makita

Owner's and Safety Manual
for Gasoline Chain Saws (page 2 - 32)

Manuel d'emploi et de sécurité
de tronçonneuses thermiques (page 33 - 63)

DCS430, DCS431
DCS520, DCS520i
DCS540
DCS5200, DCS5200i

WARNING!
Read and understand this Manual. Always follow safety precautions in the Owner's and Safety Manual. Improper use can cause serious injury!
The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Preserve this Manual carefully!

ATTENTION!
Suivez toujours les conseils de sécurité du présent manuel d'emploi et de sécurité. Une utilisation incorrecte de la tronçonneuse peut entrainer des blessures graves! Conservez avec soin ce manuel! Les gaz d'échappement émis par ce produit contiennent des produits chimiques connus par l'Etat de Californie pour provoquer le cancer, des défauts de naissance ou autres dommages de reproduction. Lisez et comprenez ce manuel.

Manual abstract:

@@Improper use can cause serious injury! @@@@ s. @@For the components listed under PARTS COVERED, the service dealer authorized by MAKITA will, at no cost to you, make the necessary diagnosis, repair, or replacement necessary to ensure that the engine complies with applicable U. EMISSION COMPONENT DEFECT WARRANTY PERIOD The warranty period for this engine begins on the date of sale to the initial purchaser and continues for a period of 2 years. PARTS COVERED Listed below are the parts covered by the Emission Components Defect Warranty. Some of the parts listed below may require scheduled maintenance and are warranted up to the first scheduled replacement point for that part. @@@@@@@@Consequential damages such as loss of time, inconvenience, loss of use of the engine or equipment, etc. Diagnosis and inspection charges that do not result in warranty-eligible service being performed. Any non-authorized replacement part, or malfunction of authorized parts due to use of non-authorized parts. OWNER'S WARRANTY RESPONSIBILITIES As the engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. MAKITA recommends that you retain all receipts covering maintenance on your engine, but MAKITA cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the engine owner, you should however be aware that MAKITA may deny warranty coverage if your engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications. You are responsible for presenting your engine to the nearest service dealer authorized by MAKITA when a problem exists. If you have any questions regarding your warranty rights and responsibilities, you should contact the MAKITA Warranty service Department at 1-888-OPE-PART for the information. THINGS YOU SHOULD KNOW ABOUT THE EMISSION CONTROL SYSTEM WARRANTY: MAINTENANCE AND REPAIRS You are responsible for the proper maintenance of the engine. You should keep all receipts and maintenance records covering the performance of regular maintenance in the event questions arise.

These receipts and maintenance records should be transferred to each subsequent owner of the engine. MAKITA reserves the right to deny warranty coverage if the engine has not been properly maintained. Warranty claims will not be denied, however, solely because of the lack of required maintenance or failure to keep maintenance records. If other than the parts authorized by MAKITA are used for maintenance replacements or for the repair of components affecting emission control, you should assure yourself that such parts are warranted by their manufacturer to be equivalent to the parts authorized by MAKITA in their performance and durability. HOW TO MAKE A CLAIM All repair qualifying under this limited warranty must be performed by a service dealer authorized by MAKITA.

In the event that any emission-related part is found to be defective during the warranty period, you shall notify MAKITA Warranty service Department at 1-888-OPE-PART and you will be advised of the appropriate warranty service dealer or service providers where the warranty repair can be performed. Careless or improper use of this product can cause serious or even fatal injury. Before operating a chain saw or other MAKITA products it is important that you read, fully understand and carefully follow the instructions outlined in this owners manual. Kickback may cause severe or fatal injury and is one of many potential dangers in operating a chain saw. Kickback and other safety related precautions are described in detail within this owners manual. Additional owners manuals are available from MAKITA U. Society of Automotive Engineers SAEJ 335-Jun 95 ,,Multiposition small engine exhaust system fire ignition suppression" With the purchase of this chain saw you have chosen a German quality product. Important instructions for the assembly and operation of this saw are given in this manual. For your own safety, we ask you to read the accident prevention instructions very carefully before putting your chain saw into operation, as incorrect handling can, despite all precautions, lead to accidents. With a little care and attention you will have good service and lasting satisfaction from this first-rate product.

The following industrial property rights apply: US 4465440, US 5411382, EP 0236858, EP 0560201, GBM 8710075, GBM 8809928, GBM 9203378, GBM 29616652. DCS430, DCS431, DCS520, DCS520i, DCS540, DCS5200, DCS5200i Contents Delivery inventory Symbols Safety precautions Denomination of components Technical data Approved bar and chain combinations Mounting the guide bar and saw chain Chain brake Fuel / Refuelling Adjusting the chain lubrication Starting the engine Stopping the engine Checking the chain brake Checking the chain lubrication Adjusting the carburetor Working in winter Page 4 4 5-16 17 18 18 19-20 20 21-22 22 23 23 24 24 24 25 Contents Page Sharpening the saw chain 25-26 Cleaning the guide bar 26 Cleaning the brake band and sprocket interior 27 Replacing the saw chain 27 Replacing the fuel filter 27 Replacing / cleaning the spark arrester screen 27 Cleaning the air filter 28 Replacing the spark plug 28 Replacing the starter cable 29 Replacing the return spring 29 Mounting the fan housing 29 Instructions for daily and periodic maintenance 30 Service, spare parts and guarantee 30-31 Troubleshooting 31 Extract from the spare parts list 32 Adress list 64 Chain saw Saw chain 7 6 5 Guide bar Chain protection cover Universal wrench Wrench Screw driver for carburetor adjustment (only in delivery for model DCS5200i, DCS5200) In case one of the parts listed should not be included in the delivery inventory, please consult your sales agent. Symbols You will notice the following symbols on the chain saw and in the Owner's and Safety Manual: Working in winter Safety precautions for chain saw operators While operating the chain saw please observe the following rules: a) Contact of the guide bar nose with any object should be avoided. B) Tip contact may cause the guide bar to move suddenly upward and backward, which may cause serious or fatal injury. The following additional safety precautions should be observed by all users of chain saws: 1. Do not operate a chain saw when you are fatigued. 2. Use safety footwear; snug-fitting clothing; protective gloves; and eye, hearing, and head protection devices. 3. Use caution when handling fuel.

Move the chain saw at least 10 feet (3 m) from the fueling point before starting the engine. 4. Do not allow other persons to be near the chain saw when starting or cutting with the chain saw. Keep bystanders and animals out of the work area. 5.

Do not start cutting until you have a clear work area, secure footing, and a planned retreat path from the falling tree. 6. Keep all parts of your body away from the saw chain when the engine is running. 7. Before you start the engine, make sure that the saw chain is not contacting anything.

8. Carry the chain saw with the engine stopped, the guide bar and saw chain to the rear, and the muffler away from your body. 9. Do not operate a chain saw that is damaged, is improperly adjusted, or is not completely and securely assembled. Be sure that the saw chain stops moving when the throttle control trigger is released. 10. Shut off the engine before setting it down. 11. Use extreme caution when cutting small size brush and saplings because slender material may catch the saw chain and be whipped toward y o u or pull you off balance. 12.

When cutting a limb that is under tension be alert for springback so that you will not be struck when the tension on the wood fibers is released. 13. Keep the handles dry, clean, and free of oil or fuel mixture. Do not operate a chain saw in a tree unless you have been specifically trained to do so. 16. All chain saw service, other than the items listed in the owner's manual maintenance instructions, should be performed by MAKITA . (For example, if improper tools are used to remove the flywheel or if an improper tool is used to hold the flywheel in order to remove the clutch structural damage to the flywheel could occur and could subsequently cause the flywheel to burst.) 17. When transporting your chain saw, use the chain protection cover. 18.
Low kickback bars and low kickback chains are designed to reduce the risk of kickback injury. Ask your MAKITA dealer about these devices. Read and follow all safety precautions in the owner's manual. Failure to follow instructions could result in serious injury. It is recommended to lend the chain saw only to people who are experienced in working with chain saws.
This chain saw is capable of severe kickback that could result in serious injury to the operator. Do not operate this chain saw unless you have extraordinary cutting needs and experience in and special training for dealing with kickback. Chain saws with significantly reduced kickback potential are available. wARNING! Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. This contact may abruptly stop the saw chain and in some cases may cause a lightning fast reverse reaction, kicking the guide bar up and back towards the user, or push the guide bar back towards the operator.
Kickback may cause you to lose control of the saw. As a chain saw user, you can take several steps to reduce the risk of a kickback and potential injury. a. With a basic understanding of kickback, you can reduce or eliminate the element of surprise. Keep a good firm grip on the saw with both hands, your right hand on the rear grip and your left hand on the tubular handle, when the engine is running. Use a firm grip with thumbs and fingers encircling the chain saw handles. A firm grip can neutralize kickback and help you maintain control of the saw. Make sure that the area in which you are cutting is free from obstructions. Do not let the nose of the guide bar contact the log, branch, or any other obstructions which could be hit while you are operating the saw. d.

Do not overreach or cut above shoulder height. e. Follow manufacturer's sharpening and maintenance instructions for the saw chain. The use of any chain saw may be hazardous. at full throttle chain speed can reach 45 mph (20 m/s). It is important that you read; fully understand and observe the following safety precautions and warnings. Read the owner's manual and the safety instructions periodically. Careless or improper use of any chain saw may cause serious or fatal injury. Have your MAKITA dealer show you how to operate your chain saw. observe all applicable local safety regulations , standards and ordinances. Always use two hands when operating the chain saw! Reduced Kickback Bar and Chain combination that has been evaluated with the power head to achieve kickback protection (according to ANSI and CSA standards). MaximumComputed Kickback Angle (CKA) with using the chain brake when using the recommended bar and chain combinations (In this example the CKA is 40°). It is not the angle of the guide bar moved upward in case of a KICKBACK. Minors should never be allowed to usee while cutting, shut off the engine and then tighten. Never try to tighten the chain while the engine is running! Wipe off any spilled fuel before starting your saw and check for leakage.*
Check for fuel leakage while refueling and during operation. If fuel or oil leakage is found, do not start or run the engine until leak is fixed and spilled fuel has been wiped away. Clothing with fuel on it has to be changed immediately (this is a danger to your life!). Avoid skin contact with fuel. Never loosen or remove the cap of the fuel tank while the engine is running.
Starting Do not drop start. This method is very dangerous be a tree or on any other insecure support. Never use the saw above shoulder height (fig. Position the chain saw in such a way that your body is clear of the cutting attachment whenever the engine is running (fig. 10). Don't put pressure on the saw when reaching the end of a cut. The pressure may cause the bar and rotating chain to pop out of the cut or kerf, go out of control and strike the operator or some other object. If the rotating chain strikes some other object a reactive force (see pages 11 to 13) may cause the chain to strike the operator. Reactive forces during the cut, including kickback WARNING! Reactive forces, that may occur during any cut are kickback, pushback and pull-in. reactive forces can be dangerous! In any chain saw, the powerful force used to cut wood can be reversed (and work against the operator).

If the rotating chain is suddenly stopped by contact with any solid object like a log or branch or is pinched, the reactive forces instantly occur. These reactive forces may result in loss of control which may, in turn, cause serious or fatal injury. An understanding of the causes of these reactive forces may help you avoid loss of control. The most common reactive forces are - kickback, - pushback, - pull-in. The type of bar and saw chain you use is a factor in the force of the kickback reaction. The speed of contact at which the cutter contacts the object. kickback force increase with the rate of impact. The contact angle between the nose of the bar and the foreign object (fig. The best protection from personal-injury that may result from kickback is to avoid kickback situations: 1. Hold the chain saw firmly with both hands and maintain a secure grip.
2. Be aware of the location of the guide bar nose at all times. 3. Never bring the nose of the guide bar in contact with any object. Do not cut limbs with the nose of the guide bar.
Be especially careful with small, tough limbs, small size brush and saplings which may easily catch the chain. A dull improperly sharpened chain may increase the risk of kickback. Always cut with a properly sharpened chain. Devices for reducing the risk of kickback injury MAKITA have developed a special chain brake to reduce the risk of kickbacks.

This chain brake increases the safety factor on the job, e.

g. When the saw suddenly bucks upwards the chain stops rotating within a fraction of a second. A deflection guard on the disengaging lever of the chain brake and a scoop rear handle ensure that the operator's hands are fully protected at all times. Kickback tendency increases as the radius or size of the guide bar nose increases. MAKITA have developed guide bars with small nose radius, to reduce the kickback tendency. These brakes are designed only to stop the chain, if activated. To ensure a proper operation of the chain brake, it must be properly maintained. Furthermore, there must be a sufficient distance between the operator and the bar to ensure that the chain brake has sufficient time to activate and stop the chain before potential contact with the operator. Don't cut above shoulder height. Use extreme caution when re-entering a previous cut.

9. Do not attempt plunge cuts (see page 14) if you are not experienced with these cutting techniques. 10. Be alert for shifting of the log or other forces that may cause the cut to close and pinch the chain. When felling, maintain a distance of at least 2 1/2 tree lengths from the nearest person (see fig. 17). Note: The noise of your engine may drown any warning call. If the tree has large buttress roots, cut into the largest buttresses vertically first (horizontally next) and remove (fig. First clear the tree base and work area from interfering limbs and brush and clean its lower portion an axe (see fig. Then, establish a path of escape and remove all obstacles.

This path should be opposite to the planned direction of the fall of the tree and at a 45° angle (fig. Place all tools and equipment a safe distance away from the tree, but not on the escape path. The felling notch when properly placed determines the direction in which the tree will fall. It is made perpendicular to the line of fall and should be as close to the ground as possible. Cut the felling notch to a depth of about one-fifth to one-fourth of the trunk diameter (fig. 22). It should be in no case higher than it is deep. Make the felling notch very carefully. Begin the felling cut slighty higher than the felling notch and on the opposite side of the tree (fig. 22).

Then cut horizontally through towards the felling notch. Apply the chain saw with its spikes directly behind the uncut portion of wood and cut toward the notch (fig. 23). Leave approximately 1/10 of the tree diameter uncut! Do not cut through the hinge because you could lose control of the direction of the fall. Drive wedges into the felling cut where necessary to control the direction of the fall. Wedges should be of wood, light alloy or plastic - never of steel, which can cause kickback and damage to the chain. Always keep to the side of the falling tree. When the tree starts to fall, shut off the engine, withdraw the bar and walk away on the pre-planned escape path. Watch out for falling limbs. wARNING! Be extremely careful with partially fallen trees which are poorly supported.

When the tree hangs or for some other reason does not fall completely, set the saw aside and pull the tree down with a cable winch, block and tackle or tractor. If you try to cut it down with your saw, you may be injured. Timber having a diameter more than twice the length of the guide bar reauires the use of the plunge-cut method before making the felling cut. First, cut a large, wide notch. Make a plunge cut in the center of the notch. The plunge cut is made with the guide bar nose. Begin the plunge cut by applying the lower portion of the guide bar nose to the tree at an angle (fig. 25). Cut until depth of the kerf is about the same as the width of the guide bar (fig. 26).

Next, align the saw in the direction With the saw at full throttle, insert the guide bar in the trunk (fig. Felling a tree that has a diameter greater than the length of the guide bar requires use of either the sectioning or plunge-cut method. These methods are extremely dangerous because they involve the use of the nose of the guide bar and can result in kickback. Only properly trained professionals should attempt these techniques. @@@@ avoid repositioning the saw more than necessary.

@@ if the saw begins to pinch , insert a wedge to open the cut. On the last cut, do not cut the hinge. There is an extreme danger of kickback at this point. Extra caution must be taken to maintain control of the saw. @@ 29).

@@There is an extreme danger of kickback during the limbing operation. Do not work with the nose of the bar. @@@@@@ 30). Always cut from the top of the limb. Do not underbuck freely hanging limbs. A pinch may result or the limb may fall, causing loss of control. @@@@Indicate when ordering spare parts! @@@@@@@@@@@@ 1-1991 (for USA) and CSA Z62. @@@@@@@@@@ always wear protective gloves! @@@@@@Pull off the sprocket guard (B/4). @@@@@@@@@@@@Press the guide bar against the housing with your left hand. @@@@@@While doing so the chain brake must be released.

Every new chain has to be broken in for about 2 to 3 minutes. When checking the chain tension the engine must be switched off. NOTE: Check the chain tension frequently - chains tend to get longer during use! If this is not done, there is a risk of the chain jumping off the bar. it is recommended to use 2-3 chains alternatively. In order to guarantee uniform wear of the guide bar the bar should be turned over whenever replacing the chain. L Engaging the chain brake (braking) If the kickback is strong enough the sudden acceleration of the guide bar combined with the inertia of the hand guard (L/3) will automatically actuate the chain brake. To engage the chain brake manually, simply push the hand guard (L/3) forward (towards the tip of the saw) with your left hand (arrow 1). Releasing the chain brake Pull the hand guard (L/3) towards you (arrow 2) until you feel it catch. The engine of the chain saw is a high-efficiency two-stroke engine. It runs on a mixture of gasoline and two-stroke engine oil.

The engine is designed for unleaded regular gasoline with a min. octane value of 91 ROZ. In case no such fuel is available, you can use fuel with a higher octane value. This will not affect the engine. In order to obtain an optimum engine output and to protect your health and the environment use unleaded fuel only.

Gasoline which contens alcohol should not used in MAKITA products. For lubricating the engine use a high-performance two-stroke engine oil (quality grade JASO FC or ISO EGD specifications), which is added to the fuel. The engine has been designed for use of MAKITA HP 100 high-performance two-stroke engine oil and a mixture ratio of only 100:1 to protect the environment. In addition, a long service life and reliable operation with a minimum emission of exhaust gases are ensured. MAKITA HP 100 high-performance two-stroke engine oil is available in the following sizes: 0.

5 l order number 980 008 609 MAKITA high-performance two-stroke engine oil is available in the following sizes to suit your individual requirements: 1l order number 980 008 607 100 ml order number 980 008 606 In case MAKITA high-performance two-stroke engine oil is not available, it is urgently recommended to use a mixture ratio of 40:1 with other two-stroke engine oils, as otherwise optimum operation of the engine cannot be guaranteed.

The correct mixture ratio: 50:1 when using MAKITA high-performance two-stroke engine oil, i. e. Mix 50 parts gasoline with 1 part oil. 100:1 when using MAKITA HP 100 high-performance two-stroke engine oil, i. e. Mix 100 parts gasoline with 1 part oil. 40:1 when using other two-stroke engine oils, i. e. Mix 40 parts gasoline with 1 part oil.

Use an oil with adhesive additive for lubricating the chain and guide bar. The adhesive additive prevents the oil from being flung off the chain too quickly. We recommend the use of chain oil which is bio-degradable in order to protect the environment. The use of bio-degradable oil may even be required by local regulations. The chain oil BIOTOP sold by MAKITA is made of special vegetable oils and is 100% bio-degradable. bIOTOP has been granted the "blue angel" (Blauer Umweltschutz-Engel) for being particularly environment-friendly (RAL UZ 48). BIOTOP chain oil is available in the following sizes: 1l 5l order number 980 008 610 order number 980 008 611 Bio-degradable oil is stable only for a limited period of time. @@@@@@@@Utmost care is required when handling with fuel. @@Fill the tank only outside or ventilated rooms. Do not inhale vapors, avoid any fuel contact with your skin. @@@@@@@@@@Fuel cannot be stored for an unlimited period of time. Buy only as much as will be consumed in 4 weeks. Waste oil is very dangerous for the environment. waste oil contains high amounts of carcinogenic substances. @@In case of damage caused by using waste oil or unappropriate chain oil the product guarantee will be null and void.
Your salesman will inform you about the use of chain oil. Mineral oil products degrease your skin. If your skin comes in contact with these substances repeatedly and for an extended period of time, it will desiccate. Various skin deseases may result. in addition , allergic reactions are known to occur. Eyes can be irritated by contact with oil. If oil comes into your eyes, immediately wash them with clear water. If your eyes are still irritated, see a doctor immediately! Be careful and cautious when handling fuels. the engine must be switched off! Thoroughly clean the area around the caps, to prevent dirt from getting into the fuel or oil tank. Unscrew the cap and fill the tank with fuel (fuel/oil mixture) or chain oil as the case may be. Fill up to the bottom edge of the filler neck. Lubricating the chain During operation there must always be sufficient chain oil in the chain-oil tank to provide good chain lubrication. one filling is sufficient for about one half-hour of continuous operation. While working make sure there is enough chain oil in the tank. After refuelling, clean screw cap, tank and check for lekages.

You can adjust the oil pump feed rate with the adjusting screw (F/1). The adjusting screw is located in the housing underneath the sprocket guard (F/2). it is accessible from below. The oil pump comes factory-set to a medium feed rate. Note: To set from minimum to maximum oil supply, turn the adjusting screw (F/1 with adjustment markings) max. To ensure troublefree operation of the oil pump the oil guide groove at the crank case (G/3) and the oil inlet bore in the guide bar (G/4) must be cleaned regularly. To change the feed quantity use the universal wrench and adjust the adjusting screw (F/1) in the following way: - Turn to the right to reduce the feed rate. - Turn to the left to increase the feed rate. Note: After the saw has been turned off it is normal for residual chain oil to drip from the oil feed system, the guide bar and the chain for a time. This does not constitute a defect! Starting the engine Move at least 10 feet (3 m) away from the place where you fuelled the saw.
Make sure you have a good footing, and place the saw on the ground in such a way that the chain is not touching anything. engage the chain brake (lock). Hold the tubular handle tightly with one hand and press the chain saw to the ground. The carburetors of these saws have a fuel-injection system (injection carburetor) for cold starting (mixture enrichment). These two cold-starting systems work differently.
Release the throttle - it will now be held at half-throttle by the lock button. note: If the temperature is below -15° C (5° F) start at full throttle. - Slowly pull out the starter cable until you notice resistance (the piston is positioned before the top dead center). - Now pull the starter cable with a fast and forceful movement until you hear the first ignition. CAUTION: Do not pull out the starter cable more than approx.
50 cm, and lead it back by hand. - Push in the choke (B/2) when the engine starts, or after the first audible ignitions. - If the engine has not yet started, keep pulling the starter cable until it does. - As soon as the engine is running, press the throttle (B/4) to release the half-throttle lock (B/3), allowing the engine to idle. CAUTION: As soon as the engine is started it must be put in idle to prevent the chain brake from being damaged. The carburetors of these saws have a choke valve for cold starting (mixture enrichment). To make it easier to start, the chain saw DCS431 is equipped with a semi-automatic decompression valve (B/5). Pushing this valve in reduces the amount of compression effort needed, so that it is easier to bring the engine up to starting speed when pulling the starter cable. The high pressure increase in the combustion chamber that results from the first ignitions will automatically close the decompression valve (button pops back out). Model DCS430, DCS520 and DCS5200 do not have a decompression valve.

Starting and carburetor adjustment are as for model DCS 431 except without the instruction "Push the decompression valve". Release the throttle - it will now be held at half-throttle by the lock button. - Push the decompression valve (B/5) (only DCS431). - Slowly pull out the starter cable until you notice resistance (the piston is positioned before the top dead center). - Now pull the starter cable with a fast and forceful movement until you hear the first ignition. CAUTION: Do not pull out the starter cable more than approx. 50 cm, and lead it back by hand. - When you hear the first ignition, push the choke (B/2) in. Push the decompression valve again (only DCS431) and pull the starter cable. As soon as the engine is running, press the throttle (B/4) to release the half-throttle lock (B/3), allowing the engine to idle.
CAUTION: As soon as the engine is started it must be put in idle to prevent the chain brake from being damaged. As described above for cold starting, but without using the choke (B/2). Starting under special conditions (MAKITA DCS520i and DCS5200i only): In conditions of high ambient temperature and when the engine has been stopped for only a short period following full-load operation, if a fuel with a low boiling point is used (winter fuel), and at high altitudes especially, the heat could prevent the engine from starting immediately. If this happens, proceed as follows: - Pull out the choke (B/2) and start the engine at half-throttle, as described for cold starting.

- When the engine has started, release the chain brake immediately and gun the engine all the way several times until it runs smoothly.
If the engine refuses to start even after a number of tries, check the spark plug (see the section on "Replacing the spark plug"). Do not work with the chain saw without first checking the chain brake! - Start the engine as described (make sure you have a good footing, and place the chain saw on the ground in such a way that the guide bar is free of contact). - Grasp the tubular handle firmly with one hand and hold the grip with the other. - With the engine running at moderate speed, press the hand guard (C/1) in the direction of the arrow with the back of your hand until the chain brake engages. the chain should stop immediately.
- Immediately release the throttle and release the chain brake. IMPORTANT: If the chain does not stop immediately when you test the chain brake, do NOT use the chain saw. Take the chain saw to a MAKITA service center for repair. Working in winter In order to prevent carburetor icing in conditions of low temperature combined with high humidity, and in order to get up to operating temperature faster in subfreezing temperatures, heated air can be taken from the cylinder. At temperatures above freezing the carburetor must NOT be fed heated air. Failure to follow these instructions can lead to damage to the cylinder and piston! - To enable hot-air induction from the cylinder, remove the plug (A/1) using the universal wrench. nOTE: Keep the plug in the saw's tool kit. You must put the plug back in at temperatures above 0° C / 32° F. CAUTION: Before doing any work on the guide bar or chain, always switch off the engine and pull the plug cap off the spark plug (see "Replacing the spark plug"). Proper sharpening: CAUTION: Use only chains and guide bars designed for this saw (see the Extract from the spare-parts list)! The chain needs sharpening when: - The sawdust produced when sawing damp wood looks like wood flour.

- The chain penetrates the wood only under great pressure. - The cutting edge is visibly damaged. - The saw is pulled to the left or right when sawing. this is caused by uneven sharpening of the chain. Important: Sharpen frequently, but without removing too much metal! generally , 2 or 3 strokes of the file will be enough. Have the chain resharpened at a service center when you have already sharpened it yourself several times. Cutters with different lengths result in rough running of the chain and can cause cracks in the chain. Do not resharpen the chain when the minimum cutter length has been reached; at this point, the chain must be replaced (see the Extract from the spare-parts list and "Replacing the saw chain"). The depth of the cut is determined by the difference in height between the depth limiter (round nose) and the cutting edge. The best results are obtained with a depth-limiter depth of .
Different angles result in a roughly, irregularly running chain, increase wear and tear and cause chain beakage. The front rake of the cutter results from the cut depth of the round file. If the proper file is used in the right manner, the correct front rake will be obtained automatically. Regularly inspect the bearing surfaces of the guide bar for damage, and clean them with a suitable tool. Use only chains and guide bars designed for this saw (see the Extract from the spare-parts list and page 18)! CAUTION: Before doing any work on the guide bar or chain, always switch off the engine and pull the plug cap off the spark plug (see "Replacing the spark plug").
always wear protective gloves! @@- Turn the chain tightener screw (A/2) to the left (counterclockwise) until you feel resistance. - Remove the chain (A/3) and guide bar (A/4). - Clean the interior with a brush, in particular the brake-band area (A/5). NOTE: Make sure that no residue or contaminants remain in the oil guide groove (A/6) and the chain tightener (A/7). - For replacing the guide bar , chain , and sprocket see "PUTTING INTO OPERATION".
NOTE: The chain brake is a very important safety device and like any other component subject to normal wear and tear. Regular inspection and maintenance are important for your own safety and must be done by a MAKITA service center. Check the sprocket (B/1) before mounting a new chain. the sprocket is located underneath the clutch drum (B/2). CAUTION: Worn out sprockets (C) may damage the new chain and must therefore be replaced. If the wear marks on the teeth are very pronounced (about 0,5 mm /0. Sprocket replacement requires special training and tools and must be done at a MAKITA service center. The spark arrester screen should be checked and cleaned regularly. The two long screws must be tigthed with a torque of 6,3 ft. The felt filter (D/1) of the fuel filter can become clogged.

It is recommended to replace the fuel filter once every three months in order to ensure unimpeded fuel flow to the carburetor. To remove the fuel filter for replacement, pull it out through the tank filler neck using a piece of wire bent at one end to form a hook. Clean the air filter and prefilter with a soft brush. If the filter is very dirty, clean it in lukewarm water with dishwashing detergent. let the air filter dry completely. Put the top and bottom sections back together. Before reinstalling the air filter, check the intake opening and remove any dirt particles. If there are any, remove them with a brush. Loosen the screw on the prefilter cover (F/3) and remove. IMPORTANT: Cover the intake opening with a clean cloth to prevent dirt particles from getting into the carburetor.
Pry apart the top and bottom of the air filter as shown in Figure G. Clean frequently (several times a day) when working in very dusty or dirty conditions. Full engine power is possible only with a clean air filter and prefilter! cAUTION: If the air filter or prefilter becomes damaged , replace immediately! Pieces of cloth or large dirt particles can destroy the engine! CAUTION: To prevent injury to the eyes, do NOT blow out dirt particles! Do not use fuel to clean the air filter and prefilter. CAUTION: Do not touch the spark plug or plug cap if the engine is running (high voltage). Switch off the engine before starting any maintenance work.
The spark plug must be replaced in case of damage to the insulator, electrode erosion (burn) or if the electrodes are very dirty or oily. Use only the combination wrench supplied with the saw to remove the spark plug. CAUTION: Use only the following spark plugs: BOSCH WSR 6F or NGK BPMR 7A. Checking the ignition spark - Press the loosened spark plug with the ignition cable firmly connected against the cylinder using insulated pliers (not near the spark plug opening). If the function is correct, an ignition spark must be visible near the electrodes.
Pull knot (B/1) into the cable pulley (B/3). Pull knot (B/2) into the cable grip (B/4). wind the cable around the pulley in the direction shown by the arrow. Pull the cable out from the pulley by the grip, then hold the pulley firmly and wrap the cable around it another three times.

NOTE: With the cable pulled all the way out, it must still be possible to turn the pulley another 1/4 turn against the return spring. Unscrew screws (C/4) and carefully remove spring housing (C/5) with spring. If the spring is broken it may pop out! NOTE: The old spring and spring housing should be recycled. Replacement springs come already installed in a new spring housing. Before installing, grease the spring lightly with multi-purpose grease, order No. When putting the cable pulley back on, turn it slightly until you feel it catch.

Push the tab (D/1) extending out from the edge of the fan housing (D/3) under the hood (D/2). position the screw holes. @@@@@@@@Perform the following servicing work daily after use. Make a habit of it, it does not require much time and your saw will always function properly. Possibly hidden faults can be detected in this manner before causing expensive and annoying interruptions of your work. In case you should detect a fault in the safety equipment when performing daily servicing, the saw must not be used before elimination of the fault. The user of the chain saw must not perform maintenance work which is not described in the instruction manual. All such work must be carried out by a MAKITA service center. @@@@@@@@We therefore recommend that you consult a MAKITA service center for all work not described in this instruction manual. The MAKITA service centers have all the necessary equipment and skilled and experienced personnel, who can work out costeffective solutions and advise you in all matters.
Please contact the general agent or importer indicated on the back cover of this Instruction Manual, who will gladly provide you with the address of your nearest MAKITA service center. Reliable long-term operation, as well as the safety of your chain saw, depend among other things on the quality of the spare parts used. Use only original MAKITA parts, marked Only original spare parts and accessories guarantee the highest quality in material, dimensions, function and safety. Original spare parts and accessories can be obtained from your local dealer. He will also have the spare part lists to determine the required spare part numbers, and will be constantly informed about the latest improvements and spare part innovations.
Please bear in mind that if parts other than original MAKITA spare parts are used, this will automatically invalidate the MAKITA product guarantee. MAKITA guarantees the highest quality and will therefore reimburse all costs for repair by replacement of damaged parts resulting from material or production faults occurring within the guarantee period after purchase. Please note that in some countries particular guarantee conditions may exist. If you have any questions, please contact your salesman, who is responsible for the guarantee of the product. Please note that we cannot accept any responsibility for damage caused by: · Use of guide bars and chains which have not been approved.
Use of guide bar and chain lengths which have not been approved. Use of force, improper use, misuse or accidents. Work on the chain saw by unskilled persons or inappropriate repairs. Use of unsuitable spare parts or parts which are not original MAKITA parts, insofar as they have caused the damage. Use of unsuitable or old oil. Cleaning, servicing and adjustment work is not covered by the guarantee. All repairs covered by the guarantee must be performed by a MAKITA service center. Malfunction Chain does not run Engine does not start or only with difficulty System Chain brake Ignition system Observation Engine runs Ignition spark No ignition spark Fuel supply Compression system Fuel tank is filled Inside Cause Chain brake actuated. Choke in wrong position, carburetor defective, fuel filter dirty, fuel line bent or interrupted. Cylinder base packing ring defective, radial shaft packings defective, cylinder or piston rings defective Spark plug does not seal.

Spring in starter broken, broken parts inside the engine. Outside Starter does not engage Engine starts, but dies immediately Air filter or prefilter dirty, wrong carburetor adjustment, muffler clogged, exhaust channel in cylinder clogged, spark arrester screen clogged. Several systems may be involved simultaneously Oil tank/pump Gasket Carburetor screwdriver (only in delivery for model DCS5200i, DCS5200) Offset screwdriver Starter cable Return spring with housing Prefilter Plug Screw Deflector plate Spark arrester screen Fillister head screw Spring washer Panne Chaîne ne démarre pas Moteur ne démarre pas ou démarre difficilement Système Frein de chaîne Système d'allumage Observation Moteur tourne Allumage existe Pas d'allumage Alimentation carburant Système de compression Défaut mécanique Problèmes de démarrage à chaud Moteur démarre, mais s'arrête immédiatement après Carburateur Alimentation carburant Réservoir carburant rempli A l'intérieur de l'appareil A l'extérieur de l'appareil Lanceur n'accroche pas Carburant dans réservoir Etincelle existante Carburant dans réservoir Origine Frein de chaîne enclenché Défaut dans l'alimentation du carburant, système de compression, défaut mécanique Commutateur STOP enclenché, défaut ou court-circuit dans le câblage, fiche de bougie, bougie défectueuse Choke en mauvaise position, carburateur défectueux, crépine d'aspiration bouchée, conduite de carburant sectionnée ou coincée Joint du pied de cylindre défectueux, bagues à lèvres endommagées, segments de cylindre ou de pistons endommagés Bougie n'est pas étanche Ressort dans le démarreur brisé, pièces brisées à l'intérieur du moteur Réglage du carburateur non correct Réglage du ralenti non correct, crépine d'aspiration ou carburateur encrassé Aération réservoir défectueux, conduite carburant interrompue, câble défectueux, commutateur STOP endommagé Soupape de mise en marche encrassée (DCS 431) Filtre à air ou préfiltre encrassé, faux réglage du carburateur, silencieux bouché, tuyau d'échappement des gaz dans le cylindre est bouché, pare-étincelles bouché. .