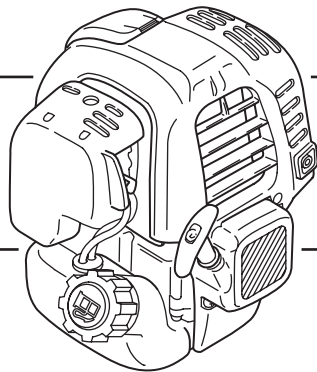


EH025/035/035V

- US** *INSTRUCTIONS FOR USE (USA only)*
- GB** *INSTRUCTIONS FOR USE*
- FR** *MANUEL D'UTILISATION*
- DE** *BEDIENUNGSANLEITUNG*
- NL** *GEBRUIKSAANWIJZING*
- ES** *MANUAL DE INSTRUCCIONES*
- PT** *MANUAL DE INSTRUÇÕES*
- RU** *РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ*



2ZZ9990121

Robin Engines

GB

**MANUFACTURER'S DECLARATION FOR MACHINERY PARTS
IN ACCORDANCE WITH 98/37/EC 1998****Manufacturer of machinery parts :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Description of the machinery parts :

"Robin" EC, EY, EH, DY and EX series spark ignition Engines.

Engine Models :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Declaration :

The above designated engines are intended for installation in a machine as set out in the EC machines guideline.

Note :

This machinery part must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the appropriate machinery directive.

Signed : 

K. Ohno
Department Manager, Customer Service

Dated : July 2004

FR

**DÉCLARATION DU FABRICANT POUR DES PIÈCES DE MACHINES
SELON LA NORME 98/37/CE 1998****Fabricant des pièces de machines :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Description des composants de machines :

Moteurs à allumage par étincelle série "Robin" EC, EY, EH, DY et EX.

Modèles de moteur :


EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Déclaration :

Les moteurs indiqués ci-dessus sont prévus pour l'installation dans une machine comme spécifié dans la directive des machines CE.

Remarque :

Ce composant de machine ne doit pas être mis en service tant que la machine dans laquelle il est intégré, n'a pas été déclarée conforme aux directives machines appropriées.

Signé : 

K. Ohno
Directeur de Dept., Service de la clientèle

Daté : Juillet 2004

DE

**HERSTELLERERKLÄRUNG FÜR MASCHINENTEILE
ENTSPRECHEND 98/37/EG 1998****Hersteller von Maschinenteilen :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Beschreibung der Maschinenteile :

"Robin" Funkenzündungsmotoren der Baureihen EC, EY, EH, DY und EX.

Motorenmodelle :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Erklärung :

Die oben aufgeführten Motoren sind zum Einbau in einer Maschine wie in den EG-Maschinenrichtlinien festgelegt gedacht.

Hinweis :

Dieses Maschinenteil darf nicht in betrieb genommen werden, bevor die Maschine, in der es zum Einsatz kommen soll, mit den Bestimmungen der entsprechenden Maschinenrichtlinie konform bzw. Diesen entsprechend erklärt wurde.

Unterzeichnet : 

K. Ohno
Abteilungsleiter, Kundendienst

Datum : Juli 2004

NL

**VERKLARING VAN DE FABRIKANT VOOR MACHINE ONDERDELEN
VOLGENS 98/37/EG 1998****Fabrikant van machine onderdelen :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Beschrijving van de machine onderdelen :

"Robin" EC, EY, EH, DY en EX series interne verbrandingsmotoren.

Motormodellen :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Verklaring :

De hierboven aangegeven motoren zijn bedoeld voor installatie in een machine als beschreven in de EG machinerichtlijn.

Opmerking :

Deze machine onderdelen mogen niet in werking worden gesteld alvorens zeker is dat de applicatie waarvoor deze onderdelen worden gebruikt geheel volgens figurerende richtlijnen zijn.

Ondertekend : 

K. Ohno
Afdelingshoofd Klantenservice

Datum : Juli 2004

ES

**DECLARACIÓN DEL FABRICANTE DE CONFORMIDAD DE LAS
PARTES DE LA MAQUINARIA CON LA DIRECTIVA 98/37/CE 1998****Fabricante de las partes de la maquinaria :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Descripción de las partes de la maquinaria :

Motores de encendido por chispa "Robin" de las series EC, EY, EH, DY y EX.

Modelos de motores :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Declaración :

Los motores arriba designados están hechos para su instalación en una máquina según lo estipulado en la normativa de máquinas de la CE.

Nota :

Esta pieza no debe ser puesta en funcionamiento hasta que la máquina a la cual se incorpore haya sido declarada conforme con las disposiciones de las correspondientes directivas sobre maquinaria.

Firmado : 

K. Ohno
Jefe del departamento, Servicio de clientes

Fecha : Julio de 2004

IT

**DICHIARAZIONE DEL COSTRUTTORE RELATIVA AI COMPONENTI
PER MACCHINE IN ACCORDO ALLA DIRETTIVA 98/37/CE 1998****Costruttore dei componenti per macchine :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Descrizione del componente della macchina :

Motori a candela "Robin" delle serie EC, EY, EH, DY ed EX.

Modelli di motore :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Dichiarazione :

I motori sopra specificati sono destinati all'installazione a bordo di macchine secondo quanto disposto dalle direttive macchine CE.

Nota :

Questo componente non può essere messo in servizio se la macchina della quale fa parte non è stata dichiarata conforme alle prescrizioni della vigente direttiva macchina.

Firma : 

K. Ohno
Direttore di dipartimento, Servizio dei clienti

Data : Luglio 2004

PT

DECLARAÇÃO DO FABRICANTE SOBRE COMPONENTES DE MÁQUINAS EM CONFORMIDADE COM 98/37/CE 1998**Fabricante de componentes de máquinas :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Descrição dos componentes da máquina :

Motores de explosão Robin das séries EC, EY, EH, DY e EX.

Modelos de motores :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Declaração :

Os motores mencionados acima destinam-se à instalação em máquinas conforme as disposições da diretiz CE sobre motores.

Nota :

Estes componentes não deverão ser incorporados nas máquinas sem que estas tenham sido declaradas em conformidade com a respectiva directiva máquinas.

Assinado : K. Ohno

K. Ohno
Gerente do Depart. Setor de Atendimento ao Cliente Data : Julho de 2004

GR

ΔΗΛΩΣΗ ΚΑΤΑΣΚΕΥΑΣΤΗ ΓΙΑ ΕΞΑΡΤΗΜΑΤΑ ΜΗΧΑΝΗΜΑΤΩΝ ΣΥΜΦΩΝΑ ΜΕ ΤΗΝ ΟΔΗΓΙΑ 98/37/ΕΚ 1998**Κατασκευαστής μηχανολογικών εξαρτημάτων :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Περιγραφή των μηχανικών μερών :

"Robin" EC, EY, EH, DY και EX σειράς κινητήρες εσωτερικής καύσης.

Μοντέλα Κινητήρα :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Δήλωση :

Οι παραπάνω καθορισμένοι κινητήρες προορίζονται για εγκατάσταση σε μηχανήματα όπως καθορίζεται από την οδηγία περί κινητήρων ΕΚ.

Σημείωση :

ΤΟ ΜΕΡΟΣ ΑΥΤΟ ΤΟΥ ΜΗΧΑΝΗΜΑΤΟΣ ΔΕΝ ΠΡΕΠΕΙ ΝΑ ΤΡΕΦΕΙ ΣΕ ΛΕΙΤΟΥΡΓΙΑ ΠΙΝΤΟ ΜΗΧΑΝΗΜΑ ΣΤΟ ΟΠΟΙΟ ΕΧΕΙ ΕΝΣΩΜΑΤΩΘΕΙ ΑΕΝ ΔΙΑΦΕΡΕΙ ΟΤΙ ΕΙΝΑΙ ΣΥΜΦΩΝΟ ΜΕ ΤΗΝ ΑΝΤΙΣΤΟΙΧΗ ΟΔΗΓΙΑ ΓΙΑ ΤΑ ΜΗΧΑΝΗΜΑΤΑ.

Υπογραφή : K. Ohno

K. Ohno
Διευθυντής τμήματος, Εξυπηρέτηση πελατών Ημερομηνία : Ιούλιος 2004

NO

PRODUSENTEKLERASJON FOR MASKINDELAR I HENHOLD TIL 98/37/EF 1998**Maskindelprodusent :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Beskrivelse av maskindelen :

"Robin" EC, EY, EH, DY og EX-serie tennpluggmotorer.

Motormodeller :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Deklarasjon :

De ovenfor nevnte motorene er beregnet til installering i en maskin i overensstemmelse med retningslinjene for EF-maskiner.

Merk :

Denne maskindelen må ikke settes i drift inntil maskinen den skal være en del av / monteres inn i har blitt erklært å være i samsvar med betingelsene i gjeldende maskindirektiv.

Underskrift : K. Ohno

K. Ohno
Avdelingsleder for Kundeservice Dato : Juli, 2004

SE

TILLVERKARENS FÖRSÄKRAN OM MASKINDELARS ÖVERENSTÄMMELSE MED 98/37/EG 1998**Tillverkare av maskindelar :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Beskrivning av maskindelar :

"Robin" EC, EY, EH, DY och EX-serien förgasarmotorer.

Motormodeller :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Deklaration :

De ovan benämnda motorerna är avsedda för montering i en maskin enligt EG:s riktlinjer för maskiner.

Observera :

Denna maskindeln får inte tas i drift förrän maskinen som den skall monteras i är i överensstämmelse med gällande maskindirektiv.

Undertecknat : K. Ohno

K. Ohno
Avdelningschef, kundjänt Datum : Juli 2004

FI

VALMISTAJAN ILMOITUS KONEOSIEN YHDENMUKAISUUDESTA 98/37/EY 1998**Koneosien valmistaja :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Koneen nimitys :

"Robin" EC-, EY-, EH-, DY- ja EX-sarjan kipinäsytytysmoottorit.

Moottorimallit :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Ilmoitus :

Yllä mainitut moottorit on tarkoitettu asennettaviksi koneisiin kuten on viitottettu EY:n koneita koskeissa suosituksissa.

Huomio :

Tätä komponenttia ei voida ottaa käyttöön ennenkuin laite johon se liitetään on todettu täyttävän konedirektiivin normit.

Allekirjoitus : K. Ohno

K. Ohno
Departementti Emäntä, Asiakas Asepalvelus Päivämäärä : Heinäkuu 2004

DK

PRODUCENT DEKLARATION FOR MASKINDEL I HENHOLD TIL 98/37/EF 1998**Producent af maskindele :**

FUJI HEAVY INDUSTRIES LTD.
Industrial Products Company
Saitama Plant
4-410 Asahi, Kitamoto City, Saitama 364-8511, Japan

Beskrivelse af maskindelen :

"Robin" EC, EY, EH, DY og EX serie motorer med gnisttænding.

Motormodeller :

EC01, 02, 03, 04, 06, 08, 10, 12, 17, 25
EY08, 15, 20, 28, 35, 40
EH025, 035, 09, 12, 17, 25, 30, 34, 36, 41, 63, 64, 65, 72
DY23, 27, 30, 35, 41, 42
EX13, 17, 21, 27

Deklaration :

De ovennævnte angivne motorer er beregnet til installation i en maskine, som beskrevet i EF vejledningen for maskiner.

Bemærk :

Denne motor må ikke tages i brug uden at maskinen, som den indbygges i, er i overensstemmelse med gældende maskindirektiv.

Underskrift : K. Ohno

K. Ohno
Afdelingsdirektor, kundeservice Dato : Juli 2004



WARNING:



The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

NOTICE

FEDERAL EMISSION COMPONENT DEFECT WARRANTY and CALIFORNIA EMISSION CONTROL WARRANTY are applicable to only those engines complied with EPA (Environmental Protection Agency) and CARB (California Air Resources Board) emission regulations in the U.S.A.

NOTICE

To the engines exported to and used in the countries other than the U.S.A., warranty service shall be performed by the distributor in each country in accordance with the standard Robin engine warranty policy as applicable.

AIR INDEX

To show compliance with California emission regulations, a hangtag has been provided displaying the Air Index level and durability period of this engine.

The Air Index level defines how clean an engine's exhaust is over a period of time. A bar graph scaled from "0" (most clean) to "10" (least clean) is used to show an engine's Air Index level. A lower Air Index level represents cleaner exhaust from an engine.

The period of time (in hours) that the Air Index level is measured is known as the durability period. Depending on the size of the engine, a selection of time periods can be used to measure the Air Index level (see below).

<u>Descriptive Term</u>	<u>Applicable to Emissions Durability Period</u>
Moderate	- 50 hours (engine from 0 to 80 cc)
	- 125 hours (engine greater than 80 cc)
Intermediate	- 125 hours (engine from 0 to 80 cc)
	- 250 hours (engine greater than 80 cc)
Extended	- 300 hours (engine from 0 to 80 cc)
	- 500 hours (engine greater than 80 cc)

Notice : This hangtag must remain on this engine or piece of equipment, and only be removed by the ultimate purchaser before operation.

FEDERAL EMISSION COMPONENT DEFECT WARRANTY

EMISSION COMPONENT DEFECT WARRANTY COVERAGE - This emission warranty is applicable in all States, except the State of California

Fuji Heavy Industries Ltd. and Robin America Inc., Wood Dale Illinois, (herein "**ROBIN AMERICA**") warrant to the initial retail purchaser and each subsequent owner, that this utility equipment engine (herein "engine") was designed, built, and equipped to conform at the time of initial sale to all applicable regulations of the U.S. Environmental Protection Agency (EPA), and that the engine is free of defects in materials and workmanship which would cause this engine to fail to conform with EPA regulations during its warranty period.

For the components listed under PARTS COVERED, the dealer or service center authorized by **ROBIN AMERICA** will, at no cost to you, make the necessary diagnosis, repair, or replacement necessary to ensure that the engine complies with applicable U.S. EPA regulations.

EMISSION COMPONENT DEFECT WARRANTY PERIOD

The warranty period for this engine begins on the date of sale to the initial purchaser and continues for a period of 2 years.

PARTS COVERED

Listed below are the parts covered by the Emission Component Defect Warranty. Some of the parts listed below may require scheduled maintenance and are warranted up to the first scheduled replacement point for that part.

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1) Fuel Metering System <ul style="list-style-type: none">(i) Carburetor and internal parts(ii) Fuel filter, if applicable(iii) Throttle stopper, if applicable(iv) Choke System, if applicable | 3) Ignition System <ul style="list-style-type: none">(i) Spark plug(ii) Flywheel Magneto(iii) Ignition Coil |
| 2) Air Induction System <ul style="list-style-type: none">(i) Air cleaner plate(ii) Air cleaner case(iii) Air cleaner element | 4) Miscellaneous Items Used in Above Systems <ul style="list-style-type: none">(i) Fuel hoses, clamps and sealing gaskets |

OBTAINING WARRANTY SERVICE

To obtain warranty service, take your engine to the nearest authorized **ROBIN AMERICA**, distributor or dealer. Bring your sales receipts indicating date of purchase for this engine. The dealer or service center authorized by **ROBIN AMERICA** will perform the necessary repairs or adjustments within a reasonable amount of time and furnish you with a copy of the repair order. All parts and accessories replaced under this warranty become the property of **ROBIN AMERICA**.

WHAT IS NOT COVERED

*Conditions resulting from tampering, misuse, improper adjustment (unless they were made by the dealer or service center authorized by **ROBIN AMERICA** during a warranty repair), alteration, accident, failure to use the recommended fuel and oil, or not performing required maintenance services.

*The replacement parts used for required maintenance services.

*Consequential damages such as loss of time, inconvenience, loss of use of the engine or equipment, etc.

*Diagnosis and inspection charges that do not result in warranty-eligible service being performed.

*Any non-authorized replacement part, or malfunction of authorized parts due to use of non-authorized parts.

OWNER'S WARRANTY RESPONSIBILITIES

As the engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual, **ROBIN AMERICA** recommends that you retain all receipts covering maintenance on your engine, but **ROBIN AMERICA** can not deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the engine owner, you should however be aware that the **ROBIN AMERICA** may deny your warranty coverage if your engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your engine to the nearest dealer or service center authorized by **ROBIN AMERICA** when a problem exists.

If you have any questions regarding your warranty rights and responsibilities, you should contact the **Robin America customer service department at 1-630-350-8200** for the information.

THINGS YOU SHOULD KNOW ABOUT THE EMISSION CONTROL SYSTEM WARRANTY MAINTENANCE AND REPAIRS

You are responsible for the proper use and maintenance of the engine. You should keep all receipts and maintenance records covering the performance of regular maintenance in the event questions arise. These receipts and maintenance records should be transferred to each subsequent owner of the engine. **ROBIN AMERICA** reserves the rights to deny warranty coverage if the engine has not been properly maintained. Warranty claims will not be denied, however, solely because of the lack of required maintenance or failure to keep maintenance records.

MAINTENANCE, REPLACEMENT OR REPAIR OF EMISSION CONTROL DEVICES AND SYSTEMS MAY BE PERFORMED BY ANY REPAIR ESTABLISHMENT OR INDIVIDUAL; HOWEVER, WARRANTY REPAIRS MUST BE PERFORMED BY A DEALER OR SERVICE CENTER AUTHORIZED BY **ROBIN AMERICA**. THE USE OF PARTS THAT ARE NOT EQUIVALENT IN PERFORMANCE AND DURABILITY TO AUTHORIZED PARTS MAY IMPAIR THE EFFECTIVENESS OF THE EMISSION CONTROL SYSTEM AND MAY HAVE A BEARING ON THE OUTCOME OF A WARRANTY CLAIM.

If other than the parts authorized by **ROBIN AMERICA** are used for maintenance replacements or for the repair of components affecting emission control, you should assure yourself that such parts are warranted by their manufacturer to be equivalent to the parts authorized by **ROBIN AMERICA** in their performance and durability.

HOW TO MAKE A CLAIM

All repairs qualifying under this limited warranty must be performed by a dealer or service center authorized by **ROBIN AMERICA**. In the event that any emission-related part is found to be defective during the warranty period, you shall notify **Robin America customer service department at 1-630-350-8200** and you will be given the appropriate warranty service facilities where the warranty repair can be performed.

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and FUJI HEAVY INDUSTRIES LTD. are pleased to explain the emissions control system's warranty on your 2007 and later small off-road engine. In California, new equipment that use small off-engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. FUJI HEAVY INDUSTRIES LTD. must warrant the emissions control system on your small off-road engine for the period listed below provided there has been no abuse, neglect or improper maintenance of your equipment.

Your emissions control system may include parts such as: carburetors or fuel injection system, ignition system, catalytic converters, fuel tanks, valves, filters, clamps, connectors, and other associated components. Also, included may be hoses, belts, connectors, sensors, and other emission-related assemblies.

Where a warrantable condition exists, FUJI HEAVY INDUSTRIES LTD. will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE:

This emissions control system is warranted for two years. If any emissions-related part on your equipment is defective, the part will be repaired or replaced by FUJI HEAVY INDUSTRIES LTD..

OWNER'S WARRANTY RESPONSIBILITIES:

- As the small off-road engine owner, you are responsible for performance of the required maintenance listed in your owner's manual. FUJI HEAVY INDUSTRIES LTD. recommends that you retain all receipts covering maintenance on your small off-road engine, but FUJI HEAVY INDUSTRIES LTD. cannot deny warranty solely for the lack of receipts or your failure to ensure the performance of all scheduled maintenance.
- As the small off-road engine owner, you should however be aware that FUJI HEAVY INDUSTRIES LTD. may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- You are responsible for presenting your small off-road engine to a dealer, distributor or warranty station authorized by Robin America, Inc. as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact Robin America, Inc. 940 Lively Blvd., Wood Dale, IL 60191 at 1-630-350-8200.

DEFECTS WARRANTY REQUIREMENTS:

- (a) The warranty period begins on the date the engine or equipment is delivered to an ultimate purchaser.
- (b) General Emissions Warranty Coverage. FUJI HEAVY INDUSTRIES LTD. must warrant to the ultimate purchaser and each subsequent owner that the engine or equipment is:
 - (1) Designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board; and
 - (2) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.
- (c) The warranty on emissions-related parts will be interpreted as follows:
 - (1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions required by subsection (d) must be warranted for the warranty period defined in Subsection (b)(2). If any such part fails during the period of warranty coverage, it must be repaired or replaced by the manufacturer according to Subsection (4) below. Any such part repaired or replaced under the warranty must be warranted for the remaining warranty period.
 - (2) Any warranted part that is scheduled only for regular inspection in the written instructions required by subsection (d) must be warranted for the warranty period defined in Subsection (b)(2). A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for the remaining warranty period.
 - (3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions required by subsection (d) must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by the engine manufacturer according to Subsection (4) below. Any such part repaired or replaced under warranty must be warranted for the remainder of the period prior to the first scheduled replacement point for the part.
 - (4) Repair or replacement of any warranted part under the warranty must be performed at no charge to the owner at a warranty station.
 - (5) Notwithstanding the provisions of Subsection (4) above, warranty services or repairs must be provided at all manufacturer distribution centers that are franchised to service the subject engines.
 - (6) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.
 - (7) The manufacturer is liable for damages to other engine components proximately caused by a failure under warranty of any warranted part.

- (8) Throughout the emissions warranty period defined in Subsection (b)(2), the manufacturer must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.
- (9) Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of the manufacturer.
- (10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts will be grounds for disallowing a warranty claim. The manufacturer will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.
- (11) The manufacturer issuing the warranty shall provide any documents that describe that manufacturer's warranty procedures or policies within five working days of request by the Air Resources Board.

(d) Emission Warranty Parts List.

- (1) Fuel Metering System
 - (i) Carburetor and internal parts
 - (ii) Air cleaner plate (including choke system)
 - (iii) Air cleaner cover
 - (iv) Air cleaner element
 - (v) Fuel Filter
 - (vi) Fuel Tank.
- (2) Air Induction System
 - (i) Air filter.
- (3) Ignition System
 - (i) Spark Plugs.
 - (ii) Magneto or electronic ignition system.
 - (iii) Spark advance/retard system.
- (4) Miscellaneous Items Used in Above Systems
 - (i) Hoses, Sealing gaskets, belts, connectors, and assemblies.

FUJI HEAVY INDUSTRIES LTD. will furnish with each new engine written instructions for the maintenance and use of the engine by the owner.

(e) MAINTENANCE STATEMENTS

It is your responsibility to have all scheduled inspection and maintenance services performed at the times recommended in the 2007 and later Owner's Manual and to retain proof that inspection and maintenance services are performed at the times when recommended. FUJI HEAVY INDUSTRIES LTD. will not deny a warranty claim solely because you have no record of maintenance; however, FUJI HEAVY INDUSTRIES LTD. may deny a warranty claim if your failure to perform required maintenance resulted in the failure of warranted part. The proof, which you maintain, should be given to each subsequent owner of the engine. You are responsible for performing the scheduled maintenance described below based on the procedures specified in the 2007 and later Owner's Manual. The scheduled maintenance below is based on the normal engine-operating schedule.

PROCEDURE	INTERVAL
1) Clean engine and check bolts and nuts. Retighten if necessary.	:Every 8 hours(daily)
2) Check and refill engine oil (4stroke engine only)	:Every 8 hours (refill daily up to upper limit)
3) Change engine oil (4stroke engine only)	:Initial 20 hours and every 50 hours afterward
4) Check clogging of cooling air passage and cylinder fins. Remove and clean if necessary.	:Every 8 hours (daily)
5) Clean air cleaner.	:Every 8 hours (daily)
6) Check spark plug. Clean and adjust if necessary.	:Every 8 hours (daily)
7) Check muffler exhaust outlet(or port). Clean if necessary.	:Every 50 hours (monthly)
8) Check fuel filter. If clogged, replace with new one.	:Every 50 hours (monthly)
9) Adjust valve clearance, if applicable (4stroke engine only).	:Every 200 hours (yearly)
10) Replace fuel lines.	:Every 200 hours (yearly)
11) Clean and inspect the complete engine. Replace any damaged or worn out parts.	:Every 200 hours
12) Replace packings and gaskets with new ones.	:Every reassembling

FOREWORD

Thank you very much for purchasing a **ROBIN ENGINE**.



Your ROBIN ENGINE can supply the power to operate various sorts of machines and equipment.

Please take a moment to familiarize yourself with the proper operation and maintenance procedures in order to maximize the safe and efficient use of this product.

Due to constant efforts to improve our products, certain procedures and specifications are subjected to change without notice.

When ordering spare parts, always give us the MODEL, SPECIFICATION and SERIAL NUMBER of your engine.

Please fill in the following blanks after checking the specification number on your engine.

SPEC NO.

E	H													
---	---	--	--	--	--	--	--	--	--	--	--	--	--	--


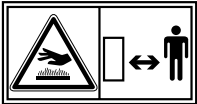
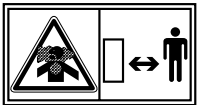






SERIAL NO.

--	--	--	--	--	--	--

CONTENTS

1. SAFETY PRECAUTIONS	1
2. COMPONENTS	4
3. PRE-OPERATION CHECKS	7
4. OPERATING YOUR ENGINE	8
5. EASY TROUBLESHOOTING	10
6. MAINTENANCE SCHEDULE	11
7. "HOW-TO" MAINTENANCE	13
8. PREPARATIONS FOR STORAGE	17
9. SPECIFICATIONS	18

SYMBOLS

		<i>Read the owner's manual.</i>	
		<i>Stay clear of the hot surface.</i>	
		<i>Exhaust gas is poisonous. Do not operate in an unventilated area.</i>	
		<i>Stop the engine before refueling.</i>	
		<i>Fire, open flame and smoking prohibited.</i>	
	<i>On (Run)</i>	+	<i>Plus ; positive polarity</i>
○	<i>Off (Stop)</i>		<i>Battery</i>
	<i>Engine oil</i>		<i>Engine start (Electric start)</i>
	<i>Add oil</i>		

1. SAFETY PRECAUTIONS

Please make sure you review each precaution carefully.

Pay special attention to statement preceded by the following words.

⚠ WARNING “WARNING” indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.

⚠ CAUTION “CAUTION” indicates a possibility of personal injury or equipment damage if instructions are not followed.

⚠ WARNING : EXHAUST PRECAUTIONS

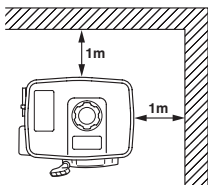
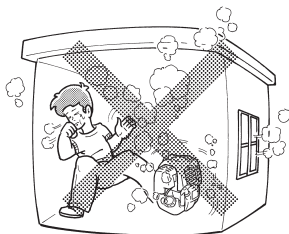
- Never inhale exhaust gasses.
They contain carbon monoxide, a colorless, odorless and extremely dangerous gas which can cause unconsciousness or death.
- Never operate the engine indoors or in a poorly ventilated area, such as tunnel, cave, etc.
- Exercise extreme care when operating the engine near people or animals.
- Keep the exhaust pipe free of foreign objects.

⚠ WARNING : REFUELING PRECAUTIONS

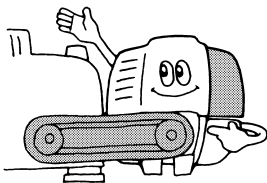
- Gasoline is extremely flammable and its vapors can explode if ignited.
- Do not refuel indoors or in a poorly ventilated area.
- Be sure to stop the engine prior to refueling.
- Do not remove fuel tank cap nor fill fuel tank while engine is hot or running.
Allow engine to cool at least 2 minutes before refueling.
- Do not overfill the fuel tank.
- If fuel is spilt, wipe it away carefully and wait until the fuel has dried before starting the engine.
- After refueling, make sure that the fuel cap is secured to prevent spillage.

⚠ WARNING : FIRE PREVENTION

- Do not operate the engine while smoking or near an open flame.
- Do not use around dry brush, twigs, cloth rags, or other flammable materials.
- Keep cooling air intake (recoil starter area) and muffler side of the engine at least 1 meter (3 feet) away from buildings, obstructions and other burnable objects.
- Keep the engine away from flammables and other hazardous materials (trash, rags, lubricants, explosives).



⚠ WARNING : OTHER SAFETY PRECAUTIONS

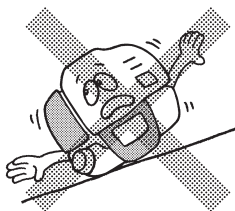


■ Place the protective covers over the rotating parts.

If rotating parts such as the drive shaft, pulley, belt, etc. are left exposed, they are potentially hazardous. To prevent injury, equip them with protective covers or shrouds.

■ Be careful of hot parts.

The muffler and other engine parts become very hot while the engine is running or just after it has stopped. Operate the engine in a safe area and keep children away from the running engine.



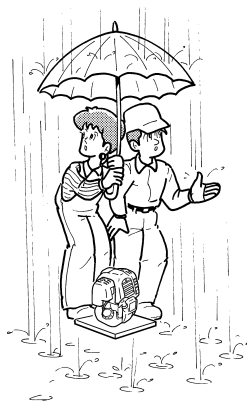
■ Do not touch the spark plug and ignition cable when starting and operating the engine.

■ Never make adjustments on the machinery while it is connected to the engine, without first removing the ignition cable from the spark plug.

Turning the crankshaft by hand during adjusting or cleaning might start the engine, and cause serious injury to the operator.

■ Operate the engine on a stable, level surface.

If the engine is tilted, fuel spillage may result.



NOTE

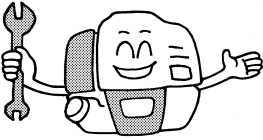
Operating the engine at a steep incline may cause seizure due to improper lubrication even with a maximum oil level.

■ Do not transport the engine with fuel in tank or with fuel strainer cock open.

■ Do not move the engine while in operation when it has been removed from the equipment.

■ Keep the unit dry (do not operate it in rainy conditions).

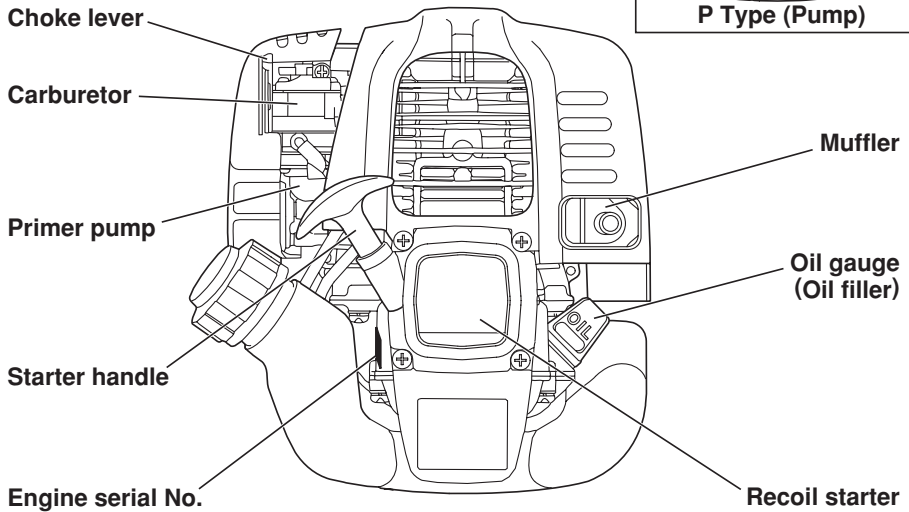
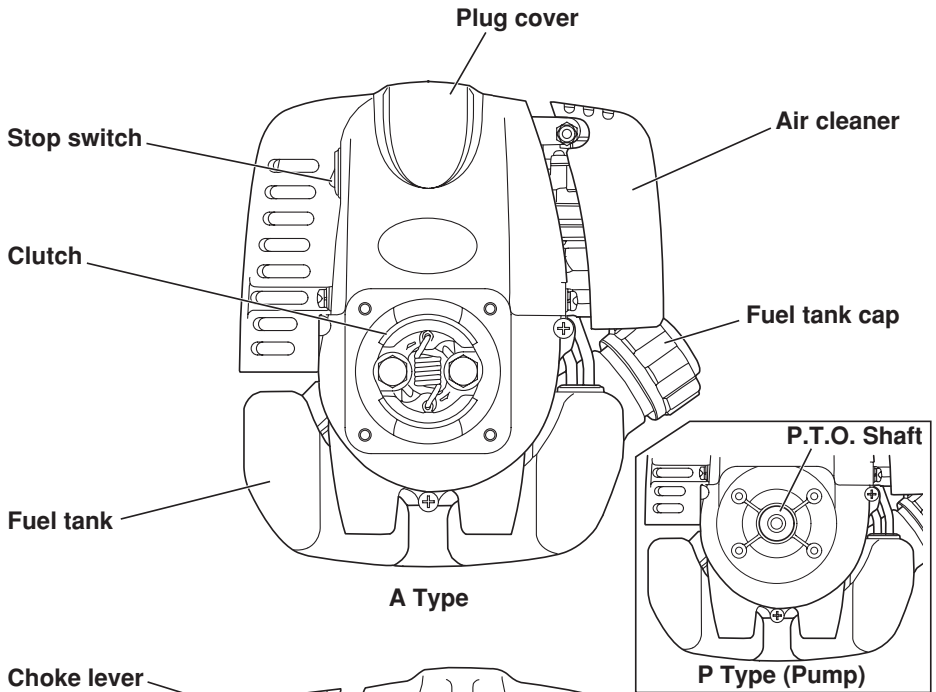
⚠ CAUTION : PRE-OPERATION CHECKS

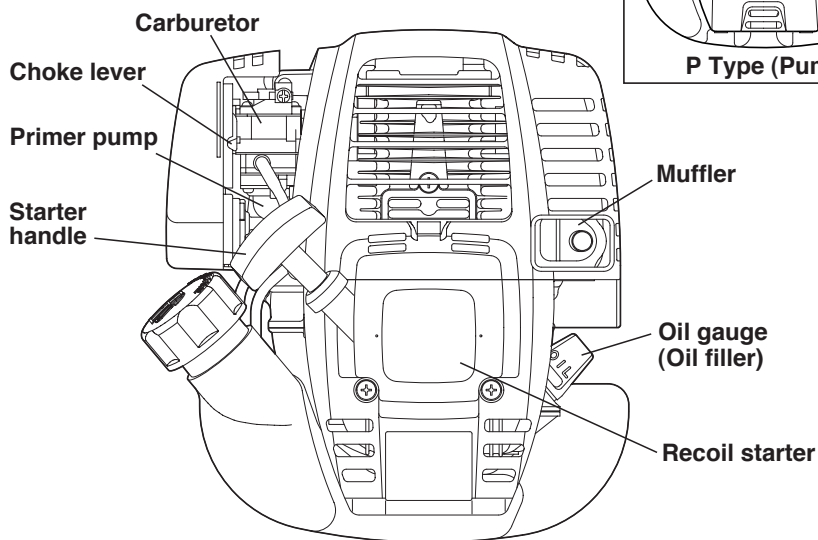
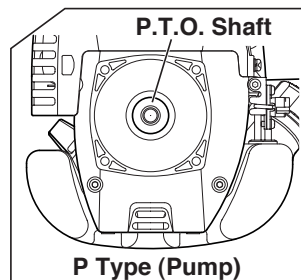
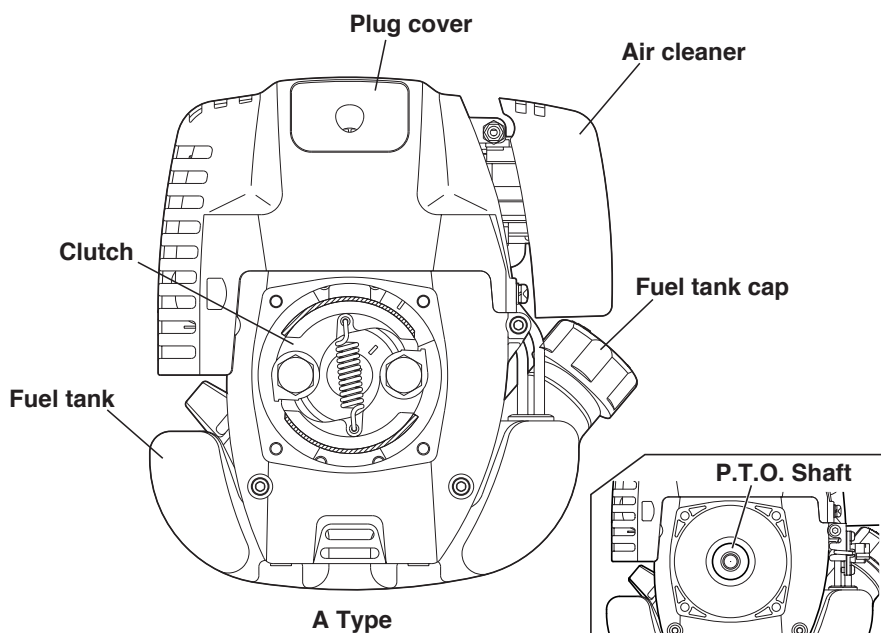


- Carefully check fuel hoses and joints for looseness and fuel leakage.
Leaked fuel creates a potentially dangerous situation.
- Check bolts and nuts for looseness. A loose bolt or nut may cause serious engine trouble.
- Check the engine oil and refill if necessary.
- Check the fuel level and refill if necessary. Take care not to overfill the tank.
- Keep cylinder fins and recoil starter free of dirt, grass and other debris.
- Wear snug fitting working clothes when operating the engine.
Loose aprons, towels, belt, etc., may be caught in the engine or drive train, causing a dangerous situation.

2. COMPONENTS

EH025





EH035V

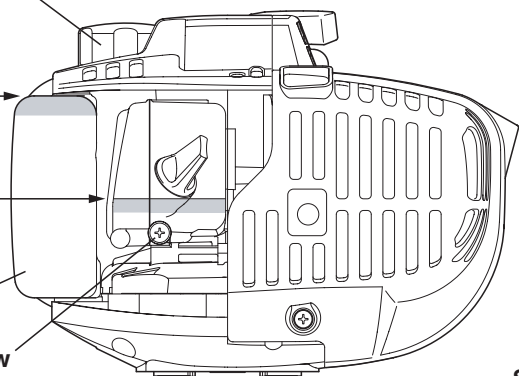
Fuel tank cap

Fuel upper level

Oil upper level

Fuel tank

Oil drain screw



Spark plug
(Plug cap)

Muffler

Carburetor

Choke lever

Primer pump

Starter handle

Air cleaner

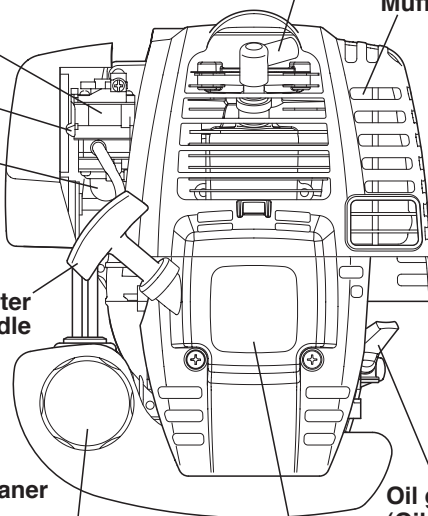
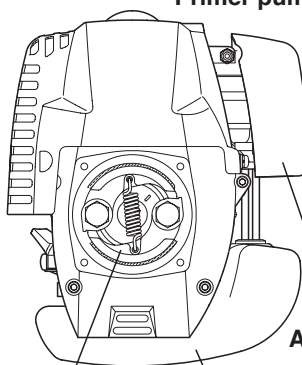
Oil gauge
(Oil filler)

Clutch

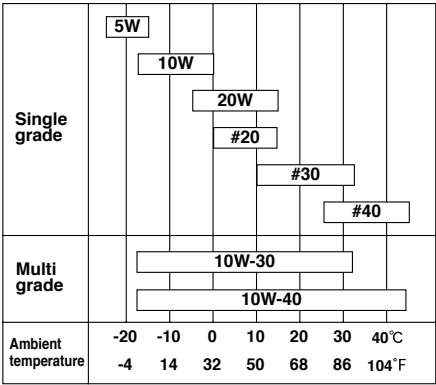
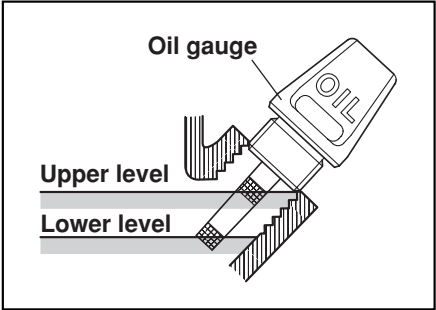
Fuel tank

Fuel tank cap

Recoil starter

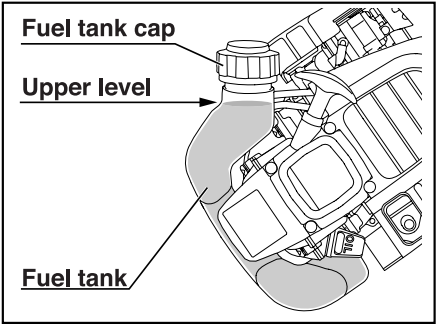


3. PRE-OPERATION CHECKS



**CAUTION**

Do not refuel while smoking, near an open flame or other potential hazards.



CHECK ENGINE OIL

Before checking or refilling engine oil, be sure the engine is located on a stable, level surface and stopped.

- Do not thread the gauge into oil filler to check oil level.
- If the oil level is below the lower level line on the dipstick, refill with the proper oil (see table) up to the upper level (up to the point of overflowing the filler neck).

Oil capacity (Upper level) : (mL)

EH025	80
EH035/035V	100

- (EH035V) Before filling oil, make sure that the oil drain screw is secured thoroughly.
- Change oil if it is contaminated. (See page 11 Maintenance Schedule.)
- Use class SF (API classification) or higher grade oil.
- If multi-grade oil is employed, oil consumption tends to increase when the ambient temperature is high.
- Wipe off any spilled oil before starting the engine.

CHECK FUEL

NOTE :
THIS ENGINE IS CERTIFIED TO OPERATE ON AUTOMOTIVE UNLEADED GASOLINE.

- Stop the engine and open the cap.
- Incline the engine as fuel inlet upward, then refill fuel to the upper level. Do not fill fuel too much.
- Use automotive unleaded gasoline only. This engine is 4-stroke gasoline engine.
- When filling the fuel tank, always use the fuel filter.
- Wipe off any spilled fuel before starting the engine.

4. OPERATING YOUR ENGINE

STARTING

STOP SWITCH

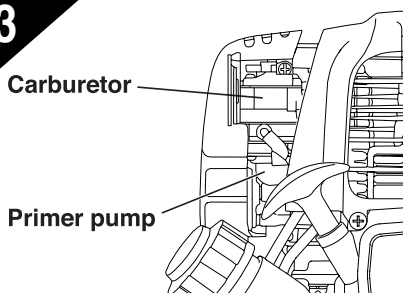
1



- Set the throttle lever to the idling position.
- If the stop switch is installed on the engine. Set the stop switch to the position "ON or I".
- If the stop switch is installed on a machine side. Set the stop switch to the position "ON or I".

PRIMER PUMP

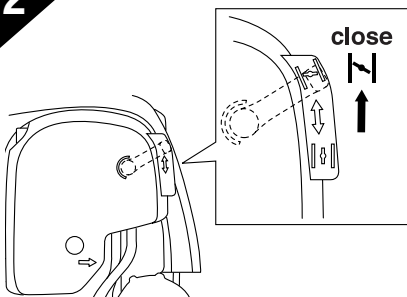
3



Push the primer pump 7 to 10 times to feed the fuel to the carburetor.

CHOKE LEVER

2

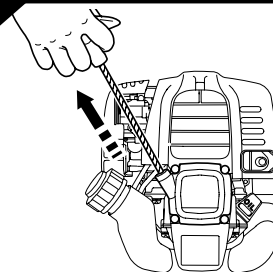


Close the choke lever.

- If the engine is cold or the ambient temperature is low, close the choke lever fully.
- If the engine is warm or the ambient temperature is high, open the choke lever half-way, or keep it fully open.

RECOIL STARTER

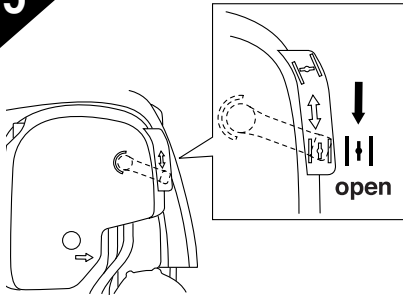
4



- Pull the starter handle slowly, until resistance is felt. This is the "compression" point. Return the handle to its original position and pull swiftly.
- Do not pull out the rope all the way.
- After starting the engine, allow the starter handle to return to its original position while still holding the handle.

CHOKE LEVER

5

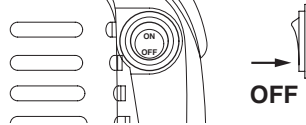


- After starting the engine, gradually open choke by turning the choke lever and finally keep it fully opened.
- Do not fully open the choke lever immediately when the engine is cold or the ambient temperature is low, because the engine may stop.

STOPPING

STOP SWITCH

1



- Set the throttle lever at the low speed position and allow the engine to run at low speed for 2 or 3 minutes before stopping.
- If the stop switch is installed on the engine. Set the stop switch to the position "OFF or O".
- If the stop switch is installed on a machine side. Set the stop switch to the position "OFF or O".

RUNNING

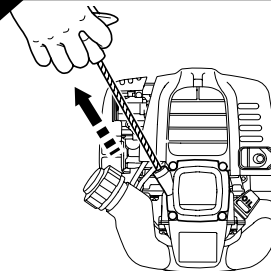
Allow the engine to warm up without load for a few minutes. Gradually move the throttle lever toward the high speed position and set it at the required engine speed.

NOTE :

If the engine is operated at upside down, white smoke may be exhausted from the muffler.

RECOIL STARTER

2

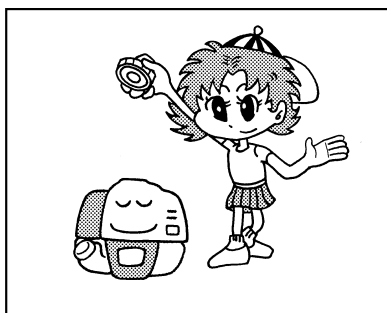
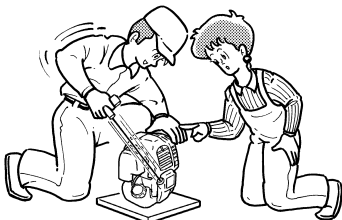


- Pull the starter handle slowly and return the handle to its original position when resistance is felt.

NOTE :

The above operation is necessary to prevent outside moist air from intruding into the combustion

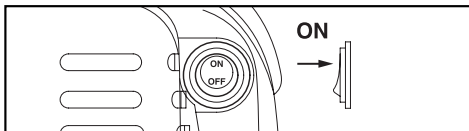
5. EASY TROUBLESHOOTING



WHEN ENGINE DOES NOT START:

- Perform the following checks before you take the engine to your Robin dealer.
- If you still have trouble after completing the checks, take the engine to your nearest Robin dealer.

Is the engine switch set ON?



Is there enough compression?

1. Pull the starter handle slowly and check if resistance is felt.
2. If little force is required to pull the starter handle, check if the spark plug is tightened firmly.
3. If the spark plug is loose, tighten it.

Is the spark plug wet with gasoline?

1. Choke (close choke lever) and pull the starter handle five or six times.
Remove the plug and check if its electrode is wet. If the electrode is wet, fuel is well supplied to your engine.
2. When the electrode is dry, check where the fuel stops.
(Check the fuel intake of the carburetor and fuel strainer intake.)
3. In case the engine does not start with well supplied fuel, try using fresh fuel.

Is there a strong spark across the electrode?



WARNING

**Wipe out spilled fuel carefully before checking.
Place spark plug as far away from spark plug
hole as possible.
Do not hold spark plug by hand while checking.**

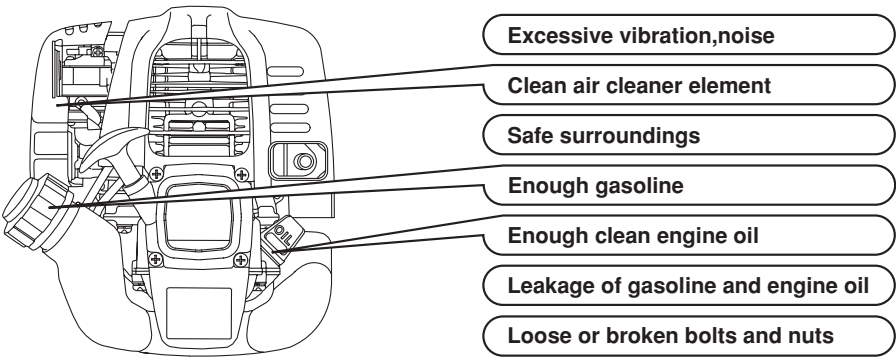
1. Remove the spark plug and connect it to the plug cap. Pull the starter handle while grounding spark plug against engine body using an insulated pliers.
2. Try with a new spark plug if the spark is weak or there is no spark.
3. The ignition system is faulty if there is no spark with a new spark plug.
Take your engine to your nearest Robin dealer.

6. MAINTENANCE SCHEDULE

MAINTENANCE, REPLACEMENT OR REPAIR OF EMISSION CONTROL DEVICES AND SYSTEMS MAY BE PERFORMED BY ANY NONROAD ENGINE REPAIR ESTABLISHMENT OR INDIVIDUAL.

DAILY INSPECTION

Before running the engine, check the following service items.



PERIODIC MAINTENANCE

Periodic maintenance is vital to safe and efficient operation of your engine. Check the table below for periodic maintenance intervals.

IT IS ALSO NECESSARY FOR THE USER OF THIS ENGINE TO CONDUCT THE MAINTENANCE AND ADJUSTMENTS ON THE EMISSION-RELATED PARTS LISTED BELOW TO KEEP THE EMISSION CONTROL SYSTEM EFFECTIVE.

The emission control system consists of the following parts:

- | | | |
|------------------------------------------------|-------------------------|------------------------------------------------------------------|
| (1) Carburetor and internal parts | (4) Air cleaner element | (9) Hoses and sealing gaskets, belts, connectors, and assemblies |
| (2) Air cleaner plate (including choke system) | (5) Fuel Filter | |
| (3) Air cleaner cover | (6) Spark plug | |
| | (7) Flywheel magneto | |
| | (8) Ignition coil | |

The maintenance schedule indicated in the following table is based on the normal engine operation. Should the engine be operated in extremely dusty condition or in heavier loading condition, the maintenance intervals must be shortened depending on the contamination of oil, clogging of filter elements, wear of parts, and so on.

Periodic Maintenance Schedule table

Maintenance Items	Every 8 hours (daily)	Every 50 hours	Every 200 hours
Clean engine and check bolts and nuts	● (Daily)		
Check and refill engine oil	● (Refill daily up to upper level)		
Clean air cleaner	●		
Change engine oil (*Note 1)	(Initial 20 hours)	●	
Clean spark plug	●		
Clean fuel filter		●	
Clean and adjust spark plug and electrodes			●
Clean and adjust carburetor			●
Check and adjust valve clearance (*Note 2)			●
Clean fuel tank			●
Overhaul engine if necessary (*Note 2)			●

*Note 1 : Initial oil change should be performed after first twenty (20) hours of operation.
Thereafter change oil every fifty (50) hours.

Before changing oil, check for a suitable way to dispose of old oil.

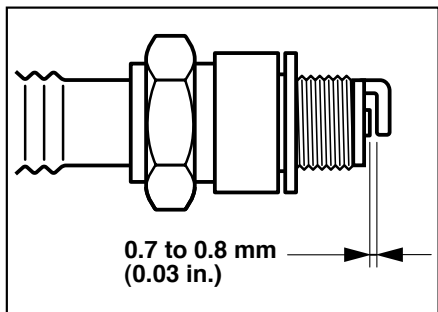
Do not pour it down into sewage drains, onto garden soil or into open streams.

Your local zoning or environmental regulations will give you more detailed instructions on proper disposal.

*Note 2 : As to the procedures for these items, please refer to the SERVICE MANUAL or consult your nearest Robin service dealer.

NOTE : Replace rubber hoses for passage every one year. If and when fuel leakage is found, replace hose at once.

7. "HOW-TO" MAINTENANCE



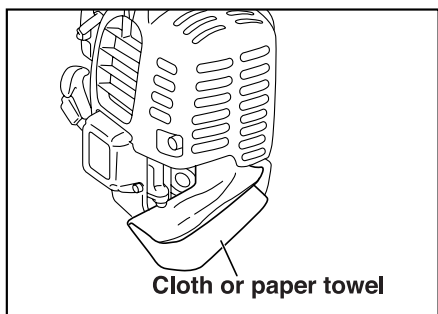
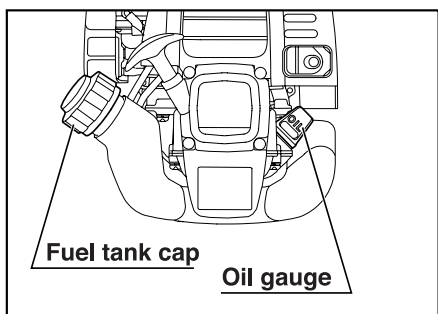
INSPECTING THE SPARK PLUG

- Clean off carbon deposits on the spark plug electrode using a plug cleaner or wire brush.
- Check electrode gap.
Adjust gap 0.7 mm to 0.8 mm (0.03 inches)
- Use a proper spark plug :
NGK CMR6A

ENGINE OIL CHANGE

- Initial oil change
After 20 hours of operation
- Thereafter
Every 50 hours of operation
- Refer to the recommended oil table on page 7.
- Always use the best grade and clean oil. Contaminated oil, poor quality oil and shortage of oil cause damage to engine or shorten the engine life.

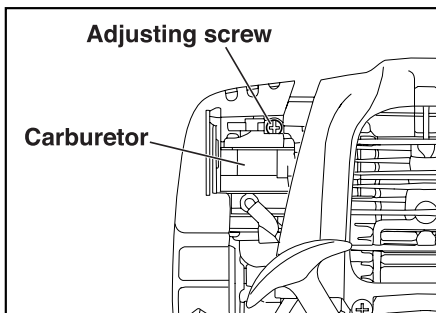
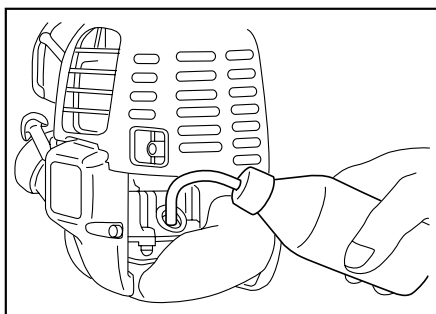
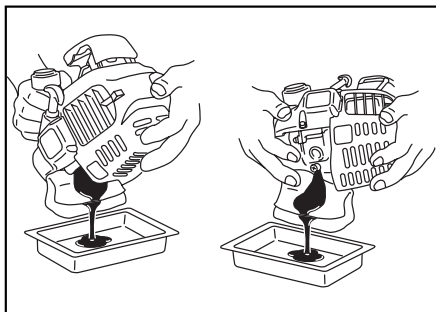
Oil capacity (Upper level) :	(mL)
EH025	80
EH035/035V.	100



CAUTION

Make sure the fuel cap is tightly secured to avoid spillage.

- 1) Remove the oil gauge.
Be cautious to place the oil gauge in a place where it will not gather dirt, dust or other foreign matter.
- 2) Place a cloth or paper towel to the area around the oil filler hole.



3) Remove the oil gauge, then tilt the engine and drain the oil into a pan or other receptacle.

(EH035V) Remove the oil drain screw and drain the oil.

4) Put the engine on a level surface, then fill with the oil up to the point of overflowing the filler neck. Pour the oil in from a squeeze bottle or other appropriate.

5) After filling the engine with oil, reinsert the oil gauge. Ensure that the oil gauge is tight, as if it loosens later oil will leak out.

ADJUSTING CARBURETOR

Adjusting idling rpm

When adjust screw is turned right, engine rpm increases, and when it is turned left, rpm decreases.

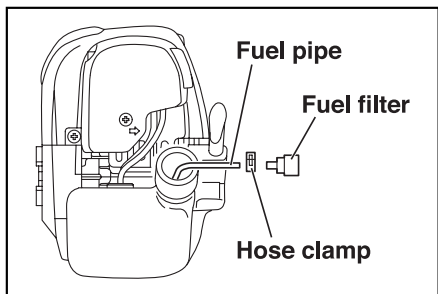
(Refer to illustration.)

Normal idling rpm	3000 \pm 100rpm
-------------------	-------------------

NOTE:

The carburetor greatly affects the performance of the engine. Since it has been adjusted carefully at our factory before shipment, avoid adjusting unless absolutely necessary.

If adjustments are needed, contact your nearest dealer.



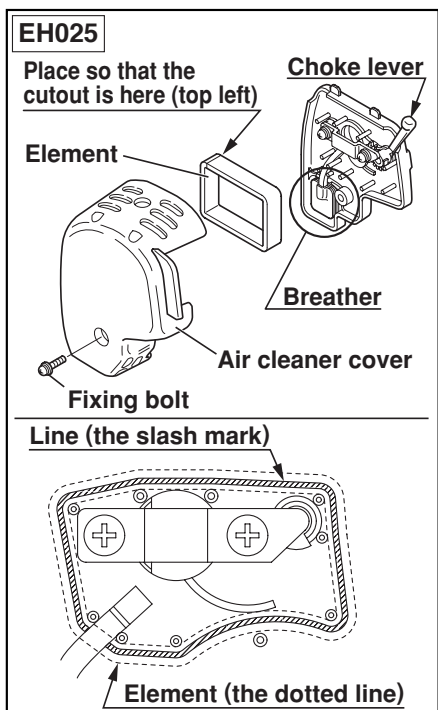
CLEANING FUEL FILTER

Remove the hose clamp and pull out the fuel filter from fuel pipe.

Wash the fuel filter with kerosene.

After washing, reassemble it.

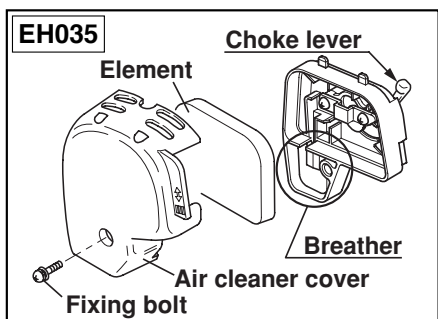
If the fuel filter is heavy dirty, replace it with new one.

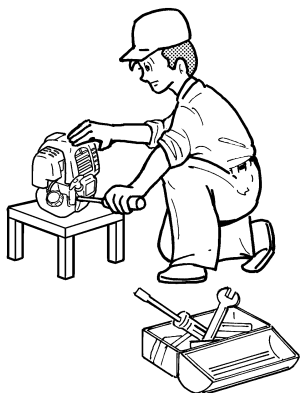


CLEANING AIR CLEANER

Dirty air cleaner element will cause starting difficulty, power loss, engine malfunctions, and shorten engine life extremely. Keep the air cleaner element clean.

- Remove the fixing bolt of air cleaner cover.
- Pull out the lower edge of the cover to remove the air cleaner cover.
- Place the choke lever to the fully closed position, taking care to ensure that dust and dirt are not allowed to enter the carburetor.
- Remove the element, then clean it with a solution of warm water and a mild detergent, thoroughly drying it afterward. Install it in alignment with the lines as shown in illustration.
- Wipe off any oil adhering to the area around the air cleaner cover and breather with a cloth.
- After cleaning, reassemble the cleaner cover (insert the tab at the top first, then insert the bottom tab) and tighten the fixing bolt.





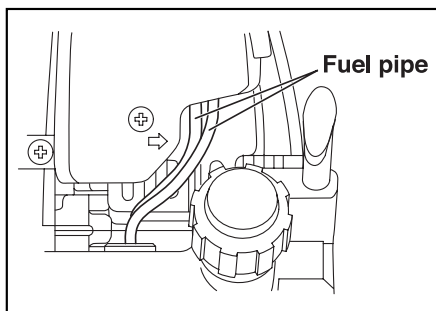
CHECKING BOLTS, NUTS AND SCREWS

Retighten loose bolts and nuts.

Check for fuel and oil leaks.

Replace damaged parts with new ones.

Keep safety in your mind.



FUEL PIPE REPLACEMENT

Replace the fuel pipe every 1 year.

If the fuel leakage is found on the fuel pipe, replace it immediately.

8. PREPARATIONS FOR STORAGE

DISCHARGE FUEL (NO SMOKING !)

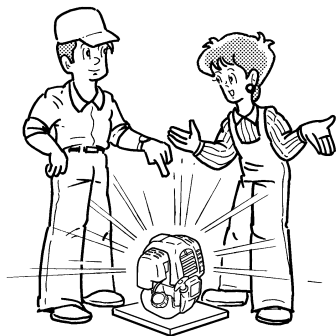
In case the engine is not going to be used for more than one month, discharge fuel thoroughly from fuel tank and carburetor in order to prevent from hard starting and/or poor engine operation due to deteriorated fuel when you use the engine next time.

- Pour out the fuel in the tank from its filler neck.
- Push the primer pump of the carburetor until the fuel in it is thoroughly discharged.



ENGINE OIL

- Change the engine oil with fresh oil.
- Remove the spark plug, pour about 2 cc engine oil into the cylinder, slowly pull the starter handle of the recoil starter 2 or 3 times, and tighten the spark plug.



CLEAN AND STORE

- Slowly pull the recoil starter handle until resistance is felt and leave it in that position.
- Clean the engine thoroughly with an oiled cloth, put the cover on and store the engine indoors in a well-ventilated, low humidity area.

9. SPECIFICATIONS

MODEL	EH025A	EH025P	EH035A	EH035P	EH035V
Type	Air-Cooled, 4-Stroke, Single Cylinder, Overhead valve, Gasoline Engine				
Bore x Stroke in.(mm)	1.34 x 1.06 (34 x 27)		1.54 x 1.10 (39 x 28)		
Displacement cu. in. (cm³)	1.49 (24.5)		2.04 (33.5)		
Maximum Output kW (HP) / rpm	0.81 (1.1) / 7000		1.18 (1.6) / 7000		
Maximum Torque N • m (kgf • m)/ rpm	1.18 (0.12)/ 5000		1.76 (0.18)/ 5000		
Direction of Rotation	Counterclockwise as viewed from P.T.O. shaft side				
Lubricant	Automobile Engine Oil SAE #20, #30 or 10W-30 ; Class SF or higher grade				
Capacity of Lubricant mL	80		100		
Carburetor	Diaphragm type				
Fuel	Automotive unleaded gasoline				
Fuel Consumption Ratio At Continuous Rated Output g/kw • h (g/HP • h)	408 (300)		340 (250)		
Fuel Tank Capacity L	0.5		0.65		0.75
Spark plug	NGK CMR6A (M10 xP1.0)				
Starting System	Recoil starter				
Dry Weight lb. (kg)	6.17 (2.8)	6.61 (3.0)	7.72 (3.5)	8.48 (3.85)	7.50 (3.4)
Dimension (L x W x H) in.(mm)	6.50 x 8.39 x 8.86 (165 x 213 x 225)	8.62 x 8.39 x 8.86 (219 x 213 x 225)	7.52 x 9.21 x 9.72 (191 x 234 x 247)	9.96 x 9.21 x 9.72 (253 x 234 x 247)	7.52 x 8.67 x 10.28 (191 x 220 x 261)
Valve Clearance (Intake & Exhaust)	0.0059 in. (0.15 mm) Note : Adjust the valve clearance while the engine is cold.				
Emissions Durability Period (California only)	300 hours				
Emissions Compliance Period (Except the State of California)	For handheld engines : The Emissions Compliance Period referred to on the Emissions Compliance label indicates the number of operating hours for which the engine has been shown to meet Federal emission requirements. Category C=50 hours, B=125 hours, and A=300 hours.				

FUJI HEAVY INDUSTRIES LTD.
INDUSTRIAL PRODUCTS COMPANY

4-410 Asahi, Kitamoto-shi,
Saitama, 364-8511, Japan

Phone +81(48) 593-7798

Fax +81(48) 593-7946

Web site <http://www.fhi.co.jp/robin/>