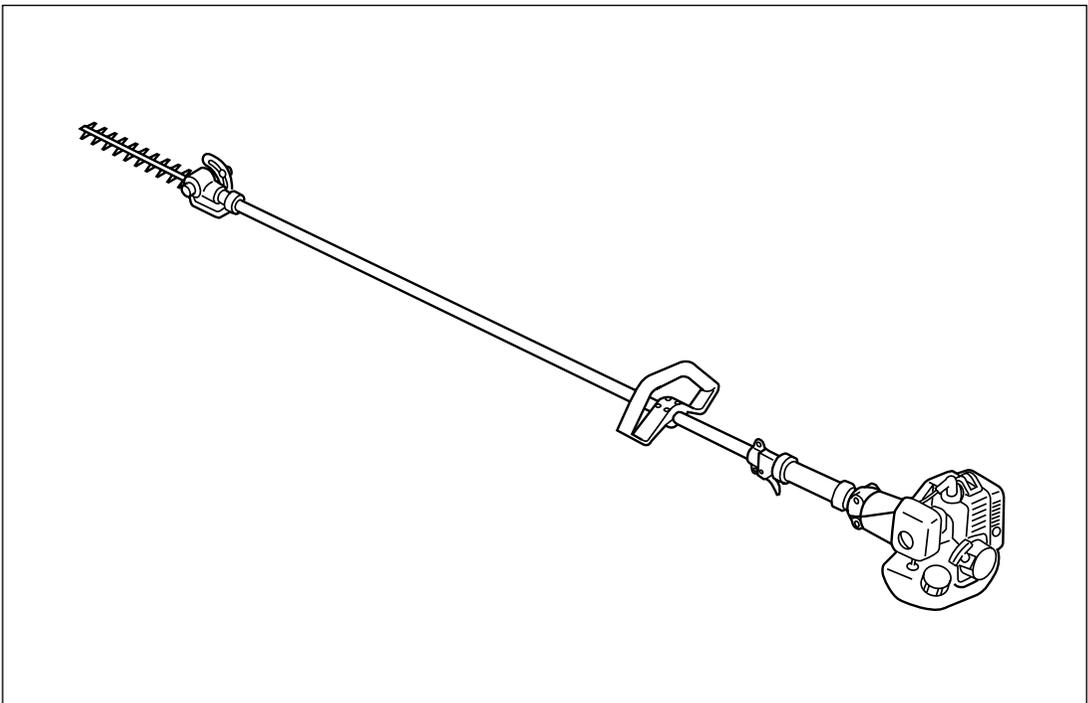




OWNER/OPERATOR MANUAL

LONG REACH TRIMMER

LRT2300



WARNING



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

Thank you for purchasing a RedMax product.

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



Read this manual carefully to understand all safety precautions, controls, proper operation and maintenance of your RedMax long reach trimmer. Failure to do so could result in serious injury.



SAFETY FIRST

Instructions contained in warnings within this manual and warning seals marked with a  symbol on the long reach trimmer 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.

Note that there may be times when warning seals peel off or become soiled and impossible to read. If this happens, you should contact the dealer from which you purchased the product to order new seals and affix the new seal(s) in the required location(s).

■ Notes on types of warnings



Instructions labeled as shown at left, concern critical steps or procedures which must be followed in order to prevent accidents which could lead to serious bodily injury or death. This mark is used to indicate instructions which must be followed without exception.



Instructions labeled as shown at left concern steps or procedures which, if not followed correctly, could lead to mechanical failure, breakdown, or damage.



Used to label supplementary instructions designed to provide hints or directions useful in the use of the product.

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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"**.
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 Precautions

■ In order to ensure proper and safe operation of your trimmer

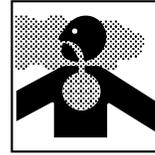
- Read this long reach trimmer Owner/Operator Manual carefully. Be sure you understand how to operate this unit properly before you use it. Failure to do so could result in serious injury.



- Be sure to keep this manual handy so that you may refer to it later whenever any questions arise. Also note that you are requested to contact the dealer from whom you purchased the product for assistance in the event that you have any questions which cannot be answered herein.
 - Always be sure to include this manual when selling, lending, or otherwise transferring the ownership of this product.
- This product has been designed for use in trimming leaves and branches from trees and hedges, and it should never be used for any other purpose since doing so could result in unforeseen accidents and injuries occurring.
- This product is equipped with extremely sharp blades, and when used improperly these blades can be extremely dangerous. For this reason, you should never use this trimmer 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 trimmer properly and in a safe manner. Also be sure never to allow children or anyone unable to fully understand the directions given in this manual to use this trimmer.



- Avoid running the engine indoors. The exhaust gases contain harmful carbon monoxide.



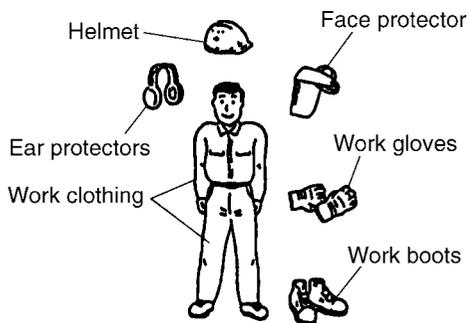
- Never use your trimmer under circumstances like those described below:
 1. When the ground is slippery or when other conditions exist which might make it not possible to maintain a steady posture while using the trimmer.
 2. At night, at times of heavy fog, or at any other times when your field of vision might be limited and it would be difficult to gain a clear view of the area where the trimmer is to be used to ensure safety.
 3. 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 this product.
- When using this product for the first time, before beginning actual work, take the trimmer to a wide, clear, open space, turn on the power, and practice handling the trimmer until you are sure that you will be able to handle it properly in actual operation.
- Lack of sleep, tiredness, or physical exhaustion results in lower attention spans, and this in turn leads to accidents and injury. When planning your work schedule, allow plenty of time to perform the work of trimming and allow plenty of time for rest. Limit the amount of time over which the trimmer 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.



Safety Precautions

■ Work gear and clothing

- When using your trimmer, always be sure to wear strong, durable, work clothing; shirts should be long-sleeved shirts and pants should be full-length pants reaching down to the ankles.
- Always be sure to wear a helmet and face protector when using your trimmer.
- When using your trimmer, always be sure to wear thick work gloves to protect your hands and non-slip-sole work boots to prevent you from slipping. Never use your trimmer when wearing pants with loose cuffs, when wearing sandals, or when barefoot.
- When using your trimmer for an extended period of time, you should wear ear protectors to protect yourself from loss of hearing from overexposure to high levels of sound.



■ Warnings considering handling of fuel

- The engine of the RedMax® trimmer is designed to run on a mixed fuel which contains highly flammable gasoline. This fuel is highly flammable and you should never store cans of fuel or refill the tank of the trimmer 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.



- Smoking while operating the trimmer or refilling its fuel tank is extremely dangerous. Always be sure to keep lit cigarettes away from the trimmer at all times.
- When refilling the tank always turn off the engine first and take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refueling.
- If any fuel spillage occurs during refueling, always be sure to use a dry rag to wipe any fuel which has been spilled onto the trimmer before turning the engine back on again.
- After refueling, screw the fuel cap back tightly onto the fuel tank and then carry the trimmer to a spot 10 feet or more away from where it was refueled before turning on the engine.



Safety Precautions

■ Things to check before using your trimmer

- Before beginning work, look around carefully to get a feel for the shape of the land, the trees, hedges, or bushes to be trimmed, and whether or not there are any obstacles which might get in the way while working, and remove any obstacles which can be cleared away before beginning work.
- The area within a perimeter of 45 feet of the person using the trimmer should be considered a hazardous area into which no one should enter while the trimmer is in use, and when necessary yellow warning rope, warning signs, or some other form of warnings 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 using trimmers within the work area so as to maintain a distance between each person sufficient to ensure safety.
- Before beginning work, each component of the trimmer should be checked to make sure that it is in proper working order and to make sure that there are no loose screws or bolts, fuel leaks, ruptures, dents, or any other problems which might interfere with safe operation. Be especially careful at this time to check that there is nothing wrong with the blades or with the joints by which the blades are attached to the trimmer.
- Never use the trimmer when the blades have been worn down severely or when there is any sort of damage which has occurred to the blade mechanism.
- Check to make sure that the handle grip and the protective cover have not come loose before using the trimmer.

■ Things to check before starting up the engine

- Take a careful look around to make sure that no obstacles exist within a perimeter of 15 feet or less around the trimmer before starting the engine.



- The RedMax trimmer is equipped with a centrifugal clutch mechanism which causes the cutting blades to begin to rotate as soon as the engine is started by putting the throttle into the start position. When starting the engine, place the body of the trimmer onto the ground in a flat clear area and hold it firmly in place so as to ensure that neither the blades nor the throttle come into contact with any obstacles when the engine starts up.
- Never place the throttle into the high speed position when starting the engine.
- After starting up the engine, check to make sure that the blades stop rotating when the throttle is moved fully back to its original position. If the blades continue 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.

■ AVOID NOISE PROBLEM

NOTE

Check and follow the local regulations as to sound level and hours of operations for long reach trimmer.

- In general, operate trimmers between 8a.m. and 5p.m. on week days and 9a.m. to 5p.m. weekends. Avoid using trimmer late at night and/or early in the morning.



Safety Precautions

■ Things to be careful about when using your trimmer

- When using your trimmer, grip the handles of the trimmer firmly with both hands, 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.
- Maintain the speed of the engine at the level required to perform trimming work, and never raise the speed of the engine above the level necessary.
- Always be sure never to allow other persons to come within the work area while trimming, as doing so might expose them to the danger of being hit by falling branches as they are cut.
- Be especially careful not to slip if it is raining or if rain has just stopped, as the ground is likely to be slippery at such times.
- If a branch or other object gets caught in the blades during operation, always be sure to turn off the engine before removing the object.
- To protect yourself against injury from falling branches, always be sure to wear the required safety equipment, and be careful when working to watch to see in which direction branches are moving and falling so as to avoid being hit by falling branches.
- If someone calls out or otherwise interrupts you while working, always be sure to turn off the engine before turning around.
- Keep operation area clear of all persons, particularly small children and pets. Injury may result from flying debris.
- Never touch the spark plug or plug cord while the engine is in operation. Doing so may result in being subjected to an electrical shock.
- 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.



These metallic parts reach high temperatures during operation and doing so could result in serious burns.

- When you finish trimming in one location and wish to continue work in another spot, turn off the engine, place the protective cover over the blades, and turn the trimmer so that the blades face away from your body before carrying it to the new location.
- Never transport the trimmer over rough roads over long distances without first removing all fuel from the fuel tank, as doing so might cause fuel to leak from the tank as a result of shocks absorbed during transport.

■ Notes on care and maintenance of your trimmer

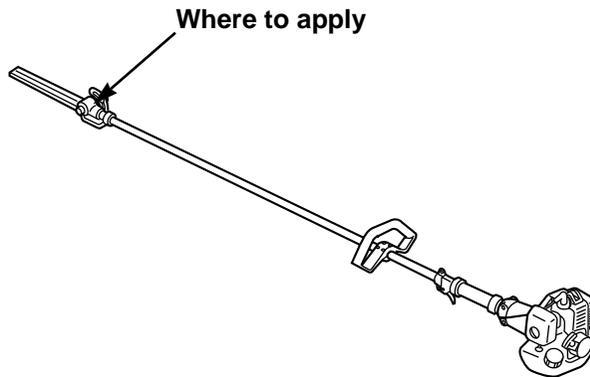
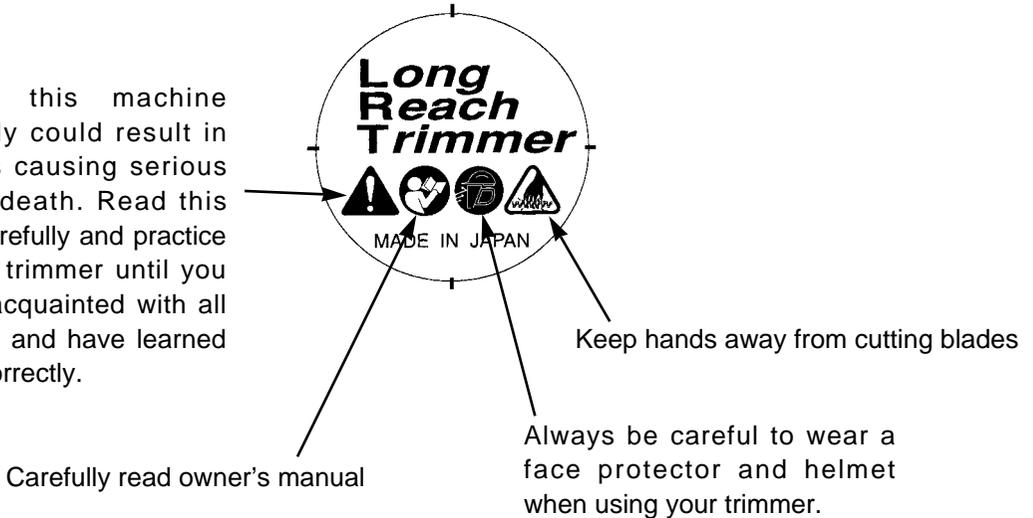
- In order to maintain your trimmer in proper working order, perform the maintenance and checking operations described in this manual at regular intervals. In the event that any parts must be replaced or any maintenance or repair work not described in this manual must be performed, please contact a representative from the store nearest RedMax authorized servicing dealer for assistance.
- Under no circumstances should you ever take apart the trimmer or alter it in any way. Doing so might result in the trimmer becoming damaged during operation or the trimmer becoming unable to operate properly.
- Always be sure to turn off the engine before performing any maintenance or checking procedures.
- When sharpening, removing, or reattaching the blades, be sure to wear thick, sturdy gloves and use only proper tools and equipment to prevent injury.
- When replacing blades or any other parts or when replacing the oil or any lubricants, always be sure to use only RedMax products or products which have been certified by RedMax for use with the RedMax trimmer.



Safety Precautions

■ Handling of warning labels (Part number : 6782-13250)

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.



■ Taking care of warning labels

1. Always keep warning labels clean and free of scratches which might make them illegible or difficult to read.
2. If the warning labels provided with your trimmer become soiled, peel off, or otherwise become illegible or difficult to read, order new labels from the RedMax authorized servicing dealer where you purchased your trimmer and replace the damaged labels with new labels.
3. When applying new labels, be sure to first wipe away any dirt and dry the surface before applying the new label in the same place as the original label.

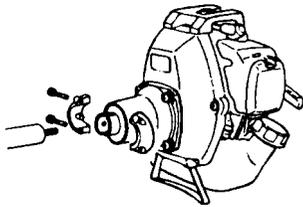
Specifications

MODEL LRT2300		
Overall size (L x W x H)		92.9 x 9.6 x 8.7 in
Dry Weight w/o shoulder strap		13.2 lbs
Engine	Type	Air cooled 2-stroke gasoline engine
	Model	ZENOAH G23L
	Displacement	22.5 cc
	Max. output	
	Fuel	Mixture (Gasoline 32 : Oil 1)
	Carburetor	Walbro Diaphragm type
	Spark Plug	Champion RJ6CY
Transmission		Centrifugal clutch, spiral bevel gear, cam crank
Reduction ratio		4 : 1
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

Set up

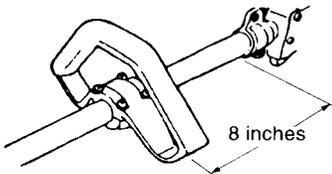
■ MOUNTING ENGINE

1. Remove the clamp temporarily attached to the clutch housing.
2. Push the driveshaft toward the gearcase and rotate it by hand to check that the driveshaft is engaged with the gears.
3. Insert the shaft tube into the clutch housing until it bottoms. When difficult to engage, twist the engine slightly.
4. Align the positioning holes on the clutch housing and the shaft tube and fit the boss on the clamp into the hole. Fasten the clamp securely.



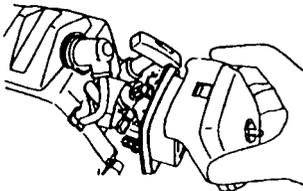
■ INSTALLING HANDLE

Mount the handle to the shaft tube and clamp it at your best operating position.

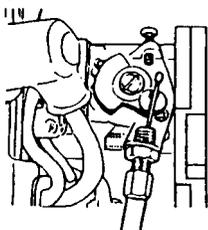


■ CONNECTING THROTTLE WIRE

1. Remove the air cleaner cover.



2. Connect the end of the throttle wire to the joint on the top of the carburetor.

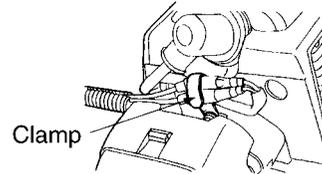


■ CONNECTING THE SWITCH CORD



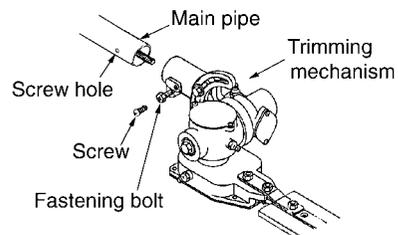
- Insert the end of the cord firmly. An improper connection may result in the cord becoming loose during operation or in causing the engine to fail to stop even after the switch has been turned off.
- Be careful never to bend the end of the cord when connecting it.

1. Connect the terminal ends of the two cords on the side of the engine to the terminal ends of the two cords on the side of the trimmer. Note that no distinction is made between positive and negative nodes, and that the cords may be connected in any combination.
2. After the cords have been connected, use the clamp located on the side of the engine cover to fix the ends of the cords firmly.



■ ATTACHING THE TRIMMING MECHANISM

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.



Fuel

⚠ WARNING

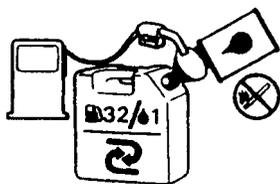
- Gasoline is very flammable. Avoid smoking or bringing any flame or sparks near fuel. Make sure to stop the engine and allow it cool before refueling the unit. Select outdoor bare ground for fueling and move at least 3m(10ft) away from the fueling stop before starting the engine.



■ FUEL MIX

- The engine is lubricated by oil mixed into gasoline. Prepare a mixture of unleaded, alcohol-free gasoline and RedMax oil or an anti-oxidant added quality oil expressly labeled for air-cooled 2-cycle engine use.

Recommended mixing ratio is 32 : 1.



- 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.
- Exhaust emission are controlled by the fundamental engine parameters and components (eq., carburetion, ignition timing and port timing) without addition of any major hardware or the introduction of an inert material during combustion.

32:1 MIXING CHART

GASOLINE	gal.	1	2	3	4	5
2-CYCLE OIL	fl.oz	4	8	12	16	20

- These engines are certified to operate on unleaded gasoline.

■ MIXING FUEL

1. Measure out the quantities of gasoline and oil to be mixed.
2. Put some of the gasoline into a clean, marked fuel container.
3. Pour in all of the oil, cap the container and shake it well.
4. Pour in the rest of gasoline and shake again for one minute.
5. Indicate the contents on outside of container for easy identification.

DO NOT USE :

- **Fuel containing no oil (raw gasoline)** may cause the engine to become overheated and damaged.
- **Gasohol** may cause deterioration of rubber and plastic parts and disruption of the engine lubrication.
- **Oil for 4-cycle engine use or water-cooled 2-cycle engine use** may cause spark plug fouling, carbon building-up and piston ring sticking.
- **Mixed fuels which have been left unused for a period of one month or more** may clog the carburetor or result in the engine failing to operate properly.

■ FUELING

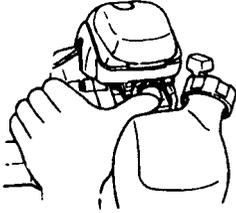
1. Unfasten and remove the fuel cap. Put the cap on a clean surface for dirt prevention.
2. Pour fuel into the fuel tank up to 80% of full capacity.
3. Replace the fuel cap and tighten securely. Spilled fuel must be wiped away from the trimmer before starting the engine.

Operation

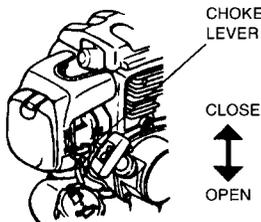
■ STARTING ENGINE

IMPORTANT

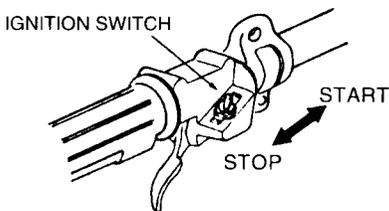
1. Rest the unit on a flat, firm place. Keep the cutting head off the ground and clear of surrounding objects as it will start rotating upon starting of the engine.
2. Pump the primer until fuel flows out in the clear tube.



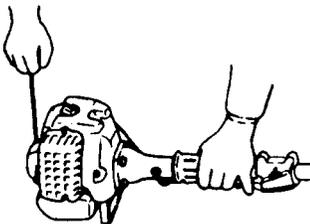
3. Move the choke lever upward to close the choke.



4. Shift the ignition switch to the START position.



5. While pulling the throttle lever with the little finger of your left hand, pull the starter rope briskly.



NOTE

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

6. When the engine has started, move the choke lever gradually downward to open the choke
7. Allow the engine to warm up for a half minute 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 fails to start after several attempts, open the choke and repeat pulling the rope, or remove the spark plug and dry it.

■ STOPPING ENGINE

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

NOTE

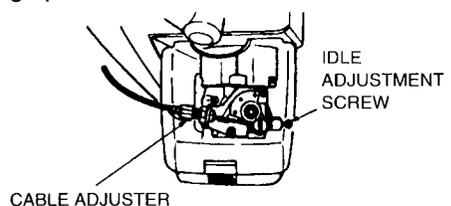
Except for an emergency, avoid stopping the engine while pulling the throttle lever.

■ ADJUSTING IDLING SPEED

1. When the engine tends to stop frequently at idling mode, turn the adjusting screw clockwise.
2. When the cutting blades keep moving after releasing the trigger, turn the adjusting screw counter-clockwise.

NOTE

Warm up the engine before adjusting the idling speed.



Operation

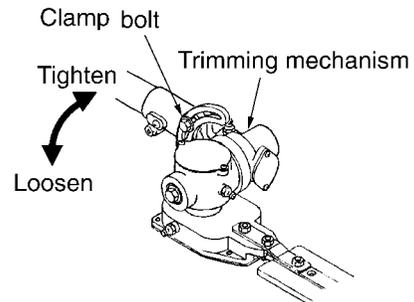
⚠ WARNING

- **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 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.**

NOTE

The thickness of branches which may be cut using this trimmer is limited to up to approximately 3/16". 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**
 1. Stop the trimmer 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.



Maintenance

⚠ WARNING

- Always be sure to stop the engine before inspecting the trimmer for problems or performing maintenance.
- Never alter the trimmer or take the engine apart.
- When replacing parts, always be sure to use only ZENOAH products or products which have been certified by ZENOAH for use with the RedMax trimmer.
- Things to check before using trimmer

■ Be sure to check the following before using your trimmer.

Item to be checked			Response
1	Trimming mechanism	<ul style="list-style-type: none"> • See if attachment is loose • Gaps between blades • Check if edges of blades are dull 	<ul style="list-style-type: none"> • Tighten screws and bolts • Adjust blades (see p.14) • Sharpen or replace blades
2	Throttle	<ul style="list-style-type: none"> • Stiff and difficult to move 	<ul style="list-style-type: none"> • Repair or replace
3	Throttle wire	<ul style="list-style-type: none"> • Too loose, too tight • Stiff and difficult to move 	<ul style="list-style-type: none"> • Adjust (see p.11) • Repair or replace
4	Engine attachment	<ul style="list-style-type: none"> • See if fittings are loose 	<ul style="list-style-type: none"> • Tighten fittings
5	Fuel tank	<ul style="list-style-type: none"> • See if attachment is loose • See if fuel pipe is damaged • See if cap packing is damaged 	<ul style="list-style-type: none"> • Tighten screws and bolts • Replace • Replace
6	Muffler	<ul style="list-style-type: none"> • See if attachment is loose 	<ul style="list-style-type: none"> • Tighten screws and bolts

■ Regular maintenance inspection

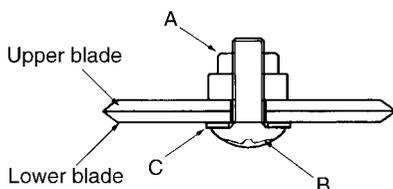
Check the trimmer for damage or problems at the intervals shown below.

Item to be checked	Interval (number of hours)				Comments
	20	25	50	100	
Engine					
Remove grit from cylinder fins		√			
Clean air filter element		√			
Clean and adjust spark plugs		√			distance of 0.25"
Clean fuel tank			√		
Tighten cylinder bolts				√	
Tighten engine fittings				√	
Decarbonize muffler				√	
Main body					
Lubricate gear case	√				
Remove grit from clutch drums				√	

Maintenance

■ BLADES

- 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.



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.

QUICK TIP

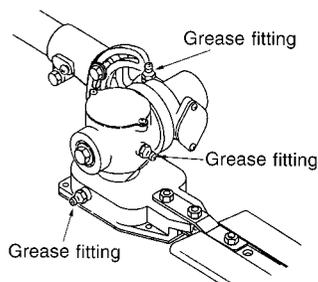
If the blades become so worn down that it is no longer possible to eliminate the gap between them, you should contact the authorized RedMax servicing dealer from which you purchased your RedMax® trimmer to have the blades resharpened or replaced.

■ GEAR CASE

The inside of the gear case should be lubricated using ZENOAH-approved lubricant after every 20 hours of use. When adding lubricant, use a grease gun to insert lubricant into the three grease nipples located on the gear case.

TYPE OF LUBRICANT TO BE USED

Always be sure to use #2 lithium heat-resistant lubricant.



Maintenance

⚠ WARNING

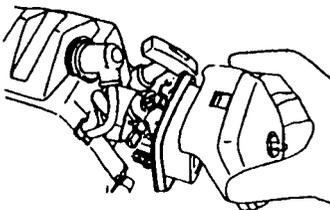
- **Make sure that the engine has stopped and is cool before performing any service to the trimmer. Contact with moving cutting head or hot muffler may result in a personal injury.**

■ AIR CLEANER

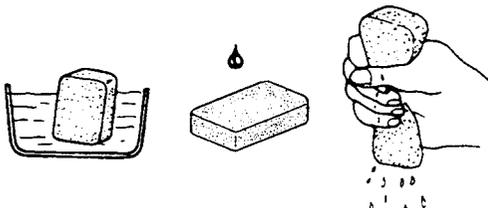
- Check the air cleaner every 25 hours of use or more frequently if used under dusty conditions. A clogged air filter may increase fuel consumption while cutting down the engine power. Never operate the trimmer without the air filter or with a deformed filter element because unfiltered dusty air will quickly ruin the engine.

• CLEANING AIR FILTER:

1. Remove the air cleaner cover by pulling the tab on bottom and take out the filter element.



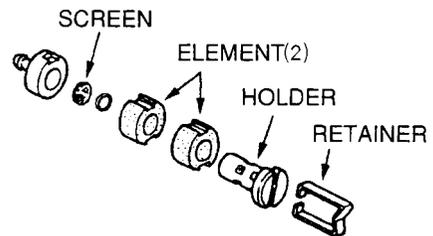
2. Use neutral detergent and warm water to clean the filter element. After cleaning, air dry the element completely and moisten with a small amount of motor oil.



3. Place the filter element into the air cleaner housing and press the cover against the housing until it clicks.

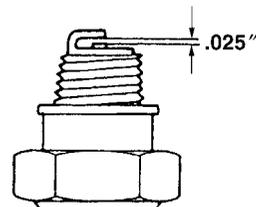
■ FUEL FILTER

- A clogged fuel filter may cause poor acceleration of the engine. Check periodically to see if the filter is clogged with dirt. The filter can be taken out of the fueling port using a small wire hook. Disconnect the filter assembly from the fuel pipe and unhook the retainer to disassemble it. Clean the components with gasoline.



■ SPARK PLUG

- The spark plug may gather carbon deposits on its firing end with reasonable use. Remove and inspect the spark plug every 25 hours and clean the electrodes as necessary with a wire brush. The spark gap should be adjusted to .025 in.



- Plug manufacturers recommend replacing the plug twice a year to avoid unexpected plug failure in a job.

REPLACEMENT PLUG IS A CHAMPION RCJ6Y OR THE EQUIVALENT, SUCH AS BOSCH WR8E OR NGK BR6S.

IMPORTANT

- Note that using any spark plugs 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.

Maintenance

■ INTAKE AIR COOLING VENT

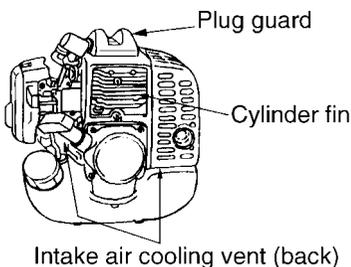
⚠ WARNING

- **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 trimmer 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. Note that failing to do so could cause the muffler to become overheated, and that this in turn could cause the trimmer 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 plug guard shown in Figure 20 in order to be able to view the upper part of the cylinder.

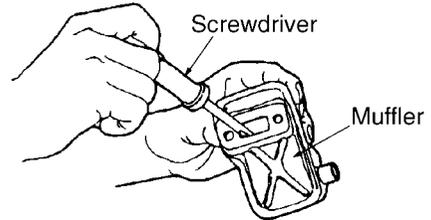
IMPORTANT

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.



■ 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 at the same time.



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.

Maintenance

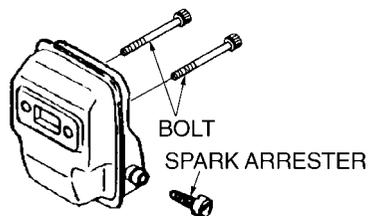
■ MUFFLER



- Inspect periodically, the muffler for loose fasteners, any damage or corrosion. If any sign of exhaust leakage is found, do not use the trimmer 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.



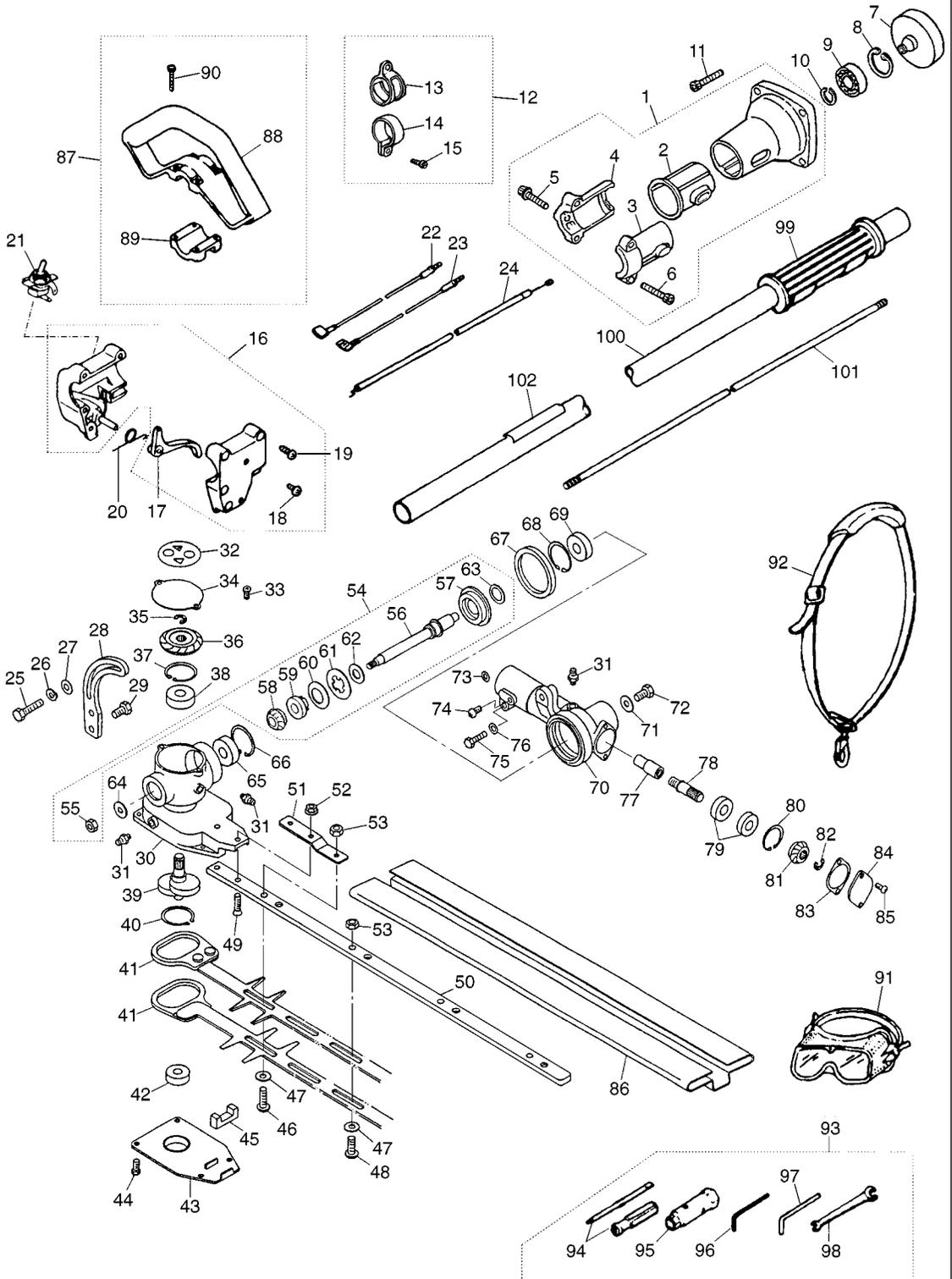
Storage

BEFORE STORING THE TRIMMER

1. Drain a fuel tank and push the primer bulb until it becomes empty of fuel.
2. Remove the spark plug and drop a spoonful of 2-cycle oil into the cylinder. Pull the starter rope several time and replace the plug.

Parts List : LRT2300

Fig.1 TRIMMER GROUP



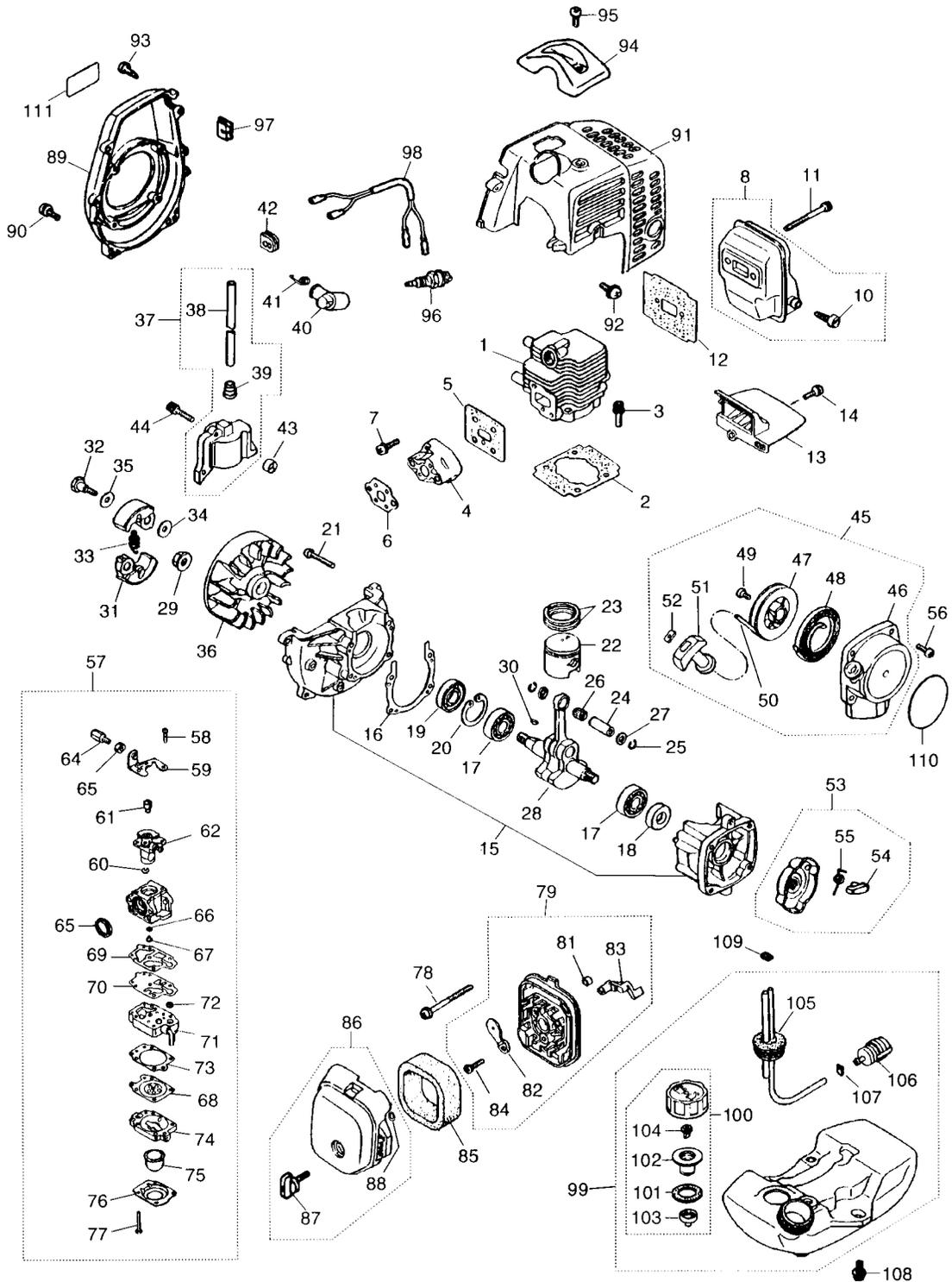
LRT2300

Fig.1 TRIMMER GROUP

Key#	Description	Part Number	Q'ty	Key#	Description	Part Number	Q'ty
1	HOUSING, ASS'Y	6460-11002	1	53	NUT M6	3880-11790	4
2	CUSHION	6470-31230	1	54	SHAFT KIT	T4008-06010	1
3	BRACKET (A)	6460-31210	1	55	NUT M6	0280-10605	1
4	BRACKET (B)	6460-31220	1	56	SHAFT	N/A	1
5	BOLT	01252-30514	1	57	GEAR(B)	N/A	1
6	BOLT	01252-30530	2	58	GEAR(C)	T4008-13630	1
7	DRUM, clutch	6460-12111	1	59	BOSS	N/A	1
8	SNAP, ring	04065-02812	1	60	SPRING	T4008-13650	1
9	BEARING	06004-06001	1	61	PLATE	T4008-13660	1
10	SNAP, ring	04064-01210	1	62	WASHER	T4008-13670	1
11	BOLT	6468-91150	4	63	WASHER	T4008-13680	1
12	HANGER comp.	6460-17100	1	64	WASHER 6x15x2.0	6782-13650	1
13	HANGER	9366-17110	1	65	BEARING	6598-13430	1
14	CLAMP	6460-17120	1	66	SNAP RING	04065-02212	1
15	SCREW	0263-90525	1	67	O-RING	6598-13620	1
16	LEVER ASS'Y	181124	1	68	SNAP RING	04065-02612	1
17	THROTTLE lever	180975	1	69	BEARING	06004-06000	1
18	SCREW	145569	1	70	CASING B	6782-13710	1
19	SCREW	180974	4	71	WASHER 6x16x2.0	6598-13130	1
20	SPRING	610314	1	72	BOLT M6x12	0225-10612	1
21	STOP switch	180252	1	73	WASHER	6782-13720	1
22	CORD, red	180768	1	74	SCREW M5x10	0263-00510	1
23	CORD, black	180769	1	75	BOLT M5x25	0225-10525	1
24	CABLE COMP.		1	76	WASHER M5	0291-20510	1
25	BOLT M6x20	6872-13110	1	77	JOINT	6782-13810	1
26	WASHER M6	0290-20615	1	78	GEAR SHAFT B	6598-13820	1
27	WASHER 6x6x2.0	6598-13130	1	79	BEARING	6782-13830	2
28	ANGLE ADJUSTER	6782-13140	1	80	SNAP RING	04065-02212	1
29	BOLT M6x12	0225-10612	2	81	BEVEL GEAR	6782-13850	1
30	CASING	6782-13210	1	82	SNAP RING	6598-13330	1
31	GREASE FITTING	3199-13350	3	83	PACKING	6598-13860	1
32	LABEL	6782-13250	1	84	COVER	6598-13870	1
33	SCREW M4x8	0263-10408	2	85	SCREW M4x8	0263-10408	2
34	COVER	6598-13320	1	86	BLADE COVER	6782-13910	1
35	SNAP RING	6598-13330	1	87	HANDLE ASS'Y	6462-14100	1
36	BEVEL GEAR	6782-13340	1	88	HANDLE	6462-14310	1
37	SNAP RING	04065-02612	1	89	CLAMP	6462-14320	1
38	BEARING	06004-06000	1	90	SCREW M5x35	0263-90535	4
39	CRANK SHAFT	6782-13370	1	91	GOGGLE	180773	1
40	SNAP RING	04064-02815	1	92	STRAP ASS'Y	160197	1
41	BLADE	6782-13410	2	93	TOOL KIT	3550-91000	1
42	BEARING	6782-13430	1	94	SCREWDRIVER	1030-91340	1
43	COVER	6782-13440	1	95	SOCKET	3239-91310	1
44	BOLT M4x8	0225-10408	4	96	WRENCH	09007-00425	1
45	FELT	6782-13460	2	97	BAR	3540-91110	1
46	SCREW	3884-11750	1	98	SPANNER	3540-91120	1
47	WASHER	3880-11780	4	99	GRIP	180770	1
48	SCREW	6598-13510	3	100	PIPE comp.	180771BC	1
49	SCREW M5x20	6598-13530	2	101	SHAFT	3520-12212	1
50	GUIDE PLATE	6782-13540	1	102	DECAL		1
51	PLATE	6782-13550	1				
52	NUT M5	6782-14470	2				

Parts List : LRT2300

Fig.2 ENGINE GROUP



LRT2300

Fig.2 ENGINE GROUP

Key#	Description	Part Number	Q'ty	Key#	Description	Part Number	Q'ty
1	CYLINDER	5580-12110	1	58	SCREW	1752-81110	2
2	GASKET, base	5500-12212	1	59	BRACKET	5500-81120	1
3	BOLT	1850-12130	2	60	RING	1751-81130	1
4	INSULATOR	5500-13162	1	61	SWIVEL	1881-81140	1
5	GASKET, insulator	5500-13121	1	62	VALVE ASS'Y	_____	1
6	GASKET, carburetor	5500-13131	1	63	SCREW, adjuster	1918-81170	1
7	SCREW	0263-90520	2	64	NUT, adjuster	1751-81180	1
8	MUFFLER ASS'Y	5850-15100	1	65	RING	1881-81130	1
9	_____	_____	_____	66	O-RING	1751-81240	1
10	ARRESTER	1601-15120	1	67	JET	5500-81251	1
11	BOLT	01252-30550	2	68	DIAPHRAGM	3310-81260	1
12	GASKET, muffler	5910-15211	1	69	GASKET, pump	1065-81410	1
13	PLATE, muffler	5500-15220	1	70	DIAPHRAGM, pump	1065-81420	1
14	SCREW	0263-90416	1	71	BODY, pump	1850-81450	1
15	CRANKCASE COMP.	5500-21100	1	72	SCREEN	3306-81380	1
16	GASKET, case	5500-21141	1	73	GASKET, diaphragm	1850-81470	1
17	BEARING	06030-06001	2	74	BODY, purge	1850-81490	1
18	OIL SEAL	2169-21210	1	75	PUMP, priming	1751-81510	1
19	OIL SEAL	1850-21220	1	76	COVER, pump	1850-81520	1
20	SNAP RING	04065-02812	1	77	SCREW	1850-81530	4
21	SCREW	01252-30530	4	78	SCREW	0263-90560	2
22	PISTON	5600-41111	1	79	BODY ASS'Y	5500-82102	1
23	RING	1100-41210	2	80	_____	_____	_____
24	PIN	1101-41310	1	81	SLEEVE	1970-82190	2
25	SNAP RING	1260-41320	2	82	PLATE, choke	5500-82131	1
26	BEARING	1140-41330	1	83	LEVER, choke	5500-82140	1
27	WASHER	1101-41340	2	84	SCREW	2630-33610	1
28	CRANKSHAFT COMP.	5500-42001	1	85	ELEMENT	5500-82171	1
29	NUT	1650-43230	1	86	COVER ASS'Y	5600-82202	1
30	KEY	1000-43240	1	87	KNOB	5500-82221	1
31	SHOE, clutch	1140-51111	2	88	RING	5500-82230	1
32	SCREW	1140-51250	2	89	COVER, fan	5501-31111	1
33	SPRING	1970-51221	1	90	SCREW	0263-90520	4
34	WASHER	1140-51230	2	91	COVER, engine	5580-32112	1
35	WASHER	1970-51241	2	92	SCREW	1850-32160	1
36	ROTOR	5501-71110	1	93	SCREW	1900-31410	2
37	COIL ASS'Y	5501-71201	1	94	GUARD, plug	5500-32210	1
38	CORD	5500-71220	1	95	SCREW	0263-90514	1
39	CAP	2616-71320	1	96	SPARK PLUG	5602-73110	1
40	CAP, plug	1900-72111	1	97	GROMMET	1852-72121	1
41	SPRING	1900-72120	1	98	CORD COMP.	5501-73201	1
42	GROMMET	5500-72130	1	99	TANK ASS'Y	5500-85004	1
43	SPACER	1260-71261	2	100	CAP ASS'Y	5601-85200	1
44	BOLT	3310-72150	2	101	PACKING	5500-85220	1
45	RECOIL ASS'Y	5500-75100	1	102	HOLDER	5601-85230	1
46	CASE COMP.	5500-75110	1	103	CAP, holder	5600-85240	1
47	REEL	1850-75120	1	104	VALVE	5600-85250	1
48	SPRING, spiral	1850-75130	1	105	PIPE COMP.	5500-85300	1
49	SCREW	1850-75151	1	106	FILTER ASS'Y	5500-85400	1
50	ROPE	1850-75160	1	107	CLIP	1260-85460	1
51	KNOB	1140-75320	1	108	SCREW	5500-85510	3
52	PLATE, stopper	5500-75170	1	109	CLIP	1950-86120	1
53	PULLEY ASS'Y	1850-75201	1	110	LABEL, recoil	5550-91120	1
54	RATCHET	1850-75221	1	111	_____	_____	_____
55	SPRING	1850-75230	1				
56	SCREW	0263-90416	4				
57	CARBURETOR ASS'Y	5501-81000	1				

CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

THE CALIFORNIA AIR RESOURCES BOARD AND KOMATSU ZENOAH Co. ARE PLEASED TO EXPLAIN THE **EMISSION CONTROL SYSTEM WARRANTY** ON YOUR **1995 AND LATER** LAWN AND GARDEN EQUIPMENT ENGINE. IN CALIFORNIA, NEW UTILITY AND LAWN AND GARDEN EQUIPMENT ENGINES MUST BE DESIGNED, BUILT AND EQUIPPED TO MEET THE STATE'S STRINGENT ANTI-SMOG STANDARDS.

KOMATSU ZENOAH Co, MUST WARRANT THE EMISSION CONTROL SYSTEM ON YOUR LAWN AND GARDEN EQUIPMENT ENGINE FOR THE PERIODS OF TIME LISTED BELOW PROVIDED THERE HAS BEEN NO ABUSE, NEGLIGENCE OR IMPROPER MAINTENANCE OF YOUR LAWN AND GARDEN EQUIPMENT ENGINE.

YOUR EMISSION CONTROL SYSTEM. MAY INCLUDE PARTS SUCH AS THE CARBURETOR, THE IGNITION SYSTEM, AND CATALYTIC CONVERTER. ALSO INCLUDED MAY BE THE HOSES, BELTS, CONNECTORS AND OTHER EMISSION-RELATED ASSEMBLIES.

WHERE A WARRANTABLE CONDITION EXISTS, KOMATSU ZENOAH Co. WILL REPAIR YOUR LAWN AND GARDEN EQUIPMENT ENGINE AT NO COST TO YOU INCLUDING DIAGNOSIS, PARTS AND LABOR.

MANUFACTURER'S WARRANTY COVERAGE:

THE 1995 AND LATER UTILITY AND LAWN AND GARDEN EQUIPMENT 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 Co.

OWNER'S WARRANTY RESPONSIBILITIES:

—AS THE LAWN AND GARDEN EQUIPMENT ENGINE OWNER, YOU ARE RESPONSIBLE FOR THE PERFORMANCE OF THE **REQUIRED MAINTENANCE LISTED IN YOUR OWNER'S MANUAL**. KOMATSU ZENOAH Co. RECOMMENDS THAT YOU RETAIN ALL RECEIPTS COVERING MAINTENANCE ON YOUR LAWN AND GARDEN ENGINE, BUT KOMATSU ZENOAH Co. CAN NOT DENY WARRANTY SOLELY FOR THE LACK OF RECEIPTS OR FOR YOUR FAILURE TO ENSURE THE PERFORMANCE OF ALL SCHEDULED MAINTENANCE.

—AS THE LAWN AND GARDEN EQUIPMENT ENGINE OWNER, YOU SHOULD BE AWARE, HOWEVER, THAT KOMATSU ZENOAH Co. MAY DENY YOU WARRANTY COVERAGE IF YOUR LAWN AND GARDEN EQUIPMENT ENGINE OR A PART HAS FAILED DUE TO ABUSE, NEGLIGENCE, IMPROPER MAINTENANCE OR UNAPPROVED MODIFICATION.

—YOU ARE RESPONSIBLE FOR PRESENTING YOUR LAWN AND GARDEN EQUIPMENT ENGINE TO A KOMATSU ZENOAH Co. 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 YOU WARRANTY RIGHTS AND RESPONSIBILITIES, YOU SHOULD CONTACT KOMATSU ZENOAH AMERICA INC. AT (770)-381-5147.

**RedMax LONG REACH TRIMMER
MODEL LRT2300
2-YEAR LIMITED WARRANTY**

EMISSION-RELATED PARTS, FOR TWO (2) YEARS FROM THE DATE OF ORIGINAL DELIVERY OF THE MODEL LRT2300 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, SPARK PLUG,
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 LRT2300 UNIT, THE COMPANY, THROUGH ANY RedMax DEALER, WILL REPAIR OR REPLACE, FREE OF CHARGE, FOR THE ORIGINAL PUSHCHASER, ANY PART OR 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 SCHEDULED FOR REPLACEMENT AS REQUIRED MAINTENANCE SHALL BE WARRANTED FOR THE PERIOD OF TIME UP TO THE FIRST SCHEDULED REPLACEMENT POINT FOR THAT 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.

THIS 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.



KOMATSU ZENOAH AMERICA INC.
1505 Pavilion Place Suite A
Norcross, Georgia 30093



KOMATSU ZENOAH AMERICA INC.
1505 Pavilion Place Suite A
Norcross, Georgia 30093