

第 1 部分 概述

SECTION 1 GENERAL

1.CAAC 认可数据单和型号合格证数据单/CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空局认可数据单号、版次及其颁发日期/ CAAC Validation Data Sheet Number,revision and issuance date	型号合格证数据单号、版次及其颁发日期/ Type Certificate Data Sheet Number, Revision and issuance Date
当前 /Current	VTC0031A.2011-5-18,Revision 0	H1CE Revision 27 March 28, 2011
历史 /History	N/A	H1CE Revision 19 June 7,1993

2.类别/Category: 正常类旋翼航空器/NORMAL CATEGORY ROTORCRAFT

3.认可当局/Validation Authority: 中国民用航空局/CAAC
审定当局/Certifying Authority: 美国联邦航空局/FAA

4.型号合格证持有人/Type Certificate Holder: 恩斯特龙直升机公司/ The Enstrom Helicopter Corporation 2209 22nd Street Menominee, Michigan 49858,USA.

5.制造厂/Manufacturer: 恩斯特龙直升机公司/ The Enstrom Helicopter Corporation

6.CAAC 认可审定基础/CAAC Validation Certification Basis :

CAAC 接受 FAA 对应于型号合格证 H1CE, 数据单为 1993 年 6 月 7 日的第 19 版中 F28F、280FX、TH-28F、480 等四种型号直升机审定基础为认可审定基础。/For model F28F/280FX/TH-28F and 480,CAAC validation certification basis is based on FAA certification basis of H1CE,Revision 19,June 7,1993.

CAAC 接受 FAA 对应于型号合格证 H1CE, 数据单为 2011 年 3 月 28 日第 27 版中 480B 型直升机审定基础为认可审定基础。/For model 480B,CAAC validation certification basis is based on certification basis of H1CE,Revision 27,Match 28,2011.

7.CAAC 专用要求/CAAC Special Requirement:

交付到中国的每一 F-28F、F-280FX、TH-28、480、480B 航空器必须满足下述专用要求 /Each of F-28F/F-280FX/TH-28/480 and 480B aircraft delivered to China shall meet the following special requirements:

- (1) 必须满足中国民用航空局的运行要求 (例如: 关于中文标记标牌和米制高度表等要求) /The operational requirements of CAAC must be met (e.g. the Chinese language requirements for markings and placards and the altimeter displayed by meter system)。

- (2) 燃油符合“中国国标 3 号燃油 -GB6537-2006”的规范 /Fuel conforming to Specification “PRC National Standard No.Jet Fuel –GB6537-2006”。

第 2 部分

SECTION 2

1- 型号 F-28F 直升机, 3PCLH, 1980 年 12 月 31 日批准/

1- Model F-28F Helicopter, 3 PCLH, Approved December 31, 1980

(除了增加发动机马力, 改进涡轮增压器和增加节流阀相关器之外, 型号 F-28F 和 F-28C/280C 相识)
(Models F-28F are similar to F-28C/280C except for increased horsepower engine, improved turbocharger and the addition of throttle correlator.)

发动机/

Engine

按 STC SEC484GL 带有 Rajay 型号 325E10-2 或 Rotomaster 型号 3BT5EE10J2 涡轮增压器的莱康明 HIO-360-F1AD 和 Bendix RSA-5AB1 件号为 2524858-A, -1, -2, -3, 或 -4 燃油喷射器/

Lycoming HIO-360-F1AD with Rajay Model 325E10-2 or Rotomaster Model 3BT5EE10J2 turbocharger per STC SE484GL and Bendix RSA-5AB1, Parts Number 2524858-A, -1, -2, -3, or -4 fuel injector.

燃油/

Fuel

最小 100/130. 或最小 100LL 级航空汽油。/

100/130 min. or 100LL min. grade aviation gasoline.

发动机限制/

Engine limits

对于所有操作: 3050 转/分, 39.0 英寸汞气歧管压力 (225 马力)。/

For all operations: 3050 rpm, 39.0 in. Hg manifold pressure (225 hp.)

转速限制/

RPM limits

发动机 (开车) 3050 最大; 2900 最小/

Engine (Power On) 3050 maximum; 2900 minimum

旋翼 (关车) 385 最大; 332 最小/

Rotor (Power Off) 385 maximum; 332 minimum

F28F 空速限制 (IAS) /

F28F Airspeed limits (IAS)

不可逾越速度 - 英里每小时/

Never Exceed Speeds - Miles Per Hour

压力/Press. 高度/Alt	外部空气温度, °F / Outside Air Temperature, °F.						
	-20	0	20	40	60	80	100
SL	112	112	112	112	112	112	112
2000	112	112	112	112	112	109	105
4000	112	112	112	110	105	100	91
6000	112	111	106	100	90	81	73
8000	107	102	92	82	73	64	55
10000	94	84	74	65	55		
12000	76	65	56				

高度限制/

Altitude limits

12000 英尺. 密度高度/

12,000 ft. density altitude.

重心限制/

C.G. limits

纵向的: (+92.0) to (+94.6) 在 2350 磅.

Longitudinal: (+92.0) to (+100.0) at 2000 lbs.

	参见飞行手册重量表/ See Flight Manual for schedule with weight.
侧向的: Lateral:	最大批准不对称点+3700 至 -3250 英寸-磅 在 2350 磅。参见飞行手册重量表/ Maximum approved asymmetric moment +3700 to -3250 in.-lbs. at 2350 lbs. See Flight Manual for schedule with weight.
最大重量/ Maximum weight	2350 磅/ 2350 lbs.
座位数/ No. of seats	3 (+62.0)/ 3 (+62.0)
最大行李/ Maximum baggage	108 磅 (+135.0)/ 108 lb. (+135.0)
燃油容量/ Fuel capacity	42 加仑(+96.7), 40 可用燃油。参见备注 1/ 42 gal. (+96.7), 40 gal. usable. See NOTE 1
机油容量(发动机机油箱)/ Oil capacity (engine sump)	10 夸脱 (+96.0) 参见备注 1 的不可排放机油数据/ 10 qts. (+96.0) See NOTE 1 for data on undrainable oil.
控制系统水平测量/ Control System Rigging	参考维修手册/ Refer to Maintenance Manual.
安定面安装/ Stabilizer Setting	固定的, 相对于水平面 6° TE 向上。/ Fixed, 6° TE up relative to WL.
序列号范围/ Serial Nos. eligible	F-28F 型号: 506, 507, 和 509 至 743 (参见备注 29) / F-28F Models: 506, 507, and 509 thru 743 (See NOTE 29)

II – 型号 F-28 直升机, 3PCLH (限制类), 改装按备注 6, 1980 年 12 月 31 日批准, 或备注 8, 1980 年 12 月 31 日批准 (此版本是为了农业应用或外部载荷应用至 2600lbs.总重)

II - Model F-28F Helicopter, 3 PCLH (Restricted Category), Modified per NOTE 6, Approved December 31, 1980, or NOTE 8, Approved December 31, 1980 (This version is for agricultural operation or external load operation up to 2600 lbs. GW.)

发动机/ Engine	按 STC SEC484GL 带有 Rajay 型号 325E10-2 或 Rotomaster 型号 3BT5EE10J2 涡轮增压器的莱康明 HIO-360-F1AD 和 Bendix RSA-5AB1 件号为 2524858-A, -1, -2, -3, 或 -4 燃油喷油器/ Lycoming HIO-360-F1AD with Rajay Model 325E10-2 or Rotomaster Model 3BT5EE10J2 turbocharger per STC SE484GL and Bendix RSA-5AB1, Parts Number 2524858-A, -1, -2, -3, or -4 fuel injector.
燃油/ Fuel	最小 100/130. 或最小 100LL 级航空汽油。/ 100/130 min. or 100LL min. grade aviation gasoline.
发动机限制/ Engine limits	对于所有操作: 3050 转/分, 39.0 英寸汞气歧管压力 (225 马力)。/

	For all operations: 3050 rpm, 39.0 in. Hg manifold pressure (225 hp.)																																																																																															
转速限制/ RPM limits	发动机（开车）3050 最大；2900 最小/ Engine (Power On) 3050 maximum; 2900 minimum 旋翼（关车）385 最大；332 最小/ Rotor (Power Off) 385 maximum; 332 minimum																																																																																															
空速限制（IAS）/ Airspeed limits (IAS)	不可逾越速度 – 英里每小时/ Never Exceed Speeds - Miles Per Hour																																																																																															
	<table><tr><th rowspan="2">压力/Press. 高度/Alt</th><th colspan="7">外部空气温度, °F / Outside Air Temperature, °F.</th></tr><tr><th>-20</th><th>0</th><th>20</th><th>40</th><th>60</th><th>80</th><th>100</th></tr><tr><td>SL</td><td>85</td><td>85</td><td>85</td><td>85</td><td>85</td><td>85</td><td>85</td></tr><tr><td>1000</td><td>85</td><td>85</td><td>85</td><td>85</td><td>85</td><td>83</td><td>82</td></tr><tr><td>2000</td><td>85</td><td>85</td><td>85</td><td>84</td><td>83</td><td>82</td><td>81</td></tr><tr><td>3000</td><td>85</td><td>85</td><td>84</td><td>83</td><td>82</td><td>81</td><td>80</td></tr><tr><td>4000</td><td>85</td><td>84</td><td>83</td><td>82</td><td>81</td><td>80</td><td>69</td></tr><tr><td>5000</td><td>84</td><td>83</td><td>82</td><td>81</td><td>80</td><td>68</td><td>57</td></tr><tr><td>6000</td><td>83</td><td>82</td><td>81</td><td>80</td><td>68</td><td>60</td><td></td></tr><tr><td>7000</td><td>82</td><td>81</td><td>79</td><td>68</td><td>60</td><td></td><td></td></tr><tr><td>8000</td><td>81</td><td>80</td><td>69</td><td>61</td><td></td><td></td><td></td></tr><tr><td>9000</td><td>80</td><td>72</td><td>59</td><td></td><td></td><td></td><td></td></tr></table>	压力/Press. 高度/Alt	外部空气温度, °F / Outside Air Temperature, °F.							-20	0	20	40	60	80	100	SL	85	85	85	85	85	85	85	1000	85	85	85	85	85	83	82	2000	85	85	85	84	83	82	81	3000	85	85	84	83	82	81	80	4000	85	84	83	82	81	80	69	5000	84	83	82	81	80	68	57	6000	83	82	81	80	68	60		7000	82	81	79	68	60			8000	81	80	69	61				9000	80	72	59				
压力/Press. 高度/Alt	外部空气温度, °F / Outside Air Temperature, °F.																																																																																															
	-20	0	20	40	60	80	100																																																																																									
SL	85	85	85	85	85	85	85																																																																																									
1000	85	85	85	85	85	83	82																																																																																									
2000	85	85	85	84	83	82	81																																																																																									
3000	85	85	84	83	82	81	80																																																																																									
4000	85	84	83	82	81	80	69																																																																																									
5000	84	83	82	81	80	68	57																																																																																									
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7000	82	81	79	68	60																																																																																											
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9000	80	72	59																																																																																													
高度限制/ Altitude limits	9000 英尺.密度高度/ 9,000 ft. density altitude.																																																																																															
重心限制/ C.G. limits	纵向的: (+96.5)至 (+98.0) 在 2600 磅/ Longitudinal: (+96.5) to (+98.0) at 2600 lbs. (+92.0)至 (+98.3) 在 2350 磅/ (+92.0) to (+98.3) at 2350 lbs. (+92.0)至 (+98.6) 在 2000 磅/ (+92.0) to (+98.6) at 2000 lbs. 数据点之间直线变化/ (Straight line variation between data points.) 侧向的: -3180 至 -1855 英寸-磅 超过 2350 磅 Lateral: -3180 to -1855 in.-lbs. above 2350 lbs.																																																																																															
最大重量/ Maximum weight	2600 磅/ 2600 lbs.																																																																																															
每一个外油箱的最大重量/ Maximum weight per dispersal tank	350 磅/ 350 lbs.																																																																																															
最大行李/ Maximum baggage	108 磅. (+135.0) 108 lb. (+135.0)																																																																																															
燃油容量/ Fuel capacity	42 加仑 (+96.7), 40 可用燃油。参见备注 1/ 42 gal. (+96.7), 40 gal. usable. See NOTE 1																																																																																															
机油容量(发动机机油箱)/	10 夸脱 (+96.0) 参见备注 1 的不可排放机油数据/																																																																																															

Oil capacity (engine sump)	10 qts. (+96.0) See NOTE 1 for data on undrainable oil.
控制系统水平测量/ Control System Rigging	参考维修手册/ Refer to Maintenance Manual.
安定面安装/ Stabilizer Setting	固定的, 相对于水平面 6° TE 向上。/ Fixed, 6° TE up relative to WL.
序列号范围/ Serial Nos. eligible	所有批准的 F-28F 型号 (参见备注 29) / All approved F-28F & 280F Models (See NOTE 29)

III – 型号 F-28F 直升机, 3 PCLH 改装按备注 7, 1980 年 12 月 31 日批准

(此版本应用可充气的浮筒)

III - Model F-28F/280F Helicopter, 3 PCLH Modified per Note 7, Approved December 31, 1980 (See NOTE 14 and 35 thru 38)

(This version is for operation with inflatable floats.)

发动机/ Engine	按 STC SEC484GL 带有 Rajay 型号 325E10-2 或 Rotomaster 型号 3BT5EE10J2 涡轮增压器的莱康明 HIO-360-F1AD 和 Bendix RSA-5AB1 件号为 2524858-A, -1, -2, -3,或-4 燃油喷射器/ Lycoming HIO-360-F1AD with Rajay Model 325E10-2 or Rotomaster Model 3BT5EE10J2 turbocharger per STC SE484GL and Bendix RSA-5AB1, Parts Number 2524858-A, -1, -2, -3, or -4 fuel injector.
燃油/ Fuel	最小 100/130.或最小 100LL 级航空汽油。/ 100/130 min. or 100LL min. grade aviation gasoline.
发动机限制/ Engine limits	对于所有操作: 3050 转/分, 39.0 英寸汞气歧管压力 (225 马力)。/ For all operations: 3050 rpm, 39.0 in. Hg manifold pressure (225 hp.)
转速限制/ RPM limits	发动机 (开车) 3050 最大; 2900 最小/ Engine (Power On) 3050 maximum; 2900 minimum 旋翼 (关车) 385 最大; 332 最小/ Rotor (Power Off) 385 maximum; 332 minimum
空速限制 (IAS) / Airspeed limits (IAS)	不可逾越速度 – 英里每小时/ Never Exceed Speeds - Miles Per Hour

压力/Press. 高度/Alt	外部空气温度, °F / Outside Air Temperature, °F.						
	-20	0	20	40	60	80	100
SL	100	100	100	100	100	100	100
2000	100	100	100	100	100	97	93
4000	100	100	100	97	93	88	82
6000	100	98	94	88	82	75	68
8000	95	90	82	75	68	62	55
10000	84	77	69	62	55		
12000	70	63	55				

高度限制/ Altitude limits	12000 英尺.密度高度/ 12,000 ft. density altitude.
重心限制/ C.G. limits	纵向的: (+92.0) 至 (+94.6) 在 2350 磅/ Longitudinal: (+92.0) to (+94.6) at 2350 lbs. (+92.0) 至 (+94.6) 在 2350 磅/ (+92.0) to (+98.5) at 2070 lbs. 数据点之间直线变化/ (Straight line variation between data points.) 侧向的: 最大批准不对称点+3700 至 -3250 英寸 Lateral: -磅 超过 2025 磅。参见飞行手册重量表 / Maximum approved asymmetric moment +3700 to -3250 in.-lbs. above 2025 lbs. See Flight Manual for schedule with weight.
最大重量/ Maximum weight	2350 磅/ 2350 lbs.
座位数/ No. of seats	3 (+62.0)/ 3 (+62.0)
最大行李/ Maximum baggage	108 磅(+135.0) 108 lb. (+135.0)
燃油容量/ Fuel capacity	42 加仑 (+96.7), 40 可用燃油。参见备注 1/ 42 gal. (+96.7), 40 gal. usable. See NOTE 1
机油容量(发动机机油箱)/ Oil capacity (engine sump)	10 夸脱(+96.0) 参见备注 1 的不可排放机油数据/ 10 qts. (+96.0) See NOTE 1 for data on undrainable oil.
控制系统水平测量/ Control System Rigging	参考维修手册/ Refer to Maintenance Manual.
安定面安装/ Stabilizer Setting	固定的, 相对于水平面 6° TE 向上。/ Fixed, 6° TE up relative to WL.
序列号范围/ Serial Nos. eligible	所有批准的 F-28F 型号(参见备注 29)

IV - 型号 F-28F 直升机, 3PCLH, 最初制造满足或改装按备注 16, 1984 年 7 月 1 日批准

(此版本 F-28F 和基础型号 F-28F 的区别为安装了描述在恩斯特龙详细图纸 28-100015 的项目, 允许正常类运行在总重至 2600lbs。此版本有 4 个总重/重力包线中心, 每一个都对应一个不同的 V_{NE} 高度包线) /

IV - Model F-28F/280F Helicopter, 3PCLH, Originally Manufactured in Compliance with or Modified Per Note 16, Approved July 1, 1984 (See NOTE 14 and 35 thru 38)

(This version of the model F-28F/280F differs from the basic model F-28F/280F in that the installation of the items described in Enstrom Specification Drawing 28-100015 permits Normal Category operation at gross weights up to 2600 lbs. There are four gross weight/center of gravity envelopes for this version, each of which corresponds to a different V_{NE} altitude envelope.)

发动机/
Engine 按 STC SEC484GL 带有 Rajay 型号 325E10-2 或 Rotomaster 型号 3BT5EE10J2 涡轮增压器的莱康明 HIO-360-F1AD 和 Bendix RSA-5AB1 件号为 2524858-A, -1, -2, -3,或-4 燃油喷射器/

Lycoming HIO-360-F1AD with Rajay Model 325E10-2 or Rotomaster Model 3BT5EE10J2 turbocharger per STC SE484GL and Bendix RSA-5AB1, Parts Number 2524858-A, -1, -2, -3, or -4 fuel injector.

燃油/
Fuel 最小 100/130.或最小 100LL 级航空汽油。/

100/130 min. or 100LL min. grade aviation gasoline.

发动机限制/
Engine limits 对于所有操作: 3050 转/分, 39.0 英寸汞气歧管压力 (225 马力)。/

For all operations: 3050 rpm, 39.0 in. Hg manifold pressure (225 hp.)

转速限制/
RPM limits 发动机 (开车) 3050 最大; 2900 最小/

Engine (Power On) 3050 maximum; 2900 minimum

旋翼 (关车) 385 最大; 332 最小/

Rotor (Power Off) 385 maximum; 332 minimum

第一组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示 “A” 包线) /

The first set of airspeed, altitude, and c.g. limits is that described below: (Identified as envelop “A” in Flight Manual)

F28F 空速限制 (IAS) /

不可逾越速度 – 英里每小时/

F28F Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

高度/Alt	-20	0	20	40	60	80	100
SL	112	112	112	112	112	112	112
2000	112	112	112	112	112	109	105
4000	112	112	112	110	105	100	91
6000	112	111	106	100	90	81	73
8000	107	102	92	82	73	64	55
10000	94	84	74	65	55		
12000	76	65	56				

高度限制/

12000 英尺.密度高度/

Altitude limits

12,000 ft. density altitude.

重心限制/

纵向的: (+92.0) 至 (+94.6) 在 2350 磅/

C.G. limits

Longitudinal: (+92.0) to (+94.6) at 2350 lbs.

(+92.0) 至 (+100.0) 在 2000 磅/

(+92.0) to (+100.0) at 2000 lbs.

参见飞行手册重量表/

See Flight Manual for schedule with weight.

侧向的:

最大批准不对称点+3700 至 -3250 英寸

Lateral:

-磅 超过 2025 磅。参见飞行手册重量表 /

Maximum approved asymmetric moment

+3700 to -3250 in.-lbs. above 2025 lbs.
See Flight Manual for schedule with weight.

最大重量/ 2350 磅

Maximum weight 2350 lbs.

第二组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示“B”包线) /

The second set of airspeed, altitude, and c.g limits is that described below: (Identified as envelop “B” in Flight Manual)

F28F 空速限制 (IAS) /

不可逾越速度 – 英里每小时/

F28F Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

高度/Alt	-20	0	20	40	60	80	100
SL	101	101	101	101	101	101	101
2000	101	101	101	101	101	99	96
4000	101	101	101	99	96	91	82
6000	101	100	96	92	82	73	65
8000	97	93	83	73	64	56	
10000	86	75	65	56			
12000	78	63	57				

高度限制/

10800 英尺.密度高度/

Altitude limits

10,800 ft. density altitude.

重心限制/

纵向的:

(+93.8) 至 (+96.0) 在 2450 磅/

C.G. limits

Longitudinal:

(+93.8) to (+96.0) at 2450 lbs.

(+92.0) 至 (+97.4) 在 2350 磅/

(+92.0) to (+97.4) at 2350 lbs.

(+96.3) 至 (+99.2) 在 2240 磅/

(+96.3) to (+99.2) at 2240 lbs.

(+100.0) 在 2000 磅/

(+100.0) at 2000 lbs.

参见飞行手册重量表/

See Flight Manual for schedule with weight.

侧向的:

最大批准不对称点+3700 至 -3250 英寸

Lateral:

-磅 超过 2025 磅。参见飞行手册重量表

/

Maximum approved asymmetric moment

+3700 to -3250 in.-lbs. above 2025 lbs.

See Flight Manual for schedule with weight.

最大重量/ 2450 磅

Maximum weight 2450 lbs.

第三组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示“C”包线) /

The third set of airspeed, altitude, and c.g limits is that described below: (Identified as envelop “C” in Flight Manual)

F28F 空速限制 (IAS) /

不可逾越速度 – 英里每小时/

F28F Airspeed limits (IAS)

这些限制仅仅用于下述这些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

Never Exceed Speeds - Miles Per Hour

高度/Alt	-20	0	20	40	60	80	100
SL	90	90	90	90	90	90	90
2000	90	90	90	90	90	88	86
4000	90	90	90	88	86	82	73
6000	90	89	86	82	73	64	55
8000	87	84	74	64	55		
9600	80	70	60				

高度限制/

Altitude limits

重心限制/

C.G. limits

9600 英尺.密度高度/

9,600 ft. density altitude.

纵向的: (+95.5) 至(+97.3) 在 2550 磅/

Longitudinal: (+95.5) to (+97.3) at 2550 lbs.

(+94.3) 至(+98.4) 在 2470 磅/

(+94.3) to (+98.4) at 2470 lbs.

(+93.8) 至(+98.5) 在 2450 磅/

(+93.8) to (+98.5) at 2450 lbs.

(+99.2) 在 2240 磅/

(+99.2) at 2240 lbs.

参见飞行手册重量表/

See Flight Manual for schedule with weight.

侧向的: 最大批准不对称点+3700 至 -3250 英寸

Lateral: -磅 超过 2025 磅。参见飞行手册重量表 /

Maximum approved asymmetric moment +3700 to -3250 in.-lbs. above 2025 lbs.

See Flight Manual for schedule with weight.

最大重量/ 2550 磅

Maximum weight 2550 lbs.

第四组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示“D”包线) /

The fourth set of airspeed, altitude, and c.g limits is that described below:(Identified as envelop “D” in Flight Manual)

F28F 空速限制 (IAS) /

不可逾越速度 – 英里每小时/

F28F Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

高度/Alt	-20	0	20	40	60	80	100
SL	85	85	85	85	85	84	83
2000	85	85	85	84	83	82	81
4000	85	84	83	82	81	78	69
6000	83	82	81	79	69	59	
8000	81	80	70	60			
9000	80	71	60				

高度限制/

Altitude limits

9000 英尺.密度高度/

9,000 ft. density altitude.

重心限制/ C.G. limits	纵向的: (+96.3) 至 (+98.0) 在 2600 磅/ Longitudinal: (+96.3) to (+98.0) at 2600 lbs. (+95.5) 至 (+98.2) 在 2550 lbs/ (+95.5) to (+98.2) at 2550 lbs. (+98.4) 在 2470 磅/ (+98.4) at 2470 lbs. 参见飞行手册重量表/ See Flight Manual for schedule with weight. 侧向的: 最大批准不对称点+3700 至 -3250 英寸 Lateral: -磅 超过 2050 磅。参见飞行手册重量表 / Maximum approved asymmetric moment +3700 to -3250 in.-lbs. above 2025 lbs. See Flight Manual for schedule with weight.
最大重量/ Maximum weight	2600 磅 / 2600 lbs.
座位数/ No. of seats	3 (+62.0) 3 (+62.0)
最大行李/ Maximum baggage	108 lb. (+135.0) 108 lb. (+135.0)
燃油容量/ Fuel capacity	42 加仑 (+96.7), 40 可用燃油。参见备注 1/ 42 gal. (+96.7), 40 gal. usable. See NOTE 1
机油容量(发动机机油箱)/ Oil capacity (engine sump)	10 夸脱 (+96.0) 参见备注 1 的不可排放机油数据/ 10 qts. (+96.0) See NOTE 1 for data on undrainable oil.
控制系统水平测量/ Control System Rigging	参考维修手册/ Refer to Maintenance Manual.
安定面安装/ Stabilizer Setting	F-28F: S/N506, 507, 和 509 至 743 固定的, 相对于水平面 6° TE 向上。/ S/N 506, 507, and 509 thru 743 Fixed, 6° TE up relative to WL. S/N5744 及以后 固定的 相对于水平面 3° 30' TE 向上。/ S/N 744 and subsequent Fixed, 3° 30' TE up relative to WL.
序列号范围/ Serial Nos. eligible	所有批准 F-28F 型号 All approved F-28F models

V-型号 F-28F 直升机, 3PCLH, 最初制造满足或改装按备注 7, 和 16, 1984 年 7 月 1 日批准
(此版本 F-28F 和基础型号 F-28F 的区别为安装了描述在恩斯特龙详细图纸 28-17326 和恩斯特龙详细图纸 28-100015 的项目, 允许正常类操作带有浮筒总重至 2600lbs。此版本有 3 个总重/重力包线中心, 每一个都对应一个不同的 V_{NE} 高度包线) /

V - Model F-28F/280F Helicopter, 3 PCLH, Originally Manufactured in Compliance with or Modified per Notes 7, and 16, Approved July 1, 1984 (See NOTE 14 and 35 thru 38)

(This version of the model F-28F/280F differs from the basic model F-28F/280F in that the installation of the items described in Enstrom Drawing 28-17326 and Enstrom Specification Drawing 28-100015 permits operation with floats up to 2600 pounds gross weight in the normal category. There are three gross weight/center of gravity envelopes for this version, each of which corresponds to a different V_{NE} /altitude envelope.)

发动机/
Engine 按 STC SEC484GL 带有 Rajay 型号 325E10-2 或 Rotomaster 型号 3BT5EE10J2 涡轮增压器的莱康明 HIO-360-F1AD 和 Bendix RSA-5AB1 件号为 2524858-A, -1, -2, -3,或-4 燃油喷油器/

Lycoming HIO-360-F1AD with Rajay Model 325E10-2 or Rotomaster Model 3BT5EE10J2 turbocharger per STC SE484GL and Bendix RSA-5AB1, Parts Number 2524858-A, -1, -2, -3, or -4 fuel injector.

燃油/
Fuel 最小 100/130.或最小 100LL 级航空汽油。/

100/130 min. or 100LL min. grade aviation gasoline.

发动机限制/
Engine limits 对于所有操作: 3050rpm, 39.0 英寸汞气歧管压力 (225 马力)。/

For all operations: 3050 rpm, 39.0 in. Hg manifold pressure (225 hp.)

转速限制/
RPM limits 发动机 (开车) 3050 最大; 2900 最小/

Engine (Power On) 3050 maximum; 2900 minimum

旋翼 (关车) 385 最大; 332 最小/

Rotor (Power Off) 385 maximum; 332 minimum

第一组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示 “A” 包线) /

The first set of airspeed, altitude, and c.g. limits is that described below:(Identified as envelop “A” in Flight Manual)

空速限制 (IAS) /

不可逾越速度 – 英里每小时/

F28F Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

Press Alt/ 压力高度	外部空气温度, °F/ Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	100	100	100	100	100	100	100
2000	100	100	100	100	100	97	93
4000	100	100	100	97	93	88	82
6000	100	98	94	88	82	75	68
8000	95	90	82	75	68	62	55
10000	84	77	69	62	55		
12000	70	63	55				

高度限制/
Altitude limits

12000 英尺.密度高度/

12,000 ft. density altitude.

重心限制/
C.G. limits

纵向的: (+92.0) 至 (+94.6) 在 2350 磅/

Longitudinal: (+92.0) to (+94.6) at 2350 lbs.

(+92.0) 至 (+98.5) 在 2070 磅

(+92.0) to (+98.5) at 2070 lbs.

(在数据点之间直线变化)/

(Straight line variation between data points)

侧向的:

最大批准不对称点+3700 至 -3250 英寸

Lateral:

-磅 超过 2550 磅。参见飞行手册重量表 /

Maximum approved asymmetric moment +3700 to -3250 in.-lbs. above 2350 lbs.

See Flight Manual for schedule with weight.

最大重量/

2350 磅

Maximum weight

2350 lbs.

第二组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示 “B” 包线) /

The second set of airspeed, altitude, and c.g. limits is that described below: (Identified as envelop “B” in Flight Manual)

空速限制 (IAS) /

不可逾越速度 – 英里每小时/

Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

Press Alt / 压力高度	外部空气温度, °F/ Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	94	94	94	94	94	94	94
2000	94	94	94	94	94	92	89
4000	94	94	94	92	89	85	77
6000	94	93	89	85	77	70	63
8000	90	86	78	70	62		
10000	80	71	63	56			
12000	74	65	59				

高度限制/

10800 英尺.密度高度/

Altitude limits

10,800 ft. density altitude.

重心限制/

纵向的:

(+93.8) 至 (+96.0) 在 2450 磅.

C.G. limits

Longitudinal:

(+93.8) to (+96.0) at 2450 lbs.

(+92.0) 至 (+97.4) 在 2350 磅

(+92.0) to (+97.4) at 2350 lbs.

(+96.3) 至 (+99.2) 在 2280 磅

(+96.3) to (+99.2) at 2280 lbs.

(+98.5) 至 2070 磅

(+98.5) at 2070 lbs.

参见飞行手册重量表/

See Flight Manual for schedule with weight.

侧向的:

最大批准不对称点+3700 至 -3250 英寸

Lateral:

-磅 超过 2025 磅。参见飞行手册重量表

/

Maximum approved asymmetric moment
+3700 to -3250 in.-lbs. above 2025 lbs.
See Flight Manual for schedule with
weight.

最大重量/ 2450 磅

Maximum weight 2450 lbs.

第三组空速，高度，和重心限制按如下描述：（在飞行手册中标示“D”包线）/

The third set of airspeed, altitude, and c.g limits is that described below: (Identified as
envelop “D” in Flight Manual)

空速限制（IAS）/

不可逾越速度 – 英里每小时/

Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这
些表中描述的重心限制。

These limits apply only to
the c.g. limits described
immediately below these
tables.

压力高度 /Press.Alt	外部空气温度，°F/ Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	85	85	85	85	85	84	83
2000	85	85	85	84	83	82	81
4000	85	84	83	82	81	78	69
6000	83	82	81	79	69	59	
8000	81	80	70	60			
9600	80	71	60				

高度限制/

9000 英尺.密度高度/

Altitude limits

9,000 ft. density altitude.

重心限制/

纵向的： (+96.5) 至 (+98.0) 在 2600 磅

C.G. limits

Longitudinal: (+96.5) to (+98.0) at 2600 lbs.

(+93.8) 至 (+98.2) 在 2450 磅

(+93.8) to (+98.2) at 2450 lbs.

(+98.3) 至 2280 磅

(+98.3) at 2280 lbs.

参见飞行手册重量表/

See Flight Manual for schedule with
weight.

侧向的： 最大批准不对称点+3700 至 -3250 英寸

Lateral: -磅 超过 2025 磅。参见飞行手册重量表

/

Maximum approved asymmetric moment
+3700 to -3250 in.-lbs. above 2025 lbs.
See Flight Manual for schedule with
weight.

最大重量/ 2600 磅/

Maximum weight 2600 lbs.

座位数/ 3 (+62.0)/

No. of seats 3 (+62.0)

最大行李/ 108 磅 (+135.0)/

Maximum baggage	108 lb. (+135.0)
燃油容量/	42 加仑 (+96.7), 40 可用燃油。参见备注 1/
Fuel capacity	42 gal. (+96.7), 40 gal. usable. See NOTE 1
机油容量(发动机机油箱)/	10 夸脱 (+96.0) 参见备注 1 的不可排放机油数据/
Oil capacity	10 qts. (+96.0) See NOTE 1 for data on undrainable oil.
(engine sump)	
控制系统水平测量/	参考维修手册/
Control System Rigging	Refer to Maintenance Manual.
安定面安装/	F-28F: S/N506, 507, 和 509 至 743
Stabilizer Setting	固定的, 相对于水平面 6° TE 向上。/
	S/N 506, 507, and 509 thru 743
	Fixed, 6° TE up relative to WL.
	S/N5744 及以后 固定的
	相对于水平面 3° 30'TE 向上。/
	S/N 744 and subsequent
	Fixed, 3° 30' TE up relative to WL.
序列号范围/	所有批准 F-28F 型号
Serial Nos. eligible	All approved F-28F models

VI – 型号 280FX 直升机, 3PCLH, 1985 年 1 月 14 日批准/

VI – Model 280FX Helicopter, 3PCLH, Approved January 14, 1985

(此型号 280FX 和基本型 280F 的区别是直升机装备起落架减震器, 一个重新设计的进气道口, 未旋翼驱动轴减震器, 一个重新设计和重新放置装有垂直端版水平安定面, 一个驾驶舱报警器面板, 和一个图形发动机监视器。此型号批准一个正常类操作在 2600lbs。此版本有 4 个总重/重力包线中心, 每一个都对应一个不同的 V_{NE} 高度包线。)

(This model 280FX differs from the basic model 280F in that the helicopter is equipped with landing gear fairings, a redesigned inlet airscoop, tail rotor driveshaft fairings, a redesigned and relocated horizontal stabilizer equipped with vertical endplates, a cockpit annunciator panel, and a Graphic Engine Monitor. This model is approved for normal category operations at 2600 lbs. There are four gross weight/center of gravity envelopes for this version, each of which corresponds to a different VNE/altitude envelope.)

发动机/	按 STC SEC484GL 带有 Rajay 型号 325E10-2 或
Engine	Rotomaster 型号 3BT5EE10J2 涡轮增压器的莱康明
	HIO-360-F1AD 和 Bendix RSA-5AB1 件号为 2524858-A,
	-1, -2, -3,或-4 燃油喷油器/
	Lycoming HIO-360-F1AD with Rajay Model 325E10-2 or
	Rotomaster Model 3BT5EE10J2 turbocharger per STC
	SE484GL and Bendix RSA-5AB1, Parts Number
	2524858-A, -1, -2, -3, or -4 fuel injector.
燃油/	最小 100/130.或最小 100LL 级航空汽油。/
Fuel	100/130 min. or 100LL min. grade aviation gasoline.
发动机限制/	对于所有操作: 3050 转/分, 39.0 英寸汞气歧管压力 (225
Engine limits	马力)。/
	For all operations: 3050 rpm, 39.0 in. Hg manifold
	pressure (225 hp.)

转速限制/ 发动机（开车）3050 最大；2900 最小/
 RPM limits Engine (Power On) 3050 maximum; 2900 minimum
 旋翼（关车）385 最大；332 最小/
 Rotor (Power Off) 385 maximum; 332 minimum

第一组空速，高度，和重心限制按如下描述：（在飞行手册中标示“A”包线）/
 The first set of airspeed, altitude, and c.g. limits is that described below: (Identified as
 envelop “A” in Flight Manual)

280FX 空速限制（IAS）/ 不可逾越速度 – 英里每小时/
 F28F Airspeed limits (IAS) Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这
 些表中描述的重心限制。
 These limits apply only to
 the c.g. limits described
 immediately below these
 tables.

高度/Alt	外部空气温度，°F Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	117	117	117	117	117	117	117
2000	117	117	117	117	117	114	109
4000	117	117	117	115	110	105	96
6000	117	116	111	105	96	87	78
8000	112	107	96	87	78	69	60
10000	99	88	78	69	59		
12000	81	70	60				

高度限制/ 12000 英尺.密度高度/
 Altitude limits 12,000 ft. density altitude.

重心限制/ 纵向的： (+92.0) 至 (+94.6) 在 2350 磅/
 C.G. limits Longitudinal: (+92.0) to (+94.6) at 2350 lbs.
 (+92.0) 至 (+100.0) 在 2000 磅/
 (+92.0) to (+100.0) at 2000 lbs.
 参见飞行手册重量表/
 See Flight Manual for schedule with
 weight.
 侧向的： 最大批准不对称点+3700 至 -3250 英寸
 Lateral: -磅 above 2025 lbs. 参见飞行手册重量表
 /
 Maximum approved asymmetric moment
 +3700 to -3250 in.-lbs. above 2025 lbs.
 See Flight Manual for schedule with
 weight.

最大重量/ 2350 磅/
 Maximum weight 2350 lbs.

第二组空速，高度，和重心限制按如下描述：（在飞行手册中标示“B”包线）/
 The second set of airspeed, altitude, and c.g. limits is that described below: (Identified as
 envelop “B” in Flight Manual)

280FX 空速限制（IAS）/ 不可逾越速度 – 英里每小时/
 F28F Airspeed limits (IAS) Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这
 些表中描述的重心限制。

高度/Alt	外部空气温度，°F
--------	-----------

These limits apply only to the c.g. limits described immediately below these tables.

	-20	0	20	40	60	80	100
SL	104	104	104	104	104	104	107
2000	104	104	104	104	104	102	98
4000	104	104	104	102	99	94	85
6000	104	103	99	95	85	76	68
8000	100	96	86	76	67	58	
10000	89	78	68	58			
10800	81	70	60				

高度限制/

Altitude limits

重心限制/

C.G. limits

10800 英尺.密度高度/

10,800 ft. density altitude.

纵向的: (+93.8) 至 (+96.0) 在 2450 磅/

Longitudinal: (+93.8) to (+96.0) at 2450 lbs.

(+92.0) 至 (+97.4) 在 2350 磅/

(+92.0) to (+97.4) at 2350 lbs.

(+96.3) 至 (+99.2) 在 2240 磅/

(+96.3) to (+99.2) at 2240 lbs.

(+100.0) 至 2000 磅

(+100.0) at 2000 lbs.

参见飞行手册重量表/

See Flight Manual for schedule with weight.

侧向的: 最大批准不对称点+3700 至 -3250 英寸

Lateral: -磅 超过 2025 磅。参见飞行手册重量表 /

Maximum approved asymmetric moment +3700 to -3250 in.-lbs. above 2025 lbs.

See Flight Manual for schedule with weight.

最大重量/ 2450 磅/

Maximum weight 2450 lbs.

第三组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示“C”包线) /

The third set of airspeed, altitude, and c.g limits is that described below: (Identified as envelop “C” in Flight Manual)

280FX 空速限制 (IAS) /

不可逾越速度 – 英里每小时/

F28F Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

高度/Alt	外部空气温度, °F						
	Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	91	91	91	91	91	91	91
2000	91	91	91	91	91	89	87
4000	91	91	91	90	87	83	74
6000	91	90	87	83	74	65	57
8000	88	85	75	65	56		
9600	81	71	61				

高度限制/ Altitude limits	9600 英尺.密度高度/ 9,600 ft. density altitude.
重心限制/ C.G. limits	纵向的: (+95.5) 至 (+97.3) 在 2550 磅 Longitudinal: (+95.5) to (+97.3) at 2550 lbs. (+94.3) 至 (+98.4) 在 2470 磅 (+94.3) to (+98.4) at 2470 lbs. (+93.8) 至 (+98.5) 在 2450 磅 (+93.8) to (+98.5) at 2450 lbs. (+99.2) 在 2240 磅 (+99.2) at 2240 lbs. 参见飞行手册重量表/ See Flight Manual for schedule with weight.
	侧向的: 最大批准不对称点+3700 至 -3250 英寸 Lateral: -磅 超过 2025 磅。参见飞行手册重量表 / Maximum approved asymmetric moment +3700 to -3250 in.-lbs. above 2025 lbs. See Flight Manual for schedule with weight.

最大重量/ 2550 磅/
Maximum weight 2550 lbs.

第四组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示“D”包线) /

The fourth set of airspeed, altitude, and c.g. limits is that described below: (Identified as envelop “D” in Flight Manual)

F28F 空速限制 (IAS) /

不可逾越速度 – 英里每小时/

F28F Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

高度/Alt	外部空气温度, °F Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	85	85	85	85	85	84	83
2000	85	85	85	84	83	82	81
4000	85	84	83	82	81	78	69
6000	83	82	81	79	69	59	
8000	81	80	70	60			
9000	80	71	60				

高度限制/ Altitude limits	9000 英尺.密度高度/ 9,000 ft. density altitude.
重心限制/ C.G. limits	纵向的: (+96.3) 至 (+98.0) 在 2600 磅 Longitudinal: (+96.3) to (+98.0) at 2600 lbs. (+95.5) 至 (+98.2) 在 2550 磅 (+95.5) to (+98.2) at 2550 lbs. (+98.4) 在 2470 磅 (+98.4) at 2470 lbs.

	参见飞行手册重量表/ See Flight Manual for schedule with weight.
侧向的: Lateral:	最大批准不对称点+3700 至 -3250 英寸-磅 超过 2050 磅。参见飞行手册重量表 / Maximum approved asymmetric moment +3700 to -3250 in.-lbs. above 2025 lbs. See Flight Manual for schedule with weight.
最大重量/ Maximum weight	2600 磅 2600 lbs.
座位数/ No. of seats	3 (+62.0)
最大行李/ Maximum baggage	108 磅 (+135.0) 108 lb. (+135.0)
燃油容量/ Fuel capacity	42 加仑 (+96.7), 40 可用燃油。参见备注 1 / 42 gal. (+96.7), 40 gal. usable. See NOTE 1
机油容量(发动机机油箱)/ Oil capacity (engine sump)	10 夸脱 (+96.0) 参见备注 1 的不可排放机油数据 / 10 qts. (+96.0) See NOTE 1 for data on undrainable oil.
控制系统水平测量/ Control System Rigging	参考维修手册/ Refer to Maintenance Manual.
安定面安装/ Stabilizer Setting	相对于水平面 3° 30' TE 向上。 / Fixed, 3° 30' TE up relative to WL.
序列号范围/ Serial Nos. eligible	2001 和后续 2001 and up

VII – 型号 280FX 直升机 3PCLH, 初始制造满足或改装按备注 7, 1985 年 7 月 12 日批准

VII – Model 280FX Helicopter 3PCLH, Originally Manufactured in Compliance with or Modified per Note 7, Approved July 12, 1985

(此版本 280FX 和基础型 280FX 的区别为安装了描述在恩斯特龙详细图纸 28-17326 和恩斯特龙详细图纸 28-100015 的项目, 恩斯特龙详细图纸 28-100015 允许正常类操作带有浮筒总重至 2600lbs。此版本有 3 个总重/重力包线中心, 每一个都对应一个不同的 V_{NE} 高度包线)

(This version of the model 280FX differs from the basic model 280FX in that installation of the items described in Enstrom Drawing 28-17326, 28-20119, and Enstrom Specification Drawing 28-100015 permits operation with floats up to 2600 pounds gross weight in the normal category. There are three gross weight/center of gravity envelopes for this version, each of which corresponds to a different V_{NE} /altitude envelope.)

发动机/ Engine	按 STC SEC484GL 带有 Rajay 型号 325E10-2 或 Rotomaster 型号 3BT5EE10J2 涡轮增压器的莱康明 HIO-360-F1AD 和 Bendix RSA-5AB1 件号为 2524858-A, -1, -2, -3,或-4 燃油喷油器/ Lycoming HIO-360-F1AD with Rajay Model 325E10-2 or
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燃油/ Rotomaster Model 3BT5EE10J2 turbocharger per STC
 Fuel SE484GL and Bendix RSA-5AB1, Parts Number
 发动机限制/ 2524858-A, -1, -2, -3, or -4 fuel injector.
 Engine limits 最小 100/130.或最小 100LL 级航空汽油。/
 100/130 min. or 100LL min. grade aviation gasoline.
 对于所有操作: 3050 转/分, 39.0 英寸汞气歧管压力 (225
 马力)。/
 For all operations: 3050 rpm, 39.0 in. Hg manifold
 pressure (225 hp.)

转速限制/ 发动机 (开车) 3050 最大; 2900 最小/
 RPM limits Engine (Power On) 3050 maximum; 2900 minimum
 旋翼 (关车) 385 最大; 332 最小/
 Rotor (Power Off) 385 maximum; 332 minimum

第一组空速, 高度, 和重心限制按如下描述: (在飞行手册中标示 “A” 包线) /

The first set of airspeed, altitude, and c.g. limits is that described below: (Identified as

envelop “A” in Flight Manual)

空速限制 (IAS) / 不可逾越速度 – 英里每小时/
 Airspeed limits (IAS) Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这
 些表中描述的重心限制。
 These limits apply only to
 the c.g. limits described
 immediately below these
 tables.

Press Alt/ 压力高度	外部空气温度, °F / Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	100	100	100	100	100	100	100
2000	100	100	100	100	100	97	93
4000	100	100	100	97	93	88	82
6000	100	98	94	88	82	75	68
8000	95	90	82	75	68	62	55
10000	84	77	69	62	55		
12000	70	63	55				

高度限制/ 12000 英尺.密度高度/
 Altitude limits 12,000 ft. density altitude.

重心限制/ 纵向的: (+92.0) 至 (+94.6) 在 2350 磅
 C.G. limits Longitudinal: (+92.0) to (+94.6) at 2350 lbs.

(+92.0) 至 (+98.5) 在 2070 磅

(+92.0) to (+98.5) at 2070 lbs.

(在数据点之间直线变化)/

(Straight line variation between data
 points)

侧向的: 最大批准不对称点+3700 至 -3250 英寸

Lateral: -磅 超过 2550 磅。参见飞行手册重量表/

Maximum approved asymmetric moment

+3700 to -3250 in.-lbs. above 2350 lbs.

See Flight Manual for schedule with

weight.

最大重量/ 2350 磅/

Maximum weight 2350 lbs.

第二组空速，高度，和重心限制按如下描述：（在飞行手册中标示“B”包线）/

The second set of airspeed, altitude, and c.g. limits is that described below: (Identified as envelop “B” in Flight Manual)

空速限制（IAS）/

不可逾越速度 – 英里每小时/

Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

Press Alt / 压力高度	外部空气温度，°F/ Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	94	94	94	94	94	94	94
2000	94	94	94	94	94	92	89
4000	94	94	94	92	89	85	77
6000	94	93	89	85	77	70	63
8000	90	86	78	70	62		
10000	80	71	63	56			
10800	74	65	59				

高度限制/

10800 英尺.密度高度/

Altitude limits

10,800 ft. density altitude.

重心限制/

纵向的: (+93.8) 至 (+96.0) 在 2450 磅

C.G. limits

Longitudinal: (+93.8) to (+96.0) at 2450 lbs.

(+92.0) 至 (+97.4) 在 2350 磅

(+92.0) to (+97.4) at 2350 lbs.

(+95.3) 至 (+98.2) 在 2280 磅

(+95.3) to (+98.2) at 2280 lbs.

(+98.5) 至 2070 磅

(+98.5) at 2070 lbs.

参见飞行手册重量表/

See Flight Manual for schedule with weight.

侧向的:

最大批准不对称点+3700 至 -3250 英寸

Lateral:

-磅 超过 2025 磅。参见飞行手册重量表

/

Maximum approved asymmetric moment

+3700 to -3250 in.-lbs. above 2025 lbs.

See Flight Manual for schedule with

weight.

最大重量/

2450 磅

Maximum weight

2450 lbs.

第三组空速，高度，和重心限制按如下描述：（在飞行手册中标示“D”包线）/

The third set of airspeed, altitude, and c.g. limits is that described below: (Identified as envelop “D” in Flight Manual)

空速限制（IAS）/

不可逾越速度 – 英里每小时/

Airspeed limits (IAS)

Never Exceed Speeds - Miles Per Hour

这些限制仅仅用于下述这

压力高度	外部空气温度，°F/
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些表中描述的重心限制。

These limits apply only to the c.g. limits described immediately below these tables.

/Press.Alt	Outside Air Temperature, °F						
	-20	0	20	40	60	80	100
SL	85	85	85	85	85	84	83
2000	85	85	85	84	83	82	81
4000	85	84	83	82	81	78	69
6000	83	82	81	79	69	59	
8000	81	80	70	60			
9000	80	71	60				

高度限制/

Altitude limits

重心限制/

C.G. limits

9000 英尺.密度高度/

9,000 ft. density altitude.

纵向的: (+96.5) 至 (+98.0) 在 2600 磅

Longitudinal: (+96.5) to (+98.0) at 2600 lbs.

(+93.8) 至 (+98.2) 在 2450 磅

(+93.8) to (+98.2) at 2450 lbs.

(+98.3) 在 2280 磅

(+98.3) at 2280 lbs.

参见飞行手册重量表/

See Flight Manual for schedule with weight.

侧向的: 最大批准不对称点+3700 至 -3250 英寸

Lateral: -磅 超过 2025 磅。参见飞行手册重量表

/

Maximum approved asymmetric moment +3700 to -3250 in.-lbs. above 2025 lbs.

See Flight Manual for schedule with weight.

最大重量/

2600 磅/

Maximum weight

2600 lbs.

座位数/

3 (+62.0)/

No. of seats

3 (+62.0)

最大行李/

108 磅 (+135.0)/

Maximum baggage

108 lb. (+135.0)

燃油容量/

42 加仑 (+96.7), 40 可用燃油。参见备注 1/

Fuel capacity

42 gal. (+96.7), 40 gal. usable. See NOTE 1

机油容量(发动机机油箱)/

10 夸脱 (+96.0) 参见备注 1 的不可排放机油数据/

Oil capacity

10 qts. (+96.0) See NOTE 1 for data on undrainable oil.

(engine sump)

控制系统水平测量/

参考维修手册/

Control System Rigging

Refer to Maintenance Manual.

安定面安装/

相对于水平面 3° 30' TE 向上。/

Stabilizer Setting

Fixed, 3° 30' TE up relative to WL.

序列号范围/

2001 和后续

Serial Nos. eligible

2001 and up

VIII - Model TH-28 Helicopter, 3PCLH, Approved September 11, 1992 /

VIII – 型号 TH-28 直升机, 3PCLH, 1992 年 9 月 11 日批准

(TH-28 是由 280FX 装涡轮发动机的衍生而来, 一个更大的机舱, 一个更高带有气动减震器的起落架, 一个更大直径的尾旋翼, 和一个更大水平和垂直的安定面。)

(The TH-28 is a derivative of the 280FX with a turbine engine, a larger cabin, a taller landing gear with aerodynamic fairings, a larger diameter tail rotor, and larger horizontal and vertical stabilizers.)

发动机/ Engine	Allison 250-C20W
燃料/Fuel	Mil-DTL-5624, Grade JP-4 or JP-5; Aviation Turbine Fuels ASTM D1655 Jet A or A-1 (or Allison Spec. EMS-64) or Jet B; Mil-DTL-83133, Grade JP8; JP-1 or Diesel #1 fuel conforming to ASTM D1655, Jet A ; Artic Diesel Fuel DF-A(W-F-8008)conforming to ASTM D1655, Jet A or Jet A-1.

发动机限制/ Engine limits	<u>扭矩压力/</u> <u>TorquePressure</u>	<u>输出轴转速/</u> <u>Output</u> <u>Shaft</u> <u>Speed</u>	<u>涡轮排气温度/</u> <u>Turbine</u> <u>Outlet</u> <u>Temp</u>	<u>燃气发电机转速</u> <u>Gas Gen Speed</u>
起 飞（5 分钟） /Takeoff (5 min.)	66psi (285 HP)	103% RPM)	(6196 810℃	105% (53,519 RPM)
最大.持续的/ Max.Continuous	60 psi (256 HP)	103% RPM)	(6196 737℃	105% (53,519 RPM)
旋翼限制/ Rotor limits	<u>关车/Rotor limits</u>		<u>开车/Power On</u>	
	最大/ Maximum 385 RPM		最大/ Maximum 365 RPM	
	最小/ Maximum 334 RPM		最小/ Maximum 357 RPM	
空速限制/ Airspeed limits	不超过 140 英里/小时（122 节）IAS 。随着高度和总重不同 V _{NE} (极限速度) 减少，参见 FAA 批准的旋翼飞机飞行手册。/ Never exceed 140 mph (122 knots) IAS. For Reduction in VNE with altitude and gross weight, See FAA-approved Rotorcraft Flight Manual			
升限/ Altitude limits	最高为 13000 英尺海拔高度。根据总重减少高度，参见 FAA 批准的旋翼飞机飞行手册。/ 13,000 feet max. height density altitude. gross weight. For reduction in altitude with gross weight, See FAA-approved Rotorcraft Flight Manual.			
重心限制/ C.G. limits	总重至 2200 磅，最大向前重心是 +134.0 英寸。在 2800 磅是线性的减少到 +136.35 英寸。 总重至 2850 磅，最大向后重心是+141.5 英尺/ Maximum Forward C.G. is +134.0 in. at all G.W. up to 2200 lbs. decreasing linearly to +136.35 in. at 2,850 lbs. Maximum Aft C.G. is +141.5 in. at all G.W. up to 2850 lbs.			
最大重量/ Maximum Weight	2850 磅/ 2850lbs			
最小机组/ Minimum crew	一个（1）在（+99.1 英寸）站位/ One (1) at (+99.1 in.) station.			
乘客/ Passenger	1 在 (+99.1 英寸), 和 1 在 (+113.1 英寸)			

Passengers	1 at (+99.1), and 1 at (+113.1).
最大行李/	不适用/
Maximum baggage	Not applicable.
燃油容量/	最大 90.0 加仑 (607 磅) 在 (+144.6 英寸); 0.3 加仑无法使用。/
Fuel Capacity	90.0 gallons Total (607 lbs) at (+144.6 in.); 0.3 gallon unusable.
滑油容量/	12.0 品脱 (12.6 磅) 在 (+153.0 英寸) /
Oil Capacity	12.0 pints (12.6 lbs.) at (+153.0 in.).
控制系统的水平测量/	参见维修手册/
Control System Rigging	Refer to Maintenance Manual.
安定面安装/	固定的, 相对于水平面 1.5° TE 向下/
Stabilizer setting	TE down relative to WL. Fixed, 1.5
适用序列号/	S/N 3004 及后续/
Serial Nos.	S/N 3004 and subsequent eligible

IX -型号 480 直升机, 5PLCH, 1993 年 11 月 10 日批准/

IX -Model 480 Helicopter, 5PLCH, Approved November 10, 1993

(480 由 TH-28 装有 5 座衍生而来, 一个更小的仪表板, 可以拆卸的右座控制, 一个右前方座位搁脚板, 一个行李箱, 和一个可选的后部电池的站位)

(The 480 is a derivative of the TH-28 having five-place seating, a smaller instrument panel, removable right-seat controls, a footrest for the front right seat, a baggage box, and an optional aft battery location.)

发动机/Engine	Allison 250-C20W
燃料/Fuel	Mil-DTL-5624, Grade JP-4 or JP-5; Aviation Turbine Fuels ASTM D1655 Jet A or A-1 (or Allison Spec. EMS-64) or Jet B; Mil-DTL-83133, Grade JP8; JP-1 or Diesel #1 fuel conforming to ASTM D1655, Jet A ; Artic Diesel Fuel DF-A(W-F-8008)conforming to ASTM D1655, Jet A or Jet A-1.

发动机限制/	<u>扭矩压力/</u>	<u>输出轴转速/</u>	<u>涡轮排气温度/</u>	<u>燃气发电机转速</u>
Engine limits	<u>TorquePressure</u>	<u>Output Shaft</u>	<u>Turbine Outlet</u>	<u>Gas Gen Speed</u>
		<u>Speed</u>	<u>Temp</u>	
起飞 (5 分钟)	66psi (285 HP)	103%	(6196	810°C
/Takeoff (5 min.)		RPM)		105% (53,519 RPM)
最大.持续的/	60 psi (256 HP)	103%	(6196	737°C
Max.Continuous		RPM)		105% (53,519 RPM)
旋翼限制/	<u>关车/Rotor limits</u>		<u>开车/Power On</u>	
Rotor limits	最大/ Maximum 385 RPM		最大/ Maximum 365 RPM	
	最小/ Maximum 334 RPM		最小/ Maximum 357 RPM	
空速限制/	不超过 140 英里/小时 (122 节) IAS 。随着高度和总重不同 V _{NE} (极限速度)			
Airspeed limits	减少, 参见 FAA 批准的旋翼飞机飞行手册。/			

升限/ Altitude limits	Never exceed 140 mph (122 knots) IAS. For Reduction in VNE with altitude and gross weight, See FAA-approved Rotorcraft Flight Manual 最高为 13000 英尺海拔高度。根据总重减少高度, 参见 FAA 批准的旋翼飞机飞行手册。/ 13,000 feet max. height density altitude. gross weight. For reduction in altitude with gross weight, See FAA-approved Rotorcraft Flight Manual.
重心限制/ C.G. limits	总重至 2200 磅, 最大向前重心是 +134.0 英寸。在 2800 磅时线性的减少到 +136.35 英寸。 总重至 2850 磅, 最大向后重心是+141.5 英尺/ Maximum Forward C.G. is +134.0 in. at all G.W. up to 2200 lbs. decreasing linearly to +136.35 in. at 2,850 lbs. Maximum Aft C.G. is +141.5 in. at all G.W. up to 2850 lbs.
最大重量/ Maximum Weight	2850 磅/ 2850lbs
最小机组/ Minimum crew	一个 (1) 在 (+99.1 英寸) 站位/ One (1) at (+99.1 in.) station.
乘客/ Passengers	1 在 (+94.1 英寸), 和 1 在 (+113.1 英寸) 1 at (+94.1), and 1 at (+113.1).
最大行李/ Maximum baggage	150 磅. 在 (+192.0 英尺.). / 150 lbs. at (+192.0 in.).
燃油容量/ Fuel Capacity	最大 89.0 加仑 (588 磅) 在 (+144.6 英寸); 0.3 加仑无法使用。 89.0 gallons Total (588 lbs) at (+144.6 in.); 0.3 gallon unusable.
滑油容量/ Oil Capacity	11.2 品脱 (11.25 磅) 在 (+153.0 英寸) / 11.2 pints (11.25 lbs.) at (+153.0 in.).
控制系统的水平 测量/ Control System Rigging	参见维修手册/ Refer to Maintenance Manual.
安定面安装/ Stabilizer setting	固定的, 相对于水平面 1.5° TE 向下/ Fixed, TE down relative to WL. 1.5
适用序列号/ Serial Nos.	S/N 5001 及后续/ S/N 5001 and subsequent
eligible	

X - 型号 480B 直升机, 5PLCH, 2001 年 2 月 8 日美国 FAA 批准 (见备注 20 至 24,26,30 至 34, 和 39 至 46) /

X - Model 480B Helicopter, 5PLCH, Approved February 8, 2001 (See NOTES 20 thru 24, 26, 30 thru 34, and 39 thru 46)

(480B 由 480 增加总重和功率限制衍生而来/The 480B is derivative of the 480 having increased gross weight and power limits.)

发动机/ Engine	Rolls-Royce 250-C20W
燃料/Fuel	Mil-DTL-5624, Grade JP-4 or JP-5; Aviation Turbine Fuels ASTM D1655 Jet A or A-1 (or Allison Spec. EMS-64) or ASTM D6615 Jet B; Mil-DTL-83133, Grade JP8; JP-1 or Diesel #1 fuel conforming to ASTM D1655, Jet A.

发动机限制/ Engine limits	扭矩压力/ Torque Pressure	输出轴转速/ Output Shaft Speed	涡轮排气温度/ Turbine Outlet Temp	燃气发电机转速 Gas Gen Speed
起飞功率 (5 分 钟)/Takeoff (5 min.)	72 psi (305 HP)	103% RPM)	(6196 810°C	105% (53,519 RPM)
最大持续功率/ Max.Continuous	65 psi (276 HP)	103% RPM)	(6196 737°C	105% (53,519 RPM)

旋翼限制/ Rotor limits	关车/Power Off	开车/Power On
	最大/ Maximum 385 RPM	最大/ Maximum 372 RPM
	最小/ Maximum 334 RPM	最小/ Maximum 365 RPM

空速限制/ Airspeed limits	标准海平面白天时最大起飞总重情况下，不超过 144 英里/小时（124 节）仪表速度 IAS 。参见 FAA 批准的旋翼飞机飞行手册中随着高度和总重变化的 V _{NE} (不可逾越速度)。
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Never exceed 144 mph (124 knots) IAS for standard sea level day at maximum take-off gross weight. See FAA-approved Rotorcraft Flight Manual for VNE changes with altitude and gross weight.

升限/ Altitude limits	总重 3000 磅时最高为 10000 英尺海拔高度。总重 2850 磅时最高为 13000 英尺海拔高度。起飞和着陆高度随总重减少，参见 FAA 批准的旋翼飞机飞行手册。/
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10,000 feet max. height density altitude at 3,000 lbs. gross weight. 13,000 feet max. height density altitude at and below 2,850 lbs. gross weight. For reduction in take-off and landing altitude with gross weight, See FAA-approved Rotorcraft Flight Manual.

重心限制/ C.G. limits	纵向/ Longitudinal:	在总重直至 2200 磅，最大前重心是 +134.0 英寸；后续至 3000 磅时线性减少到+136.9 英寸。总重直至 2500 磅时，最大后重心为+143.0 英寸；后续至 3000 磅时线性减少到 +140.95 英寸。
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Maximum Forward C.G. is +134.0 in. at all G.W. up to 2200 lbs. decreasing linearly to +136.9 in. at 3,000 lbs. Maximum Aft C.G. is +143.0 in. at all G.W. up to 2500 lbs. decreasing linearly to +140.95 in. at 3,000 lbs.

横向/
Lateral

最大非对称力矩±7500 英寸-磅。/

Maximum asymmetric moment ±7500 in-lbs.

最大重量/	3000 磅/
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Maximum Weight	3000lbs
最小机组/	一个 (1) 在 (+99.1 英寸) 站位处/
Minimum crew	One (1) at (+99.1 in.) station.
乘客/	1 个 在 (+89.0 英寸)处, 和 3 个在 (+113.1 英寸)处; 或 1 个在 (+99.1 英
Passengers	寸)处 和 1 个 在 (+113.1 英寸)处; 或 1 个 在 (+101.0 英寸) 处和 2 个 在 (+113.1 英寸) 处(参见 备注 34)。 / 1 at (+89.0 in.), and 3 at (+113.1 in.); or 1 at (+99.1 in.) and 1 at (+113.1 in.); or 1 at (+101.0 in.) and 2 at (+113.1 in.) (See NOTE 34).
最大行李/	150 磅 在 (+192.0 英寸) /
Maximum	150 lbs. at (+192.0 in.)
baggage	
燃油容量/	最大 90.0 加仑 (607 磅) 在 (+144.6 英寸) 处; 不可用燃油 0.3 加仑。参
Fuel Capacity	见备注 1/ 90.0 gallons Total (607 lbs) at (+144.6 in.); 0.3 gallon unusable. See NOTE 1
滑油容量/	12.0 品脱 (12.6 磅) 在 (+153.0 英寸) 处/
Oil Capacity	12.0 pints (12.6 lbs.) at (+153.0 in.).
控制系统的水平	参见维护手册/
测量/	Refer to Maintenance Manual.
Control System	
Rigging	
安定面安装/	固定的, 后缘相对于水平面 1.5°向下/
Stabilizer setting	Fixed, 1.5°TE down relative to WL.
适用序列号/	S/N 5043,5045 及后续 (参见注 28 和 29) /
Serial Nos.	S/N 5043, 5045 and subsequent (See NOTES 28 & 29)
eligible	

所有型号相关数据/Data Pertinent to All Models

基准/ Datum	活塞动力型 - 主旋翼桨毂中心和旋翼飞机中心线向前 100 英尺。 / Piston-powered Models - 100 inches forward of the center of the main rotor hub and the centerline of the rotorcraft. 涡轮动力型 - 主旋翼桨毂中心线向前 143.3 英寸。 / Turbine-powered Models - 143.3 inches forward of main rotor hub centerline.
水平测量 / Leveling Means	吊挂部分的较低的龙骨梁/ Lower longeron of pylon section.
审定基础 / Certification Basis	活塞动力型 - CAR Part6 (生效日期 1956 年 12 月 10 日), 修正案 6-1 至 6-5; 和 FAR21.25 (a) (1) (生效日期 1965 年 2 月 1 日) 专门为了按 FAR21.25 (b) 农业操作。参见 NOTE6.此外, F-28F, 和 280FX 型号证明满足 FAR36, 修正案 20 (附录 J) (生效日期 1992 年 9 月 11 日)

Piston-powered Models - Part 6 of the Civil Air Regulation effective December 10, 1956, as amended by 6-1 thru 6-5; and FAR 21.25 (a) (1) effective February 1, 1965 for special purpose of agricultural operation per FAR 21.25(b). See NOTE 6. In addition, the F-28F, and 280FX Models have demonstrated compliance with FAR 36, amendment 20 (Appendix J), effective September 11, 1992.

涡轮动力型 – FAR Part 27 (生效日期 1964 年 11 月 24 日), 修正案 27-1 至 27-23 (生效日期 1988 年 9 月 2 日); FAR 27.337, 27.351, 27.395, 27.401, 27.501, 27.613, 27.629, 27.663, 27.685, 27.727, 27.783, 27.861, 和 27.865 (a) (修正案 27-26, 生效日期 1990 年 4 月 5 日); FAR 27.775 (修正案 27-27, 生效日期 1990 年 10 月 22 日); FAR 27.2 (修正案 27-28, 生效日期 1991 年 8 月 16 日); 和 FAR Part 36, 修正案 20, (附录 J, 生效日期 1992 年 9 月 11 日)。/Turbine-powered Models - Federal Aviation Regulation FAR Part 27, effective November 24, 1964, as amended by 27-1 thru 27-23, effective September 2, 1988; FAR 27.337, 27.351, 27.395, 27.401, 27.501, 27.613, 27.629, 27.663, 27.685, 27.727, 27.783, 27.861, and 27.865 (a) as amended by 27-26, effective April 5, 1990; FAR 27.775 as amended by 27-27, effective October 22, 1990; FAR 27.2 as amended by 27-28, effective August 16, 1991; and FAR Part 36, amendment 20 (Appendix J), effective September 11, 1992.

注: 原审定基础为 Civil Air Regulation (CAR) Part 6 (修正案 6-1 至 6-8, 1956 年 12 月 20 日生效); 涡轮发动机安装, 进气系统, 燃油系统, 润滑系统和适航限制采用 FAR Part 27 (修正案 23, 1988 年 9 月 2 日生效); 起落架采用 FAR Part 27 (修正案 26, 1990 年 4 月 5 日生效); 和 FAR Part 36, 修正案 20 (附录 J, 1992 年 9 月 11 日生效)。1994 年 12 月 2 日原型号设计数据经重新检查并确认满足 FAR 27 的要求。/ NOTE: Originally certificated to Part 6 of the Civil Air Regulation effective December 20, 1956, as amended by 6-1 thru 6-8; Federal Aviation Regulation FAR Part 27, amendment 23, effective September 2, 1988, for the turbine engine installation, induction system, fuel system, lubrication system, and airworthiness limitations; FAR Part 27, amendment 26, effective April 5, 1990, for the landing gear; and FAR Part 36, amendment 20 (Appendix J), effective September 11, 1992. The original Type Design Data was reexamined and found to comply with FAR 27 on December 2, 1994.

申请型号合格审定的日期为 1988 年 11 月 17 日。/ Application for Type Certificate dated November 17, 1988.

1992 年 9 月 11 日修订型号合格审定证件号 H1CE; 2001 年 2

	月 8 日重新颁发。/ Type Certificate No. H1CE amended September 11, 1992; Reissued February 8, 2001.
生产基础 / Production Basis	生产许可证号 No.319/ Production Certificate No. 319
设备/ Equipment:	直升机审定时根据适航规章（见审定基础）所需要的基本的设备必须安装。另外，必须要有以下与设备有关的项目： 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: F-28F: (a) FAA 批准旋翼飞机飞行手册，1980 年 12 月 31 日，1984 年 7 月 1 日修订。/ (a) FAA Approved Rotorcraft Flight Manual dated December 31, 1980; revised July 1, 1984. (b) FAA 批准旋翼飞机飞行手册增补 No.1，1980 年 12 月 31 日。（农业工具包至 2600 磅.- 限制类）参见备注 6。/ (b) FAA Approved Rotorcraft Flight Manual Supplement No. 1 dated December 31, 1980. (For Agricultural Kit to 2600 lbs. - Restricted Category) See NOTE 6. (c) FAA 批准旋翼飞机飞行手册增补 No.2，1980 年 12 月 31 日。（浮筒式起落架）参见备注 7。/ (c) FAA Approved Rotorcraft Flight Manual Supplement No. 2 dated December 31, 1980; (For Float Landing Gear) See NOTE 7. (d) FAA 批准旋翼飞机飞行手册增补 No.3，1980 年 12 月 31 日。（外部负载）参见备注 8。/ (d) FAA Approved Rotorcraft Flight Manual Supplement No. 3 dated December 31, 1980, or later FAA approved revision is required; (For External Loads) See NOTE 8. (e) FAA 批准的旋翼飞机飞行手册增补 No.4，1980 年 12 月 31 日，（雪橇）参见备注 9. (e) FAA Approved Rotorcraft Flight Manual Supplement No. 4 dated December 31, 1980; (For Snowshoes) See NOTE 9. (f) FAA 批准的旋翼飞机飞行手册增补 No.6，1981 年 7 月 26 日，（右侧飞行员构型）参见备注 14. (f) FAA Approved Rotorcraft Flight Manual Supplement No. 6 dated June 26, 1981; (For Right Side Pilot Configuration) See NOTE 14. (g) FAA 批准旋翼飞机飞行手册增补 No.7, 1981 年 7 月 26 日；（电离合器作动筒） (g) FAA Approved Rotorcraft Flight Manual Supplement No. 7 dated June 26, 1981; (For Electric Clutch Actuator) (h) FAA 批准旋翼飞机飞行手册增补 No.8，1981 年 11 月 20 日；（紧急浮筒式起落架）参见备注 7.

(h) FAA Approved Rotorcraft Flight Manual Supplement No. 8 dated November 20, 1981; (For Emergency Float Landing Gear) See NOTE 7.

(i) FAA 批准旋翼飞机飞行手册增补 No.10,1982 年 2 月 5 日; (旋翼制动器) 参见备注 15.

(i) FAA Approved Rotorcraft Flight Manual Supplement No.10 dated February 5,1982;(For Rotor Brake) See NOTE15.

(j) FAA 批准旋翼飞机飞行手册增补 No.11,1983 年 9 月 23 日; (辅助燃油箱) 参见备注 17.

(j) FAA Approved Rotorcraft Flight Manual Supplement No. 11 dated September 23, 1983; (For Auxiliary Fuel Tank) See NOTE 17.

(k) FAA 批准旋翼飞机飞行手册增补 No.12, 1986 年 7 月 16 日; (消声器安装) 参见备注 18.

(k) FAA Approved Rotorcraft Flight Manual Supplement No. 12 dated July 16, 1986; (For Muffler Installation) See NOTE 18.

280FX 型号:

(a) FAA 批准旋翼飞机飞行手册, 1985 年 1 月 11 日, 1985 年 7 月 12 日;

(a) FAA Approved Rotorcraft Flight Manual dated January 11, 1985, revised July 12, 1985.

(b) FAA 批准旋翼飞机飞行手册增补 No.1,1991 年 1 月 11 日; (农业工具包) 参见备注 6.

(b) FAA Approved Rotorcraft Flight Manual Supplement No. 1 dated January 11, 1991; (For Agricultural Kit) See NOTE 6.

(c) FAA 批准旋翼飞机飞行手册增补 No.2, 1985 年 7 月 12 日; (漂浮式起落架) 参见备注 7.

(c) FAA Approved Rotorcraft Flight Manual Supplement No. 2 dated July 12, 1985; (For Float Landing Gear) See NOTE 7.

(d) FAA 批准旋翼飞机飞行手册增补 No.3, 1985 年 1 月 11 日; (外部载荷)

(d) FAA Approved Rotorcraft Flight Manual Supplement No. 3 dated January 11, 1985; (For External Loads)

(e) FAA 批准旋翼飞机飞行手册增补 No.4, 1989 年 5 月 11 日; (雪橇) 参见备注 9.

(e) FAA Approved Rotorcraft Flight Manual Supplement No. 4 dated May 11, 1989; (For Snowshoes) See NOTE 9.

(f) FAA 批准旋翼飞机飞行手册增补 No.10, 1985 年 1 月 11 日; (旋翼制动器)

(f) FAA Approved Rotorcraft Flight Manual Supplement No. 10 dated January 11, 1985;(For Rotor Brake)

(g) FAA 批准旋翼飞机飞行手册增补 No.11, 1985 年 1 月 11 日; (辅助燃油箱) 参见备注 17.

- (g) FAA Approved Rotorcraft Flight Manual Supplement No. 11 dated January 11, 1985; (For Auxiliary Fuel Tank) See NOTE 17.
- (h) FAA 批准旋翼飞机飞行手册增补 No.12, 1986 年 7 月 16 日, (消声器安装) 参见备注 18.
- (h) FAA Approved Rotorcraft Flight Manual Supplement No. 12 dated July 16, 1986; (For Muffler Installation) See NOTE 18.

TH-28 型号:

TH-28 Models:

- (a) FAA 批准旋翼飞行手册, 1992 年 9 月 11 日。
- (a) FAA Approved Rotorcraft Flight Manual dated September 11, 1992.

480 型号:

480 Models:

- (a) FAA 批准旋翼飞机飞行手册, 1993 年 7 月 7 日。
- (a) FAA approved Rotorcraft Flight Manual dated June 7, 1993.

480B 型:

- (a) FAA 批准的旋翼飞机飞行手册, 2001 年 2 月 9 日, 或后续经批准的修订版。/ FAA approved Rotorcraft Flight Manual dated February 9, 2001, or later FAA approved revision is required.
- (b) FAA 批准的旋翼飞机飞行手册增补 No.1, 2001 年 2 月 9 日, 或后续经批准的修订版; (货物钩) 参见 备注 20。/ FAA approved Rotorcraft Flight Manual Supplement No. 1 dated February 9, 2001, or later FAA approved revision is required; (For Cargo Hook) See NOTE 20.
- (c) FAA 批准的旋翼飞机飞行手册增补 No.2, 2001 年 2 月 9 日, 或后续经批准的修订版; (雪橇) 参见 备注 21。/ FAA approved Rotorcraft Flight Manual Supplement No. 2 dated February 9, 2001, or later FAA approved revision is required; (For Snowshoes) See NOTE 21.
- (d) FAA 批准的旋翼飞机飞行手册增补 No.3, 2001 年 2 月 9 日, 或后续经批准的修订版; (外部燃油滤) 参见 备注 22。/ FAA approved Rotorcraft Flight Manual Supplement No. 3 dated February 9, 2001, or later FAA approved revision is required; (For External Fuel Filter) See NOTE 22.
- (e) FAA 批准的旋翼飞机飞行手册增补 No.4, 2001 年 2 月 9 日, 或后续经批准的修订版; (行李箱扩展) 参见 备注 23。/ FAA approved Rotorcraft Flight Manual Supplement No. 4 dated February 9, 2001, or later FAA approved revision is required; (For Baggage Box Extension) See NOTE 23.
- (f) FAA 批准的旋翼飞机飞行手册增补 No.5, 2001 年 2 月 9 日,

或后续经批准的修订版；（相机门）参见 备注 24。/ FAA approved Rotorcraft Flight Manual Supplement No. 5 dated February 9, 2001, or later FAA approved revision is required; (For Camera Door) See NOTE 24.

- (g) FAA 批准的旋翼飞机飞行手册增补 No.6, 2003 年 9 月 5 日, 或后续经批准的修订版；（弹出式浮筒）参见 备注 27。/ FAA approved Rotorcraft Flight Manual Supplement No. 6 dated September 5, 2003, or later FAA approved revision is required; (For Pop-out Floats) See NOTE 27.
- (h) FAA 批准的旋翼飞机飞行手册增补 No.7, 2004 年 9 月 9 日, 或后续经批准的修订版；（空调）参见 备注 26。/ FAA approved Rotorcraft Flight Manual Supplement No. 7 dated September 9, 2004, or later FAA approved revision is required; (For Air Conditioning) See NOTE 26.
- (i) FAA 批准的旋翼飞机飞行手册增补 No.8, 2006 年 6 月 6 日, 或后续经批准的修订版；（相机支架）参见 备注 30。/ FAA approved Rotorcraft Flight Manual Supplement No. 8 dated June 6, 2006, or later FAA approved revision is required; (For Camera Mount) See NOTE 30.
- (j) FAA 批准的旋翼飞机飞行手册增补 No.9, 2006 年 6 月 6 日, 或后续经批准的修订版；（搜索灯）参见 备注 31。/ FAA approved Rotorcraft Flight Manual Supplement No. 9 dated June 6, 2006, or later FAA approved revision is required; (For Searchlight) See NOTE 31.
- (k) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-025, 2008 年 2 月 11 日, 或后续经批准的修订版；（Gyrocam 定位引航系统）参见 备注 32。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-025 dated February 11, 2008, or later FAA approved revision is required; (For Gyrocam) See NOTE 32.
- (l) FAA 批准的旋翼飞机飞行手册增补 No.10, 2008 年 2 月 14 日, 或后续经批准的修订版；（切尔顿飞行系统, EFIS 电子式飞行仪表系统）参见 备注 33。/ FAA approved Rotorcraft Flight Manual Supplement No. 10 dated February 14, 2008, or later FAA approved revision is required; (For Chelton Flight Systems, EFIS) See NOTE 33.
- (m) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-036, 2009 年 10 月 21 日, 或后续经批准的修订版；（2+2 座椅构型）参见 备注 34。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-036 dated October 21, 2009, or later FAA approved revision is required; (For 2+2 Seating Configuration) See NOTE 34.
- (n) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-027, 2008 年 11 月 5 日, 或后续经批准的修订版；（Avidyne 交通资讯

系统)参见 备注 39。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-027 dated November 5, 2008, or later FAA approved revision is required; (For Avidyne Traffic Advisory System) See NOTE 39.

- (o) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-030, 2008 年 11 月 18 日, 或后续经批准的修订版; (Garmin SL30 NAV/COM 收发机)参见 备注 40。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-030 dated November 18, 2008, or later FAA approved revision is required; (For Garmin SL30 NAV/COM Transceiver) See NOTE 40.
- (p) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-035, 2009 年 3 月 9 日, 或后续经批准的修订版; (Sandia 高度数据系统) 参见 备注 41。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-035 dated March 9, 2009, or later FAA approved revision is required; (For Sandia Altitude Data System) See NOTE 41.
- (q) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-038, 2010 年 9 月 10 日, 或后续经批准的修订版; (L-3 ARN TACAN 系统) 参见 备注 42。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-038 dated September 10, 2010, or later FAA approved revision is required; (For L-3 ARN TACAN System) See NOTE 42.
- (r) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-040, 2010 年 9 月 10 日, 或后续经批准的修订版; (KTR 908/KFS 598A VHF, KTR 909/KFS 599A UHF 无线电通讯系统和 KMA 24 小时音频系统) 参见 备注 43。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-040 dated September 10, 2010, or later FAA approved revision is required; (For KTR 908/KFS 598A VHF, KTR 909/KFS 599A UHF Communication Radio Systems and KMA 24H Audio System) See NOTE 43.
- (s) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-042, 2011 年 3 月 11 日, 或后续经批准的修订版; (安全飞行电力线检测系统) 参见 备注 44。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-042 dated March 11, 2011, or later FAA approved revision is required; (For Safe Flight Powerline Detection System) See NOTE 44.
- (t) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-043, 2011 年 3 月 7 日, 或后续经批准的修订版; (偏宽仪表盘)参见 备注 45。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-043 dated March 7, 2011 or later FAA approved revision is required; (For Partial Wide Instrument Panel) See NOTE 45.
- (u) FAA 批准的旋翼飞机飞行手册增补 No.28-AC-048, 2011

年 1 月 25 日, 或后续经批准的修订版; (NAT AMS44 双通道音频控制器 和 NAT 247 混音放大器) 参见 备注 46。/ FAA approved Rotorcraft Flight Manual Supplement No. 28-AC-048 dated January 25, 2011 or later FAA approved revision is required; (For NAT AMS44 Dual Channel Audio Controller and NAT 247 Audio Mixing Amplifier) See NOTE 46.

所有型别/All Models:

每一架旋翼航空器必须配备对应型别的维护手册/ Each rotorcraft must be furnished with a Maintenance Manual applicable to that model.

备注/ NOTE 1. 当前重量和平衡报告包括审定的空重和装载指示中含有的设备清单, 必要时对直升机必须提供初始合格审定时的设备清单。对于活塞发动机型号, 审定空重和相应重心站位中心必须包含不可用燃油, 对于 30 加仑油箱为 2.0 磅.(+98), 40 加仑油箱为 12.0 磅.(+94); 和无法排除滑油为 4 磅.(+96)对于涡轮发动机动力型号, 审定空重和相应的重心站位必须包含不可用燃油, 如下所列/ 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. For piston-engine powered models, the certificated empty weight and corresponding center of gravity locations must include unusable fuel of 2.0 lbs. (+98) for 30 gal. tanks, 12.0 lbs. (+94) for 40 gal. tanks; and undrainable oil of 4 lbs. (+96). For turbine-engine powered models, certificated empty weight and corresponding center of gravity locations must include unusable fuel as tabulated below:

型号/ Model	飞机序列号或燃油箱件号 /Serial Number or Fuel Bladder Part Number	不可用燃油 / Unusable Fuel
TH-28	3004 & 3005	12.lbs. at +143.4 in.
TH-28	3006 & 后续	2.0 lbs.at +143.4 in.
480	5001 & 后续	2.0 lbs.at +143.4 in.
480B	4122009-1, -2, & -4	2.0 lbs. at +143.4 in.
	4122052-1 & -2	11.4 lbs. at +143.4 in.

备注/ NOTE 2: 下述标牌必须显示在飞行员前, 且在视界范围内清晰可见/ The following placard must be displayed in front of and in clear view of the pilot:

"本架直升机运行必须满足批准的旋翼飞机飞行手册中规定的运行限制/This helicopter must be operated in compliance with operating limitations specified in the Approved Rotorcraft Flight Manual."

附加运行限制和标记标牌等要求参见 FAA 批准的旋翼飞机飞行手册/See FAA Approved Rotorcraft Flight Manual for additional operation limitations and placard.

备注/NOTE 3. 直升机正确维护的关键信息包含在相应型号维护手册中。关键件更换时间列在本数据单的表 1 和表 2 中。这些使用寿命的更换时间值在未得到 FAA 工程批准的情况下不允许延长/ Information essential for the proper maintenance of the helicopter is contained in the pertinent model Maintenance Manual. The retirement times of critical parts are listed in Table 1 and Table 2 of this Type Certificate data sheet. These values of retirement times of service life cannot be increased

without FAA Engineering Approval.。

下面特殊符号增加了使用寿命表的具体限制和/或与批准的总重和使用寿命相关的特殊条件，表 1 适用于配备涡轴发动机的直升机，表 2 适用于配备涡轮发动机的直升机。/ The following special notations augment the Service Life Tables specifying limitations and/or special conditions associated with authorized Gross Weights and service lives. Table 1 applies to all piston powered models. Table 2 applies to all turbine powered models.

△ 自制造之日起 5 日历年，更换。/Retire from service 5 calendar years from date of manufacture.

+ 没有时间限制。/No Time limit.

○ 按适航指令 79-10-06R1 日常检查/Inspect daily per Airworthiness Directive 79-10-06R1.

* 安装之后 24 个月或 1200 小时更换，以先到为准。/ Retire from service 24 months after date of installation or 1200 hours, whichever occurs first.

** 当使用滑油嘴，按条件/On Condition when used with grease fitting.

◆ 自生产标签上标识的初始测试日期起 15 年，更换/ Retire from service 15 years from the original test date marked on the manufacture's label.

N/A 未批准安装/ Not approved for installation.

恩斯特龙型号 F-28F 直升机可运行在总重至 2600lbs。所有正常和限制类构型按照如下 /Enstrom Models F-28F helicopters are eligible for operation at a gross weight up to 2600 lbs. in both the Normal and Restricted categories when configured in accordance with the following:

类别/Category	使用-构型要求/Usage - Configuration Requirement
限制/Restricted	农业喷-构型按备注 6/Agricultural Spraying - configured per NOTE 6.
限制/Restricted	外挂货物-构型按备注 8/External Cargo - configured per NOTE 8
限制/Restricted	构型按备注 16/Configured per NOTE 16

一旦直升机操作在总重超过 2350lbs 至批准的最大 2600lbs.，2600lbs 的服役寿命，就必须被使用/Once the helicopter is operated at a gross weight in excess of 2350 lbs. up to the maximum authorized 2600 lbs., the service life requirements for 2600 lbs. must be used.

表 1（使用寿命-小时）/Table1 . Service Life

件号/Part No.	组件/Component	型号/Model	F-28F	280FX	TH-28	480
		重量/Wt-lbs	2350	2600	2850	2850
28-14320-12, -15	Thrust Bearing (Lamiflex)		△	△	△	△
202SZZ	Belt Idler Pulley Bearing		600	600	N/A	N/A
299608X38	Jack Strut Bearing (Upper)		600**	600**	N/A	N/A
28-13401-1	Clutch (Formspag CL40526-1 至-7)		N/A	N/A	N/A	N/A
10-3574-00	Turbo Charger Hot Section		2000	2000	N/A	N/A
5201SBKZZ	Swashplate Bearing, Lower		1200**	1200**	1200**	1200**
Z993L13X38	Swashplate Bearing, Upper		1200**	1200**	N/A	N/A
6013-RS	Swashplate Bearing, Upper		1200**	1200**	1200*	1200*
28-14207-9	Upper Pitch Link Bellcrank		N/A	N/A	3130	3130
4131003-15	Engine intermediate driveshaft		N/A	N/A	3500	3500
28-16119	Unversal(Lower Swashplate) Housing		17,700	17,700	±	±
28-15120	Tail Rotor Blade(3-3-in Chord) on R-hand					
	Inst. 28-16300		N/A	N/A	N/A	N/A
28-150002-1	Tail Rotor Blade (4.4 – in Chord)		3100	3100	N/A	N/A
28-15202-13	T/R Spindle (3.3 – in Chord Blade)		N/A	N/A	N/A	N/A

<u>28-150014-11,-13</u>	<u>T/R Spindle (4.4 – in Chord Blade)</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>28-150064-11,-13</u>	<u>T/R Spindle (4.4 – in Chord Blade)</u>	<u>1200</u>	<u>1200</u>	<u>N/A</u>	<u>N/A</u>
<u>28-150074-11</u>	<u>T/R Spindle (4.4 – in Chord Blade)</u>	<u>1200</u>	<u>1200</u>	<u>1200</u>	<u>1200</u>
<u>28-150044</u>	<u>T/R Grip (4.4 – in Chord Blade)</u>	<u>6200</u>	<u>6200</u>	<u>±</u>	<u>±</u>
<u>28-150013-1</u>	<u>T/R Grip (4.4 – in Chord Blade)</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>28-13609-1</u>	<u>T/R Driveshaft(Splined)Coupling</u>	<u>1200</u>	<u>1200</u>	<u>N/A</u>	<u>N/A</u>
<u>28-01041-3</u>	<u>T/R Coupling(Dana A005-1992)</u>	<u>1200</u>	<u>1200</u>	<u>N/A</u>	<u>N/A</u>
<u>28-01041-1</u>	<u>Oil Cooler(Flex Pack) Coupling</u>	<u>N/A</u>	<u>N/A</u>	<u>±</u>	<u>±</u>
<u>ECD-074-1,-2</u>	<u>T/R Gearset (XR-137-2YL,R)</u>	<u>1200</u>	<u>1200</u>	<u>N/A</u>	<u>N/A</u>
<u>ECD-100-1,-2</u>	<u>T/R Gearset</u>	<u>1200</u>	<u>1200</u>	<u>1200</u>	<u>1200</u>
<u>28-14283</u>	<u>Main Rotor Glade Drag Link</u>	<u>±</u>	<u>13750</u>	<u>±</u>	<u>±</u>
<u>28-14282-11</u>	<u>Main Rotor Spindle</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

表 2. 使用寿命限制 – 小时

Table 2. Service Life Limits – Hours

	型号/ Model	480B
件号/ Part Number	组件/Component 重量 Wt. lbs	3000
ECD084-1	拉紧-扭力皮带/ Tension-Torsion Strap	1200*
ECD100 (All dash numbers)	尾减速器装置/ Tail Rotor Gear Set	1000
ECD101 -1, -2	尾减速器装置/ Tail Rotor Gear Set	1000
ECD4000 (All dash numbers)	传动皮带/ Drive Belt	5500
ECD4056 (All dash numbers)	轴承下滑轮组件 / Bearing Lower Pulley Assembly	1200
20368	储气缸（弹出式浮筒）/ Reservoir Cylinder (Pop Out Floats)	◆
28-13106-3	齿环架/ Ring Gear Carrier	2400
28-13108 (All dash numbers)	主旋翼齿环和小齿轮装置/ Main Rotor Ring Gear and Pinion Set	2300
28-14207-9	变距摇臂组件/ Pitch Change Bellcrank Assembly	N/A
28-14280-1	主桨毂上夹板/ Main Rotor Hub Plate (Upper)	N/A
28-14280-3	主桨毂上夹板/Main Rotor Hub Plate (Upper)	N/A
28-14280-5	主桨毂上夹板/Main Rotor Hub Plate (Upper)	4592
28-14281-1	主桨毂下夹板/Main Rotor Hub Plate (Lower)	N/A
28-14281-3	主桨毂下夹板/Main Rotor Hub Plate (Lower)	N/A
28-14281-5	主桨毂下夹板/Main Rotor Hub Plate (Lower)	4592
28-14320-15	推力轴承（Lamifex）/Thrust Bearing (Lamiflex)	N/A
28-150074-11, -13	尾旋翼轴/Tail Rotor Spindle	1200
4110006-17, -18	吊架/龙骨连接板 / Pylon/Keel Attachment Plate	N/A
4112034-11	振动阻尼器梁（尾整流）/Vibration Absorber Beam (Tailcone)	3835
4130002-11	齿环架/Ring Gear Carrier	N/A

4130045 (All dash numbers)	主旋翼齿环和小齿轮装置/Main Rotor Ring Gear and Pinion Set	2300
4131003 (All dash numbers)	花键传动轴，超速离合器/Splined Driveshaft, Overrunning Clutch	3500
4166024-15, -23	振动阻尼器梁（闭环控制系统）/Vibration Absorber Beam (Cyclic Control System)	1200

备注/NOTE 4. (略)

备注/NOTE 5. (略)

备注/NOTE 6. 恩斯特龙型号 F-28F 和 280FX 直升机认证为多个审定的运行在总重至 2600 磅。限制类运行是当装有根据恩斯特龙图纸 28-22620 确定 Agrinautics 农业工具包和安装按恩斯特龙直升机公司报告 No.DO-280，干/湿农业工具包 83100 的所有人&运行人手册。直升机可以在拆除农业工具包可返回正常类运行。这些转换完成后飞行记录本应当进行记录。

以下部分 CAR 第 6 部分被认为不适用于预期的农业操作：

CAR 6.100(c), 6.113(b) (c), 6.114, 6.116, and 6.123(b) (3).

下列 CAR6 段落论证仅用于接近海平面和 7500 英尺密度高度条件：

CAR 6.121(d) and 6.123(b) (4)./

Enstrom Model F-28F and 280FX helicopters are certified for multiple certificate operation at a gross weight up to 2600 lbs. for restricted category operation when equipped with Agrinautics Agricultural Kit as specified on Enstrom drawing 28-22620 and installed in accordance with Enstrom Helicopter Corporation Report No. DO-280, Owner & Operator Manual for Wet/Dry Ag Kit 83100. The helicopter may be returned to normal category operation upon the removal of the agricultural kit. A logbook entry shall be made when these conversions are accomplished.

The following portions of Part 6 of the Civil Air Regulations were considered inappropriate for the intended agricultural operations:

CAR 6.100(c), 6.113(b) (c), 6.114, 6.116, and 6.123(b) (3).

The following paragraphs of CAR 6 were demonstrated at near sea level and 7,500 feet density altitude conditions only:

CAR 6.121(d) and 6.123(b) (4).

备注/NOTE 7. 型号 F-28F 和 280FX 直升机选装 Air Cruiser 可充气式浮筒，根据恩斯特龙图纸 28-17326 的件号为 (P/N) D-24780。当这样安装，在正常和限制类 F-28F 型号可以运行至各自 2350 和 2600 磅总重（参见备注 3），F-28F 型号构型按备注 16，在正常类 280FX 型号可以运行至 2600 磅总重。每个直升机这样装备是为批准两栖运行在飞行手册增补 No.2 规定的限制内。当型号 F-28F 直升机改变运行类别时记录本应当进行记录。/Model F-28F, and 280FX helicopters are eligible for the installation of Air Cruiser inflatable floats, P/N D-24780 in accordance with Enstrom drawing 28-17326. When so equipped, and F-28F Models may be operated up to 2350 and 2600 lbs. GW in the normal and restricted categories, respectively (see NOTE 3). F-28F Models configured per NOTE 16, and 280FX Models may be operated up to 2600 lbs. GW in the normal category. Each helicopter so equipped is approved for amphibious operations within the limitations prescribed by Flight Manual Supplement No. 2 for that model. A logbook entry shall be made when changing category of operation for Models F-28F helicopters.

参见备注 6，CAR 的 Part6 的部分认为不适用于限制类运行在总重在 2350 和 2600 磅之间。直升机必须运行在限制类在适当飞行手册增补规定的限制内。/See NOTE 6 for portions of

Part 6 of the Civil Air Regulations considered inappropriate for restricted category operations at gross weights between 2350 and 2600 lbs. The helicopter must be operated within the restricted category limitations prescribed in the appropriate Flight Manual Supplement.

型号 F-28F 和 280FX 直升机批准互换的浮筒。这个型号直升机选装 Air Cruiser 可以充气的浮筒，按恩斯特龙图纸 28-17301 的件号(P/N)为 23D24409。当这样装配，直升机必须运行在限制类在适用飞行手册增补 No.8 规定的限制内。P/N 23D24409 直升机装备浮筒，两栖操作总重限制至 2150 磅且必须有标牌指示。这个规定不包括两栖运行，当仍允许在总重超过 2150 磅紧急水上降落。/Model F-28F and 280FX helicopters are approved for interchangeable floats. These model helicopters are eligible for the installation of Air Cruiser inflatable floats, P/N 23D24409, in accordance with Enstrom drawing 28-17301. When so equipped, the helicopter must be operated within the normal category limitations prescribe in Flight Manual Supplement No. 8. Helicopters equipped with float, P/N 23D24409, are limited to 2150 lbs. GW for amphibious operations and must be placarded to so indicate. This provision excludes amphibious operations, yet allows emergency water landings at gross weights over 2150 lbs.

备注/NOTE 8. 型号为 F-28F 和 280FX 直升机可以按恩斯特龙图纸 28-22000 选装的货物勾来运输外部货物。直升机必须运行在适用飞行手册增补规定的限制内。最大允许的外部载荷为 1000 磅。恩斯特龙型号 F-28F 和 280FX 直升机在总重至 2600 磅审定有多个运行批准。限制类货物勾运行。当改变运行类别时，应当在飞机履历本记录。/Model F-28F and 280FX helicopters are eligible for installation of a cargo hook in accordance with Enstrom drawing 28-22000 for the transportation of external cargo. The helicopter must be operated within the limitations prescribed in the appropriate Flight Manual Supplement. The maximum external load permitted on the cargo hook is 1,000 lbs. The Enstrom models F-28F and 280FX helicopters are certificated for multiple certificate operation at a gross weight up to 2,600 lbs. for restricted category cargo hook operation. A logbook entry shall be made when changing category of operation.

参见备注 6，CAR Part 6 的部分认为不适用于在总重在 2350 和 2600 磅时的限制类运行。/ See NOTE 6 for portions of Part 6 of the Civil Air Regulations considered inappropriate for restricted category operations at gross weights between 2,350 and 2,600 lbs.

备注/NOTE 9.型号 F-28F 和 280FX 直升机当选装雪橇工具包 No.28-22400 时，运行在飞行手册增补规定的限制内。/Model F-28F and 280FX helicopters are eligible for the installation of Snowshoe Kit No. 28-22400 when operated within the prescribed limitations of the Flight Manual Supplement.

备注/NOTE 10. (略)

备注/NOTE 11. (略)

备注/NOTE 12. (略)

备注/NOTE 13. (略)

备注/NOTE 14.型号 F-28F 直升机选装“右侧飞行员主驾驶”工具包 (Kit No.28-01002-3)。这些直升机，当这样的构型，在序列号后加上标示破折号 R 的后缀。这些直升机，当这样装备时，将有一个破折号 R 标示(F-28F-R)，且必须运行在飞行手册增补规定的限制内。/Model F-28F helicopters are eligible for installation of a "Right Hand Pilot in Command" Kit (Kit No. 28-01002-3). These helicopters, when so configured, will be identified with a serial number dash R suffix. Eligible helicopters, when so equipped, will have a dash R model designation (F-28F-R) and must be operated within the prescribed limitation of the Flight Manual Supplement.

备注/NOTE 15.型号 F-28F 直升机选装旋翼制动器 (Kit No.28-010101)。当这样装备时, 直升机必须运行在飞行手册增补规定的限制内。/Model F-28F helicopter are eligible for installation of a rotor brake(Kit No.28-010101).when so equipped the helicopter must be operated within the prescribed limitations of the Flight Manual Supplement.

备注/NOTE 16. (略) 恩斯特龙型号 F-28F 直升机, 如果直升机在原始制造或后续翻新并有相应记录时满足恩斯特龙详细图纸 No.28-100015 需求, 可以在正常类增加总重至 2600 磅。按照恩斯特龙服务信函 (Service Information Letter) 0130, 适用的翻新的型号如下:

F-28F 所有 S/N731 之前的直升机。

Enstrom Model F-28F helicopters are eligible for increased gross weight to 2600 pounds in the normal category if the helicopter complies with the requirements of Enstrom Specification Drawing No. 28-100015 at the time of original manufacture or are retrofitted at a later date and logged accordingly. In accordance with Enstrom Service Information Letter 0130, Models eligible for retrofitting are:

All F-28F helicopters prior to S/N 731.

备注/NOTE 17.恩斯特龙型号 F-28F 和 280FX 选装内部辅助燃油箱 Kit No.28-01009。当这样配置是, 直升机必须运行在飞行手册增补规定的限制内。/Enstrom Models F-28F and 280FX are eligible for installation of an internal auxiliary fuel tank per Kit No. 28-01009. When so equipped, the helicopter must be operated within the prescribed limitations of the respective Flight Manual Supplement.

备注/NOTE 18.恩斯特龙 F-28F 和 280FX 在标准排气管的地方选装 P/N ENX-0001 的 Wall-Colomony 消声器。没有进一步旋翼飞机改装的要求。/Enstrom Models F-28F and 280FX are eligible for installation of Wall-Colomony Muffler P/N ENX-0001 in place of the standard tailpipe. No further modification to the rotorcraft is required

备注/NOTE 19. (略)

备注/NOTE 20. 恩斯特龙 480B 选装货物钩套件 No.4220024。当这样装备时, 480B 必须运行在飞行手册增补 No.1 规定的限制内/Enstrom Model 480B are eligible for installation of Cargo Hook Kit No. 4220024. When so equipped, the 480B must be operated within the prescribed limitations of Flight Manual Supplement No.1。

备注/NOTE21. 选装雪橇套件 No.4220016 的恩斯特龙 480B, 须运行在飞行手册增补 No.2 规定限制内/Enstrom Mode 480B are eligible for installation of Snowshoe Kit No. 4220016 when operated within the prescribed limitations of Flight Manual Supplement No. 2。

备注/NOTE22. 选装外部燃油滤套件 No.4220035 的恩斯特龙 480B, 须运行在飞行手册增补 No.3 规定限制内/Enstrom Model 480B are eligible for installation of External Fuel Filter Kit No. 4220035 when operated within the prescribed limitations of Flight Manual Supplement No. 3。

备注/NOTE 23. 选装行李箱扩展套件 No.4220029 的恩斯特龙 480B, 须运行在飞行手册增补 No.4 规定限制内/Enstrom Model 480B are eligible for installation of Baggage Box Extension Kit No. 4220029 when operated within the prescribed limitations of Flight Manual Supplement No. 4。

备注/NOTE 24. 选装相机门套件 No.4220079 的恩斯特龙 480B, 须运行在飞行手册增补 No.5 规定限制内/Enstrom Model 480B are eligible for installation of Camera Door Kit No. 4220079 when operated within the prescribed limitations of Flight Manual Supplement No. 5。

备注/NOTE 25. (略)

备注/NOTE 26. 选装空调系统套件 No.4220176 的恩斯特龙 480B, 须运行在飞行手册增补 No.7 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.1 进行维护/ Enstrom Model 480B are eligible for installation of Air Conditioning System Kit No. 4220176 when operated within the

prescribed limitations of Flight Manual Supplement No. 7; and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 1。

备注/NOTE 27. 选装弹出式浮筒套件 No.4220091 的恩斯特龙 480B, 须运行在飞行手册增补 No.6 规定相应限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.2 进行维护/ Enstrom Model 480B are eligible for installation of Pop-Out Floats Kit No. 4220091 when operated within the prescribed limitations of Flight Manual Supplements No. 6, respectively; and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 2。

备注/NOTE 28. 当选装恩斯特龙 480B 转换套件 No.4230026, 序列号为 5039 至 5042 和 5044 的恩斯特龙 480 可以转换为 480B/ Enstrom Model 480, Serial Number 5039 thru 5042 and 5044 are eligible for conversion to Model 480B when equipped in accordance with Enstrom 480B Conversion Kit No. 4230026。

备注/NOTE 29. 序列号列在表 3 的直升机不适用于任何审定类别/ Helicopter serial numbers listed in Table 3 are ineligible for certification in any category。

表 3.不适用的序列号

型号	序列号
480B	5102, 5122

备注/NOTE 30. 选装鼻定位摄像机安装套件 No.4220180-5 的恩斯特龙 480B, 须运行在飞行手册增补 No.8 规定限制内/Enstrom Model 480B is eligible for installation of Nose Positioned Camera Mount Kit No. 4220180-5 when operated within the prescribed limitations of Flight Manual Supplement No. 8。

备注/NOTE 31. 选装搜索灯套件 No.4220056-1 或-3 的恩斯特龙 480B, 须运行在飞行手册增补 No.9 规定限制内/Enstrom Model 480B is eligible for installation of Searchlight Kit No. 4220056-1 or -3 when operated within the prescribed limitations of Flight Manual Supplement No. 9。

备注/NOTE 32. 选装 Gyrocam 套件 No.4220552 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-025,规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.3 进行维护/Enstrom Model 480B is eligible for installation of Gyrocam, No. 4220552 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-025, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 3。

备注/NOTE 33. 选装 EFIS No. 4220500 的恩斯特龙 480B, 须运行在飞行手册增补 No.10 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.4 进行维护/Enstrom Model 480B is eligible for installation of Chelton Flight Systems EFIS, No. 4220500 when operated within the prescribed limitations of Flight Manual Supplement No. 10, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 4。

备注/NOTE 34. 选装 2+2 座椅构型 (No.4230042) 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-036 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.10 或最新版本进行维护/Enstrom Model 480B is eligible for installation of 2+2 Seating Configuration, No. 4230042 (approved November 4, 2009) when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-036, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 10 or latest revision。

备注/NOTE 35. 略

备注/NOTE 36. 略

备注/NOTE 37. 略

备注/NOTE 38. 略

备注/NOTE 39. 选装 Avidyne Traffic Advisory System No. 4220569 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-027 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.5 或最新版本进行维护/Enstrom Model 480B is eligible for installation of Avidyne Traffic Advisory System, No. 4220569 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-027, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 5 or latest revision.

备注/NOTE 40. 选装 Garmin SL30 NAV/COM 收发机 No. 4220558 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-030 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.5 或最新版本进行维护/Enstrom Model 480B is eligible for installation of Garmin SL30 NAV/COM Transceiver, No. 4220558 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-030, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 5 or latest revision.。

备注/NOTE 41. 选装 Sandia 高度数据系统 No. 4220561 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-035 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.5 或最新版本进行维护/Enstrom Model 480B is eligible for installation of Sandia Altitude Data System, No. 4220561 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-035, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 5 or latest revision.

备注/NOTE 42. 选装 L-3 ARN TACAN 系统 No. 4220615 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-038 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 JGSDF 特定配置航空电子或最新版本进行维护/Enstrom Model 480B is eligible for installation of L-3 ARN TACAN System, No. 4220615 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-038, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement JGSDF Specific Configuration Avionics or latest revision.

备注/NOTE 43. 选装 KTR 908/KFS 598A VHF 通信电台 No. 4220611; KTR 909/KFS 599A UHF 通信电台, No. 4220612; KMA24H 音响系统, NO.4220613 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-040 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 JGSDF 特定配置航空电子或最新版本进行维护 Enstrom Model 480B is eligible for installation of KTR 908/KFS 598A VHF Communication Radio, No. 4220611; KTR 909/KFS 599A UHF Communication Radio, No. 4220612; and KMA24H Audio System, No. 4220613 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-040, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement JGSDF Specific Configuration Avionics or latest revision.

备注/NOTE 44. 选装安全飞行电力线检测系统 No. 4220576 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-042 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.5 或最新版本进行维护/Enstrom Model 480B are eligible for installation of Safe Flight Powerline Detection System, No. 4220576 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-042, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 5 or latest revision. 。

备注/NOTE 45. 选装 Partial Wide Instrument Panel, No. 4220602 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-043 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.6 或最新版本

进行维护/ Enstrom Model 480B is eligible for installation of the Partial Wide Instrument Panel, No. 4220602 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-043, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 6 or latest revision。

备注/NOTE 46. 选装 NAT 的 AMS44 双通道音频控制器和 NAT 247 混音放大器, NO.4220529 的恩斯特龙 480B, 须运行在飞行手册增补 No.28-AC-048 规定限制内, 且根据恩斯特龙 TH-28/480 维护手册增补 No.5 或最新版本进行维护/ Enstrom Model 480B is eligible for installation of NAT AMS44 Dual Channel Audio Controller and NAT 247 Audio Mixing Amplifier, No. 4220529 when operated within the prescribed limitations of Flight Manual Supplement No. 28-AC-048, and maintained in accordance with Enstrom TH-28/480 Maintenance Manual Supplement No. 5 or latest revision。

...结束/END...