DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H1WE
Revision 6
SIAM HILLER
UH-12L
UH-12L4
October 28, 2014

TYPE CERTIFICATE DATA SHEET NO. H1WE

This data sheet which is a part of type certificate No. H1WE 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: Siam Hiller Holdings, Inc.
925 M. Street
Firebaugh, California 93622-2234

Type Certification Ownership Record:

Hiller Aircraft Corporation transferred to Fairchild Industries, Inc. on 10/2/1959

Fairchild Industries, Inc. transferred to Heli-Parts, Inc. on 12/28/1972

Heli-Parts, Inc. transferred to Hiller Aviation on 12/28/1972

Hiller Aviation transferred to Rogerson Aircraft Corporation on 6/26/1984

Rogerson Aircraft Corporation transferred to Hiller Helicopters, a wholly owned subsidiary of Rogerson Aircraft Corporation on 6/29/1984

Hiller Helicopters, a wholly owned subsidiary of Rogerson Aircraft Corporation transferred to Rogerson Hiller Corporation on 11/14/1985

Rogerson Hiller Corporation transferred to Siam Hiller Holdings, Inc. on 7/14/1994

I Model UH-12L, Approved February 28, 1964
Model UH-12L4, Approved February 28, 1964

Engine: Lycoming VO-540-C2A or TIVO-540-A2A

Fuel: 100/130 min. grade aviation gasoline

Engine limits for all operations

Engine	HP	RPM	MP IN.HG.	ALT. FT.
VO-540-C2A	305	3200	26.0	S.L.
	305	3200	25.2 (F.T.)	3,000
TIVO-540-A2A	315	3200	F.T.	S.L.
	315	3200	F.T.	13,000

I Model UH-12L, Approved February 28, 1964
Model UH-12L4, Approved February 28, 1964 (Cont'd)

Rotor limits and engine operating speeds	Power Off (Rotor Tach.) Maximum 370 r.p.m. Minimum 285 r.p.m. (VO-540-C2A only Avoid continuous operation between 210 and 225 r.p.m.)	Power On (Engine Tach.) Maximum 3,200 r.p.m. Minimum (S.L. to 10,000 ft.) 3,000 r.p.m. (Above 10,000 ft. increase min. r.p.m. by 10 r.p.m. for each additional 1,000 ft. of altitude)
Airspeed limits (IAS)	Model UH-12L (Basic Skid Gear Configuration)	Vne (Never exceed speed) 107 m.p.h. (93 knots) IAS
	The above airspeed applies from S.L. to 6,000 ft. Decrease Vne 4 m.p.h. (3.5 knots) per 1,000 ft. of altitude above 6,000 ft.	
	For limits with accessories installed see FAA Approved Rotorcraft Flight Manual.	
	Model UH-12L4 (Basic Skid Gear Configuration).	Vne 106 m.p.h. (92 knots) IAS
	The above airspeed applies from S.L. to 6,000 ft. Decrease Vne 3 m.p.h. (2.6 knots) per 1,000 ft. of altitude above 6,000 ft.	
	For limits with accessories installed see FAA Approved Rotorcraft Flight Manual.	
Altitude limits	Avoid operational areas as shown in FAA Approved Rotorcraft Flight Manual.	
C.G. range (longitudinal)	Model UH-12L Sta. (79.5) to (84.8) (Basic Skid Gear Configuration) Model UH-12L4 Sta. (79.5) to (86.4) (Basic Skid Gear Configuration) For range with accessories installed see FAA Approved Rotorcraft Flight Manual.	
C.G. range (lateral)	Left of helicopter centerline, 3.28 in. (Basic Skid Gear Configuration) Right of helicopter centerline,1.82 in. (Basic Skid Gear Configuration) For range with accessories installed see FAA Approved Rotorcraft Flight Manual.	
Datum	107.25 in. fwd. of tail boom - fuselage upper mounting face.	
Leveling means	Top face of flanges under seat	
Maximum weight	3100 pound	
No. of seats	Model UH-12L: 3 (53) Model UH-12L4: 4 (3 at 53, 1 at 25)	
Maximum baggage	See loading instructions in FAA Approved Rotorcraft Flight Manual.	
Fuel capacity	Main tank 46 gal. (82.9). See Note 1 for data on unusable fuel.	
Oil capacity	Engine oil - 2 gal. (94) or 2.75 gal. (94) with auxiliary fuel tanks installed. Transmission oil - 1.12 gal. (94)	
Other operating limitations	FAA Approved Rotorcraft Flight Manual.	
Rotor blade & control movements	(Measured with respect to the mast) (Note: When the mast is vertical the helicopter is 1° nose up).	

I Model UH-12L, Approved February 28, 1964
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Main rotor blade collective travel	+8 1/2° ±0.1° to +20 1/2° ±1/4°	
Wobble plate cyclic travel	Model UH-12L4 Lateral 6 1/4° ± 1/4° right and left Longitudinal 9 1/4° ± 1/4° forward and aft	Model UH-12L Lateral 7° 45' ± 1/4° left 4° 42' ± 1/4° right Longitudinal 9 1/4° ± 1/4° forward and aft
Tail rotor collective travel	-4° ± 1/2° to +20° ± 1/2°	
Horizontal stabilizer setting	Model UH-12L -4° ±1° Model UH-12L4 +3° ± 1°	
Serial Nos. eligible	Model UH-12L	3500 to 4499 (See Note 5 for additional serial nos. eligible).
	Model UH-12L4	2500 to 3499
Certification basis	CAR 6 dated December 20, 1956 including Amendments 6-1 through 6-4. Type Certificate H1WE issued February 28, 1964. Date of Application for Type Certificate February 28, 1961.	
Production basis	Production Certificate No. 423WE, Spare Parts Only	
Equipment:	The basic required equipment as prescribed in the applicable air worthiness regulations (See Certification Basis) must be installed in the helicopter for certification. Hiller Report 63-109, "Model UH-12L Master Equipment List", and Report 63-108, "Model UH-12L4 Master Equipment List", contain a list of all required equipment that must be installed as well as optional equipment installations approved by the FAA.	

NOTES:

NOTE 1. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions, must be provided for each helicopter at the time of original certification. Ballast, when necessary, must be carried in accordance with Loading Instructions in the FAA Approved Rotorcraft Flight Manual.

Fuel capacity as indicated is total tank capacity over and above "Unusable Fuel". The fuel tank capacity includes "Unusable" fuel of 0.3 gallon, Model UH-12L and 3.2 gallons, Model UH-12L4, which cannot be used safely in all flight attitudes, and which must be included in the empty weight.

NOTE 2. The following placard must be installed on the Pilot's Checklist:

"This Helicopter must be operated in compliance with the operating limitations specified in the FAA Approved Rotorcraft Flight Manual."

For additional placards, see the FAA Approved Rotorcraft Flight manual.

NOTE 3. The retirement times of critical parts are listed in the following table. These values of retirement or service life cannot be increased without FAA Engineering Approval.

FINITE LIFE COMPONENT	PART NO.	HOURS
Blade Assy., Main Rotor	53100	9250
Cuff Assy., Main Rotor	51456	7300
Hub, Main rotor	51455	6300

NOTE 3. (Cont'd)

FINITE LIFE COMPONENT	PART NO.	HOURS
Rod Assy., Drag Link, Main Rotor	52125	57250
Terminal, Drag Strut, Main Rotor (Blade End)	52124-3	63750
Terminal, Drag Strut, Main Rotor (Cuff End)	52122-7	53600
Bolt (Drag Strut, Blade End)	NAS 1307-24	47600
Bolt (Drag Strut, Cuff End)	NAS 1307-21	46850
Bar Assy., Tension-Torsion, Tail Rotor	55054	12500
Blade Assy., Tail Rotor	55073	3240
Shaft Assy., Output, Speed Decreaser	25202-5	5790
Gimbal Assy., Outer, Engine Mounting	63309	6360
Yoke Assy., Mixing, Cyclic & Collective Controls	30034	63850
Arm, Mixing, Cyclic and Collective Controls, Assy. of	30036	10940
Bracket Assy., Transmission, Cyclic Controls	33333-5	2120
Gimbal Ring, Wobble Plate	34008	73500
Ring Assy., Wobble Plate, Inner	34017	77980
Sleeve Assy., Wobble Plate, Cyclic Controls	34038	42910
Rod End (Conair)	8127	69060
Yoke, Tail Rotor	55046	2500

NOTE 4. These Helicopters must be serviced and maintained in conformance with instructions given by Fairchild Hiller Corporation, in the pertinent model inspection guide, repair handbook, and service and overhaul manuals.

NOTE 5. Model UH-12E Helicopters (3 and 4 place configurations) may be converted to Model UH-12L or UH-12L4 by accomplishment of Hiller Service Bulletins No. 2040 (Dwg. 10060) or No. 2045 (Dwg. 10059) respectively.

NOTE 6. The type certificate holder has demonstrated compliance with FAR 133.43 for the UH-12L and UH-12L4 Helicopters for Class B (Jettisonable Sling Load) Rotorcraft - load combination at a maximum overall weight of 3500 pounds and a maximum sling load of 1000 pounds, when modified to incorporate cargo hook installation per Hiller Dwg. 91012-23 (UH-12L4) and 91012-25 (UH-12L). The helicopter weight without sling load is not to exceed certificated weight of 3100 pounds. For limitations see pertinent FAA Approved Rotorcraft Flight Manual Revision and Rotorcraft - Load Combination Flight Manual to be submitted by applicant for external load operator's certificate in accordance with FAR part 133.

NOTE 7. Certain part numbers used on this model helicopter may be used on other model helicopters in which their use is life limited. These part numbers are listed in TCDS 4H11, H1WE, 4H10, 6H1, and 6H2 and FAA approved Hiller Instructions for Continued Airworthiness. If a full and complete service history from manufacture forward is not available that demonstrates these parts were used only on a model helicopter for which the part is not life limited then those parts shall be life limited to the lowest number of hours given in those TCDS's or ICAs. If a full and complete service history from the manufacturer forward is available, and any operating time has occurred in a life limited model helicopter, that part shall be considered life limited at the lowest life limit listed even if transferred and used on a helicopter model for which it is not life limited. Only those parts for which a full and complete service history from manufacture forward is available and which shows only operating time on a helicopter model for which it is not life limited are considered not life limited.

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