



OWNER'S MANUAL

TE 390 MODEL

TR 390 MODEL

ENGINE SPECIFICATIONS

	TE-390	TR-390
MODEL	KF82DX-S	KF82DX
TYPE	Single Cylinder, Air Cooled, 4 Cycle	
DISPLACEMENT	20.89 Cubic Inch or 341 cc's	
HORSE POWER	9 HP at 4000 RPM	
LUBRICANT	SAE 30 or 5W-20 cold weather - See Oil Chart	
FUEL	Regular or Unleaded Grade Gasoline Octane Rating 90 or higher	
SPARK PLUG	NGK B6HS or equivalent (.025 gap)	
IGNITION	CDI	

CAUTION

OIL AND FUEL HAVE BEEN DRAINED FROM THIS ENGINE—To prepare engine for operation PLEASE refer to the proper sections of this manual.

BREAKING IN PERIOD

The proper break-in of a new engine will greatly increase its life and result in trouble-free operation. The factory test given is not sufficient to establish the polished bearing surfaces which are so necessary for reliable performance and long engine life. There is no quick way to force the establishment of good bearing surfaces. These can only be obtained by running a new engine carefully and under reduced speeds and loads for a short period of time. If at all possible operate engine at light loads for a period totaling twelve hours before maximum load is applied.

SAFETY PRECAUTIONS

- *Always refuel slowly to avoid spillage.
- *Never fill fuel tank while engine is running or hot. Avoid the possibility of spilled fuel causing a fire.
- *Never operate engine in closed building unless the exhaust is piped outside. The exhaust contains carbon monoxide, a poisonous, odorless and invisible gas, which if breathed in causes serious illness and possible death.
- *Never make adjustments on machinery while it is connected to the engine without first removing the ignition cable from the spark plug. Turning over the machinery by hand during adjustment or cleaning might start the engine and machinery with it, causing serious injury to the operator.
- *Precaution is the best insurance against an accident. When starting engine, maintain a safe distance from moving parts of equipment.

LUBRICATION

A. RECOMMENDED LUBRICATING OIL.

Use a high quality detergent oil classified "FOR SERVICE SC OR MS" for regular use as well as for the break-in of a new engine.

GRADE OF OIL CHART

SEASON or TEMPERATURE.

Spring or Summer or Autumn Above 30 degrees F.	S.A.E. 30
Winter 30 degrees F. to 0 degrees F.	S.A.E. 10 W 30
Below 0 degrees F.	S.A.E. 5 W 20

Crankcase capacity 1.2 liters (1.27 quarts)

B. FILLING

Fill crankcase thru oil fill opening, to the upper mark indicated on the dipstick. Check oil level by inserting dipstick into oil fill opening—Do not thread into place to check level. If the oil level is low add fresh oil to the upper level of the dipstick.

C. CHANGING

FIRST TIME: Change oil after 5 hours of operation.

SECOND TIME AND THEREAFTER: Change oil every 25 hours of operation. Check oil level daily.

TO DRAIN OIL: Remove drain plug by turning it counterclockwise. Oil will flow more freely if engine is hot. After completely draining the oil, turn oil drain plug in until tight.

FUEL

Fill tank with clean fresh gasoline (Do Not Mix Oil With Gasoline). The capacity of the tank is approximately 1.5 gallons. Use only reputable well known brands of gasoline. **CAUTION:** Do not add fuel to tank while engine is running or hot. Spilled fuel could cause a fire. Be sure that the air vent in fuel cap is not plugged as this would prevent fuel from flowing to the carburetor.

VEHICLE OPERATION

STARTING PROCEDURE

1. Before starting make sure throttle control opens and closes freely.
2. Close choke on carburetor. If engine is warm or air temperature is high, close choke valve halfway or keep it open fully.
3. Turn key (MODEL TE-390), clockwise until starter engages, hold key until engine starts or for a maximum of 20 seconds. If engine fails to start, wait 20 seconds and repeat above procedure. If engine does not start after several attempts check for other malfunction. (**CAUTION:** In the event of a "false start", that is, if the engine gets up sufficient speed to disengage the starter but fails to continue running, the engine must be allowed to come to a complete halt before a restart attempt is made.)
4. A. Grasp **REWIND STARTER HANDLE** and pull rope out slowly (MODEL TR-390), until engine reaches start of compression cycle (rope will pull slightly harder at this point.) Let rope rewind slowly.
B. Pull rope hard with a continuous full arm stroke. Keep a firm grip on **REWIND STARTER HANDLE** and let rope rewind slowly. Do not let **REWIND STARTER HANDLE** snap back against starter.
C. Repeat preceding instructions A and B until engine fires and when engine starts, move **CHOKE LEVER** on engine or remote control on equipment to ½ choke and then to **NO CHOKE POSITION**.
If engine falters, move **CHOKE LEVER** to ½ choke until engine runs smoothly and then to **NO CHOKE POSITION**.
NOTE: If engine fires, but fails to start, move **CHOKE LEVER** to **NO CHOKE POSITION** and repeat preceding instructions A and B until engine starts.
If engine again fires, but fails to start, repeat preceding instructions A, B and C until engine starts.

RUNNING

1. After engine starts open choke gradually.
2. Warm-up by allowing the engine to run at slow speed (idle), for about 5 minutes without load. See inside front cover for operating **NEW ENGINE**. Do not race or gun engine to hurry warm-up.

3. The lights may be turned on by turning on the toggle switch located on the right side of the bike.

STOPPING

1. Slow down throttle and allow engine to run at idle speed for 2 or 3 minutes before stopping.
2. Turn off Key, TE-390
3. Depress stop button, TR-390

NOTE: DO NOT STOP ENGINE SUDDENLY WHILE RUNNING AT HIGH SPEEDS.

MAINTENANCE

1. SPARK PLUG

Remove spark plug periodically. Clean electrodes and adjust gap to 0.025 inch. Use a new spark plug at the beginning of a new season. Replacement must be of the correct heat range - See specifications on page 1.

2. AIR CLEANER

These engines are equipped with a dry type air cleaner and a foam pre-cleaner. The air cleaner can be serviced by removing the body. This is done by removing the wing nut on the front left hand side of the body then sliding back one inch. The air cleaner can then be removed by unsnapping the 3 clips that hold the air cleaner to the carburetor. The pre-cleaner should be serviced every 25 hours or daily if vehicle is used in very dusty or dry grass conditions. Servicing of the pre-cleaner is accomplished by washing it in soap and water then, after rinsing and squeezing out excess water, allowing it to air dry (whenever possible). When dry reinstall over element. Do not oil this type pre-cleaner. Replace the dry element every 200 hours or more often if necessary.

3. KEEP ENGINE CLEAN

It is important that the engine be kept clean externally to prevent over heating. Cooling is accomplished by a flow of air circulated past the cylinder walls and head fins from a combination of fan-flywheel encased in a sheet metal shroud. The air is divided and directed by ducts and baffle plates to insure uniform cooling of all parts. Never operate an engine with any part of the shrouding removed, this will retard air cooling. Keep the cylinder and head fins free from dirt and chaff. Improper circulation of cooling air will cause engine to overheat.

4. CARBURETOR ADJUSTMENT (Remove the body for access)

The Kawasaki Engine is equipped with a fixed jet and therefore needs no high speed adjustment.

5. IDLE ADJUSTMENT (Remove the body for access)

Rough idle is usually caused by the idle speed being set too low. Turn **IDLE SPEED** screw in (clockwise direction) to increase speed. If engine still idles poorly after speed is increased, stop engine and turn **IDLE FUEL SCREW** all the way in (clockwise) until it bottoms lightly (do not force screw) then back out 1¼ turns. Restart engine and check idle--turn needle in or out (¼ turn at a time) until smoothest idle is achieved.

PREPARATION FOR LONG STORAGE

Use the following procedure to preserve engine before placing in storage. Drain oil from crankcase (while hot), then flush with clean light oil. Refill crankcase after flushing. Drain fuel from tank, sediment bowl and carburetor. Clean exterior of engine, then spread light film of oil over surfaces subject to corrosion (unpainted surfaces). Pour tablespoon of oil into spark plug hole, turn engine over several times by hand, then reinstall spark plug. Cover engine and store in dry place.

KAWASAKI ENGINE WARRANTY

Kawasaki Motors Corp. U.S.A. ("Kawasaki") warrants for a period of one (1) year from the date of initial retail purchase, (except those two-cycle engines which are less than 110 cubic centimeters in displacement which shall be six (6) months) that each Kawasaki engine shall be free, under normal use and maintenance, from any defect in material and/or workmanship, subject to the limitations and obligations set forth below.

The following are not considered manufacturing defects and are not covered by the warranty:

1. Replacement of parts necessitated by normal wear and tear and deterioration, including, but not limited to, air cleaner elements, spark plugs, spark plug caps, and vinyl pipe.

2. Replacement of small parts which may become unusable during assembly and disassembly, including, but not limited to, packing bolts, nuts, oil seals, "O" ring gaskets, washers, and cotter pins.

Kawasaki will, at its option, replace or repair without charge, any part or parts of such engines found to be defective by Kawasaki in material and/or workmanship during the warranty term, provided such engines have been properly installed in a product suitable for their use.

All transportation charges on, and damages and loss incurred in connection with the transportation of parts submitted for replacement or repair under this warranty shall be borne by the purchaser. This warranty shall not apply to any engine or parts which shall have been repaired with other than genuine Kawasaki parts or altered in any way by persons other than Kawasaki's authorized service personnel, nor shall this warranty apply to any damage resulting from accident, alteration, misuse or abuse, nor shall this warranty apply to any damage resulting from failure to follow Kawasaki's instructions for operations and maintenance of engines and parts.

The foregoing warranty is in lieu of all other warranties, express, implied or statutory (including, but not limited to, warranties of merchantability and fitness for purpose) and of any other obligations and/or liabilities on the part of Kawasaki and Kawasaki neither assumes nor authorizes any other person, natural or corporate, to assume for it any other obligations or liability in connection with or with respect to any engine or part. Kawasaki shall in no event be liable for any consequential, incidental or special damages nor for the improper selection of an engine for a particular application.

KAWASAKI MOTORS CORP.
650 Valley Park Drive
Shakopee, MN 55379

MAINTENANCE

TORQUE CONVERTER

1. The driver unit of the torque converter needs no lubrication. To service simply blow air into holes in cover to remove loose dirt.
2. The driven unit should have a few drops of light oil put on the bushing under the coil spring, every 100 hours.

BELT

1. The belt is especially designed for the transmission and only original replacement belts will work. The belt never stretches and never needs adjusting.
2. To replace the belt remove the left rear wheel and the torque converter cover. Take the belt off the rear pulley first. Remove the belt by spreading the sheaves on the rear unit apart. CAUTION: Avoid getting oil on the belt. If you do get oil on the belt, clean with solvent soaked cloth.

TIRES

The recommended nominal tire pressure is as follows: Front tire - 4 pounds. Rear tire - 2-3 pounds. It is suggested that you experiment with tire pressure. If riding on rough terrain, sand or snow, use less pressure. If riding on hard surfaces use more pressure. Most punctures can be repaired just like any other tubeless tire. Tire warranties should be handled through the respective tire manufacturer's retail outlets in your area.

NOTE: The standard tires may be replaced with optional lug tires for increased traction in mud and snow conditions.

BRAKE ADJUSTMENT

After extended usage the brake will require adjusting. Do this by turning thumb nut on brake handle counter clockwise. Make sure the vehicle can be moved forward easily so as to assure that the brake is not "dragging" and causing excessive heat build up.

THROTTLE

Keep throttle housing from becoming twisted or kinked. Make sure throttle is returned to idle position before starting engine. A few drops of light oil on throttle linkage will normally eliminate sticking throttles.

NOTE: When the throttle is open, the bike will only go so fast. Often the tendency is for the rider to put additional force on the throttle grip in an attempt to gain an additional amount of speed from the machine. This eventually results in premature throttle cable and throttle component failures.

TRANSAXLE

1. The transaxle requires no daily maintenance.
2. Fluid level should reach the check plug on the lower righthand side of the case. Fluid should be checked every 100 hours or more often if any leakage occurs.
3. Replace or add automotive automatic transmission fluid or 90W gear lube.

BEARINGS

All bearings used are of the sealed type and require no customer lubrication. Premature bearing failures are predominately caused by the following conditions:

1. Driving in water for extended periods of time.
2. Dumping or upsetting the bike in such a manner that the seals are punctured or dislocated.
3. Allowing vines, weeds, or grass to become entangled or wrapped between the bearing seals and the frame members.

FUEL SYSTEM

Your bike's gas tank has been designed with a valve on top of the gas cap. This valve must be open to allow air to enter and replace the gasoline as it is consumed.

BATTERY

To maintain a battery in top condition, check and perform the following services at frequent intervals:

1. Regularly check level of electrolyte--add water as necessary to maintain level above plates--do not overfill as this can cause poor performance or early failure due to loss of electrolyte.
2. Keep terminals and top of battery clean. Wash with baking soda and rinse with clear water. Do not allow soda solution to enter cells as this will destroy the electrolyte.

MAINTENANCE CHART

We have found that the predominant reason for improper machine performance is lack of owner's maintenance. Listed below are 10 items that will make your Commuter the vehicle it was meant to be. Each time before venturing into the fields spend a few minutes going over the safety checks. The hours listed after each item are the suggested length of time between each check. This time is based on normal usage of the vehicle, during extreme weather conditions, etc. this check should be used more often.

1. Check tire pressure	10 hours
2. Check engine oil and battery level	10 hours
3. Wash and clean motor	10 hours
4. Adjust brakes	10 hours
5. Change oil in engine	25 hours
6. Clean the air filter	25 hours
7. Check all nuts and bolts for tightness	25 hours
8. Clean front transmission	100 hours
9. Oil the rear transmission	100 hours
10. Check Transaxle fluid	100 hours

RIDING PROCEDURES

Find a large area free of obstacles for your first ride. Sit on the center of the seat and keep both feet on the foot platform at all times. Slowly advance the throttle, (avoid turning the throttle open too quickly). As the throttle advances, the driving member of the transmission will engage the belt and start forward motion. The transmission will shift automatically maintaining engine efficiency at all speeds.

To stop forward motion of the bike, release the throttle and lightly squeeze the brake (avoid too much pressure on the brakes as this will cause the rear wheels to lock). Practice starting the bike in motion and stopping repeatedly until you find these responses occurring automatically to suit your driving situations. As the rider becomes more confident he will try to master increasingly more difficult terrain. If you encounter a riding situation in which you lose control of the bike, it is best not to attempt to save or manhandle the bike but to allow oneself to get clear of the machine. The machine is constructed in such a manner that most components are adequately protected by frame members. As soon as possible the machine should be uprighted so the engine does not get flooded with an abundance of gas. Above all do not give up, there are very few trail conditions that you cannot negotiate with your bike.

NOTE: Rear carrier is not intended for loads over 50 lbs. When loaded, care must be used in driving as front end weight decreases.

LIMITED WARRANTY

Commuter Industries, Inc. warrants each model TE 390 or TR 390 to be free from defects in material and workmanship in the following manner:

The warranty is to the first retail purchaser and cannot be transferred. The warranty applies only when the bikes are used in a normal and reasonable manner.

1. Torque Converter (including driver and driven unit)-1 year
2. Transaxle - 1 year
3. Axles - 1 year
4. Frame - 1 year
5. Engine - (Warranted by Kawasaki Motors Corp.) - 1 year
6. Tires - (Warranted by Goodyear Tire & Rubber Company) - 1 year

The remainder of the TE 390 or TR 390 model is warranted for 90 days except the following parts: decals, light bulbs, drive belts, brake bands and control cables. These are considered wear items and are not covered by the warranty.

The retail purchaser's responsibility under this warranty are:

1. To fill out and mail in the warranty registration card within 5 days of the date of purchase.
2. To transport the bike to an authorized Commuter Dealer's service center at owner's expense, or to reimburse Commuter's Dealer for any travel or transportation expense involved in fulfilling this warranty.

Commuter's responsibility under the terms of this warranty is to repair or replace any parts which are defective in material or workmanship free of charge and to pay dealer's labor charges for such repair or replacement in accordance with Commuter's established labor reimbursement policy.

Commuter shall not be liable under this warranty for (1) Any failure to provide reasonable and necessary maintenance. (2) Failure or damage caused by abuse or unreasonable use. (3) Damage other than that resulting directly from the use of or malfunction of the warranted product. (4) Damage resulting from the use of replacement parts not sold and warranted by Commuter. (5) Damage resulting from the use of attachments or modifications made without the express written consent of Commuter, or if the bike has been entered in or modified for competitive racing or used as a commercial or rental unit.

Commuter reserves the right to incorporate changes or improvements in the design of its product at any time without incurring any obligations to change products previously manufactured.

This warranty is expressly in lieu of any other expressed warranties.

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.

IN NO EVENT SHALL THE RETAIL PURCHASER BE ENTITLED TO RECOVER INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO INCONVENIENCE, RENTAL OR REPLACEMENT EQUIPMENT, LOSS OR PROFIT OR OTHER COMMERCIAL LOSS.

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.

COMMUTER INDUSTRIES, INC.

ENVIRONMENTAL PRECAUTIONS

1. Do not litter the landscape with cans or paper wrappers.
2. Always ask permission before riding on another's land.
3. Enjoy and find relaxation in nature but do not deface or mar the beauty of it for others.