**DEPARTMENT OF TRANSPORTATION**
**FEDERAL AVIATION ADMINISTRATION**

2H3
Revision 21
Scott's –Bell 47, Inc.

| | |
|---|---|
| 47G-2A | 47G-5 |
| 47G-2A-1 | 47G-3B-2 |
| 47G-3 | 47G-5A |
| 47G-3B | 47G-3B-2A |
| 47G-3B-1 | |
| 47G-4 | |
| 47G-4A | |

March 19, 2018

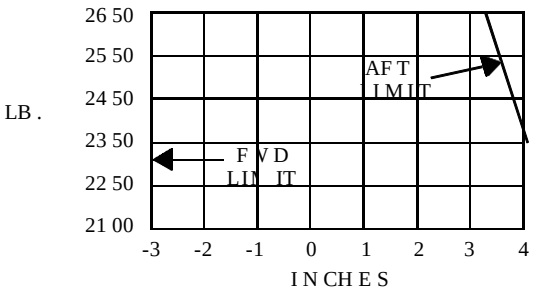
TYPE CERTIFICATE DATA SHEET NO. 2H3

This data sheet which is a part of type certificate No. 2H3 prescribes conditions and limitations under which the product for which this type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

| | |
|---|---|
| Type Certificate Holder | Scott's-Bell 47, Inc.<br>100 Minnesota Ave.<br>Le Sueur, Minnesota 56058 |
| Type Certificate Holder Record | Bell Helicopter Textron Inc. transferred TC 2H3 to Scotts-Bell 47 Inc. on June 3, 2010. |

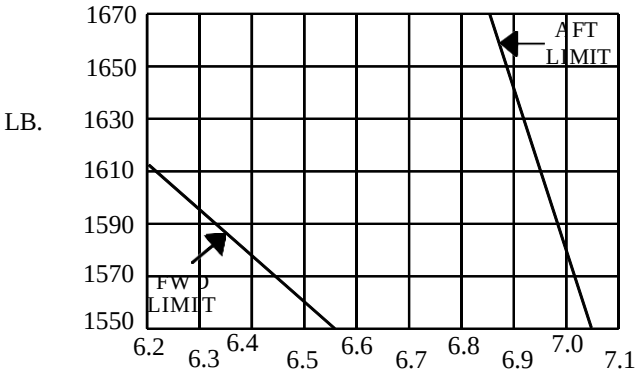
**I - Model 47G-3, PCLH (Normal Category), Approved March 17, 1960**

| | | | |
|---|---|---|---|
| Engine | Aircooled Motors Franklin 6VS-335-A | | |
| Fuel | 100/130 minimum grade aviation gasoline | | |
| Engine limits | Maximum continuous, | | |
| | (Sea level) | 34.3 in.Hg., 3200 r.p.m. (220 hp.) | |
| | (13,300 ft.) | 35.0 in.Hg., 3200 r.p.m. (220 hp.) | |
| | Takeoff (2 minutes), | 35.0 in.Hg., 3200 r.p.m. (225 hp.) | |
| | (See NOTE 5 for manifold pressure variation with altitude and temperature) | | |
| | (See NOTE 6 for increased takeoff rating) | | |
| Carburetor & carburetor settings | Marvel MA6 (Setting 10-4206) | | |
| Rotor limits & operations engine speeds | Power Off (Rotor Rach.) | | Power On (Engine Tach.) |
| | Maximum | 370 | Maximum 3200 r.p.m. |
| | Minimum | 322 | Minimum 3000 r.p.m. below 10,000 ft. |
| | | | Minimum 3100 r.p.m. above 10,000 ft. |
| Airspeed limits | S.L. to 10,000 ft. Vne = 105 m.p.h. (91.5K) with 3000 to 3200 r.p.m. | | |
| | Above 10,000 ft. decrease Vne 6 m.p.h./1000 ft. with 3100 to 3200 r.p.m. | | |
| C.G. range | 2650 lb. | (-3.0) to (+3.5) | (See NOTE 6 for |
| | 2350 lb. | (-3.0) to (+4.0) | increased gross |
| | 2100 lb. | (-3.0) to (+4.0) | weight C.G. |



I **– Model 47G-3** (cont'd)

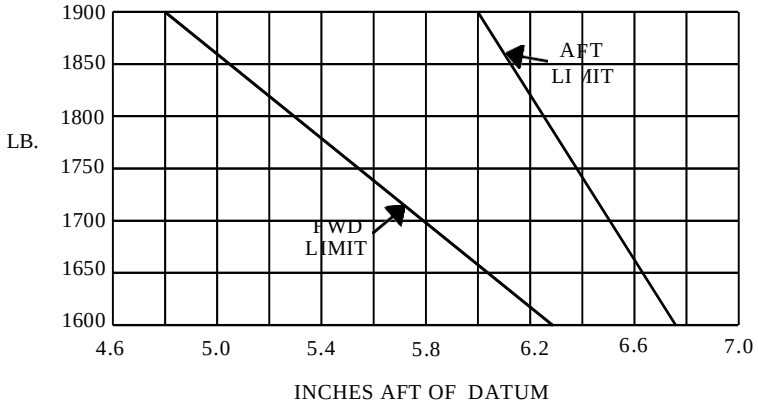
Empty weight C.G. range — See Figure




| | |
|---|---|
| Maximum weight | 2650 lbs. (See NOTE 6 for 2850 lb.) |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instructions in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 43 gals. (+5) (Usable 41 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 2 gals. (+12), (Usable 1 gal.) See NOTE 1 for undrainable oil. |
| Rotor blade & control movements | For rigging information refer to the pertinent model Maintenance Manual |
| Serial Nos. eligible | 2586 and up and 2554, 2555 |

**II - Model 47G-2A, 3 PCLH (Normal Category), Approved December 10, 1960**

| | | | |
|---|---|---|---|
| Engine | Lycoming VO-435-A1E or -A1F | | |
| Fuel | 80/87 minimum grade aviation gasoline | | |
| Engine limits | Maximum continuous, | | |
| | (Sea level) | 24.6 in.Hg., 3200 r.p.m. (220 hp.) | |
| | (4300 ft.) | 23.3 in.Hg., 3200 r.p.m. (220 hp.) | |
| | (Straight line manifold pressure variation with altitude) | | |
| | Takeoff (2 minutes), 26.3 in.Hg., 3200 r.p.m. (240 hp.) | | |
| Carburetor & carburetor setting | Marvel-Schebler MA4-5AA (10-4025-11) | | |
| Rotor limits & operational engine speeds | Power Off (Rotor Tach.) | | Power On (Engine Tach.) |
| | Maximum | 370 | Maximum 3200 r.p.m. |
| | Minimum | 333 | Minimum 3000 r.p.m. below 10,000 ft. |
| Airspeed limits | S.L. to 6,000 ft., 105 m.p.h. (91.5K) | | |
| | 5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft. | | |
| C.G. range | (-3.0) to (+4.0) | | |
| Empty wt. C.G. range | See figure. | | |



II **– Model 47G-2A** (cont'd)

| | |
|---|---|
| Maximum weight | 2850 lbs. |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instructions in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 43 gals. (+5) (Usable 41 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 3 gals. (+12), (Usable 1 gal.) See NOTE 1 for undrainable oil. |
| Rotor blade & control movements | For rigging information refer to the pertinent model Maintenance Manual. |
| Serial Nos. eligible | 2657 and up (See NOTE 7 for conversion from 47G-2); Great Southwest S/N 23. |

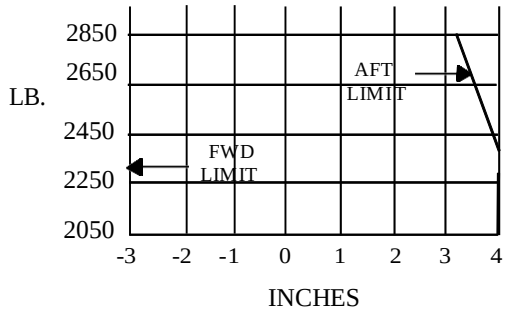
**III - Model 47G-3B, 3 PCLH (Normal Category), Approved May 24, 1961**

| | |
|---|---|
| Engine | Lycoming TVO-435 A1A |
| Fuel | 100/130 minimum octane grade aviation gasoline |
| Engine limits | Maximum continuous,<br>(Sea level to 20,000 ft.) 26.8 in.Hg., 3200 r.p.m. (220 hp.)<br>Takeoff (2 min.)<br>(Sea level to 15,000 ft.) 31.1 in.Hg., 3200 r.p.m. (260 hp.)<br>(See NOTE 8 for power and manifold pressure variation with altitude and temperature) |
| Carburetor & carburetor settings | Marvel-Schebler MA-6 (Setting No. 10-4438) or<br>Marvel Schebler MA-6AA (Setting No. 10-4438-1) |

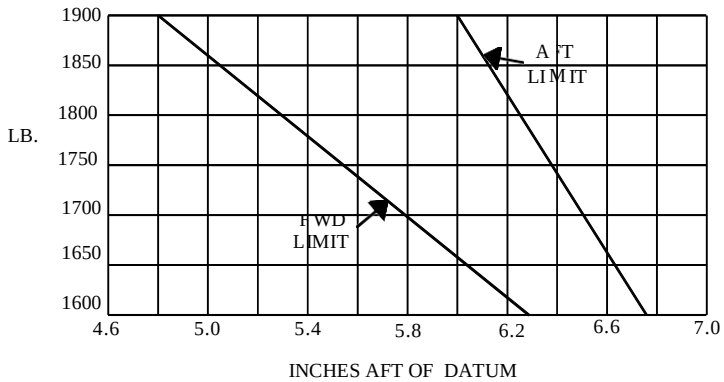
Rotor limits & operational engine kimits

| | Power Off (Rotor Tach.) | Power On (Engine Tach.) |
|---|---|---|
| Maximum | 370 | Maximum 3200 r.p.m. |
| Minimum | 322 | Minimum 3000 below 10,000 ft. |
| | | Minimum 3100 above 10,000 ft. |

| | |
|---|---|
| Airspeed limits | S.L. to 10,000 ft. Vne = 105 m.p.h. (91.5K) with 3000 to 3200 r.p.m.<br>Above 10,000 ft. decrease Vne 7 mph./1000 ft. to 15,000 ft. (70 mph)<br>Above 15,000 ft. decrease Vne 5 mph/1000 ft. to 20,000 ft. (45 mph)<br>R.p.m. range 10,000 ft. to 20,000 ft.: 3100 to 3200. |
| C.G. range | 2850 lb. (-3.0) to (+3.2)<br>2300 lb. (-3.0) to (+4.0)<br>2100 lb. (-3.0) to (+4.0) |




Empty weight C.G. range — See Figure.



III – **Model 47G-3B** (cont'd)

| | |
|---|---|
| Maximum weight | 2850 lbs. |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instructions in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 43 gals. (+5) (usable 41 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 4.25 gals. (+12) (usable 2.5 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to pertinent model Maintenance Manual. |
| Serial Nos. eligible | 2634, 2638, 2641, and up. |

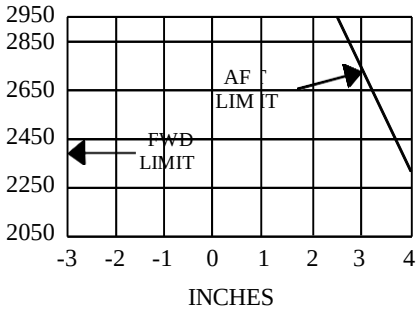
**IV - Model 47G-3B-1, 3 PCLM (Normal Category), Approved January 25, 1963**

| | |
|---|---|
| Engine | Lycoming TVO-435-B1A or -B1B (See NOTE 11 for installation of Lycoming TVO-345-D1A engine) |
| Fuel | 100/130 minimum grade aviation gasoline |
| Engine limits | Maximum continuous,<br>(Sea level to 19,400 ft.) 26.8 in.Hg., 3200 r.p.m. (220 hp.)<br>Takeoff (2 min.) (5 min. takeoff power eligible with Flight Manual Supplement dated February 3, 1966)<br>(Sea level to 8,000 ft.) 32.8 in.Hg., 3200 r.p.m. (270 hp.)<br>(See NOTE 9 for power and manifold pressure variation with altitude and temperature) |
| Carburetor & carburetor settings | Marvel-Schebler MA-6 (Setting 10-4438) or<br>Marvel Schebler MA-6AA (Setting 10-4438-1) |

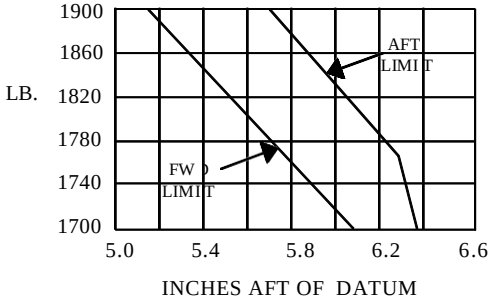
Rotor limits & operational engine limits

| | Power Off (Rotor Tach.) | Power On (Engine Tach.) |
|---|---|---|
| Maximum | 370 | Maximum 3200 r.p.m. |
| Minimum | 322 | Minimum 3000 below 10,000 ft.<br>Minimum 3100 above 10,000 ft. |

| | |
|---|---|
| Airspeed limits | S.L. to 10,000 ft. Vne = 105 m.p.h. (91.5K) with 3000 to 3200 r.p.m.<br>Above 10,000 ft. decrease Vne 7 mph./1000 ft. to 15,000 ft. (70 mph)<br>Above 15,000 ft. decrease Vne 5 mph/1000 ft. to 20,000 ft. (45 mph)<br>R.p.m. range 10,000 ft. to 20,000 ft.: 3100 to 3200. |
| C.G. range | 2950 lb. (-3.0) to (+2.5)<br>2300 lb. (-3.0) to (+4.0)<br>2100 lb. (-3.0) to (+4.0) |




Empty weight C.G. range. See Figure.

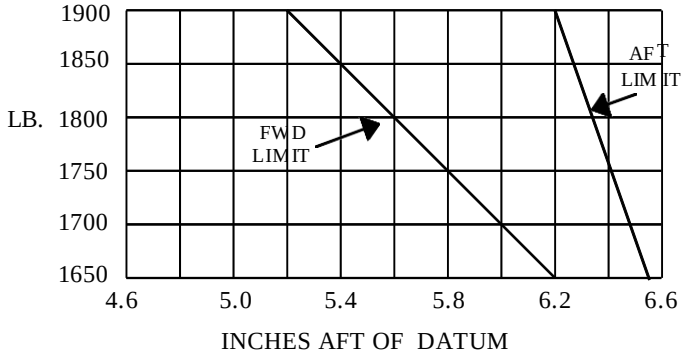


IV – **Model 47G-3B-1** (cont'd)

| | |
|---|---|
| Maximum weight | 2950 lbs. |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instructions in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 61.6 gals. (+5) (usable 57.5 gals.) (See NOTE 1 for unusable fuel. |
| Oil capacity | 4.25 gals. (+12) (usable 2 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to the pertinent model Maintenance Manual. |
| Serial Nos. eligible | 2754, 2797, and up. |

**V - Model 47G-2A-1, 3 PCLH (Normal Category), Approved December 28, 1962**

| | | | |
|---|---|---|---|
| Engine | Lycoming VO-435-A1E or A1F | | |
| Fuel | 80/87 minimum grade aviation gasoline | | |
| Engine limits | Maximum continuous,<br>(Sea level) 24.6 in.Hg., 3200 r.p.m. (220 hp.)<br>(4300 ft.) 23.3 in.Hg., 3200 r.p.m. (220 hp.)<br>(Straight line manifold pressure variation with altitude)<br>Takeoff (2 minutes), 26.3 in.Hg., 3200 r.p.m. (240 hp.) | | |
| Carburetor & carburetor setting | Marvel-Schebler MA-4-5AA (10-4025-11) | | |
| Rotor limits & operational engine limits | Power Off (Rotor Tach.) | | Power On (Engine Tach.) |
| | Maximum | 370 | Maximum 3200 r.p.m. |
| | Minimum | 333 | Minimum 3000 r.p.m. |
| Airspeed limits | S.L. to 6000 ft., 105 m.p.h. (91.5K)<br>5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft. | | |
| C.G. range | (-3.0) to (+4.0) | | |
| Empty weight C.G. range | See Figure. | | |



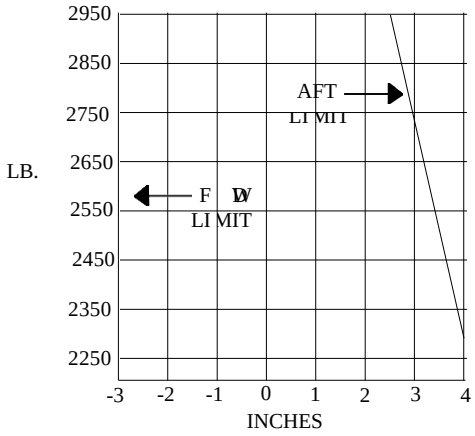

| | |
|---|---|
| Maximum weight | 2850 lbs. |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instructions in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 3 gals. (+12) (usable 1.5 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to the pertinent model Maintenance Manual. |
| Serial Nos. eligible | 2857 and up. |

**VI - Model 47G-4, 3 PCLH (Normal Category), Approved January 3, 1964**

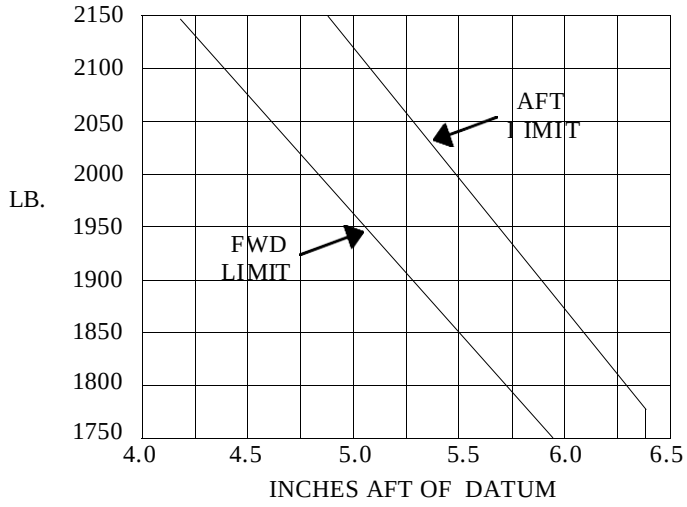
| | |
|---|---|
| Engine | Lycoming VO-540-B1B3 |
| Fuel | 80/87 minimum grade aviation gasoline |
| Engine limits (See Flight Manual for manifold pressure variation with altitude and temperature) | Maximum continuous,<br>(Sea level) 20.6 in.Hg., 3200 r.p.m. (220 hp.)<br>(9500 ft.) 19.3 in.Hg., 3200 r.p.m. (220 hp.)<br>Takeoff (2 minutes)<br>(Sea level) 23.6 in.Hg., 3200 r.p.m. (260 hp.) |

VI – **Model 47G-4** (cont'd)

| | | |
|---|---|---|
| Carburetor & carburetor settings | Marvel-Schebler MA-6AA, Setting No. 10-4218 or 10-4975 | |
| Rotor limits & operational engine speeds | Power Off (Rotor Tach.) | Power On (Engine Tach.) |
| | Maximum 370 | Maximum 3200 r.p.m. |
| | Minimum 333 | Minimum 3000 r.p.m. |
| Airspeed limits | S.L. to 6000 ft., 105 m.p.h. (91.5K) | |
| | 5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft. | |
| C.G. range | 2950 lb. (-3.0) to (+2.5) | |
| | 2300 lb. (-3.0) to (+4.0) | |
| | 2200 lb. (-3.0) to (+4.0) | |



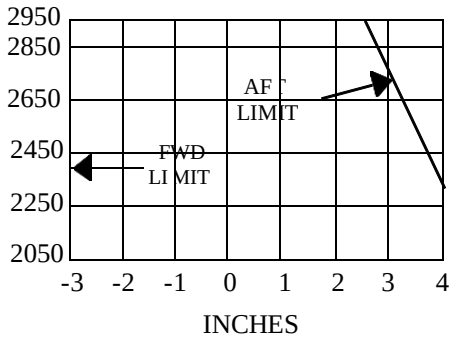

Empty weight C.G. range — See Figure.



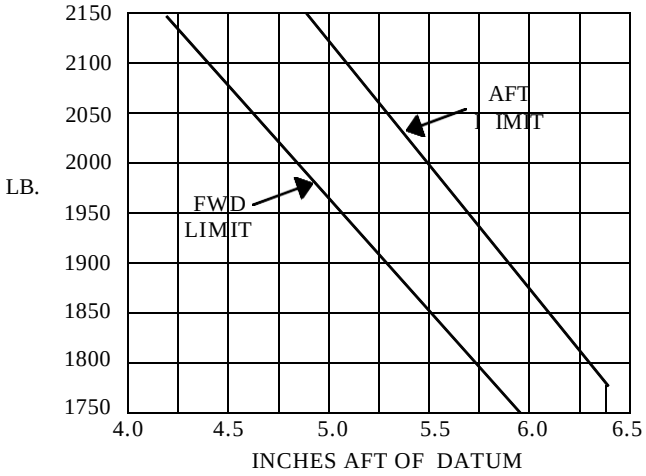

| | |
|---|---|
| Maximum weight | 2950 lbs. |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instructions in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 61.6 gals. (+5) (usable 57.5 gals.) (See NOTE 1 for unusable fuel. |
| Oil capacity | 3 gals. (+12) (usable 1.5 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to pertinent model Maintenance Manual. |
| Serial Nos. eligible | 2864, 3133, and up. |

**VII - Model 47G-4A, 3 PCLH (Normal Category), Approved January 3, 1966**

| | |
|---|---|
| Engine | Lycoming VO-540-B1B3 |
| Fuel | 80/87 minimum grade aviation gasoline |
| Engine limits (Standard day temperature at carburetor inlet) | Maximum continuous,<br>(Sea level) 20.6 in.Hg., 3200 r.p.m. (220 hp.)<br>(9500 ft.) 19.3 in.Hg., 3200 r.p.m. (220 hp.)<br>Takeoff (5 minutes)<br>(Sea level) 25.3 in.Hg., 3200 r.p.m. (280 hp.)<br>(See Flight Manual for manifold pressure variation with altitude and temperature.) |
| Carburetor & carburetor setting | Marvel-Schebler MA-6AA, Setting No. 10-4218 or 10-4975 |
| Rotor limits & operational engine speeds | Power Off (Rotor Tach.) Maximum 370 Minimum 333<br>Power On (Engine Tach.) Maximum 3200 r.p.m. Minimum 3000 r.p.m. |
| Airspeed limits | S.L. to 6000 ft., 105 m.p.h. (91.5K)<br>5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft. |
| C.G. range | 2950 lb. (-3.0) to (+2.5)<br>2300 lb. (-3.0) to (+4.0)<br>2200 lb. (-3.0) to (+4.0) |



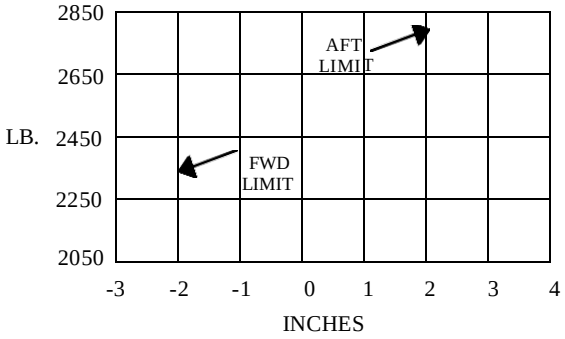

Empty weight C.G. range — See Figure



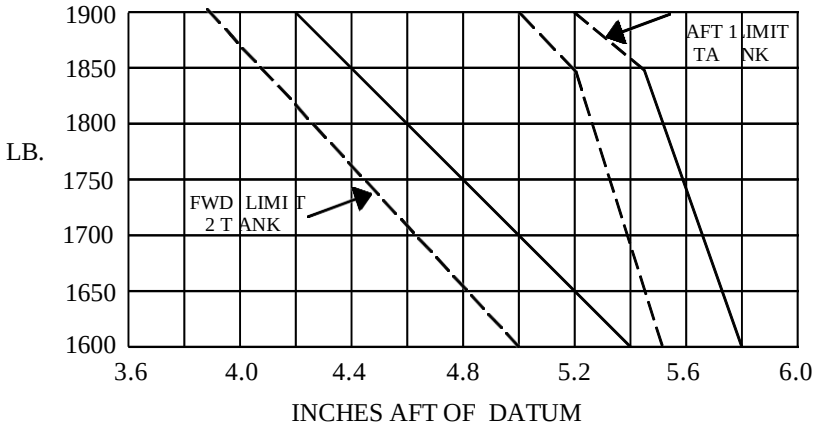

| | |
|---|---|
| Maximum weight | 2950 lbs. |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instructions in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 3 gals. (+12) (usable 1.5 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to pertinent model Maintenance Manual. |
| Serial Nos. eligible | 7501 and up. |

**VIII - Model 47G-5, 2 PCLH (Normal Category), Approved January 21, 1966**

| | |
|---|---|
| Engine | Lycoming VO-435-B1A |
| Fuel | 100/130 minimum grade aviation gasoline |
| Engine limits (Standard day temperature at carburetor inlet) | Maximum continuous,<br>(Sea level) 24.1 in.Hg., 3200 r.p.m. (220 hp.)<br>(5300 ft.) 22.9 in.Hg., 3200 r.p.m. (220 hp.)<br>Takeoff (5 minutes)<br>(Sea level) 27.7 in.Hg., 3200 r.p.m. (260 hp.)<br>(See Flight Manual for manifold pressure variation with altitude and temperature.) |
| Carburetor & carburetor setting | Marvel-Schebler MA4-5AA (10-4025-12) |
| Rotor limits & operational engine speeds | Power Off (Rotor Tach.) Maximum 370 Minimum 333<br>Power On (Engine Tach.) Maximum 3200 r.p.m. Minimum 3000 r.p.m. |
| Airspeed limits | S.L. to 6000 ft., 90 m.p.h. (78K)<br>Above 6000 ft. decrease Vne 4 m.p.h. (35K) per 1000 ft. |
| C.G. range | 2850 lb. (-2.0) to (+2.0)<br>2350 lb. (-2.0) to (+3.0)<br>2100 lb. (-2.0) to (+3.0)<br>Straight line variation between points given. |



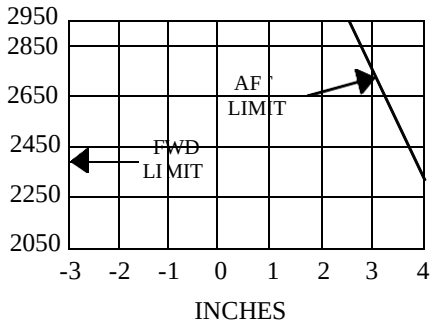

| | |
|---|---|
| Empty weight C.G. Range | See Figure |



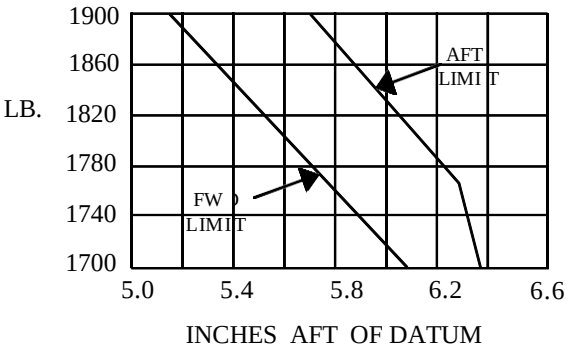

| | |
|---|---|
| Maximum weight | 2850 lbs. |
| No. of seats | 2 (Pilot and 1 passenger) (-30) |
| Maximum baggage | See loading instructions in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 28 gals. (+5) (usable 26 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 3 gals. (-42) (usable 1.5 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to pertinent model Maintenance Manual. |
| Serial Nos. eligible | 7801 and up. |

**IX - Model 47G-3B-2, 3 PCLH (Normal Category), Approved January 17, 1968**

| | |
|---|---|
| Engine | Lycoming TVO-435-G1A |
| Fuel | 100/130 minimum grade aviation gasoline |
| Engine limits | Maximum continuous,<br>(Sea level to 20,000 ft.) 26.6 in.Hg., 3200 r.p.m. (220 hp.)<br>Takeoff (5 minutes)<br>(Sea level to 4,000 ft.) 33.5 in.Hg., 3200 r.p.m. (280 hp.)<br>(See NOTE 12 for power and manifold pressure variation with altitude and temperature.) |
| Carburetor & carburetor settings | Marvel-Schebler MA-6AA (setting 10-4438-1) |
| Rotor limits & operational engine limits | Power Off (Rotor Tach.) Maximum 370 Minimum 322<br>Power On (Engine Tach.) Maximum 3200 r.p.m. Minimum 3000 r.p.m. Minimum 3100 above 10,000 ft. |
| Airspeed limits | S.L. to 10,000 ft., Vne - 105 mph (91.5K) with 3000 to 3200 r.p.m.<br>Above 10,000 ft. decrease Vne 7 mph/1000 ft. to 15,000 ft. (70 mph)<br>Above 15,000 ft. decrease Vne 5 mph/1000 ft. to 20,000 ft. (45 mph)<br>R.p.m. range 10,000 ft. to 20,000 ft.: 3100 to 3200. |
| C.G. range | 2950 lb. (-3.0) to (+2.5)<br>2300 lb. (-3.0) to (+4.0)<br>2100 lb. (-3.0) to (+4.0) |



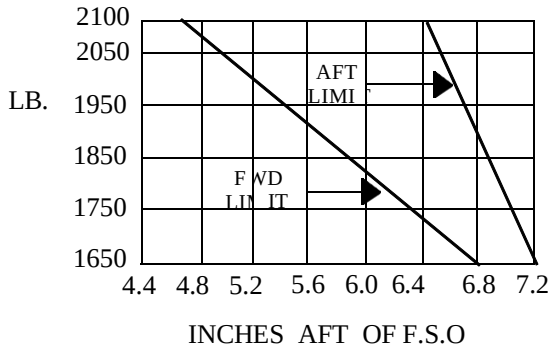

| | |
|---|---|
| Empty weight C.G. range | See Figure |




| | |
|---|---|
| Maximum weight | 2950 lbs. |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instruction in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 4.25 gals. (+12) (usable 2.5 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to pertinent model Maintenance Manual. |
| Serial Nos. eligible | 6606, 6674, and up. |

**X - Model 47G-5A, 3 PCLH (Normal Category), Approved September 20, 1971**

| | | | |
|---|---|---|---|
| Engine | Lycoming VO-435-B1A | | |
| Fuel | 100/130 minimum grade aviation gasoline | | |
| Engine limits (Standard day temperature at carburetor inlet) | Maximum continuous,<br>(Sea level) 24.1 in.Hg., 3200 r.p.m. (220 hp.)<br>(5300 ft.) 22.9 in.Hg., 3200 r.p.m. (220 hp.)<br>Takeoff (5 minutes)<br>(Sea level) 27.7 in.Hg., 3200 r.p.m. (260 hp.)<br>(See Flight Manual for manifold pressure variation with altitude and temperature.) | | |
| Carburetor & carburetor setting | Marvel-Schebler MA4-5AA (10-4025-12) | | |
| Rotor limits & operational engine limits | Power Off (Rotor Tach.) | | Power On (Engine Tach.) |
| | Maximum | 370 | Maximum 3200 r.p.m. |
| | Minimum | 333 | Minimum 3000 r.p.m. |
| Airspeed limits | S.L. to 6000 ft., 105 m.p.h. (91.5K)<br>5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft. | | |
| C.G. range | (-3.0) to (+4.0) | | |
| Empty weight C.G. range | See figure | | |



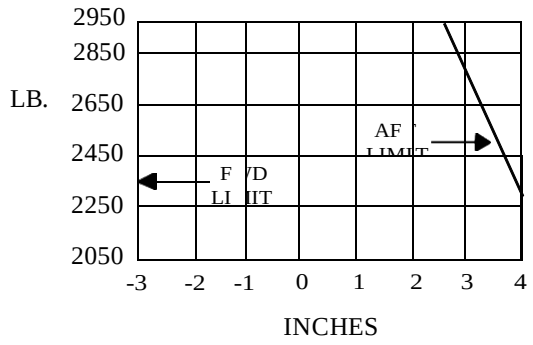

| | |
|---|---|
| Maximum weight | 2850 lbs. |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instruction in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 3 gals. (-4.2) (usable 1.5 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to pertinent model Maintenance Manual. |
| Serial Nos. eligible | 25051 and up. |

**XI - Model 47G-3B-2A, 3 PCLH (Normal Category), Approved February 22, 1972.**

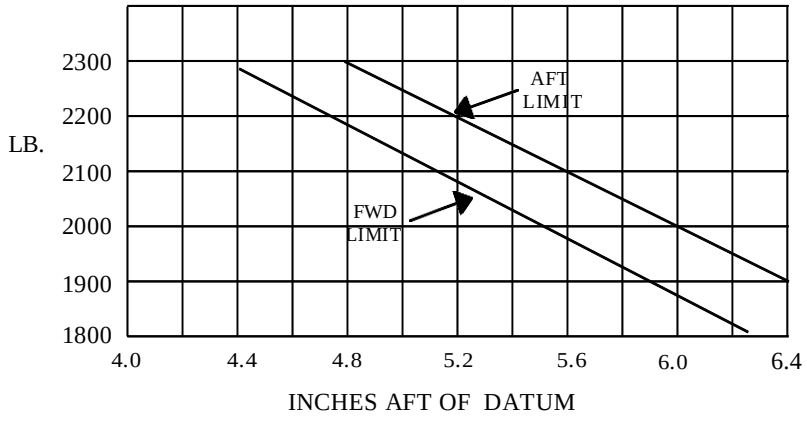
| | | | |
|---|---|---|---|
| Engine | Lycoming TVO-435-F1A | | |
| Fuel | 100/130 minimum grade aviation gasoline | | |
| Engine limits | Maximum continuous,<br>(Sea level to 20,000 ft.) 26.6 in.Hg., 3200 r.p.m. (220 hp.)<br>Takeoff (5 minutes)<br>(Sea level to 4000 ft.) 33.5 in.Hg., 3200 r.p.m. (280 hp.)<br>(See NOTE 12 for power and manifold pressure variation with altitude and temperature) | | |
| Carburetor & carburetor setting | Marvel-Schebler MA-6AA (setting 10-4438-1) | | |
| Rotor limits & operational engine limits | Power Off (Rotor Tach.) | | Power On (Engine Tach.) |
| | Maximum | 370 | Maximum 3200 r.p.m. |
| | Minimum | 322 | Minimum 3000 r.p.m. below 10,000 ft.<br>Minimum 3100 r.p.m. above 10,000 ft. |

**XI – Model 47G-3B-2A** (cont'd)

| | |
|---|---|
| Airspeed limits | S.L. to 10,000 ft., Vne - 105 m.p.h. (91.5K) with 3000 to 3200 rpm<br>Above 10,000 ft. decrease Vne 7 mph/1000 ft. to 15,000 ft. (70 mph)<br>Above 15,000 ft. decrease Vne 5 mph/1000 ft. to 20,000 ft. (45 mph)<br>R.p.m. range 10,000 ft. to 20,000 ft.: 3100 to 3200. |
| C.G. range | 2950 lb. (-3.0) to (+2.5)<br>2300 lb. (-3.0) to (+4.0)<br>2100 lb. (-3.0) to (+4.0) |




Empty weight C.G. range — See Figure




| | |
|---|---|
| Maximum weight | 2950 lbs. (See NOTE 14 for external cargo limitations) |
| No. of seats | 3 (Pilot and 2 passengers) (-30) |
| Maximum baggage | See loading instruction in FAA Approved Helicopter Flight Manual. |
| Fuel capacity | 61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel. |
| Oil capacity | 3 gals. (-4.2) (usable 1.5 gals.) See NOTE 1 for undrainable oil. |
| Rotor blade and control movements | For rigging information refer to pertinent model Maintenance Manual. |
| Serial Nos. eligible | 6832 and up. |

**DATA PERTINENT TO ALL MODELS**

| | |
|---|---|
| Datum | Station "O" Centerline of weld cluster just forward of leveling lugs.<br>Leveling lugs lower left-hand longeron aft of mast and adjacent cross tube. |
| Certification basis | CAR 6 effective December 20, 1956, Amendments 6-1, 6-2, 6-3, and 6-4.<br>Type Certificate No. 2H3 issued March 17, 1960.<br>Date of application for Type Certificate of November 24, 1959.<br>Exemption No. 70 for 47G-3. |
| Production basis | None. See Note 15- for serial numbers produced under Bell Helicopter Textron Inc. Production Certificate No. 100 |

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see certification basis) must be installed in the helicopter for certification. In addition, the following items of equipment are required:

47G-3

(a) FAA Approved Helicopter Flight Manual dated March 17, 1960, or FAA Approved Helicopter Flight Manual dated January 11, 1961. (Required with increased gross weight and horsepower in accordance with NOTE 6.)

(b) AN5795-6 carburetor air and filter air temperature indicator 1.5 lbs. (-52).

47G-2A

(a) FAA Approved Helicopter Flight Manual dated December 7, 1960.

47G-3B

(a) FAA Approved Helicopter Flight Manual dated May 24, 1961, and Revision 3 dated May 24, 1963.

47G-3B-1

(a) FAA Approved Helicopter Flight Manual dated January 25, 1963.

47G-2A-1

(a) FAA Approved Helicopter Flight Manual dated December 27, 1962.

47G-4

(a) FAA Approved Helicopter Flight Manual dated October 15, 1963.

47G-4A

(a) FAA Approved Helicopter Flight Manual dated December 28, 1965.

47G-5

(a) FAA Approved Helicopter Flight Manual dated January 21, 1966.

47G-3B-2

(a) FAA Approved Helicopter Flight Manual dated December 13, 1967.

47G-5A

(a) FAA Approved Helicopter Flight Manual dated September 14, 1971.

47G-3B-2A

(a) FAA Approved Helicopter Flight Manual dated February 11, 1972.

NOTE 1. Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in each helicopter at the time of original certification and at all times thereafter except in the case of operators having an approved weight control system.

The certificated empty weight and corresponding center of gravity location must include the following:

| | | | | |
|---|---|---|---|---|
| Model 47G-3 | Undrainable oil | 8 lbs. | (+12) | (Not included in oil capacity) |
| | Unusable fuel | 11.7 lbs. | (+ 5) | (Included in fuel capacity) |
| Model 47G-2A | Undrainable oil | 2.3 lbs. | (+15) | (Included in oil capacity) |
| | Unusable fuel | 11.7 lbs. | (+ 5) | (Included in fuel capacity) |
| Model 47G-3B | Undrainable oil | 6 lbs. | (+15) | (Included in oil capacity) |
| | Unusable fuel | 11.7 lbs. | (+ 5) | (Included in fuel capacity) |
| Model 47G-3B-1<br>Model 47G-3B-2 | Undrainable oil | 6 lbs. | (+15) | (Included in oil capacity) |
| | Unusable fuel | 11.7 lbs. | (+ 5) | (Included in fuel capacity) |

| | | | | |
|---|---|---|---|---|
| Model 47G-2A-1 | Undrainable oil | 2.3 lbs. | (+15) | (Included in oil capacity) |
| | Unusable fuel | 11.7 lbs. | (+ 5) | (Included in fuel capacity) |
| Model 47G-4 | Undrainable oil | 2.3 lbs. | (+15) | (Included in oil capacity) |
| | Unusable fuel | 11.7 lbs. | (+ 5) | (Included in fuel capacity) |
| Model 47G-4A | Undrainable oil | 2.3 lbs. | (+15) | (Included in oil capacity) |
| | Unusable fuel | 11.7 lbs. | (+ 5) | (Included in fuel capacity) |
| Model 47G-5<br>Model 47G-5A<br>Model 47G-3B-2A | Undrainable oil | 3.4 lbs. | (-4.2) | (Included in oil capacity) |
| | Unusable fuel | 11.7 lbs. | (+ 5) | (Included in fuel capacity) |

NOTE 2. The following placard must be displayed on the instrument panel in full view of the pilot: "THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE FAA APPROVED FLIGHT MANUAL."
All placards required in the approved helicopter flight manual must be installed in appropriate locations.

NOTE 3. The Tables below address life-limited parts for the various model 47 helicopters.
TABLE 1 contains the life limits for models 47G-2A and 47G-2A-1.
TABLE 2 contains the life limits for model 47G-3.
TABLE 3 contains the life limits for models 47G-3B and 47G-3B-1.
TABLE 4 contains the life limits for model 47G-3B-2.
TABLE 5 contains the life limits for model 47G-3B-2A.
TABLE 6 contains the life limits for models 47G-4 and 47G-4A.
TABLE 7 contains the life limits for model 47G-5.
TABLE 8 contains the life limits for model 47G-5A.

COMMENT: The retirement times of critical parts are listed in the following tables (TABLE 1 through TABLE 8). 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 | 47-110-250-11, /-21 | 5000 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 | 47-120-252-1, /-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 |
| Main Rotor Pitch Horn | 47-120-126-5 | 5000 hrs |

**FLIGHT CONTROLS**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Collective Sleeve | 47-150-117-13, /-21 | 5000 hrs |
| Scissors Assembly | 47-150-249-5 | 5000 hrs |
| Tail Rotor Pitch Change Shaft Bearing | 47-640-069-1, /-3 | 600 hrs (REF. AD 80-10-04 R1) |

**TAIL ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Tail Rotor Yoke | 47-641-104-5 | Not Eligible (REF. AD 80-10-04 R1) |
| Tail Rotor Yoke | 47-641-126-5 | 2500 hrs |
| Tail Rotor Blade | 47-642-102-(ALL) | Not Eligible<br>REF. AD 70-10-08 and AD 80-10-04 R1 |
| Tail Rotor Blade | 47-642-117-1, /-105 | 2500 hrs |
| 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 | 47-612-171-(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 |

**TRANSMISSION**

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

**TABLE 1: Life Limits for Models 47G-2A & 47G-2A-1**

**MAIN ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Main Rotor Blade | 47-110-250-11, /-21 | 5000 hrs |
| Main Rotor Drag Brace | 47-110-372-1 | 2500 hrs |
| Main Rotor Pitch Horn | 47-120-126-5 | 5000 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 | 47-120-252-1, /-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 Sleeve | 47-150-117-13, /-21 | 5000 hrs |
| Scissors Assembly | 47-150-249-1, /-5 | 5000 hrs |
| Tail Rotor Pitch Change Shaft Bearing | 47-640-069-1, /-3 | 600 hrs (REF. AD 80-10-04 R1) |

**TAIL ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Tail Rotor Yoke | 47-641-104-5 | Not Eligible (REF. AD 80-10-04 R1) |
| Tail Rotor Yoke | 47-641-126-5 | 2500 hrs |
| Tail Rotor Blade | 47-642-102-(ALL) | Not Eligible<br>REF. AD 70-10-08 and AD 80-10-04 R1 |
| Tail Rotor Blade | 47-642-117-1, /-105 | 2500 hrs |
| 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 | 47-612-171-(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 |

**TRANSMISSION**

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

## TABLE 2: Life Limits for Model 47G-3

**MAIN ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Main Rotor Blade (G-3B only) | 47-110-250-11, /-21 | 5000 hrs |
| Main Rotor Blade (G-3B-1 only)** | 47-110-250-23 | 5000 hrs |
| Main Rotor Drag Brace | 47-110-372-1 | 2500 hrs |
| Main Rotor Pitch Horn | 47-120-126-5 | 5000 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 | 47-120-252-1, /-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 Sleeve | 47-150-117-13, /-21 | 5000 hrs |
| Scissors Assembly | 47-150-249-5 | 5000 hrs |
| Scissors Assembly (G-3B only) | 47-150-249-1 | 5000 hrs |
| Tail Rotor Pitch Change Shaft Bearing | 47-640-069-1, /-3 | 600 hrs (REF. AD 80-10-04 R1) |

**TAIL ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Tail Rotor Yoke | 47-641-104-5 | Not Eligible (REF. AD 80-10-04 R1) |
| Tail Rotor Yoke | 47-641-126-5 | 2500 hrs |
| Tail Rotor Blade | 47-642-102-(ALL) | Not Eligible<br>REF. AD 70-10-08 and AD 80-10-04 R1 |
| Tail Rotor Blade | 47-642-117-1, /-105 | 2500 hrs |
| 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 | 47-612-171-(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 |

**TRANSMISSION**

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

**TABLE 3: Life Limits for Models 47G-3B & 47G-3B-1**

**MAIN ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Main Rotor Blade** | 47-110-250-23 | 5000 hrs |
| Main Rotor Drag Brace | 47-110-372-1 | 2500 hrs |
| Main Rotor Pitch Horn | 47-120-126-5 | 5000 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 | 47-120-252-1, /-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 Sleeve | 47-150-117-13, /-21 | 5000 hrs |
| Scissors Assembly | 47-150-249-5 | 5000 hrs |
| Tail Rotor Pitch Change Shaft Bearing | 47-640-069-1, /-3 | 600 hrs (REF. AD 80-10-04 R1) |
| Tail Rotor Pitch Change Shaft Bearing | S3K or S3S | 600 hrs (REF. AD 80-10-04 R1) |

**TAIL ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Tail Rotor Yoke | 47-641-104-5 | Not Eligible (REF. AD 80-10-04 R1) |
| Tail Rotor Yoke | 47-641-126-5 | 2500 hrs |
| Tail Rotor Blade | 47-642-102-(ALL) | Not Eligible<br>REF. AD 70-10-08 and AD 80-10-04 R1 |
| Tail Rotor Blade | 47-642-117-1, /-105 | 2500 hrs |
| 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 | 47-612-171-(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 |

**TABLE 4: Life Limits for Model 47G-3B-2**

**MAIN ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Main Rotor Blade** | 47-110-250-23 | 5000 hrs |
| Main Rotor Drag Brace | 47-110-372-1 | 2500 hrs |
| Main Rotor Pitch Horn | 47-120-126-5 | 5000 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 | 47-120-252-1, /-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 Sleeve | 47-150-117-13, /-21 | 5000 hrs |
| Scissors Assembly | 47-150-249-5 | 5000 hrs |

**TAIL ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Tail Rotor Yoke | 47-641-104-5 | Not Eligible (REF. AD 80-10-04 R1) |
| Tail Rotor Yoke | 47-641-126-5 | 2500 hrs |
| Tail Rotor Blade | 47-642-102-(ALL) | Not Eligible<br>REF. AD 70-10-08 and AD 80-10-04 R1 |
| Tail Rotor Blade | 47-642-117-1, /-105 | 2500 hrs |

**POWERPLANT**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| 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 |

**TABLE 5: Life Limits for Model 47G-3B-2A**

**MAIN ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Main Rotor Blade** | 47-110-250-23 | 5000 hrs |
| Main Rotor Drag Brace | 47-110-372-1 | 2500 hrs |
| Main Rotor Pitch Horn | 47-120-126-5 | 5000 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 | 47-120-252-1, /-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 Sleeve | 47-150-117-13, /-21 | 5000 hrs |
| Scissors Assembly | 47-150-249-5 | 5000 hrs |
| Tail Rotor Pitch Change Shaft Bearing | 47-640-069-1, /-3 | 600 hrs (REF. AD 80-10-04 R1) |
| Tail Rotor Pitch Change Shaft Bearing | S3K or S3S | 600 hrs (REF. AD 80-10-04 R1) |

**TAIL ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Tail Rotor Yoke | 47-641-104-5 | Not Eligible (REF. AD 80-10-04 R1) |
| Tail Rotor Yoke | 47-641-126-5 | 2500 hrs |
| Tail Rotor Blade | 47-642-102-(ALL) | Not Eligible<br>REF. AD 70-10-08 and AD 80-10-04 R1 |
| Tail Rotor Blade | 47-642-117-1, /-105 | 2500 hrs |
| 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 | 47-612-171-(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 |

**TRANSMISSION**

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

**TABLE 6: Life Limits for Models 47G-4 & 47G-4A**

**MAIN ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Main Rotor Blade | 47-110-250-11, /-21 | 5000 hrs |
| Main Rotor Pitch Horn | 47-120-126-5 | 5000 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 | 47-120-252-1, /-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 Sleeve | 47-150-117-13, /-21 | 5000 hrs |
| Scissors Assembly | 47-150-249-5 | 5000 hrs |
| Tail Rotor Pitch Change Shaft Bearing | 47-640-069-1, /-3 | 600 hrs (REF. AD 80-10-04 R1) |
| Tail Rotor Pitch Change Shaft Bearing | S3K or S3S | 600 hrs (REF. AD 80-10-04 R1) |

**TAIL ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Tail Rotor Yoke | 47-641-104-5 | Not Eligible (REF. AD 80-10-04 R1) |
| Tail Rotor Yoke | 47-641-126-5 | 2500 hrs |
| Tail Rotor Blade | 47-642-102-(ALL) | Not Eligible<br>REF. AD 70-10-08 and AD 80-10-04 R1 |
| Tail Rotor Blade | 47-642-117-1, /-105 | 2500 hrs |
| 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 | 47-612-171-(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 |

**TRANSMISSION**

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

**TABLE 7: Life Limits for Model 47G-5**

**MAIN ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Main Rotor Blade | 47-110-250-23 | 5000 hrs |
| Main Rotor Pitch Horn | 47-120-126-5 | 5000 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 | 47-120-252-1, /-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 Sleeve | 47-150-117-13, /-21 | 5000 hrs |
| Scissors Assembly | 47-150-249-5 | 5000 hrs |
| Tail Rotor Pitch Change Shaft Bearing | 47-640-069-1, /-3 | 600 hrs (REF. AD 80-10-04 R1) |
| Tail Rotor Pitch Change Shaft Bearing | S3K or S3S | 600 hrs (REF. AD 80-10-04 R1) |

**TAIL ROTOR SYSTEM**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| Tail Rotor Yoke | 47-641-104-5 | Not Eligible (REF. AD 80-10-04 R1) |
| Tail Rotor Yoke | 47-641-126-5 | 2500 hrs |
| Tail Rotor Blade | 47-642-102-(ALL) | Not Eligible<br>REF. AD 70-10-08 and AD 80-10-04 R1 |
| Tail Rotor Blade | 47-642-117-1, /-105 | 2500 hrs |

**POWERPLANT**

| NOMENCLATURE | PART NUMBER | AIRWORTHINESS LIFE |
|---|---|---|
| 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 |

**TRANSMISSION**

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

## TABLE 8: Life Limits for Model 47G-5A

**The 47-612-171-115 engine mount is not eligible on 47G-3B-2A*

***Tip Weight Rotor used on 47G-3B-1, 47G-3B-2, 47G-3B-2A, 47G-4, and 47G-4A at 2950 lbs. G.W.*

NOTE 4. Information essential for proper maintenance is contained in the appropriate model Bell Helicopter Textron Maintenance or Overhaul Manual.

NOTE 5. The following chart indicates the limiting manifold pressures at the altitude and temperatures shown for which the Model 47G-3 helicopter has been certificated.

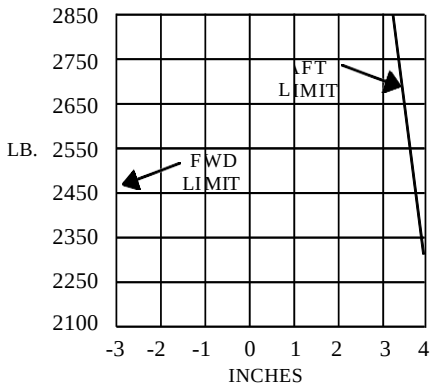
| | MAXIMUM PRESSURE LIMITS - 3200 R.P.M. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | MAXIMUM CONTINUOUS POWER | | | | | 225 BHP (2 MIN. LIMIT) | | | |
| PRESS. | FILTER AIR TEMPERATURE °C | | | | | FILTER AIR TEMPERATURE °C | | | |
| ALT. FT. | -25 | -5 | +15 | +35 | +46 | -25 | -5 | +15 | +20 |
| 0 | 32.1 | 33.1 | 34.2 | 35.0 | 35.0 | 32.6 | 33.8 | 34.7 | 35.0 |
| 2000 | 31.6 | 32.7 | 33.9 | 34.7 | 35.0 | 32.2 | 33.4 | 34.4 | 34.7 |
| 4000 | 31.5 | 32.4 | 33.9 | 34.8 | 34.3 | 32.0 | 33.2 | 34.3 | 34.7 |
| 6000 | 31.6 | 32.6 | 34.0 | 35.0 | - | 32.2 | 33.5 | 34.6 | 34.9 |
| 8000 | 31.9 | 33.1 | 34.3 | 33.3 | - | 32.7 | 33.9 | 35.0 | - |
| 10000 | 32.5 | 33.7 | 34.8 | 30.5 | - | 33.2 | 34.4 | - | - |
| 12000 | 33.3 | 34.4 | 34.0 | 28.0 | - | 33.8 | - | - | - |
| 14000 | 33.8 | 33.9 | 31.1 | 25.7 | - | - | - | - | - |
| 16000 | 31.3 | 32.4 | 28.4 | 23.5 | - | - | - | - | - |
| 18000 | 29.2 | 30.1 | 26.0 | 22.5 | - | - | - | - | - |
| 20000 | 27.3 | 27.9 | 23.6 | 19.5 | - | - | - | - | - |

NOTE 6. Model 47G-3 helicopters are eligible for increased takeoff horsepower and gross weight as shown below when engine and helicopter markings are revised in accordance with Bell Service Memo No. 152, Revision A, and when equipped with FAA Approved Helicopter Flight Manual dated January 11, 1961.

Engine Limits — Takeoff (2 minutes), 36.3 in.Hg., 3200 r.p.m. (240 hp.)
The following chart indicates the limiting manifold pressure at the altitude and temperature shown:

| | MANIFOLD PRESSURE LIMITS - 3200 R.P.M. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | MAXIMUM CONTINUOUS POWER | | | | | TAKEOFF PWR. (2 MIN. LIMIT) | | | |
| PRESS. | FILTER AIR TEMPERATURE °C | | | | | FILTER AIR TEMPERATURE °C | | | |
| ALT. FT. | -25 | -5 | +10 | +30 | +45 | -25 | -5 | +15 | +35 |
| 0 | 32.1 | 33.1 | 33.8 | 34.5 | 35.4 | 34.5 | 35.2 | 36.2 | 36.3 |
| 2000 | 31.6 | 32.7 | 33.6 | 34.5 | 35.4 | 34.2 | 35.3 | 36.3 | 36.3 |
| 4000 | 31.5 | 32.2 | 33.6 | 34.6 | 32.9 | 34.2 | 35.5 | 36.3 | 36.3 |
| 6000 | 31.6 | 32.6 | 33.9 | 35.0 | 30.4 | 34.4 | 35.9 | 36.3 | 35.9 |
| 8000 | 31.9 | 33.1 | 34.4 | 32.8 | 28.0 | 34.9 | 36.3 | 36.3 | - |
| 10000 | 32.5 | 33.7 | 35.1 | 30.0 | 25.7 | 35.7 | 36.3 | 36.3 | - |
| 12000 | 33.1 | 34.4 | 33.4 | 27.7 | 23.4 | 34.7 | 36.3 | - | - |
| 14000 | 32.7 | 33.9 | 30.5 | 25.6 | - | - | - | - | - |
| 16000 | 30.8 | 32.0 | 28.2 | 23.5 | - | - | - | - | - |
| 18000 | 29.2 | 30.3 | 26.2 | - | - | - | - | - | - |
| 20000 | 27.8 | 27.9 | 24.2 | - | - | - | - | - | - |

C.G. range
2850 lb. (-3.0) to (+3.3)
2350 lb. (-3.0) to (+4.0)
2100 lb. (-3.0) to (+4.0)




Maximum weight 2850 lb.

NOTE 7. Bell Model 47G-2 helicopters, serial numbers 1459 through 1641, 1957 through 2476, 2556 through 2559, and 2560 through 2570 are eligible for conversion to a configuration similar to the Model 47G-2A when modified in accordance with Bell Service Instruction No. 384SI. Model 47G-2A Helicopter Flight Manual dated December 10, 1960, is applicable and required with this conversion. Name Plate Requirements: The conversion plate furnished by Bell Helicopter Company should be permanently attached next to and just aft of the manufacturer's identification plate.

NOTE 8. Bell Model 47G-3B. Horsepower available corresponding to the manifold pressure of 26.8 and 31.1 listed under engine limits will vary with altitude with 220 and 260 horsepower as maximum, respectively. This variation is nonlinear. (See Lycoming Drawing 12814). Manifold pressure may be adjusted as prescribed in the Helicopter Flight Manual to correct for nonstandard ambient temperatures and to maintain takeoff horsepower above 10,000 feet. Maximum cumulative manifold pressure is 34.5 in.Hg.

NOTE 9. Bell Model 47G-3B-1 with Lycoming TVO-435-B1A or -B1B engines. Horsepower available corresponding to the manifold pressure of 26.8 and 32.8 in Hg. listed under engine limits will vary with altitude with 220 and 270 horsepower as maximums, respectively. This variation is nonlinear. Manifold pressure may be adjusted as prescribed in the Helicopter Flight Manual to correct for nonstandard ambient temperature and to maintain takeoff horsepower above 8000 feet. Maximum cumulative manifold pressure is 36.0 in.Hg.

NOTE 10. Bell Model 47G-5 is a 3 PCLH (Normal Category) helicopter when Synchronized Elevator Kit P/N 47-267-485 is installed. The operational limits specified in the FAA Approved Helicopter Flight Manual Supplement dated January 21, 1966, are applicable. See Figure 1-5 of Section I, Model 47G-5 Maintenance and Overhaul Instructions, for empty weight c.g. range.

NOTE 11. Lycoming engine Model TVO-435-D1A is eligible in helicopter Model 47G-3B-1 when installed in accordance with Bell Service Instruction 411. The following limits apply:
Maximum continuous,
(Sea level to 20,000) 26.6 in.Hg., 3200 r.p.m. (220 hp.)
Takeoff (5 minutes)
(Sea level to 5000 ft.) 32.2 in.Hg., 3200 r.p.m. (270 hp.)
Horsepower available corresponding to the manifold pressures of 26.6 and 32.2 listed above will vary with altitude with 220 and 270 horsepower as maximums, respectively. This variation is nonlinear. (See Lycoming Drawing 13023-A). Manifold pressure may be adjusted as prescribed in the Helicopter Flight Manual to correct for nonstandard ambient temperatures and to maintain takeoff horsepower above 5,000 feet. Maximum cumulative manifold pressure is 37.0 in.Hg.
Carburetor; Marvel Schebler MA6-AA
Carburetor Parts List Setting: 10-4438-1

NOTE 12. Bell Model 47G-3B-2 with Lycoming TVO-435-G1A engine. Horsepower available corresponding to the manifold pressures of 26.6 and 33.5 in.Hg. listed under engine limits will vary with altitude with 220 and 280 horsepower as maximums, respectively. This variation is nonlinear. Manifold pressure may be adjusted as prescribed in the Helicopter Flight Manual to correct for nonstandard ambient temperature and to maintain takeoff horsepower above 4000 feet. Maximum cumulative manifold pressure is 37.0 in.Hg.

NOTE 13. Prior to civil certification, the military Model TH-13T helicopters must be modified in accordance with Bell Report No. 47-947-017, as revised May 27, 1968.

NOTE 14. Model 47G-3B-2A helicopters equipped with the external cargo sling installed in accordance with Bell Drawing 47-706-660 meet the structural and design requirements of the certification basis, provided the weight in excess of normal category gross weight is not imposed on the landing gear, when operated at 3200 pounds gross weight in accordance with the limits of the 47G-3B-2A FAA Approved Helicopter Flight Manual Supplement dated February 11, 1972, as appropriate. The retirement times listed in NOTE 3 are not changed.

NOTE 15. Model 47G-2A S/N 2657-2681, 2694-2743 (Note S/N 2730 was removed and re-identified as S/N 2857 for model 47G-2A-1); Model 47G-2A-1 S/N 2857-2882; Model 47G-3 S/N 2554-2555, 2586-2620, 2632-2633, 2635-2640; Model 47G-3B S/N 2634, 2641-2656, 2744-2796; Model 47G-3B-1 S/N 2797-2831, 3376-3410, 6501-6673, 6809-6815, 7401-7418; Model 47G-3B-2 S/N 6674-6808, 6816-6831; Model 47G-3B-2A 6832-6871; Model 47G-4 S/N 3133-3167, 3326-2275; Model 47G-4A S/N 7501-7769; Model 47G-5 S/N 7800-7976, 25001-25050; and Model 47G-5A S/N 25051- 25160; 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.

...END...