Husqvarna®

Workshop manual

326 E, LS

327 ES, LDX, LS, RJX, RX

English

Workshop Manual
Brushcutter, Trimmer

Model 326, 327

Contents

Husqvarna

General recommendations

The workshop used to carry out repairs must be equipped with safety devices in accordance with local directives.

No one may carry out repairs without first having read and understood the contents of this Workshop Manual.

The boxes below can be found in appropriate parts of this manual.

WARNING!

The warning box warns of the risk for personal injury if the instructions are not followed.

NOTE!

This box warns of damage to material if the instructions are not followed.

The machine is type approved for safety in accordance with applicable legislative demands with the equipment specified in the Operator's Manual. The assembly of other equipment or accessories or spare parts not approved by Husqvarna can result in the failure to meet these safety demands and that the person carrying out assembly bears responsibility for this.

Bear in mind:

Do not start the machine without making sure the cutting attachment and all the safety features are fitted and working properly.

To avoid burns, do not touch hot components, e.g. the muffler before they have cooled sufficiently.

Avoid getting fuel or oil on your skin or in your mouth.

Use a barrier cream on your hands. This reduces the risk of infection and makes dirt easier to wash away.

Long term contact with engine oil can represent a health hazard.

Never start the engine indoors. Exhaust fumes are poisonous! They contain carbon monoxide, an odourless, poisonous and highly dangerous gas.

Wipe up oil spills from the floor immediately to avoid slipping.

Do not use tools that are worn or fit badly, for example on nuts and bolts.

+ Always work on a clean bench.

+ Always work logically to ensure all parts are fitted correctly and that nuts and bolts are tightened.

+ Use the special tools where recommended to be able to carry out the work correctly and efficiently.

Fire risk

Handle fuel with respect as it is extremely inflammable.

Never refuel while the engine is running.

Do not smoke and ensure there are no open flames or sparks in the vicinity.

Never start the engine if the machine is leaking fuel or if there has been a spillage when refuelling. Allow the remaining fuel to evaporate first.

Make sure there is a working fire extinguisher close at hand.

Do not try to extinguish a petrol fire with water.

Poisonous fumes

When using cleaning agents read the instructions carefully.

Ensure there is good ventilation when handling petrol and other volatile fluids.

The engine's exhaust fumes are poisonous. Test run the engine outdoors.

Special tools

Some of the work described in this workshop manual requires special tools. In each section where this is necessary there is a picture of the tool and an order number.

We recommend the use of special tools in order to avoid expensive damage to parts in question and personal injury and to provide an efficient repair procedure.

Contact faces and gaskets

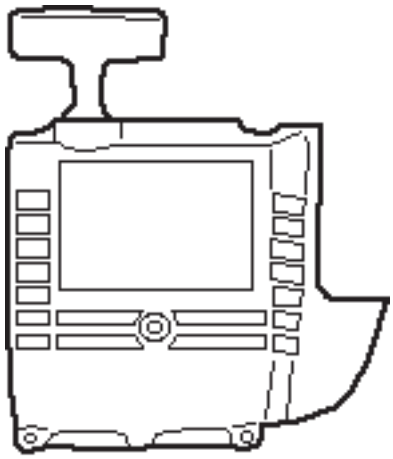
Ensure all surfaces are clean and free from gasket residue, etc. When cleaning use a tool that will not damage the contact face. Any scratches or unevenness should be removed using a flat fine cut file.

Sealing rings

Always replace a sealing ring that has been dismantled. The sensitive sealing lip can easily be damaged resulting in inferior sealing capacity. Surfaces which the seal shall seal against must also be completely undamaged. Lubricate the sealing lip with grease before it is fitted and ensure that it is not damaged e.g. by shoulders and splines on a shaft. Use tape or a conical sleeve as protection. It is important that the sealing ring faces in the right direction for it to act as it is intended.

Starter

1



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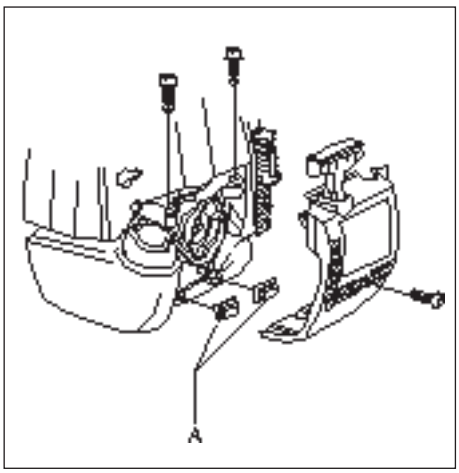


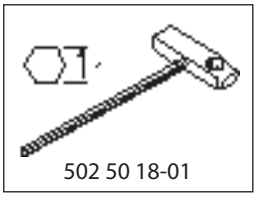
Dismantling

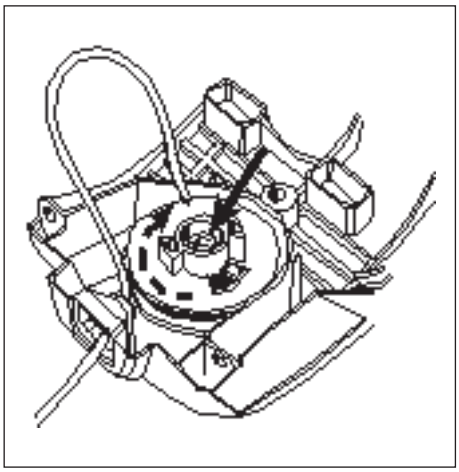
Model H326

Remove the 3 screws and lift off the starter.

NOTE!

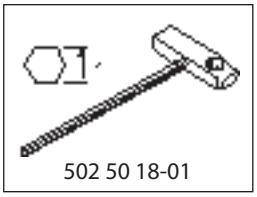
Ensure the bushings (A) that guide the starter towards the fuel tank are not lost.

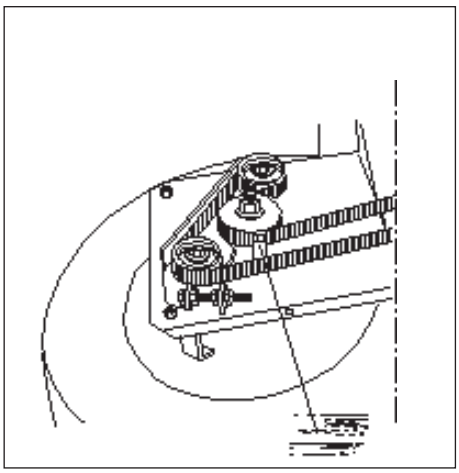




Offload the spring tension.

Remove the screw from the centre of the starter pulley and lift off the starter pulley.

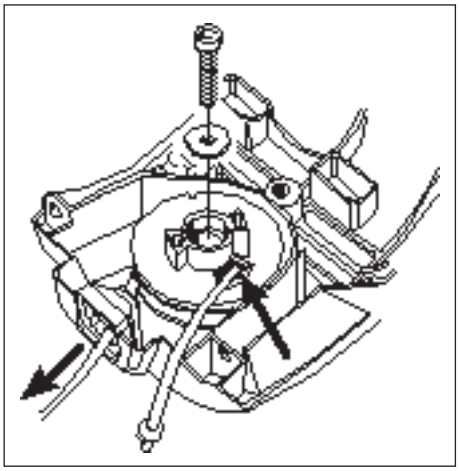




Assembly

Model H326

Clean the component parts and assemble in the reverse order as set out for dismantling.



Assemble the starter pulley.

Assemble a new starter cord.

NOTE!

A new starter cord can be fitted without the need of dismantling the starter!

Offload the spring tension.

Lift up the starter cord on the starter pulley and allow it to rotate clockwise. Slow the rotation with your thumb.

Remove the screw in the centre of the starter pulley. Carefully lift out the starter pulley from the starter housing.

WARNING!

Wear protective glasses.

The return spring lies tensioned in the starter and can fly out and cause personal injury with careless handling.

Assembly

Model H326

Clean component parts before assembling.

Replace the return spring/starter pulley and starter cord, if necessary.

NOTE!

The return spring and starter pulley are supplied pre-assembled and are fitted in the starter housing as a single unit.

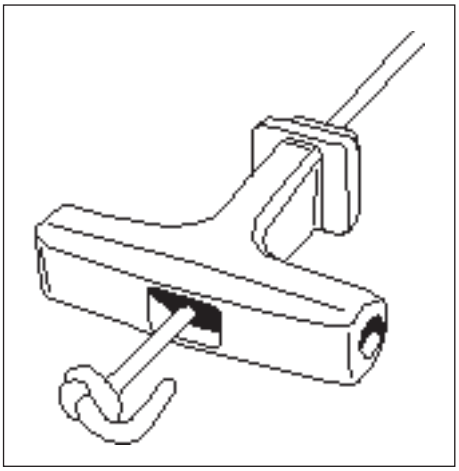
Exercise care when opening the packaging so that the spring does not fly out.

Lubricate the spindle with a little grease and fit the starter pulley.

Position the washer and tighten the screw.

Assemble a new starter cord. Slide it into the starter pulley's slot as illustrated and then out through the cord guide in the starter housing.

Make sure the knot on the end of the cord is as small as possible!

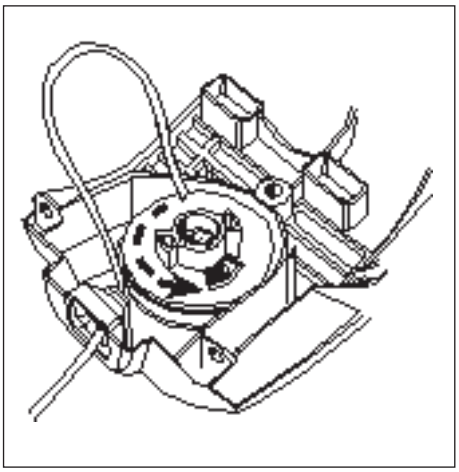


Assemble the starter handle.

Assemble the starter handle.

Tie a double knot and fold under the free end.

Pull the knot fully into the handle.



Tension the return spring.

Check the spring tension.

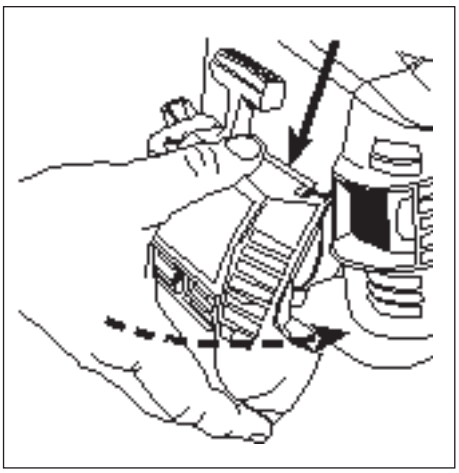
Tension the return spring.

Pull the starter cord out completely and slow the starter pulley with your thumb.

Lift the cord into the notch on the starter pulley.

Now turn the starter pulley anticlockwise, 6 turns.

Check the spring tension. With the starter cord fully extended it should still be possible to turn the starter pulley further, at least a half turn.



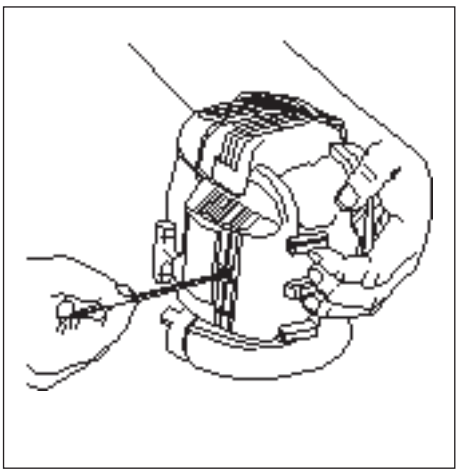
Fit the starter on the engine body.

Do not forget the guide sleeves for the fuel tank.

First press in the top edge of the starter under the cylinder cover.

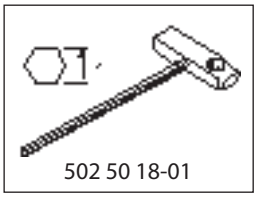
Fit the starter on the engine body.

1. Check that the rubber bushings are in position in the starter housing.
2. Insert the top edge of the starter under the cylinder cover and fold the starter in against the engine body.



Press in the starter against the engine body and check that the drive dog engages.

Fit the screws.



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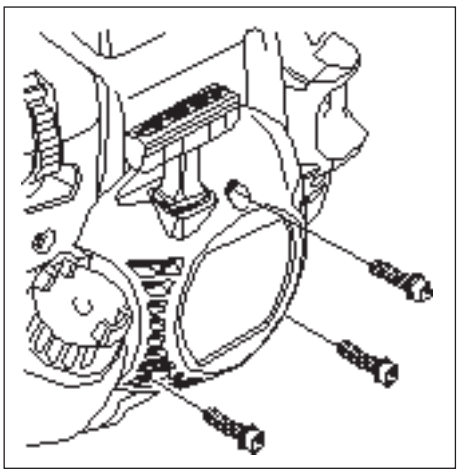
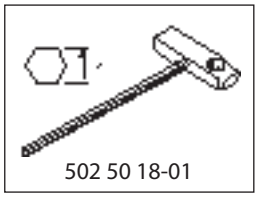
3. Check that rubber bushings in the starter housing connect against the lips on the fuel tank.
4. Press the starter in against the engine body.
5. Pull the starter handle and check that the drive dog engages.
6. Tighten the screw in the centre of the starter first followed by the 2 other screws.

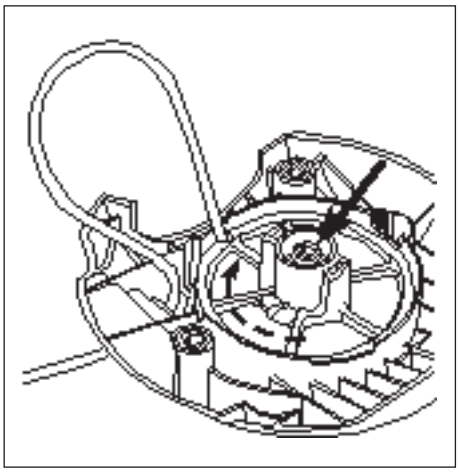


Dismantling

Model H327LS

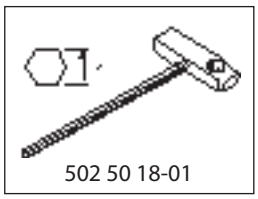
Remove the starter from the engine body.

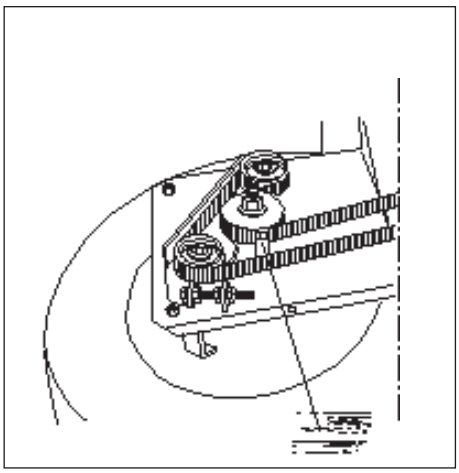




Offload the spring tension.

Remove the screw from the centre of the starter pulley and lift off the starter pulley.

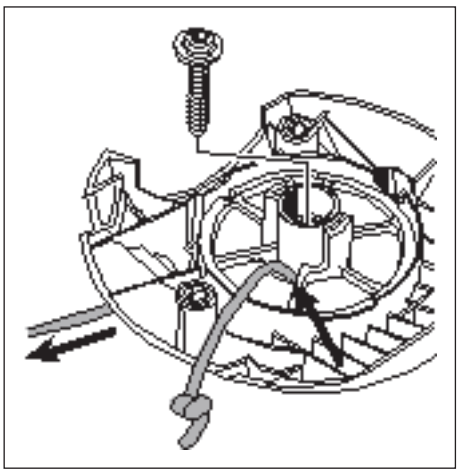




Assembly

Model H327 LS

Clean the component parts and assemble in the reverse order as set out for dismantling.



Assemble the starter pulley.

Assemble a new starter cord.

NOTE!

A new starter cord can be fitted without the need of dismantling the starter!

Dismantling

Model H327LS

Remove the 3 screws and lift off the starter.

Offload the spring tension.

Lift up the starter cord on the starter pulley and allow it to rotate clockwise. Slow the rotation with your thumb.

Remove the screw in the centre of the starter pulley. Carefully lift out the starter pulley from the starter housing.

WARNING!

Wear protective glasses.

The return spring lies tensioned in the starter and can fly out and cause personal injury with careless handling.

Assembly

Model H327 LS

Clean component parts before assembling.

Replace the return spring/starter pulley and starter cord, if necessary.

NOTE!

The return spring and starter pulley are supplied pre-assembled and are fitted in the starter housing as a single unit.

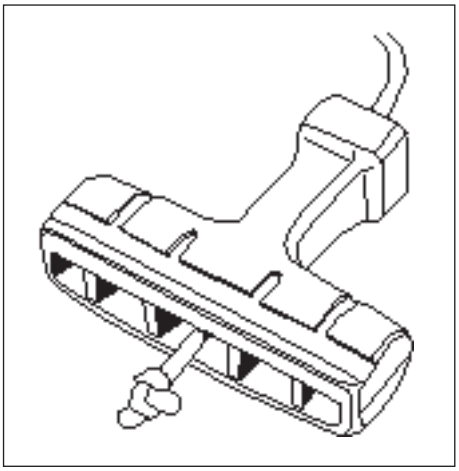
Exercise care when opening the packaging so that the spring does not fly out.

Lubricate the spindle with a little grease and fit the starter pulley.

Position the washer and tighten the screw.

Assemble a new starter cord. Slide it into the starter pulley's slot as illustrated and then out through the cord guide in the starter housing.

Make sure the knot on the end of the cord is as small as possible!

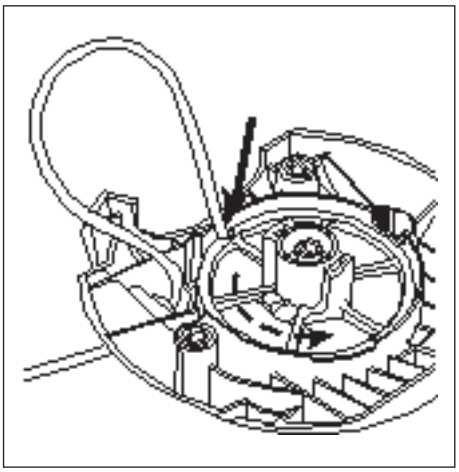


Assemble the starter handle.

Assemble the starter handle.

Tie a double knot on the cord and fold under the free end.

Pull the knot fully into the handle.



Tension the return spring.

Check the spring tension.

Fit the starter on the engine body.

Tension the return spring.

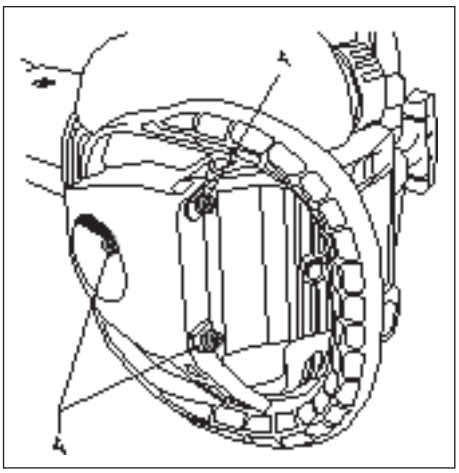
Pull the starter cord out completely and slow the starter pulley with your thumb.

Lift the cord into the notch on the starter pulley.

Now turn the starter pulley anticlockwise, 6 turns.

Check the spring tension. With the starter cord fully extended it should still be possible to turn the starter pulley further, at least a half turn.

Fit the starter on the engine body and check that the drive dog engages.



Dismantling

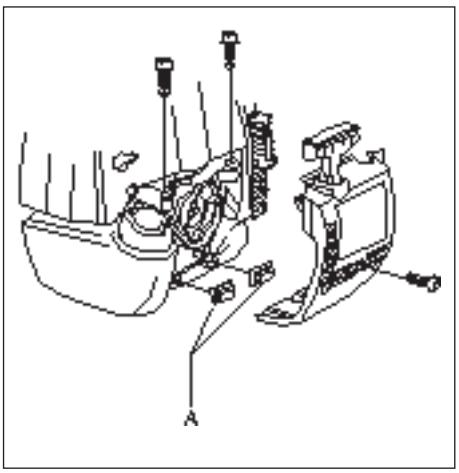
Model 327P5

Remove the handle bow from under the engine body.

Dismantling

Model 327P5

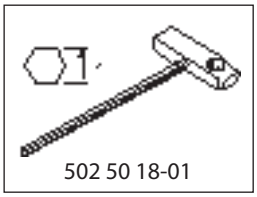
Remove the three screws (A) and remove the handle bow.



Remove the 3 screws and lift off the starter.

NOTE!

Ensure the bushings (A) that guide the starter towards the fuel tank are not lost.



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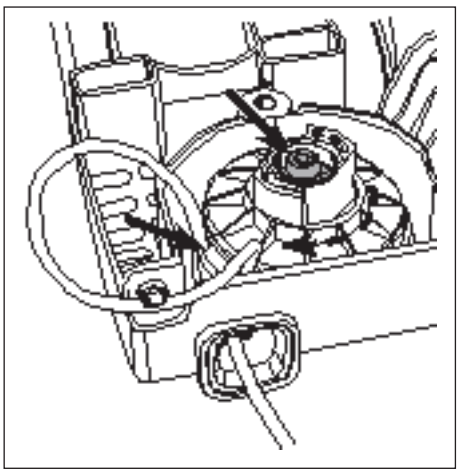
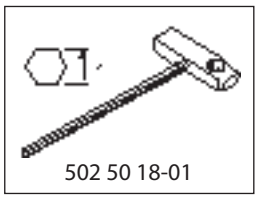


Offload the spring tension.

Remove the screw and the washer.

Carefully remove the drive disc for the pressure equalisation spring.



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Offload the spring tension.

Lift up the starter cord on the starter pulley and allow it to rotate clockwise. Slow the rotation with your thumb.

Remove the screw and the washer.

Carefully remove the drive disc for the pressure equalisation spring.

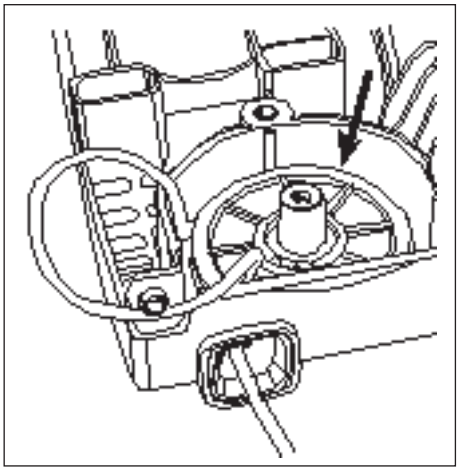
Lift off the pressure equalisation spring.

Carefully lift off the pressure equalisation spring so that the starter pulley does not fly off. There is a risk that the tension in the recoil spring is released.

! WARNING!

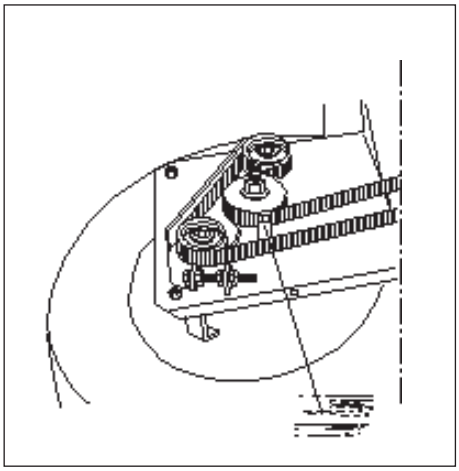
Wear protective glasses.

The return spring lies tensioned in the starter and can fly out and cause personal injury with careless handling.



Carefully lift off the starter pulley so that the tension in the return spring is not released.

Carefully lift off the starter pulley so that the tension in the return spring is not released.



Assembly

Model H327 P5

Clean the component parts and assemble in the reverse order as set out for dismantling.

Assembly

Model H327 P5

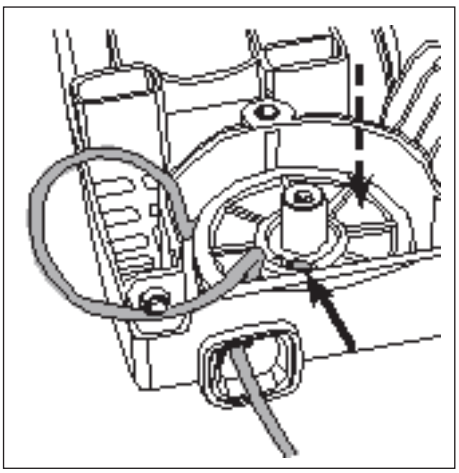
Clean component parts before assembling.

Replace the return spring/starter pulley and starter cord, if necessary.

NOTE!

The return spring and starter pulley are supplied pre-assembled and are fitted in the starter housing as a single unit.

Exercise care when opening the packaging so that the spring does not fly out.



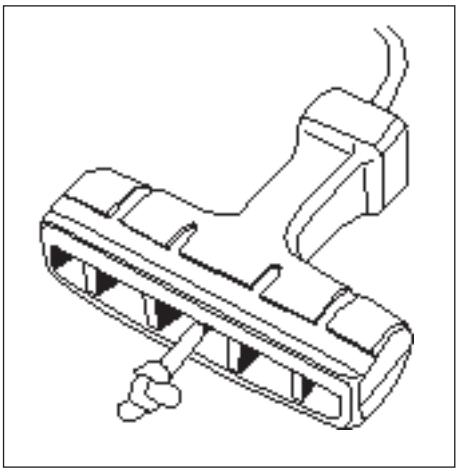
Attach the new starter cord to the starter pulley and wind it 4 turns anticlockwise around the starter pulley.

Slide the starter pulley over the bearing pin.

Mount the starter cord in the starter pulley and make sure the knot in the cord fits entirely in the compartment.

Wind the cord 4 turns anticlockwise around the starter pulley.

Lubricate the bearing pin with some grease and slide the starter pulley downwards to that the spring rests against the stop lug on the bearing pin.

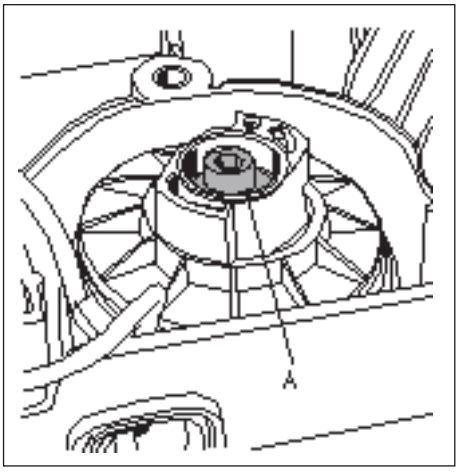


Assemble the starter handle.

Assemble the starter handle.

Tie a double knot and fold under the free end.

Pull the knot fully into the handle.

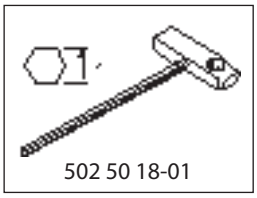


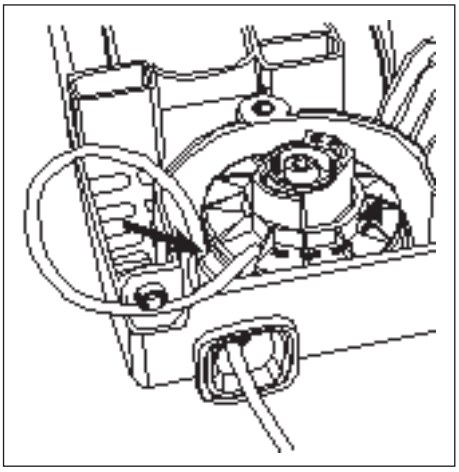
Fit the pressure equalisation spring, the drive disc, the screw and the washer.

The pressure equalisation spring must be placed in position so that the short spring end is inserted into the starter pulley.

Place the drive disc over the pressure equalisation spring.

Fit the screw and the washer (A).





Tension the return spring.

Check the spring tension.

Fit the starter on the engine body.

Tension the return spring.

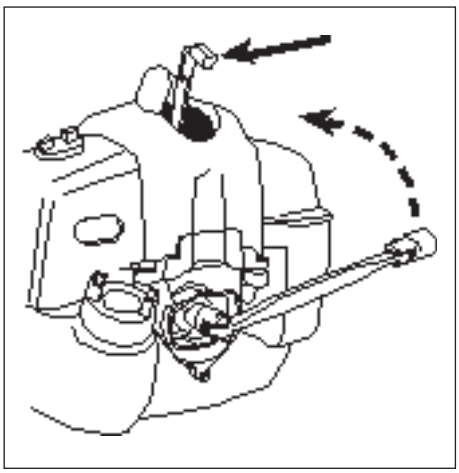
Pull the starter cord out completely and slow the starter pulley with your thumb.

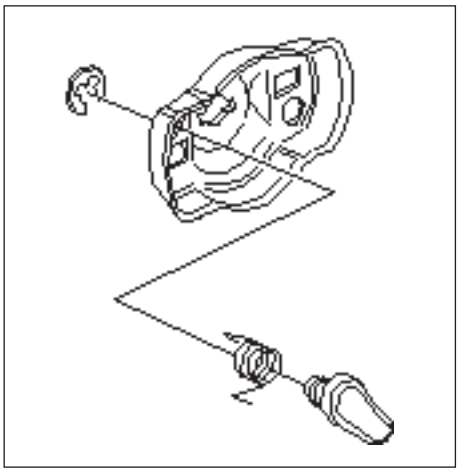
Lift the cord into the notch on the starter pulley.

Now turn the starter pulley anticlockwise, 4 turns.

Check the spring tension. With the starter cord fully extended it should still be possible to turn the starter pulley further, at least a half turn.

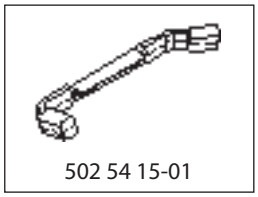
Fit the starter on the engine body and check that the drive dog engages.





Replacing the drive dogs

Dismantle the drive body.



502 54 15-01

Remove the circlip and replace any damaged drive dogs or springs, if necessary.

Replacing the drive dogs

Fit the piston stop, no. 502 54 15-01 in the spark plug hole and loosen the drive disc cup. (The nut is soldered onto the disc drive.)

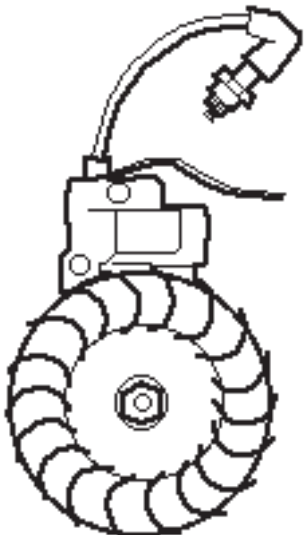
Remove the circlip holdings the drive dog.

Lift out the drive dog and spring for replacement.

Assemble in the reverse order as set out for dismantling.

Electrical system

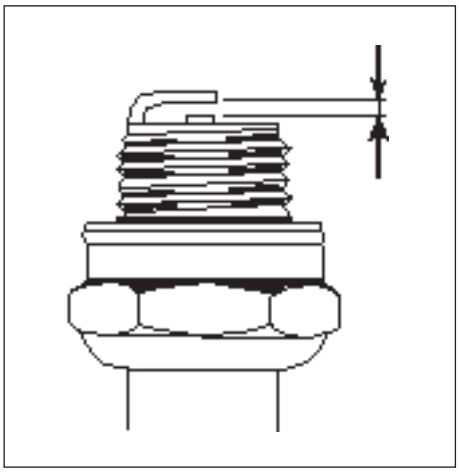
2



Contents

The engine is equipped with an electronic ignition system completely without moving parts. Consequently, a faulty component cannot be repaired, but must be replaced by a new component.

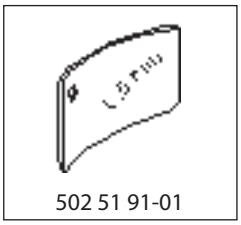
The spark in an electronic ignition system has a very short burn time and can therefore be interpreted as weak and can be difficult to see while troubleshooting.



Checking the ignition spark

Model 326

Clean the electrodes and check the electrode gap.



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If the electrodes are worn more than 50% the spark plug should be changed.

Checking the ignition spark

Model 326

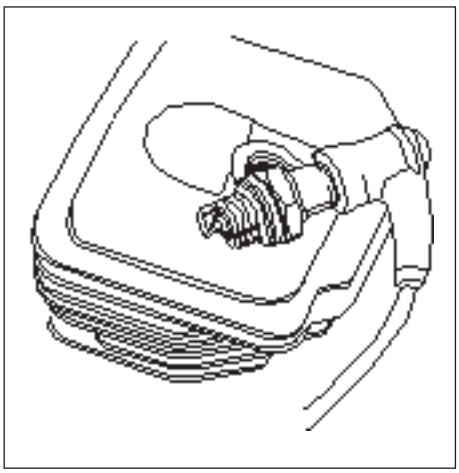
Remove the spark plug and clean it from soot deposits with the help of a steel brush.

Check the electrode gap. It should be 0.5 mm.

Adjust the gap as needed to the correct value with the side electrode.

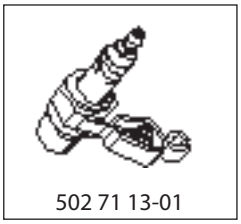
If the electrodes are worn more than 50% the spark plug should be changed.

Too large a spark gap entails a great deal of stress on the ignition module and risk for short-circuiting.



Check if a spark occurs when attempting to start.

Test with test spark plug no. 502 71 13-01 if no spark is seen.



502 71 13-01

Also check that the stop switch is in the start position.

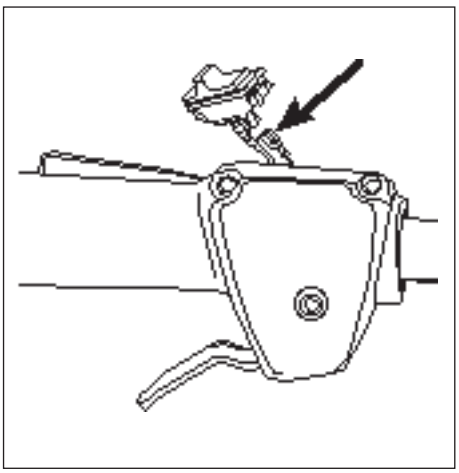
Earth the spark plug on the cylinder and pull sharply on the start handle.

A spark should be seen between the electrodes.

If no spark is seen test with test spark plug no. 502 71 13-01.

If a spark then occurs, the spark plug is faulty.

Try a new spark plug.



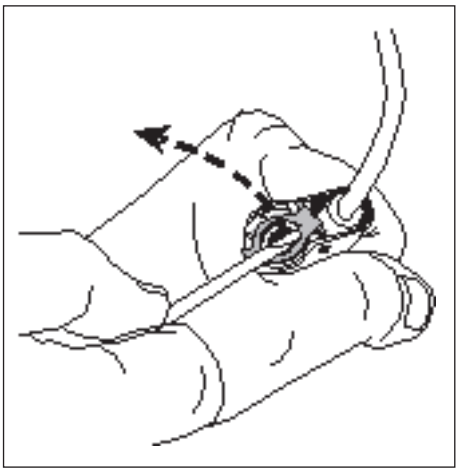
If no spark occurs, disconnect the stop switch.

Replace the switch if necessary.

If no spark occurs even now, remove the short-circuit cable from the connection point in the carburettor compartment.

If the plug now sparks, the fault is either in the stop switch or the short-circuit cable.

Change the switch as needed and check to see if the cable insulation is damaged.



Still no spark?

Check the ignition cable's connection to the spark plug cover.

Pry off the metal washer and lift off the heat guard.

Pull away the ignition lead from the spark plug cover.

Still no spark?

Check the spark plug connection.

1. Pry off the metal washer using a small screwdriver and lift off the heat guard from the spark plug connection.
2. Pull away the ignition lead from the spark plug cover with a twisting movement.

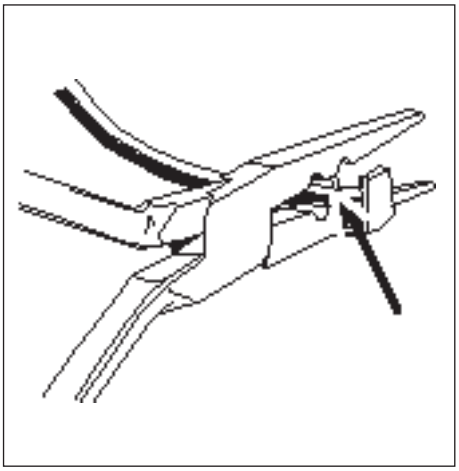
TIP!

Lubricate the ignition lead with a few drops of oil.

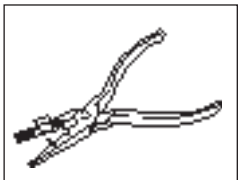
Check that the connection between the ignition lead and the contact coil is not burnt.

If this is the case, cut off the damaged section.

3. Check the connection between the ignition lead and the contact coil. Cut off a piece of the ignition lead to make a satisfactory connection.



Use pliers no. 502 50 06-01 to make a hole in the ignition lead.

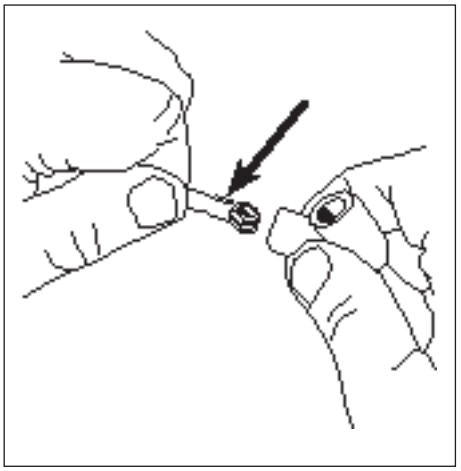


502 50 06-01

When a part of the ignition lead has been cut off it helps to use the pliers no. 502 50 06-01 to make a hole in the ignition lead to fit the contact coil.

NOTE!

It is important that the tip of the contact coil hits the centre of the ignition lead to prevent sparking.



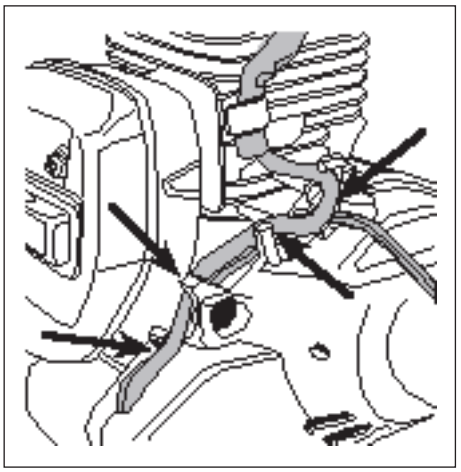
Attach the ignition coil to the ignition cable.

Attach the ignition coil to the ignition cable and ensure that the wire is folded along the cable.

Slide the contact coil into the spark plug cover.

TIP!

Lubricate the hole in the spark plug cover so that it is easier to slide in the contact coil.



Still no spark?

Check other cables and connections.

Still no spark?

Check other cables and connections for poor contacts (dirt, corrosion, cable breakage and damaged insulation).

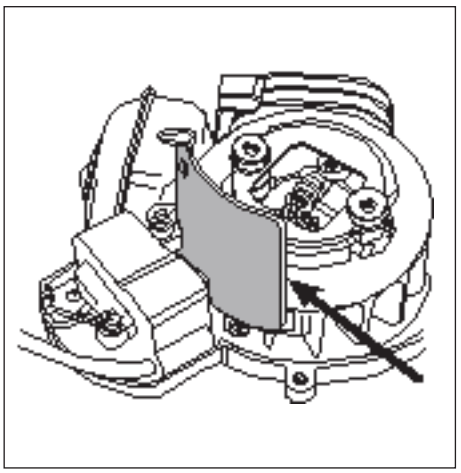
Make sure that the cables are correctly drawn and lie in the cable grooves.

Do not forget to check the cables in the throttle too.

See chapter 3 “Throttle”.

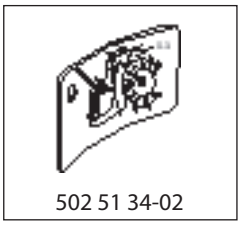
TIP!

Use an Ohmmeter in order to easily check if cable breakage has occurred, due to pinching, for example.



Still no spark?

Check the air gap.

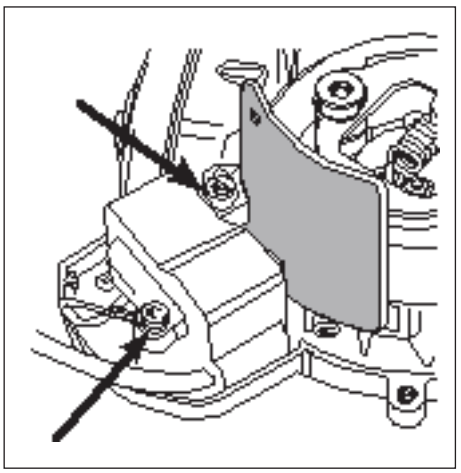


502 51 34-02

Still no spark?

Check the air gap between the flywheel magnet and the ignition module. The gap should be 0.3 mm.

Use a 502 51 34-02 feeler gauge.

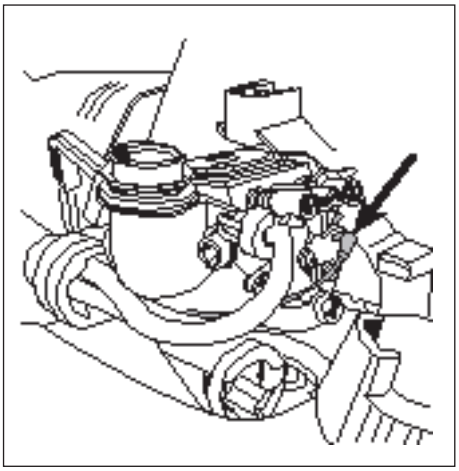


Adjust the air gap.

Adjust the air gap as needed to the correct value.

- Loosen the bolts.
- Position the feeler gauge and press the ignition module against the flywheel.
- Tighten the bolts and check the air gap again.

If the spark plug still does not fire, the ignition system should be replaced.



Dismantling

Model 326

Dismantle the starter, cylinder cover, guard over the muffler and spark plug.

Unhook the throttle cable from the carburettor.

Dismantling

Model 326

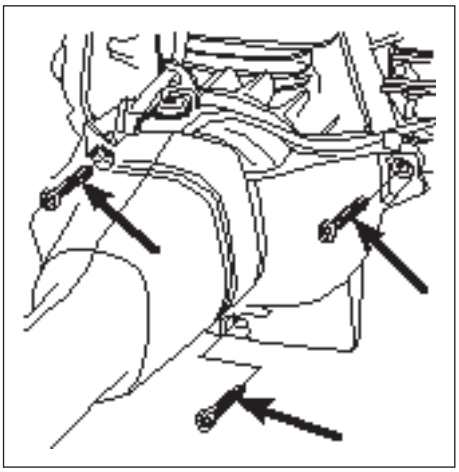
The following components must be dismantled for the ignition system to be accessible.

The cylinder cover, starter, guard over the muffler and spark plug.

Unhook the throttle cable from the carburettor.

NOTE!

Do not lose the rubber bushings fitted between the starter and the fuel tank.



Remove the screws holding the clutch cover.

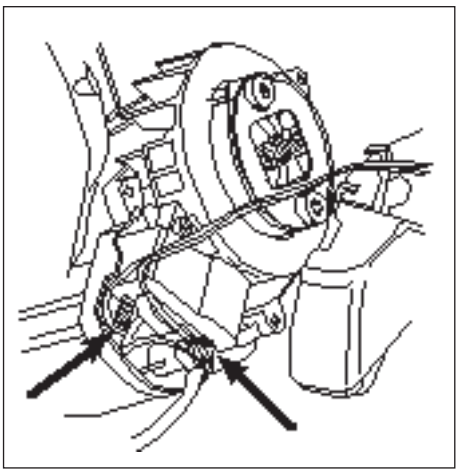
Remove the clutch cover complete with the shaft from the engine.

Remove the three screws holding the clutch cover on the engine.

Lift off the cover together with the shaft.

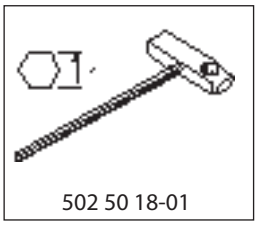
NOTE!

Do not lose the rubber bushings fitted between the fuel tank and the clutch cover.

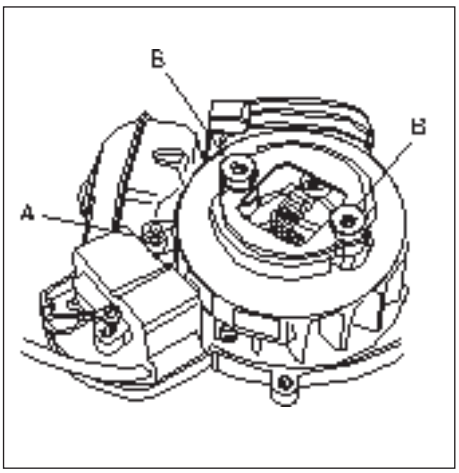


Loosen the short-circuit cable from the ignition module.

Loosen both ends of the short-circuit cable from the ignition module.



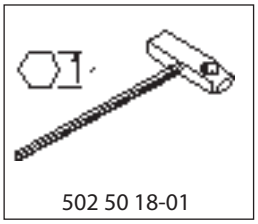
502 50 18-01



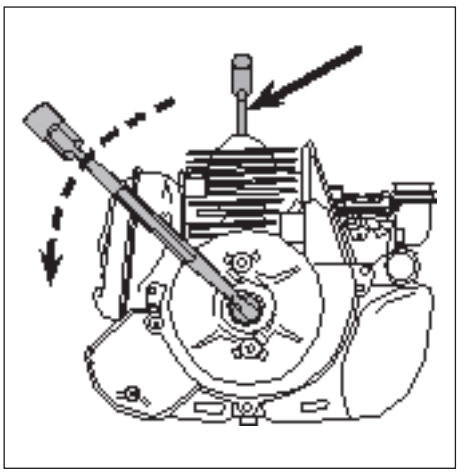
Dismantle the ignition module and the centrifugal clutch.

Remove the remaining screws (A) holding the ignition module and both screws (B) that hold the centrifugal clutch.

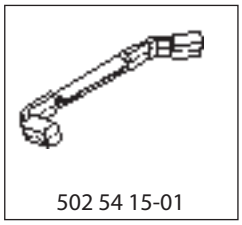
Lift off the clutch, both support washers and the ignition module.



502 50 18-01



Fit the piston stop no. 502 54 15-01 and remove the nut holding the flywheel.



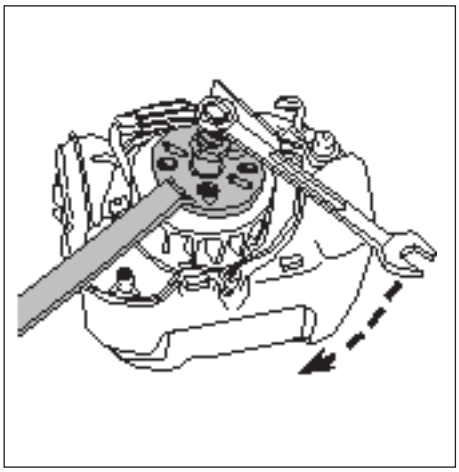
502 54 15-01

Fit piston stop no. 502 54 15-01 in the spark plug hole.

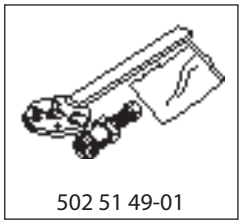
Remove the nut holding the flywheel.

NOTE!

Position the piston stop so it is clamped between the piston crown and the combustion chamber. Not so it sticks out into the exhaust port.



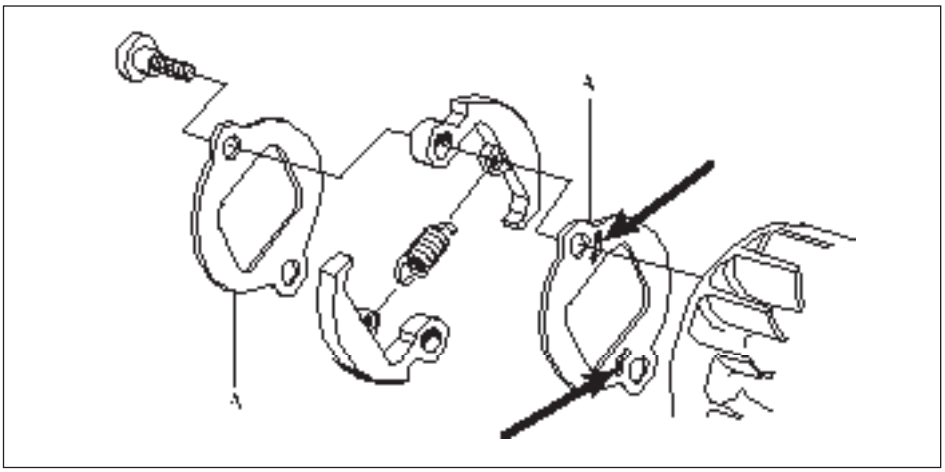
Remove the flywheel.



502 51 49-01

Dismantle the flywheel from the crankcase using the puller no. 502 51 49-01.

Gently knock the puller screw with a hammer, if the flywheel sits tightly on the crankshaft.



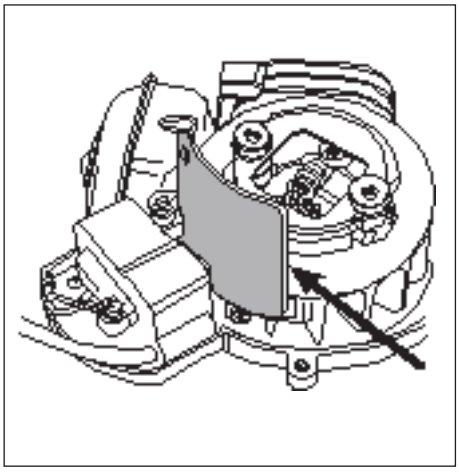
Assembly

Model 326

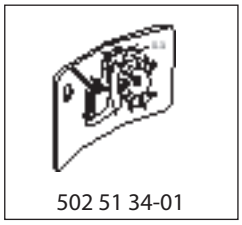
Check that the cast key in the flywheel and key way in the crankshaft are undamaged.

Fit the flywheel and centrifugal clutch. Do not forget the washers (A).

Note the slots on the washer lie closest to the flywheel. Align with the equivalent pins on the flywheel.



Assemble the ignition module and adjust the air gap to 0.3 mm.



502 51 34-01

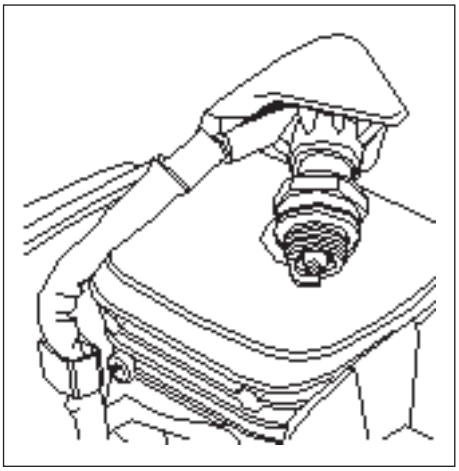
Assemble the ignition module.

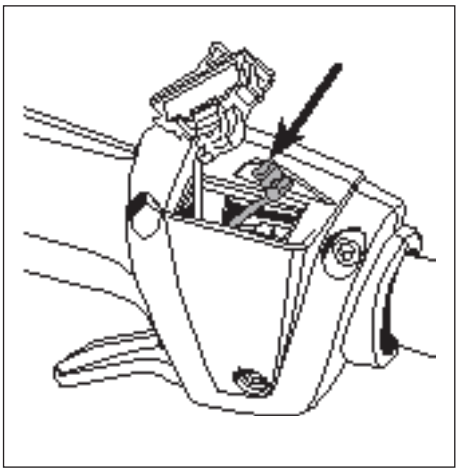
Adjust the air gap. It should be 0.3 mm between the permanent magnets in the flywheel and the ignition module.

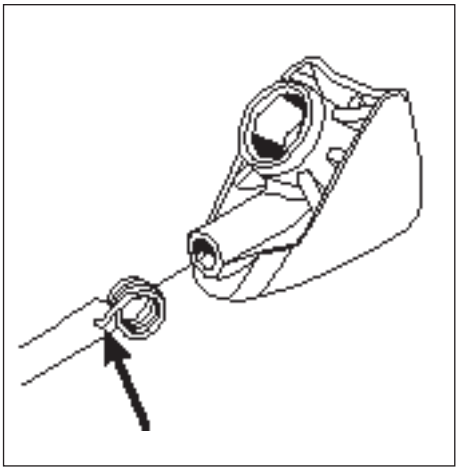
Assemble other parts in the reverse order as set out for dismantling.

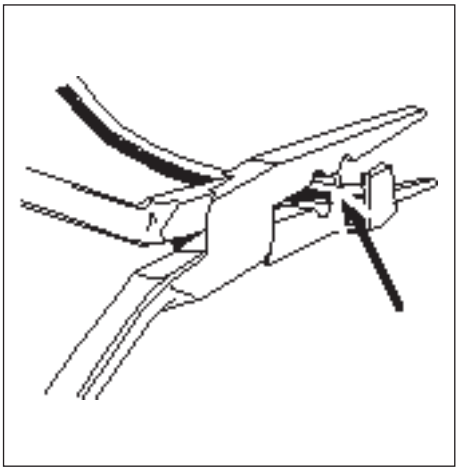
NOTE!

Do not forget the rubber bushings between the fuel tank and the clutch cover and the starter.









Checking the ignition spark

Model 327 LS, 327 P5

Check and rectify the spark plug in the same way as described for model 326.

Check if a spark occurs when attempting to start.

Test with test spark plug no. 502 71 13-01 if no spark is seen.

502 71 13-01

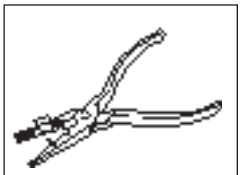
If no spark occurs, disconnect the stop switch.

Replace the switch if necessary.

Still no spark?

Check the ignition cable's connection to the spark plug cover.

Use pliers no. 502 50 06-01 to make a hole in the ignition lead.



502 50 06-01

Checking the ignition spark

Model 327 LS, 327 P5

Check and rectify the spark plug in the same way as described for model 326.

Also check that the stop switch is in the start position.

Dismantle the cylinder cover after the guard over the muffler has been removed. (The air filter cover does not have to be removed.)

Earth the spark plug on the cylinder and pull sharply on the start handle.

A spark should be seen between the electrodes.

If no spark is seen test with test spark plug no. 502 71 13-01.

If a spark then occurs, the spark plug is faulty.

Try a new spark plug.

If there is still no spark, remove the short-circuit cable from the short-circuit switch.

Prise up the switch by inserting a small screwdriver into the short end of the ignition switch.

If the plug now sparks, the fault is either in the stop switch or the short-circuit cable.

Change the switch as needed and check to see if the cable insulation is damaged.

Still no spark?

Check the spark plug connection.

Remove the spark plug cover and make sure the ignition cable is not damaged. Remove a segment of cable if required to get sufficient contact at the connection coil.

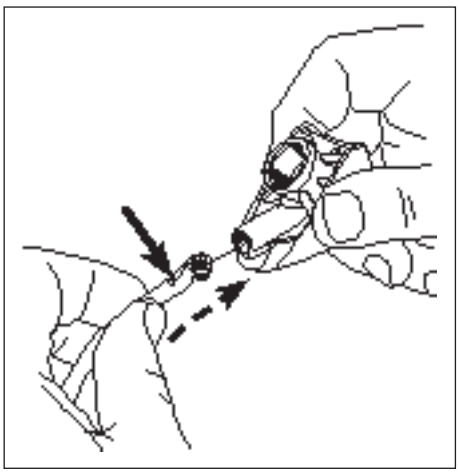
TIP!

Spray the ignition cable with silicone to make it easier to pull off the spark plug cover.

When a part of the ignition cable has been cut off it helps to use pliers no. 502 50 06-01 to make a new hole in the ignition cable to fit the ignition coil.

NOTE!

It is important that the tip of the contact coil hits the centre of the ignition lead to prevent sparking.



Fit the ignition coil onto the ignition cable and push it into the spark plug guard.

Fit the ignition coil onto the ignition cable and make sure both ends of the wire are inserted into the centre of the cable for best contact.

Slide the ignition coil into the spark plug cover.

TIP!

Lubricate the hole in the spark plug guard using for instance silicon spray to make it easier to push the ignition coil in.

Still no spark?

Check other cables and connections.

Still no spark?

Check other cables and connections for poor contacts (dirt, corrosion, cable breakage and damaged insulation).

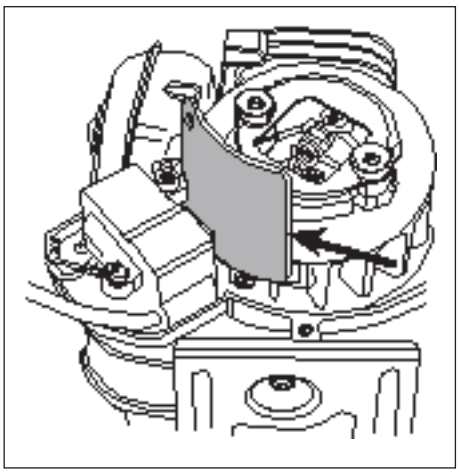
Make sure that the cables are correctly drawn and lie in the cable grooves.

Do not forget to check the cables in the throttle too.

See chapter 3 “Throttle”.

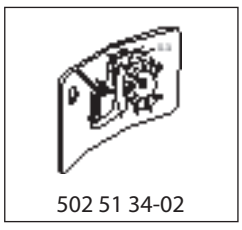
TIP!

Use an Ohmmeter in order to easily check if cable breakage has occurred, due to pinching, for example.



Still no spark?

Check the air gap.



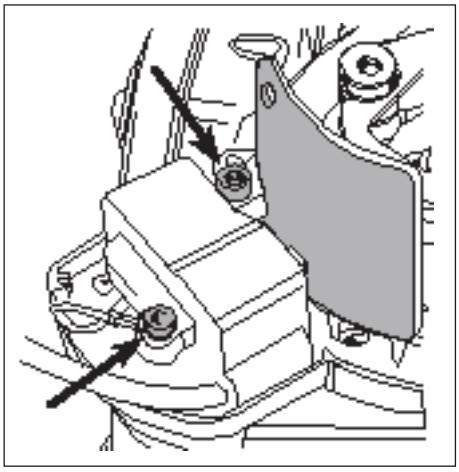
502 51 34-02

Still no spark?

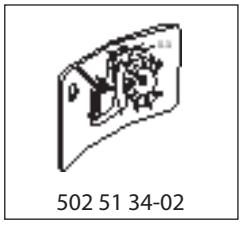
Check the air gap between the flywheel magnet and the ignition module. The gap should be 0.3 mm.

Use a 502 51 34-02 feeler gauge.

See also “Dismantling” below.



Adjust the air gap.

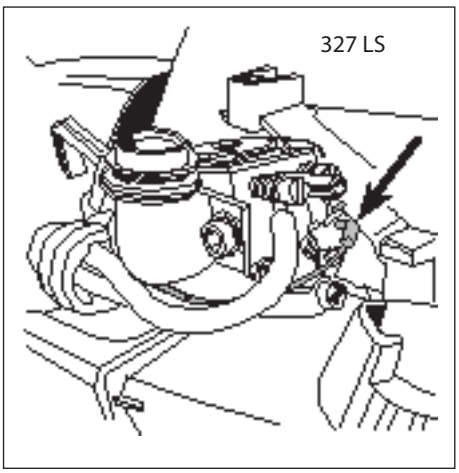


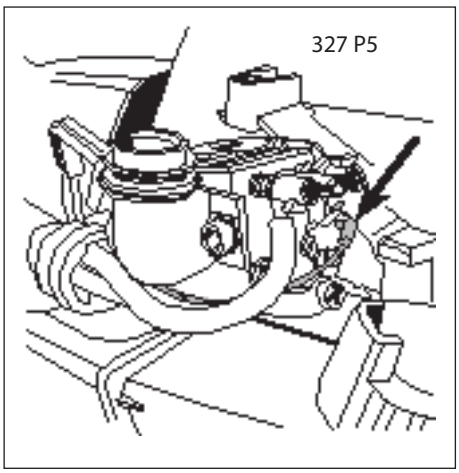
502 51 34-02

Adjust the air gap as needed to the correct value.

- Loosen the bolts.
- Position the feeler gauge and press the ignition module against the flywheel.
- Tighten the bolts and check the air gap again.

If the spark plug still does not fire, the ignition system should be replaced.





Dismantling

Model 327 LS, 327 P5

The following components must be dismantled for the ignition system to be accessible.

Cylinder cover, guard over the muffler and spark plug.

Unhook the throttle cable from the carburettor.

Remove the screws holding the clutch cover.

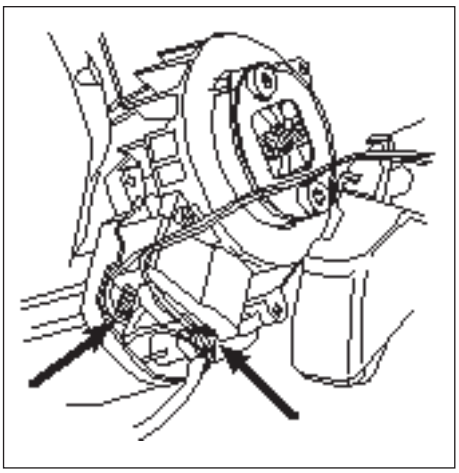
Remove the clutch cover complete with the shaft from the engine.

Remove the three screws holding the clutch cover on the engine.

Lift off the cover together with the shaft.

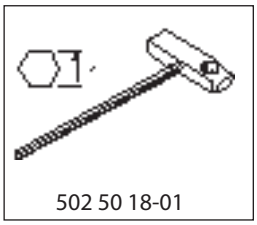
NOTE!

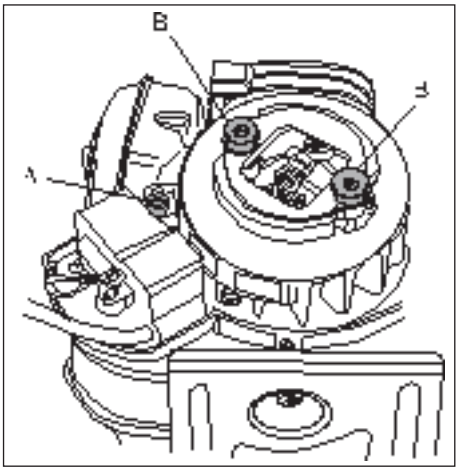
Do not lose the rubber bushings fitted between the fuel tank and the clutch cover.



Loosen the short-circuit cable from the ignition module.

Loosen both ends of the short-circuit cable from the ignition module.

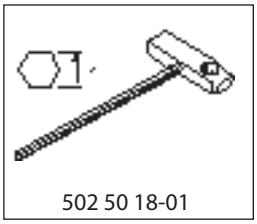


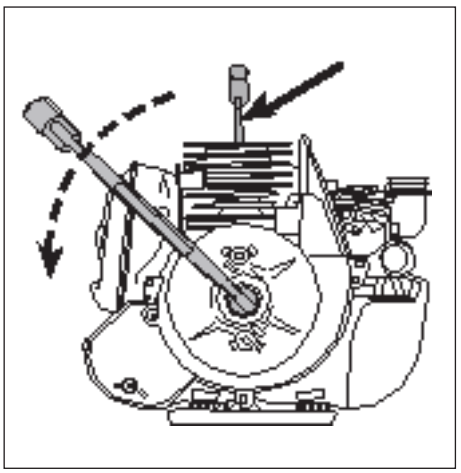


Dismantle the ignition module and the centrifugal clutch.

Remove the remaining screws (A) holding the ignition module and both screws (B) that hold the centrifugal clutch.

Lift off the clutch, both support washers and the ignition module.





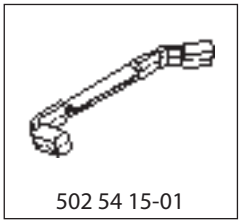
Fit the piston stop no. 502 54 15-01 and remove the nut holding the flywheel.

Fit piston stop no. 502 54 15-01 in the spark plug hole.

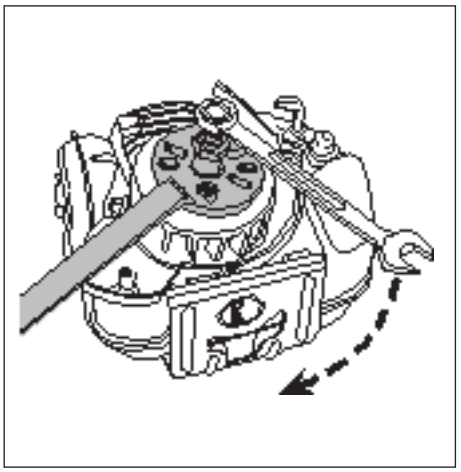
Remove the nut holding the flywheel.

NOTE!

Position the piston stop so it is clamped between the piston crown and the combustion chamber. Not so it sticks out into the exhaust port.



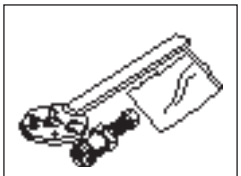
502 54 15-01



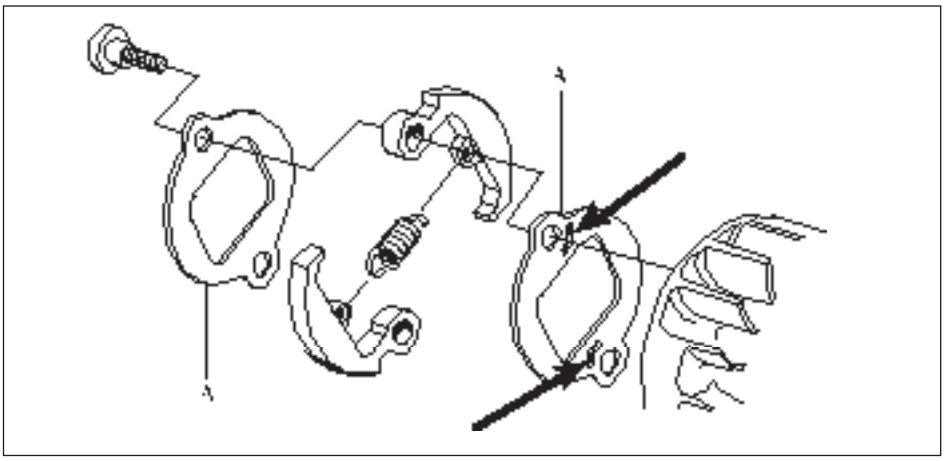
Remove the flywheel.

Dismantle the flywheel from the crankcase using the puller no. 502 51 49-01.

Gently knock the puller screw with a hammer, if the flywheel sits tightly on the crankshaft.



502 51 49-01



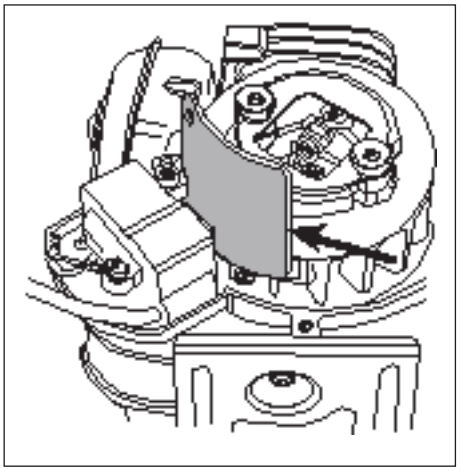
Assembly

Model 327 LS, 327 P5

Check that the cast key in the flywheel and key way in the crankshaft are undamaged.

Fit the flywheel and centrifugal clutch. Do not forget the washers (A).

Note the slots on the washer lie closest to the flywheel. Align with the equivalent pins on the flywheel.

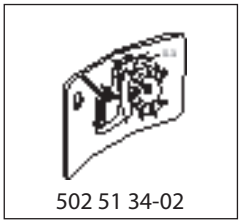


Assemble the ignition module and adjust the air gap to 0.3 mm.

Assemble the ignition module.

Adjust the air gap. It should be 0.3 mm between the permanent magnets in the flywheel and the ignition module.

Assemble other parts in the reverse order as set out for dismantling.



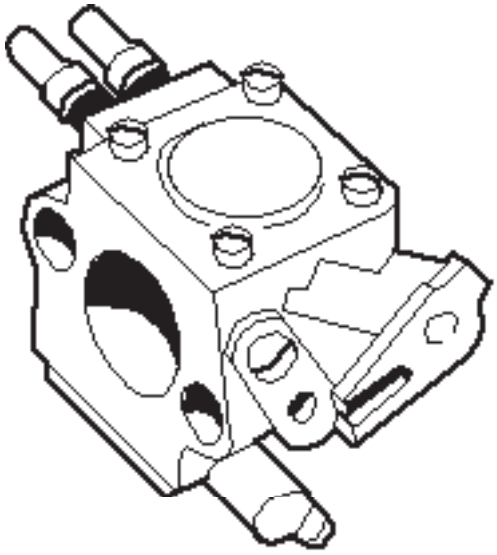
502 51 34-02

NOTE!

Do not forget the rubber bushings between the fuel tank and the clutch cover.

Fuel system

3

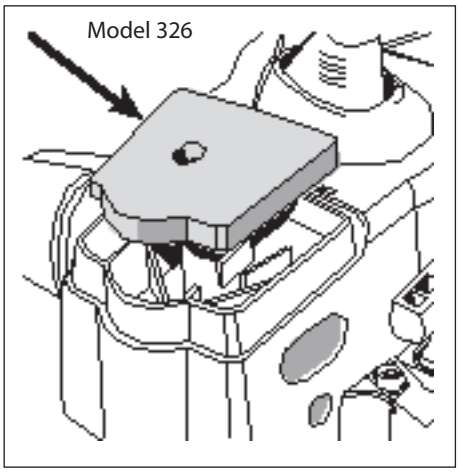


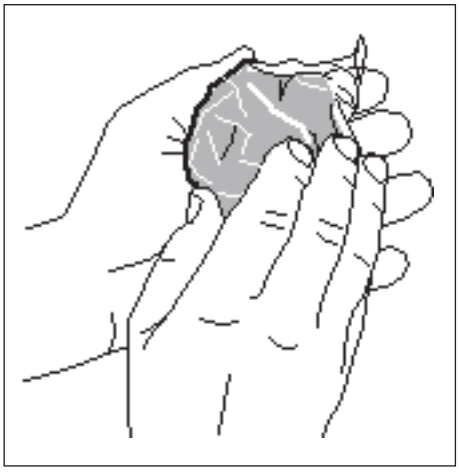
Contents

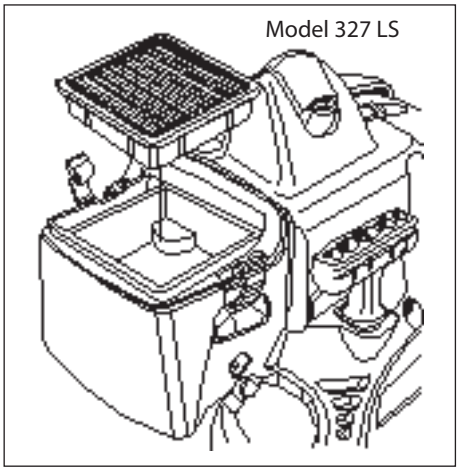
In addition to the fuel tank and carburettor, the fuel system consists of the air filter, fuel filter and tank venting.

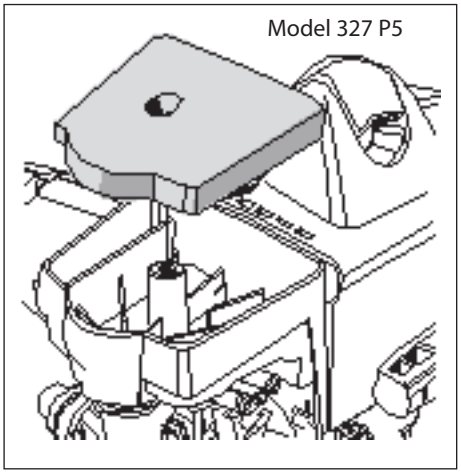
All these components interact so that the engine receives the optimal mixture of fuel and air to make it as efficient as possible. Very small deviations in the carburettor setting or a blocked air filter have a large effect on the running and efficiency of the engine.

The carburettor can come from several different manufacturers on our models, but the function and repair methods are essentially the same.









505 69 85-70

Impregnate the filter with air filter oil.

531 00 60-76

The 327 LS model has a paper filter which must be blown clean with compressed air from behind.

Replace the filter if it is damaged or very dirty.

Air filter

Remove the cover over the carburettor and lift off the air filter.

The filter in models 326 and 327 P5 is made of foamed plastic and must be cleaned with lukewarm soapy water.

A damaged filter should be replaced with a new filter.

WARNING!

Do not clean not the filter with petrol. Hazardous!

NOTE!

Do not blow the filter clean with compressed air. It can be damaged. Ensure that the filter is dry before refitting it.

TIP!

Use Husqvarna's cleaning agent Active Cleaning no. 505 69 85-70.

Impregnate the filter with air filter oil.

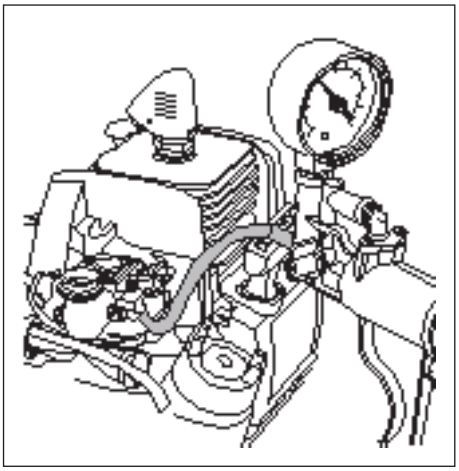
TIP!

Place the filter in a plastic bag and pour about a tablespoon of air filter oil no. 531 00 60-76 into the bag.

Massage the oil into the air filter.

The 327 LS model has a paper filter which must be blown clean with compressed air from behind.

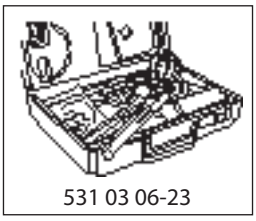
Replace the filter if it is damaged or very dirty.



ank venting

Check that the tank venting valve works correctly.

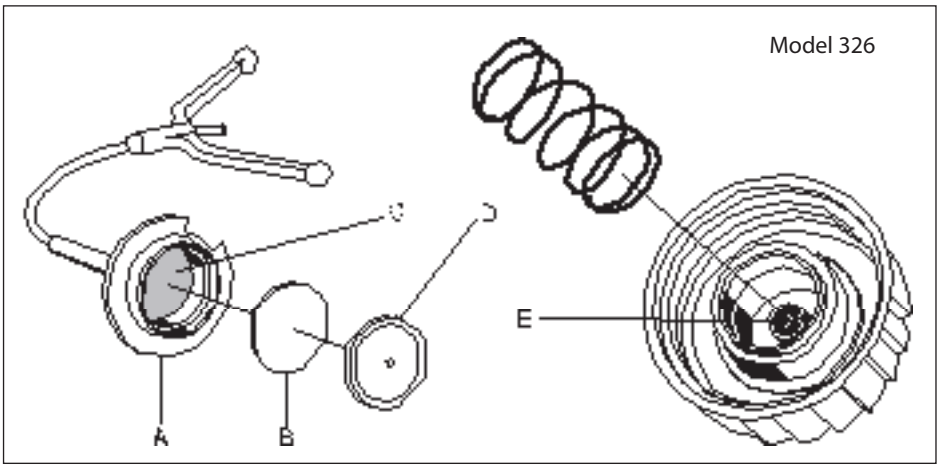
Replace the fuel cap if the valve is faulty.



Tank venting

Tank venting takes place through the fuel cap and needs to be functional for the engine to work.

- Remove the fuel hose from the carburettor and empty the fuel from the tank.
- Connect the fuel hose to pressure tester no. 531 03 06-23.
- Pump up a pressure and vacuum of 50 kPa (0.5 bar) in the tank.
- The pressure should drop to 20 kPa (0.2 bar) or revert to atmospheric pressure within 45 seconds.



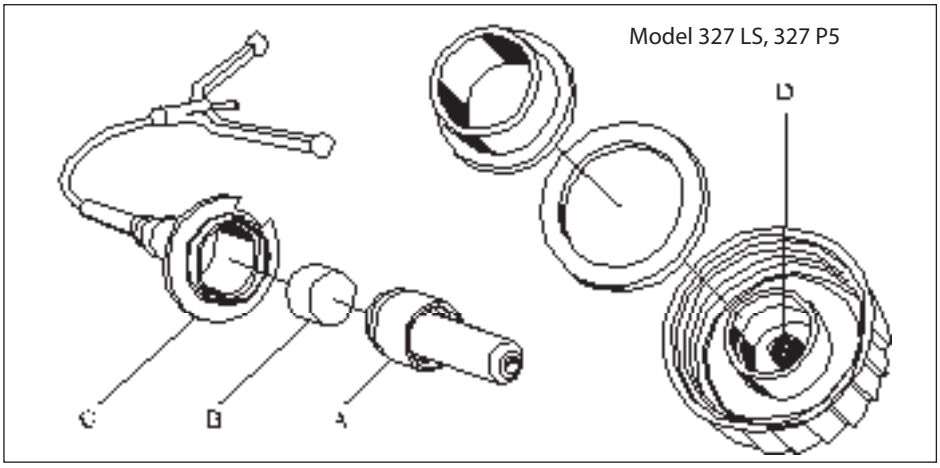
The fuel cap can be taken apart for cleaning.

Use a screwdriver and prise off the housing (A) that contains a rubber diaphragm (B) and a filter (C).

Knock the housing against a tabletop so that the cover (D) over the diaphragm falls off.

Blow the filter (C) clean, and the sintered filter (E), with compressed air and mount the fuel cap in the reverse order to how it was disassembled.

Make sure that the flat surface on the cover (D) is turned towards the diaphragm.



Check that the tank venting is in working order by connecting the 531 03 06-23 test equipment to the nipple (A). Air must be able to flow in both directions.

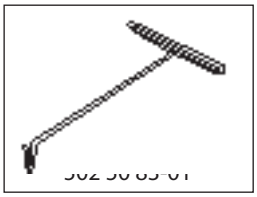
If this is not the case, the filter (B) may be blocked.

The nipple becomes accessible after the housing (C) is first prised off using a screwdriver.

Blow the filter (D) clean in the tank cap using compressed air.

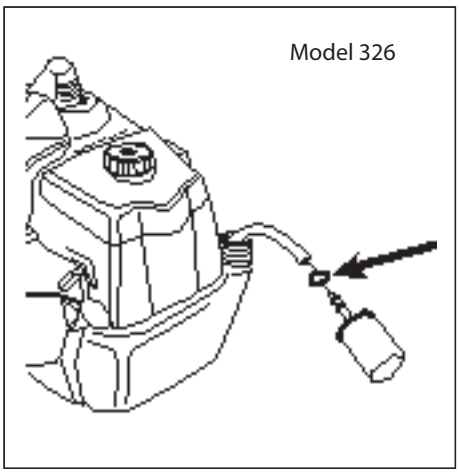
Fuel filter

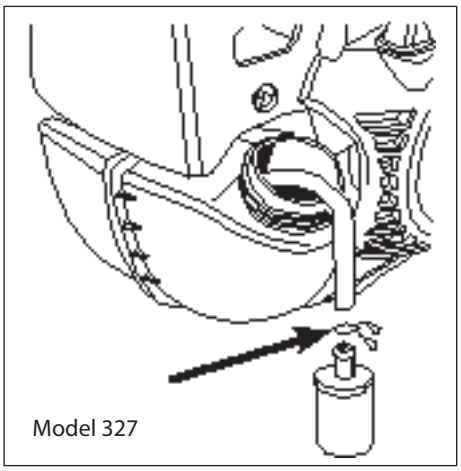
The fuel filter can be removed through the tank's fill hole.



Fuel filter

The fuel hose in the tank contains a fuel filter. It is accessible through the fill hole. Pull out the filter with your fingers or with help of tool 502 50 83-01.



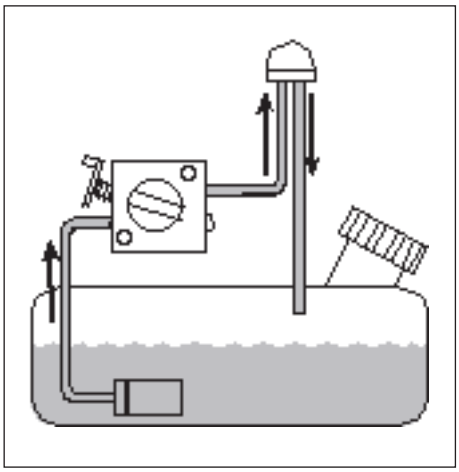


If the filter is not too dirty, its surface can be cleaned with a brush.

Otherwise it must be replaced.

Check the fuel hose for cracks and leaks.

Make sure that the filter's connection neck is inserted as far as possible into the fuel hose and that the O-ring is sufficiently tight so that the filter cannot slide off the tube.



Fuel pump

The fuel pump facilitates cold starts.

The pump cannot be repaired and must be replaced if it stops working.

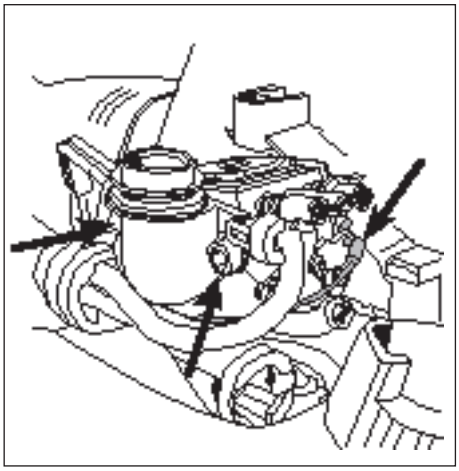
Note how the fuel hoses are connected to simplify assembly.

Fuel pump

The fuel pump has the task of facilitating the start of the engine when cold. The pump fills the carburettor with fuel before attempting to start the engine. This also prevents vapour bubbles from blocking the narrow fuel channels.

If the pump does not work it must be replaced.

Note how the fuel hoses are connected to simplify assembly.



Carburettor

Dismantling

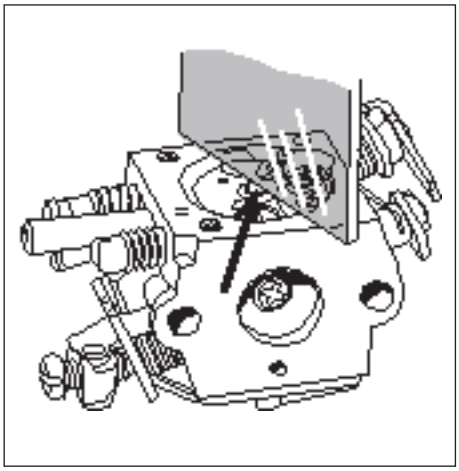
Blow clean the carburettor compartment and disconnect the throttle cable from the carburettor.

Remove the screws and fuel pipes and lift off the carburettor.

Carburettor

Dismantling

1. Remove the carburettor cover and blow the carburettor compartment clean with compressed air.
2. Disconnect the throttle cable from the lever arm on the carburettor and from the guide in the air filter connection.
3. Remove carburettor screws and the fuel pipe.
4. Move the air filter connection to the side, remove the fuel pipe and lift off the carburettor.



The carburettor is made by Zama.

Design, function and servicing correspond with the Walbro carburettor.

Default carburettor settings:

H = 2 1/4 revolution open

L = 1 1/2 revolution open

The carburettor needles are fitted with movement limiters (caps).

The carburettor is made by Zama.

It has the same design and function as the Walbro carburettor, which means that servicing is also carried out in the same way.

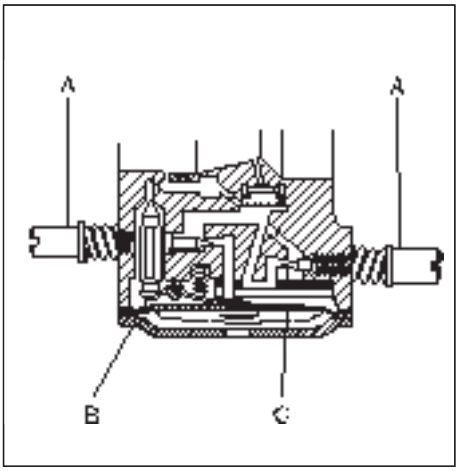
The lever arm should lie flush with the carburettor housing's contact face.

Default carburettor settings:

H = 2 1/4 revolution open

L = 1 1/2 revolution open

The carburettor needles are fitted with movement limiters (caps).



The carburettor's design

The carburettor can be divided into three different functional units: the metering unit, the blending unit, and the pump unit.

The metering unit

The needles and the fuel control functions are located here.

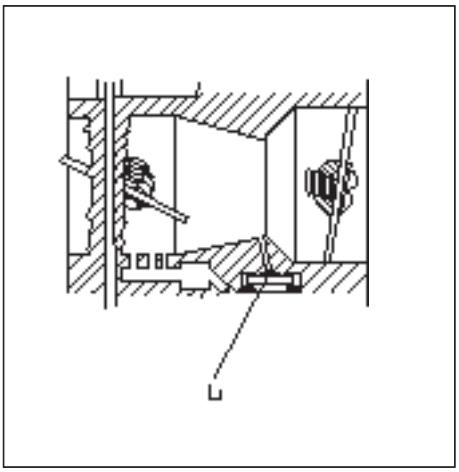
The carburettor's design

The carburettor can be divided into three different functional units: the metering unit, the blending unit, and the pump unit.

The metering unit

The needles (A) and the fuel control functions are located here.

The needle valve (B) and control diaphragm (C) are vital to the carburettor's function.



The blending unit

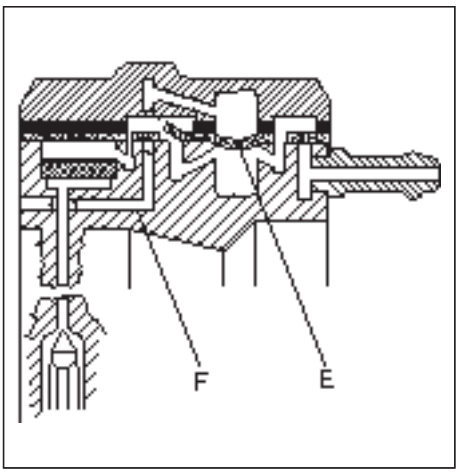
Fuel and air are mixed here.

The blending unit

In this section of the carburettor fuel and air are mixed in the proper proportions.

The choke and throttle valves are placed here.

In the middle of the venturi (narrowest part of the throughput) the main jet (D) is found.



The pump unit

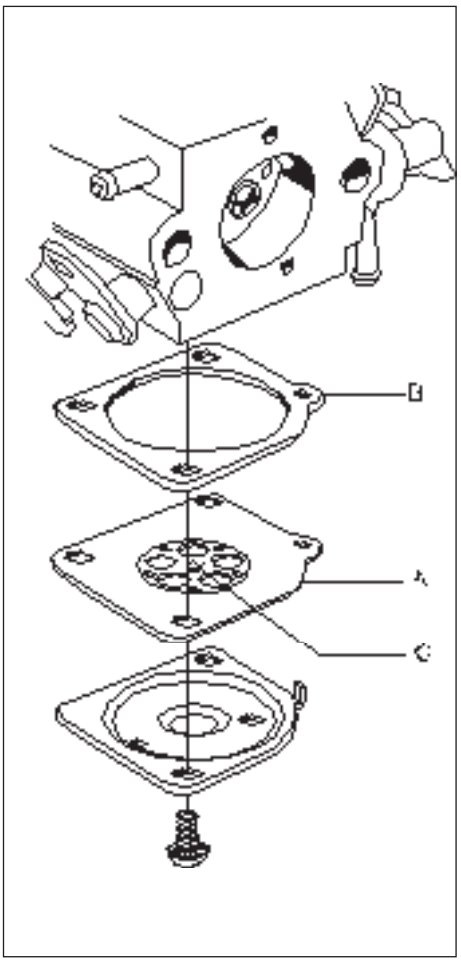
Pumps fuel from the tank to the carburettor.

The pump unit

This is where the pump diaphragm (E) that pumps fuel from the tank to the carburettor's measuring unit is found.

The diaphragm is affected by pressure variations in the engine's crankcase via an impulse channel (F).

If the channel is blocked, by grease or a wrongly facing gasket, for example, the pump unit does not function and the engine cannot be started.



Dismantling the carburettor

Remove the control diaphragm and check for damage.

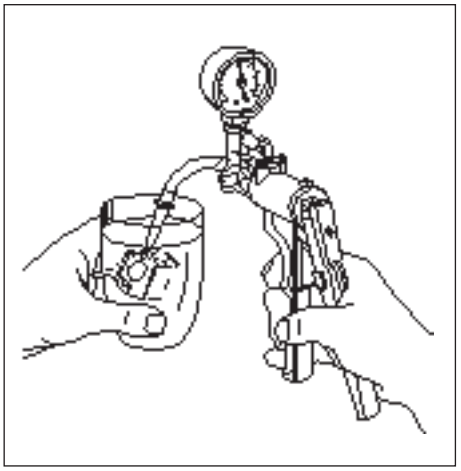
Replace if required.

Dismantling the carburettor

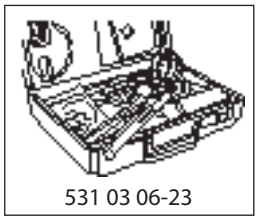
Carefully remove the control diaphragm (A) and gasket (B).

Check the diaphragm for holes and wear on the pin (C).

Replace the diaphragm if required.



Pressure test the metering unit.



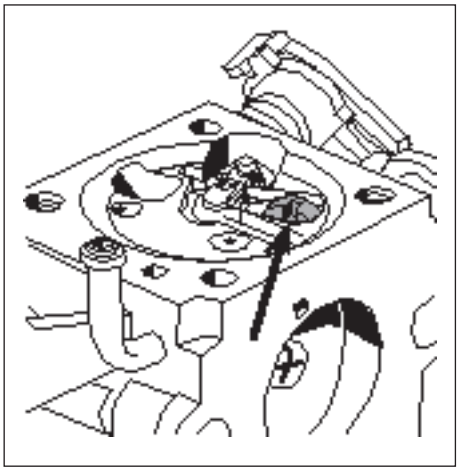
531 03 06-23

Connect pressure tester 531 03 06-23 to the fuel hose nipple.

Lower the carburettor in a vessel with petrol in order to discover any leaks more easily.

Test the pressure at 50 kPa.

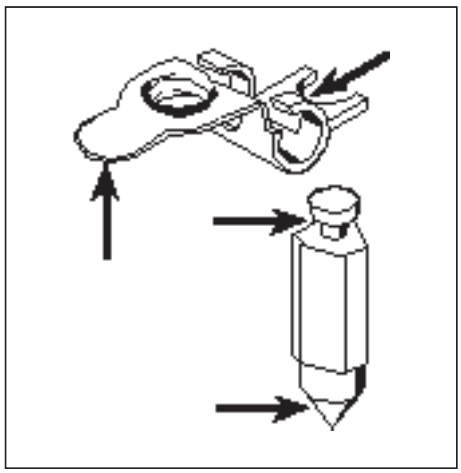
No leakage is permitted.



In the event of leakage – remove the needle valve.

In the event of leakage – remove the needle valve.

Loosen the bolt and remove the lever arm, axle, needle valve and spring.



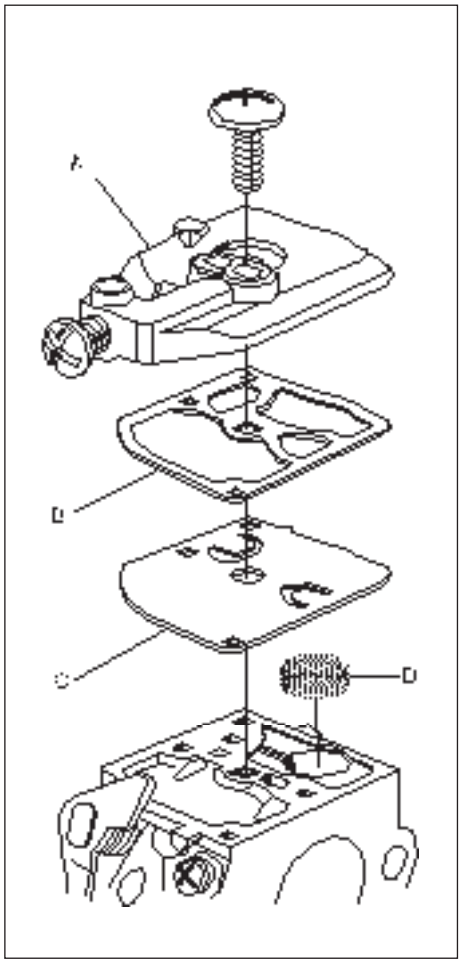
Check the needle valve and the lever arm for damage or wear.

Replace damaged components with new ones.

Check the needle valve for damage on the tip and in the lever arm groove.

Check the lever arm for damage to the groove for the needle valve and wear on the mounting points towards the control diaphragm.

Replace damaged components with new ones.



Remove the pump diaphragm.

Check the diaphragm for damage.

Remove the fuel screen and clean it or attach a new one.

Remove the bolt holding the cover over the pump diaphragm.

Lift off the cover (A), the gasket (B) and the diaphragm (C).

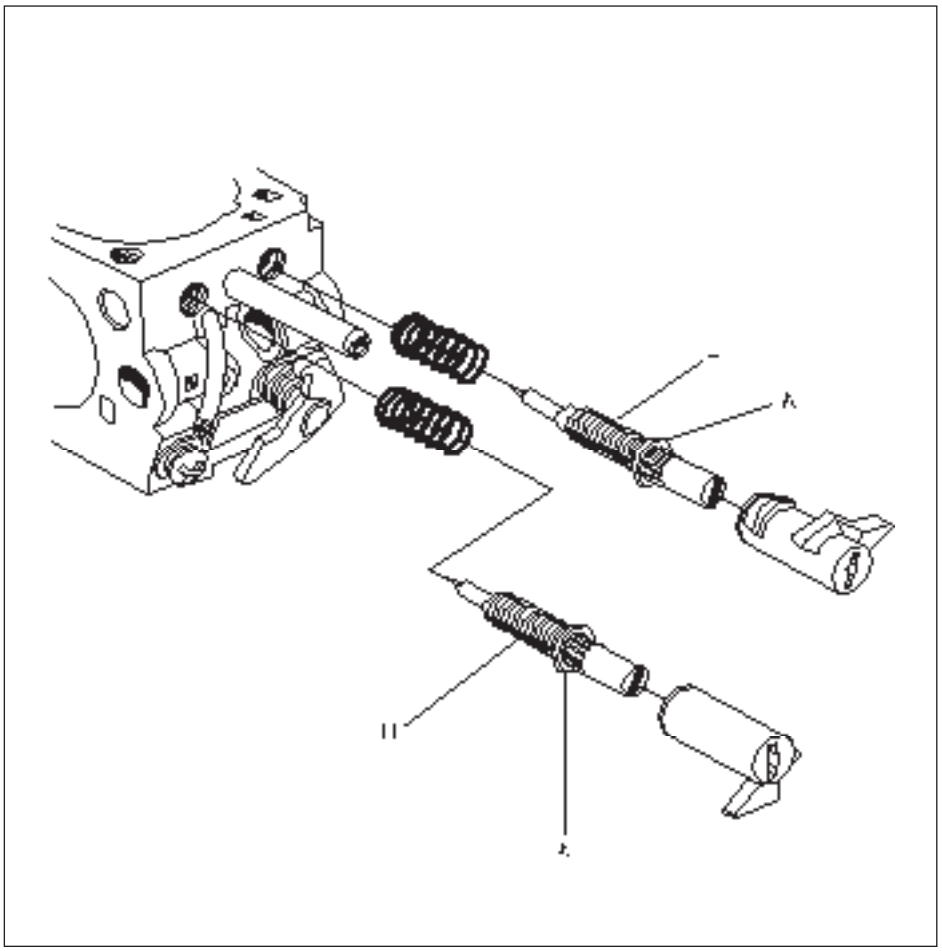
Check the diaphragm for damage to the valve tongues. If the valve tongues are bent, the pump will not function in a satisfactory manner.

Hold it up to a light as well to discover any holes in the material.

Carefully remove the fuel screen (D), using a needle for example. Clean or replace the fuel screen.

NOTE!

During assembly the pump diaphragm should lie closest to the carburettor housing.



Pull away the movement limiters on the jet screw needles using a long nosed pliers or the special tool 504 62 29-01 if the movement limiter is made of plastic and 540 06 82-01 if it is made of zinc.

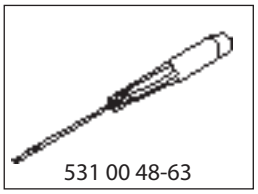
Unscrew the jet needles.

Do not lose the small washers (A)!

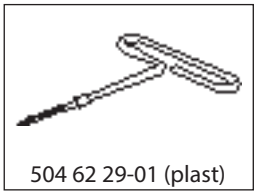
NOTE!

Note how the jets are positioned.

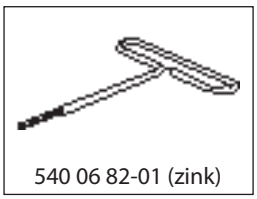
(For example, the H-needle is a little shorter than the L-needle).



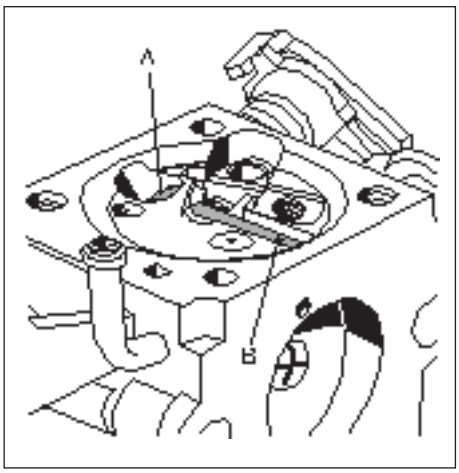
531 00 48-63



504 62 29-01 (plast)



540 06 82-01 (zink)

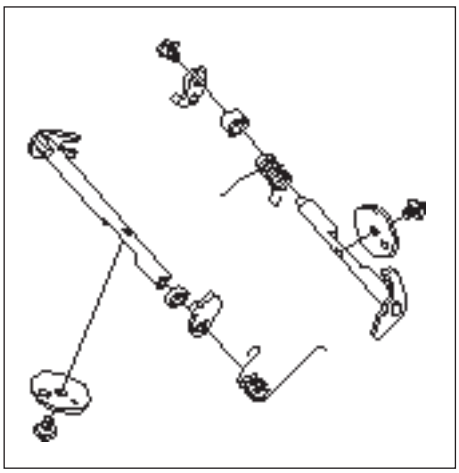


Dismantle the main jet (A) and the plug (B).

Press out the main jet (A) with a suitable punch.

Remove the plug (B).

Carefully drill a small hole (Ø 2 mm) in the plug and pry it up with a pointed object.

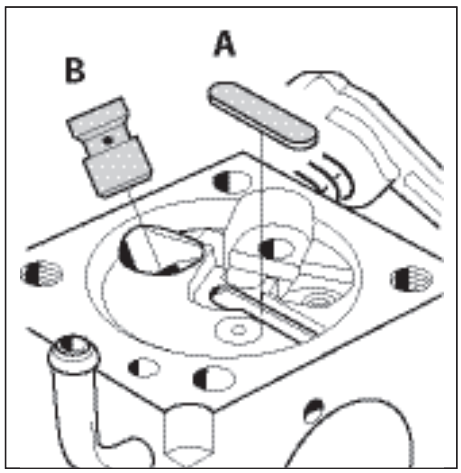


Check valves and dampers for wear.

Replace if required.

Remove the valves and dampers. If these components are worn, idling is disrupted.

Always replace the valves and dampers at the same time.



Assembling the carburettor

Blow the carburettor housing clean.

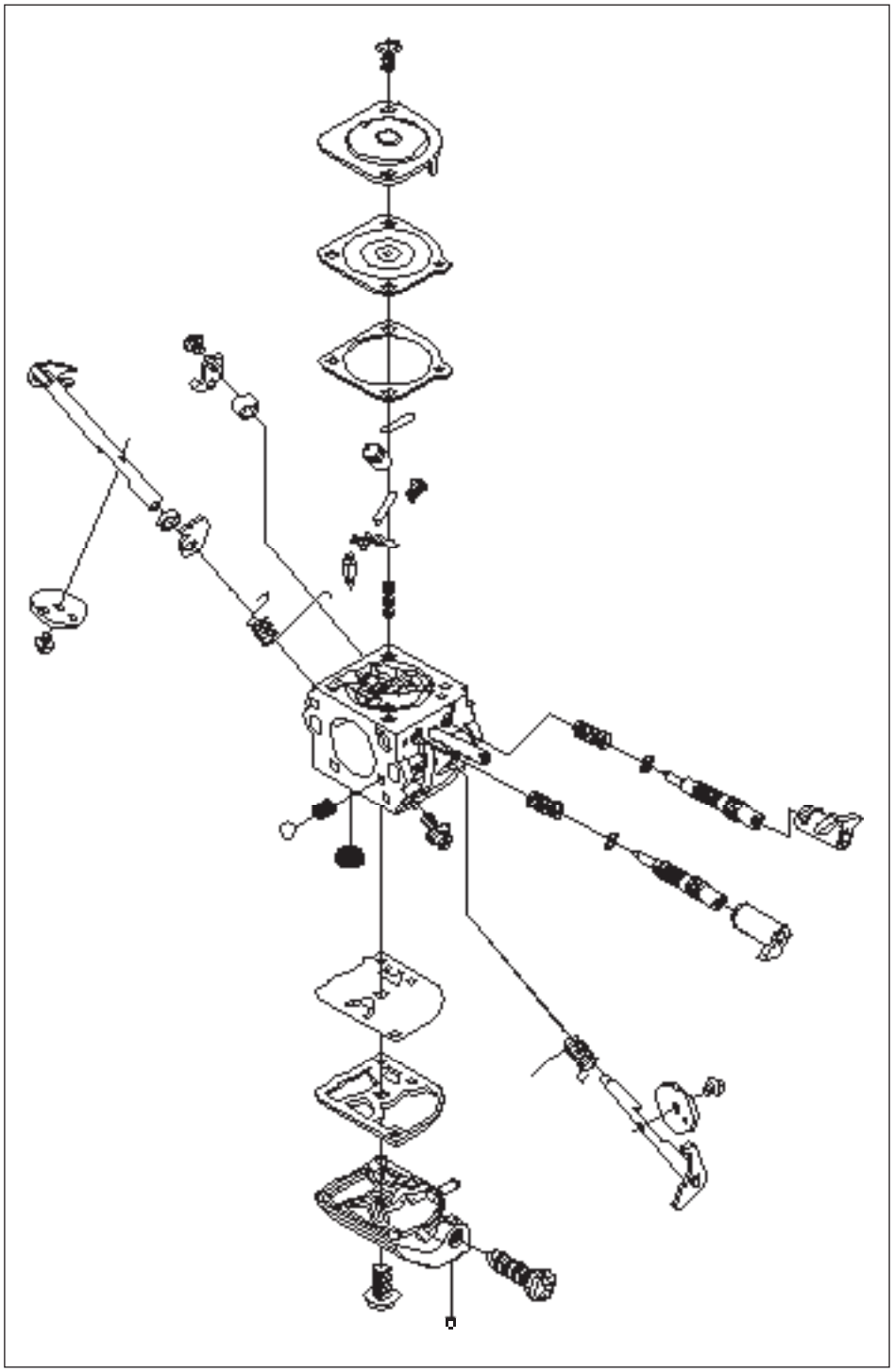
Fit a new plug.

Fit a new main jet.

Assembling the carburettor

- Blow all channels in the carburettor compartment clean
- Mount a new plug.

  Use a suitable punch to get a completely tight seal.
- Press in a new main jet.



- Mount the valves and dampers.

Tip!

Any numbers on the valves should be able to be read from the outside.

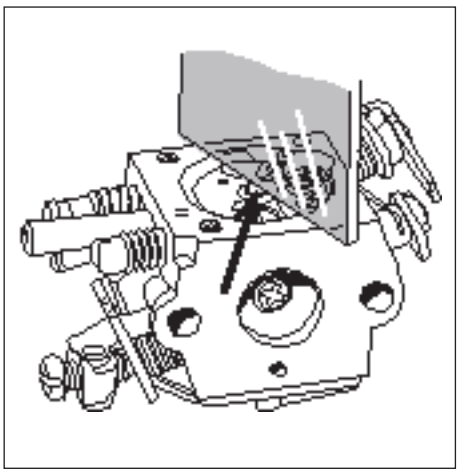
Replace the fuel screen if it is damaged or cannot be cleaned.

Place the pump diaphragm closest to the carburettor housing. Then the gasket and cover and the other components in reverse order of removal.

NOTE!

Check that the valves are turned correctly and that they close completely and tightly in the closed position.

Use Loctite on the valve screws.



Attach the various parts of the measuring unit in the reverse order as set out for dismantling.

The lever arm should lie flush with the carburettor housing.

Attach the various parts of the measuring unit in the reverse order as set out for dismantling.

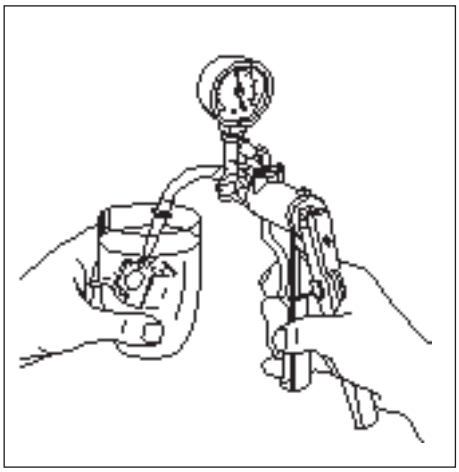
The lever arm should lie flush with the carburettor housing.

Too high setting = too much fuel.

Too low setting = too little fuel.

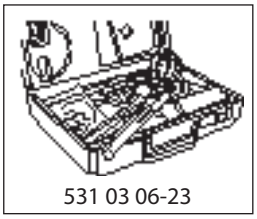
NOTE!

The H-needle is a little shorter than the L-needle.



Check that the carburettor is sealed.

No leakage is permitted at 50 kPa.



531 03 06-23

Connect pressure tester 531 03 06-23 to the fuel intake on the carburettor.

Pump up the pressure to 50 kPa.

Lower the carburettor in a vessel with petrol in order to discover any leaks more easily.

No leakage is permitted.

Attach the control diaphragm and cover.

Place the gasket on the carburettor housing and then the control diaphragm.

Check that the air hole in the cover is open and screw the cover on.

Assembly

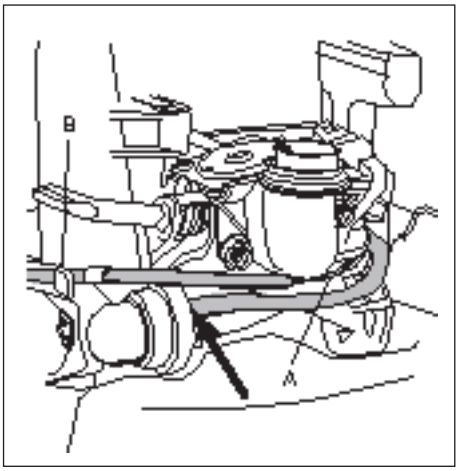
Secure the seal on the carburettor and connect the fuel pipe.

Place the carburettor between the air filter connection and distance piece.

Tighten the carburettor screws.

Assembly

1. Secure the seal on the carburettor with a little grease.
2. Connect the fuel pipe from the tank.
3. Slide in the carburettor between the air filter connection and the distance piece on the cylinder.
4. Tighten the carburettor screws and ensure that the seal is positioned correctly.



Connect the throttle cable and check that it sits correctly in the guide on the air filter connection (A) and in the cut-out (B) by the heat guard.

5. Connect the throttle cable on the carburettor with the help of flat nose pliers. Check that the cable sits correctly in the guide on the air filter connection (A) and that it sits correctly in the cut-out (B) by the heat guard.
6. Connect the fuel pipe between the fuel pump and the carburettor.

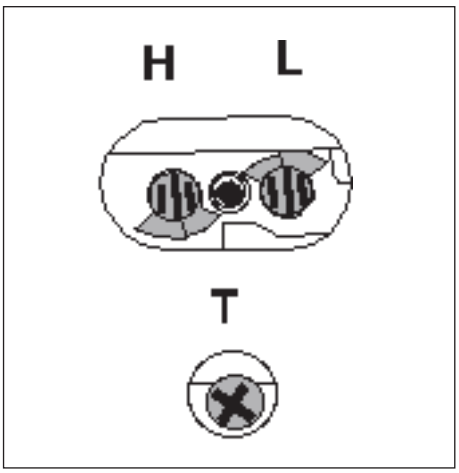
Assemble the remaining parts in the reverse order as set out for dismantling.

Carburettor settings

WARNING!

When testing the engine in connection with carburettor adjustment, the clutch and clutch cover must be mounted together with the shaft and angle gear under all circumstances

Otherwise there is a risk of the clutch becoming loose resulting in serious personal injury.



Function

The carburettor has the task of supplying a combustible fuel/air mixture to the cylinder.

The amount of this mixture is controlled by the throttle.

The mixture's composition of fuel and air is controlled by means of the adjustable "H" and "L" needles.

The needles must be correctly adjusted in order for the engine to give maximum power at different speeds, run steadily while idling and to react quickly when accelerating.

The setting of the carburettor can vary a little depending on the humidity, temperature and air pressure.

L = Low speed needle

H = High speed needle

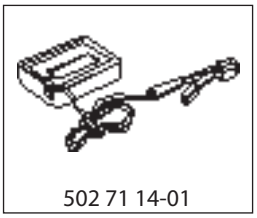
T = Idle adjustment screw

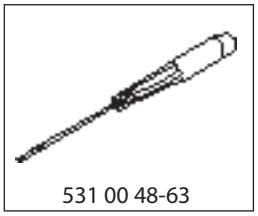
- The fuel quantity in relation to the air flow permitted by the throttle opening is adjusted by the L and H jets. Turning the needles clockwise gives a leaner fuel mixture (less fuel) and turning them anticlockwise gives a richer fuel mixture (more fuel). A leaner mixture gives higher revs while a richer mixture gives less revs.
- The T-screw regulates the position of the throttle while the engine is idling. Turning the screw clockwise gives a higher idling speed while turning it anticlockwise gives a lower idling speed.

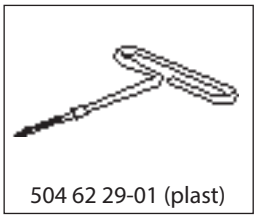
NOTE!

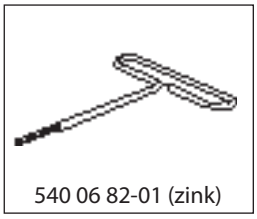
A revolution counter should always be used to achieve optimal setting.

The recommended max. fast idle speed must not be exceeded.


502 71 14-01


531 00 48-63


504 62 29-01 (plast)


540 06 82-01 (zink)

Basic setting

The carburettor is set to its basic setting when test run at the factory. The basic setting is "richer" than the optimal setting (fast idle speed is 600–800 rpm under the recommended max. speed) and should be kept during the engine's first working hours. Thereafter the carburettor should be fine tuned.

The default setting is:

H = 2 1/4 revolution open

L = 1 1/2 revolution open

The following conditions apply to all carburettor settings in order to achieve the correct result:

- Defect-free spark plug with correct electrode gap.
- Defect-free air filter. Clean and correctly fitted.
- There should be no leaks between the cylinder and the distance piece and the carburettor and the distance piece. Check the screws are tight.
- The fuel filter should be clean.
- The exhaust port (muffler and cylinder) should not be completely or partially clogged.
- The cutting attachment (blade or trimmer head) must be fitted. The cord length must be as standard (cut by the cutter on the splash guard).
- Correct fuel quality, minimum 89 octane.

With screwdriver 531 00 48-63 you can make small adjustments of the jet screw needles without having to dismantle the stop plugs.

With tool 504 62 29-01, the stop plugs are dismantled so that the jet screw needles can be loosened for e.g. replacement or cleaning.

Fine adjustment

Fine adjustment of the carburettor should be carried out after the engine has been "run-in".

The engine must also be run warm for 4 to 5 minutes.

The carburettor setting must be carried out in two steps, and in various ways depending on the type of cutting attachment fitted.

With a trimmer head

H-needle

Step 1: Twist the needle to the position where the engine is almost running as a 4-stroke.

Step 2: With the engine turned off, then twist the needle a third of a turn clockwise (leaner setting).

L-needle

Step 1: Twist the needle to the position providing maximum engine speed.

Step 2: Then turn the needle anticlockwise so that the speed drops by 500 rpm.

With blade or similar item

H-needle

Step 1: Twist the needle to the position that provides an engine speed of 11,700 rpm.

Step 2: With the engine turned off, then twist the needle half a turn clockwise (leaner setting).

L-needle

Step 1: Twist the needle to the position providing maximum engine speed.

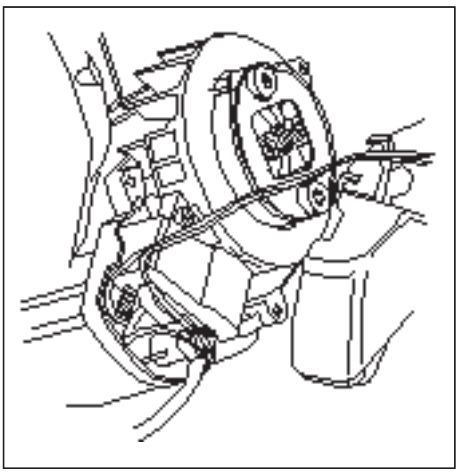
Step 2: Then twist the needle anticlockwise until the speed is reduced by 500 rpm (richer setting).

> NOTE!
>
> Speed in excess of 11,700 rpm should be restricted by the ignition system and not recorded by the revolution counter.

After adjusting the settings, the locking plugs should be fitted so the jet needles cannot be turned anticlockwise.

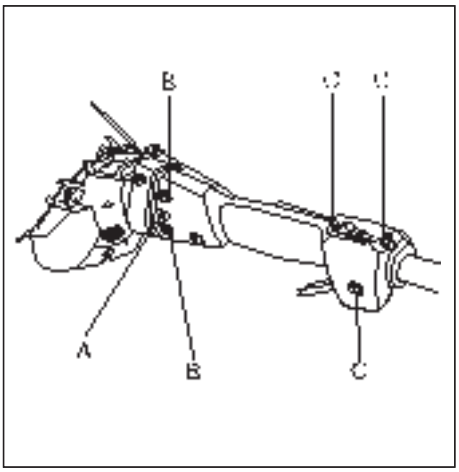
Start the engine and check it responds quickly at full throttle, the idle speed is 2,700 rpm and the fast idle speed is max 11,700 rpm.

> NOTE!
>
> If the cutting attachment rotates when the engine is idling, the idle adjustment screw T should be turned anticlockwise until the cutting attachment stops.



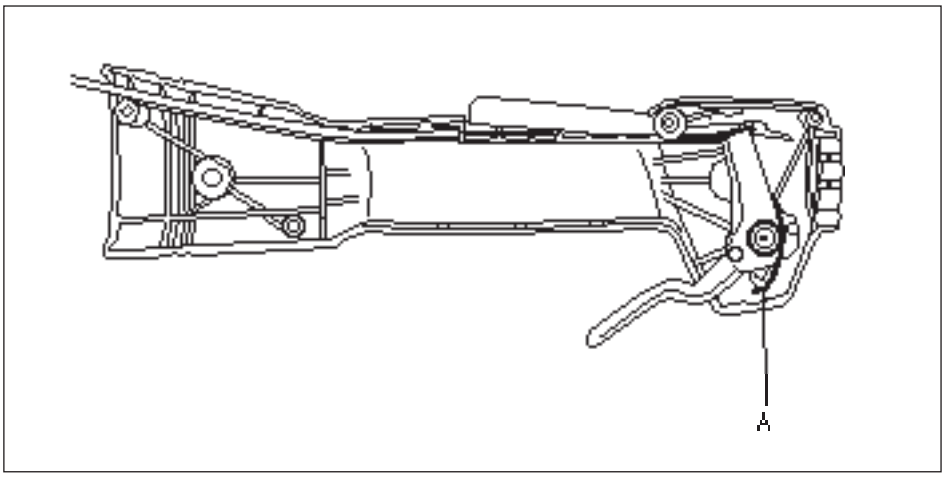
Throttle, model 326

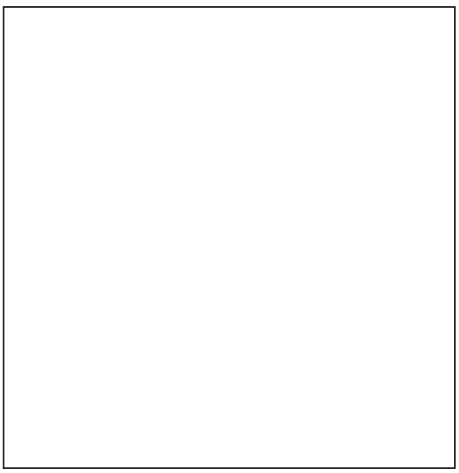
Separate the engine body and the clutch cover.



Pull away the shaft with the throttle from the clutch cover.

Remove the throttle from the shaft.





Throttle, model 326

We recommend that the throttle is dismantled from the engine and shaft in order to efficiently carry out service and repair work.

Separate the engine body and the clutch cover (see the "Electrical System" chapter).

Remove both screws (A) (one on each side).

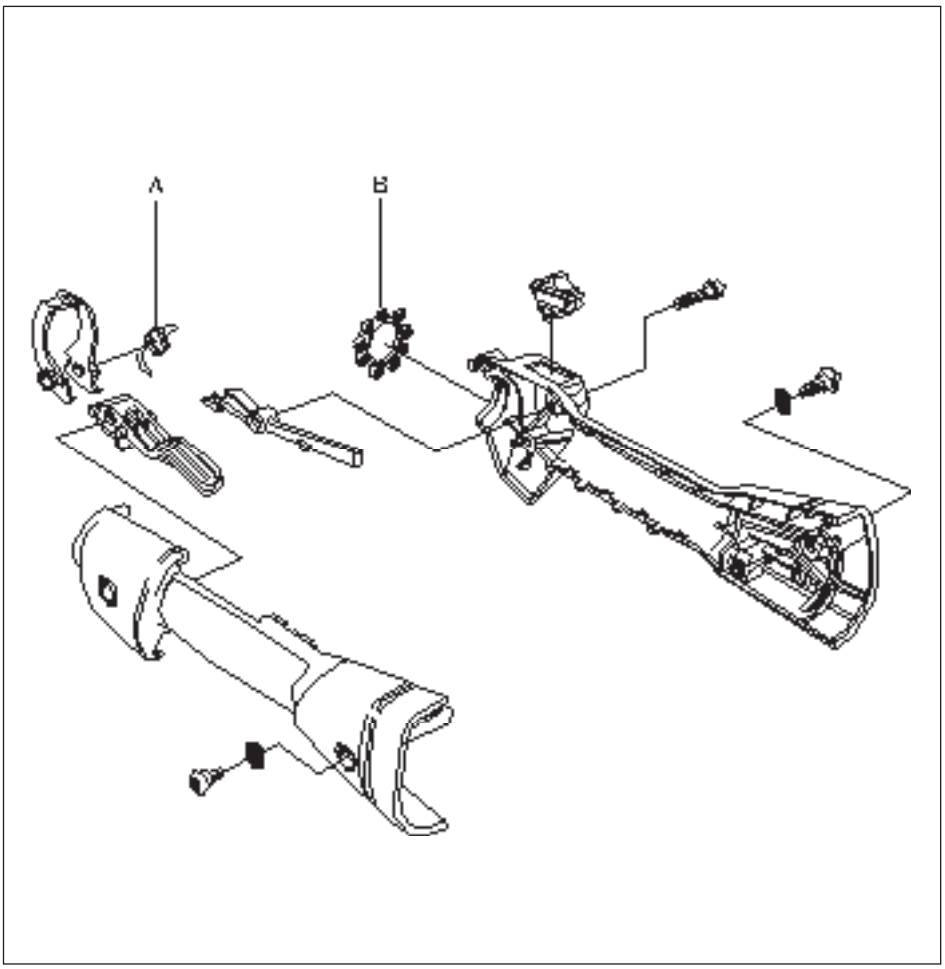
Remove the screws (B) and pull away the shaft with the throttle from the clutch cover.

Loosen the 3 front screws (C) (approx. 2 turns) holding the throttle halves and pull the throttle off of the shaft.

Remove the screws holding the throttle together and carefully separate the halves.

Note how the different parts are fitted. Pay special attention to which way the return spring (A) faces.

The stop contacts can be pried back using a small screwdriver if they need to be replaced.



Assembly of the throttle is done in the reverse order as set out for dismantling.

Position the parts in the left-hand throttle half.

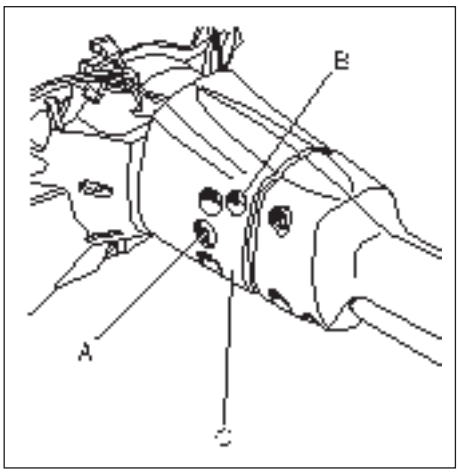
Ensure the return spring (A) is facing the right way.

Check that the throttle cable and the short-circuit cable are pressed correctly down in their channels so that they are not pinched when the two throttle halves are screwed together.

Do not forget to put the vibration element (B) in position before the throttle halves are put together. Lubricate the vibration element with soapy water. This facilitates fitting the throttle on the shaft.

Fit together the throttle halves using the 5 screws, but do not tighten them fully before the throttle has been positioned on the shaft.

Assemble the remaining parts in the reverse order as set out for dismantling.

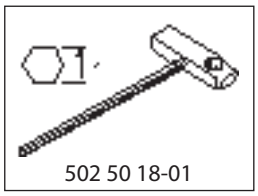


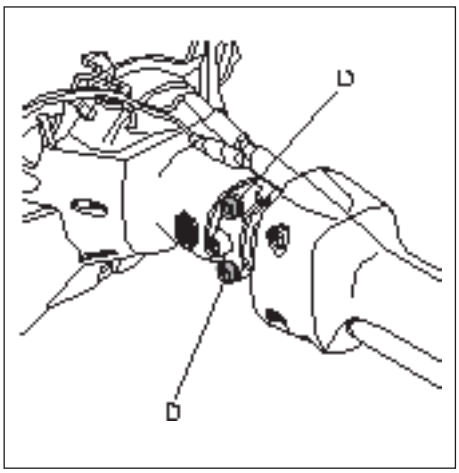
Throttle, model 327

Separate the engine body and the clutch cover.

Remove the screws (A) and (B).

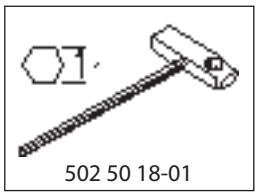
Lift off the covers (C).





Unscrew the screws (D).

Remove the clutch cover and the throttle handle from the shaft.



Throttle, model 327

We recommend that the throttle is dismantled from the engine and shaft in order to efficiently carry out service and repair work.

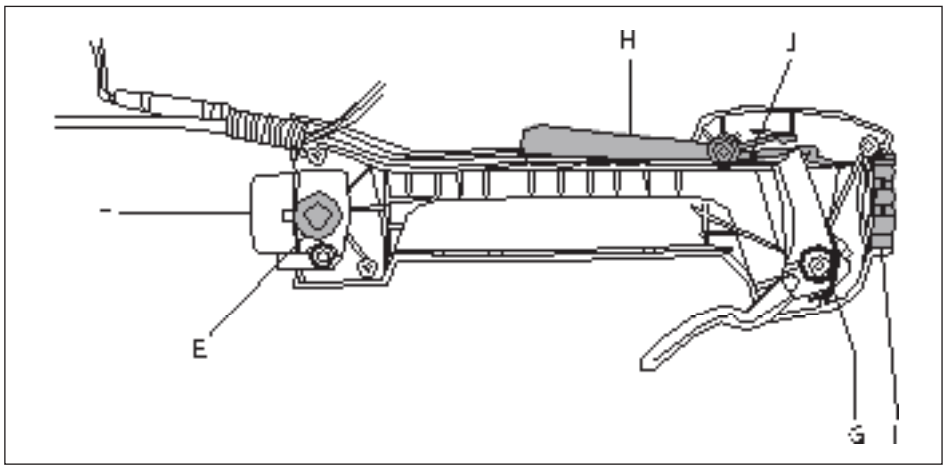
Separate the engine body and the clutch cover (see chapter "Ignition system").

Remove both screws (A) (one on each side).

Remove the screw (B) and lift off the cover (C).

Loosen the screws (D) holding the flare fitting around the shaft.

Remove the clutch cover and the throttle handle from the shaft.



Remove the 5 screws holding the handle in place.

Carefully remove the right handle half and make sure that the vibration damper (E) is not lost (one on each side of the clamping sleeve).

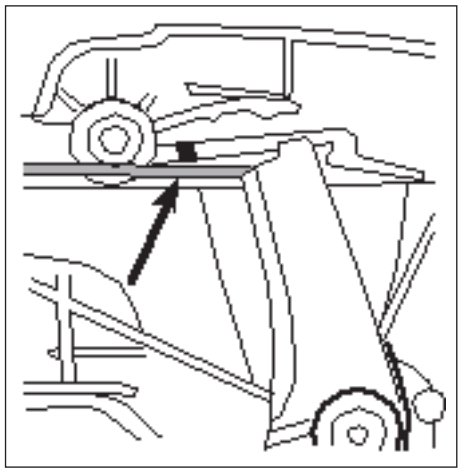
Note how the different parts are fitted.

Remove the clamping sleeve (F).

Note how the throttle's recoil spring (G) is fitted and remove the throttle lever.

Remove the throttle trigger lock (H) and the vibration element (I).

Assemble in the reverse order as set out for dismantling. Do not forget to put the vibration dampers (E) and (I) in place.



Check that the throttle cable is fitted to the underside of the pin (J) on the throttle trigger lock.

See also the "Throttle, model 326" assembly section.

Check that the throttle cable is fitted to the underside of the pin (J) on the throttle trigger lock.

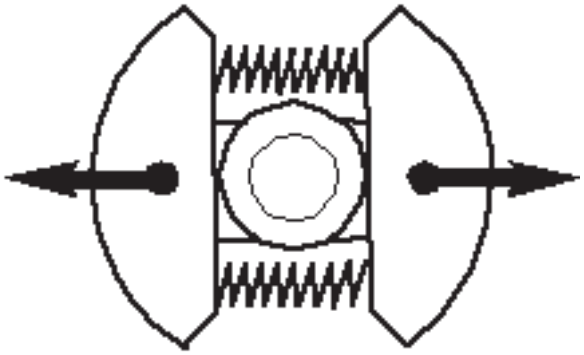
See also the "Throttle, model 326" assembly section.

Trouble Shooting Guide

Symptom / Probable causes		Starting			Low speed				Acceleration/ Deceleration			High speed
		Difficult to start	Flooding, fuel leakage	Difficult to prime when starting	Engine does not idle	Idles too slowly	Idling does not stabilise	Stops when idling	Engine does not accelerate	Engine stops when decelerating	Poor acceleration capacity	Poor performance at high speed
Stop screw for the throttle not working		☒			☒		☒	☒				
Fuel tank/hose	Fuel filter blocked	☒		☒	☒		☒	☒	☒			☒
	The fuel hose blocked	☒		☒	☒		☒	☒	☒			☒
	Air in fuel ducts	☒		☒	☒		☒	☒	☒			☒
	Incorrect/poor fuel	☒					☒					☒
Pump diaphragm	Vacuum pulse leakage								☒			☒
	Vacuum pulse duct blocked								☒			☒
	Loose screw(s) on the pump cover		☒						☒			☒
	Faulty pump diaphragm								☒	☒		☒
Flow bellows	Flow bellows damaged			☒								
	The needle valve faulty	☒		☒			☒	☒	☒			☒
Carburettor is not fitted correctly					☒		☒		☒			☒
Faulty heat insulation seal				☒		☒		☒			☒	
Needle valve's lever	Lever arm damaged	☒	☒			☒			☒			☒
	Lever arm too high		☒			☒		☒		☒		
	Lever arm too low								☒			
	Lever arm does not work correctly	☒	☒	☒	☒	☒	☒	☒	☒	☒		☒
Needle valve's spring	The spring is deformed		☒					☒				☒
	The spring is not fitted correctly						☒	☒	☒			☒
Control diaphragm	Diaphragm is damaged	☒	☒	☒			☒		☒			☒
	Faulty seal	☒	☒	☒								☒
Needle valve	Valve jams	☒		☒					☒			
	Valve worn	☒	☒			☒	☒	☒		☒		☒
	Foreign object in the valve guide	☒	☒			☒	☒	☒		☒		☒

Centrifugal clutch

4



Contents

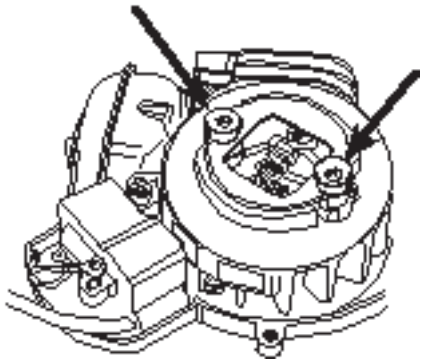
The centrifugal clutch has the task of transferring the power from the engine to the cutting equipment's drive axle. As the name implies, it works according to a centrifugal principle.

This means the clutch's friction shoes are thrown outwards towards the clutch drum at a certain engine speed. When the friction against the drum is sufficiently great it drives the drive shaft at the same speed as the engine.

Some slipping occurs between the clutch and the clutch drum when accelerating as well as in the reversed situation when the cutting equipment jams. Thereby preventing abnormal load changes on the crankshaft.

The engagement speed has been carefully tested so that the engine can idle without the cutting equipment's drive shaft rotating.

Model 326



Dismantling

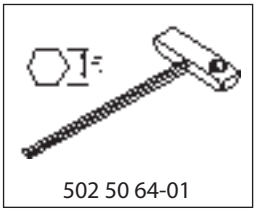
Dismantle the clutch by following the instructions in the chapter "Electrical system".

Dismantling

The centrifugal clutch is bolted to the flywheel.

Follow the detailed instructions in the chapter "Electrical system" when the clutch is to be dismantled.

Mod. 326



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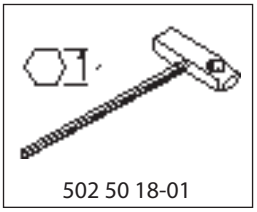
Mod. 327



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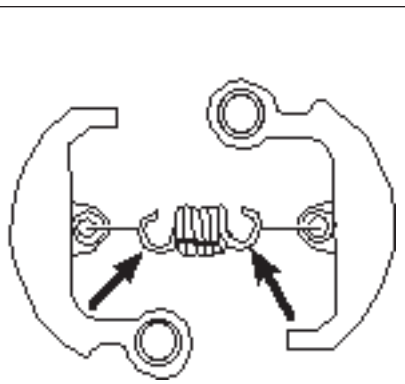
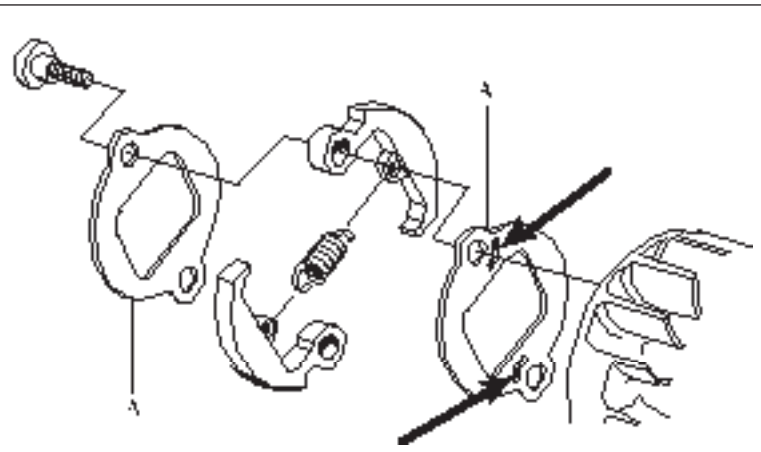


Twist apart the clutch and inspect the different parts with regard to wear or damage.

Twist apart the clutch.

Inspect the different parts with regard to wear or damage.

Pay special attention to the ends of the springs, which in addition to wear, can also show signs of cracking.



Assembly

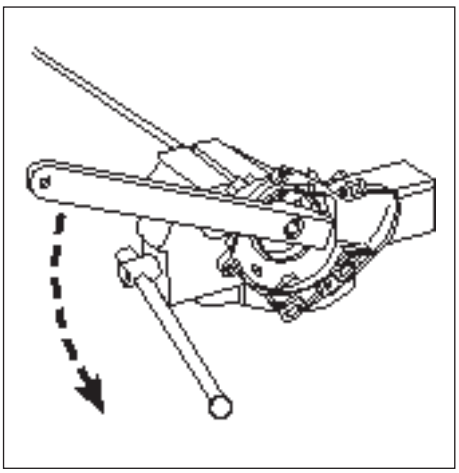
Connect the clutch shoes together with the spring.

NOTE!

Both clutch shoes should be replaced even if only one of them is showing signs of heavy wear. This is to avoid engine vibration caused by imbalance in the clutch.

Bolt the clutch on the flywheel. Do not forget the washers (A).

Note the slots on the washer lie closest to the flywheel. Align with the equivalent pins on the flywheel.

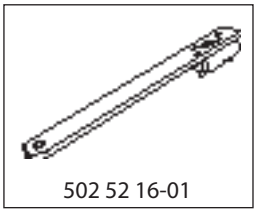


Replacing the clutch drum and drive axle

Model 326

Separate the shaft from the clutch cover.

Dismantle the clutch drum using tool 502 52 16-01.



502 52 16-01

Replacing the clutch drum and drive axle

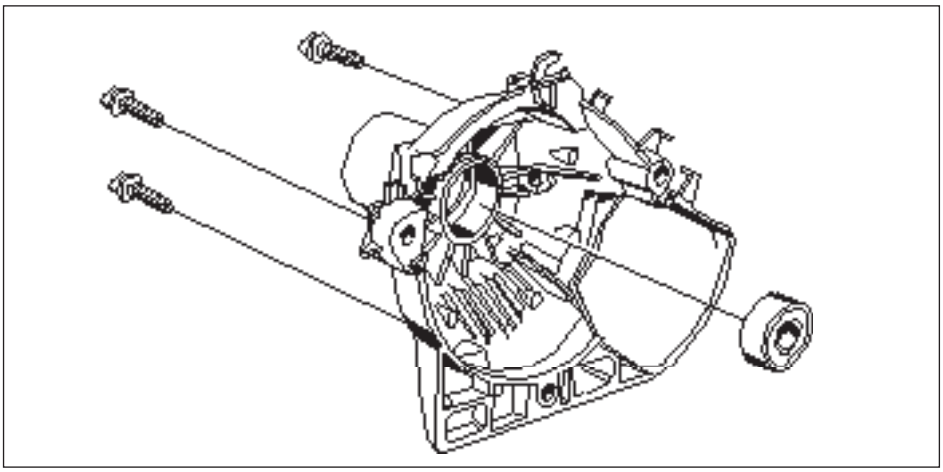
Model 326

Separate the shaft from the clutch cover.

Pull away the clutch cover complete with drive axle and clutch drum.

The drum is bolted on the drive axle and can be dismantled using tool 502 52 16-01.

The clutch drum should be replaced if the diameter exceeds Ø 64.1 mm.



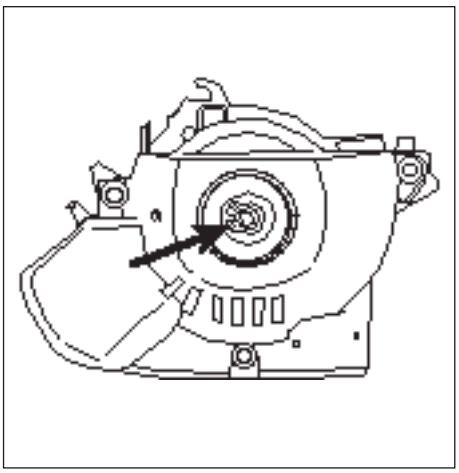
The bearing supporting the clutch drum in the clutch cover is glued in position with Loctite. To replace the bearing, heat the cover to approx. 100°C using a hot air gun and the glue will release.

Dismantle the bearing using an appropriate punch and hammer.

> NOTE!
> Dismantle the shaft's mounting clamp and rubber spacer on the clutch cover so these parts are not damaged when the cover is heated.

Assemble in the reverse order as set out for dismantling.

Use Loctite intended for mounting bearings when the bearing is mounted in the clutch cover.



Model 326C

Dismantle the clutch cover and remove the shaft's mounting parts in the cover.

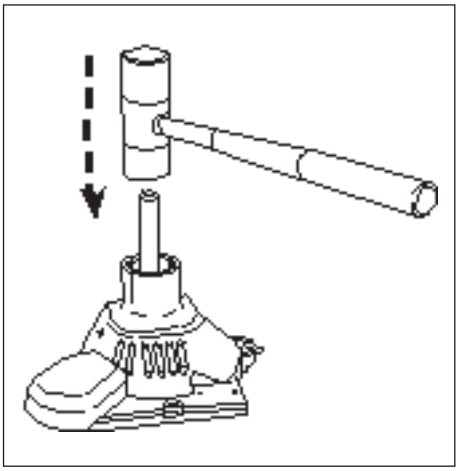
Remove the circlip.

Model 326C

Dismantle the clutch cover from the shaft.

Remove the shaft's mounting parts on the clutch cover.

Dismantle the circlip holding the clutch drum's spindle by the bearing.



Press off the clutch drum.

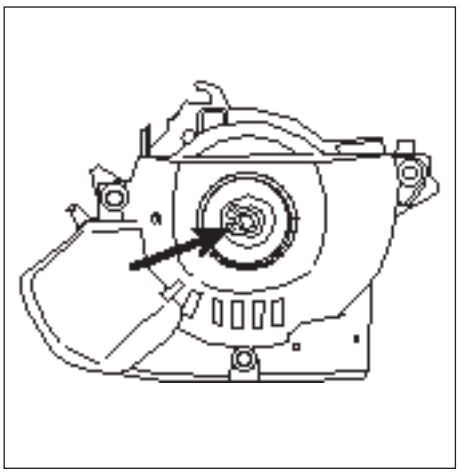
Replace the bearing and fit the remaining parts in the reverse order as set out for dismantling.

Now press out the clutch drum using a suitable punch and hammer.

The bearing is replaced in the same way as described above.

Assemble in the reverse order as set out for dismantling.

> NOTE!
> When replacing the flexible drive axle it should be pulled out of the shaft in the direction of the engine. Lubricate the new axle well using special drive axle grease no. 503 80 17-01 when it is assembled.

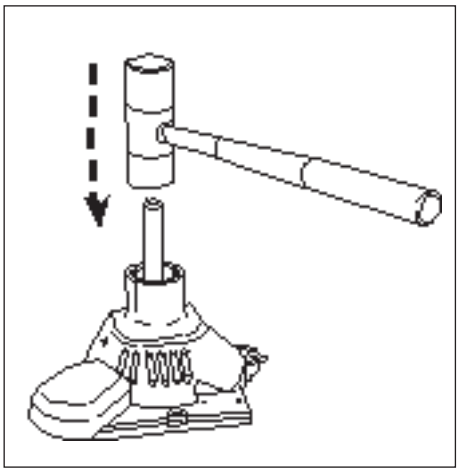


Replacing the clutch drum

Models 327 LS, 327 P5

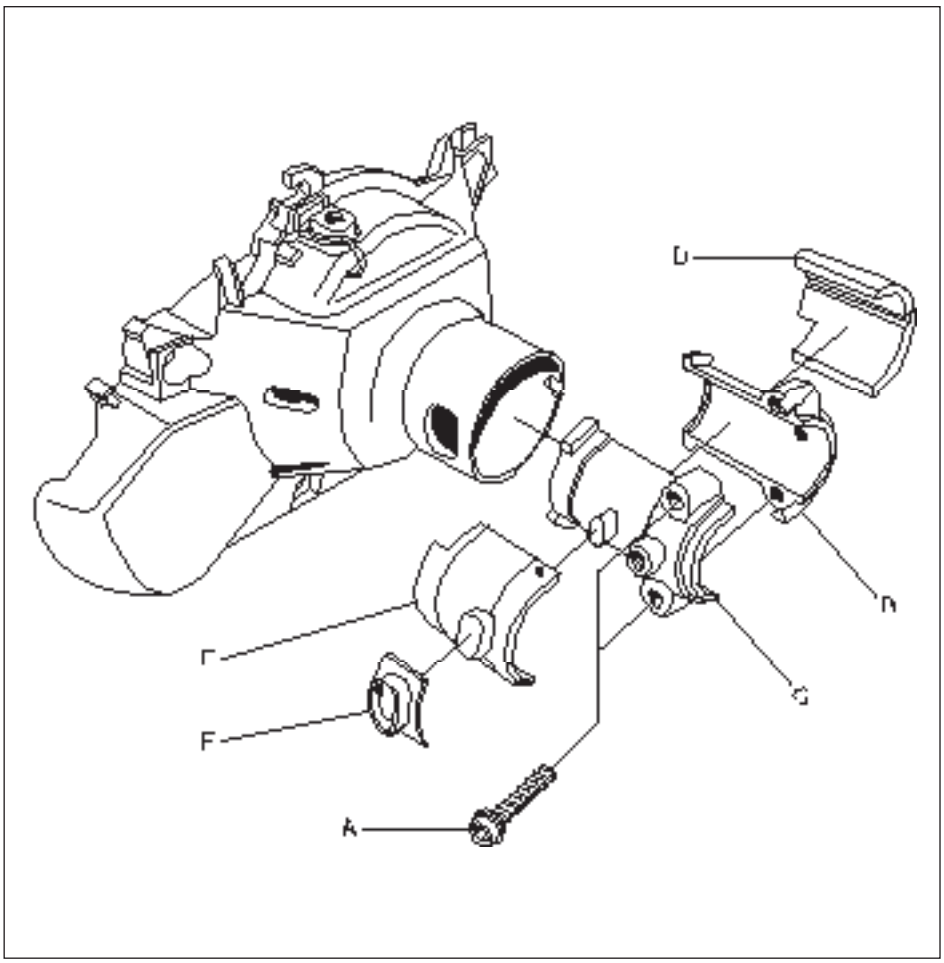
Remove all parts including the vibration damper (see below) until only the clutch cover is left.

Remove the small circlip from around the shaft on the clutch drum using suitable circlip pliers.



Press off the clutch drum.

Check the clutch drum for wear. It should be replaced if the diameter exceeds Ø 64.1 mm.



Replacing the clutch drum

Models 327 LS, 327 P5

Remove all parts including the vibration damper (see below) until only the clutch cover is left.

Remove the small circlip from around the shaft on the clutch drum using suitable circlip pliers.

Now press out the clutch drum using a suitable punch and hammer.

The bearing supporting the clutch drum in the clutch cover is glued in position with Loctite. To replace the bearing, heat the cover to approx. 100°C using a hot air gun to loosen the glue.

Dismantle the bearing using an appropriate punch and hammer.

Check wear on the clutch drum.

It should be replaced if the diameter exceeds Ø 64.1 mm.

Assemble in the reverse order as set out for dismantling.

Use Loctite intended for mounting bearings when the bearing is mounted in the clutch cover.

Replacing the vibration damper

Models 326, 327

Remove both of the screws (A) holding the clamping halves (B) and (C) together.

Use a screwdriver to prise off the clamping half (B) with the fitted vibration damper (D).

Then remove the clamping half (C) with the fitted vibration damper (E) and wear guard (F).

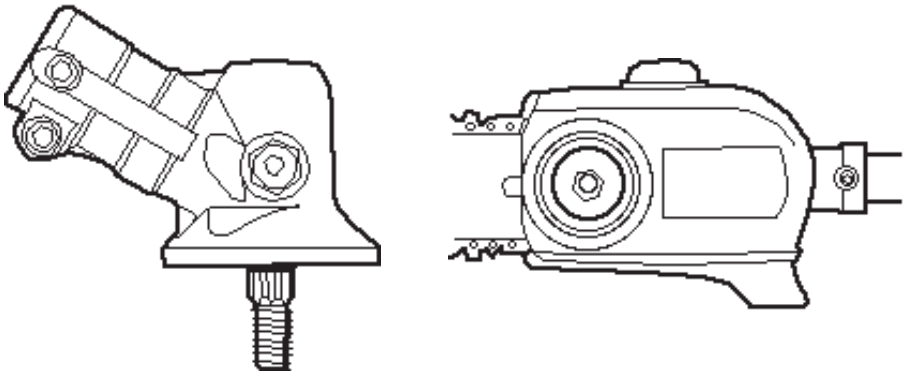
Inspect all components for wear and damage.

Assemble in the reverse order as set out for dismantling.

Lubricate the vibration dampers with silicone spray if needed.

Bevel gear/Cutting attachment

5



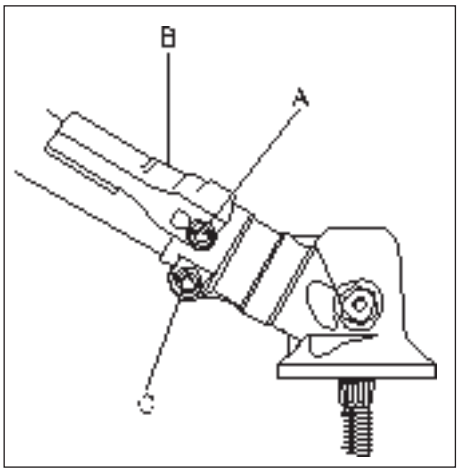
Contents

5 Bevel gear/Cutting attachment

The angle gear has two purposes:

The first is to gear down the engine's high speed to better suit the lower speed a saw blade or trimmer requires to work efficiently.

Secondly, the angle gear contributes towards the operator's working stance so that it is comfortable and at the same time efficient. In other words, the power from the engine via the drive axle should be angled so that the cutting tool works parallel with the ground.

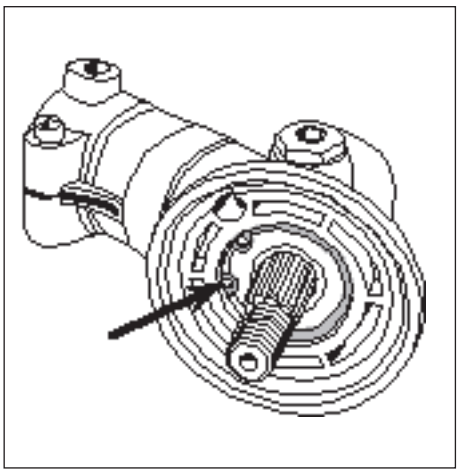


Dismantling

Remove the angle gear from the shaft.

Dismantling

1. Remove the cutting equipment and guard.
2. Remove the screw (A) and lift off the plate (B).
3. Loosen the screw (C) holding the angle gear on the shaft and remove the angle gear.



Remove the circlips holding the bearings on the input respective output shafts.

4. Remove the support washers and the dust protection disc.
5. Remove the circlips holding the bearings on the output axle (illustrated) and on the input axle using the circlip pliers.

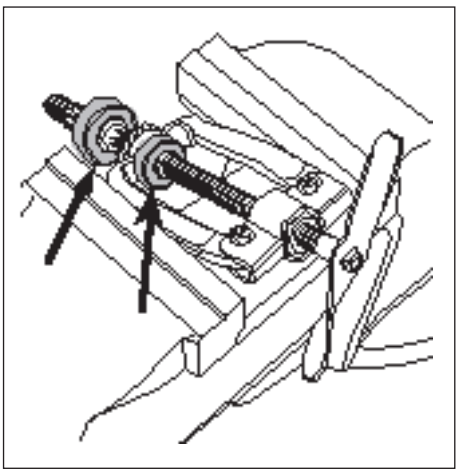
Heat the entire angle gear to approx. 110°C and first dismantle the input axle and then the output axle.

Heat the entire angle gear using a hot air gun to approx. 110°C.

Knock the gear against a wooden block so that the input axle and the bearing fall out.

Now lift out the output axle.

Wear protective gloves.

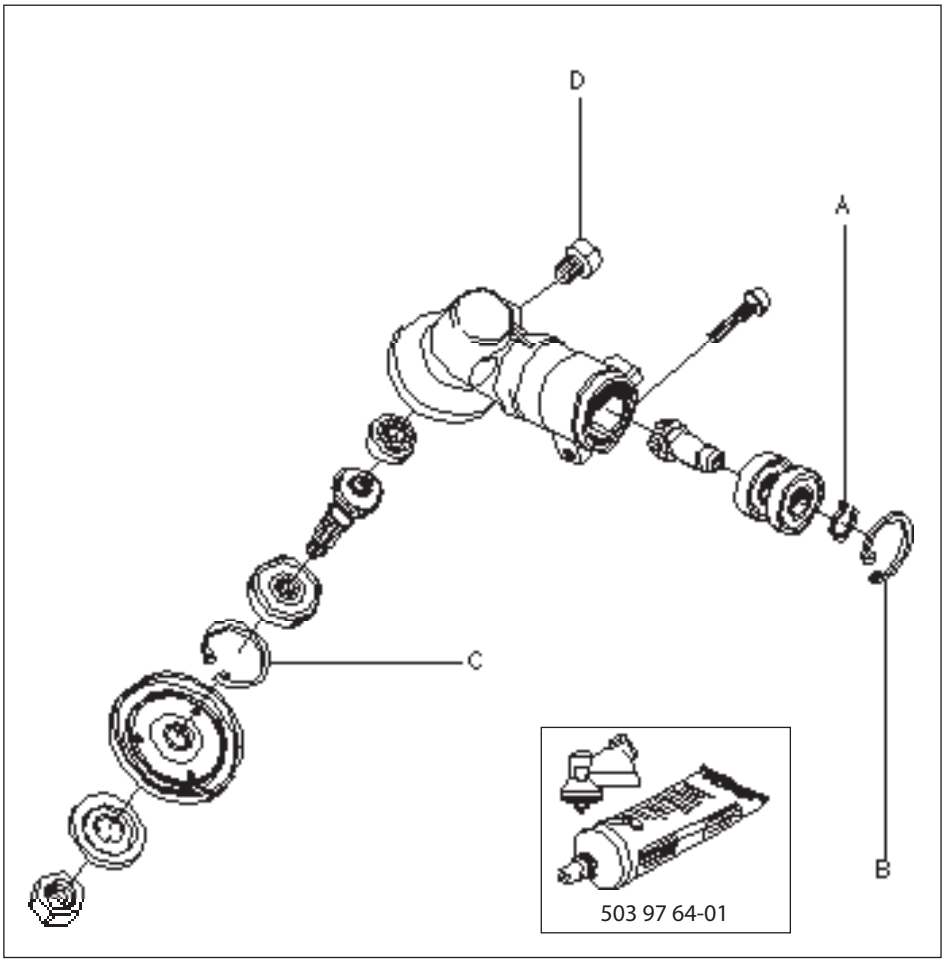


Dismantle the bearings from the output and input axles.

Dismantle the bearings from the output and input axles with the help of a small bearing puller.

TIP!

Hold the bearing puller in a vice so that it gains a better grip around the bearing.



Assembly

Clean all component parts and replace if damaged or worn.

Fit the bearings on respective axles. This is easier if the bearings are heated to approx. 110°C using a hot air gun.

The bearings on the input axle are sealed on one side. Turn the bearings so this side faces outwards.

NOTE!

Do not forget the circlip (A) holding the bearing on the input axle.

Heat the gearbox to approx. 110°C and first place the output axle in position and then the input axle.

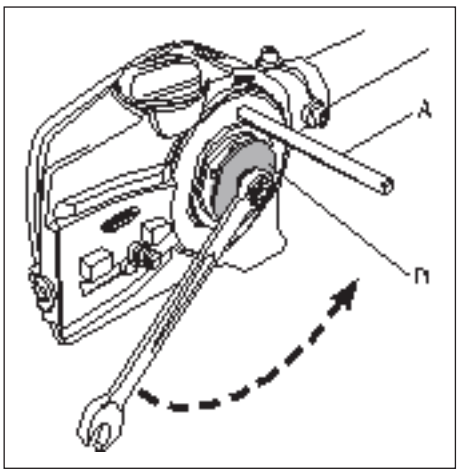
Make sure the bearing bottoms in its seating.

Fit the circlips (B) and (C). Make sure they lie correctly in their grooves.

Assemble remaining parts in the reverse order as set out for dismantling.

NOTE!

Do not forget to fill the gear housing to approx. 3/4 with gear housing grease 503 97 64-01 once the plug (D) has been removed.



Branch saw

Dismantling, drive end

Dismantle the chain, bar and the chain sprocket.

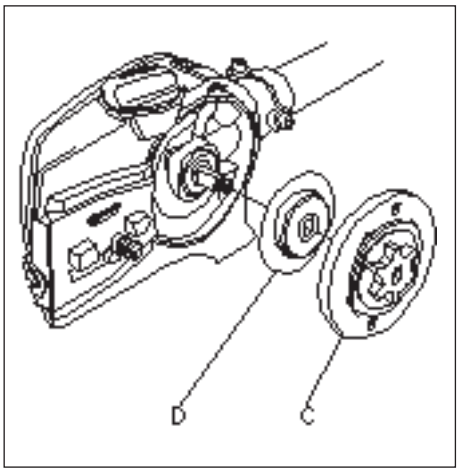
Branch saw

Dismantling, drive end

Dismantle the chain and bar.

Remove the nut holding the chain sprocket and the cover plate (B) in place.

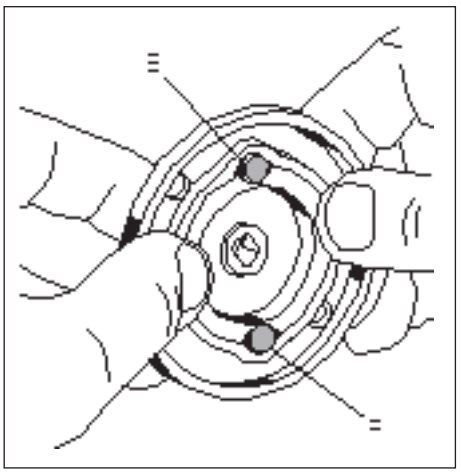
Brake the rotation by inserting a suitable mandrel (A) through the drive disc and into the gear housing.



Remove the drive disc, the chain sprocket and the support washer.

Remove the drive disc (C) including the chain sprocket.

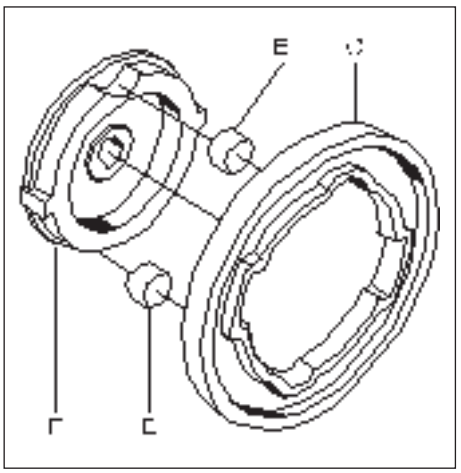
Remove the support washer (D) from inside the drive disc.



Separate the drive disc and the chain sprocket.

Press the drive disc and the chain sprocket apart using your thumbs.

Be careful not to lose the rubber plugs (E).



Inspect all parts.

Replace worn or damaged components with new ones.

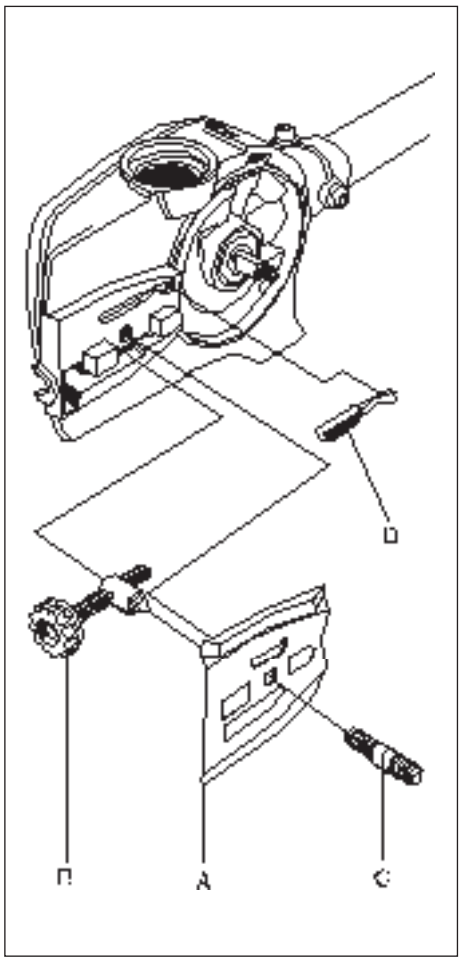
Position the drive disc (C) and the chain socket (F) together. Press the rubber plugs (E) into the respective opening.

Inspect all parts.

Replace worn or damaged components with new ones.

Position the drive disc (C) and the chain socket (F) together. Press the rubber plugs (E) into the respective opening.

Use a flat pliers for instance to facilitate assembly.



The pin screw (C) must first be removed to replace the wear guard plate (A) or the chain adjuster screw (B).

Prise off the guard plate using a screwdriver.

Lift off the chain adjuster screw and the rubber oil channel.

The pin screw (C) must first be removed to replace the wear guard plate (A) or the chain adjuster screw (B).

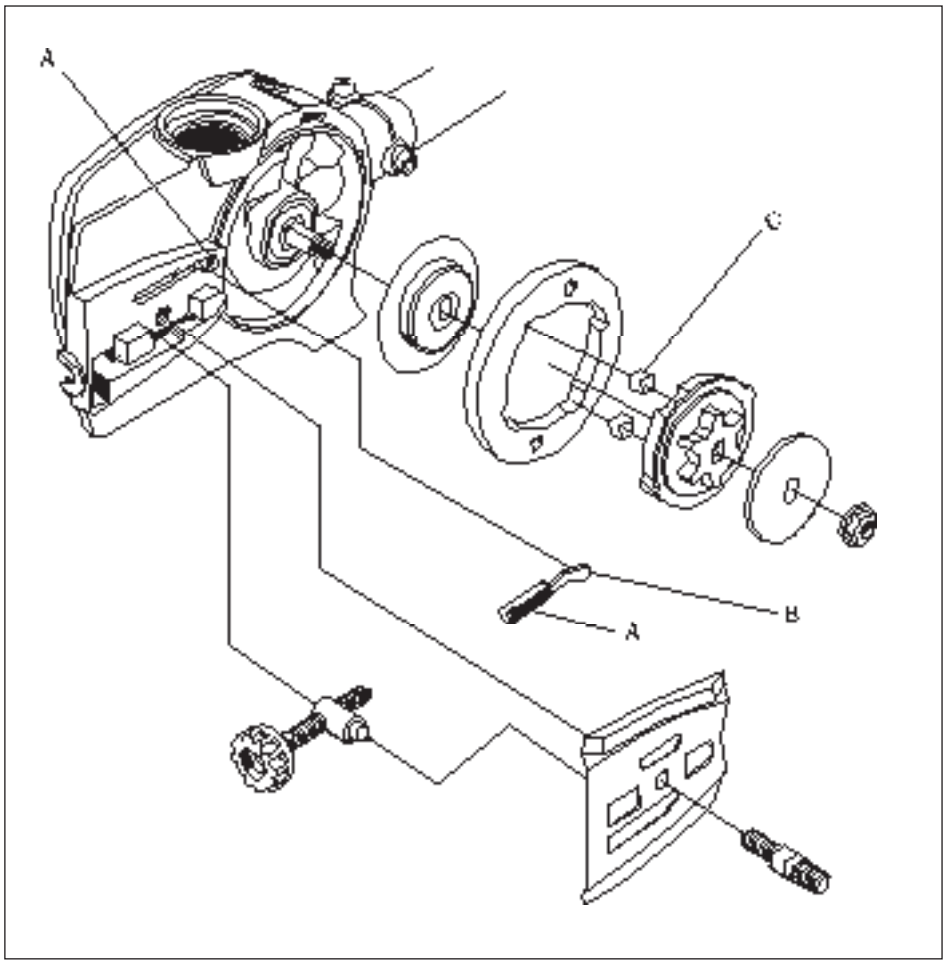
TIP!

Screw two nuts to the pin screw and lock them together. Use the lower one to grip a wrench and unscrew the pin screw.

Then prise off the plate using a screwdriver.

Remove the chain adjuster screw.

Lift off the rubber unit (D) used as an oil channel for chain lubrication.



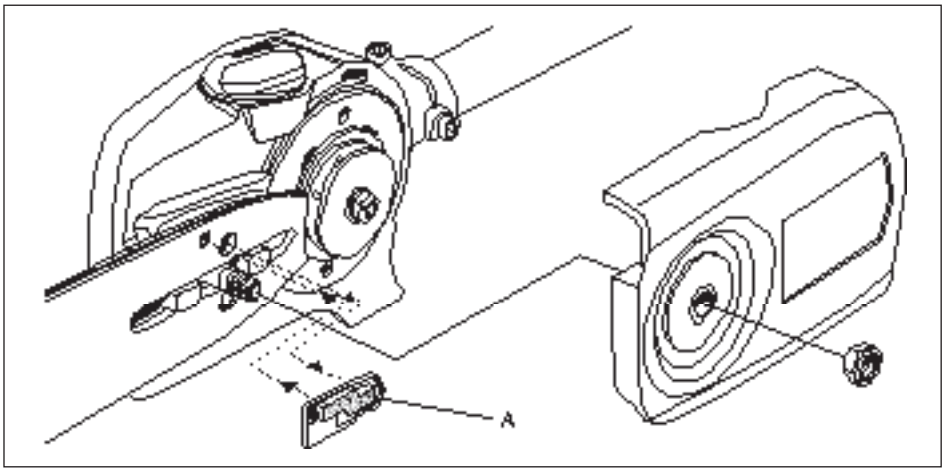
Assembling, drive end

Clean and inspect all components and replace if damaged or worn.

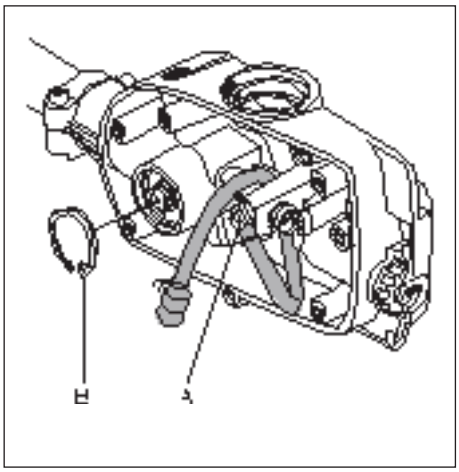
Assemble in the reverse order as set out for dismantling.

Be observant of the following:

1. Check that the oil channel (A) is open all the way to the bar and that the rubber unit (B) is not damaged.
2. Replace the rubber buffers (C) if they are deformed and do not fit correctly in the chain sprocket and the drive disc.



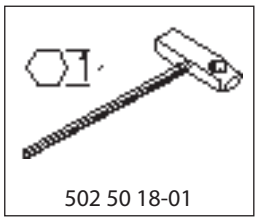
Check when assembling that the rubber unit (A) that acts as the oil channel has not fallen off the chain cover.



Dismantling, oil pump end

Dismantle the chain, bar and chain sprocket.

Remove the oil tank cover, the oil hose and circlip for the ball bearing.



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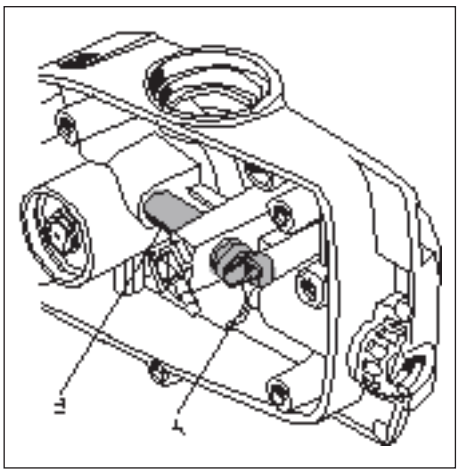
Dismantling, oil pump end

Dismantle the chain, bar and chain sprocket.

Remove the 6 screws holding the oil tank cover in place and remove the cover.

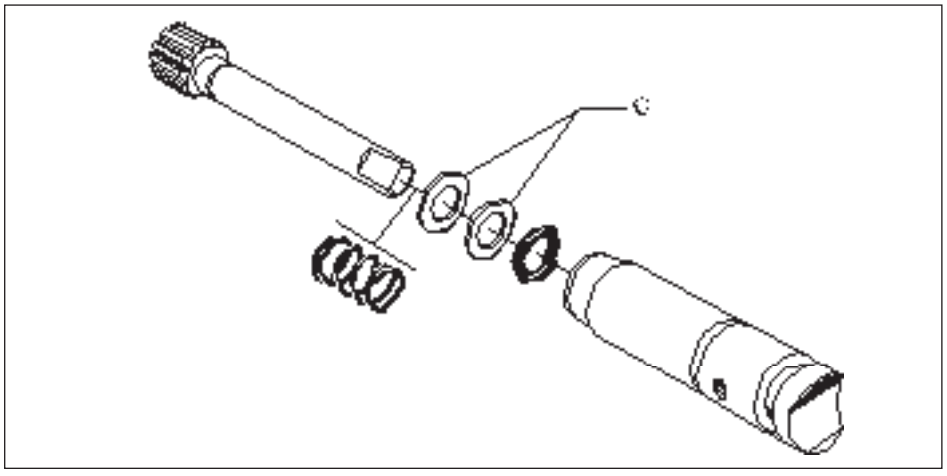
Note how the oil hose is laid and remove it from the nipple (A) using a flat nosed pliers.

Remove the large circlip (B) holding the ball bearing on the output shaft.



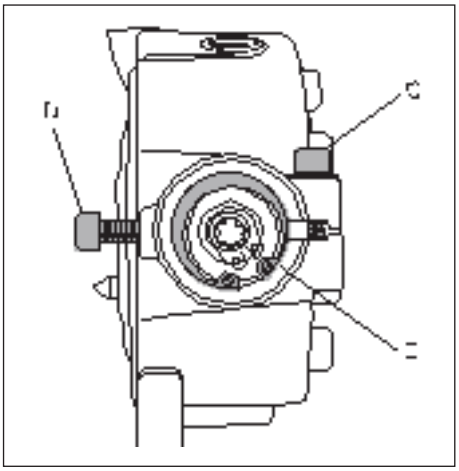
Remove the oil pump once the screw (A) is removed.

Remove the screw (A) and heat the saw body to approximately 110°C using a hot air gun. Carefully prise off the pump housing (B) with the help of a screwdriver.



Take the oil pump apart.

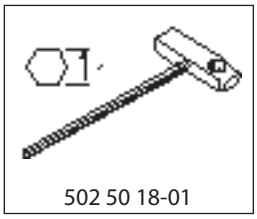
Be careful not to lose the two washers (C) while for instance cleaning the components.



Dismantling, input shaft

Remove the saw body from the shaft.

Remove the circlip holding the ball bearing on the input shaft.



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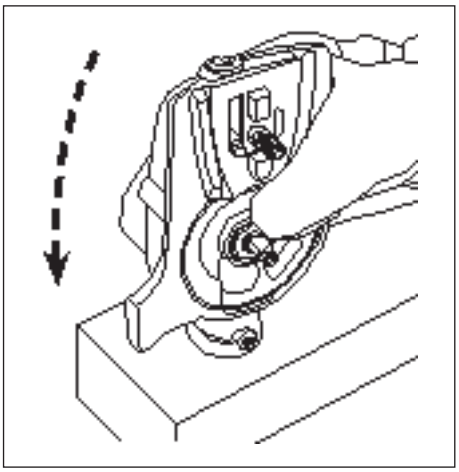
Dismantling, input shaft

Remove the saw body from the shaft by loosening the clamping screw (C) and remove the centering screw (D) that fits in an opening in the shaft.

Remove the large circlip (E) holding the ball bearing on the input shaft.



Heat the saw body to 110°C with a hot air gun.

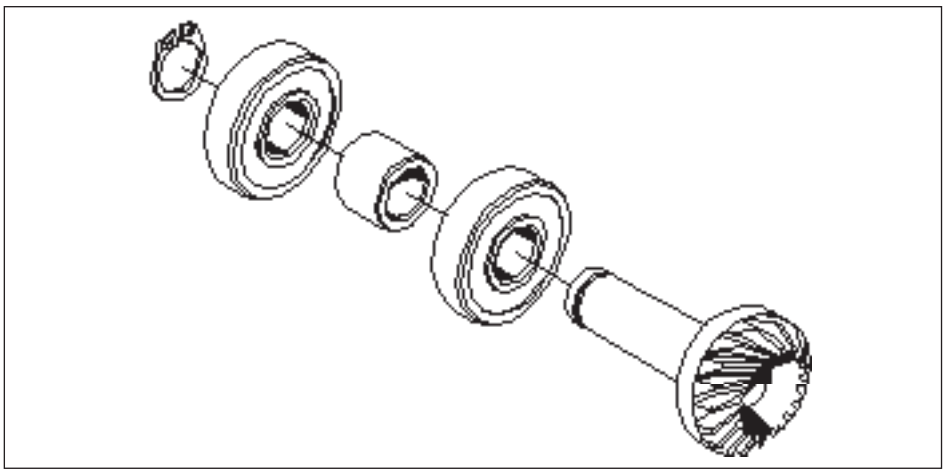
Knock the saw body against a wooden block so that the input shaft falls out.

Heat the saw body to 110°C with a hot air gun.

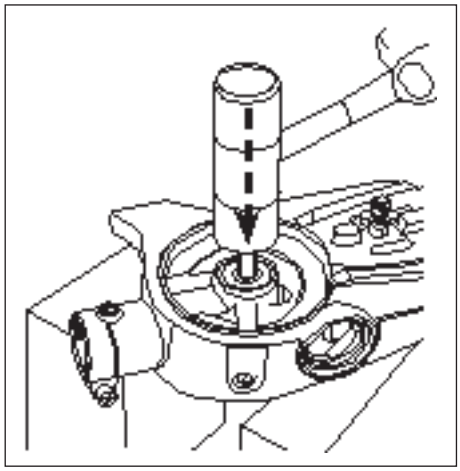
Knock the saw body against a wooden block so that the input shaft falls out.

TIP!

Make sure the clamping screw is screwed out far enough to allow the flare fitting to expand when hot and thereby prevent the ball bearings from passing through.



Remove the circlip with circlip pliers and remove both ball bearings using a bearing puller.

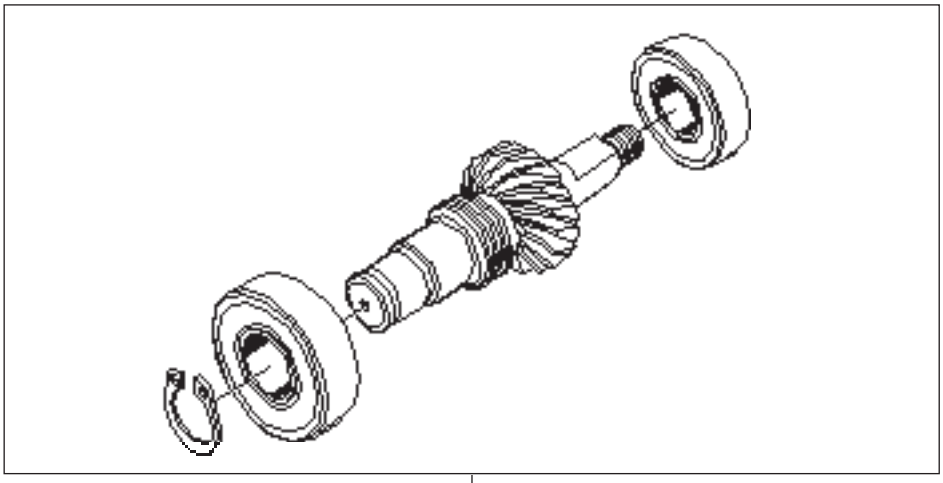


Dismantling, output shaft

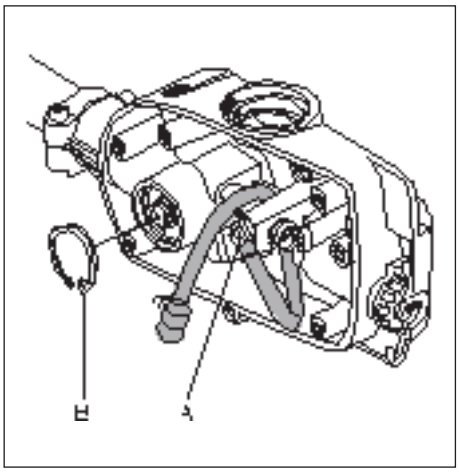
Heat the saw body and remove the output shaft.

Dismantling, output shaft

Use a hot air gun to warm the saw body to approx. 110°C and dismantle the ball bearing using a plastic hammer to prevent thread damage.



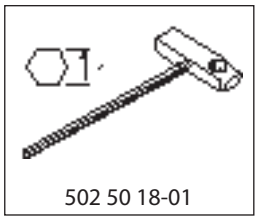
Dismantle the bearings from the output shaft (pump shaft) with the help of a small bearing puller.



Assembling, oil pump end

Assemble the different components in the reverse order as set out for dismantling.

Check that the shafts can rotate freely.



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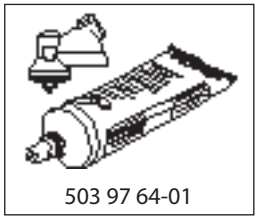


503 97 64-01

Assembling, oil pump end

Assemble in the following order:

1. Output shaft (pump shaft).
2. Input shaft.
3. Oil pump.

Lubricate the gear and the oil pump gear with gear housing grease 503 97 64-01.

Heat the saw body to about 100°C and slide both shafts in their respective position and fit the circlips (B) holding the ball bearings.

Check the shafts to make sure that they can rotate freely.

Push the oil pump into its position and tighten the locking screw.

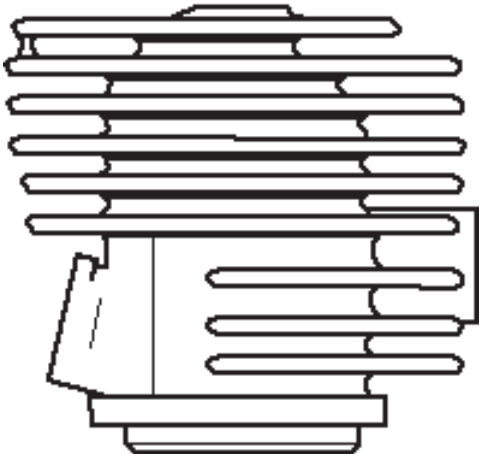
Fit the oil hose with the attached screen and note how the hose is drawn.

Make sure the locking spring (A) tightens the hose properly at the nipple.

Fit the oil pump cover and check that its sealing ring is undamaged and does not leak.

Cylinder and piston

6



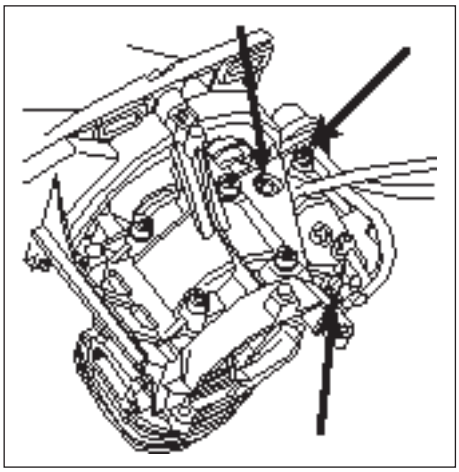
Contents

6 Cylinder and piston

The cylinder and the piston are two of the components exposed to most strain in the engine. They must withstand, for example, high speeds, large temperature swings and high pressure. Moreover, they must be resistant to wear. Despite these tough working conditions, major piston and cylinder failure is relatively uncommon. The reasons for this include new coatings in the cylinder bore, new types of oil and grease and refined manufacturing techniques.

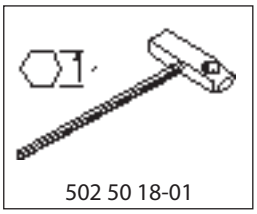
When servicing these components, cleanliness is of the utmost importance.

Before dismantling or other actions are performed on the cylinder block and valve mechanism it is recommended that a compression test is made to easily determine whether any faults exist, for example, leaking valves, leaking valve guides, damaged piston rings or a damaged piston.



Dismantling

Dismantle all parts around the cylinder incl. the distance piece with attached carburettor.



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Dismantling

Dismantle the following parts:

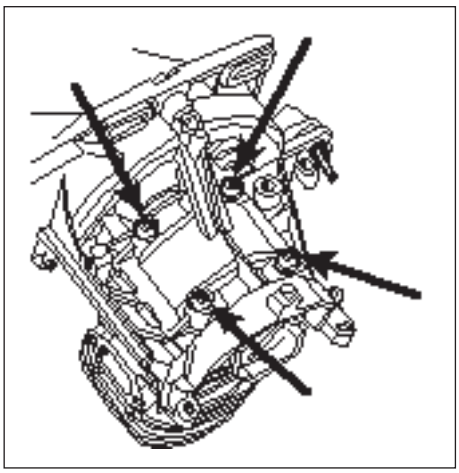
Cylinder cover, muffler grille, muffler with heat guard plate, starter and spark plug. Move the fuel tank.

Now remove the 2 screws holding the distance piece against the crankcase and the screw next to the fuel pump.

Remove the distance piece with the attached carburettor.

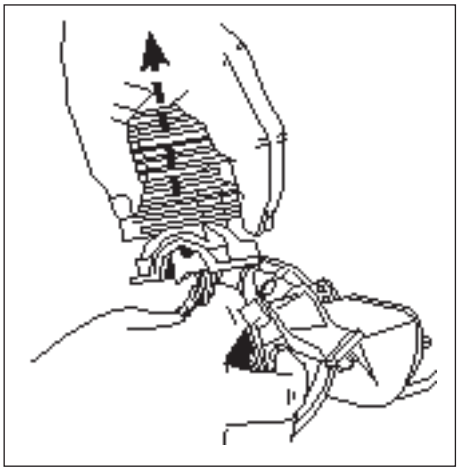
NOTE!

Ensure that the nut in the nut recess on the distance piece is not lost.



Remove the bolts holding the cylinder.

Remove the 4 bolts holding the cylinder against the crankcase.



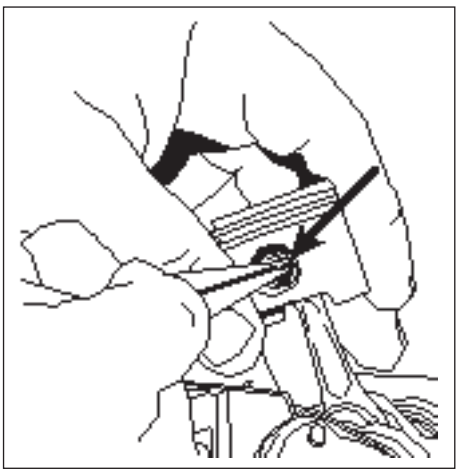
Alternative

Pull the cylinder straight up without turning it. There is a risk that a piston ring may break.

Alternative

Lift off the cylinder with the crankshaft from the crankcase.

Then pull out the crankshaft and the piston (without twisting it as there is a risk that the piston ring can break) from the cylinder bore.



Remove the gudgeon pin circlips.

Remove the gudgeon pin circlips.

Use small flat nose pliers and remove the gudgeon pin circlips.

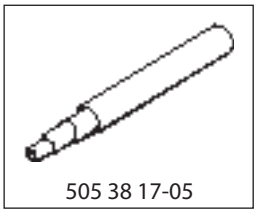
TIP!

Keep your thumb over the circlip to prevent it from flying out.

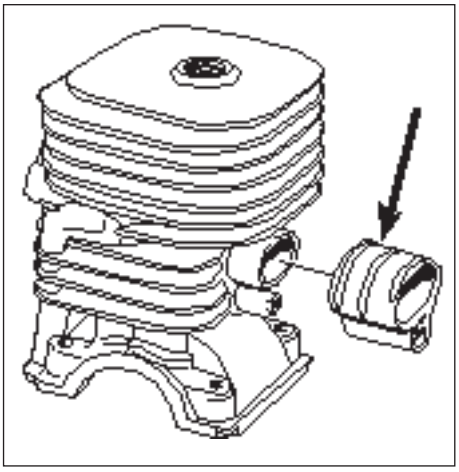
Dismantle the piston.

Press out the gudgeon pin from the piston using the punch 505 38 17-05.

If the pin is too tight, carefully warm the piston.



505 38 17-05



Cleaning, inspection

After dismantling, clean the individual components:

1. Scrape carbon deposits from the top of the piston.
2. Scrape carbon deposits from the cylinder's combustion chamber.
3. Scrape carbon deposits from the cylinder's exhaust port.

NOTE!

Scrape carefully off soot deposits using a not too sharp tool so as not to damage the soft aluminium parts.

4. Wash all the components.
5. Inspect the different components for damage and wear.

Check the piston and cylinder for seizure damage and wear.

Also see the "Analysis and actions" section.

Check the piston ring for wear and possible breakage.

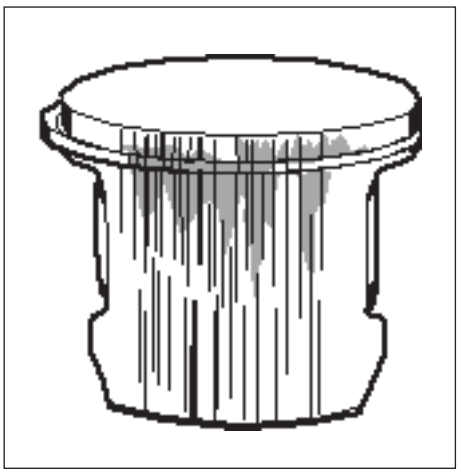
Also see the "Analysis and measures" section.

Check the gudgeon pin.

- If it has blued, it must be replaced.
- If the piston moves too easily both the piston and the gudgeon pin must be replaced.

Check the needle bearing. If it is discoloured or damaged, it must be replaced.

Check the circlips. If they exhibit cracks or are discoloured (caused by overheating), they must be replaced.



Small to medium size scores primarily in the middle of the exhaust port.

Analysis and actions

Experience tells us that piston or cylinder failure due to manufacturing errors are extremely rare.

The reason is usually due to other factors, which is evident from the following.

Note the reasons for the breakdown, repair the damage and take the actions required to prevent the same thing happening again.

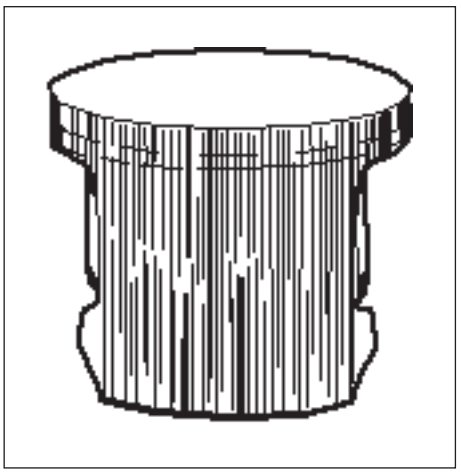
Insufficient lubrication

The piston has small to medium size score marks usually in front of the exhaust port. In extreme cases heat development can be so great that material from the piston smears along the piston skirt and even in the cylinder bore.

Generally the piston ring is undamaged and moves freely in the ring groove

There can also be scores on the inlet side of the piston.

Cause:	Action:
• Incorrect carburettor setting. Recommended max. speed exceeded.	Check and change the carburettor setting.
• Incorrect oil mixture in the fuel.	Change the fuel.
• Too low octane fuel.	Change to a higher octane petrol.



Medium to deep scores along the entire piston skirt on the exhaust side.

The piston ring starts to stick or is completely stuck in its groove and has therefore not been able to seal against the cylinder wall, which has resulted in further, intensive temperature increases in the piston

Seizure scores along the entire piston skirt on the inlet and exhaust sides.

Cause:	Action:
• Incorrect oil mixture in the fuel.	Change to a fuel with the correct oil mixture.
• Too low octane fuel.	Change to a higher octane petrol.
• Air leaks. Cracked fuel hose. Leaking inlet gaskets. Cracked distance piece or inlet manifold.	Replace damaged parts.
• Air leakage in engine body. Leaking crankshaft seals. Leaking cylinder and crankcase gaskets.	Replace leaking gaskets and shaft seals.
• Poor maintenance. Dirty cooling fins on the cylinder. Blocked air intake on the starter.	Clean the cooling fins and air intake.
Blocked spark arrestor mesh in the muffler.	Clean or replace the spark arrestor mesh.

For the best results we recommend Husqvarna two-stroke oil or ready-mixed fuel that is specially developed for air-cooled two-stroke engines.

Mixing ratio: 1:50 (2%).

If Husqvarna two-stroke oil is not available another good quality two-stroke oil can be used.

Mixing ratio: 1:33 (3%) or 1:25 (4%).

Medium to deep scores on the exhaust side.

The piston ring is stuck in the groove.

Black discoloration under the piston ring due to blow-by.

Piston scoring caused by heavy carbon deposits

Too heavy carbon depositing can cause damage similar to that caused by insufficient lubrication. However, the piston skirt has a darker colour caused by the hot combustion gases that are blown past the piston.

This type of piston damage starts at the exhaust port where carbon deposits can become loose and get trapped between the piston and the cylinder wall.

Typical for this type of piston damage is brown or black discoloration of the piston skirt.

Cause:	Action:
• Wrong type of two-stroke oil or petrol.	Change the fuel.
• Incorrect oil mixture in the petrol.	Change to a fuel with the correct oil mixture.
• Incorrect carburettor setting.	Correct the carburettor setting

Exhaust side damaged by a broken piston ring. The piston ring parts damage the top section and cause score marks.

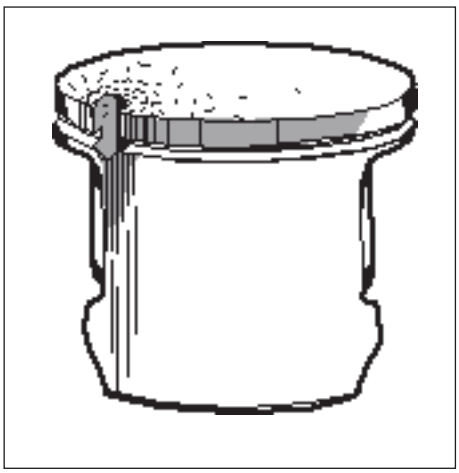
Piston damage caused by a too high engine speed.

Typical damage associated with a too high engine speed includes broken piston rings, broken circlip on the gudgeon pin, faulty bearings or that the guide pin for the piston ring has become loose.

Piston ring breakage

A too "lean" carburettor setting results in a too high speed and a high piston temperature. If the piston temperature rises above the normal working temperature the piston ring can seize in its groove, consequently it will not sit deep enough in its groove. The edges of the piston ring can then hit the top edge of the exhaust port and be smashed and also cause piston damage.

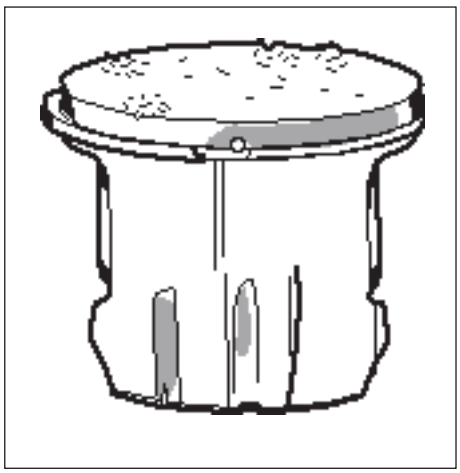
A too high engine speed can also cause rapid wear to the piston ring and play in the piston ring groove primarily in front of the exhaust port. The ring is weakened by the wear and can be caught in the port causing serious piston damage.



The guide pin for the piston ring has been pushed up through the top of piston.

Piston ring guide pin vibrated loose

A too high engine speed can cause the ends of the piston ring to hammer against the guide pin when the piston ring moves in its groove. The intensive hammering can drive out the pin through the top of the piston causing serious damage also to the cylinder.



Deep, irregular grooves caused by a loose circlip. Shown here on the piston's inlet side.

Damage caused by gudgeon pin circlips

A too high engine speed can cause the gudgeon pin circlips to vibrate. The circlips are drawn out of their grooves due to the vibrations, which in turn reduces the circlips' tensioning power. The rings can then become loose and damage the piston.

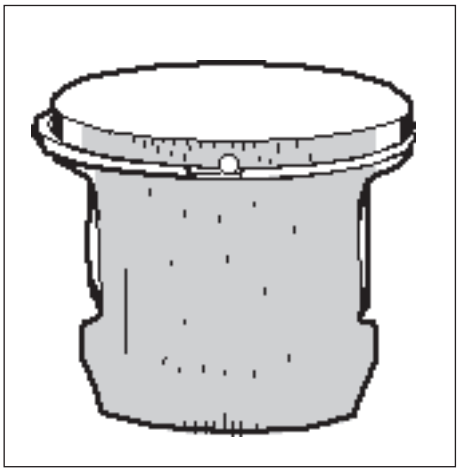
Irregular grooves on the piston's inlet side caused by a broken roller retainer.

Bearing failure

Failure of the crankshaft bearing or on the connecting rod bearing is usually caused by a too high engine speed, resulting in the bearing being overloaded or overheating. This in turn can cause the bearing rollers or ball to glide instead of rotate, which can cause the roller or ball retainer to break.

The broken debris can be trapped between the piston and cylinder wall, damaging the piston skirt.

Debris can also pass up through the cylinder's transfer channels and cause damage to the top and sides of the piston as well as to the cylinder's combustion chamber.



Small score marks and a matt, grey surface on the piston's inlet side caused by fine dust particles.

Foreign objects

Everything other than clean air and pure fuel that enters the engine's inlet port causes some type of abnormal wear or damage to the cylinder and piston.

This type of increased wear shows on the piston's inlet side starting at the lower edge of the piston skirt.

The damage is caused by badly filtered air that passes through the carburettor and into the engine.

Inlet side.

Particles of dust and dirt from carbon-like deposits on the top of the piston and in the piston ring groove. The piston ring sits firmly in the groove. Piston material has been worn away.

The lower part of the piston skirt is thinner on the inlet side than on the exhaust side.

Cause:

- Faulty air filter. Small dust particles pass through the filter.
- The filter is worn out due to too much cleaning, whereby small holes have appeared in the material.
- Unsuitable filter maintenance, such as wrong method or wrong cleaning agent. Flock material becomes loose and holes appear.
- Air filter incorrectly fitted.
- Air filter damaged or missing.

Action:

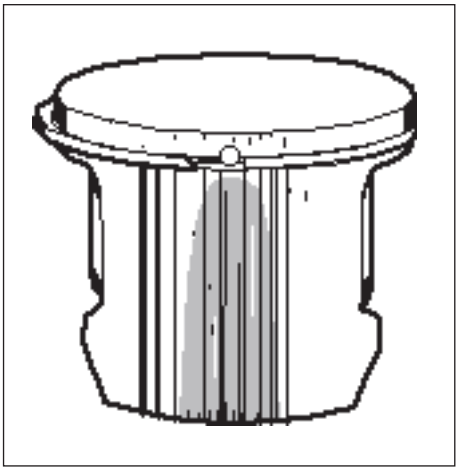
Fit a finer grade filter.

Check the filter carefully for holes and damage after cleaning. Replace the filter if necessary.

Clean more carefully and use the right cleaning agent (such as tepid soapy water). Change the filter.

Fit the filter correctly.

Fit a new air filter.



The piston scored and worn from the piston ring down on the inlet side.

Larger, softer particles that penetrate into the engine cause damage to the piston skirt under the piston ring as the illustration shows.

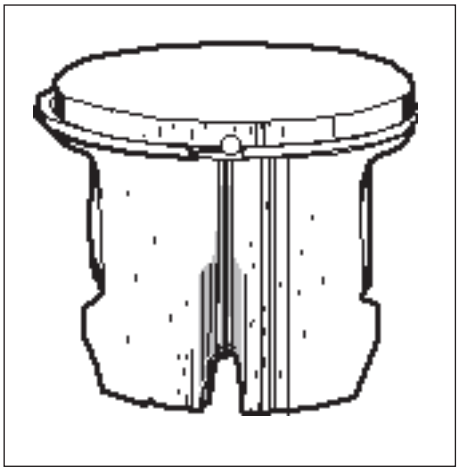
Cause:

- Air filter incorrectly fitted.
- Air filter damaged or missing.

Action:

Fit the air filter correctly.

Fit a new air filter.



Extensive damage to the lower part of the piston's inlet side.

Larger, harder particles that enter the engine cause serious damage to the underside of the piston skirt.

Cause:

- Air filter damaged or missing.
- Parts from the carburettor or intake system have come loose and entered the engine.

Action:

Fit a new air filter.

Regular service and inspection.

Service tips

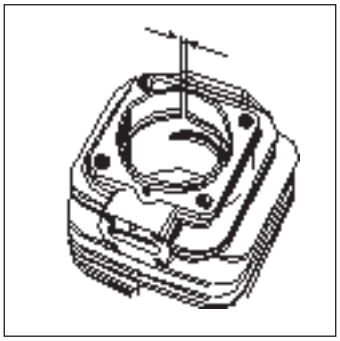
Defect:	Action:
Broken cooling fins, damaged threads or sheared bolts by the exhaust port.	In severe cases – replace the cylinder. Repair the threads using Heli-Coil.
Seizure marks in the cylinder bore (especially by the exhaust port).	Polish the damaged area using a fine grade emery cloth so that the coating of aluminium disappears. With deep seizure score marks the piston and cylinder should be replaced.
Surface coating in the cylinder bore worn out (primarily at the top of the cylinder).	Replace the cylinder and piston.
The piston shows signs of seizure score marks.	Carefully polish the damaged area using a fine file of fine grade emery cloth. Before the piston is refitted the cylinder should be polished as above. With deep score marks the piston and cylinder should be replaced.
Piston ring burnt in its groove.	Carefully loosen the piston rings and clean the groove well before refitting. Carbon deposits in the groove impair the important heat transfer between the piston and cylinder. NOTE! Be careful with the lower edge of the piston ring groove. If this is damaged, or if carbon deposits remain, the compression pressure can leak through. Check the wear on the piston ring by placing it in the lower part of the cylinder.
Bolts much too tight in the aluminium material.	Position a suitable punch on the bolt head and give a few sharp knocks with a hammer. If the bolt still does not loosen, repeat the procedure.

Wear tolerances

Cylinder bore

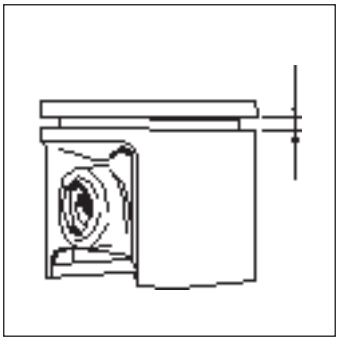
When the surface coating is worn and aluminium appears.

Piston ring gap



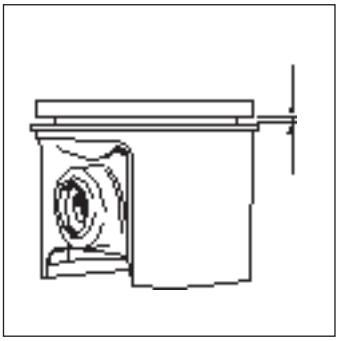
Max. 1.0 mm with the piston ring inserted in the lower part of the cylinder.

Piston ring groove

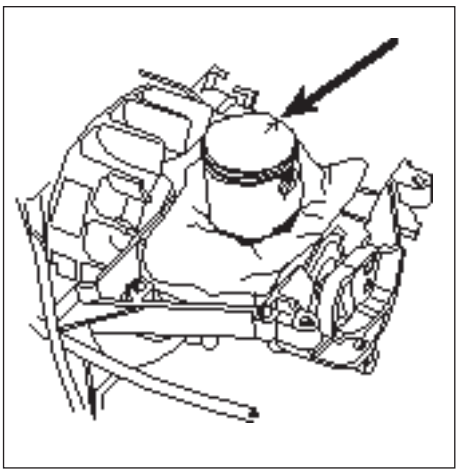


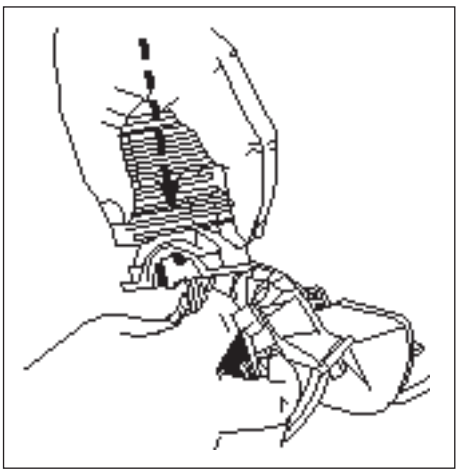
Max. 1,6 mm. Clean the groove before checking the measurement.

Piston ring play



Max. 0.15 mm. Clean the groove before checking the measurement.





Assembly

Clean the crankcase.

Assemble the piston on the connecting rod.

Fit the cylinder on the crankcase.

Alternative

Fit the crankshaft/piston first to the cylinder and the place the unit on the crankcase.

Assembly

Clean the crankcase.

Fit the piston on the connecting rod so that the arrow on the piston points towards the exhaust port. Lubricate the gudgeon pin's needle bearing with a few drops of engine oil.

Direct the arrow on the top of the piston towards the exhaust port. Press in the gudgeon pin and fit the circlips.

NOTE!

Place a rag in the crankcase opening to prevent the circlip from falling into the crankcase in case it should fly out. Check that the circlips are correctly fitted into the grooves by turning the clips with flat nosed pliers.

Check that both gasket halves are undamaged and are positioned correctly on the crankcase (also see chapter. 7).

Lubricate the piston using a few drops of oil and carefully slide the cylinder over the piston.

NOTE!

Do not turn the cylinder, as the piston rings can easily be broken.

Check that the cylinder is fitted so that the crankshaft's ball bearing is in the same position in the bearing seating as it was before dismantling. Otherwise there is a risk that leakage can occur between the bearing and cylinder.

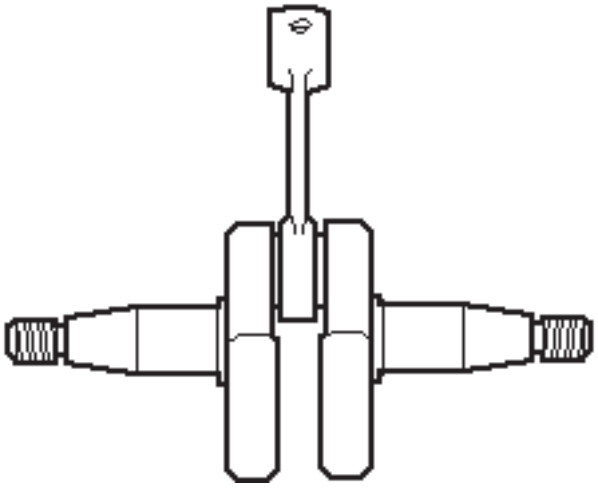
Tighten the 4 screws diagonally crosswise.

Assemble the remaining parts in the reverse order as set out for dismantling.

Assemble the remaining parts in the reverse order as set out for dismantling.

Crankshaft and crankcase

7



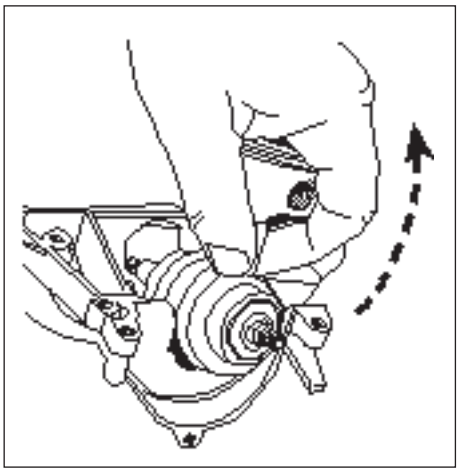
Contents

7 Crankshaft and crankcase

The task of the crankshaft is to transform the reciprocating motion of the piston to rotation. This requires a stable design withstanding immense pressure and rotational and bending strain, as well as high rotational speed. In addition the connecting rod is exposed to large acceleration and retardation forces as it moves between the top and bottom dead centres. This puts special demands on the bearings that must withstand quick changes in load. Moreover, the bearing's roller retainer must also cope with high temperatures and friction. It is therefore extremely important when servicing to check the roller retainer for cracks, wear and discolouration caused by overheating.

The crankshaft is journalled in the crankcase on heavy-duty ball bearings. In addition to the journalling point for the crankshaft, the crankcase acts as a scavenging pump for the fuel/air mixture when this is "sucked" from the carburettor and is forced into the cylinder's combustion chamber. The crankcase must be perfectly sealed so as not to affect this pump function. There cannot be any leakage from the crankshaft, between the crankcase halves or between the crankcase and the cylinder.

Always replace the sealing rings and gaskets when servicing the crankcase.



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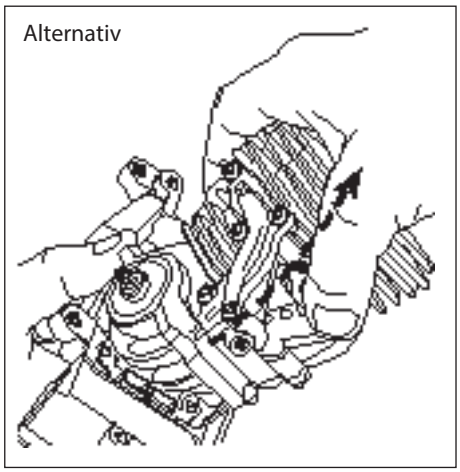


Dismantling

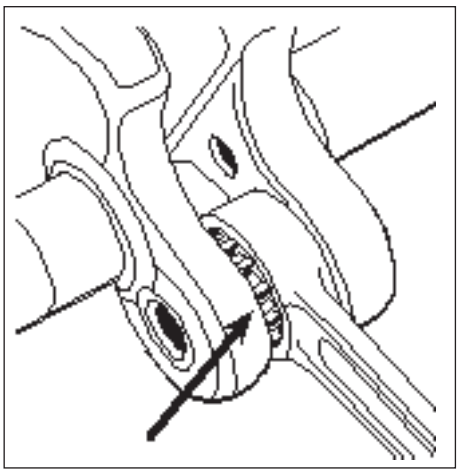
Dismantle all components so that only the crankcase and crankshaft remain.

See the respective sections for detailed information if necessary.

Now lift the crankshaft out of the crankcase.

Remove the bearings (sliding fit).

Remove the gasket residue from the base of the cylinder and crankcase.



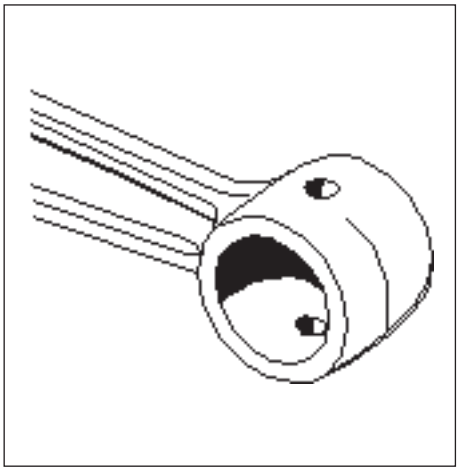
Inspecting the crankshaft

Inspect the large end of the connecting rod.

Inspecting the crankshaft

The crankshaft cannot be reconditioned but must be replaced if it is worn or damaged.

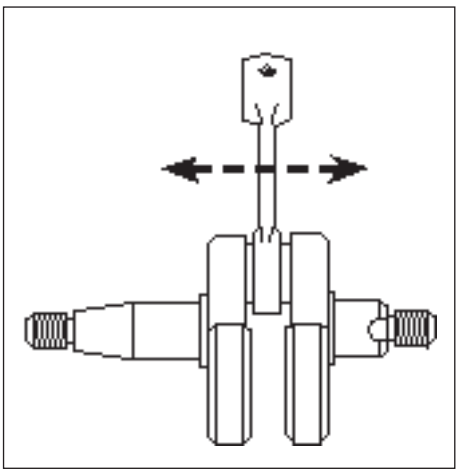
Inspect the large end of the connecting rod. If seizure marks, discolouration on the sides or damaged needle holders are found the crankshaft must be replaced.



Inspect the small end of the connecting rod.

Inspect the small end of the connecting rod.

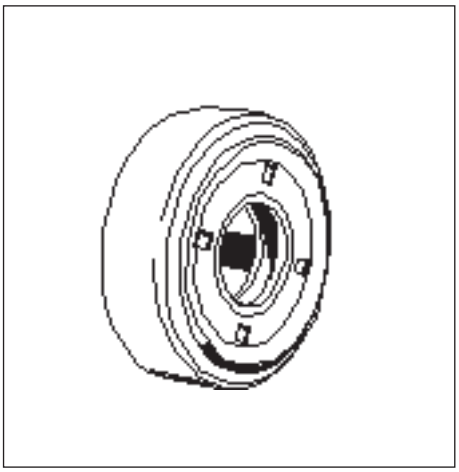
If seizure marks or discolouration are found in the bearing track the crankshaft must be replaced.



Check the crank bearing.

Check the crank bearing. The connecting rod shall not have any radial play (up and down).

It should, however, have axial play, in order to ensure good lubrication of the crank bearing among other things.



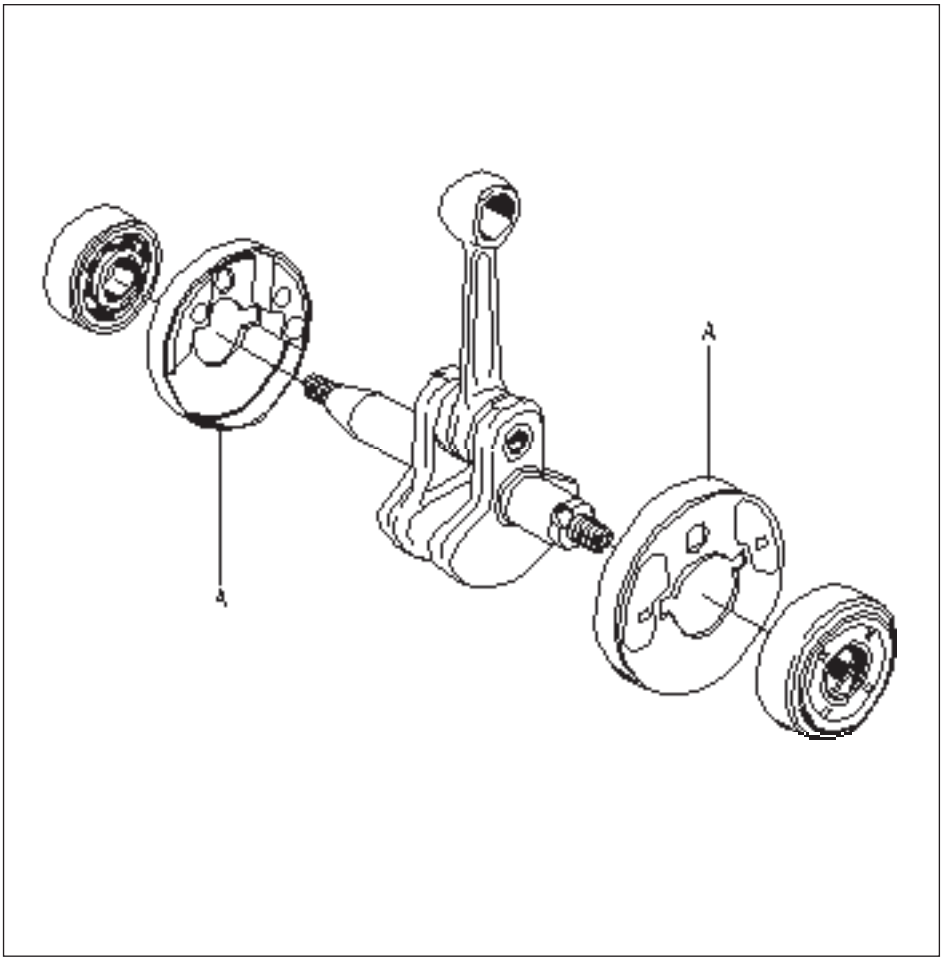
Check the crankshaft's bearing and sealing ring holder.

Check for wear on the crankshaft's bearing.

Replace the bearing complete with sealing ring holder. If there are heavy indentation marks in the seal casing the holder must be replaced as leakage can otherwise occur between the crankcase and bearing.

If the bearing is free from defects, but the rubber covering on the sealing ring holder is damaged the holder can be dismantled from the bearing.

Carefully saw a slot in the cover with a hacksaw and pry off the sealing ring holder.

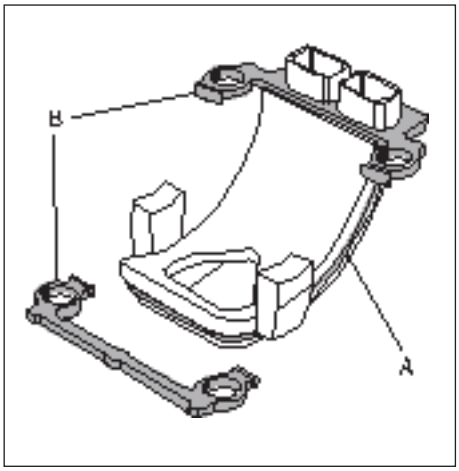


Assembly

Check the crankshaft as set out in the section "Checking the crankshaft".

Check that there is no play on the spacer washers (A) around the crank disks.

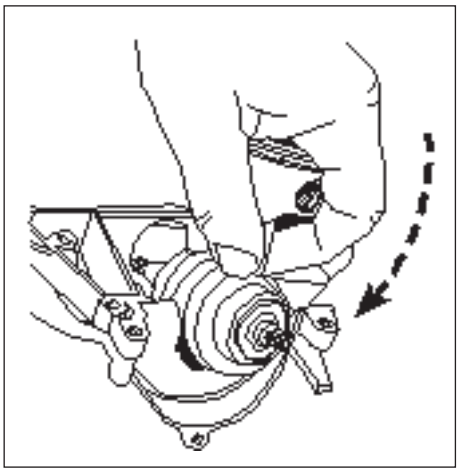
Fit new bearings on the crankshaft with the open side facing in towards the crank disc.



Check that the guide rail and its gaskets are undamaged.

A rail sits in the bottom of the crankcase and has the task of guiding the fuel-air mixture up towards and into the cylinder.

Check that the gasket (A) which lies around the rail is undamaged and the gaskets (B) that are to seal against the cylinder.



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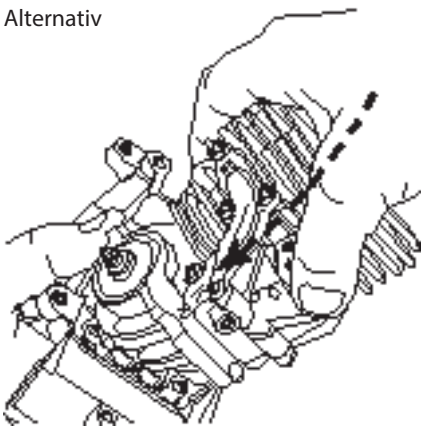


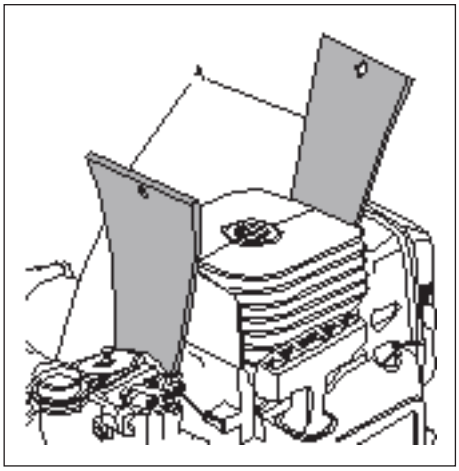
Lubricate the big-end bearing with a few drops of engine oil and position the crankshaft in the crankcase.

Alternativ

Montera vevaxel/kolv först i cylindern och placera därefter enheten på vevhuset.

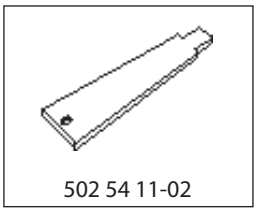
Assemble all the remaining parts in the reverse order as set out for dismantling.

See respective sections if necessary in the Workshop Manual.



Leakage testing the crankcase

Fit the two sealing plates (A).



502 54 11-02

Leakage testing the crankcase

Remove the cylinder cover, spark plug and grille over the muffler

Loosen the screws holding the carburettor sufficiently so that the sealing plate no. 502 54 11-02 (A) can be slid down between the carburettor and partition.

It may be necessary to carefully pry out the carburettor sufficiently using a screwdriver.

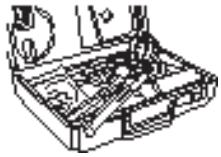
Place a plate (A) between the cylinder and heat guard by the muffler.

NOTE!

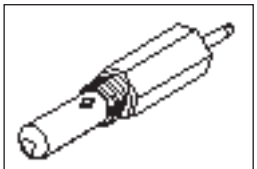
Press down the sealing plates as far as possible between the bolts to ensure a proper seal.

Fit the pressure test nipple (B) 503 84 40-01 in the spark plug hole.

Connect meter 531 03 06-23 and check for leakage.



531 03 06-23



503 84 40-01

Fit the pressure test nipple (B) 503 84 40-01 in the spark plug hole.

Connect meter 531 03 06-23 to the nipple and pump up a pressure of 50 kPa (0.5 kp/cm^2) in the crankcase.

Max. permitted leakage: 20 kPa (0.2 kp/cm^2) per 30 seconds.

Connect meter 531 03 06-23 to the nipple and lower the pressure in the crankcase to 50 kPa (0.5 kp/cm^2).

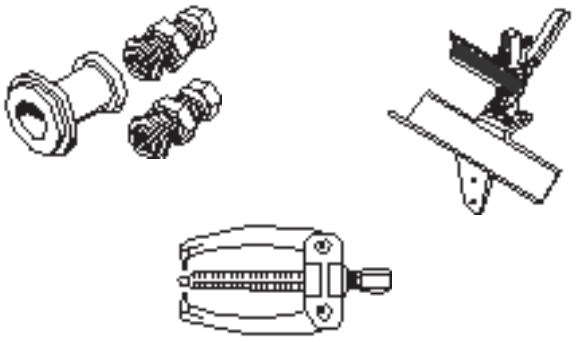
Max. permitted leakage: 20 kPa (0.2 kp/cm^2) per 30 seconds.

Any leakage can be difficult to localise if the crankcase is depressurised.

When leakage has been established with a vacuum, you can apply a slight overpressure (0.1–0.3 kp/cm^2) and at the same time apply a layer of thin oil to the joints and the sealing ring contact surfaces on the crankcase to make leak detection easier. Bubbles clearly mark the position of the leakage.

Tools

8



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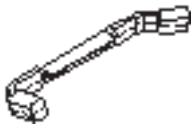
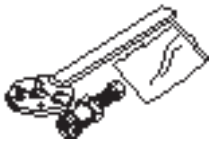
	 502 51 34-02		 505 69 85-70	 502 50 18-01
	 502 50 06-01		 504 62 29-01 (plast)	
	 502 54 15-01		 540 06 82-01 (zink)	
	 502 51 49-01		 531 00 48-63	
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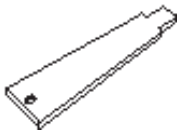
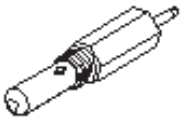
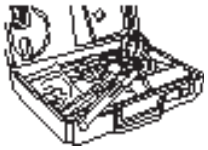
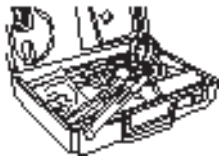
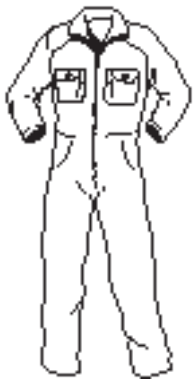
5. Bevel gear/ Cutting attachment	6. Cylinder and piston	7. Crankshaft and crankcase	8. Workshop equipment	
 503 97 64-01	 502 50 18-01	 502 54 11-02	 502 51 03-01	
 502 50 18-01	 505 38 17-05	 503 84 40-01	 531 03 06-23	
		 531 03 06-23	 502 71 14-01	
			 505 69 85-70	
			 101 64 23-48	

Technical data

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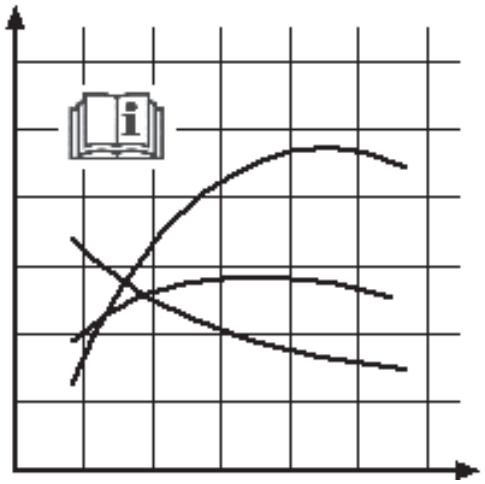

Contents

9 Technicel data

Engine	326	327
Displacement, cm^3	24,5	24,5
Cylinder bore, mm	34,0	34,0
Stroke, mm	27,0	27,0
Max output, kW / speed, rpm	0,9 / 8400	0,9 / 8400
Ignition system		
Digital CDI	Walbro MB	Walbro MB
Spark plug, manufacturer	Champion RCJ 6Y	Champion RCJ 6Y
Spark plug, electrode gap, mm	0,5	0,5
Carburettor		
Manufacturer ZAMA	C1Q EL24	C1Q EL24
Basic setting H-needle, turns	2,25	2,25
Basic setting L-needle, turns	1,5	1,5
Idle speed, rpm	2700	2700
Max speed, rpm	11700	11700
Air filter type	Foam/LS paper	Foam/LS paper
Throttle control, type	Index finger throttle	Index finger throttle
Clutch		
2-shoe clutch. Diameter, mm	61,0	61,0
Engage speed, rpm	3800	3800
Driving		
Angle gear, degrees	30	30
Angle gear, gear ratio	1:1,46	1:1,46
Control drive disc, mm	25,4	25,4
Shaft diameter, mm	24,0	24,0
Drive axle diameter, mm	7,0	7,0
Drive axle connections	4-square /splines	4-square /splines
Dimensions		
Weight, kg	4,5 – 4,8	4,5 – 4,8
Tank volume, litres	0,5	0,5

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