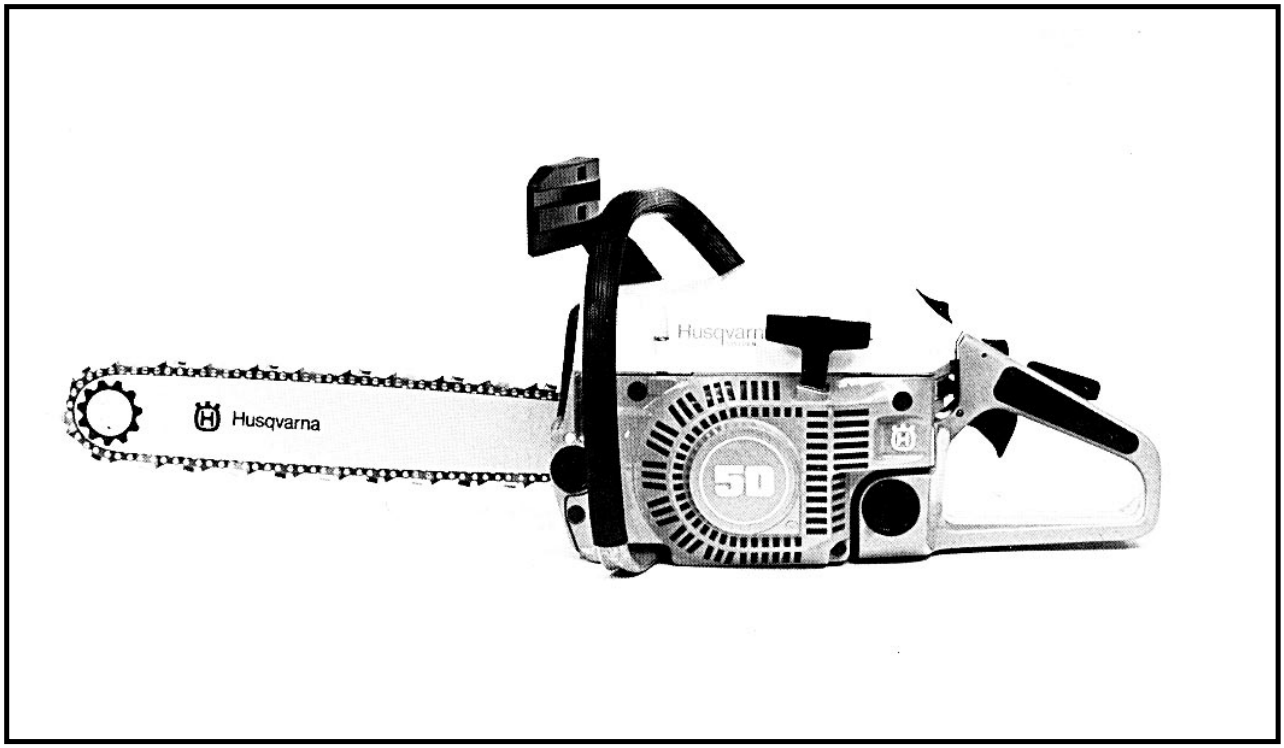
Husqvarna



Chain saw

50 Rancher

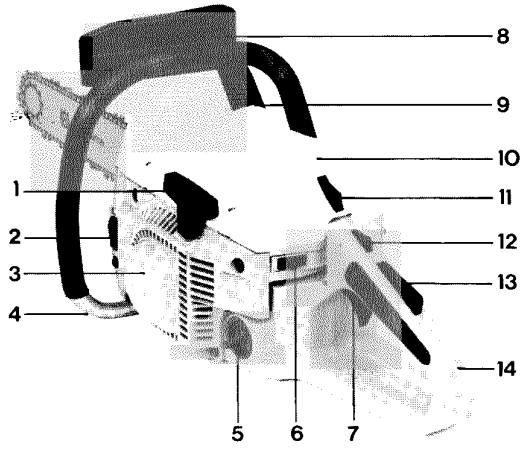
TECHNICAL SPECIFICATION

Displacement . . . . 48.7 cm^3
Bore . . . . . 44 mm
Stroke . . . . . 32 mm
Ignition advance . . . . . 26° before t.d.c. at 8400 rpm
Sparking Plug . . . . Champion CJ 7Y
Electrode gap . . . . 0.5 mm
Carburettor . . . . . Diaphragm type

Fuel tank capacity . . . .0.6 l
Oil tank capacity . . . . . 0.3 l
Sawing chain. . . . . .325" pitch
Guide Bar . . . . . 15" (38 cm)
Weight empty, incl. 38 cm
guide bar , chain
and chain brake . . . . . 6.0 kg

Owner's maintenance manual

WHAT IS WHAT ON THE CHAIN SAW?

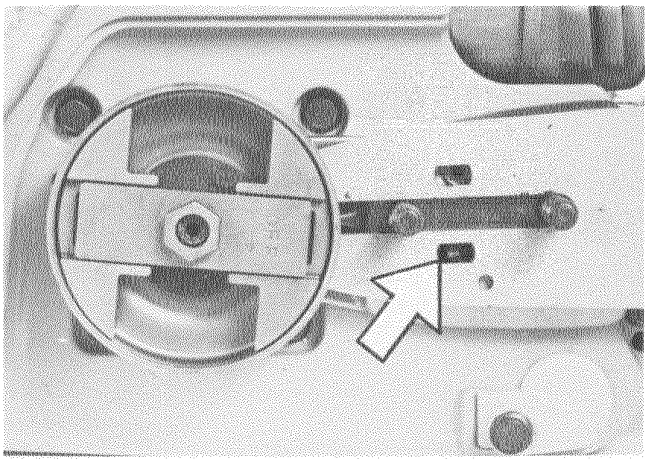


1. Starter handle
2. Oil filler cap
3. Starter
4. Front handle
5. Fuel filler cap
6. Ignition switch
7. Throttle trigger
8. Front hand guard
9. Automatic chain brake
10. Cylinder cover
11. Choke
12. Throttle latch
13. Throttle trigger lockout
14. Rear handle

ASSEMBLING GUIDE BAR AND CHAIN

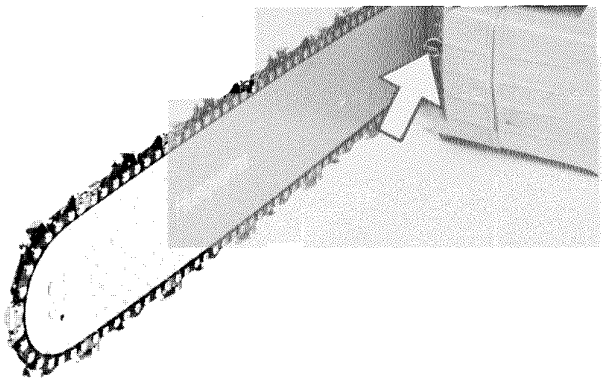
A. Undo the guide bar nuts and remove the clutch cover and transport packing piece.

B. Place the guide bar into its rearmost position. Make sure that the chain tensioning stud is properly in the hole in the guide bar.



C. Fit the chain around the drive sprocket and in the groove of the bar. Start on the upper side of the guide bar.
Make sure that the cutting edges of the sawing teeth along the top of the guide bar are facing towards the tip. Also check that the drive links go down properly into the drive sprocket.

D. Tension the chain so that it does not sag along the bottom of the guide bar. Check that the chain and guide bar fit properly.
Fit the clutch cover and tighten the nuts fingertight only.
Pull the chain a few turns around by hand and check that it can move freely.



E. Tension the chain while holding up the bar tip. Do not tension the chain stronger than it can be pulled around by hand.
Tighten the guide bar nuts.
NOTE!
Do not forget to "run in" the chain and guide bar. Please see the chain manufacturer's recommendation.

Check the chain tension frequently for optimal performance and durability

FUEL AND OIL

The power plant of this chain saw is a twostroke engine, that is run on a petrol- and oil mixture of certain proportions acc. to the table.

Do not use but a twostroke oil of high quality, e.g. Husqvarna Twostoke Oil, that is specially developed for chain saws.

NOTE!
No extra oil is needed in the petrol during the running-in period of the chain saw.
For lubricating the chain and guide bar we recommend a chain lubricating oil with good adhesive properties.
During the wintertime at air temperatures below 0°C (32°F) some types of chain lubricating oils become viscous. This can cause overloading of the oil pump, which can result in damage of the pump drive and pump parts. Under cold weather conditions it is therefore necessary to use a "wintergrade" oil which stays fluent. Concerning the choice of oil and its suitability at different air temperatures, please refer to your Husqvarna dealer.

NOTE!
On no account waste oil should be used as this can damage the oil pump.

Always top up with fuel and chain lubricant at the same time

OIL MIXTURE:

Husqvarna Twostroke Oil	1:50 (2 %)
Ordinary twostroke oil	1:25 (4 %)
Pre-mixed oil	1:20 (5 %)

Mixing table		2 %			4 %			5 %		
Litres of oil	Pints of oil	Litres of petrol	Petrol in Imp. gallon	Petrol in US gallon	Litres of petrol	Petrol in Imp. gallon	Petrol in US gallon	Litres of petrol	Petrol in Imp. gallon	Petrol in US gallon
0,2	0,35	10	2,2	2,6	5	1,1	1,3	4	0,8	1,0
0,4	0,70	20	4,4	5,2	10	2,2	2,6	8	1,7	2,1
1,0	1,76	50	11,0	13,2	25	5,5	6,6	20	4,4	5,2

MAINTAINING THE CHAIN BRAKE

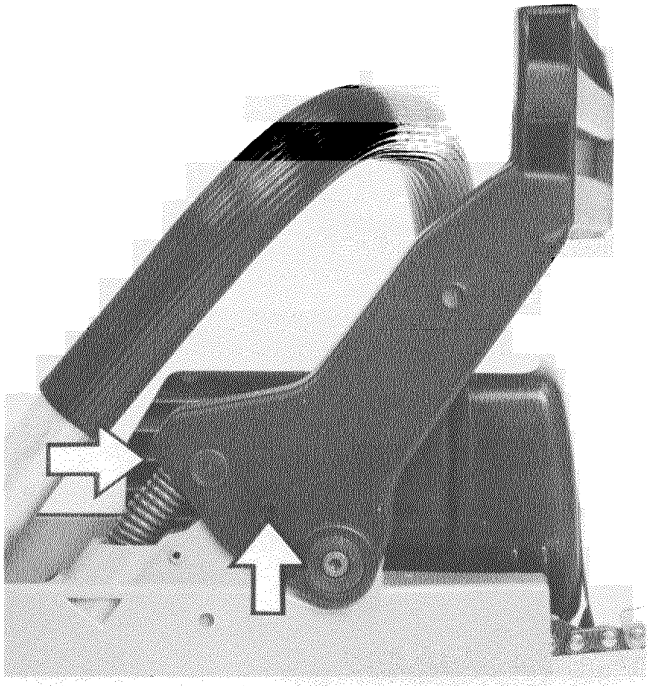
This chain saw is equipped with a new type of automatic chain brake that has been adjusted at the factory. It will need no further adjustment.

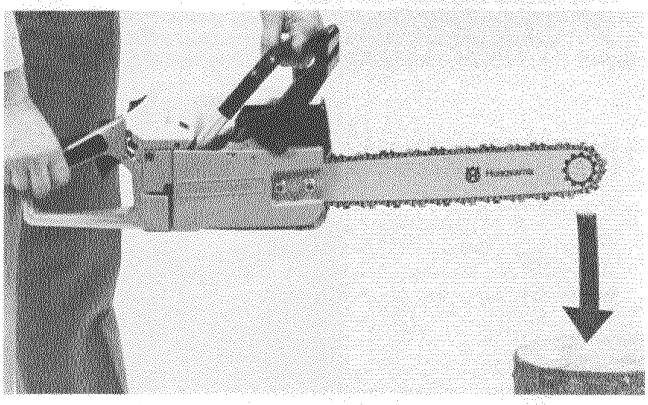
Release the chain brake as soon as you move or cease working even if it is for a short break. Push the front hand guard to release the brake.

During the break:
Check that the brake mechanism works smoothly.

If not, remove resin and sawdust. Check that supports and sliding surfaces are lubricated with grease or temperature-resistant engine oil.

Apply full throttle and release the chain brake. The chain should immediately stop rotating.





Use the following procedure to check that the automatic chain brake actuates correctly;

Hold the chain saw horizontally abt 20 cm over a trunk. NOTE! Switch off the engine! Release your grip on the front handle. As the saw by force of its own weight swings around the rear handle and the guide bar tip hits the trunk, the brake should actuate.

At the service workshop:
Check that the brake mechanism and the brake band are free from sawdust and dirt.

Check the wear of the brake band. In unbraked position it must not touch the clutch drum.

Check the wear of the chain brake mechanism.

Check that the front hand guard is not damaged.

Lubricate the supports and gliding surfaces of the front hand guard with grease or temperature-resistant engine oil.

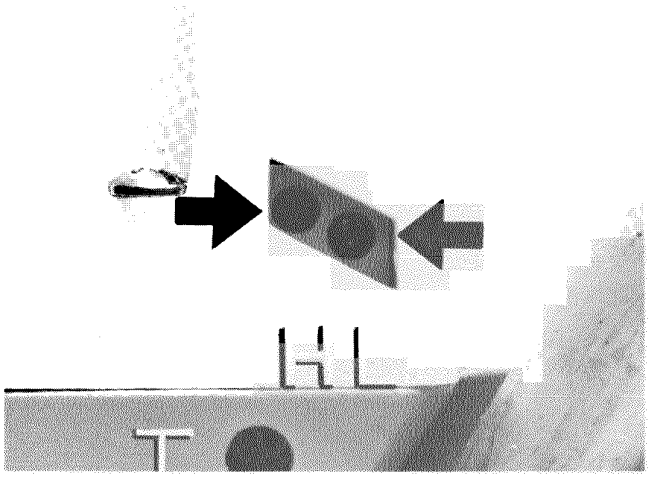
ADJUSTING THE CARBURETTOR

The carburettor has three adjusting screws:

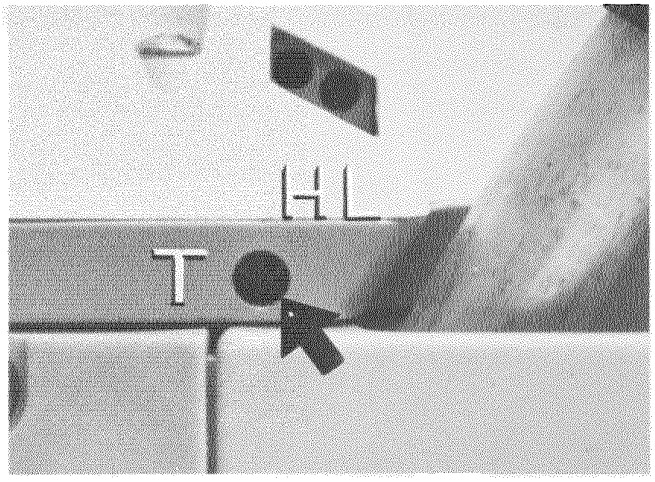
L = Low speed needle
H = High speed needle
T = Throttle adjusting screw

The carburettor is adjusted as follows:

1. Clean the air filter.
2. Screw the needles H and L carefully right in.
3. Then screw the needles out to recommended basic position:
   H = 1 turn out
   L = 1 turn out



4. Start the engine and warm it up. Adjust the idling speed by means of the throttle adjusting screw so that the chain starts rotating.
5. Adjust the low speed needle to reach the highest speed at which the engine is still idling. Then screw the needle out equivalent to 10 minutes on a clock-face.

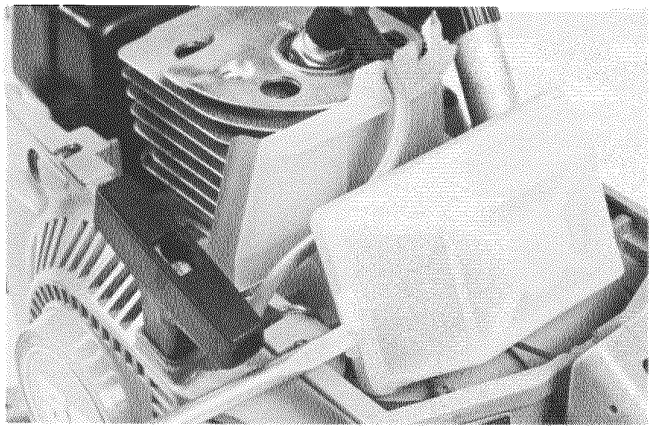


6. Again adjust the idling speed by means of the throttle screw (see under 4 above) so that a speed of approx 2,500 r/min is received.
7. Apply full throttle. At correct adjustment of the high speed needle, the engine should be fourstroking.
   If this is not the case screw out the needle to reach a distinct fourstroke.
   Engine speed: Maximum 12,500 r/min.

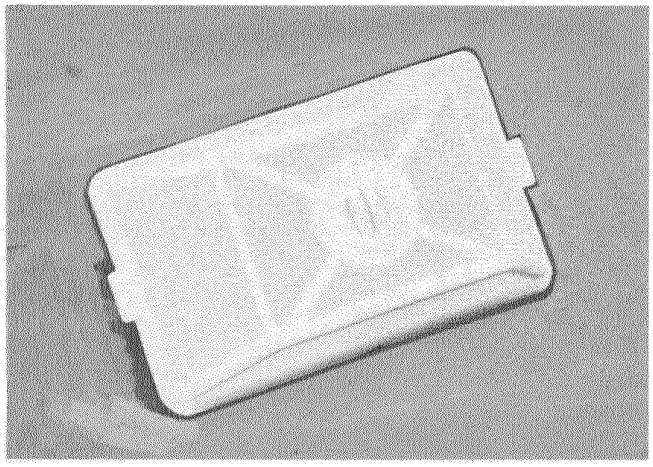
NOTE!

Should the engine not be fourstroking, there is a risk of piston seizure.
Adjust the high speed needle for maximum power and not for maximum speed!

CLEANING THE AIR FILTER

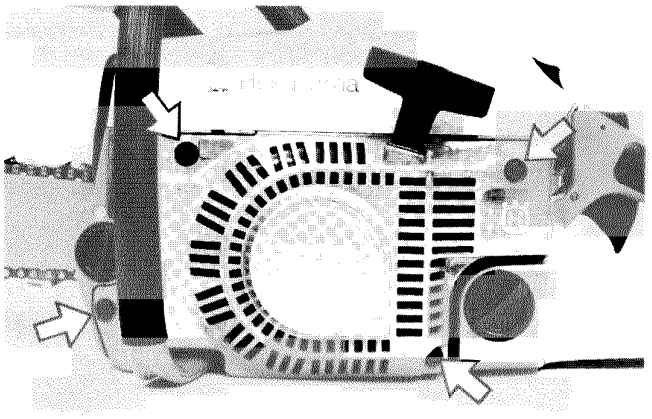


In order to get at the air filter, remove the cylinder cover by undoing the three retaining screws and lifting the cover off upwards–backwards.
Lift off the filter carefully to prevent dirt from falling down into the carburettor.

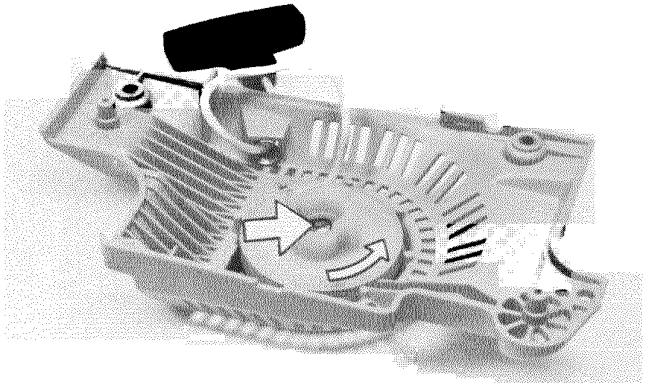


Rinse the filter in warm soap suds.
Do not rinse in fuel. Reassemble the filter and make sure that it lies close to the carburettor. Use two filters alternately. Clean the filter daily.

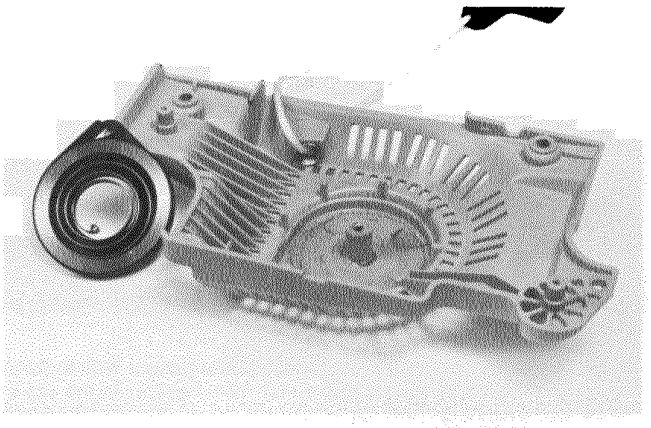
CHANGING STARTER CORD AND RETURN SPRING



Loosen the four screws that retain the starter.
Remove the starter.



Pull out the cord approx. 30 cm and lift up into the notch in the periphery of the pulley. Zero-set the return spring by letting the pulley rotate slowly backwards. Undo the screw in the centre of the pulley. If necessary, remove the return spring and change it.

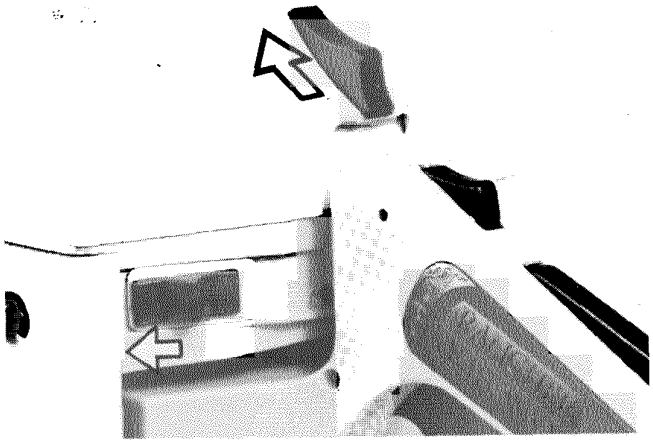


Lubricate the new spring with engine oil.
Assemble the remaining parts in reverse order of removal.
Lift up the starter cord into the notch on the pulley. Tension the return spring by turning the pulley clockwise about two turns.

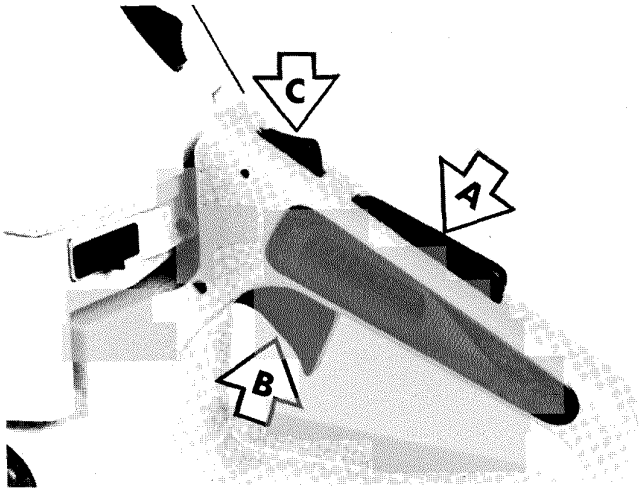
NOTE!
Make sure that it is possible to turn the pulley at least half a turn further when the cord is pulled out completely.

STARTING THE CHAIN SAW

Cold engine



1. Switch on the ignition (push the ignition switch to the left so that the 1 is visible).
2. Push up the choke control.



3. Push down the throttle trigger lockout (A).
4. Open the throttle fully (B).
5. Push down the throttle latch (C).

Now all controls are in starting position and the chain saw is ready to be started.

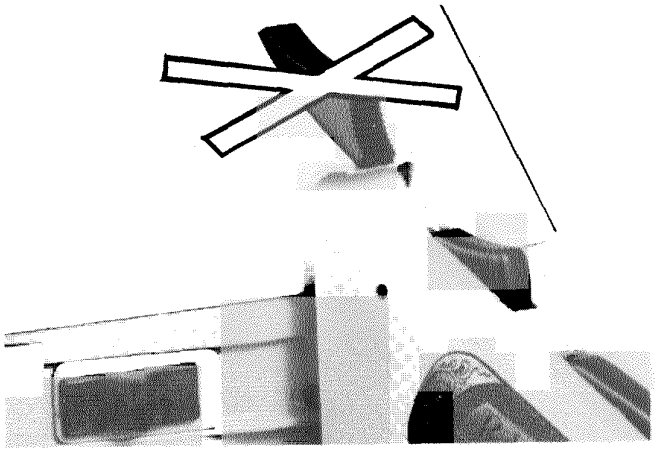
6. Put your right foot on the plate under the rear handle.
7. Grasp the front handle with your left hand and press the saw against the ground.
8. Grasp the starter handle with your right hand and pull out the starting cord slowly until the starter pawls engage.
9. Give the starting cord a sharp tug.

NOTE!
Do not pull out the starting cord entirely or release the starter handle in pulled out position, as this can cause damages on the chain saw.

10. Normally the engine will start after 2–3 starting attempts. Push down the choke control as soon the engine starts.
    Open rapidly the throttle wide and the latch will disengage.

Warm engine

Use the same starting procedure as for cold engine but without using the choke.



NOTE!
One of the most common causes of starting difficulties is that too many starting attempts have been made with a closed choke flap. If this is the case, remove the spark plug and wipe it dry. Open the choke flap fully.

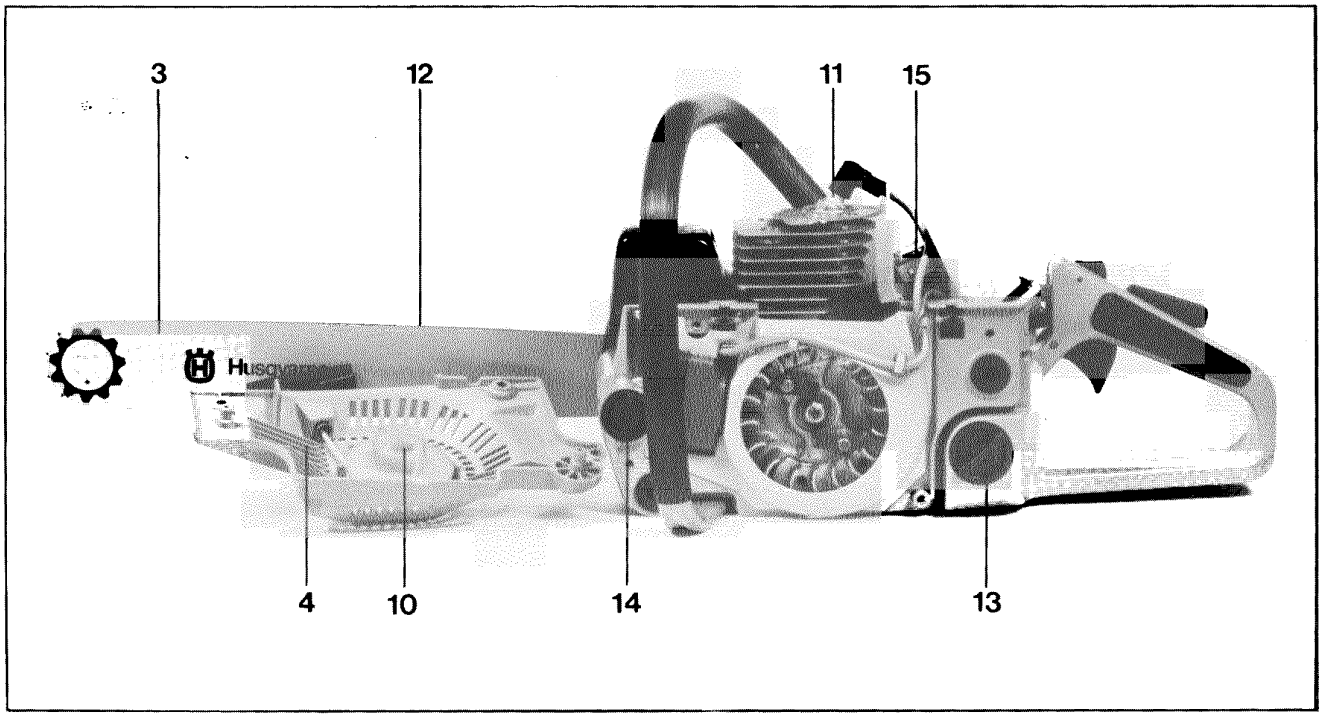
Before you reassemble the spark plug, pull the starter handle several times to "ventilate the cylinder", the ignition switch in 0-position.

Fit the spark plug and make a new starting attempt with open choke flap and full throttle.

CAUTION!

Guide bar, chain and clutch cover must be fitted before the engine is started, otherwise the clutch may come loose and cause injuries.

MAINTENANCE OF THE CHAIN SAW



Daily maintenance

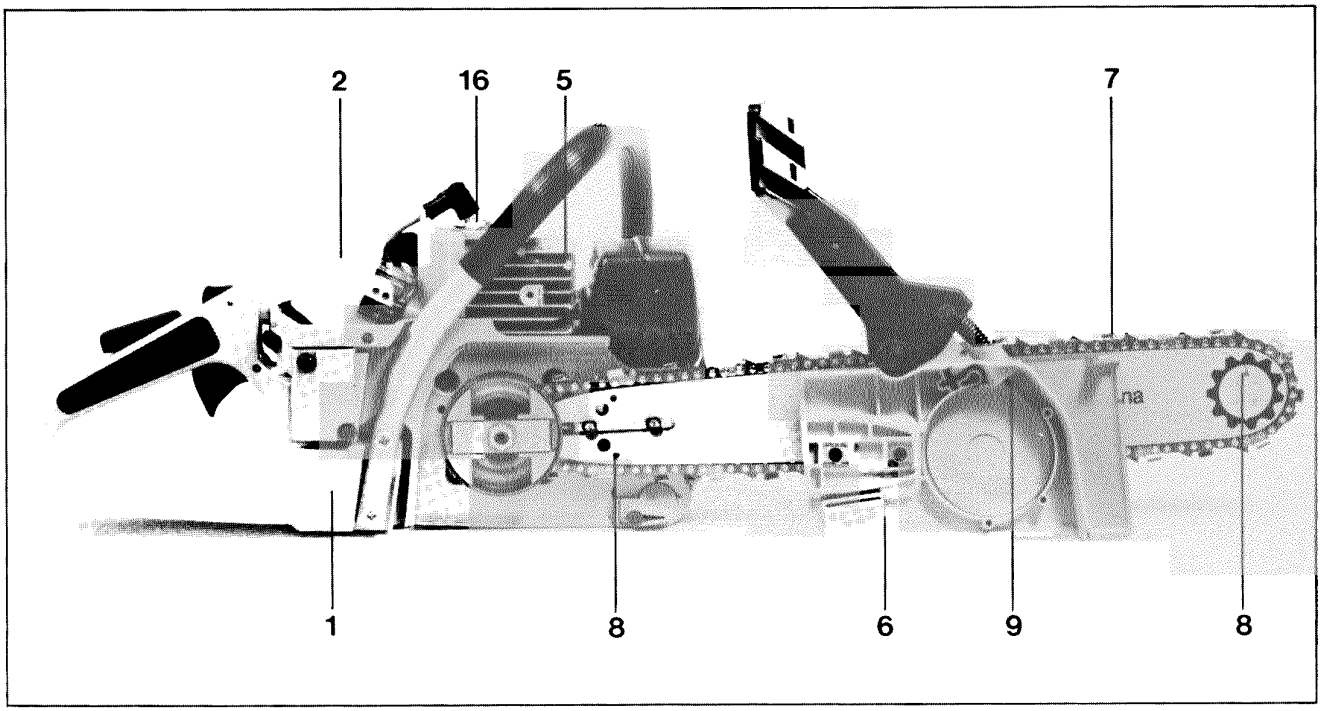
1. Clean the saw body from the outside.
2. Clean the air filter. Change if necessary.
3. Turn around the guide bar, lower edge up. Clean the bar groove.
4. Clean the air intakes in the starter cover.
5. Clean the cooling fins on the cylinder.
6. Clean the space under the clutch cover.
7. Sharpen the chain and check its tension.
8. Check the oiling system for the chain and the guide bar.
9. Clean the chain brake. Make it a habit to release the chain brake during pauses and transports.

Weekly maintenance

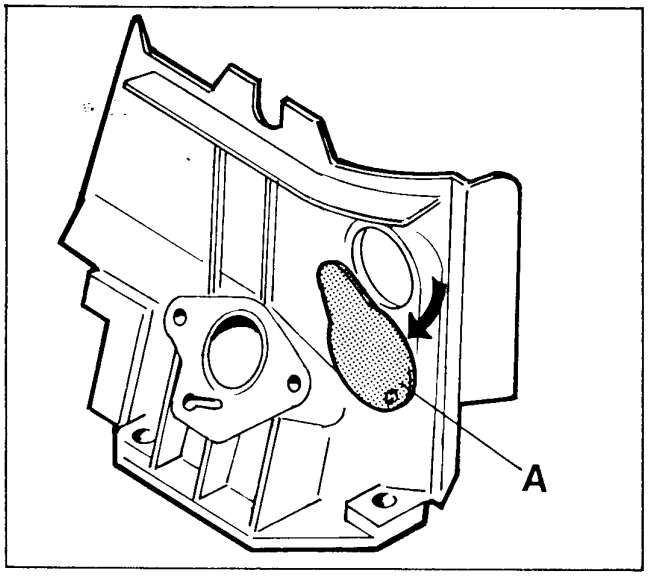
10. Check the starter, its cord and return spring.
11. Clean the spark plug from the outside and check the gap. Adjust the gap or change the plug if necessary.
12. File off burrs if any on the sides of the guide bar.

Monthly maintenance

13. Wash out the fuel tank with petrol.
14. Wash out the oil tank with petrol.
15. Clean the carburettor.
16. Clean the spark plug.



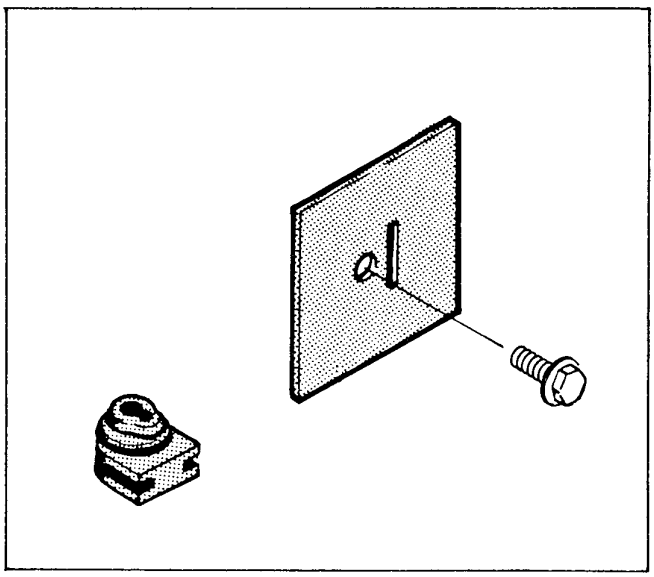
WINTER USE



In winter, extreme cold and powdery snow can cause running problems.

The partition wall is prepared for cold working conditions. In the partition wall there is a hole, that is covered by a lid (A) when operating at normal temperatures.
In case of extreme cold, this lid shall be removed so that heated air from the cylinder can flow into the carburettor space and prevent the air filter from being iced up.

NOTE!
Under normal temperature conditions the lid has to be closed. Otherwise there is a certain risk of overheating the chain saw.



Winter kit

For operating under winter conditions there is a special winter kit available. This kit contains a rubber seal for mounting around the fuel hose and a cover plate which has to be mounted on the right side of the cylinder.

NOTE!
Under normal temperature conditions the rubber seal and the cover plate have to be removed. Otherwise the engine will be overheated.

SAFETY REMINDERS

Handling

1. When transporting the saw, fit the chain protection.
2. Do not smoke when filling the fuel tank.
3. Before cutting, fix the barking support properly.
4. When using the saw, keep both hands on the handles.
5. Nobody is allowed to be within the swing area of the saw.
6. Always stop the engine before checking and adjusting the chain tension or exchanging the chain.

Procedure

1. When felling, always step aside from the falling tree and watch out for falling branches.
2. When cutting split wood, look out for ejecting wood pieces.
3. When bucking a felled tree on sloping ground, always stand above the tree.
4. Be calm and collected when working; eliminate the risk of injury to other persons.

Personal safety equipment

1. To protect the hearing organ, wear protective wad, plugs or ear caps.
2. When cutting, wear gloves of chrome leather.
3. When felling, wear a protective helmet.
4. Wear suitable clothes which do not hinder your work.

Printed in Sweden Borgstroms Motala -82

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