

Workshop manual

T540XP Mark III



English

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1 Introduction

1.1 Document description

This manual gives a full description of how to do maintenance and repair on the product. It also gives safety instructions that the personnel must obey.

1.2 Target group

This manual is for personnel with a general knowledge of how to do repair and do servicing. All personnel that do repair or do servicing on the product must read and understand the manual.

1.3 Revisions

Changes to the product can cause changes to the maintenance work and spare parts. Separate information is sent out for each change.

Read the manual together with all received information about changes to maintenance and spare parts for the product.

1.4 Safety



WARNING: All personnel that repair or do servicing on the product must read and understand the safety instructions in this workshop manual.

1.5 Servicing tools

The manual gives information about necessary servicing tools. Always use original tools from Husqvarna.

2 Safety

2.1 Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the manual.



WARNING: Used if there is a risk of injury or death for the operator or bystanders if the instructions in the manual are not obeyed.



CAUTION: Used if there is a risk of damage to the product, other materials or the adjacent area if the instructions in the manual are not obeyed.

Note: Used to give more information that is necessary in a given situation.

2.2 General safety instructions



WARNING: Read the warning instructions that follow before you use the product.

The service center that repairs the product must have safety devices that obey local regulations. Warnings and cautions are used to point out specially important parts of the workshop manual.

2.3 Special safety instructions

- Do not use accessories that are not approved by the manufacturer. Do not do changes that are not approved by the manufacturer. This can cause injury or death to the operator or other persons.
- Always use original spare parts and accessories.
- Use approved hearing protection. Noise from the product can result in permanent hearing loss.
- Be careful with the fuel. The fluid and its fumes are poisonous, can cause skin damage and is very flammable.
- The guide bar, saw chain, chain brake and clutch cover must be attached correctly before you start the product. If not, the clutch can become loose and cause injury.
- Adjust the saw chain before you use the product. Make sure that the saw chain does not move at idle speed.
- Not sufficient lubrication of the saw chain can result in the saw chain breaking. This can cause injury or death to the operator or other persons.
- After operation, do not touch the muffler until the temperature of the muffler has decreased. Risk of burn injuries.
- Use safety glasses when you do maintenance on springs that have tension. Make sure that the spring in the starter pulley does not eject and cause injury.

- Wear protective gloves when you replace the crankshaft bearings. The crankcase halves are hot, risk of burn injuries.
- Make sure that the chain brake is engaged when you remove the pressure spring on the chain brake. If the chain brake is not engaged, the pressure spring can eject and cause injury.
- After repair, examine the chain brake before you use the product. Obey the instructions in the chain brake chapter.

2.4 Symbols on the product



Be careful and use the product correctly. This product can cause serious injury or death to the operator or others.



Read the operator's manual carefully and make sure that you understand the instructions before you use this product.



Always wear approved protective helmet, approved hearing protection and eye protection.



Stop.



This product complies with applicable EC Directives.



This product conforms to the applicable UK regulations.



Noise emission to the environment label as per European Directive 2000/14/EC, UK directives and regulations and New South Wales legislation "Protection of the Environment Operations (Noise Control) Regulation 2017". The guaranteed sound power level of the product is specified in *Technical data on page 48* and on the label.



Chain brake, engaged (right). Chain brake, disengaged (left).



Air purge bulb.



Adjustment of the oil pump.



Fuel.



Chain oil.



Both of the operator's hands must be used to operate the chainsaw.



Never operate the chainsaw holding it with one hand only.



Never let the guide bar tip come in contact with any object.



Warning! Kickback may occur when the nose or tip of the guide bar touches an object, and cause a lightning fast reverse reaction, kicking the guide bar up and towards the operator. May cause serious personal injury.



Use appropriate protections for foot-leg and hand-arm.



This chainsaw should only be used by persons who are specially trained in tree maintenance work. See operator's manual!

yyyywwxxxx

The rating plate or the laser printing shows the serial number. **yyyy** is the production year and **ww** is the production week.

Note: Other symbols/decals on the product refer to certification requirements for certain markets.

2.5 Cutting equipment safety



WARNING: Always remove the cutting equipment before you do repairs or do servicing on the product.



WARNING: Do not install the cutting equipment until the product is assembled.

3 Prepare and do servicing on the product

3.1 Maintenance schedule

Maintenance	Before operation	After 40 h	After 100 h
Clean the external surfaces.	After each operation.		
Clean the muffler, exhaust pipe and engine from dirt and unwanted lubricant.	After each operation.		
Make sure that the saw chain does not move at idle speed.	X		
Do a check of the stop switch.	X		
Do a check of the chain brake.	X		
Do a check of the chain drive sprocket.	X		
Sharpen the saw chain.	X		
Do a check of the tension of the saw chain.	X		
Do a check of the chain catcher.	X		
Turn the guide bar, do a check of the lubrication hole and clean the groove in the guide bar.	X		
Make sure that the guide bar and saw chain are sufficiently lubricated.	X		
Do a check of the throttle trigger lockout and the throttle trigger.	X		
Examine the engine, the fuel tank and the fuel lines for leaks.	X		
Tighten nuts and screws.	X		
Do a check of the engine oil level. Fill with oil if it is necessary.	X		
Examine the starter and the starter rope for wear and damage.		X	
Clean the air filter. Replace the air filter if it is necessary.		X	
Examine the vibration damping units for wear and damage.		X	
Examine the spark plug.		X	
Lubricate the needle bearing for the clutch drum.		X	
Clean the cooling system. Make sure to clean the flywheel fins.		X	
Clean the external surface of the carburetor and the area around it.		X	
Remove burrs from the edges of the guide bar.		X	
Clean the spark arrester screen. Replace the spark arrester screen if it is necessary.			X
Clean the inner surface of the fuel tank.			X
Clean the inner surface of the chain oil tank.			X
Examine the fuel filter for contamination and the fuel hose for damage. Replace the parts if it is necessary.			X
Examine the spark plug. Replace the spark plug if it is necessary.			X
Do a check of all cables and connections.			X
Do a check of the clutch assembly and the clutch drum for wear. Replace the parts if it is necessary.			X
Do a check of the brake band.			X
Clean the external parts of the carburetor.			X

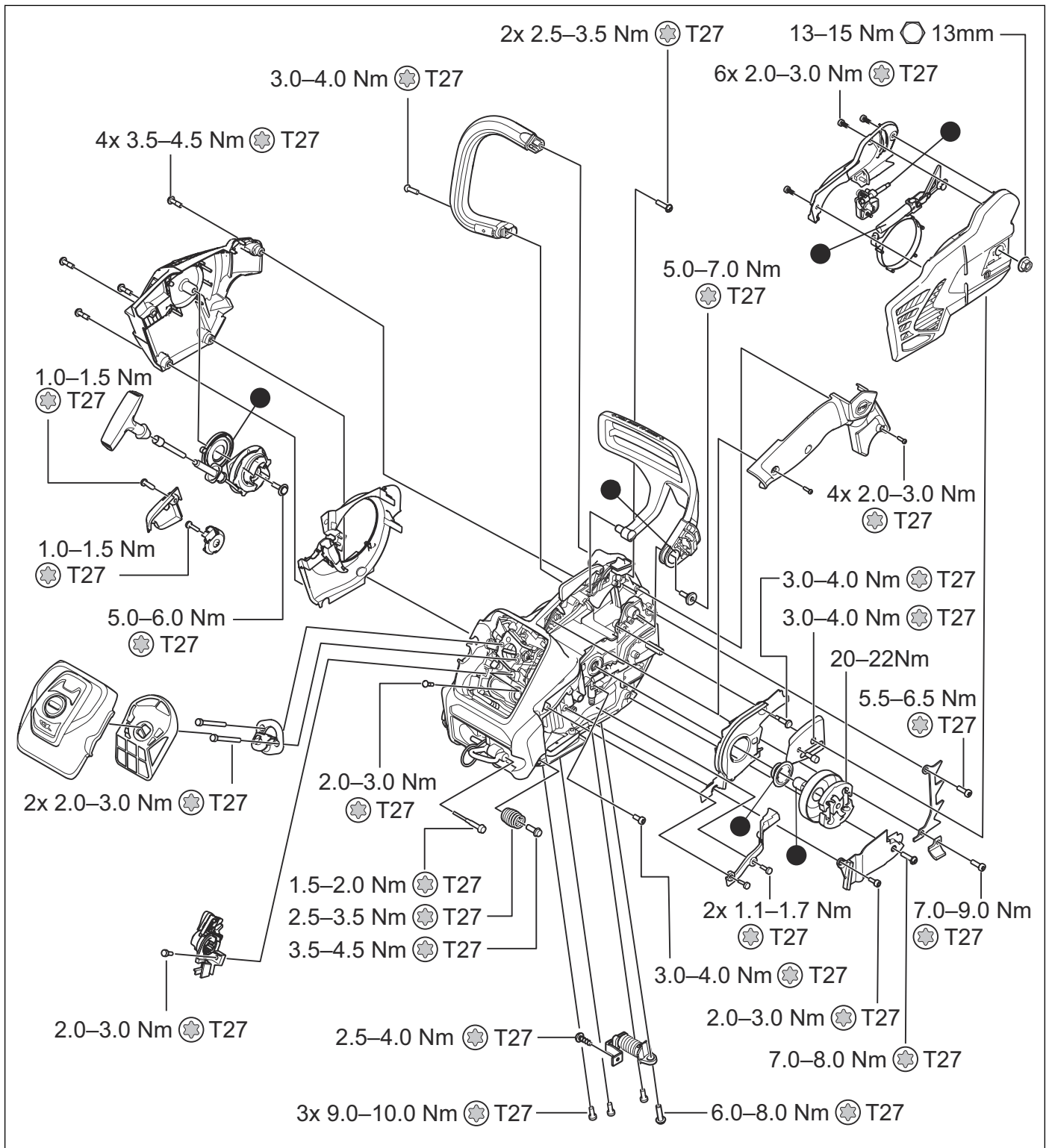
4 Servicing data

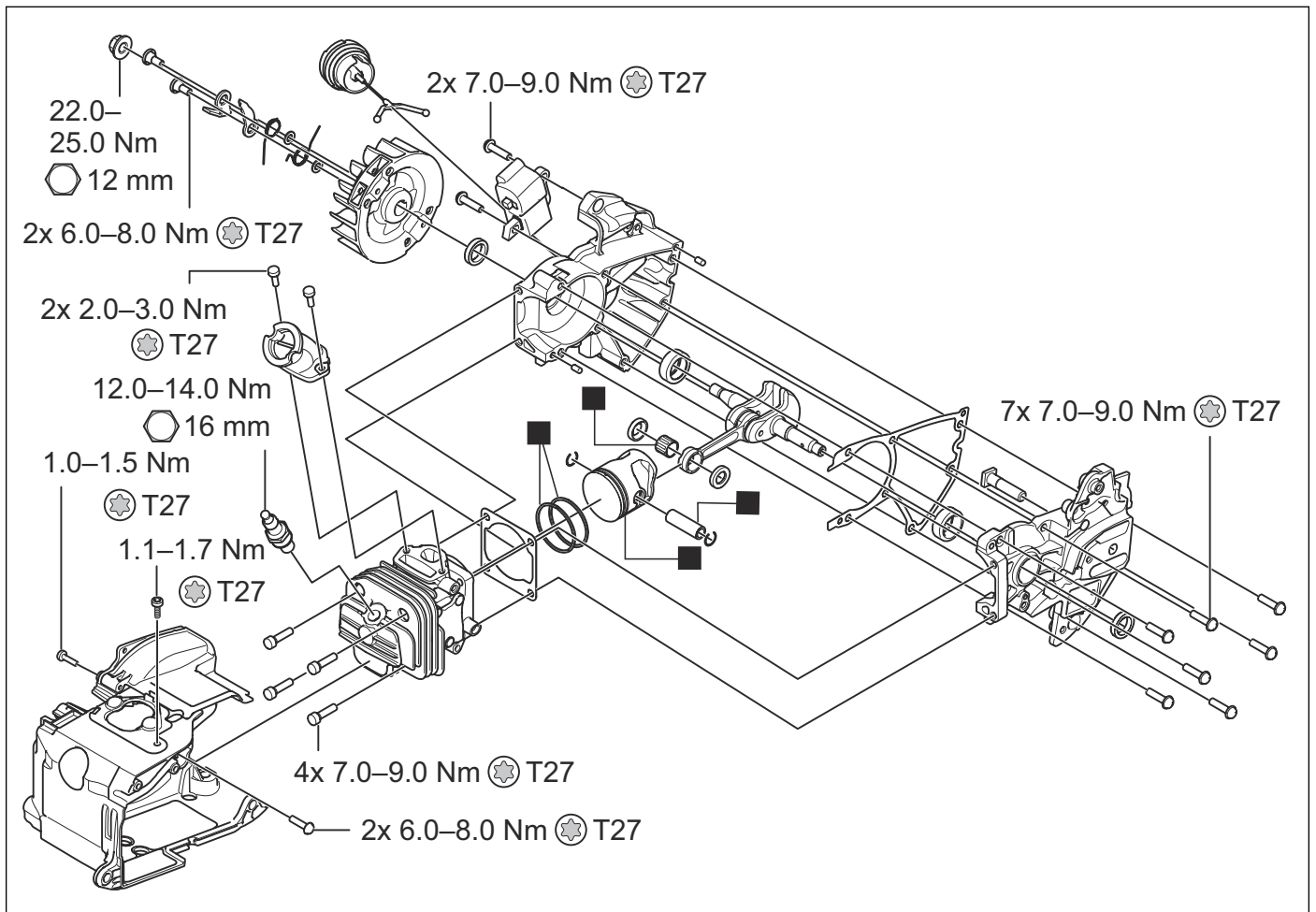
4.1 Servicing data

● Lubricate with grease.

■ Lubricate with two-stroke oil.

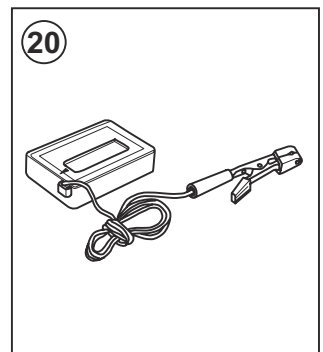
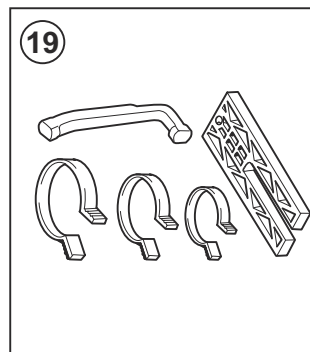
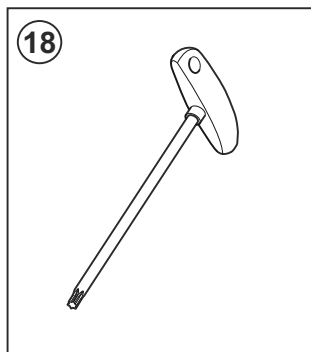
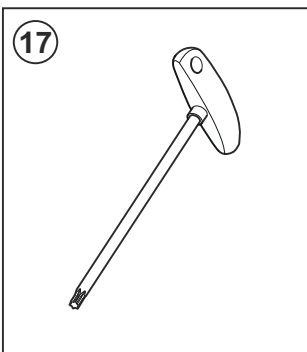
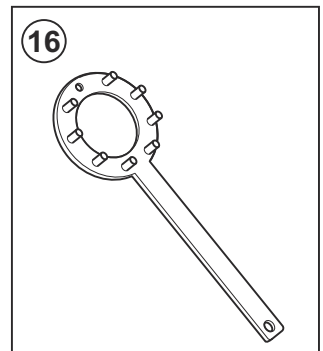
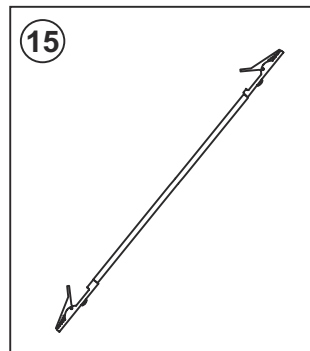
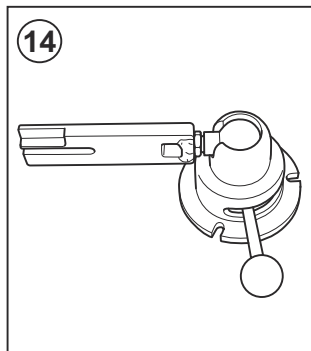
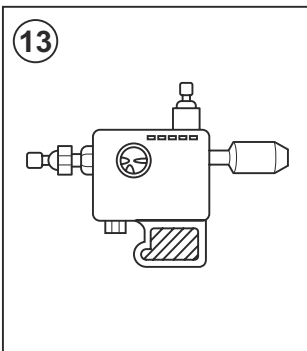
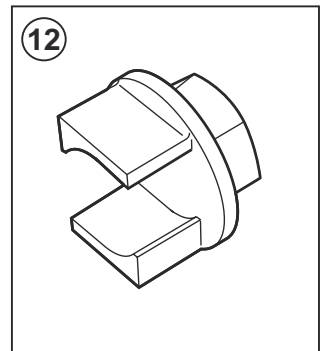
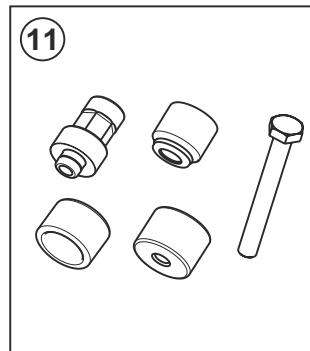
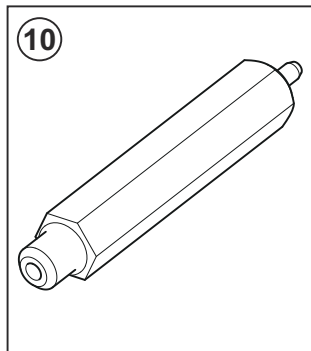
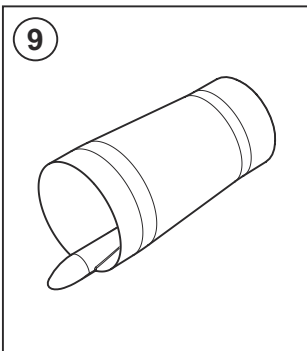
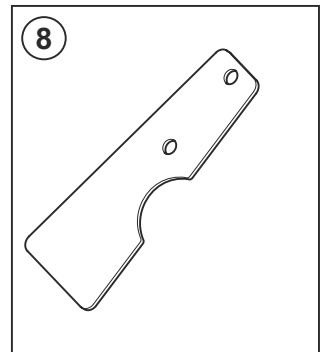
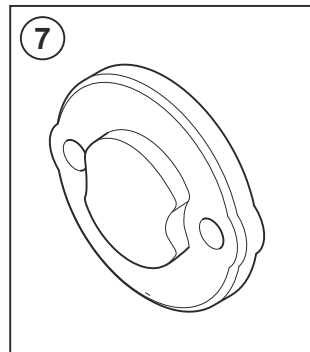
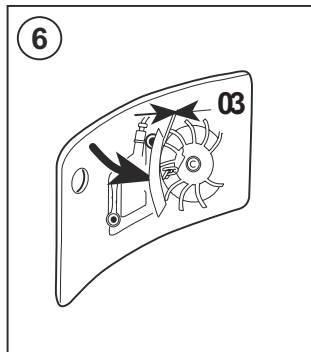
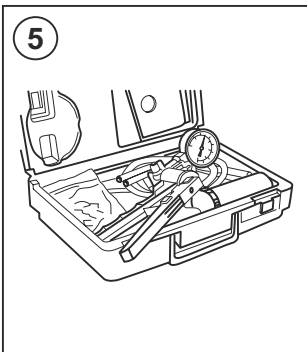
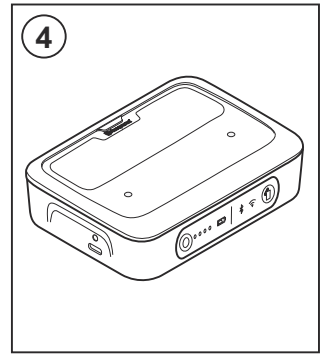
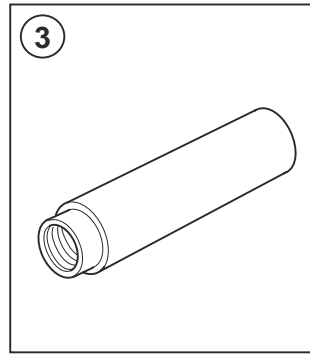
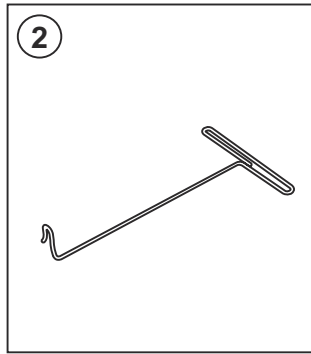
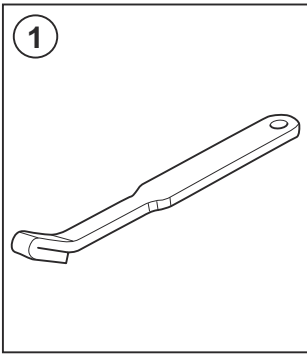
▲ Lubricate with chain oil.





5 Servicing tools

5.1 Servicing tools

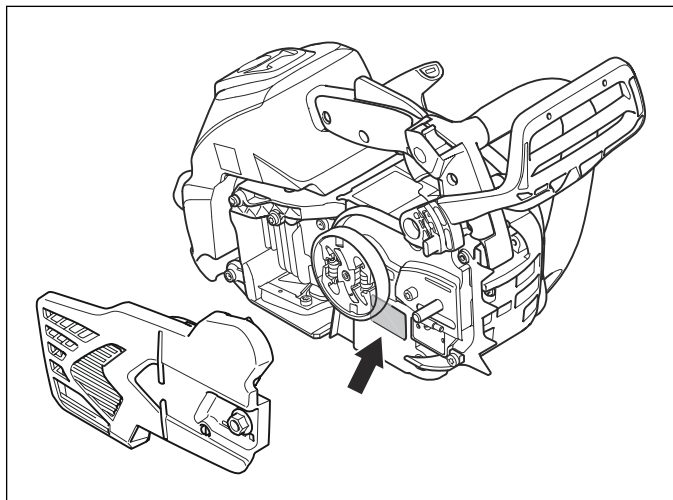


Item	Description	Use	Article number
1	Piston stop	To lock the crankshaft.	521 54 83-01
2	Fuel filter hook	To pull out the fuel filter from the tank.	502 50 83-01
3	Mandrel	To remove the flywheel.	502 51 94-01
4		To do a check of the product and install updates to the firmware.	598 07 28-02 (Europe, Australia, New Zealand)
			598 07 28-05 (USA, Canada)
			598 07 28-07 (Japan)
5	Pressure tester	To do a pressure test.	531 03 06-23
6	Air gap gauge	To measure the distance between the flywheel and the ignition module.	502 51 34-02
7	Cover plate for inlet	To seal the intake system.	536 70 39-01
8	Cover plate for exhaust	To seal the exhaust port.	577 75 38-01
9	Crankshaft cap	To protect the crankcase seal on the flywheel side.	577 70 16-01
10	Adapter for pressure tester	To do a pressure test of the cylinder.	576 38 48-01
11	Pressing tool kit, seals	To install the crankcase bearings and seals.	577 71 44-02
12	Clutch tool	To remove the clutch.	502 54 16-02
13	Ignition checker	To do a test of the spark strength.	501 97 64-01
14	Assembly fixture	To hold the product when you disassemble and assemble the product.	502 51 02-01
15	Wiring assy	To do a spark test.	577 83 18-01
16	Flywheel tool	To remove and install the flywheel.	504 91 08-03
17	T-handle Torx, T27	To remove and install Torx screws.	502 71 27-03
18	T-handle Torx, T20	To remove and install Torx screws.	588 59 85-01
19	Piston assembly kit	To assemble the piston.	502 50 70-01
20	Tachometer	To measure RPM.	502 71 14-01

6 Function overview

6.1 Type plate and product serial number

The type plate shows the serial number. Supply the model name and the article number when you send an order for spare parts.



outboard oil. Do not use oil for four-stroke engines.

For best results and performance use Husqvarna two-stroke oil.

If Husqvarna two-stroke oil is not available, use a two-stroke oil of good quality for aircooled engines. Speak to your servicing dealer to select the correct oil.

6.2.2.3 To mix gasoline and two-stroke oil

Gasoline, liter	Two-stroke oil, liter
	2% (1:50)
5	0.10
10	0.20
15	0.30
20	0.40

6.2 Fuel

This product has a two-stroke engine.



CAUTION: Incorrect type of fuel can result in engine damage. Use a mixture of gasoline and two-stroke oil.

6.2.1 Premixed fuel

Use Husqvarna premixed alkylate fuel of a good quality, for best performance and extension of the engine life. This fuel contains less harmful chemicals compared to regular fuel, which decreases harmful exhaust fumes. The quantity of remains after combustion is lower with this fuel, which keeps the components of the engine more clean.

6.2.2 To mix fuel

6.2.2.1 Gasoline



CAUTION: Do not use gasoline with an octane grade less than 90 RON/87 AKI. Use of a lower octane grade can cause engine knocking, which causes engine damages.

We recommend that you use gasoline of a higher octane grade for work with continuously high rpm. Limbing is an example of such work.

Use good quality unleaded gasoline with a maximum of 10% ethanol contents.

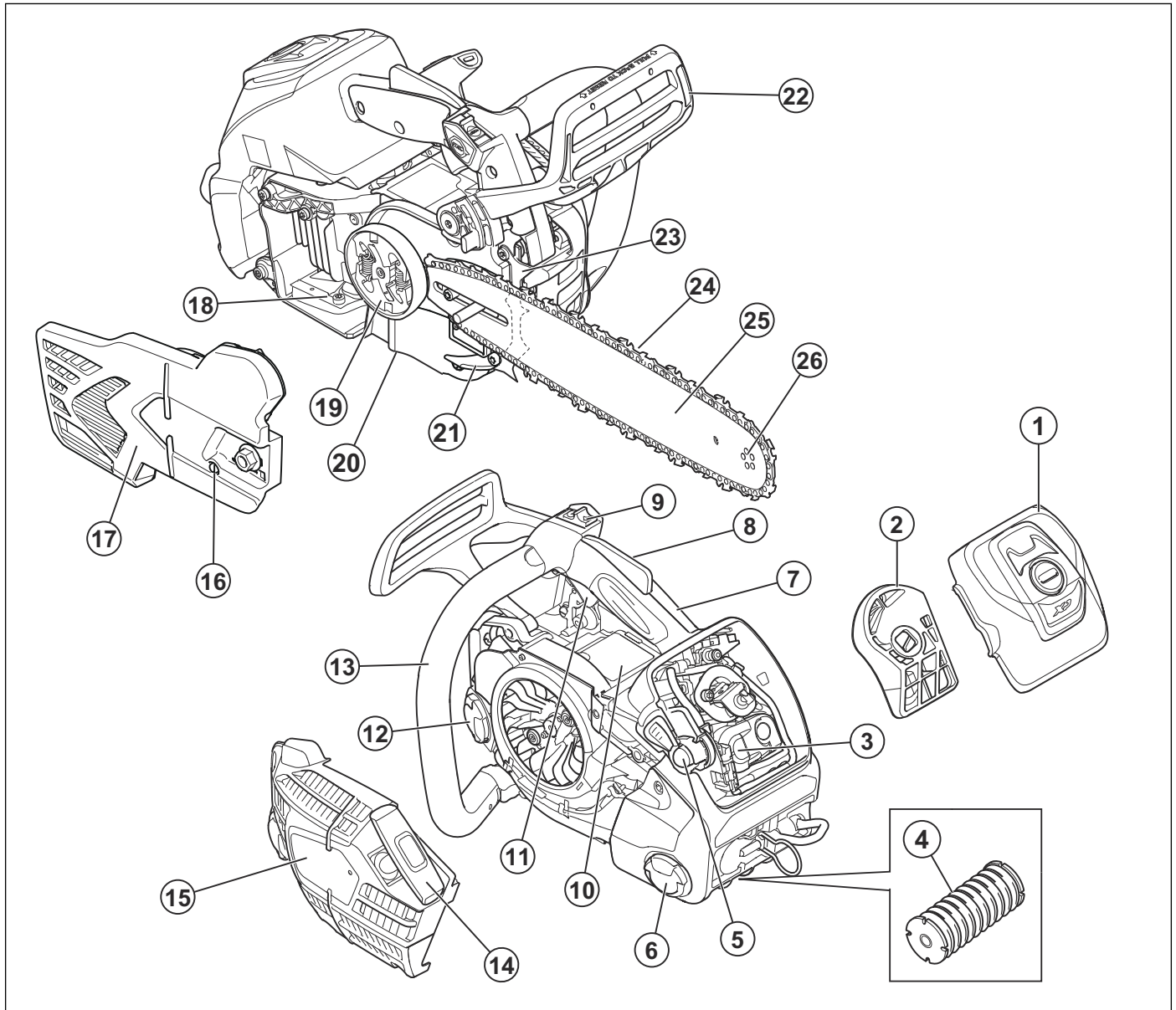
6.2.2.2 Two-stroke oil



CAUTION: Do not use two-stroke oil for water-cooled outboard engines, also referred to as

7 Repair instructions

7.1 Product overview



1. Air filter cover
2. Air filter
3. Spark plug cap
4. Vibration element
5. Air purge bulb
6. Fuel tank
7. Top handle
8. Throttle trigger lockout
9. Start/stop switch
10. Warning decal
11. Throttle trigger
12. Chain oil tank
13. Front handle
14. Starter rope handle
15. Starter housing
16. Chain tensioning screw
17. Clutch cover

18. Muffler
19. Clutch drum
20. Oil pump adjustment screw
21. Chain catcher
22. Chain brake and front hand guard
23. Spiked bumper
24. Saw chain
25. Guide bar
26. Bar tip sprocket

7.2 To clean and examine the product parts

- Clean and examine all parts fully. You find more instructions in the chapter for each part if special tools or procedures are necessary.
- Replace damaged parts.
- Always use original spare parts.

7.3 To connect the product to the

Note: It can be necessary to install firmware to a new spare part. Make sure that you know the of the new spare parts before you connect the product to the . The is found on the spare part.

1. Start the on the computer.
2. Connect the to the product with cable.
 - a) Connect the correct adapter cable to the .
 - b) Connect the to the product servicing connector.



CAUTION: Do not disconnect the product until the update is completed.

- c) Obey the instructions on the .



CAUTION: Do not disconnect the until the update is completed.

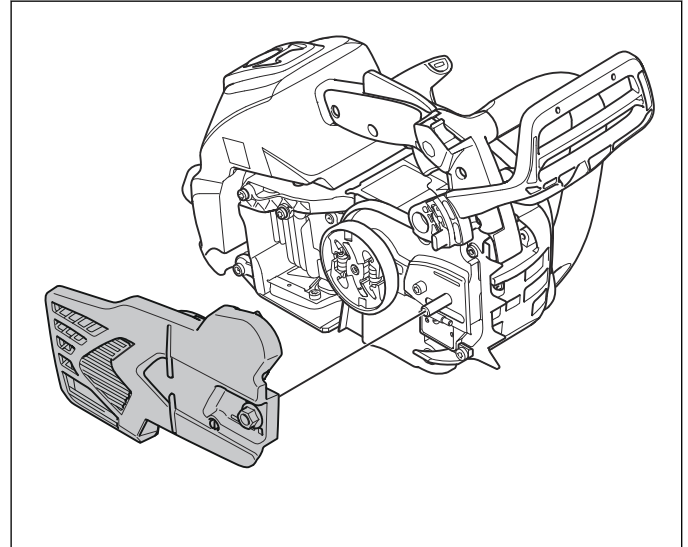
7.4 Chain brake

7.4.1 To remove the front handguard

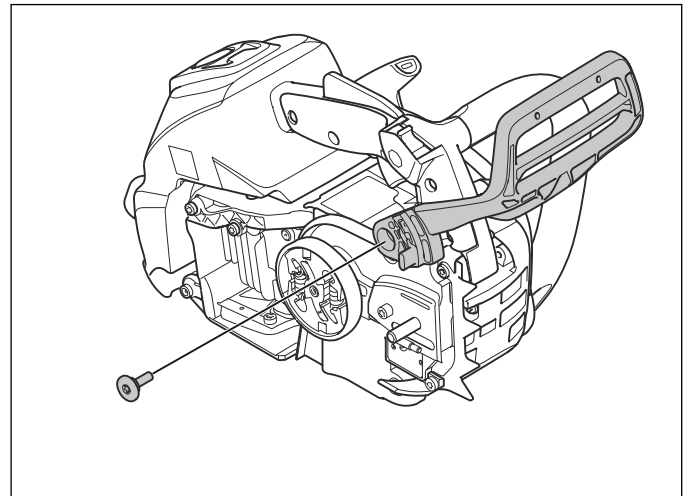


WARNING: Make sure that the chain brake spring does not eject and cause injury. Use protective goggles.

1. Loosen the nut on the clutch cover and remove the clutch cover.

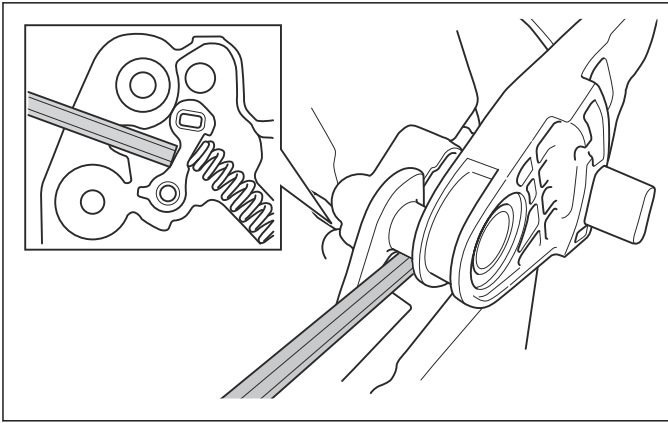


2. Remove the screw and the front handguard.

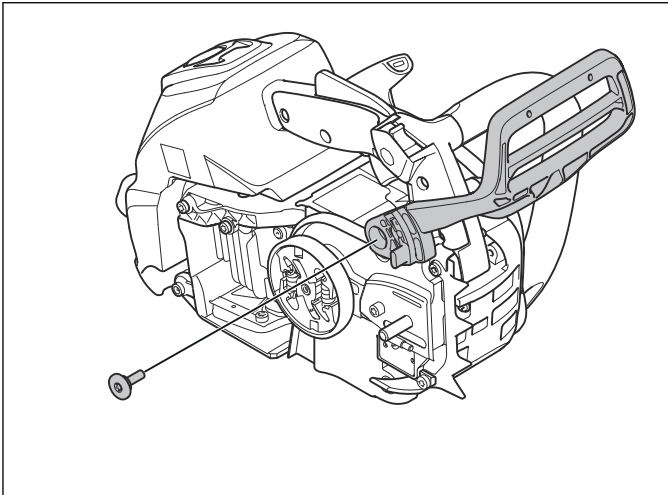


7.4.2 To install the front handguard

1. Push the lever and install the front handguard.



2. Install the screw.



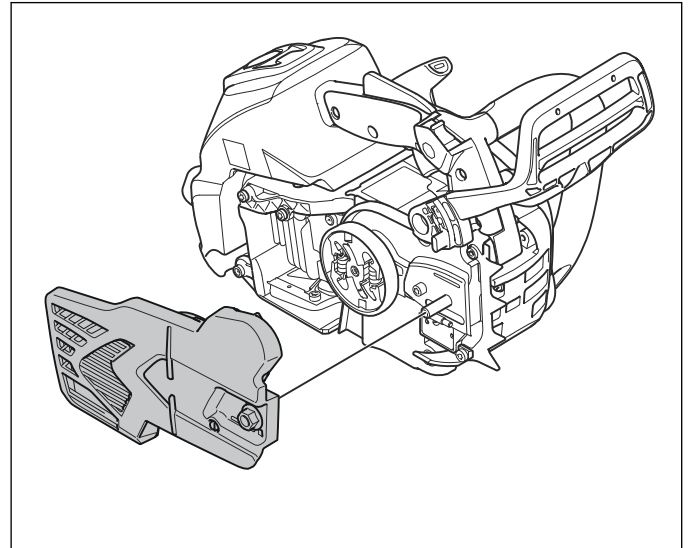
3. Install the clutch cover.

7.4.3 To disassemble and assemble the chain brake

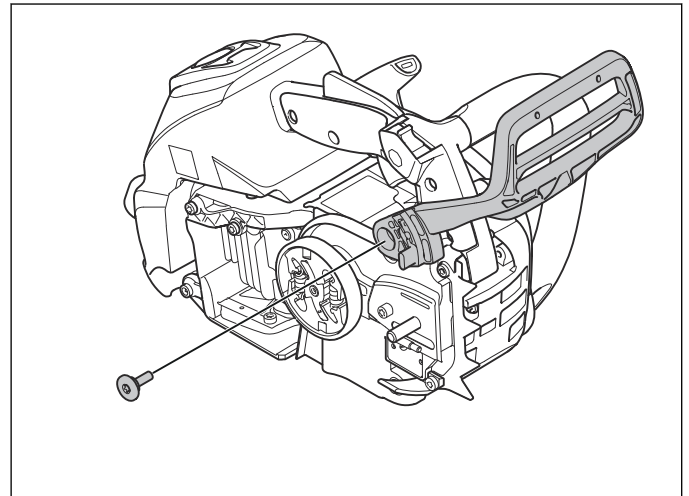


WARNING: Make sure that the chain brake spring does not eject and cause injury. Use protective goggles.

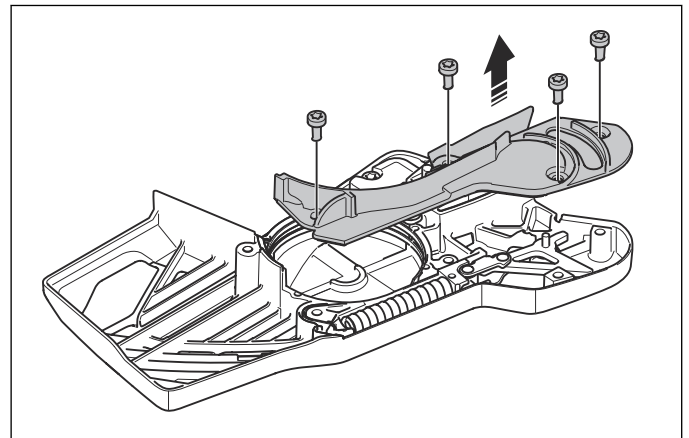
1. Release the chain brake.
2. Loosen the nut on the clutch cover and remove the clutch cover.



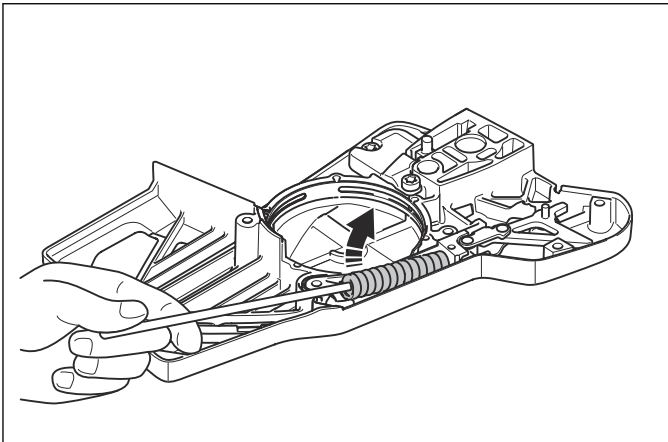
3. Remove the screw and the front handguard.



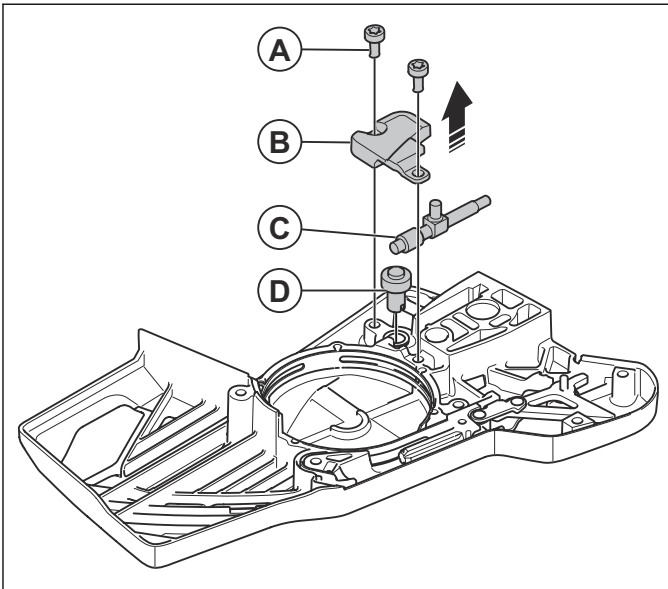
4. Remove the 4 screws and the chain brake cover.



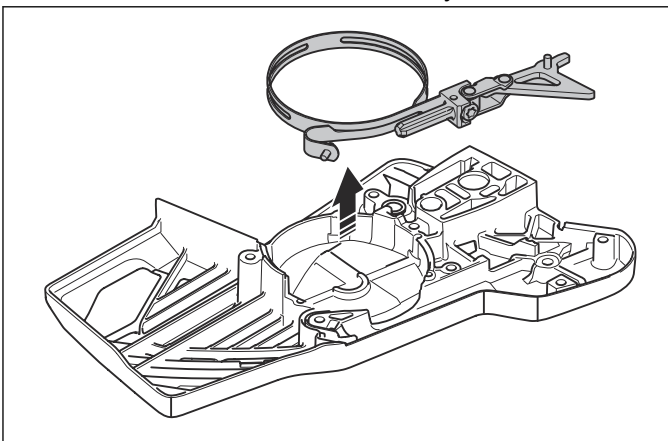
5. Remove the chain brake spring.
 - a) Hold one hand on the chain brake spring. Use the other hand to push a small screwdriver in between the rear section of the chain brake spring and the clutch cover.
 - b) Carefully push the screwdriver against the chain brake spring until the chain brake spring releases onto the screwdriver shaft.



6. Remove the 2 screws (A), the chain tensioner cover (B), the shaft (C), and the adjustment screw (D).

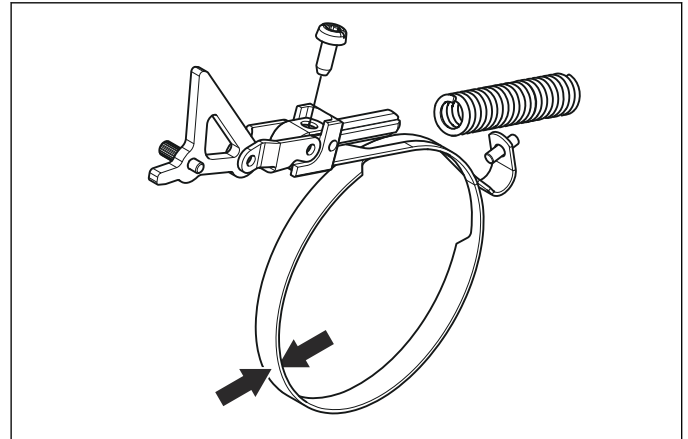


7. Remove the chain brake assembly.



7.4.4 To clean and examine the chain brake

1. Carefully clean and examine all parts of the chain brake. Replace damaged parts.
2. Measure the thickness of the brake band. The thickness of the brake band must be minimum 0.6 mm at the most worn point.



3. Lubricate the knee joint with grease.

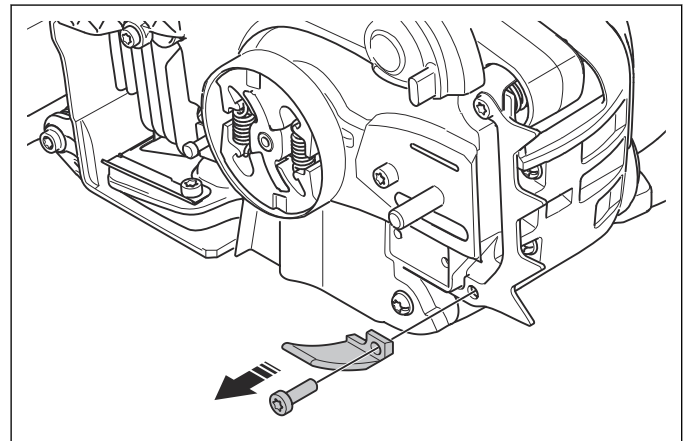
7.5 Chain catcher

7.5.1 To replace the chain catcher



WARNING: You must always replace a worn chain catcher with a new one. Always use original spare parts.

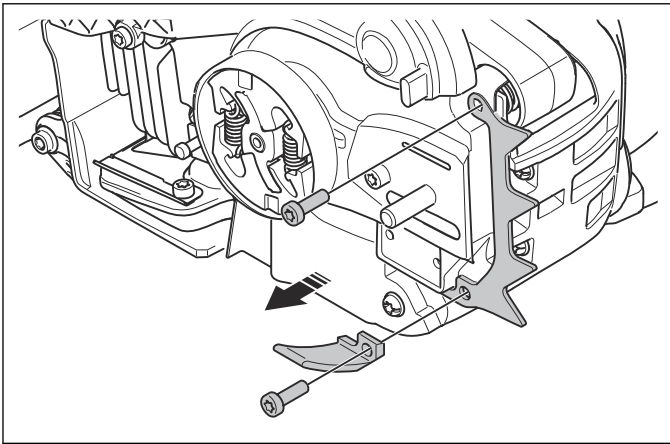
1. Remove the clutch cover.
2. Remove the screw and the chain catcher.



3. Install the chain catcher in the opposite sequence.
4. Install the clutch cover.

7.5.2 To replace the spiked bumper

1. Remove the clutch cover.
2. Remove the 2 screws, the chain catcher and the spiked bumper.



3. Install the spiked bumper in the opposite sequence.
4. Install the clutch cover.

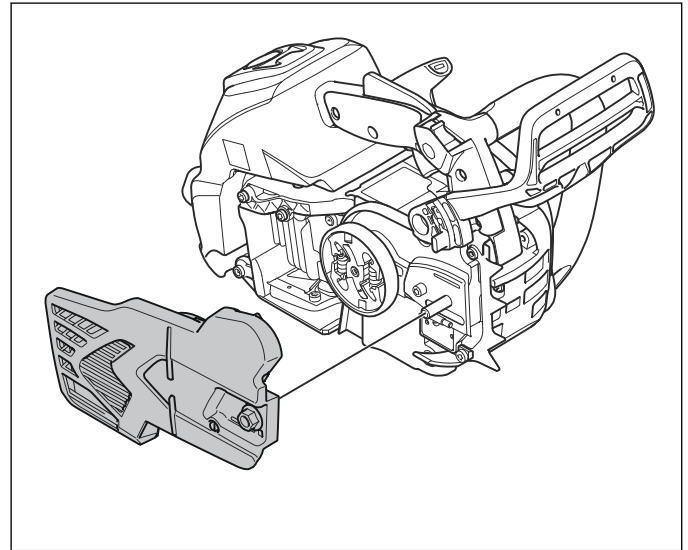
7.6 Muffler

7.6.1 To remove and install the muffler

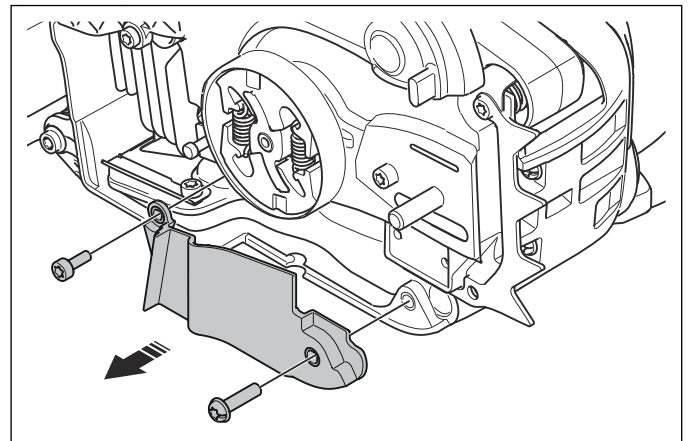


WARNING: Do not touch a hot muffler. Risk of burn injuries.

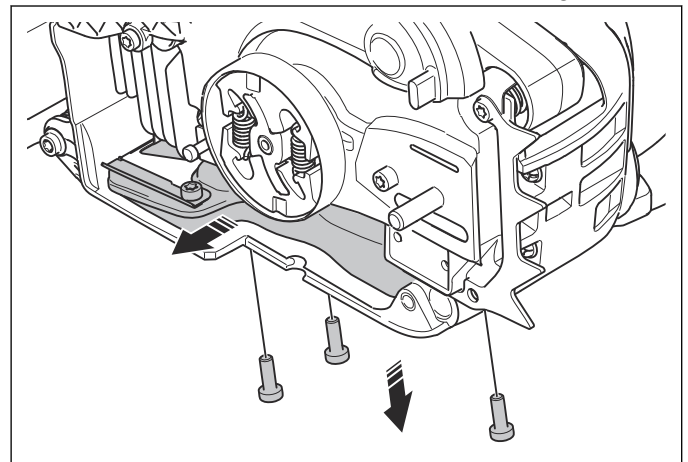
1. Remove the clutch cover.



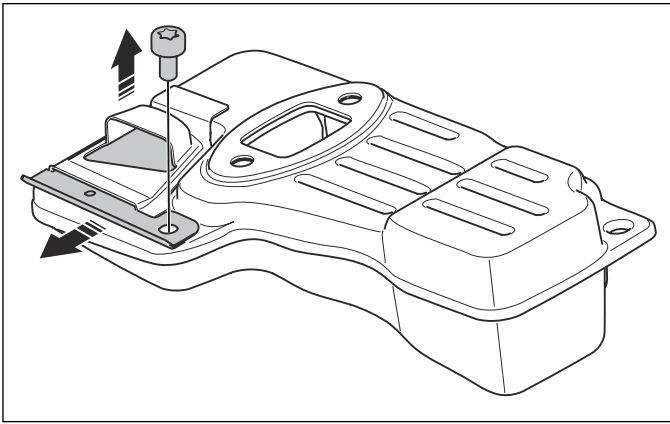
2. Remove the 2 screws and the muffler cover.



3. Remove the 3 screws, the muffler and the gasket.



- Remove the screw and pull out the spark arrester screen.



- Install in the opposite sequence.

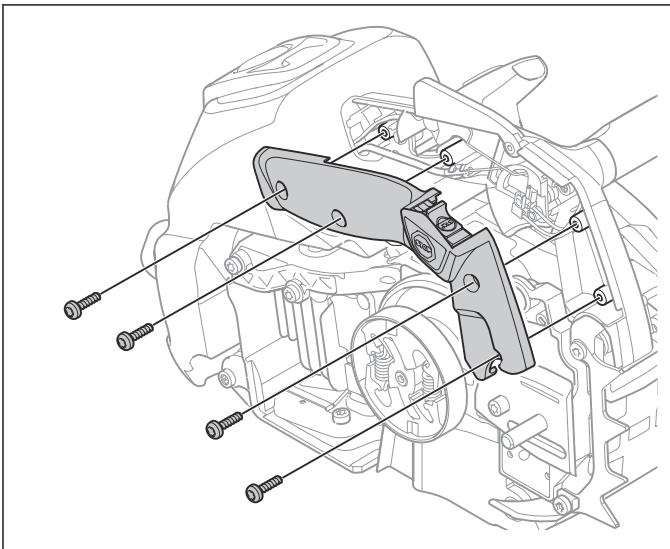
7.6.2 To clean and examine the muffler

- Clean all components. Clean the contact surfaces of the gasket, the heat shield and the cylinder.
- Examine the spark arrester screen for damage.
- Examine the muffler for damage.
- Examine the gasket for damage.
- Replace all damaged parts.

7.7 Handles

7.7.1 To remove and install the right handle half

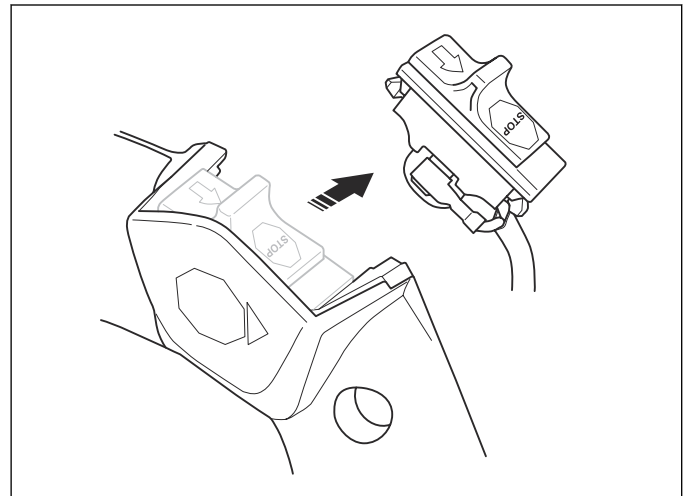
- Remove the front handguard. Refer to *To remove the front handguard on page 13*.
- Remove the screws and the right handle half.



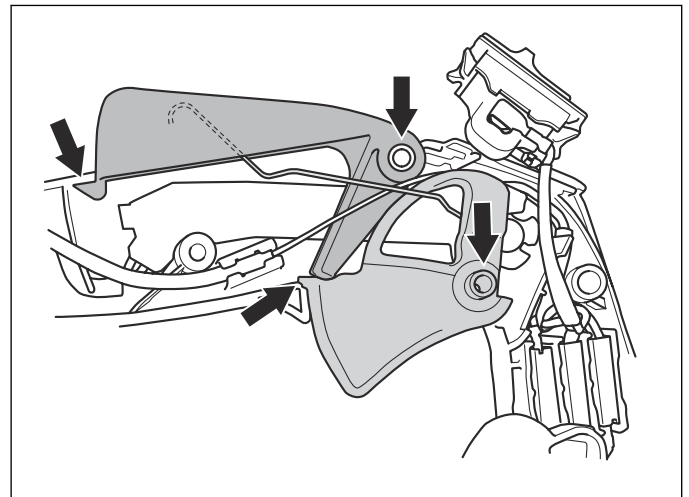
- Install in the opposite sequence.

7.7.2 To remove and install throttle trigger and throttle trigger lockout

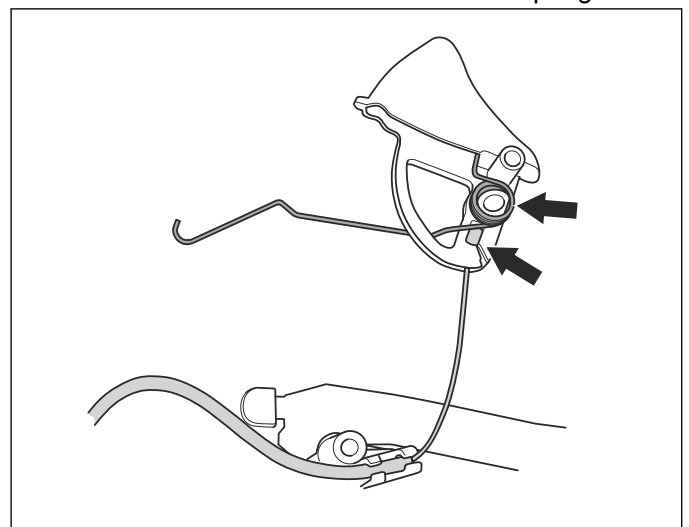
- Remove the right handle half. Refer to *To remove and install the right handle half on page 17*.
- Remove the STOP button from the right handle half.



- Remove the throttle trigger lockout and the throttle trigger.



- Remove the throttle wire and the recoil spring.

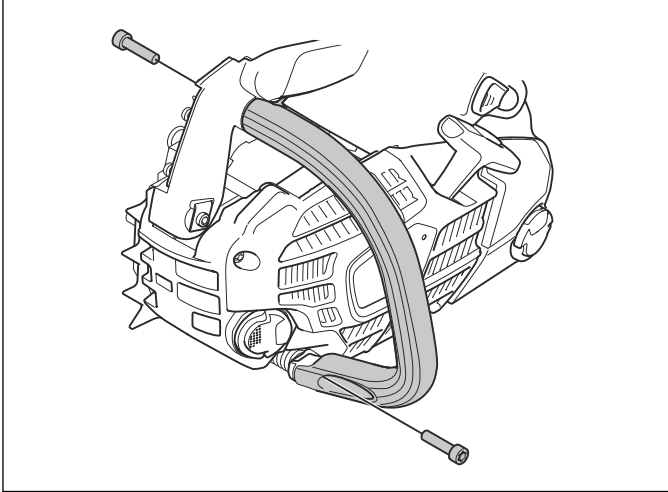


- Clean and inspect the parts for damage. Make sure that there is tension in the recoil spring. Replace the recoil spring if necessary.

6. Install in the opposite sequence.

7.7.3 To remove and install the front handle

1. Remove the right handle half. Refer to *To remove and install the right handle half on page 17.*
2. Remove the throttle trigger and the throttle trigger lockout. Refer to *To remove and install throttle trigger and throttle trigger lockout on page 17.*
3. Remove the 2 screws that hold the front handle.



4. Remove the front handle.
5. Install the opposite sequence.



CAUTION: Use a threadlocker when you install the 2 screws that hold the front handle.

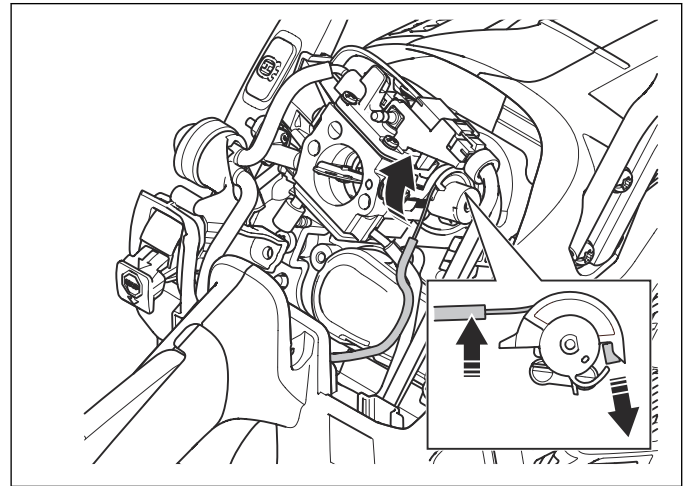
7.7.4 To clean and examine the handle and throttle trigger

1. Carefully clean and examine all parts.
2. Replace parts that are damaged. Always use original spare parts.
3. Make sure that the spring in the throttle trigger is not damaged and keeps all its tension.

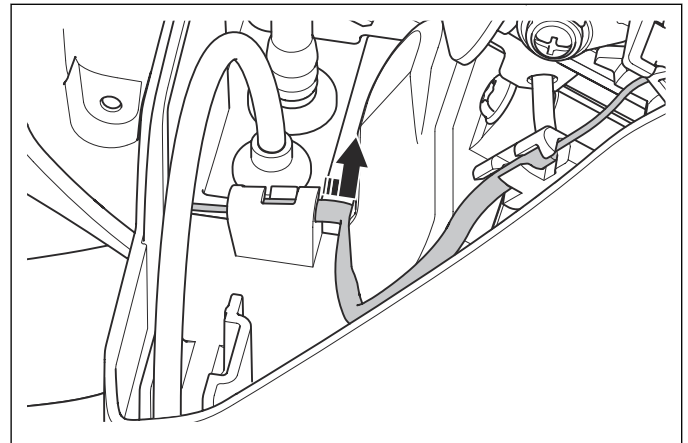
7.7.5 To replace the throttle wire

1. Remove the throttle wire from the throttle trigger. Refer to *To remove and install the right handle half on page 17.*
2. Remove the air filter cover and the air filter.

3. Remove the throttle wire from the wire bracket and the carburetor.



4. Remove the throttle wire from the tank unit.



5. Install in the opposite sequence.

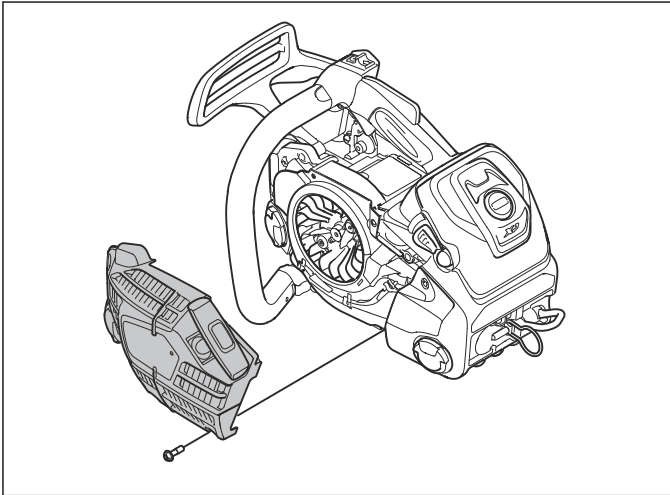
7.8 Starter

7.8.1 To disassemble the starter unit

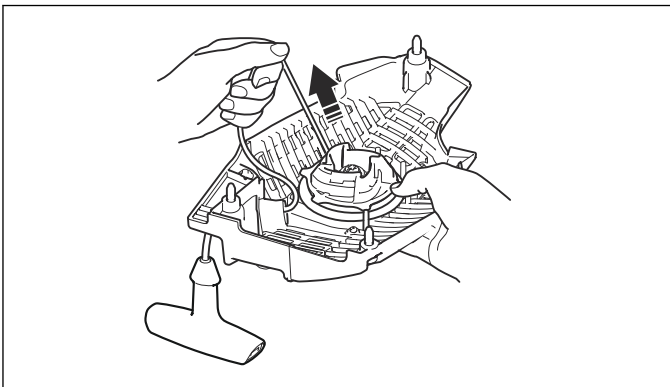


WARNING: Use protective glasses. The recoil spring can eject from the starter pulley and cause injury.

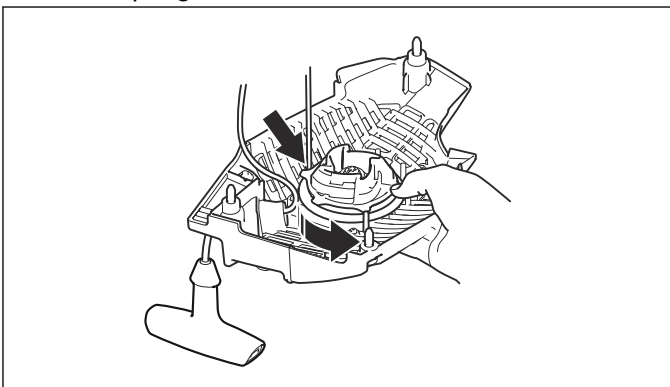
1. Loosen the 4 screws that hold the starter housing.
2. Remove the starter unit.



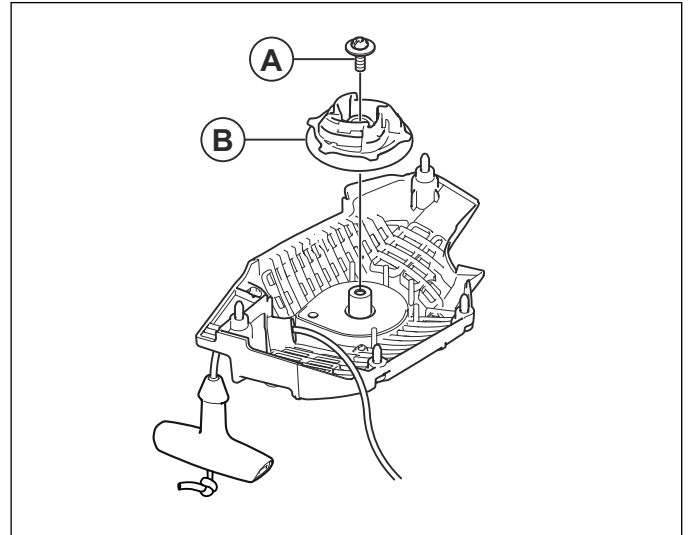
3. Pull out the starter rope approximately 30 cm/12 in and put it in the notch on the pulley.



4. Let the pulley rotate slowly rearward to release the recoil spring.



5. Remove the screw (A) and remove the pulley (B).



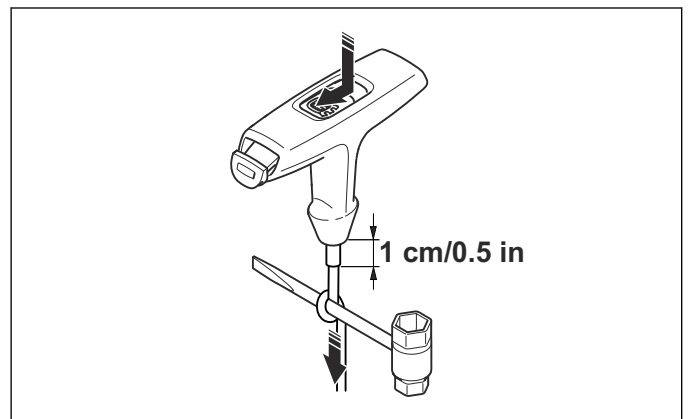
6. Install in the opposite sequence.

7.8.2 To clean and examine the starter unit

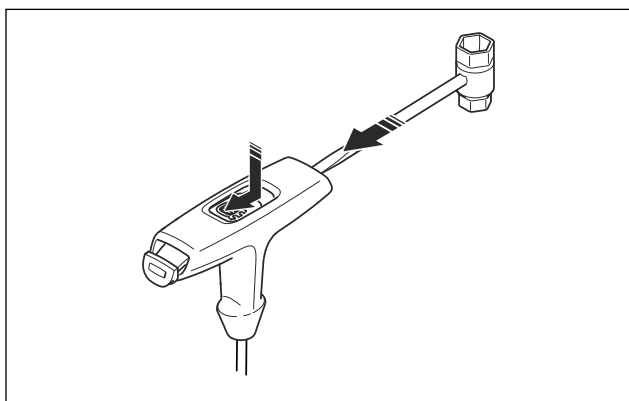
- Clean all components.
- Examine the starter rope. Replace the starter rope if it is damaged.
- Examine the starter pulley. Replace damaged parts.
- Make sure that the start pawls on the starter pawl assembly are not damaged. Make sure that the starter pawl springs on the starter pawl assembly are attached correctly and move freely.
- Lubricate the starter pawls on the starter unit.
- Lubricate the starter spring.

7.8.3 To replace a broken or worn starter rope

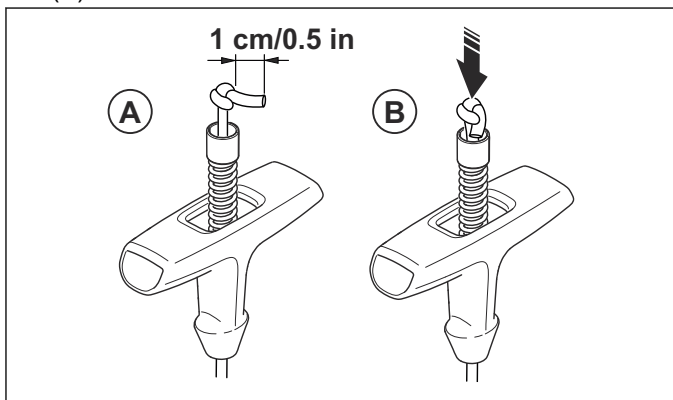
1. Remove the starter rope from the starter unit. Refer to *To disassemble the starter unit on page 19*.
2. Hold the starter rope handle.
3. Pull the starter rope until 1 cm of the spring guide is shown. At the same time, press down the starter handle cover and remove it from the starter rope handle.



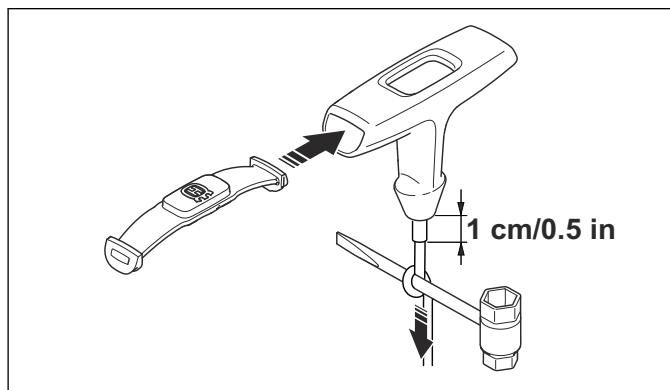
Note: If the starter rope is broken in the starter rope handle, push the starter handle cover down. Use the combination wrench to remove the starter handle cover.



4. Attach a new starter rope to the pulley. Wind the starter rope approximately 3 turns around the pulley.
5. Connect the pulley to the recoil spring. The end of the recoil spring must engage in the pulley.
6. Attach the screw to the center of the pulley.
7. Pull the starter rope through the hole in the starter housing, the starter rope handle and the spring guide.
8. Make a knot 1 cm/0.5 in (A) from the end of the starter rope.
9. Put the rope end or the starter rope parallel to the knot.
10. Push down the knot into position in the spring guide (B).

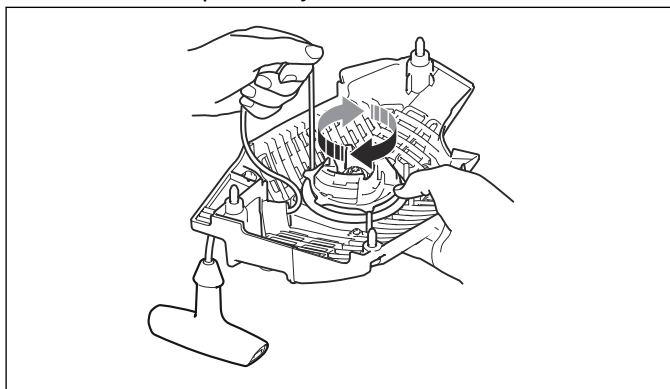


11. Pull the starter rope until 1 cm of the spring guide is shown. At the same time, assemble the starter handle cover.



7.8.4 To tighten the recoil spring

1. Put the starter rope into the notch in the pulley.
2. Turn the starter pulley approximately 2 turns clockwise.
3. Put your thumb on the pulley.
4. Pull the starter rope handle and pull out the starter rope fully.
5. Move your thumb and release the starter rope.
6. Make sure that you can turn the pulley $\frac{1}{2}$ turn after the starter rope is fully extended.



7.9 Ignition system

7.9.1 To do a test of the ignition module

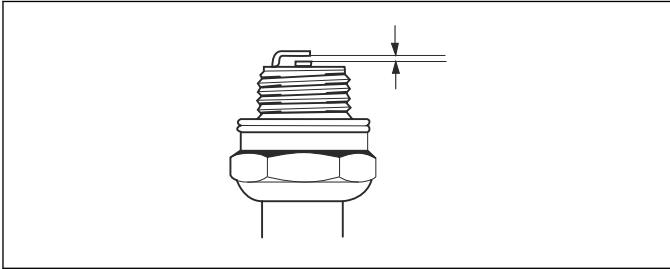
1. Remove the cylinder cover and the air filter.
2. Remove the spark plug cap.
3. Remove the spark plug from the cylinder.
4. Connect a test spark plug to the spark plug cap. Refer to *Servicing tools on page 9*.
5. Connect one end of the wiring assy to the test spark plug and the other end to one of the cooling fins. Refer to *Servicing tools on page 9*.
6. Pull the starter rope handle. If a spark occurs, the spark plug is damaged. If no spark occurs, the ignition module is damaged. Replace the damaged part.

7.9.2 To examine the spark plug



CAUTION: Use resistor spark plugs to prevent problems during operation and permanent damage to the ignition system. Only use spark plugs recommended by Husqvarna, refer to the operator's manual.

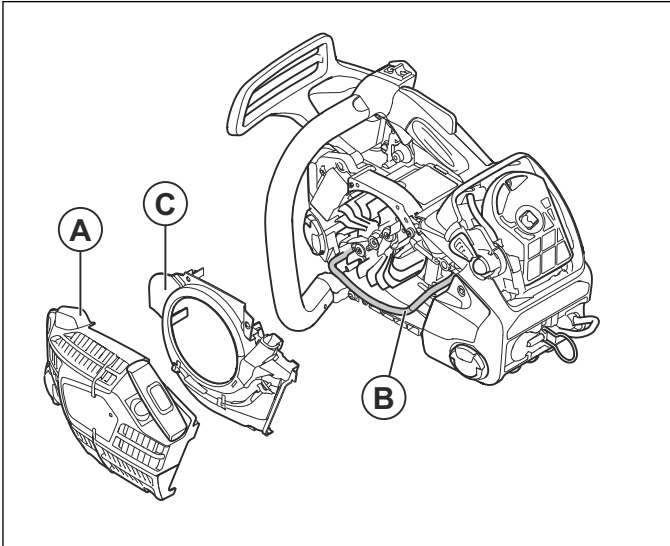
- Examine the spark plug if the engine is low on power, is not easy to start or does not operate correctly at idle speed.
- To decrease the risk of unwanted material on the spark plug electrodes, obey these instructions:
 - a) Make sure that the idle speed is correctly adjusted.
 - b) Make sure that the fuel mixture is correct.
 - c) Make sure that the air filter is clean.
- If the spark plug is dirty, clean it and make sure that the electrode gap is correct, refer to *Technical data on page 48*.



- Replace the spark plug if it is necessary.

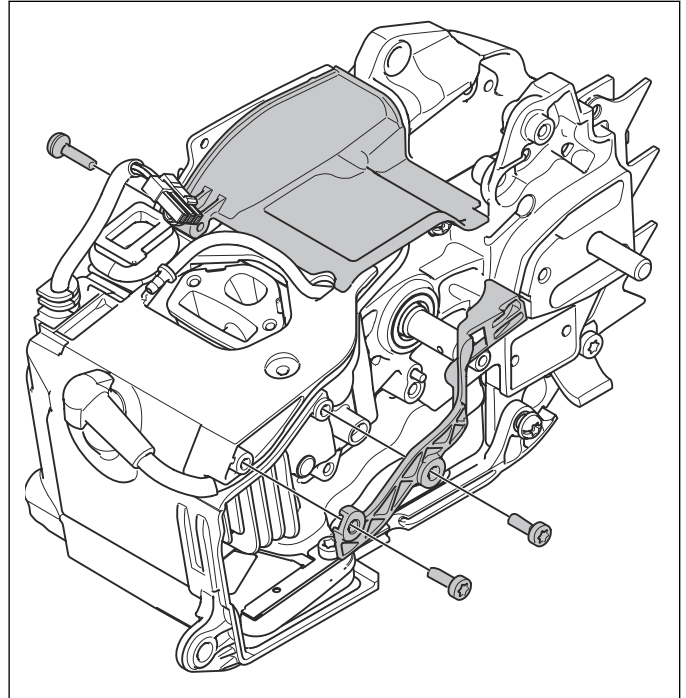
7.9.3 To remove the ignition module

1. Remove the clutch cover.
2. Remove the starter unit (A).

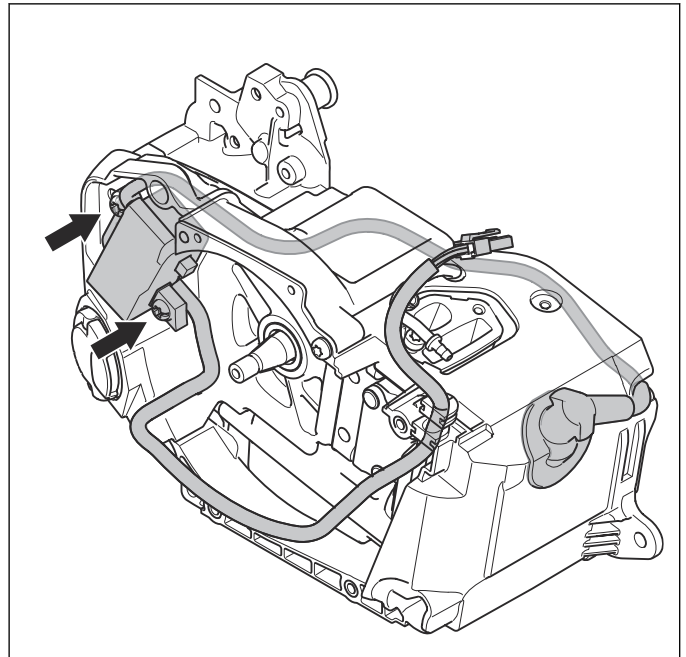


3. Loosen the ignition cord (B) from the air conductor (C).
4. Remove the front handle. Refer to *To remove and install the front handle on page 18*.
5. Remove the air filter cover and the air filter.

6. Remove the centrifugal clutch. Refer to *To remove and install the centrifugal clutch on page 25*.
7. Remove the start/stop switch. Refer to *To remove and install the start/stop switch on page 32*.
8. Remove the carburetor. Refer to *To remove and install the carburetor on page 28*.
9. Remove the tank unit. Refer to *To remove and install the tank unit on page 33*.
10. Remove the cover for the pump housing. Refer to *To remove and install the lubrication system on page 26*.
11. Remove the 3 screws and the 2 covers for the ignition cable.

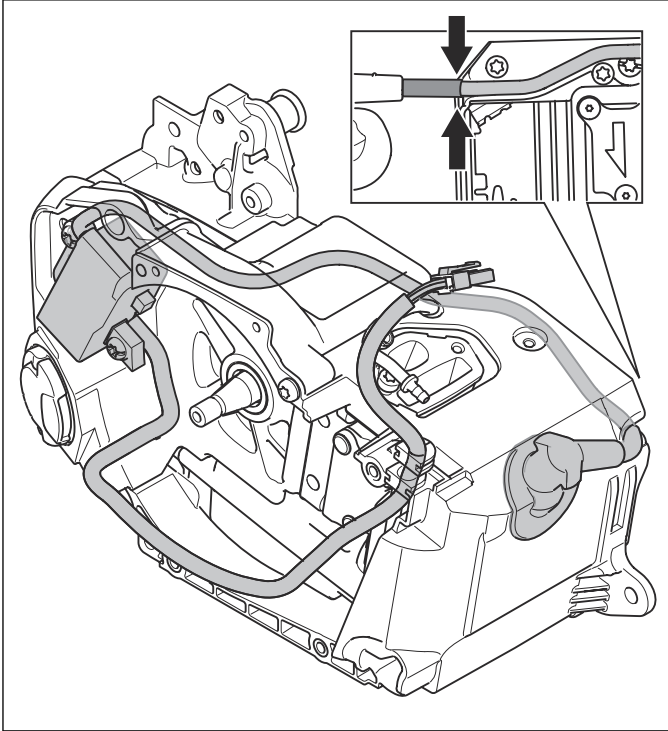


12. Remove the 2 screws and the ignition module.

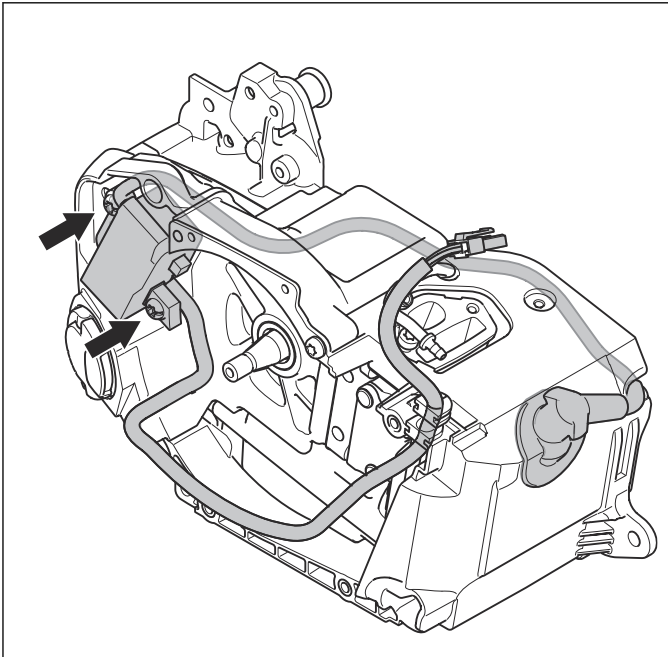


7.9.4 To install the ignition module

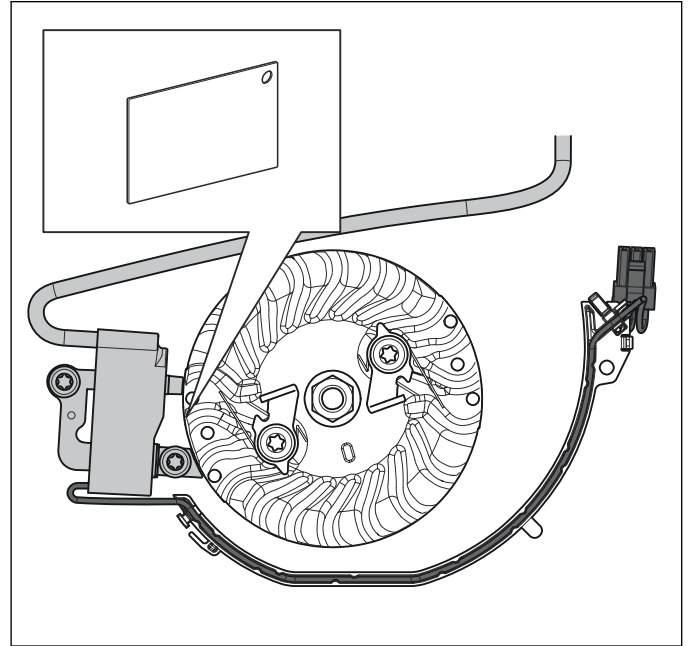
1. Install the the ignition cable. Make sure that the tube on the ignition cable align with the edge of the cylinder cover.



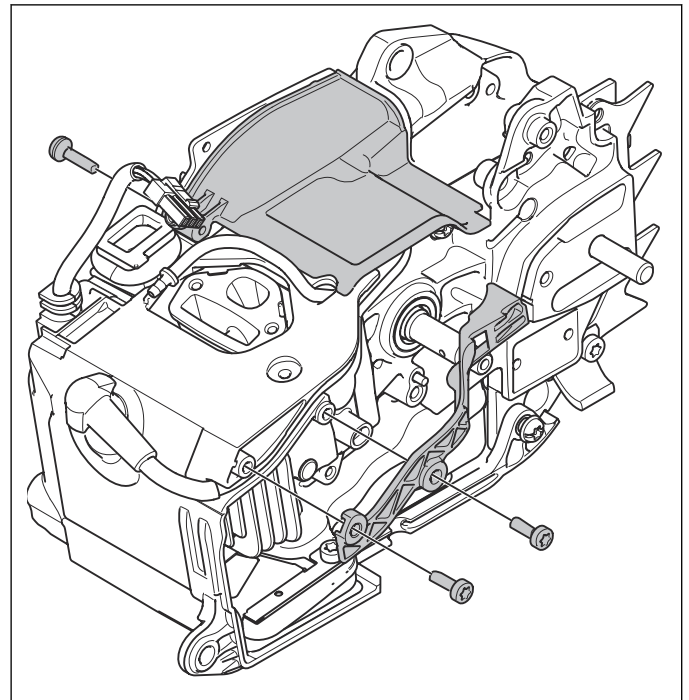
2. Install the 2 screws and the ignition module. Do not tighten the screws fully.



3. Put a air gap gauge between the ignition module and the flywheel. Tighten the screw to the correct torque. Refer to *Servicing tools on page 9*.



4. Remove the air gap gauge.
5. Install the 3 screws and the 2 covers for the ignition cable.



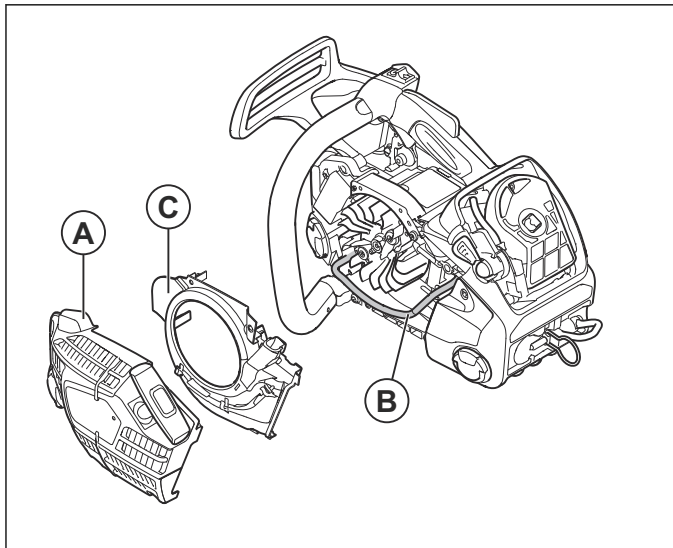
6. Install the tank unit. Refer to *To remove and install the tank unit on page 33*.
7. Install the carburetor. Refer to *To remove and install the carburetor on page 28*.
8. Install the start/stop switch. Refer to *To remove and install the start/stop switch on page 32*.
9. Install the cylinder cover and the air filter.
10. Install the front handle. Refer to *To remove and install the front handle on page 18*.

11. Install the starter unit and the air conductor. Refer to *To disassemble the starter unit on page 19.*
12. Install the clutch cover.

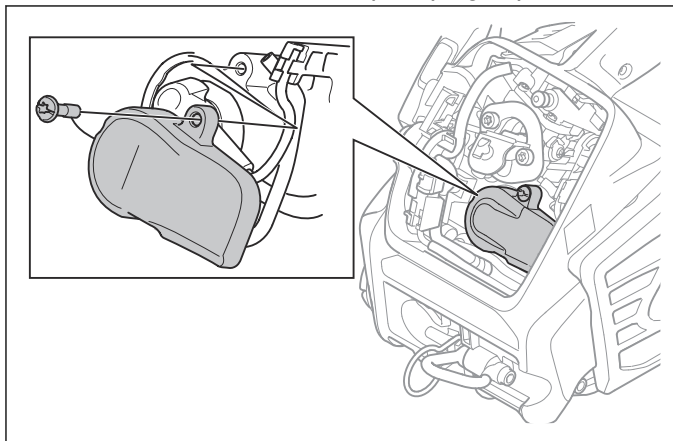
7.10 Flywheel

7.10.1 To remove the flywheel

1. Remove the starter unit (A).

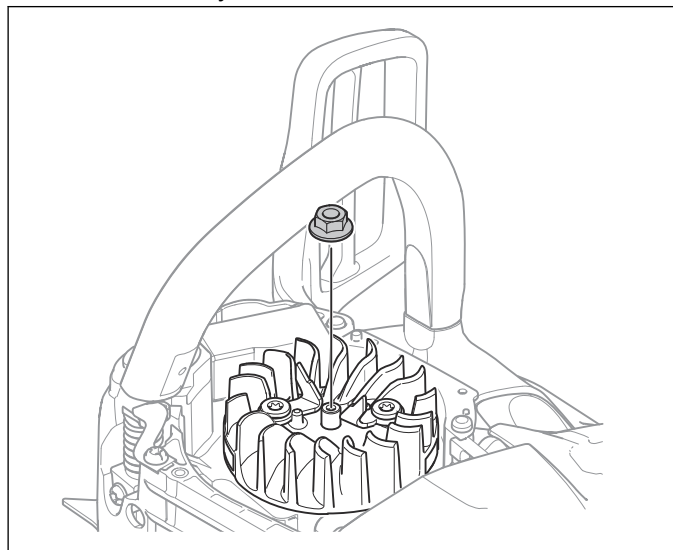


2. Loosen the ignition cord (B) from the air conductor (C).
3. Remove the cylinder cover.
4. Remove the air filter.
5. Make sure that the area around the spark plug is clean.
6. Remove the cover for the spark plug cap.

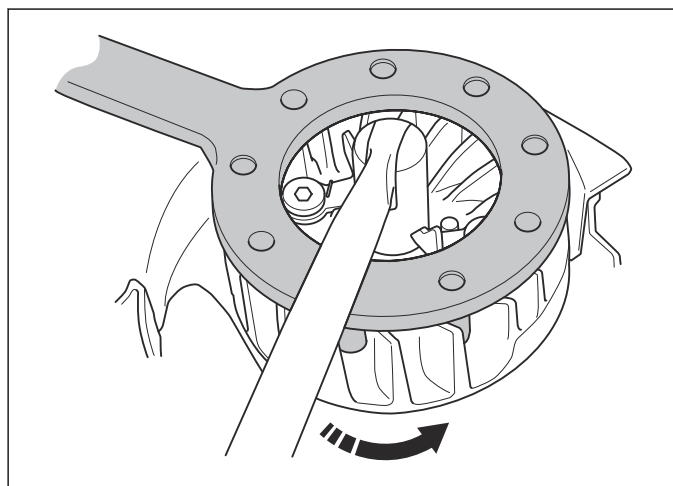


7. Remove the spark plug and put a piston stop in the spark plug hole. Refer to *Servicing tools on page 9.*
8. Loosen but do not remove the screws that hold the ignition module.

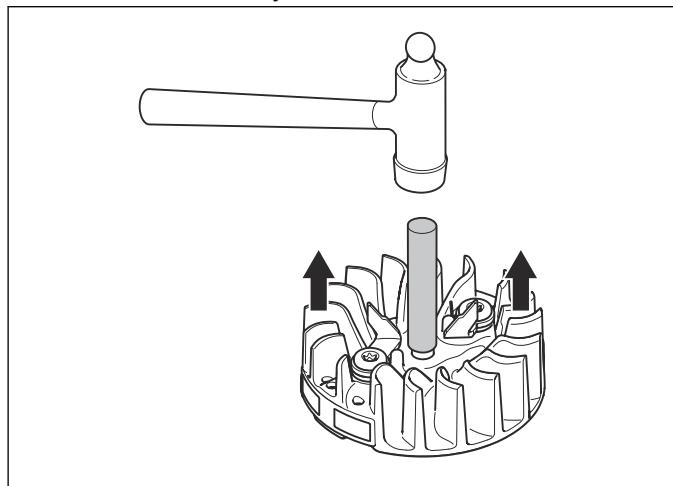
9. Remove the flywheel nut.



10. Use the flywheel tool to remove and install the flywheel. Refer to *Servicing tools on page 9.* Hold the flywheel with the flywheel tool and remove the nut.



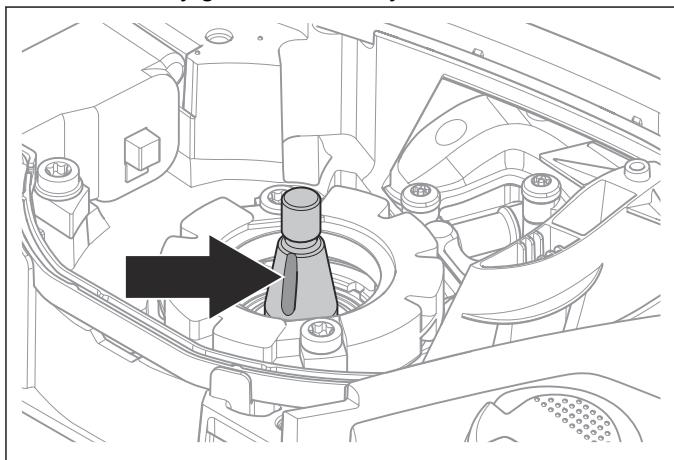
11. Attach a mandrel on the crankshaft. Refer to *Servicing tools on page 9.* Tighten the mandril until there is a distance of 1-2 mm between the mandrel and the flywheel.
12. Pull the flywheel and hit the mandrel with a metal hammer until the flywheel is loose.



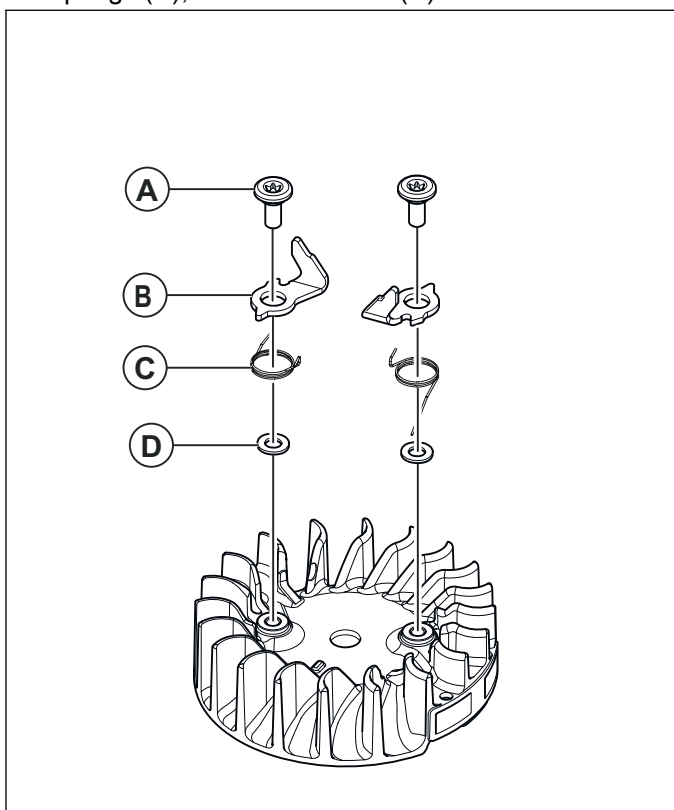
13. Remove the mandrel and the flywheel.

7.10.2 To install the flywheel

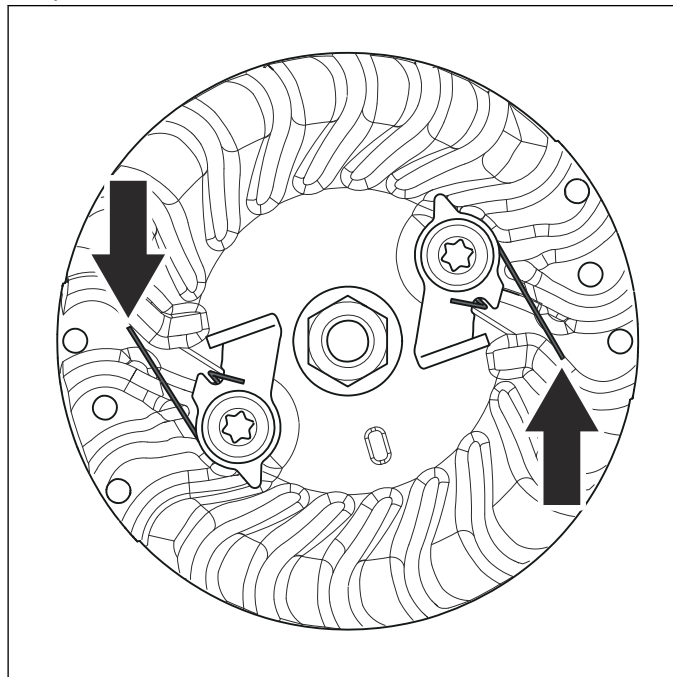
1. Clean the crankshaft.
2. Put the flywheel on the crankshaft. Turn the flywheel until the key goes into the key slot on the shaft.



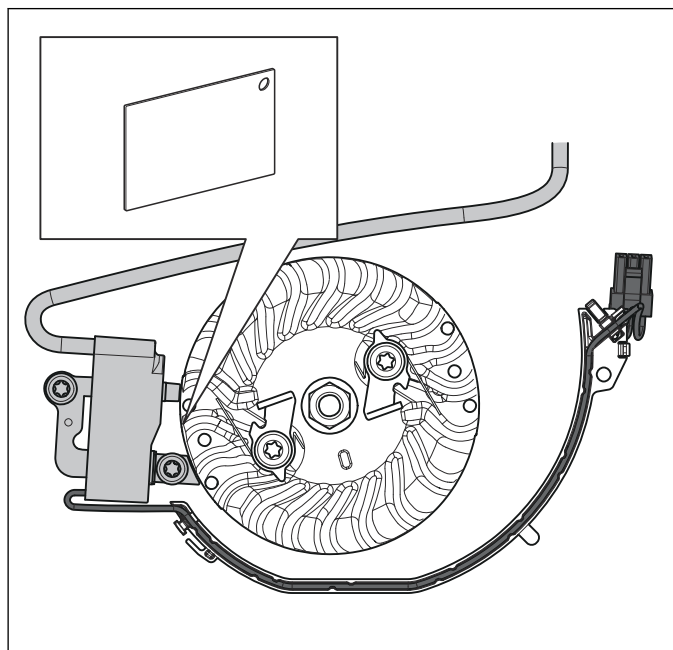
3. Turn the flywheel to align the magnets with the ignition module.
4. Attach the flywheel nut and tighten it to the correct torque, refer to *Servicing data on page 7*.
5. Install the screws (A), the starter pawls (B), the springs (C), and the washers (D).



6. Make sure that you install the springs in the correct position, as shown in the illustration.



7. Put the clearance gauge between the flywheel and the ignition module. Refer to *Servicing tools on page 9*.

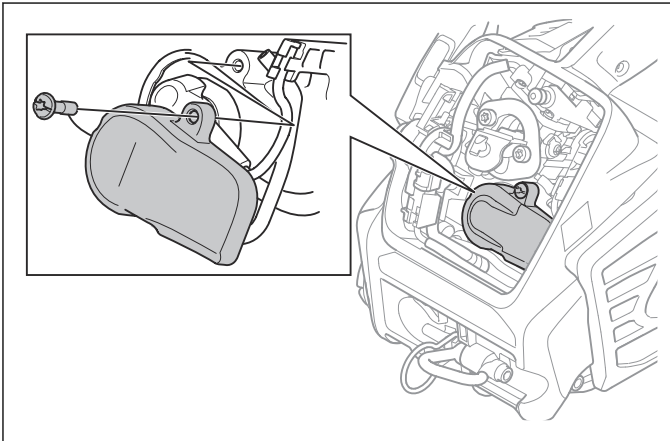


8. Tighten the 2 screws that hold the ignition module to the correct torque. Refer to *Servicing data on page 7*.
9. Remove the clearance gauge.
10. Install the cooling air conductor and starter unit on the product.
11. Install the spark plug in the cylinder. Connect the spark plug cap to the spark plug.
12. Install the cylinder cover.

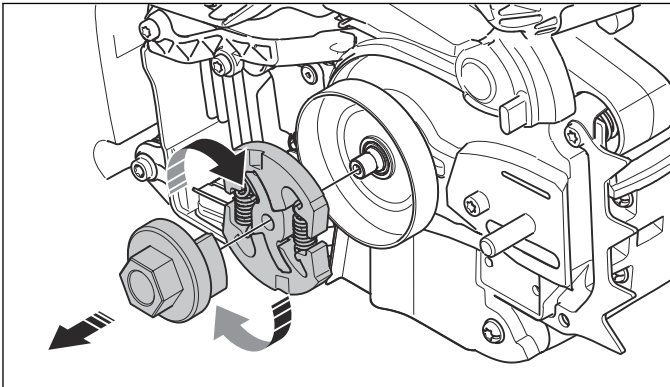
7.11 Centrifugal clutch

7.11.1 To remove and install the centrifugal clutch

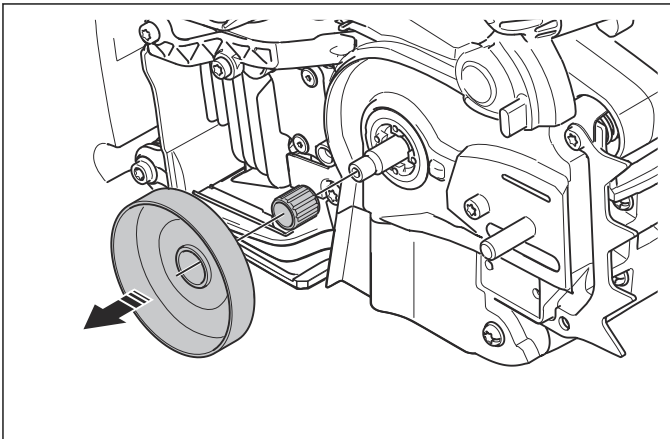
1. Disengage the chain brake.
2. Remove the clutch cover.
3. Remove the guide bar and saw chain.
4. Remove the cylinder cover.
5. Remove the air filter.
6. Make sure that the area around the spark plug is clean.
7. Remove the cover for the spark plug cap.



8. Remove the spark plug and put a piston stop in the spark plug hole. Refer to *Servicing tools on page 9*.
9. Remove the centrifugal clutch. Refer to *Servicing tools on page 9*.



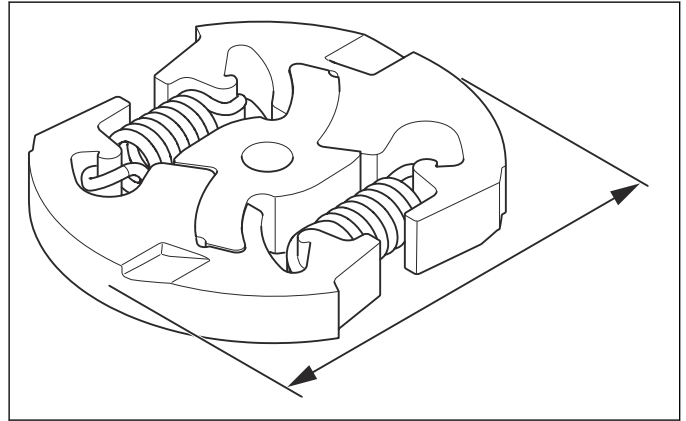
10. Remove the clutch drum and the bearing.



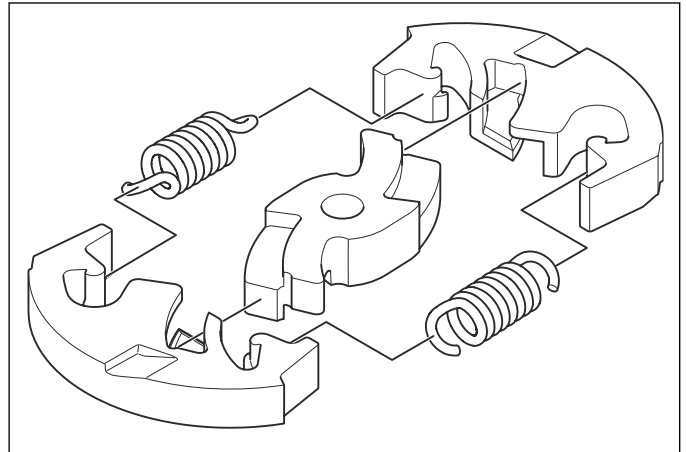
11. Install in the opposite sequence.

7.11.2 To clean and examine the centrifugal clutch

1. Measure the diameter of the clutch shoes across the full clutch hub. Replace the clutch if the diameter is less than 60 mm.



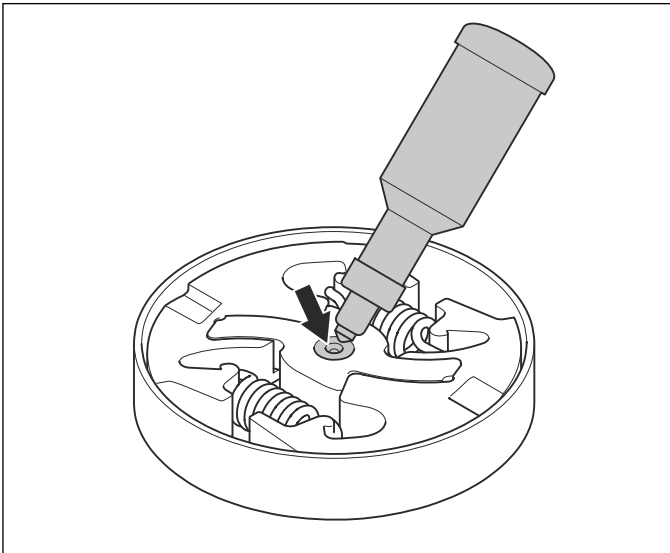
2. Carefully remove the centrifugal clutch springs with pliers.
3. Clean and examine all parts. Replace damaged parts. Always use the original spare parts.



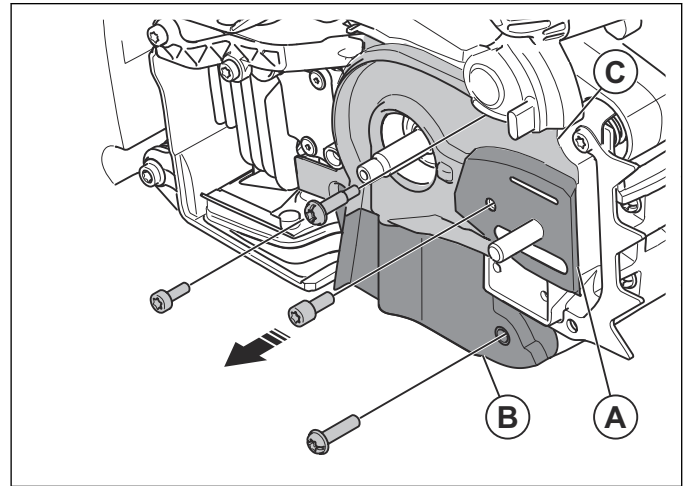
7.11.3 To lubricate the needle bearing

1. Pull the front hand guard rearward to disengage the chain brake.
2. Loosen the bar nuts and remove the clutch cover.
Note: Some models have only one bar nut.
3. Put the product on a stable surface with the clutch drum up.

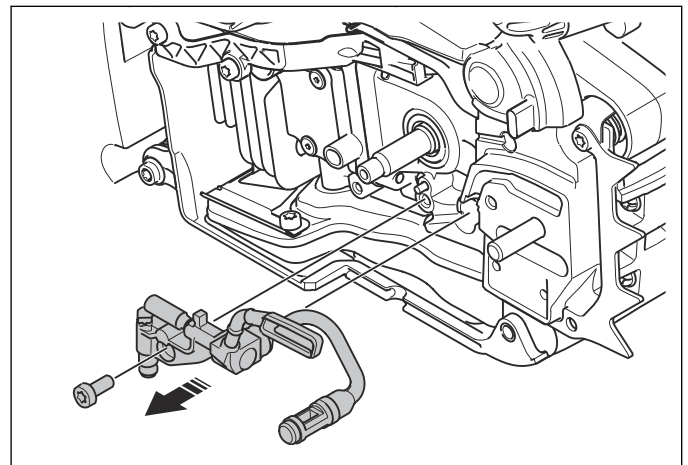
- Lubricate the needle bearing with a grease gun. Use engine oil or a bearing grease of high quality.



- Remove 4 screws, the chain guide plate (A), the muffler cover (B) and the cover for the pump housing (C).



- Remove the screw, the oil pump housing and the hoses.



- Install in the opposite sequence.

7.12 Lubrication system

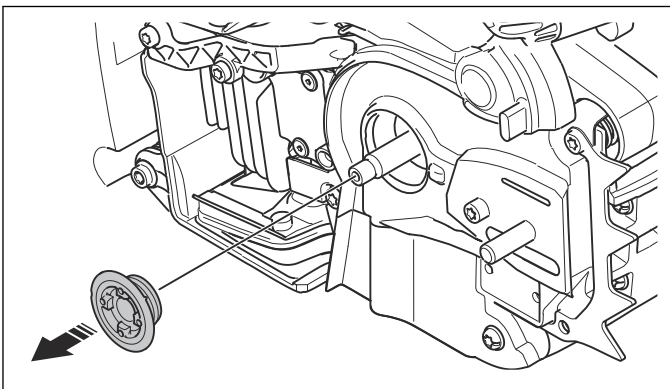
7.12.1 To remove and install the lubrication system



WARNING: The saw chain can break if the lubrication is not sufficient.

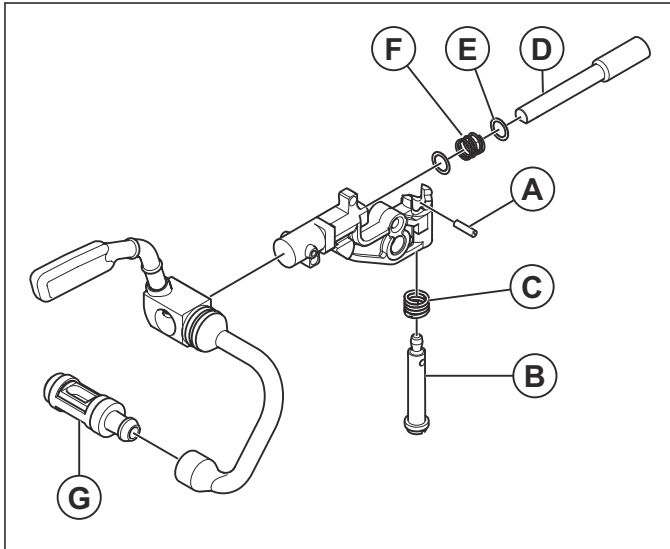
The lubrication system has an oil pump, a suction hose with filter and an oil hose with an integrated filter.

- Drain the oil from the oil tank.
- Remove the clutch cover.
- Remove the centrifugal clutch, the clutch drum and the bearing. Refer to *To remove and install the centrifugal clutch* on page 25.
- Turn the oil pump gear counterclockwise until it is loose and remove it.



7.12.2 To disassemble and examine the lubrication system

1. Remove the lubrication system. Refer to *To remove and install the lubrication system on page 26*.
2. Remove the pin (A), the adjustment screw (B) and the spring (C).



3. Remove the pump piston (D).
4. Pull out the washer (E) and the spring (F).
5. Remove the oil filter (G).
6. Clean and examine all parts carefully. Replace damaged parts. Always use the original spare parts.
7. Use chain oil to lubricate all moving parts.
8. Install in the opposite sequence.

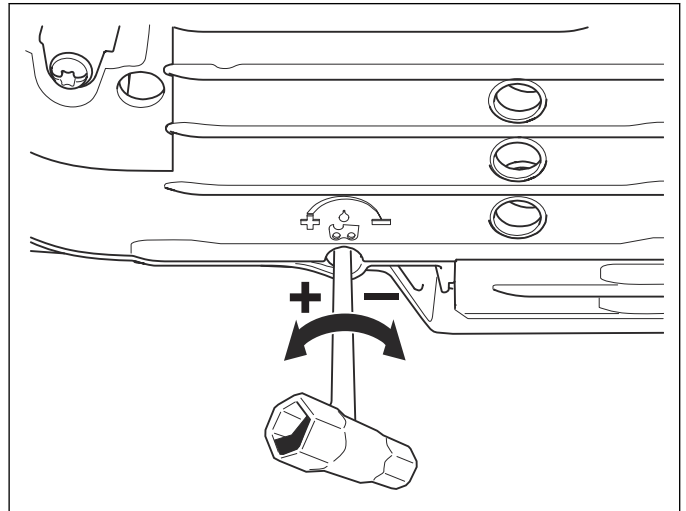
7.12.3 To adjust the chain oil flow



WARNING: Stop the engine before you make adjustments to the oil pump.

1. Turn the adjustment screw for the oil pump. Use a screwdriver or combination wrench.
 - a) Turn the adjustment screw clockwise to decrease the chain oil flow.

- b) Turn the adjustment screw counterclockwise to increase the chain oil flow.



7.13 Air filter

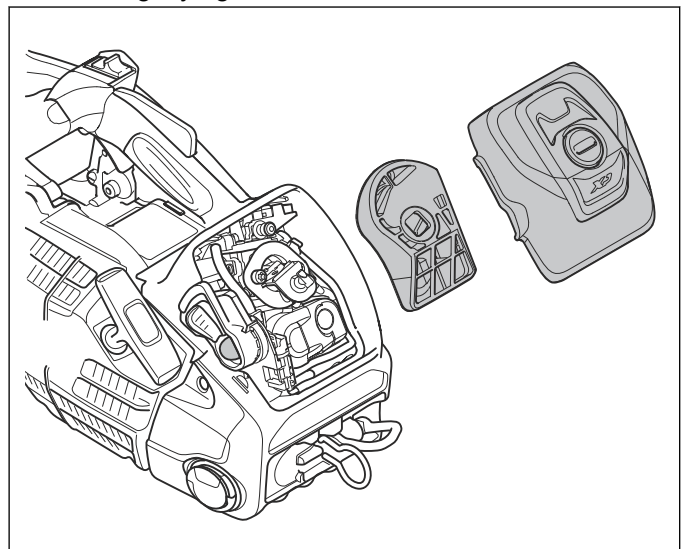
7.13.1 To clean the air filter

Clean the air filter from dirt and dust regularly. This prevents carburetor malfunctions, starting problems, loss of engine power, wear to engine parts and more fuel consumption than usual.

1. Remove the air filter cover and the air filter.
2. Use a brush or shake the air filter clean. Use detergent and water to clean it fully.

Note: An air filter that is used for a long time can not be fully cleaned. Replace the air filter regularly and always replace a damaged air filter.

3. Attach the air filter and make sure that the air filter seals tightly against the filter holder.



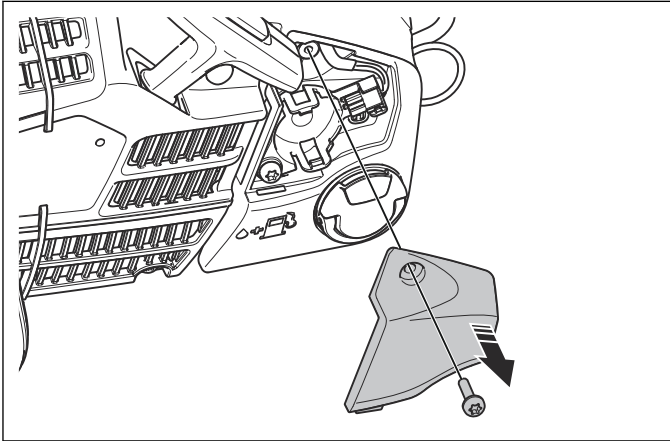
Note: Because of different work conditions, weather or season, your product can be used with different types of air filter. Speak to your servicing dealer for more information.

7.14 Husqvarna connectivity device

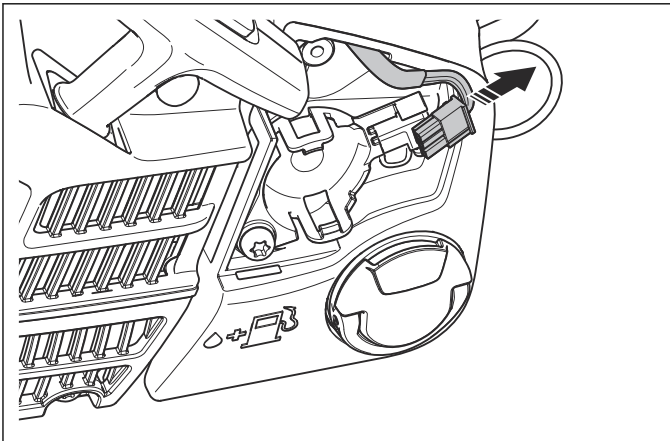
7.14.1 To install the Husqvarna® Connectivity Device

Do the steps that follow to install the Husqvarna® Connectivity Device. For more information about the Husqvarna® Connectivity Device, refer to www.husqvarna.com.

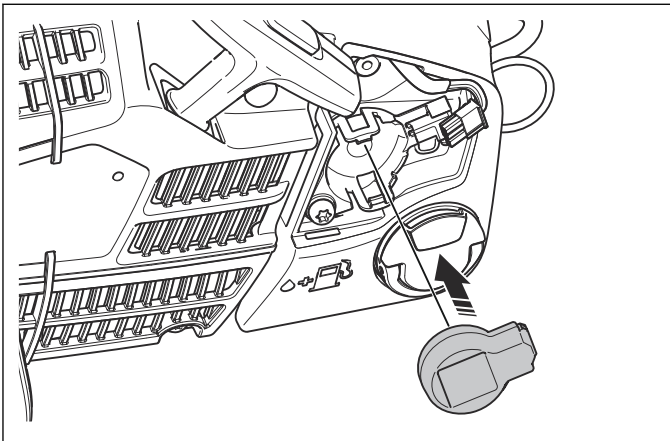
1. Remove the screw and open the plastic cover.



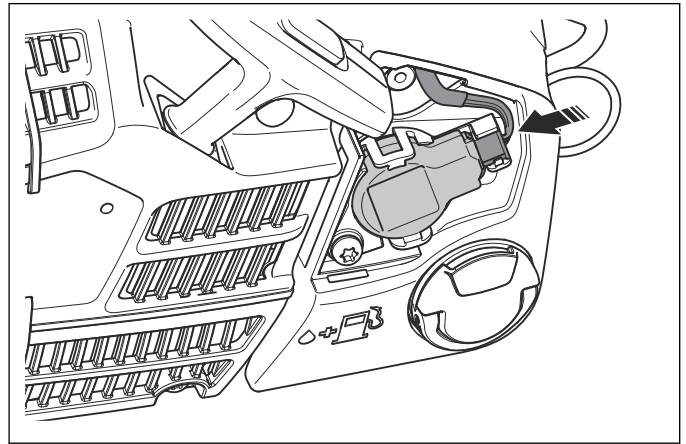
2. Remove the connector.



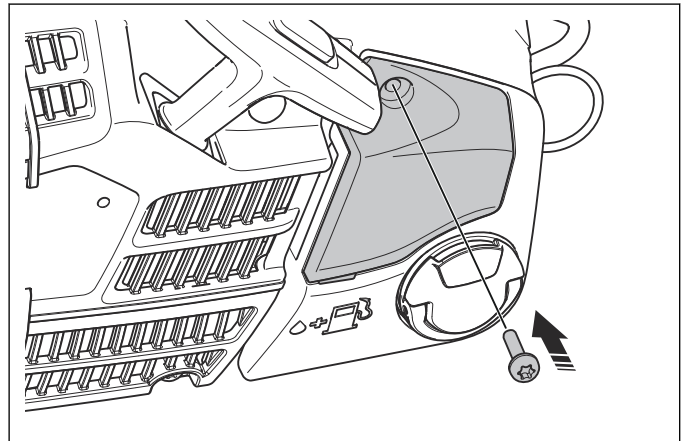
3. Install the Husqvarna® Connectivity Device.



4. Install the connector to the Husqvarna® Connectivity Device.



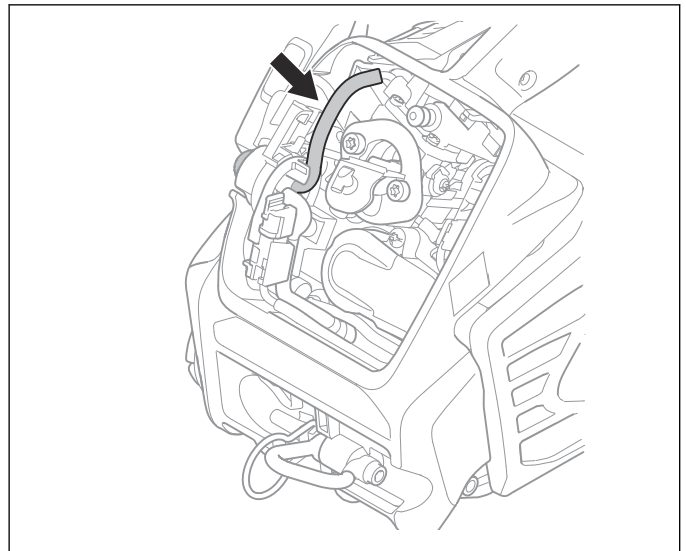
5. Install the plastic cover and tighten the screw.



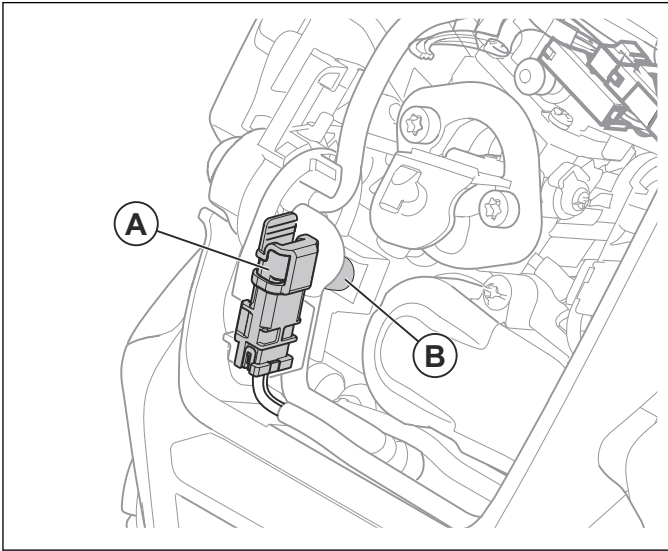
7.15 Carburetor

7.15.1 To remove and install the carburetor

1. Remove the air filter cover and the air filter.
2. Remove the suction hose from the carburetor.

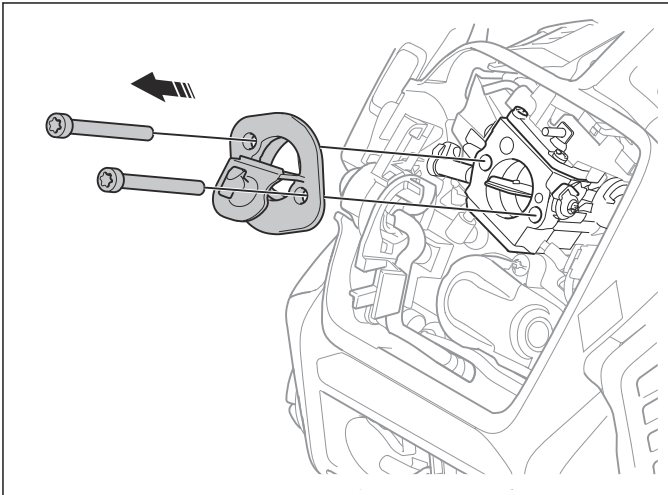


3. Remove the service connector (A).

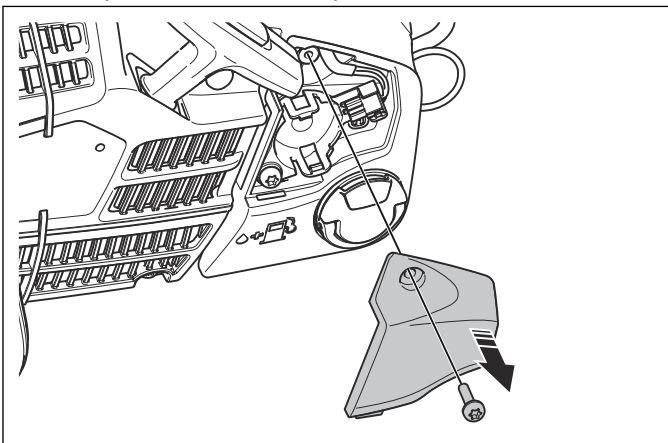


4. Remove the screw that hold the choke assembly (B).

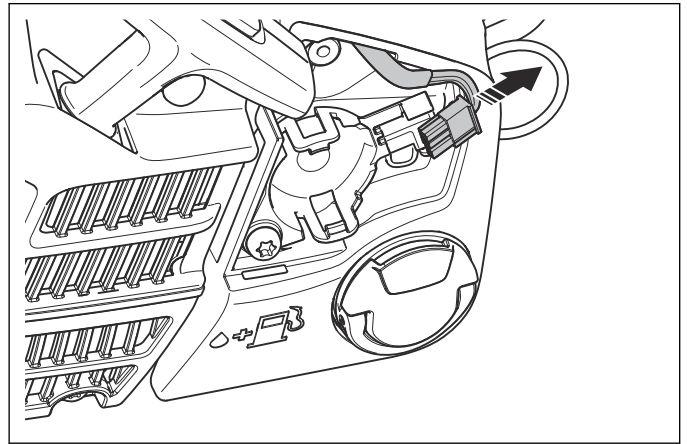
5. Remove the 2 screws on the carburetor.



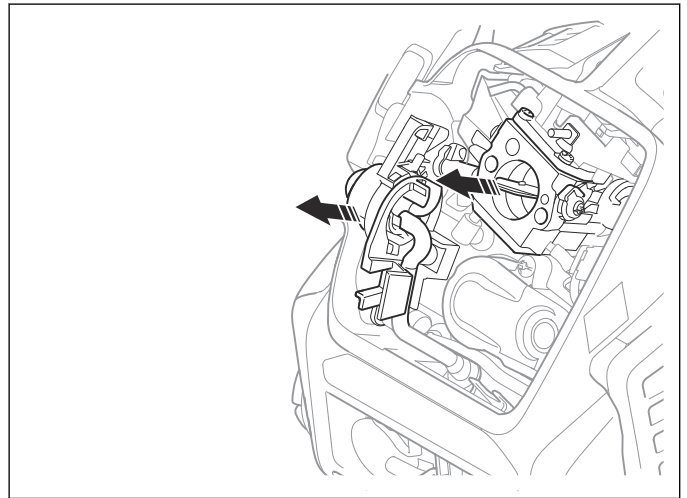
6. Remove the screw and open the plastic cover for the Husqvarna® Connectivity Device.



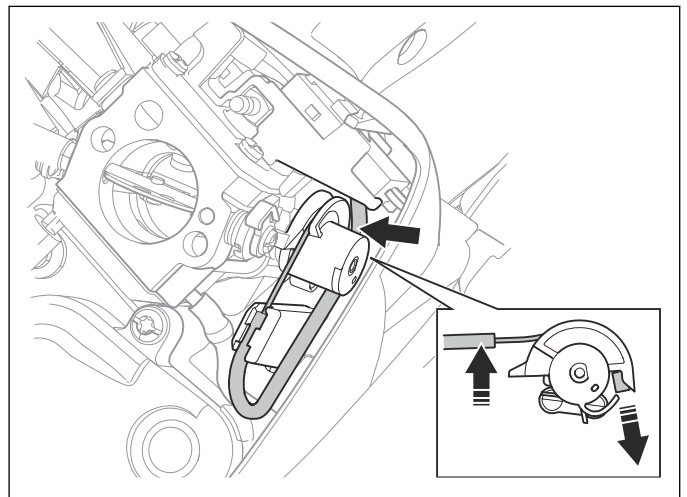
7. Loosen the connector for the Husqvarna® Connectivity Device.



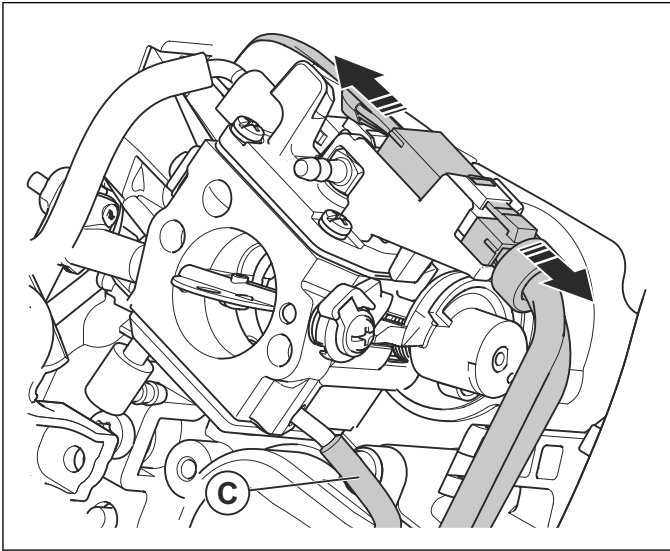
8. Remove the carburetor.



9. Disconnect the throttle wire.



10. Disconnect the connectors on the carburetor.



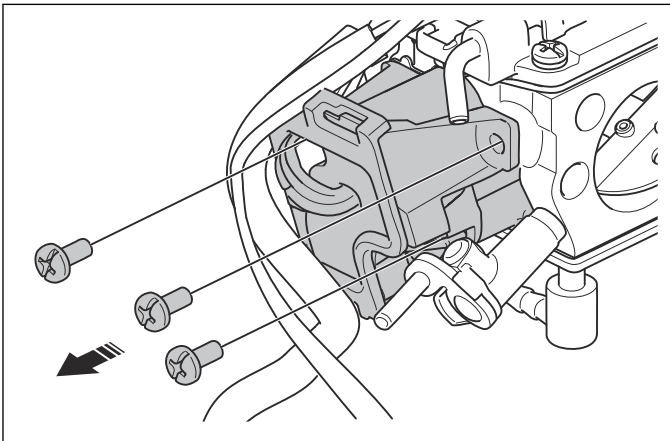
11. Remove the suction hose (C) from the carburetor.

12. Install in the opposite sequence.

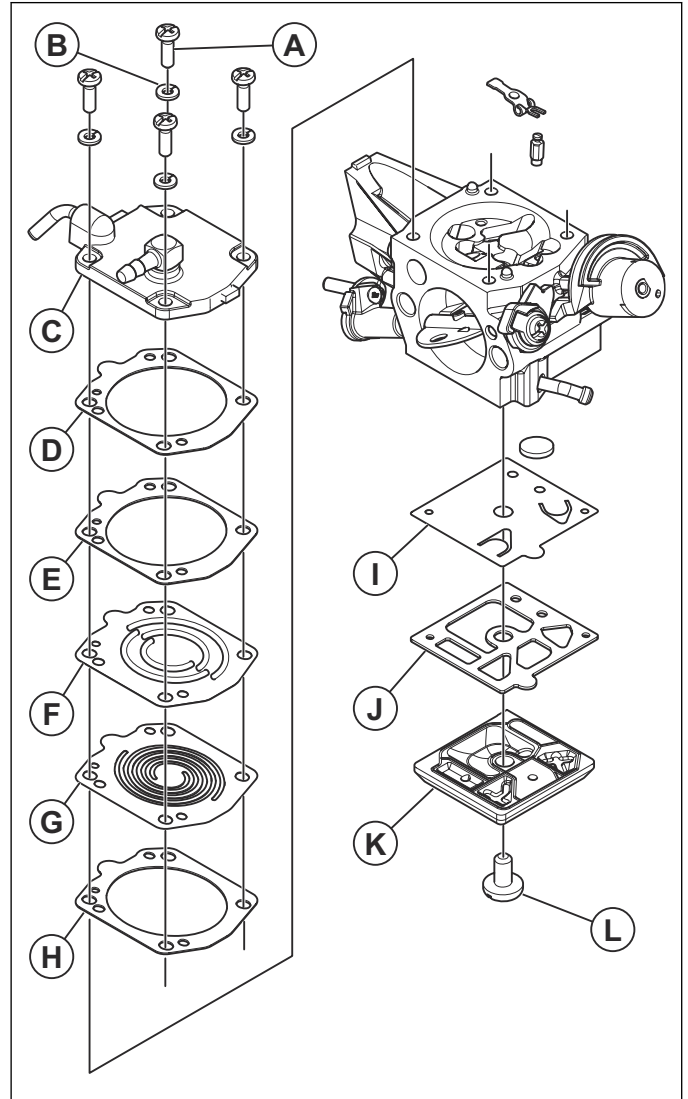
7.15.2 To disassemble the carburetor

1. Remove the carburetor. Refer to *To remove and install the carburetor on page 28.*

2. Remove the AutoTune™.



3. Remove the 4 screws (A) and the 4 washers (B).



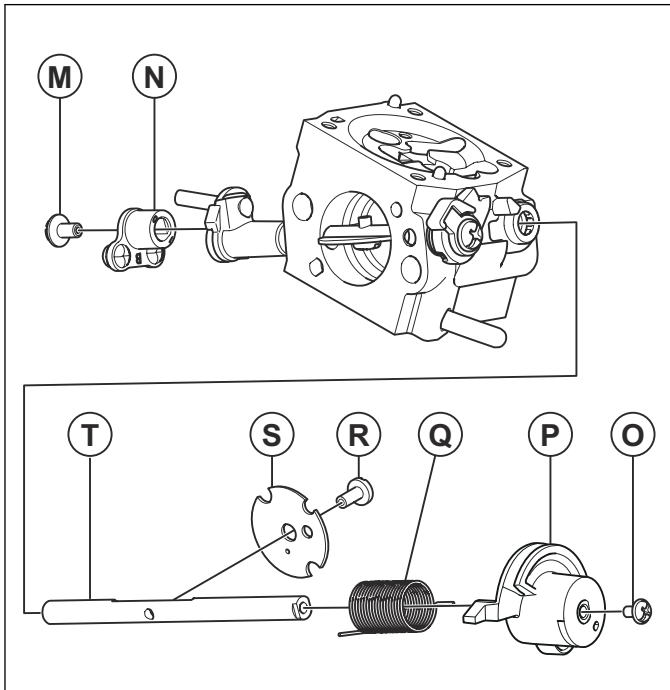
4. Remove the metering cover (C) and the 2 gaskets (D) and (E).

5. Remove the diaphragm assy (F), the support diaphragm (G) and the gasket (H).

6. Remove the screw (L) and the pump cover (K).

7. Remove the pump diaphragm (I) and the gasket (J).

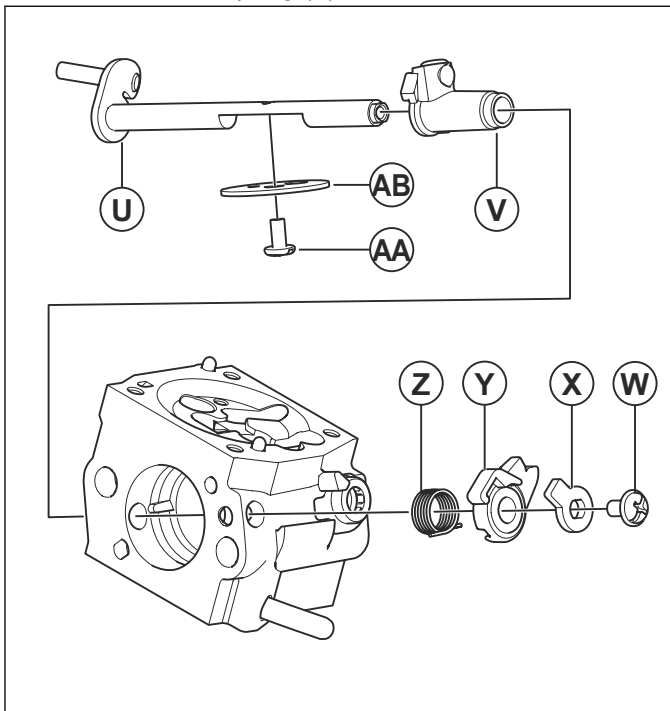
8. Remove the screw (R) and the throttle plate (S).



9. Remove the screw (M) and the collar (N).

10. Remove the screw (O), the lever (P), the return spring (Q), the throttle shaft (T).

11. Remove the screw (W), the washer (X), the lever (Y) and the return spring (Z).



12. Remove the screw (AA) and the choke plate (AB).

13. Remove the choke shaft (U) and the collar (V).

14. Assemble in the opposite sequence.

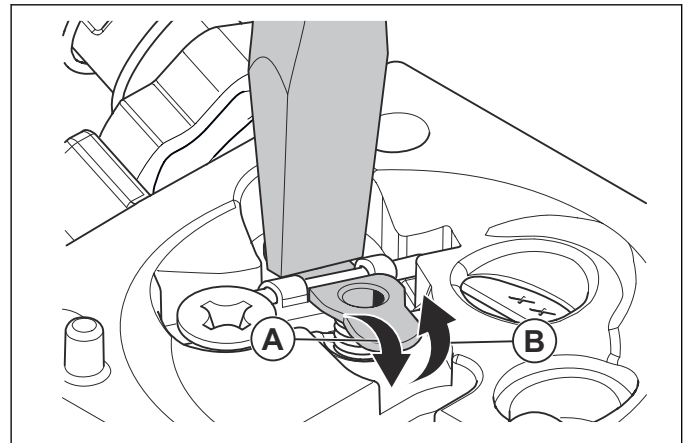
7.15.3 To clean and examine the carburetor

1. Clean all parts in clean gasoline. Use compressed air to dry the gasoline. Point the air through all channels in the carburetor housing and make sure that the channels are not blocked.
2. Make sure that there is no play on the throttle valve and the shafts of the choke valve.
3. Examine all parts for damage and wear. Replace the parts that show sign of damage.
4. Use the Engine Diagnostic Tool to examine the AutoTune™ unit. Refer to *Adjustment of the AutoTune™ unit on page 32.*

7.15.4 To adjust the metering lever

The distance between the metering lever and the gasket surface of the carburetor housing must be 0.55 mm. Adjust the distance if it is more or less than 0.55 mm.

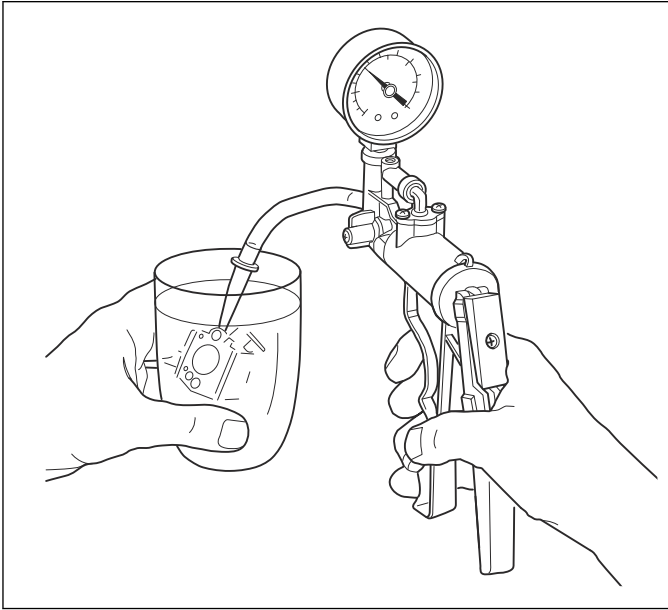
- Move the end of the metering lever down (A) to decrease the distance. Move the end of the metering lever up (B) to increase the distance.



7.15.5 To do a pressure test of the carburetor

1. Remove the carburetor. Refer to *To remove and install the carburetor on page 28.*
2. Make sure that the carburetor is correctly assembled. Refer to *To disassemble the carburetor on page 30.*

3. Connect the pressure tester to the fuel inlet on the carburetor. Increase the pressure to 50kPa. Refer to *Servicing tools on page 9*.



4. Lower the carburetor in a container with gasoline to find leaks.
5. Make sure that there are no leaks.

7.15.6 Troubleshooting leakage

Fault	Cause
Leakage in the diffuser jets	The needle valve
Leakage in the impulse pipe	The pump gasket
Leakage in the ventilation hole on the metering unit	The control gasket

7.15.7 Adjustment of the AutoTune™ unit

Note: The product adjusts the tune automatically and will be fully adjusted after some minutes of standard operation.

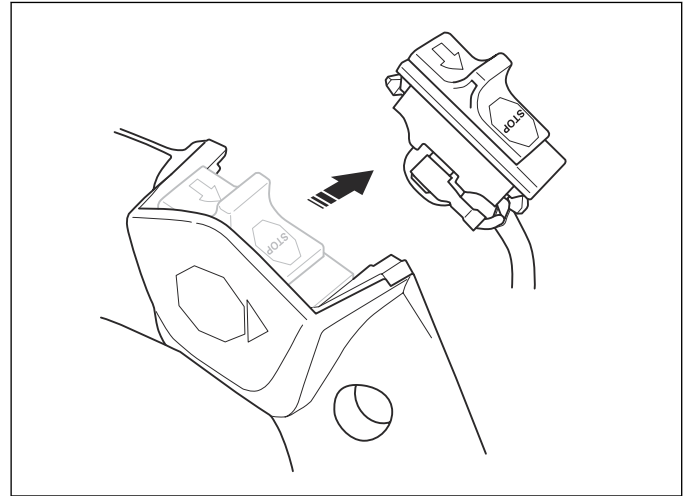
The high speed part is adjusted during loaded operation, such as cutting and felling.

The idle part is adjusted when you operate the product at idle speed.

7.16 Start/stop switch

7.16.1 To remove and install the start/stop switch

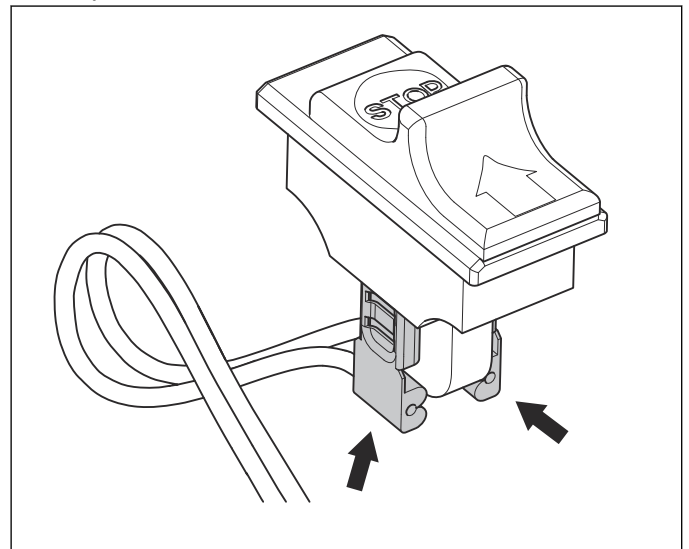
1. Remove the right handle half. Refer to *To remove and install the right handle half on page 17*.
2. Remove the STOP button from the right handle half.



3. Disconnect the 2 connectors (C).
4. Install in the opposite sequence.

7.16.2 To do a function test of the start/stop switch

1. Remove the right handle half. Refer to *To remove and install the right handle half on page 17*.
2. Put the start/stop switch in the stop position.
3. Clean the surfaces where you will measure the resistance.
4. Connect a multimeter to the connectors on the start/stop switch.

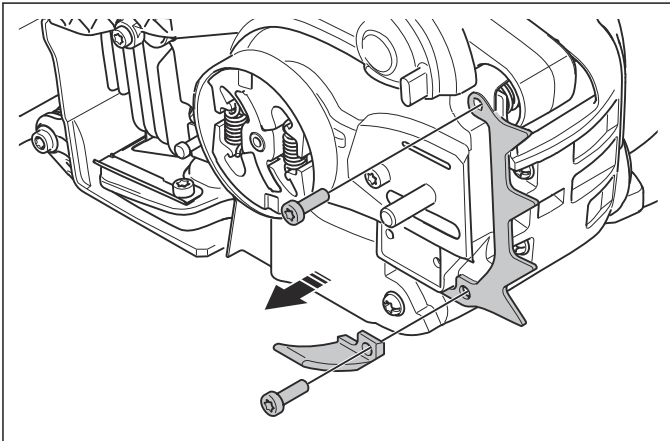


5. Measure the resistance. The resistance must not be higher than 0.2 Ω.

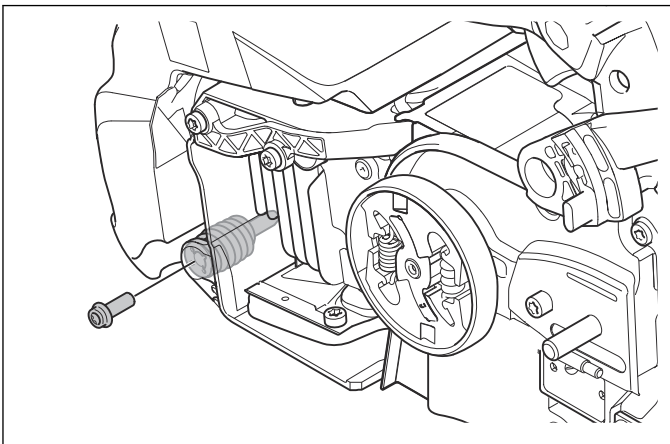
7.17 Fuel tank

7.17.1 To remove and install the tank unit

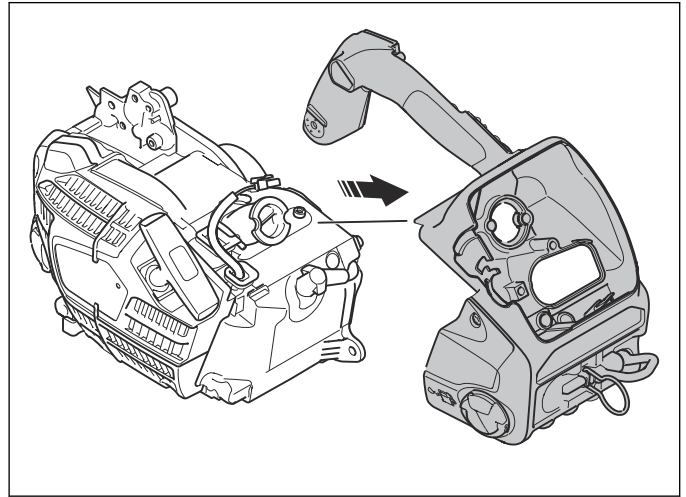
1. Drain the fuel tank.
2. Remove the clutch cover and front hand guard. Refer to *To remove the front handguard on page 13*.
3. Remove the front handle. Refer to *To remove and install the front handle on page 18*.
4. Remove the air filter cover.
5. Remove the air filter.
6. Remove the carburetor. Refer to *To remove and install the carburetor on page 28*.
7. Remove the 2 screws, the chain catcher and the spiked bumper.



8. Remove the screw of the rear vibration damping system.



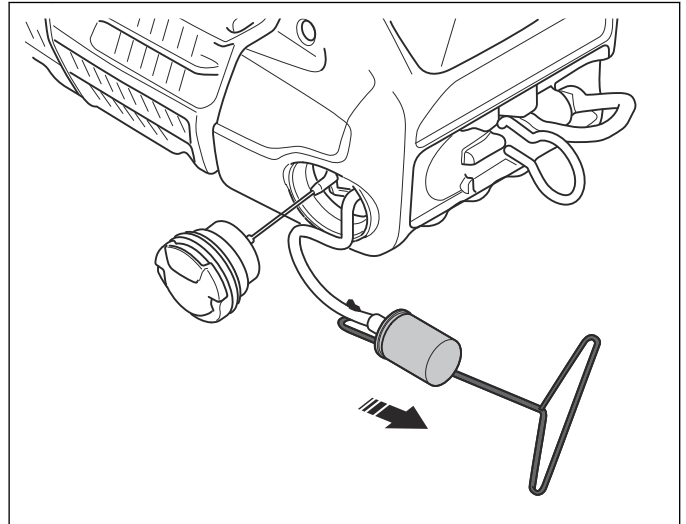
9. Remove the tank unit.



10. Install in the opposite sequence.

7.17.2 To replace the fuel filter

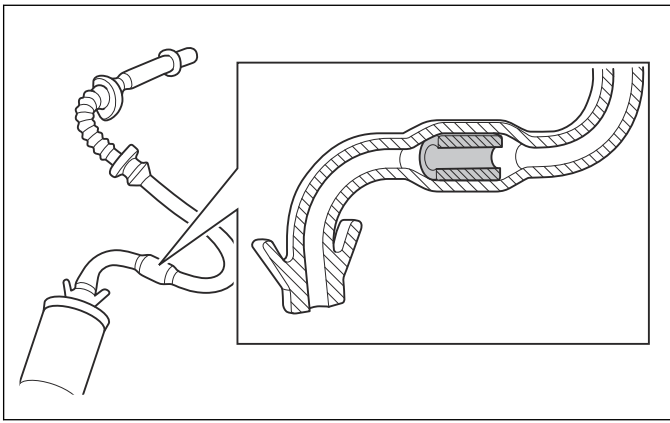
1. Remove the fuel tank cap.
2. Use a fuel filter hook to pull out the fuel hose and the fuel filter. Refer to *Servicing tools on page 9*



3. Remove the fuel filter.
4. Attach a new fuel filter to the fuel hose.
5. Install the fuel tank cap.

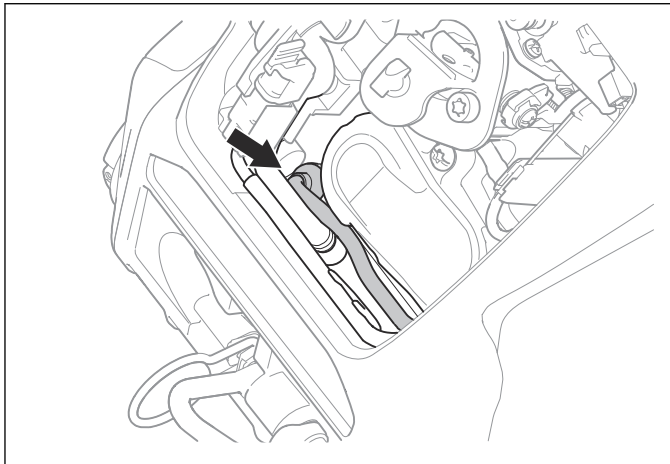
7.17.3 Magnetic tube in the fuel hose

Products with AutoTune™ have a magnetic tube in the fuel hose. This prevents magnetic particles in the fuel to cause damage to the AutoTune™ system.



7.17.4 To replace the fuel hose

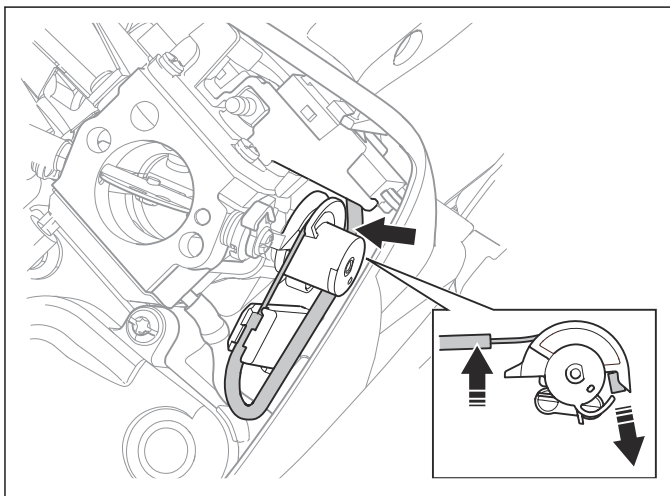
1. Remove the air filter cover and the air filter.
2. Remove the fuel filter. Refer to *To replace the fuel filter on page 33*.
3. Pull out and remove the fuel hose from the fuel tank.



4. Install in the opposite sequence.

7.17.5 To replace the air purge bulb

1. Remove the air filter cover.
2. Remove the air filter.
3. Push the snap locks (A) to remove the air purge bulb from the air filter holder.



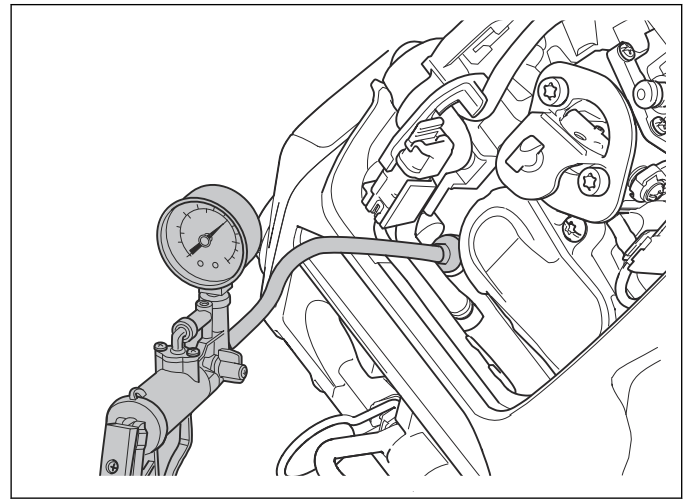
4. Remove the suction hose (B) and the return hose (C) from the air purge bulb.
5. Install in the opposite sequence.

7.17.6 Air pressure in the fuel tank

The two-way tank valve has a controlled opening pressure in the two directions. The controlled opening prevents positive pressure or vacuum in the fuel tank, and fuel leakage. Positive pressure, vacuum and fuel leakage decreases engine performance.

7.17.6.1 To do a pressure test of the fuel tank

1. Remove the fuel tank cap and drain the fuel tank.
2. Remove the air filter cover.
3. Remove the air filter.
4. Pull out and remove the fuel hose.
5. Connect the pressure tester to the grommet for the fuel hose.

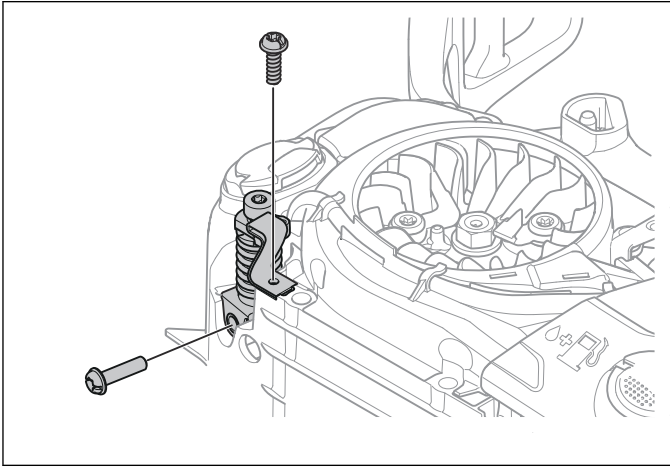


6. Do a test of the negative pressure in the fuel tank.
 - a) Use the pressure tester in vacuum mode to decrease the pressure in the fuel tank.
 - b) The pressure must be between 0.10–0.45 bar.
7. Do a test of the positive pressure in the fuel tank.
 - a) Use the pressure tester in pressure mode increase the pressure in the fuel tank.
 - b) The pressure must stop at max. 0.07 bar.
8. Install the fuel tank cap.

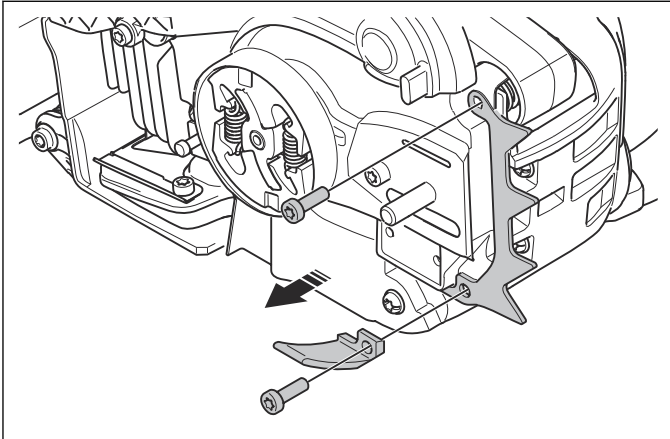
7.18 Vibration damping system

7.18.1 To disassemble and assemble the vibration damping system

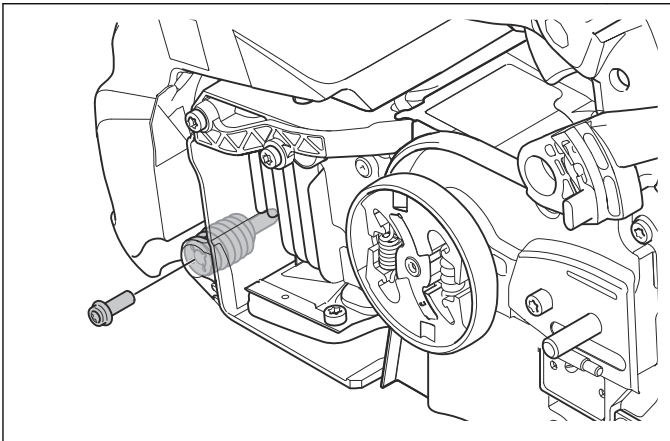
- 1.
2. Remove the 2 screws.



3. Remove the 2 screws, the chain catcher and the spiked bumper.



4. Remove the screw.

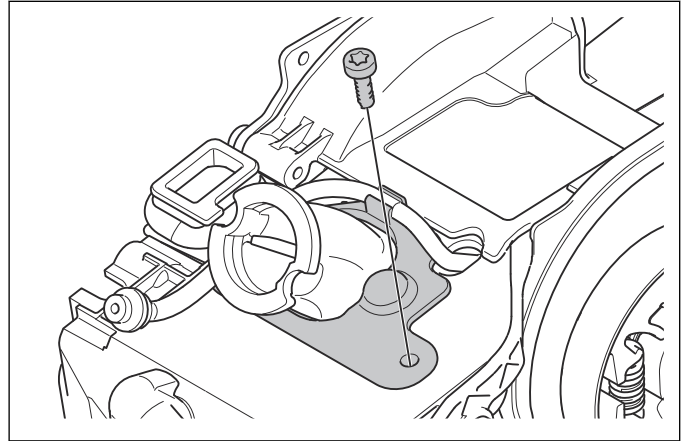


5. Assemble in the opposite sequence.

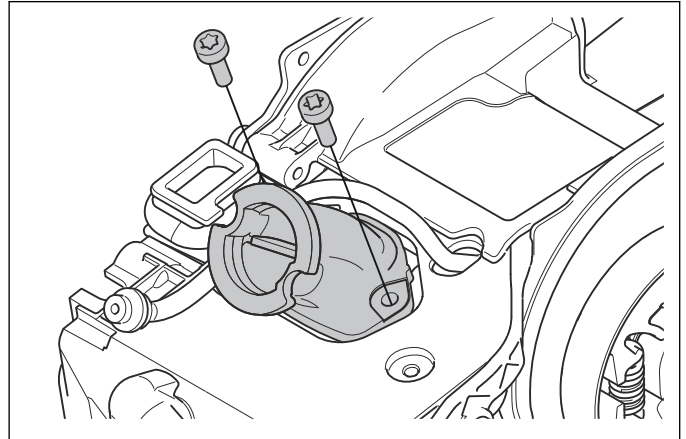
7.19 Cylinder and piston

7.19.1 To remove the cylinder and piston

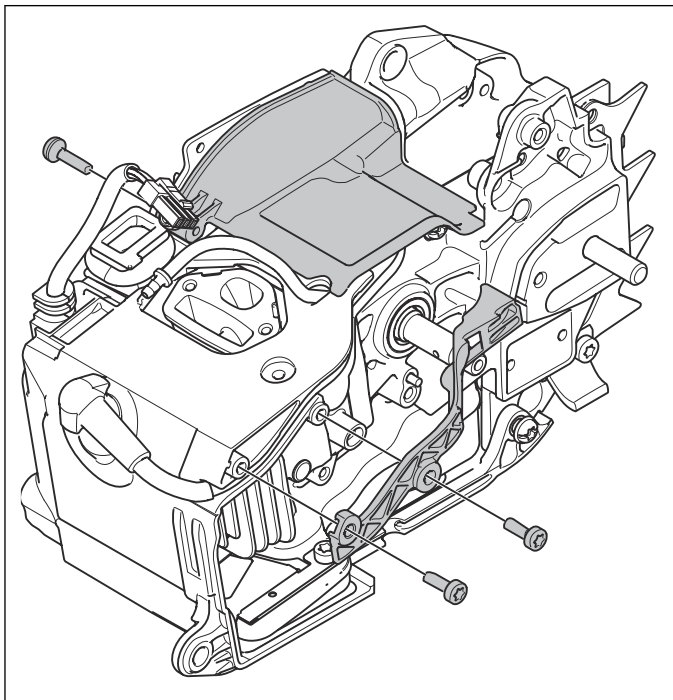
1. Remove the starter unit. Refer to *To disassemble the starter unit on page 19.*
2. Remove the centrifugal clutch. Refer to *To remove and install the centrifugal clutch on page 25.*
3. Remove the tank unit. Refer to *To remove and install the tank unit on page 33.*
4. Remove the screw and the plate.



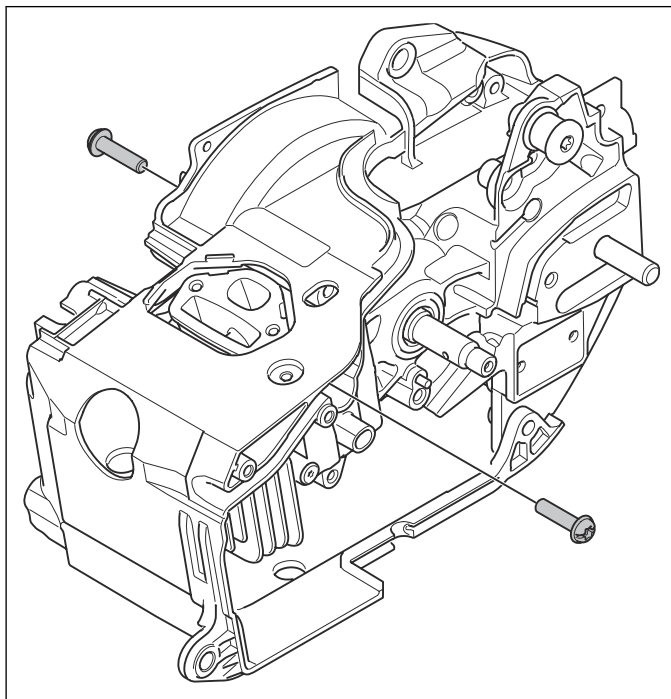
5. Remove the spark plug.
6. Remove the the lubrication system. Refer to *To remove and install the lubrication system on page 26.*
7. Remove the 2 screws and the inlet pipe.



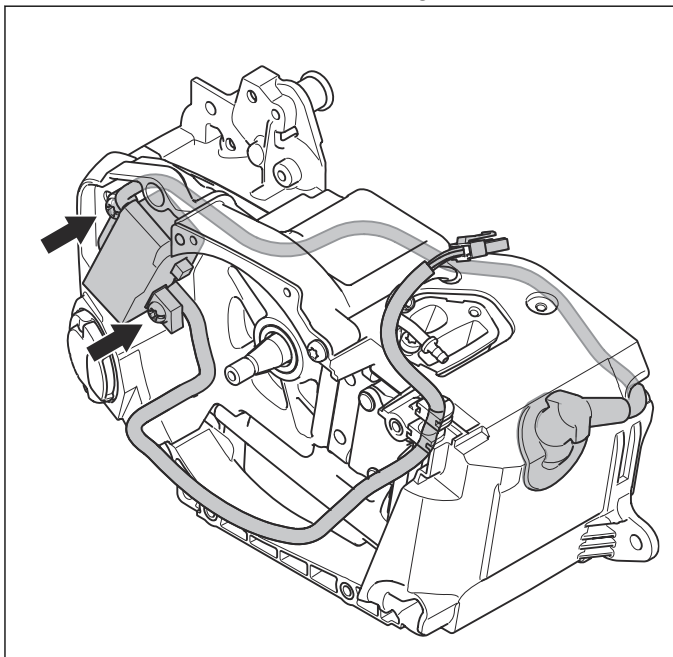
8. Remove the 2 screws and the cover for the ignition cable.



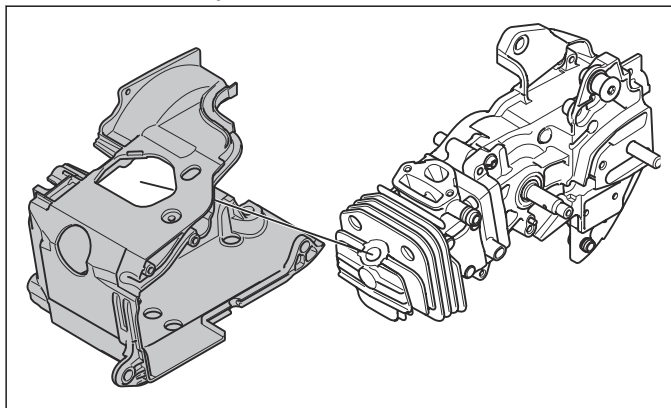
12. Remove the 2 screws.



9. Remove the 2 screws and the ignition module.

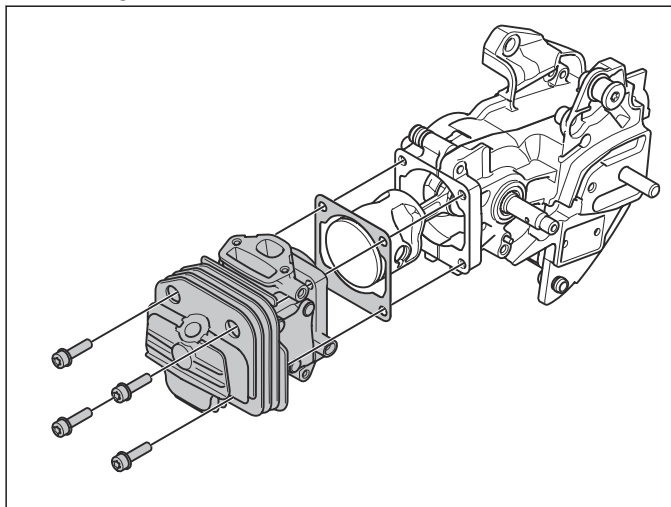


13. Remove the cylinder cover.



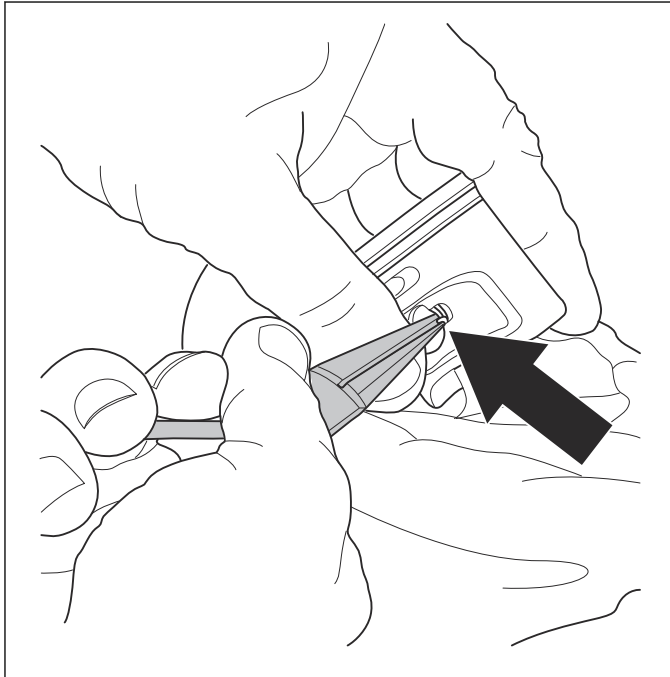
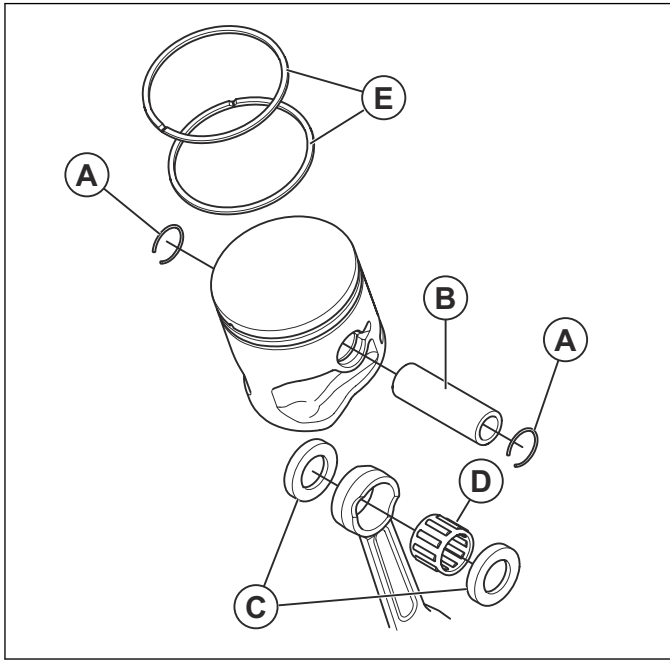
14. Remove the muffler. Refer to *To remove and install the muffler on page 16.*

15. Remove the 4 screws, the cylinder and the cylinder base gasket.



CAUTION: Make sure that no dirt or unwanted particles go into the crankcase.

16. Put a cover on the crankcase opening.
17. Use pointed pliers to remove the snap ring (A). Keep your thumb on the snap ring to make sure that it does not eject.



CAUTION: Make sure that you do not cause damage to the groove.

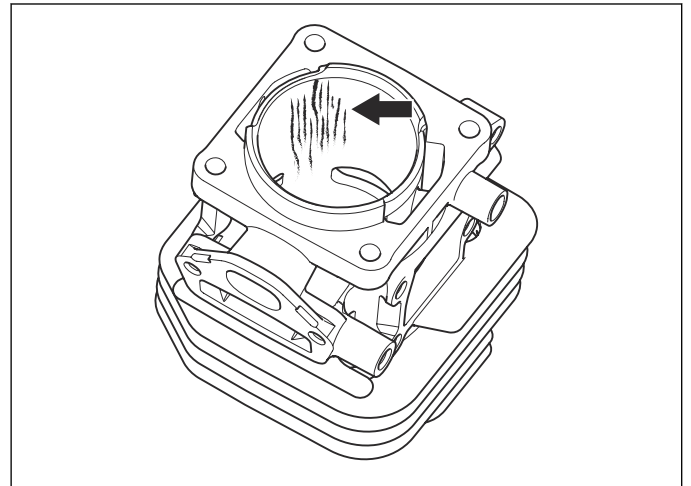
18. Push out the piston pin (B).
19. Remove the piston.
20. Remove the 2 washers (C).
21. Remove the needle bearing (D). Replace the needle bearing if it is damaged or worn.
22. Remove the piston rings (E).

7.19.2 To clean the cylinder and piston

1. Clean the piston crown.
2. Clean the top of the cylinder bore.
3. Clean the cylinder exhaust port.
4. Clean the bottom of the cylinder and the bottom of the crankcase. Remove all gasket particles and dirt particles.
5. Clean the cooling fins.

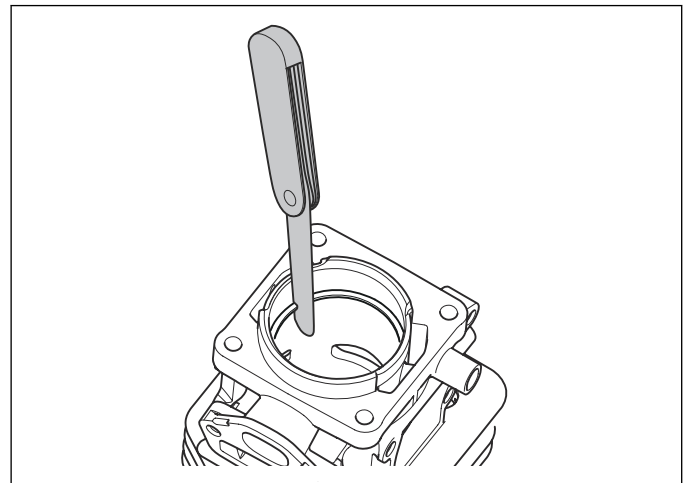
7.19.3 To examine the cylinder

1. Make sure that the surface layer of the cylinder is not worn, especially in the top end of the cylinder.
2. Make sure that the cylinder does not have score marks.



7.19.4 To examine the piston


1. Make sure that the piston pin bearing is not damaged.
2. Make sure that the piston pin does not have damages on the running surface for the bearing.
3. Make sure that the piston ring can move freely in the groove.
4. Put the piston ring in the cylinder and measure the ring gap with a feeler gauge. The space must not be more than 1 mm.

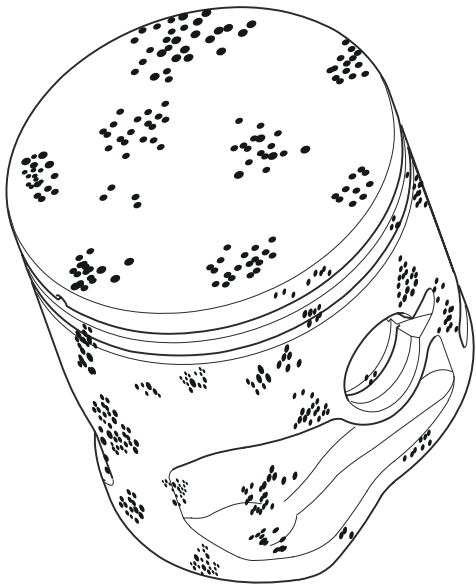


7.19.5 To examine the piston rings

1. Examine the piston rings for damage.
2. Replace damaged piston rings.

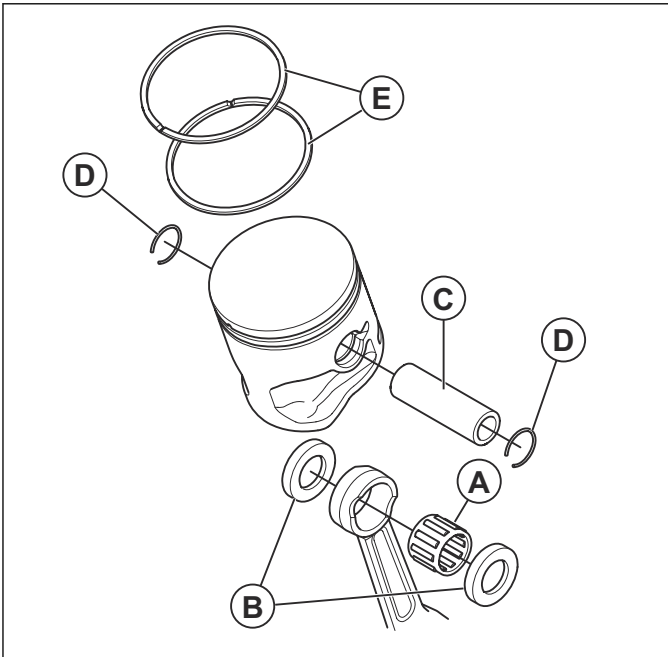
7.19.6 Piston damages

Score marks on the piston	
Incorrect carburetor setting. Too high speed.	
Too low octane fuel.	
The fuel has a too low octane grade.	

Carbon build-up	
Incorrect carburetor setting. Too low speed.	
Too much or incorrect oil in the fuel.	

7.19.7 To install the cylinder and piston

1. Put a cover on the crankcase opening.
2. Lubricate the needle bearing (A) and put it into the connecting rod. Make sure the bearing moves freely in the connecting rod.



3. Install the 2 washers (B).
4. Put the piston on the connecting rod.



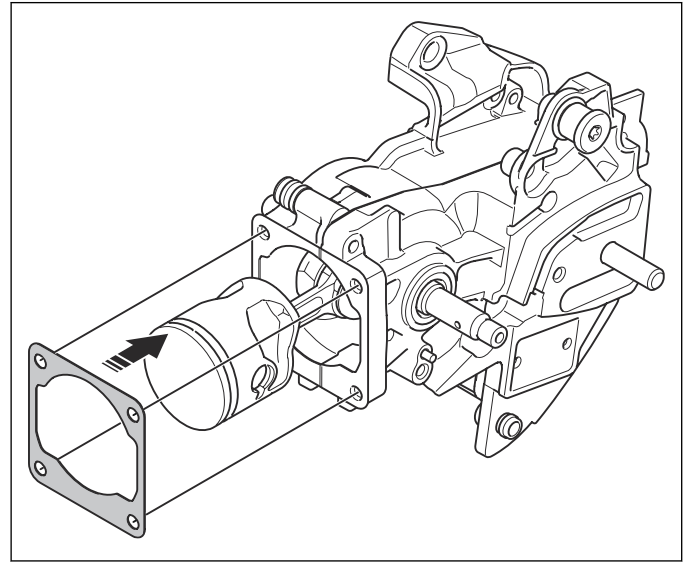
CAUTION: The arrow at the piston top must be turned in the direction of the exhaust port.

5. Push in the piston pin (C) and attach the 2 snap rings (D).

Note: Always use a new snap ring.

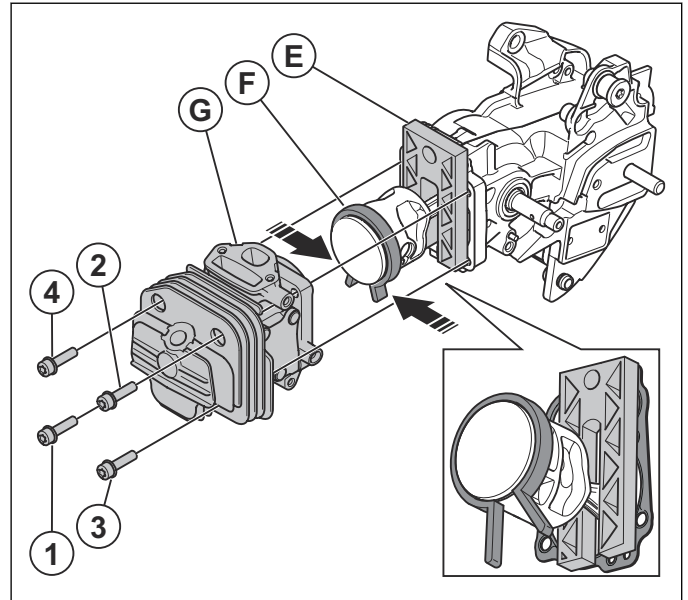
6. Lubricate the piston and piston rings (E).
7. Carefully attach the piston rings on the piston. Make sure that you do not cause damage to the piston ring or the piston.

8. Put a new cylinder base gasket on the crankcase.



Note: Make sure that the gasket is not used and do not have signs of damage or wear.

9. Attach the support plate (E) from the piston assembly kit. Refer to *Servicing tools on page 9*.



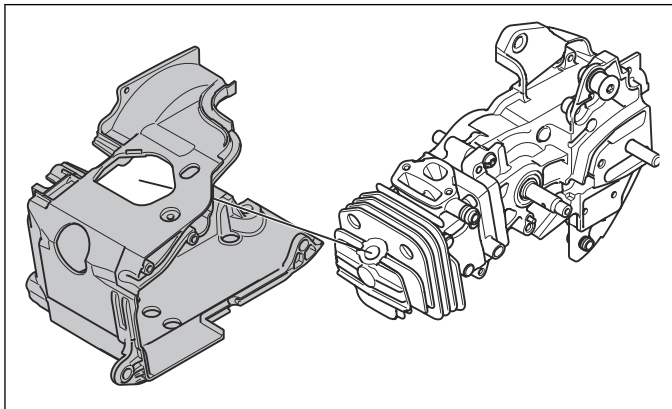
10. Use a clamp (F) from the piston assembly kit to compress the piston ring and carefully push the piston into the cylinder opening. Refer to *Servicing tools on page 9*.

11. Attach the cylinder (G) to the crankcase. Install the 4 screws (B). Tighten the screws in the correct sequence as the illustration shows. Refer to *Servicing data on page 7* for the correct torque.

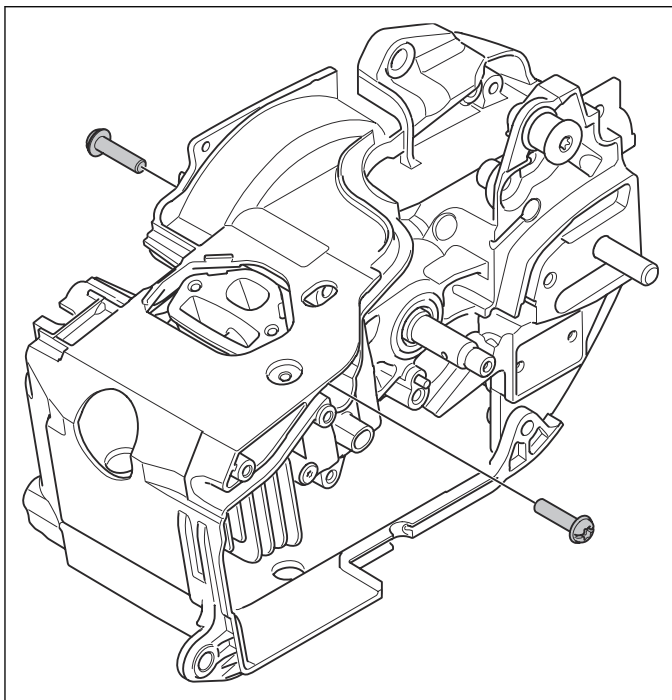
Note: When you operate the product, the torque of the cylinder screws decreases.

12. Install the muffler. Refer to *To remove and install the muffler on page 16*.

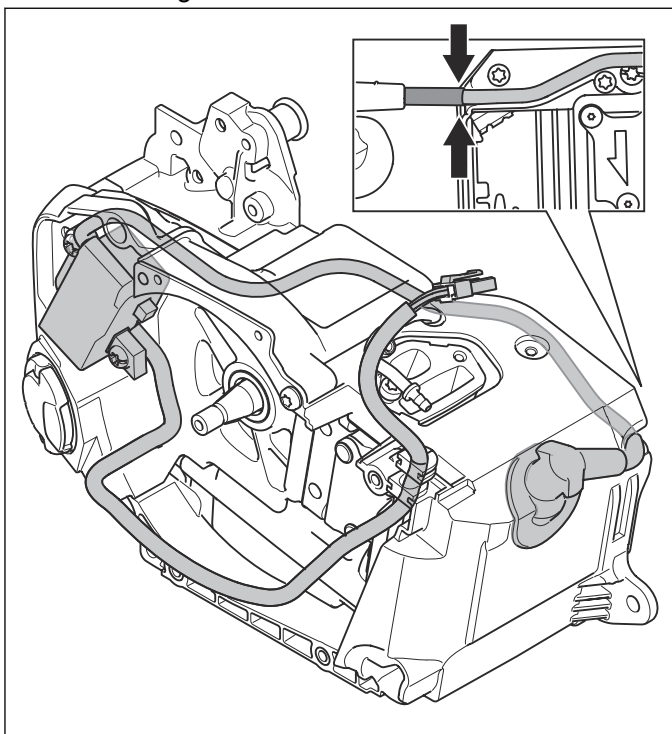
13. Install the cylinder cover.



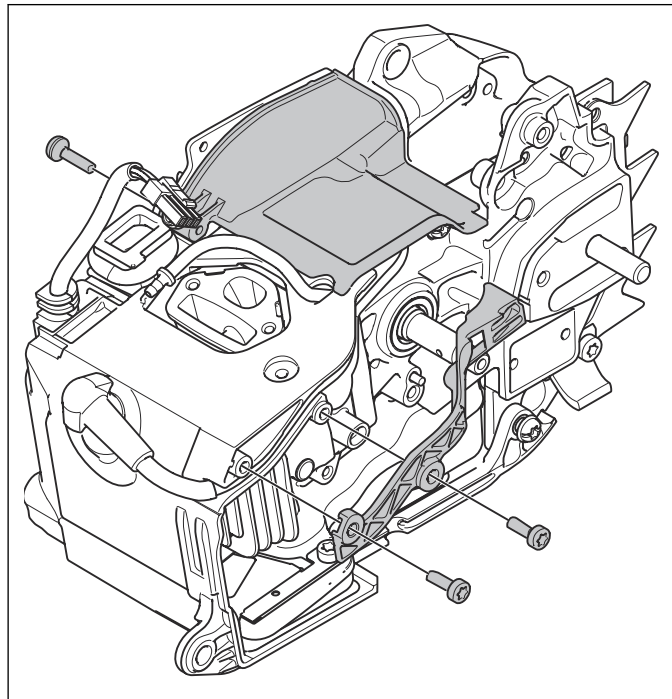
14. Install the 2 screws.



15. Install the ignition module.



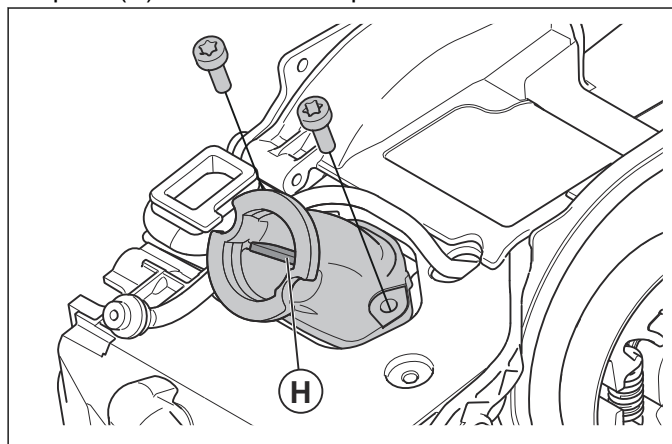
16. Install the cover for the ignition cable.



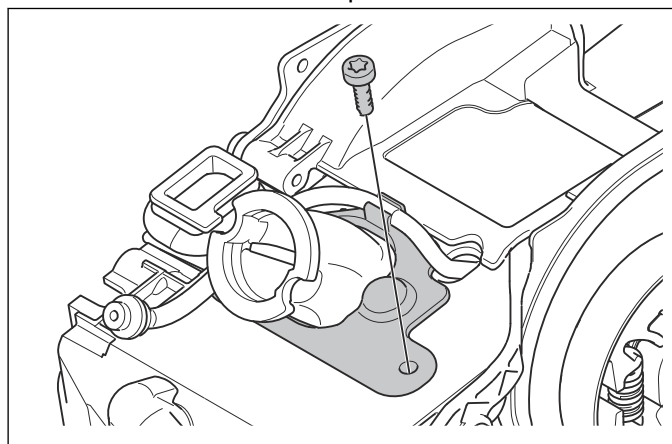
17. Install the spark plug.

18. Connect the spark plug cap to the spark plug.

19. Install the inlet pipe and make sure that the inlet plate (H) is in the correct position.



20. Install the screw and the plate.

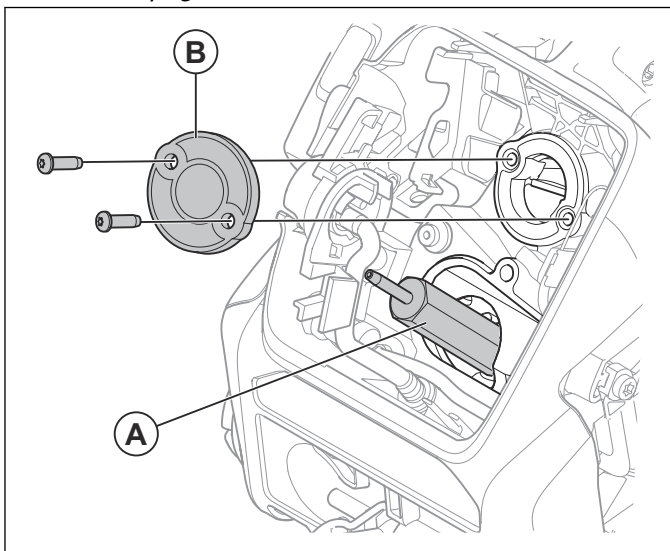


21. Install the tank unit. Refer to *To remove and install the tank unit on page 33.*

22. Install the the lubrication system. Refer to *To remove and install the lubrication system on page 26*.
23. Install the centrifugal clutch. Refer to *To remove and install the centrifugal clutch on page 25*.
24. Install the flywheel. Refer to *To install the flywheel on page 24*.
25. Install the starter unit. Refer to *To disassemble the starter unit on page 19*.
26. Install the carburetor. Refer to *To remove and install the carburetor on page 28*.
27. Install the cylinder cover.

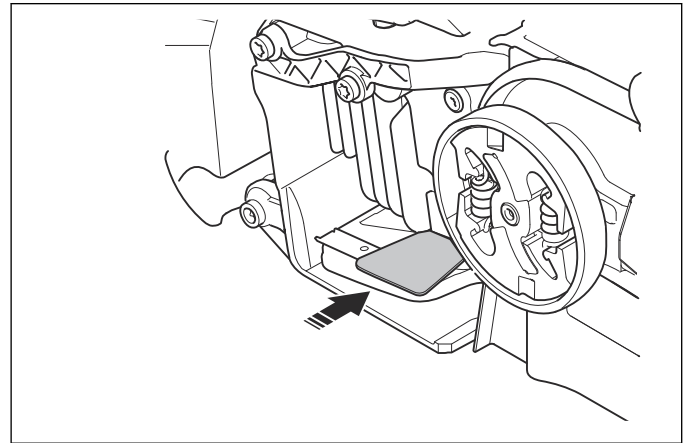
7.19.8 To do a pressure test of the cylinder

1. Remove the air filter cover.
2. Remove the air filter.
3. Remove the air filter holder and the carburetor. Refer to *To remove and install the carburetor on page 28*.
4. Remove the spark plug.
5. Attach the spark plug adapter (A). Refer to *Servicing tools on page 9*.

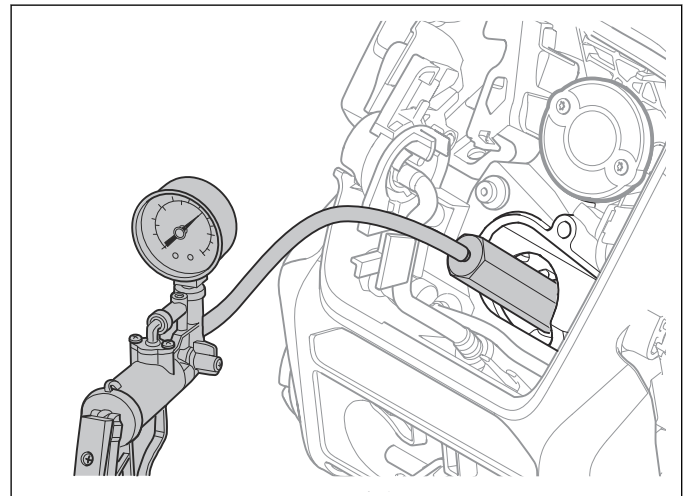


6. Attach the inlet cover (B). Refer to *Servicing tools on page 9*.

7. Loosen the screws on the muffler and attach the outlet cover with the muffler screws. Refer to *Servicing tools on page 9*.



8. Connect the pressure tester to the spark plug adapter. Refer to *Servicing tools on page 9*.



9. Increase the pressure to 0.8 bar. Wait for 30 seconds. Make sure the pressure does no decrease to less than 0.6 bar. Remove the covers from the muffler and the carburetor, tighten the bolts to the correct torque. Remove the spark plug adapter and attach the spark plug.



CAUTION: Make sure the inlet manifold is attached correctly after the pressure test. An incorrectly attached inlet manifold will cause damage to the product.

7.20 Crankshaft and crankcase

7.20.1 To get access to the crankshaft and crankcase

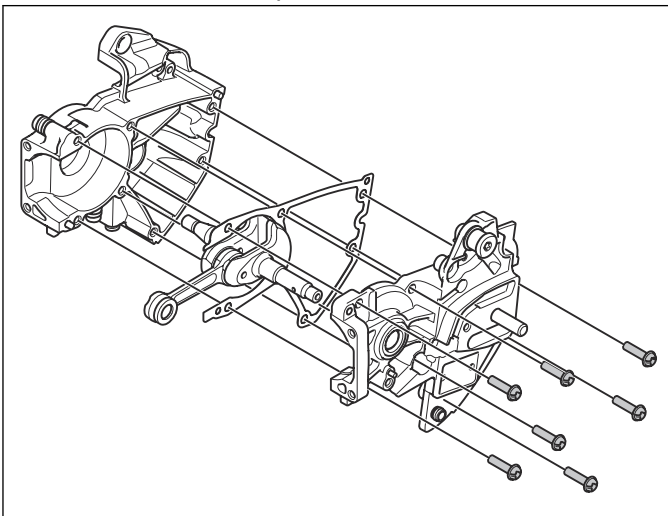
1. Remove the guide bar and saw chain.
2. Drain the oil and the fuel.
3. Remove the air filter cover.
4. Remove the spark plug.
5. Remove the chain brake system. Refer to *To remove the front handguard on page 13*.

6. Remove the chain catcher. Refer to *To replace the chain catcher on page 15.*
7. Remove the centrifugal clutch. Refer to *To remove and install the centrifugal clutch on page 25.*
8. Remove the lubrication system. Refer to *To remove and install the lubrication system on page 26.*
9. Remove the muffler. Refer to *To remove and install the muffler on page 16.*
10. Remove the front handle. Refer to *To remove and install the front handle on page 18.*
11. Remove the starter. Refer to *To disassemble the starter unit on page 19.*
12. Remove the air filter. Refer to *To clean the air filter on page 27.*
13. Remove the air filter holder and the carburetor. Refer to *To clean the air filter on page 27.*
14. Remove the ignition module. Refer to *To remove the ignition module on page 21.*
15. Remove the flywheel. Refer to *To remove the flywheel on page 23.*
16. Remove the fuel tank. Refer to *To remove and install the tank unit on page 33.*
17. Remove the cylinder and the piston. Refer to *To remove the cylinder and piston on page 35.*

Note: Make sure that no dirt or object can come into the bearings.

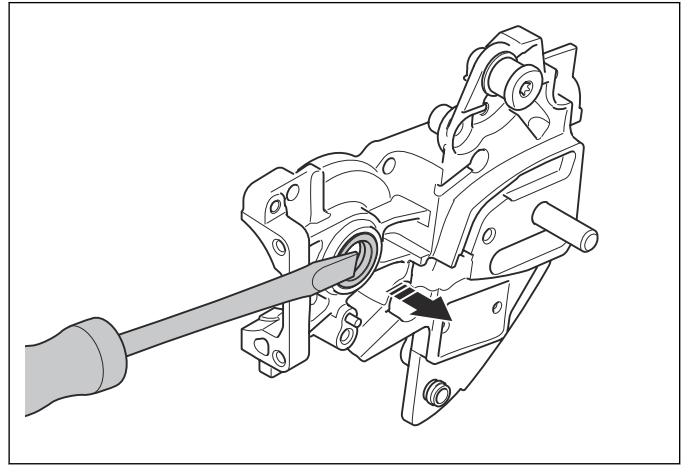
7.20.2 To disassemble the crankcase

1. Remove the cylinder and piston. Refer to *To remove the cylinder and piston on page 35.*
2. Remove the oil tank cap.
3. Remove the 7 screws and carefully pull the crankcase halves apart.

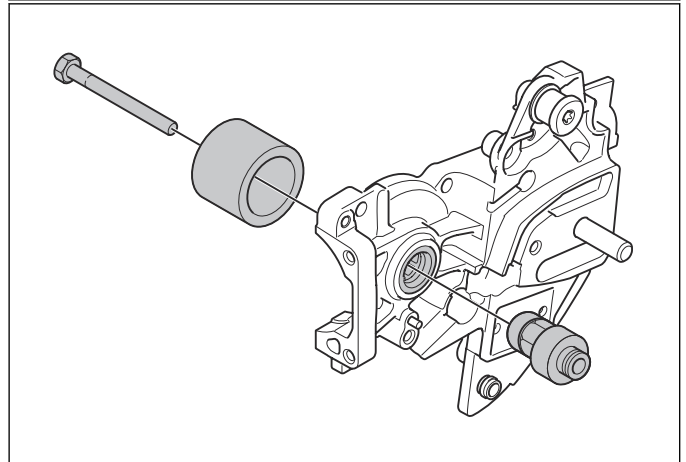
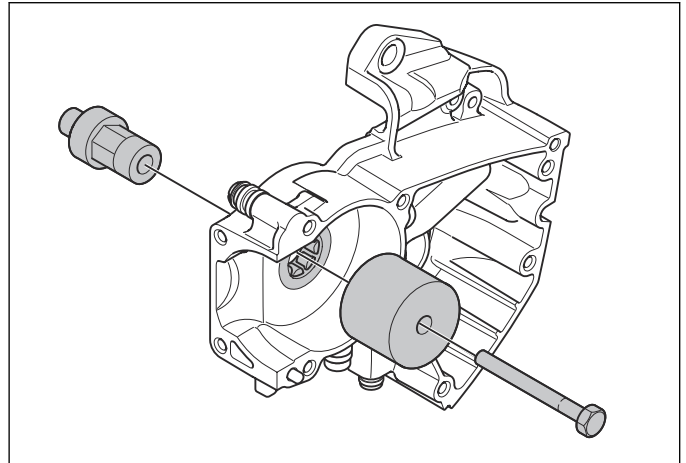


4. Remove the crankcase gasket.

5. Remove the 2 seal rings.



6. Remove the 2 crankcase bearings. Refer to *Servicing tools on page 9.*



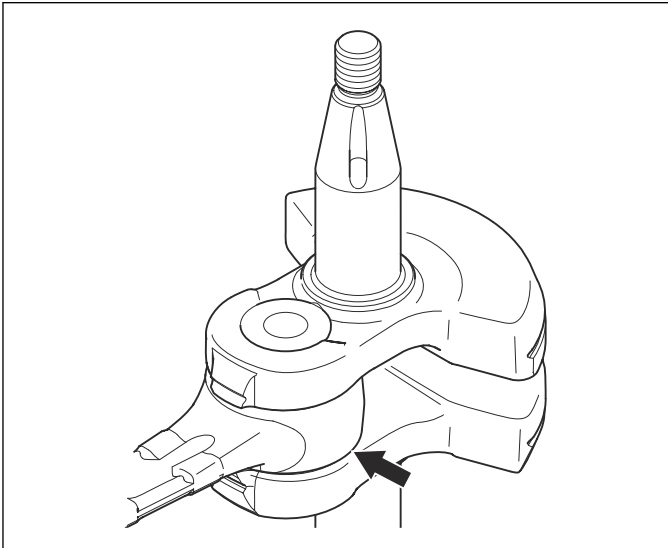
7.20.3 To clean and examine the crankshaft and crankcase



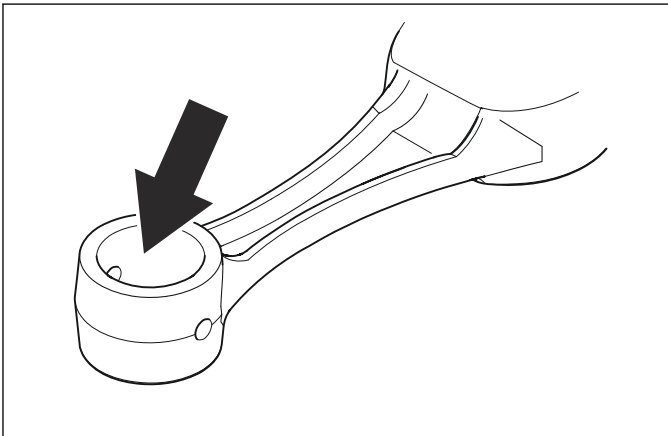
CAUTION: Make sure that dirt and unwanted particles do not go into the crankcase and into the bearings.

Clean all components and remove gasket particles from the mating surfaces of the crankcase halves.

1. Make sure that the crankpin bearing does not have radial play. Axial play is permitted.
2. Make sure that the crankpin bearing is not worn or has discoloration on the sides.



3. Make sure that the bearing surfaces in the small end of the connecting rod are not worn or have discoloration.

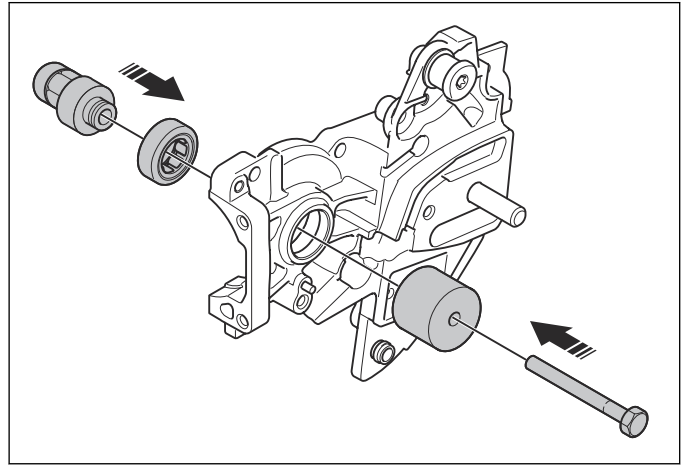


4. Make sure that the crankpin bearing is attached correctly and does not have radial play. Make sure the crankpin bearing is lubricated.
5. Make sure that the crankcase has no cracks.

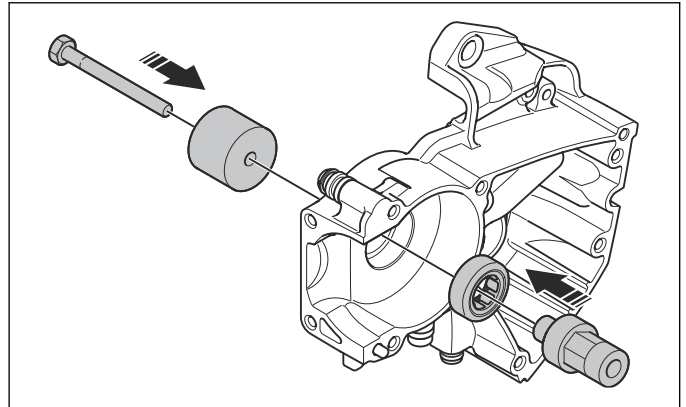
7.20.4 To assemble the crankcase

1. Install the crankcase bearings in the crankcase halves. Refer to *Servicing tools on page 9*.

a) On the clutch side.

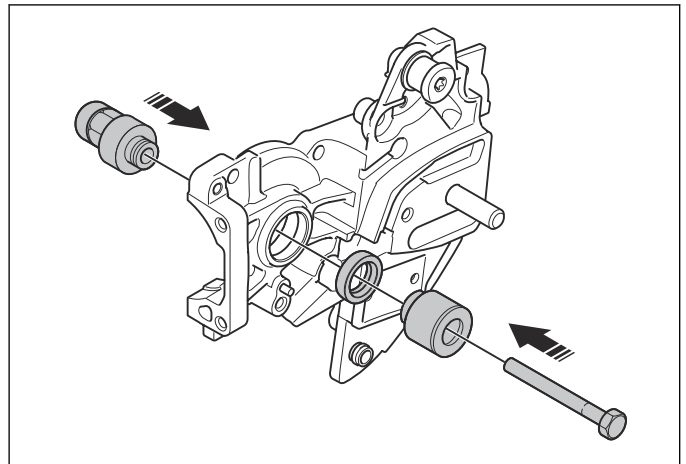


b) On the flywheel side.

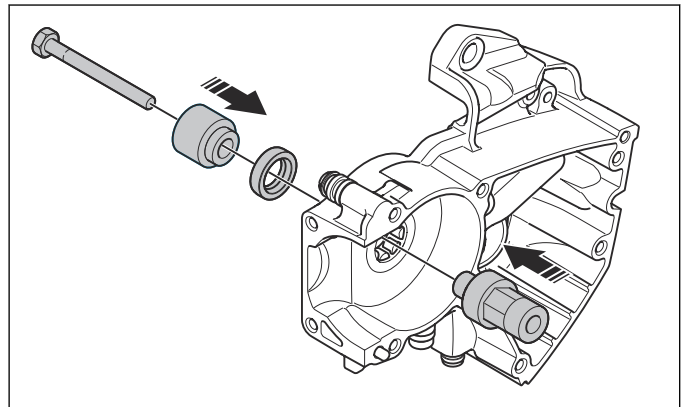


2. Install the seal rings in the crankcase halves. Refer to *Servicing tools on page 9*.

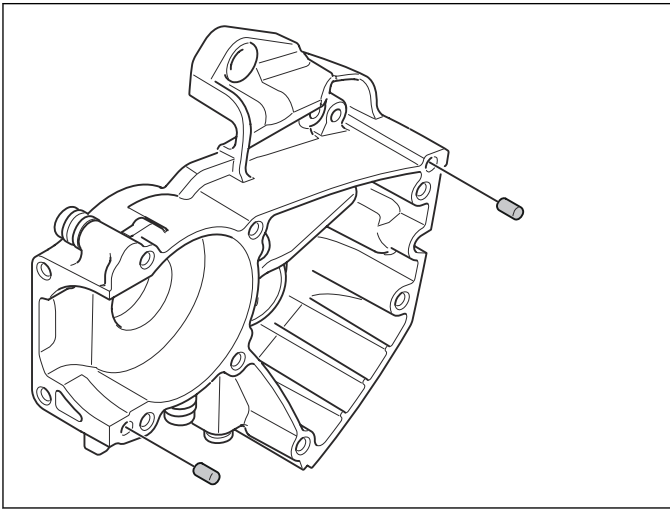
a) On the clutch side.



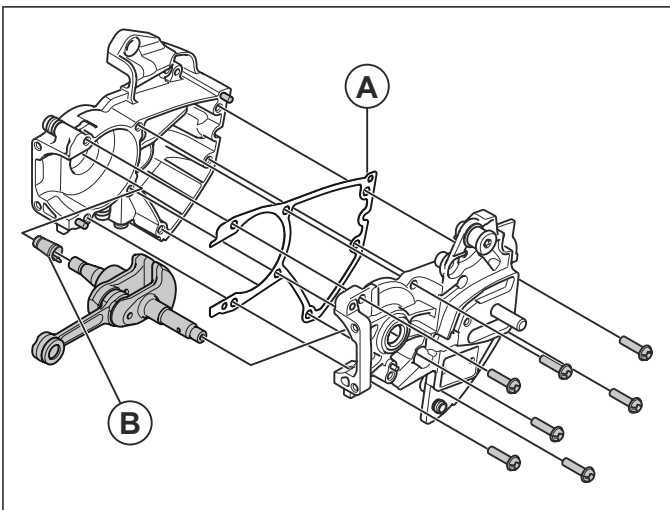
b) On the flywheel side.



3. Install the 2 guide bushings in the crankcase half on the flywheel side.



4. Attach the gasket (A) to one of the crankcase half on the clutch side.



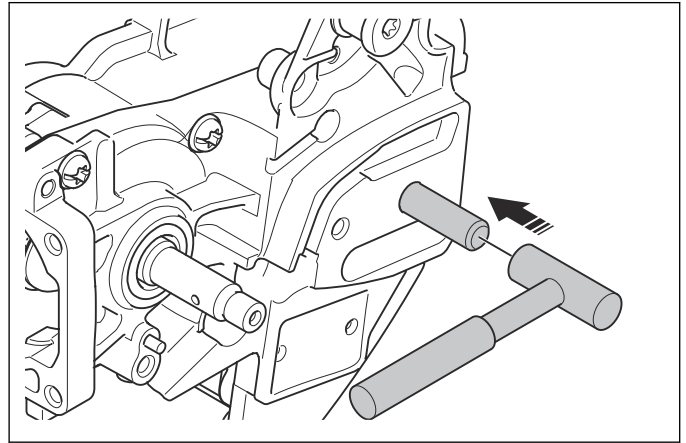
5. Put a crankshaft cap (B) on the flywheel side of the crankshaft. Refer to *Servicing tools on page 9*.
6. Make sure that the crankshaft align with the crankcase bearings and push the crankcase halves together.
7. Install the 7 screws.
8. Carefully cut off the gasket along the cylinder interface. Make sure that you do not cause damage to the crankcase surface.
9. Install the oil tank cap.
10. Install the cylinder and piston. Refer to *To install the cylinder and piston on page 39*.

7.21 Guide bar bolts

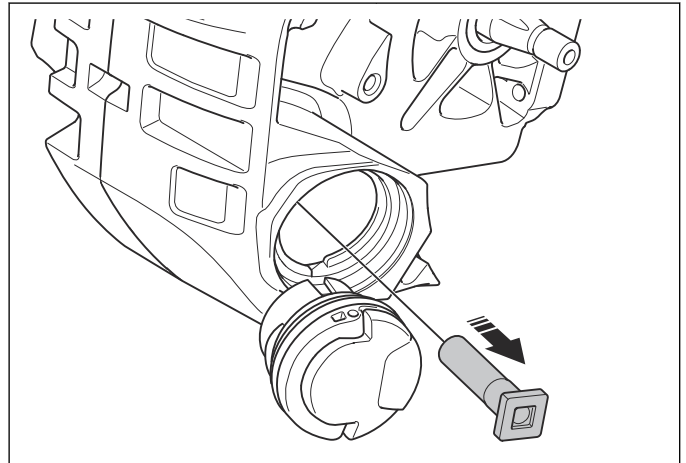
7.21.1 To remove the guide bar bolt

1. Drain the oil tank.
2. Remove the clutch cover.
3. Remove the guide bar and saw chain.

4. Hit the guide bar bolt until it fall into the oil tank.

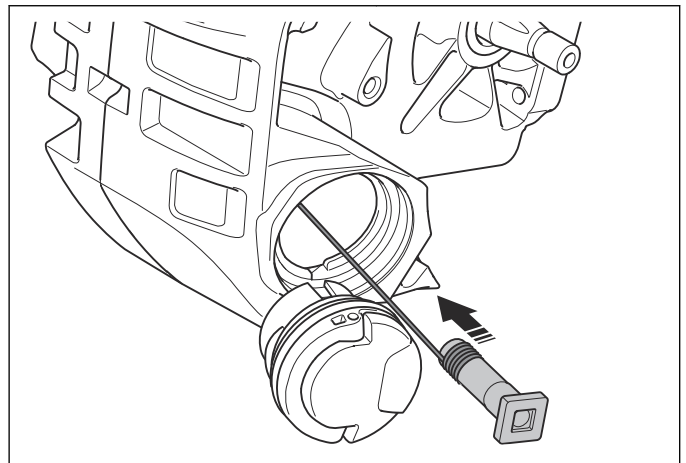


5. Remove the guide bar bolt from the oil tank.



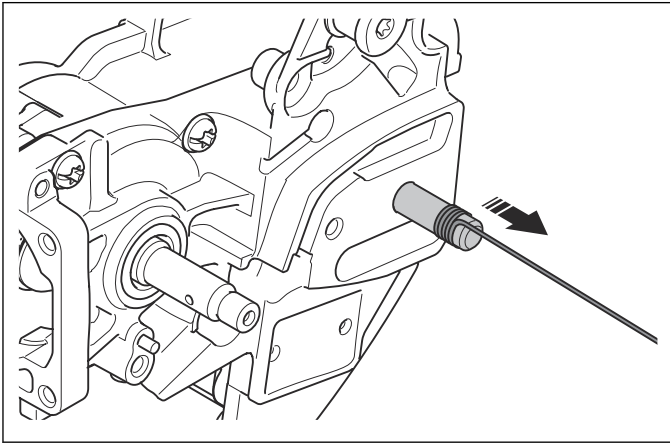
7.21.2 To install the guide bar bolt

1. Attach a steel wire to the thread of the guide bar bolt.

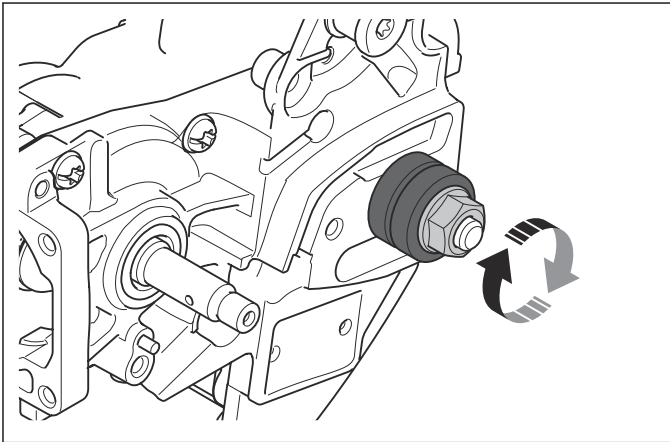


2. Put the steel wire through the oil tank and through the hole for the guide bar bolt.

3. Pull the steel wire to pull out the guide bar bolt.



4. Make sure that the square head of the guide bar bolt is correctly attached in the oil tank.
5. Put 2 spacers on the guide bar bolt.



6. Attach a nut to the guide bar bolt and tighten the nut until the guide bar bolt is tightly attached to the crankcase.

Note: Fill the tank with chain oil before you operate the product.

7.22 To repair a damaged thread

A damaged thread can be repaired with a thread insert.

Note: For aluminum threads, use helicoil and metric screws. Refer to the manufacturer's manual for more information.

1. Use the applicable drill bit to make a new hole that removes the damaged threads.

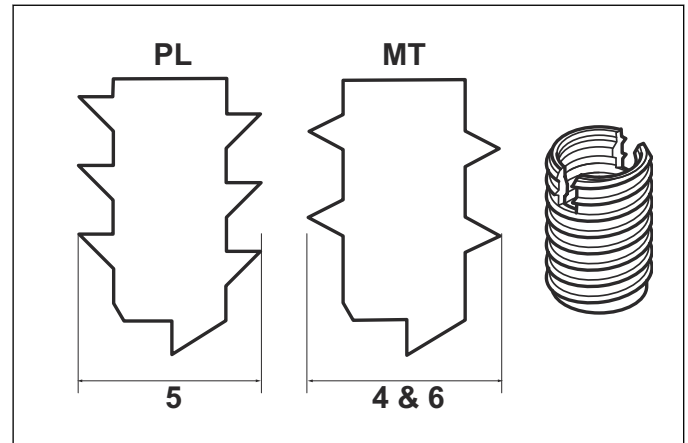
Note:

If you have a MT6 screw, use a 7.1 mm diameter drill bit.

If you have a MT4 screw, use a 5.1 mm diameter drill bit.

If you have a PL5 screw, use a 6.1 mm diameter drill bit.

2. Attach the thread insert with the sharp part of the thread insert first.



3. Attach the thread insert with an applicable screw and wrench.

8 Troubleshooting

8.1 Troubleshooting

Symptom	Possible causes	Recommended step
The product does not start.	The air filter is dirty.	Clean or replace the air filter.
	The choke is damaged or worn.	Repair or replace the choke.
	Leakage or dirt in the fuel hose.	Clean the or replace fuel hose.
	The fuel filter is dirty.	Clean or replace the fuel filter.
	A piston ring is damaged.	Replace the piston ring.
	Leakage or dirt in the impulse hose.	Clean or replace the impulse hose.
Fuel leakage from the carburetor.	Lose or damaged fuel hose.	Attach or replace the fuel hose.
	Damaged diaphragm in the carburetor.	Replace the diaphragm.
	Air or fuel leakage in the carburetor.	Repair or replace the carburetor.
	Leakage in diaphragm or cover plate.	Repair or replace the diaphragm or cover plate.
	Incorrect carburetor adjustment.	Adjust the carburetor.
The engine stops in idle speed.	Damaged inlet hose.	Replace the inlet hose.
	Lose carburetor.	Tighten the 2 carburetor screws.
	Leakage or dirt in the fuel hose.	Clean the or replace fuel hose.
	The fuel filter is dirty.	Clean or replace the fuel filter.
	The tank valve is damaged.	Replace the tank valve.
	The throttle valve is damaged or worn.	Repair or replace the throttle valve.
	The return spring for the throttle valve is damaged or worn.	Replace the return spring for the throttle valve.
Too high idle speed.	The throttle valve lever is damaged or worn.	Repair or replace the throttle valve lever.
	Leakage in diaphragm or cover plate.	Repair or replace the diaphragm or cover plate.
Idle speed is not constant.	Leakage or dirt in the fuel hose.	Clean the or replace fuel hose.
	The fuel filter is dirty.	Clean or replace the fuel filter.
	Damaged inlet hose.	Replace the inlet hose.
	Lose carburetor.	Tighten the 2 carburetor screws.
	The throttle valve is damaged or worn.	Repair or replace the throttle valve.
	The throttle valve screw is loose.	Tighten the throttle valve screw.
	Air or fuel leakage in the carburetor.	Repair or replace the carburetor.
	Leakage in diaphragm or cover plate.	Repair or replace the diaphragm or cover plate.
	Damaged gasket in crankcase or cylinder.	Replace the damaged gasket.

Symptom	Possible causes	Recommended step
The engine rpm don not increase at full throttle.	The air filter is dirty.	The air filter is dirty.
	The tank valve is damaged.	Replace the tank valve.
	Leakage or dirt in the fuel hose.	Clean the or replace fuel hose.
	The fuel filter is dirty.	Clean or replace the fuel filter.
	Lose or damaged fuel hose.	Attach or replace the fuel hose.
	Leakage or dirt in the impulse hose.	Clean or replace the impulse hose.
	Leakage in diaphragm or cover plate.	Repair or replace the diaphragm or cover plate.
	Lose carburetor.	Tighten the 2 carburetor screws.
	Damaged inlet hose.	Replace the inlet hose.
	Incorrect carburetor adjustment.	Adjust the carburetor.
The muffler is blocked.	Clean the muffler.	
There is no output power or the engine speed is not stable.	The tank valve is damaged.	Replace the tank valve.
	The fuel filter is dirty.	Clean or replace the fuel filter.
	Leakage or dirt in the impulse hose.	Clean or replace the impulse hose.
	Leakage in diaphragm or cover plate.	Repair or replace the diaphragm or cover plate.
	The air filter is dirty.	The air filter is dirty.
	Air or fuel leakage in the carburetor.	Repair or replace the carburetor.
	Damaged diaphragm.	Replace the diaphragm.
The engine does not accelerate.	The air filter is dirty.	Clean or replace the air filter.
	The tank valve is damaged.	Replace the tank valve.
	Leakage or dirt in the fuel hose.	Clean the or replace fuel hose.
	The fuel filter is dirty.	Clean or replace the fuel filter.
	Leakage or dirt in the impulse hose.	Clean or replace the impulse hose.
	Damaged diaphragm.	Replace the diaphragm.
	Damaged inlet hose.	Replace the inlet hose.
	Lose carburetor.	Tighten the 2 carburetor screws.
	Incorrect carburetor adjustment.	Adjust the carburetor.
	The carburetor is incorrectly assembled.	Disassemble and assemble the carburetor.
	The carburetor parts are damaged or worn.	Replace the damaged or worn parts.
	The muffler is blocked.	Clean the muffler.
The engine stops when releasing the throttle.	Damaged diaphragm.	Replace the diaphragm.
	Incorrect carburetor adjustment.	Adjust the carburetor.
	The carburetor parts are damaged or worn.	Replace the damaged or worn parts.

9 Technical data

9.1 Technical data

	Husqvarna
Engine	
Cylinder displacement, cm ³	39.1
Idle speed, rpm	3000
Maximum engine power acc. to ISO 8893, kW/hp @ rpm	1.9/2.6@10200
Ignition system ¹	
Spark plug	NGK CMR7H
Electrode gap, mm	0.65
Fuel and lubrication system	
Fuel tank capacity, liter/cm ³	0.31/310
Oil tank capacity, liter/cm ³	0.23/230
Type of oil pump	Adjustable
Weight	
Weight, kg	3.8
Noise emissions ²	
Sound power level, measured dB(A)	110
Sound power level, guaranteed L _{WA} dB(A)	112
Sound levels ³	
Equivalent sound pressure level at the operator's ear, dB(A)	102
Equivalent vibration levels, a_{hveq} ⁴	
Front handle, m/s ²	3.5
Rear handle, m/s ²	3.4
Saw chain/guide bar	
Type of drive sprocket/number of teeth	0.325" Spur7
Saw chain speed at 133% of maximum engine power speed, m/s.	26.9

¹ Always use the recommended spark plug type! Use of the wrong spark plug can damage the piston/cylinder.

² Noise emissions in the environment measured as sound power (L_{WA}) in conformity with EC directive 2000/14/EC.

³ Equivalent sound pressure level, according to ISO 22868, is calculated as the time-weighted energy total for different sound pressure levels under various working conditions. Typical statistical dispersion for equivalent sound pressure level is a standard deviation of 1 dB (A).

⁴ Equivalent vibration level, according to ISO 22867, is calculated as the time-weighted energy total for vibration levels under various working conditions. Reported data for equivalent vibration level has a typical statistical dispersion (standard deviation) of 1 m/s².



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