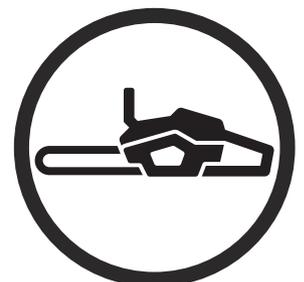


Workshop manual

564 XP, 564 XPG



English

Contents

1 Introduction

1.1 Document description.....	3
1.2 Target group.....	3
1.3 Revisions.....	3
1.4 Safety.....	3
1.5 Servicing tools.....	3

2 Safety

2.1 Safety definitions.....	4
2.2 General safety instructions.....	4
2.3 Special safety instructions.....	4
2.4 Symbols on the product.....	4
2.5 Cutting equipment safety.....	5

3 Prepare and do servicing on the product

3.1 Maintenance schedule.....	6
-------------------------------	---

4 Servicing data

4.1 Servicing data	9
--------------------------	---

5 Servicing tools

5.1 Servicing tools.....	11
5.2 Diagnostic tools.....	13

6 Function overview

6.1 Type identification and product serial number.....	15
6.2 Fuel.....	15

7 Repair instructions

7.1 Product overview for repair instructions.....	16
7.2 To clean and examine the product parts.....	18
7.3 Chain brake.....	18
7.4 Chain catcher.....	21
7.5 Muffler.....	21
7.6 Handles.....	23
7.7 Starter.....	28
7.8 Ignition system.....	30
7.9 Flywheel.....	32
7.10 Centrifugal clutch.....	33
7.11 Lubrication system.....	35
7.12 Air filter.....	36
7.13 Control unit.....	37
7.14 Stop switch.....	40
7.15 Fuel pump.....	41
7.16 Fuel tank.....	44
7.17 Fuel injector.....	48
7.18 Vibration damping system.....	49
7.19 Generator.....	50
7.20 Cylinder and piston.....	54
7.21 Crankshaft and crankcase.....	59
7.22 Guide bar bolts.....	65
7.23 To repair a damaged thread.....	66

8 Troubleshooting

8.1 Troubleshooting.....	67
8.2 To do a check of the engine speed.....	67
8.3 To examine the engine for air leakages.....	67
8.4 To do troubleshooting of the heating element in the front handle.....	67
8.5 To do troubleshooting of the heating element in the rear handle.....	68
8.6 To do troubleshooting of the generator.....	68
8.7 To calibrate the engine.....	68
8.8 Troubleshooting diagram.....	69
8.9 Engine running issue.....	70
8.10 Engine running issue.....	71
8.11 Ignition System.....	72
8.12 Fuel system overview.....	73

9 Technical data

9.1 Technical data.....	74
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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 particularly 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.



WARNING: Apply a new warning label if a warning symbol on the product is damaged or missing.

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



Stop.



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.



Use 2 hands to operate the product.



Do not operate the product with one hand.



Do not let the guide bar tip touch an object.



Warning! Kickback can occur when the guide bar tip touches an object. A kickback causes a lightning fast reverse reaction that throws the guide bar up and in the direction of the operator. Can cause serious injury.



This product complies with applicable EC Directives.



Noise emission to the environment label as per EU and 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 74* and on the label.



Air purge bulb.



Adjustment of the oil pump.



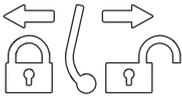
Fuel.



Chain oil.



If your product has this symbol it has heated handles.



Chain brake, engaged (forward). Chain brake, disengaged (rearward).

yyyywwxxxx

The rating plate or the laser print shows 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 some 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

This is the maintenance schedule to be carried out by a workshop. There are also maintenance tasks that the

operator of the product must do. For maintenance that must be done by the operator, refer to the Operator's manual.

Maintenance	Basic service 4 300 h or 1 year (first to occur). Then in an interval of 600 h or 2 years (first to occur).	Basic service 5 Every 600 h or 2 year (first to occur)
Clean the external surfaces and all areas behind the clutch cover. Husqvarna cleaning products is recommended.	X	X
Clean the air intake on the starter housing. Use a soft brush and/or recommended Husqvarna cleaning products.	X	X
Clean the muffler, the exhaust pipe and the area around it from dirt and unwanted lubricant.	X	X
Make sure that the chain brake operates correctly.	X	X
Make sure that the stop switch operates correctly.	X	X
Make sure that the throttle trigger and the throttle trigger lockout operate correctly from a safety point of view.	X	X
Make sure that the saw chain does not move at idle speed.	X	X
Make sure that the chain catcher is not damaged.	X	X
Clean the groove in the guide bar, and make sure that the lubrication hole in the guide bar is not clogged.	X	X
Turn the guide bar, for more equal wear.	X	X
Make sure that the guide bar and saw chain get sufficient lubrication.	X	X
Examine the saw chain for wear and cracks.	X	X
Adjust the tension of the saw chain.	X	X
Examine the fuel tank, the fuel lines and the purge for leaks.	X	X
Make sure that the external screws and nuts are tight.	X	X
Examine the guide bar for wear and cracks. Do a check of the bar tip sprocket.	X	X
Lubricate the clutch drum bearing. Use bearing grease of high quality.	X	
Clean all areas around the air filter and the fuel injector housing.	X	X
Clean between the cooling fins of the cylinder. Use a brush.	X	X
Examine the vibration damping units, the deflection limiters and the filter holder dampers for wear and damage.	X	X
Examine the muffler and the spark arrester screen for damage or wear. Make sure that the muffler screws are tight. Replace the spark arrester screen if it is necessary.	X	X
Clean the spark arrester screen. Use a wire brush.	X	X
Examine the starter and the starter rope for wear and damage. Do a check of the recoil spring function.	X	
Clean the starter pulley, the recoil spring and the starter housing.	X	
Lubricate the starter. Put some grease on the surface between the starter pulley and the center pin of the starter housing.	X	

Maintenance	Basic service 4 300 h or 1 year (first to occur). Then in an interval of 600 h or 2 years (first to occur).	Basic service 5 Every 600 h or 2 year (first to occur)
Clean the flywheel fins, the air conductor, the crankcase cooling channel and the inside of the cylinder cover.	X	X
Make sure the starter pawls are intact and that they can move freely.	X	X
Do a check of all cables and connections.	X	X
Drain and clean the inner surface of the oil tank. Use a lint free cloth when you clean the tank. Make sure that the oil filter is not clogged and that it can move freely in the oil tank.	X	X
Fill the oil tank with new chain oil. Husqvarna chain oil is recommended for best protection. Examine the tank cap gasket and retainer.	X	X
Drain and clean the fuel tank. To clean the fuel tank, flush with fresh fuel. Examine the fuel hose located inside the fuel tank for wear and damage.	X	X
Fill the fuel tank. Husqvarna two-stroke oil/two-stroke fuel is recommended for best performance. Examine the tank cap gasket and retainer.	X	X
Examine the brake band for damage or wear.	X	
Examine the clutch and the clutch drum for damage or wear.	X	X
Examine the clutch drum bearing for damage or wear.	X	
Replace the chain drive sprocket (clutch drum).	X	X
Replace the fuel filter.	X	X
Make sure that the handles are attached correctly and not damaged.	X	X
Do a check of the oil pump and the oil flow adjuster.	X	X
Make sure that the chain tensioner moves smoothly from end to end.	X	X
Examine the spike for damage.	X	X
Examine the threading on the guide bar bolts.	X	X
Examine the chain guide plate for damage or wear.	X	
Clean the worm wheel, and examine it for damage or wear.	X	
Lubricate the worm wheel.	X	
Do a check of the ignition cable, the spark plug cap and the contact spring.	X	X
Replace the clutch springs.	X	X
Replace the air filter.	X	X
Replace the spark plug.	X	X
Start and test the engine on different RPM. Test the acceleration and verify (subjectively) that vibration levels are acceptable and not overexposed.	X	X
Clean and lubricate the chain tensioner.		X
Replace the brake band.		X
Replace the clutch drum bearing.		X
Replace the worm wheel.		X
Examine the oil tank vent.		X
Replace the chain guide plate.		X

Maintenance	Basic service 4 300 h or 1 year (first to occur). Then in an interval of 600 h or 2 years (first to occur).	Basic service 5 Every 600 h or 2 year (first to occur)
Replace the spring cassette.		X
Replace the starter pulley.		X
Replace the starter rope.		X
Do a leak test of the short block.		X
Do a pressure test of the fuel tank.		X
Connect the product to the diagnostic tool. Do a check for error codes.	X	X
Connect the product to the diagnostic tool for the latest available firmware and download if necessary.	X	X

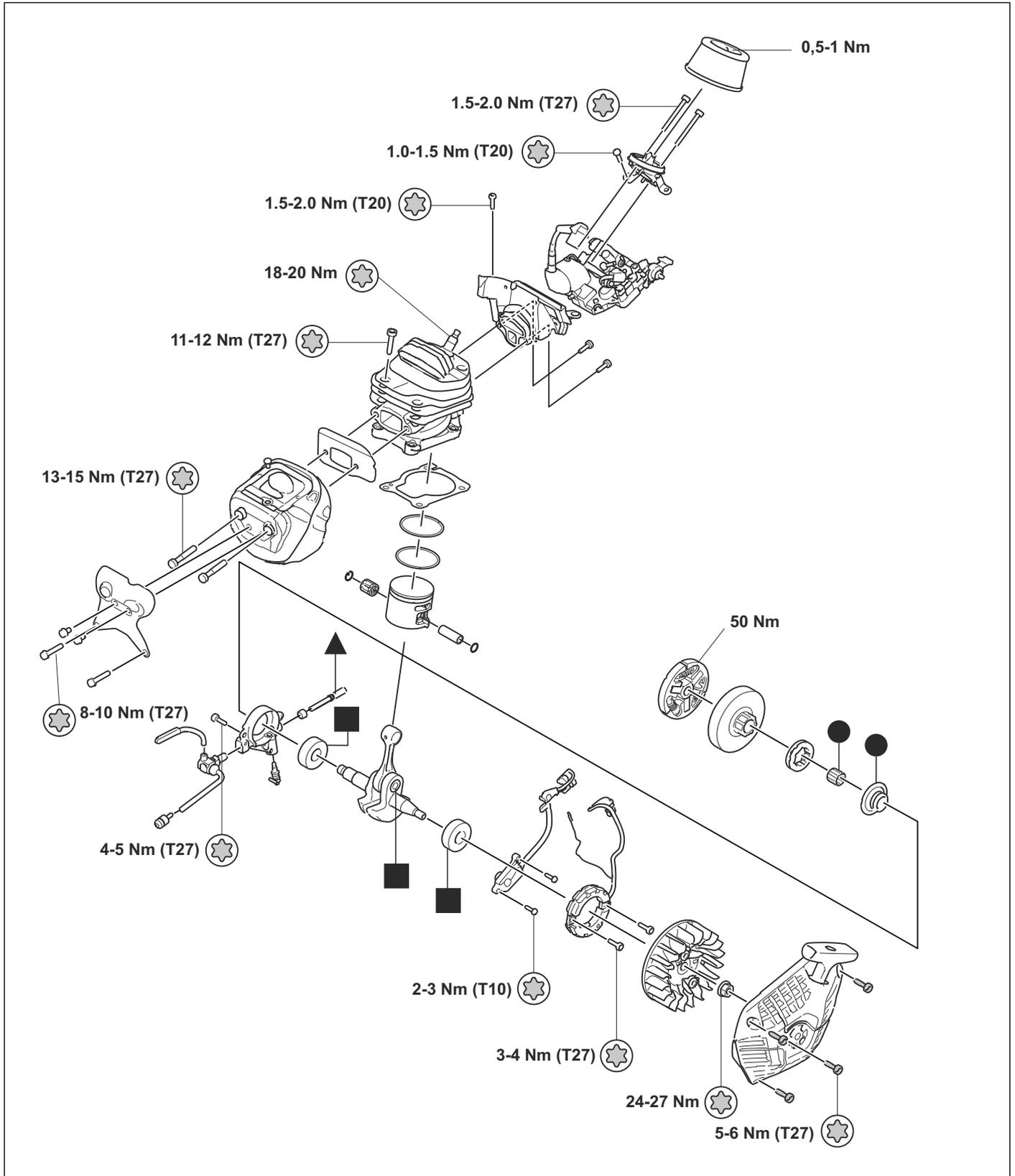
4 Servicing data

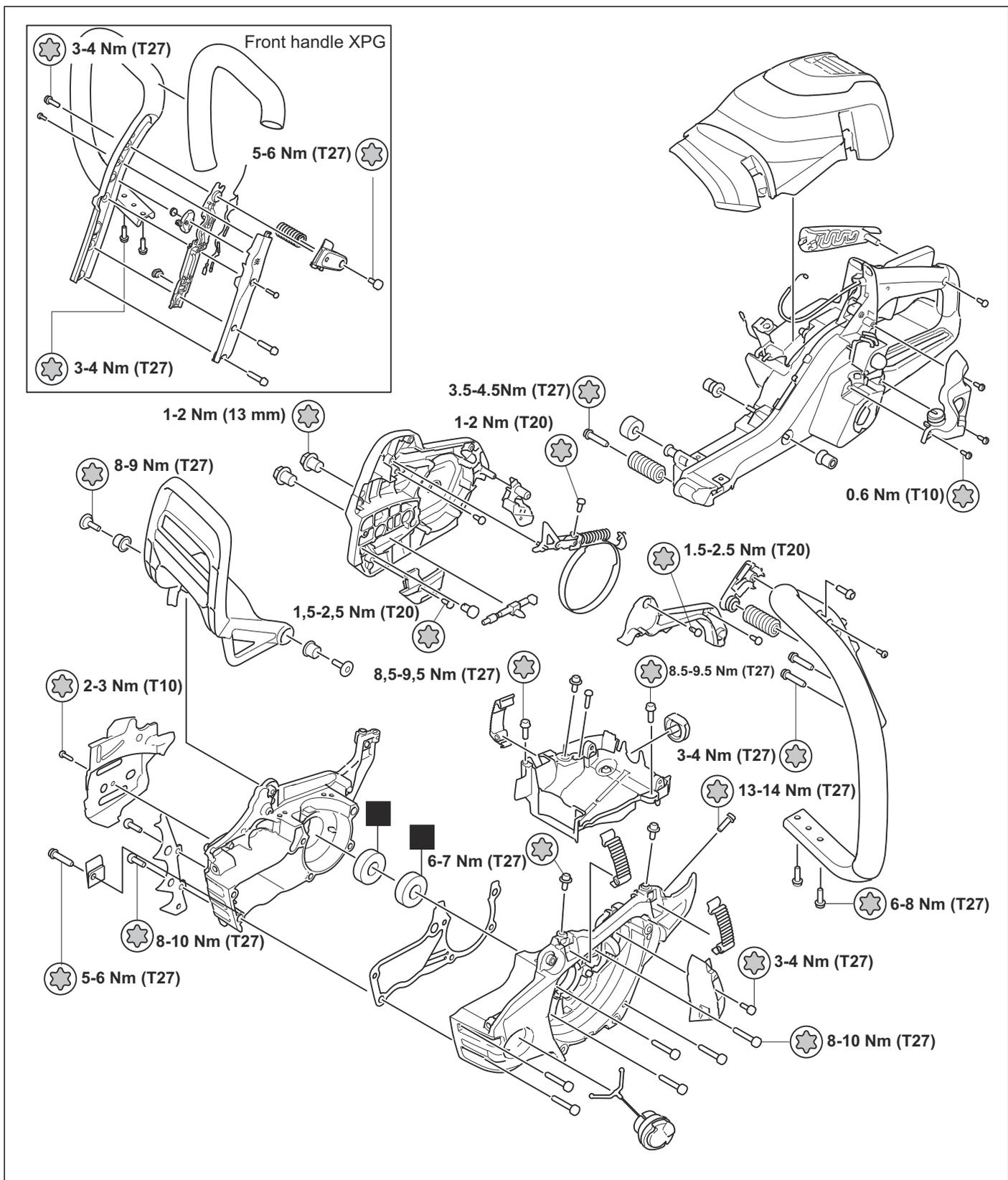
4.1 Servicing data

● Lubricate with grease.

■ Lubricate with two-stroke oil.

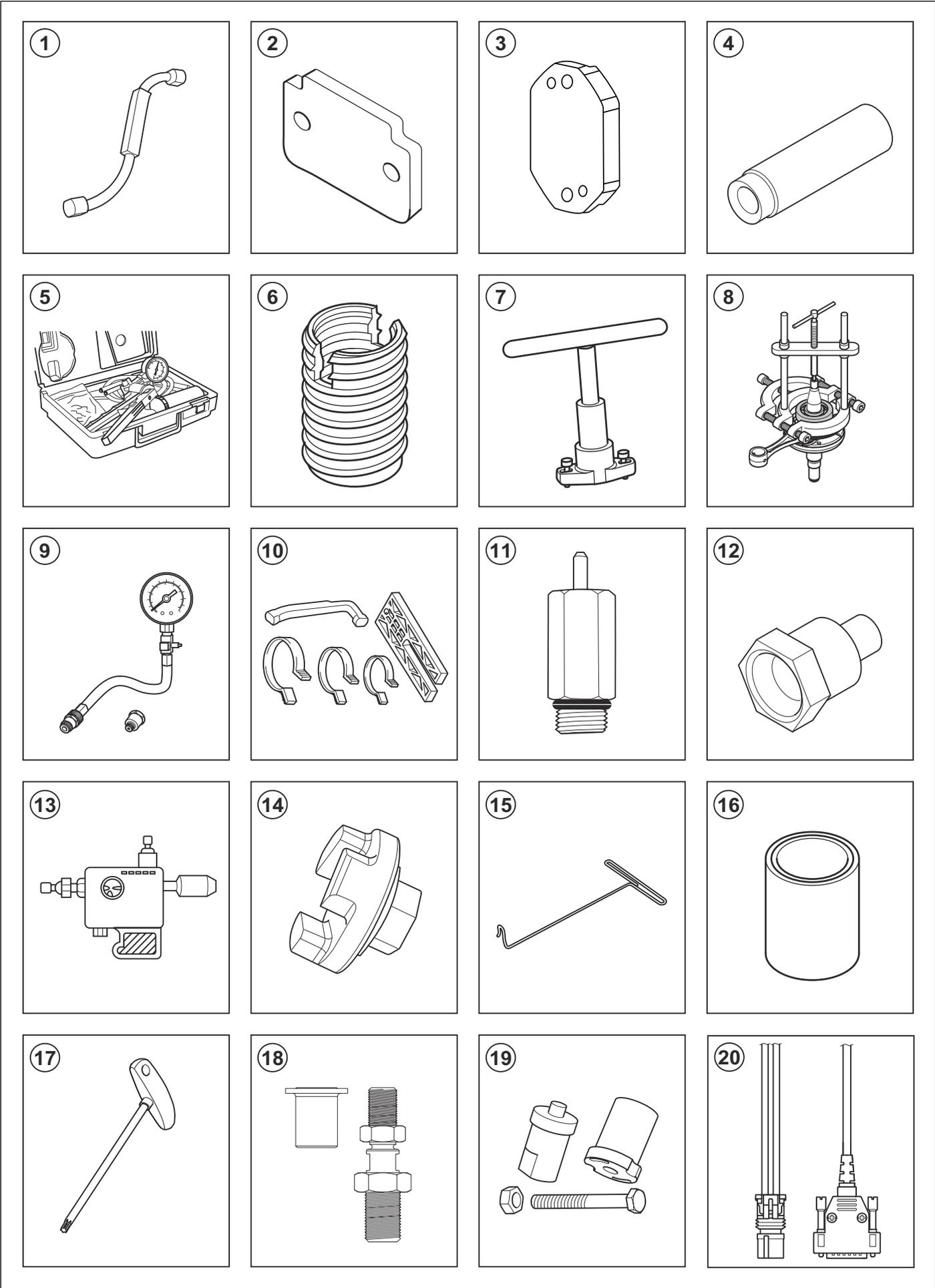
▲ Lubricate with chain oil.

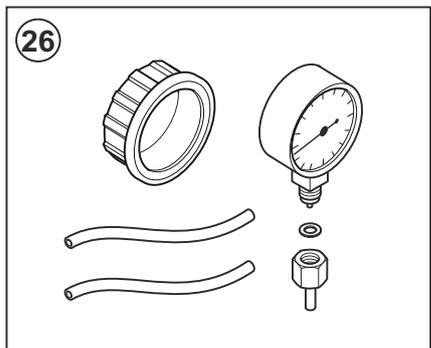
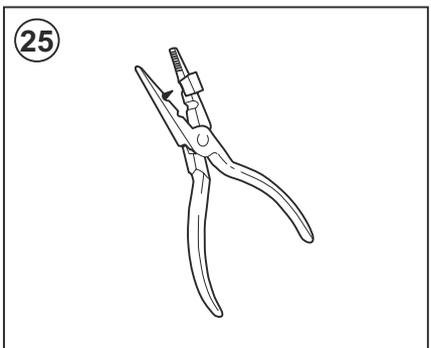
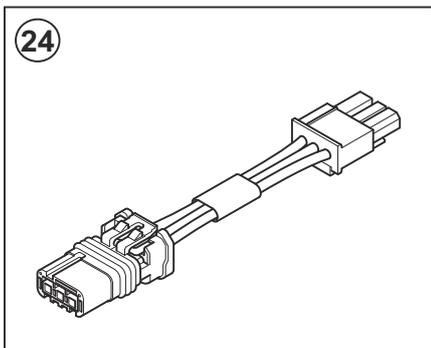
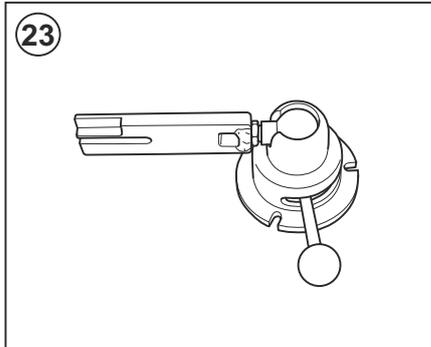
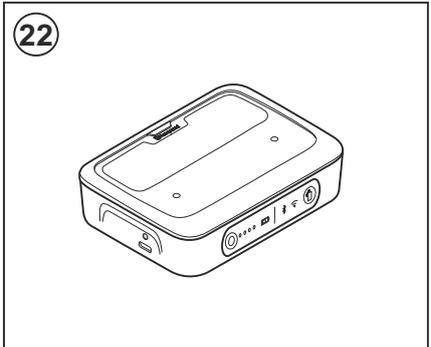
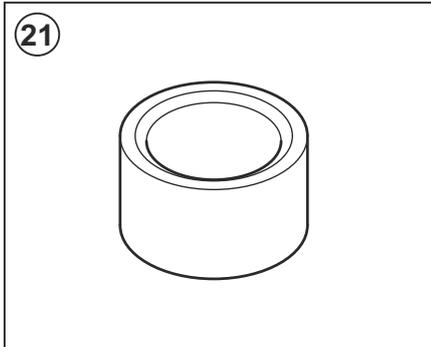




5 Servicing tools

5.1 Servicing tools





Item	Description	Use	Article number
1	Piston stop	To lock the crankshaft.	575 29 36-01
2	Cover plate for exhaust	To seal the exhaust port.	538 69 39-01
3	Cover plate for inlet	To seal the intake system.	548 91 12-01
4	Flywheel removal tool	To remove the flywheel.	502 51 94-02
5	Pressure tester	To do a pressure test.	531 03 06-23
6	Thread insert	To repair threads.	503 27 31-01 (MT4) 503 27 40-01 (MT6)
7	Crankcase disassembly tool.	To disassemble the crankcase.	593 74 42-02 ¹
8	Bearing puller	To remove the bearings from the crankshaft.	531 00 48-67
9	Compression tester	To do a compression test.	531 03 16-86
10	Piston assembly kit	To assemble the piston.	502 50 70-01
11	Adapter for pressure tester	To do a pressure test.	503 84 40-03
12	Adapter for compression tester, 10 mm	To do a compression test.	583 84 98-01
13	Ignition tester	To do a spark test.	501 97 64-01
14	Clutch tool	To remove the clutch.	538 72 85-01
15	Fuel filter hook	To pull out the fuel filter from the tank.	502 50 83-01
16	Seal ring press tool	To install the crankcase bearing seal rings.	596 87 18-01
17	T-handle Torx, T27	To remove and install Torx screws.	502 71 27-03

¹ The previous variant of the crankcase disassembly tool is also applicable if used together with two extra M4x25 screws. Article number: 593 74 42-01

Item	Description	Use	Article number
	T-handle Torx, T25	To remove and install Torx screws.	502 71 27-01
	T-handle Torx, T20	To remove and install Torx screws.	588 59 27-01
	T-handle Torx, T10	To remove and install Torx screws.	588 52 41-01
18	Crankshaft assembly tool	To assemble the crankshaft.	538 84 03-02
19	Crankcase bearing tool	To install the bearings in the crankcase.	593 79 15-01
20	Servicing cable Husqvarna Service Hub (HSH) (included in the HSH Interface Box Kit)	To connect the product to the HSH Interface Box.	534 98 56-01
21	Seal ring guide	To install the crankcase bearing seal rings.	575 34 69-01
22	HSH Interface Box Kit	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)
23	Assembly fixture	To hold the product when you disassemble and assemble the product.	502 51 02-01
24	Adapter cable Molex to MX80		535 28 04-01
25	Assembly pliers	To repair the ignition cable.	502 50 06-01
26	Fuel pressure gauge kit	To measure the fuel pressure	541 12 74-01

5.2 Diagnostic tools

5.2.1 Husqvarna Service Hub (HSH)

The Husqvarna Service Hub (HSH) is used with a computer (not included) for Husqvarna products.

The HSH Interface Box transmits data from the product to the Husqvarna Service Hub (HSH), for example product ID and saved error codes. You can also use it to do a check of the components and update the firmware if applicable.

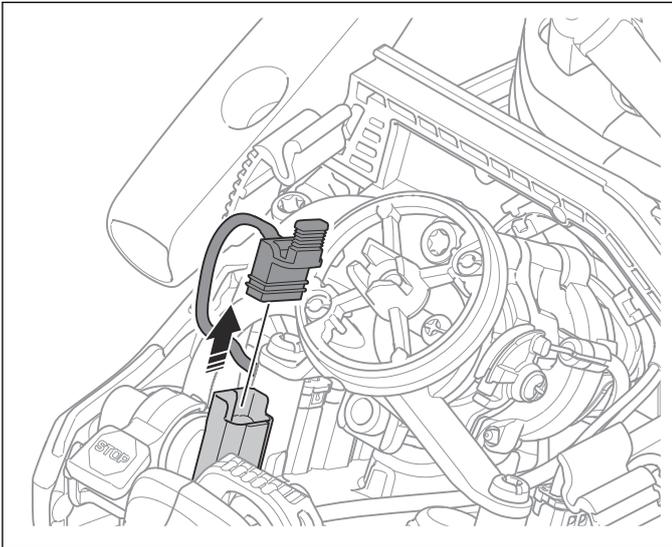
5.2.2 To connect the product to Husqvarna Service Hub (HSH)

Note: It can be necessary to install firmware to a new spare part. Make sure that you know the Husqvarna Identification Number (HID) of the new spare parts before you connect the product to Husqvarna Service Hub (HSH). The Husqvarna Identification Number (HID) is found on the spare part.

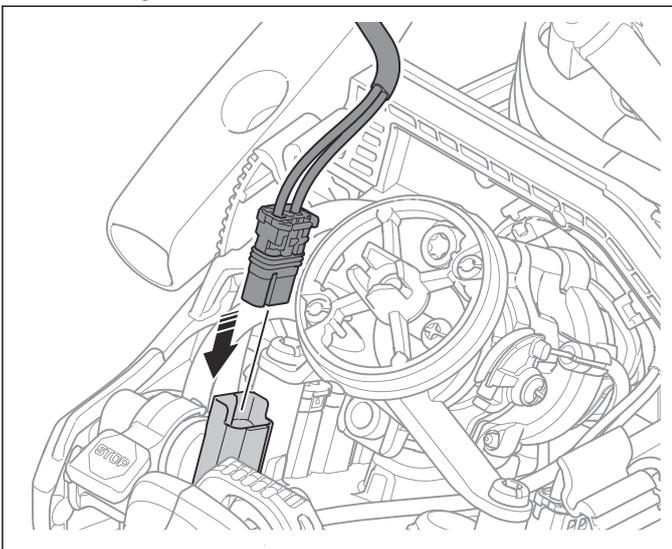
Note: It is not possible to use the engine diagnostic tool. Only use the HSH Interface Box to connect the product to the Husqvarna Service Hub (HSH).

1. Start Husqvarna Service Hub (HSH).
2. Connect the HSH Interface Box to the computer.
3. Remove the cylinder cover and the airfilter. Refer to *To remove and install the air filter on page 36*

4. Remove the servicing connector plug.



5. Connect the cable from the HSH Interface Box to the servicing connector.



6. Obey the instructions in Husqvarna Service Hub (HSH).



CAUTION: Do not disconnect the HSH Interface Box until the update is completed.

5.2.3 To do troubleshooting of Husqvarna Service Hub (HSH)

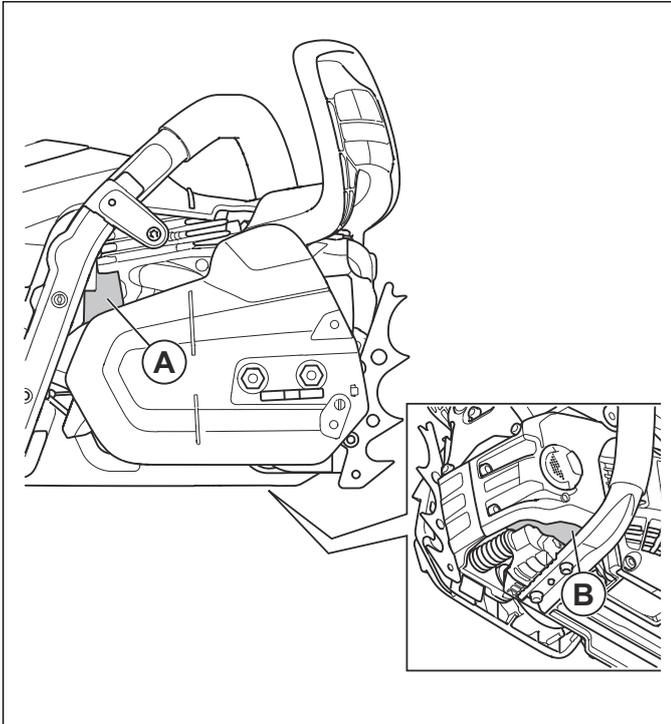
If there is no signal to Husqvarna Service Hub (HSH) when it is connected to the product, do the procedure that follows.

1. Make sure that the connectors on HSH Interface Box and on the product are clean and not damaged. Replace all damaged parts.
2. Make sure that the cables connected to the computer, HSH Interface Box and the product are clean and not damaged. Replace all damaged cables.
3. Restart the computer.
4. Install the software again.

6 Function overview

6.1 Type identification and product serial number

The product serial number is given when you scan the QR-code (A) or on the laser printed type identification (B). Supply the model name and the article number when you send an order for spare parts.



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

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

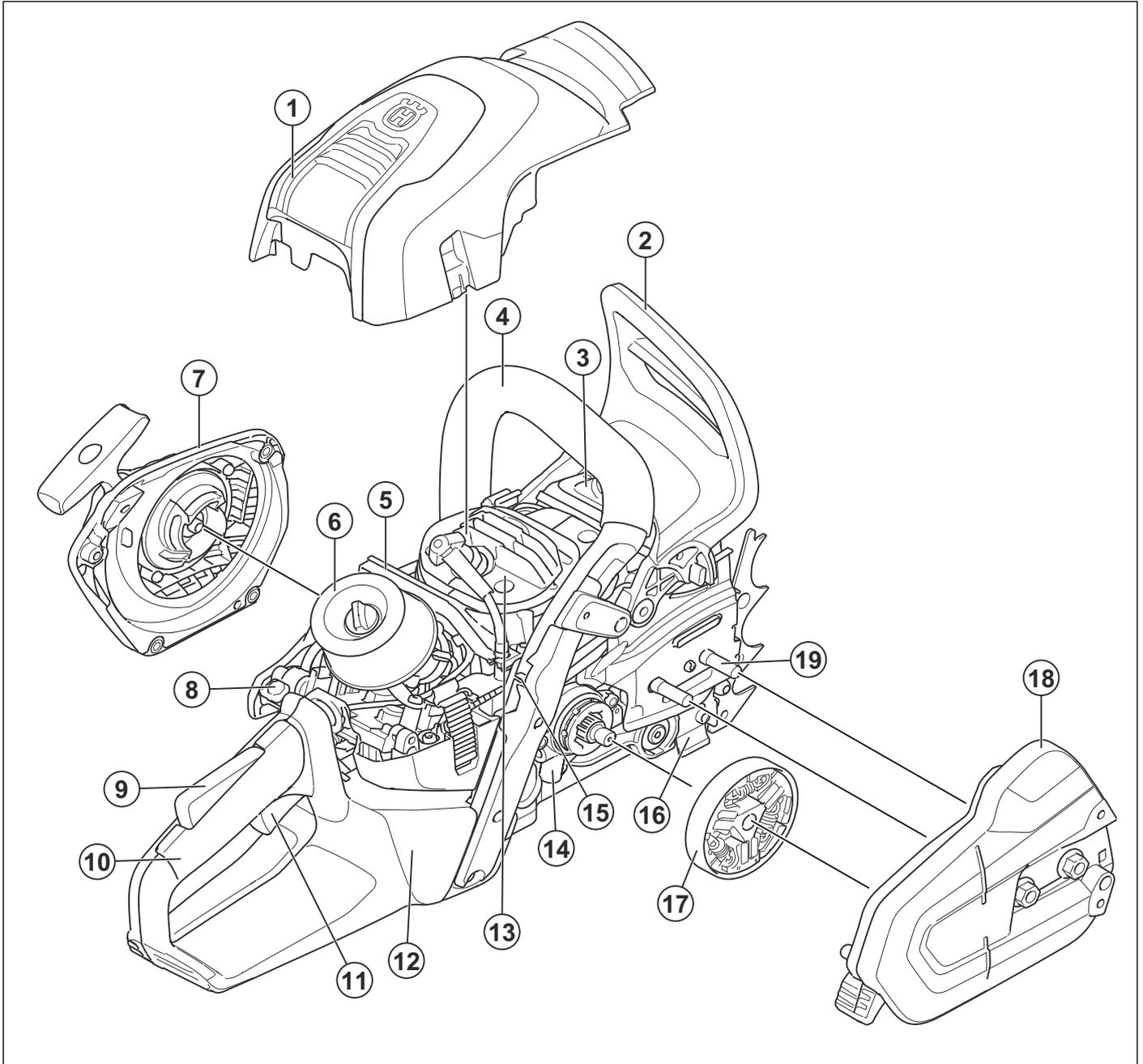
If Husqvarna two-stroke oil is not available, use a two-stroke oil of good quality for aircooled engines. Speak to your servicing dealer to select the correct oil.

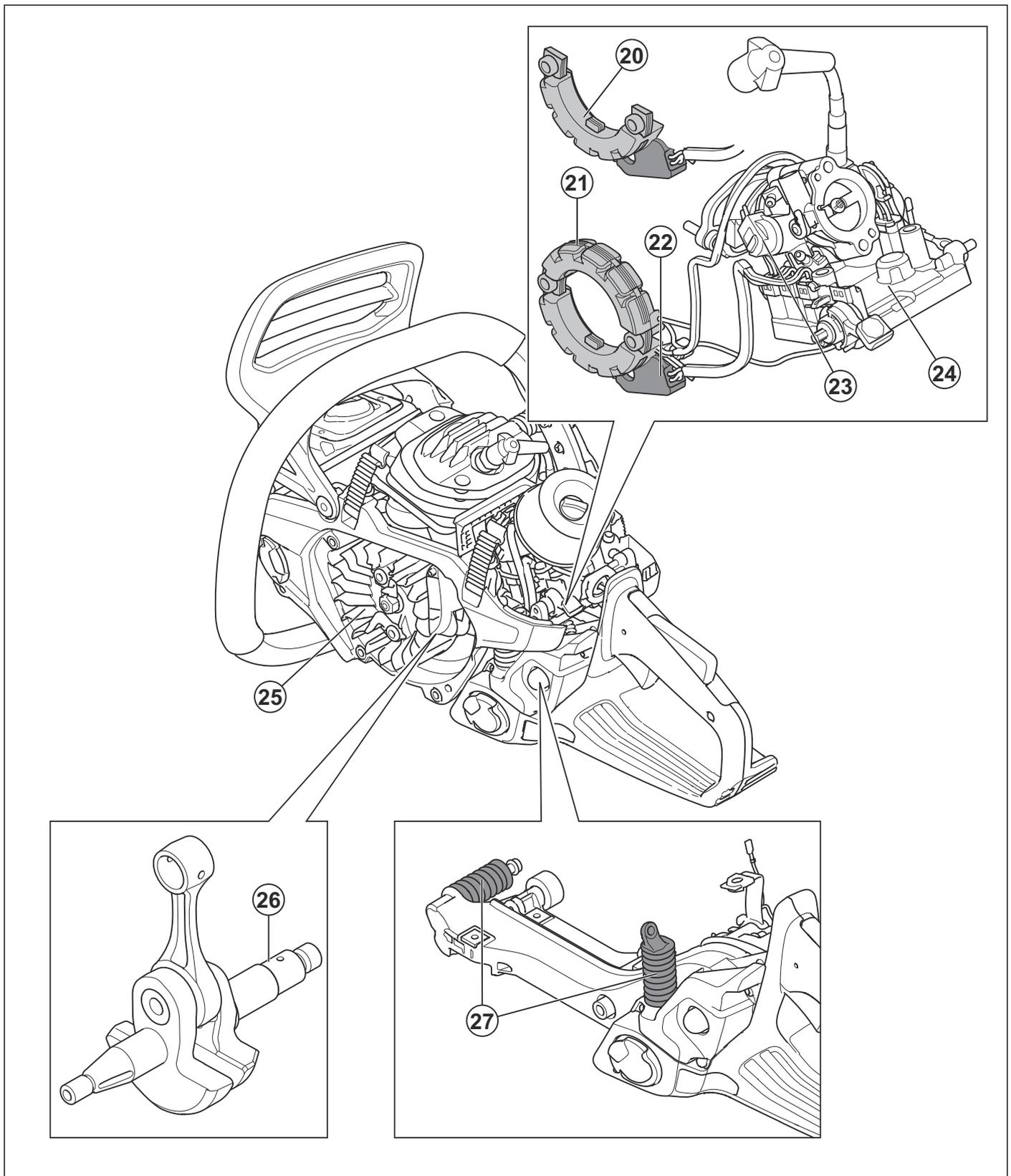
6.2.2.3 To mix gasoline and two-stroke oil

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

7 Repair instructions

7.1 Product overview for repair instructions





1. Cylinder cover
2. Front handguard
3. Muffler
4. Front handle
5. Insulation wall
6. Air filter
7. Starter unit
8. Stop switch
9. Throttle trigger lockout

10. Rear handle
11. Throttle trigger
12. Fuel tank
13. Cylinder and piston
14. Lubrication system
15. Heated handle switch (XPG models only)
16. Chain catcher
17. Centrifugal clutch and clutch drum
18. Clutch cover

19. Guide bar bolts
20. Generator (XP models only)
21. Generator (XPG models only)
22. Crankcase sensor
23. Fuel injector
24. Control unit
25. Flywheel
26. Crankshaft
27. Vibration damping system

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.

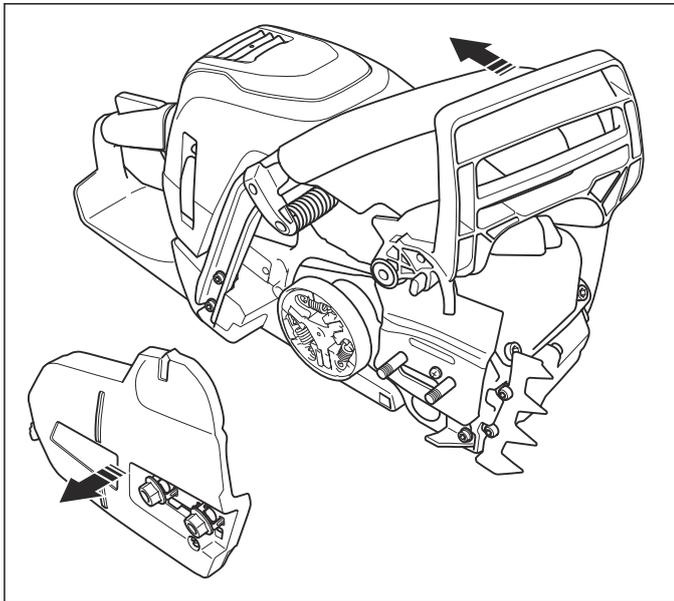
7.3 Chain brake

7.3.1 To disassemble the chain brake

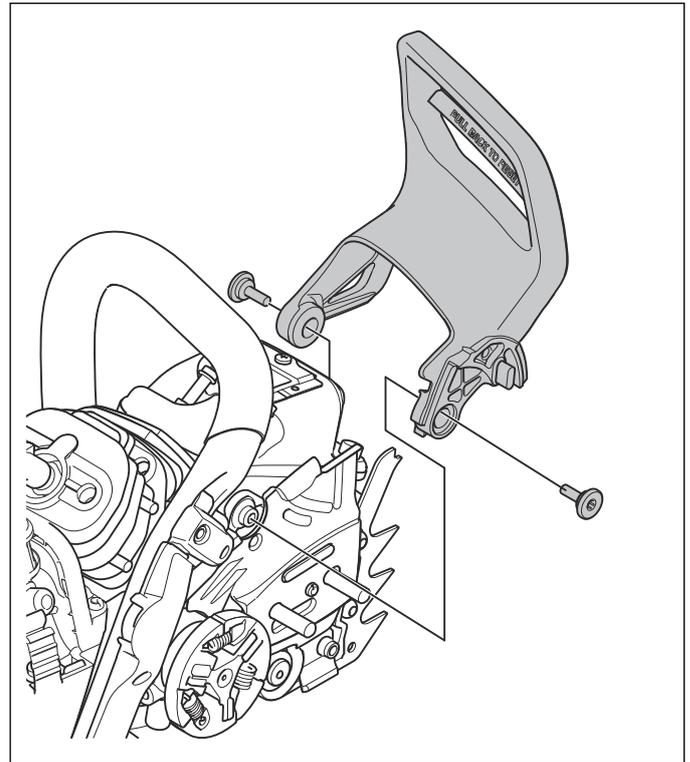


WARNING: Use approved eye protection. The recoil spring can eject and cause injuries.

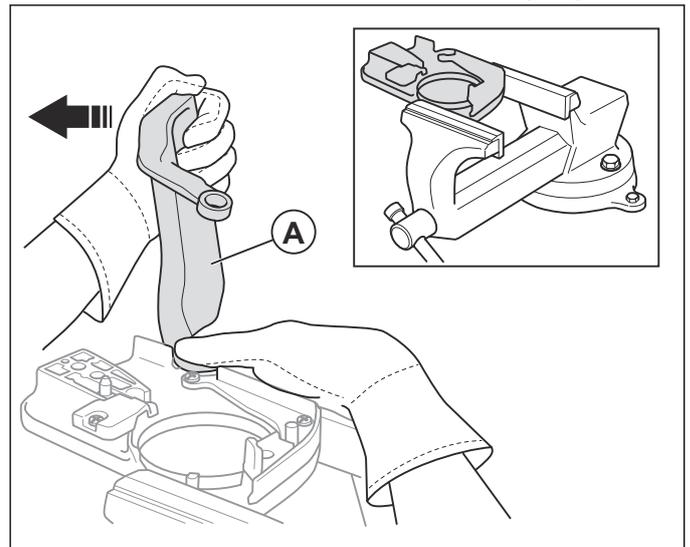
1. Move the front hand guard rearward to disengage the chain brake.
2. Loosen the 2 nuts on the clutch cover and remove the clutch cover.



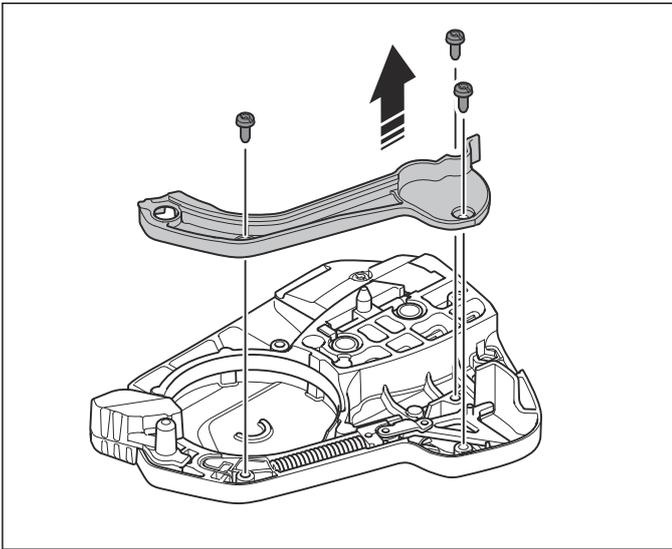
3. Remove the 2 screws and remove the front handguard.



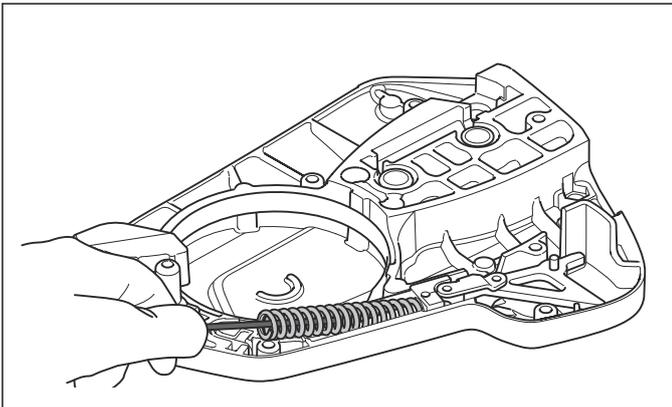
4. Carefully tighten the clutch cover in a vise. Use a front hand guard (A) to engage the chain brake. This removes some tension from the brake spring.



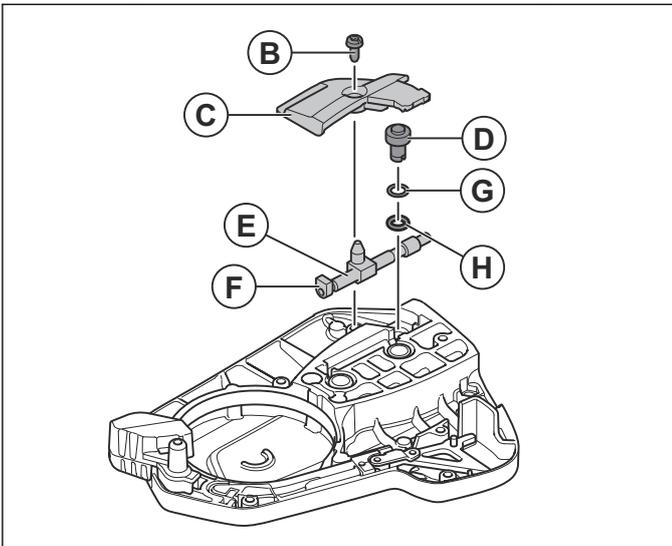
- Remove the 3 screws and carefully remove the chain brake cover in front of the chain brake spring.



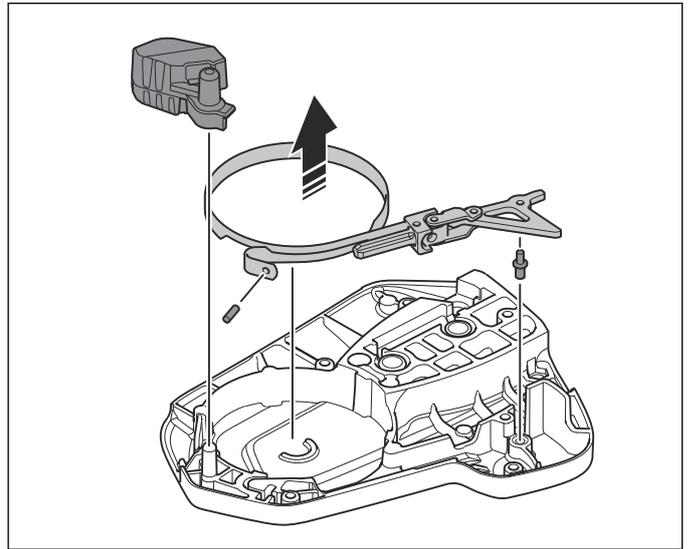
- Hold one hand above the chain brake spring. Use the other hand to push a small screwdriver in between the rear section of the chain brake spring and the clutch cover. Carefully push the screwdriver against the chain brake spring until the chain brake spring releases onto the screwdriver shaft.



- Remove the screw (B), the chain tensioner cover (C), the adjustment screw (D), the shaft (E), the bushing (F), the washer (G) and the O-ring (H).

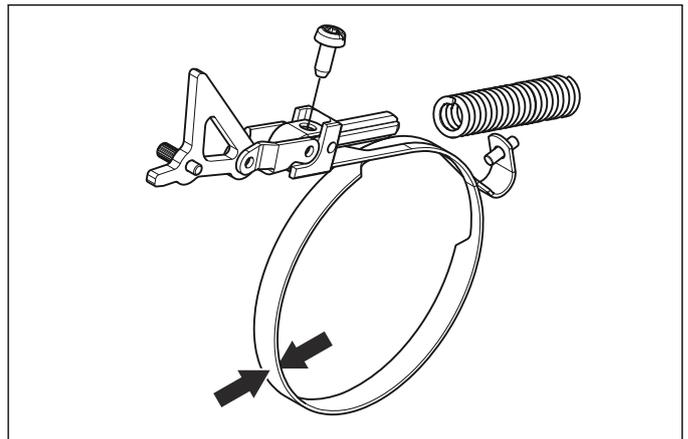


- Remove the saw dust guard, the knee joint and the brake band assembly from the clutch cover.



7.3.2 To clean and examine the chain brake

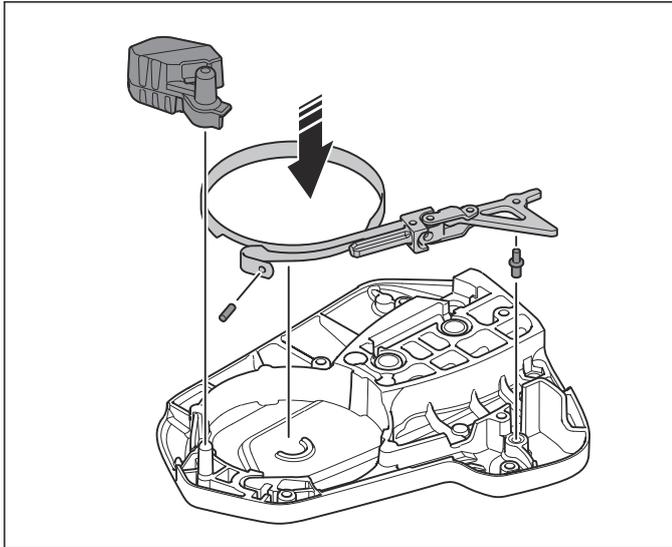
- Carefully clean and examine all parts of the chain brake. Replace damaged parts.
- Measure the thickness of the brake band. The thickness of the brake band must be minimum 0.6 mm at the most worn point.



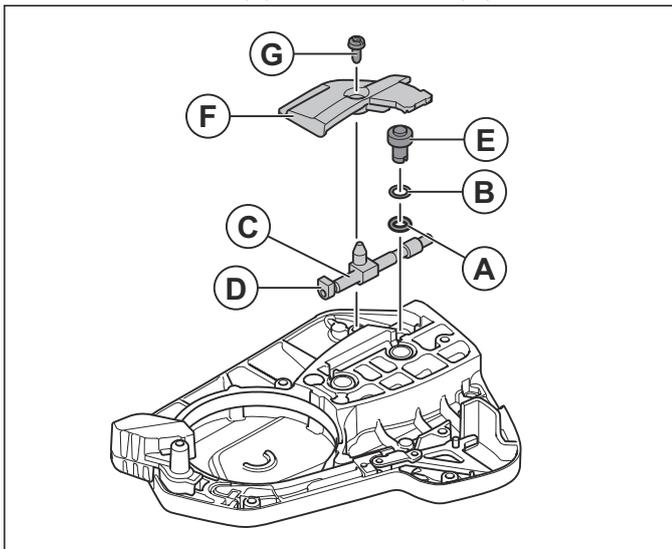
- Lubricate the knee joint with grease.

7.3.3 To assemble the chain brake

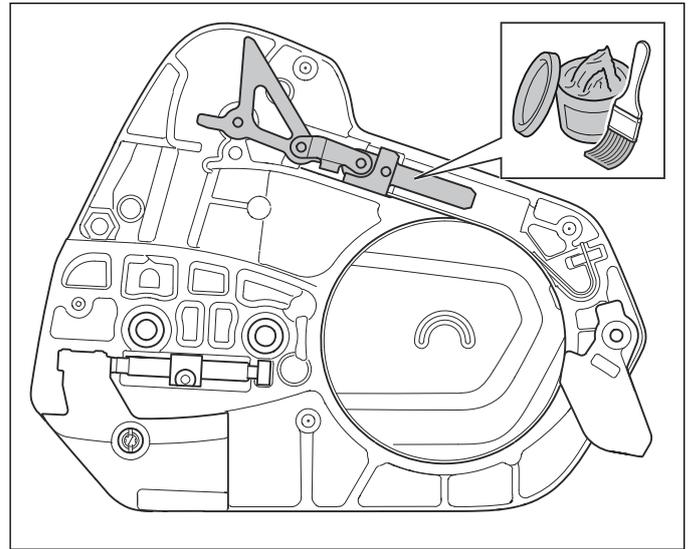
1. Attach the knee joint to the brake band and tighten to the correct torque. Refer to *Servicing data on page 9*.
2. Attach the knee joint, the brake band assembly and the saw dust guard to the clutch cover.



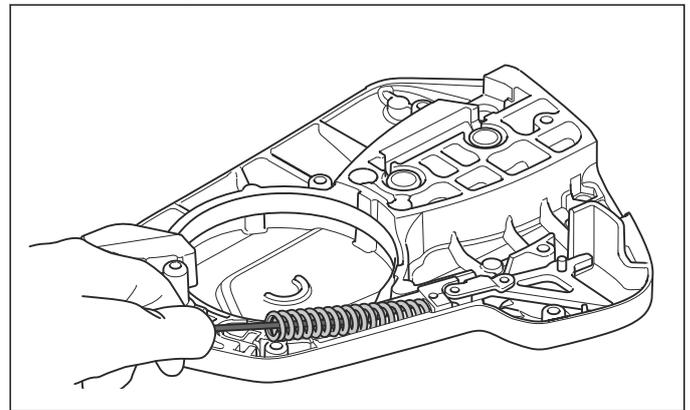
3. Attach the O-ring (A), the washer (B), the shaft (C), the bushing (D), the adjustment screw (E), the chain tensioner cover (F) and the screw (G).



4. Lubricate the recess for the chain brake spring with grease.

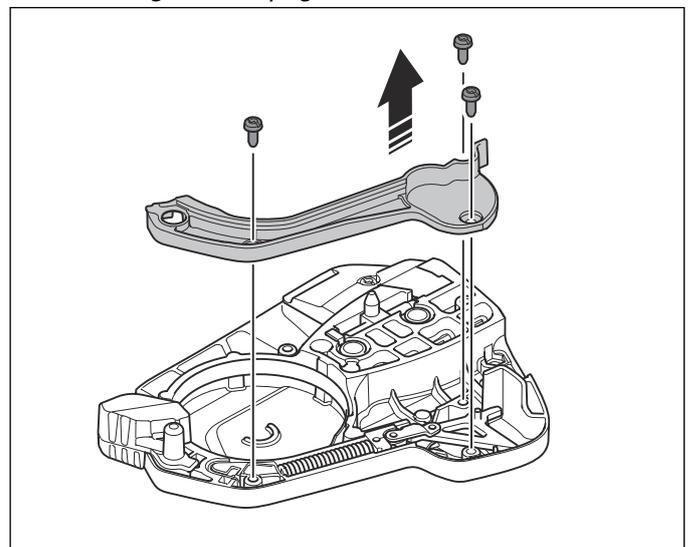


5. Put the clutch cover in a vise. Compress the chain brake spring with a wide screwdriver and push it down with your thumb.

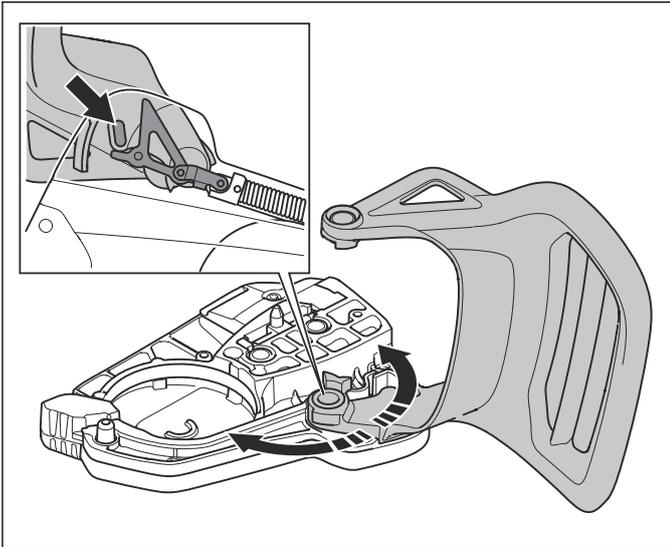


WARNING: Use approved eye protection. The chain brake spring can eject and cause injury.

6. Attach the cover above the chain brake spring. Tighten the 3 screws to the correct torque. Refer to *Servicing data on page 9*.



- Use the front handguard to tighten the chain brake spring. Connect the front handguard to the chain brake mechanism and turn clockwise to release the chain brake.



- Turn the chain tensioner counterclockwise as much as you can.
- Attach the guide bar, the saw chain and the clutch cover.
- When the chain brake is assembled, you must do a function test of the chain brake. Refer to *To do a function test of the chain brake on page 21*.

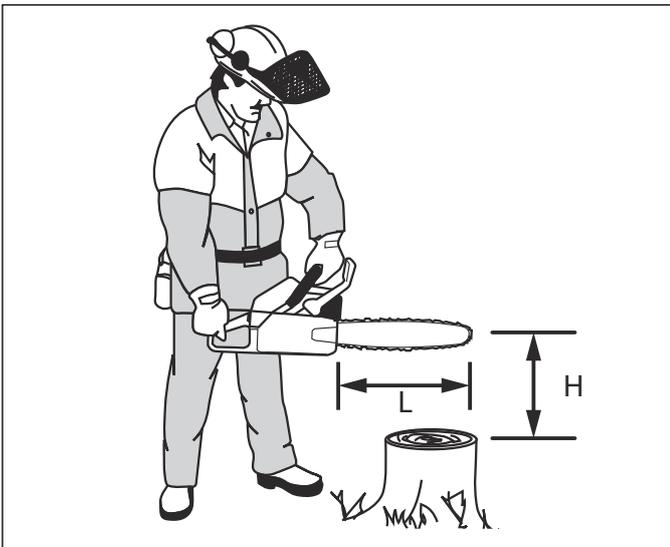
7.3.4 To do a function test of the chain brake

- Hold the product with 2 hands above a stump or other stable surface.



WARNING: The engine must be off.

- Release the front handle. The guide bar tip falls onto the stump.



Guide bar length, L	Height, H
15 inch	30-40 cm

- Make sure that the chain brake engages when the guide bar tip hits the stump.

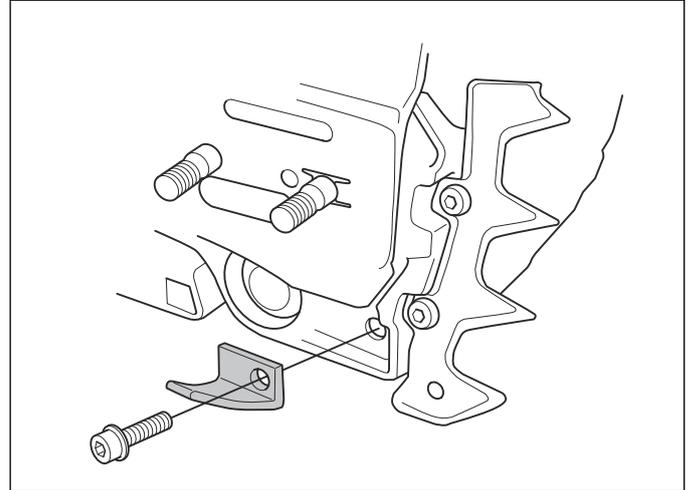
7.4 Chain catcher

7.4.1 To replace the chain catcher



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

- Remove the clutch cover.
- Remove the screw and the chain catcher.



- Replace the chain catcher.
- Attach the clutch cover.

7.5 Muffler

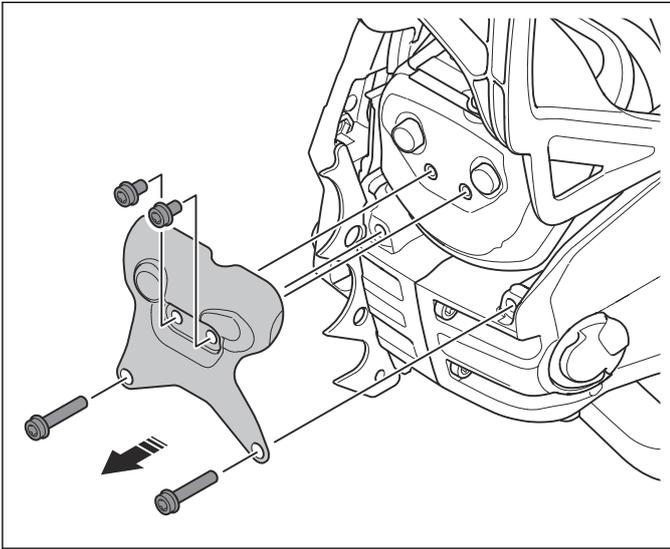
7.5.1 To remove and install the muffler



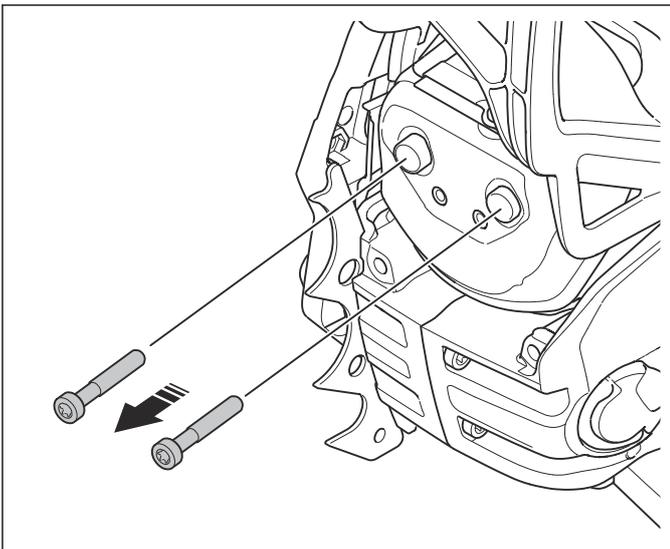
WARNING: Do not touch a hot muffler. Risk of burn injuries.

- Remove the cylinder cover.
- Remove the 2 screws on the crankcase and the 2 screws on the muffler.

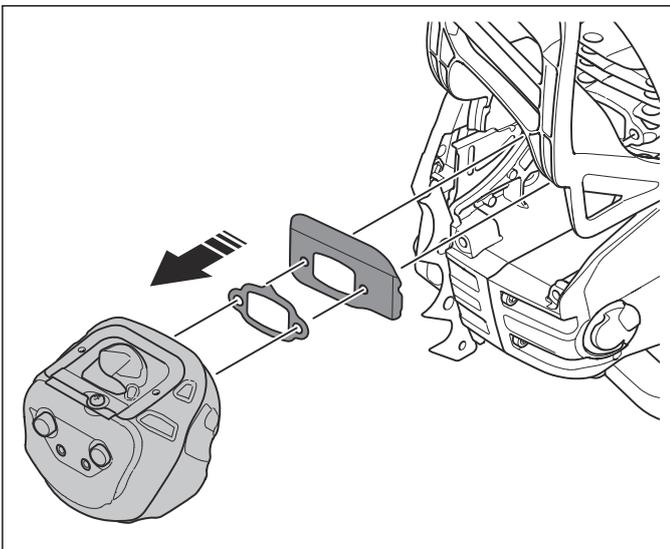
3. Remove the bracket.



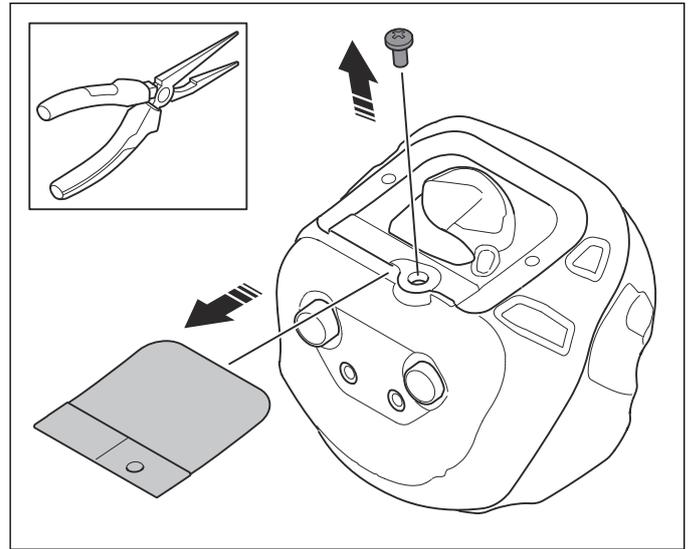
4. Remove the 2 screws on the cylinder.



5. Remove the muffler, the gasket and the heat deflector.



6. Remove the screw and use pliers to pull out the spark arrester screen.



7. Install the muffler in the opposite sequence.

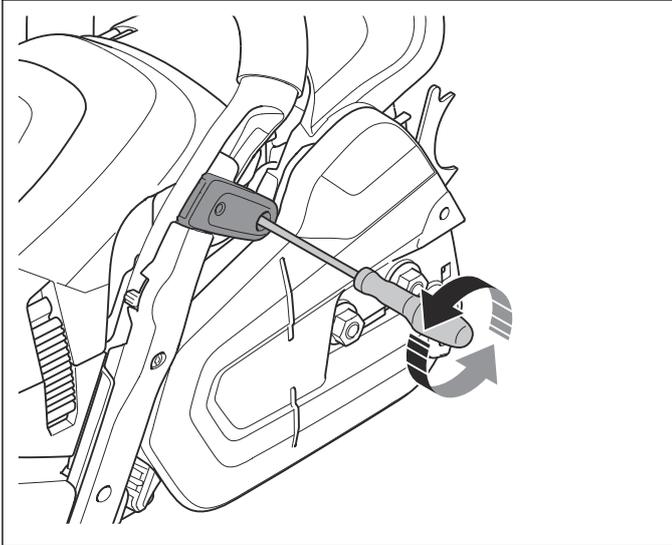
7.5.2 To clean and examine the muffler

1. Remove the muffler. Refer to *To remove and install the muffler on page 21*.
2. Clean the contact surfaces of the gasket, the heat shield and the cylinder.
3. Use a wire brush to clean the spark arrester screen.
4. Examine the spark arrester screen for damage.
5. Examine the muffler for damage.
6. Examine the gasket for damage.
7. Replace all damaged parts.
8. Install the muffler. Refer to *To remove and install the muffler on page 21*.

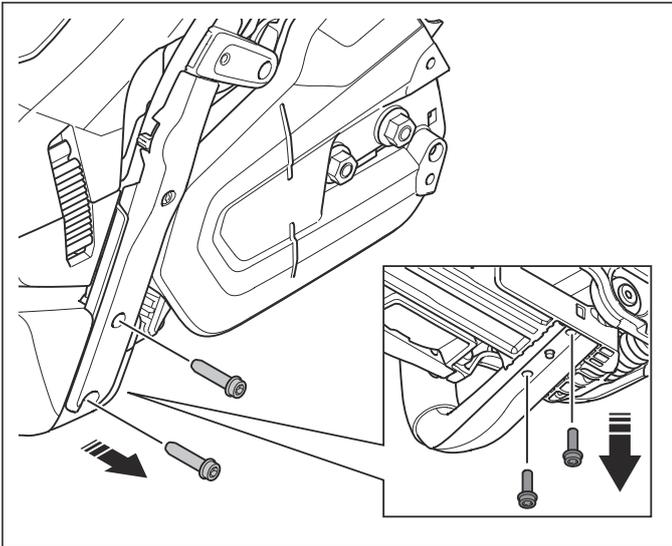
7.6 Handles

7.6.1 To remove and install the front handle (XP)

1. Loosen the screw in the vibration damping system.



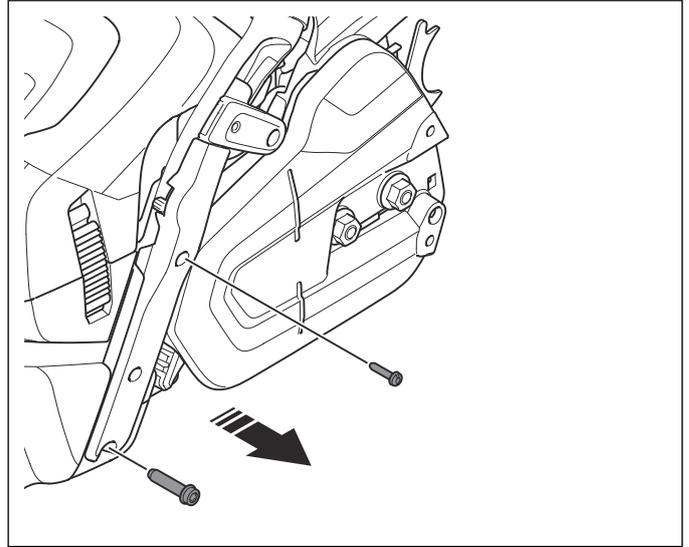
2. Remove the 2 screws on the side of the product and the 2 screws below the product.



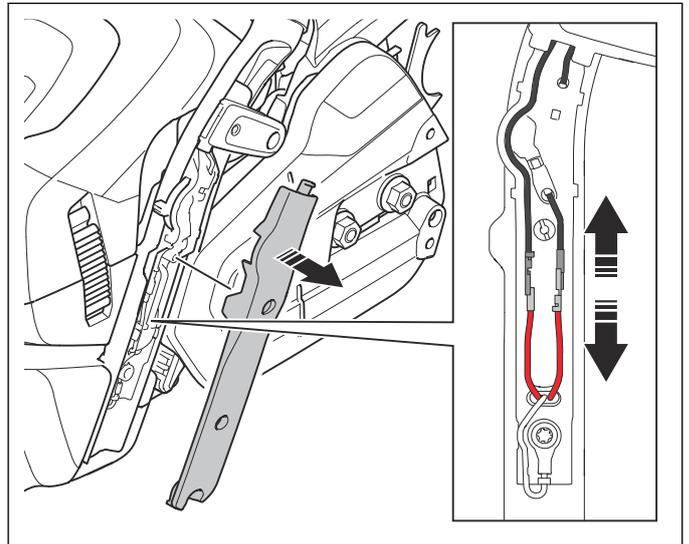
3. Remove the front handle from the product.
4. Install the front handle in the opposite sequence.

7.6.2 To remove and install the heated front handle (XPG)

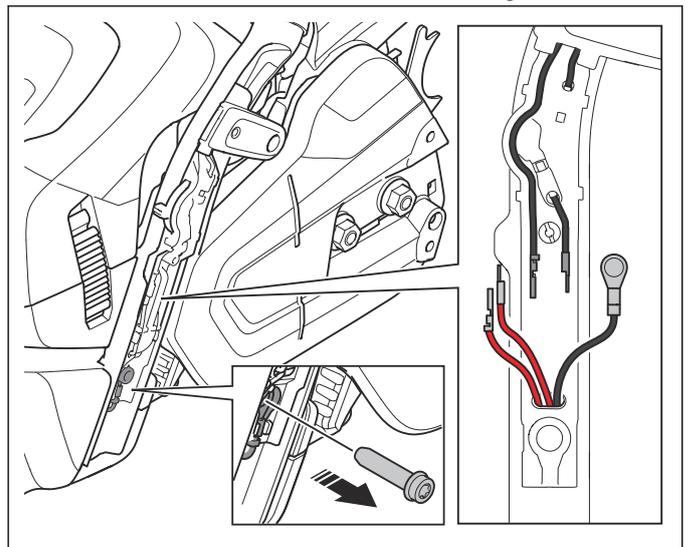
1. Remove the 2 screws and the cover for the heated front handle.



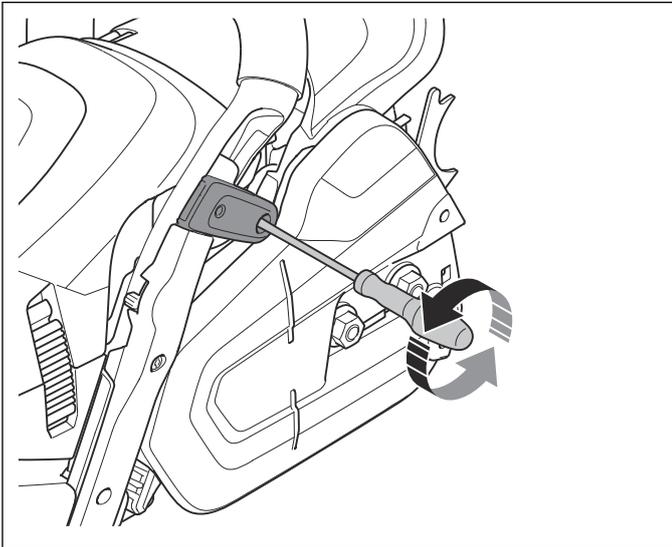
2. Disconnect the wires from the contact plate.



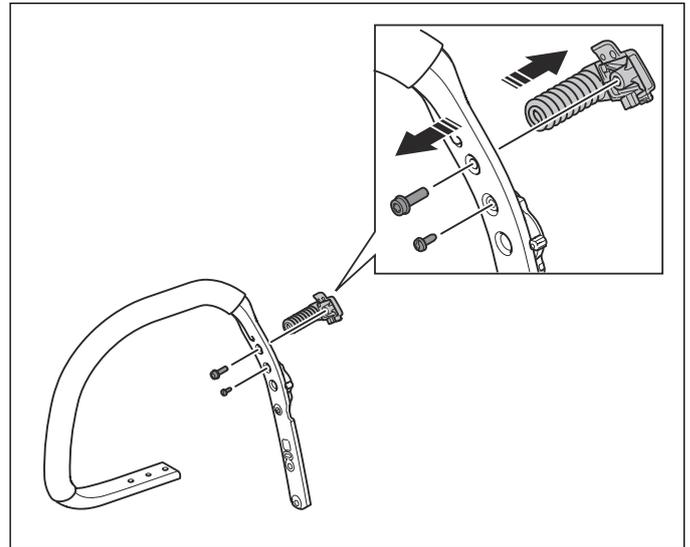
3. Loosen the screw and disconnect the ground cable.



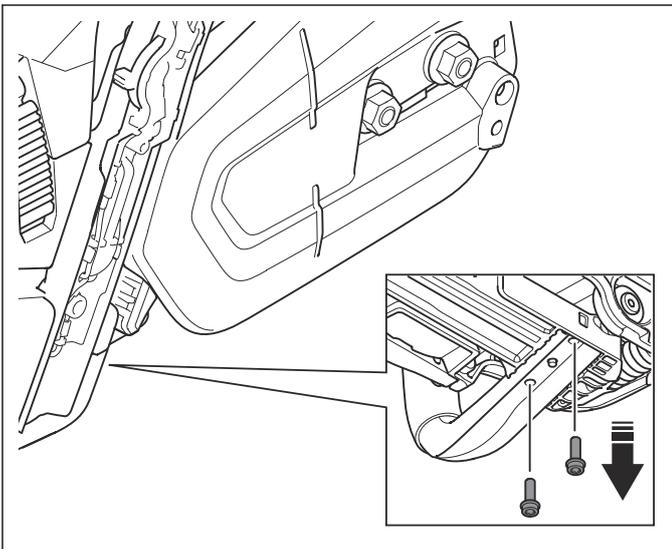
4. Loosen the screw in the vibration damping system.



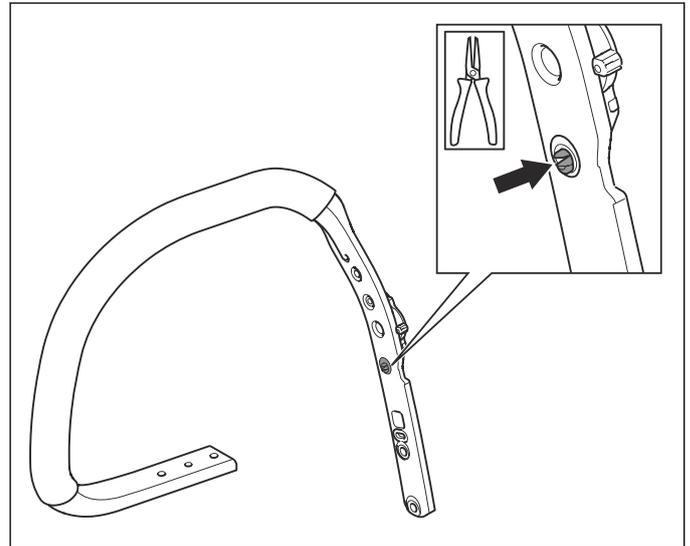
7. Remove the vibration damping screw and the contact plate screw.



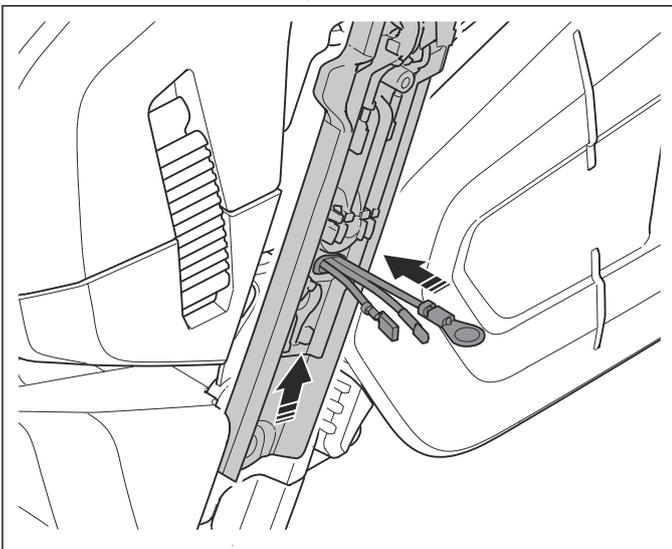
5. Remove the 2 screws below the product.



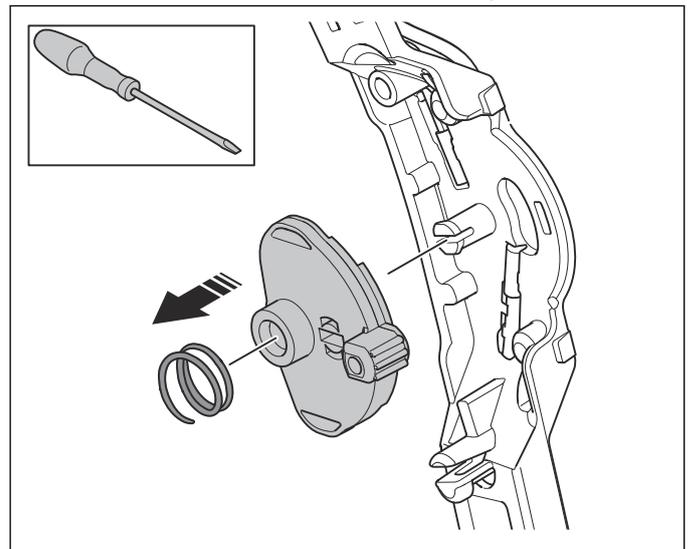
8. Release the snap lock on the back of the handle.



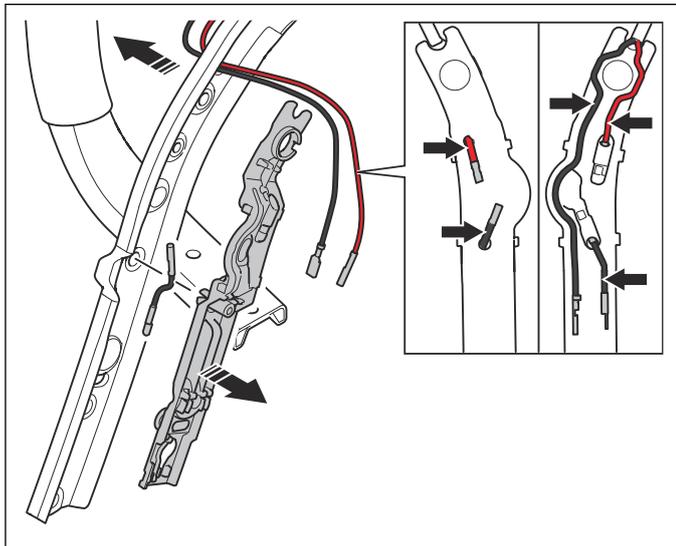
6. Remove the heated front handle from the product and at the same time pull out the cables.



9. Remove the switch from the contact plate.



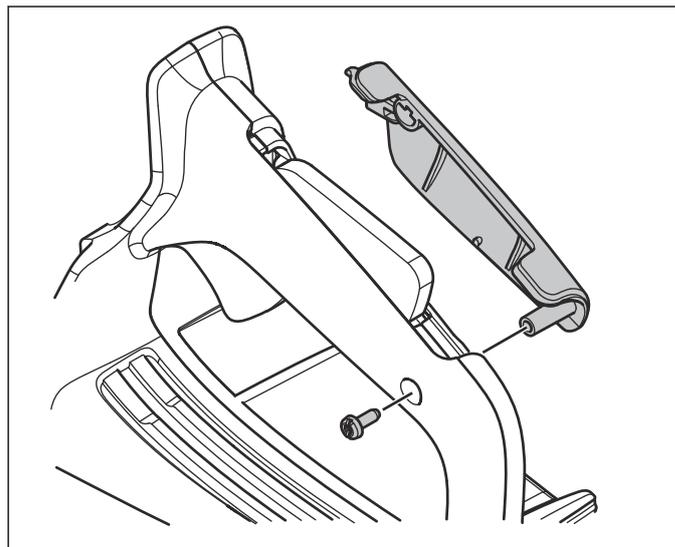
10. Disconnect the cables and remove the contact plate.



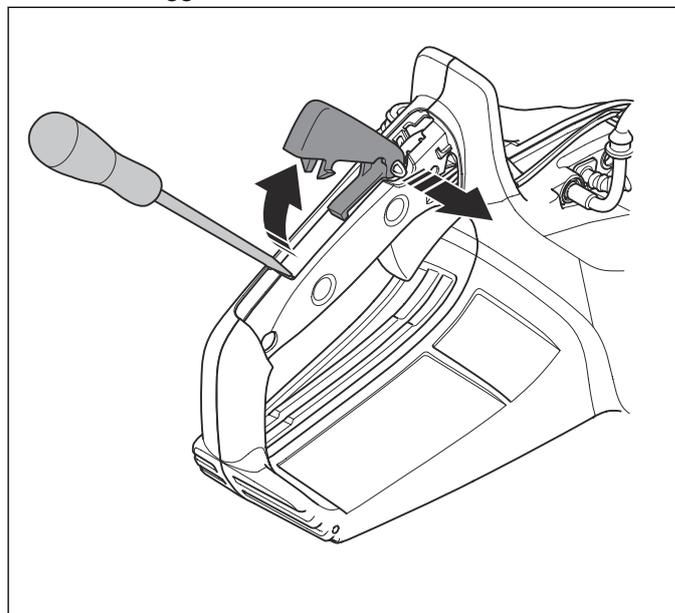
11. Install in the opposite sequence.

7.6.3 To disassemble and assemble the rear handle

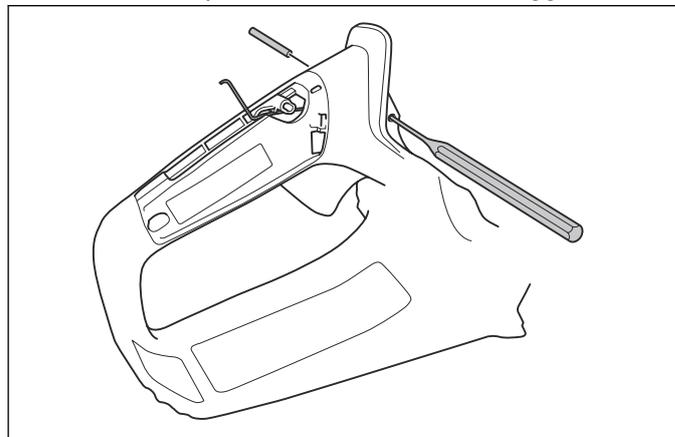
1. Remove the screw and the handle cover.



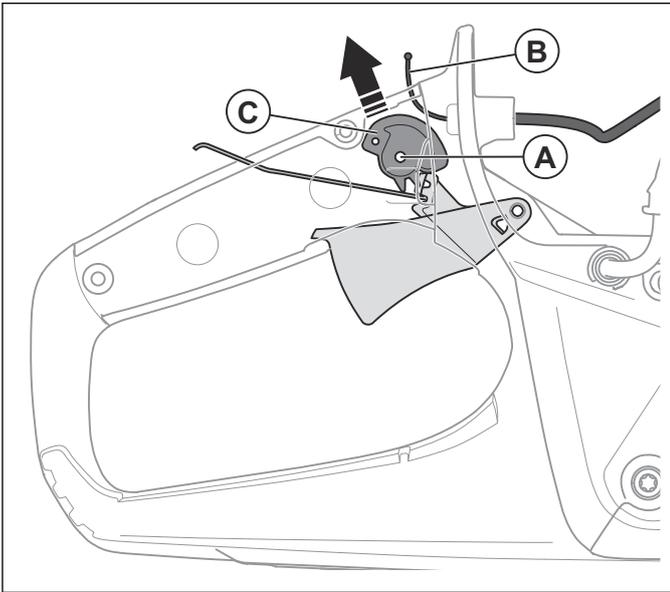
2. Use a flat screwdriver to push out and remove the throttle trigger lockout.



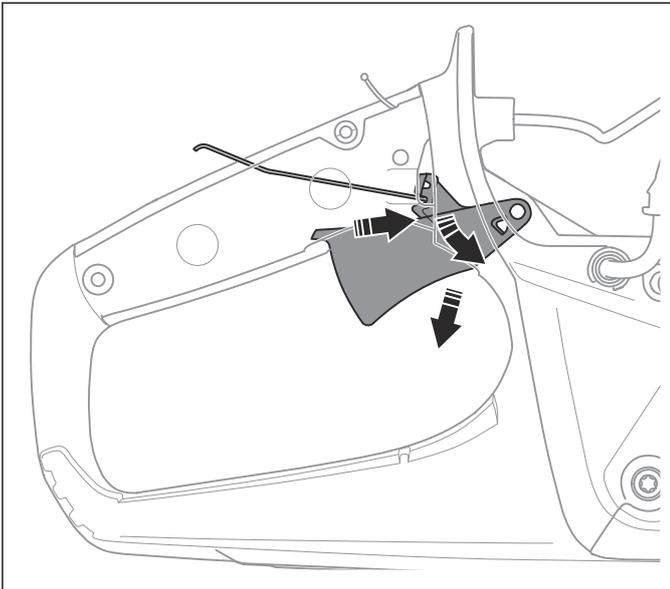
3. Remove the pin that holds the throttle trigger.



- Remove the pin (A) and throttle wire (B) from the lever (C) for the throttle wire.



- Pull up the lever for the throttle wire.
- Remove the throttle trigger.



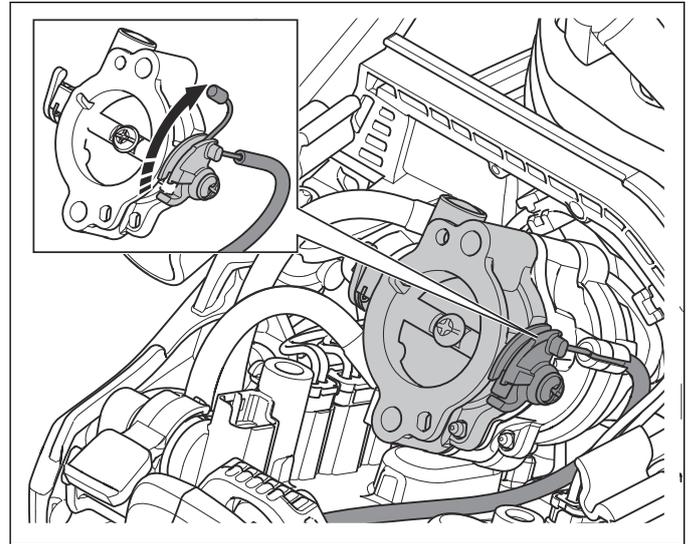
- Push the throttle trigger forward.
- Pull the rear end of the throttle trigger down and rearward.

- Assemble in the opposite sequence.

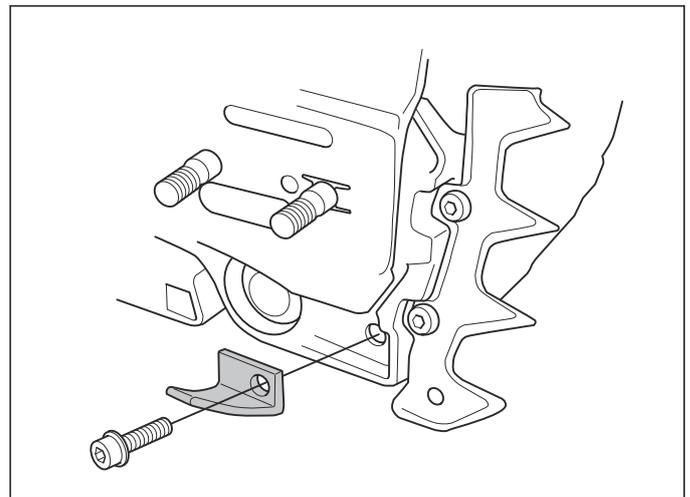
7.6.4 To remove and install the heated rear handle (XPG)

- Remove the heated front handle, refer to *To remove and install the heated front handle (XPG) on page 23*.
- Remove the clutch cover, refer to *To disassemble the chain brake on page 18*.
- Remove the cylinder cover.
- Remove the air filter, refer to *To remove and install the air filter on page 36*.

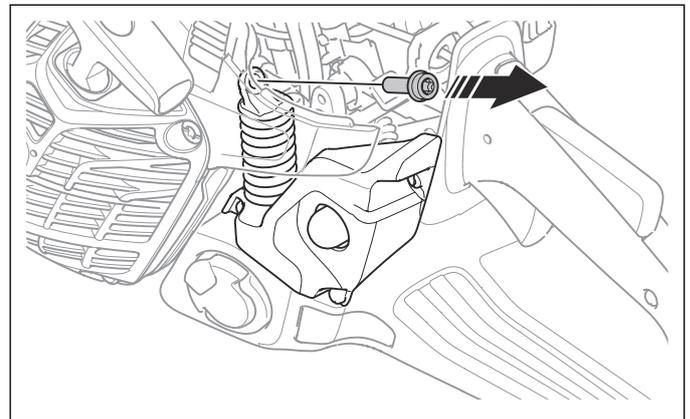
- Remove the throttle cable from the throttle body.



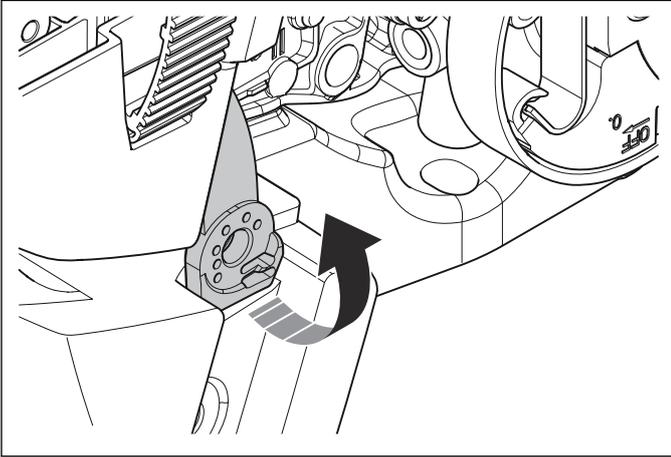
- Remove the chain catcher.



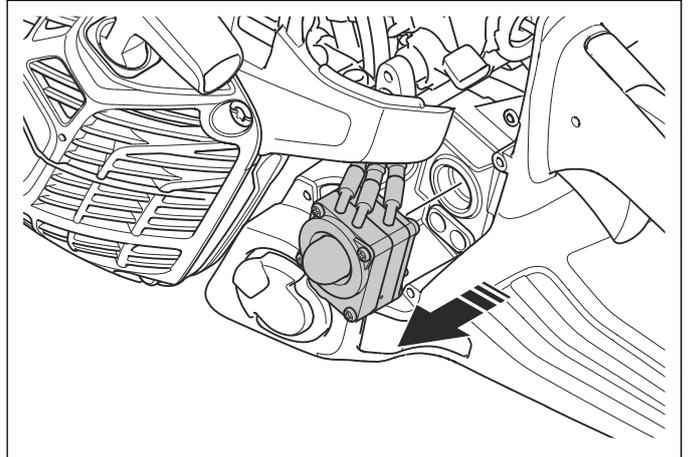
- Loosen the screw to the vibration damping system.



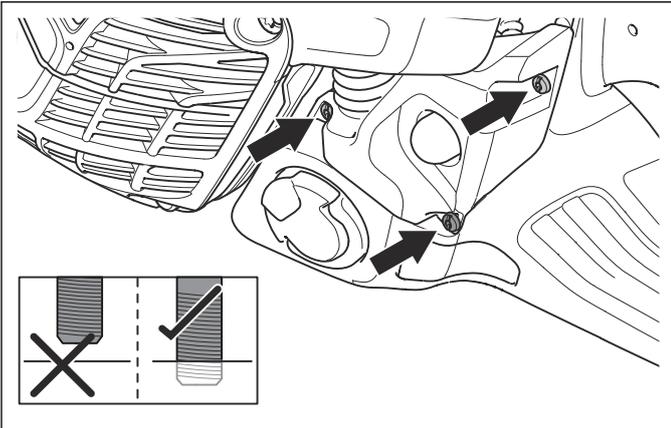
8. Loosen the deflection limiter.



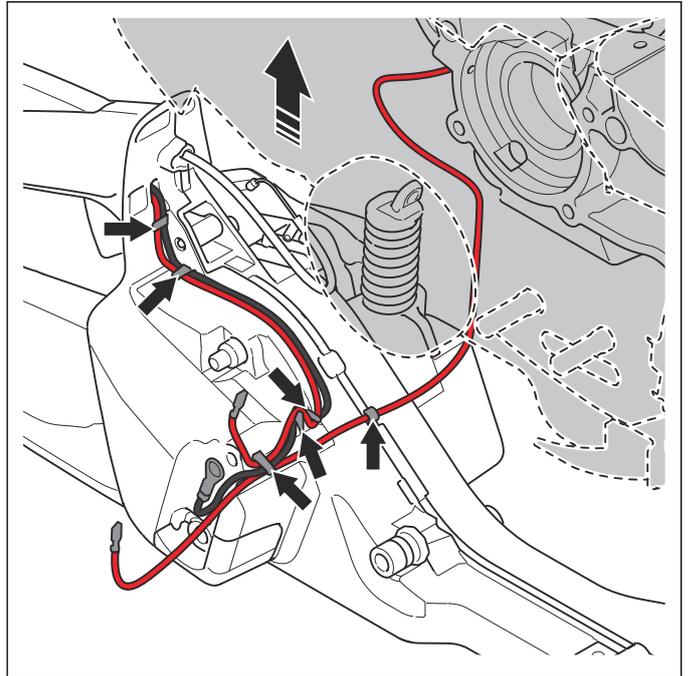
11. Pull out the fuel pump, do not disconnect it.



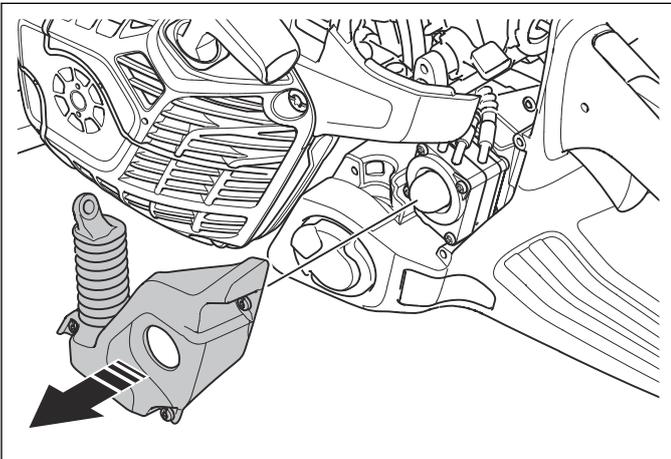
9. Loosen the 3 screws of the fuel pump.



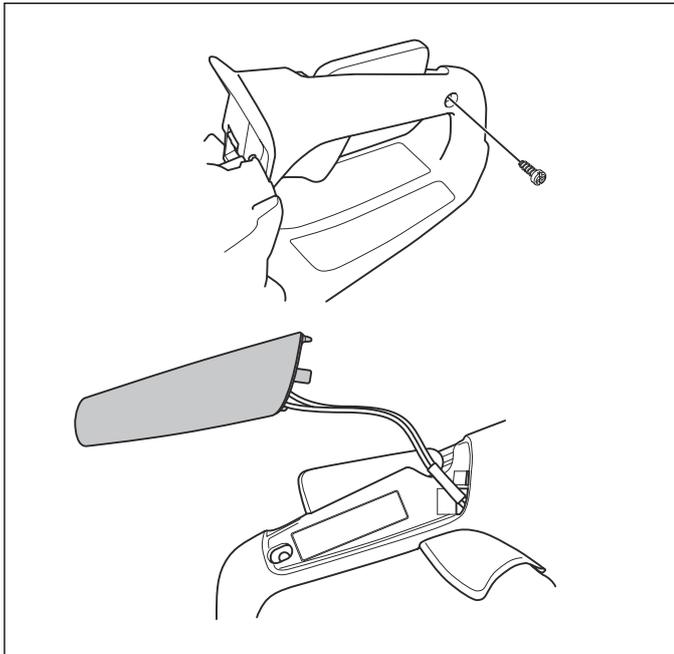
12. Carefully lift the engine from the fuel tank. Make sure you understand how the cables are attached.



10. Remove the fuel pump cover and the vibration damping unit.



- Remove the screw and pull out the heated rear handle and pull out the cables.



- Install in the opposite sequence.

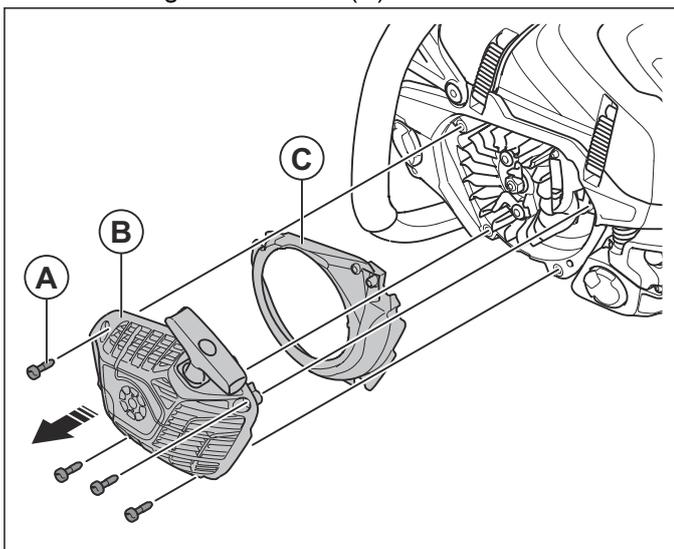
7.6.5 To clean and examine the handle and throttle trigger

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

7.7 Starter

7.7.1 To remove and install the starter unit

- Remove the 4 screws (A), the starter unit (B) and the cooling air conductor (C).



- Install in the opposite sequence.

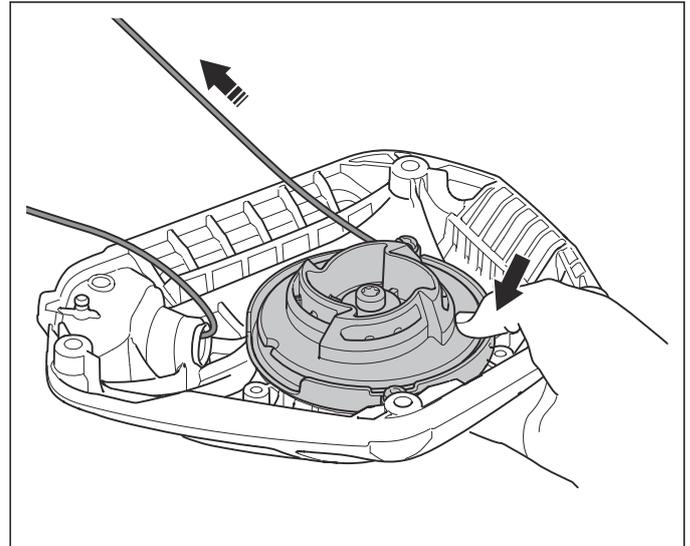
- Pull the starter rope lightly to make sure that the starter pulley is attached correctly against the crankcase.
- Tighten the 4 screws to the correct torque. Refer to *Servicing data on page 9*.

7.7.2 To disassemble the starter unit

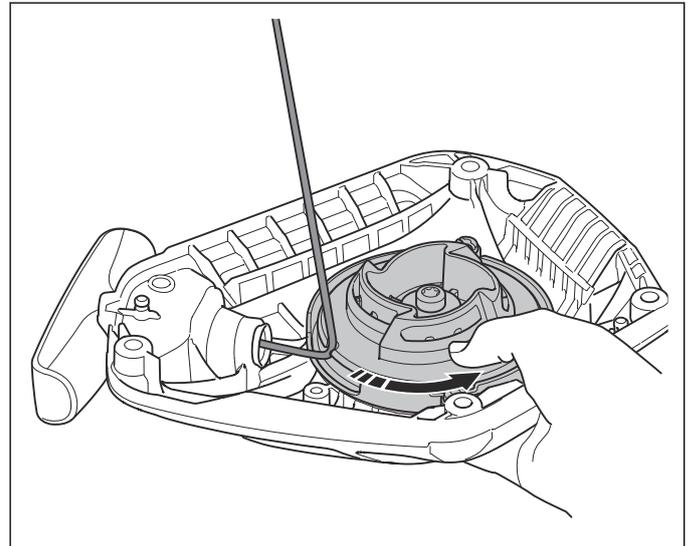


WARNING: Use approved eye protection. The recoil spring can eject and cause injuries.

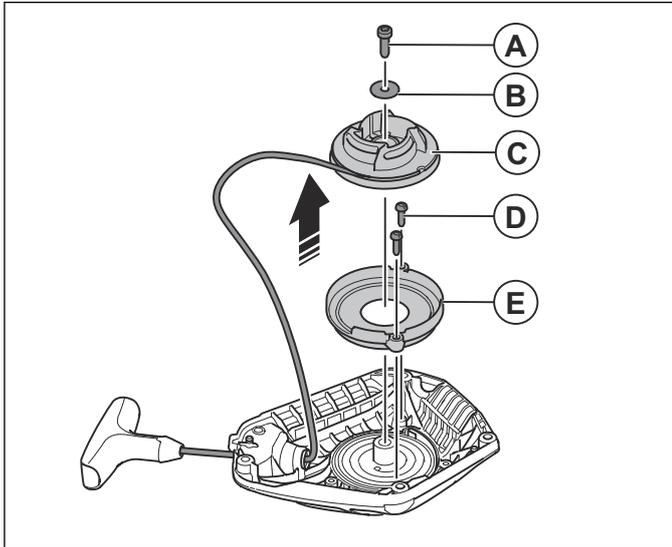
- Remove the starter unit. Refer to *To remove and install the starter unit on page 28*.
- Pull out the starter rope approximately 30 cm/12 in. and put it into the notch in the starter pulley.



- Let the starter pulley rotate slowly counterclockwise to release the tension of the recoil spring.



- Remove the screw (A) and washer (B).



- Remove the starter pulley (C).
- Remove the 2 screws (D).
- Remove the spring cassette (E).

7.7.3 To clean and examine the starter unit

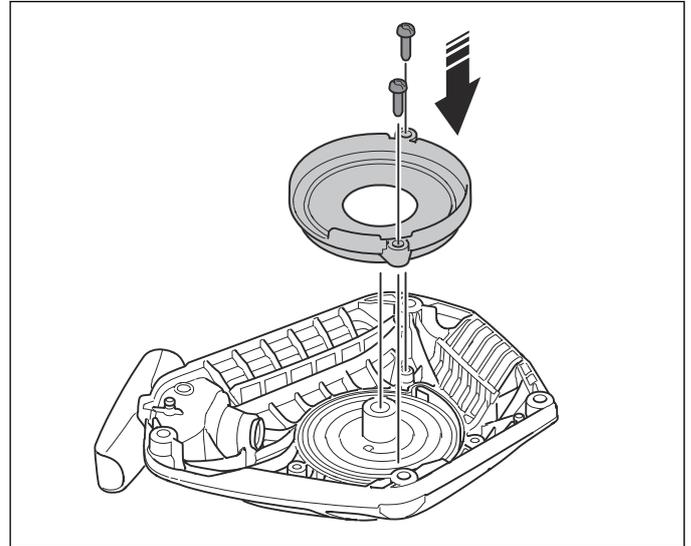
- Clean all components.
- Examine the starter rope. Replace the starter rope if it is damaged.
- Examine the starter pulley. Replace damaged parts.
- Make sure that the start pawls on the starter pawl assembly are not damaged. Make sure that the starter pawl springs on the starter pawl assembly are attached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

7.7.4 To assemble the starter unit

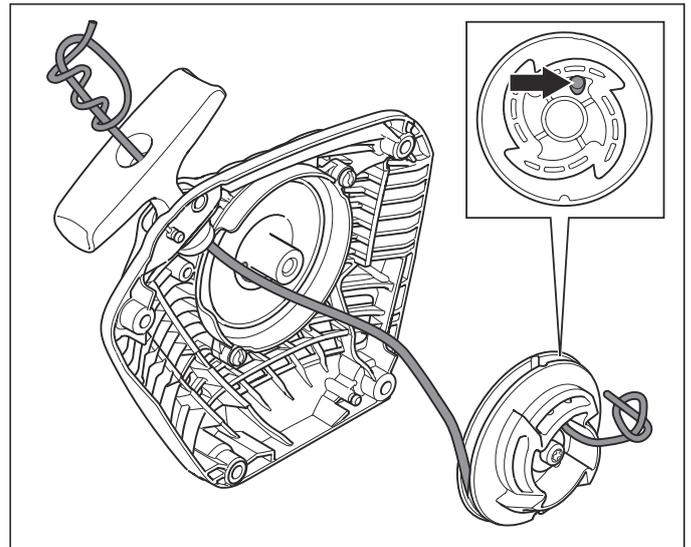


WARNING: Use approved eye protection. The recoil spring can eject and cause injuries.

- Install the spring cassette and the 2 screws. Tighten the 2 screws to the correct torque. Refer to *Servicing data on page 9*.

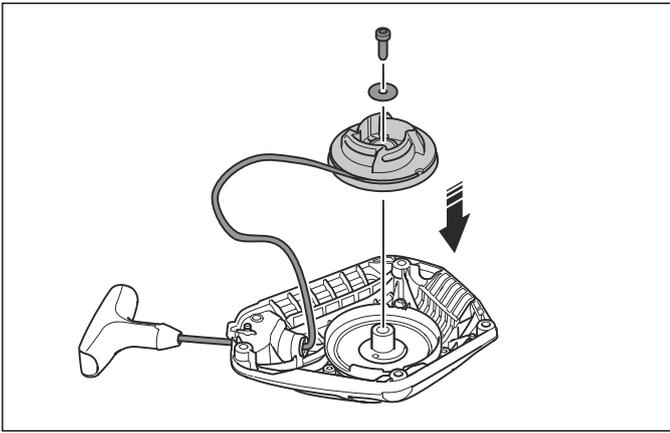


- Push the end of the starter rope into the hole in the starter pulley. Use a pointed pliers to pull out the starter rope from the starter pulley. Make a knot at the end of the starter rope.

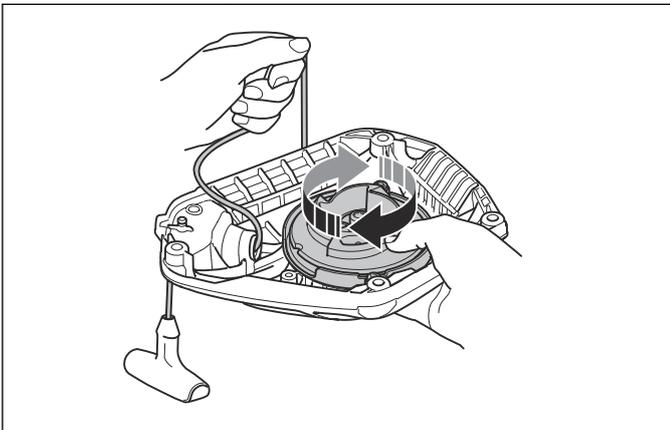


- Pull the starter rope through the hole in the starter housing.
- Pull the starter rope through the starter rope handle and make a knot.

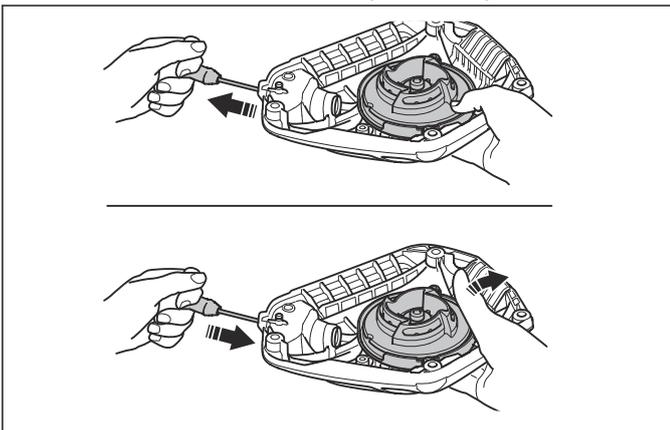
5. Install the starter pulley in the starter housing with the washer and the screw.



6. Pull the starter rope up into the notch in the starter pulley. Use your thumb and turn the starter pulley 3 turns clockwise to wind the starter rope on the starter pulley. Make sure that you can turn the starter pulley ½ turn more when you pull out the starter rope fully.



7. Pull the starter rope to make it straight, remove your thumb and let the starter rope wind up.



8. Install the cooling air conductor and the starter unit. Refer to *To remove and install the starter unit on page 28*.

7.8 Ignition system

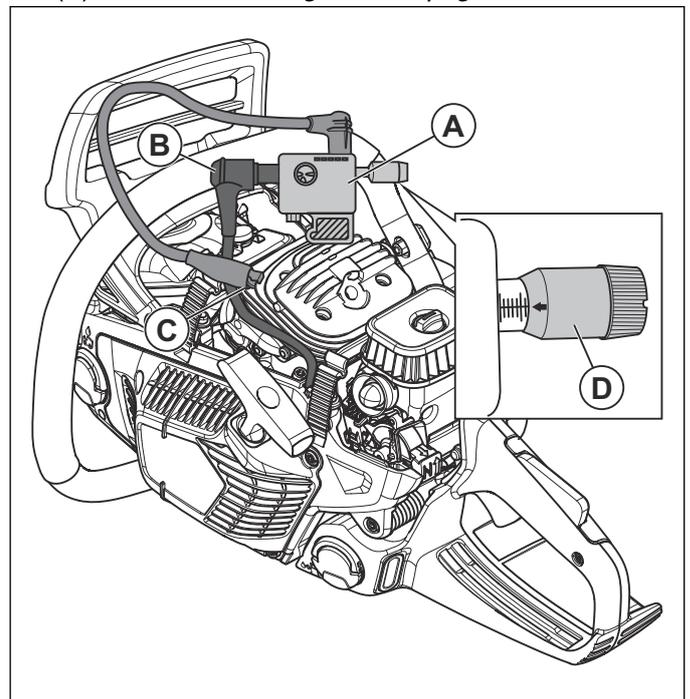
7.8.1 To do a spark test

1. Remove the spark plug from the cylinder.
2. Connect the spark plug to the spark plug cap.
3. Make sure that the stop switch is in run position.
4. Hold the spark plug against the cylinder and pull the starter rope handle. If the ignition operates correctly, you will see a spark between the electrodes on the spark plug.



WARNING: To prevent the risk of fire, do not hold the spark plug near the spark plug hole.

5. If no spark occurs, remove the spark plug and connect the ignition tester (A) to the spark plug cap (B). Refer to *Servicing tools on page 11*.



6. Connect the ground cable (C) to 1 of the cooling fins on the cylinder.
7. Use the knob (D) to adjust the distance between the 2 electrodes to 6.0 mm.

Note: One mark on the scale is 1 mm.

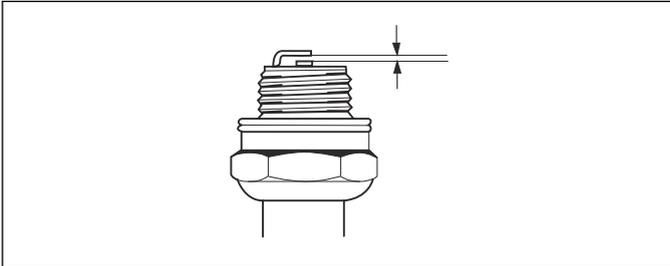
8. Pull the starter rope handle.
9. Do 1 of the steps that follow.
 - a) If a spark occurs between the electrodes on the ignition tester, replace the spark plug.
 - b) If there is no spark between the electrodes on the ignition tester, continue to the troubleshooting guide. Refer to *Ignition System on page 72*.

7.8.2 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.

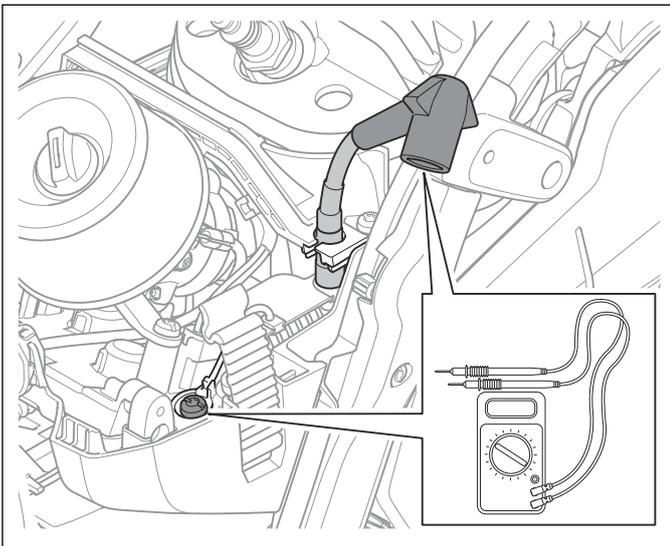
- Examine the spark plug if the engine is low on power, is not easy to start or does not operate correctly at idle speed.
- To decrease the risk of unwanted material on the spark plug electrodes, obey these instructions:
 - a) Make sure that the idle speed is correctly adjusted.
 - b) Make sure that 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 74*.



- Replace the spark plug if it is necessary.

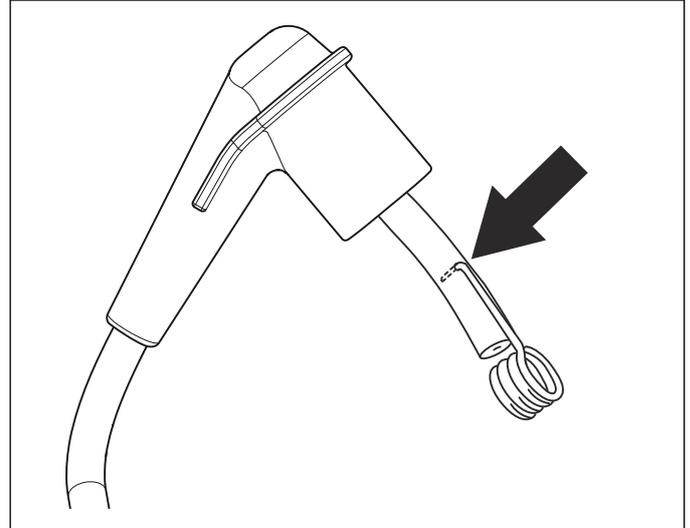
7.8.3 To examine the ignition coil

- Connect a multimeter to the spark plug cap and the chassis to measure the resistance. Make sure that the resistance is between 3.5 - 4.0 Ω .

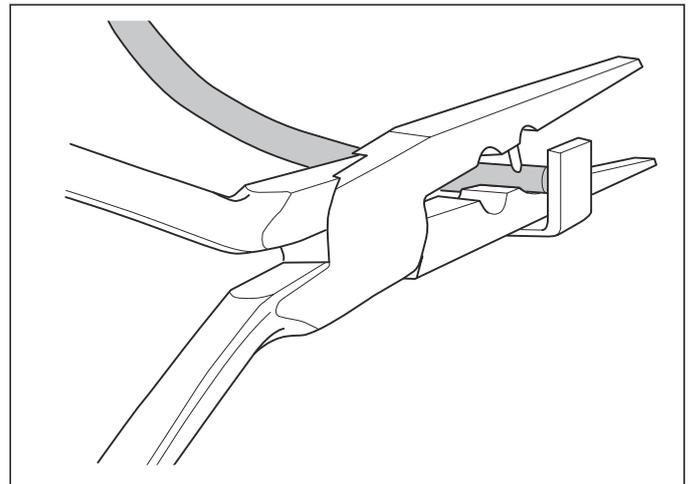


7.8.4 To replace the spark plug cap

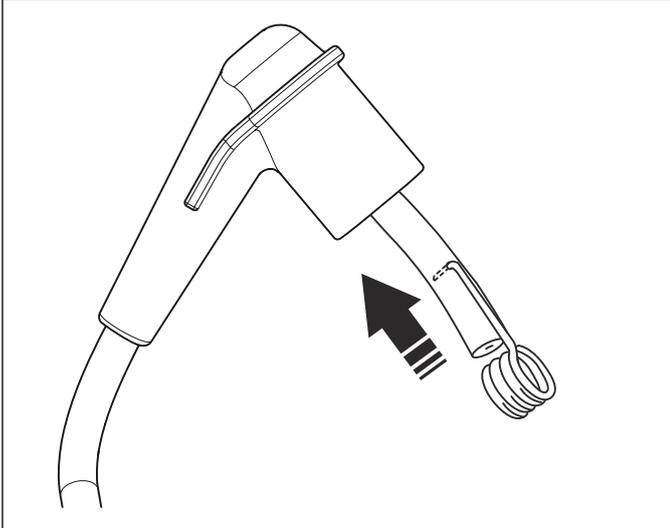
1. Examine the spark plug connection. Remove the spark plug cover and make sure that the ignition cable is not damaged. If it is necessary, remove a part of the cable to get sufficient connection at the connection coil.



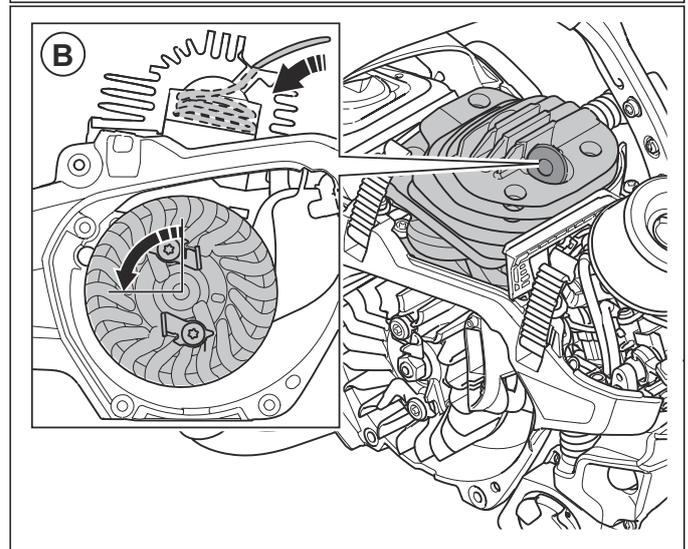
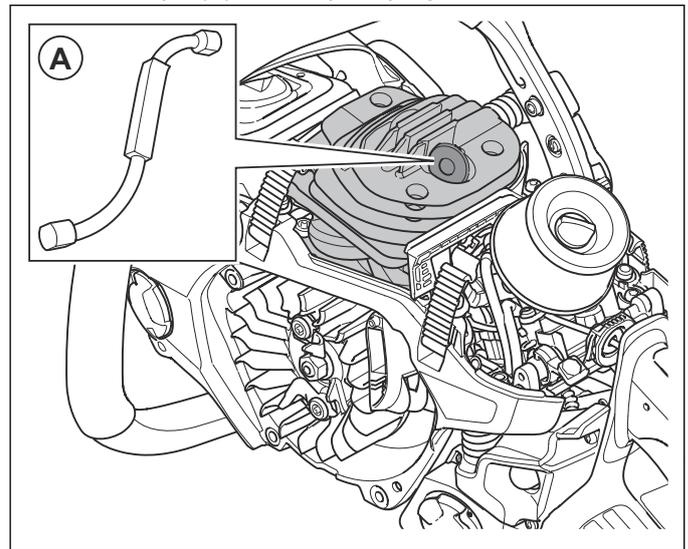
2. Use pliers to make a new hole in the ignition cable to attach the connection coil.



3. Attach the ignition coil to the ignition cable and make sure that the wire is folded along the cable. Move the connection coil into the spark plug cover. If it is necessary, lubricate the hole in the spark plug cover.



4. Remove the spark plug and put a piston stop (A) or a start rope (B) in the spark plug hole.



7.9 Flywheel

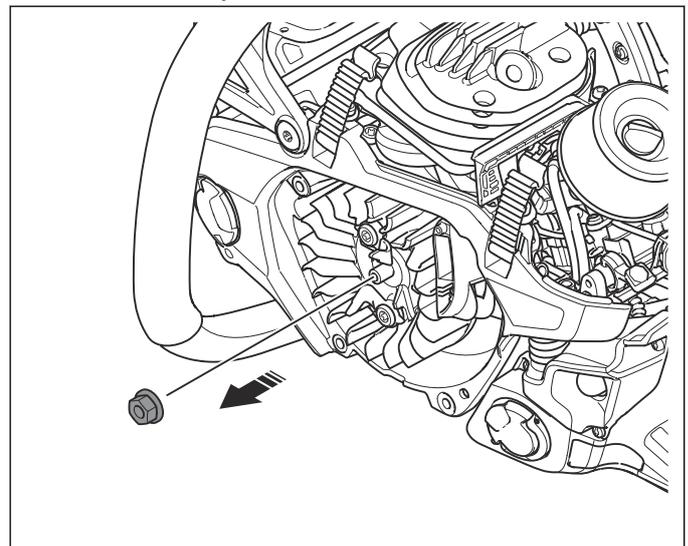
7.9.1 To remove the flywheel

1. Remove the cylinder cover.
2. Remove the starter unit and cooling air conductor. Refer to *To remove and install the starter unit on page 28*.
3. Clean around the spark plug.

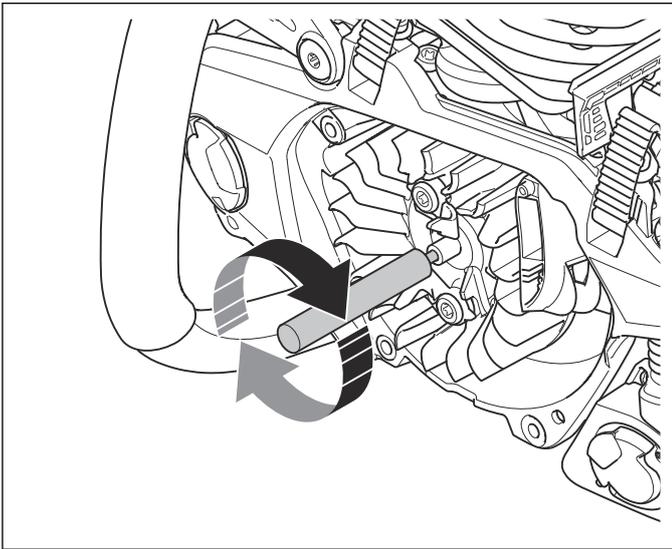


CAUTION: Do not use a metal piston stop. A metal piston stop can cause damage to the piston.

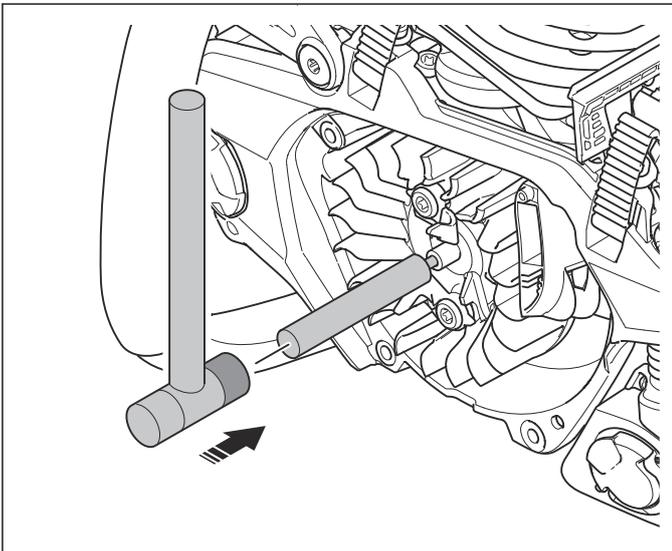
5. Remove the flywheel nut.



6. Attach the flywheel removal tool fully on to the shaft. Refer to *Servicing tools on page 11*.

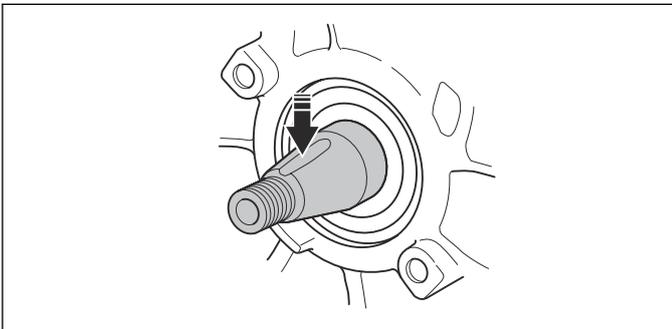


7. Use a metal mallet to punch the flywheel removal tool until the flywheel comes loose.

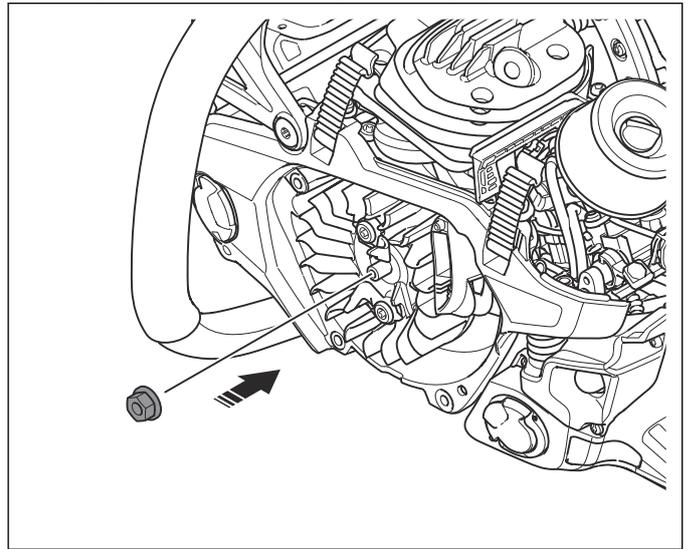


7.9.2 To install the flywheel

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



3. Attach the flywheel nut and tighten it to the correct torque, refer to *Servicing data on page 9*.



4. Install the cooling air conductor and the starter unit.
5. Install the spark plug and connect the spark plug cap to the spark plug.
6. Install the cylinder cover.

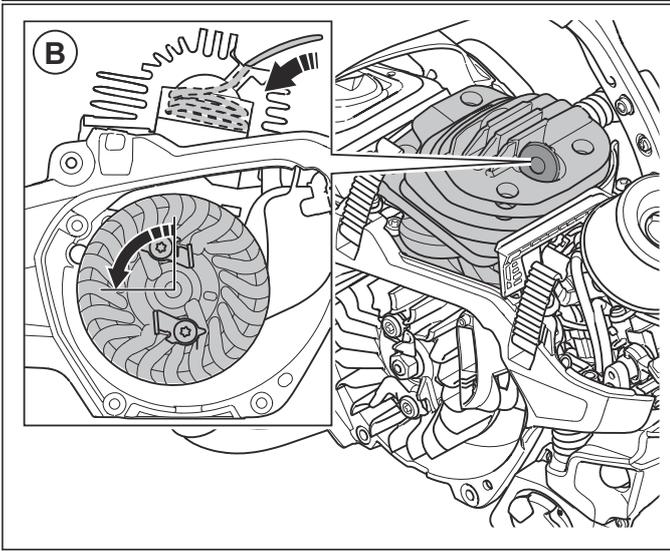
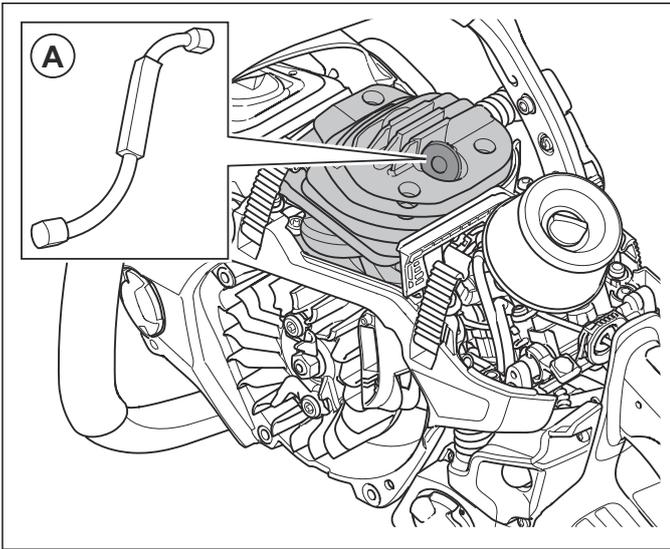
7.10 Centrifugal clutch

7.10.1 To disassemble and assemble the centrifugal clutch

Make sure that the chain brake is disengaged before you disassemble the centrifugal clutch.

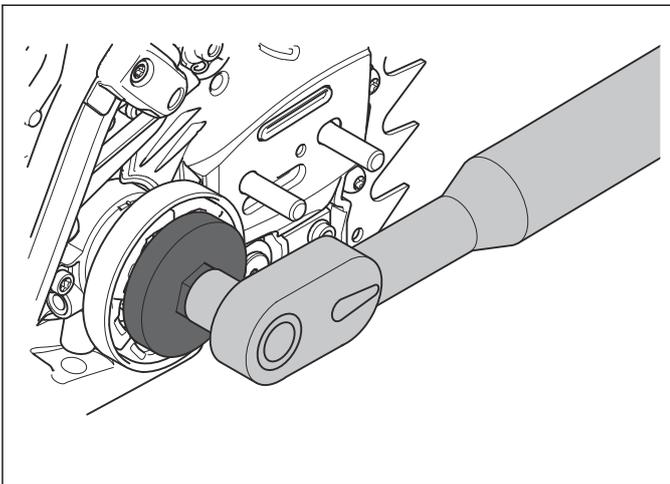
1. Remove the cylinder cover.
2. Remove the clutch cover.
3. Clean around the spark plug.

4. Remove the spark plug and put a piston stop (A) or the start rope (B) in the spark plug hole.

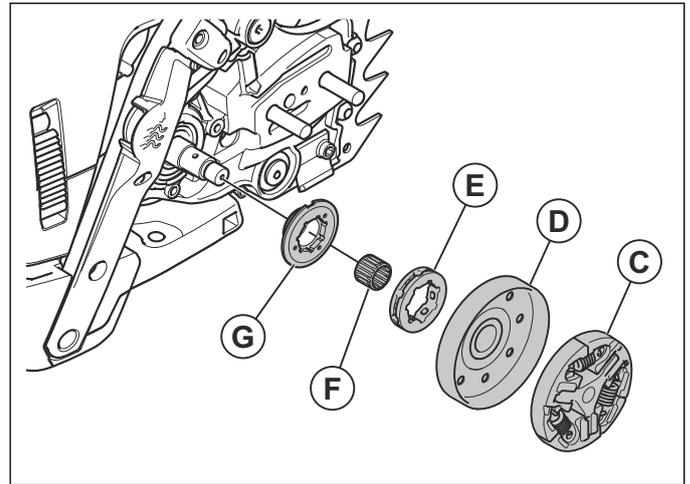


CAUTION: Do not use a metal piston stop. A metal piston stop can cause damage to the piston.

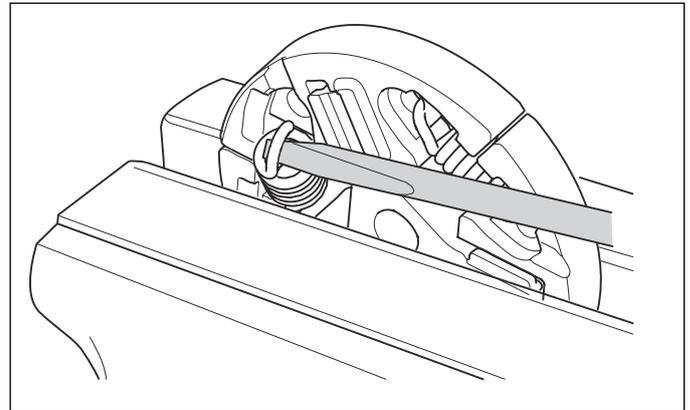
5. Attach the clutch tool to the centrifugal clutch. Refer to *Servicing tools on page 11*. Use a socket wrench to loosen the centrifugal clutch.



6. Remove the clutch (C), the clutch drum (D), the rim (E), the bearing (F) and the worm gear (G).



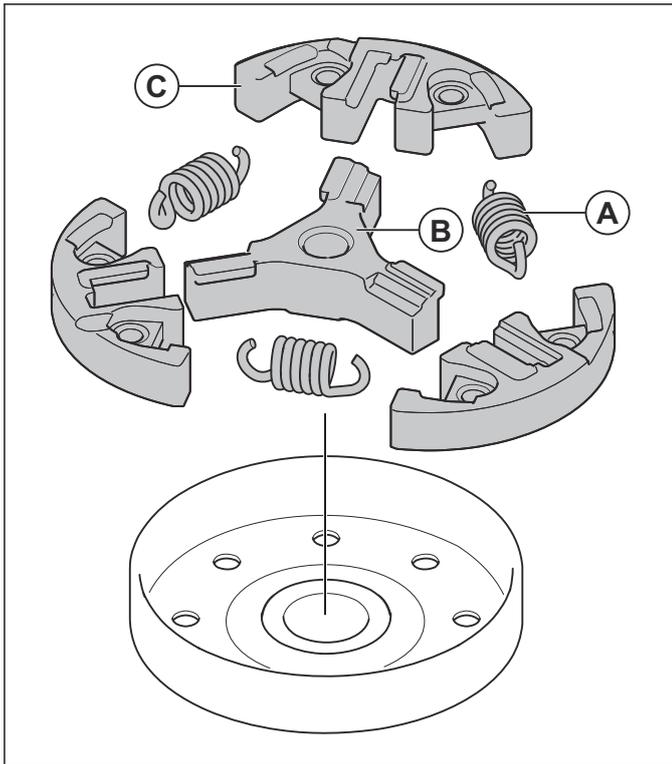
7. Put the centrifugal clutch in a vise.
8. Carefully remove the clutch shoe springs from the side that does not have text.



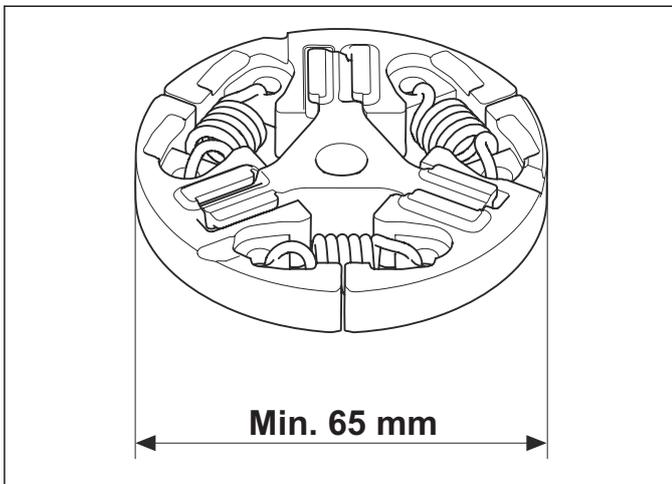
9. Assemble the centrifugal clutch in the opposite sequence. Clean the bearing and apply new grease on it. Torque the centrifugal clutch to 50 Nm.

7.10.2 To clean and examine the centrifugal clutch

1. Clean and examine the clutch shoe springs (A), the clutch hub (B) and the clutch shoes (C) carefully. Replace damaged parts. Always use original spare parts.



2. Measure the diameter of the clutch shoes across the full clutch hub. Replace the clutch if the thickness is less than 65 mm.



7.11 Lubrication system

7.11.1 To remove and install the lubrication system

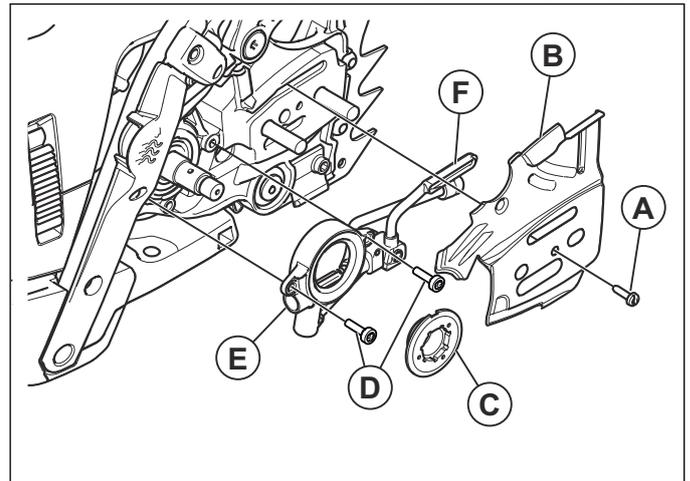


WARNING: The saw chain can break if the lubrication is not sufficient.

The lubrication system has an oil pump, a worm gear, an oil hose and a filter.

1. Drain the oil from the oil tank.
2. Remove the cylinder cover and the clutch cover.

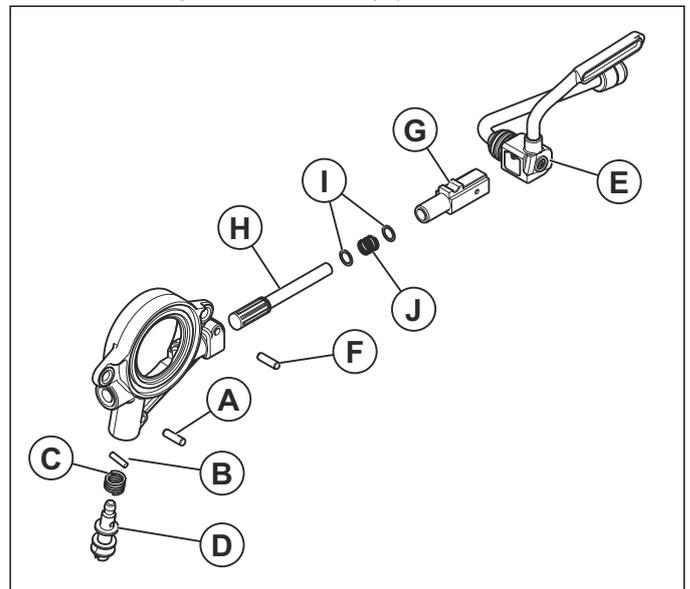
3. Remove the clutch. Refer to *To disassemble and assemble the centrifugal clutch on page 33*.
4. Remove the screw (A) and the guide bar plate (B).



5. Remove the worm gear (C).
6. Remove the 2 screws (D) and the pump housing (E).
7. Pull out the oil hose (F) from the crankcase.
8. Clean and apply grease to the worm gear.
9. Install the lubrication system in the opposite sequence.

7.11.2 To disassemble and examine the lubrication system

1. Remove the lubrication system. Refer to *To remove and install the lubrication system on page 35*.
2. Remove the lock pin (A), the pin (B), the spring (C) and the adjustment screw (D).



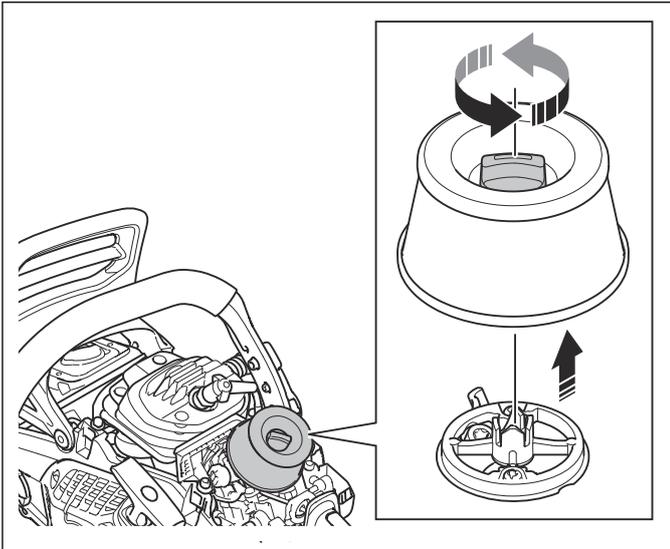
3. Remove the oil hose (E).
4. Remove the lock pin (F), the pump piston guide (G), the pump piston (H), the 2 washers (I) and the spring (J).

5. Clean and examine all parts carefully. Replace damaged parts. Always use the original spare parts.
6. Use chain oil to lubricate all moving parts.
7. Assemble the lubrication system in the opposite sequence.

7.12 Air filter

7.12.1 To remove and install the air filter

1. Remove the cylinder cover.
2. Turn the knob and remove the air filter from the air filter holder.



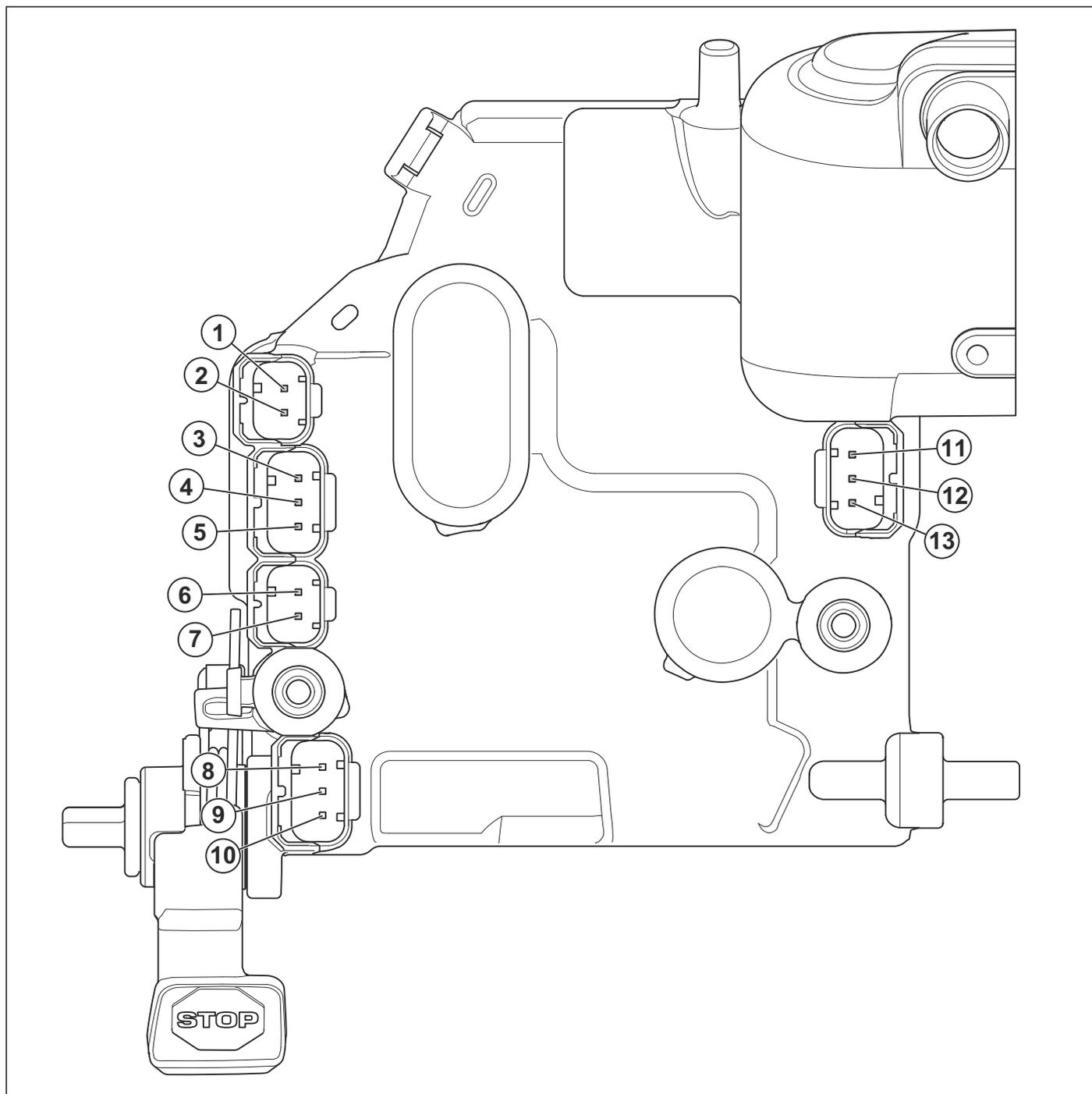
3. Install in the opposite sequence.

7.12.2 To clean and examine the air filter

1. Remove the air filter. Refer to *To remove and install the air filter on page 36*.
2. Examine the air filter.
3. Clean the air filter if it is dirty. Use a soft brush or shake the air filter clean. Use detergent and water to clean it fully.
4. Replace the air filter if it is damaged.
5. Install the air filter. Refer to *To remove and install the air filter on page 36*.

7.13 Control unit

7.13.1 Control unit overview



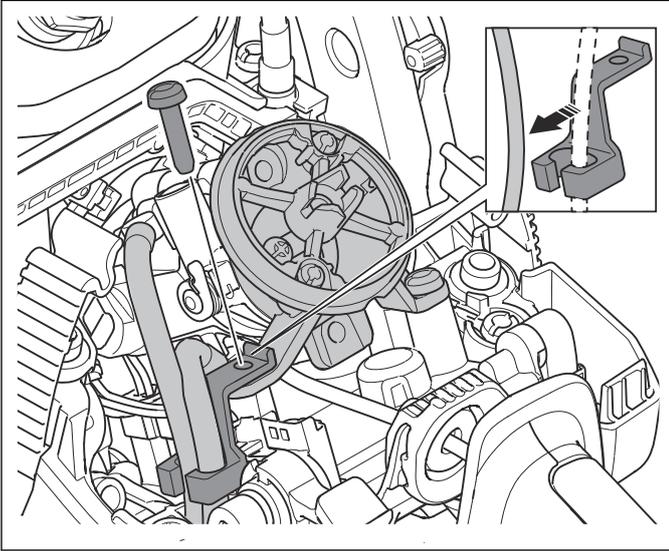
1. Fuel injector -
2. Fuel injector +
3. Engine speed in
4. Crankcase temp in
5. Crankcase pressure in
6. Crankcase sensor +5V
7. Crankcase sensor GND
8. Service bus power supply
9. Service connector GND
10. Service bus index
11. Generator -
12. (Not used)
13. Generator +

7.13.2 To remove and install the control unit

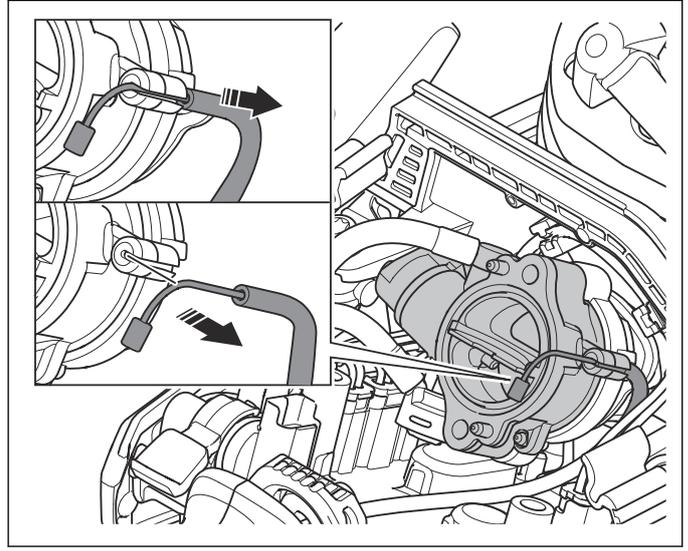
Note: Always connect the product to the Husqvarna Service Hub (HSH) before you replace the control unit. Use the configuration tab in the Husqvarna Service Hub (HSH) to transfer information about product identity and operating history to the new control unit. The configuration process will also install the necessary firmware for the product to operate correctly.

1. Remove the cylinder cover.
2. Remove the air filter. Refer to *To remove and install the air filter on page 36*.

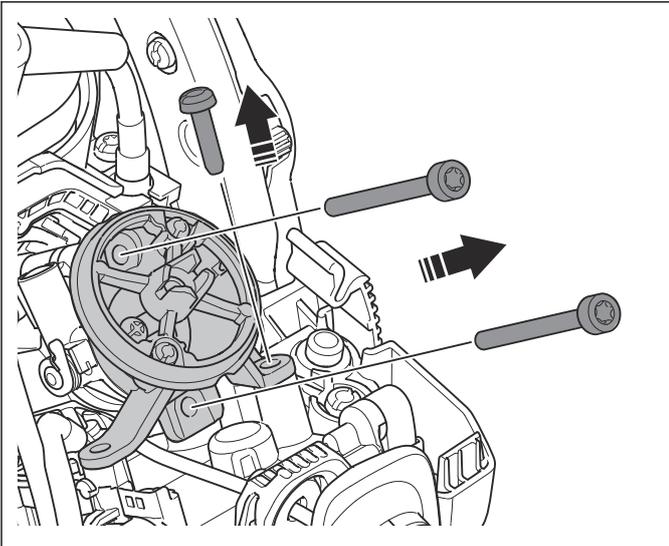
3. Remove the fuel hose holder.



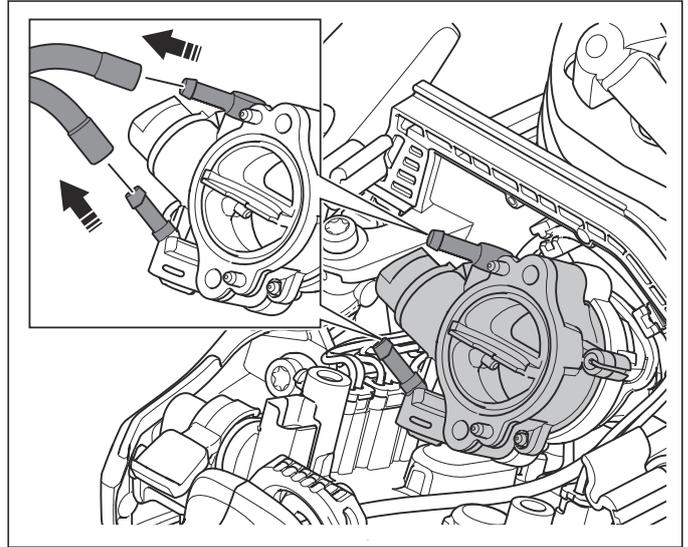
6. Remove the throttle cable from the holder.



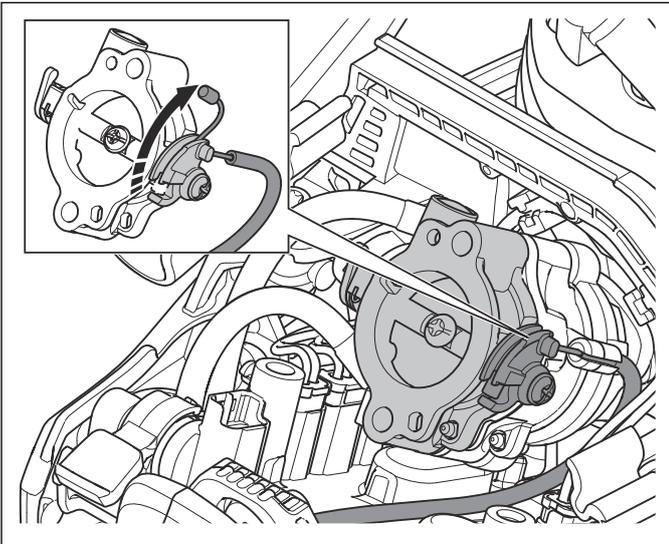
4. Remove the air filter holder.



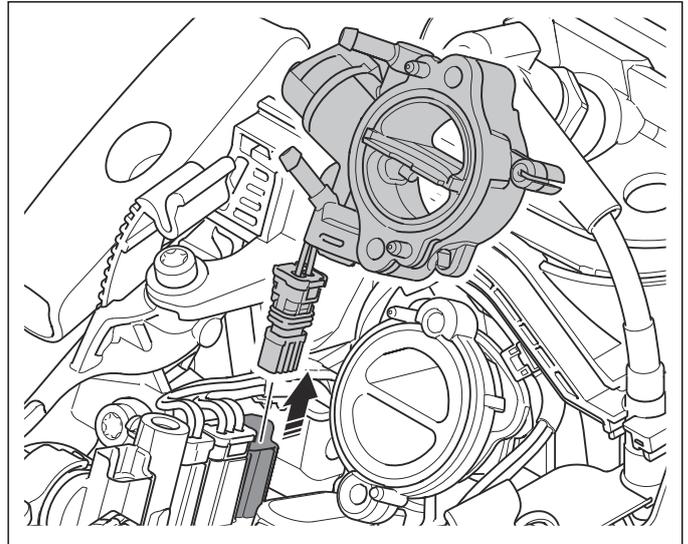
7. Remove the fuel hoses from the fuel injector housing.



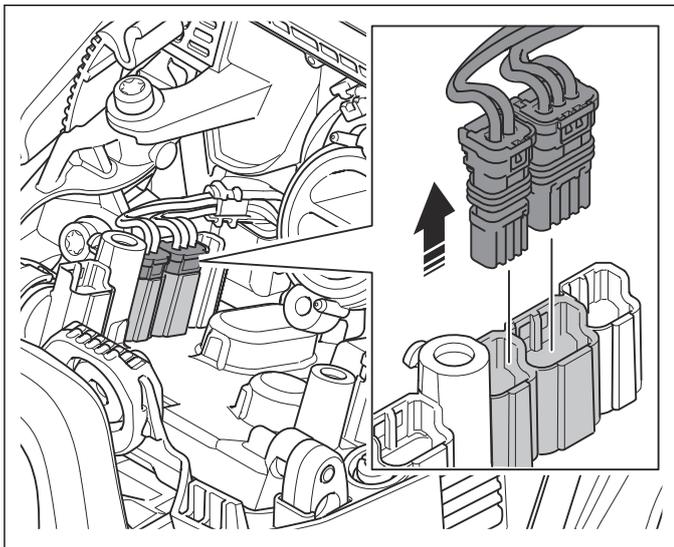
5. Disassemble the throttle cable from the throttle body and remove the throttle body.



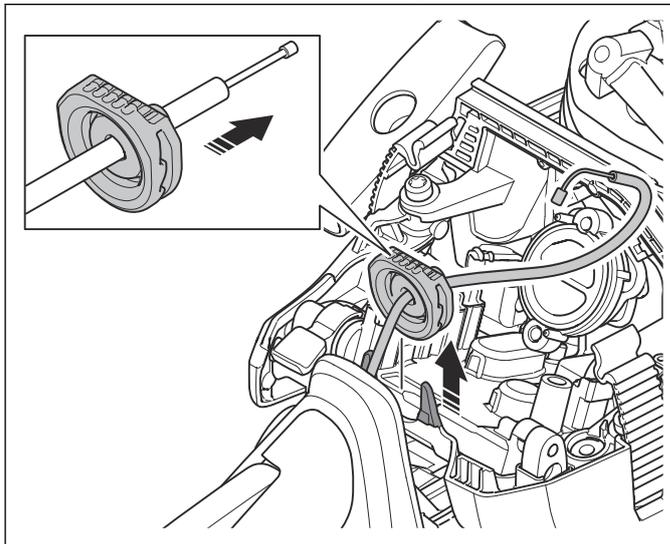
8. Disconnect the electrical connector from the control unit and remove the fuel injector housing.



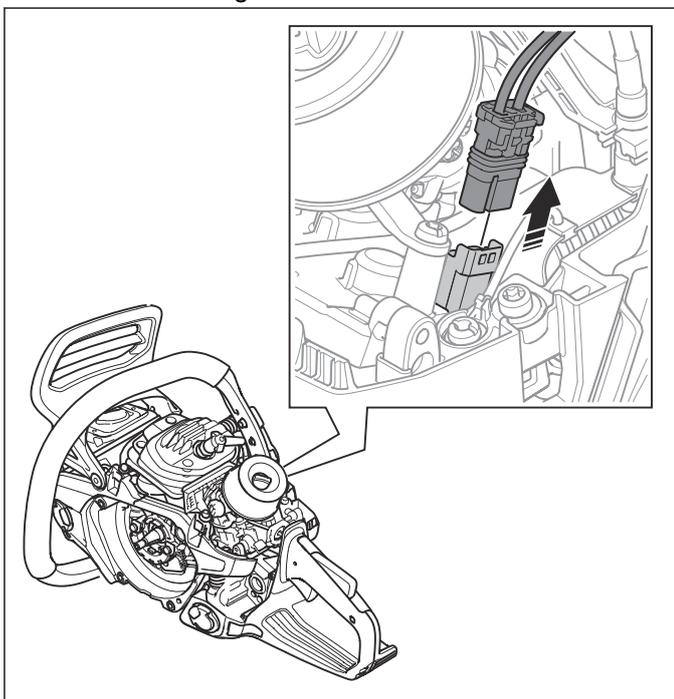
9. Disconnect the electrical connectors for the crankcase sensor.



12. Remove the throttle cable fitting.

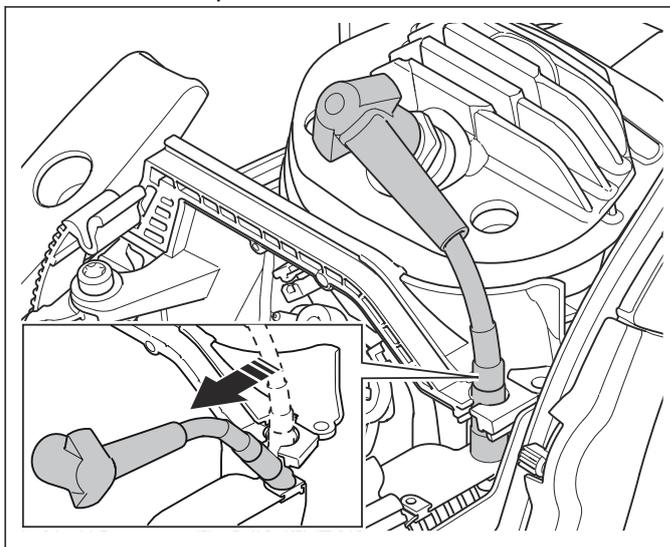


10. Disconnect the generator.

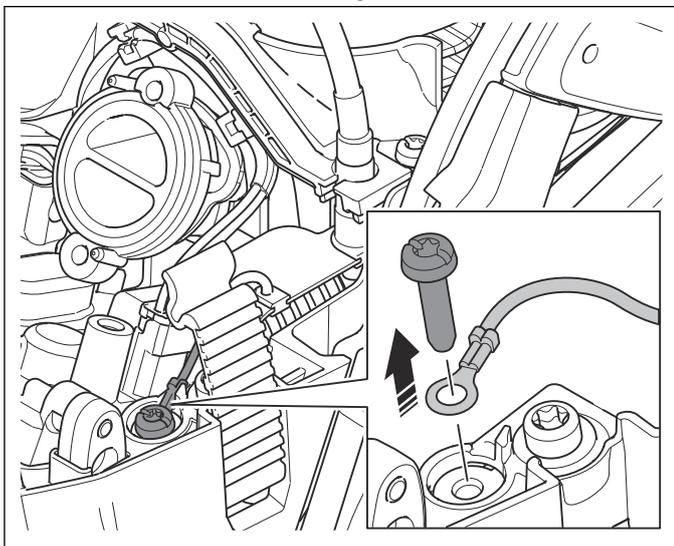


13. Remove the spark plug cap.

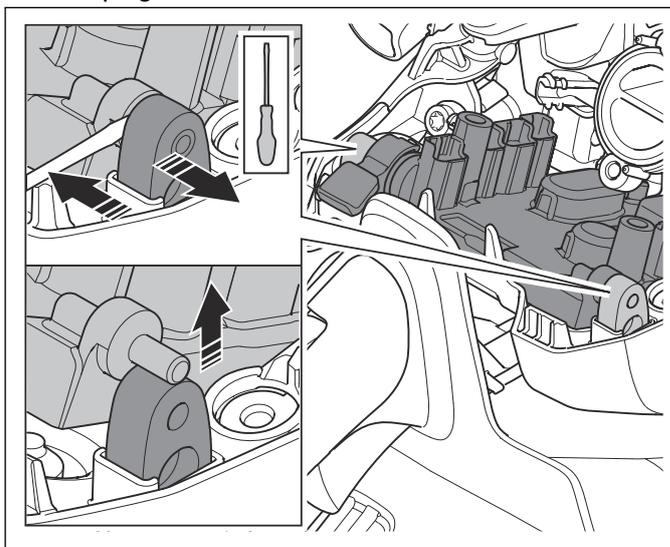
14. Remove the spark cable from the holder.



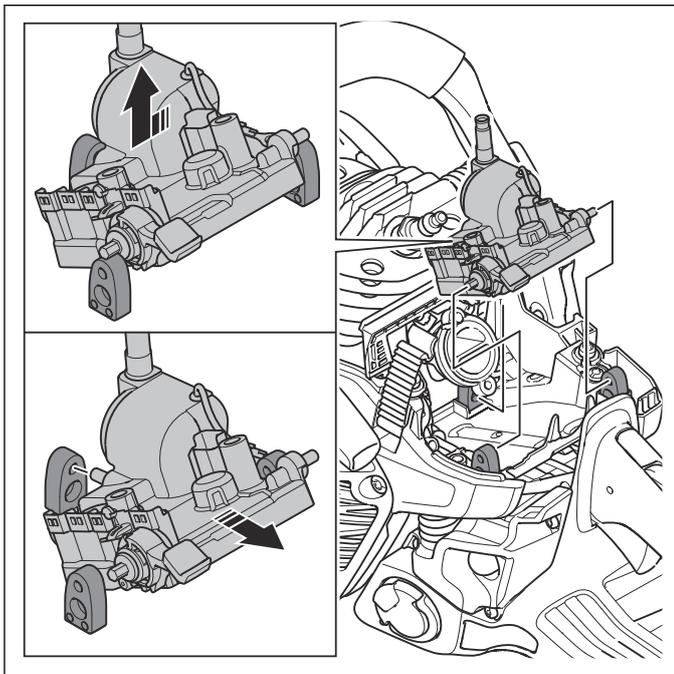
11. Remove the screw of the ground cable.



15. Remove the control unit from the 2 vibration damping units.

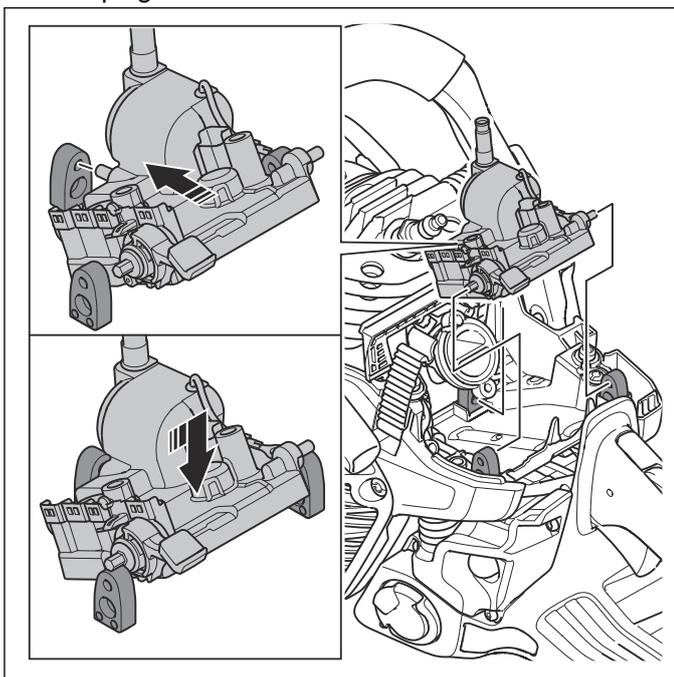


16. Move the control unit past the corner to remove the control unit.



- a) Push it to the left and up at the same time.
b) Pull out the control unit.

17. Install in the opposite sequence. First, attach the guide pin of the control unit to the front vibration damping unit.

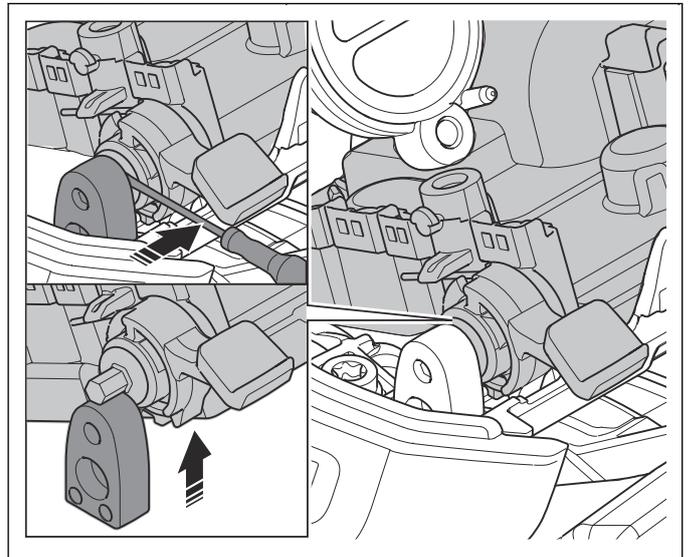


CAUTION: Make sure the O-ring between the fuel injector housing and the throttle body is attached correctly. An incorrectly attached O-ring will cause damage to the product.

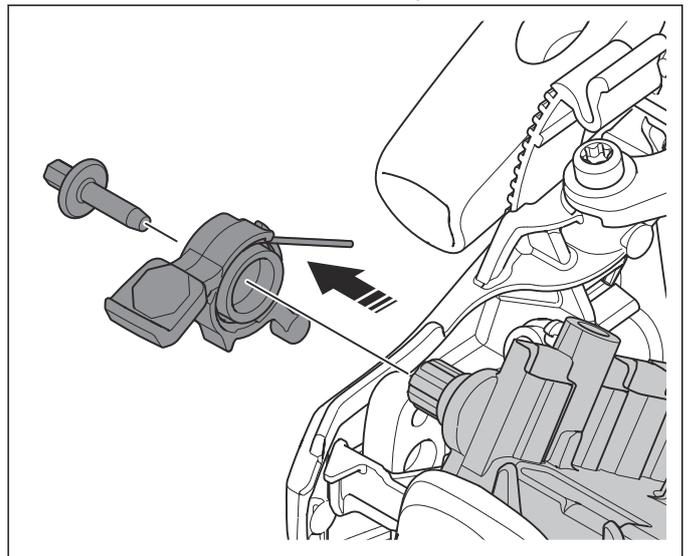
7.14 Stop switch

7.14.1 To remove and install the stop switch

1. Remove the cylinder cover.
2. Remove the control unit from the left vibration damping unit.



3. Remove the screw and the stop switch.

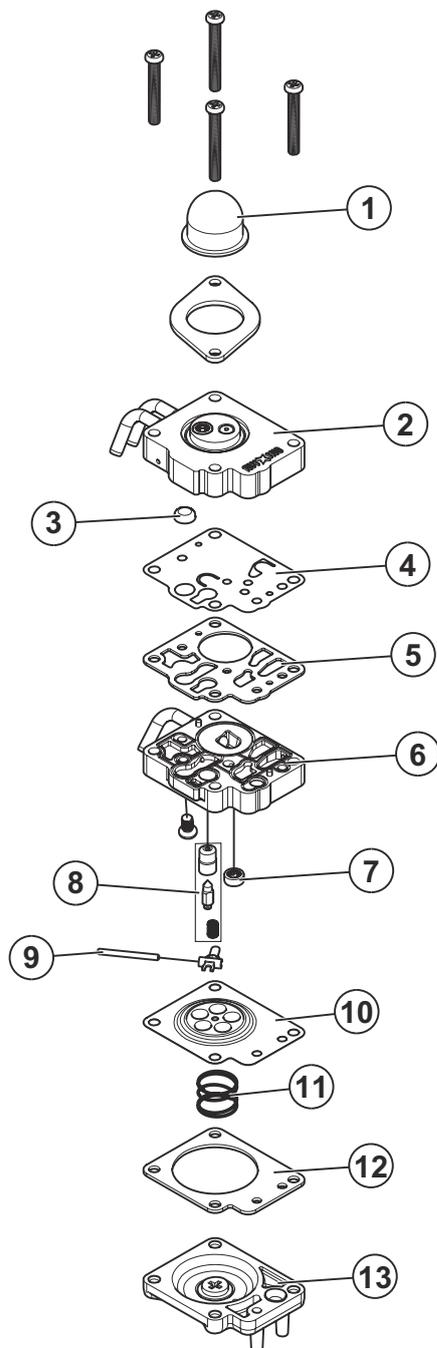


4. Install in the opposite sequence.

7.14.2 To do a function test of the stop switch

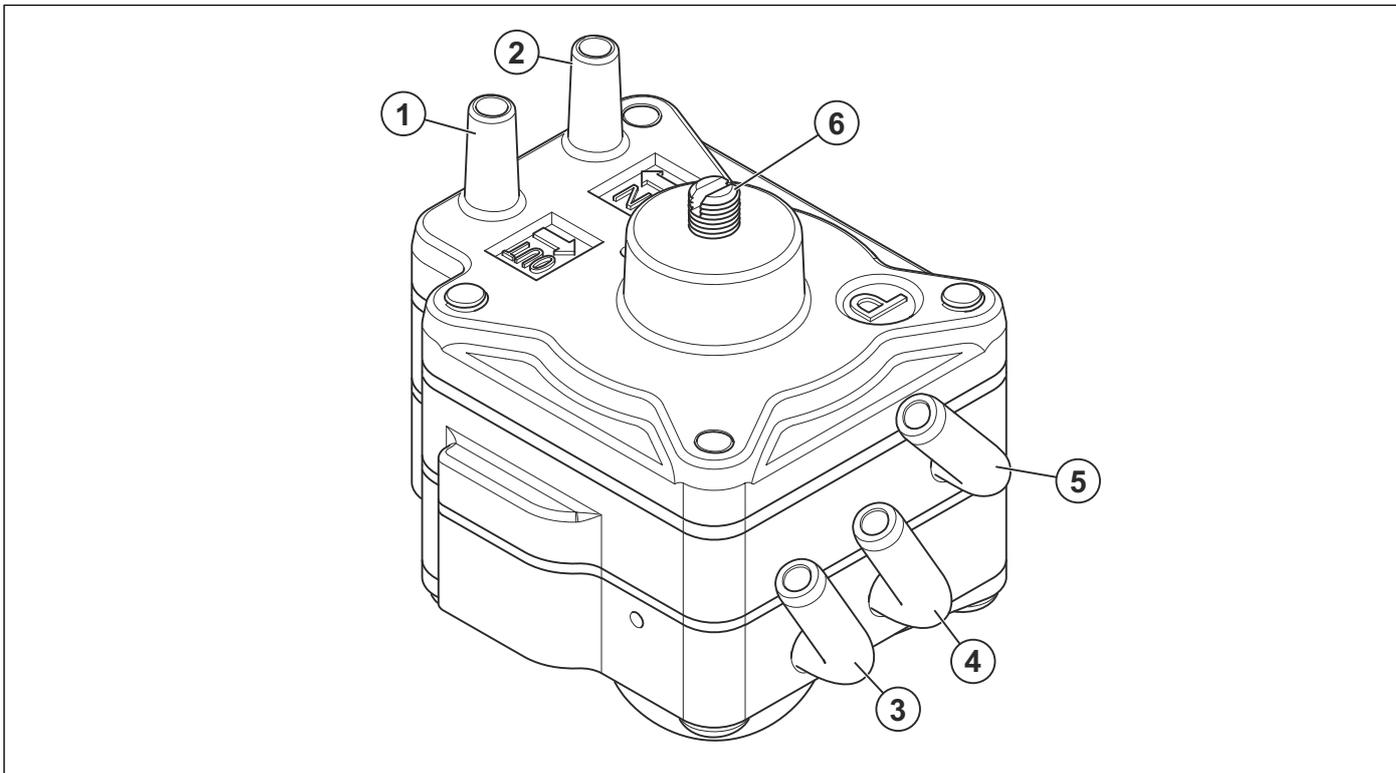
- Do the stop switch voltage test in Husqvarna Service Hub (HSH).

7.15 Fuel pump



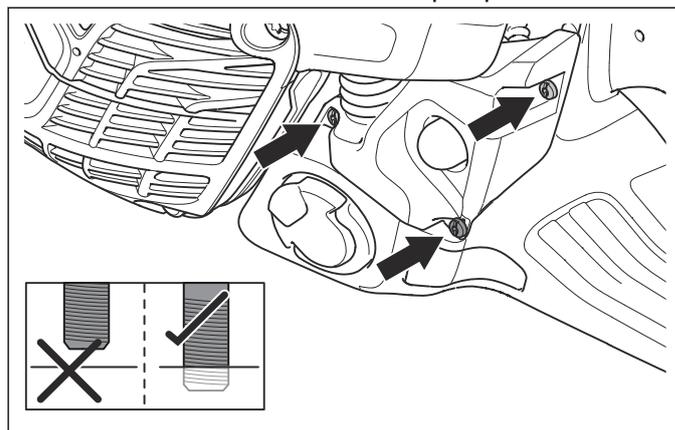
- | | |
|-------------------|-------------------------|
| 1. Purge bulb | 8. Needle valve |
| 2. Pump body | 9. Metering lever |
| 3. Check valve | 10. Regulator diaphragm |
| 4. Pump diaphragm | 11. Spring |
| 5. Gasket | 12. Gasket |
| 6. Pump body | 13. Lid |
| 7. Filter screen | |

7.15.1 Fuel pump inlets and outlets



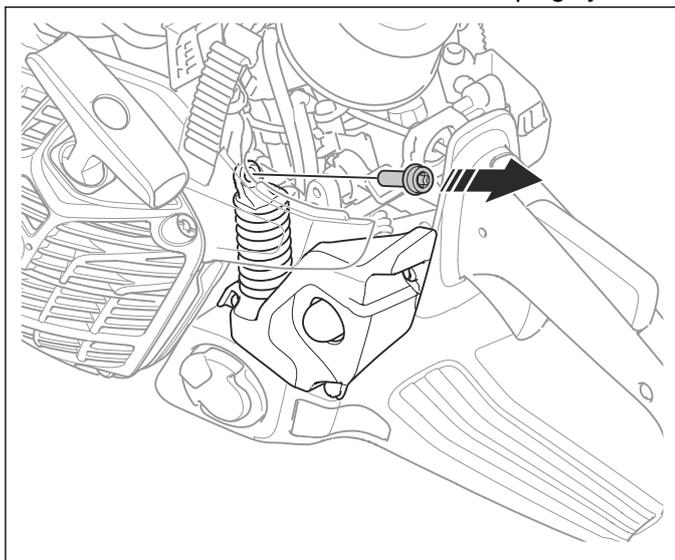
1. Fuel outlet (back to fuel tank)
2. Fuel inlet (from fuel tank)
3. Return fuel from fuel injector
4. To fuel injector
5. Impulse from crankcase
6. Adjustable screw for the fuel regulator

4. Loosen the 3 screws of the fuel pump.

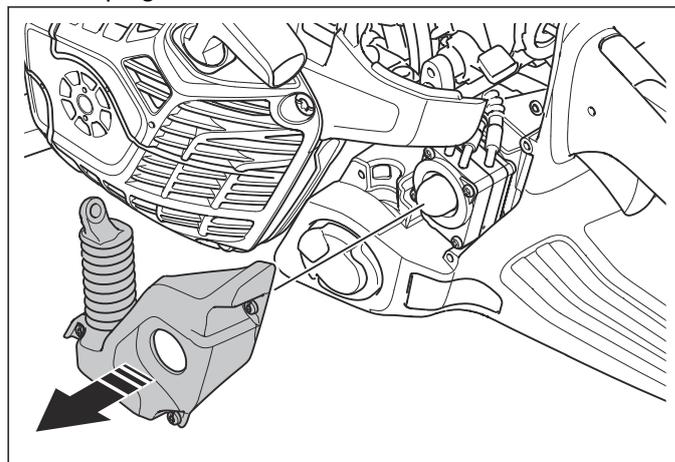


7.15.2 To remove and install the fuel pump

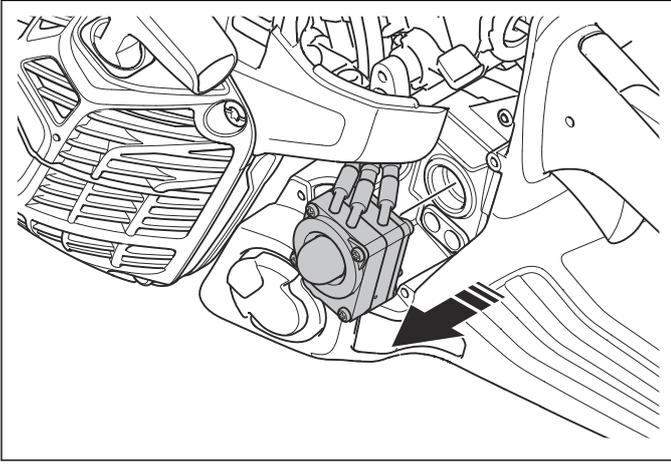
1. Drain the fuel tank.
2. Remove the cylinder cover.
3. Remove the screw of the vibration damping system.



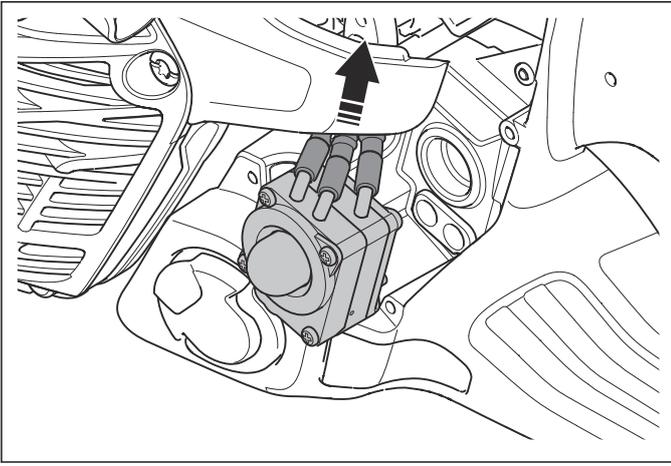
5. Remove the fuel pump cover and the vibration damping unit.



6. Pull out the fuel pump.



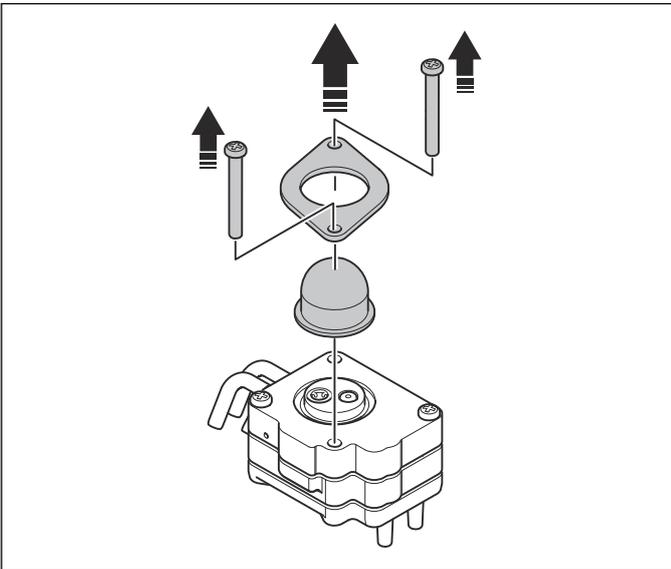
7. Disconnect the hoses from the fuel pump. Refer to *Fuel pump inlets and outlets on page 42.*



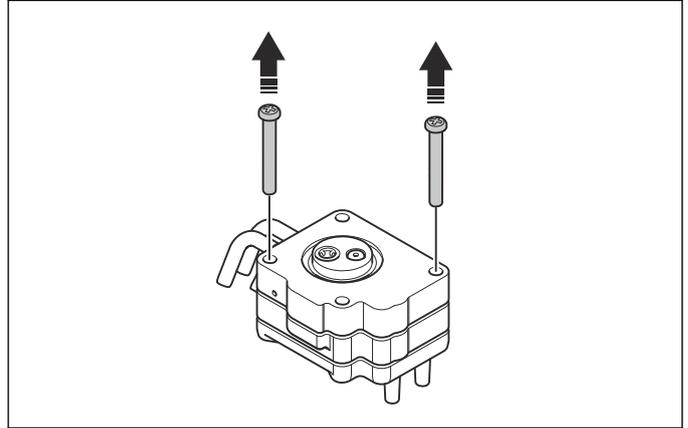
8. Install the fuel pump in the opposite sequence.

7.15.3 To disassemble and assemble the fuel pump

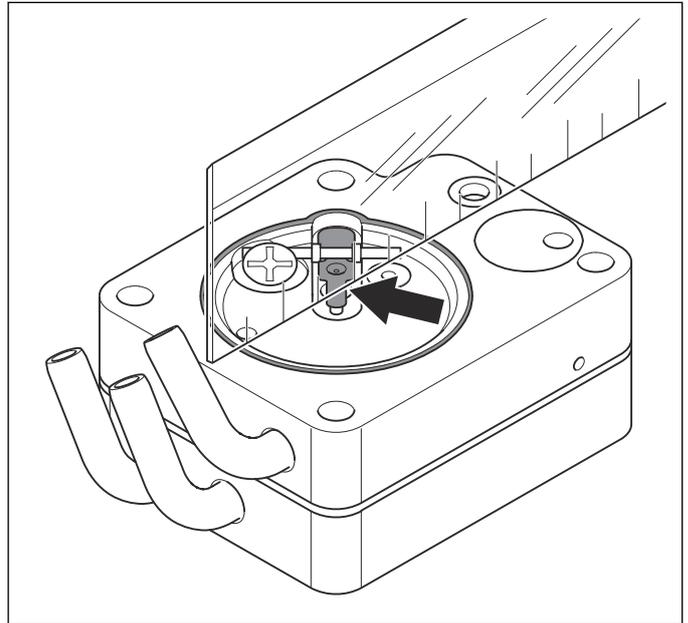
1. Remove the fuel pump. Refer to *To remove and install the fuel pump on page 42.*
2. Remove the 2 screws, the cover plate and the air purge bulb.



3. Remove the 2 screws to open the fuel pump.

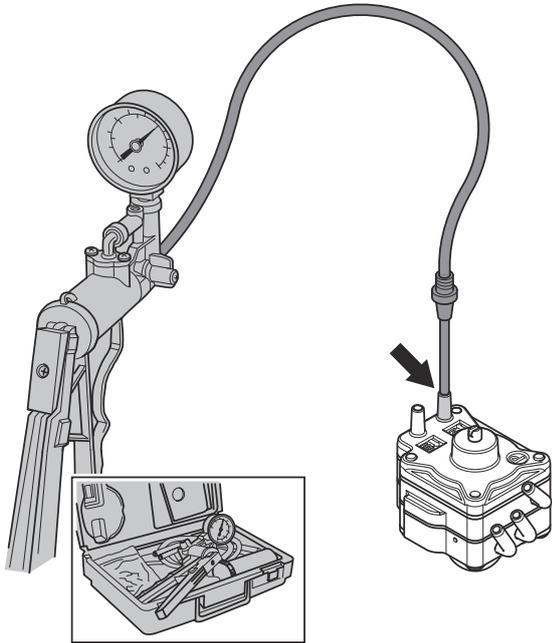


4. Assemble the fuel pump in the opposite sequence. Use a ruler to make sure that the metering lever is in level with the assembly plane on the pump body. Bend the lever if it is necessary.

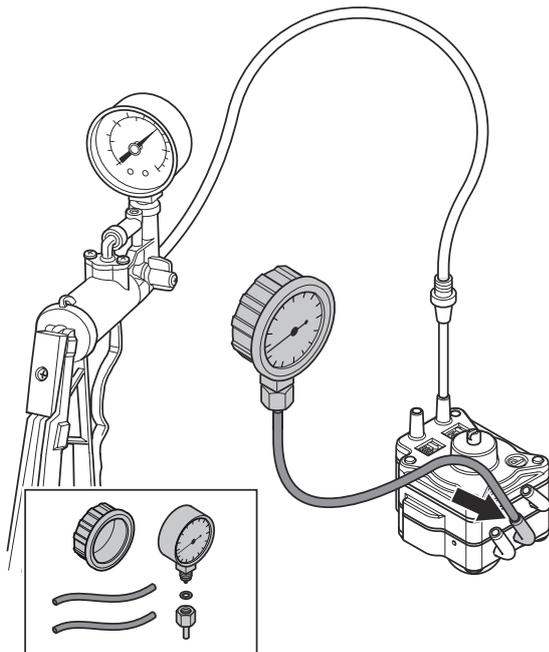


7.15.4 To do a pressure test of the fuel pump

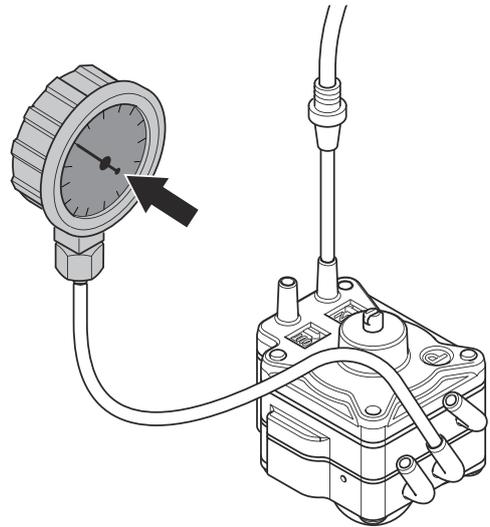
1. Remove the fuel pump. Refer to *To remove and install the fuel pump on page 42*.
2. Connect the pressure tester to the fuel inlet on the fuel pump. Refer to *Fuel pump inlets and outlets on page 42* for position.



3. Press the pressure tester 5 times to remove fuel from the fuel pump.
4. Connect the fuel pressure gauge kit to the fuel injector outlet on the fuel pump. Refer to *Fuel pump inlets and outlets on page 42* for position.



5. Increase the pressure to 0.5 bar. Make sure that the output pressure stays between 0.2 - 0.24 bar.



6. If you must adjust the pressure, turn the fuel regulator clockwise to increase the pressure and counterclockwise to decrease it. Turn the fuel regulator half a turn at a time and then do the pressure test again. Refer to *Fuel pump inlets and outlets on page 42*.

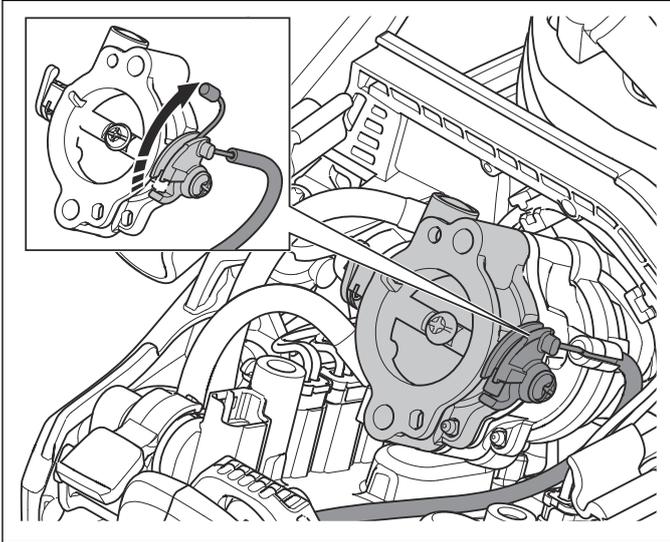
Note: Disconnect the pressure gauge kit between each pressure test to get correct test results.

7.16 Fuel tank

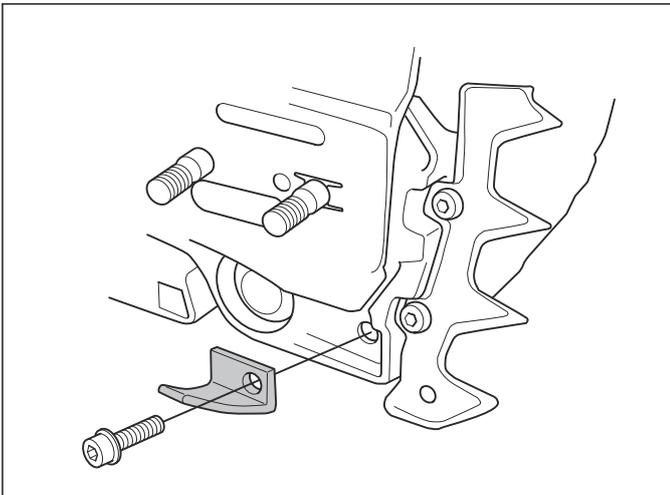
7.16.1 To remove and install the fuel tank

1. Drain the fuel tank.
2. Remove the clutch cover. Refer to *To disassemble the chain brake on page 18*.
3. Remove the cylinder cover.
4. Remove the air filter. Refer to *To remove and install the air filter on page 36*.

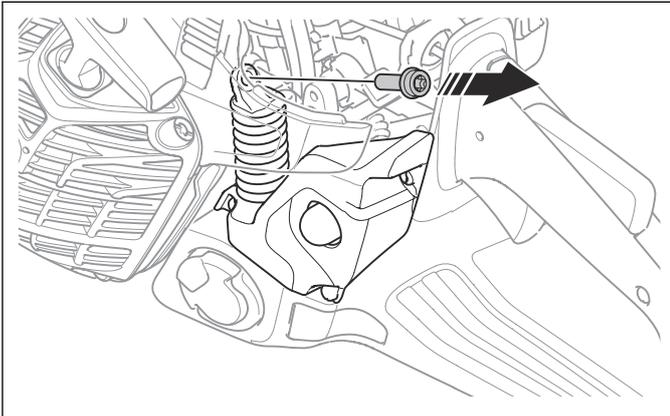
5. Remove the throttle cable from the throttle body.



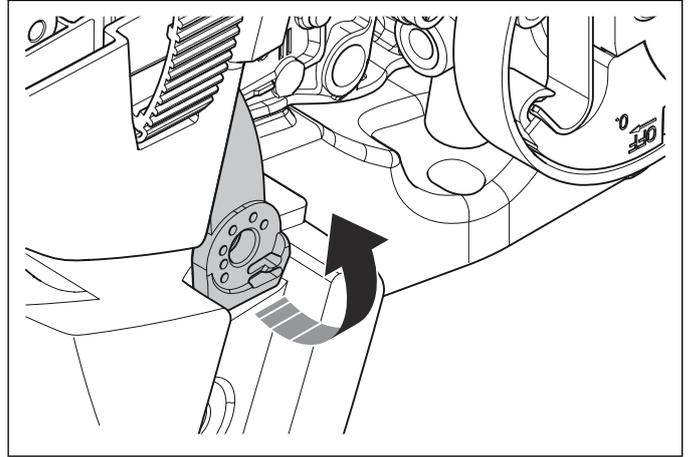
6. Remove the screw and the chain catcher.



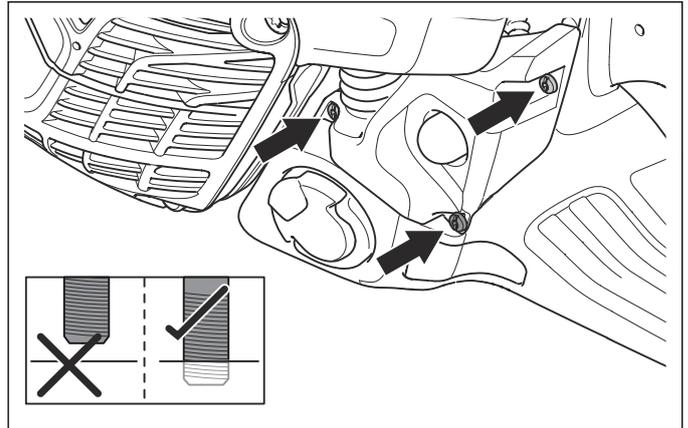
7. Remove the screw of the vibration damping system.



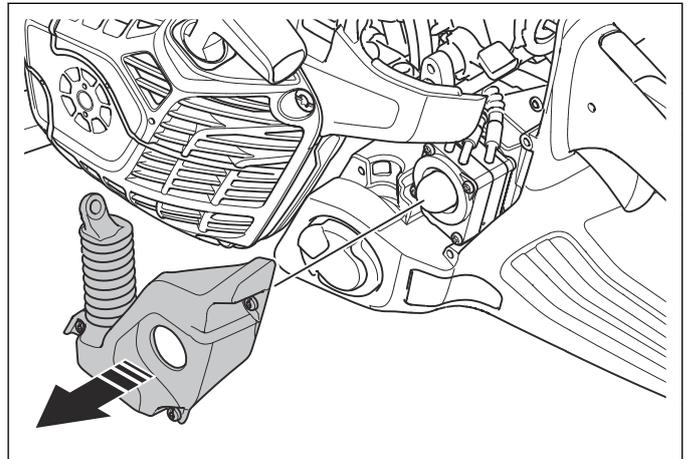
8. Loosen the deflection limiter.



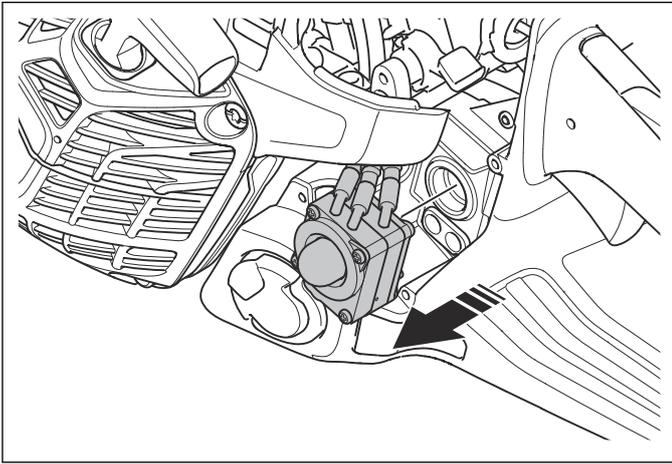
9. Loosen the 3 screws of the fuel pump.



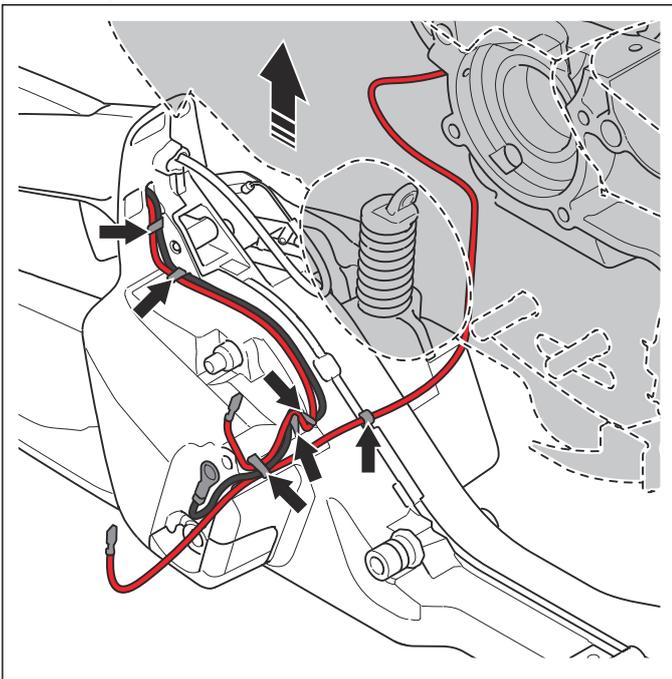
10. Remove the fuel pump cover and the vibration damping unit.



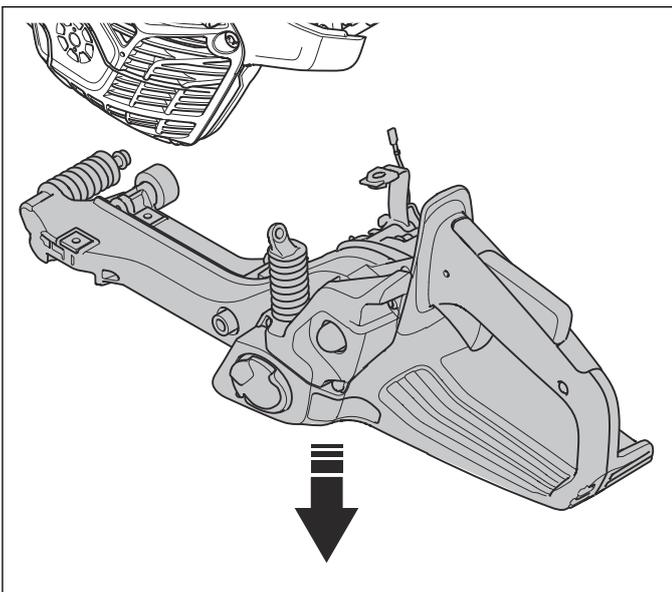
11. Pull out the fuel pump, do not disconnect it.



12. Carefully lift the engine from the fuel tank. Make sure you understand how the cables are attached.



13. Remove the tank unit.

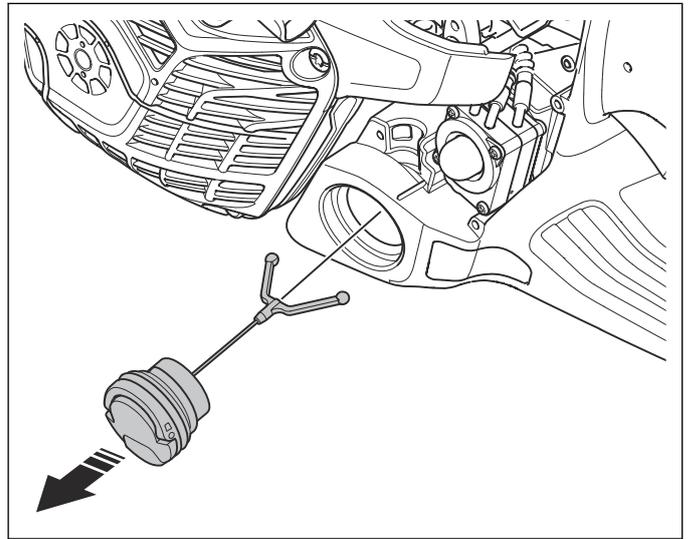


CAUTION: Be careful not to cause damage to the hoses when you remove the tank unit.

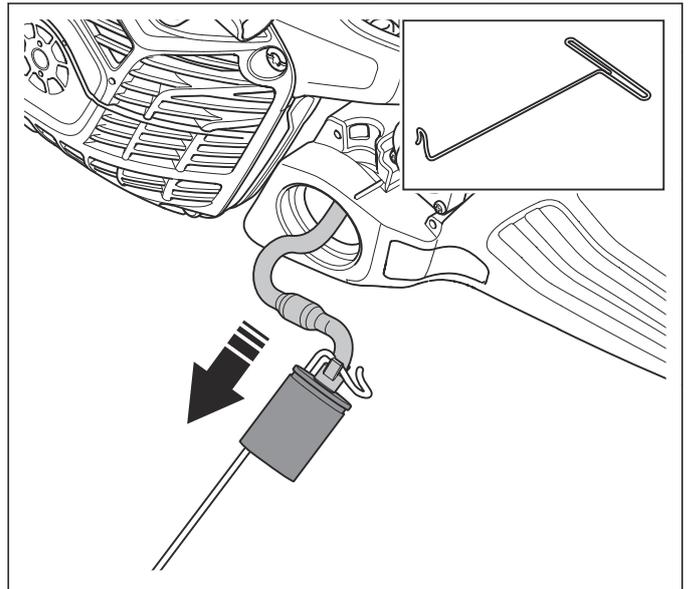
14. Install in the opposite sequence.

7.16.2 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 11*



3. Remove the fuel filter.

4. Attach a new fuel filter.

5. Install the fuel tank cap.

7.16.3 To replace the fuel hose

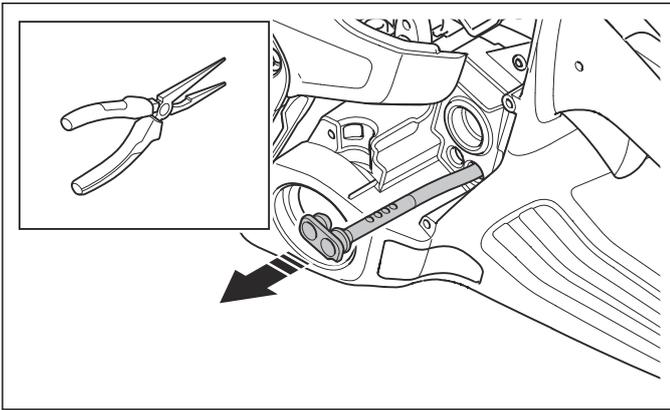
1. Remove the fuel pump. Refer to *To remove and install the fuel pump on page 42*.

2. Remove the fuel tank cap.

3. Use a fuel filter hook to pull out the fuel hose and the fuel filter. Refer to *Servicing tools on page 11*.

4. Remove the fuel filter from the fuel hose.

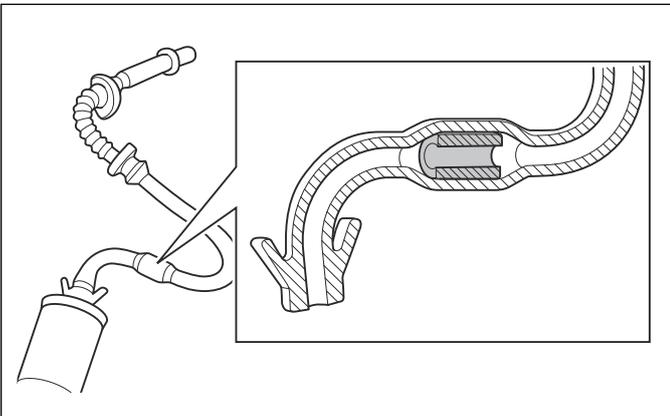
- Use pliers to remove the fuel tank grommet and pull out the fuel hose.



- Install the fuel hose in the opposite sequence. Refer to *To remove and install the fuel tank on page 44*.

7.16.4 Magnetic tube in the fuel hose

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



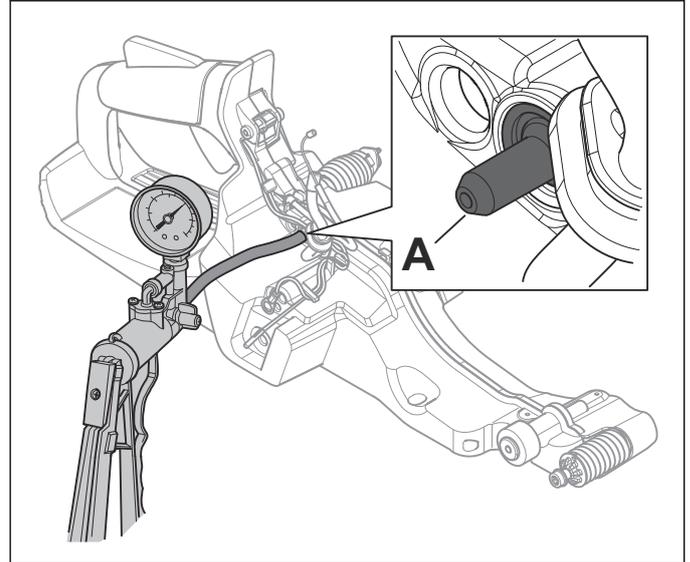
7.16.5 Air pressure in the fuel tank

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.

7.16.5.1 To do a pressure test of the fuel tank

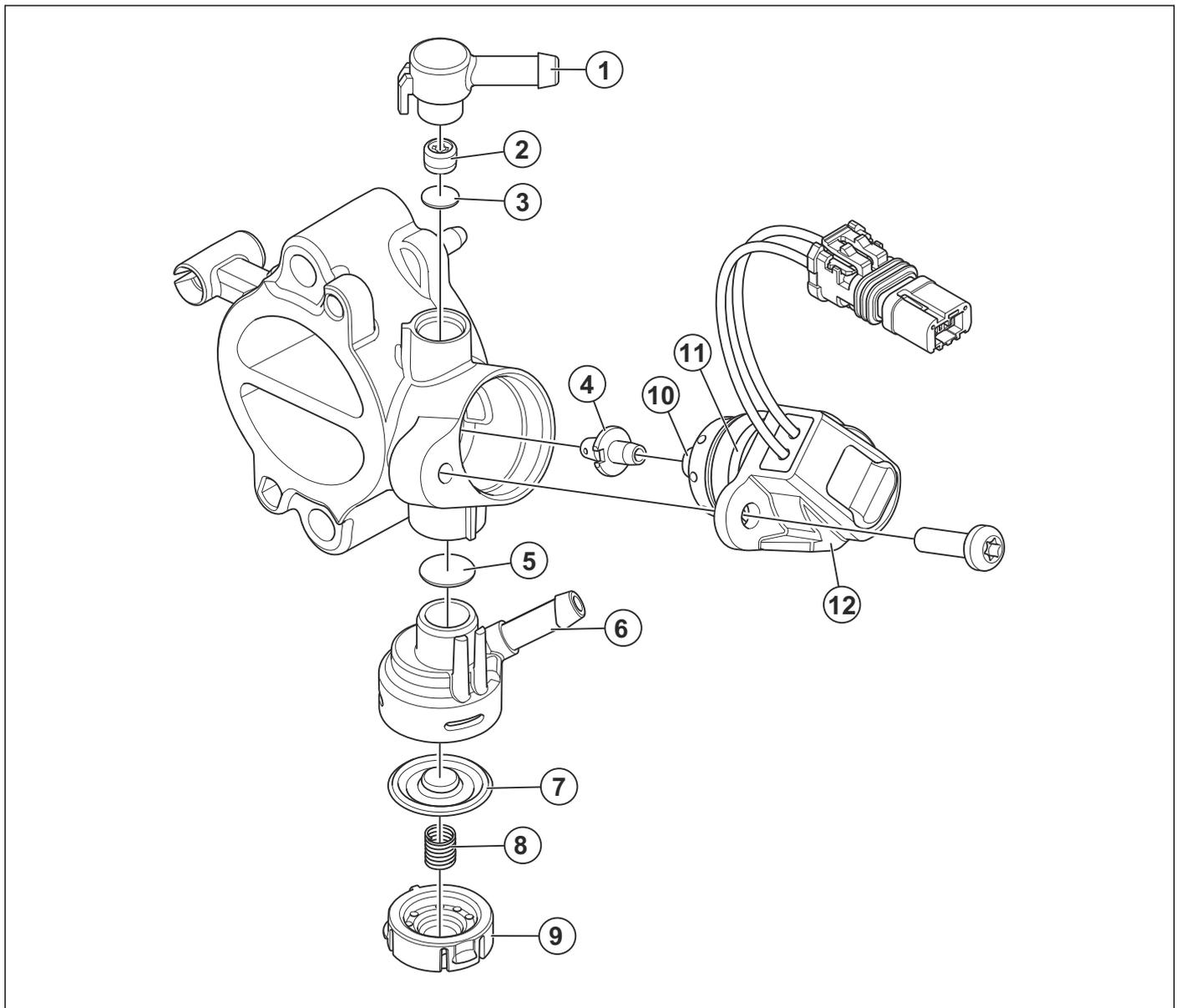
- Remove the fuel tank cap and drain the fuel tank.
- Pull out and remove the fuel hose.
- Connect the pressure tester to the tank valve (A).



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

7.17 Fuel injector

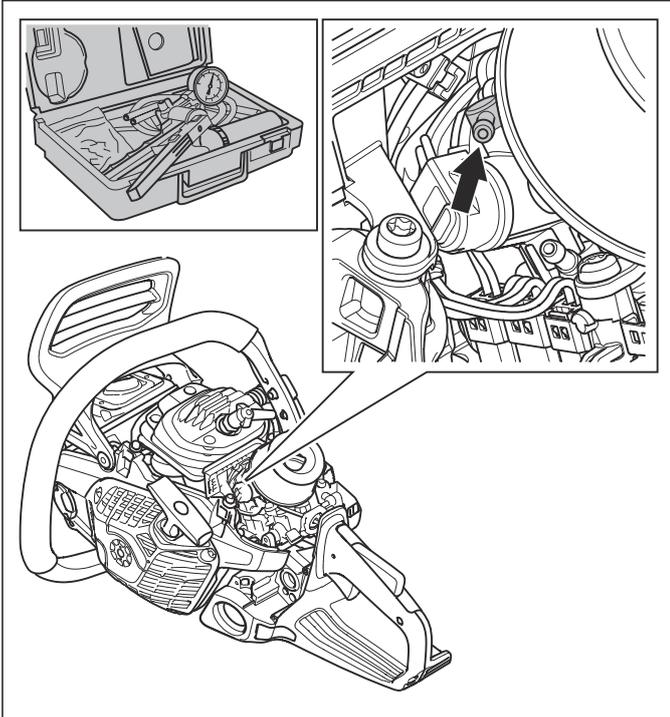
7.17.1 Fuel injector



1. Fuel outlet (back to fuel pump)
2. Check valve
3. Screen
4. Nozzle
5. Screen
6. Fuel inlet (from fuel pump)
7. Diaphragm
8. Spring
9. Lid
10. O-ring
11. O-ring
12. Fuel valve

7.17.2 To do a pressure test of the return fuel connector

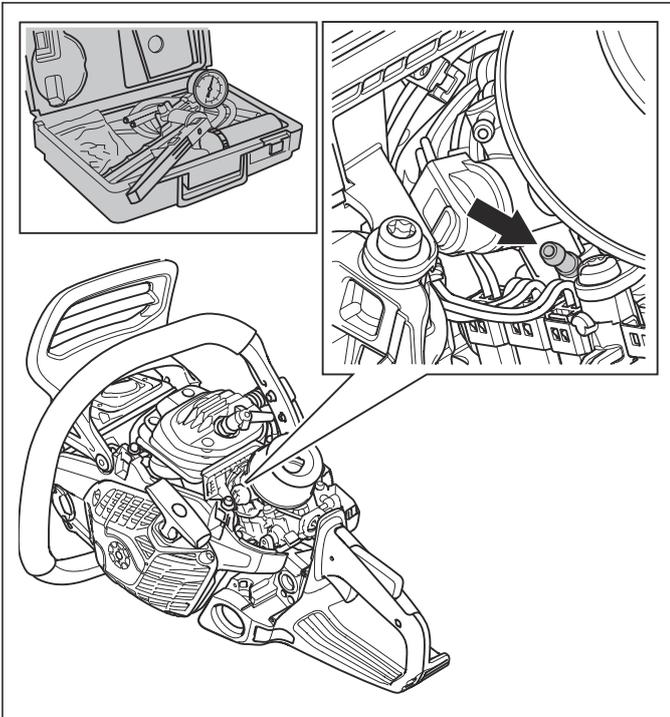
1. Connect the pressure tester to the return fuel connector.



2. Set the pressure to 60 kPa. Make sure that the pressure is stable for a minimum of 30 seconds.

7.17.3 To do a pressure test of the supply fuel connector

1. Connect the pressure tester to the fuel inlet.



2. Do a test of the supply fuel connector pressure.
 - a) Set the pressure to 60 kPa.

- b) The pressure will decrease to the range of 30-45 kPa and the check valve will open.
- c) Make sure that the pressure is in the range of 30-45 kPa for a minimum of 30 seconds.

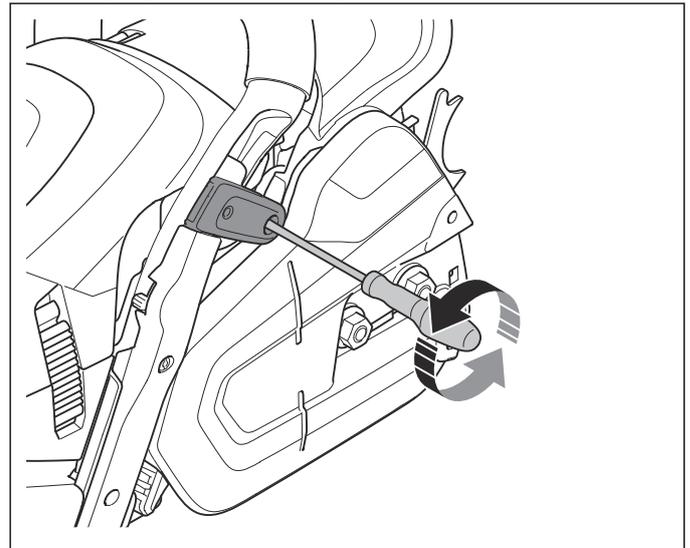
3. Do a test of the supply fuel connector with the return fuel connector blocked.

- a) Set the pressure to 100 kPa. Make sure that the pressure is stable for a minimum of 30 seconds.

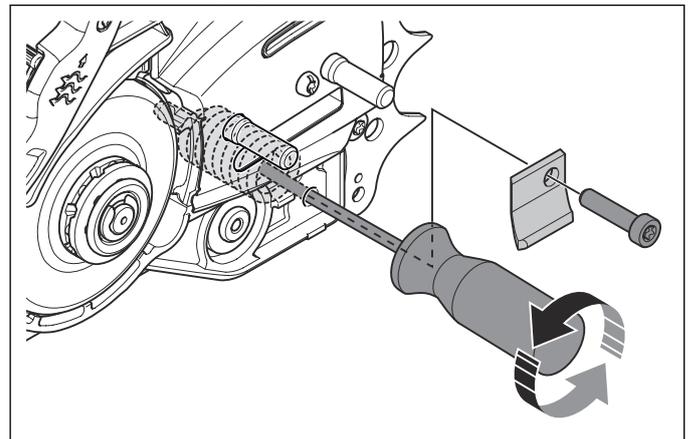
7.18 Vibration damping system

7.18.1 To disassemble and assemble the vibration damping system

1. Use a Torx screwdriver to remove the vibration damping unit from the cylinder.

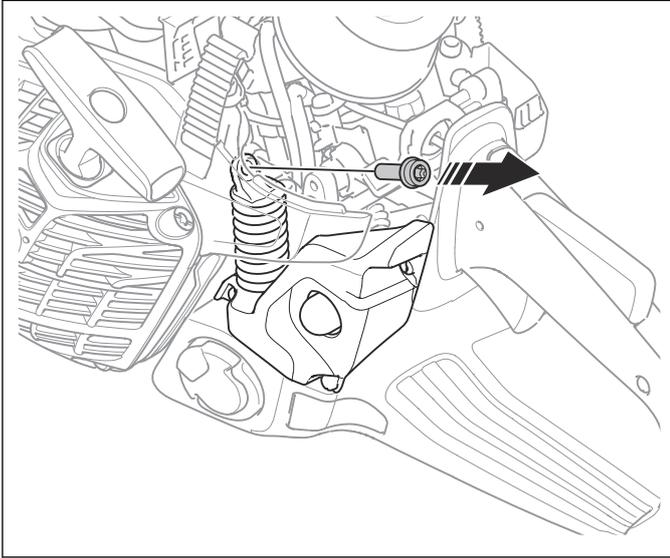


2. Remove the chain catcher to get access to the vibration damping unit.

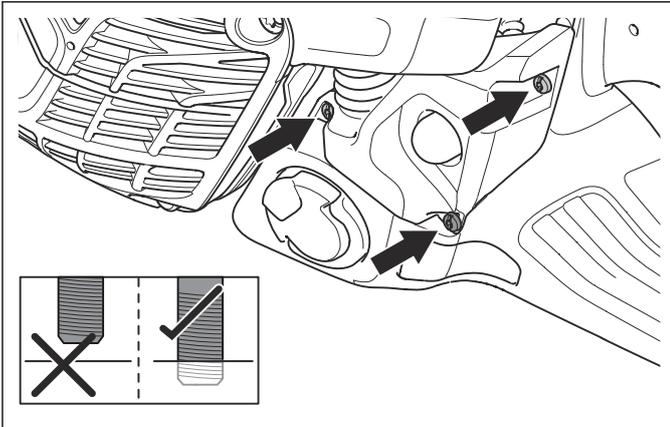


3. Remove the cylinder cover.

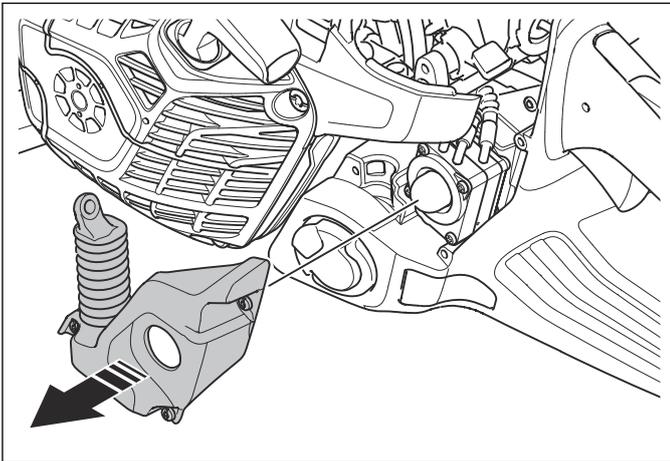
4. Remove the screw of the vibration damping system.



5. Loosen the 3 screws of the fuel pump.



6. Remove the fuel pump cover and the vibration damping unit.

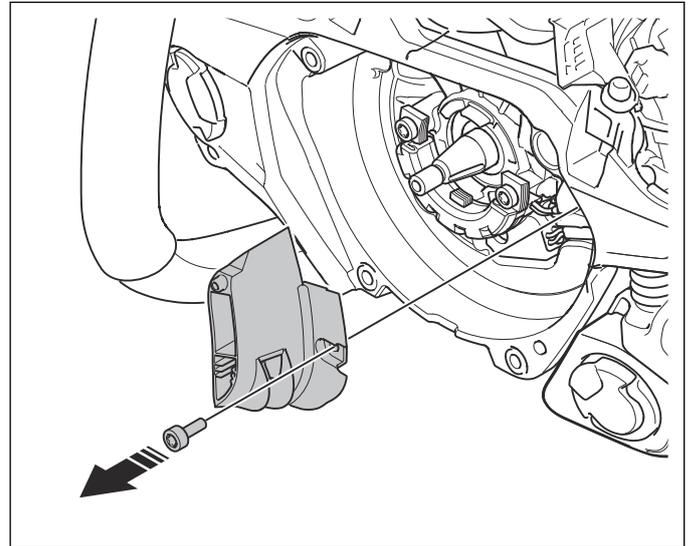


7. Assemble in the opposite sequence.

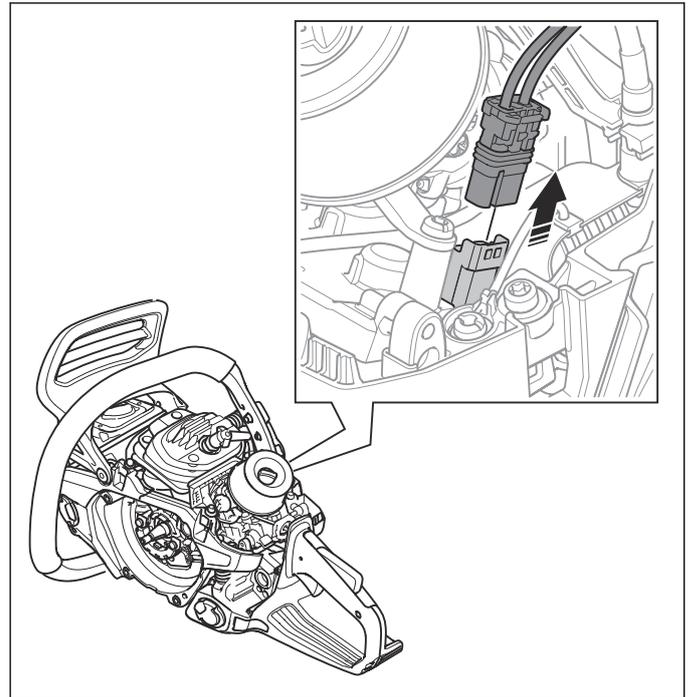
7.19 Generator

7.19.1 To remove and install the generator (564 XP)

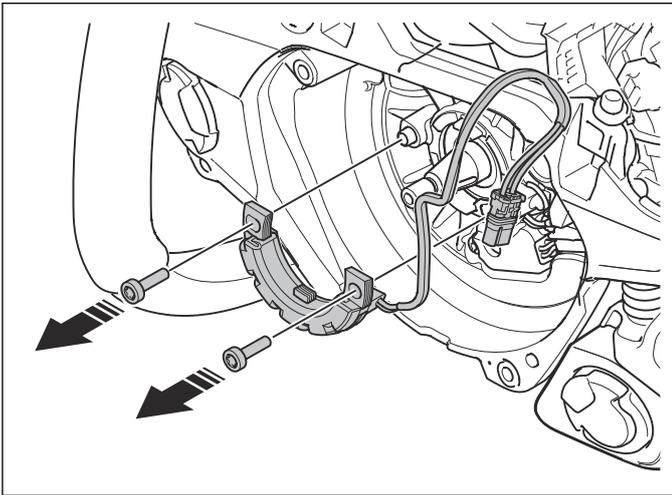
1. Remove the starter unit. Refer to *To remove and install the starter unit on page 28*.
2. Remove the cylinder cover.
3. Remove the flywheel. Refer to *To remove the flywheel on page 32*.
4. Remove the screw and the air nozzle.



5. Disconnect the generator from the control unit.



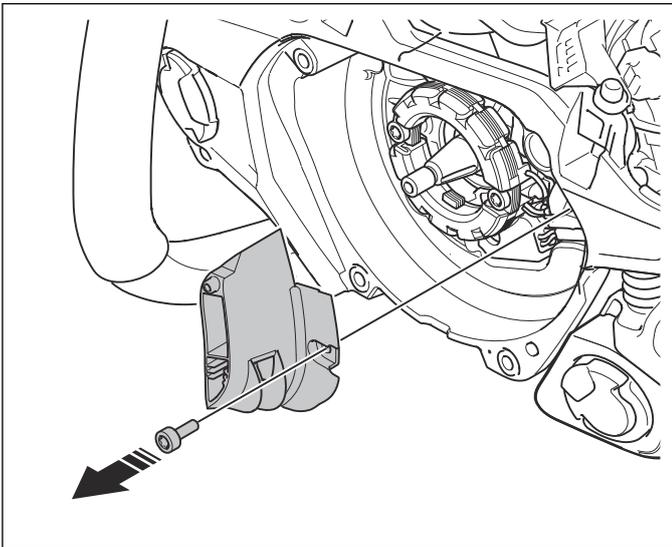
- Remove the 2 screws and pull out the generator and the wire.



- Install the generator in the opposite sequence.

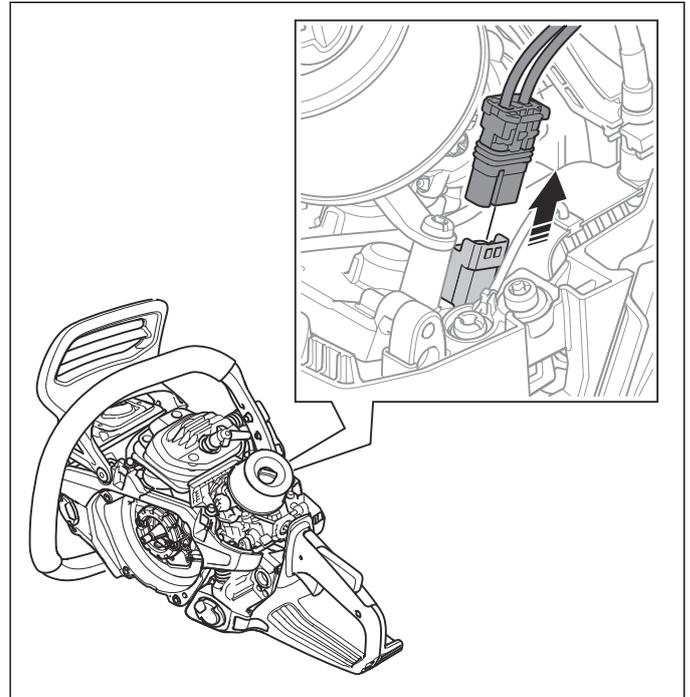
7.19.2 To remove and install the generator (564 XPG)

- Remove the starter unit. Refer to *To remove and install the starter unit on page 28*.
- Remove the cylinder cover
- Remove the flywheel. Refer to *To remove the flywheel on page 32*.
- Remove the screw and the air nozzle.

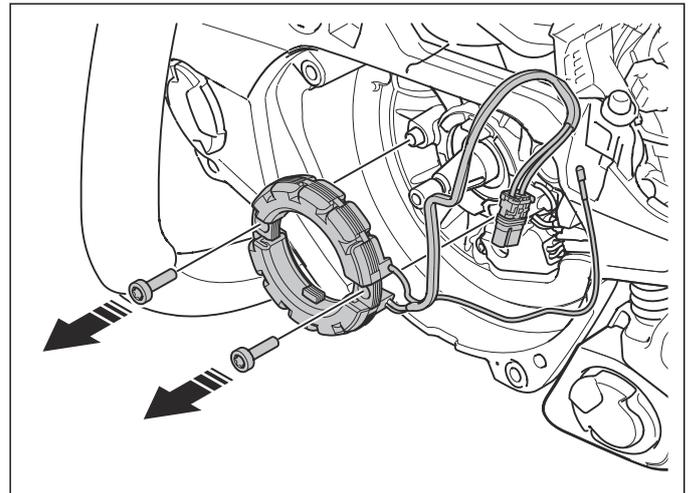


- Remove the front handle. Refer to *To remove and install the heated front handle (XPG) on page 23*.
- Remove the fuel tank. Refer to *To remove and install the fuel tank on page 44*.

- Disconnect the generator from the control unit.



- Remove the 2 screws and pull out the generator and the wire.

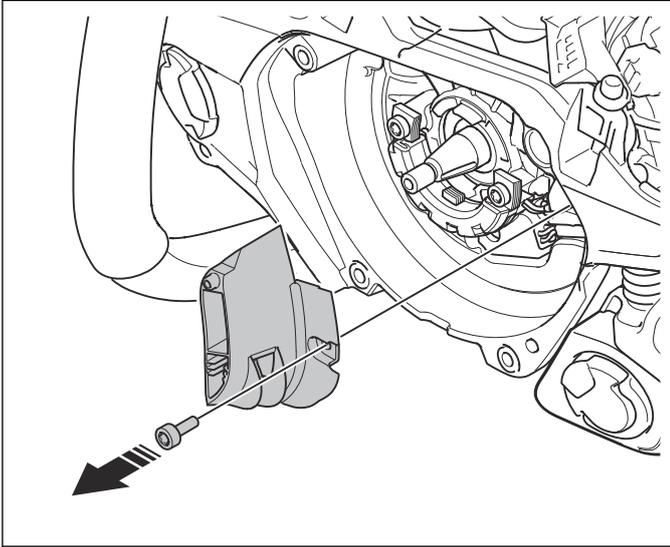


- Install the generator in the opposite sequence.

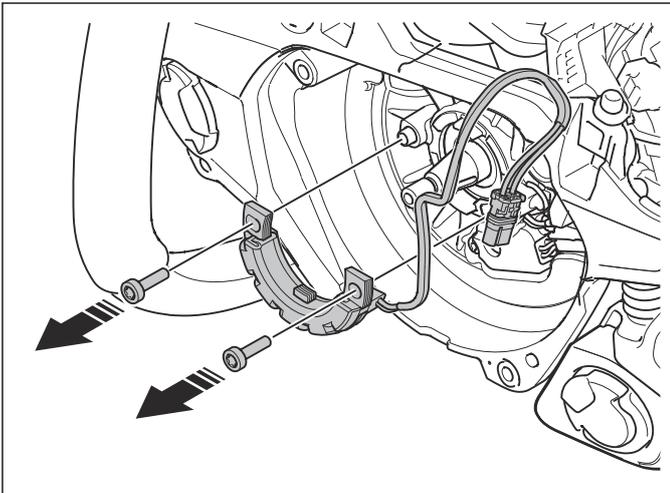
7.19.3 To remove and install the crankcase sensor

- Remove the starter unit. Refer to *To remove and install the starter unit on page 28*.
- Remove the cylinder cover.
- Remove the flywheel. Refer to *To remove the flywheel on page 32*.

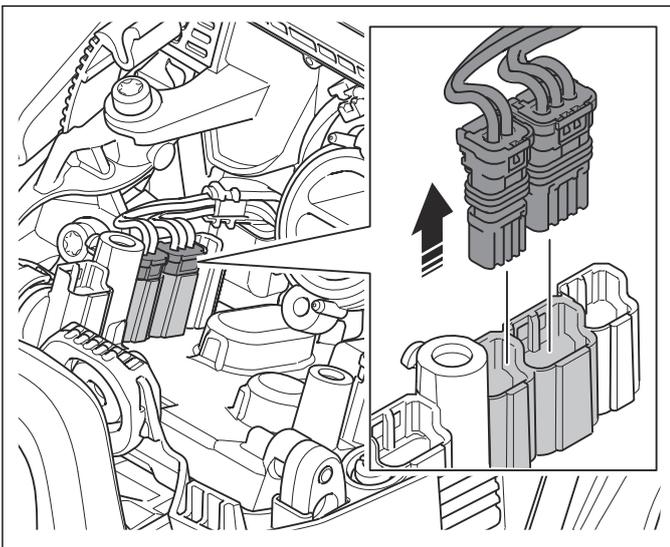
4. Remove the screw and the air nozzle.



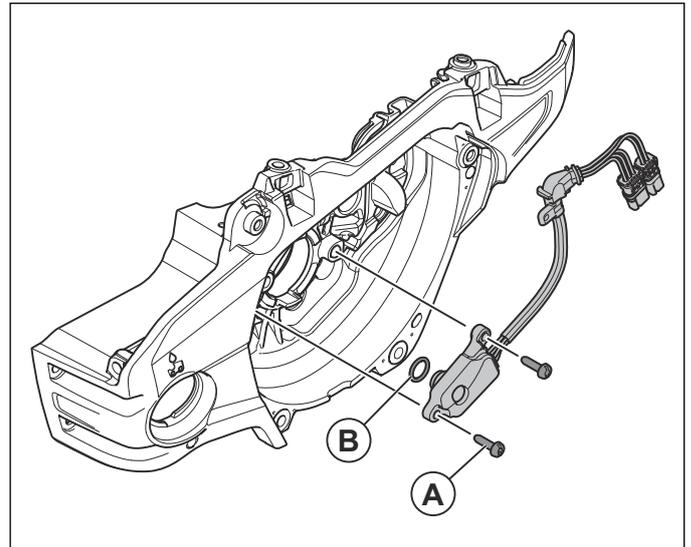
5. Remove the 2 screws and pull out the generator.



6. Disconnect the electrical connectors for the crankcase sensor.



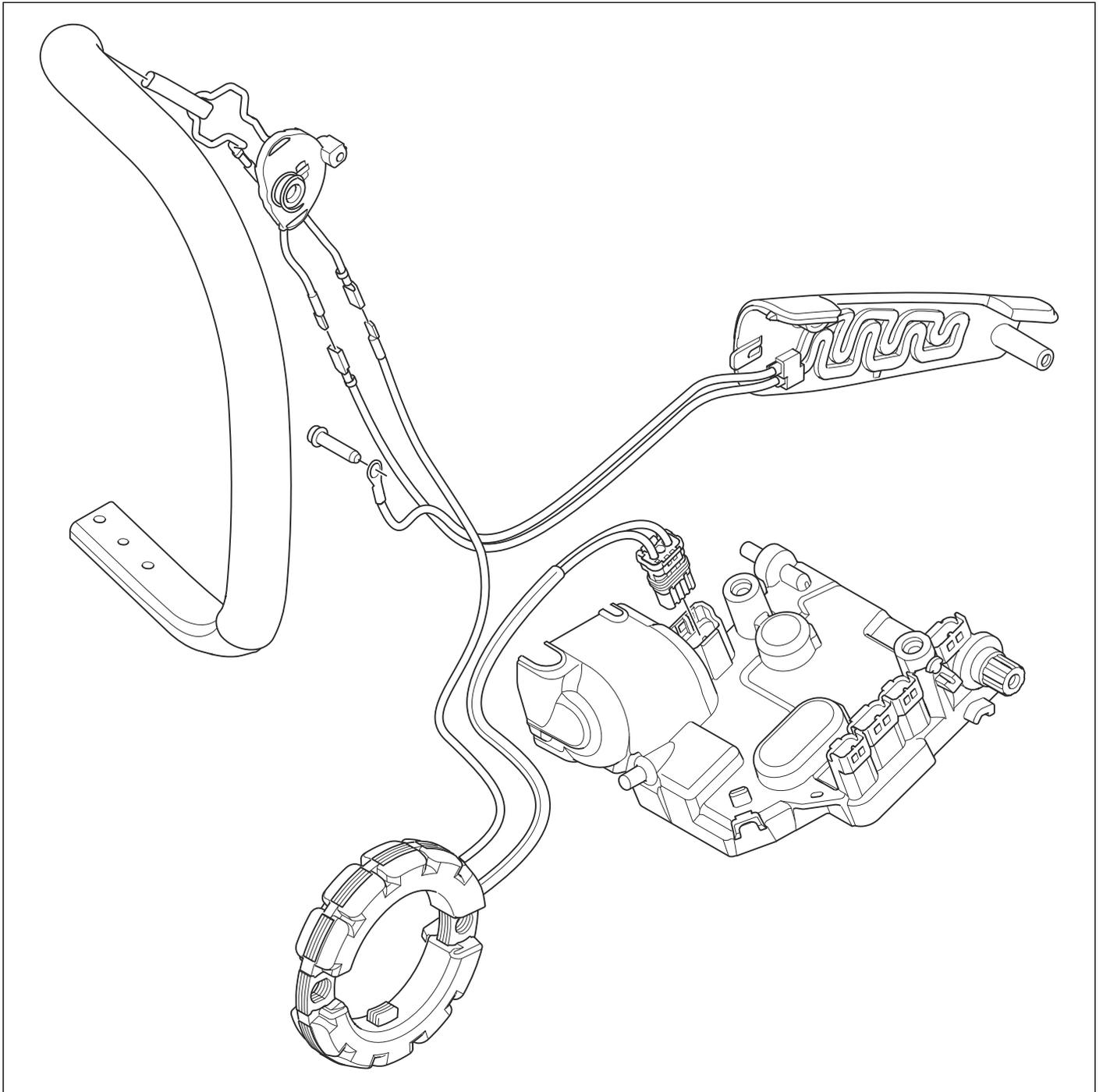
7. Remove the 2 screws (A) and pull out the crankcase sensor, the O-ring (B) and the wires.



8. Examine the O-ring for damage and replace if necessary.

9. Install the crankcase sensor in the opposite sequence.

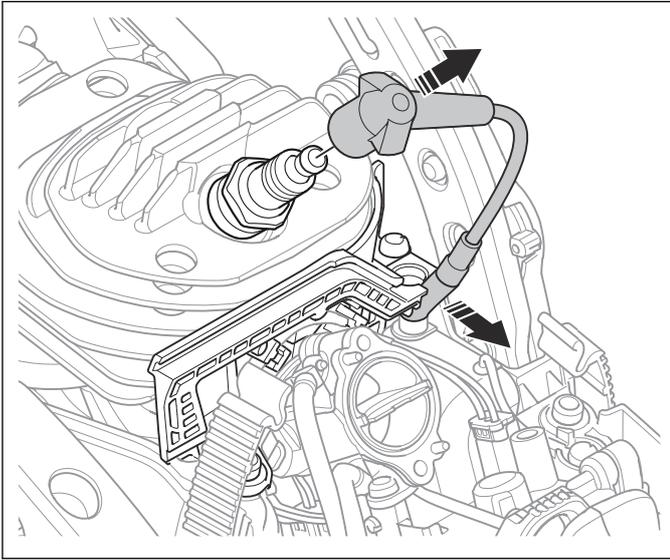
7.19.4 Generator cables overview



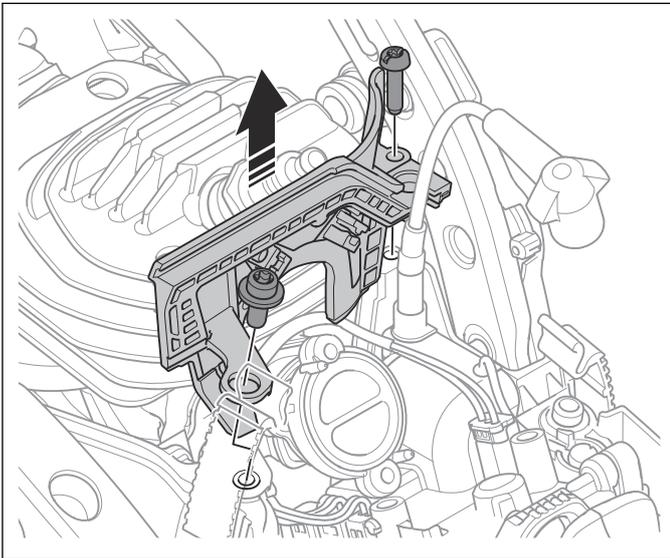
7.20 Cylinder and piston

7.20.1 To remove the cylinder and piston

1. Remove the cylinder cover.
2. Remove the spark plug cap and the spark plug cable.

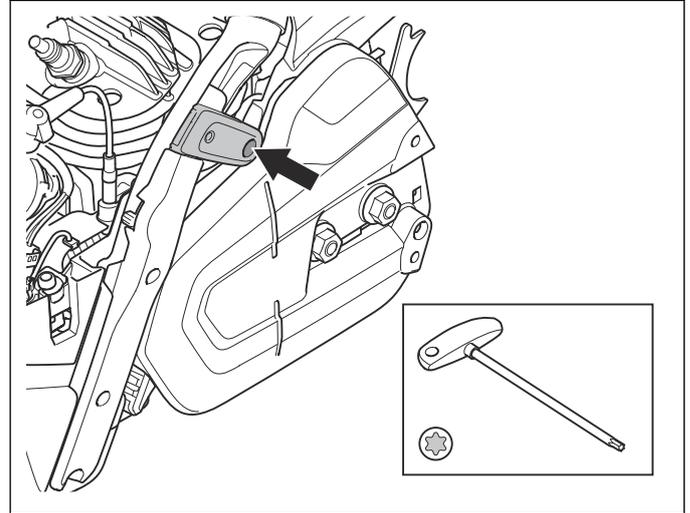


3. Remove the air filter. Refer to *To remove and install the air filter on page 36.*
4. Disconnect the generator from the control unit. Refer to *To remove and install the control unit on page 37.*
5. Remove the fuel injector. Refer to *To remove and install the control unit on page 37.*
6. Remove the 2 screws and the insulation wall.

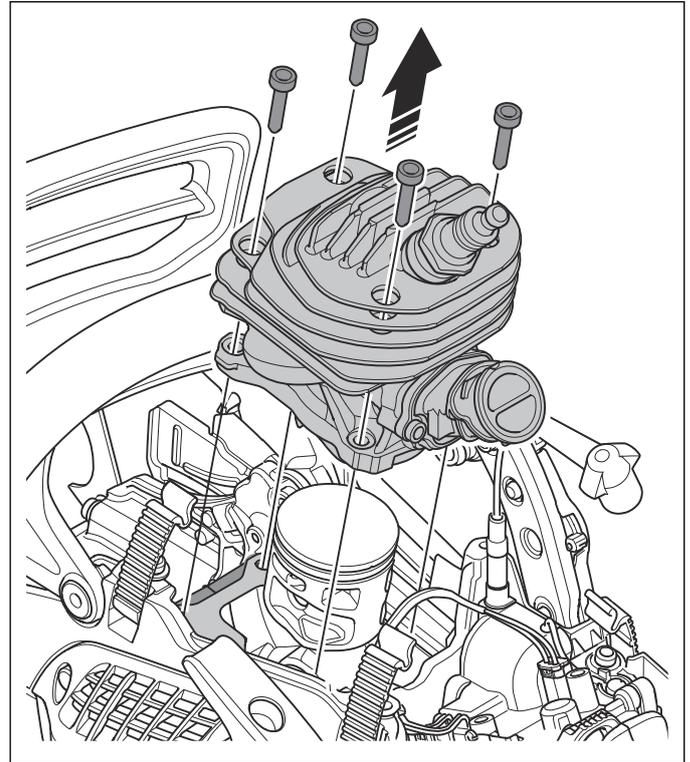


7. Remove the muffler and the heat deflector. Refer to *To remove and install the muffler on page 21.*

8. Remove the vibration damping screw.



9. Remove the 4 screws and lift the cylinder.



CAUTION: Make sure that the piston does not move. The guide pin can cause damage to the piston if it falls.

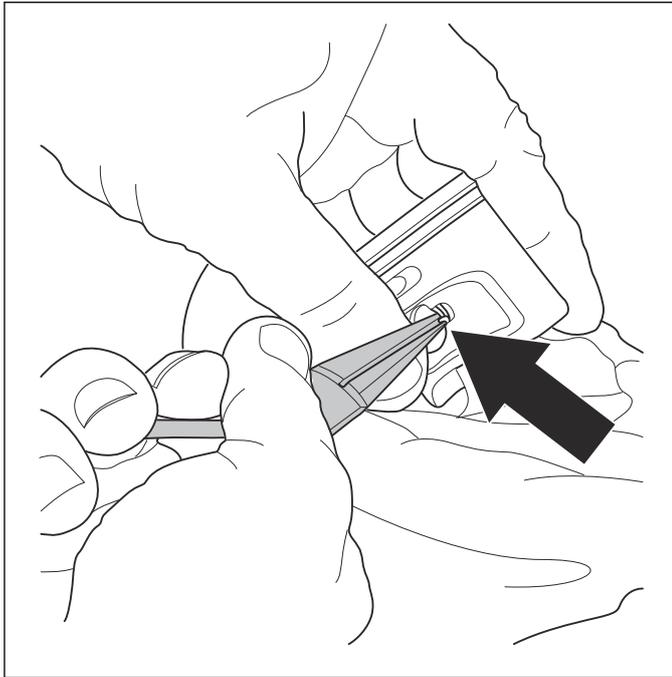
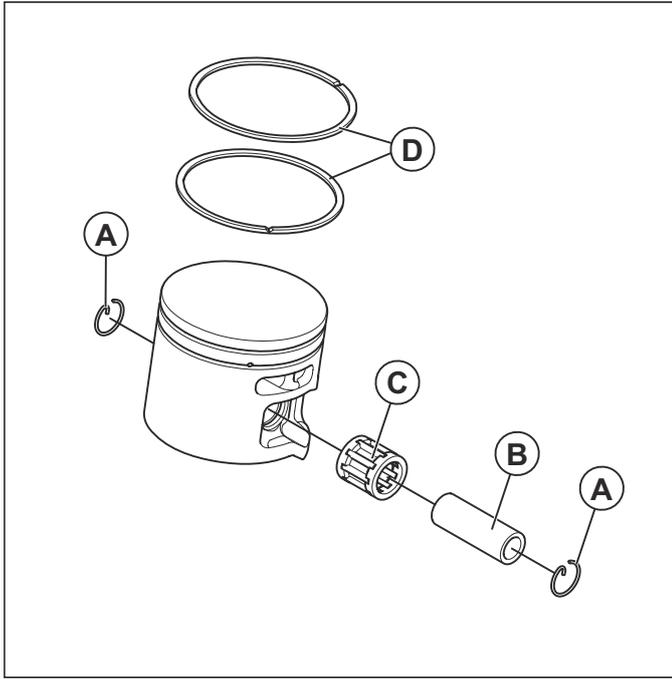
10. Remove the cylinder base gasket.



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

11. Put a cover on the crankcase opening.

12. Use pliers to remove the snap rings (A) from the pin. Keep your thumb adjacent to the snap ring to make sure that the snap ring does not eject. Discard the snap ring.



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

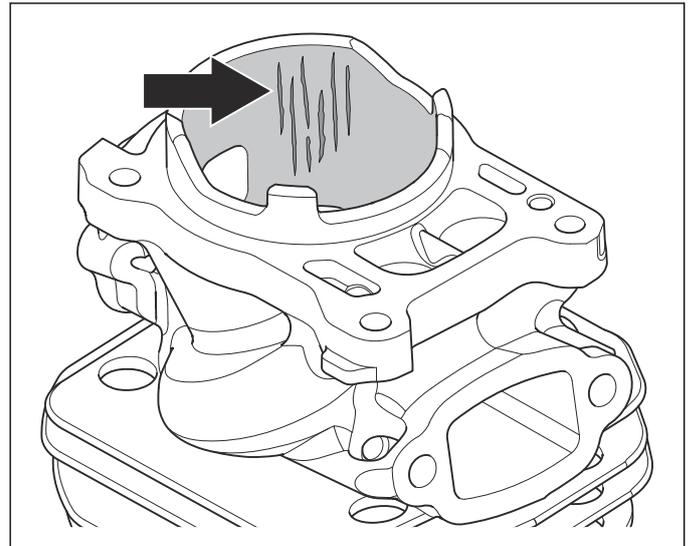
13. Push out the piston pin (B) and lift the piston from the connecting rod.
14. Remove the needle bearing (C) from the connecting rod. Replace the needle bearing if it is damaged or worn.
15. Remove the piston rings (D).

7.20.2 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.

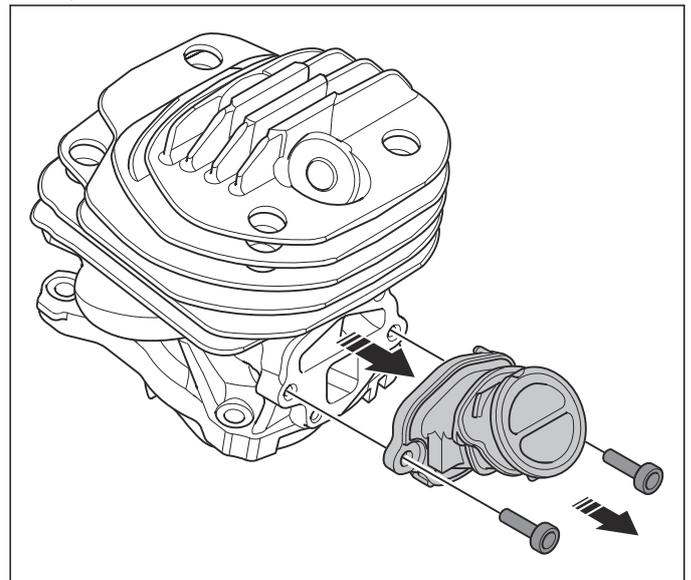
7.20.3 To examine the cylinder

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.



7.20.4 To examine the inlet manifold

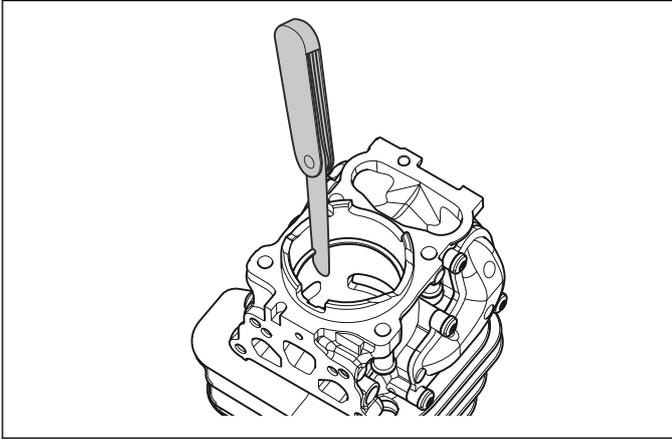
1. Remove the 2 screws and the inlet manifold from the cylinder.



2. Remove the flange from the inlet manifold.
3. Examine the parts for damage. Replace damaged parts.

7.20.5 To examine the piston

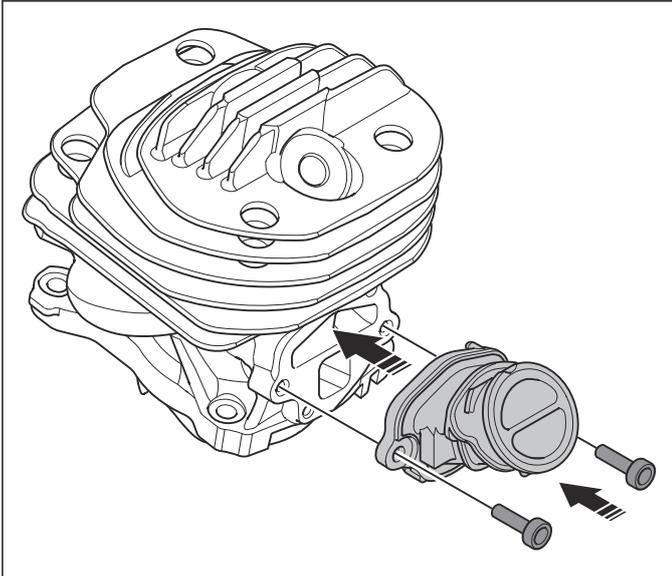
1. Make sure that the needle bearing is not damaged.
2. Make sure that the piston pin does not have damages on the running surface for the bearing.
3. Make sure that the piston ring can move freely in the groove.
4. Put the piston ring in the cylinder and measure the ring gap with a feeler gauge. The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



5. Examine the piston ring for damage. Replace the piston ring if it is necessary.

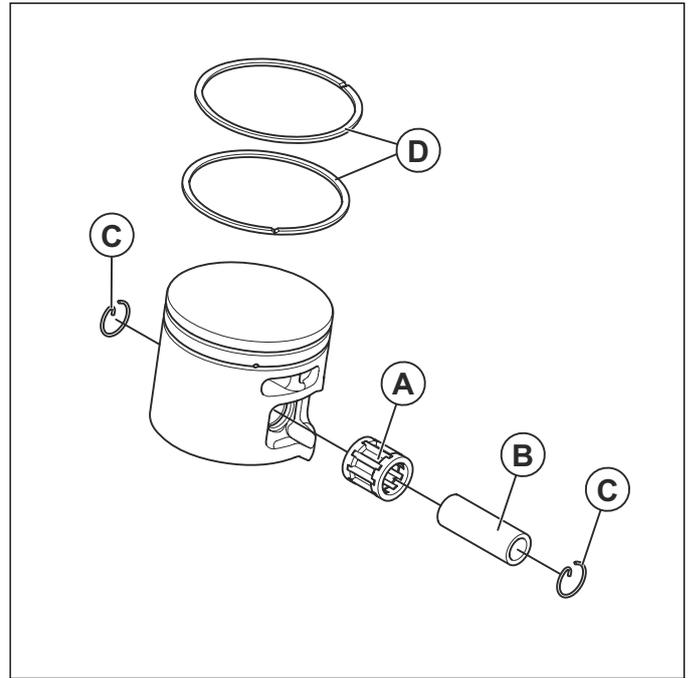
7.20.6 To install the cylinder and piston

1. Attach the flange to the inlet manifold.



2. Install the inlet manifold on the cylinder with the 2 screws. Tighten the 2 screws to the correct torque. Refer to *Servicing data on page 9*

3. Lubricate the needle bearing (A) and put it into the connecting rod. Make sure the bearing moves freely in the connecting rod.



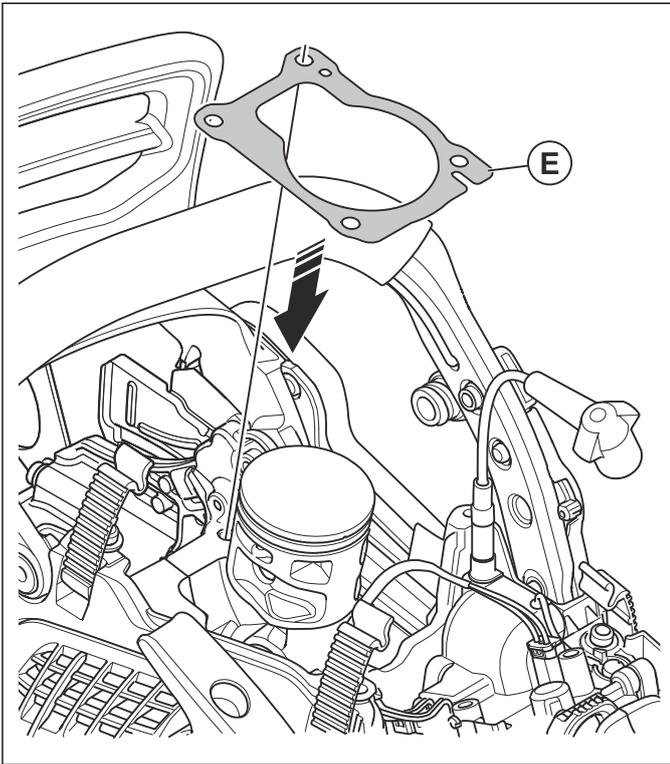
4. Put the piston on the connecting rod and push in the piston pin (B). The arrow on the piston must be in the direction of the exhaust port.
5. Install the snap ring (C).



CAUTION: Always use a new snap ring.

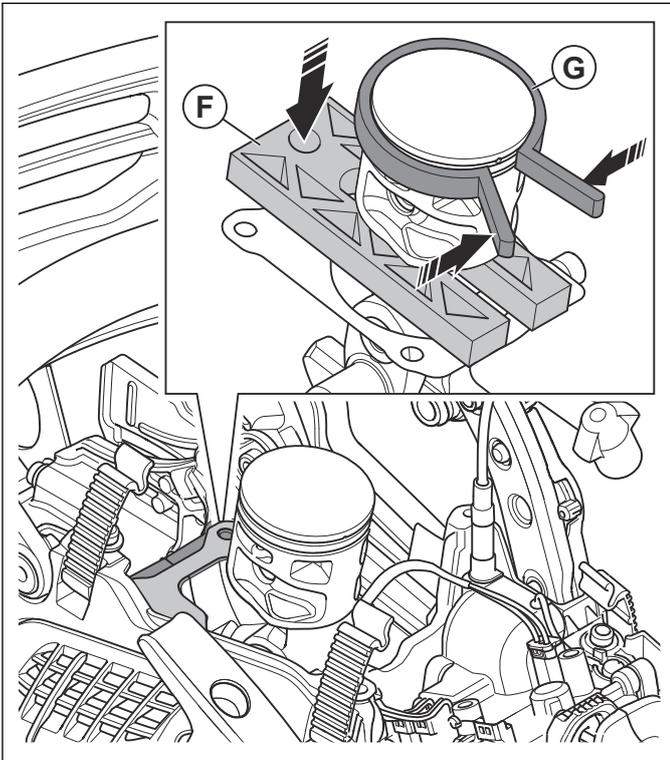
6. Lubricate the piston and piston rings.
7. Carefully install the piston rings (D) on the piston. Make sure that you do not cause damage to the piston rings or the piston.

8. Put a new cylinder base gasket (E) on the crankcase.



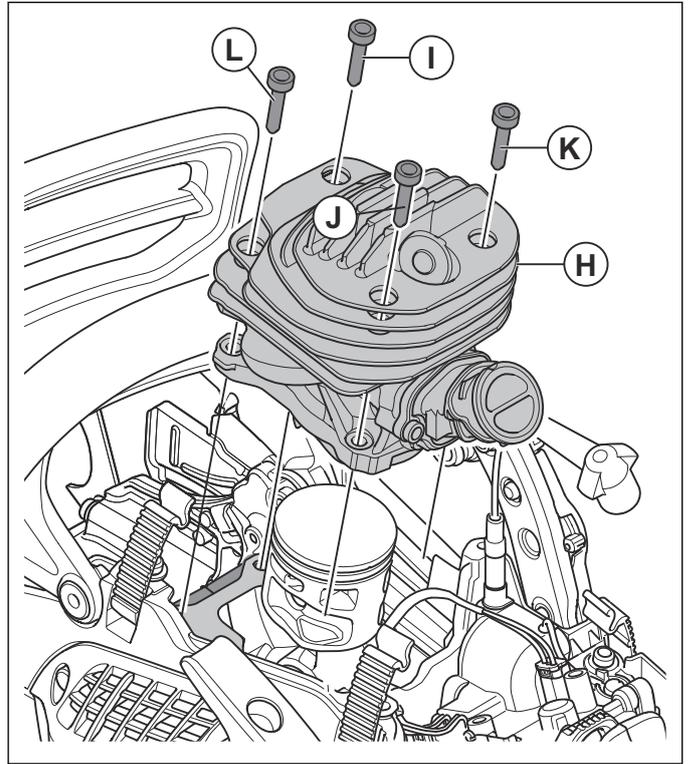
CAUTION: Always use a new cylinder base gasket. Make sure that the new cylinder base gasket does not have signs of damage or wear.

9. Attach the support plate (F) from the piston assembly kit. Refer to *Servicing tools on page 11*.



10. Use the clamp (G) from the piston assembly kit to compress the piston ring and carefully push the piston into the cylinder opening.

11. Put the cylinder (H) in position on the crankcase.



12. Install the 4 screws and tighten them in the sequence that follows. Refer to *Servicing data on page 9* for the correct torque.

- a) Tighten the screw (I).
- b) Tighten the screw (J).
- c) Tighten the screw (K).
- d) Tighten the screw (L).

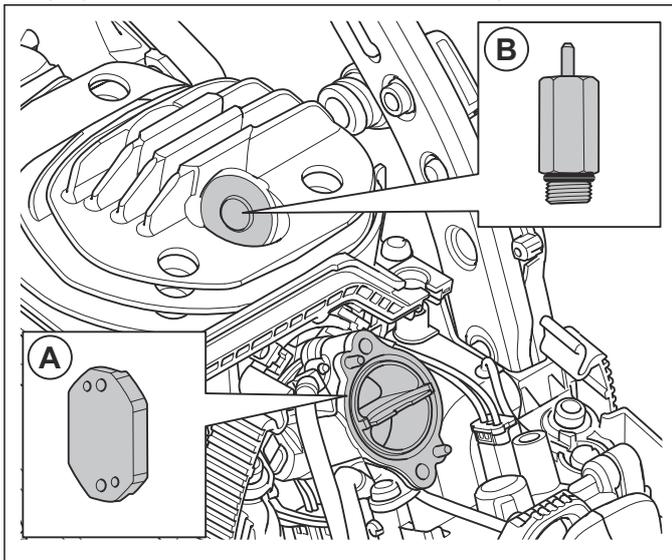
Note: When you operate the product, the torque of the screws decreases.

13. Install the remaining parts in the opposite sequence to how they were removed.

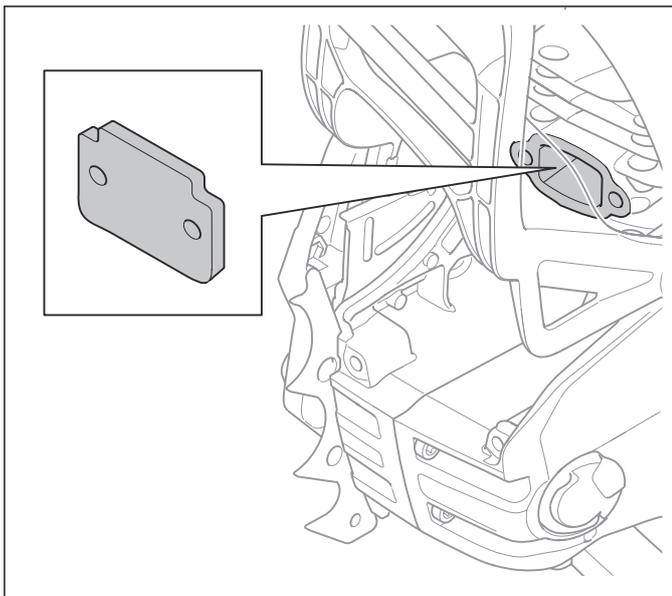
7.20.7 To do a pressure test of the cylinder

1. Remove the cylinder cover.
2. Remove the air filter. Refer to *To remove and install the air filter on page 36*.
3. Remove the fuel hose holder. Refer to *To remove and install the control unit on page 37*.
4. Remove the air filter holder. Refer to *To remove and install the control unit on page 37*.
5. Remove the throttle body. Refer to *To remove and install the control unit on page 37*.
6. Remove the spark plug.

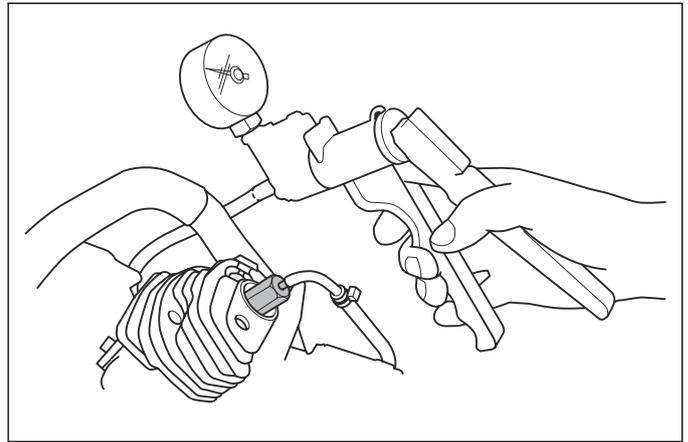
- Attach the inlet cover (A) and the pressure test adapter (B). If you do the pressure test with the fuel injector, use the long screws. Use the short screws without the fuel injector. Refer to *Servicing tools on page 11* for the correct cover and adapter.



- Remove the muffler and attach the outlet cover. Refer to *Servicing tools on page 11* for the correct cover. Tighten the outlet cover with the screws for the muffler.



- Connect the pressure tester to the pressure test adapter. Refer to *Servicing tools on page 11*.



- Increase the pressure to 0.8 bar. Wait for 30 seconds. The pressure must not decrease to less than 0.6 bar.
- Do a vacuum test. Increase the pressure to -0.8 bar and wait for 30 seconds. The pressure must not decrease to less than -0.6 bar.
- Remove the outlet cover and the inlet cover.
- Install the air filter. Refer to *To remove and install the air filter on page 36*.
- Install the muffler.
- Remove the pressure test adapter and install the spark plug.

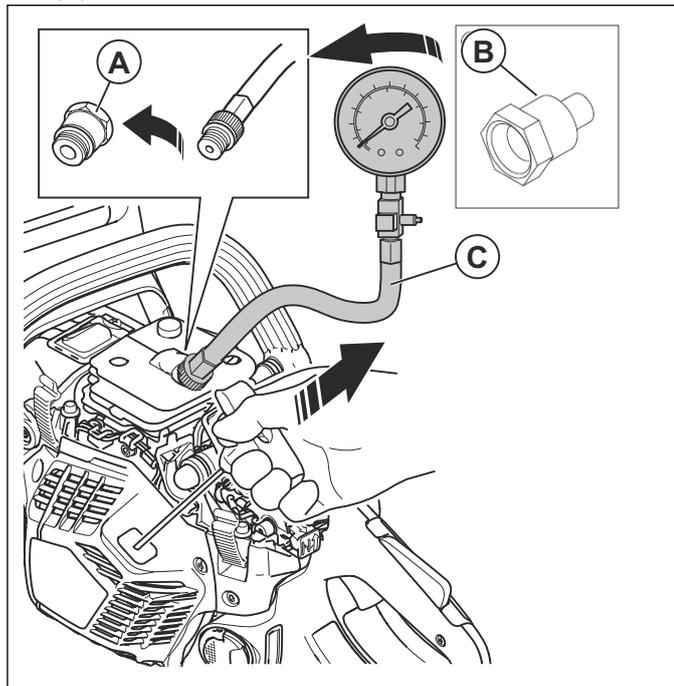


CAUTION: Make sure the O-ring between the fuel injector housing and the throttle body is attached correctly. An incorrectly attached O-ring will cause damage to the product.

7.20.8 To do a compression test

- Remove the cylinder cover.
- Remove the spark plug.

3. Remove the adapter (A) from the compression tester (C).



4. Attach the 10 mm adapter (B) to the compression tester. Refer to *Servicing tools on page 11*
5. Attach the compression tester (C) to the cylinder.
6. Pull the starter rope handle with force repeatedly until the value on the manometer stops increasing. Read the manometer result on the compression tester and compare the result with the table below.

Result (Bar)	Result (PSI)	Compression range	Possible cause	Action
6.2–6.9	90–100	Very low	Internal engine damage to the piston, cylinder or piston rings.	Examine the engine visually through the exhaust port. If it is necessary, disassemble and examine the engine.
7.6–7.9	110–115	Low	Engine wear or new piston ring.	If the engine or engine parts are new, use the product for 2 – 3 tanks of fuel. Do the compression test again. Put 2.5 ml 2-stroke oil in the cylinder and do the compression test again. If the compression increases, the engine is worn. If the compression does not increase, this is an indication of internal engine damage.
8.6–11.4	125–165	Correct	–	–
≥11.7	≥170	Very high	The exhaust port, muffler or spark arrestor is blocked. Carbon or dirt buildup on the piston.	Disassemble and examine the blocked or dirty parts parts.

7.21 Crankshaft and crankcase

7.21.1 To get access to the crankshaft and crankcase

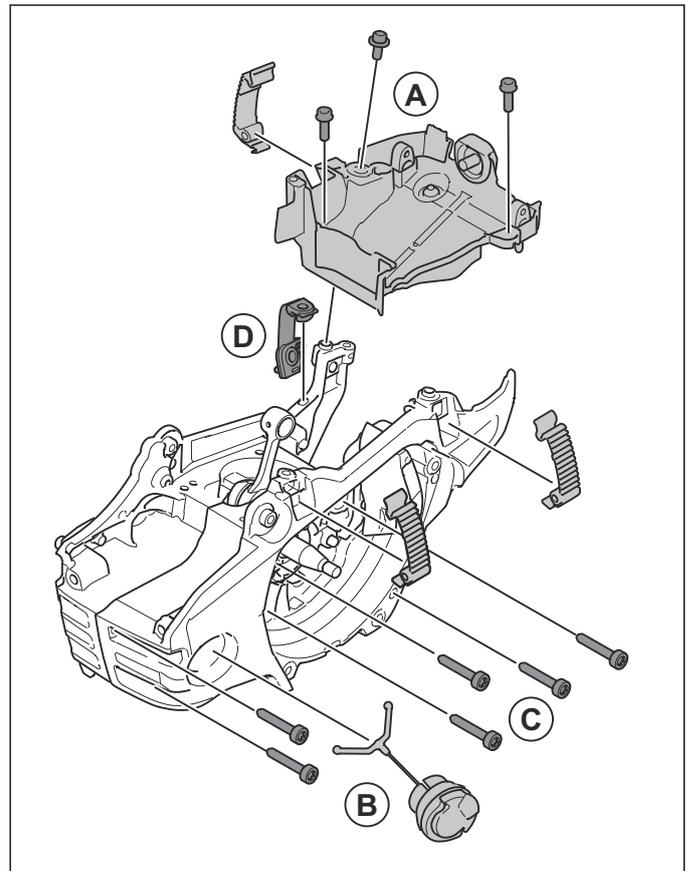
1. Drain the oil tank and the fuel tank.
2. Remove the cylinder cover.
3. Remove the spark plug.
4. Remove the clutch cover. Refer to *To disassemble the chain brake on page 18*.
5. Remove the centrifugal clutch. Refer to *To disassemble and assemble the centrifugal clutch on page 33*.
6. Remove the lubrication system. Refer to *To disassemble and assemble the centrifugal clutch on page 33*.

7. Remove the starter unit. Refer to *To remove and install the starter unit on page 28*.
8. Remove the muffler. Refer to *To remove and install the muffler on page 21*.
9. Remove the air filter. Refer to *To remove and install the air filter on page 36*.
10. Remove the air filter holder, the throttle body, the fuel injector housing and the control unit. Refer to *To remove and install the control unit on page 37*.
11. Remove the flywheel. Refer to *To remove the flywheel on page 32*.
12. Remove the crankcase sensor. Refer to *To remove and install the crankcase sensor on page 51*.
13. Remove the generator. Refer to *To remove and install the generator (564 XP) on page 50* or *To remove and install the generator (564 XPG) on page 51*.
14. Remove the front handle. Refer to *To remove and install the front handle (XP) on page 23* or *To remove and install the heated front handle (XPG) on page 23*.
15. Remove the handguard. Refer to *To disassemble the chain brake on page 18*.
16. Remove the fuel tank. Refer to *To remove and install the fuel tank on page 44*.
17. Remove the cylinder and the piston. Refer to *To remove the cylinder and piston on page 54*.

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

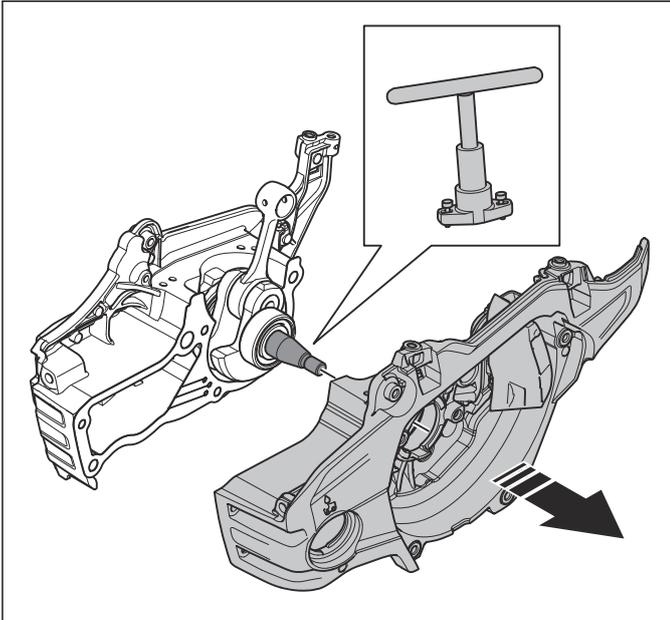
7.21.2 To disassemble the crankshaft and the crankcase

1. Get access to the crankshaft and crankcase. Refer to *To get access to the crankshaft and crankcase on page 59*.
2. Remove the 3 screws (A) and the bottom plate of the control unit.

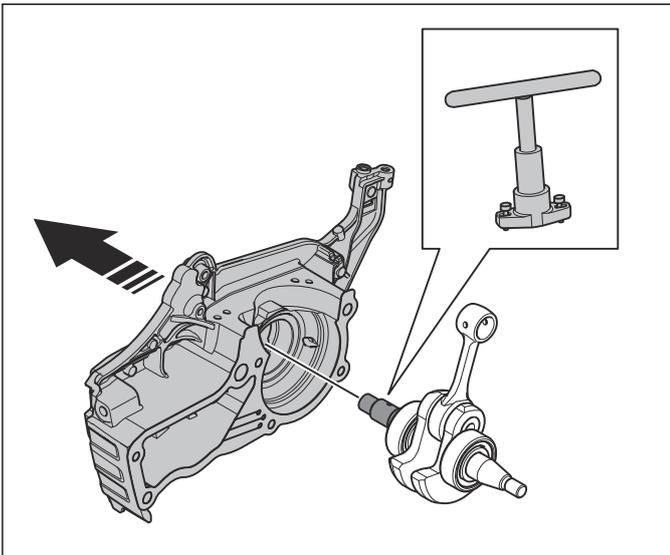


3. Remove the oil tank cap assembly (B).
4. Remove the 6 screws (C).
5. Remove the deflection limiter (D).

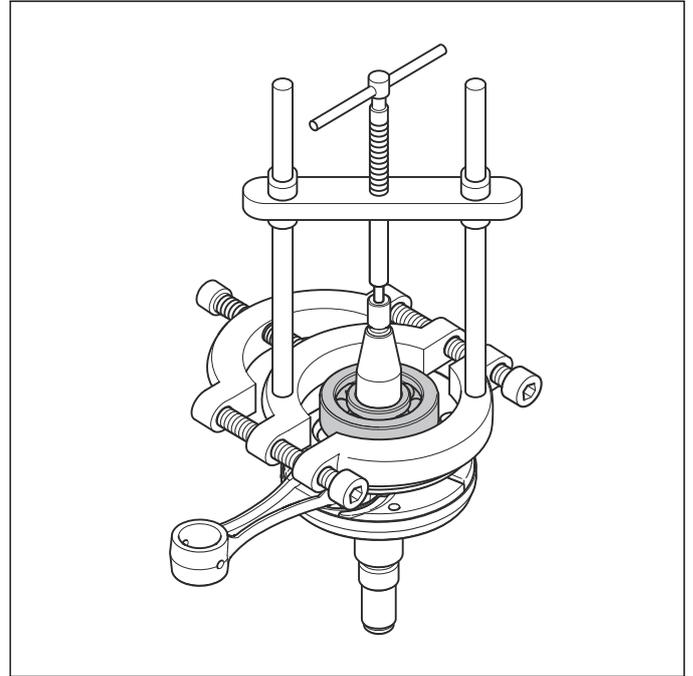
6. Remove the crankcase half on the flywheel side from the crankshaft. Use the crankcase disassembly tool. Refer to *Servicing tools on page 11*.



7. Remove the crankcase half on the clutch side from the crankshaft. Use the crankcase disassembly tool. Refer to *Servicing tools on page 11*.



8. If the crankcase bearing is attached to the crankshaft, use a puller tool to remove the crankcase bearing.

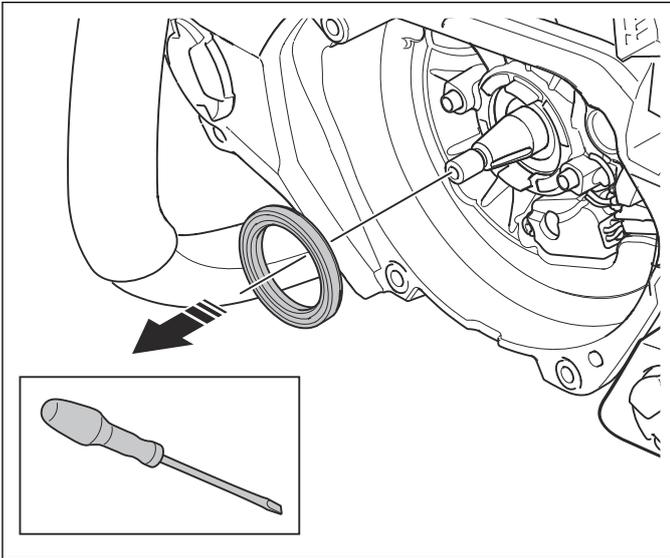


7.21.3 To replace the seal rings

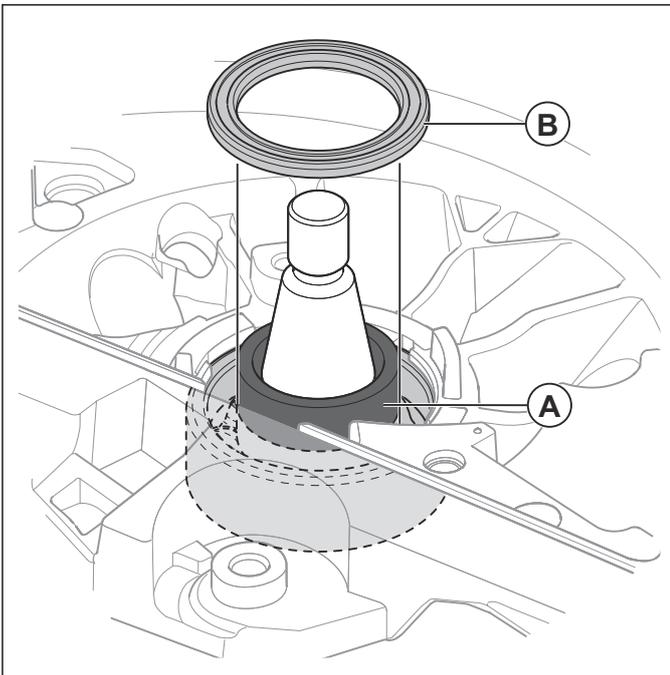
Note: Hold the outer part of the bearing when you replace the seal ring. Make sure that the bearing does not move.

1. To replace the seal ring on the flywheel side.
 - a) Remove the starter unit. Refer to *To remove and install the starter unit on page 28*.
 - b) Remove the flywheel. Refer to *To remove the flywheel on page 32*.
2. To replace the seal ring on the clutch side.
 - a) Remove the centrifugal clutch. Refer to *To disassemble and assemble the centrifugal clutch on page 33*.
 - b) Remove the oil pump. Refer to *To remove and install the lubrication system on page 35*.

3. Use a screwdriver to remove the seal ring.



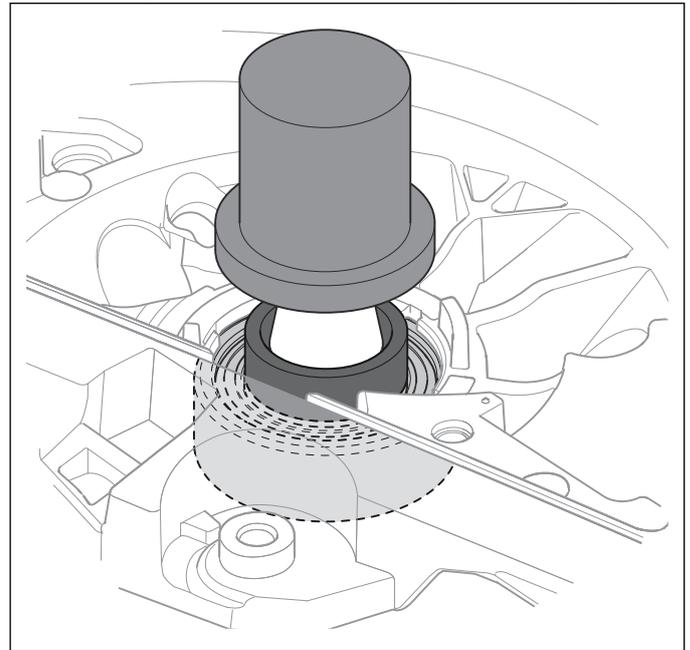
4. Attach the guide ring (A) on the crankshaft axle.



5. Lubricate the new seal ring (B) with two-stroke oil.

6. Put the seal ring on the guide ring.

7. Use the press tool to push the new seal ring to the correct position. Refer to *Servicing tools on page 11*



8. Remove the seal ring tool and the guide ring.

9. Install in the opposite sequence.

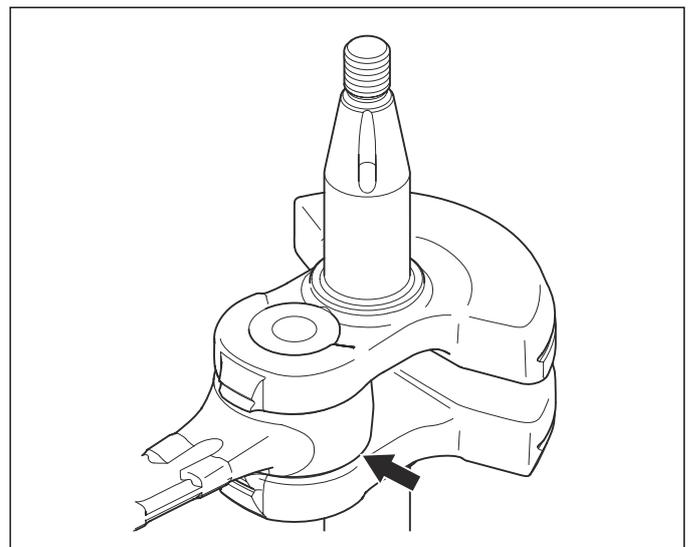
7.21.4 To clean and examine the crankshaft and crankcase



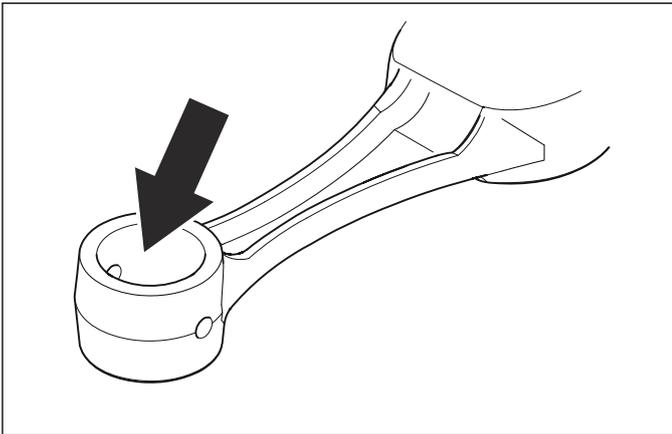
CAUTION: Make sure that dirt and unwanted particles do not go into the crankcase and into the bearings.

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.

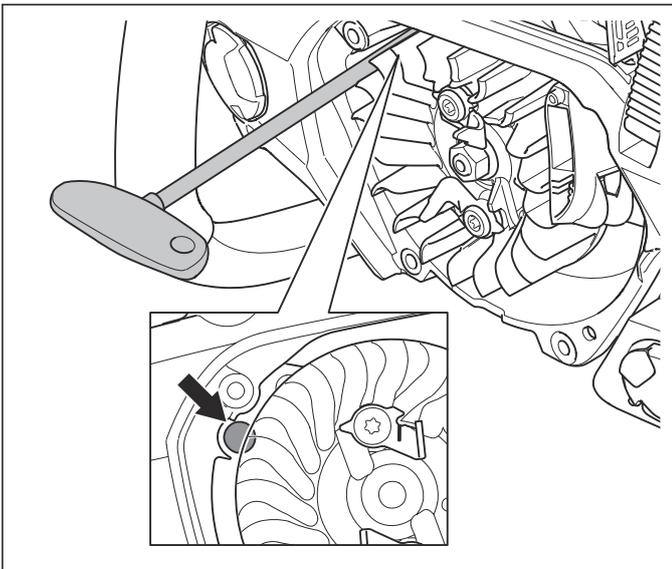
7.21.5 To clean the air channel

The product has an air channel from the the clutch side to the flywheel side.



CAUTION: Make sure that the air channel does not get clogged. A clogged air channel increases the risk to overheat the product.

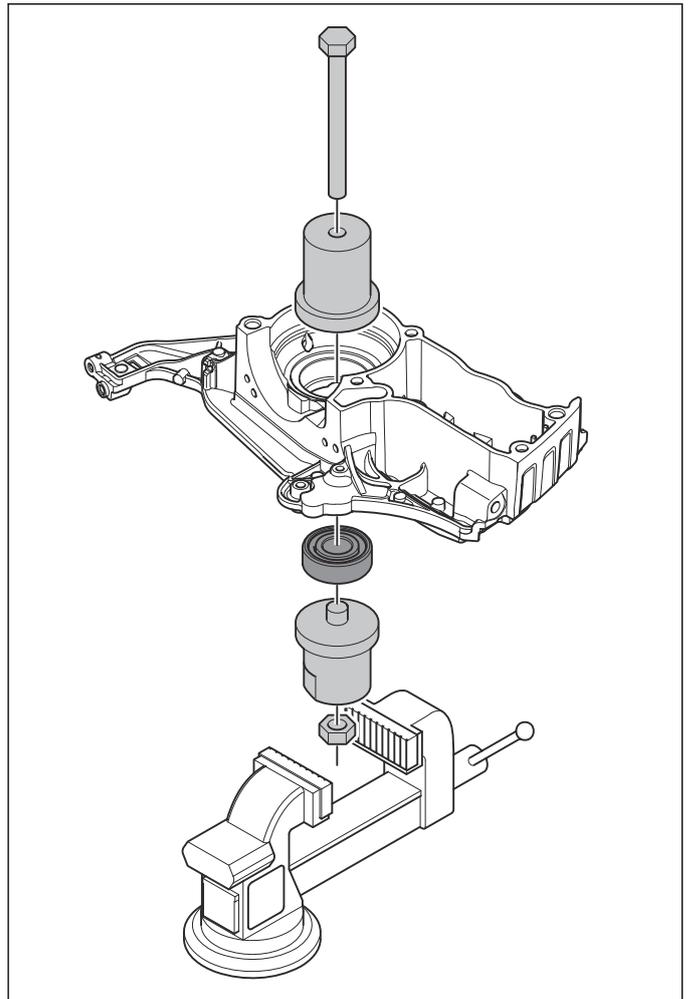
1. Remove the starter from the flywheel side.
2. Remove the clutch cover.
3. Examine the air channel.
4. Push a T-handle Torx T27 or an equivalent tool through the air channel to remove dirt. Compressed air can also be used to clean the air channel. .



7.21.6 To assemble the crankshaft and the crankcase

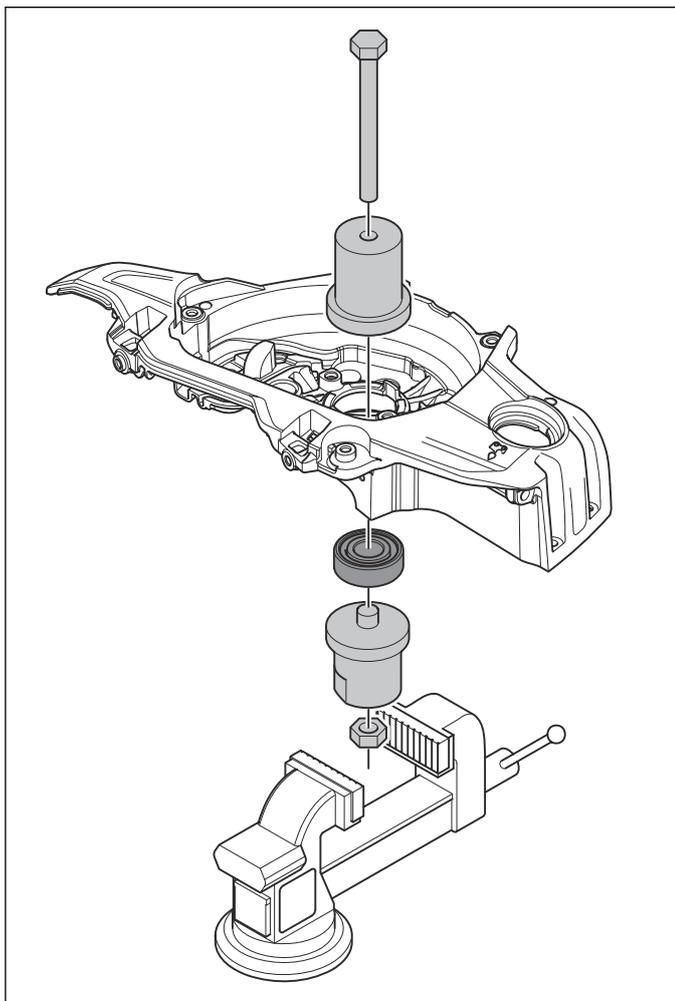
1. On the clutch side:

- a) Put the guide shaft in a vise.
- b) Put the bearing on top of the guide shaft with the sealing up.
- c) Attach the bearing with the sleeve, the screw and the nut.



2. On the flywheel side:
 - a) Put the guide shaft in a vise.
 - b) Put the bearing on top of the guide shaft with the sealing up.

- c) Attach the bearing with the sleeve, the screw and the nut.



Note: The vise, the screw and the nut are not necessary when you use a press.

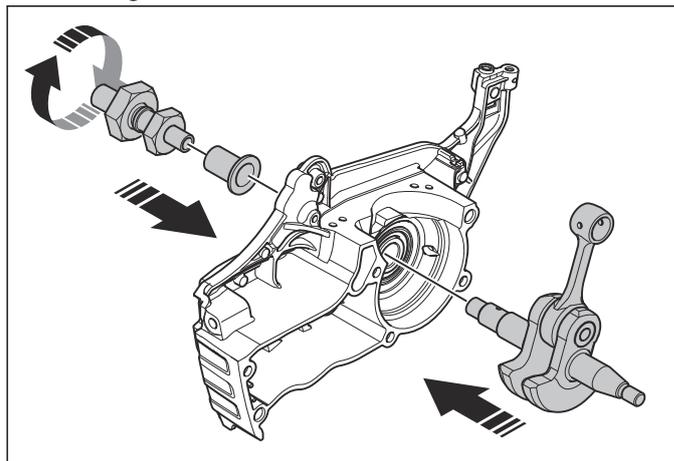


CAUTION: Make sure that dirt and unwanted particles do not go into the bearing.



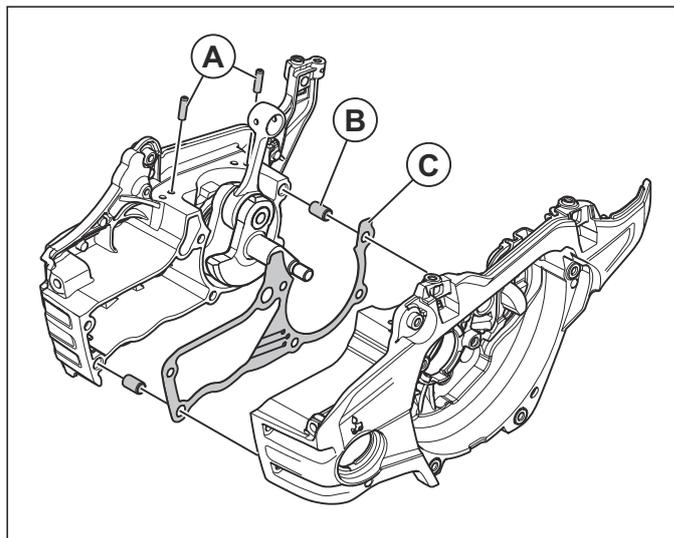
CAUTION: Make sure that you do not put the force only on the inner ring when you use the press.

3. Use the rear side of the sleeve and pull the crankshaft into the crankcase half on the clutch side. Pull until the crankshaft shoulder touches the main bearing.



Note: Make sure that you keep the crankshaft in the correct position.

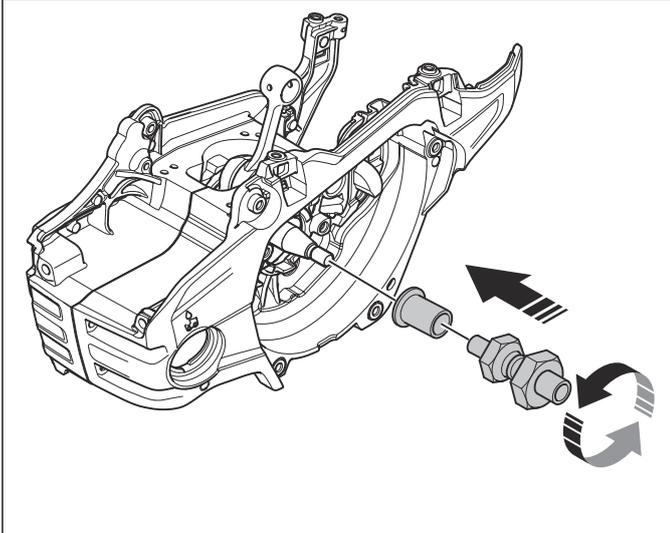
4. Put the 2 cylinder guide pins (A) and the 2 crankcase guide pins (B) in the crankcase half on the clutch side.



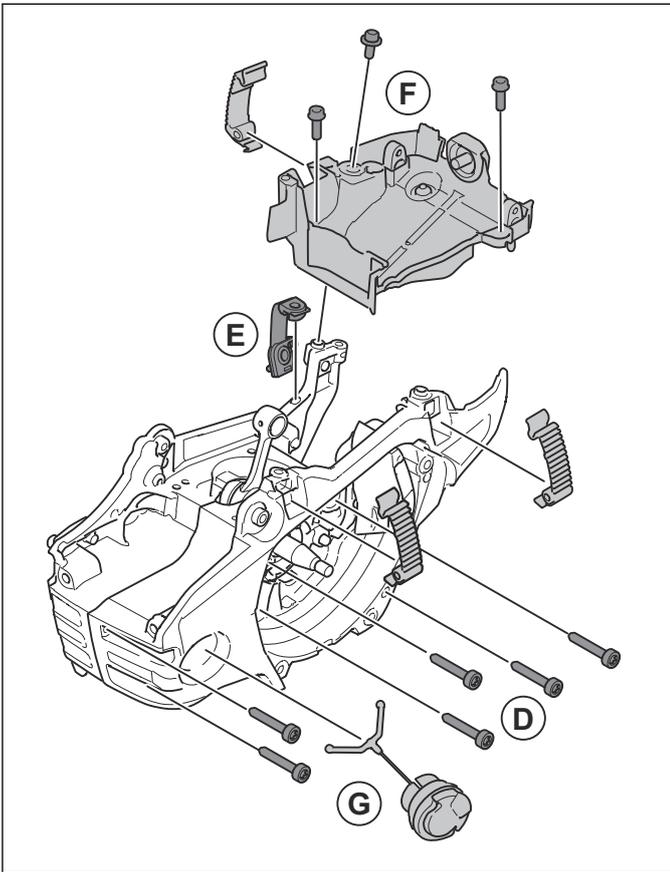
CAUTION: Do not push in the crankcase guide pins and cylinder guide pins too much. Make sure that you can see 6 mm of the crankcase guide pins.

5. Attach the gasket (C) between the crankcase halves.

- Use the crankshaft assembly tool, refer to *Servicing tools on page 11*. Turn the sleeve and push the crankcase half of the flywheel side. Push until the gasket is fixed between the crankcase halves.



- Install the 6 screws (D) and tighten them in turn to the correct torque. Refer to *Servicing data on page 9*.



CAUTION: Make sure that the crankshaft rotates freely.

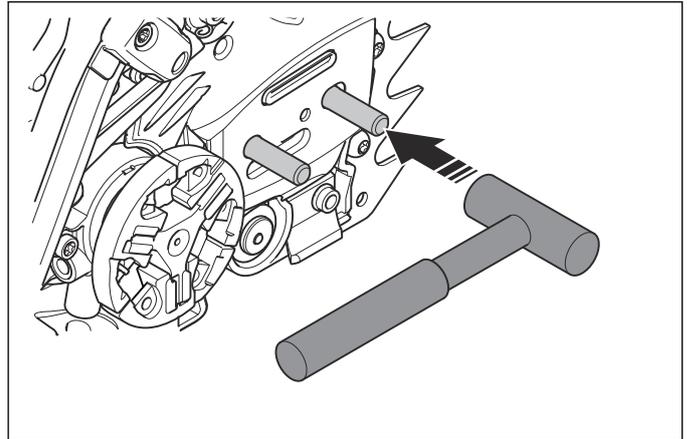
- Carefully cut the gasket along the cylinder interface. Make sure that you do not cause damage to the crankcase surface.
- Install the deflection limiter (E).

- Install the bottom plate of the control unit to the crankcase with the 3 screws (F). Tighten the 3 screws to the correct torque. Refer to *Servicing data on page 9*.
- Install the oil tank cap assembly (G).
- Assemble the remaining parts as given in *To get access to the crankshaft and crankcase on page 59*.

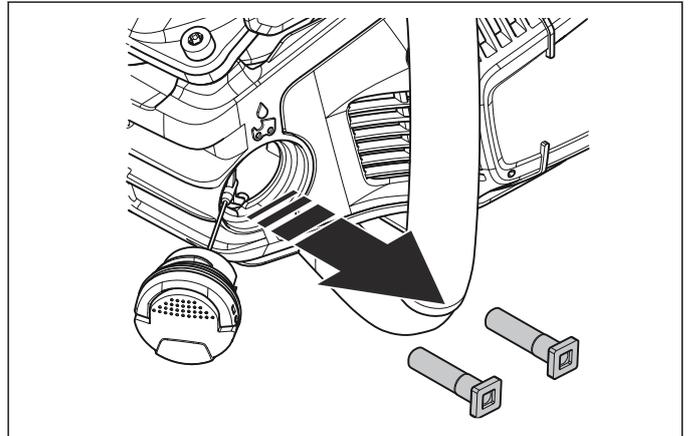
7.22 Guide bar bolts

7.22.1 To remove the guide bar bolts

- Drain the oil tank.
- Remove the clutch cover.
- Hit the guide bar bolts until they fall into the oil tank.

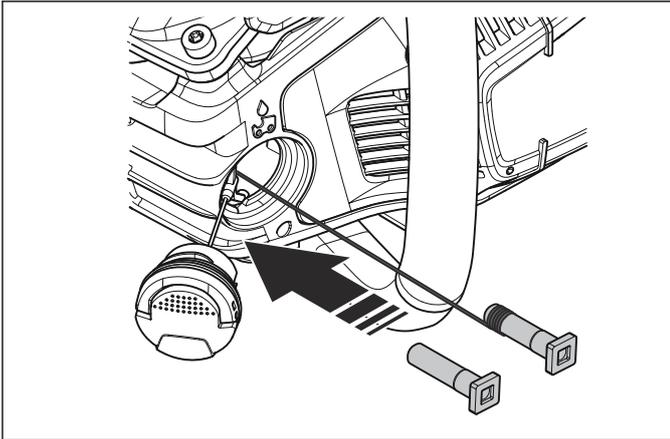


- Remove the guide bar bolts from the oil tank.

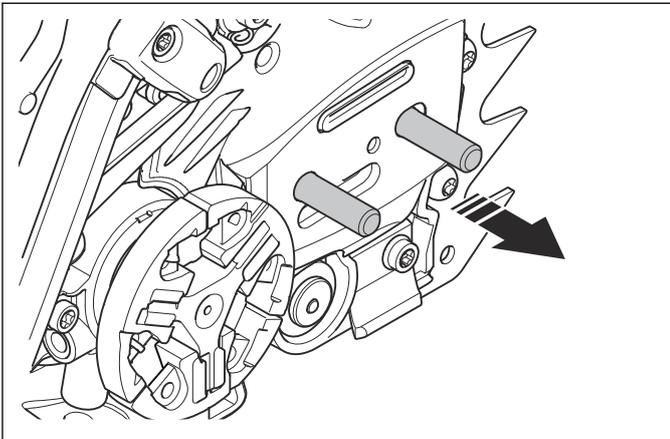


7.22.2 To install the guide bar bolts

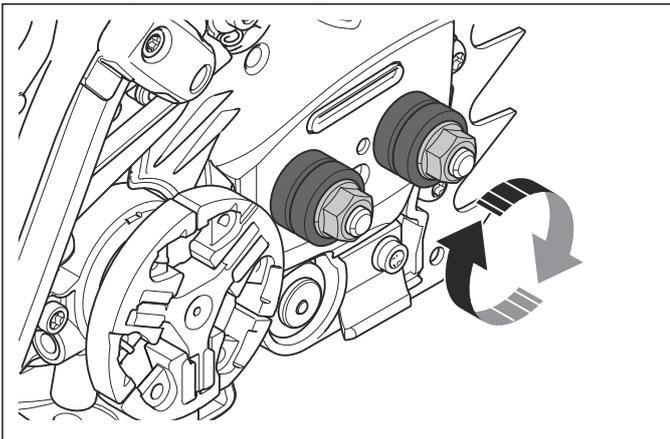
1. Attach a steel wire to the outer part of the guide bar bolt.



2. Put the steel wire through the oil tank and out 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 spaces on each guide bar bolt.



6. Attach a nut to each guide bar bolt and tighten the nuts until the guide bar bolts are tightly attached to the crankcase.

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

7.23 To repair a damaged thread

A damaged thread can be repaired with a thread insert.

Note: For aluminum and magnesium 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.

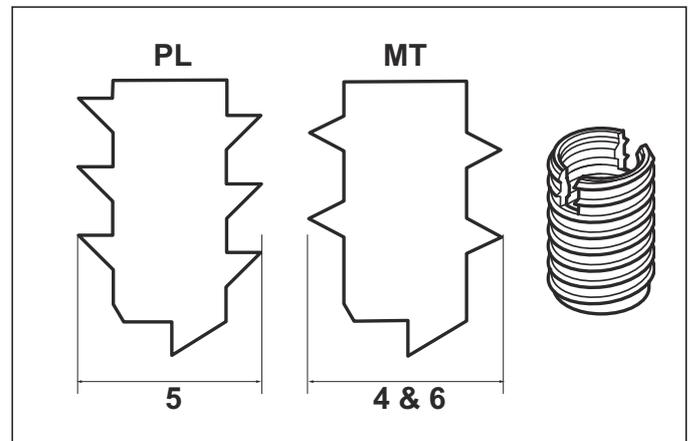
Note:

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

You can do the troubleshooting procedure with most components attached to the product. The necessary tools for the troubleshooting procedure is:

- Ammeter
- Ohmmeter
- Cooling spray

The most common fault is oxidation of the heating element connections in the rear handle and the switch connection.

8.2 To do a check of the engine speed

Note: It is not possible to measure the product speed (RPM) for 564 XP, 564 XPG with a tachometer.

- Connect the product to the Husqvarna Service Hub (HSH) and do an inspection of the operating history to see the speed data.

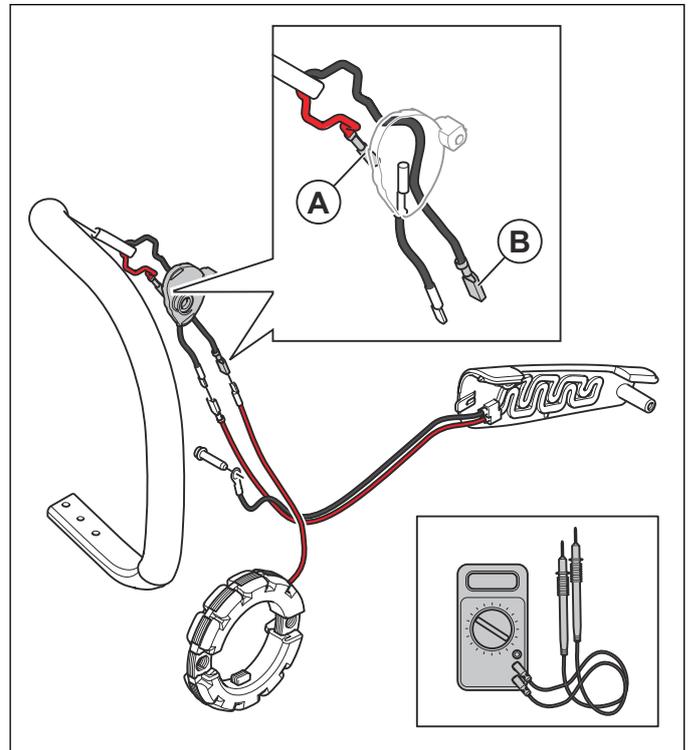
8.3 To examine the engine for air leakages

- **Error code 65:** If the engine has an air leak the control unit will decrease the speed of the product, the engine will only run in idle speed. This speed limit will be active until the leak has been repaired. Make sure to do a pressure test of the engine and repair all identified leaks.

Note: The error code 65 can also occur if the product is started with the throttle in wide open position for a longer period.

8.4 To do troubleshooting of the heating element in the front handle

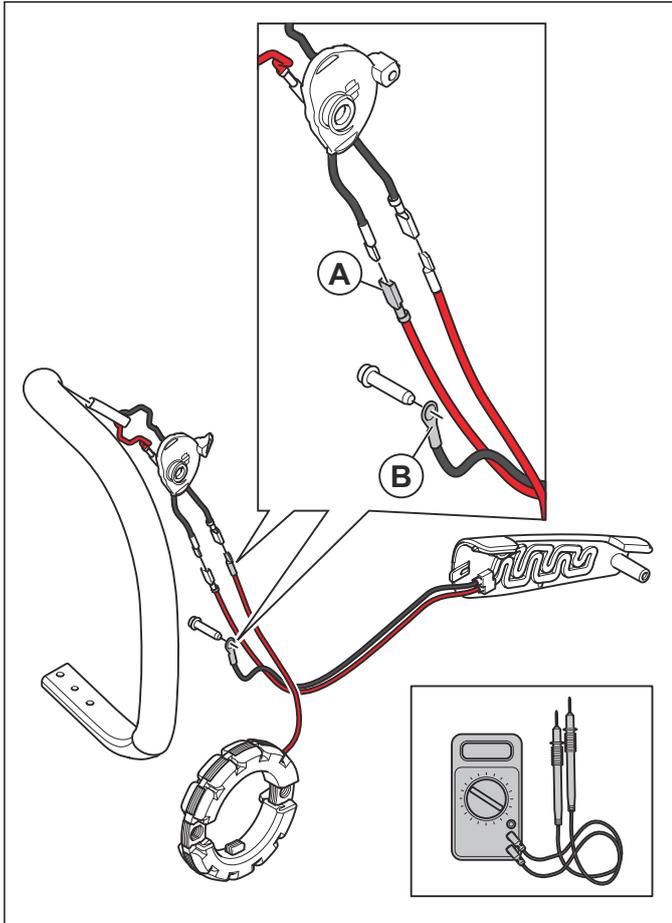
1. Measure the resistance between point (A) and (B). The resistance for heating element must be 3.0–4.0 Ω .



2. Replace the front handle if the resistance is less than 3.0 Ω or more than 4.0 Ω .

8.5 To do troubleshooting of the heating element in the rear handle

1. Disconnect the cable connections (A) and (B).

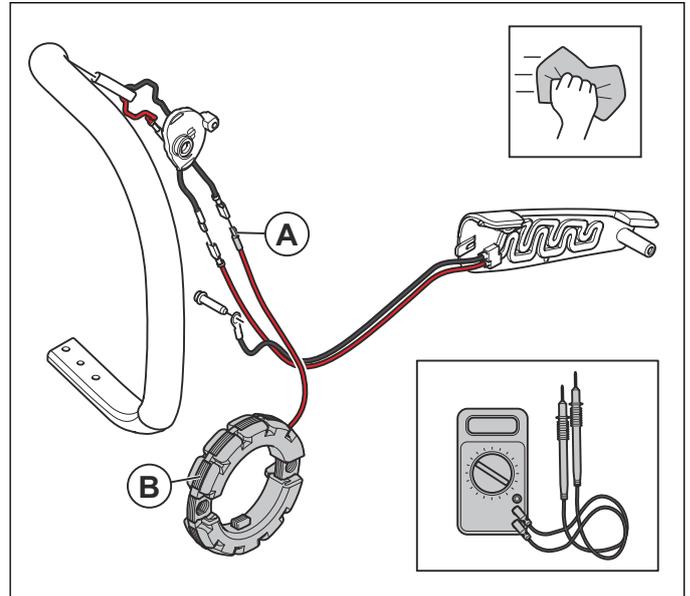


2. Clean the cable connections (A) and (B).
3. Measure the resistance between cable connection (A) and (B). The resistance for the heating element must be 0.4–1.0 Ω .
4. Replace the heating element if the resistance is less than 0.4 Ω or more than 1.0 Ω .

8.6 To do troubleshooting of the generator

Note: Make sure to clean the area of point (B) before you measure the resistance.

1. Measure the resistance in the generator between point (A) and (B). The resistance for the generator must be 0.5 Ω or less.



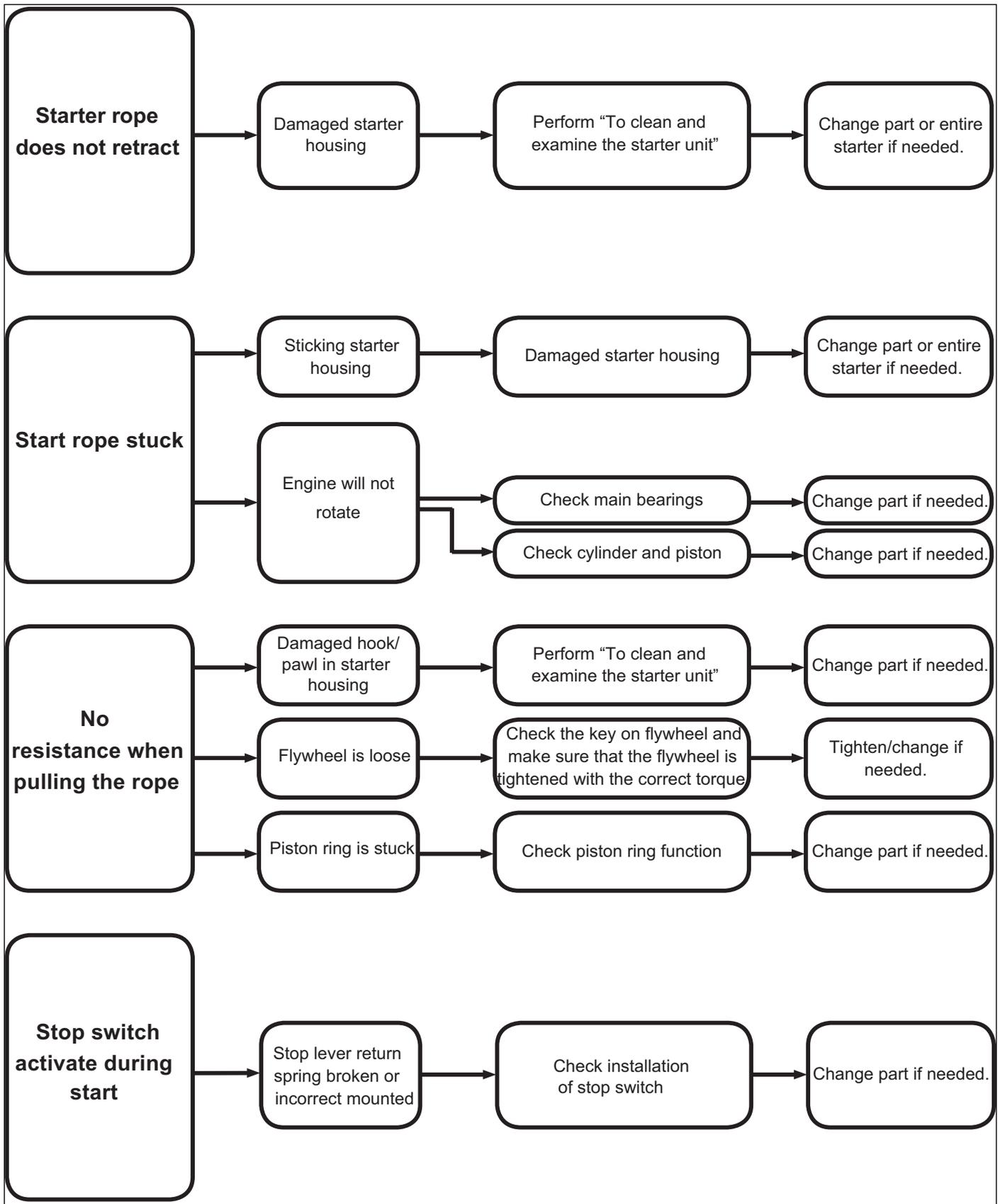
2. Replace the generator if the resistance is more than 0.5 Ω .

8.7 To calibrate the engine

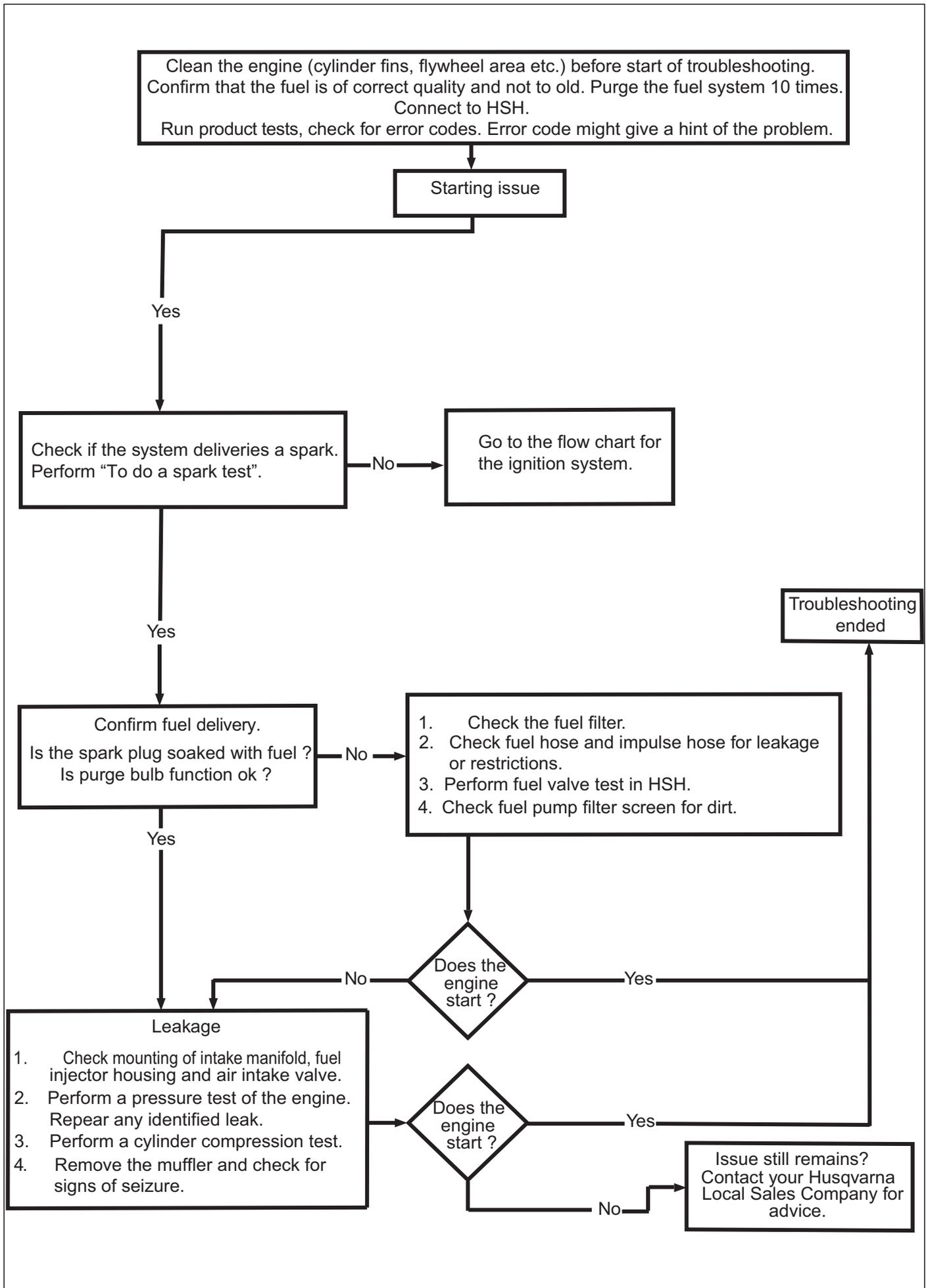
Note: If the calibration does not work. Do a factory reset of the fuel settings and do the calibration again. Connect to the Husqvarna Service Hub (HSH) to do the factory reset.

1. Make sure that the air filter and the fuel filter are clean.
2. Start the product and let the engine become warm.
3. Apply full throttle and cut discs from a trunk for 1 minute. The trunk must have diameter of minimum 30 cm. Fully release the throttle trigger and let the engine come down to idle speed between each cut.
4. Let the engine idle for 7 minutes.
5. Stop the product.

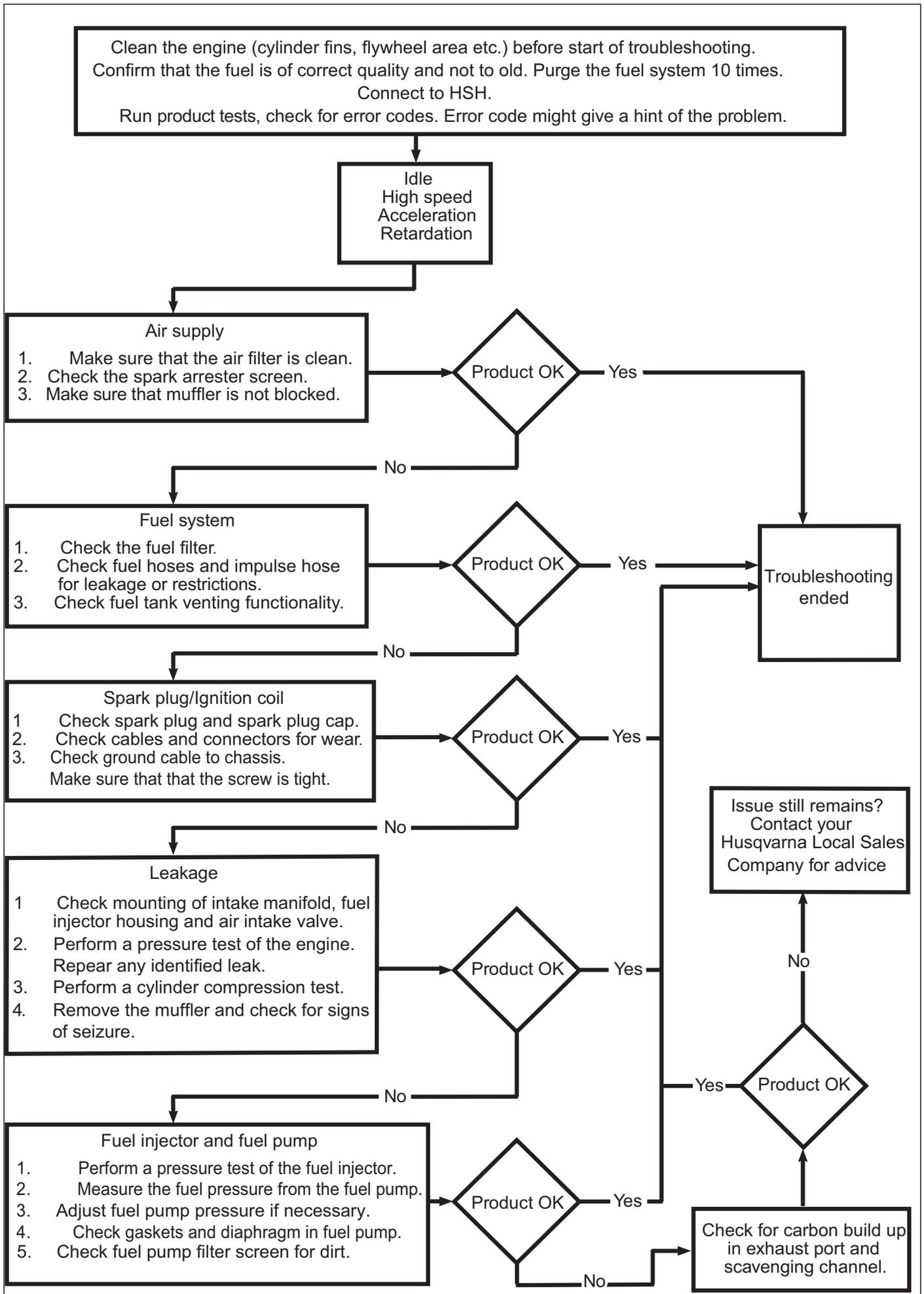
8.8 Troubleshooting diagram



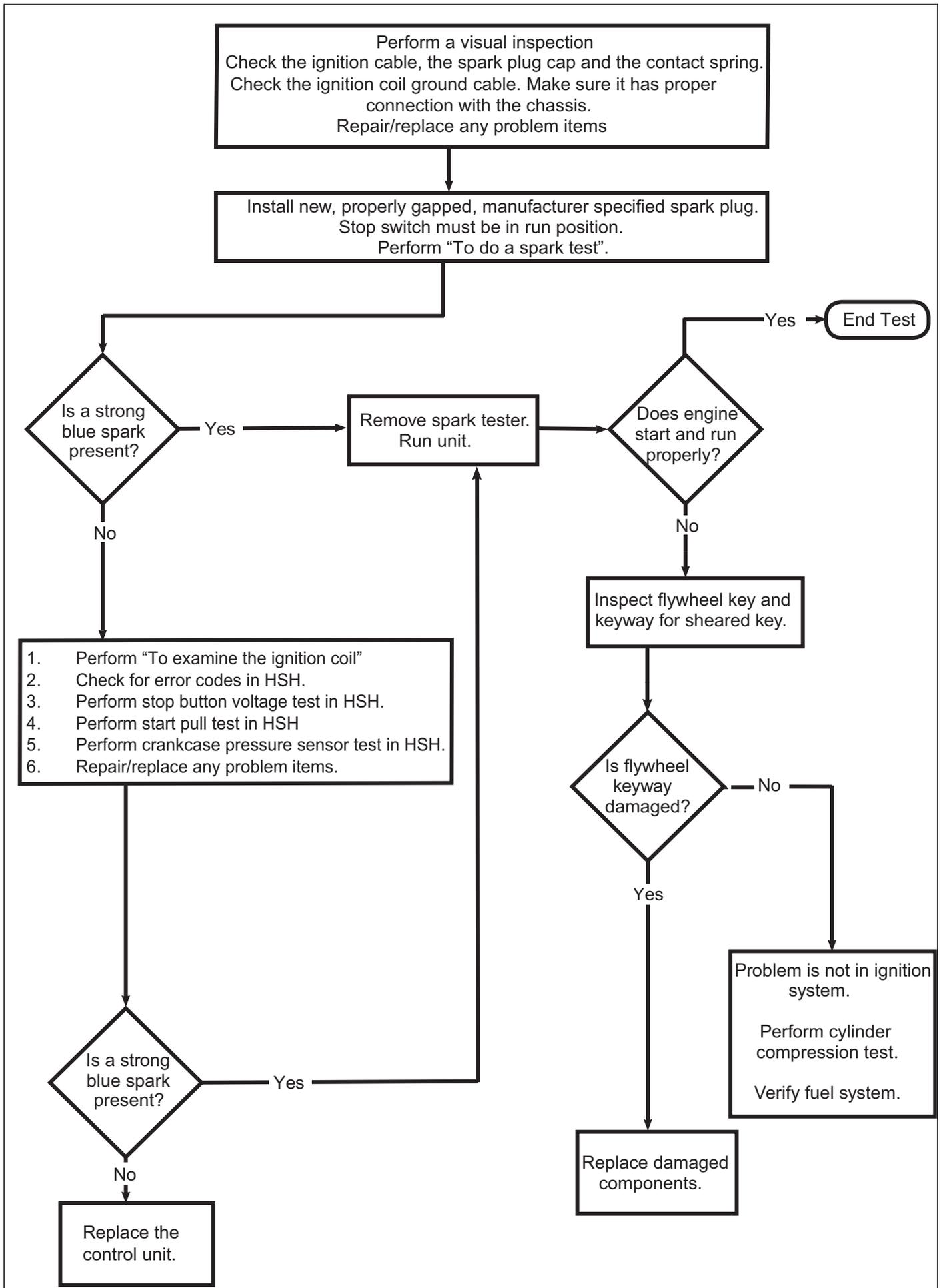
8.9 Engine running issue



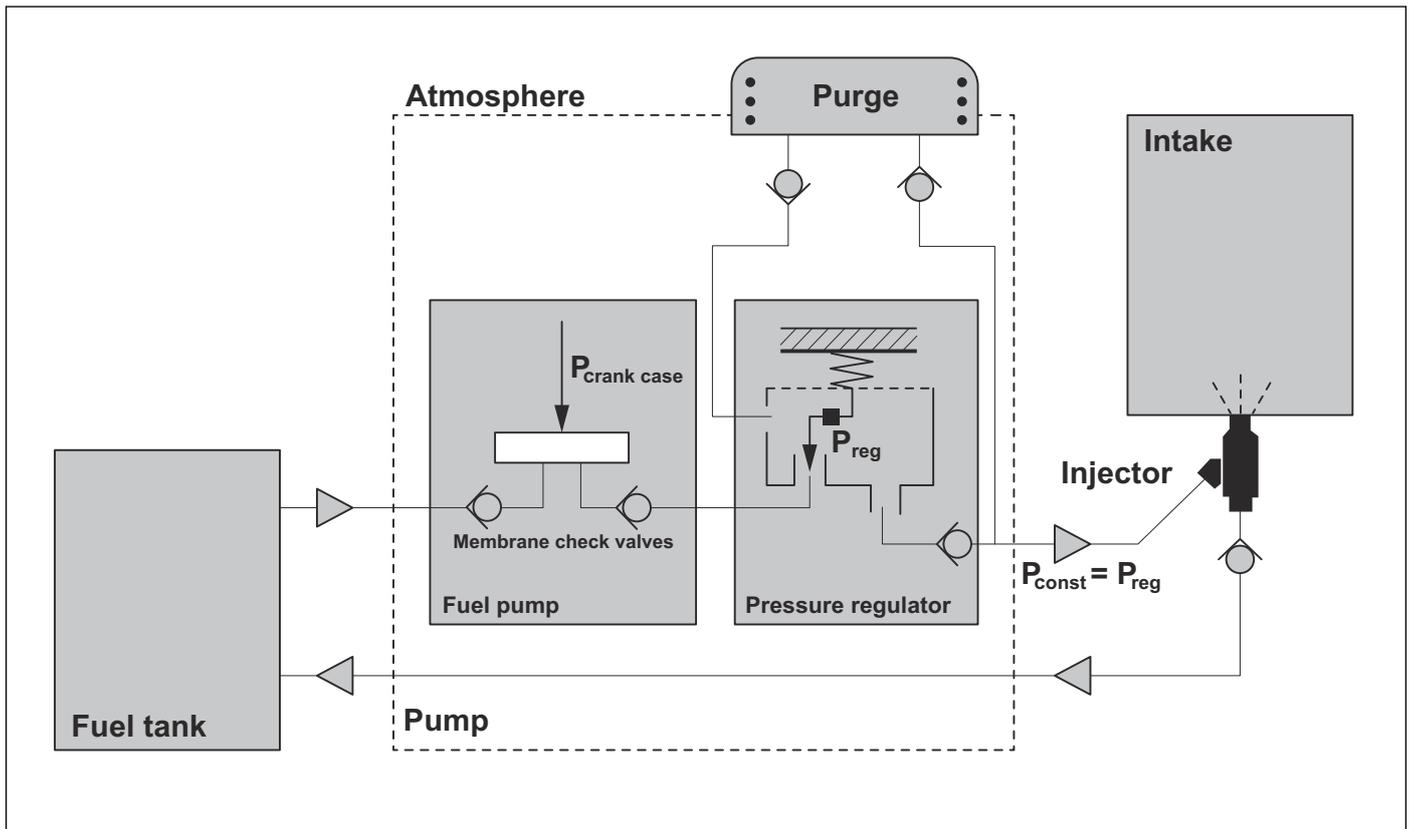
8.10 Engine running issue



8.11 Ignition System



8.12 Fuel system overview



9 Technical data

9.1 Technical data

	Husqvarna 564 XP	Husqvarna 564 XPG
Engine		
Cylinder displacement, cm ³	62.4	62.4
Idle speed, min ⁻¹ (rpm)	2800	2800
Maximum engine power acc. to ISO 7293, kW/hp @ min ⁻¹ (rpm)	4.0/5.4 @ 10200	4.0/5.4 @ 10200
Ignition system ²		
Spark plug	NGK CMR6H	NGK CMR6H
Electrode gap, mm	0.5	0.5
Fuel and lubrication system		
Fuel tank capacity, liter/cm ³	0.64/640	0.64/640
Oil tank capacity, liter/cm ³	0.32/320	0.32/320
Type of oil pump	Adjustable	Adjustable
Weight		
Weight, kg	5.8	5.9
Saw chain/guide bar		
Type of drive sprocket/number of teeth	Rim/7	Rim/7
Saw chain speed at maximum engine speed, m/s	21.3	21.3

² Always use the recommended spark plug type! Use of the wrong spark plug can damage the piston/cylinder.



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