DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H1NE
Revision No 27

Sikorsky
Models S-76A
S-76B
S-76C

August 4, 2008

TYPE CERTIFICATE DATA SHEET NO. H1NE

This data sheet, which is part of Type Certificate (TC) Number H1NE, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

TYPE CERTIFICATE (TC) HOLDER: Sikorsky Aircraft Corporation
6900 Main Street
Stratford, CT 06497-9129

I. MODEL NUMBER	**S-76A (Transport Helicopter, Category B), Approved November 21, 1978** **(Transport Helicopter, Category A), Approved January 9, 1979**

ENGINES: 2 Allison Engine Company Model 250-C30, or 2 Model 250-C30S, or 1 each Model 250-C30 and Model 250-C30S. (See Note 11.)

FUEL: PRIMARY: JP-4/JP-5**/JP-8/Jet A**/Jet A1**/Jet B/GB6537-94(RP-3)**

ALTERNATE: **AVGAS/Jet A, A1, or JP5 mixture.
Do not use above 4^{O}C (40^{O}F). (See Note 5.)

** For operations below 4^{O}C (40^{O}F), anti-ice additive required. (See Note 6.)

ENGINE LIMITS

	SEA LEVEL STATIC / STANDARD DAY		
	TORQUE LIMITS	GAS GENERATOR SPEED LIMITS (N1)	POWER TURBINE INLET(T5)
Takeoff (5 minutes)	104.6%	53,550 (105.0%)	768 Deg C
Maximum Continuous	104.6%	53,550 (105.0%)	768 Deg C
OEI (30 minutes)	104.6%	53,550 (105.0%)	798 Deg C
OEI (2-1/2 minutes)	111.2%	53,550 (105.0%)	826 Deg C
16 second transient (OEI)	111.2% to 155.0%	- - -	- - -
10 second Transient (Starting)	- - -	53,550 (105.0%) to 54,060 (106%)	826 to 927 Deg C

OUTPUT SHAFT(N_2)

Normal Range: 95% to 107%

Maximum Continuous: Varies linearly from 114% at flight autorotation to 107.1% at 2½-minute power.

Maximum 15-second: Varies linearly from 119% at flight autorotation to 109% at 2½-minute power.

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Engine torque — 100% = 564 foot-pounds

See Flight Manual for T5 (power turbine inlet temperature) limits and power turbine (N2) speed limits.

ROTOR LIMITS

POWER OFF
Maximum 115% N_r (336 r.p.m.)
Minimum 87% N_r (255 r.p.m.)
POWER ON
Maximum 107% N_r (313 r.p.m.)
Minimum 100% N_r (dual engine operation)
Minimum 96% N_r (one engine inoperative) (OEI)

AIRSPEED LIMITS

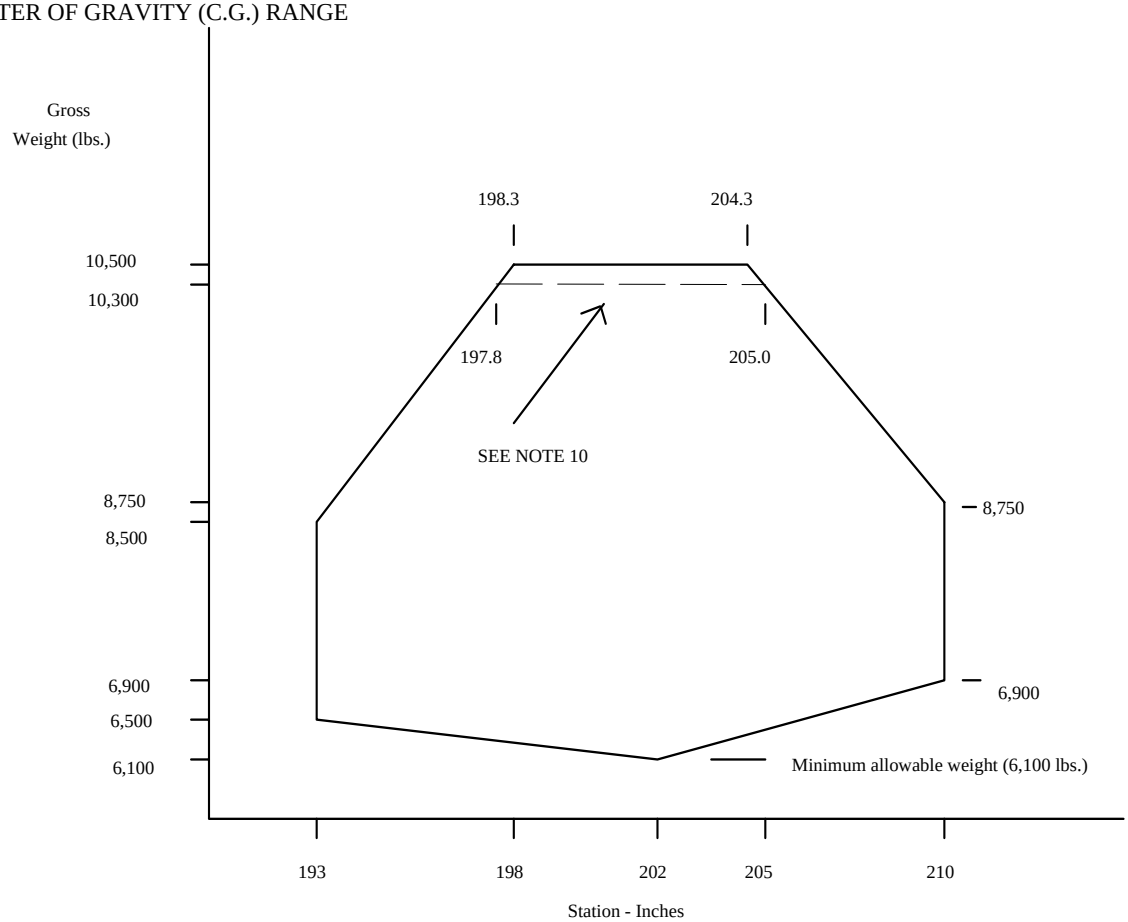
V_{NE} (never exceed) Power On: 155 knots (CAS), 155 knots (IAS). See Flight Manual for variations of V_{NE} with gross weight and density altitude.

V_{LE}/V_{LO} (gear extended, gear operating): 130 knots (CAS), 130 knots (IAS).

V_{NE} Power Off: 135 knots (CAS), 141 knots (IAS).

Below 80 lbs. fuel remaining per tank, reduce airspeed to 120 knots (CAS), 126 knots (IAS) or less.

CENTER OF GRAVITY (C.G.) RANGE



For effect of landing gear position, refer to loading section of flight manual.

LATERAL C.G. LIMITS	± 3.5 inches maximum
EMPTY WEIGHT C.G. RANGE	None
DATUM	200 inches forward of main rotor centroid
LEVELING MEANS	Leveling plate at STA 176, BL 35, L.H. and plumb line from upper frame of the aft doorway
MAXIMUM WEIGHT	10,500 lbs
MINIMUM CREW	2 (IFR) 1 (IFR) when appropriately equipped and operating to approved flight manual or flight manual supplement. (See Note 15.) 1 (VFR)
NUMBER OF SEATS	2 cockpit 13 cabin maximum
MAXIMUM BAGGAGE	600 lbs.
FUEL CAPACITY	286.4 gals. (281.2 usable) at (216.7) (See Note 1.)
OIL CAPACITY	1.27 gals. per engine at (231.0)
MAXIMUM OPERATING (DENSITY) ALTITUDE	
Enroute Takeoff and landing	15,000 feet 6,900 feet or 11,000 feet (for helicopters incorporating Sikorsky Kit P/N 76070-30005)
AMBIENT TEMPERATURE LIMITS:	-34.4°C (-30°F) to ISA +36.7°C; not to exceed 48.9°C (120°F)
ROTOR BLADE CONTROL MOVEMENTS	For rigging information refer to Maintenance Manual.
MANUFACTURER'S SERIAL NUMBERS	76006, 76007, 760001 thru 760122, 760130 thru 760261, 760263 thru 760268, 760270 thru 760298, 760300 thru 760302, 760304, 760364, 760366, 760369 thru 760371, 760373, 760374 are eligible.

II. MODEL NUMBER	**S-76B (Transport Helicopter, Category B), Approved October 31, 1985 (Transport Helicopter, Category A), Approved February 3, 1987**
ENGINES	2 Pratt & Whitney Canada (PWC) Model PT6B-36 (Category B only, reference S-76B Flight Manual, Supplement No. 2) or 2 PWC Model PT6B-36A or 2 PWC Model PT6B-36B (reference S-76B Flight Manual, Supplement No. 11)
FUEL	JP-4***/ JP-5**/JP-8/Jet A*/Jet A1*/GB6537-94(RP-3)* Fuels with anti-ice additive can be used without temperature limitation. *Fuels without anti-ice additive shall be mixed with appropriate additive below +4°C (40°F). (See Note 6.) ** Not to be used below -26°C (-15°F). *** JP4 not to be used above 10,000 feet pressure altitude.
OIL	PWA 521, Type I or II Low temperature limits for starting: Type I oil usable to -54°C (-65°F) Type II oil usable to -40°C (-40°F) For approved oil brands, see PWC Service Bulletin No. 11001

ENGINE AND TRANSMISSION LIMITS

	SEA LEVEL STATIC / STANDARD DAY			
	ENGINE TORQUE LIMITS	TRANSMISSION TORQUE LIMITS	GAS GENERATOR SPEED LIMITS(N1)	POWER TURBINE INLET (T5)
	FOR MODEL PWC PT6B-36			
Takeoff (5 minutes)	133.0 %	100.0 %	100.0 %	816 deg C
Maximum Continuous	120.0 %	100.0 %	100.0 %	776 deg C
OEI (2-1/2 minutes)	141.0 % *	136.0 %	101.6 %	850 deg C
OEI (30 minutes)	133.0 %	128.0 %	100.0 %	816 deg C
15 second Transient	- - -	- - -	- - -	870 deg C
10 second Transient	152.0 % *	105.0 %	101.8 %	- - -
5 second Transient (OEI)	- - -	150.0 % *	- - -	- - -
5 second Transient (Starting)	- - -	- - -	- - -	940 deg C
2 second Transient(Starting)	- - -	- - -	- - -	1090 deg C
	* EEC will limit available single-engine torque to 136 %			

	FOR MODEL PWC PT6B-36A			
Takeoff (5 minutes)	133.0 %	100.0 % **	100.0 %	816 deg C
Maximum Continuous	120.0 %	100.0 % **	100.0 %	776 deg C
OEI (2-1/2 minutes)	- - -	136.0 % *	- - -	- - -
OEI (30 minutes)	141.0 % *	128.0 %	101.6 %	844 deg C
10 second Transient	152.0 % *	115.0 % **	101.8 %	870 deg C
5 second Transient (OEI)	- - -	150.0 % *	- - -	- - -
5 second Transient (Starting)	- - -	- - -	- - -	940 deg C
2 second Transient (Starting)	- - -	- - -	- - -	1090 deg C
	* EEC will limit available single-engine torque to 136 % ** EEC will limit available dual-engine torque to total of 202 %			

	FOR MODEL PWC PT6B-36B			
Takeoff (5 minutes)	133.0 %	100.0 %**	102.6 %	816 deg C
Maximum Continuous	120.0 %	100.0 %**	102.6 %	776 deg C
OEI (2-1/2 minutes)	- - -	136.0 %*	- - -	- - -
OEI (30 minutes)	141.0 %*	128.0 %	104.2 %	844 deg C
10 second Transient	152.0 %*	115.0 %**	104.7 %	- - -
10 second Transient	- - -	- - -	- - -	870 deg C
5 second Transient (OEI)	- - -	150.0 %*	- - -	- - -
5 second Transient (Starting)	- - -	- - -	- - -	940 deg C
2 second Transient(Starting)	- - -	- - -	- - -	1090 deg C
	* EEC will limit available single-engine torque to 136 % ** EEC will limit available dual-engine torque to total of 202 %			

ROTOR LIMITS

POWER OFF
Maximum 115% N_r (336 r.p.m.)
Minimum 91% N_r (266 r.p.m.)
POWER ON
Maximum 108% N_r (316 r.p.m.) except with torque below 26%, then 110% Nr
Minimum 106% N_r (dual engine operation)
Minimum 100% N_r (one engine inoperative) (OEI)

AIRSPEED LIMITS

V_{NE} (never exceed) Power On: 155 knots (IAS). See Flight Manual for variations of V_{NE} with temperature and pressure altitude.

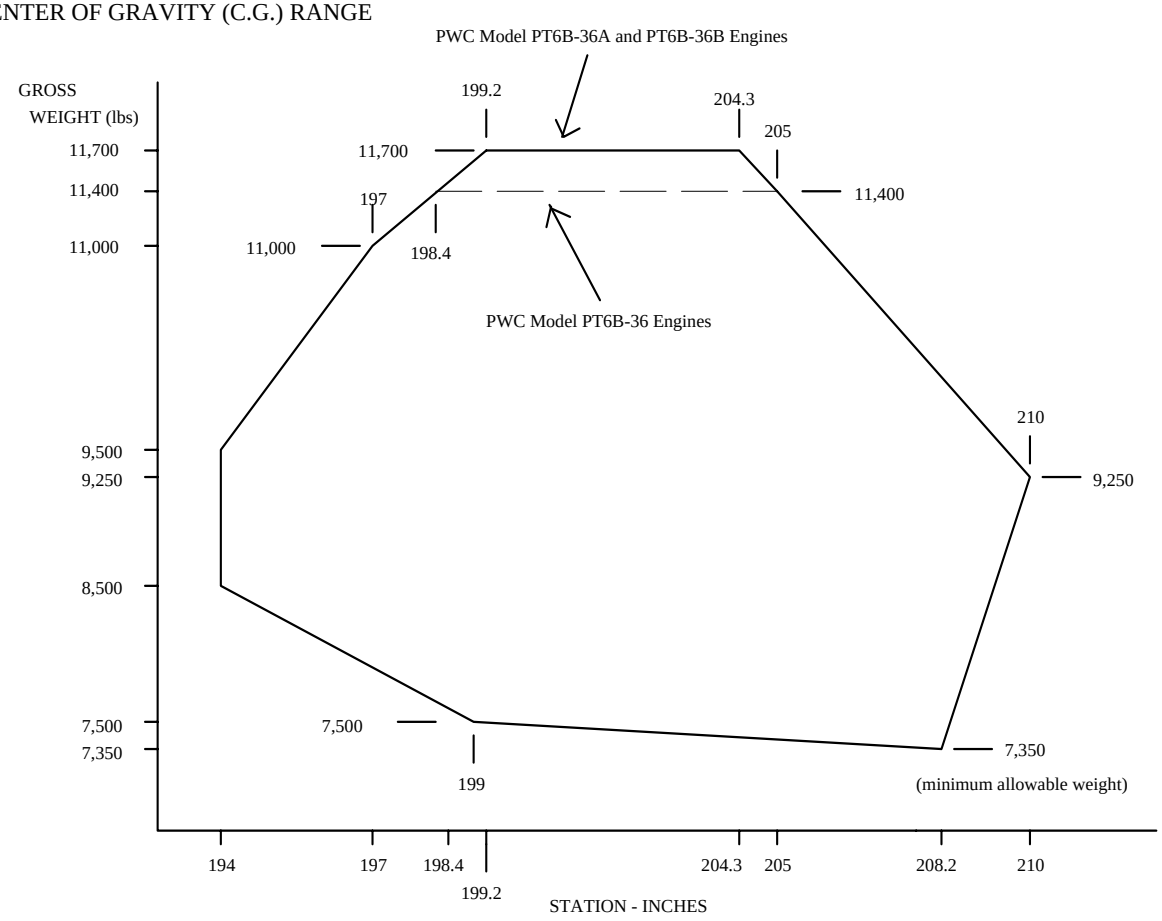
With PT6B-36A, or PT6B-36B, V_{NE} above 10,000 feet density altitude at actual gross weights greater than 11,000 pounds is BROC (best-rate-of-climb) airspeed.

V_{LE}/V_{LO} (gear extended/gear operating): 130 knots (IAS)

V_{NE} Power Off: 136 knots (IAS)

Below 80 lbs. fuel remaining per tank, avoid sustained pitch down attitudes in excess of 5^{o} nose low.

CENTER OF GRAVITY (C.G.) RANGE



For effect of landing gear position, refer to loading section of flight manual.

LATERAL C.G. LIMITS Up to 11,400 lbs: ±3.5 inches maximum
Above 11,400 lbs: ±2.5 inches maximum

EMPTY WEIGHT C.G. RANGE None

DATUM 200 inches forward of main rotor centroid

LEVELING MEANS Leveling plate at STA 176, BL 35, L.H. and plumb line from upper frame of the aft doorway

MAXIMUM WEIGHT

With PWC PT6B-36 engines: 11,400 pounds
With PWC PT6B-36A engines: 11,700 pounds
With PWC PT6B-36B engines: 11,700 pounds

MINIMUM CREW

2 (IFR)
1 (IFR) when appropriately equipped and operating to approved flight manual or flight manual supplement (See Note 15.)
1 (VFR)

NUMBER OF SEATS

2 cockpit
13 cabin maximum

MAXIMUM BAGGAGE

600 lbs.

FUEL CAPACITY

286.4 gals. (281.2 usable) at (216.7) (See Note 1.)

OIL CAPACITY

2.0 gals. per engine

MAXIMUM OPERATING (DENSITY) ALTITUDE

		PT6B-36	PT6B-36A	PT6B-36B
Enroute		10,000 feet	15,000 feet	15,000 feet
Takeoff and Landing	Cat. B:	10,000 feet	15,000 feet	15,000 feet
	Cat. A:	- - -	5,000 feet	5,000 feet

AMBIENT TEMPERATURE LIMITS

-34.4^{O}C (-30^{O}F) to ISA +38^{O}C not to exceed 49^{O}C (120^{O}F)
with bleed air Environmental Control Unit (ECU) off or not installed.

-34.4^{O}C (-30^{O}F) to ISA +35^{O}C not to exceed 43^{O}C (109^{O}F)
with bleed air ECU on.

ROTOR BLADE CONTROL MOVEMENTS

For rigging information, refer to Maintenance Manual.

MANUFACTURER'S SERIAL NUMBERS

76005, 760262, 760299, 760303, 760310 thru 760363, 760365, 760367, 760368, 760372, 760379 thru 760382, 760387, 760391, 760393, 760395, 760399, 760403, 760404, 760409, 760410, 760413, 760414, 760416, 760425, 760427 through 760430, 760433, 760437, 760439, 760441 through 760445, 760447 through 760452, 760454, 760455, 760458, 760462, 760465, 760507, 762976 are eligible.

III. MODEL NUMBER **S-76C (Transport Helicopter, Category B), Approved March 15, 1991**
(Transport Helicopter, Category A), Approved April 12, 1991

ENGINES

2 Turbomeca Arriel 1S1
or
2 Turbomeca Arriel 2S1
or
2 Turbomeca Arriel 2S2 (See Note 16.)

FUEL

JP-4***/JP-5**/JP-8/Jet A*/Jet A1*/Jet B*/GB6537-94(RP-3)*

Fuels with anti-ice additive can be used without temperature limitation.
* Fuels without anti-ice additive shall be mixed with appropriate additive below +4^{O}C (40^{O}F). (See Note 6.)
** Not to be used below -26^{O}C (-15^{O}F).
*** Applicable to Arriel 1S1 only

OIL	5 cst synthetic oil for normal use For approved types and brands, refer to S-76C Flight Manual, Sikorsky P/N SA 4047-76C-1 (W/Arriel 1S1 engine configuration) or S-76C Flight Manual, Sikorsky P/N SA 4047-76C-10 and SA 4047-76C-14 (W/Arriel 2S1 engine configuration), or SA 4047-76C-15 (W/Arriel 2S2 engine configuration).

ENGINE AND TRANSMISSION LIMITS

Arriel 1S1 Configuration SEA LEVEL STATIC / STANDARD DAY				
	ENGINE TORQUE LIMITS	TRANSMISSION TORQUE LIMITS	GAS GENERATOR SPEED LIMITS(N1)	POWER TURBINE INLET (T5)
Takeoff	104.0 %	100.0 %	100.0 %	845 deg C
Maximum Continuous	104.0 %	100.0 %	100.0 %	845 deg C
OEI(2-1/2 minutes)	127.0 %	136.0 %	102.7 %**	885 deg C
OEI (Maximum Continuous))	110.0 %	128.0 %	102.2 %*	868 deg C
20 second Transient (OEI)	148.0 %	- - -	105.35 %***	920 deg C
20 second Transient	- - -	- - -	105.35 %***	- - -
10 second Transient	- - -	115.0 %	- - -	- - -
5 second Transient (OEI)	- - -	150.0 %	- - -	- - -
5 second Transient(Starting)	- - -	- - -	- - -	865 deg C
* Cockpit gauge biased to read 101.2 % ** Cockpit gauge biased to read 101.7 % *** Cockpit gauge biased to read 104.35 %				

Arriel 2S1 Configuration SEA LEVEL STATIC / STANDARD DAY				
	ENGINE TORQUE LIMITS	TRANSMISSION TORQUE LIMITS	GAS GENERATOR SPEED LIMITS(N1)	POWER TURBINE INLET (T5)
Takeoff (5 minutes)	103.7 %	100.0 %	101.2 %*	912 deg C
30 minute (see Note 13)	103.7 %	100.0 %	101.2 %*	912 degC
Maximum Continuous	103.7 %	100.0 %	99.0 %**	877 deg C
OEI (30 second)	134.6 %	136.0 %	105.8 %****	1000 deg C
OEI (2 minutes)	126.7 %	136.0 %	102.4 %***	941 deg C
OEI (Maximum Continuous)	116.7 %	128.0 %	101.2 %*	912 deg C
20 second Transient	160.4 %	- - -	102.3 %***	- - -
10 second Transient	- - -	115.0 %	- - -	- - -
10 second Transient (starting)	- - -	- - -	- - -	865 deg C
5 second Transient(OEI)	- - -	150.0 %	- - -	- - -
* Cockpit gauge biased to read 100.0 % ** Cockpit gauge biased to read 97.8 % *** Cockpit gauge biased to read 101.2 % **** Cockpit gauge biased to read 104.6 %				

	Arriel 2S2 Configuration			
	SEA LEVEL STATIC / STANDARD DAY			
	ENGINE TORQUE LIMITS	TRANSMISSION TORQUE LIMITS	GAS GENERATOR SPEED LIMITS(N1)	POWER TURBINE INLET (T5)
Takeoff (5 minutes)	103.7 %	100 %	101.88 %*	930 deg C
30 minute (see Note 13)	103.7 %	100 %	101.88 %*	930 deg C
Maximum Continuous	103.7 %	100 %	99. 71 %**	893 deg C
OEI (30 second)	134.9 %	136 %	105.89 %***	996 deg C
OEI (2 minutes)	127.0 %	136 %	102.38 %****	944 deg C
OEI (Maximum Continuous)	115.0 %	128 %	101.28 %*****	926 deg C
20 second Transient	160.4 %	- - -	102.98 %******	- - -
10 second Transient	- - -	115.0 %	- - -	- - -
10 second Transient (starting)	- - -	- - -	- - -	840 deg C
5 second Transient(OEI)	- - -	150.0 %	- - -	- - -
	* Cockpit gauge biased to read 100.0 %			
	** Cockpit gauge biased to read 97.8 %			
	*** Cockpit gauge biased to read 103.9 %			
	**** Cockpit gauge biased to read 100.5 %			
	***** Cockpit gauge biased to read 99.4 %			
	****** Cockpit gauage biased to read 101.1%			

Engine Torque 100% = 657.6 foot-pounds

ROTOR LIMITS

POWER OFF
Maximum 115% N_r (336 r.p.m.)
Minimum 91% N_r (266 r.p.m.)
POWER ON
Maximum 108% N_r (316 r.p.m.) except 109% for less than 20 seconds (w/2S1 engine only)
Maximum 108% N_r (316 r.p.m.) except with torque below 26%, then 110% Nr (w/1S1 engine only)
Minimum 106% N_r (dual engine operation)
Minimum 100% N_r (one engine inoperative) (OEI)

AIRSPEED LIMITS

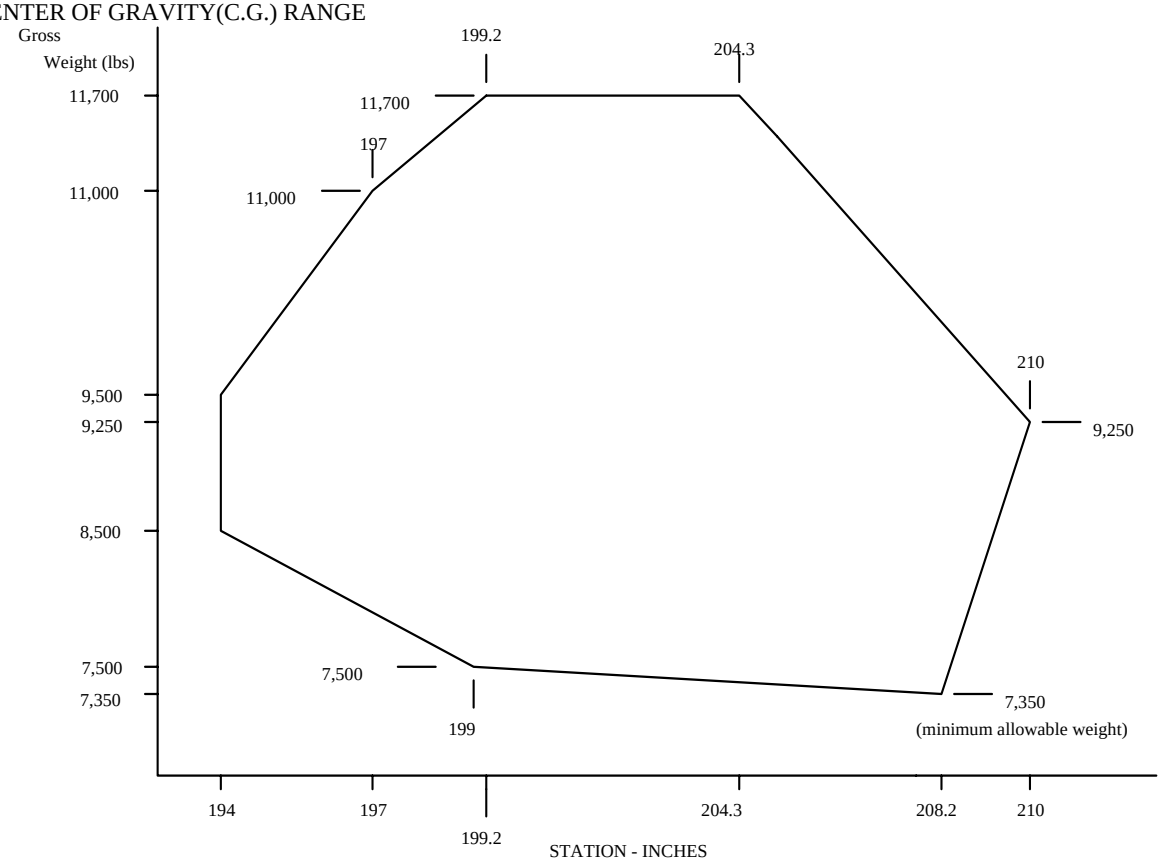
V_{NE} (never exceed) Power On: 155 knots (IAS). See Flight Manual for variations of V_{NE} with temperature and pressure altitude.

V_{LE}/V_{LO}(gear extended/gear operating): 130 knots (IAS)

V_{NE} Power Off: 136 knots (IAS)

Below 80 lbs. fuel remaining per tank, avoid sustained pitch down attitudes in excess of 5^{o} nose low.

CENTER OF GRAVITY(C.G.) RANGE



For effect of landing gear position, refer to loading section of flight manual.

LATERAL C.G. LIMITS	Up to 11,400 lbs:	±3.5 inches maximum
	Above 11,400 lbs:	±2.5 inches maximum
	Below 10,800 lbs (w/hoist load, hover only):	±4.5 inches maximum
EMPTY WEIGHT C.G. RANGE	None	
DATUM	200 inches forward of main rotor centroid	
LEVELING MEANS	Leveling plate at STA 176, BL 35, L.H. and plumbline from upper frame of the aft doorway	
MAXIMUM WEIGHT	11,700 lbs.	
MINIMUM CREW	2 (IFR) 1 (IFR) when appropriately equipped and operating to approved flight manual or flight manual supplement (See Note 15.) 1 (VFR)	
NUMBER OF SEATS	2 cockpit 13 cabin maximum	
MAXIMUM BAGGAGE	600 lbs.	
FUEL CAPACITY	286.4 gals. (281.2 usable) at (216.7) (see Note 1)	
OIL CAPACITY	1.27 gals. per engine	

MAXIMUM OPERATING (DENSITY) ALTITUDE

With 1S1 Engine Configuration

Enroute		15,000 feet
Takeoff and landing	Cat. B:	11,000 feet
	Cat. A:	5,000 feet

With 2S1 or 2S2 Engine Configuration

Enroute		15,000 feet
Takeoff and landing	Cat. B:	15,000 feet
	Cat. A:	5,000 feet

AMBIENT TEMPERATURE LIMITS: -34.4^{O}C (-30^{O}F) to ISA +37^{O}C; not to exceed 49^{O}C (120^{O}F)

ROTOR BLADE CONTROL MOVEMENTS For rigging information refer to Maintenance Manual.

MANUFACTURER'S SERIAL NUMBERS Sikorsky Aircraft Corporation under Production Certificate Number 105: 760269, 760375 through 760378, 760383 through 760386, 760388 through 760390, 760392, 760394, 760396 through 760398, 760400 through 760402, 760405 through 760408, 760411, 760412, 760415, 760417 through 760424, 760426, 760431, 760432, 760434 through 760436, 760438, 760440, 760446, 760453, 760456, 760457, 760459 through 760461, 760463, 760464, 760466 through 760506, 760508 through 760634, 760636, 760637, 760639, 760641, 760643, 760645, 760647 through 760652, 760654 through 760657, 760659 through 760685, 760687 through 760689, 760691 through 760693, 760695 through 760700, 760702, 760703, 760705 through 760707, 760709, 760710, 760712, 760713, 760715, 760716, 760718, 760719, 760721, 760722, 760724, 760725, 760727, 760728, 760730, 760732, 760733, 760735, 760736, 760738, 760742, 760744, 760749 and 760752 are eligible.

Keystone Helicopter Corporation for Production under Type Certificate Only: 760635, 760638, 760640, 760642, 760644, 760646, 760653 and 760658 are eligible.

Keystone Helicopter Corporation under Production Certificate Number 121NE: 760686*, 760690, 760694, 760701, 760704, 760708, 760711, 760714, 760717, 760720, 760723, 760726, 760729, 760731, 760734, 760737, 760739 through 760741, 760743, 760745 through 760748, 760750, 760751, 760753 and up are eligible.

* 760686 originally designated as eligible for production by Keystone Helicopter Corporation under Type Certificate Only and redesignated upon issuance of Production Certificate Number 121NE.

THE FOLLOWING DATA IS PERTINENT TO ALL MODELS OF THIS SERIES

CERTIFICATION BASIS Type Certificate No. H1NE

Model S-76A (Basic Certification Basis):

FAR Part 29, February 1, 1965, and amendments 29-1 through 29-11; in addition, portions of amendments 29-12, specifically, 29.67, 29.71, 29.75, 29.141, 29.173, 29.175, 29.931, 29.1189(a)(2), 29.1555(c)(2), 29.1557(c), portions of amendment 29-13, specifically 29.965, and portions of amendment 29-21, specifically 29.1, 29.79, 29.1517, and 29.1587.

Instrument flight criteria (interim) for S-76 dated February 10, 1977.

Special Conditions 29-82-NE-3 (Docket No. 17721), dated March 27, 1978.

Partial Grant of Exemption from FAR 29.811(h), Exemption No. 2542 (Docket No. 17403), dated January 9, 1979, for the Model S-76A;.

Equivalent safety finding for FAR 29.173(b).

National Environmental Act of 1969.

Noise Control Act of 1972.

Compliance with the following optional requirements has been established: Ditching provisions FAR 29.563 including 29.801 and 29.807(d) of amendment 29-12 and excluding 29.1411, 29.1415, and 29.1561 when emergency flotation gear, P/N 76076-02002, is installed. For over-water operations, compliance with the operating rules and FAR 29.1411, 29.1415, and 29.1561 must be shown.

Cargo hook FAR 29.865 including 29.25 of amendment 29-12, when cargo hook system, P/N 76255-02000, is installed. For external load operations, FAR 133, including Amendments 1-4.

In addition to the basic certification basis, for the Model S-76B: Portions of Amendment 29-24, specifically 29.1325(f); equivalent safety finding for FARs 29.1013(e), 29.1203(a), 29.1181(a)(6), and 29.1189(a).

Partial Grant of Exemption from FAR 29.811(h), Exemption No. 2542 (Docket No. 17403), dated July 3, 1985.

In addition to the basic certification basis, for the Model S-76C (with Arriel 1S1 Engine Configuration): 29.1325 of amendment 29-24, amendment 29-26, specifically 29.67(a)(2)&(3)(b), 29.923(k), 29.1045(c), 29.1047(a)(4) and 29.1521(h); 29.811 of amendment 29-30, and amendment 36-14 of FAR 36, Appendix H.

Special Condition No. 29-ASW-3 (Docket No. 91-ASW-1), dated January 30, 1992

In addition to the basic certification basis, for the Model S-76C (with Arriel 2S1 Engine Configuration): 29.1325 of amendment 29-24, amendment 29-26, specifically 29.67(a)(2)&(3)(b), 29.923(k), 29.1045(c), 29.1047(a)(4) and 29.1521(h); 29.811 of amendment 29-30, amendment 29-34, specifically 29.67(a)(1)(i), 29.923(a),(b)(1)&(3), 29.1143(f), 29.1305(a)(24)&(25), 29.1521(i)&(j) and 29.1549(e) and Amendment 36-20 of FAR 36, Appendix H.

Special Conditions No. 29-ASW-16 (Docket No. 96-ASW-2), dated August 26, 1996 and No. 29-004-SC (Docket No. SW004) dated June 17, 1998.

In addition to the basic certification basis, for the Model S-76C (with Arriel 2S2 Engine Configuration): 29.1325 of amendment 29-24, amendment 29-26, specifically 29.67(a)(2)&(3)(b), 29.923(k), 29.1045(c), 29.1047(a)(4) and 29.1521(h); 29.811 of amendment 29-30, amendment 29-34, specifically 29.67(a)(1)(i), 29.923(a),(b)(1)&(3), 29.1143(f), 29.1305(a)(24)&(25), 29.1521(i)&(j) and 29.1549(e) and Amendment 36-20 of FAR 36, Appendix H.

Special Conditions No. 29-ASW-16 (Docket No. 96-ASW-2), dated August 26, 1996 and No. 29-004-SC (Docket No. SW004), dated June 17, 1998.

PRODUCTION BASIS

Sikorsky Aircraft Corporation
Production Certificate Number 105

Keystone Helicopter Corporation
Production Certificate Number 121NE

Under licensing agreement with Sikorsky Aircraft Corporation:
In the event of an application for a standard airworthiness certificate or, if an applicant intends to produce a new aircraft under 14 CFR § 21.183(a), and the applicant is manufacturing, building, or assembling to another person's type certificate, the applicant must provide written evidence of permission from the type certificate holder. Conduct of such activity without written evidence of permission may be a violation of 49 U.S.C. § 44704(a)(3).

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:

(a) Model S-76A: FAA approved Rotorcraft Flight Manual, Model S-76A Helicopter (Publication SA 4047-76-1)

Model S-76B: FAA approved Rotorcraft Flight Manual, Model S-76B Helicopter (Publication SA 4047-76B-1).

In addition:
For aircraft equipped with PT6B-36 engines, Supplement No. 2 (Publication SA 4047-76B-1)

For aircraft equipped with PT6B-36B engines, Supplement No. 11 (Publication SA 4047-76B-1)

Model S-76C equipped with Arriel 1S1 engines: FAA approved Rotorcraft Flight Manual, Model S-76C Helicopter (Publication SA 4047-76C-1).

Model S-76C equipped with Arriel 2S1 engines: FAA approved Rotorcraft Flight Manual, Model S-76C Helicopter (Publication SA 4047-76C-10) for aircraft serial numbers prior to 760511. For aircraft serial numbers 760511 and subsequent FAA Approved Rotorcraft Flight Manual (Publication SA 4047-76C-14).

Model S-76C equipped with Arriel 2S2 engines: FAA approved Rotorcraft Flight Manual, Model S-76C Helicopter (Publication SA 4047-76C-15) for aircraft serial numbers 760607 and subsequent.

(b) DELETED

(c) Special airspeed indicator approved:

For use on S-76A only:
Aero Mechanism Part No. 8502C-S20LW, or Aerosonic Part No. 20020-11190, or Aerosonic Part No. 20020-11293 airspeed indicator.

For use on the S-76B and S-76C:
Aerosonic Part No. 20020-11293 airspeed indicator.

N O T E S

NOTE 1: Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each helicopter at the time of original certification.

See flight manual loading section for variations of fuel weight and moment-arm with variations of fuel and fuel quantity.

NOTE 2: All placards required in the approved rotorcraft flight manual must be installed in the appropriate locations. The following placard must be displayed in front of and in clear view of the pilot:

"THIS HELICOPTER MUST BE OPERATED IN ACCORDANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE FAA APPROVED ROTORCRAFT FLT MAN. THE AIRWORTHINESS LIMITATIONS SECT OF THE ROTORCRAFT MAINTENANCE MANUAL MUST BE COMPLIED WITH."

NOTE 3: For Model S-76A: Information essential to the proper maintenance of the helicopter is contained in the Sikorsky S-76A Maintenance Manual, Publication SA 4047-76-2, and the Airworthiness Limitations and Inspection Requirements Manual SA 4047-76-2-1 provided with each helicopter. The values of retirement (service) life contained in Chapter 4 of the Airworthiness Limitations and Inspection Requirements Manual SA 4047-76-2-1 or inspection intervals cannot be increased without FAA engineering approval. See Note 10.

For Model S-76A serial numbers 760295, 760296, 760297, 760298, 760300, and 760301: Information essential to proper maintenance of the helicopter is contained in the Sikorsky S-76A Maintenance Manual SA 4047-76AA-2 and the Airworthiness Limitations and Inspection Requirements Manual SA 4047-76-2-1 provided with each helicopter. The values of retirement (service) life contained in Chapter 4 of the Airworthiness Limitations and Inspection Requirements Manual SA 4047-76-2-1 or inspection intervals cannot be increased without FAA engineering approval. (See Note 10.)

For Model S-76B: Information essential to the proper maintenance of the helicopter is contained in the Sikorsky S-76B Maintenance Manual, Publication SA 4047-76B-2, and the Airworthiness Limitations and Inspection Requirements Manual SA 4047-76B-2-1 provided with each helicopter. The values of retirement (service) life contained in Chapter 4 of the Airworthiness Limitations and Inspection Requirements Manual SA 4047-76B-2-1 or inspection intervals cannot be increased without FAA engineering approval. (See Note 10.)

For Model S-76C: Information essential to the proper maintenance of the helicopter is contained in the S-76C Maintenance Manual, Publication SA 4047-76C-2, and the Airworthiness Limitations and Inspection Requirements Sections, Chapters 4 and 5, of SA 4047-76C-2-1, provided with each helicopter. The values of retirement (service) life contained in Chapter 4 of the Maintenance Manual or inspection intervals cannot be increased without FAA engineering approval. (See Note 10.)

NOTE 4: DELETED

NOTE 5: For Model S-76A only: Mixture ratio: 1 part AVGAS, Grade 80/87, to 2 parts Jet Fuel (Jet A, Jet 1, or JP-5) by volume may be used for unrestricted periods of time. AVGAS, Grade 100/130 (100LL) with a maximum of 2.0 ml/gal lead content may be used in place of grade 80/87 in the same proportions with jet fuel for not over 300 hours during any overhaul period. Do not use above 4^{o}C (40^{o}F). Do not use AVGAS containing Tri-Cresyl-Phosphate (TCP).

NOTE 6: For Model S-76A only: MIL-T-5624 Grade JP-5 with anti-ice additive conforming to MIL-I-27686 (Philips Petroleum Company MB-55 or equivalent) in concentration of 0.035% to 0.15% by volume. ASTM D-1655 Jet A, or A1 with anti-ice additive conforming to MIL-I-27686 (Philips Petroleum Company MB-55 or equivalent) in concentration of 0.035% to 0.15% by volume. If the AVGAS/Jet Fuel mixture is added to JP-4 or Jet B, add anti-ice additive in concentration of 0.035% to 0.15% based only on the AVGAS/Jet Fuel volume added. If the jet fuel to be mixed with AVGAS is JP-5, Jet A, or Jet A1, to which anti-ice additive has not been added, add anti-ice additive in concentration of 0.035% to 0.15% based on entire volume.

For Model S-76B only: Anti-icing protection additives meeting MIL-D-27686 or equivalent must be present in concentrations of 0.035% to 0.15% by volume.

For Model S-76C only: Anti-icing protection additives meeting MIL-D-27686 or equivalent must be present in concentrations of 0.10% to 0.15% by volume.

NOTE 7: DELETED

NOTE 8: Initial Type Certification Data Sheet No. H1NE for Model S-76A was not published. No airworthiness certificates were issued, based on Data Sheet No. H1NE (No Revision).

NOTE 9: Model S-76A helicopters have been approved for the Luftfahrt-Bundesamt (LBA). This LBA configuration must include a modification in accordance with Sikorsky Aircraft Drawing No. 76080-55007, Kit Modification, LBA, PL Sheet 1 of 1, Rev (-), FD Sheet 1 of 1, Rev (-). This is an LBA special requirement and is not approved for FAA airworthiness certification.

NOTE 10: Model S-76A: When operated at gross weights above 10,300 pounds, the helicopter must comply with Revision 14 of the Airworthiness Limitations section, dated May 14, 1985, or subsequent FAA-approved revisions of the Airworthiness Limitations and Inspection Requirements Manual SA 4047-76-2-1.

Model S-76B: All helicopters must comply with Airworthiness Limitations section, dated June 7, 1988, or subsequent FAA-approved revisions of Airworthiness Limitations and Inspection Requirements Manual SA 4047-76B-2-1.

Model S-76C: All helicopters must comply with the Airworthiness Limitations Section, Chapter 4, dated March 19, 1991, of Maintenance Manual SA 4047-76C-2-1, or subsequent FAA-approved revisions.

NOTE 11: Model S-76A: Alternate engine installations with Turbomeca Arriel 1S or 1S1 engines are approved under STC SH568NE (not in mixed engine configurations).

NOTE 12: Emissions control device Kit Part Number 76070-30603-011, installed in accordance with CSN 76-192, is approved for installation on the Model S-76C helicopter with the Turbomeca Arriel 1S1 engine installation. This device prevents the intentional discharge into the atmosphere of liquid fuel from the fuel nozzle manifolds resulting from the process of engine shutdown following normal flight or ground operations. The Model S-76B, and Model S-76C helicopter with Turbomeca Arriel 2S1 and 2S2 engines, without modification preclude the intentional discharge into the atmosphere of liquid fuel from the nozzle manifolds resulting from the process of engine shutdown.

NOTE 13: The use of the 30 minute power rating requires Supplement No. 12 to the Model S76C Rotorcraft Flight Manual, document no. SA 4047-76C-10, or document no. SA 4047-76C-14 or Supplement No. 46 to the Model S76C Rotorcraft Flight Manual, document no. SA 4047-76C-15. Engine Airworthiness Limitations requirements are as specified in Type Certificate Data Sheet No. E00054EN.

NOTE 14: The Model S-76B (Pratt & Whitney PT6B-36 engine) and the Model S-76C (Turbomeca Arriel 2S1 and Arriel 2S2 engines) rotorcraft installations employ electronic engine controls commonly named Full-Authority Digital Electronic Controls (FADEC), and are recognized to be potentially more susceptible to electromagnetic interference (EMI) than rotorcraft containing non-electronic controls. EMI may be the result of radiated or conducted interference. For this reason, aircraft modifications that add or change systems that have the potential for EMI must be either qualified to an FAA acceptable standard or tested at the time of installation for interference to the FADEC. This type of testing must employ the particular FADEC's internal diagnostic monitoring equipment as well as external diagnostic monitoring equipment, and must be FAA approved.

NOTE 15: 1-pilot IFR is approved for Models S-76A, S-76B, and S-76C when appropriately equipped and operating in accordance with a flight manual or flight manual supplement that allows such operation. 1-pilot IFR operation requirements include installation of an SPZ-7000 Digital Automatic Flight Control System by STC or an SPZ-7600 Digital Automatic Flight Control System by STC or as optional equipment. The following Honeywell Flight Manual Supplements relate to 1-pilot IFR operations with the SPZ-7000:

Model S-76A SA 4047-76-1 Honeywell Supp No. 27-5130-14-03
Model S-76A SA 4047-76-1 Honeywell Supp No. 27-5120-19-01 (S-76A Arriel)
Model S-76B SA 4047-76B-1 Honeywell Supp No. 27-5120-10-01

The following Sikorsky Flight Manuals and Supplements relate to 1-pilot IFR operations with the SPZ-7600:

Model S76C Rotorcraft Flight Manual document no. SA 4047-76C-14
Model S76C Rotorcraft Flight Manual document no. SA 4047-76C-15
Model S-76A SA 4047-76-1 Supp S-38
Model S-76C SA 4047-76C-1 Supp S-15
Model S-76C+ SA 4047-76C-10 Supp S-15
Model S-76C+ SA 4047-76C-10 Supp 88

NOTE 16: Installation of Turbomeca Arriel 2S2 engines requires barrier filter P/N 76302-07800 or FAA-approved alternate.

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