

Introduction

Screw hole size 安装孔尺寸

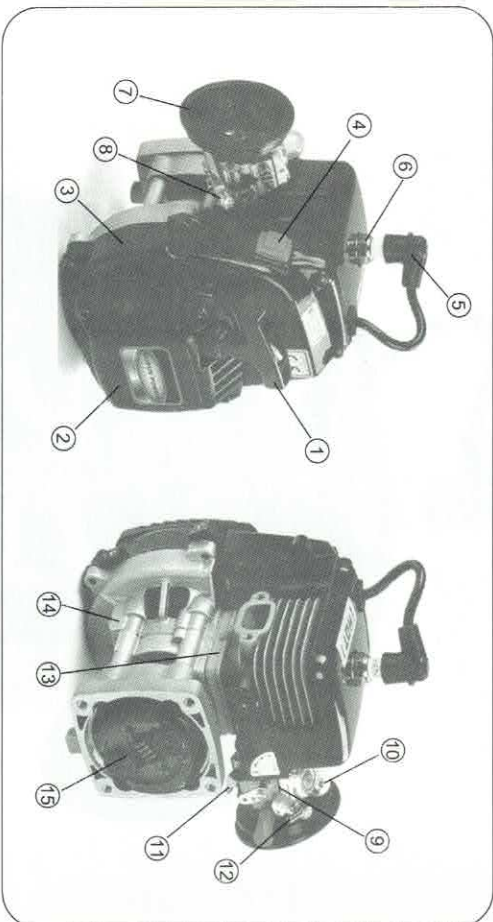
Dear Customer:

亲爱的客户：
感谢您购买我们的汽油发动机。

We are eager to provide you with good service. Familiarity with safety/use information is essential. For better performance, please read and understand all instructions before using/operating the engine. Please keep this manual handy, because it is difficult to understand without it. 我们希望为您提供良好的服务，熟悉安全/使用信息至关重要。为了获得更好的性能，请在使用/操作发动机之前，阅读并理解所有说明。请把这本手册放在手边，因为没有它很难理解。

In order to improve performance, this manual is subject to revision without notice. Some images/information may differ from the images/information in the manual. If so, we apologize for the inconvenience.

为了提高性能，本手册如有修订，恕不另行通知。某些图像/信息可能与手册中的图像/信息不同。如果是这样，我们对由此造成的不便深表歉意。



1. Start Handle 启动手柄	2. Start Assembly 启动总成	3. Flywheel Guard 边盖	4. Switch Button 熄火开关
5. Igniter 点火器	6. Spark Plug 火花塞	7. Air Filter Seat 空滤座	8. Idle Speed Needle 怠速针
9. Carburetor 化油器	10. Oil Pump 吸油泵	11. Inlet Pipe 进油嘴	12. Outlet Pipe 回油嘴
13. Cylinder 气缸	14. Crankcase 曲轴箱	15. Clutch 离合器	

Additional Items Needed For Your Engine:
发动机所需的其它项目上：

LAMA Tool 拉马工具



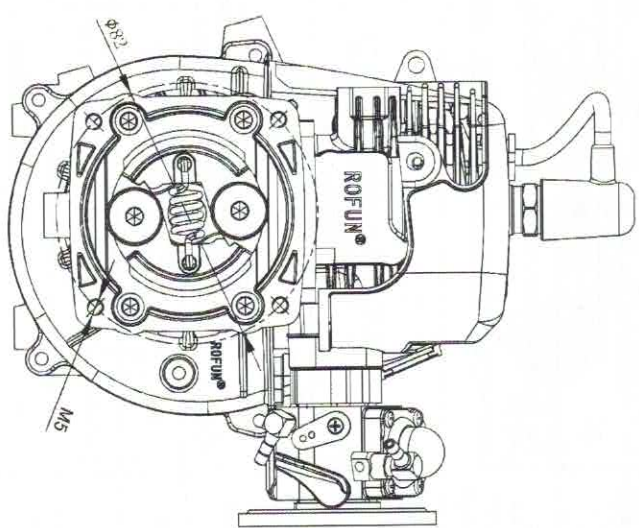
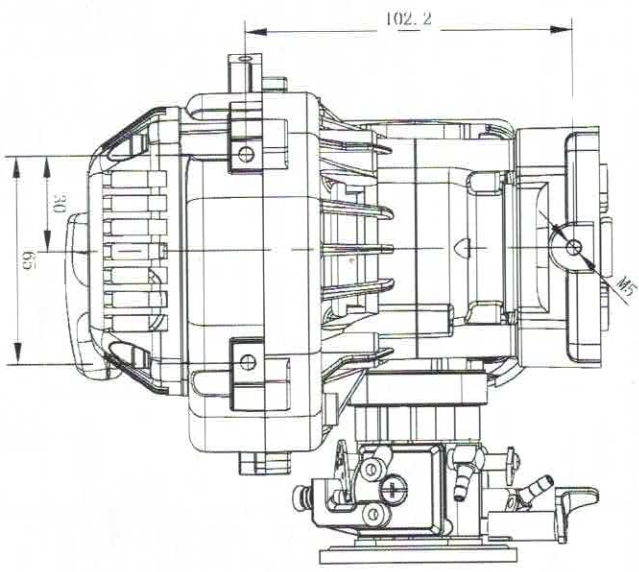
Socket Wrench 套筒扳手



Start Connector Wrench For Above R320以上拨盘扳手



1



2






























Item/项目	R290	R305	R320	R360	R450	R710
Structure Type 结构类型	two-stroke Single-cylinder,air cooling 单缸两冲程,风冷					
Displacement (ml.) 排量 (毫升)	28.5	30.5	31.7	35.8	44.9	70.8
Cylinder diameter * Stroke 活塞直径*冲程	36×28(mm)	36×30(mm)	38×28(mm)	39×30(mm)	43×31(mm)	50×36(mm)
Max. Output(kw/r/min) 最大输出(千瓦/转/分钟)	1.0/13000	1.15/13000	1.28/13000	1.6/13000	2.2/13000	3.4/13000
Low idling Speed(r/min) 怠速 (转/分钟)	3800±150	3800±150	3800±150	3800±150	3800±150	3800±150
Maximum Torque/Maximum Speed(N.m/r/min) 最大扭矩/最高转速 (牛·米/转/分钟)	1.69/9000	1.76/9000	1.88/9000	2.1/9000	2.8/9000	3.7/10000
Minimum Specific Fuel Consumption(g/kw.h) 最低油耗 (克/千瓦/小时)	≤830	≤840	≤870	≤970	≤1150	≤1850
Gasoline Applied 汽油型号	90-93#Gasoline 90-93#汽油					
Lubricant Applied 润滑油型号	Specially for two-strokegasoline engine 两冲发动机专用机油					
Mixture Ratio (ratio of gasoline and engine oil in volume) 混合比例 (汽油和机油比例)	For the initial 8 hours,the ratio is around 1:20-1:25,and then reduce it down to 1:30. 前8小时机油和汽油的混合比例约为1:20-1:25,再逐渐将比例缩减为1:30.					
Spark Plug Gap 火花塞间隙	0.5-0.7mm					
Carburetor 化油器	Diaphragm type 隔膜型					
Ignition Method 点火方式	Electrified 持续通电					
Direction of Rotation 旋转方向	Left(view from power output) 向左旋转 (动力输出方向)					
Net Weight (kg.) 净重 (公斤)	2.0	2.0	2.2	2.15	2.4	3.2
Size (mm) 尺寸 (毫米)	165×164×195	165×164×195	167×164×196	167×164×196	188×170×178	195×180×210
Operative Norm 执行标准	JB/T5135.3-2001					

3
































4

Parts for R290 Engine R290 配件图

	670004 Gear Fan Cover 边盖		670005 Clutch Cover 离合器罩		670006 Clutch Connector 拨梁		670071 Crankshaft 曲轴		670082 Piston 活塞		670092 Piston Ring 活塞环
	670101 Elastic Ring 减磨垫		670112 Needle Bearing 滚针轴承		670121 Ball Bearing 箱体轴承		670141 Oil Seal 油封		670151 Gasket Assembly 纸垫包		67016 Spark Plug 火花塞
	67017 Flywheel 磁飞轮		67018 Lighter 点火器		67019 Switch Button 熄火开关		67020 Carburetor 化油器		670221 Inlet Pipe 进气管		67023 Cylinder Cover 气缸罩
	67024 Pull Starter 手拉器		670252 Clutch 离合器		67040 Shim 箱体卡簧		67050 Crankcase 曲轴箱		670513 Cylinder 气缸		6701501 Crankcase Gasket 箱体纸垫
	6701503 Cylinder Gasket 气缸纸垫		6701504 Inlet Gasket 进气管纸垫		6701505 Carburetor Gasket1 化油器纸垫1		6701506 Carburetor Gasket2 化油器纸垫2		6701507 Exhaust Gasket 排气管纸垫		

5

Parts for R305 Engine R305 配件图

	670004 Gear Fan Cover 边盖		670005 Clutch Cover 离合器罩		670006 Clutch Connector 拨梁		670072 Crankshaft 曲轴		670082 Piston 活塞		670092 Piston Ring 活塞环
	670101 Elastic Ring 减磨垫		670112 Needle Bearing 滚针轴承		670121 Ball Bearing 箱体轴承		670141 Oil Seal 油封		670151 Gasket Assembly 纸垫包		67054 Spark Plug 火花塞
	67017 Flywheel 磁飞轮		67018 Lighter 点火器		67019 Switch Button 熄火开关		670221 Carburetor 化油器		670221 Inlet Pipe 进气管		67023 Cylinder Cover 气缸罩
	67024 Pull Starter 手拉器		670252 Clutch 离合器		67040 Shim 箱体卡簧		67050 Crankcase 曲轴箱		670514 Cylinder 气缸		670531 Carburetor 化油器
	6701503 Cylinder Gasket 气缸纸垫		6701504 Inlet Gasket 进气管纸垫		6701505 Carburetor Gasket1 化油器纸垫1		6701506 Carburetor Gasket2 化油器纸垫2		6701507 Exhaust Gasket 排气管纸垫		

6

Parts for R320 Engine R320 配件图

670004 Gear Fan Cover 边盖 1P	670053 Clutch Cover 离合器罩 1P	670006 Clutch Connector 拨架 1P	670073 Crankshaft 曲轴 1P	670084 Piston 活塞 1SET	670094 Piston Ring 活塞环 1P
670102 Elastic Ring 减磨垫 2P	670114 Needle Bearing 滚针轴承 1P	670122 Ball Bearing 箱体轴承 2P	670142 Oil Seal 油封 1SET	670153 Gasket Assembly 纸垫片 1SET	67016 Spark Plug 火花塞 1P
670171 Flywheel 磁飞轮 1P	67018 Ligniter 点火器 1P	67019 Switch Button 熄火开关 1SET	67020 Carburetor 化油器 1P	670223 Inlet Pipe 进气管 1P	670232 Cylinder Cover 气缸罩 1P
670254 Clutch 离合器 1SET	670402 Shim 箱体卡簧 2P	670515 Cylinder 气缸 1P	67060 Pull Starter 手拉器 1P	67061 Crankcase 曲轴箱 1SET	8526801 Start Connector 拨盘 1SET
6701505 Carburetor Gasket1 化油器纸垫1 2P	6701506 Carburetor Gasket2 化油器纸垫2 2P	6701507 Exhaust Gasket 排气管纸垫 5P	6701508 Cylinder Gasket 气缸纸垫 2P	6701509 Crankcase Gasket 箱体纸垫 2P	6701510 Inlet Gasket 进气管纸垫 2P
670054 Clutch Cover 离合器罩 1P					
For LT					
































7

Parts for R360 Engine R360 配件图






























670004 Gear Fan Cover 边盖 1P	670053 Clutch Cover 离合器罩 1P	670006 Clutch Connector 拨架 1P	670074 Crankshaft 曲轴 1P	670085 Piston 活塞 1SET	670095 Piston Ring 活塞环 1P
670102 Elastic Ring 减磨垫 2P	670114 Needle Bearing 滚针轴承 1P	670122 Ball Bearing 箱体轴承 2P	670142 Oil Seal 油封 1SET	670153 Gasket Assembly 纸垫片 1SET	670171 Flywheel 磁飞轮 1P
67018 Ligniter 点火器 1P	67019 Switch Button 熄火开关 1SET	670223 Inlet Pipe 进气管 1P	670232 Cylinder Cover 气缸罩 1P	670254 Clutch 离合器 1SET	670402 Shim 箱体卡簧 2P
670516 Cylinder 气缸 1P	67054 Spark Plug 火花塞 1P	67060 Pull Starter 手拉器 1P	67061 Crankcase 曲轴箱 1SET	67063 Carburetor 化油器 1P	8526801 Start Connector 拨盘 1SET
6701505 Carburetor Gasket1 化油器纸垫1 2P	6701506 Carburetor Gasket2 化油器纸垫2 2P	6701507 Exhaust Gasket 排气管纸垫 5P	6701508 Cylinder Gasket 气缸纸垫 2P	6701509 Crankcase Gasket 箱体纸垫 2P	6701510 Inlet Gasket 进气管纸垫 2P
670054 Clutch Cover 离合器罩 1P					
For LT					

8

Parts for R450 Engine R450 配件图

670042	Gear Fan Cover 边盖	670053	Clutch Cover 离合器罩	670066	Clutch Connector 拨架	670075	Crankshaft 曲轴	670086	Piston 活塞	670096	Piston Ring 活塞环
1P		1P		1P		1P		1SET		2P	
670103	Elastic Ring 弹性垫	670115	Needle Bearing 滚针轴承	670122	Ball Bearing 箱体轴承	670142	Oil Seal 油封	670154	Gasket Assembly 纸垫包	670171	Flywheel 磁飞轮
2P		1P		2P		1SET		1SET		1P	
670118	Lighter 点火器	670119	Switch Button 熄火开关	670223	Inlet Pipe 进气管	670233	Cylinder Cover 气缸罩	670254	Clutch 离合器	670402	Shim 箱体卡簧
1P		1SET		1P		1P		1SET		2P	
670517	Cylinder 气缸	67054	Spark Plug 火花塞	67063	Carburetor 化油器	67066	Crankcase 曲轴箱	67067	Pull Starter 手拉器	670681	Start Connector 拨盘
1P		1P		1P		1SET		1P		1SET	
6701505	Carburetor Gasket1 化油器纸垫1	6701506	Carburetor Gasket1 化油器纸垫2	6701510	Inlet Gasket 进气管纸垫	6701511	Crankcase Gasket 箱体纸垫	6701512	Cylinder Gasket 气缸纸垫	6701513	Exhaust Gasket 排气管纸垫
2P		2P		2P		2P		2P		5P	
670054	Clutch Cover 离合器罩										
1P											

9

670043	Gear Fan Cover 边盖	670066	Clutch Connector 拨架	670076	Crankshaft 曲轴	670088	Piston 活塞	670097	Piston Ring 活塞环	670116	Needle Bearing 滚针轴承
1P		1P		1P		1SET		1P		1P	
670123	Ball Bearing 箱体轴承	670143	Oil Seal 油封	670155	Gasket Assembly 纸垫包	670171	Flywheel 磁飞轮	67018-2	Lighter 点火器	67019	Switch Button 熄火开关
2P		2P		1SET		1P		1P		1SET	
670254	Clutch 离合器	670518	Cylinder 气缸	67054	Spark Plug 火花塞	670681	Start Connector 拨盘	67069	Crankcase 曲轴箱	67070	Carburetor 化油器
1SET		1P		1P		1SET		1SET		1P	
67071	Inlet Pipe 进气管	67072	Cylinder Cover 气缸罩	67073	Pull Starter 手拉器	95283	Clutch Cover 离合器罩	6701505	Carburetor Gasket1 化油器纸垫1	6701513	Exhaust Gasket 排气管纸垫
1SET		1P		1P		1P		2P		5P	
6701514	Crankcase Gasket 箱体纸垫	6701515	Cylinder Gasket 气缸纸垫	6701516	Inlet Gasket 进气管纸垫	6701517	Carburetor Gasket1 化油器纸垫2	97058	Clutch Cover 离合器罩		
2P		2P		2P		2P		1P			

10

Parts for R710 Engine R710 配件图