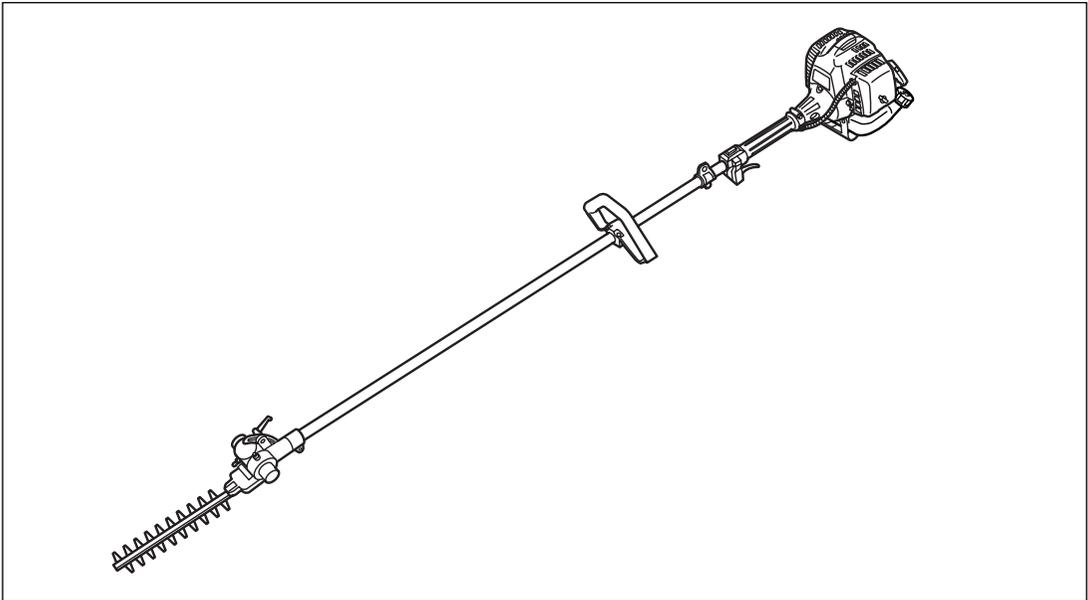




# OWNER/OPERATOR MANUAL

## LONG REACH TRIMMER

### LRTZ2500



#### WARNING



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



#### WARNING



Before using our trimmers, please read this manual carefully to understand the proper use of your unit.

APPLICABLE SERIAL NUMBERS :

DRIVE UNIT 000000 and up

CUTTING UNIT 000000 and up

ENGINE UNIT 000479 and up

# **INFORMATION**

This machine is equipped with an Overload Cancellation Mechanism.

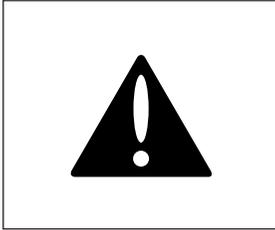
When the cutting blades have got into metal wires or those twigs difficult to cut, the mechanism acts as a shock absorber, and protects the drive gears and the blades from severe reaction which could give damage to those parts.

When the blades are frequently caught by twigs, please check the following points:

1. Size of the twigs. **NEVER TRY TO CUT TWIGS THICKER THAN 3/16" (5mm).**
2. Condition of the blade edges. **REPLACE THE WORN OUT BLADES.**

For the detail of the mechanism, please see below.

Thank you for choosing our product.



## **SAFETY FIRST**

Instructions contained in warnings within this manual marked with a  symbol concern critical points which must be taken into consideration to prevent possible serious bodily injury, and for this reason you are requested to read all such instructions carefully and follow them without fail.

### ■ **WARNINGS IN THE MANUAL**



This mark indicates instructions which must be followed in order to prevent accidents which could lead to serious bodily injury or death.



This mark indicates instructions which must be followed, or it leads to mechanical failure, breakdown, or damage.

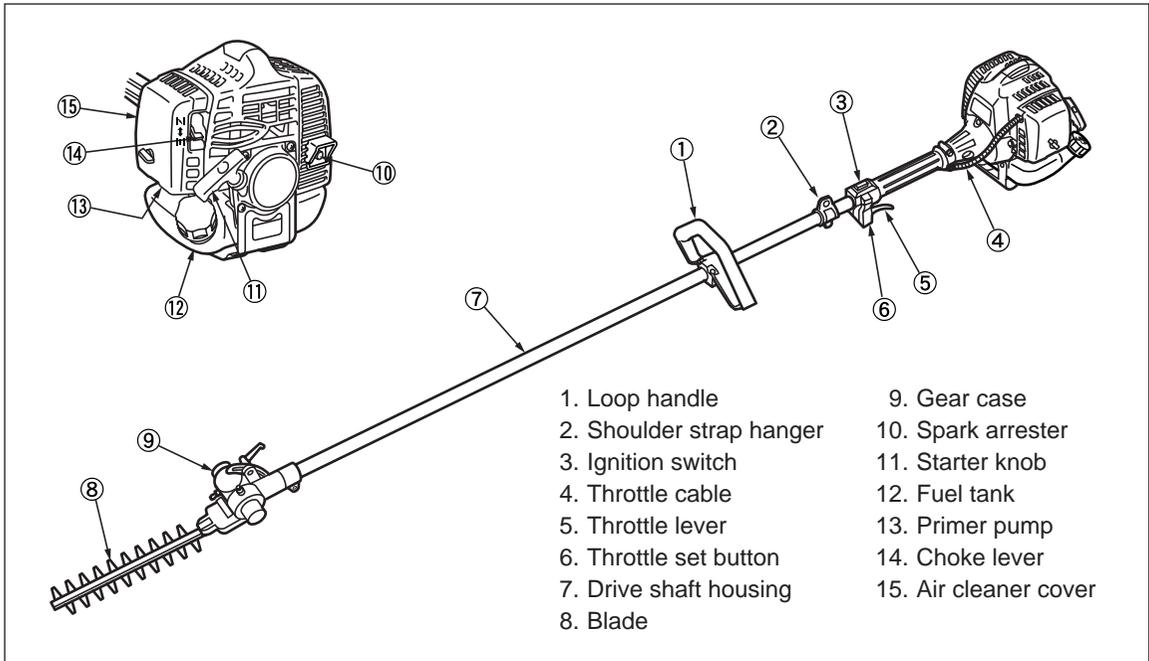


This mark indicates hints or directions useful in the use of the product.

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# 1. Parts location



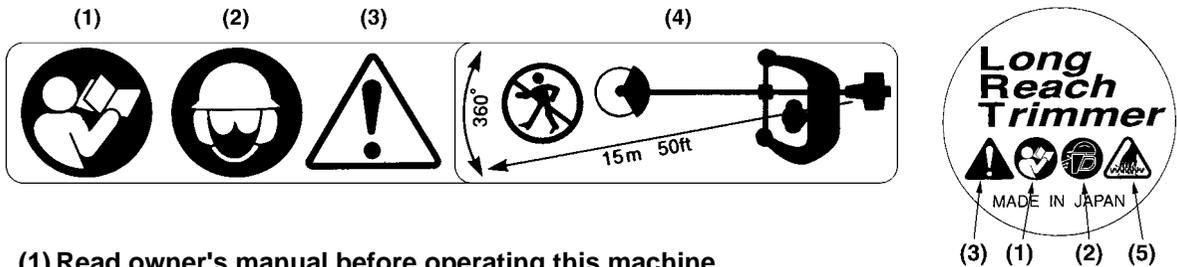
# 2. Specifications

## ■ LRTZ2500

|                          |  |
|--------------------------|--|
| Overall size(LxWxH)..... | 90.1(2300)x9.8(250)x12.2(310) in(mm)                                       |
| Dry weight w/o acc. .... | 13.4 (6.1) lbs(kg)   |
| Engine                   | Type ..... Air-cooled 2-stroke gasoline                                    |
|                          | Model ..... Zenoah GZ25N   |
|                          | Displacement ..... 1.6cu-in (25.4cm <sup>3</sup> )                         |
|                          | Max. output ..... 1.2Hp (0.9kW)at 7500/min <sup>-1</sup> (rpm)             |
|                          | Idle speed .....3000±200/min <sup>-1</sup> (rpm)                           |
|                          | Fuel ..... Mixture(Gasoline 50 : Oil 1)                                    |
|                          | Carburetor ..... Walbro Diaphragm type                                     |
|                          | Spark plug .....NGK CMR7A  |
| Fuel tank capacity.....  | 22.0 fl.oz (0.65 ℓ )   |
| Transmission.....        | Centrifugal clutch, Rigid driveshaft                                       |
| Reduction ratio .....    | 4.0  |
| Durability period.....   | 300 hrs  |
| Cutting head             | Type.....Reciprocating Double blade  |
|                          | Tooth.....28 teeth   |
|                          | Pitch.....30   |
|                          | Effective cut width .....16 in   |
|                          | Angle adjust range .....90°(±45° from cutting head position aligned shaft) |
| Standard Accessories     |  |
|                          | Shoulder Strap ..... 1 pc.   |
|                          | Goggle..... 1 pc.  |
|                          | Tool Kit ..... 1 pc.   |
|                          | Blade Cover ..... 1 pc.  |

Specifications are subject to change without notice.

### 3. Warning labels on the machine



- (1) Read owner's manual before operating this machine.
- (2) Wear head, eye and ear protection.
- (3) Handling this machine improperly could result in accidents causing serious injury or death. Read this manual carefully and practice using the trimmer until you are fully acquainted with all operations and have learned to use it correctly.
- (4) Keep all children, bystanders and helpers 15 meters away from the brushcutter
- (5) Keep hands away from cutting blades

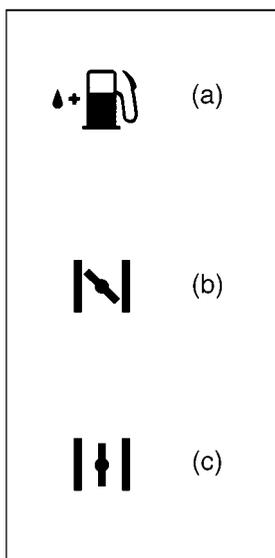
#### ! IMPORTANT

If warning label peel off or become soiled and impossible to read, you should contact the dealer from which you purchased the product to order new labels and affix them in the required location(s).

#### ! WARNING

Never modify your trimmer.  
We won't warrant the machine, if you use the remodeled trimmer or you don't observe the proper usage written in the manual.

### 4. Symbols on the machine



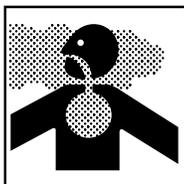
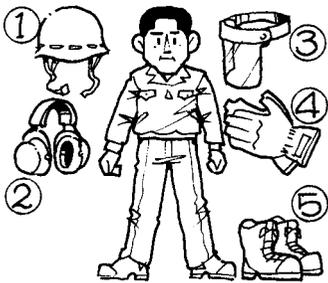
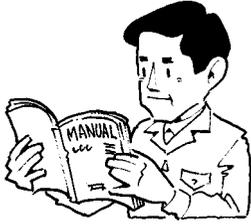
For safe operation and maintenance, symbols are carved in relief on the machine. According to these indications, please be careful not to take a mistake.

(a) The port to refuel the "MIX GASOLINE"  
**Position:** FUEL TANK CAP

(b) The direction to close the choke  
**Position:** AIR CLEANER COVER

(c) The direction to open the choke  
**Position:** AIR CLEANER COVER

## 5. For safe operation



1. Read this manual carefully until you completely understand and follow all safety and operating instructions.
2. Keep this manual handy so that you may refer to it later whenever any questions arise. Also note, if you have any questions which cannot be answered herein, contact the dealer from whom you purchased the product.
3. Always be sure to include this manual when selling, lending, or otherwise transferring the ownership of this product.
4. Never allow children or anyone unable to fully understand the directions given in the manual to use the machine.

### ■ WORKING CONDITION

1. When using the product, you should wear proper clothing and protective equipment.

#### (1) Helmet

#### (2) Ear protectors

#### (3) Protection goggles or face protector

#### (4) Thick work gloves

#### (5) Non-slip-sole work boots

2. And you should carry with you.

- (1) Attached tools and files
- (2) Properly reserved fuel
- (3) Spare blade
- (4) Things to notify your working area (rope, warning signs)
- (5) Whistle (for collaboration or emergency)
- (6) Hatchet or saw (for removal of obstacles)

3. Do not wear loose clothing, jewelry, short trousers, sandals, or go barefoot. Do not wear anything which might be caught by a moving part of the unit. Secure hair so it is above shoulder length.

### ■ WORKING CIRCUMSTANCE

1. Never start the engine inside a closed room or building. Exhaust gases contain dangerous carbon monoxide.
2. Never use the product,
  - a. when the ground is slippery or when you can't maintain a steady posture.

## 5. For safe operation



- b. At night, at times of heavy fog, or at any other times when your field of vision might be limited and it would be difficult to gain a clear view of the working area.
- c. During rain storms, during lightning storms, at times of strong or gale-force winds, or at any other times when weather conditions might make it unsafe to use the product.



### ■ WORKING PLAN

1. You should never use the product when under the influence of alcohol, when suffering from exhaustion or lack of sleep, when suffering from drowsiness as a result of having taken cold medicine or at any other time when a possibility exists that your judgment might be impaired or that you might not be able to operate the product properly and in a safe manner.
2. When planning your work schedule, allow plenty of time to rest. Limit the amount of time over which the product is to be used continuously to somewhere around 30~40 minutes per session, and take 10~20 minutes of rest between work sessions. Also try to keep the total amount of work performed in a single day under 2 hours or less.



### WARNING

1. If you don't observe the working time, or working manner (See ■USING THE PRODUCT), Repetitive Stress Injury(RSI) could occur.  
If you feel discomfort, redness and swelling of your fingers or any other part of your body, see a doctor before getting worse.
2. To avoid noise complaints, in general, operate product between 8a.m. and 5p.m. on weekdays and 9a.m. to 5p.m. weekends.

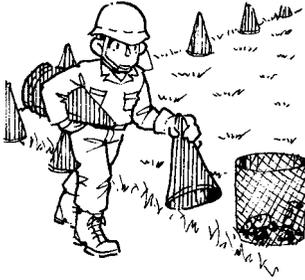


### NOTE

Check and follow the local regulations as to sound level and hours of operations for the product.



## 5. For safe operation

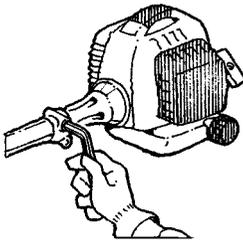


### ■ BEFORE STARTING THE ENGINE

1. The area within a perimeter of 50 feet (15m) of the person using the product should be considered a hazardous area into which no one should enter. If necessary yellow warning rope, warning signs should be placed around the perimeter of the area. When work is to be performed simultaneously by two or more persons, care should also be taken to constantly look around or otherwise check for the presence and locations of other people working so as to maintain a distance between each person sufficient to ensure safety.
2. Check the condition of working area to avoid any accident by hitting hidden obstacles such as stumps, stones, cans, or broken grass.

### ❗ IMPORTANT

Remove any obstacle before beginning work.



3. Inspect the entire unit for loose fasteners and fuel leakage. Make sure that the cutting attachment is properly installed and securely fastened.
4. Always use the shoulder strap. Adjust the strap for comfort before starting the engine. The strap should be adjusted to fit your body according as your working posture.

### ■ STARTING THE ENGINE

1. Keep bystanders and animals at least 50feet (15m) away from the operating point. If you are approached, immediately stop the engine.
2. The product is equipped with a centrifugal clutch mechanism, so the cutting attachment begins to rotate as soon as the engine is started by putting the throttle into the start position. When starting the engine, place the product onto the ground in a flat clear area and hold it firmly in place so as to ensure that neither the cutting part nor the throttle come into contact with any obstacle when the engine starts.





## 5. For safe operation

### WARNING

**Never place the throttle into the high speed position when starting the engine.**

3. After starting the engine, check to make sure that the cutting attachment stops rotating when the throttle is moved fully back to its original position. If it continues to rotate even after the throttle has been moved fully back, turn off the engine and take the unit to your authorized Red Max servicing dealer for repair.

### ■ USING THE PRODUCT

### IMPORTANT

**Cut only materials recommended by the manufacturer. And use only for tasks explained in the manual.**

1. Grip the handles firmly with both hands using your whole hand. Place your feet slightly apart (slightly further apart than the width of your shoulders) so that your weight is distributed evenly across both legs, and always be sure to maintain a steady, even posture while working.
2. Keep cutting attachment below waist level.
3. Maintain the speed of the engine at the level required to perform cutting work, and never raise the speed of the engine above the level necessary.
4. If the unit start to shake or vibrate, turn off the engine and check the whole unit. Do not use it until the trouble has been properly corrected.
5. Keep all parts of your body away from rotating cutting attachment and hot surfaces.
6. Never touch the muffler, spark plug, or other metallic parts of the engine while the engine is in operation or immediately after shutting down the engine. Doing so could result in serious burns or electrical shock.





## 5. For safe operation

### • IF SOMEONE COMES

1. Guard against hazardous situations at all times. Warn adults to keep pets and children away from the area. Be careful if you are approached. Injury may result from flying debris.
2. If someone calls out or otherwise interrupts you while working, always be sure to turn off the engine before turning around.



### ■ MAINTENANCE

1. In order to maintain your product in proper working order, perform the maintenance and checking operations described in the manual at regular intervals.
2. Always be sure to turn off the engine before performing any maintenance or checking procedures.

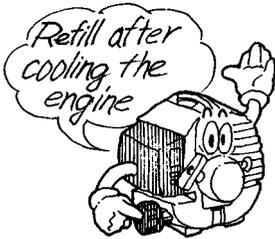
### WARNING

**The metallic parts reach high temperatures immediately after stopping the engine.**

3. When replacing any part, or when replacing the oil or any lubricant, always be sure to **use only RedMax products or products which have been certified by RedMax for use with the RedMax product.**
4. In the event that any part must be replaced or any maintenance or repair work not described in this manual must be performed, please contact a representative from the store nearest RedMax authorized servicing dealer for assistance.
5. Do not use any accessory or attachment other than those bearing the RedMax mark and recommended for the unit.
6. Under no circumstances should you ever take apart the product or alter it in any way. Doing so might result in the product becoming damaged during operation or the product becoming unable to operate properly.



## 5. For safe operation



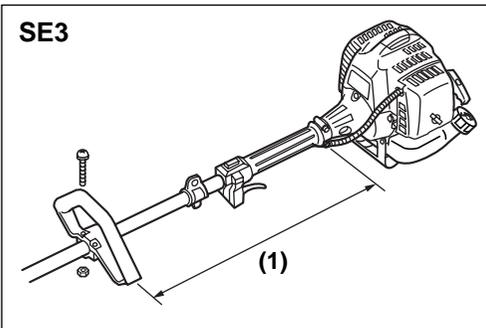
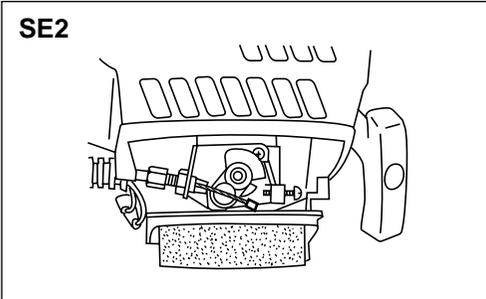
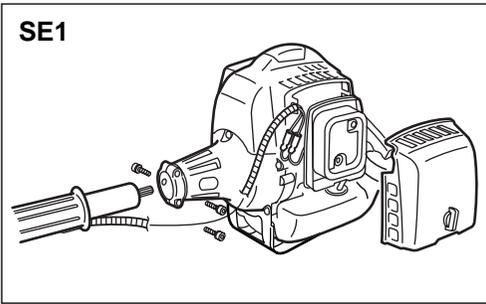
### ■ HANDLING FUEL

1. The engine of the RedMax product is designed to run on a mixed fuel which contains highly flammable gasoline. Never store cans of fuel or refill the tank of the unit in any place where there is a boiler, stove, wood fire, electrical sparks, welding sparks, or any other source of heat or fire which might ignite the fuel.
2. Never smoke while operating the unit or refilling its fuel tank.
3. When refilling the tank, always turn off the engine and allow it to cool down. Take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refueling.
4. Wipe spilled fuel completely using a dry rag if any fuel spillage occurs during refueling.
5. After refueling, screw the fuel cap back tightly onto the fuel tank and then carry the unit to a spot 10 feet or more away from where it was refueled before turning on the engine.

### ■ TRANSPORTATION

1. When hand-carrying the product, cover over the cutting part, lift up the product and carry it paying attention to the blade.
2. Never transport the product over rough roads over long distances by vehicle without removing all fuel from the fuel tank. If doing so, fuel might leak from the tank during transport.

## 6. Set up



### ■ MOUNTING ENGINE (SE1)

1. Push the driveshaft housing toward the clutch housing and rotate it by hand to check that the driveshaft is engaged with the gears.
2. Insert the driveshaft housing into the clutch housing until it bottoms, and align the positioning holes on the clutch housing and the shaft tube and install the screw. When difficult to engage, twist the engine slightly.
3. Fasten the clamp securely with two screws.

### ❗ IMPORTANT

Tighten the screws gradually by turns.

### ■ CONNECTING THROTTLE WIRE

1. Remove the air cleaner cover.
2. Connect the end of the throttle wire to the joint on the top of the carburetor. (SE2)

### ■ CONNECTING SWITCH WIRES

- Connect the switch wires between the engine and the main unit. Pair the wires of the same color.

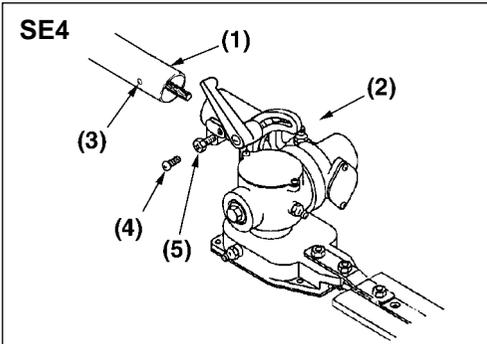
### ■ INSTALLING HANDLE

- Mount the handle to the shaft tube and clamp it at a location that is comfortable to you. (SE3)

(1) About 19 inches (48cm)

## 6. Set up

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### ■ ATTACHING THE TRIMMING MECHANISM (SE4)

1. Remove the cap on the end of the main pipe.
2. Remove the screw screwed into the end of the trimming mechanism.
3. Insert the end of the trimming mechanism into the main pipe.
4. Line up the hole on the end of the trimming mechanism into which the screw is to be inserted with the hole on the main pipe, and screw the screw firmly in.
5. Using a 10-mm wrench, screw in the hexagonal bolt provided to fix the trimming mechanism into place.

**(1) Main pipe**

**(2) Trimming mechanism**

**(3) Screw hole**

**(4) Screw**

**(5) Fastening bolt**

### ■ BALANCE UNIT

1. Put on strap and attach unit to strap.
2. Depending on the working posture, slide clamp up or down until unit balances and the strap fits your body.

# 7. Fuel



50:1 MIXING CHART

|             |       |     |     |     |      |    |
|-------------|-------|-----|-----|-----|------|----|
| GASOLINE    | gal.  | 1   | 2   | 3   | 4    | 5  |
| 2-CYCLE OIL | fl.oz | 2.6 | 5.2 | 7.8 | 10.4 | 13 |

|             |       |    |    |    |    |     |
|-------------|-------|----|----|----|----|-----|
| GASOLINE    | liter | 1  | 2  | 3  | 4  | 5   |
| 2-CYCLE OIL | ml    | 20 | 40 | 60 | 80 | 100 |

## ⚠ WARNING

- Gasoline is very flammable. Avoid smoking or bringing any flame or sparks near fuel. Make sure to stop the engine and allow it cool before refueling the unit. Select outdoor bare ground for fueling and move at least 3m(10ft) away from the fueling point before starting the engine.
- The RedMax engines are lubricated by oil specially formulated for air-cooled 2-cycle gasoline engine use. If RedMax oil is not available, use an anti-oxidant added quality oil expressly labeled for air-cooled 2-cycle engine use. (JASO FC GRADE OIL or ISO EGC GRADE)

## RECOMMENDED MIXING RATIO GASOLINE 50:OIL 1

- Exhaust emission are controlled by the fundamental engine parameters and components(eq., carburation, ignition timing and port timing) without addition of any major hardware or the introduction of an inert material during combustion.
- These engines are certified to operate on unleaded gasoline.
- Make sure to use gasoline with a minimum octane number of 90 ROZ(USA/Canada : pump octane min.87)
- Unleaded gasoline is recommended to reduce the contamination of the air for the sake of your health and the environment.
- Poor quality gasolines or oils may damage sealing rings, fuel lines or fuel tank of the engine.

## ■ HOW TO MIX FUEL

1. Measure out the quantities of gasoline and oil to be mixed.
2. Put some of the gasoline into a clean, approved fuel container.
3. Pour in all of the oil and agitate well.
4. Pour in the rest of gasoline and agitate again for at least one minute.
5. Put a clear indication on the outside of the

## 7. Fuel

---

container to avoid mixing up with gasoline or other containers.

6. Indicate the contents on outside of container for easy identification.

### ■ FUELING THE UNIT

1. Untwist and remove the fuel cap. Rest the cap on a dustless place.
2. Put fuel into the fuel tank to 80% of the full capacity.
3. Fasten the fuel cap securely and wipe up any fuel spillage around the unit.

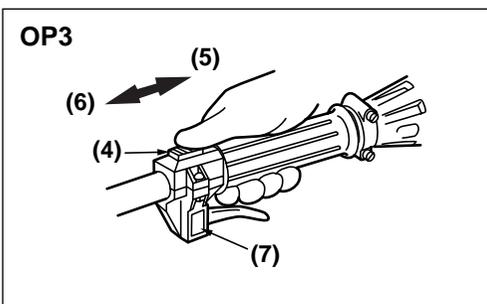
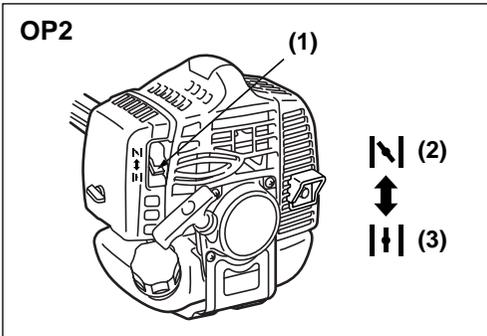
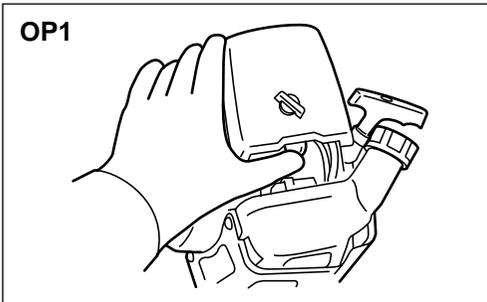
### **WARNING**

1. Select bare ground for fueling.
2. Move at least 10 feet (3 meters) away from the fueling point before starting the engine.
3. Stop the engine before refueling the unit.

### **FOR YOUR ENGINE LIFE, AVOID;**

1. FUEL WITH NO OIL(RAW GASOLINE) – It will cause severe damage to the internal engine parts very quickly.
2. GASOHOL – It can cause deterioration of rubber and/or plastic parts and disruption of engine lubrication.
3. OIL FOR 4-CYCLE ENGINE USE or WATER COOLED 2-CYCLE ENGINE USE – It can cause spark plug fouling, exhaust port blocking, or piston ring sticking.
4. **Mixed fuels which have been left unused for a period of one month or more** may clog the carburetor and result in the engine failing to operate properly.

## 8. Operation



### ■ STARTING ENGINE

#### **⚠ WARNING**

The cutting head will start rotating upon the engine starts.

1. Rest the unit on a flat, firm place. Keep the cutting head off the ground and clear of surrounding objects as it will start rotating upon starting of the engine.
2. Push the primer pump several times until overflow fuel flows out in the clear tube. (OP1)
3. Move the choke lever to the closed position. (OP2)
4. Set the ignition switch to the "start" position. While pulling the throttle lever, push the set button, and release the throttle, then the throttle lever is in to the "start" position. (OP3)
5. While holding the unit firmly, pull out the starter rope quickly until engine fires. (OP4)

**(1) choke lever (2) close (3) open  
(4) ignition switch (5) start (6) stop  
(7) throttle set button**

#### **ⓘ IMPORTANT**

- Avoid pulling the rope to its end or returning it by releasing the knob. Such actions can cause starter failures.

6. Move the choke lever downward to open the choke. And restart engine. (OP2)
7. Allow the engine to warm up for a several minutes before starting operation.

#### **📖 NOTE**

1. When restarting the engine immediately after stopping it, leave the choke open.
2. Overchoking can make the engine hard to start due to excess fuel. When the engine failed to start after several attempts, open the choke and repeat pulling the rope, or remove the spark plug and dry it.

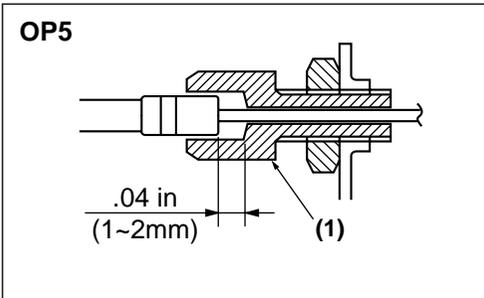
## 8. Operation

### ■ STOPPING ENGINE (OP3)

1. Release the throttle lever and run the engine for a half minute.
2. Shift the ignition switch to the STOP position.

### ❗ IMPORTANT

- Except for an emergency, avoid stopping the engine while pulling the throttle lever.



### ■ ADJUSTING THROTTLE CABLE

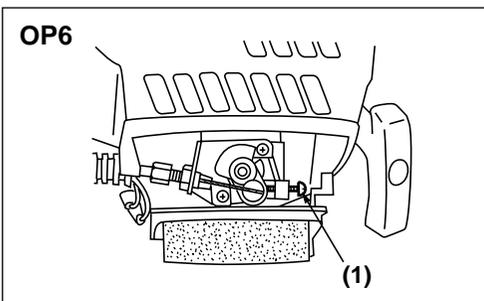
- The normal play is 1 or 2mm when measured at the carburetor side end. Readjust with the cable adjuster as required. (OP5)

#### (1) cable adjuster

### ■ ADJUSTING IDLING SPEED (OP6)

1. When the engine tends stop frequently at idling mode, turn the adjusting screw clockwise.
2. When the cutting head keeps rotating after releasing the trigger, turn the adjusting screw counter-clockwise.

#### (1) idle adjusting screw



### 📖 NOTE

- Warm up the engine before adjusting the idling speed.

### ⚠ WARNING

This product is equipped with extremely sharp blades, and when used improperly these blades can be extremely dangerous, and improper handling can cause accidents which may in turn lead to serious injury or death. For this reason, you should always be careful to follow the following instructions when using your trimmer.

- Never hold the trimmer in a way in which the blades are pointed towards someone else.
- Never allow the blades to come into proximity with your body while the engine of the trimmer

## 8. Operation



is in operation.

- Always be sure to turn off the engine before changing the angle of the blades, removing branches which have become stuck in the blades, or at any other time when coming into close proximity with the blades.
- Always wear work gloves made of leather or some other sturdy material when using the trimmer.
- Always place the blade cover provided with the trimmer over the blades when not in use.
- **Falling branches may fall onto the face or into the eyes, resulting in injuries, scratches, and cuts, and for this reason you should always be sure to wear a helmet and face protector when using your trimmer.**

### **! IMPORTANT**

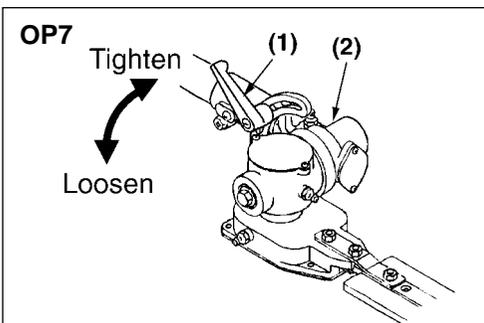
The thickness of branches which may be cut using this trimmer is limited to up to approximately 3/16" (5mm). Never try to cut branches thicker than this, as doing so may result in damage to the trimmer.

### **■ ADJUSTING THE ANGLE OF THE CUTTING BLADES (OP7)**

1. Stop the engine.
2. Turn the bolt located on the top of the trimming mechanism counter-clockwise to loosen it.
3. Adjust the angle of the blades to the desired angle, and then fix the bolt firmly back into place.

**(1) Clamp lever**

**(2) Trimming mechanism**



# 9. Maintenance

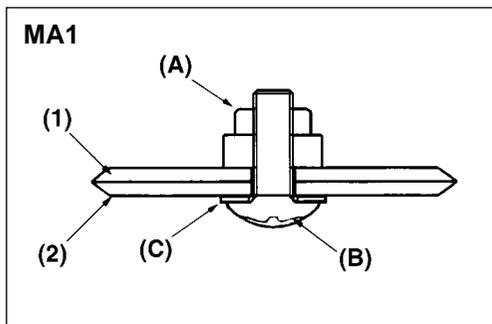
## ■ MAINTENANCE CHART

|        | system/component                               | procedure                          | before use | every 25 hours after | every 50 hours after | every 100 hours after | note  |
|--------|--|------------------------------------|------------|----------------------|----------------------|-----------------------|---|
| ENGINE | fuel leaks, fuel spillage                      | wipe out                           | ✓          |                      |                      |                       |   |
|        | fuel tank, air filter, fuel filter             | inspect/clean                      | ✓          | ✓                    |                      |                       | replace, if necessary                           |
|        | idle adjusting screw                           | see ■ADJUSTING IDLING SPEED (p.17) | ✓          |                      |                      |                       | replace carburetor if necessary                 |
|        | spark plug                                     | clean and readjust plug gap        |            |                      | ✓                    |                       | GAP: .025in(0.6-0.7mm)<br>replace, if necessary |
|        | cylinder fins, intake air cooling vent         | clean                              |            | ✓                    |                      |                       |   |
|        | muffler, spark arrester, cylinder exhaust port | clean                              |            |                      | ✓                    |                       |   |
| SHAFT  | throttle lever, ignition switch                | check operation                    | ✓          |                      |                      |                       |   |
|        | cutting parts                                  | replace if something's wrong       | ✓          |                      |                      |                       |   |
|        | gear case                                      | grease                             |            | ✓                    |                      |                       |   |
|        | screws/nuts/bolts                              | tighten/replace                    | ✓          |                      |                      | ✓                     | not adjusting screws                            |

### ■ BLADES (MA1)

- When refilling the tank or resting, it is often a good idea to use the time to oil the cutting blades.
- If a gap exists between the upper and lower blades, follow the procedure below to adjust them so that they fit more closely together.

1. Loosen lock nut (A) as shown in the diagram.
2. Tighten screw (B) fully, and then turn one-third to one-half of a rotation backward.
3. While holding onto the screw to keep it in position, tighten the lock nut.
4. Check to make sure that the flat washer (C) is loose enough so that it may be turned by pressing on it with a finger.



- (1) Upper blade  
(2) Lower blade

### NOTE

Screwing in the screw too tightly may make it impossible for the blades to move. Conversely, not screwing in the screw tightly enough may make the blades of the trimmer feel dull and cause leaves and branches to become caught in the blades of the trimmer.

## 9. Maintenance

### QUICK TIP

If the blades become so worn down that it is no longer possible to eliminate the gap between them, you should contact the authorized RedMax servicing dealer from which you purchased your RedMax® trimmer to have the blades resharpened or replaced.

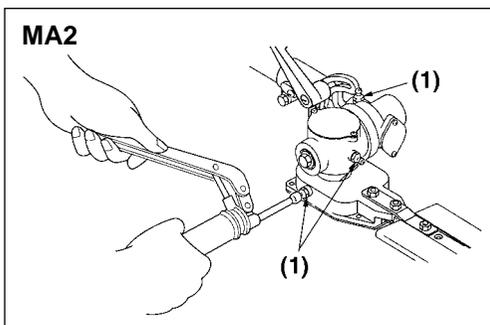
### ■ GEAR CASE

The reduction gears are lubricated by multipurpose, lithium-based grease in the gearcase.

Supply new grease every 25 hours of use or more often depending on the job condition.

When adding lubricant, use a grease gun to insert lubricant into the three grease nipples located on the gear case. (MA2)

#### (1) Grease fitting



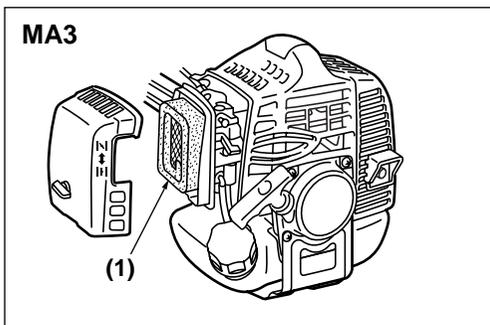
### ⚠ WARNING

- Make sure that the engine has stopped and is cool before performing any service to the machine. Contact with moving cutting head or hot muffler may result in a personal injury.

### ■ AIR FILTER

- The air filter, if clogged, will reduce the engine performance. Check and clean the filter element in warm, soapy water as required. Dry completely before installing. If the element is broken or shrunk, replace with a new one. (MA3)

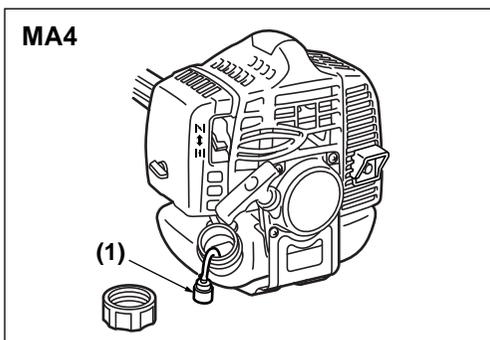
#### (1) air filter



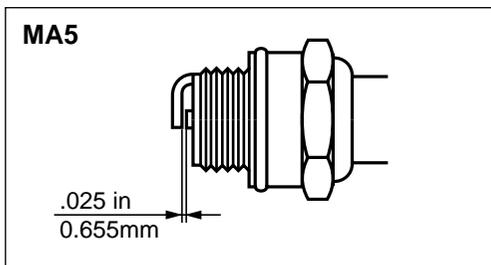
### ■ FUEL FILTER

- When the engine runs short of fuel supply, check the fuel cap and the fuel filter for blockage. (MA4)

#### (1) fuel filter



## 9. Maintenance



### ■ SPARK PLUG

- Starting failure and mis-firing are often caused by a fouled spark plug. Clean the spark plug and check that the plug gap is in the correct range. For a replacement plug, use the correct type specified by RedMax. (MA5)
- **REPLACEMENT PLUG IS A NGK CMR7A.**

### ⚠ IMPORTANT

- Note that using any spark plug other than those designated may result in the engine failing to operate properly or in the engine becoming overheated and damaged.
- To install the spark plug, first turn the plug until it is finger tight, then tighten it a quarter turn more with a socket wrench.

**TIGHTENING TORQUE: 87~104 in-lbs**  
**(9.8~11.8 N.m.)**

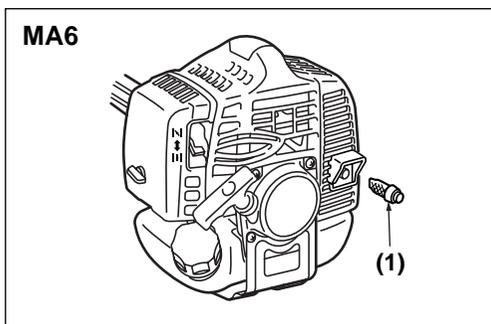
### ■ MUFFLER

### ⚠ WARNING

- Inspect periodically, the muffler for loose fasteners, any damage or corrosion. If any sign of exhaust leakage is found, stop using the machine and have it repaired immediately.
- **Note that failing to do so may result in the engine catching on fire.**

### ■ SPARK ARRESTER

- The muffler is equipped with a spark arrester to prevent red hot carbon from flying out of the exhaust outlet. Periodically inspect and clean as necessary with a wire brush. In the State of California it is required by law (Section 4442 of the California Public Resources Code) to equip a spark arrester when a gas powered tool is used in any forest covered, brush covered, or grass covered unimproved land. (MA6)



(1) spark arrester

## 9. Maintenance

### ■ INTAKE AIR COOLING VENT

#### **⚠ WARNING**

- Never touch the cylinder, muffler, or spark plugs with your bare hands immediately after stopping the engine. The engine can become very hot when in operation, and doing so could result in severe burns.
- When checking the machine to make sure that it is okay before using it, check the area around the muffler and remove any wood chips or leaves which have attached themselves to the trimmer. Failing to do so could cause the muffler to become overheated, and that this in turn could cause the engine to catch on fire. Always make sure that the muffler is clean and free of wood chips, leaves, and other waste before use.
- Check the intake air cooling vent and the area around the cylinder cooling fins after every 25 hours of use for blockage, and remove any waste which has attached itself to the trimmer. Note that it is necessary to remove the engine cover shown in (MA10) in order to be able to view the upper part of the cylinder.

#### **ⓘ IMPORTANT**

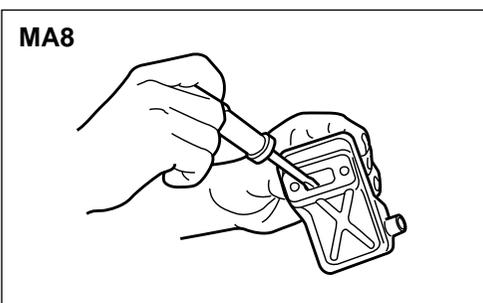
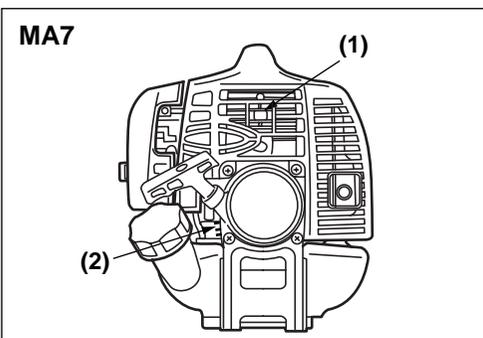
- If waste gets stuck and causes blockage around the intake air cooling vent or between the cylinder fins, it may cause the engine to overheat, and that in turn may cause mechanical failure on the part of the trimmer. (MA7)

**(1) cylinder**

**(2) intake air cooling vent (back)**

### ■ PROCEDURES TO BE PERFORMED AFTER EVERY 100 HOURS OF USE

1. Remove the muffler, insert a screwdriver into the vent, and wipe away any carbon buildup. Wipe away any carbon buildup on the muffler exhaust vent and cylinder exhaust port at the same time. (MA8)
2. Tighten all screws, bolts, and fittings.
3. Check to see if any oil or grease has worked its way in between the clutch lining and drum, and if it has wipe it away using oil-free, lead-free gasoline.



## **10. Storage**

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- Aged fuel is one of major causes of engine starting failure. Before storing the unit, empty the fuel tank and run the engine until it uses all the fuel left in the fuel line and the carburetor. Store the unit indoor taking necessary measures for rust prevention.

# 11. Troubleshooting guide

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## Case 1. Starting failure

| CHECK                       |   | PROBABLE CAUSES          |   | ACTION                         |
|-----------------------------|---|--------------------------|---|--------------------------------|
| fuel tank                   | → | incorrect fuel           | → | drain it and with correct fuel |
| fuel filter                 | → | fuel filter is clogged   | → | clean                          |
| carburetor adjustment screw | → | out of normal range      | → | adjust to normal range         |
| sparkling (no spark)        | → | spark plug is fouled/wet | → | clean/dry                      |
|                             | → | plug gap is incorrect    | → | correct (GAP: 0.6~0.7mm)       |
| spark plug                  | → | disconnected             | → | retighten                      |

## Case 2. Engine starts but does not keep running/Hard re-starting.

| CHECK                           |   | PROBABLE CAUSES               |   | ACTION                         |
|---------------------------------|---|-------------------------------|---|--------------------------------|
| fuel tank                       | → | incorrect fuel or staled fuel | → | drain it and with correct fuel |
| carburetor adjustment screw     | → | out of normal range           | → | adjust to normal range         |
| muffler,cylinder (exhaust port) | → | carbon is built-up            | → | wipe away                      |
| air cleaner                     | → | clogged with dust             | → | wash                           |
| cylinder fin, fan cover         | → | clogged with dust             | → | clean                          |

When your unit seems to need further service, please consult with our RedMax service shop in your area.

## 12. Parts list

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### LONG REACH TRIMMER

## LRTZ2500

**NOTE :**

1. Use KOMATSU ZENOAH genuine parts as specified in the parts list for repair and/or replacement.
2. KOMATSU ZENOAH does not warrant the machines, which have been damaged by the use of any parts other than those specified by the company.
3. When placing parts orders for repair and/or replacement, check if the model name and the serial number are applicable to those specified in the parts list, then use parts number described in the parts list.
4. The contents described in the parts list may change due to improvement.
5. The parts for the machine shall be supplied seven (7) years after the machine is discontinued. [It is possible that some specific parts may be subject to change of their delivery term and list price within the limit of ten (7) years after the machine is discontinued. It is also possible that some parts may be available even after the limit of seven (7) years.]

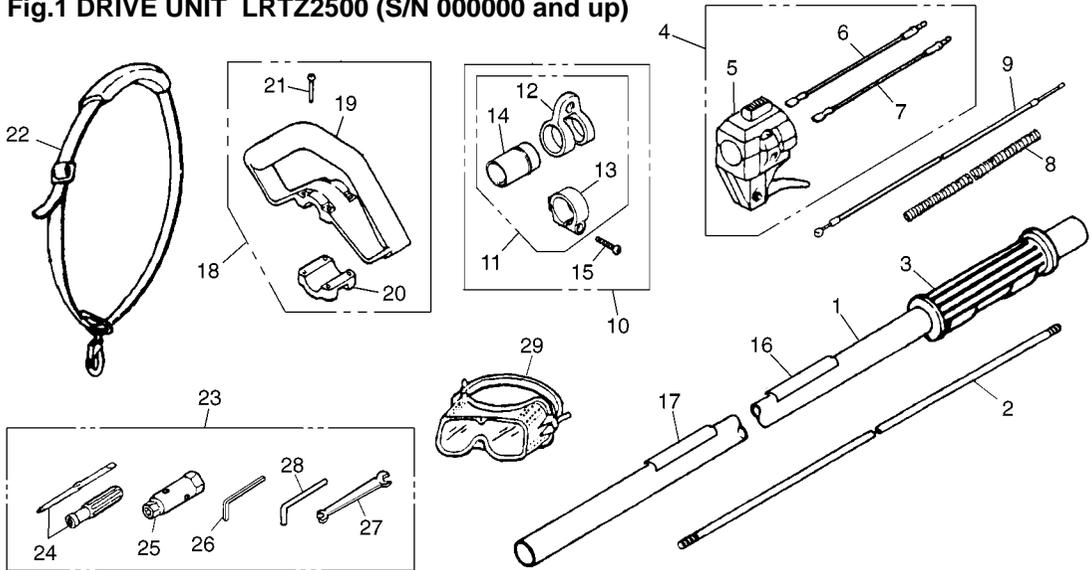
APPLICABLE SERIAL NUMBERS :

Dec.1999

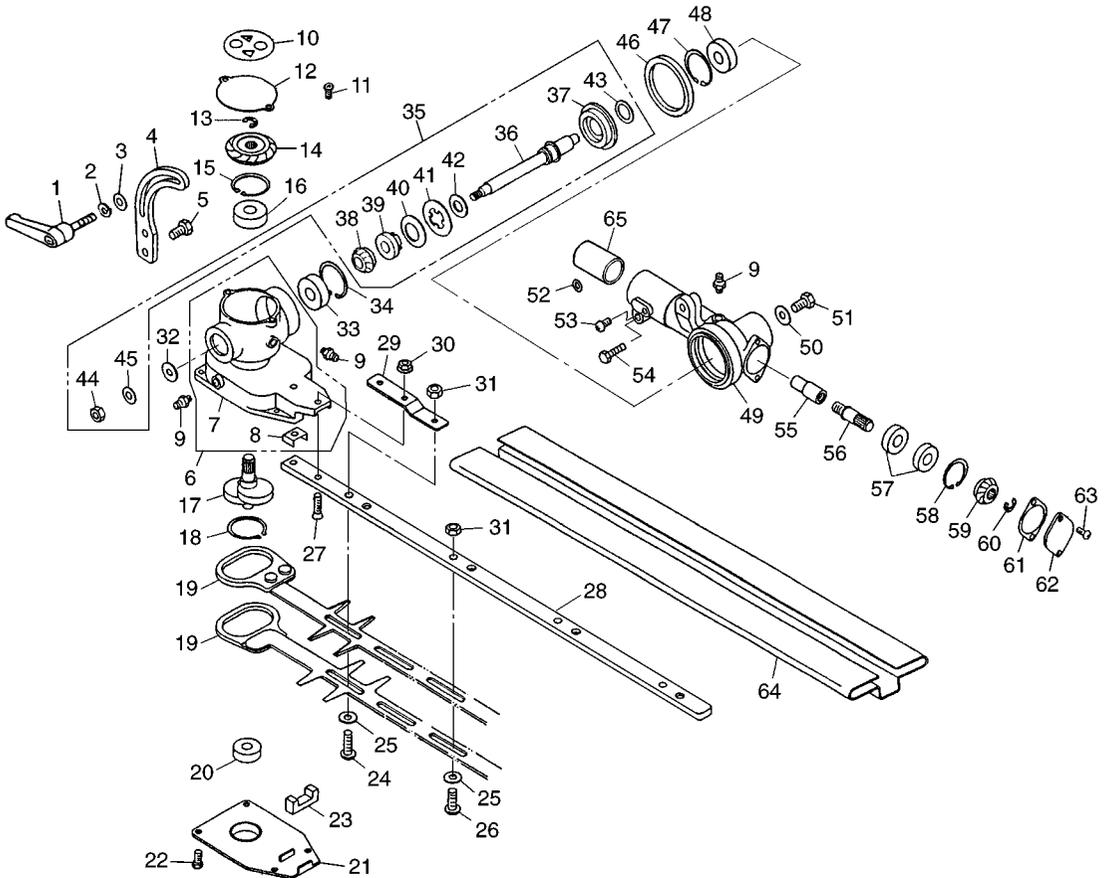
DRIVE UNIT 000000 and up    CUTTING UNIT 000000 and up    ENGINE UNIT 000479 and up

# 12. Parts list

**Fig.1 DRIVE UNIT LRTZ2500 (S/N 000000 and up)**



**Fig.2 CUTTING UNIT LRTZ2500 (S/N 000000 and up)**



**Fig.1 DRIVE UNIT LRTZ2500 (S/N 000000 and up)**

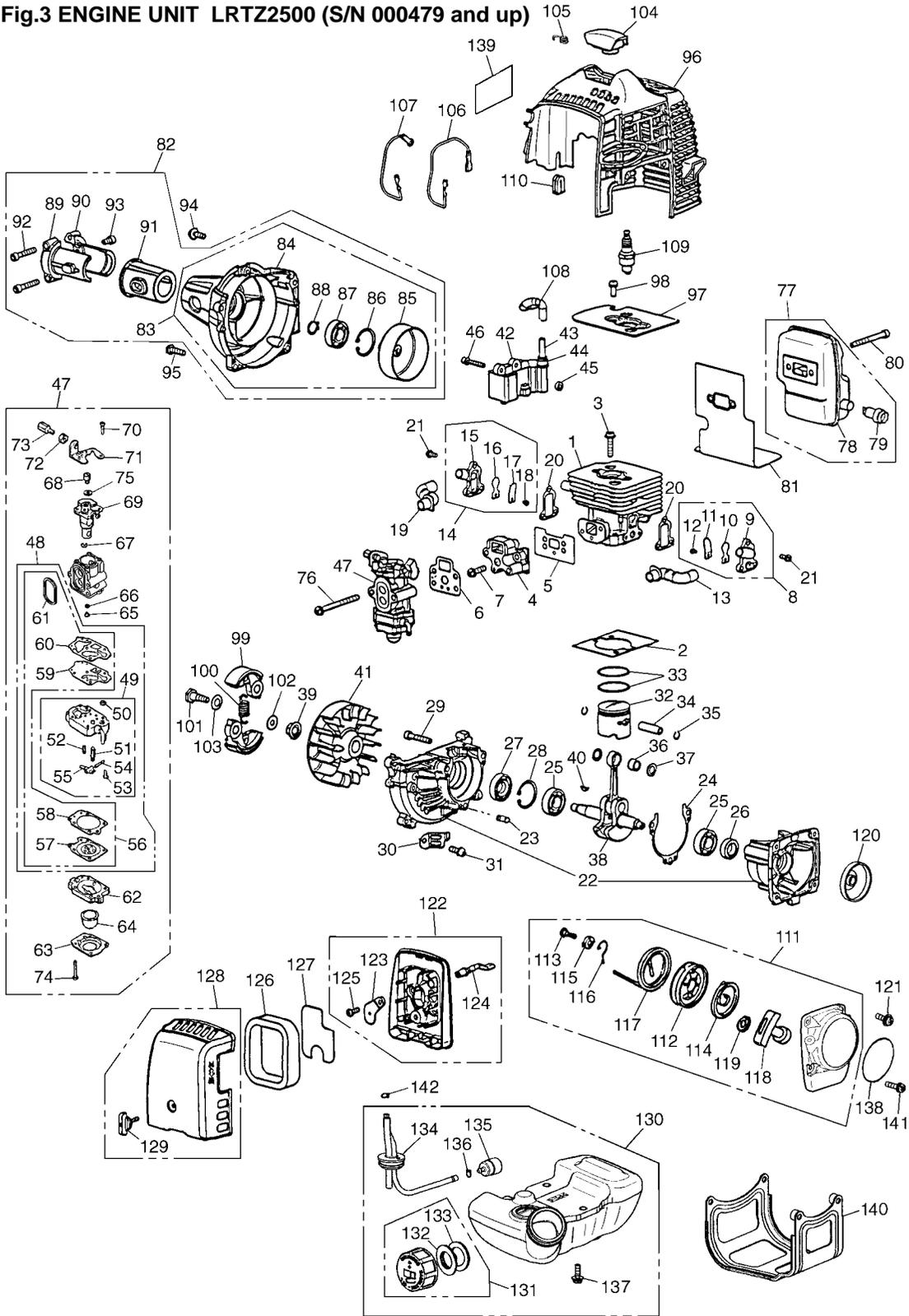
| Key# | Description   | Part Number | Q'ty | Key# | Description   | Part Number | Q'ty |
|------|---------------|-------------|------|------|---------------|-------------|------|
| 1    | PIPE-COMP     | T3002-12100 | 1    | 16   | NAME-PLATE    | T3053-12510 | 1    |
| 2    | SHAFT         | 3520-12212  | 1    | 17   | CAUTION-PLATE | 6425-12552  | 1    |
| 3    | GRIP          | 3577-32141  | 1    | 18   | HANDLE-ASS'Y  | 6420-14100  | 1    |
| 4    | LEVER-COMP    | T3002-12200 | 1    | 19   | • HANDLE      | 6420-14311  | 1    |
| 5    | • LEVER       | 6110-14410  | 1    | 20   | • CLAMP       | 6420-14320  | 1    |
| 6    | • CORD(A)     | T3002-12220 | 1    | 21   | • SCREW       | 0263-90535  | 4    |
| 7    | • CORD(B)     | T3002-12230 | 1    | 22   | STRAP-ASS'Y   | T3002-17200 | 1    |
| 8    | TUBE          | T3002-12240 | 1    | 23   | TOOL-SET      | T3002-91000 | 1    |
| 9    | CABLE-COMP    | T3002-83110 | 1    | 24   | • DRIVER      | 1030-91340  | 1    |
| 10   | HANGER-ASS'Y  | 6420-17300  | 1    | 25   | • SOCKET      | T3002-91310 | 1    |
| 11   | • HANGER-COMP | 6420-17400  | 1    | 26   | • WRENCH      | 09007-00425 | 1    |
| 12   | •• HANGER     | 9366-17110  | 1    | 27   | • SPANNER     | 3540-91120  | 1    |
| 13   | •• CLAMP      | 9366-17120  | 1    | 28   | • BAR         | 3540-91110  | 1    |
| 14   | •• SLEEVE     | 6420-17410  | 1    | 29   | GOGGLE        | T3002-91190 | 1    |
| 15   | • SCREW       | 0263-90525  | 1    |      |               |             |      |

**Fig.2 CUTTING UNIT LRTZ2500 (S/N 000000 and up)**

| Key# | Description     | Part Number | Q'ty | Key# | Description     | Part Number | Q'ty |
|------|-----------------|-------------|------|------|-----------------|-------------|------|
| 1    | LEVER, clamp    | 6598-13110  | 1    | 34   | SNAP RING       | 04065-02212 | 1    |
| 2    | WASHER M6       | 0290-20615  | 1    | 35   | SHAFT KIT       | T4008-06010 | 1    |
| 3    | WASHER 6x16x2.0 | 6598-13130  | 1    | 36   | •• SHAFT        | _____       | 1    |
| 4    | ANGLE ADJUSTER  | 6782-13140  | 1    | 37   | •• GEAR(B)      | _____       | 1    |
| 5    | BOLT M6x12      | 0225-10612  | 2    | 38   | •• GEAR(C)      | T4008-13630 | 1    |
| 6    | CASING A SET    | 6782-13200  | 1    | 39   | •• BOSS         | _____       | 1    |
| 7    | • CASING A      | _____       | 1    | 40   | •• SPRING       | T4008-13650 | 1    |
| 8    | • PLATE         | 6782-13220  | 1    | 41   | •• PLATE        | T4008-13660 | 1    |
| 9    | GREASE FITTING  | 3199-13350  | 3    | 42   | •• WASHER       | T4008-13670 | 1    |
| 10   | LABEL           | 6782-13250  | 1    | 43   | •• WASHER       | T4008-13680 | 1    |
| 11   | SCREW M4x8      | 0263-10408  | 2    | 44   | • NUT M6        | 0280-10605  | 1    |
| 12   | COVER           | 6598-13320  | 1    | 45   | • WASHER        | 0290-20615  | 1    |
| 13   | SNAP RING       | 6598-13330  | 1    | 46   | O-RING P41      | 6598-13620  | 1    |
| 14   | BEBEL GEAR      | 6782-13340  | 1    | 47   | SNAP RING       | 04065-02612 | 1    |
| 15   | SNAP RING       | 04065-02612 | 1    | 48   | BEARING         | 06004-06000 | 1    |
| 16   | BEARING         | 06004-06000 | 1    | 49   | CASING B        | 6782-13710  | 1    |
| 17   | CRANK SHAFT     | 6782-13370  | 1    | 50   | WASHER 6x16x2.0 | 6598-13130  | 1    |
| 18   | SNAP RING       | 04064-02815 | 1    | 51   | BOLT M6x12      | 0225-10612  | 1    |
| 19   | BLADE           | 6782-13411  | 2    | 52   | WASHER 5x10x1.0 | 6782-13720  | 1    |
| 20   | BEARING 608Z    | 6782-13430  | 1    | 53   | BOLT M5x10      | 01252-30510 | 1    |
| 21   | COVER           | 6782-13440  | 1    | 54   | BOLT M5x30      | 3350-21320  | 1    |
| 22   | BOLT M4x10      | 6782-13450  | 4    | 55   | JOINT           | 6782-13810  | 1    |
| 23   | FELT            | 6782-13460  | 1    | 56   | GEAR SHAFT B    | 6598-13820  | 1    |
| 24   | SCREW           | 3884-11750  | 1    | 57   | BEARING 6900RS  | 6782-13830  | 2    |
| 25   | WASHER          | 3880-11780  | 4    | 58   | SNAP RING       | 04065-02212 | 1    |
| 26   | SCREW L17       | 6598-13510  | 3    | 59   | BEVEL GEAR      | 6782-13850  | 1    |
| 27   | SCREW M5x20     | 6598-13530  | 2    | 60   | SNAP RING       | 6598-13330  | 1    |
| 28   | GUIDE PLATE     | 6782-13540  | 1    | 61   | PACKING         | 6598-13860  | 1    |
| 29   | PLATE           | 6782-13550  | 1    | 62   | COVER           | 6598-13870  | 1    |
| 30   | NUT M5          | 6782-14470  | 2    | 63   | SCREW M4x8      | 0263-10408  | 2    |
| 31   | NUT M6          | 3880-11790  | 4    | 64   | BLADE COVER     | 6782-13910  | 1    |
| 32   | WASHER 6x15x2.0 | 6782-13650  | 1    | 65   | SPACER          | 6367-13990  | 1    |
| 33   | BEARING 608 2RS | 6598-13430  | 1    |      |                 |             |      |

# 12. Parts list

Fig.3 ENGINE UNIT LRTZ2500 (S/N 000479 and up)



**Fig.3 ENGINE UNIT LRTZ2500 (S/N 000479 and up)**

| Key# | Description           | Part Number | Q'ty | Key# | Description       | Part Number | Q'ty |
|------|-----------------------|-------------|------|------|-------------------|-------------|------|
| 1    | CYLINDER              | 4810-12111  | 1    | 72   | • NUT, adjuster   | 1751-81180  | 1    |
| 2    | GASKET, base          | 4810-12210  | 1    | 73   | • SCREW, adjuster | 1918-81170  | 1    |
| 3    | BOLT                  | 1850-12130  | 2    | 74   | • SCREW           | 1850-81530  | 4    |
| 4    | INSULATOR             | 4810-13161  | 1    | 75   | • WASHER          | 5500-81160  | 1    |
| 5    | GASKET, insulator     | 4810-13120  | 1    | 76   | SCREW             | 00263-90560 | 2    |
| 6    | GASKET, carburetor    | 4810-13130  | 1    | 77   | MUFFLER ASS'Y     | 4810-15100  | 1    |
| 7    | SCREW                 | 00263-90520 | 1    | 78   | • MUFFLER         | 4810-15111  | 1    |
| 8    | REEDVALVE (S)-A       | 4810-16100  | 1    | 79   | • ARRESTER        | 4810-15140  | 1    |
| 9    | • VALVECASE (S)       | 4810-16110  | 1    | 80   | BOLT              | 01252-30550 | 2    |
| 10   | • REEDVALVE           | 4810-16120  | 1    | 81   | GASKET            | 4810-15410  | 1    |
| 11   | • STOPPER             | 4810-16130  | 1    | 82   | COVER-A           | 4810-31000  | 1    |
| 12   | • SCREW               | 4810-16170  | 1    | 83   | • COVER-C         | 4810-31100  | 1    |
| 13   | PIRE AIR (S)          | 4810-16150  | 1    | 84   | •• COVER, fan     | 4810-31110  | 1    |
| 14   | REEDVALVE (F)-A       | 4810-16200  | 1    | 85   | •• DRUM           | 4810-31120  | 1    |
| 15   | • VALVECASE (F)       | 4810-16210  | 1    | 86   | •• SNAPRING       | 04065-02812 | 1    |
| 16   | • REEDVALVE           | 4810-16120  | 1    | 87   | •• BEARING        | 06004-06001 | 1    |
| 17   | • STOPPER             | 4810-16130  | 1    | 88   | •• SNAP RING      | 04064-01210 | 1    |
| 18   | • SCREW               | 4810-16170  | 1    | 89   | • BRACKET (A)     | 6470-31211  | 1    |
| 19   | PIPE AIR (F)          | 4810-16160  | 1    | 90   | • BRACKET (B)     | 6470-31221  | 1    |
| 20   | GASKET, valve         | 4810-16140  | 2    | 91   | • CUSHION         | 6470-31230  | 1    |
| 21   | SCREW                 | 4810-16180  | 6    | 92   | • BOLT            | 01252-30530 | 2    |
| 22   | CRANKCASE-C           | 4810-21100  | 1    | 93   | • BOLT            | 01252-30514 | 1    |
| 23   | • PIN                 | 2629-21130  | 3    | 94   | SCREW             | 5500-85510  | 1    |
| 24   | GASKET                | 4810-21140  | 1    | 95   | SCREW             | 00263-90520 | 4    |
| 25   | BEARING               | 06030-06001 | 2    | 96   | COVER, engine     | 4810-32111  | 1    |
| 26   | SEAL                  | 4810-21210  | 1    | 97   | PLATE             | 4810-12310  | 1    |
| 27   | SEAL                  | 1850-21220  | 1    | 98   | SCREW             | 00263-90510 | 2    |
| 28   | SNAP RING             | 04065-02812 | 1    | 99   | SHOE              | 1140-51111  | 2    |
| 29   | BOLT                  | 01252-30530 | 3    | 100  | SPRING            | 1600-51223  | 1    |
| 30   | GUARD                 | 4810-22110  | 1    | 101  | SCREW             | 1140-51250  | 2    |
| 31   | SCREW                 | 00263-90510 | 1    | 102  | WASHER            | 1140-51230  | 2    |
| 32   | PISTON                | 4810-41110  | 1    | 103  | WASHER            | 1970-51241  | 2    |
| 33   | RING                  | 5910-41210  | 2    | 104  | CAP               | 4810-72110  | 1    |
| 34   | PIN                   | 1600-41310  | 1    | 105  | SPRING            | 1900-72120  | 1    |
| 35   | RING                  | 1260-41320  | 2    | 106  | CORD              | 4810-71240  | 1    |
| 36   | BEARING               | 1140-41330  | 1    | 107  | CORD, carth       | 4810-71250  | 1    |
| 37   | WASHER                | 1101-41340  | 2    | 108  | TUBE              | 2850-71320  | 1    |
| 38   | CRANKSHAFT-O          | 4810-42000  | 1    | 109  | PLUG              | 4810-73110  | 1    |
| 39   | NUT                   | 1650-43230  | 1    | 110  | GROMMET           | 4810-72120  | 1    |
| 40   | KEY                   | 1000-43240  | 1    | 111  | RECOIL ASS'Y      | 4810-75100  | 1    |
| 41   | ROTOR                 | 5501-71110  | 1    | 112  | • REEL            | 4500-75120  | 1    |
| 42   | COIL-A                | 4810-71200  | 1    | 113  | • SCREW           | 4500-75150  | 1    |
| 43   | • CORD                | 4810-71220  | 1    | 114  | • SPRING, spiral  | 1850-75130  | 1    |
| 44   | • CAP                 | 2616-71320  | 1    | 115  | • COLLA F         | 4500-75180  | 1    |
| 45   | SPACER                | 1260-71261  | 2    | 116  | • ARM             | 4500-75190  | 1    |
| 46   | BOLT                  | 4500-72150  | 2    | 117  | • ROPE            | 4810-75160  | 1    |
| 47   | CARBURETOR ASS'Y      | 4810-81001  | 1    | 118  | • KNOB            | 3330-75421  | 1    |
| 48   | • REBUILD KIT         | 4810-06030  | 1    | 119  | • PLATE, stopper  | 4810-75170  | 1    |
| 49   | •• BODY ASS'Y         | 4810-81450  | 1    | 120  | PULLEY            | 4500-75210  | 1    |
| 50   | ••• SCREEN            | _____       | -    | 121  | SCREW             | 5500-85510  | 2    |
| 51   | ••• VALVE             | _____       | -    | 122  | BODY ASS'Y        | 4810-82100  | 1    |
| 52   | ••• SPRING            | _____       | -    | 123  | • PLATE, choke    | 4810-82130  | 1    |
| 53   | ••• SCREW             | _____       | -    | 124  | • LEVER, choke    | 5500-82140  | 1    |
| 54   | ••• PIN               | _____       | -    | 125  | • SCREW           | 2630-33610  | 1    |
| 55   | ••• LEVER             | _____       | -    | 126  | ELEMENT           | 4810-82170  | 1    |
| 56   | •• GASKET KIT         | 4810-06020  | 1    | 127  | SCREEN            | 4810-82180  | 1    |
| 57   | ••• DIAPHRAGM         | _____       | -    | 128  | COVER ASS'Y       | 4810-82200  | 1    |
| 58   | ••• GASKET, diaphragm | _____       | -    | 129  | • KNOB            | 5500-82221  | 1    |
| 59   | ••• DIAPHRAGM, pump   | _____       | -    | 130  | TANK ASS'Y        | 4810-87000  | 1    |
| 60   | ••• GASKET, pump      | _____       | -    | 131  | • CAP ASS'Y       | 4500-85200  | 1    |
| 61   | ••• RING              | 4810-81130  | 1    | 132  | •• HOLDER-A       | 4500-85300  | 1    |
| 62   | • BODY, purge         | 1850-81490  | 1    | 133  | •• PACKING        | 4500-85220  | 1    |
| 63   | • COVER, pump         | 1850-81520  | 1    | 134  | • PIPE COMP.      | 4810-85300  | 1    |
| 64   | • PUMP, priming       | 1751-81510  | 1    | 135  | • FLTER ASS'Y     | 5500-85400  | 1    |
| 65   | • JET                 | 4810-81250  | 1    | 136  | • CLIP            | 1260-85460  | 1    |
| 66   | • O-RING              | 1751-81240  | 1    | 137  | SCREW             | 5500-85510  | 3    |
| 67   | • RING                | 1751-81130  | 1    | 138  | LABEL, recoil     | _____       | -    |
| 68   | • SWIVEL              | 1881-81140  | 1    | 139  | LABEL, cover      | 4810-31131  | 1    |
| 69   | • VALVE ASS'Y         | _____       | -    | 140  | GUARD             | 4810-31911  | 1    |
| 70   | • SCREW               | 1752-81110  | 2    | 141  | SCREW             | 00263-90525 | 2    |
| 71   | • BRACKET             | 5500-81120  | 1    | 142  | CLIP              | 1950-86120  | 1    |

**CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT**  
**YOUR WARRANTY RIGHTS AND OBLIGATIONS**

**The California Air Resources Board** and KOMATSU ZENOAH are pleased to explain the **emission control system warranty** on your **1995 and later** small off-road engine. In California, new small off-road engines must be designed, built and equipped to meet the state's stringent anti-smog standards. KOMATSU ZENOAH must warrant the emission control system on your small off-road engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road engine.

Your emission control system may include parts such as the carburetor and the ignition system.

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

**Manufacturer's warranty coverage:**

The 1995 and later small off-road engines are warranted for **two years**. If any emission-related part on your engine is defective, the part will be repaired or replaced by KOMATSU ZENOAH.

**Owner's warranty responsibilities:**

- As the small off-road engine owner, you are responsible for the performance of the **required maintenance listed in your owner's manual**. KOMATSU ZENOAH recommends that you retain all receipts covering maintenance on your small off-road engine, but KOMATSU ZENOAH can not deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
  
- As the small off-road engine owner, you should be aware, however, that KOMATSU ZENOAH may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modification.
  
- You are responsible for presenting your small off-road engine to a KOMATSU ZENOAH distribution center as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed **30 days**.

If you have any questions regarding your warranty rights and responsibilities, you should contact KOMATSU ZENOAH AMERICA INC. at (770)-381-5147 or you can write to

KOMATSU ZENOAH AMERICA INC.  
4344 Shackleford Road Suite 500  
Norcross, Georgia 30093

**Red Max TRIMMER  
MODEL LRTZ2500  
2-YEAR LIMITED WARRANTY**

**EMISSION-RELATED PARTS**, FOR TWO (2) YEARS FROM THE DATE OF ORIGINAL DELIVERY OF THE MODEL LRTZ2500, UNIT, KOMATSU ZENOAH AMERICA INC. (THE COMPANY), THROUGH ANY RedMax DEALER, WILL REPAIR OR REPLACE, FREE OF CHARGE, FOR THE ORIGINAL AND EACH SUBSEQUENT PURCHASER, ANY PART OR PARTS FOUND TO BE DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP. EMISSION-RELATED PARTS ARE:

**THE CARBURETOR ASSY, COIL ASSY, ROTOR, SPARKPLUG,  
AIR FILTER, FUEL FILTER, INTAKE MANIFOLD, AND THE GASKETS**

**ALL OTHER PARTS EXCEPT ABOVE PARTS**, FOR TWO (2) YEARS OF HOME USE [ ONE (1) YEAR FOR ANY OTHER USE ] FROM THE DATE OF ORIGINAL ANY DELIVERY OF THE MODEL LRTZ2500 UNIT, THE COMPANY, THROUGH ANY RedMax DEALER, WILL REPAIR OR REPLACE, FREE OF CHARGE, FOR THE ORIGINAL PURCHASER, ANY PART OF PARTS FOUND TO BE DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP. **THIS IS THE EXCLUSIVE REMEDY.**

THE PURCHASER SHALL BEAR COSTS OF TRANSPORTING THE UNIT TO AND FROM THE RedMax DEALER.

THE PURCHASER SHALL NOT BE CHARGED FOR DIAGNOSTIC LABOR WHICH LEADS TO THE DETERMINATION THAT A WARRANTED PART IS DEFECTIVE, IF THE DIAGNOSTIC WORK IS PERFORMED AT THE RedMax DEALER.

THE PURCHASER OR OWNER IS RESPONSIBLE FOR THE PERFORMANCE OF THE REQUIRED MAINTENANCE AS DEFINED BY THE MANUFACTURER IN THE OWNER/OPERATOR MANUAL.

ANY WARRANTED PART WHICH IS NOT SCHEDULED FOR REPLACEMENT AS REQUIRED MAINTENANCE, OR WHICH IS SCHEDULED ONLY FOR REGULAR INSPECTION TO THE EFFECT OF "REPAIR OR REPLACE AS NECESSARY" SHALL BE WARRANTED FOR THE WARRANTY PERIOD. ANY WARRANTED PART WHICH IS TIME UP TO THE FIRST SCHEDULED REPLACEMENT POINT FOR THE PART.

ANY REPLACEMENT PART THAT IS EQUIVALENT IN PERFORMANCE AND DURABILITY MAY BE USED IN NON-WARRANTY MAINTENANCE OR REPAIRS, AND SHALL NOT REDUCE THE WARRANTY OBLIGATION OF THE COMPANY.

THE COMPANY IS LIABLE FOR DAMAGES TO OTHER ENGINE COMPONENTS CAUSED BY THE FAILURE OF A WARRANTED PARTS STILL UNDER WARRANTY.

**THE WARRANTY DOES NOT APPLY TO THOSE UNITS WHICH HAVE BEEN DAMAGED BY NEGLIGENCE OF INSTRUCTION LISTED IN THE OWNER/OPERATOR MANUAL FOR PROPER USE AND MAINTENANCE OF THE UNITS, ACCIDENT MISHANDLING, ALTERATION, ABUSE, IMPROPER LUBRICATION, USE OF ANY PARTS OR ACCESSORIES OTHER THAN THOSE SPECIFIED BY THE COMPANY, OR OTHER CAUSES BEYOND THE COMPANY'S CONTROL.**

**THIS WARRANTY DOES NOT COVER THOSE PARTS REPLACED BY NORMAL WEAR OR HARMLESS CHANGES IN THEIR APPEARANCE.**

**THERE ARE NO OTHER EXPRESS WARRANTIES.**

**IMPLIED WARRANTIES** INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE **ARE LIMITED TO TWO (2) YEARS OF HOME USE [ ONE (1) YEAR FOR ANY OTHER USE ] FROM THE ORIGINAL DELIVERY DATE.**

**LIABILITIES FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE UNDER ANY AND ALL WARRANTIES ARE EXCLUDED.**

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR 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.

IF YOU NEED TO OBTAIN INFORMATION ABOUT THE NEAREST SERVICE CENTER, PLEASE CALL KOMATSU ZENOAH AMERICA INC. AT (770)-381-5147.

**IMPORTANT:** YOU WILL RECEIVE A WARRANTY REGISTRATION CARD AT TIME OF PURCHASE. PLEASE FILL OUT THE CARD AND SEND IT TO RedMax / KOMATSU ZENOAH AMERICA WITHIN SEVEN (7) DAYS. BE SURE TO KEEP A COPY FOR YOUR RECORDS.



**RedMax**<sup>®</sup>

KOMATSU ZENOAH AMERICA INC.  
4344 Shackelford Road Suite 500  
Norcross, Georgia 30093



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