

THE VALIDATION OF TYPE CERTIFICATE DATA SHEET

日期/Data: 2015-09-25

[illegible]

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第1部分 型号认可证概述

SECTION 1 GENERAL OF VTC

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、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance date				型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date		
当前 Current	R22 Beta	VTC083A	Revision 0	2015-09-25	R22 Beta	H10WE Revision 15	2013-08-15
	R22 Mariner	VTC083A	Revision 0	2015-09-25	R22 Mariner	H10WE Revision 15	2013-08-15
历史 History	R22 Beta	VTC083A		1998-09-15	R22 Beta	H10WE Revision 10	1997-4-1
	R22 Mariner	VTC083A		1998-09-15	R22 Mariner	H10WE Revision 10	1997-4-1
	R22 Beta	VTC059A		1996-07-17	R22 Beta	H10WE Revision 8	1995-03-21
	R22 Mariner	VTC059A		1996-07-17	R22 Mariner	H10WE Revision 8	1995-03-21

2. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

美国联邦航空管理局 /FAA

3. 型号合格证 Type Certificate Number:

H10WE

型号合格证持有人/Type Certificate Holder:

Robinson Helicopter Company
2901 Airport Drive
Torrance, California 90505

型号合格证持有人记录

不适用

Type Certificate Holder Record

N/A

4. 进口要求/Import Requiriement

为具备在中国运行的资格，按本型号认可证制造的每架航空器必须具有一份出口适航证，其上签注有出口国适航当局的审定声明，即：本架航空器符合 CAAC 所批准的型号设计，并处于可安全运行的状态。

To be considered eligible for operation in China, each aircraft manufactured under this Validation of Type Certificate must be accompanied by a certificate of airworthiness for export endorsed by Export Authority which states (in English language): This aircraft conforms to its CAAC type design and is in a condition for safe operation.

2部分 型号数据 SECTION 2 TYPE DATA

1.型别: R22 Beta

MODEL NUMBER: R22 Beta

一、产品型别和批准日期/THE PRODUCT MODEL AND APPROVAL DATE

CAAC 认可日期 2015-09-25

CAAC Validated Date

1. 型号合格证数据单号 H10WE

Type Certificate Data Sheet No.

2.型号、衍生型或型别 Type / Variant or Model

(a) 型号/Type R22 Beta

(b) 衍生型或型别 Variant or Model:

3.适航类别 正常类直升机

Airworthiness Category Normal Category helicopter

4. 型号合格证持有人 Robinson Helicopter Company

Type Certificate Holder: 2901 Airport Drive
Torrance, California 90505

5. 国外适航当局申请日期 12 June 1985

Foreign Authority Application Date:

6. 国外适航当局型号审定日期 12 August 1985

Foreign Authority Type Certification
Date:

二、 合格审定基础和生产依据 **CERTIFICATION BASIS AND PRODUCTION BASIS**

CAAC 型号认可审定基础

CAAC 型号认可审定基础定义如下:

CAAC Validation Certification Basis

1 美国联邦航空管理局确定的产品型号设计或设计更改的合格审定基础, 其定义见美国联邦航空管理局型号合格证数据单: No. H10WE 第 15 版。

2 CAAC 附加技术条件/ CAAC Additional Technical Requirement :

交付到中国的每一架 R22 Beta 直升机还必须满足下列专用附加技术条件;

(1) 必须满足中国民用航空局的运行要求,包括中文标记标牌要求;

CAAC validation basis was defined as follows:

1 Certification basis as established by FAA for the product type design and design change, which is defined in FAA Type Certificate Data Sheet No. H10WE, Revision 15.

2 CAAC Additional Technical Requirement :

Each R22 Beta helicopter delivered to China shall meet the following additional technical requirements:

(1) The operational requirements of CAAC must be met, including Chinese markings and placards.

CAAC 型号认可证申请日期

2015-09-09

CAAC Validation of Type Certificate

Application Date

(1). 国外适航当局合格审定基础

(1) 联邦航空条例

Foreign Authority Certification Basis:

适用所有型号

FAR 27 部, 1965 年 2 月 27 日生效, 包括第 27-1 至第 27-10 修正案, § 27.1559 的第 27-21 修正案为所有该型号的可选项。

14 CFR Part 27 dated February 1, 1965, including Amendments 27-1 through 27. § 27.1559 of Amendment 27-21 is an option for all S/Ns.

1969 年国家环境法案/National Environmental Act of 1969

1972 年噪音控制法案/Noise Control Act of 1972

等效安全/Equivalent Safety Finding:

编号/Number TD10352LA-R/S-1

FAR 27. 1401(d) 防撞照明系统/14 CFR Part 27.1401(d), Anticollision Light System

(2) 生产依据 1981 年 3 月 6 日颁发的生产许可证编号为: 424WE
Production Basis Production Certificate No. 424WE, dated March 6, 1981

三、 技术特性和使用限制/TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

型号设计定义 R22 主图纸清单 2015 年 8 月 12 日。

Type Design Definition: R22 MDL_FAA_AUG 12 2015

中文标牌和标识 中文标牌和标识包含在图纸 B842 (B 版) 或 CAAC 批准的更新版本中。
Chinese Placards and marking Chinese Placards and markings are included in drawing B842 (Revision B) or later revisions CAAC approved.

1. 发动机 莱康明/Lycoming O-360-J2A (See NOTE 11)
Engine O-360-J2A: 国外适航当局发动机 TCDS FAA No: E-286
Foreign Authority Engine TCDS FAA No: E-286
CAAC 型号认可证编号: VTC0170E
CAAC VTC No. VTC0170E

2. 发动机限制 最大连续 Maximum continuous (124 hp.) 2652 rpm (104%)
Engine Limitations 起飞 (5 分钟) Takeoff (5 minutes) (131 hp.) 2652 rpm (104%)
参阅 RFM 了解与马力输出及周边情况相关的最大进气压力。参阅 RFM 了解高度限制 See RFM for maximum manifold pressure corresponding to hp. Rating and ambient conditions. See RFM for altitude limitations.

3 旋翼限制/Rotor Limits

无功率 Power Off (Rotor Tach) for O-320-B2C and O-360-J2A	有功率 Power On (Rotor Tach) for O-320-B2C	有功率 Power On (Rotor Tach) for O-360-J2A
最大/Maximum (110%) 561 rpm	(104%) 530 rpm	(104%) 530 rpm
最小/Minimum (90%) 459 rpm	(97%) 495 rpm	(101%) 515 rpm

4 涡轮转速限制 不适用
Turbo RPM Limitation N/A

5 传动系统扭矩限制 不适用
Transmission Torque Limits: N/A

6. 辅助动力装置和辅助动力装置限制 不适用
N/A

Auxiliary Power Unit (APU) and APU Limitations

:

7 燃油 91/96 UL 最低等级航空汽油/minimum grade aviation gasoline
Fuel 100 LL 最低等级航空汽油/minimum grade aviation gasoline
100/130 最低等级航空汽油/minimum grade aviation gasoline

7.1 燃油容量
Fuel capacities:

油箱/Tank	非软囊油箱/Tanks Without Bladder		软囊油箱/Tanks With Bladders		位 置 /Location (STA)
	容 量 /Capacity (美 加 仑 /gal.)	可 用 容量 (美 加 仑 /gal.)	容量/Capacity (美加仑/gal.)	可用容 量 (美加 仑 /gal.)	
主/Main	19.8	19.2	18.3	16.9	108.6
辅 助 /Auxiliary	10.9	10.5	9.7	9.4	103.8

8 滑油

Oil

8.1. 滑油容量

Oil capacities

发动机滑油/Engine oil, 1.5 美加仑/Gals. at STA 104.8;

变速箱滑油/Transmission oil, 0.3 美加仑 Gal. at STA 100.

9 空速限制

Airspeed limits:

从海平面到 3,000 英尺密度高度的有功率和无功率状态下不可逾越速度为 98KCAS, 至 8,000 英尺密度高度下降为 83KCAS, 至 14,000 英尺密度高度下降为 56KCAS, 显示点与点之间的直线变化/Vne (never exceed) Power On and Power Off 98 KCAS sea level to 3,000 feet

density altitude, decreasing to 83 KCAS at 8,000 feet density altitude, decreasing to 56 KCAS at 14,000 feet density altitude. Straight line variation between points.

10. 最大使用升限及温度

Maximum Operating Altitude
and Temperature:

密度高度限制/Density Altitude Limit - 14,000 英尺/feet

10.1. 使用限制 Operating Limitations:

一般

不适用

General:

N/A.

11. 重心范围

Centre of Gravity Range:

纵向 /Longitudinal CG	GW	横向 /Lateral CG
	最小值 Minimum 920 磅至/pounds to	
95.5	1275	+1.0R -0.8L
96.5	1370	
97.0		-2.2L
98.0		+2.6R -2.1L
100.0	1370	
102.0	1175	+1.2R -0.5L

显示点与点之间的直线变化，参见插图 2/Straight Line Variation Between Points Shown. See Figure 2.

如果空载中心力臂（力矩/空重）超过 104.8，在需要在直升机的机鼻 F.S. 38.0 处安装固定配重，以配合 130 磅体重的最低单驾要求。（最低单驾飞行员与辅助油箱总重 135 磅）/If empty weight CG arm (moment/empty weight) is greater than 104.8, fixed ballast must be installed in the helicopter's nose at F.S. 38.0 to allow a minimum solo pilot weight of 130 pounds. (Minimum pilot weight with auxiliary fuel tank is 135 pounds.)

12. 最大/最小重量

Maximum/minimum Weights:

最大 Maximum: 1370 磅/lbs.

最小/Minimum: 920 磅/lbs.

12.1. 最大行李/货物装载

Maximum Baggage/Cargo Loads:

每个行李舱内最大承载 50 磅行李或设备，座椅承载及行李和设备总重不得超过 240 磅 /50 pounds of baggage and installed equipment in either baggage compartment, except combined seat load plus baggage and equipment not to exceed 240 pounds.

13. 测量基准

Datum:

主轴中心线向机首方向 100 英寸/100 inches forward of main rotor centerline.

14. 水平测量措施

Leveling Means:

查阅 R22 旋翼机飞行手册重量与平衡章节/Refer to the Weight and Balance Section of the R22 Rotorcraft Flight Manual.

15. 平局气动弦

MAC

不适用

N/A

16. 最小飞行机组

Minimum Flight Crew:

1 名飞行员

1 Pilot.

17. 座位数量

Passenger Seating Capacity:

2 (飞行员位置/Pilot Location STA 78.0)

18. 旋翼桨叶及控制运动/Rotor

查阅 R22 维修手册获得调试信息/For rigging information refer to R22 Maintenance

Blade and Control Movements	Manual.
19 使用序列号 /Serial Nos.	0501 及后续/and subsequent
Eligible	
20. 设备 Equipment	适用的适航规章（参阅审定基础）中要求的基本设备必须在直升机上安装以完成审定，不仅如此，如下 FAA 批准的旋翼机飞行手册必须具备/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 FAA-approved Rotorcraft Flight Manual is required: R22 BETA 配备 0-320-B2C 发动机/R22 BETA with 0-320-B2C R22 1979 年 3 月 16 日版旋翼机飞行手册的 1985 年 8 月 7 日修订版或更新修订版（参阅备注 8）/R22 Rotorcraft Flight Manual dated March 16, 1979, with revisions through August 7, 1985 or later (see NOTE 8). R22 BETA 配备 0-360-J2A/R22 BETA with 0-360-J2A R22 1979 年 3 月 16 日版旋翼机飞行手册的 1985 年 8 月 7 日修订版或更新修订版（参阅备注 8），使用 2000 年 10 月 13 日之前的修订版飞行手册，必须具备 1996 年 1 月 31 日修订或更新修订的飞行手册补充页 7（参阅备注 8）/R22 Rotorcraft Flight Manual dated March 16, 1979, with revisions through August 7, 1985 or later. For R22 Rotorcraft Flight Manual with revisions prior to October 13, 2000, Flight Manual Supplement 7 dated January 31, 1996, or later revision, is required (see NOTE 8). 所有型号/ALL MODELS 如果安装了软囊油箱，应使用 R22 旋翼机飞行手册 1979 年 3 月 16 日发布版本的 2013 年 2 月 15 日修订版或更新修订版。R22 水陆两用型还需要上述的飞行手册补充页 4。同时请参阅备注 8/If fuel tanks with bladders are installed: R22 Rotorcraft Flight Manual dated March 16, 1979, with revisions through February 15, 2013 or later. R22 Mariners also require Flight Manual Supplement 4 as noted above. Also see Note 8.
21.其他 Other	
21.1 乘客应急出口 Passenger Emergency Exit:	不适用 N/A
21.2. 寿命件 Life-limited parts:	关键部件退役时间在罗宾逊 R22 维修手册中 FAA 批准的“适航限制”章节列出。退役时间和定检间隔在没有得到 FAA 工程批准的情况下不得变更。 Retirement time of critical components is contained in the FAA approved "AIRWORTHINESS LIMITATIONS" section of the Robinson R22 Maintenance Manual. The values of retirement or service life and inspection intervals cannot be changed without FAA Engineering approval.

21.3. 机轮和轮胎	不适用
Wheels and Tyres:	N/A
22. 注释	不适用
Note	N/A

四、 IV. 使用和维护技术资料/Operating and Service Instructions

1. 飞行手册文件号	RTR061 《驾驶员操作手册和 FAA 批准的直升机飞行手册》
Rotorcraft Flight Manual, Document No	RTR061 PILOT'S OPERATION HANDBOOK AND FAA APPROVED ROTORCRAFT FLIGHT MANUAL
2. 维护手册文件号	RTR060
Maintenance Manual, Document No:	
3. 服务信件和服务通告	不适用
Service Letters and Service Bulletins:	N/A
4. 必备设备	不适用
Required Equipment:	N/A

II. 型别: R22 Mariner

MODEL NUMBER: R22 Mariner

一、 产品型别和批准日期/THE PRODUCT MODEL AND APPROVAL DATE

CAAC 认可日期	2015-09-25
CAAC Validated Date	

1. 型号合格证数据单号	H10WE
Type Certificate Data Sheet No.	

2. 型号、衍生型或型别 Type / Variant or Model

(a) 型号/Type	R22 Mariner
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(b) 衍生型或型别 Variant or Model:	
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3. 适航类别	正常类直升机
Airworthiness Category	Normal Category helicopter

4. 型号合格证持有人	Robinson Helicopter Company
Type Certificate Holder:	2901 Airport Drive Torrance, California 90505

5. 国外适航当局申请日期	12 June 1985
Foreign Authority Application Date:	

6. 国外适航当局型号审定日期 12 September 1985
Foreign Authority Type Certification
Date:

二、 合格审定基础和生产依据 **CERTIFICATION BASIS AND PRODUCTION BASIS**

CAAC 型号认可审定基础

CAAC 型号认可审定基础定义如下:

CAAC Validation Certification Basis

1 美国联邦航空管理局确定的产品型号设计或设计更改的合格审定基础, 其定义见美国联邦航空管理局型号合格证数据单: No. H10WE 第 15 版。

2 CAAC 附加技术条件/ CAAC Additional Technical Requirement :
交付到中国的每一架 R22 Mariner 直升机还必须满足下列专用附加技术条件;

(1) 必须满足中国民用航空局的运行要求,包括中文标记标牌要求;

CAAC validation basis was defined as follows:

1 Certification basis as established by FAA for the product type design and design change, which is defined in FAA Type Certificate Data Sheet No. H10WE, Revision 15.

2 CAAC Additional Technical Requirement :

Each R22 Mariner helicopter delivered to China shall meet the following additional technical requirements:

(1) The operational requirements of CAAC must be met, including Chinese markings and placards.

CAAC 型号认可证申请日期

2015-09-09

CAAC Validation of Type Certificate

Application Date

(1). 国外适航当局合格审定基础

(1) 联邦航空条例

Foreign Authority Certification Basis:

适用所有型号

FAR 27 部, 1965 年 2 月 27 日生效, 包括第 27-1 至第 27-10 修正案, § 27.1559 的第 27-21 修正案为所有该型号的可选项。

14 CFR Part 27 dated February 1, 1965, including Amendments 27-1 through 27. § 27.1559 of Amendment 27-21 is an option for all S/Ns.

1969 年国家环境法案/National Environmental Act of 1969

1972 年噪音控制法案/Noise Control Act of 1972

等效安全/Equivalent Safety Finding:

编号/Number TD10352LA-R/S-1

FAR 27. 1401(d) 防撞照明系统/14 CFR Part 27.1401(d), Anticollision
Light System

(2) 生产依据

Production Basis

1981 年 3 月 6 日颁发的生产许可证编号为: 424WE

Production Certificate No. 424WE, dated March 6, 1981

三、 技术特性和使用限制/TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

型号设计定义

R22 主图纸清单 2015 年 8 月 12 日。

Type Design Definition:

R22 MDL_FAA_AUG 12 2015

中文标牌和标识

Chinese Placards and marking

中文标牌和标识包含在图纸 B842 (B 版) 或 CAAC 批准的更新版本中。

Chinese Placards and markings are included in drawing B842 (Revision B) or later revisions CAAC approved.

1. 发动机

Engine

莱康明/Lycoming O-360-J2A (See NOTE 11)

O-360-J2A: 国外适航当局发动机 TCDS FAA No: E-286

Foreign Authority Engine TCDS FAA No: E-286

CAAC 型号认可证编号: VTC0170E

CAAC VTC No. VTC0170E

2. 发动机限制

Engine Limitations

最大连续 Maximum continuous (124 hp.) 2652 rpm (104%)

起飞 (5 分钟) Takeoff (5 minutes) (131 hp.) 2652 rpm (104%)

参阅 RFM 了解与马力输出及周边情况相关的最大进气压力。参阅 RFM 了解高度限制 See RFM for maximum manifold pressure corresponding to hp. Rating and ambient conditions. See RFM for altitude limitations.

3 旋翼速度限制/Rotor Speed
Limits

无功率 Power Off (Rotor Tach) for O-320-B2C and O-360-J2A	有功率 Power On (Rotor Tach) for O-320-B2C	有功率 Power On (Rotor Tach) for O-360-J2A
最大 /Maximum (110%) 561 rpm	(104%) 530 rpm	(104%) 530 rpm
最小 /Minimum (90%) 459 rpm	(97%) 495 rpm	(101%) 515 rpm

4 涡轮转速限制

Turbo RPM Limitation

不适用

N/A

5 传动系统扭矩限制

Transmission Torque Limits:

不适用

N/A

6. 辅助动力装置和辅助动力装

不适用

置限制 N/A

Auxiliary Power Unit (APU) and

APU Limitations

:

7 燃油

91/96 UL 最低等级航空汽油/minimum grade aviation gasoline

Fuel

100 LL 最低等级航空汽油/minimum grade aviation gasoline

100/130 最低等级航空汽油/minimum grade aviation gasoline

7.1 燃油容量

Fuel capacities:

油箱/Tank	非软囊油箱/Tanks Without Bladder		软囊油箱/Tanks With Bladders		位置/Location (STA)
	容量/Capacity (美加仑/gal.)	可用容量 (美加仑/gal.)	容量/Capacity (美加仑/gal.)	可用容量 (美加仑/gal.)	
主/Main	19.8	19.2	18.3	16.9	108.6
辅助/Auxiliary	10.9	10.5	9.7	9.4	103.8

8 滑油

Oil

8.1. 滑油容量

发动机滑油/Engine oil, 1.5 美加仑/Gals. at STA 104.8;

Oil capacities

变速箱滑油/Transmission oil, 0.3 美加仑 Gal. at STA 100.

9 空速限制

Airspeed limits:

安装浮筒时/With Floats Installed

从海平面到 3,000 英尺密度高度的有功率状态下不可逾越速度为 91KCAS, 至 7,500 英尺密度高度下降 77 为 KCAS, 至 14,000 英尺密度高度下降为 50KCAS, 显示点与点之间的直线变化。Vne (never exceed) Power On 91 KCAS sea level to 3,000 feet density altitude, decreasing to 77 KCAS at 7,500 feet density altitude, decreasing to 50 KCAS at 14,000 feet density altitude. Straight line variation between points.

从海平面到 7,500 英尺密度高度的无功率状态下不可逾越速度为 77KCAS, 至 14,000 英尺密度高度下降为 50KCAS, 显示点与点之间的直线变化。Vne (never exceed) Power Off 77 KCAS sea level to 7,500 feet density altitude, decreasing to 50 KCAS at 14,000 feet density altitude. Straight line variation between points.

未安装浮筒时/Without Floats Installed

从海平面到 3,000 英尺密度高度的有功率和无功率状态下不可逾越速度为 98KCAS, 至 8,000 英尺密度高度下降为 83KCAS, 至 14,000 英尺密度高度下降为 56KCAS, 显示点与点之间的直线变化。Vne (never exceed) Power On and Power Off 98 KCAS sea level to 3,000 feet density altitude, decreasing to 83 KCAS at 8,000 feet density altitude, decreasing to 56 KCAS at 14,000 feet density altitude. Straight line variation between points.

10. 最大使用升限及温度
Maximum Operating Altitude
and Temperature:

密度高度限制/Density Altitude Limit - 14,000 英尺/feet

10.1. 使用限制 Operating Limitations:

一般

不适用

General:

N/A.

11. 重心范围

Centre of Gravity Range:

带浮筒时/With Floats Installed:

纵向 /Longitudinal CG	GW	横向/Lateral CG
	最小值 Minimum 920 磅至/pounds to	
95.5	1275	+1 -0.8L
96.5	1370	
97.0		-2.2L
98.0		+2.6R -2.1L
100.0	1370	
101.0	1207	+1.3R -0.5L

不带浮筒时/Without Floats Installed:

纵向 /Longitudinal CG	GW	横向/Lateral CG
	最小值 Minimum 920 磅至/pounds to	
95.5	1275	+1.0 -0.8L
96.5	1370	
97.0		-2.2L
98.0		+2.6R -2.2L
100.0	1370	
101.5	1125	+1.1R -0.8L

显示点与点之间的直线变化, 参阅插图 3/Straight Line Variation Between Points Shown. See Figure 3.

12.最大/最小重量

Maximum/minimum Weights:

最大 Maximum:1370 磅/lbs.

最小/Minimum:920 磅/lbs.

12.1. 最大行李/货物装载

Maximum Baggage/Cargo
Loads:

每个行李舱内最大承载 50 磅行李或设备, 座椅承载及行李和设备总重不得超过 240 磅 /50 pounds of baggage and installed equipment in either baggage compartment, except combined seat load plus baggage and equipment not to exceed 240 pounds.

13. 测量基准 Datum:	主轴中心线向机首方向100英寸/100 inches forward of main rotor centerline.
14. 水平测量措施 Leveling Means:	查阅R22旋翼机飞行手册重量与平衡章节/Refer to the Weight and Balance Section of the R22 Rotorcraft Flight Manual.
15. 平局气动弦 MAC	不适用 N/A
16. 最小飞行机组 Minimum Flight Crew:	1 名飞行员 1 Pilot.
17. 座位数量 Passenger Seating Capacity:	2 (飞行员位置/Pilot Location STA 78.0)
18 旋翼桨叶及控制运动/Rotor Blade and Control Movements	查阅 R22 维修手册获得调试信息/For rigging information refer to R22 Maintenance Manual.
19 使用序列号 /Serial Nos. Eligible	0364, 0501 及之后/and subsequent (所有水陆两用型附加“M”字母后缀/Suffix "M" added to all MARINERs.)
20. 设备 Equipment	适用的适航规章（参阅审定基础）中要求的基本设备必须在直升机上安装以完成审定，不仅如此，如下 FAA 批准的旋翼机飞行手册必须具备/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 FAA-approved Rotorcraft Flight Manual is required: R22 水陆两用型配备 O-320-B2C 发动机/R22 /MARINER with O-320-B2C R22 1979 年 3 月 16 日版旋翼机飞行手册的 1985 年 8 月 7 日修订版或更新修订版，以及 1985 年 9 月 9 日发布的飞行手册补充页 4，或更新修订版/R22 Rotorcraft Flight Manual dated March 16, 1979, with revisions through August 7, 1985 or later, and Flight Manual Supplement 4 dated September 9, 1985, or later revision. R22 水陆两用型配备 O-360-J2A 发动机/R22 MARINER with O-360-J2A R22 1979 年 3 月 16 日版旋翼机飞行手册的 1985 年 8 月 7 日修订版或更新修订版，以及 1985 年 9 月 9 日发布的飞行手册补充页 4 在 2000 年 10 月 13 日发布的修订版。对于 2000 年 10 月 13 日前修订版的 R22 飞行手册，必须具备在 1996 年 1 月 31 日发布的飞行手册补充页 8 或更新修订版，以取代飞行手册补充页 4/ R22 Rotorcraft Flight Manual dated March 16, 1979, with revisions through August 7, 1985 or later, and Flight Manual Supplement 4 dated September 9, 1985, with revisions through October 13, 2000 or later. For R22 Rotorcraft Flight Manual with revisions prior to October 13, 2000, Flight Manual Supplement 8 dated January 31, 1996, or later revision, is required

in place of Flight Manual Supplement 4.

所有型号/ALL MODELS

如果安装了软囊油箱，应使用 R22 旋翼机飞行手册 1979 年 3 月 16 日发布版本的 2013 年 2 月 15 日修订版或更新修订版。R22 水陆两用型还需要上述的飞行手册补充页 4。同时请参阅备注 8/If fuel tanks with bladders are installed: R22 Rotorcraft Flight Manual dated March 16, 1979, with revisions through February 15, 2013 or later. R22 Mariners also require Flight Manual Supplement 4 as noted above. Also see Note 8.

21.其他

Other

21.1 乘客应急出口

N/A

Passenger Emergency Exit:

21.2. 寿命件

Life-limited parts:

关键部件退役时间在罗宾逊 R22 维修手册中 FAA 批准的“适航限制”章节列出。退役时间和定检间隔在没有得到 FAA 工程批准的情况下不得变更。

Retirement time of critical components is contained in the FAA approved "AIRWORTHINESS LIMITATIONS" section of the Robinson R22 Maintenance Manual. The values of retirement or service life and inspection intervals cannot be changed without FAA Engineering approval.

21.3. 机轮和轮胎

不适用

Wheels and Tyres:

N/A

22.注释

不适用

Note

N/A

四、 IV. 使用和维修技术资料/Operating and Service Instructions

1.飞行手册文件号

RTR061 《驾驶员操作手册和 FAA 批准的直升机飞行手册》

Rotorcraft Flight Manual,
Document No

RTR061 PILOT'S OPERATION HANDBOOK AND FAA APPROVED
ROTORCRAFT FLIGHT MANUAL

2. 维护手册文件号

RTR060

Maintenance Manual, Document
No:

3. 服务信件和服务通告

不适用

Service Letters and Service
Bulletins:

N/A

4.必备设备

不适用

Required Equipment:

N/A

第 3 部分所有型号相关数据

SECTION 3 DATA PERTINENT TO ALL MODELS

第 4 部分注释

SECTION 4 NOTES

注释 1 现行的重量和平衡报告，包括审定空重中的设备清单和装载指令（必要时），必须在初始适航审查时和伺候的任何时候提供给每架飞机，除了运营商已有批准的重量控制系统。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 and at all times thereafter (except in the case of operators having an approved weight control system).

NOTE 1

参阅飞行手册装载章节了解不同燃油装载量时不同燃油重量和力臂信息/See Flight Manual loading section for variations of fuel weight and moment-arm with variations of fuel quantity.

产品序列号 002 至 0255 直升机的 STA79.0 驾驶员位置和产品序列号 0256 至以后直升机的 STA78.0 驾驶员位置之前所安装的产品序列号为 A466-1 和 A467-1 的座椅已经被产品序列号为 A932-1 和 A928-1 的座椅所取代/Pilot Location STA 79.0 for helicopter S/Ns 0002 thru 0255 and STA 78.0 for helicopter S/Ns 0256 and subsequent and helicopters in which Robinson P/N seats A466-1 and A467-1 have been replaced by Robinson P/N seats A932-1 and A928-1.

注释 2 下面的标牌必须安装在飞行员视野清晰的范围内/One of the following placards must be installed in clear view of the pilot:

NOTE 2

"THE MARKINGS AND PLACARDS INSTALLED ON THIS HELICOPTER CONTAIN OPERATING LIMITATIONS WHICH MUST BE COMPLIED WITH WHEN OPERATING THIS ROTORCRAFT. OTHER OPERATING LIMITATIONS WHICH MUST BE COMPLIED WITH WHEN OPERATING THIS ROTORCRAFT ARE CONTAINED IN THE ROTORCRAFT FLIGHT MANUAL."

或：: "THIS ROTORCRAFT APPROVED FOR DAY AND NIGHT VFR OPERATIONS"

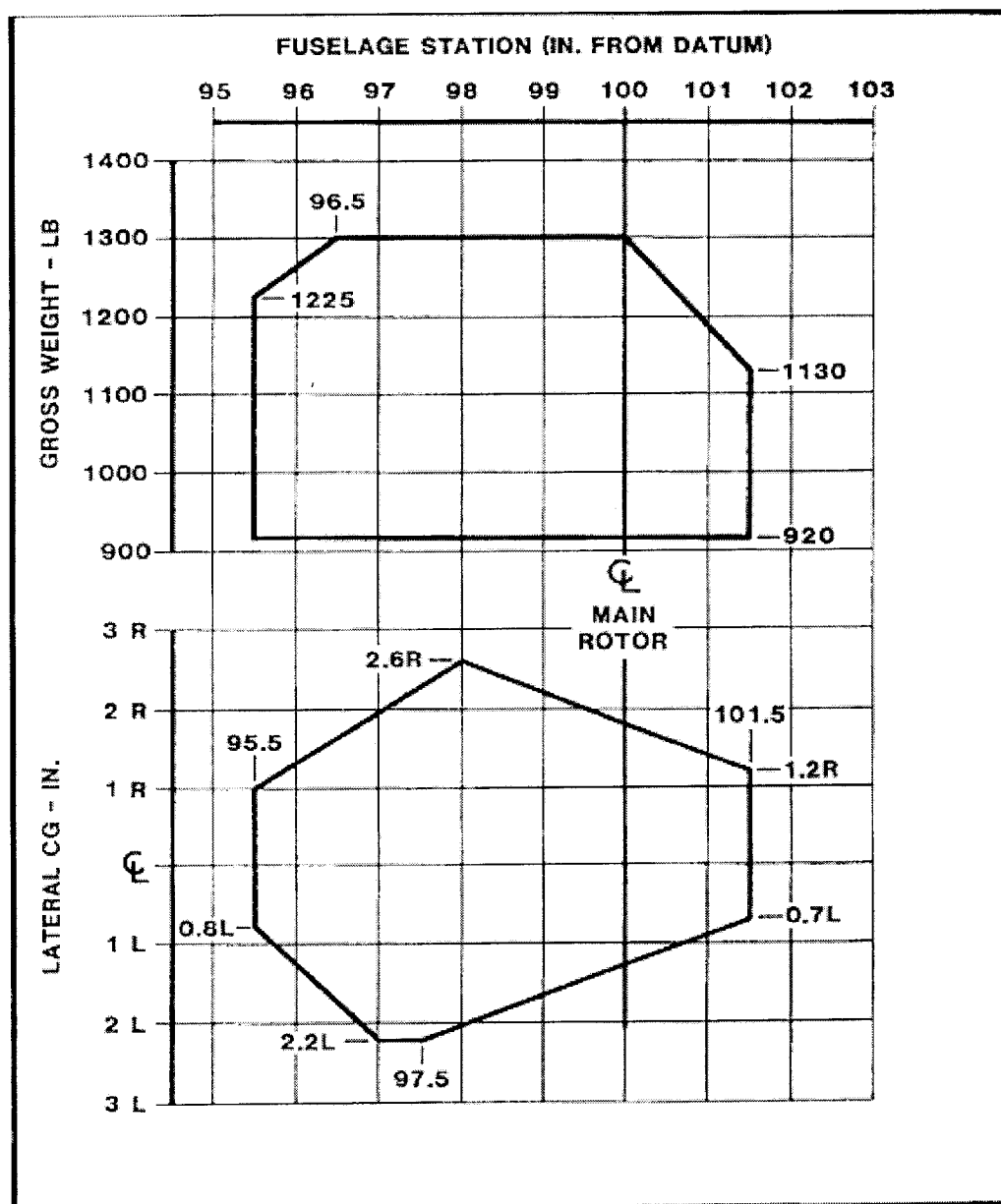
对于 R22 水陆两用型 For the R22 MARINER:

"THIS ROTORCRAFT APPROVED FOR DAY AND NIGHT VFR OPERATIONS WITHOUT FLOATS INSTALLED OR DAY VFR OPERATIONS ONLY WITH FLOATS INSTALLED."

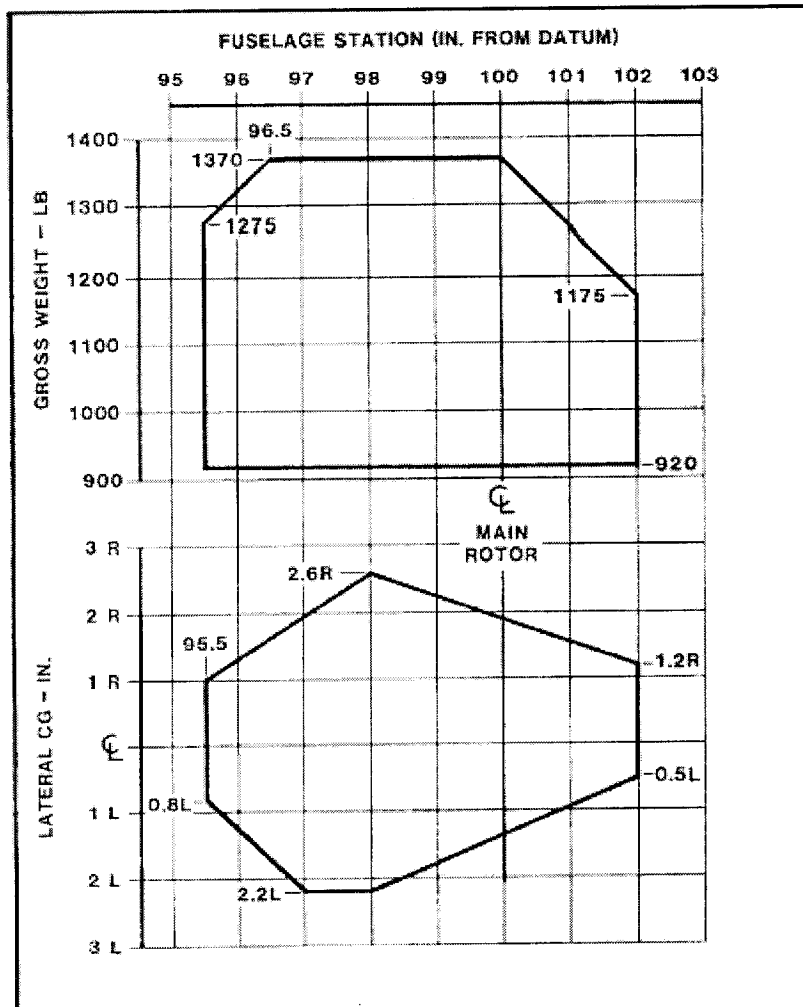
有关更多的标牌，参阅 R22 旋翼机飞行手册/For additional placards, see R22 Rotorcraft Flight Manual.

- 注释 3
NOTE 3 关键部件退役时间在罗宾逊 R22 维修手册中 FAA 批准的“适航限制”章节列出。退役时间和定检间隔在没有得到 FAA 工程批准的情况下不得变更/Retirement time of critical components is contained in the FAA approved "AIRWORTHINESS LIMITATIONS" section of the Robinson R22 Maintenance Manual. The values of retirement or service life and inspection intervals cannot be changed without FAA Engineering approval.
- 注释 4
NOTE 4 此处与 1988 年 4 月 11 日删除 Deleted as of April 11, 1988.
- 注释 5
NOTE 5 配备延迟点火磁电机的莱康明 O-320-A2C 发动机的直升机, 包括产品序列号 0002 至 0300, 0302 至 0349 及 0352 至 0356 的直升机/Lycoming O-320-A2C, with Retard Magneto Starting System, eligible on S/Ns 0002 thru 0300, 0302 thru 0349, and 0352 thru 0356 helicopters.
- 注释 6
NOTE 6 莱康明 O-320-B2C 发动机安装在产品序列号为 0175 及 0200 至 2570 的直升机上。如果下属部件发生改变的话, 也可能安装在产品序列号更早的直升机上: 罗宾逊产品序列号 B193-2 (仪表板玻璃面板), A145-3 (发动机), A600-2 (进气压力表) 及 A654-40 和 41 (贴纸) /Lycoming O-320-B2C installed on S/Ns 0175 and 0200 thru 2570 in production. It may be installed in prior S/N helicopters if the following parts are changed; Robinson P/Ns B193-2 (Window Plate - Instrument Cluster), A145-3 (Engine), A600-2 (Manifold Pressure Gauge), and A654-40 & -41 (Decals).
- 注释 7
NOTE 7 2001 年 4 月 25 日删除 Deleted as of April 25, 2001.
- 注释 8
NOTE 8 R22 “警用直升机”的配置需要依照 1984 年 3 月 27 日发布的飞行手册补充页 3 或更新的修订版运行/The R22 "Police Helicopter" configuration requires Flight Manual Supplement 3, dated March 27, 1984 or later.
- 注释 9
NOTE 9 R22 水陆两用型在安装浮筒时只能限制在白昼目视飞行规则下运行/The R22 MARINER with floats installed is limited to daylight VFR operation only.
- 注释 10
NOTE 10 产品序列号为 0364 的 R22 阿尔法由厂家改装为 R22 水陆两用型直升机。最初的 R22 阿尔法数据牌被撤掉替换为产品序列号为 0364M 的 R22 水陆两用型数据牌/R22 ALPHA S/N 0364 was converted to an R22 MARINER by the manufacturer. The original R22 ALPHA dataplate was removed and replaced with an R22 MARINER data plate S/N 0364M.
- 注释 11
NOTE 11 莱康明 O-360-J2A 发动机安装在产品序列号为 2571 及之后生产的直升机上。换装 O-360-J2A 发动机的工作只能在罗宾逊公司完成/Lycoming O-360-J2A installed on S/N 2571 and subsequent in production. Retrofit installation of the O-360-J2A engines may only be accomplished at the Robinson Helicopter Company.
- 注释 12
NOTE 12 采用改进型号合格证 (TC), 补充型号合格证 (STC), 或改进 STC 办法的本直升机的任何型号设计更改, 在飞机交付前, 或称为受影响的飞机发布第一个标准适航证之前, 按 FAR21.50 描述的以后发生的为准, 要求适航指令必须已经通过项目审查办公室提交飞行标准地区办公室 (FSDO) 沃斯堡飞机评估做 (FTW-AEG) 审查和接受。通过 337 表格“外场批准”的型号设计更改, 要求持续适航指令必须已经由外场批准 FSDO 审查过.Any changes to the type design of this helicopter by means of an amended type certificate (TC), supplemental type certificate (STC), or amended STC,

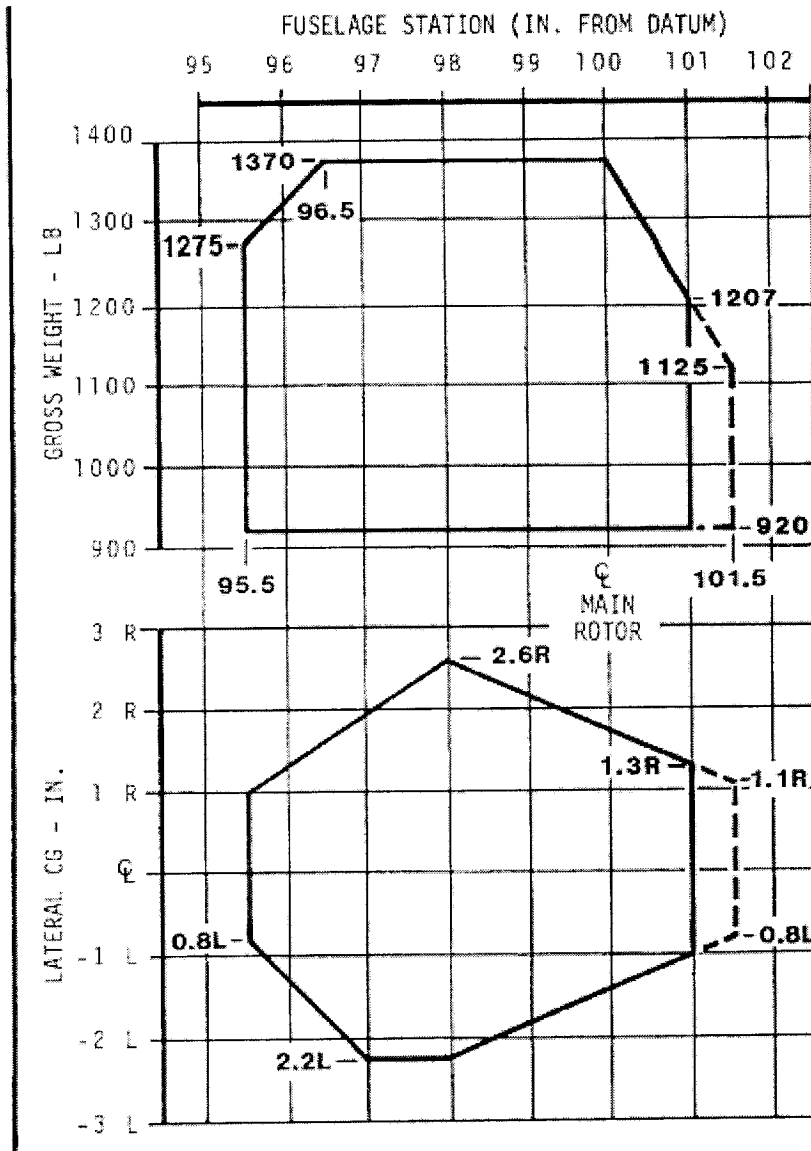
requiring instructions for continued airworthiness (ICA's) must be submitted through the project aircraft certification office (ACO) for review and acceptance by the by the Fort Worth -Aircraft Evaluation Group (FTW-AEG) Flight Standards District Office (FSDO) prior to the aircraft delivery, or upon issuance of the first standard airworthiness certificate for the affected aircraft, whichever occurs later as prescribed by Title 14 CFR 21.50. Type design changes (major repairs or alterations) by means of a FAA Form 337 (field approval) that require ICA's must have those ICA's reviewed by the field approving FSDO.



R22 插图 1/FIGURE 1



R22 阿尔法及贝塔/R22 ALPHA AND BETA
插图 2/FIGURE 2



装浮筒时/WITH FLOATS _____
 无浮筒时/WITHOUT FLOATS _____

R22 水陆两用型/R22 MARINER
 插图 3/FIGURE 3

- THE END -