

Please carefully read and save these instructions before attempting to assemble, maintain, install, or operate this product. Observe all safety information to protect yourself and others. Failure to observe the instructions may result in property damage and/or personal injury. Please keep instructions for future reference.

## Important Operating Instructions



# 14/20 INCH CHAINSAW

**Model: 8902,  
50969**



### CALIFORNIA PROPOSITION 65

**WARNING:** You can create dust when you cut, sand, drill or grind materials such as wood, paint, metal, concrete, cement, or other masonry. This dust often contains chemicals known to cause cancer, birth defects, or other reproductive harm. Wear protective gear.

**WARNING:** This product or its power cord may contain chemicals, including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

#### Important!

When using equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating manual with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, give them these operating instructions as well. We accept no liability for damage or accidents which arise due to non-observance of these instructions and the safety information herein.

### SPECIFICATIONS

**Engine Displacement:** 45.1 cc

**Bar Length:** 14in. and 20in.

**Idling Speed:** 3000 RPMs

**Max. Speed with Cutting Equipment:** 10,000 RPMs

**Anti-Vibration Function**

**Chain Brake**

**Auto Chain Lubrication**

#### CAUTION:

**FOR YOUR OWN SAFETY READ INSTRUCTION MANUAL COMPLETELY AND CAREFULLY BEFORE OPERATING THIS CHAINSAW.**

**Any failures made in following the safety regulations and and instructions may result in an electric shock, fire and/or serious injury.**

**NOTE: Remove the 14" Bar and Bar Cover from the bottom of the case by unscrewing the anchor.**

### SAFETY INSTRUCTIONS

Only allow users who have read and understand this manual operate this chainsaw.

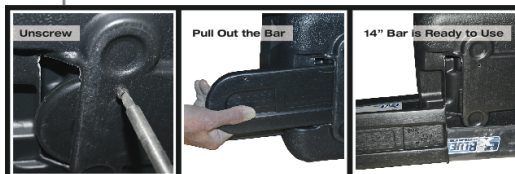
Wear protective gear, such as steel-toed footwear, snugly fitting clothing, heavy duty gloves, eye protection (goggles or face screen), hard hat and ear protection (ear plugs or mufflers). Do not wear jewelry and pull long hair back.

Keep all body parts clear of the chain while the engine is running.

Do not allow other people or animals near the saw when it is running, starting, or being operated.

You must be mentally alert and in good physical condition when operating a chainsaw because the work is strenuous

Carefully plan your sawing project before starting. Do not begin until you are sure the work area is clean, you have secure footing and if you are felling trees, that you have a planned and clear retreat path.



**For warranty purchases, please keep your dated proof of purchase. File or attach to the manual for safekeeping.**

## KICKBACK

**WARNING:** Kickback is the backward, upward or sudden movement of the guide bar that occurs when the guide bar contacts an object or when the wood closes in and pinches the saw in the cut. The saw contacting a foreign object in the wood can also result in a loss of control.

**Rotational kickback** occurs when the moving chain contacts an object with the upper tip of the guide bar. This can cause the chain to dig into the object, which then stops the chain for a moment. The result is a reverse reaction, which kicks the guide bar up and back towards the operator.

**Pinch kickback** occurs when the woods closes in on the moving chain along the top of the guide bar. The sudden stop of the chain results in the saw to move in the opposite direction of the rotation and the saw is driven straight back towards the operator.

**Pull in** occurs when the moving chain comes in contact with a foreign object in the wood along the bottom of the guide bar. This sudden stop pulls the saw forward and away from the operator and could possibly cause the operator to lose control of the saw.

## Avoiding Kickback

Be aware of situations or objects that can cause the material to pinch the top of or stop the chain.

Do not cut more than one log at a time.

Do not twist the saw when the bar is withdrawn from an undercut.

Always begin cutting with the engine at full speed and with the saw housing resting against the wood.

Use wedges made of plastic or wood to hold the cut open. Never use metal.

Stay alert. Realize kickback can occur and keep the cutting area free from foreign objects.

Keep your chain properly tensioned and sharp, along with properly maintaining the chainsaw. Failure to do so can increase the chance of kickback occurring.

Begin and continue the cut with the engine running at full speed. Use caution while re-entering a previous cut. Do not attempt a plunge cut (starting a cut with the tip of the blade).

## Maintaining Control of the Chainsaw

Stand to the left of the saw. Keep your elbow locked and a firm grip on the saw.

Keep the thumb on the underside of the handlebar. Never reverse hand positions (left hand on handlebar and right hand on the rear handle).

Stand slightly to the left side of the saw to keep your body from being in a straight line with the saw. Stand with your weight evenly balanced between both feet.

Do not overreach because you could be thrown off balance and lose control of the saw. Do not cut above shoulder height because it is difficult to maintain proper control of the saw at that height.

## Chain Brake

The chain brake is designed to stop the chain from rotating in the event of a kickback.

**WARNING: DO NOT RELY UPON THE CHAIN BRAKE (OR OTHER SAFETY FEATURES) TO PROTECT YOU IN THE EVENT OF A KICKBACK.** Use your chainsaw properly and under the correct circumstances to avoid kickback.

## ASSEMBLY

Wear protective gloves at all times during assembly due to the handling of sharp objects.

## Attaching the Bumper Spike

The bumper spike may be used as a pivot when making a cut.

- 1) Loosen and remove the bar knob completely by loosening the two nuts.
- 2) Remove the clutch cover.
- 3) Attach the bumper spike with the two screws with the spikes pointing downward.

## Attaching the Bar and Chain

- 1) Make sure the saw bottom is resting on a flat surface. Be sure the chain brake is pulled back. (Figure1)

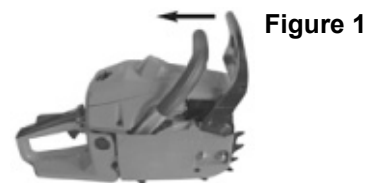


Figure 1

Loosen and remove the bar knob completely by removing the two nuts. (Figure 2)

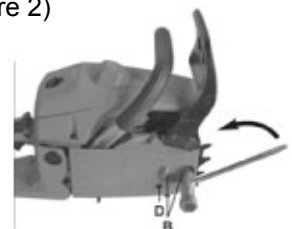


Figure 2

- 2) Remove the clutch cover.  
(Figure 3)



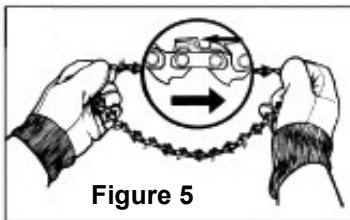
**Figure 3**

- 3) Slide the guide bar on the bar bolts until the guide bar rests against the clutch drum sprocket. (Figure 4)



**Figure 4**

- 4) Hold the chain with the drive links as shown. The drive links should be facing inward with the cutters facing to the right, or direction of rotation. (Figure 5)



**Figure 5**

- 5) Fit the drive links in the clutch drum sprocket. (Figure 6)



**Figure 6**

- 6) Place the chain drive links into the bar groove.

- 7) Pull the guide bar forward to make sure all of the drive links are in the bar groove.

- 8) Reinstall the clutch cover. (Figure 3) Make sure the adjusting pin is aligned with the hole in the guide bar.

**CAUTION:** Make sure the adjustment pin aligns with the hole. Failure to align the pin and install the cover properly may result in damage, possibly permanent, to your saw.

### **ADJUSTING CHAIN TENSION**

Before adjusting, make sure the bar knobs are loosened 1 ½ - 2 turns. Adjusting the chain tension with the knobs tight can cause damage.

#### **Checking the Chain Tension**

Check the chain tension by using a screwdriver to move the chain along the bar. If it does not rotate, it is too tight. If it sags below the bar, it is too loose.

#### **Adjusting the Chain Tension**

The chain stretches slightly during each use, especially the first few times the saw is used. Always check the chain tension each time the saw is used and refueled.

- 1) Make sure the bar knobs are loosened 1-1/2 – 2 turns.
- 2) Using a screwdriver, adjust the tension of the chain. The adjusting pin is located right below the two bar knobs.

**Figure 7**



- 3) Turn the screw to the right to increase the tension and turn it to the left to release tension.

- 4) Using a screwdriver, move the chain around on the guide bar to make sure all of the links are in the bar groove. If the chain does not rotate, it is too tight and the adjuster needs to be loosened.

- 5) Tighten the bar knob securely after the tension is adjusted.

### **FUELING AND LUBRICATION**

Use regular grade unleaded gasoline mixed with 40:1 2-cycle engine oil. Do not use a fuel mixture that has been stored for more than 90 days.

The bar and chain require constant lubrication in order to function properly. Lubrication is provided by the oiler system. Lack of oil will cause damage to the bar and chain. Smoke coming from the chain and discoloration on the bar are signs the oil is low.

#### **Fueling Safety Instructions**

- 1) Do not smoke while fueling or operating the saw.
- 2) Do not allow sparks or flame in the area where the fuel is poured or mixed. Always allow the engine to cool before refueling.
- 3) When refueling, turn the engine off and let it fuel in a non-combustible area. Slowly remove the fuel cap and refuel the saw.
- 4) Mix and pour the fuel in a well-ventilated outdoor area. Store the fuel in a cool, dry place. Wipe up fuel spills before attempting to start the saw.
- 5) Start the engine at least 10 feet from the fueling site

6) Store the saw and fuel in an area where sparks or open flame will not reach it.

## **OPERATING INSTRUCTIONS**

Warning: The chain must not move when the engine is running at an idle speed. If the chain moves, the carburetor must be adjusted. Avoid contact with the muffler because a hot muffler can cause serious burns or injury.

### **Operation Safety Instructions**

- 1) Do not operate a chainsaw with one hand.
- 2) Only operate the chainsaw in a well-ventilated, outdoor area.
- 3) Make sure that the chainsaw will not come into contact with any object while starting the engine. Do not start the saw when the guide bar is in the middle of a cut.
- 4) Do not apply pressure to the saw at the end of a cut. It can cause you to lose control of the saw when the cut is complete.
- 5) Make sure the engine is stopped before setting down the saw.
- 6) Make sure your chainsaw is in good condition before operating. Do not operate a saw that is damaged, improperly adjusted, or not completely and securely assembled.
- 7) Do not carry the saw with the engine running. Carry the saw with the engine stopped and the muffler pointing away from you, with the guide bar and chain facing behind you. The chain should be covered with a bar cover to ensure the blade will not cause harm.
- 8) Do not run while operating the chainsaw.

## **Starting A Cold Engine**

Hold the saw firmly against the ground and make sure the chain is free to move without contacting any object.

- 1) Move the ON/OFF switch to the ON position.
- 2) Pull the choke lever out to its full extent.
- 3) Pull the starter rope quickly with your right hand a maximum of 5 times. If the engine sounds as though it is trying to start before the 5<sup>th</sup> pull, do not pull any more and immediately go to the next step.
- 4) Push the choke lever fully in.
- 5) Pull the starter rope quickly with your right hand until the engine starts.
- 6) Allow the engine to run for approximately 30 seconds before squeezing and releasing the throttle trigger, which will allow the engine to return to idle speed.

## **Starting a Warm Engine**

- 1) Place the ON/OFF switch into the ON position.
- 2) Push the choke lever full in.
- 3) Pull on the starter rope quickly with your right hand until the engine starts.
- 4) After the engine starts, squeeze and release the throttle trigger, this will allow the engine to return to idle speed.

## **Flooded Engine**

If your engine does not start after 10 pulls, it may be flooded. It can be cleared of the excess fuel by following the warm engine starting process. Make sure the ON/OFF switch is in the ON position. The amount of flooding in the engine will determine how many pulls are necessary for it to start.

## **Checking the Chain Brake**

The chain brake should be checked several times during use. The engine needs to be running while this is done and it is the only time the saw should be set on the ground with the engine running.

- 1) Place the saw on the ground.
- 2) Grasp the rear handle with your right hand and the front with your left.
- 3) Apply the full throttle with your right hand.
- 4) Activate the chain brake by turning your left wrist against the hand guard without letting go of the front handle.

The chain should stop immediately. If the chain brake fails to activate, take the saw to an authorized dealer to have the chain brake replaced or repaired.

## **CUTTING METHOD INSTRUCTIONS**

### **Safety Instructions**

Check the chain tension before using the saw for the first time and after 1 minute of operation

Do not cut any material other than wood. Do not cut metal, plastic, masonry, non-wood building materials, etc.

If the chain strikes a foreign object, stop the saw and inspect the chain for damage. If damage is present, repair or replace the necessary parts.

Keep the saw clear of dirt or sand because even a small amount could dull the blade and possibly cause kickback.

Before starting a major project, practice cutting a few logs.



## Important Operation Reminders

Allow the engine to reach full speed before cutting.

Begin cutting with the saw frame resting against the log.

Keep the engine at full speed the entire time you are cutting.

Allow the chain to do the work for you. Do not apply excess pressure. Forcing the cut may cause damage to the engine, bar and/or chain.

When the cut is complete, release the trigger and allow the engine to return to idle. Running the saw at full throttle without cutting can cause wear to the chainsaw.

Do not put pressure on the saw at the end of a cut in order to maintain control of the saw.

Stop the engine before setting down the saw.

## Tree Felling

**WARNING:** Do not cut near buildings or electrical wires if the direction of the fall is uncertain. Check for broken or dead branches, which could fall while cutting. Do not cut at night or during bad weather. If the tree falls onto a utility line, notify the utility company immediately.

Plan your sawing operation in advance. Clear the work area in order to have a secure footing. Evaluate the natural conditions that could affect the direction of the fall such as wind, lean of the tree, weight and branches on one side, surrounding trees, decay and rot.

Make sure the tree has enough room to fall. Keep a distance of at least 2 ½ tree lengths from the nearest person or object because engine noises or the tree falling can drown out warning calls.

Remove all foreign objects from the tree where the cuts are going to be made. Plan a clear retreat path that is diagonally back from the line

of the fall.

## Felling Large Trees (6 in. or larger in diameter)

A notch is cut into the side of the tree in the desired falling direction. After a felling cut is made, the tree will tend to fall into the notch.

**Note:** If the tree has large buttress roots, remove them before making the notch into the tree. If you use a chainsaw to remove the roots, keep the chain from contacting the ground to prevent the chain from dulling.

1) Make the notch by cutting the top of the notch first. Cut through 1/3 of the diameter of the tree. Complete the notch by cutting the bottom of the notch. Remove the notch of wood from the tree once the notch is cut.

2) After removing the wood, make the felling cut on the opposite side of the notch. Make a cut about two inches higher than the center of the notch. This will leave a hinge between the felling cut and the notch. The hinge will help prevent the tree from falling in the wrong direction. It also helps hold the tree on the stump and control the fall.

Before the felling cut is complete, use wedges, if necessary, to open the cut and control the direction of the fall. Use wood or plastic wedges to avoid kickback and chain damage. Never use steel or iron wedges.

Be alert to signs that the tree is about to fall, such as cracking sounds, widening of the felling cut, or movement in the branches.

As the tree begins to fall, stop and put down the saw and quickly get away on your planned retreat path.

Do not cut down a partially fallen tree. Be cautious when working around partially fallen trees because they may be poorly supported. If a tree does not fall completely, put the saw aside and pull down the tree with a cable winch, block and tackle or a tractor.

## Cutting A Fallen Tree (Bucking)

**WARNING:** DO NOT stand on the log that is being cut. If the log rolls, it can cause loss of footing and control. Do not stand downhill of the log being cut.

Only cut one log at a time.

Cut shattered wood carefully. Sharp pieces of wood could possibly be thrown back towards the operator.

Never allow another person to hold a small log for cutting, or use your leg or foot to hold it. Use a sawhorse to cut small logs.

Do not cut in an area where logs, roots and limbs are tangled. Drag the logs into a clear area before cutting.

## Types of Cutting for Bucking

**WARNING:** If a saw becomes pinched in a log, do not try to force it out. It is possible to lose control of the saw which can result in injury and/or damage to yourself or the saw. Stop the saw and drive a plastic or wood wedge into the cut until the saw can be removed. Restart the saw and re-enter the cut. Using a metal wedge can cause kickback and chain damage. Do not attempt to restart your saw when it is pinched in a log.

**Overcutting** is when the bottom of the saw is against the top of the log. Use a light, downward pressure when overcutting.

**Undercutting** is when the log is cut from the underside with the top of the saw against the log. Use a light upward pressure. Hold the saw firmly and maintain control of the saw because it will tend to push backwards.

DO NOT turn the saw upside down to undercut. Control of the saw cannot be maintained in this position.

Always make your first cut on the compression side of the log (where the pressure of the log's weight is concentrated).

### **Bucking Without A Support**

Using an overcut, cut through 1/3 the diameter of the log.

Roll the log over and finish with a second overcut.

Watch out for logs with a compression side to prevent the saw from being pinched.

### **Bucking Using A Log or Support Stand**

Make your first cut on the compression side of the log and extend it 1/3 into the diameter of the log. Finish with a second cut.

### **Limbing and Pruning**

**WARNING:** Be on alert for kickback. Keep the moving chain away from any other branches or objects when limbing or pruning. Never climb into a tree to limb or prune. Do not stand on ladders, platforms, other logs or in a position with unsteady footing.

### **Important Safety Reminders**

Work slowly with both hands gripping the saw. Maintain balance and a secure footing.

Use caution when cutting smaller limbs. Small limbs may catch in the chain and be flung towards you or throw you off balance.

Watch out for branches that are under pressure or bent. When the wood is cut, the tension may cause the wood to be flung.

Keep your work area clear. Clear away branches from the work area in order to avoid tripping over them.

### **Limbing**

Limbing should only be done when a tree is already cut down.

Leave any large limbs under the tree for support as you work.

Start at the base of the tree and work towards the top. Small limbs can be removed in one cut.

Keep the tree between you and the chain. Cut opposite from the branch being cut.

Remove any larger, supportive branches with the technique described in Bucking Without A Support.

Always use an overcut to cut small and free hanging limbs. Do not use an undercut because it may cause limbs to fall and pinch the saw.

### **Pruning**

**WARNING:** Do not prune limbs that are above shoulder height. If the branches are higher than your shoulder, have a professional perform the job.

Make your first cut 1/3 of the way through the limb.

Make the second cut all the way through the limb. The cut a third overcut through the branch, leaving a 1 – 2 inch collar from the trunk of the tree.

### **MAINTENANCE**

#### **Maintenance Schedule**

##### **Check before each use:**

Fuel mixture level

Bar lubrication

Chain tension

Chain sharpness

For damaged parts

For loose caps, fasteners and parts

##### **Inspect and Clean**

**Bar:** Before each use

**Saw:** After each use

**Air filter:** Every 5 hours of use

**Chain brake:** Every 5 hours of use

**Spark arresting screen and muffler:** Every 25 hours of use

**Replace spark plug:** Yearly

**Replace fuel filter:** Yearly

#### **Maintenance Safety Instructions**

- 1) Be sure to have your chainsaw regularly serviced by a qualified dealer.
- 2) Never modify the chainsaw in any way.
- 3) Keep the handles clean and dry, and free from oil or fuel.
- 4) Make sure the fuel and oil caps, fasteners and screws are tightened and secure after performing maintenance.
- 5) Always wear protective gloves when performing maintenance.
- 6) Do not perform maintenance while the engine is hot.

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### Air Filter Cleaning

DO NOT clean the air filter in gasoline or other flammable solutions. Doing so can create a fire hazard or harmful emissions.

DO NOT operate the saw without an air filter. Dust and dirt will be drawn directly into the engine and damage it. Keep the air filter clean.

- 1) Remove the top cover by unscrewing the fastening screw.
- 2) Lift out the air filter.
- 3) Clean the air filter in warm, soapy water and rinse in clean water.
- 4) Allow the filter to air dry completely.
- 5) Insert the air filter back into the chainsaw. Replace the cover on the chainsaw. Make sure the cover is fitted securely and properly before tightening the screw.

### Fuel Filter Cleaning

NEVER use the saw without a fuel filter. After 100 hours of use, the filter should be cleaned or replaced, if damaged.

Make sure the fuel tank is empty before changing the filter.

- 1) Remove the fuel tank cap.
- 2) Bend a piece of soft wire.
- 3) Reach into the tank opening and hook the fuel line. Carefully pull the line towards the opening until you can reach it with your fingers. DO NOT pull the hose completely out of the tank.
- 4) Lift the filter out of the tank.
- 5) Pull off the filter. If it is damaged, discard and replace with a new one.
- 6) Insert a new filter. Place the filter into the opening and push it into the tank. Make sure it is situated in the lower corner of the tank. If need be, use a long screwdriver to

move the filter into the correct position. Be careful not to damage the filter.

- 7) Fill the tank with new fuel mixture.

### Spark Plug

The spark plug must be cleaned or replaced after every 20 hours of service.

- 1) Make sure the ON/OFF switch is turned off.
- 2) Remove the top cover by unscrewing the fastener.
- 3) Remove the air filter.
- 4) Disconnect the ignition cable from the spark plug by pulling and twisting simultaneously.
- 5) Remove the spark plug by using a spark plug wrench.
- 6) Clean the spark plug with a copper wire brush. The electrode gap should be 0.6mm.
- 7) Reconnect the ignition cable.
- 8) Replace the air filter.
- 9) Replace the top cover, make sure the cover is securely fitted, and then screw down the fastener.

### Carburetor

The carburetor has already been properly adjusted at the factory. If it requires additional adjustment, take the saw to an authorized service dealer.

### Chain Bar Maintenance

The chain bar needs to be regularly lubricated and maintained in order for it to work.

### Tools for lubrication

A lube gun is recommended, but not required, for applying grease to the guide bar sprocket tip. The gun is equipped with a needle nose tip, which allows the grease to be efficiently applied.

### Lubricating the sprocket tip

The sprocket tip on your new saw has been pre-lubricated in the factory. It needs to be lubricated properly otherwise it will perform poorly, and possibly seize. Lubrication is recommended once a week or after 10 hours of use. Clean the bar tip before lubrication.

The chain does not have to be removed to lubricate the bar tip. Lubrication is possible while working, however the engine must be turned off.

**Warning:** Wear work gloves when handling the chain and bar.

- 1) Make sure the engine is off, with the ON/OFF switch in the Off position.
- 2) Clean the guide bar tip.
- 3) Using the lubrication gun, insert the nose into the lubrication hole and fill it with grease until it appears at the edges of the tip.
- 4) Rotate the saw by hand. Add additional lubrication until the entire tip has been greased.

Many guide bar problems can be avoided by properly maintaining the bar and chain saw. Insufficient lubrication or using a saw with a chain that is too tight will cause the bar to wear rapidly.

### Maintaining the chain bar

The bar should be reversed after 8 hours of work to keep uniform wear. Check the bar frequently for wear, and if need be, remove burs and square up the rails by using the flat file.

- 1) Be sure the ON/OFF switch is Off.
- 2) Loosen the bar knob and remove the cover.
- 3) Remove the chain and bar from the saw.

4) Clean the oil holes and bar groove.

5) If the bar is burred, remove the burs with a flat file.

6) If the rail top is uneven, use a flat file to make the sides and edges square again.

Replace the guide bar when the groove is worn, the bar is bent or cracked, or when excessive heating or burring occurs. If the bar needs replacing, only use the guide bar specified in the parts list or on the chain saw.

### **Oil passages**

The oil passages should be cleaned to allow proper lubrication of the bar and chain.

The condition of the passages can be checked. If they are clear, the chain will automatically send off a spray of oil within seconds of starting the saw because it is equipped with an automatic oiler system.

### **Automatic chain lubrication**

The chain is equipped with an automatic oil system with a toothed wheel drive. It will automatically supply the bar and chain with the right amount of oil. When the engine is accelerated, the oil will flow through the bar more quickly.

The lubrication system has been set at the factory. The screw for adjusting the lubrication is located on the underside of the chainsaw. By turning the screw counterclockwise, it will increase the lubrication and turning it clockwise will decrease the lubrication.

To check the lubrication, hold the chain saw over a piece of paper and run it at full speed for a few seconds. The amount of oil on the paper will determine if the lubrication needs to be increased or not.

## **Chain Maintenance**

### **Sharpening**

Chain sharpening requires special tools to ensure that the cutters are sharpened to the proper angle and depth. We recommend you allow a professional chain sharpener to sharpen your chain.

### **Breaking in a new chain**

A new chain and bar will need adjusting after as few as 5 cuts. This is normal during the break-in period and the interval between future adjustments will begin to lengthen.

### **Chain lubrication**

Make sure the oil tank is filled with the appropriate oil to lubricate the chain. Running the saw with low or no oil will cause damage to the chain and the saw, causing overheating and excessive wear.

### **STORAGE**

If a chainsaw is going to be in storage for longer than 30 days, follow these instructions.

### **Storing a chainsaw**

1) Remove the fuel tank slowly in order to release any pressure in the tank. Carefully drain the fuel from the tank.

2) To remove all of the fuel from the carburetor, start the engine and let it run until the saw stops.

3) Allow the engine to cool completely.

4) Remove the spark plug.

5) Pour 1 teaspoon of 2-cycle oil into the combustion chamber. Slowly pull the starter rope a few times in order to coat the internal parts. Replace spark plug.

**Note:** Store the unit away from water, sources of flame and sparks and in a cool, dry location.

## **Preparation to use saw again**

1) Remove the spark plug.

2) Pull the starter rope briefly to clear excess oil from the combustion chamber.

3) Clean the spark plug and check the electrode gap.

4) Replace the spark plug.

5) Fill the fuel tank with the proper fuel mixture.

6) Check oil levels.



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## Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Engine will not start or will not stay running	Ignition switch is not ON	Turn ignition switch ON
	Engine is flooded	Reference digital starting section of this manual
	Fuel tank is empty	Fill tank with proper fuel mixture
	Spark plug is not working properly	Install new spark plug
	Fuel is not reaching carburetor	Check for dirty fuel filter (replace if necessary). Check for faulty fuel line (repair or replace if necessary).
Engine will not idle properly	Carburetor requires adjustment	Contact an authorized service dealer
	Crankshaft seal is worn	Contact an authorized service dealer
Engine will not accelerate, lacks power or dies under a load	Air filter is dirty	Clean or replace filter
	Spark Plug is faulty	Clean or replace plug or correct gap
	Chain brake is engaged	Disengage chain brake
	Carburetor needs adjustment	Contact an authorized service dealer
Engine smokes excessively	Too much oil mixed with gasoline	Empty fuel tank and refill with proper fuel mixture
Chain moves while idling	Idle speed requires adjustment	Contact an authorized service dealer
	Clutch requires repair	Contact an authorized service dealer

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### **Limited Manufacturer Warranty**

*North American Tool Industries (NATI) makes every effort to ensure that this product meets high quality and durability standards. NATI warrants to the original retail consumer a 1-year limited warranty from the date the product was purchased at retail and each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, or accidents, repairs or alterations, or a lack of maintenance. NATI shall in no event be liable for death, injuries to persons or property, or for incidental, special, or consequential damages arising from the use of our products. To receive service under warranty, the original manufacturer part must be returned for examination by an authorized service center. Shipping and handling charges may apply. If a defect is found, NATI will either repair or replace the product at its discretion.*

### **DO NOT RETURN TO STORE**

For Customer Service:

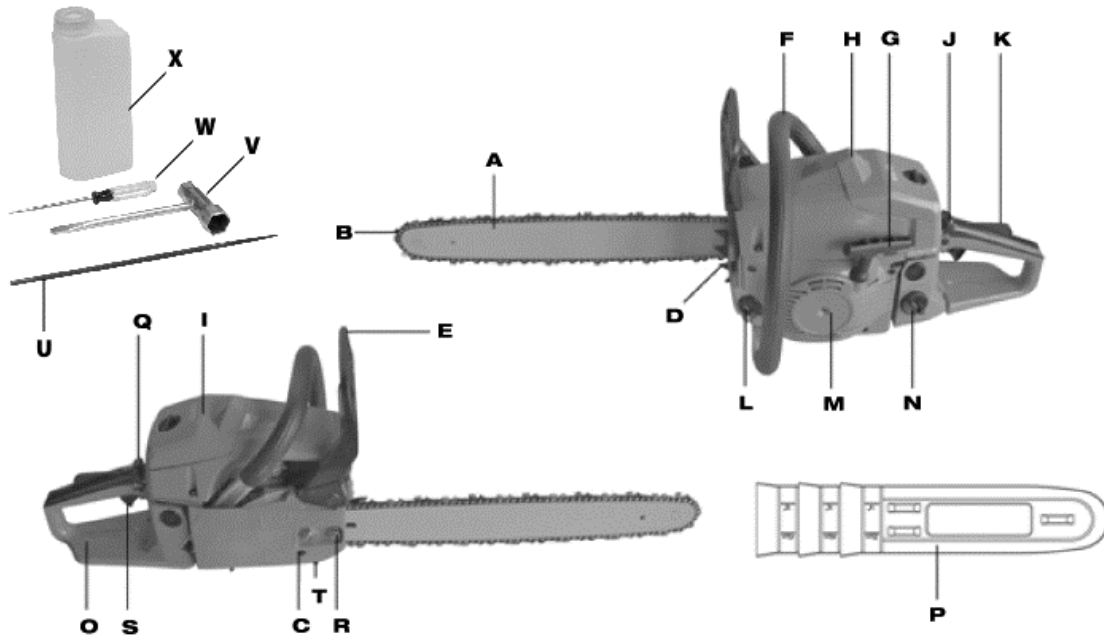
Email: [feedback@natitools.com](mailto:feedback@natitools.com) or Call 1-800-348-5004



# 14/20 INCH CHAINSAW

**Model: 8902, 50969**

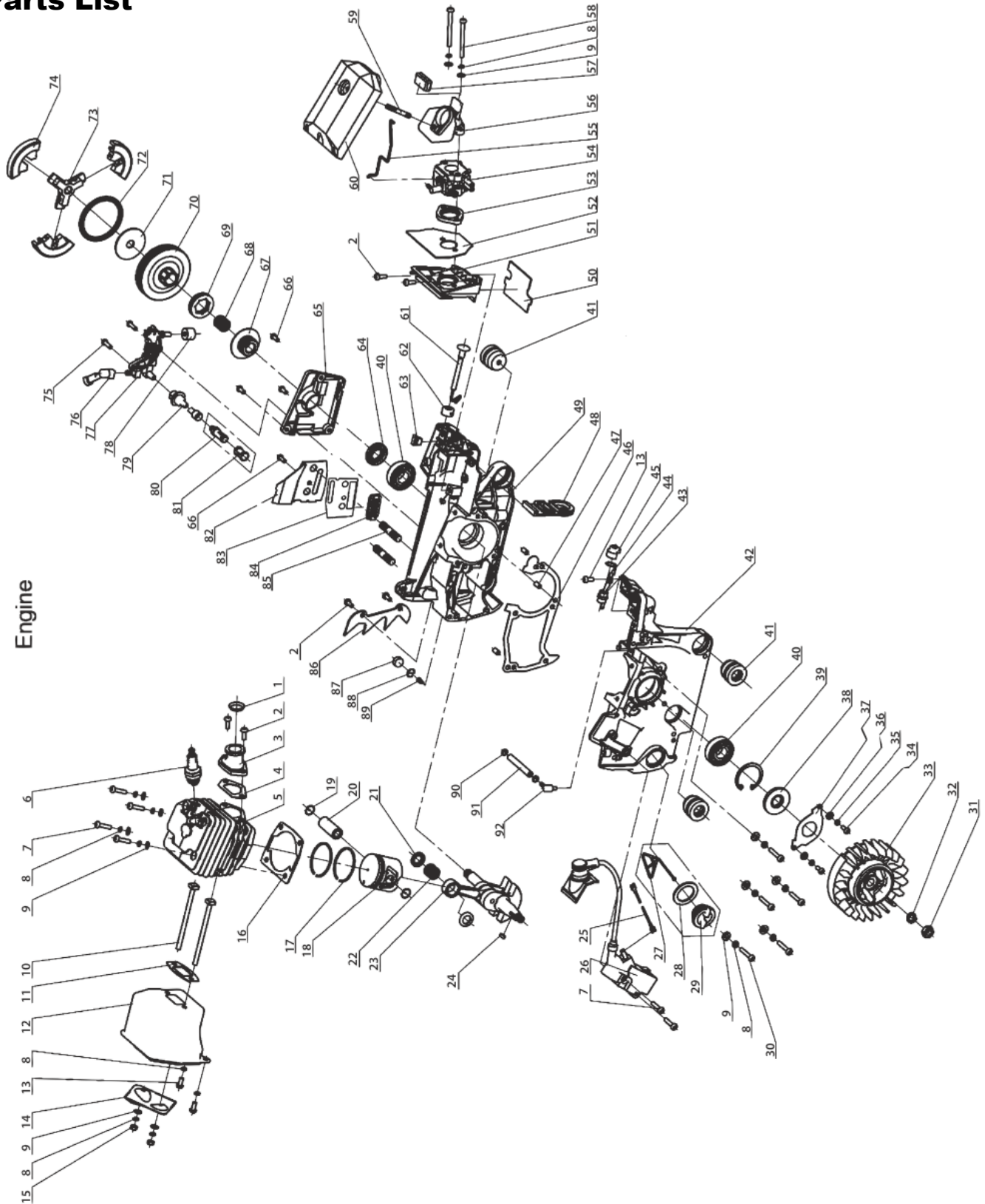
## Parts List



#	Part Description
A	Chain Bar qty 2 (size varies by model)
B	Saw Chain qty 2 (size varies by model)
C	Chain Tensioning Screw
D	Stop Claw
E	Chain Brake Lever/Front Hand Guard
F	Front Handle
G	Starter Handle
H	Spark Plug (under air filter cover)
I	Air Filter Cover
J	Stop Switch
K	Safety Lock
L	Oil Tank Cap

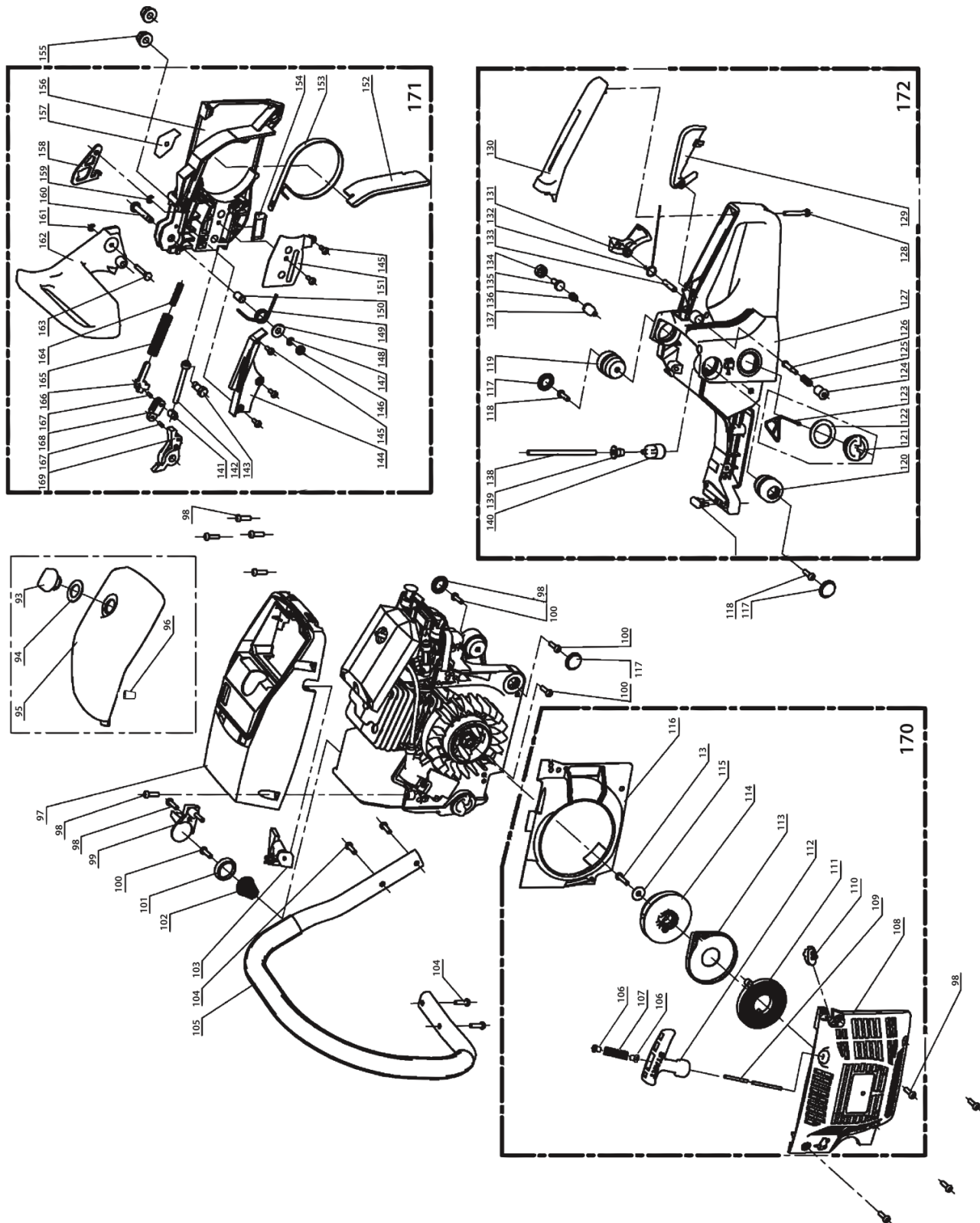
#	Part Description
M	Fan Housing
N	Fuel Tank Cap
O	Rear Handle/Bootstrap
P	Bar Cover
Q	Choke/Carburetor Setting
R	Bar Fastening Nut
S	Throttle Lever
T	Chain Catch
U	Chain File
V	Plug Wrench
W	Screw Driver
X	Mixing Bottle

# Parts List





# Parts List



## Parts List

**Call 1-800-348-5004 for assistance or replacement parts**

Please provide the following information:

- Model number
- Part description and number as shown in parts list
- Serial number (if any)

Address any correspondence to:

North American Tool Industries  
84 Commercial Rd  
Huntington, IN 46750

Part Reference#	Parts Description	NATI SKU#	Qty	Part Reference#	Parts Description	NATI SKU#	Qty
1	Retainer Ring	38544	1	44	Ground Strip	38904	1
2	Screw M5X12	39348	6	45	Flameout Switch Retainer	38905	1
3	Air Intake Tube	38545	1	46	Crankshaft Case Gasket	38906	1
4	Air Intake Tube Gasket	38546	1	47	Pin	38907	3
5	Cylinder	38547	1	48	Dust Plate	38908	1
6	Spark Plug	38548	1	49	Right Crankshaft Case	38909	1
7	Screw M5X20	38549	6	50	Backing Board	38910	1
8	Spring Washer 5	38550	13	51	Air Intake Tube Support	38911	1
9	Washer 5	38551	15	52	Air Intake Tube Support Gasket	38912	1
10	Silencer Bolt	38552	2	53	Air Intake Flange	38913	1
11	Silencer Gasket	38553	1	54	Carburetor	38914	1
12	Silencer	38554	1	55	Accelerator Rod	38915	1
13	Screw M5x10	40946	4	56	Air Intake	38919	1
14	Silencer Cap	38555	1	57	Air Intake Cushion	38925	1
15	Nut M5	38556	3	58	Screw M5-52mm	38929	1
16	Cylinder Gasket	38557	1	59	Screw	38955	1
17	Piston Ring	38558	2	60	Air Filter	38956	1
18	Piston	38559	1	61	Choke Knob	38959	1
19	Piston Pin Circlip	38560	2	62	Choke Knob Retainer	38969	1
20	Piston Pin	38561	2	63	Anti-Shock Block	38970	1
21	Needle Bearing Ring	38562	2	64	Oil Seal	38974	1
22	Needle Bearing	38563	1	65	Oil Pump Cover Plate	38975	1
23	Crankshaft Components	38669	1	66	Screw	38976	4
24	Semicircular Key	38748	1	67	Worm Gear	38994	1
25	Flameout Wire	38812	1	68	Needle Bearing	39001	1
26	Igniter	38881	1	69	Sprocket Wheel	39068	1
27	Oil Cap Retainer	38885	1	70	Clutch Shell w/ Sprocket	39079	1
28	Oil Cap Packing	38888	1	71	Clutch Washer	39080	1
29	Oil Cap	38889	1	72	Clutch Extension Spring	39081	1
30	Screw	38890	5	73	Retainer	39082	1
31	Nut	38891	1	74	Shoe Block	39083	3
32	Spring Washer 8	38892	1	72-73-74	Clutch Assembly	43853	1
33	Flywheel	38893	1	75	Screw	39084	2
34	Screw	38894	2	76	Oil Nozzle	39085	1
35	Spring Washer 4	38895	2	77	Oil Pump	39086	1
36	Washer 4	38896	2	78	Oil Sponge Ring	39087	1
37	Oil Seal Protector Plate	38897	1	79	Oil Tube	39094	1
38	Oil Seal 15x35x4.5	38898	1	80	Oil Filter Body	39095	1
39	Snap Ring 35	38899	1	81	Oil Filter Screen	39096	1
40	Bearing 6202 Grade D	38900	2	82	Protecting Shield	39151	1
41	Anti-Vibration Cushion D	38901	3	83	Protecting Shield Cover	39215	1
42	Left Crankshaft Case	38902	1	84	Chain Guide	39237	1
43	Flameout Switch	38903	1	85	Screw (Bar Stud M8X28-8.8)	39238	2

## Parts List

Part Reference#	Parts Description	NATI SKU#	Qty	Part Reference#	Parts Description	NATI SKU#	Qty
86	Spiked Bumper	39244	1	128	Screw	40900	1
87	Sponge Block	39245	1	129	Trigger Controller	44426	1
88	Aeration Nozzle Circlip	39246	1	130	Handle Cover	44098	1
89	Aeration Nozzle	39251	1	131	Trigger	39369	1
90	Suction Tube Circlip	39252	2	132	Trigger Torsion Rod Spring	39369	1
91	Suction Tube	39268	1	133	Pin	39369	1
92	Suction Nozzle	39284	1	134	Balancer Cover	39369	1
93	Air Filter Lock Nut	39285	1	135	Filter	39369	1
94	Lock Nut Washer	39286	1	136	Balancer Rubber	39369	1
95	Air Filter Cover	40896	1	137	Balancer Body	39369	1
96	Shock Rubber Cushion	39306	1	138	Fuel Tube	44029	1
97	Upper Cover Plate	40897	1	139	Fuel Tube Base	44030	1
98	Screw	44100	10	140	Fuel Filter Components	44031	1
99	Chain Catcher	39310	1	171	Chain Brake Assembly	39368	1
100	Screw	39319	4	141	Chain Adjusting Tightener	39341	1
101	Conical Spring Base	39333	1	142	Tightening Screw	39342	1
102	Conical Spreader Spring	39334	1	143	Tightening Gear	39343	1
103	Idle Adjusting Guide	39335	1	144	Brake Spring Cover	39368	1
104	Screw ST4.8X16	39336	4	145	Screw	44096	5
105	Front Handle Assembly	39337	1	146	Shock Rubber Washer	39368	1
170	Recoil Assembly	39367	1	147	Shield Ring	39368	1
106	Kick Spring Base	39367	1	148	Washer	39368	1
107	Kick Spring	39367	2	149	Brake Torsion Rod Spring	39368	1
108	Starter Cover	39367	1	150	Front Guard Tube	39368	1
109	Start Rope	39367	1	151	Tightener Cover	39344	1
110	L H Sheathing	39367	1	152	Dust Shield	39368	1
111	Coil Spring	39367	1	153	Brake Belt	39368	1
112	Starting Handle	39367	1	154	Chain Guide	39368	1
113	Coil Spring Shell	39367	1	155	Nut	40947	2
114	Starter Wheel	39367	1	156	Right Cover	39368	1
115	Big Washer	39367	2	157	Shock Rubber Cushion	39368	1
116	Cooling-Air Mask	40899	1	158	Cam plate	39368	1
172	Main Frame/Gas Tank Assembly	39369	1	159	Shield Ring	39368	1
117	Dust Cover	44092	5	160	Front Guard Pin	39368	1
118	Screw M5X16	39319	2	161	Shield Ring	39368	1
119	Double-Ended Pin	39369	1	162	Front Guard	39368	1
120	Anti-Vibration Cushion C	44097	2	163	Positioning Pin	39368	1
121	Fuel Cap	39338	1	164	Secondary Brake Spring	39368	1
122	Fuel Cap Washer	39339	1	165	Brake Spring	39368	1
123	Fuel Cap Retainer	39340	1	166	Brake Control Rod	39368	1
124	Button	44093	1	167	Pin	40902	2
125	Button Spring	44094	1	168	Secondary Pull-Rod	39368	1
126	Button Shaft	44095	1	169	Main Pull-Rod	39368	1
127	Base	39369	1				

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## **I. EMISSION CONTROL WARRANTY STATEMENT**

### **YOUR WARRANTY RIGHTS AND OBLIGATIONS**

*The United States Environmental Protection Agency (EPA), together with North American Tool Industries are pleased to explain the Emission Control System Warranty on your new small off-road engine. New small off-road engines must be designed, built, and equipped to meet stringent anti-smog standards for the state of the federal government. NATI will warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect, unapproved modification, or improper maintenance to your engine.*

*Your emission control system may include parts such as the carburetor, ignition, intake, and exhaust systems. NATI will repair your engine at no cost to you for diagnosis, replacement parts, and labor, should a warrantable condition occur.*

#### **MANUFACTURER'S EMISSION CONTROL SYSTEM WARRANTY COVERAGE:**

*Emission control systems on 2012 and later model year engines are warranted for two years as hereinafter noted. If, during such warranty period, any emission-related component or system on your engine is found to be defective in materials or workmanship, a NATI Authorized Warranty Service Facility will perform repairs or replacement.*

#### **PURCHASER'S/OWNER'S WARRANTY RESPONSIBILITIES:**

*As the small off-road engine purchaser/owner, you are responsible for the completion of all required maintenance as listed in your factory supplied OWNER'S MANUAL. For warranty purposes, NATI recommends that you retain all receipts covering maintenance on your engine. However, NATI cannot deny warranty solely because of the lack of receipts or for your failure to ensure the completion of scheduled maintenance.*

*As the small off-road engine purchaser/owner, you should, however, be aware that NATI may deny any and/or all warranty coverage, or responsibility if your engine, or a part/component thereof, has failed due to abuse, neglect, improper maintenance, unapproved modifications, or the use of counterfeit and/or "gray market" parts not made, supplied, or approved by NATI.*

*You are responsible for presenting your engine to a NATI Authorized Warranty Service Facility as soon as a problem occurs. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.*

*Warranty service can be arranged by contacting either your selling dealer or a NATI Authorized Warranty Service Facility. To locate the NATI Authorized Service Facility nearest you, call our toll-free number:*

**1-800-348-5004**

**IMPORTANT NOTE:** *This warranty statement explains your rights and obligations under the Emission Control System Warranty (ECS Warranty), which is provided to you by NATI pursuant to California and federal law. The ECS Warranty applies only to the emission control system of your new engine. If there is any conflict in terms between the ECS Warranty and the NATI Warranty, the ECS Warranty shall apply except in circumstances where the NATI Warranty may provide a longer warranty period. Both the ECS Warranty and the NATI Warranty describe important rights and obligations with respect to your new engine.*



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*Only a NATI Authorized Warranty Service Facility can perform warranty service. When requesting warranty service, evidence must be presented showing the date of the sale to the original purchaser/owner. The purchaser/owner shall be responsible for any expenses or other charges incurred for service calls and/or transportation of the product to/from the inspection or repair facilities. The purchaser/owner shall also be responsible for any and/or all damages or losses incurred while the engine is being transported/shipped for inspection or warranty repairs.*

**IF YOU HAVE ANY QUESTIONS REGARDING YOUR WARRANTY RIGHTS AND RESPONSIBILITIES, YOU SHOULD CONTACT NATI AT THE FOLLOWING ADDRESS:**

**84 COMMERCIAL RD. HUNTINGTON, IN 46750, USA**

***feedback@natitools.com***

**II. EMISSION CONTROL SYSTEM WARRANTY**

*Emission Control System Warranty (ECS Warranty) for 2012 and later model engines:*

- (a) Applicability: This warranty shall apply to 2012 and later model year engines. The ECS Warranty Period shall begin on the date the new engine or equipment is purchased by/delivered to its original, end-use purchaser/owner and shall continue for 24 consecutive months thereafter.*
- (b) General Emissions Warranty Coverage: NATI warrants to the original, end-use purchaser/owner of the new engine or equipment and to each subsequent purchaser/owner that each of its engines is...*
  - a. Designed, built, and equipped so as to conform with all applicable regulations adopted by the EPA pursuant to their respective authority, and*
  - b. Free from defects in materials and workmanship which, at any time during the ECS Warranty Period, may cause a warranted emissions-related part to fail to be identical in all material respects to the part as described in the engine manufacturer's application for certification.*

*The ECS Warranty only pertains to emission-related parts on your engine, as follows:*

- 1. Any warranted, emissions-related parts that are not scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by NATI according to subsection 4 below. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.*
- 2. Any warranted, emissions-related part that is scheduled only for regular inspection as specified in the Owner's Manual should be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary" shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.*

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3. *Any warranted, emissions-related part that is scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by NATI according to subsection 4 below. Any such emissions-related part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.*
  4. *Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a NATI Authorized Warranty Service Facility.*
  5. *When the engine is inspected by a NATI Authorized Warranty Service Facility, the owner shall not be held responsible for diagnostic costs if the repair is deemed warrantable.*
  6. *NATI shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of any emission-related part covered by the ECS warranty.*
  7. *Throughout the ECS Warranty Period, NATI shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emissions-related parts.*
  8. *Any NATI authorized and approved emissions-related replacement parts may be used in the performance of any ECS Warranty maintenance or repairs and will be provided without charge to the purchaser/owner. Such use shall not reduce NATI's ECS Warranty obligations.*
  9. *Unapproved, add-on, modified, counterfeit, and/or "gray market" parts may not be used to modify or repair a NATI engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. NATI shall not be held liable hereunder for failures of any warranted parts of a NATI engine caused by the use of such an unapproved, add-on, modified, counterfeit, and/or "gray market" part.*

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**EMISSIONS-RELATED PARTS INCLUDE THE FOLLOWING:**

*For engine families CZHWS.0454SN*

1. *Fuel Metering System:*
  - a. *Gasoline carburetor assembly and its internal components (if so equipped).*
  - b. *Fuel Filter (if so equipped).*
  - c. *Carburetor Gaskets*
  - d. *Fuel Pump (if so equipped).*
  - e. *Fuel Hose*
  - f. *Clamps*
2. *Air Induction System including:*
  - a. *Intake Pipe/Manifold*
  - b. *Air Cleaner*
3. *Ignition System including:*
  - a. *Spark Plug*
  - b. *Ignition Module/Coil*
4. *Catalytic Muffler Assembly (if so equipped)*
  - a. *Muffler Gasket*
  - b. *Exhaust Manifold*
5. *Crankcase Breather Assembly including:*
  - a. *Breather Connection Tube*
6. *Fuel tank evaporative emissions control system include:*
  - a. *Fuel Tank*
  - b. *Fuel Cap*
  - c. *Fuel Hose*
  - d. *Clamps*
7. *Miscellaneous items used in above systems including:*
  - a. *Switches*
  - b. *Hoses, Belts, Connectors, and Assemblies*