

Rotor Limits	<u>Power Off</u>	<u>Power On</u>
	Maximum 339 rpm	Maximum 324 rpm
	Minimum 294 rpm	Minimum 294 rpm
	Continuous Operation 294 - 324 rpm	
Airspeed Limits	<u>Roof Mounted Pitot Static:</u>	
	Vne (never exceed speed) 124 knots up to and including 7,500 lbs. G.W. at sea level to 2000 ft.	
	Vne (never exceed speed) 113 knots at 9500 lbs. G.W. at sea level to 2000 ft.	
	Never Exceed 110 knots above 7,500 to 9,500 lbs. G.W. at sea level.	
	Vne decreases 3 knots per 1,000 feet above sea level.	
C.G. Range	<u>Longitudinal C.G. Limits</u>	
	(+134) to (+143) at 9,500 lbs.	
	(+130) to (+144) at 8,600 lbs. and below	
	<u>Lateral C.G. Limits</u>	
	4.7 in. left from centerline of fuselage	
	6.5 in. right from centerline of fuselage	
	See TM55-1520-210-10 Flight Manual center of gravity charts for specific loads/weights.	
Empty Weight C.G. Range	See Model UH-1H TM55-1520-210-10 Flight Manual	
Datum	Station 0, datum is located 7.6 inches aft of the most forward point of the fuselage nose section. See TM 55-1520-210-10 Flight Manual.	
Leveling Means	Plumb line from top of left main door frame.	
Maximum Weight	9,500 lbs.	
Minimum Crew	One (1) pilot	
No. of Seats	See Note 19. (See TM-55-1520-210-10 for seat locations)	
Fuel Capacity	208.5 gallons (+150.4)	
	Usable fuel 206.5 gallons	
Oil System	3.15 gallons (+173)	
	Usable oil 1.5 gallons (included in capacity)	
	See Note 1 for data on undrainable oil.	
Rotor Blade and Control Movements	For rigging information refer to the Model UH-1H Maintenance Manual TM55-1520-210-23.	
Serial No.'s Approved	US Military Surplus Helicopters as identified in FAA Approved Southwest Florida Aviation Report SWFA7, revision 6 dated May 31, 2000, or later FAA approved revision.	

II - Model SW204 (UH-1B, as surplus) (Restricted Category) (cont'd)

See Note 1 for data on undrainable oil.

Rotor Blade and Control Movements For rigging information refer to the Model UH-1B (204) Maintenance Manual TM55-1520-219-20.

Serial No.'s Approved US Military Surplus Helicopters as identified in FAA Approved Southwest Florida Aviation Report SWFA7, revision 6 dated May 31, 2000, or later FAA approved revision.

SW204HP (UH-1B, as modified with alternate engine):

Engine Lycoming T53-L-13B or T5313B (See Note 7)

Fuel ASTM 1655, Type A (JP-5) or Type B (JP-4)
(See Note 11)

Engine Limits

	Torque Pres. (psi)	Output Shaft Speed (rpm)	Exhaust Gas Temp.
Takeoff (5 min.)	50.0 (1100 SHP)	6,600 (100%)	625°C
Max. Cont.	50.0 (1100 SHP)	6,600 (100%)	610°C

(See Notes 8 and 9)

Rotor Limits

<u>Power Off</u>	<u>Power On</u>
Maximum 339 rpm	Maximum 324 rpm
Minimum 295 rpm	Minimum 294 rpm

Continuous Operation 294 - 324 rpm

Airspeed Limits

Never Exceed 120 knots up to and including 6,600 lbs. G.W. from sea level to 2,000 MSL.
Never Exceed 112 knots from 6,600 to 7,200 lbs. G.W. from sea level to 2,000 MSL.
Never Exceed 95 knots from 7,200 to 8,500 lbs. G.W. from sea level to 2,000 MSL.
Vne decreases 3 knots per 1,000 feet above sea level.

C.G. Range

Longitudinal C.G. Limits
(+125) to (+136) to 6,600 lbs. and above
(+125) to (+136.4) to 6,500 lbs.
(+125) to (+137.3) to 6,250 lbs.
(+125) to (+138) at 6,000 lbs. or less

Lateral C.G. Limits
+/- 4.7 in. left from centerline of fuselage

Empty Weight C.G. Range

See Model UH-1B (204) Maintenance Manual

Maximum Weight

8,500 lbs.

Minimum Crew

One (1) pilot

III-Model SW205A-1 (Restricted Category) (cont'd)

	<u>Lateral C.G. Limits</u> 4.7 in. left from centerline of fuselage 6.5 in. right from centerline of fuselage See Bell Model 205A-1 Flight Manual center of gravity charts for specific loads/weights.
Empty Weight C.G. Range	See Bell Model 205A-1 Flight Manual.
Maximum Weight	9,500 lbs.
Minimum Crew	One (1) pilot
Fuel Capacity	220 gallons (+150.4) Unusable fuel 2 gallons (+144)
Oil System	3.15 gallons (+173) Usable oil 1.5 gallons (included in capacity) Undrainable oil 1.72 lbs. (+154).
Rotor Blade and Control Movements	For rigging information refer to the Bell Model 205A-1 Maintenance Manual.
Serial No.'s Approved	No eligible serial numbers (See Note 23)

Data Pertinent to all Models

Datum	Station 0 (datum is located 7.60 inches aft of the forward point of the fuselage cabin nose section).
Leveling Means	Plumb line from top of left main door frame.
Certification Basis	FAR 21.25(a)(2) effective February 1, 1965, for Southwest Florida Aviation Models SW205, SW204HP and SW204. FAR21.25(a)(1)effective January 6, 1975, for Southwest Florida Aviation Model SW205A-1. Type Certificate H6SO issued April 17, 1989, for the purpose of: 1) Agricultural Operations under FAR 21.25(b)(1). Note: In accordance with FAR 36.1(a)(4), compliance with noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for agricultural operations excepted by FAR 36.1(a)(4) and defined under FAR 137.3. 2) Forest and Wildlife Conservation Operations under FAR 21.25(b)(2). Note: In accordance with FAR 36.1(a)(4), compliance with noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for dispensing firefighting materials excepted by FAR 36.1(a)(4) and defined under FAR 137.3. 3) External Load Operations under FAR 21.25(b)(7). Note: In accordance with FAR 36.1(a)(4), compliance with noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for external load operations excepted by FAR 36.1(a)(4) and defined under FAR 133.1(b).

NOTE 2. The following placards must be prominently displayed in the cockpit on the instrument panel and in full view of the pilot:

All Models:

(a) External Loads: "External load operations Vne will be determined for each proposed external load application."

(b) "VFR OPERATIONS ONLY"

Models SW205 (UH-1H) and SW204 (UH-1B, as surplus):

(a) Operating Limits: "This helicopter must be operated in compliance with the operating limitations specified in the operator's manual."

(b) Restricted Category Operations: "The rotorcraft must be operated in accordance with the restricted category operating limitations of FAR 91.313 in addition to the limitations noted in the operator's manual." See Note 5 for appropriate manual.

Model SW204HP (UH-1B, modified with alternate engine):

(a) Operating Limits: "This helicopter must be operated in compliance with the operating limitations specified in the operator's manual and Rotorcraft Flight Manual Supplement."

(b) Restricted Category Operations: "The rotorcraft must be operated in accordance with the restricted category operating limitations of FAR 91.313 in addition to the limitations noted in the operator's manual and Rotorcraft Flight Manual Supplement." See Note 5 for the appropriate manual.

Model SW205A-1:

(a) Operating Limits: "This helicopter must be operated in compliance with the operating limitations specified in the flight manual."

(b) Restricted Category Operations: "The rotorcraft must be operated in accordance with the restricted category operating limitations of FAR 91.313 in addition to the limitations noted in the flight manual." See note 4 for appropriate manual.

Models SW204 (UH-1B, as surplus) and SW204HP (UH-1B, as modified with alternate engine):

The following placard, as found in TM55-1520-219-10, must be prominently displayed in the cockpit on the instrument and in full view of the pilot:

CALIBRATED AIRSPEED - KNOTS								
WEIGHT	6,600 lbs. or less		7,200 lbs.		8,000 lbs.		8,500 lbs.	
ENGINE (RPM)	6400	6600	6400	6600	6400	6600	6400	6600
DENSITY								
ALTITUDE (FT)								
SL to 2000	120	120	109	112	95	101	86	95
3000	116	118	105	108	92	97	82	92
6000	102	108	92	97	77	86	68	80
9000	90	94	79	86	65	76	-	-
12000	77	84	68	75	-	-	-	-
15000	64	72	-	-	-	-	-	-
18000	51	61	-	-	-	-	-	-

From 0 to 70 knots use 6000 to 6600 rpm range.

From 70 to 120 knots use 6400 to 6600 rpm range.

Reduce speed when vibration is excessive.

Model SW205A-1:

- (a) Bell IModel 205A-1 Flight Manual..
- (b) FAA approved Rotorcraft Flight Manual Supplement for the SW205A-1.

- NOTE 6 Upgraded components used to modify these rotorcraft (as outlined in the reports in Note 3) may not be covered in the manuals listed above and will require the use of Bell Helicopter civilian Model 204 and 205 manuals or Lycoming civilian engine Model T53 manuals when completing overhauls and/or routine maintenance.
- NOTE 7. The TC holder's model designation for the UH-1B modified by the installation of a Lycoming Military Model T53-L-13B or Commercial Model T5313B engine is model SW204HP. For installation of the Lycoming T53-L-13B or T5313B engine on the UH-1B, see Southwest Florida Aviation Report Number SWFA5, no revision, dated October 26, 1993, or later FAA approved revision. For limitations, see the Rotorcraft Flight Manual Supplement dated January 19, 1994.
- NOTE 8. Torque pressure output by the engine torque sensing system varies with individual engines. A calibration of this value is required on each engine and the value corresponding to the maximum rated takeoff power is stamped on the engine data plate.
- NOTE 9. Gas producer speed for maximum rated output varies with individual engines and must be determined during engine calibration and is then stamped on the engine data plate
- NOTE 10. FAA airworthiness directives and manufacturer's alert service bulletins, technical bulletins, service instructions, operation safety notices and service letters for all Bell 204, 205 and UH-1 series rotorcraft and Lycoming T5313B, T5311A and T5311B powerplants must be reviewed for applicability and complied with accordingly.
- NOTE 11. Phillips PFA55MB anti-icing additive at a concentration not in excess of 0.01% by volume may be used in fuel for this rotorcraft. No fuel system anti-icing credit is allowed. For all operation below 40° F ambient temperature, all fuel used in the model UH-1H rotorcraft must contain anti-icing additive in accordance with Phillips Specification PFA55MB in concentrations of not less than 0.035% nor more than 0.15% by volume. Blending this additive into the fuel and checking its concentration must be conducted in the manner prescribed by the military operator's manual.
- NOTE 12. Main rotor retention strap, Bell P/N 204-012-112-1, are not eligible for installation.
- NOTE 13. Helicopter is not approved for IFR operation or flight into known icing conditions.
- NOTE 14. Southwest Florida Aviation, Inc. is the original holder of Type Certificate H6SO. Bell Helicopter Textron, Inc. has no involvement with this Type Certificate.
- NOTE 15. The following equipment is not authorized to be installed on FAA Restricted Category civilian certified rotorcraft:
- (a) Gun mounts
 - (b) Turrets
 - (c) Rocket launchers
 - (d) Similar equipment to items a, b, and c which have been designed for military combat or military training purposes related to combat.
- NOTE 16. The military external fittings (hard points) are removed from the airframe and civilian external fittings (auxiliary equipment mounting points) are installed in order to mount the accessory equipment listed above.
- NOTE 17. No person may be carried in this helicopter during flight unless that person is essential to the purpose of the flight.
- NOTE 18. This helicopter is prohibited from carrying cargo for compensation or hire. Carriage of cargo is limited to such cargo that is incidental to the helicopter owner/operator's business, which is other than air transportation.

