

NOTE 2. Deleted. See applicable FAA Approved Helicopter Flight Manual for placards and operation limitations.

NOTE 3. The Tables below address life-limited parts for the various model 47 helicopters.
TABLE 1 contains the life limits for models 47B, 47B3, 47D, 47D1 and 47E.
TABLE 2 contains the life limits for model 47G.
TABLE 3 contains the life limits for model 47G-2.
TABLE 4 contains the life limits for model 47H-1.

COMMENT: The retirement times of critical parts are listed in the following tables (TABLE 1 through TABLE 4). These limitations may not be increased without FAA engineering approval. The list of Airworthiness Directives (ADs) referenced with the following replacement or service lives may not be all-inclusive. Additional ADs may also be applicable.

MAIN ROTOR SYSTEM

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Main Rotor Blade (Wood)	47-110-120-30, /-50	On Condition
Main Rotor Gimbal Ring	47-120-014-5, /-6 /-11 /-13 /-15 /-17	1200 hrs
Main Rotor Gimbal Ring	47-120-014-23	4800 hrs
Main Rotor Grip	47-120-135-2, /-3 /-5	1200 hrs (REF. AD 2001-17-17)
Main Rotor Grip	47-120-135-1, /-107	1200 hrs
Main Rotor Grip	47-120-252-1, /-7 /-11 /-115	1200 hrs (REF. AD 2001-17-17)
Main Rotor Hub Pillow Block	47-120-111-1	Not Eligible (REF. AD 47-32-06)
Main Rotor Yoke (Al Alloy)		Not Eligible
Main Rotor Yoke (Steel)	47-120-177-1	5000 hrs
		3600 hrs if ever used w/ wood blades on all other models except 47G-3, 47G-3B, 47J, 47J-2 or 47J-2A
		2500 hrs if ever used w/ wood blades on any model 47G-3, 47G-3B, 47J, 47J-2 or 47J-2A
Main Rotor Drag Brace	47-110-133-1	Not Eligible (REF. AD 48-11-05)
Main Rotor Drag Brace Fitting	47-110-145-2	Not Eligible (REF. AD 52-01-02)
Main Rotor Blade Equalizer Horn	47-120-027-2	Not Eligible (REF. AD 52-01-02)
Main Rotor Mast	47-130-100-1	REF. AD 47-32-10

FLIGHT CONTROLS

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Collective Pitch Link Rod End Bearing	RE4F7/RE4FL7/47-140-241-3	REF. AD 61-22-01
Pitch Change Link	47-641-032-1	50 hrs (REF. AD 55-05-01)
Delta Hinge Bolt	47-641-031-1	100 hrs (REF. AD 80-10-04 R1)
Delta Hinge Bearing	KP5A OR K5A	100 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	47-641-131-1	600 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	47-641-146 (R-4-AF4)	100 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	S1RP	100 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	7R4AX1C	100 hrs (REF. AD 80-10-04 R1)

TABLE 1: Life Limits for Models 47B, 47B3, 47D, 47D1 & 47E

TAIL ROTOR SYSTEM

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Rotor Shaft	47-645-028-1	900 hrs (REF. AD 51-29-01)
Rotor Shaft	47-645-051-1	900 hrs (REF. AD 51-29-01)
Rotor Shaft	47-645-077-1	900 hrs (REF. AD 52-28-03)
Tail Rotor Yoke	47-641-025-1	1200 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-1	1200 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-025-7, /-9	2500 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-7	2500 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-9	400 hrs (REF. AD 76-12-02)
Tail Rotor Yoke	47-641-126-5	2500 hrs
Tail Rotor Blade	47-642-102-(ALL)	Not Eligible REF. AD 70-10-08 and AD 80-10-04 R1
Tail Rotor Blade	47-642-117-1, /-105	2500 hrs
Tail Rotor Hub Retention Bolt	47-641-026-1	Not Eligible (REF. AD 52-01-05)
Tail Rotor Hub Retention Bolt	47-641-194-1	600 hrs REF. AD 80-10-04 R1 and AD 76-12-01
Tail Rotor Hub Retention Bolt	47-641-052-1	REF. AD 56-20-03
Tail Rotor Hub Retention Bolt	47-641-052-3, /-5	REF. AD 80-10-04 R1
Tail Rotor Drive Shaft	47-644-172-3	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-180-1, /-5	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-186-1	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-187-1, /-5 /-11	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-214-1	Not Eligible (REF. AD 70-08-02)

POWERPLANT

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Engine Mount	47-612-111-1, /-5	600 hrs (REF. AD 51-27-01)
Engine Mount	47-612-131-1	2500 hrs
Engine Mount	47-612-135-1	2500 hrs
FAN BELT (Matched Sets)	47-661-026-1	100 hrs
FAN BELT (Matched Sets)	47-661-028-1	100 hrs
FAN BELT (Matched Sets)	47-661-041-1 through /-7	600 hrs
FAN BELT (Matched Sets)	47-661-041-9	600 hrs - 5 year shelf life

TRANSMISSION

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Fan Drive Bearing	47-620-605-1	REF. AD 81-04-03
Shear Screw	47-620-485-1	600 hrs
Shear Screw	47-620-485-9	1200 hrs
Ball Bearings, Spider Pinions		REF. AD 47-51-11
Transmission	200 Series	100 hrs

TABLE 1 (cont'd): Life Limits for Models 47B, 47B3, 47D, 47D1 & 47E

MAIN ROTOR SYSTEM

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Main Rotor Blade (Wood)	47-110-120-30, /-50	On Condition
Main Rotor Gimbal Ring	47-120-014-5, /-6 /-11 /-13 /-15 /-17	1200 hrs
Main Rotor Gimbal Ring	47-120-014-23	4800 hrs
Main Rotor Grip	47-120-135-2, /-3 /-5	1200 hrs (REF. AD 2001-17-17)
Main Rotor Grip	47-120-135-1, /-107	1200 hrs
Main Rotor Grip	47-120-252-1, /-7 /-11 /-115	1200 hrs (REF. AD 2001-17-17)
Main Rotor Yoke (Steel)	47-120-177-1	5000 hrs 3600 hrs if ever used w/ wood blades on all other models except 47G-3, 47G-3B, 47J, 47J-2 or 47J-2A 2500 hrs if ever used w/ wood blades on any model 47G-3, 47G-3B, 47J, 47J-2 or 47J-2A

FLIGHT CONTROLS

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Collective Pitch Link Rod End Bearing	RE4F7/RE4FL7/47-140-241-3	REF. AD 61-22-01
Pitch Change Link	47-641-032-1	50 hrs (REF. AD 55-05-01)
Delta Hinge Bolt	47-641-031-1	100 hrs (REF. AD 80-10-04 R1)
Delta Hinge Bearing	KP5A	100 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	47-641-131-1	600 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	47-641-146 (R-4-AF4)	100 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	S1RP	100 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	7R4AX1C	100 hrs (REF. AD 80-10-04 R1)

TAIL ROTOR SYSTEM

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Tail Rotor Yoke	47-641-025-1	1200 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-1	1200 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-025-7, /-9	2500 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-7	2500 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-9	400 hrs (REF. AD 76-12-02)
Tail Rotor Yoke	47-641-126-5	2500 hrs
Tail Rotor Blade	47-642-102-(ALL)	Not Eligible REF. AD 70-10-08 and AD 80-10-04 R1
Tail Rotor Blade	47-642-117-1, /-105	2500 hrs
Tail Rotor Hub Retention Bolt	47-641-194-1	600 hrs REF. AD 80-10-04 R1 and AD 76-12-01
Tail Rotor Hub Retention Bolt	47-641-052-1	REF. AD 56-20-03
Tail Rotor Hub Retention Bolt	47-641-052-3, /-5	REF. AD 80-10-04 R1
Tail Rotor Drive Shaft	47-644-172-3	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-180-1, /-5	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-186-1	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-187-1, /-5 /-11	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-214-1	Not Eligible (REF. AD 70-08-02)

TABLE 2: Life Limits for Model 47G

POWERPLANT

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Engine Mount	47-612-135-1	2500 hrs
Fan Belts (Matched Sets)	47-661-041-1 through /-7	600 hrs
Fan Belts (Matched Sets)	47-661-041-9	600 hrs – 5 year shelf life
Fan Drive Bearing	47-620-605-1	REF. AD 81-04-03

TRANSMISSION

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Shear Screw	47-620-485-1	600 hrs
Shear Screw	47-620-485-9	1200 hrs

TABLE 2 (cont'd): Life Limits for Model 47G

MAIN ROTOR SYSTEM

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Main Rotor Blade (Wood)	47-110-120-30, /-50	On Condition
Main Rotor Blade	47-110-250-9, /-13 /-15 /-17 /-19	3000 hrs
Main Rotor Drag Brace	47-110-372-1	2500 hrs
Main Rotor Gimbal Ring	47-120-014-5, /-6 /-11 /-13 /-15 /-17	1200 hrs
Main Rotor Gimbal Ring	47-120-014-23	4800 hrs
Main Rotor Grip	47-120-135-2, /-3 /-5	1200 hrs (REF. AD 2001-17-17)
Main Rotor Grip	47-120-135-1, /-107	1200 hrs
Main Rotor Grip	47-120-252-1, /-7 /-11 /-115	1200 hrs (REF. AD 2001-17-17)
Main Rotor Grip	47-120-252-5	300 hrs
Main Rotor Yoke (Steel)	47-120-177-1	5000 hrs 3600 hrs if ever used w/ wood blades on all other models except 47G-3, 47G-3B, 47J, 47J-2 or 47J-2A 2500 hrs if ever used w/ wood blades on any model 47G-3, 47G-3B, 47J, 47J-2 or 47J-2A

FLIGHT CONTROLS

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Collective Pitch Link Rod End Bearing	RE4F7/RE4FL7/47-140-241-3	REF. AD 61-22-01
Collective Sleeve	47-150-117-5, /-13 /-21	5000 hrs
Pitch Change Bearing	47-641-131-1	600 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	47-641-146 (R-4-AF4)	100 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	S1RP	100 hrs (REF. AD 80-10-04 R1)
Pitch Change Bearing	7R4AX1C	100 hrs (REF. AD 80-10-04 R1)

TABLE 3: Life Limits for Model 47G-2

TAIL ROTOR SYSTEM

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Tail Rotor Yoke	47-641-025-1	1200 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-1	1200 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-025-7, /-9	2500 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-7	2500 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-9	400 hrs (REF. AD 76-12-02)
Tail Rotor Yoke	47-641-126-5	2500 hrs
Tail Rotor Blade	47-642-102-(ALL)	Not Eligible REF. AD 70-10-08 and AD 80-10-04 R1
Tail Rotor Blade	47-642-117-1, /-105	2500 hrs
Tail Rotor Hub Retention Bolt	47-641-194-1	600 hrs REF. AD 80-10-04 R1 and AD 76-12-01
Tail Rotor Hub Retention Bolt	47-641-052-1	REF. AD 56-20-03
Tail Rotor Hub Retention Bolt	47-641-052-3, /-5	REF. AD 80-10-04 R1
Tail Rotor Drive Shaft	47-644-172-3	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-180-1, /-5	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-186-1	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-187-1, /-5 /-11	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-214-1	Not Eligible (REF. AD 70-08-02)

POWERPLANT

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Engine Mount	47-612-135-1	2500 hrs
Engine Mount	47-612-171-(ALL)	2500 hrs
Fan Belt (Matched Sets)	47-661-041-1 through /-7	600 hrs
Fan Belt (Matched Sets)	47-661-041-9	600 hrs - 5 year shelf life
Fan Drive Bearing	47-620-605-1	REF. AD 81-04-03

TRANSMISSION

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Shear Screw	47-620-485-1	600 hrs
Shear Screw	47-620-485-9	1200 hrs

TABLE 3 (cont'd): Life Limits for Model 47G-2

MAIN ROTOR SYSTEM

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Main Rotor Blade (Wood)	47-110-120-30, /-50	On Condition
Main Rotor Gimbal Ring	47-120-014-5, /-6 /-11 /-13 /-15 /-17	1200 hrs
Main Rotor Gimbal Ring	47-120-014-23	4800 hrs
Main Rotor Grip	47-120-135-2, /-3 /-5	1200 hrs (REF. AD 2001-17-17)
Main Rotor Grip	47-120-135-1, /-107	1200 hrs
Main Rotor Grip	47-120-252-1, /-7 /-11 /-115	1200 hrs (REF. AD 2001-17-17)

TABLE 4: Life Limits for Model 47H-1

MAIN ROTOR SYSTEM (cont'd)

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Main Rotor Yoke (Steel)	47-120-177-1	5000 hrs
		3600 hrs if ever used w/ wood blades on all other models except 47G-3, 47G-3B, 47J, 47J-2 or 47J-2A
		2500 hrs if ever used w/ wood blades on any model 47G-3, 47G-3B, 47J, 47J-2 or 47J-2A

FLIGHT CONTROLS

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Collective Pitch Link Rod End Bearing	RE4F7/RE4FL7 /47-140-241-3	REF. AD 61-22-01
Tail Rotor Pitch Change Bearing	47-641-146 (R-4-AF4)	100 hrs (REF. AD 80-10-04 R1)
Tail Rotor Pitch Change Bearing	S1RP	100 hrs (REF. AD 80-10-04 R1)
Tail Rotor Pitch Change Bearing	7R4AX1C	100 hrs (REF. AD 80-10-04 R1)

TAIL ROTOR SYSTEM

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Tail Rotor Yoke	47-641-057-7	2500 hrs (REF. AD 80-10-04 R1)
Tail Rotor Yoke	47-641-057-9	400 hrs (REF. AD 76-12-02)
Tail Rotor Yoke	47-641-126-5	2500 hrs
Tail Rotor Blade	47-642-102-(ALL)	Not Eligible REF. AD 70-10-08 and AD 80-10-04 R1
Tail Rotor Blade	47-642-117-1, /-105	2500 hrs
Tail Rotor Hub Retention Bolt	47-641-052-1	REF. AD 56-20-03
Tail Rotor Hub Retention Bolt	47-641-052-3, /-5	REF. AD 80-10-04 R1
Tail Rotor Drive Shaft	47-644-172-3	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-180-1, /-5	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-186-1	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-187-1, /-5 /-11	Not Eligible (REF. AD 70-08-02)
Tail Rotor Drive Shaft	47-644-214-1	Not Eligible (REF. AD 70-08-02)
Tail Rotor Hub Retention Bolt	47-641-194-1	600 hrs REF. AD 80-10-04 R1 and AD 76-12-01

POWERPLANT

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Engine Mount	47-612-135-63	1200 hrs
Fan Belts (Matched Sets)	47-661-028-1	100 hrs
Fan Belts (Matched Sets)	47-661-041-1 through /-7	600 hrs
Fan Belts (Matched Sets)	47-661-041-9	600 hrs - 5 year shelf life
Fan Drive Bearing	47-620-605-1	REF. AD 81-04-03

TRANSMISSION

NOMENCLATURE	PART NUMBER	AIRWORTHINESS LIFE
Shear Screw	47-620-485-1	600 hrs
Shear Screw	47-620-485-9	1200 hrs

TABLE 4 (cont'd): Life Limits for Model 47H-1

NOTE 4. Deleted.

NOTE 5. Deleted.

NOTE 6. Deleted.

NOTE 7. Information essential to the proper maintenance of the helicopter including retirement time of critical parts is contained in the Bell Maintenance Manual provided with each helicopter. These values of retirement of service life cannot be increased without FAA Engineering approval.

NOTE 8. A11 -S (47-S, 47B-S, 47B3-S, 47D-S, 47D1-S, and 47E-S) model designations have been deleted from this specification as of January 25, 1952. The only significance of the -S marking was to differentiate between the installation of the float gear and land-type gear. No rotorcraft of the Model 47 series either commercial or military, have been delivered with the nameplate containing the -S designation. Any specific reference in Flight Manuals, Service Bulletins, etc., to the -S models should be considered as applicable to the basic model when float gear is installed.

NOTE 9. Deleted October 4, 1965.

NOTE 10. Deleted July 24, 1957.

NOTE 11. Continental Copters, Inc., Model E1 Tom Cat, Mark II helicopters have been issued Restricted Category Airworthiness Certificates. These helicopters are eligible for Normal Category Airworthiness Certificates when all modifications have been removed, and the helicopter has been found to conform with the Bell Model 47G Type Design, and with all the applicable Airworthiness Directives.

NOTE 12. Model 47H-1, S/N 1368 and 1370 may be operated with a revised empty weight C.G. range when operated with Rotorcraft Flight Manual dated December 10, 1963.

NOTE 13. Model 47D-1 use Ventral Fin-Fixed Tab assembly, P/N 47-267-063-1.

NOTE 14. Deleted.

NOTE 15. Model 47 S/N 1-9; Model 47B S/N 1-6, 8-28, 30-40, 46-50, 56-78; Model 47B2 S/N 7; Model 47B3 S/N 29, 41-45, 51-55; Model 47D S/N 1-58, 71-79; Model 47D1 S/N 145-164, 174-181, 183, 212-214, 220-222, 232-235, 300-302, 352, 477-491, 601-665; Model 47E S/N 165-173; Model 47G S/N 666-1006, 1272-1325, 1328-1330, 1342, 1346, 1372-1382, 1398-1418, 1444-1458, 1511-1533, 1687-1711; Model G-2 S/N 1459-1508, 1617-1641, 1957-2029, 2174-2260, 2409-2478, 2556-2570; and Model 47H-1 S/N 1347-1371, 1534-1558; were produced under FAA Production Certificate No. 100 by Bell Helicopter Textron Inc., Fort Worth, Texas.

NOTE 16. Any changes to the type design of this helicopter by means of a amended type certificate (TC), supplemental type certificate (STC), or amended STC, requiring instructions for continued airworthiness (ICA's) must be submitted thru the project certification office for review and acceptance by the Fort Worth -Aircraft Evaluation Group (FTW-AEG) Flight Standards District Office (FSDO) prior to the aircraft delivery, or upon issuance of the first standard airworthiness certificate for the affected aircraft, whichever occurs later as prescribed by Title 14 CFR 21.50. Type design changes by means of a field approval that require ICA's must have those ICA's reviewed by the field approving FSDO.

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