

*WARRANTY*

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***POLICY AND PROCEDURE***



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## Section 1 – Introduction

### A. The Warranty Decision

Warranty decisions must be based on careful examination of the facts and circumstances surrounding the warranty request. The warranty covers defects in material or workmanship, so you must try to decide if the failure resulted from a manufacturing defect and is eligible for warranty consideration. If you feel that a decision will be difficult, or the customer is disputing your decision, complete an Engine Inspection Data Record (TP-2435), as shown on pages 14-16, and follow a systematic analysis procedure.

1. Complete the Owner's Information portion of the Engine Inspection Data Record when the customer brings the unit in for consideration.
2. Inspect the unit as delivered and complete the Air Filter Assembly, Crankcase Oil, Engine Cooling System, and Governor sections of the Engine Inspection Data Record.  
  
NOTE: Experience has shown that the information gained from these sections frequently will lead to the cause of the failure, and will determine what corrective action must be performed to prevent repeat failures.
3. Carefully disassemble the engine and check components for any unusual markings or wear patterns.
4. Take the necessary measurements and enter them in the proper sections in the Engine Inspection Data Record. Compare the measurements against published specifications in Kohler service literature to identify parts that may require rework or replacement.

If your analysis points to a deficiency in engine care or maintenance, recommend to your customer the preventive measures that must be performed to prevent repeat failures.

If there is a question whether the repair is covered by the Kohler Limited Engine Warranty, contact your Kohler Distributor to assist you in the analysis and warranty decision.

If, after reviewing the matter with the Kohler Distributor representative, a warranty decision still cannot be made, have the representative follow the "chain of command" until a decision is reached. Remember, **always** keep the customer advised as to what is being done, and why. This will show the customer full consideration is being extended and will demonstrate our mutual concern.

### B. Pre-Sale Disclosure Requirement

One of the provisions of the Magnusson-Moss Consumer Products Warranties Law is that a retail seller of consumer products must make the text of the warranty available for review by the prospective buyer prior to sale. To help you comply with this law, the warranty statements for each model series are printed at the back of the owner's manual for that series. All of the warranty statements are included in Section 2 of this booklet.

### C. Warranty Responsibility Begins Before Delivery

Each Kohler Service Account is responsible for preventing new engines (and parts) from deteriorating in storage, and also for preparing new engines for delivery. Failure to adequately protect and store engines and parts will result in unnecessary expense to the dealer, and will inconvenience and annoy customers. Successful service accounts have proven that the minimal investment involved in preparing an engine prior to delivery eliminates unnecessary service calls and results in improved over-all profit. Before turning an engine over, review the Owner's Manual with the customer—stress the importance of good maintenance and explain the warranty.

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## Section 2 – Limited Warranty Statements

### Kohler Aegis™ Warranty Statement

#### Limited 3 Year Kohler Aegis™ Engine Warranty

We warrant to the original consumer that each new KOHLER AEGIS™ engine sold by us will be free from manufacturing defects in materials or workmanship in normal service for a period of three (3) years from date of purchase, provided it is operated and maintained in accordance with Kohler Co.'s instructions and manuals.

Our obligation under this warranty is expressly limited, at our option, to the replacement or repair at Kohler Co., Kohler, Wisconsin 53044, or at a service facility designated by us of such parts as inspection shall disclose to have been defective.

#### EXCLUSIONS:

Mufflers on engines used commercially (non-residential) are warranted for one (1) year from date of purchase, except catalytic mufflers, which are warranted for two (2) years.

This warranty does not apply to defects caused by casualty or unreasonable use, including faulty repairs by others and failure to provide reasonable and necessary maintenance.

The following items are not covered by this warranty:

Engine accessories such as fuel tanks, clutches, transmissions, power-drive assemblies, and batteries, unless supplied or installed by Kohler Co. These are subject to the warranties, if any, of their manufacturers.

WE SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND, including but not limited to labor costs or transportation charges in connection with the repair or replacement of defective parts.

ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. We make no other express warranty, nor is any one authorized to make any in our behalf.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### TO OBTAIN WARRANTY SERVICE:

Purchaser must bring the engine to an authorized Kohler service facility. For the facility nearest you, consult your Yellow Pages or write Kohler Co., Attn: Engine Warranty Service Dept., Kohler, Wisconsin, 53044.

ENGINE DIVISION, KOHLER CO., KOHLER, WISCONSIN 53044

### Command/Magnum/OHC/Courage Warranty Statement

#### Limited 2 Year Command/Magnum/OHC/Courage Engine Warranty

We warrant to the original consumer that each new Command/Magnum/OHC/Courage engine sold by us will be free from manufacturing defects in materials or workmanship in normal service for a period of two (2) years from date of purchase, provided it is operated and maintained in accordance with Kohler Co.'s instructions and manuals.

Our obligation under this warranty is expressly limited, at our option, to the replacement or repair at Kohler Co., Kohler, Wisconsin 53044, or at a service facility designated by us, of such part or parts as inspection shall disclose to have been defective.

#### EXCLUSIONS:

Mufflers on engines used commercially (non-residential) are warranted for one (1) year from date of purchase, except catalytic mufflers, which are warranted for two (2) years.

This warranty does not apply to defects caused by casualty or unreasonable use, including faulty repairs by others and failure to provide reasonable and necessary maintenance.

The following items are not covered by this warranty.

Engine accessories, such as fuel tanks, clutches, transmissions, power drive assemblies, and batteries, unless supplied or installed by Kohler Co. These are subject to the warranties, if any, of their manufacturers.

WE SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND, including but not limited to labor costs or transportation charges in connection with the replacement or repair of defective parts.

ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. We make no other express warranty, nor is anyone authorized to make any in our behalf.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### TO OBTAIN WARRANTY SERVICE:

Purchaser must bring the engine to an authorized Kohler service facility. For the facility nearest you, consult your Yellow Pages under "Engines-Gasoline" or phone 1-800-544-2444.

ENGINE DIVISION, KOHLER CO., KOHLER, WISCONSIN 53044

## K-Series Warranty Statement

### Limited 1 Year Engine Warranty

We warrant to the original consumer that each new engine sold by us will be free from manufacturing defects in materials or workmanship in normal service for a period of one (1) year from date of purchase, provided it is operated and maintained in accordance with Kohler Co.'s instructions and manuals.

Our obligation under this warranty is expressly limited, at our option, to the replacement or repair at Kohler Co., Kohler, Wisconsin 53044, or at a service facility designated by us, of such part or parts as inspection shall disclose to have been defective.

#### EXCLUSIONS:

Mufflers on engines used commercially (non-residential) are warranted for one (1) year from date of purchase, except catalytic mufflers, which are warranted for two (2) years.

This warranty does not apply to defects caused by casualty or unreasonable use, including faulty repairs by others and failure to provide reasonable and necessary maintenance.

The following items are not covered by this warranty:

Engine accessories, such as fuel tanks, clutches, transmissions, power drive assemblies, and batteries, unless supplied or installed by Kohler Co. These are subject to the warranties, if any, of their manufacturers.

WE SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND, including but not limited to labor costs or transportation charges in connection with the replacement or repair of defective parts.

ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. We make no other express warranty, nor is anyone authorized to make any in our behalf.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### TO OBTAIN WARRANTY SERVICE:

Purchaser must bring the engine to an authorized Kohler service facility. For the facility nearest you, consult your Yellow Pages under "Engines-Gasoline" or phone 1-800-544-2444.

ENGINE DIVISION, KOHLER CO., KOHLER, WISCONSIN 53044

## Service Parts Warranty

### Limited 90 Day Service Parts Warranty

We warrant to the original consumer that each new service part sold by us will be free from manufacturing defects in materials or workmanship in normal service for a period of 90 days from date of purchase, provided it is installed properly and the engine maintained in accordance with Kohler Co.'s instructions and manuals.

Our obligation under this warranty is expressly limited, at our option, to the replacement or repair at Kohler Co., Kohler, Wisconsin 53044, or at a service facility designated by us, of such part or parts as inspection shall disclose to have been defective.

#### EXCLUSIONS:

This warranty does not apply to defects caused by casualty or unreasonable use, including faulty repairs by others and failure to provide reasonable and necessary maintenance.

The following items are not covered by this warranty:

Engine accessories, unless supplied or installed by Kohler Co. These are subject to the warranties, if any, of their manufacturers.

WE SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND, including but not limited to, labor costs or transportation charges in connection with the replacement or repair of defective parts.

ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. We make no other express warranty, nor is anyone authorized to make any in our behalf.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### TO OBTAIN WARRANTY SERVICE:

Purchaser must bring the service parts to an authorized Kohler service facility. For the facility nearest you, consult your Yellow Pages under "Engines-Gasoline" or phone 1-800-544-2444.

ENGINE DIVISION, KOHLER CO., KOHLER, WISCONSIN 53044

**KOHLER CO.**  
**FEDERAL AND CALIFORNIA EMISSION CONTROL SYSTEMS**  
**LIMITED WARRANTY**  
**SMALL OFF-ROAD ENGINES**

The U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and Kohler Co. are pleased to explain the Federal and California Emission Control Systems Warranty on your small off-road equipment engine. For California, engines produced in 1995 and later must be designed, built and equipped to meet the state's stringent anti-smog standards. In other states, 1997 and later model year engines must be designed, built and equipped, to meet the U.S. EPA regulations for small non-road engines. The engine must be free from defects in materials and workmanship which cause it to fail to conform with U.S. EPA standards for the first two years of engine use from the date of sale to the ultimate purchaser. Kohler Co. must warrant the emission control system on the engine for the period of time listed above, provided there has been no abuse, neglect or improper maintenance.

The emission control system may include parts such as the carburetor or fuel injection system, the ignition system, and catalytic converter. Also included are the hoses, belts and connectors and other emission related assemblies.

Where a warrantable condition exists, Kohler Co. will repair the engine at no cost, including diagnosis (if the diagnostic work is performed at an authorized dealer), parts and labor.

**MANUFACTURER'S WARRANTY COVERAGE**

Engines produced in 1995 or later are warranted for two years in California. In other states, 1997 and later model year engines are warranted for two years. If any emission related part on the engine is defective, the part will be repaired or replaced by Kohler Co. free of charge.

**OWNER'S WARRANTY RESPONSIBILITIES**

- (a) The engine owner is responsible for the performance of the required maintenance listed in the owner's manual. Kohler Co. recommends that you retain all receipts covering maintenance on the engine, But Kohler Co. cannot deny warranty solely for the lack of receipts or for your failure to assure that all scheduled maintenance was performed.
- (b) Be aware, however, that Kohler Co. may deny warranty coverage if the engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.
- (c) For warranty repairs, the engine must be presented to a Kohler Co. service center as soon as a problem exists. Call 1-800-544-2444 or access our web site at: [www.kohlerengines.com](http://www.kohlerengines.com), for the names of the nearest service centers. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding warranty rights and responsibilities, you should contact Kohler Co. at 1-920-457-4441 and ask for an Engine Service representative.

**COVERAGE**

Kohler Co. warrants to the ultimate purchaser and each subsequent purchaser that the engine will be designed, built and equipped, at the time of sale, to meet all applicable regulations. Kohler Co. also warrants to the initial purchaser and each subsequent purchaser, that the engine is free from defects in materials and workmanship which cause the engine to fail to conform with applicable regulations for a period of two years.

Engines produced in 1995 or later are warranted for two years in California. For 1997 and later model years, EPA requires manufacturers to warrant engines for two years in all other states. These warranty periods will begin on the date the engine is purchased by the initial purchaser. If any emission related part on the engine is defective, the part will be replaced by Kohler Co. at no cost to the owner. Kohler Co. is liable for damages to other engine components caused by the failure of a warranted part still under warranty.

Kohler Co. shall remedy warranty defects at any authorized Kohler Co. engine dealer or warranty station. Warranty repair work done at an authorized dealer or warranty station shall be free of charge to the owner if such work determines that a warranted part is defective.

Listed below are the parts covered by the Federal and California Emission Control Systems Warranty. Some parts listed below may require scheduled maintenance and are warranted up to the first scheduled replacement point for that part. The warranted parts are:

- Oxygen sensor (if equipped)
- Intake manifold (if equipped)
- Exhaust manifold (if equipped)
- Catalytic muffler (if equipped)
- Fuel metering valve (if equipped)
- Spark advance module (if equipped)
- Crankcase breather
- Ignition module(s) with high tension lead
- Gaseous fuel regulator (if equipped)
- Electronic control unit (if equipped)
- Carburetor or fuel injection system
- Fuel lines (if equipped)
- Air filter, fuel filter, and spark plugs (only to first scheduled replacement point)

## **LIMITATIONS**

This Emission Control Systems Warranty shall not cover any of the following:

- (a) repair or replacement required because of misuse or neglect, improper maintenance, repairs improperly performed or replacements not conforming to Kohler Co. specifications that adversely affect performance and/or durability and alterations or modifications not recommended or approved in writing by Kohler Co.,
- (b) replacement of parts and other services and adjustments necessary for required maintenance at and after the first scheduled replacement point,
- (c) consequential damages such as loss of time, inconvenience, loss of use of the engine or equipment, etc.,
- (d) diagnosis and inspection fees that do not result in eligible warranty service being performed, and
- (e) any add-on or modified part, or malfunction of authorized parts due to the use of add-on or modified parts.

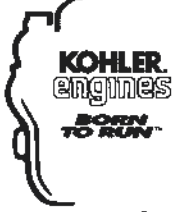
## **MAINTENANCE AND REPAIR REQUIREMENTS**

The owner is responsible for the proper use and maintenance of the engine. Kohler Co. recommends that all receipts and records covering the performance of regular maintenance be retained in case questions arise. If the engine is resold during the warranty period, the maintenance records should be transferred to each subsequent owner. Kohler Co. reserves the right to deny warranty coverage if the engine has not been properly maintained; however, Kohler Co. may not deny warranty repairs solely because of the lack of repair maintenance or failure to keep maintenance records.

Normal 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 Kohler authorized service center**. Any replacement part or service that is equivalent in performance and durability may be used in non-warranty maintenance or repairs, and shall not reduce the warranty obligations of the engine manufacturer.

## Section 3 – Warranty Procedures

### A. Service Information Record

		<h1 style="margin: 0;">Service Information Record</h1>	
<b>Reason For Submital:</b> <input type="checkbox"/> Resign <input type="checkbox"/> Change (Address, labor rate, etc.) Please highlight/identify <input type="checkbox"/> New <input type="checkbox"/> Termination (Effective date) _____			
<input type="checkbox"/> Expert Listed Dealer <input type="checkbox"/> Expert Unlisted Dealer <input type="checkbox"/> Listed Service Distributor <input type="checkbox"/> Listed Dealer <input type="checkbox"/> Unlisted Dealer <input type="checkbox"/> Unlisted Service Distributor			
<b>Central Distributor Name</b> _____			
<b>Current Warranty Code No.</b> _____		<b>Factory Use Only</b> _____	
<small>NOTE: 1. Please type or print. 2. Complete all applicable information for company being registered.</small>		Employer Identification No. (00-000000) OR Social Security No. (000-00-0000)	
Company Name _____		Printed Name of Social Security No. Holder _____	
Business Address _____		Are You A: (you must check one) <span style="float: right;">Years in Business _____</span> <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Other	
City _____	State/Province/Country _____	Postal/Zip Code _____	Mailing Address (P.O. Box) _____
Business Phone No. and/or 800 No. _____ ( ) ( )	Business Fax No. _____ ( ) ( )	City _____	State/Province/Country _____ Postal/Zip Code _____
Business E-Mail Address _____		Shop Labor Rate \$ _____	Service Distributor Name _____
Owner Name(s) _____		City _____	State/Province/Country _____ Postal/Zip Code _____
Office Manager Name _____		General Manager Name _____	
Service Manager Name _____		Parts Manager Name _____	
Mechanics: Name _____		Certification Number _____	
Name _____		Certification Number _____	
<b>Engine Lines:</b> <input type="checkbox"/> B&S <input type="checkbox"/> Sales <input type="checkbox"/> Service <input type="checkbox"/> Tacumseh <input type="checkbox"/> Sales <input type="checkbox"/> Service <input type="checkbox"/> Wisconsin <input type="checkbox"/> Sales <input type="checkbox"/> Service <input type="checkbox"/> Honda <input type="checkbox"/> Sales <input type="checkbox"/> Service <input type="checkbox"/> Kawasaki <input type="checkbox"/> Sales <input type="checkbox"/> Service <input type="checkbox"/> Other _____		<b>Market Categories:</b> Commercial <input type="checkbox"/> Sales <input type="checkbox"/> Service Lines _____ Homeowner <input type="checkbox"/> Sales <input type="checkbox"/> Service Lines _____ Industrial <input type="checkbox"/> Sales <input type="checkbox"/> Service Lines _____ Professional <input type="checkbox"/> Sales <input type="checkbox"/> Service Lines _____	
<b>Master Manual Type:</b> Electronic Type _____ Qty _____ Fiche Qty _____ Paper Qty _____			
Facility Sq. Ft. _____		Showroom Sq. Ft. _____	
Shop Sq. Ft. _____		Overhead Door <input type="checkbox"/> Yes <input type="checkbox"/> No	
Operations: Posted Hours M _____ T _____ W _____ TH _____ F _____ SA _____ SU _____ Other _____			
Services Offered <input type="checkbox"/> Mobile (on site) <input type="checkbox"/> Pick up & Delivery (Truck _____ Trailer _____)			
Warranty Submitted Via: <input type="checkbox"/> Mail <input type="checkbox"/> Fax <input type="checkbox"/> EDI			
Shop Has all tools for status selected <input type="checkbox"/> Yes <input type="checkbox"/> No Tools on order for status selected (Attach form)			
Inventory (See Requirements): Engines Stocked (Attach List) _____ Parts Value (Attach List) _____			
Yellow Page Participation (required for Expert & Listed Status). Fee for participation must be paid to Central Distributor. Listed Under Category (describe) _____			
<i>I Certify That The Above Statements Are Correct</i>			
Dealer Signature _____		Title _____ Date _____	
Service Distributor Signature _____		Title _____ Date _____	
Central Distributor Signature _____		Title _____ Date _____	
DISTRIBUTION: APPLICANT – Goldenrod Copy SERVICE DISTRIBUTOR – Pink Copy CENTRAL DISTRIBUTOR – Yellow Copy KOHLER CO. – White Copy			
TP-2485-A 9/96 Rev. 11/00			

A Service Information Record form (TP-2485-A) must be on file at Kohler Co. before a service account will be authorized to do warranty repairs.

Failure to supply or provide a correct Fed. I.D. or Social Security number will result in a 20% net withholding payable to the IRS.

**Important:** Section 6109 of the IRS Code requires recipients of payments to give their identifying number to payers.



### **B. Warranty Repair Authorization**

Only registered Kohler Service Accounts are authorized to perform Kohler engine warranty repairs. A Service Information Record form (TP-2485-A) must be completed, signed, and on file at Kohler Co. before a service account will be authorized to do warranty repairs. These forms are to be submitted through your Central Distributor.

To change your Retail Labor Rate or Warranty Discount information, have your Central Distributor complete a new Service Information Record (TP-2485-A) and submit the updated information to Kohler Co. Change to the Retail Labor Rate or Warranty Discount must be received at Kohler Co., Kohler, Wisconsin, 30 days prior to the effective date of change.

The information on the Service Information Record will be used by Kohler Co. for warranty processing and update mailings. If **any** of the information changes (company name, address, ownership, key personnel, etc.), be certain to notify your Central Distributor, so they can update their records. They will submit the updated data to Kohler Co.

### **C. Manufacturing Defects Covered**

The warranty applies to repair and replacement of defective parts caused by faulty material and/or workmanship in manufacture. It does not apply to defects caused by negligence in servicing or operating an engine.

The following conditions cannot be considered under warranty:

- Normal wear.
- Routine tune-up or adjustment.
- Damage due to improper handling or accident.
- Damage due to operating at speeds or load conditions contrary to published specifications.
- Damage due to improper or insufficient lubrication.
- Damage from overheating due to clogged air intake and cooling fins.
- Damage caused by improperly serviced or inadequate air cleaner.
- Damage due to improper storage.

### **D. Major Warranty Repair**

If an engine is severely damaged and requires a new short block, miniblock, or engine for replacement, first contact your Service or Central Distributor for approval.\* Under those conditions, the failed engine or block must be retained.

When you have received Service or Central Distributor approval\* and it is determined that the engine involved is under warranty, promptly repair the engine, then submit a properly filled in Warranty Claim Report (see Section 6) to Kohler Co. **within 30 days** after making the repair.

### **E. Retaining Failed Parts**

A claim number is imprinted on each Warranty Claim Report. Tag all parts replaced under a particular warranty claim with the corresponding claim number and keep those parts until you have received your warranty reimbursement. Kohler Co. may request return of some parts for study, but if specific instructions are not given prior to receipt of your reimbursement check, the failed parts may be discarded.

NOTE: Do not return failed parts unless you have received instructions and an Engine Warranty Return (EWR) Number from the Kohler Co.

### **F. Return of Failed Parts**

When Kohler Co. does request the return of failed parts, formal instructions, plus a label with an EWR Number, will be issued to the service account involved. This label must be used to return the part or parts requested. The instructions will include directions for the return shipment.

NOTE: Do not return failed parts unless you have received instructions and an EWR Number from the Kohler Co.

Keep a record of the EWR Number for future reference.

### **G. Disputed, Questionable, Unusual Warranty, or Policy Adjustments**

In the event a customer requests or insists on a warranty repair that, in your opinion, is not covered by the Kohler Limited Engine Warranty, offer the customer one of the following options:

1. Repair the engine and charge the customer with the understanding that you will issue reimbursement, if the claim is approved. Complete a Warranty Claim, (see Section 6), and an Engine Inspection Data Record (TP-2435), and have the damaged parts reviewed by your Central Distributor representative. If the claim is approved, have the Central Distributor representative note authorization for the repair by signing box 17 of the claim, reimburse the customer for the charges, and send the completed Warranty Claim and Engine Inspection Data Record to Kohler Co., Engine Warranty, Kohler, Wisconsin 53044 for payment.

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\*Expert classifications are exempt from approval requirements.

2. If the customer is willing to wait for a warranty decision prior to having the services performed, complete a Warranty Claim, and an Engine Inspection Data Record. Have your Central Distributor representative review the failed parts, Warranty Claim, and Engine Inspection Data Record. If the claim is approved, have the representative note authorization for the repair by signing box 17 of the claim, perform the repair, and send the completed Warranty Claim and Engine Inspection Data Record to Kohler Co., Engine Warranty, Kohler, Wisconsin 53044 for payment.
  
3. If the customer insists on a decision by Kohler Co., complete an Engine Inspection Data Record and a Warranty Claim. Check the "DISPUTEDWARRANTY" box at the top of the claim. Contact the Kohler Service Department for an EWR Number. This number should be placed on the outside of the return carton. Send the completed Warranty Claim, and Engine Inspection Data Record and the relevant engine parts, freight prepaid, to Kohler Co., Engine Warranty – Disputed Claim, Bldg. 604, Kohler, Wisconsin 53044.

4. If a customer insists on warranty coverage for a situation you feel is not covered by the standard policy, contact the Central Distributor for a "Policy Adjustment" Authorization. The Central Distributor must fill out and sign the Policy Adjustment Evaluation Form (TP-2466-A) and attach it to the Warranty Claim.

Kohler Co. will advise you regarding its decision. If the repair in question is determined to be covered by warranty, payment will be made. If the customer has already paid for the repair, issue reimbursement for **all** charges paid relating to the Kohler engine warranty.

If, for some reason, the request for warranty consideration is denied, or a partial allowance is offered, you will be advised of our findings, along with the reasons for our decision.

**H. Engines Manufactured Over 3 Years Ago**

A verification of the date of purchase (Example: Bill of Sale, Receipt or Invoice) must accompany the Warranty Claim for all engines that are 3 or more years old. The following chart will aid in determining the year of manufacture:

**NOTE:** If you are located outside the continental U.S., send only the completed Warranty Claim and Engine Inspection Data Record to Kohler Co., Engine Warranty, Kohler, Wisconsin 53044. If the failed parts are needed to make the warranty decision, Kohler Co. will contact you with specific instruction concerning the return of the failed parts.

**Serial Number Significance**

Year of Manufacture identified by:

1. A Letter
2. First Two Digits/ If Seven Digit Number
3. First Two Digits/If Eight or Ten Digit Number

**E-172452      9276430      10026692      1501897591**

A	1965	10-19	1969	10	1980	24	1994
B	1966	20-29	1970	11	1981	25	1995
C	1967	30-39	1971	12	1982	26	1996
D	1968	40-49	1972	13	1983	27	1997
E	1969	50-59	1973	14	1984	28	1998
		60-69	1974	15	1985	29	1999
		70-72	1975	16	1986	30	2000
		73-79	1976	17	1987	31	2001
		80-89	1977	18	1988	32	2002
		90-94	1978	19	1989	33	2003
		95-99	1979	20	1990	34	2004
				21	1991	35	2005
				22	1992	36	2006
				23	1993		

**Remaining digits are a factory code.**

---

## Section 4 – Warranty Service Parts

### A. Policy

Service parts, short blocks, miniblocks, and accessory kits are warranted against manufacturing defects in workmanship and material for a period of 90 days from date of purchase by the original user.

### B. Defective Service Parts (New Inventory)

When a part from new service part inventory is found to be defective in material or workmanship, file a Warranty Claim as described in Section 6.

Short blocks, miniblocks, and engines must have Central or Service Distributor approval\* with signatures.

Transportation costs for parts replacement will not be reimbursed.

### C. Defective Service Parts (Installed)

If a new service part was installed by an authorized Kohler service outlet, and failed within 90 days after installation, submit a Warranty Claim for parts and labor as described in Section 6.

For service parts installed by persons other than authorized Kohler service outlets, and failed within 90 days from date of purchase, submit a Warranty Claim and proof of purchase for the defective part only (no labor), as described in Section 6.

All short blocks, miniblocks, and engines must have Central or Service Distributor approval\* with signatures.

If the defective new parts are components of an assembly, repair the assembly by replacing the defective parts whenever this is economically feasible. For example, if the bearing plate on a short block assembly is cracked, due to obvious material defect, replace the bearing plate and submit a warranty claim for the repair.

### D. Defective Service Parts (Installed During Engine Warranty Period)

Warranty coverage for components installed during an engine warranty period shall consist of the duration of the engine warranty coverage\*\*\* or 90 days, whichever is greater, provided the warranty installation is performed by an authorized Kohler service outlet.

### E. Warranty Options and Accessories

#### 1. Options (Factory Installed)

All factory installed options are warranted against defects in workmanship or material for the normal engine warranty period.\*\*\*

#### 2. Accessories (Field Installed)

All field installed accessories are warranted against defects in material and workmanship for the duration of the engine warranty period\*\*\* or 90 days, whichever is greater, provided the installation was performed by an authorized Kohler service outlet.

\*\*\*Except consumable items such as mufflers and maintenance items.

## Section 5 – Warranty Exclusion

### A. Non-Reimbursable Items

1. Repairs required to correct failures caused by neglect, normal wear, improper lubrication or abuse. Kohler Co. warranty covers defective workmanship and materials only.
2. Parts and labor supplied by the user or any unauthorized repair facility.
3. Normal maintenance, adjustments, or consumable items, such as fuel, spark plugs, filters, lubricating oil, and hoses.
4. Parts and accessories not installed or supplied by Kohler Co.
5. Rental of another engine or other related equipment while engine repairs are in progress.
6. Telephone, facsimile, and/or other related communications expenses.
7. Replacement and accessory parts not supplied by Kohler Co. and damages resulting from their installation.
8. Loss of revenue resulting from the failure.
9. Loss or damage to personal property.
10. Transportation charges accrued during transportation of failed unit or equipment.\*

\*Expert classifications are exempt.



**Box 1:** Check box for type of claim and manufacturer.

**Box 2:** Enter Warranty Code Number.

**Box 3:** Enter engine owner's name, address, and have owner sign.

**Box 4:** Enter name of repairing dealer, check box for type of dealer, have technician sign. Enter dates as requested.

**Box 5:** For regular Engine Warranty Claim – fill in completely, giving all information requested.

- A. **Parts new defective in stock** – Enter “parts” in engine/transmission model number section and leave the remaining sections blank.
- B. **Short block or miniblock new defective in stock** – Enter “parts” in engine/transmission model number section. List the defective assembly part number in the type or spec. number section. List the serial number in the code or serial number section. Leave the remaining sections blank.
- C. **Parts, short block, or miniblock found defective within 90 days after installation** – Enter parts/engine model number (Example: Parts/M8) in engine/transmission model number section. For a miniblock or short block, list the part number in the type or spec. number section. List the serial number of the defective short block or miniblock in the code or serial number section and complete the remaining sections.

**NOTE:** Boxes 1, 2, 4, 8, and 16 are required for defective service parts. In addition, box 17 must be signed\* by a distributor representative for short block, miniblock, or engine replacement.

**Box 6:** Record hours used.

**Box 7:** Enter name of original seller of equipment.

**Box 8:** Check box describing parts disposition.

**Box 9:** Enter part number of defective part.

The part number should normally not be an assembly part number. The actual part number of the component within an assembly that failed should be shown. For example, a wrist pin retainer failure caused extensive damage to the cylinder bore requiring a miniblock assembly. The Kohler Engine Failure code in this case would be the part number of the retainer, 235811. You would **not** enter the miniblock assembly number in this case.

The only time an assembly number should be entered is when no parts breakdown is given for the failed assembly (Example: a magnet came loose on a flywheel. There is no service part number for the flywheel magnet, therefore, the part number for the flywheel would be listed).

**Box 10:** Enter failure suffix from listing on claim, also shown on next page.

**Box 11:** Conditions Found – Describe in detail the failure. If more space is required attach a note.

Probable Cause of Failure – List in detail the most probable cause.

**Box 12:** Enter the job numbers of work performed as stated in the Flat Rate Schedule and indicate time spent in repairing the engine. When it becomes necessary to remove an engine to make the repair, enter job number 4000 for removing and reinstalling (R & R) as a separate item. Check against the flat rate maximums.

The flat rate times have been established using facilities and equipment that all Service Accounts should have available. If your repair time exceeds the flat rate, and additional labor allowance is requested, please send a note of explanation so consideration can be given.

**Important:** Using the incorrect Flat Rate Schedule could result in incorrect payment and/or delay in the processing of your claim.

**Box 13:** Fill in freight allowance details if applicable.

**Box 14:** Enter labor time in hours and decimal fractions (Example: 1.5).

**Box 15:** Leave blank – factory use only.

**Box 16:** List part numbers and description of each part replaced.

**Box 17:** Must be filled in and signed\* by a distributor representative when any short block, miniblock, or engine is replaced. An Engine Inspection Data Record (TP-2435) should be completed and submitted with the Warranty Claim.

---

\*Expert classifications are exempt.

Failure Type Suffix	
<b>AW</b>	Assembled Wrong
<b>BC</b>	Broken/Cracked
<b>BL</b>	Blown
<b>BT</b>	Bent/Twisted
<b>CD</b>	Porous/Casting Deficiency
<b>CL</b>	Came Loose/Off
<b>CP</b>	Corroded/Pitted
<b>DE</b>	Dented
<b>EF</b>	Electric Failure
<b>FM</b>	Foreign Material
<b>IF</b>	Improper Fit
<b>LK</b>	Leaked
<b>MI</b>	Missing
<b>ML</b>	Magnets Loose
<b>NS</b>	Not Seating
<b>NY</b>	Noisy
<b>OA</b>	Out of Adjustment
<b>OB</b>	Out of Balance
<b>PK</b>	Packing Material Defective
<b>PM</b>	Part Made/Machined Incorrectly
<b>PP</b>	Paint Peeling
<b>SD</b>	Shipping Damage
<b>SG</b>	Scored/Galled
<b>SS</b>	Stuck/Seized
<b>ST</b>	Stripped
<b>TR</b>	Trucking Damage
<b>UO</b>	Unknown/Other
<b>VC</b>	Valve/Clearance
<b>WW</b>	Weak Weld
<b>WN</b>	Worn
<b>WP</b>	Warped
<b>ZZ</b>	Others

## Section 7 – Reimbursement Procedures

### A. Policy

Kohler Co. will reimburse authorized and registered service outlets for all approved warranty claims. U.S. and Canadian outlets are reimbursed by check. International outlets receive reimbursement from their Central Distributor.

### B. Reimbursement Calculation Details

Warranty reimbursement is calculated by using the following formulas for each respective worldwide service outlet classification.

#### 1. U.S.A.<sup>†</sup> & Canada, Non-Expert

Total Credit = Parts Net Price + Parts Profit<sup>#</sup> + Freight + Labor (\$33/hr. max.) + Miscellaneous Costs

#Parts Profit = Net Price x 

20% Parts
10% Short Block
Miniblock
Engine**

#### 2. U.S.A. & Canada, Expert

Total Credit = Parts List Price + Freight + Labor (Full Shop Rate) + Miscellaneous Costs (Diagnostic & Pickup and Delivery)

#### 3. International, Non-Expert

Total Credit = Parts Net Price + Parts Profit<sup>#</sup> + Handling Allowance + Labor + Miscellaneous Cost

#Parts Profit = Parts Net Price x 

20% Parts
10% Short Block
Miniblock
Engine**

#### 4. International, Expert

Total Credit = Parts List Price + Freight + Labor (Full Shop Rate) + Miscellaneous Costs (Diagnostic & Pickup and Delivery)

\*\*NOTE: OHC/Command/Courage Series Engine replacement use list price and no profit on parts.

### C. Freight Cost U.S.A & Canada (FOB and Truck)

Freight costs for warranty work will be reimbursed where a short block, miniblock, or service engine is required. Submit a warranty claim form and a copy of the **freight bill**. No transportation costs for individual parts will be reimbursed.

When shipped by a distributor and a freight bill is not available, write in box 13 the FOB charges you received from your distributor and have the Central Distributor representative initial the charge.

<sup>†</sup>Some states have specific warranty laws that supersede the following.

## Section 8 – Engine Inspection Data Record

### A. Engine Inspection Data Record Instructions

Engine Inspection Data Record (TP-2435) must be completed for the following situations: policy adjustments, disputed warranty, or when a short block, miniblock, or engine is required.

Section 1 of the Engine Inspection Data Record should be filled in immediately, when you receive an engine that has had a major failure within the warranty period. If possible, review it while the customer is still present, as you will probably need their input to answer some of the questions. Section 1 should be completed and ready for your distributor representative when they arrive to make their analysis.

Section 2 should be completed, at the time the distributor representative makes their review and analysis, and in the following situations.

1. If the Service Distributor or Expert classified outlet representative cannot make a final decision, due to inconclusive evidence or information. Assistance from the Central Distributor or factory will be required.
2. If the engine is on a piece of commercial equipment more than six months old, and/or the engine has more than 500 hours of running.
3. If the engine has not yet reached the above criteria (less than six months old, less than 500 hours), you need only complete that portion of Section 2 which pertains to the actual failure. For example, if the connecting rod has seized to the crankshaft you would only fill out the "Connecting Rod", "Crankshaft Rod Journal", and "Evaluation Performed By" segments of Section 2. However, if you notice anything else that could have been a contributing factor, such as burned oil deposits on the piston (indicating possible overheating and/or oil breakdown), that should also be noted.

**B. Engine Inspection Data Record**



**Engine Inspection Data Record**

To facilitate accurate evaluation:

- enter as much information as possible
- provide as many dimensions as possible.
- mark location of break or crack on drawing
- record conditions found with check mark (X) whenever possible

**SECTION 1 OWNER AND EQUIPMENT INFORMATION**

Owner's Name		Street Address		
City	State	Zip Code	Phone No. ( ) -	
Model No.	Spec. No.		Serial No.	
Type Equipment		Manufacturer of Equipment		
Date Purchased	Date Failed	Hours Used	Times Used	
Previous Repairs <input type="checkbox"/> YES <input type="checkbox"/> NO		Warranty Claim No.		

**USAGE/MAINTENANCE INFORMATION**

Oil type: <input type="checkbox"/> 30W <input type="checkbox"/> 10W-30 <input type="checkbox"/> 10W-40 <input type="checkbox"/> 5W-20 <input type="checkbox"/> 5W-30 <input type="checkbox"/> Other _____	Hours since last oil change? _____
How often is the oil level checked? <input type="checkbox"/> Every time <input type="checkbox"/> Never <input type="checkbox"/> Other _____	Must oil be added between changes? <input type="checkbox"/> Yes <input type="checkbox"/> No How much? _____
Was an oil additive used? <input type="checkbox"/> Yes <input type="checkbox"/> No What brand? _____	How often is the air cleaner checked? Precleaner _____ Element _____
Was it ever replaced or cleaned? Precleaner: <input type="checkbox"/> Yes <input type="checkbox"/> No Element: <input type="checkbox"/> Yes <input type="checkbox"/> No	How recently? Precleaner _____ Element _____
Were any adjustments made to the carburetor or governor? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, specify _____	By whom? <input type="checkbox"/> Customer <input type="checkbox"/> Dealer

**PRELIMINARY EXAMINATION**

**Air Cleaner Assembly**

Type:  Dry  Precleaner  Remote  Oil Bath  Tri-Phase

1. Wing Nut:  Factory Original  Non-standard replacement Wing nut seal:  Intact  Separated  Missing

2. Outer Cover:  Good condition  Center hole oblong  Other damage (specify) \_\_\_\_\_

3. Precleaner:  Clean  Dirty  Plugged  Oiled  Dry  Torn  Other damage \_\_\_\_\_

4. Inner Cover:  Retaining seal/nut in place  Center hole oblong  Distorted  Other damage \_\_\_\_\_

5. Element:  Clean  Dusty  Dirty  Plugged  Missing  Dry  Non-factory replacement  Other damage \_\_\_\_\_

6. Element seals:  Pliable  Hard  Sealing  Leaking  Other damage \_\_\_\_\_

7. Air cleaner base:  Tight  Loose  Screw(s) missing  Distorted/Cracked  Breather hose detached  Other damage \_\_\_\_\_

**Crankcase Oil**

1. Amount on dipstick:  Overfilled  Full  Above "add"  Below "add"  No reading

2. Condition of oil:  New  Used  Dirty  Black  Thick/Sticky  Burnt smelling  Fuel diluted

3. Quantity of oil: Amount drained: \_\_\_\_\_ Amount req'd. \_\_\_\_\_

Observations:  Metal chips present  Sludge present  Non-factory oil filter

TP-2435

(Continued on page 2)



**Preliminary Examination (continued)**

**Cooling System**

1. Flywheel Screen: <input type="checkbox"/> Clean <input type="checkbox"/> Plugged <input type="checkbox"/> Partially blocked (%) _____	2. Cooling fins: <input type="checkbox"/> Clean <input type="checkbox"/> Plugged <input type="checkbox"/> Partially blocked (%) _____
3. Engine exterior: <input type="checkbox"/> Clean <input type="checkbox"/> Dirty <input type="checkbox"/> Oily <input type="checkbox"/> Evidence of prior disassembly or repair <input type="checkbox"/> Visible oil leaks (where) _____	

**Carburetor and Fuel Supply**

1. Condition of carburetor: <input type="checkbox"/> Okay <input type="checkbox"/> Broken <input type="checkbox"/> Loose <input type="checkbox"/> Shafts worn <input type="checkbox"/> Dirt in throat	2. Settings: <input type="checkbox"/> Main fuel adj. _____ <input type="checkbox"/> Idle fuel adj. _____
3. Condition of fuel: <input type="checkbox"/> Clean <input type="checkbox"/> Fresh <input type="checkbox"/> Stale <input type="checkbox"/> Contaminated (water, debris, etc.)	

**Governor**

1. Components: <input type="checkbox"/> Intact <input type="checkbox"/> Missing <input type="checkbox"/> Modified <input type="checkbox"/> Bent/Broken	2. Function: <input type="checkbox"/> Operative <input type="checkbox"/> Inoperative <input type="checkbox"/> Modified <input type="checkbox"/> Misadjusted
---	--

**Dirt Ingestion**

1. Is there evidence of possible dirty entry via:  
 Air cleaner     Carburetor     Breather     Gasket/Seal     Oil fill opening     Other \_\_\_\_\_

**Spark Plug**

Spark Plug	Cylinder 1	Cylinder 2	Combustion Deposits	Cylinder 1	Cylinder 2
Gap	in.	in.	Light	<input type="checkbox"/>	<input type="checkbox"/>
Make			Heavy	<input type="checkbox"/>	<input type="checkbox"/>
Number			Color	<input type="checkbox"/>	<input type="checkbox"/>

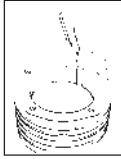
**SECTION 2 EVALUATION PERFORMED BY**

Evaluator	Date
Company Name	Type of Acct. <input type="checkbox"/> Central Distributor <input type="checkbox"/> Service Distributor <input type="checkbox"/> Service Dealer
Address	
City	State
Zip Code	Phone No.

**TEAR DOWN ANALYSIS**

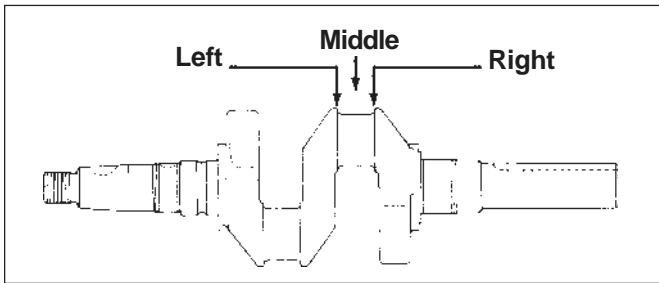
VALVES	CYLINDER 1		CYLINDER 2	
	Intake	Exhaust	Intake	Exhaust
Stuck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Face Burned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Guide Worn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not Damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLEARANCE: (COLD)	CYLINDER 1	CYLINDER 2	PISTON RINGS	CYLINDER 1	CYLINDER 2
Intake	in.	in.	Production Rings	<input type="checkbox"/>	<input type="checkbox"/>
Exhaust	in.	in.	Service Rings	<input type="checkbox"/>	<input type="checkbox"/>
<b>CONNECTING ROD</b>	<b>CYLINDER 1</b>	<b>CYLINDER 2</b>	Rings Free in Grooves	<input type="checkbox"/>	<input type="checkbox"/>
Discolored	<input type="checkbox"/>	<input type="checkbox"/>	Rings Stuck in Grooves	<input type="checkbox"/>	<input type="checkbox"/>
Broken	<input type="checkbox"/>	<input type="checkbox"/>	<b>End Gap:</b> Top _____ in. _____ in. Center _____ in. _____ in. Oil _____ in. _____ in.		
Bearing Scored	<input type="checkbox"/>	<input type="checkbox"/>			
Cap Screws Loose	<input type="checkbox"/>	<input type="checkbox"/>			
Dipper Bent	<input type="checkbox"/>	<input type="checkbox"/>	<b>Note: For Crankshaft, Pistons &amp; Cylinder Bore Measurements – See Page 3.</b>		
Dipper Broken	<input type="checkbox"/>	<input type="checkbox"/>			
Rod Seized to Crankpin	<input type="checkbox"/>	<input type="checkbox"/>			
Rod OK - Not Damaged	<input type="checkbox"/>	<input type="checkbox"/>			

Tear Down Analysis (continued)

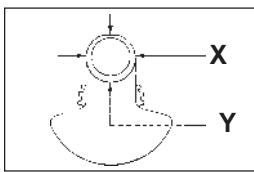
**CRANKSHAFT ROD JOURNAL**



	CYLINDER 1	CYLINDER 2
Scored	<input type="checkbox"/>	<input type="checkbox"/>
Worn	<input type="checkbox"/>	<input type="checkbox"/>
Unmeasureable	<input type="checkbox"/>	<input type="checkbox"/>
Broken	<input type="checkbox"/>	<input type="checkbox"/>
Not Damaged	<input type="checkbox"/>	<input type="checkbox"/>

Others \_\_\_\_\_

**Maximum Wear Spec.** \_\_\_\_\_



	CYLINDER 1		CYLINDER 2		MAX. OUT OF ROUND
	X	Y	X	Y	
Left					
Middle					
Right					
<b>Max. Taper</b>					

**PISTON**

Select the following piston type and measure diameter using appropriate method.

**Style A**

Measure just below oil ring groove and at right angle to piston pin.

**Style B**

**Style C**

Measure 1/2 inch above the bottom of the skirt and at right angle to piston pin.

**Style D**

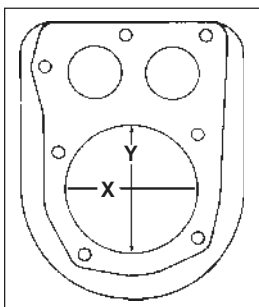
Measure 1/2 inch above the bottom of the skirt and at right angle to piston pin.

**Style E**

Measure 6 mm (0.24 in.) above the bottom of piston skirt at right angles to piston pin.

	<b>CYLINDER 1</b>	<b>CYLINDER 2</b>		<b>CYLINDER 1</b>	<b>CYLINDER 2</b>
Scored	<input type="checkbox"/>	<input type="checkbox"/>	Scratched	<input type="checkbox"/>	<input type="checkbox"/>
Worn	<input type="checkbox"/>	<input type="checkbox"/>	Not Damaged	<input type="checkbox"/>	<input type="checkbox"/>
Cracked	<input type="checkbox"/>	<input type="checkbox"/>	Others _____		
Broken	<input type="checkbox"/>	<input type="checkbox"/>		<b>CYLINDER 1</b>	<b>CYLINDER 2</b>
Ring Grooves Worn	<input type="checkbox"/>	<input type="checkbox"/>	<b>Piston Diameter</b>	_____	_____
Galled	<input type="checkbox"/>	<input type="checkbox"/>			
Discolored	<input type="checkbox"/>	<input type="checkbox"/>			

**CYLINDER BORE**



	<b>CYLINDER 1</b>	<b>CYLINDER 2</b>
Bore Scored	<input type="checkbox"/>	<input type="checkbox"/>
Worn	<input type="checkbox"/>	<input type="checkbox"/>
Not Damaged	<input type="checkbox"/>	<input type="checkbox"/>
Others _____		
<b>MAXIMUM WEAR SPEC.</b> _____		

	CYLINDER 1		CYLINDER 2		MAX. OUT OF ROUND
	X	Y	X	Y	
Top					
Center					
Bottom					
<b>Max. Taper</b>					

## Section 9 – Flat Rate Schedules

Command Pro CS Series Flat Rate Schedule		Maximum Time (Hr.)
Job No.	Description	CS4-12
	<b>Major Repairs</b>	
4000	Engine R & R	1.0
4002	Engine R & R From Generator Set	1.0
4012	Major Overhaul (Includes Valve Service)	4.0
4013	Minor Overhaul (Excludes Valve Service)	3.0
4015	Connecting Rod	2.0
4016	Piston and/or Rings	2.0
	<b>Crankshaft</b>	
4020	Crankshaft & Main Bearing R & R	2.3
4021	Crankshaft – PTO Seal	1.2
4022	Crankshaft – Flywheel Seal	2.2
4023	Crankshaft & Connecting Rod	2.5
4024	Balance Shaft – R & R	1.5
	<b>Camshaft &amp; Valves</b>	
4028	Lifters	1.5
4029	Valve R & R (No Grinding)	1.1
4030	Valve Tappet Adjustment	0.2
4031	Valve Grinding	1.2
4033	Valve Spring Replacement	0.9
4034	Valve Cover Gasket and/or Breather	0.3
4035	Camshaft R & R	1.5
4039	Rocker Arm	0.2
4046	Ignition Module R & R	1.0
4047	Flywheel R & R	1.0
	<b>Charging</b>	
4050	Regulator – Test & Replace	0.5
	<b>Major Repairs</b>	
4051	Stator – Test & Replace (Includes Flywheel R & R)	1.5
	<b>Starter</b>	
4060	Retractable – R & R, Replace Rope & Spring	1.0
4061	Starting Motor – Bendix Type R & R	1.2
4064	Starter Drive R & R	0.5
4065	Starter Solenoid R & R	0.5
	<b>Carburetor &amp; Air Intake</b>	
4070	Carburetor R & R	0.5
4071	Carburetor – Rebuild (Includes R & R)	1.0
4072	Carburetor – Adjust	0.1
4073	Air Cleaner – Damage in Shipment	0.1
4074	Fuel Tank – R & R	0.2
4076	Intake Manifold	0.5
	<b>Miscellaneous Repairs</b>	
4080	Cylinder Head and/or Gasket – Replace/each	0.8
4082	Shrouds only – R & R	0.2
4083	Oil Pan, Closure Plate, and/or Gasket – Replace	1.3
4084	Muffler – Replace	0.2
4085	Governor – Adjustment	0.2
4086	Governor R & R	1.6
4088	Crankshaft – Grinding (ENTER NET COST)	–
4089	Crankcase – Boring (ENTER NET COST)	–
4090	Governor Seal Replacement	1.6
4091	Oil Sentry Module	0.3
4092	Oil Sentry Float	1.5
4093	Gear Reduction R & R	0.6

<b>Courage &amp; Command Single Flat Rate Schedule</b>		<b>Maximum Time (Hr.)</b>		
<b>Job No.</b>	<b>Description</b>	<b>SV470-600</b>	<b>CH5,6</b>	<b>CH11-16 CV11-495</b>
	<b>Major Repairs</b>			
4000	Engine R & R	1.0	1.0	1.0
4001	Generator Set R & R – Motor Home	–	2.0	2.0
4002	Engine R & R From Generator Set	–	1.0	1.0
4010	Short Block Replacement	2.0	1.0	1.5
4012	Major Overhaul (Includes Valve Service)	–	3.0	4.0
4013	Minor Overhaul (Excludes Valve Service)	–	2.5	3.0
4015	Connecting Rod	1.8	2.0	2.5
4016	Piston and/or Rings	1.8	2.0	2.5
	<b>Crankshaft</b>			
4020	Crankshaft & Main Bearing R & R	1.5	2.5	3.0
4021	Crankshaft – PTO Seal	0.3	0.5	0.5
4022	Crankshaft – Flywheel Seal	0.6	1.5	1.5
4023	Crankshaft & Connecting Rod	–	2.5	2.5
4024	Balance Shaft/Weights – R & R	1.5	–	1.5
	<b>Camshaft &amp; Valves</b>			
4028	Lifters	–	–	1.0
4029	Valve R & R (No Grinding)	1.2	1.0	1.0
4030	Valve Adjustment	0.5	0.5	–
4031	Valve Grinding	–	1.2	1.2
4033	Valve Spring Replacement	–	0.5	1.0
4034	Valve Cover Gasket and/or Breather	0.3	0.3	0.5
4035	Camshaft R & R	1.3	1.5	2.0
4037	Camshaft PTO Seal	–	0.5	–
4039	Rocker Arm	0.6	0.7	0.7
	<b>Ignition</b>			
4046	Ignition Module R & R	0.3	1.0	1.0
4047	Flywheel R & R	0.5	1.2	1.2
4048	Spark Advance Module	–	–	0.5
	<b>Charging</b>			
4050	Regulator – Test & Replace	0.5	–	0.5
4051	Stator – Test & Replace (Includes Flywheel R & R)	0.8	1.0	1.5
	<b>Starter</b>			
4060	Retractable – R & R, Replace Rope & Spring	–	1.0	1.0
4061	Starting Motor – Bendix Type R & R	0.3	0.5	0.5
4063	Starter – Bendix Rebuild (Includes R & R)	1.0	1.0	1.0
4064	Starter Drive R & R	0.7	1.0	1.0
4065	Starter Solenoid R & R	–	0.5	0.5
	<b>Fuel System &amp; Air Intake</b>			
4067	Carburetor Solenoid (Includes Test)	0.3	–	0.3
4070	Carburetor R & R	0.5	1.0	0.5
4071	Carburetor – Rebuild (Includes R & R)	1.0	1.5	1.0
4072	Carburetor – Adjust	0.2	0.3	0.3
4073	Air Cleaner – Damage in Shipment	–	0.5	0.3
4074	Fuel Tank – R & R	–	1.0	0.5
4075	Fuel Pump – R & R	0.3	0.3	0.3
	<b>Miscellaneous Repairs</b>			
4080	Cylinder Head and/or Gasket	1.0	1.0	1.0
4082	Blower Housing/Shrouds only – R & R	0.2	0.5	0.5
4083	Oil Pan, Closure Plate, and/or Gasket – Replace	0.8	–	1.5
4084	Muffler – Replace	0.3	0.3	0.3
4085	Governor – Adjustment	0.3	0.5	0.5
4086	Governor R & R	1.1	1.5	2.0
4087	Oil Pump R & R	1.4	–	0.5
4088	Crankshaft – Grinding (ENTER NET COST)	–	–	–
4089	Crankcase – Boring (ENTER NET COST)	–	–	–
4090	Governor Seal Replacement	–	–	0.8
4091	Oil Sentry/Oil Temp./Oxygen Sensor	0.3	0.3	0.2
4096	Cam Followers (Includes Valve Adjustment)	1.3	–	–

Command Twin & Aegis Flat Rate Schedule		Maximum Time (Hr.)			
		Command Twin		Aegis	
Job No.	Description	CH18-23,CV17-23 CH/CV730-740	CH/CV25,26 CH/CV745	LV560-675	LH630-760
<b>Major Repairs</b>					
4000	Engine R & R	2.5	2.5	2.5	2.5
4002	Engine R & R From Generator Set/Welder	4.0	4.0	–	–
4010	Short Block Replacement	3.0	3.0	5.0	5.0
4011	Miniblock	4.0	4.0	6.0	6.0
4012	Major Overhaul (Includes Valve Service)	5.0	5.0	7.0	7.0
4013	Minor Overhaul (Excludes Valve Service)	4.0	4.0	6.0	6.0
4015	Connecting Rod	3.0	3.0	5.0	4.0
4016	Piston and/or Rings	3.0	3.0	5.0	4.0
<b>Crankshaft</b>					
4020	Crankshaft & Main Bearing R & R	3.0	3.0	2.5	3.8
4021	Crankshaft – PTO Seal	0.5	0.5	0.5	1.5
4022	Crankshaft – Flywheel Seal	1.5	1.5	1.0	1.6
4023	Crankshaft & Connecting Rod	3.0	3.0	1.5	1.5
<b>Camshaft &amp; Valves</b>					
4028	Lifters	0.5*	0.5*	1.0*	0.5*
4029	Valve R & R (No Grinding)	1.0*	1.0*	3.5*	2.7*
4030	Valve Shim Adjustment	–	–	0.5*	–
4031	Valve Grinding	1.2*	1.2*	3.8**	3.0**
4033	Valve Spring Replacement	1.0*	1.0*	3.3**	2.5**
4034	Valve Cover Gasket and/or Breather	0.5*	0.5*	0.5*	0.5*
4035	Camshaft R & R	2.0	2.0	2.5	2.8
4037	Camshaft PTO Seal	–	–	1.8	2.1
4039	Rocker Arm	0.5*	0.5*	0.5*	0.5*
<b>Ignition</b>					
4046	Ignition Module R & R (Includes Both Modules)	1.5	1.5	1.5	0.7
4047	Flywheel R & R	1.2	1.2	0.8	1.3
4048	Spark Advance Module/ECU/TPS <sup>1</sup>	1.0	1.0	–	–
4049	Speed Sensor	–	1.0	–	–
<b>Charging</b>					
4050	Regulator – Test & Replace	0.5	0.5	0.5	0.3
4051	Stator – Test & Replace (Includes Flywheel R & R)	1.5	1.5	1.0	1.5
4052	Wiring Harness R & R***	1.0	1.0	1.0	1.0
<b>Cooling System</b>					
4055	Coolant R & R (Includes Coolant Temp. Switch)	–	–	1.0	0.7
4056	Radiator R & R	–	–	1.5	1.0
4057	Thermostat R & R	–	–	0.5	0.7
4058	Water Pump	–	–	1.7	2.0
4059	Pump Drive Belt	–	–	1.5	1.8
<b>Starter</b>					
4060	Retractable – R & R, Replace Rope & Spring	0.5	0.5	–	–
4061	Starting Motor – Bendix Type R & R	1.0	1.0	0.5	0.5
4063	Starter – Bendix Rebuild (Includes R & R)	1.0	1.0	1.0	1.0
4064	Starter Drive R & R	1.0	1.0	1.0	1.0
4065	Starter Solenoid R & R	0.5	0.5	0.5	0.5
<b>Fuel System &amp; Air Intake</b>					
4070	Carburetor R & R	0.5	0.5	0.5	0.7
4071	Carburetor – Rebuild (Includes R & R)	1.0	1.0	1.0	1.0
4072	Carburetor – Adjust	0.3	0.3	0.3	0.3
4073	Air Cleaner – Damage in Shipment	0.3	0.3	0.3	0.3
4075	Fuel Pump – R & R	0.3	0.5	0.3	0.3
4076	Intake Manifold	1.0	1.0	2.0	2.0
4077	Injectors/Fuel Rail	–	1.5	–	–

\*Time allowed is for each cylinder.

\*\*Additional 0.5 for 2nd cylinder.

\*\*\*Additional 0.5 for EFI engines.

<sup>1</sup>ECU-Engine Control Unit; TPS-Throttle Position Sensor.

<sup>A</sup>Plated cylinders cannot be rebored.

Command Twin & Aegis Flat Rate Schedule		Maximum Time (Hr.)			
		Command Twin		Aegis	
		CH18-23, CV17-23 CH/CV730-740	CH/CV25,26 CH/CV745	LV560-675	LH630-760
Job No.	Description				
	<b>Miscellaneous Repairs</b>				
4080	Cylinder Head and/or Gasket – Replace/each	1.0	1.0	3.3 <sup>♦♦</sup>	2.5 <sup>♦♦</sup>
4082	Shrouds only – R & R	0.5	0.5	–	0.3
4083	Oil Pan, Closure Plate, and/or Gasket – Replace	1.0	1.0	1.0	1.0
4084	Muffler – Replace	0.3	0.3	0.3	0.3
4085	Governor – Adjustment	0.5	0.5	0.5	0.5
4086	Governor R & R	1.5	1.5	1.5	1.5
4087	Oil Pump R & R	1.5	1.5	1.5	1.5
4088	Crankshaft – Grinding (ENTER NET COST)	–	–	–	–
4089	Crankcase – Boring (ENTER NET COST)	–	A	–	–
4090	Governor Seal Replacement	0.8	0.8	0.8	0.8
4091	Oil Sentry/Oil Temp./Oxygen Sensor	0.3	0.3	0.3	0.3
4094	Adjust Belt Tension	–	–	–	0.7
4095	Flywheel Cover	–	–	2.3	–

<sup>♦</sup>Time allowed is for each cylinder.

<sup>♦♦</sup>Additional 0.5 for 2nd cylinder.

<sup>♦♦♦</sup>Additional 0.5 for EFI engines.

<sup>1</sup>ECU-Engine Control Unit; TPS-Throttle Position Sensor.

<sup>^</sup>Plated cylinders cannot be rebored.

OHC Flat Rate Schedule		Maximum Time (Hr.)	
		Twin	
Job No.	Description	TH16	TH18
	<b>Major Repairs</b>		
4000	Engine R & R	2.5	2.5
4010	Short Block Replacement	3.0	3.0
4011	Miniblock/Crankcase	4.0	4.0
4012	Major Overhaul (Includes Valve Service)	5.0	5.0
4013	Minor Overhaul (Excludes Valve Service)	4.0	4.0
4015	Connecting Rod	3.0	3.0
4016	Piston and/or Rings	3.5	3.5
	<b>Crankshaft</b>		
4020	Crankshaft & Main Bearing R & R	3.0	3.0
4021	Crankshaft – PTO Seal	0.5	0.5
4022	Crankshaft – Flywheel Seal	2.0	2.0
4023	Crankshaft & Connecting Rod	3.0	3.0
	<b>Camshaft &amp; Valves</b>		
4029	Valve R & R (No Grinding)	4.0	4.0
4030	Valve Tappet Adjustment	0.5	0.5
4031	Valve Grinding	4.0	4.0
4033	Valve Spring Replacement	2.5	2.5
4034	Valve Cover Gasket and/or Breather	0.5	0.5
4035	Camshaft R & R	2.5	2.5
4037	Camshaft PTO Seal	2.0	2.0
4038	Timing Belt R & R	1.5	1.5
4039	Rocker Arm	2.5	2.5
	<b>Ignition</b>		
4046	Ignition Module R & R (Includes Both Modules)	1.5	1.5
4047	Flywheel R & R	0.7	0.7
	<b>Charging</b>		
4050	Regulator – Test & Replace	0.5	0.5
4051	Stator – Test & Replace (Includes Flywheel R & R)	1.0	1.0
	<b>Starter</b>		
4060	Retractable – R & R, Replace Rope & Spring	0.5	0.5
4061	Starting Motor – Bendix Type R & R	0.5	0.5
4063	Starter – Bendix Rebuild (Includes R & R)	1.0	1.0
4064	Starter Drive R & R	1.0	1.0
4065	Starter Solenoid R & R	0.3	0.3
	<b>Carburetor &amp; Air Intake</b>		
4070	Carburetor R & R	1.0	1.0
4071	Carburetor – Rebuild (Includes R & R)	1.0	1.0
4072	Carburetor – Adjust	0.3	0.3
4073	Air Cleaner – Damage in Shipment	0.1	0.1
4074	Fuel Tank – R & R	0.5	0.5
4075	Fuel Pump – R & R	0.5	0.5
	<b>Miscellaneous Repairs</b>		
4082	Shrouds only – R & R	0.7	0.7
4083	Oil Pan, Closure Plate, and/or Gasket – Replace	3.0	3.0
4084	Muffler – Replace	0.3	0.3
4085	Governor – Adjustment	0.5	0.5
4086	Governor R & R	2.5	2.5
4087	Oil Pump R & R	2.0	2.0
4088	Crankshaft – Grinding (ENTER NET COST)	–	–
4089	Crankcase – Boring (ENTER NET COST)	A	A
4090	Governor Seal Replacement	0.8	0.8

<sup>A</sup>Crankcase cannot be rebored

Magnum Flat Rate Schedule		Maximum Time (Hr.)		
		Single	Twin	
Job No.	Description	M8,M10, M12,M14,M16	MV16,MV18,MV20	M18 & M20
	<b>Major Repairs</b>			
4000	Engine R & R	1.0	2.5	2.5
4001	Generator Set R & R – Motor Home	2.0	–	2.0
4002	Engine R & R From Generator Set	1.0	–	3.0
4010	Short Block Replacement	3.0	3.0	3.0
4011	Miniblock Replacement	3.5	–	–
4012	Major Overhaul (Includes Valve Service)	5.0	6.0	6.0
4013	Minor Overhaul (Excludes Valve Service)	4.0	5.0	5.0
4015	Connecting Rod	2.0	5.0	5.0
4016	Piston and/or Rings	2.0	3.0	3.0
	<b>Crankshaft</b>			
4020	Crankshaft & Main Bearing R & R	3.0	5.0	5.0
4021	Crankshaft – PTO Seal	0.5	1.5	0.8
4022	Crankshaft – Flywheel Seal	1.5	1.5	1.5
4023	Crankshaft & Connecting Rod	3.0	5.0	5.0
4024	Balance Gears – R & R	3.0	–	–
	<b>Camshaft &amp; Valves</b>			
4029	Valve R & R (No Grinding) (Each Cylinder)	1.0	1.0	1.0
4030	Valve Tappet Adjustment	1.0	1.0	1.0
4031	Valve Grinding (Each Cylinder)	1.2	1.2	1.2
4032	Valve Guide Replacement	1.5	1.5	1.5
4033	Valve Spring Replacement	1.0	1.0	1.0
4034	Valve Cover Gasket and/or Breather	0.5	0.6	0.6
4035	Camshaft R & R	3.2	4.5	4.5
	<b>Ignition</b>			
4046	Ignition Module R & R	1.0	1.0	1.0
4047	Flywheel R & R	1.2	1.2	1.2
	<b>Charging</b>			
4050	Regulator – Test & Replace	0.5	0.5	1.0
4051	Stator – Test & Replace (Includes Flywheel R & R)	1.5	1.5	1.5
	<b>Starter</b>			
4060	Retractable – R & R, Replace Rope & Spring	1.0	1.0	–
4061	Starting Motor – Bendix Type R & R	1.0	0.5	1.0
4063	Starter – Bendix Rebuild (Includes R & R)	1.5	1.0	1.5
4064	Starter Drive R & R	1.2	1.2	1.2
4065	Starter Solenoid R & R	0.5	0.5	0.5
	<b>Carburetor &amp; Air Intake</b>			
4070	Carburetor R & R	1.0	0.5	0.5
4071	Carburetor – Rebuild (Includes R & R)	1.5	1.0	1.0
4072	Carburetor – Adjust	0.2	0.3	0.3
4073	Air Cleaner – Damage in Shipment	0.3	0.3	0.3
4074	Fuel Tank – R & R	0.5	–	–
4075	Fuel Pump – R & R	0.5	0.3	0.3
4076	Fuel Pump – Rebuild (Includes R & R)	1.0	0.8	0.8
	<b>Miscellaneous Repairs</b>			
4080	Cylinder Head and/or Gasket – Replace/each	1.0	0.6	0.6
4081	Cylinder Head Retorque	0.8	0.4	0.4
4082	Shrouds only – R & R	0.6	0.6	0.6
4083	Oil Pan and/or Gasket – Replace	0.5	1.0	–
4084	Muffler – Replace	0.3	0.3	0.3
4085	Governor – Adjustment	0.5	0.3	0.3
4086	Governor R & R	3.0	4.3	4.3
4087	Oil Pump R & R	–	2.0	2.0
4088	Crankshaft – Grinding (ENTER NET COST)	–	–	–
4089	Crankcase – Boring (ENTER NET COST)	–	–	–



K-Series Flat Rate Schedule		Maximum Time (Hr.)				
		Single			Twin	
		K91, K161,K181	K241,K301,K321,K341		KT17,KT19	K582
Job No.	Description	Std.	Std.	Q*	Std. & Q*	Std. & Q*
<b>Major Repairs</b>						
4000	Engine R & R	1.0	1.0	1.5	2.5	3.5
4001	Generator Set R & R – Motor Home	2.0	2.0	2.0	2.0	2.0
4002	Engine R & R from Generator Set	1.0	1.0	1.0	2.0	2.5
4010	Short Block Replacement	3.0 <sup>†</sup>	3.0	3.2	3.0	5.0
4011	Miniblock Replacement	3.5 <sup>†</sup>	3.5	3.7	–	–
4012	Major Overhaul (Includes Valve Service)	5.0	5.0	5.5	6.0	8.0
4013	Minor Overhaul (Excludes Valve Service)	4.0	4.0	4.2	5.0	6.5
4014	Bare Block	4.0 <sup>†</sup>	–	–	–	7.0
4015	Connecting Rod	2.0	2.0	2.2	5.0	3.5
4016	Piston and/or Rings	2.0	2.0	2.2	3.0	3.5
<b>Crankshaft</b>						
4020	Crankshaft & Main Bearing R & R	3.0	3.0	3.2	5.0	3.0
4021	Crankshaft – PTO Seal	0.5	0.5	0.5	0.8	0.8
4022	Crankshaft – Flywheel Seal	1.5	1.5	1.7	1.5	2.0
4023	Crankshaft & Connecting Rod	3.0	3.0	3.2	5.0	3.5
4024	Balance Gears – R & R	–	3.0	3.2	–	–
<b>Camshaft &amp; Valves</b>						
4029	Valve R & R (No Grinding) (Each Cylinder)	1.0	1.0	1.2	1.0	1.5
4030	Valve Tappet Adjustment	1.0	0.5	0.6	1.0	1.0
4031	Valve Grinding (Each Cylinder)	1.2	1.2	1.4	1.2	1.7
4032	Valve Guide Replacement	0.5 <sup>†</sup>	0.5	0.7	0.8	0.8
4033	Valve Spring Replacement	1.0	1.0	1.2	1.0	1.5
4034	Valve Cover Gasket and/or Breather	0.5	0.5	0.5	0.6	0.5
4035	Camshaft R & R	3.0	3.2	3.4	4.5	3.0
<b>Ignition</b>						
4040	Ignition Timing	0.3	0.3	0.3	0.5	0.5
4041	Points and/or Condenser – Replace & Adjust	0.5	0.5	0.5	0.5	0.5
4042	Shipping Damaged Spark Plug – Replace & Adjust	0.2	0.2	0.2	0.2	0.2
4043	Spark Plug Wire – Replace (Battery Ignition)	0.2	0.2	0.2	0.2	0.2
4044	Spark Plug Wire – Replace (Magneto Ignition)	1.0	1.0	1.0	–	–
4045	Ignition Coil – Replace	0.3	0.3	0.3	0.3	0.4
4046	Magneto Coil – Test & Replace (Includes Flywheel R & R)	1.0	1.0	1.0	–	–
4047	Flywheel R & R	1.0	1.0	1.0	1.0	1.0
<b>Charging</b>						
4050	Regulator – Test & Replace	0.5	0.5	0.5	1.0	0.5
4051	Stator – Test & Replace (Includes Flywheel R & R)	1.0	1.0	1.0	1.5	1.5
<b>Starter</b>						
4060	Retractable – R & R, Replace Rope & Spring	1.0	1.0	1.0	–	–
4061	Starting Motor – Bendix Type R & R	0.5	0.5	0.5	0.5	1.0
4063	Starter – Rebuild (Includes R & R)	1.0	1.0	1.0	1.0	1.0
4064	Starter Drive R & R	0.5	0.5	0.5	0.5	0.5
4065	Starter Solenoid R & R	0.5	0.5	0.5	0.5	0.5
<b>Carburetor &amp; Air Intake</b>						
4070	Carburetor R & R	0.5	0.5	0.5	0.5	0.5
4071	Carburetor – Rebuild (Includes R & R)	1.0	1.0	1.0	1.0	1.0
4072	Carburetor – Adjust	0.3	0.3	0.3	0.3	0.3
4073	Air Cleaner – Damage in Shipment	0.3	0.3	0.3	0.3	0.3
4074	Fuel Tank – R & R	0.3	0.3	0.3	–	–
4075	Fuel Pump – R & R	0.3	0.3	0.3	0.3	0.3
<b>Miscellaneous Repairs</b>						
4080	Cylinder Head and/or Gasket – Replace/each	0.5	0.5	0.5	0.6	0.6
4081	Cylinder Head Retorque	0.3	0.3	0.3	0.7	0.7
4082	Shrouds only – R & R	0.2	0.2	0.4	0.5	0.5
4083	Oil Pan and/or Gasket – Replace	0.5	0.5	0.5	–	0.5
4084	Muffler – Replacement	0.3	0.3	0.3	0.3	0.3
4085	Governor – Adjustment	0.5	0.5	0.5	0.3	0.7
4086	Governor Replacement	3.0	3.0	3.7	4.3	1.5
4087	Oil Pump Replacement	–	–	–	2.0	3.0
4088	Crankshaft – Grinding (ENTER NET COST)	–	–	–	–	–
4089	Crankcase – Boring (ENTER NET COST)	–	–	–	–	–

<sup>†</sup>K141,K161,K181 only

<sup>†</sup>Excludes K91.

<sup>\*</sup>K91 only

<sup>\*</sup>Q refers to Quiet Package.



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