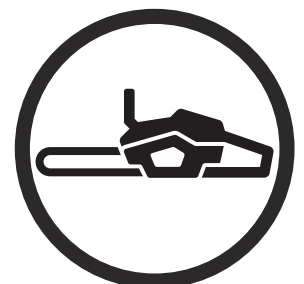


Workshop manual

**560 XP Mark II, 560 XPG Mark II,  
562 XP Mark II, 562 XPG Mark II**



English

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# 1 Introduction

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## 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

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

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## 1.5 Servicing tools

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

## 2 Safety

### 2.1 Safety definitions

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



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



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

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

### 2.2 General safety instructions



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

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

### 2.3 Special safety instructions

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

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

### 2.4 Symbols on the product



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.



This product conforms to applicable UK regulations.



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 67* and on the label.



Start.



Air purge bulb.



Adjustment of the oil pump.



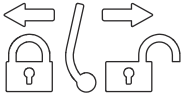
Fuel.



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

Maintenance	Before operation	After 40 h	After 100 h
Clean the external parts of the product and make sure that there is no oil on the handles.	After each operation.		
Clean the muffler, exhaust pipe and engine from dirt and unwanted lubricant.	After each operation.		
Clean the air intake on the starter.	X		
Make sure that the saw chain does not move at idle speed.	X		
Do a check of the stop switch.	X		
Clean and do a check of the chain brake.	X		
Do a check of the chain drive sprocket.	X		
Sharpen the saw chain.	X		
Do a check of the tension of the saw chain.	X		
Do a check of the chain catcher.	X		
Turn the guide bar, do a check of the lubrication hole and clean the groove in the guide bar.	X		
Make sure that the guide bar and saw chain are sufficiently lubricated.	X		
Do a check of the throttle trigger lockout and the throttle trigger.	X		
Examine the engine, the fuel tank and the fuel lines for leaks.	X		
Make sure that the external screws and nuts are tight.	X		
Examine the starter and the starter rope for wear and damage.		X	
Clean between the cooling fins on the cylinder.		X	
Clean the air filter. Replace the air filter if it is necessary.		X	
Examine the vibration damping units for wear and damage.		X	
Lubricate the needle bearing for the clutch drum.		X	
Clean the cooling system. Make sure to clean the flywheel fins.		X	
Clean the external surface of the carburetor and the area around it.		X	
Remove burrs from the edges of the guide bar.		X	
Clean the air channel.		X	
Clean the spark arrester screen. Replace the spark arrester screen if it is necessary.			X
Clean the inner surface of the fuel tank.			X
Clean the inner surface of the chain oil tank.			X
Examine the fuel filter for contamination and the fuel hose for damage. Replace the parts if it is necessary.			X
Clean the spark plug and do a check of the electrode gap. Replace the spark plug if it is necessary.			X
Do a check of all cables and connections.			X
Do a check of the clutch assembly and the clutch drum for wear. Replace the parts if it is necessary.			X
Do a check of the brake band.			X

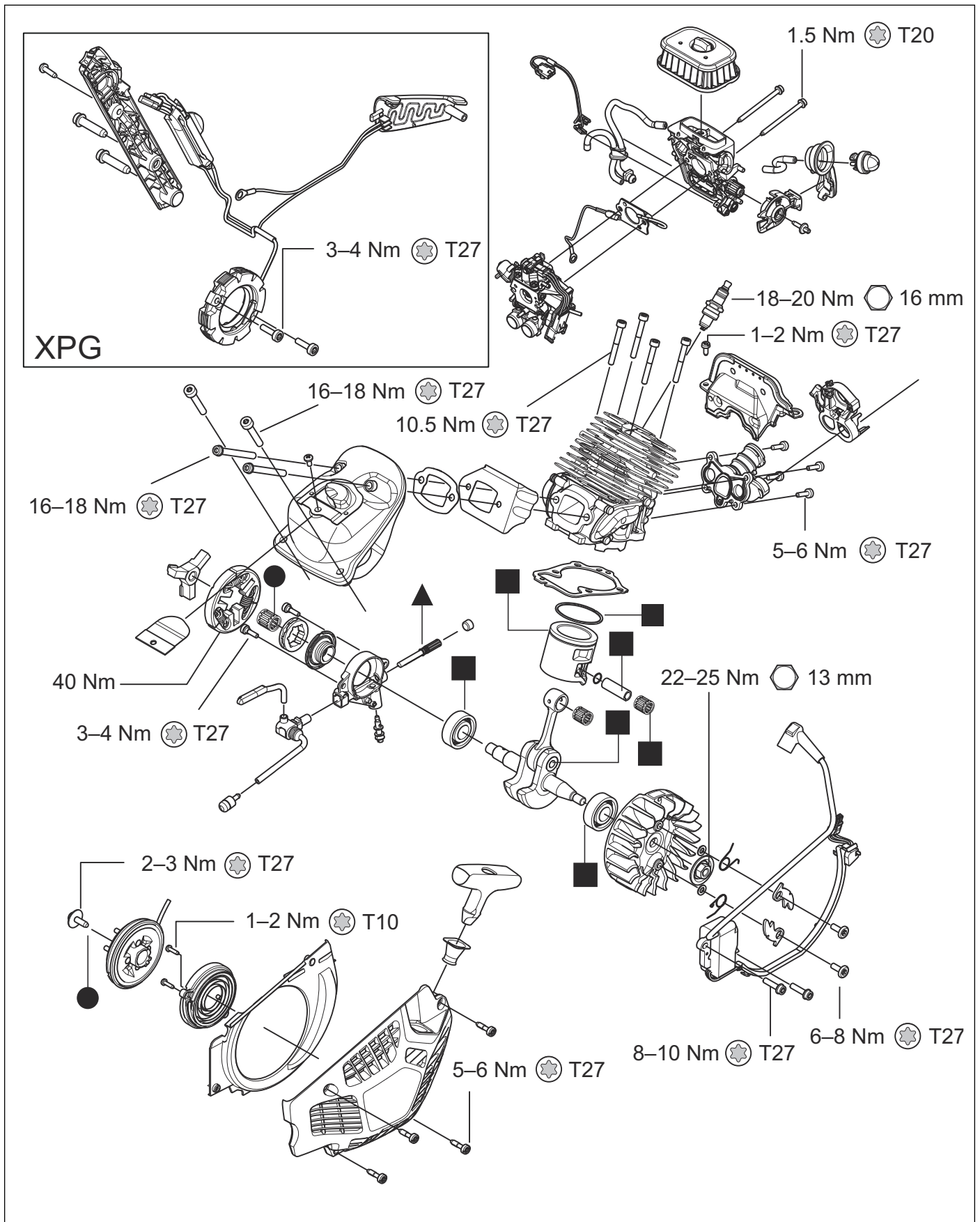
# 4 Servicing data

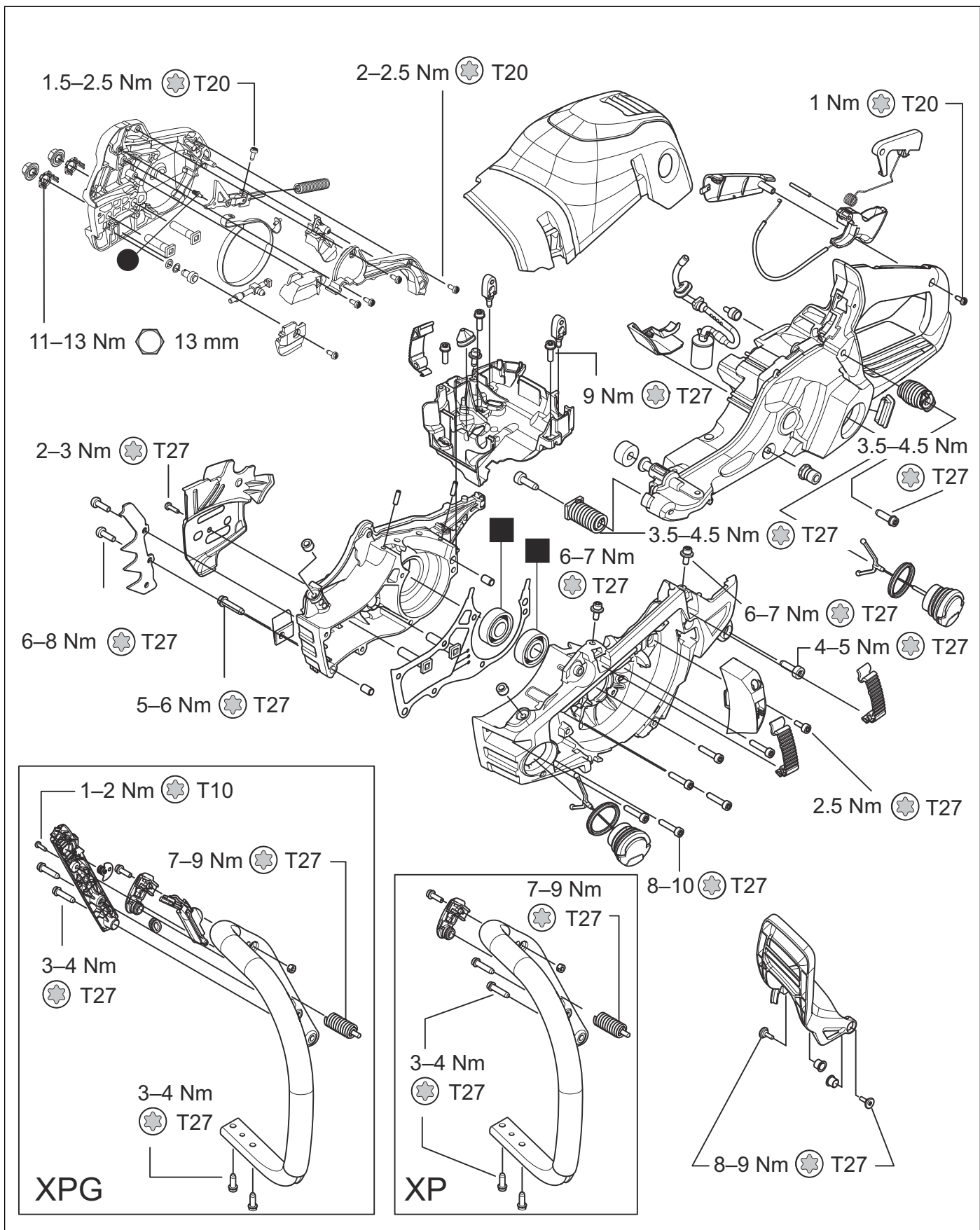
## 4.1 Servicing data

● Lubricate with grease.

■ Lubricate with two-stroke oil.

▲ Lubricate with chain oil.

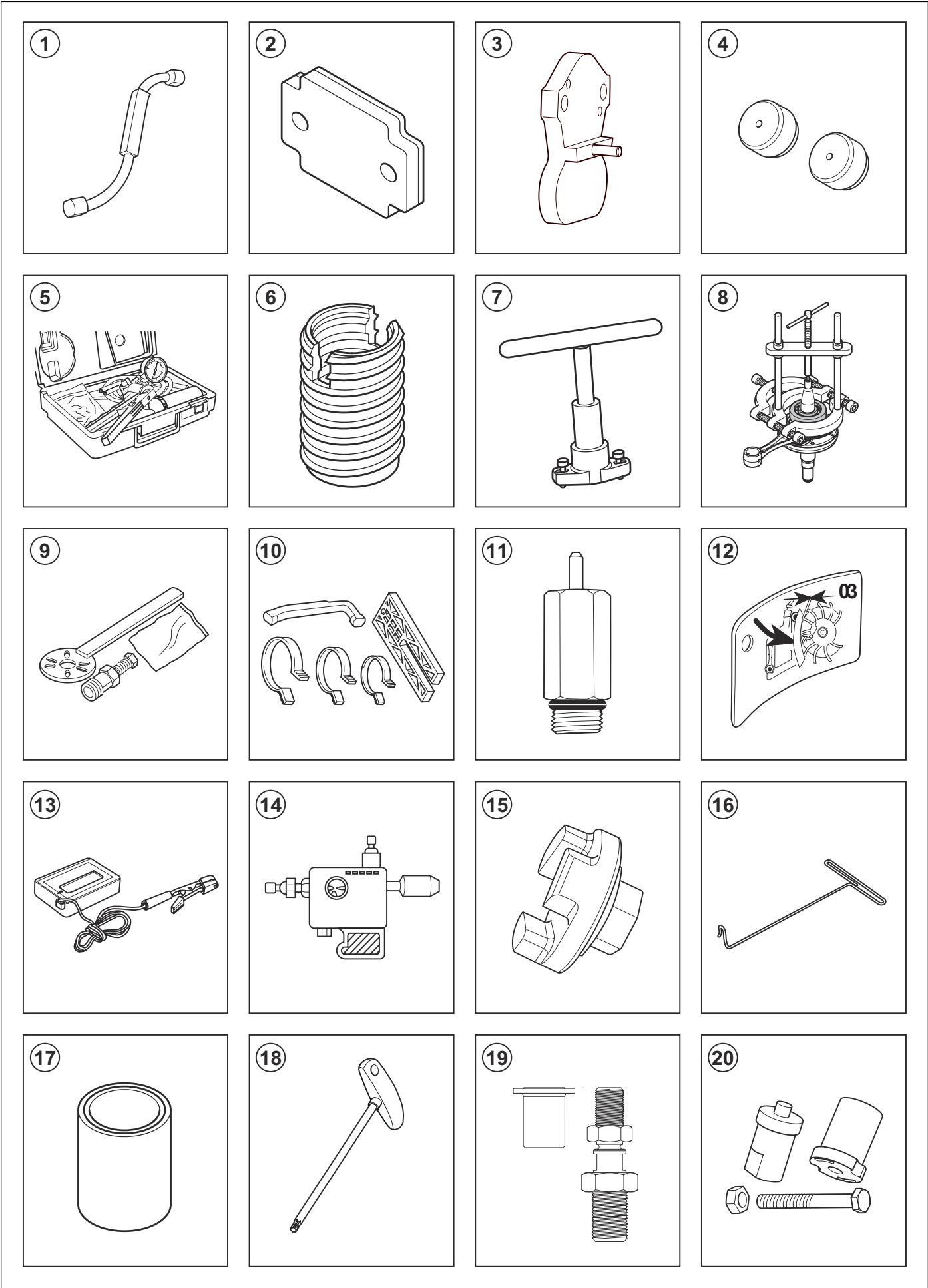


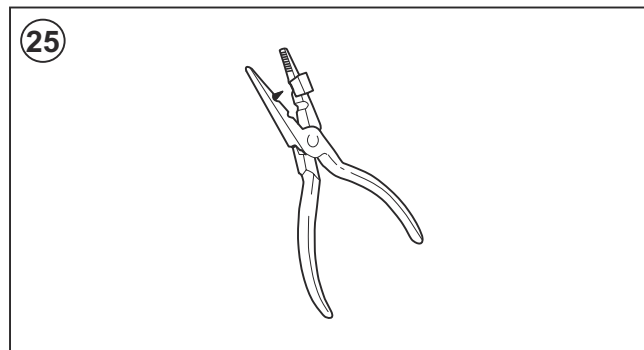
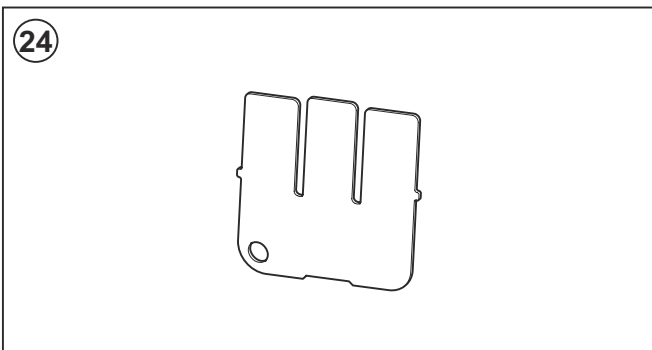
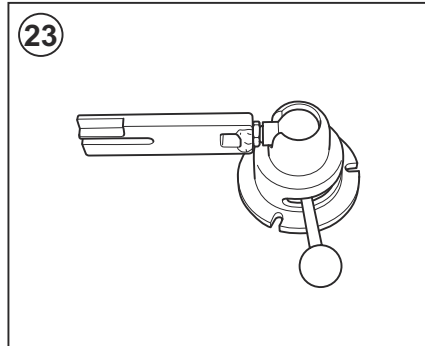
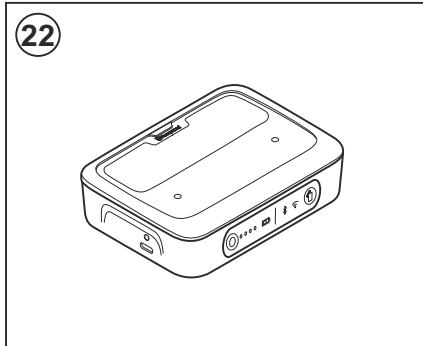
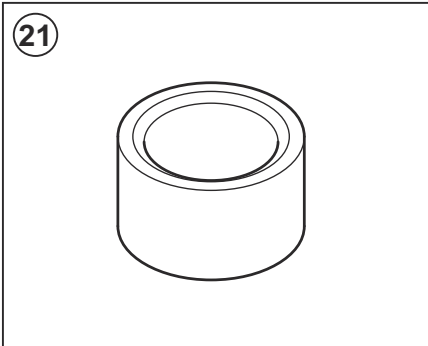




# 5 Servicing tools

## 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.	575 29 81-01
3	Cover plate for inlet	To seal the intake system.	536 79 01-01
4	Plugs for inlet	To seal the intake system.	574 70 12-01
5	Pressure tester	To do a pressure test.	531 03 06-23
6	Thread insert	To repair threads.	Several sizes
7	Crankcase disassembly tool, flywheel side	To disassemble the crankcase.	593 74 42-01
8	Puller	To remove the bearings from the crankshaft.	531 00 48-67
9	Flywheel puller kit	To remove the flywheel.	502 51 49-02
10	Piston assembly kit	To assemble the piston.	502 50 70-01
11	Adapter for pressure tester	To do a pressure test of the cylinder.	503 84 40-03
12	Air gap gauge	To measure the distance between the flywheel and the ignition module.	502 51 34-02
13	Tachometer	To measure RPM.	502 71 14-01
14	Ignition tester	To do a spark test.	501 97 64-01
15	Clutch tool	To remove the clutch.	582 83 42-01
16	Fuel filter hook	To pull out the fuel filter from the tank.	502 50 83-01
17	Press tool, seals	To install the crankcase bearing seals.	596 87 18-01
18	T-handle Torx, T27	To remove and install Torx screws.	502 71 27-03
	T-handle Torx, T20	To remove and install Torx screws.	588 59 85-01
	T-handle Torx, T10	To remove and install Torx screws.	588 52 41-01
19	Crankshaft assembly tool	To assemble the crankshaft.	502 50 30-23

Item	Description	Use	Article number
20	Crankshaft bearing tool	To install the bearings on the crankshaft.	593 79 15-01
21	Seal ring guide	To install the seal ring.	575 34 69-01
22	HSH Interface Box Kit	To do a check of the product and install updates to the firm-ware.	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	Metering lever gauge	To adjust the metering lever.	590 58 54-01
25	Assembly pliers	To repair the ignition cable.	502 50 06-01

## 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. There is also a diagnostic tool list and a list of saved error codes. The Husqvarna Service Hub (HSH) is also used to update the software if applicable.

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

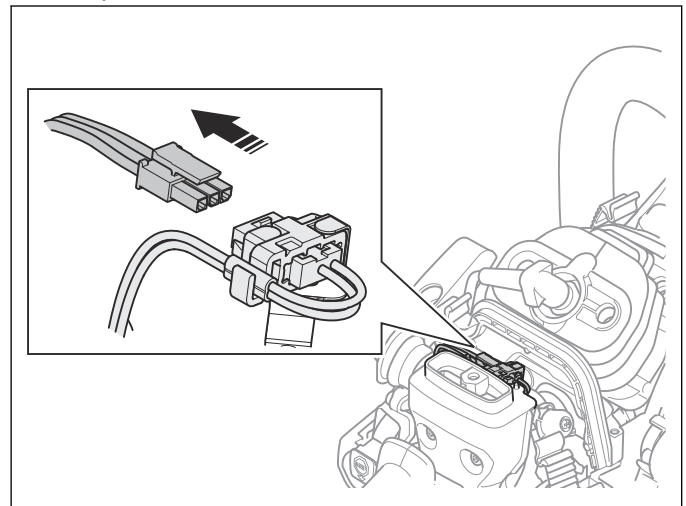


**CAUTION:** Make sure that the AutoTune™ carburetor and the ignition module are connected to each other before you install software updates. If the AutoTune™ carburetor and the ignition module are not connected to each other, you will get an error message in Husqvarna Service Hub (HSH).

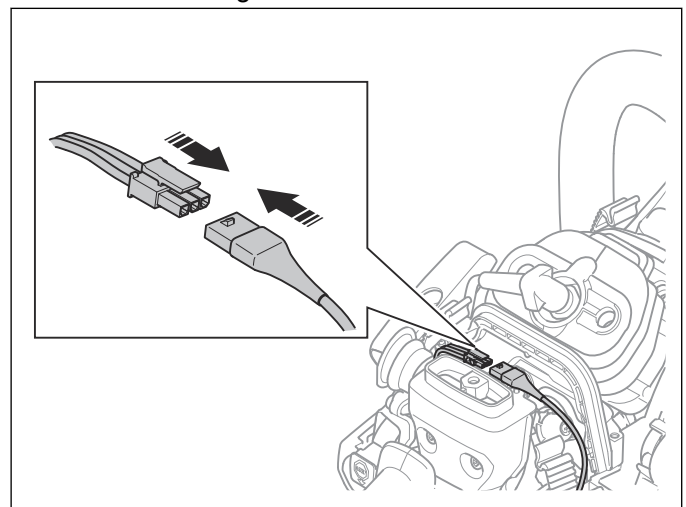
**Note:** It can be necessary to install firmware to a new spare part. Make sure that you know the Husqvarna Identification Number (HID) of the new spare parts before you connect the product to Husqvarna Service Hub (HSH). The Husqvarna Identification Number (HID) is found on the spare part.

1. Start Husqvarna Service Hub (HSH).
2. Connect the HSH Interface Box to the computer.
3. Connect the correct adapter cable between the HSH Interface Box and the servicing connector on the product.

- a) Disconnect the servicing connector on the product.



- b) Connect the cable from the HSH Interface Box to the servicing connector.



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



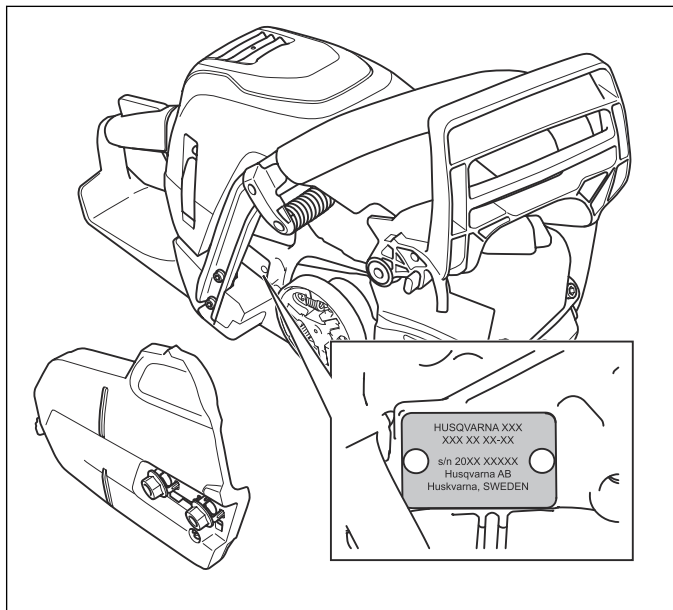
**CAUTION:** Do not disconnect the HSH Interface Box until the update is completed.

---

## 6 Function overview

### 6.1 Type plate and product serial number

The product serial number is given on the type plate. 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.

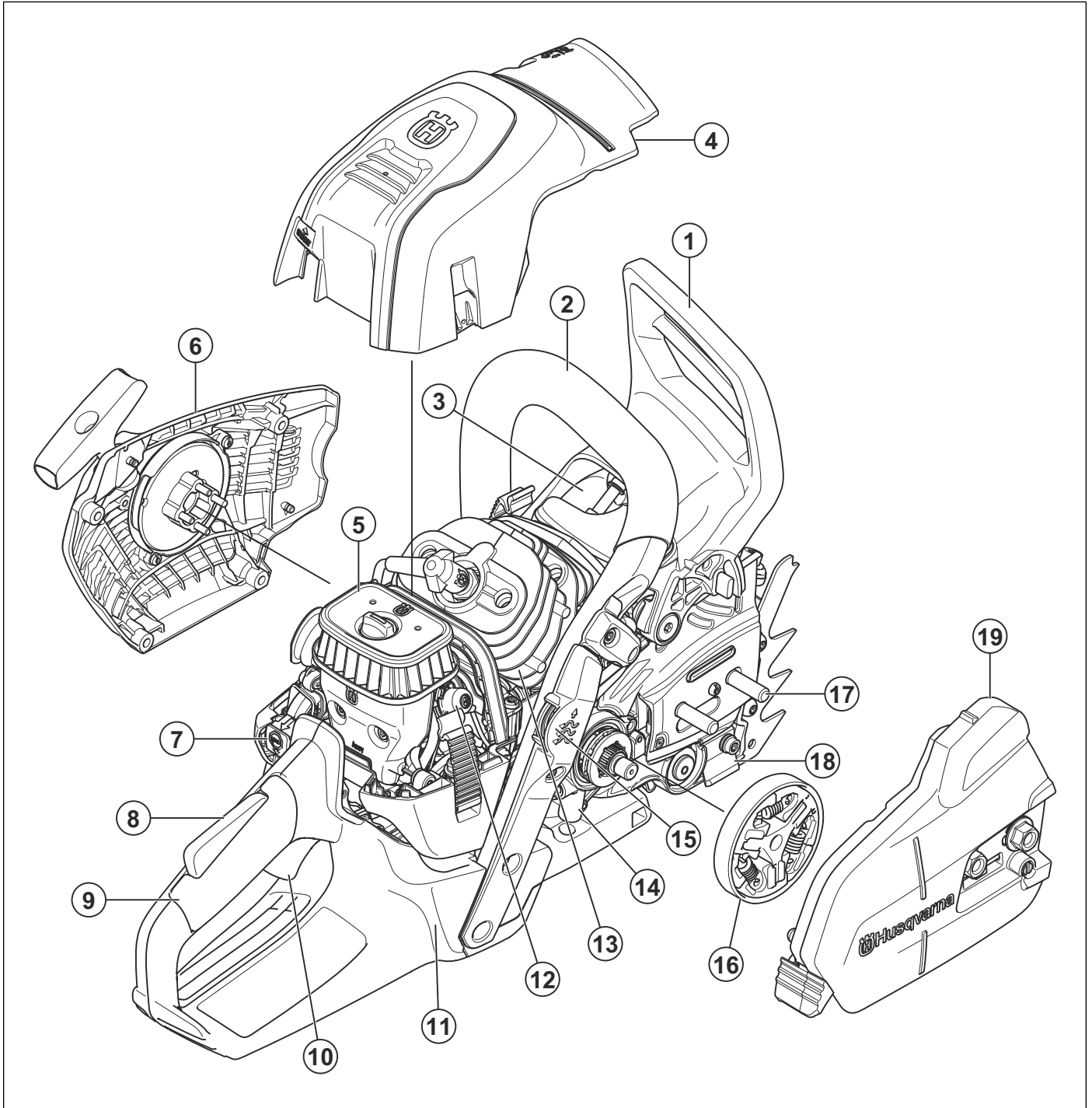
If Husqvarna two-stroke oil is not available, use a two-stroke oil of good quality for aircooled engines. Speak to your servicing dealer to select the correct oil.

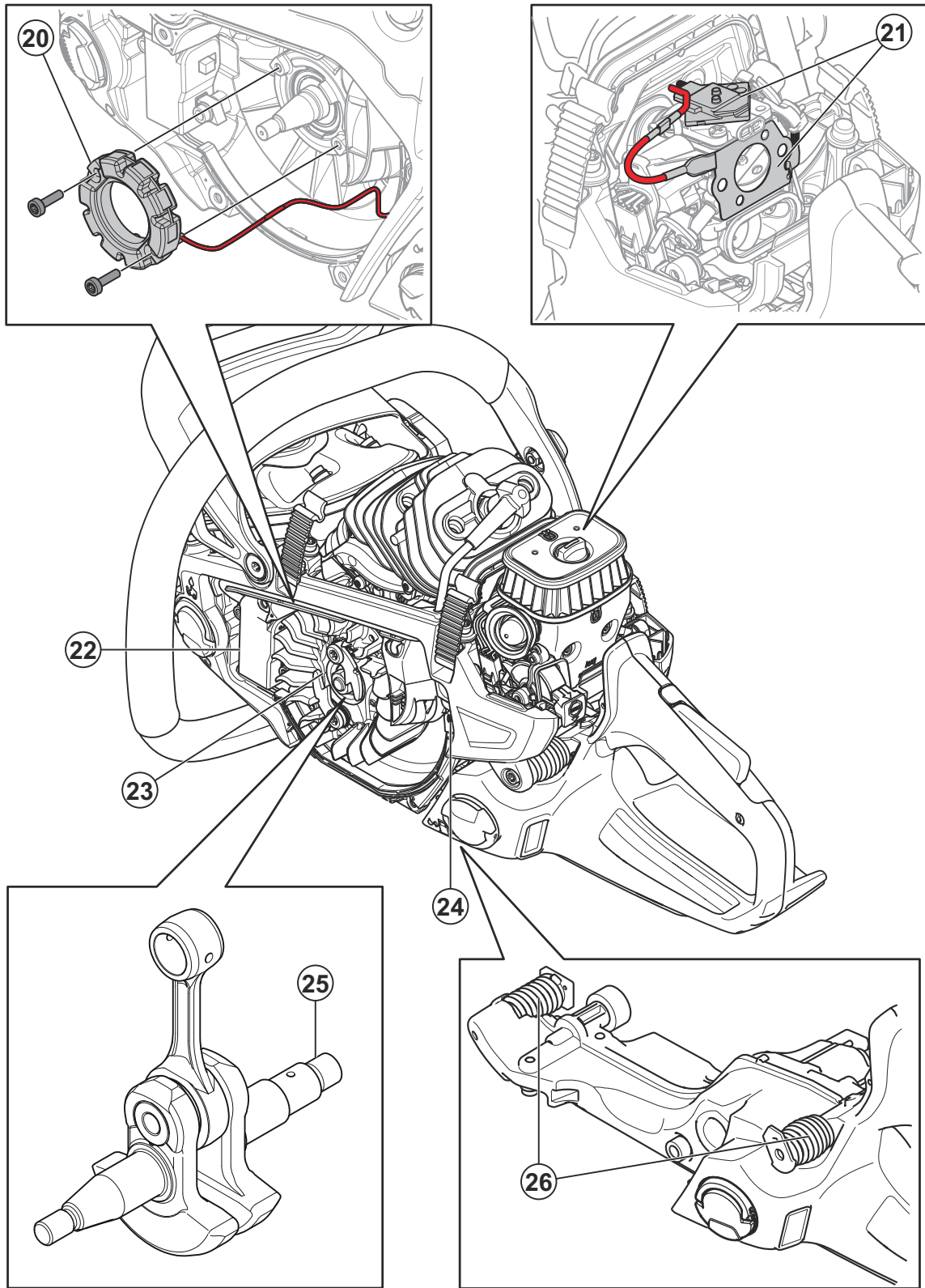
##### 6.2.2.3 To mix gasoline and two-stroke oil

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





- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1. Front handguard</li> <li>2. Front handle</li> <li>3. Muffler</li> <li>4. Cylinder cover</li> <li>5. Air filter</li> <li>6. Starter unit</li> <li>7. Start/stop switch</li> <li>8. Throttle trigger lockout</li> <li>9. Rear handle</li> </ul> | <ul style="list-style-type: none"> <li>10. Throttle trigger</li> <li>11. Fuel tank</li> <li>12. Carburetor</li> <li>13. Cylinder and piston</li> <li>14. Lubrication system</li> <li>15. Heated handle switch (XPG models only)</li> <li>16. Centrifugal clutch and clutch drum</li> <li>17. Guide bar bolts</li> <li>18. Chain catcher</li> </ul> |
|---|--|

- 19. Clutch cover
- 20. Generator (XPG models only)
- 21. Thermostat and heating element (XPG models only)
- 22. Ignition system
- 23. Flywheel
- 24. Crankcase
- 25. Crankshaft
- 26. 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.

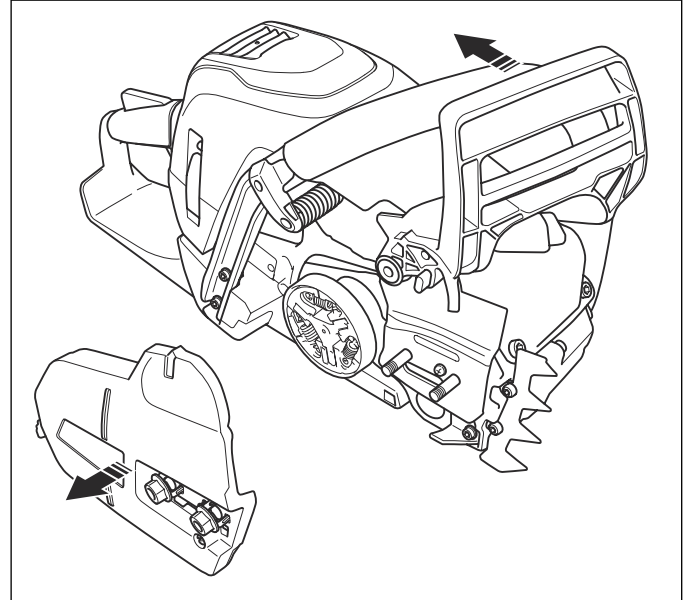
## 7.3 Chain brake

### 7.3.1 To disassemble the chain brake

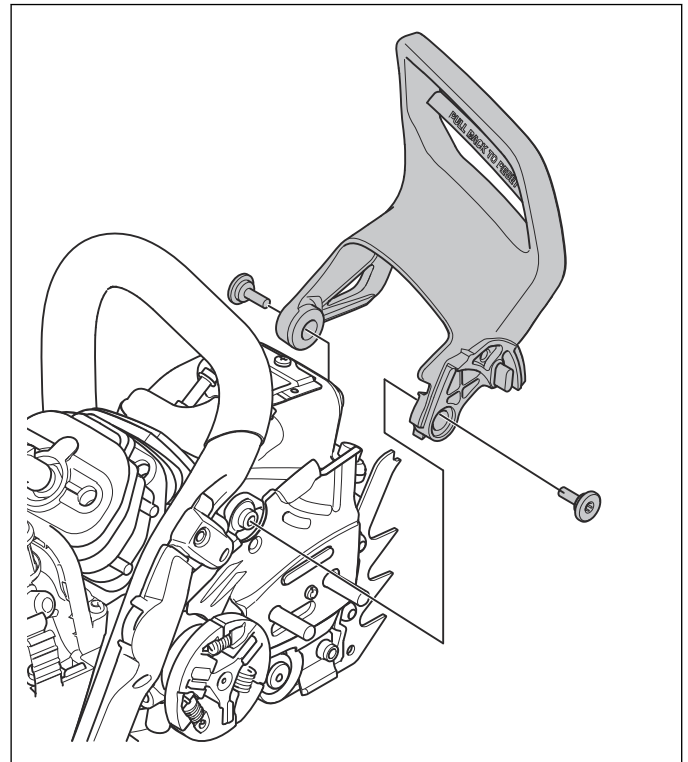


**WARNING:** Use approved eye protection. The recoil spring can eject and cause injuries.

1. Loosen the 2 nuts on the clutch cover and remove the clutch cover.

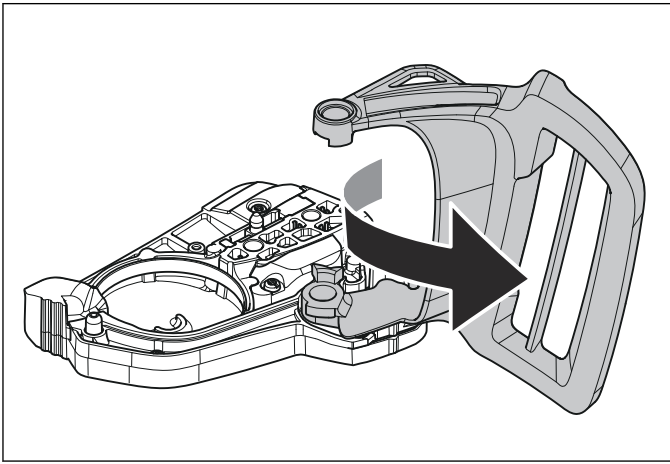


2. Remove the 2 screws and remove the front handguard.

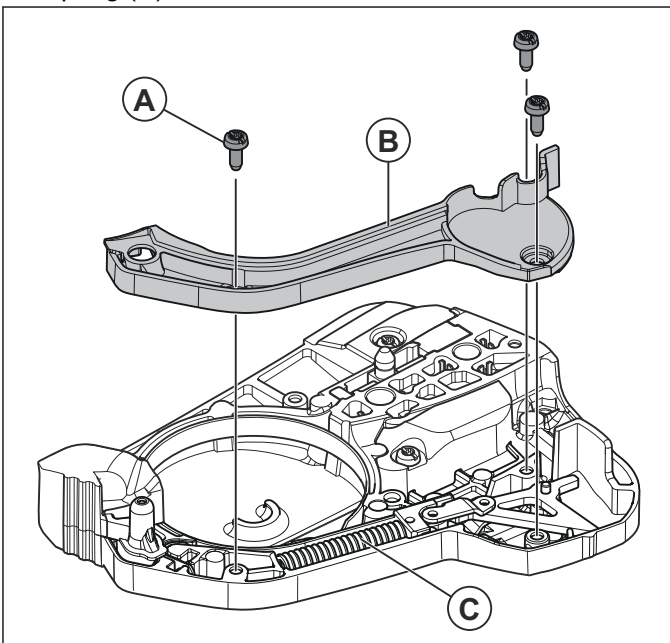




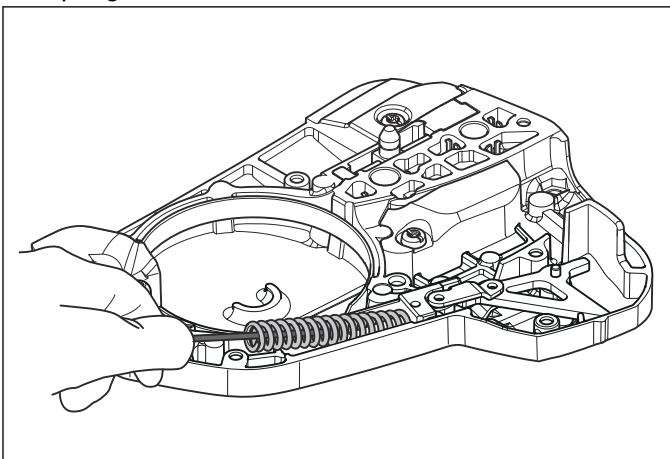
- Carefully tighten the clutch housing in a vise. Use the handguard to release the chain brake.



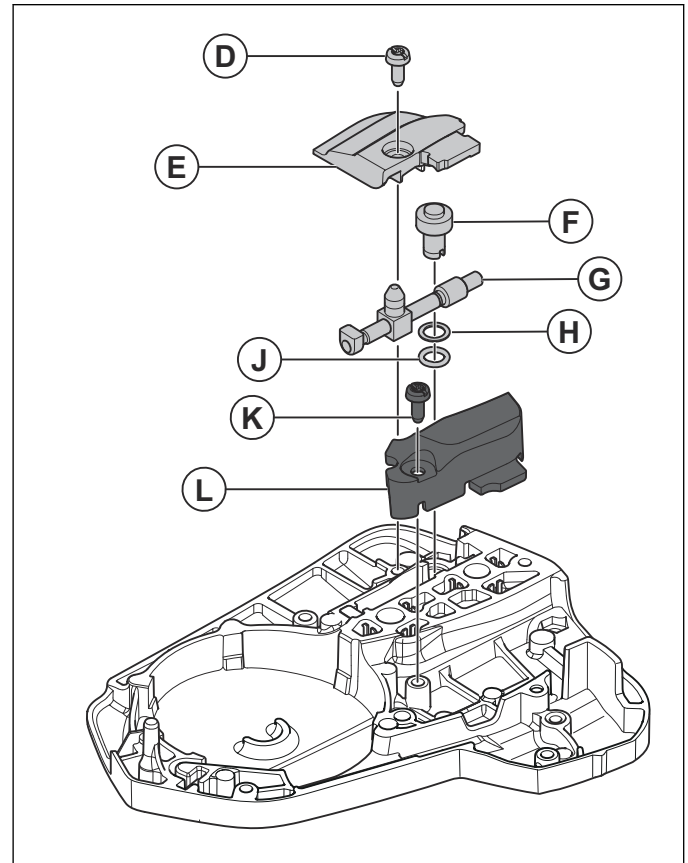
- Remove the 3 screws (A) and carefully remove the chain brake cover (B) in front of the chain brake spring (C).



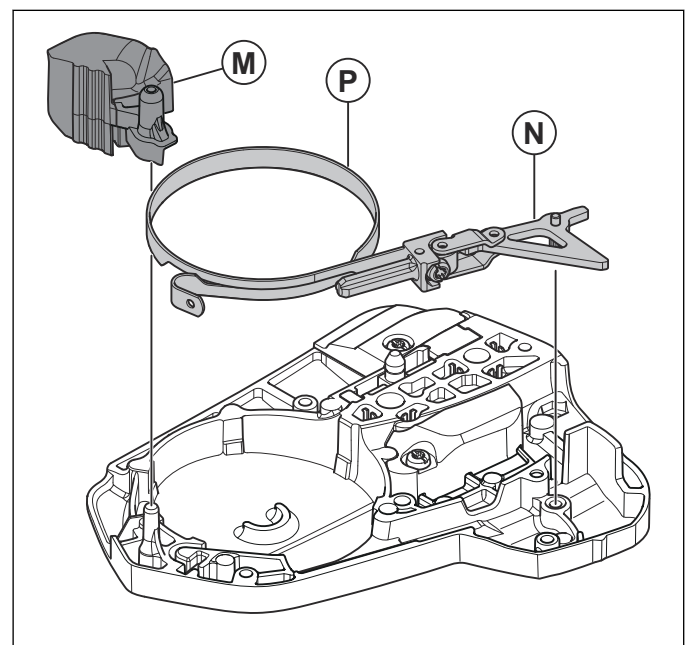
- Hold one hand above the chain brake spring. Use the other hand to push a small screwdriver in between the rear section of the chain brake spring and the clutch cover. Carefully push the screwdriver against the chain brake spring until the chain brake spring releases onto the screwdriver shaft.



- Remove the screw (D), the chain tensioner cover (E), the adjustment screw (F), the shaft (G), the washer (H) and the O-ring (J). Remove the screw (K) and the chain guide (L).

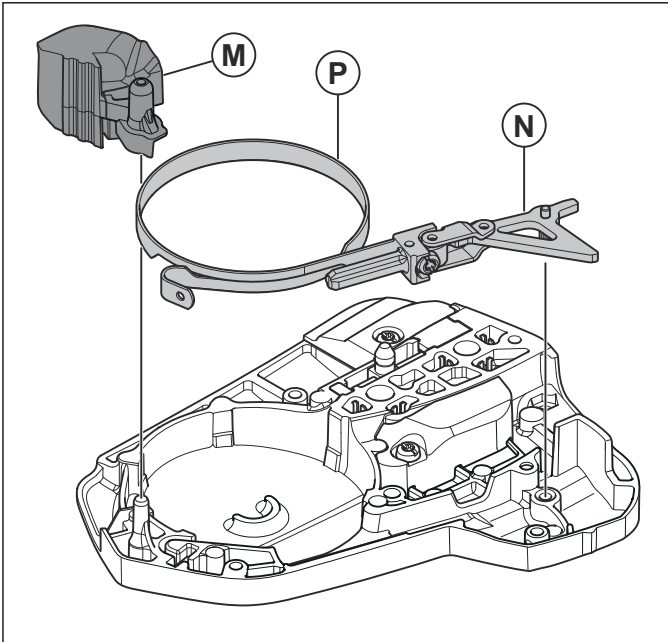


- Remove the saw dust guard (M), the knee joint (N) and the brake band assembly (P) from the clutch cover.

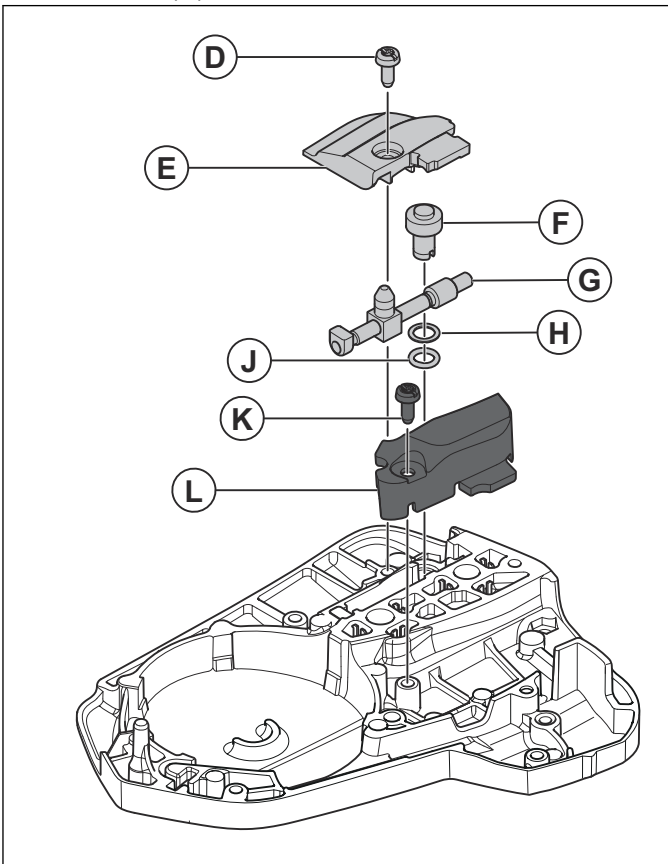


### 7.3.2 To assemble the chain brake

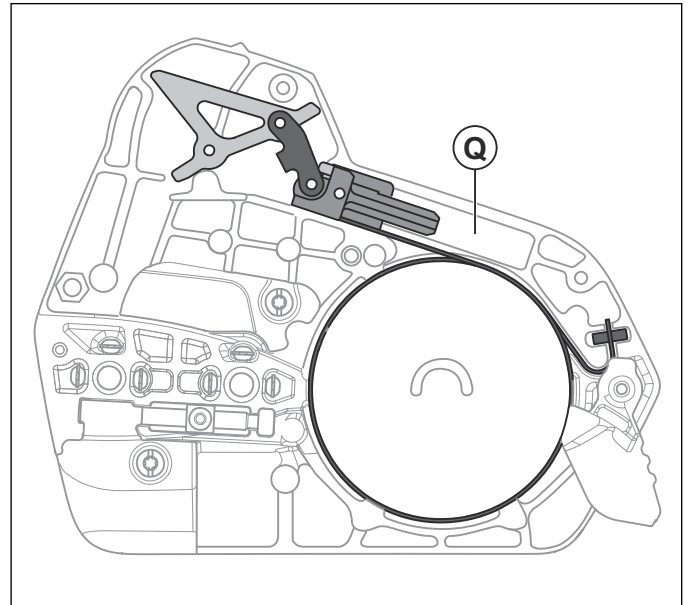
1. Attach the knee joint to the brake band and tighten to the correct torque. Refer to *Servicing data on page 7*.
2. Attach the knee joint (N), the brake band assembly (P) and the saw dust guard (M) to the clutch cover.



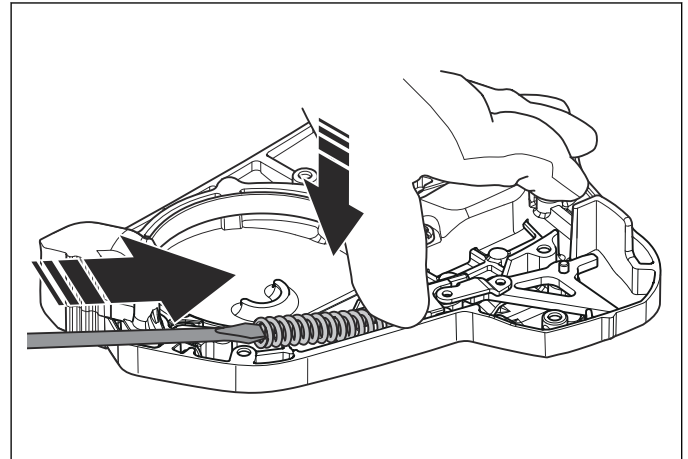
3. Attach the chain guide (L) and the screw (K). Attach the O-ring (J), the washer (H), the shaft (G), the adjustment screw (F), the chain tensioner (E) and the screw (D).



4. Lubricate the recess for the chain brake spring (Q) with grease.

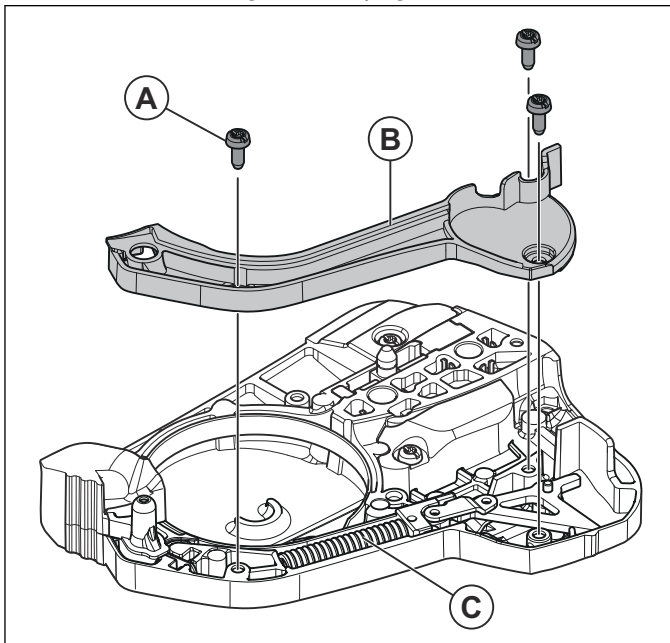


5. Put the clutch cover in a vise. Compress the chain brake spring with a wide screwdriver and push it down with your thumb.

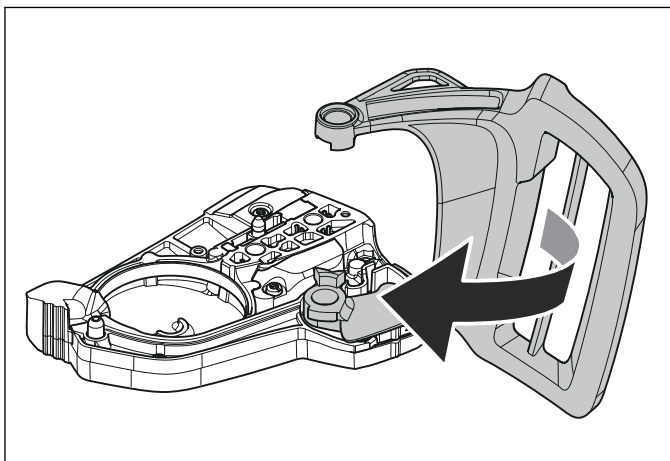


**WARNING:** Use approved eye protection. The chain brake spring can eject and cause injury.

- Attach the cover (B) above the chain brake spring (C). Tighten the 3 screws (A) to the correct torque. Refer to *Servicing data on page 7*.



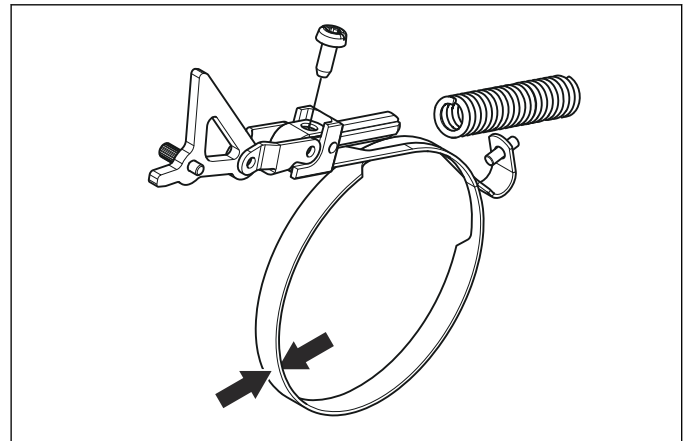
- Use the front handguard to tighten the chain brake spring. Connect the front handguard to the chain brake mechanism and turn clockwise to release the chain brake.



- 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 19*.

### 7.3.3 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.

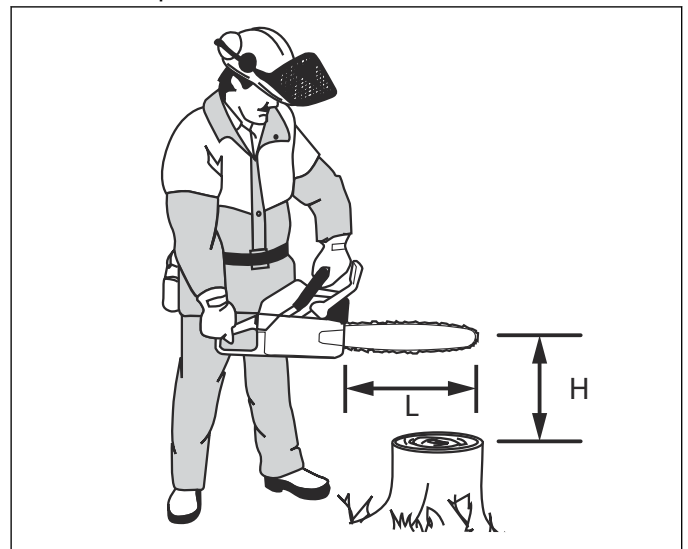
### 7.3.4 To do a function test of the chain brake

- 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.

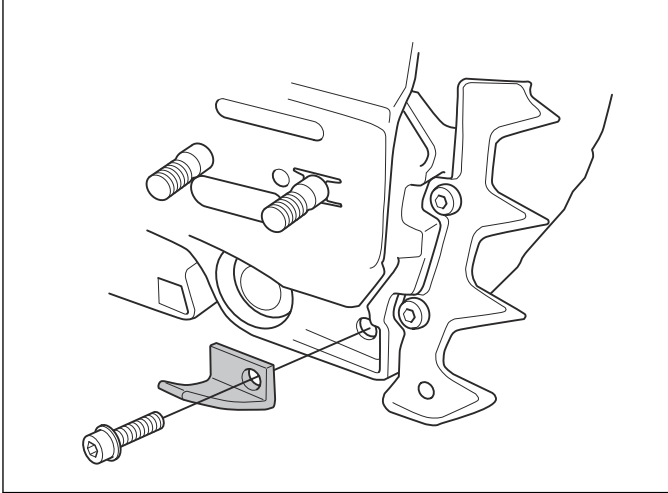
## 7.4 Chain catcher

### 7.4.1 To replace the chain catcher



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

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



3. Replace the chain catcher.
4. Attach the clutch cover.

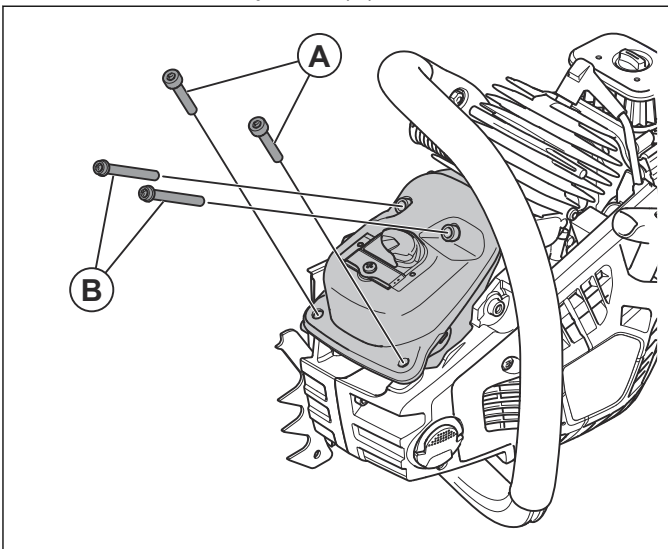
## 7.5 Muffler

### 7.5.1 To remove and install the muffler

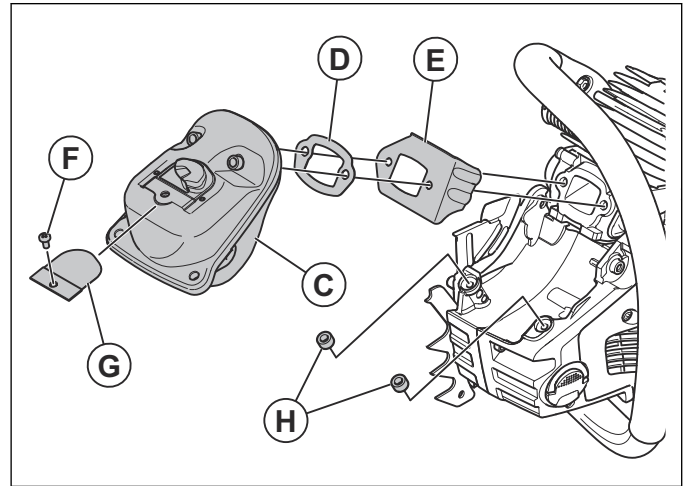


**WARNING:** Do not touch a hot muffler. Risk of burn injuries.

1. Remove the cylinder cover.
2. Remove the 2 screws (A) on the crankcase and the 2 screws on the cylinder (B).



3. Remove the muffler (C), the gasket (D) and the heat deflector (E). Remove the screw (F) and pull out the spark arrester (G).



4. Remove the 2 muffler sleeves (H).
5. Install the muffler in the opposite sequence.

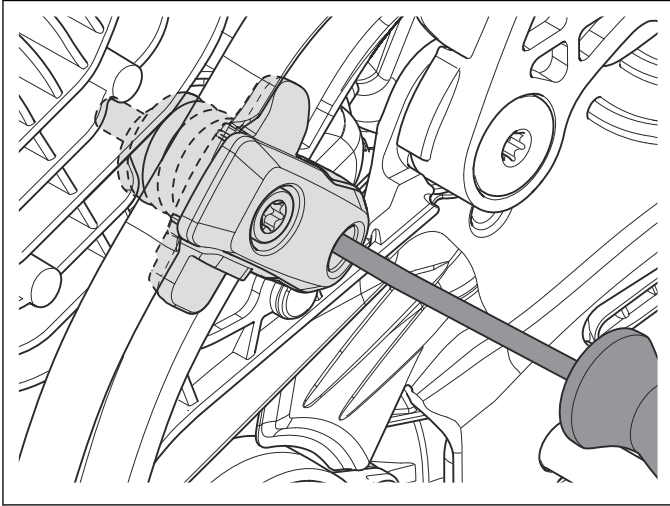
### 7.5.2 To clean and examine the muffler

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

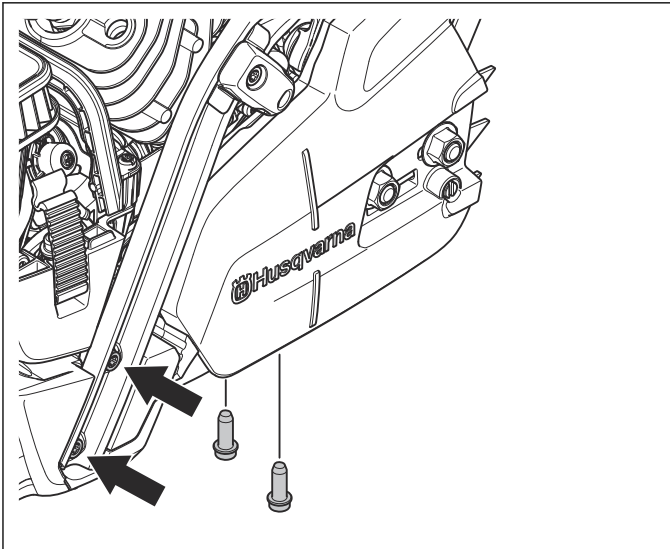
## 7.6 Handles

### 7.6.1 To remove and install the front handle (XP)

1. Loosen the screw in the vibration damping system.



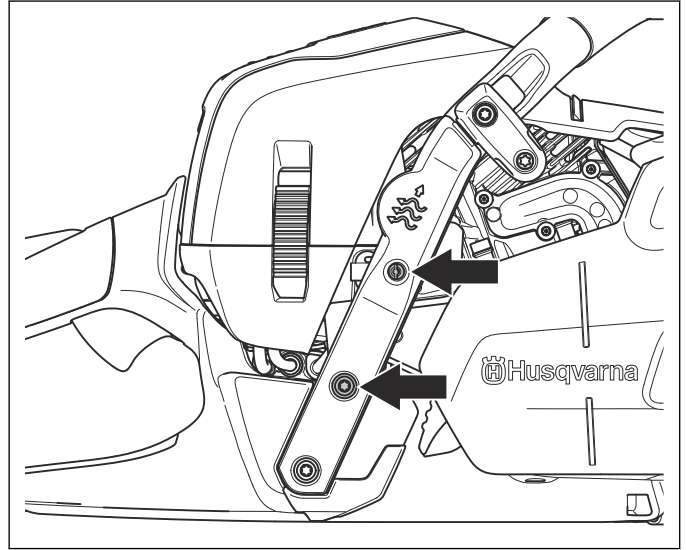
2. Remove the 2 screws on the side of the product and the 2 screws below the product.



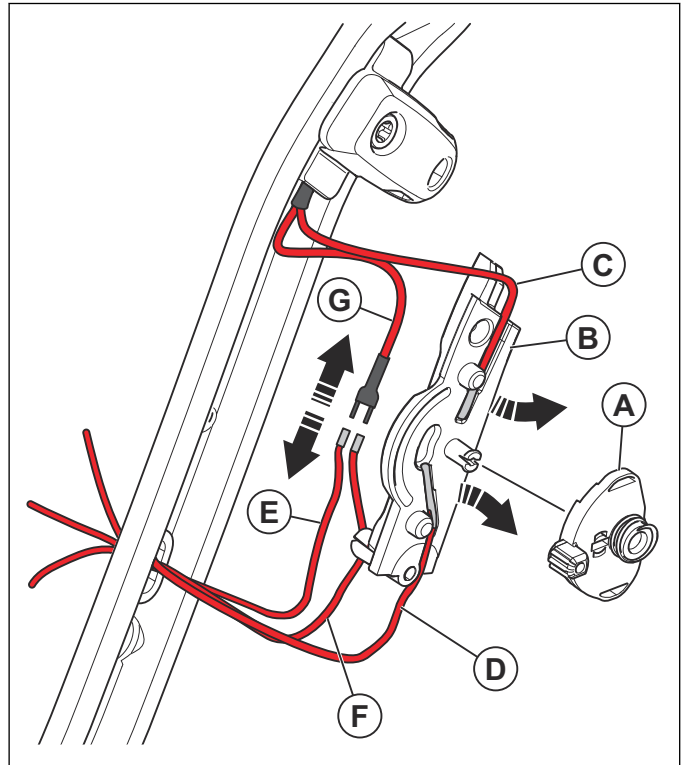
3. Remove the front handle from the product.
4. Install the front handle in the opposite sequence.

### 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.

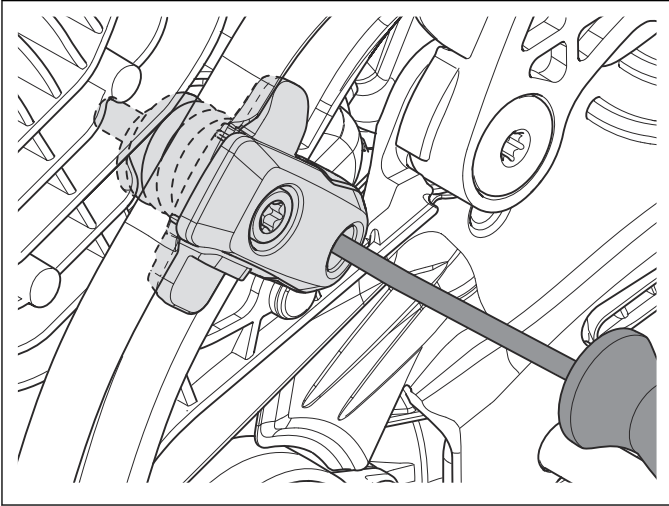


2. Remove the switch (A) from the contact plate (B).

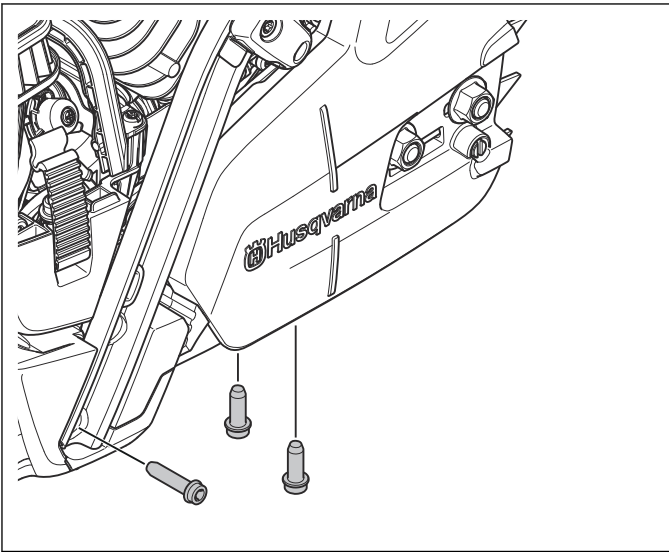


3. Disconnect the wire (C) and the handle wire (D) from the connection plate. Remove the contact plate.
4. Disconnect the stator wire (E) and the carburetor wire (F) from the wire (G).

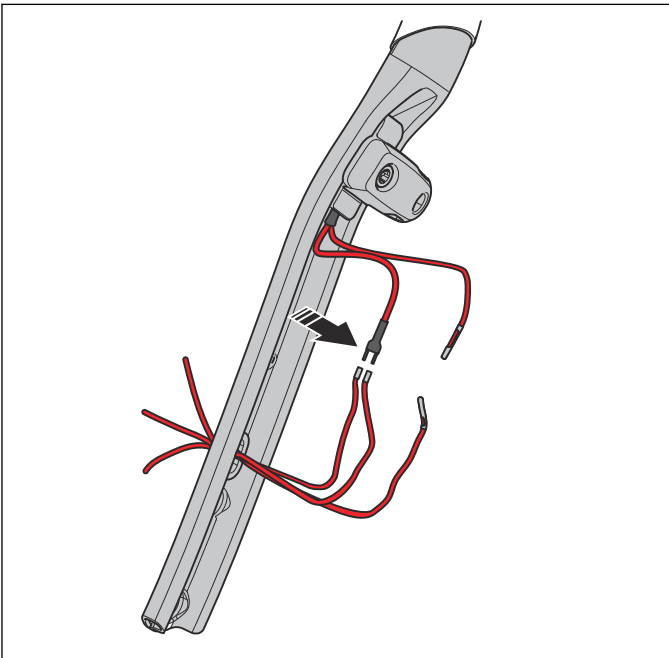
5. Loosen the screw in the vibration damping system.



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



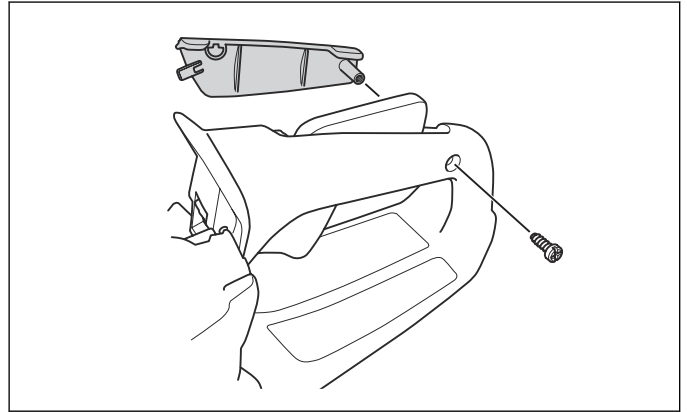
7. Remove the heated front handle from the product.



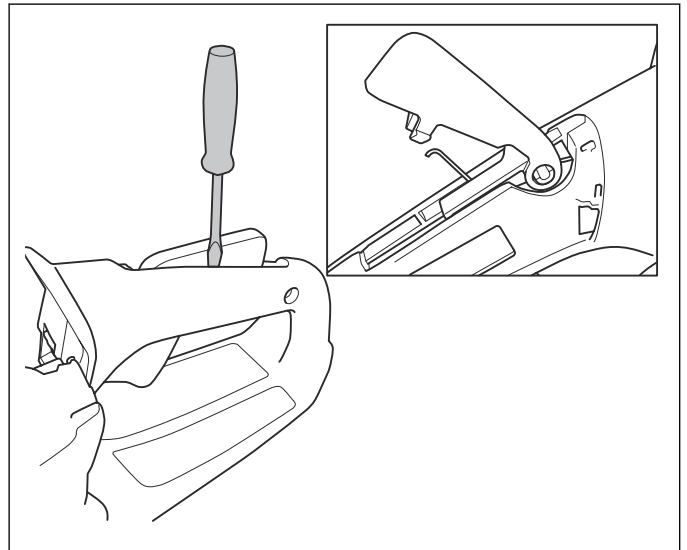
8. Install in the opposite sequence.

### 7.6.3 To disassemble and assemble the rear handle (XP)

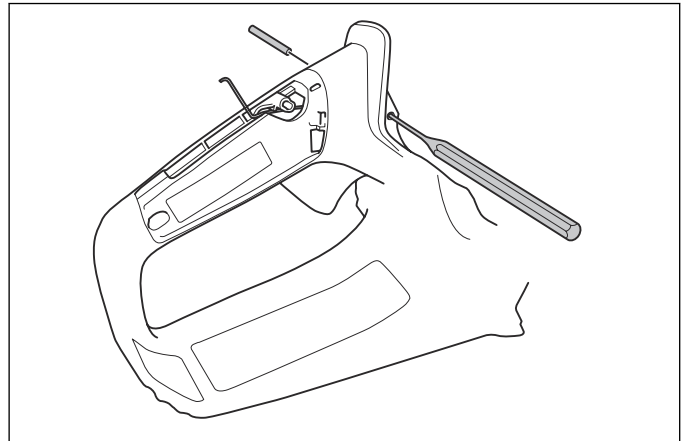
1. Remove the screw and the handle cover. If the product has heated handles, refer to *To remove and install the heated rear handle (XPG)* on page 23.



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



3. Remove the pin that holds the throttle trigger.



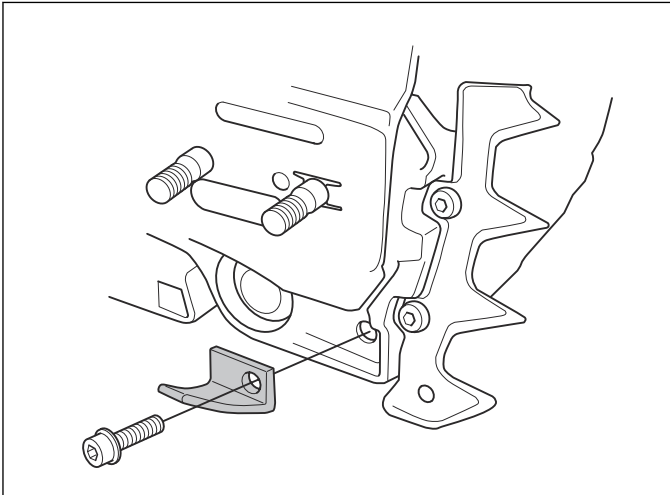
4. Remove the throttle wire and the throttle trigger.



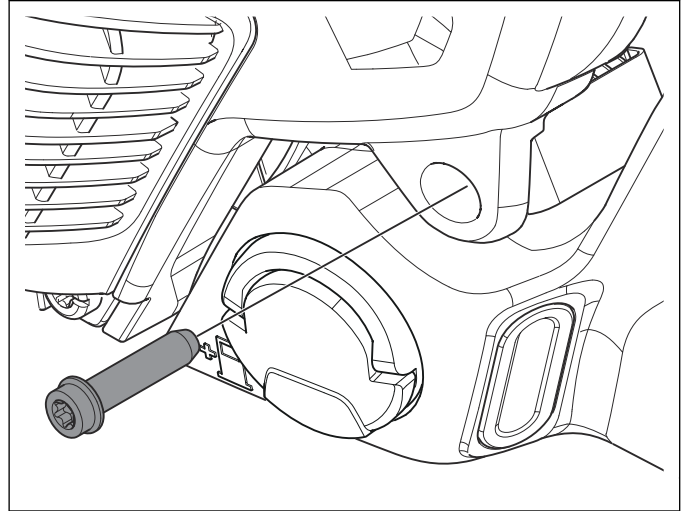
5. Assemble in the opposite sequence.

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

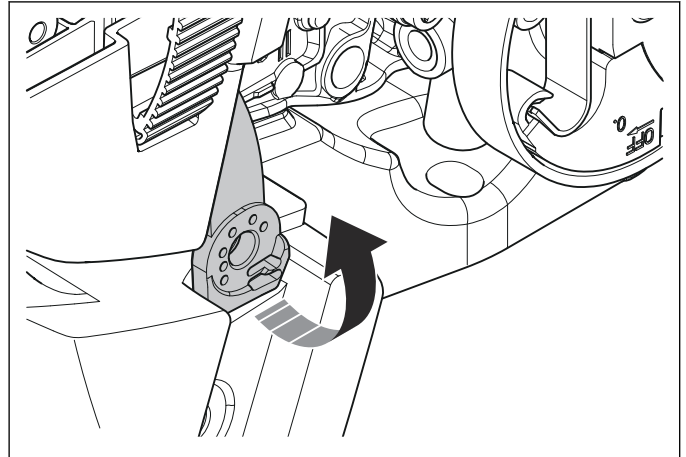
1. Remove the heated front handle, refer to *To remove and install the heated front handle (XPG) on page 21.*
2. Remove the chain brake, refer to *To disassemble the chain brake on page 16.*
3. Remove the cylinder cover.
4. Remove the air filter.
5. Remove the air filter holder and the carburetor, refer to *To remove and install the carburetor on page 35.*
6. Remove the chain catcher.



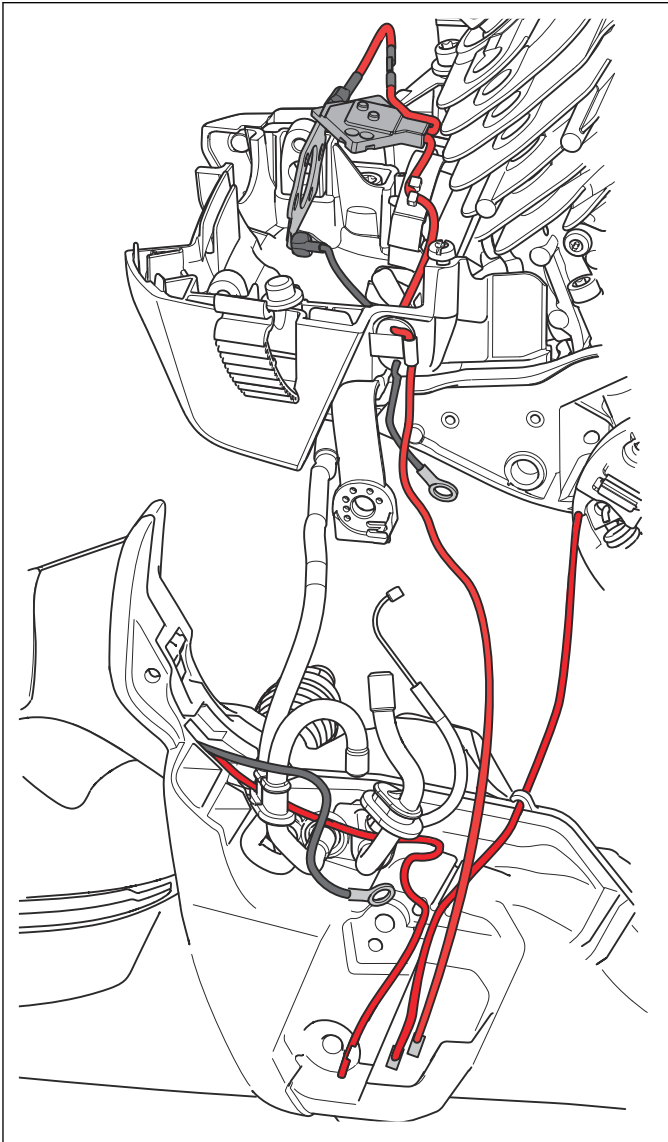
7. Loosen the screw to the vibration damping system.



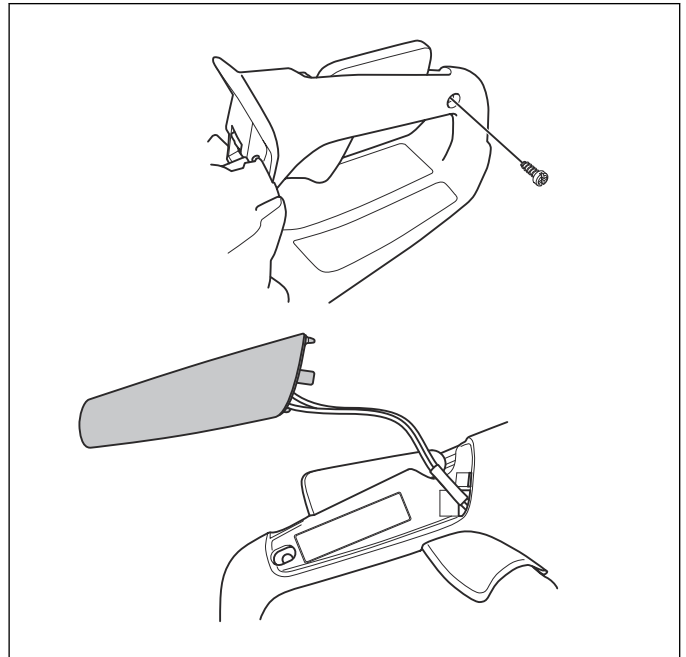
8. Loosen the deflection limiter.



- Lift the saw carefully and pull down the hoses through and the throttle wire down through the carburetor bottom plate. Make sure that you understand how the cables are attached.



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



- Install in the opposite sequence.

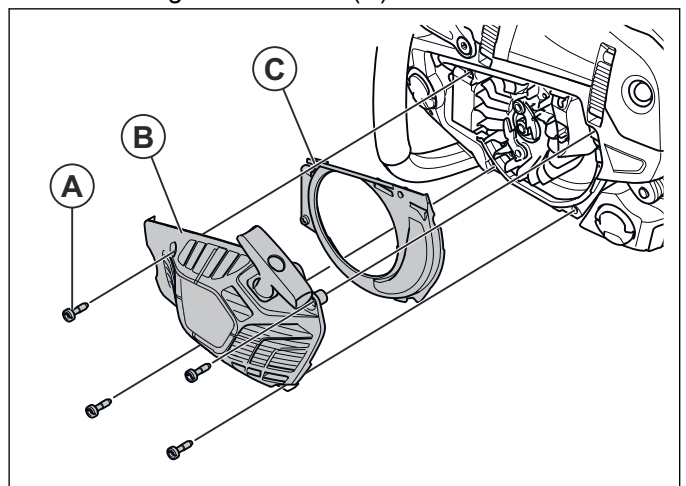
### 7.6.5 To clean and examine the handle and throttle trigger

- 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.



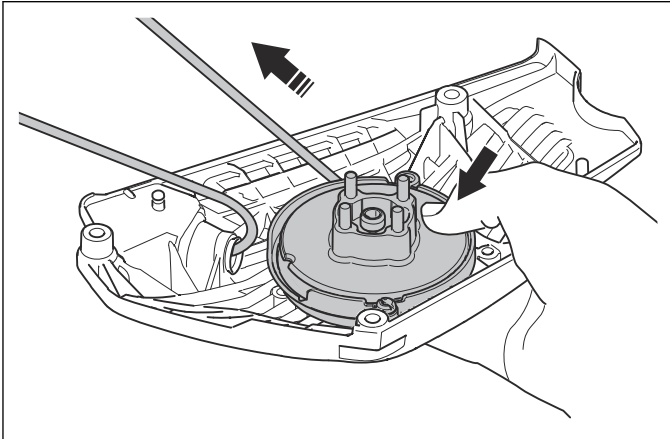
- b) Tighten the 4 screws to the correct torque. Refer to *Servicing data on page 7*.

### 7.7.2 To disassemble the starter unit

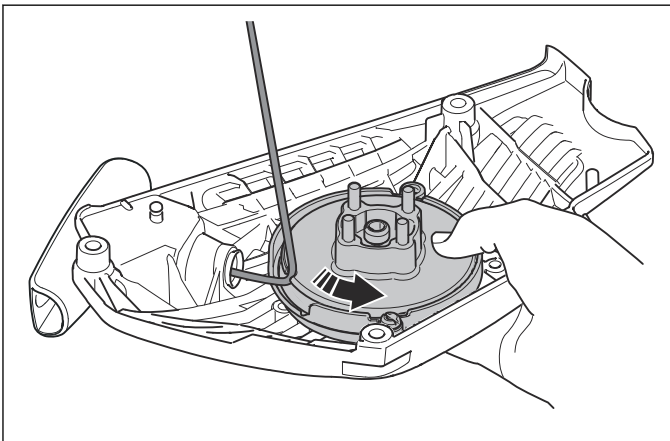


**WARNING:** Use approved eye protection. The recoil spring can eject and cause injuries.

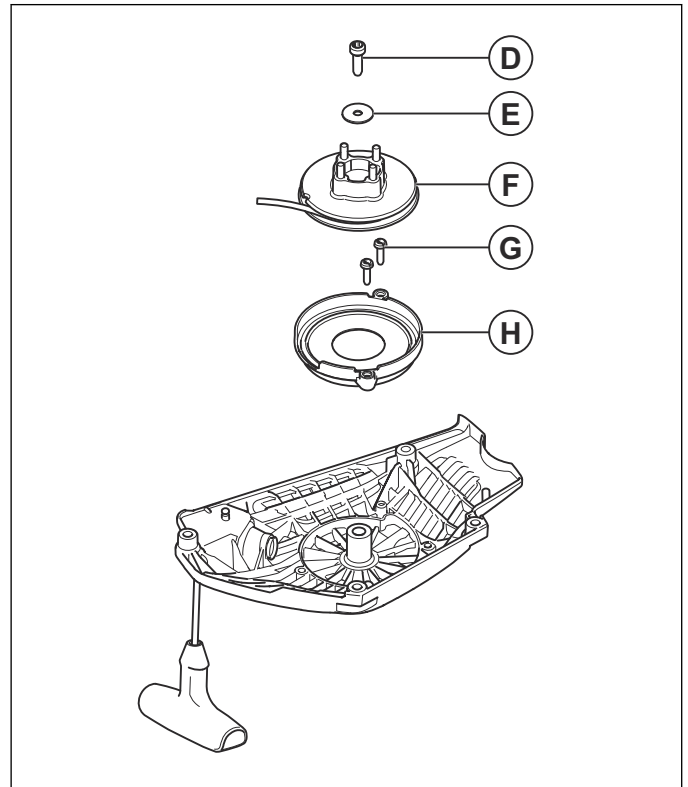
1. Remove the starter unit. Refer to *To remove and install the starter unit on page 24*.
2. Pull out the starter rope approximately 30 cm/12 in. and put it into the notch in the starter pulley.



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



4. Remove the screw (D) and washer (E).



5. Remove the starter pulley (F).
6. Remove the 2 screws (G).
7. Remove the spring cassette (H).

### 7.7.3 To clean and examine the starter unit

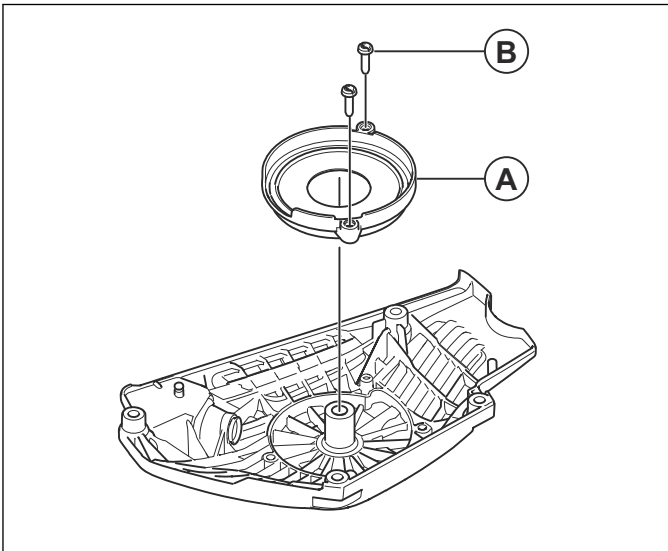
- Clean all components.
- Examine the starter rope. Replace the starter rope if it is damaged.
- Examine the starter pulley. Replace damaged parts.
- Make sure that the start pawls on the starter pawl assembly are not damaged. Make sure that the starter pawl springs on the starter pawl assembly are attached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

### 7.7.4 To assemble the starter unit

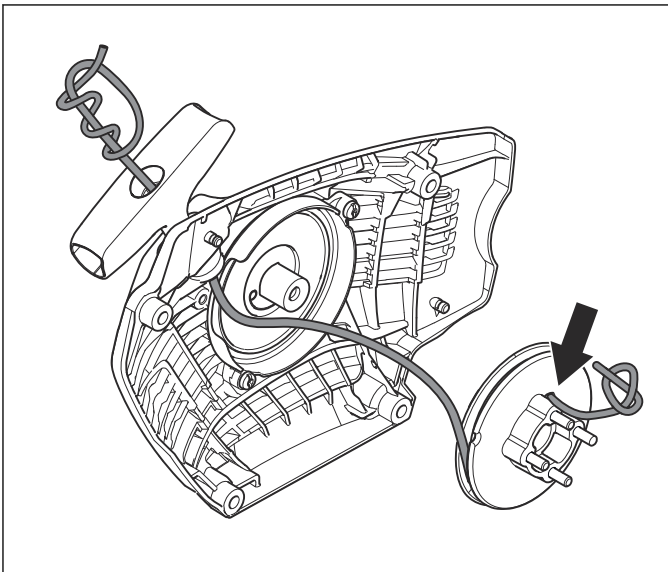


**WARNING:** Use approved eye protection. The recoil spring can eject and cause injuries.

1. Install the spring cassette (A) and the 2 screws (B). Tighten the 2 screws to the correct torque. Refer to *Servicing data on page 7.*

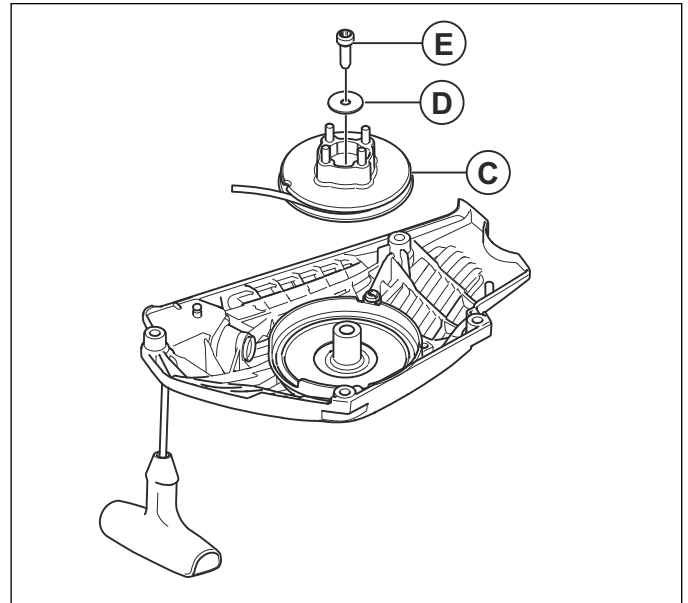


2. Push the end of the starter rope into the hole in the starter pulley. Use a pointed pliers to pull out the starter rope from the starter pulley. Make a knot at the end of the starter rope.

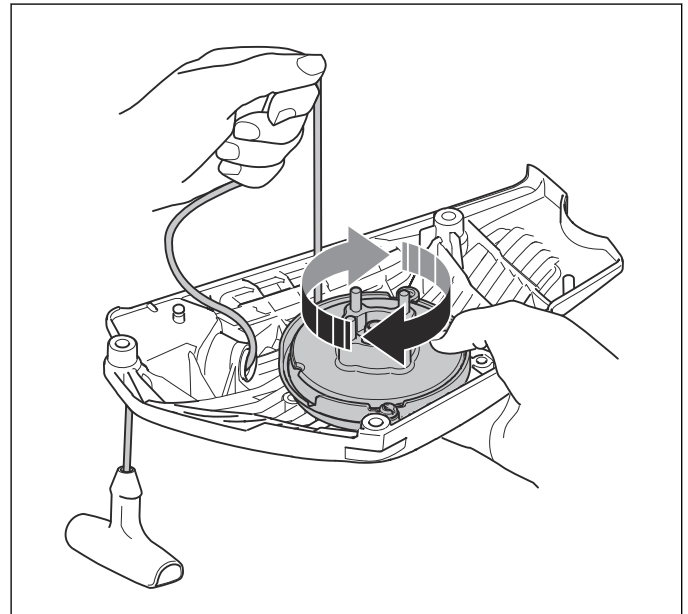


3. Pull the starter rope through the hole in the starter housing.
4. Pull the starter rope through the starter rope handle and make a knot.

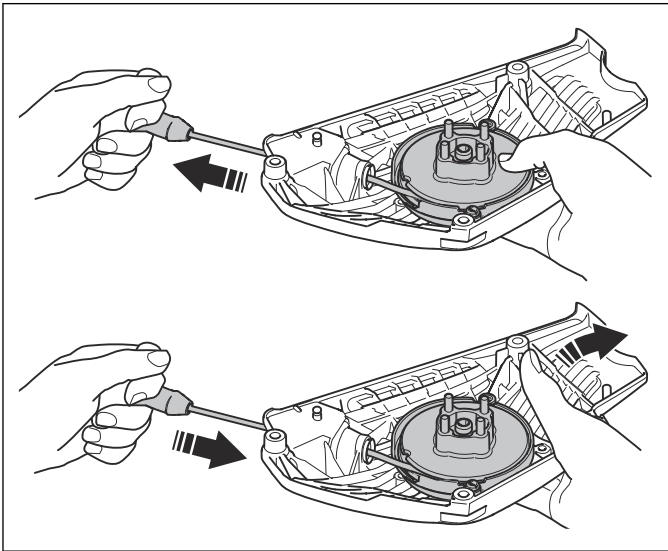
5. Install the starter pulley (C) in the starter housing with the washer (D) and the screw (E).



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 1/2 turn more when you pull out the starter rope fully.



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



- Install the cooling air conductor and the starter unit. Refer to *To remove and install the starter unit on page 24*.

## 7.8 Ignition system

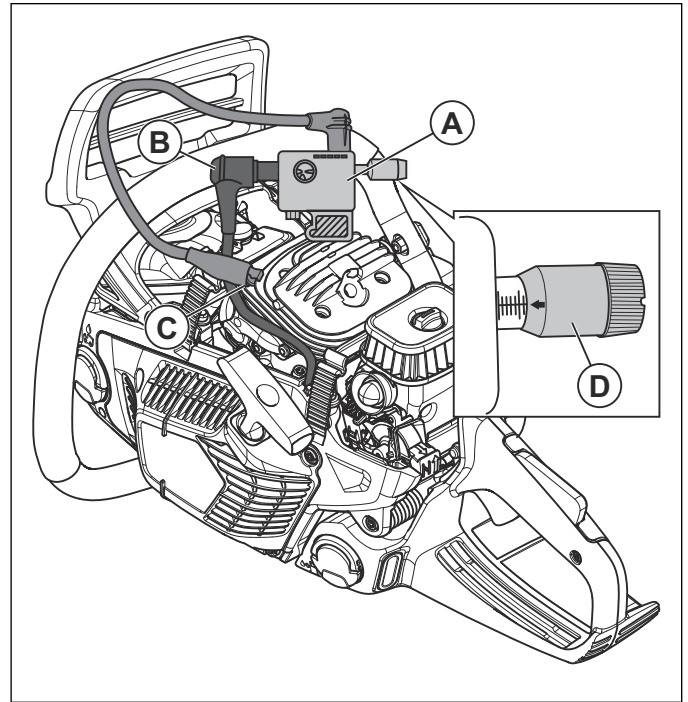
### 7.8.1 To do a spark test

- Remove the spark plug from the cylinder.
- Connect the spark plug to the spark plug cap.
- Make sure that the stop switch on the throttle handle is in the start position.
- 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.

- 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 9*.



- Connect the ground cable (C) to 1 of the cooling fins on the cylinder.
- Use the knob (D) to adjust the distance between the 2 electrodes to 0.5 mm.

**Note:** One mark on the scale is 1 mm.

- Pull the starter rope handle.
- Do 1 of the steps that follow.
  - If a spark occurs between the electrodes on the ignition tester, replace the spark plug.
  - If there is no spark between the electrodes on the ignition tester, replace the ignition module. Refer to *To remove the ignition system on page 28*.

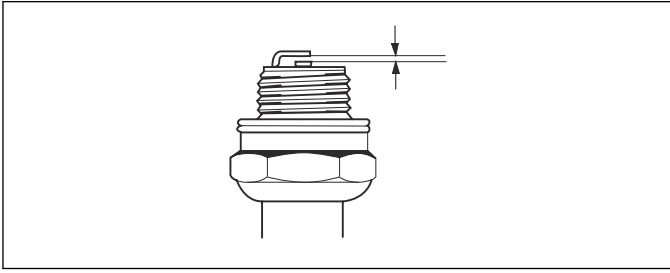
### 7.8.2 To examine the spark plug



**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:
  - Make sure that the idle speed is correctly adjusted.
  - Make sure that the fuel mixture is correct.
  - Make sure that the air filter is clean.

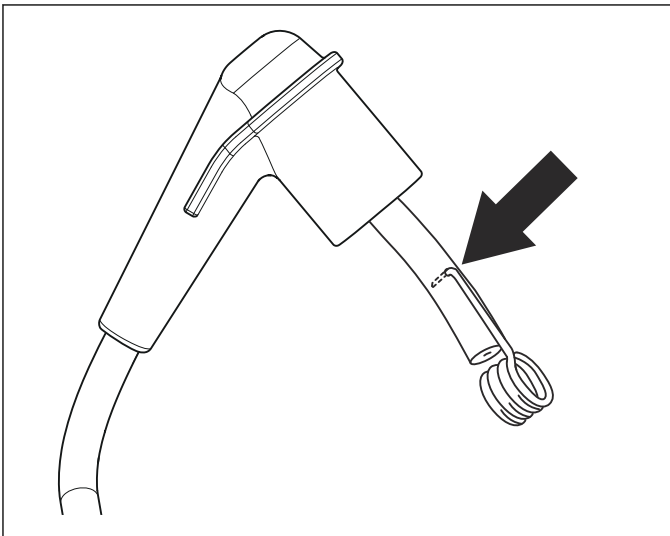
- If the spark plug is dirty, clean it and make sure that the electrode gap is correct, refer to *Technical data on page 67*.



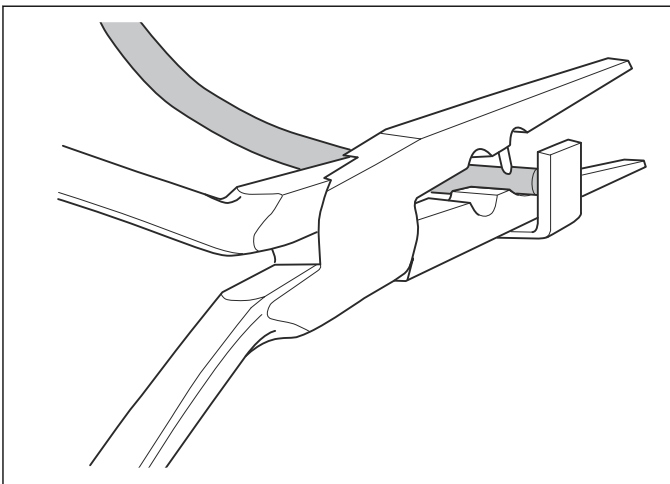
- Replace the spark plug if it is necessary.

### 7.8.3 To replace the spark plug cap

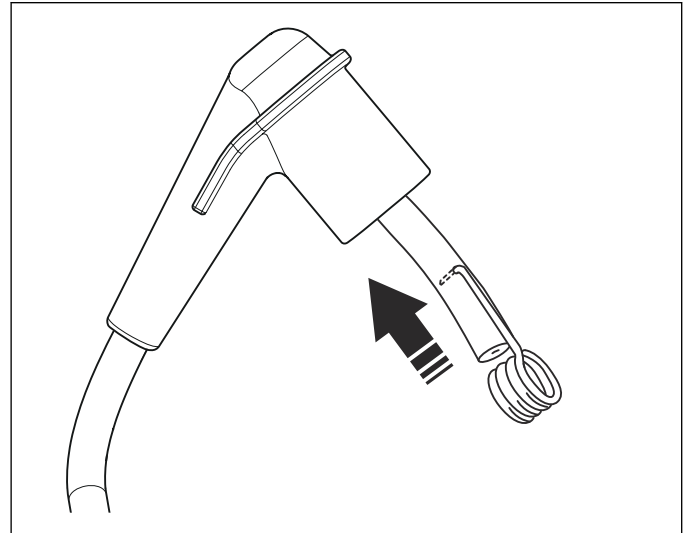
1. Examine the spark plug connection. Remove the spark plug cap and make sure that the ignition cable is not damaged. If it is necessary, remove a part of the cable to get sufficient connection at the connection coil.



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

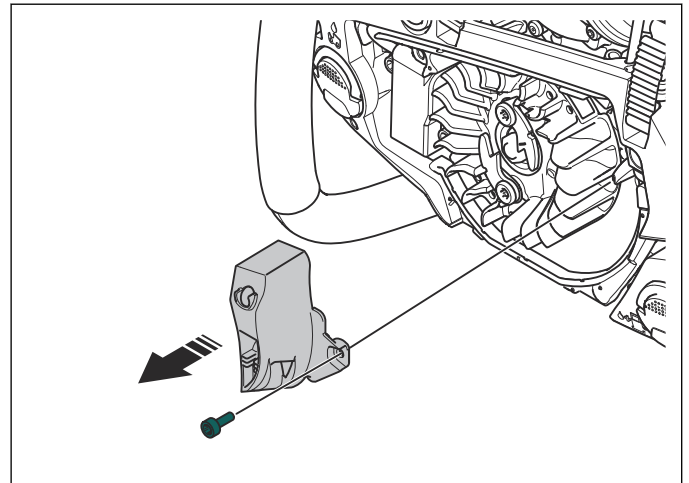


3. Attach the ignition coil to the ignition cable and make sure that the wire is folded along the cable. Move the connection coil into the spark plug cover. If it is necessary, lubricate the hole in the spark plug cover.

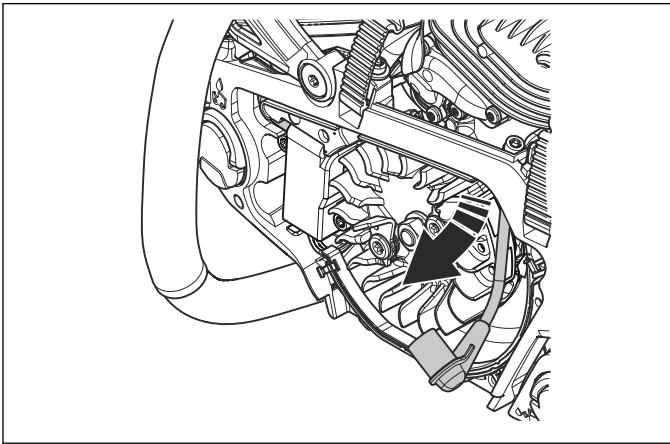


### 7.8.4 To remove the ignition system

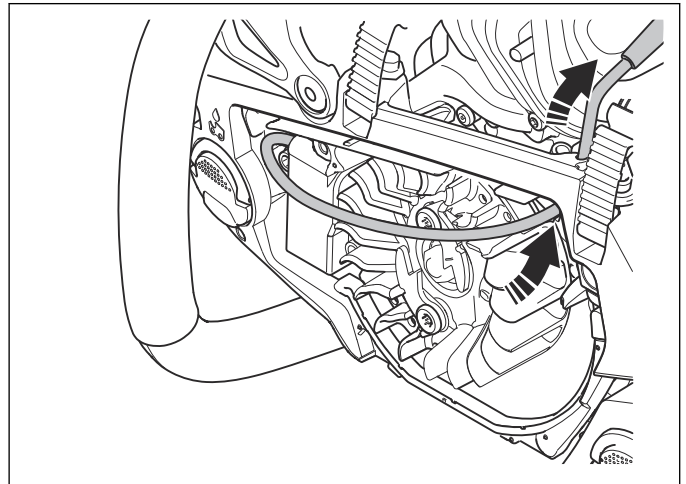
1. Remove the cylinder cover.
2. Remove the spark plug cap from the spark plug.
3. Remove the starter unit. Refer to *To remove and install the starter unit on page 24*.
4. Remove the air filter, the air filter holder and the carburetor. Refer to *To remove and install the carburetor on page 35*.
5. Remove the screw and the air nozzle.



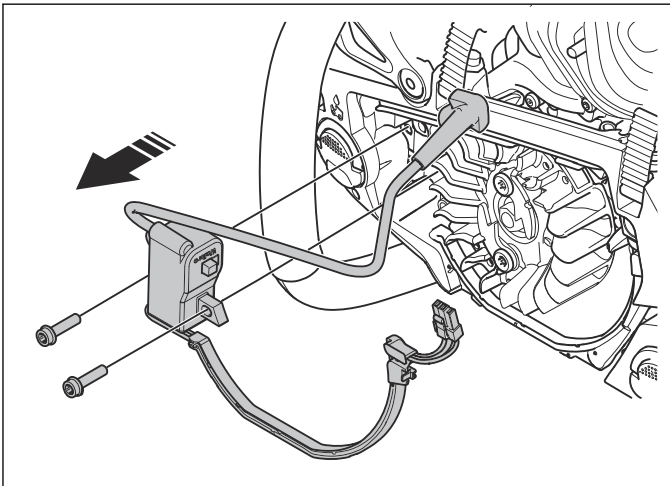
6. Pull out the spark plug cap through the hole in the crankcase.



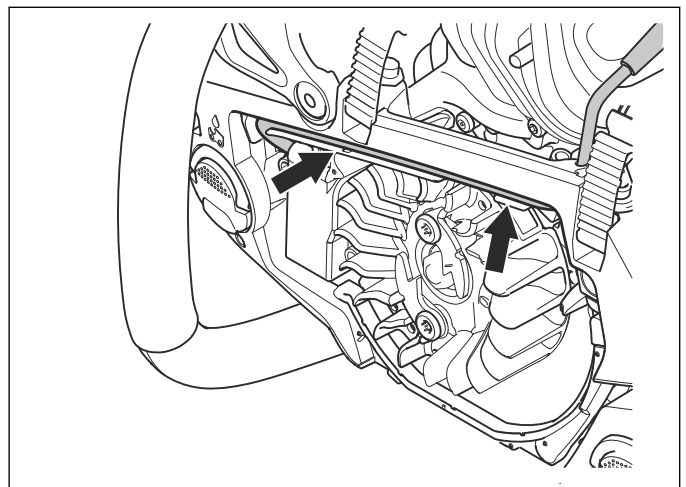
3. Put the spark plug cable through the hole in the crankcase.



7. Remove the 2 screws and pull out the cable holder, cables and the ignition module from the crankcase.



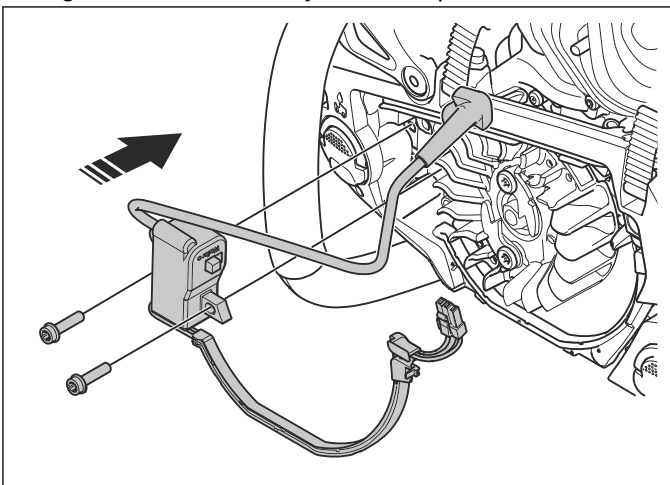
4. Attach the spark plug cable to the holders on the crankcase.



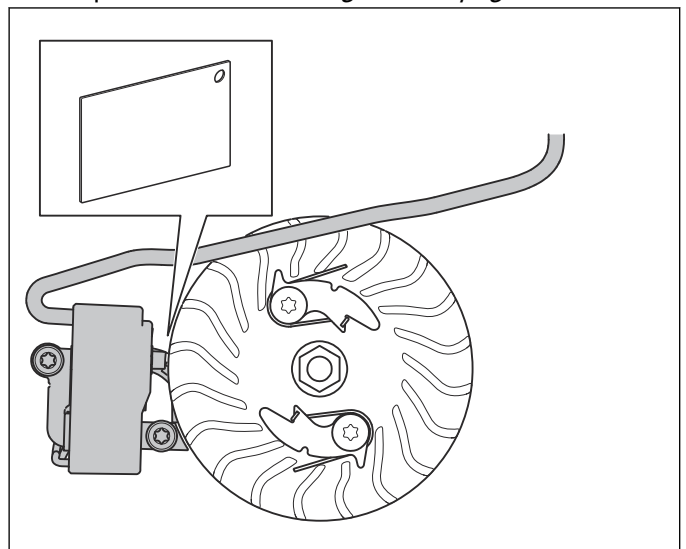
8. Remove the cables from the cable holder if it is necessary.

### 7.8.5 To install the ignition system

1. If you have removed the cables from the cable holder, install the cables in the cable holder.
2. Put the cable holder, cables and the ignition module in the crankcase and attach the 2 screws. Do not tighten the screws fully in this step.

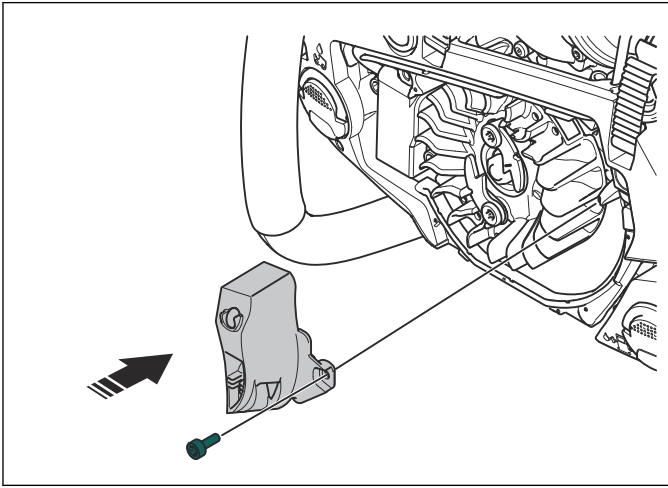


5. Put an air gap gauge between the ignition module and the flywheel. Tighten the screws to the correct torque. Refer to *Servicing data on page 7*.



6. Remove the air gap gauge.

7. Install the air nozzle and the screw.

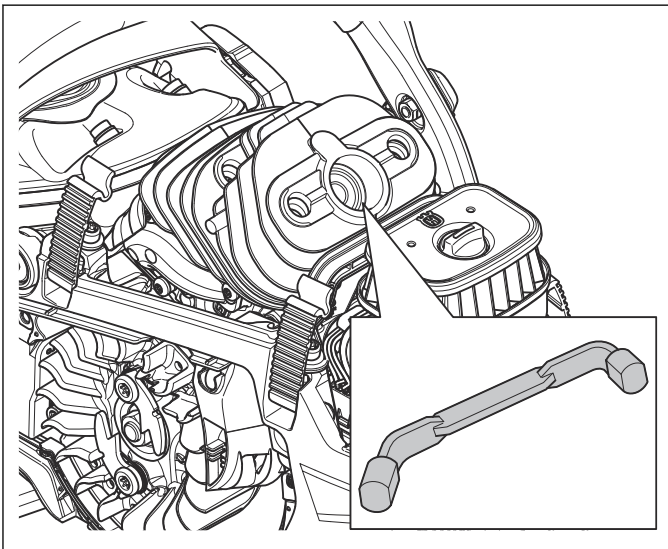


8. Install the spark plug cap to the spark plug.
9. Install the air filter, the air filter holder and the carburetor. Refer to *To remove and install the carburetor on page 35*.
10. Install the starter unit. Refer to *To remove and install the starter unit on page 24*.
11. Install the cylinder cover.

## 7.9 Flywheel

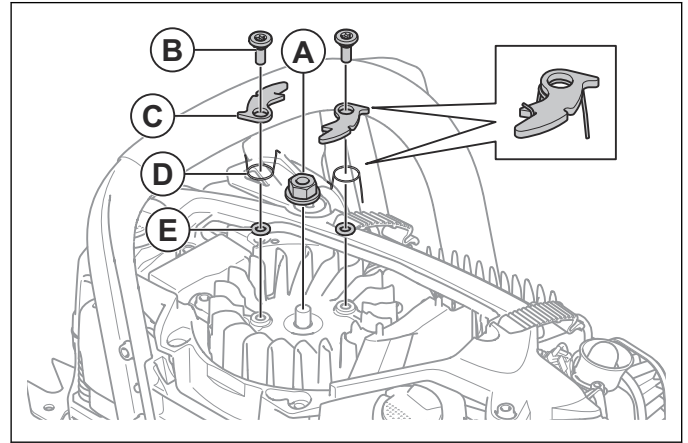
### 7.9.1 To remove the flywheel

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 24*.
3. Clean around the spark plug.
4. Remove the spark plug and put a piston stop in the spark plug hole.

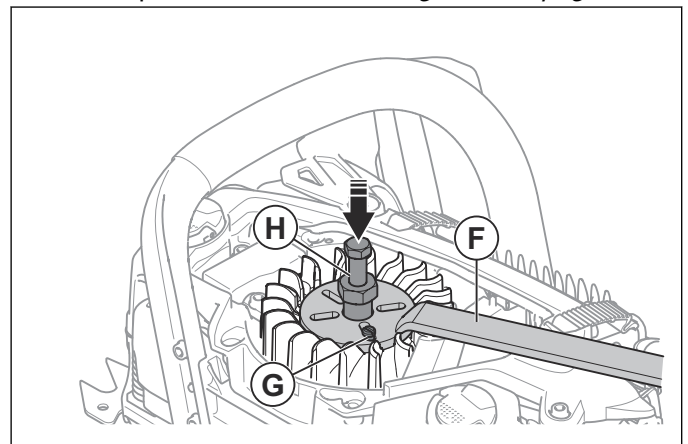


5. Loosen but do not remove the screws that hold the ignition module.

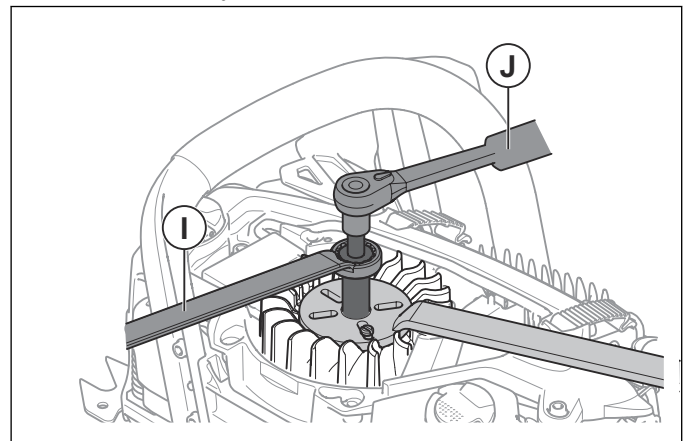
6. Remove the flywheel nut (A).



7. Remove the screws (B), starter pawls (C), springs (D) and washers (E).
8. Put the flywheel puller tool (F) in the center of the flywheel. Attach the screws (G) in the holes for the starter pawls. Refer to *Servicing tools on page 9*.



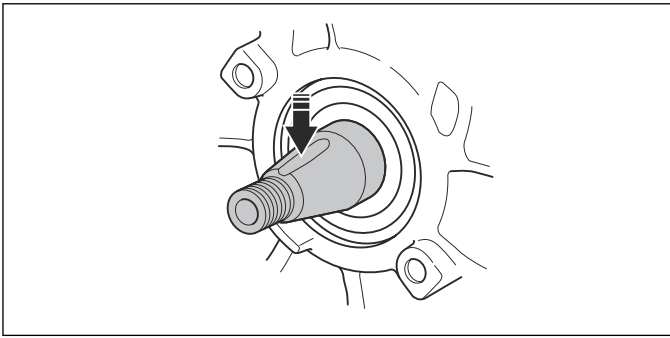
9. Attach the socket (H) of the flywheel puller tool on the crankshaft.
10. Use a wrench (I) to lock the outer socket of the flywheel puller tool. Use a socket wrench (J) to tighten the screw in the center of the flywheel puller tool until the flywheel comes off.



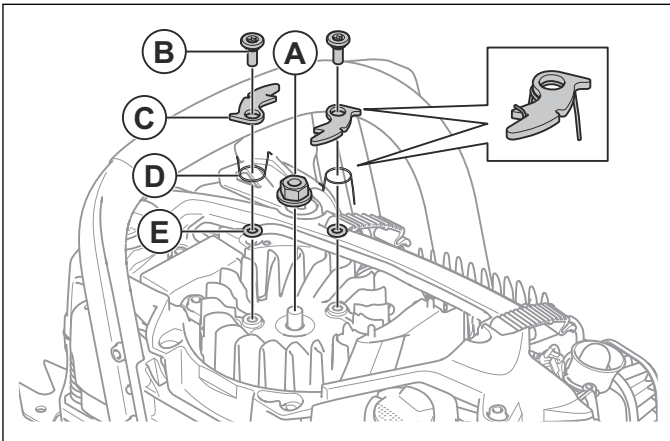
**Note:** If the flywheel does not come off, lightly hit the screw in the center of the flywheel with a hammer. At the same time lift the handle of the flywheel puller tool slightly to tilt the product.

### 7.9.2 To install the flywheel

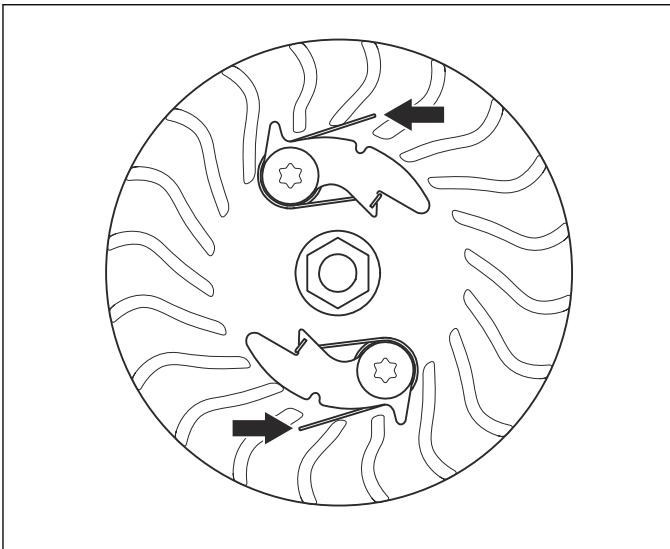
1. Clean the crankshaft.
2. Put the flywheel on the crankshaft. Turn the flywheel until the key goes into the key slot on the crankshaft.



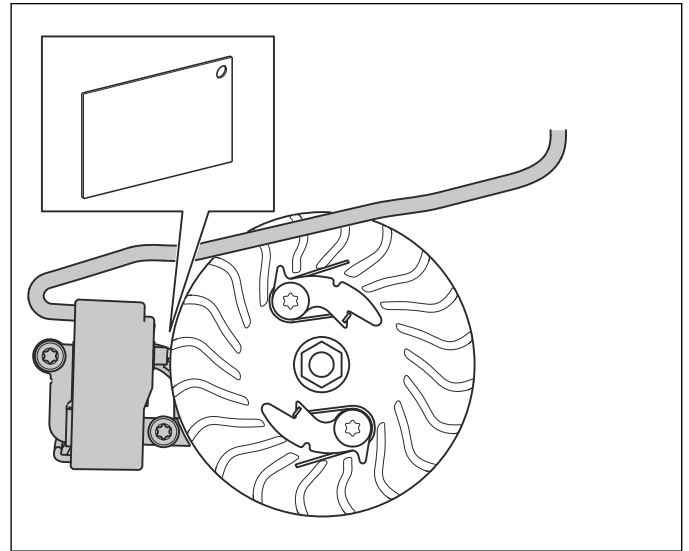
3. Attach the flywheel nut (A) and tighten it to the correct torque, refer to *Servicing data on page 7*.



4. Install the 2 screws (B), the starter 2 pawls (C), the 2 springs (D), and the 2 washers (E).
5. Make sure that you install the 2 springs in the correct position, as shown in the illustration.



6. Put the air gap gauge between the flywheel and the ignition module. Refer to *Servicing tools on page 9*.



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

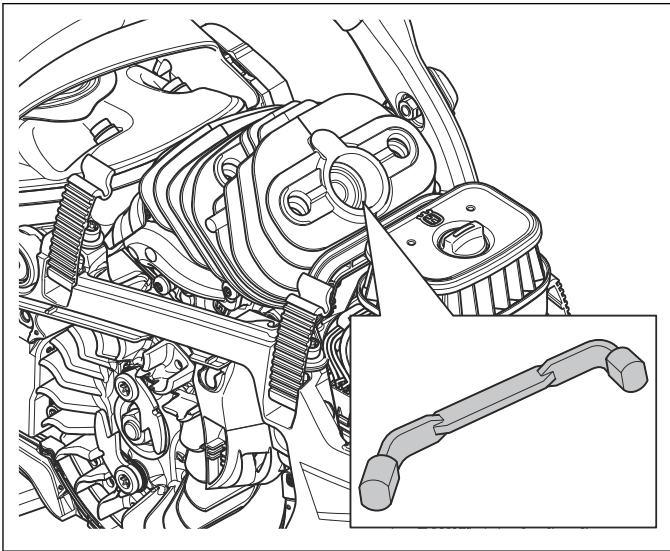
### 7.10 Centrifugal clutch

#### 7.10.1 To disassemble and assemble the centrifugal clutch

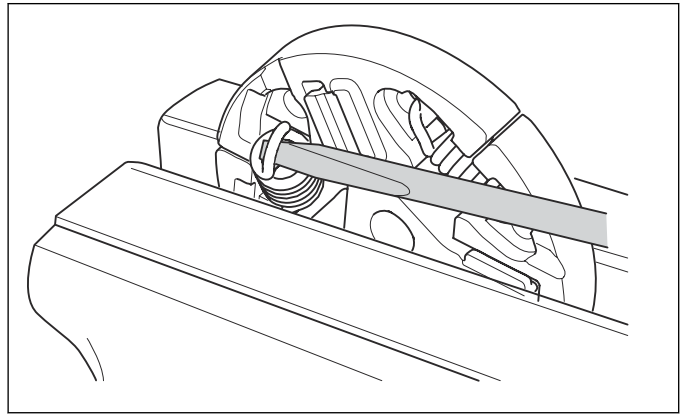
Make sure that the chain brake is disengaged before you disassemble the centrifugal clutch.

1. Remove the cylinder cover.
2. Remove the clutch cover.
3. Remove the guide bar and the saw chain.
4. Clean around the spark plug.

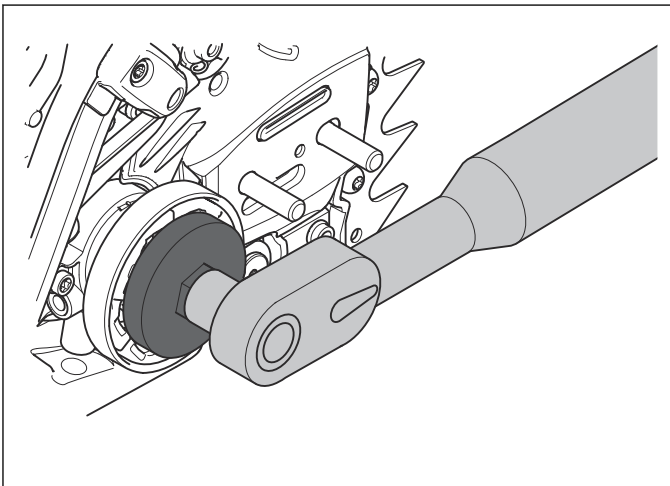
5. Remove the spark plug and put a piston stop in the spark plug hole.



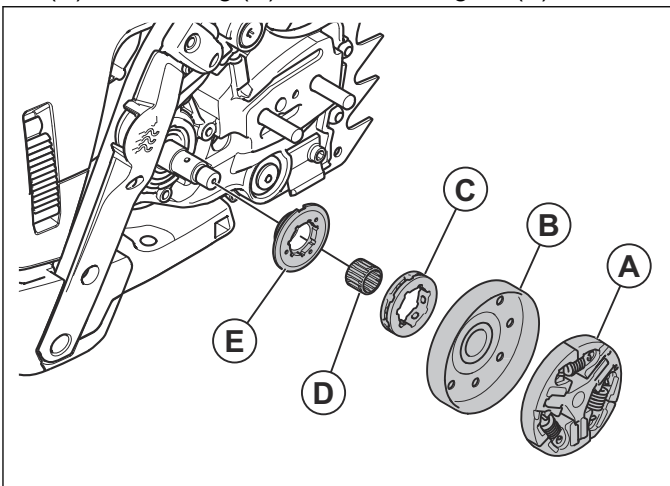
9. Carefully remove the clutch shoe springs from the side that does not have text.



6. Attach the clutch tool to the centrifugal clutch. Refer to *Servicing tools on page 9*. Use a socket wrench to loosen the centrifugal clutch.



7. Remove the clutch (A), the clutch drum (B), the rim (C), the bearing (D) and the worm gear (E).



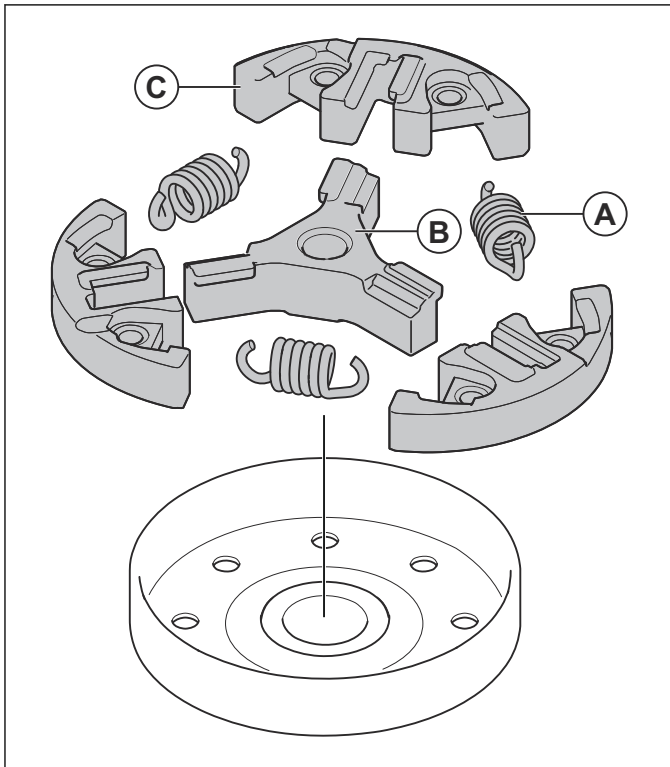
8. Put the centrifugal clutch in a vise.

10. Assemble the centrifugal clutch in the opposite sequence. Clean the bearing and apply new grease on it. Torque the centrifugal clutch to 40 Nm.

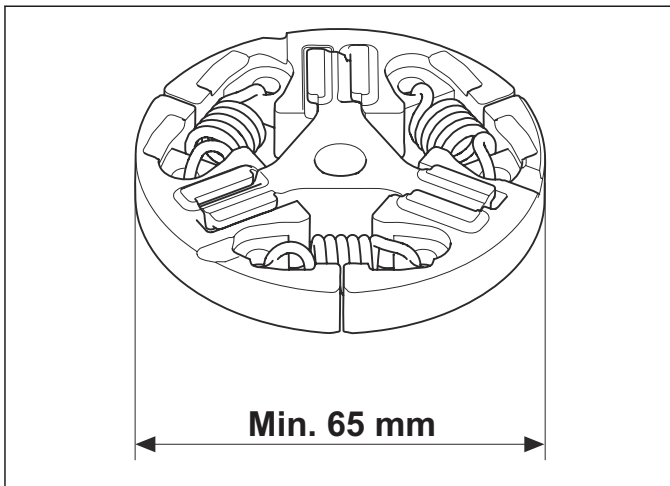


### 7.10.2 To clean and examine the centrifugal clutch

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

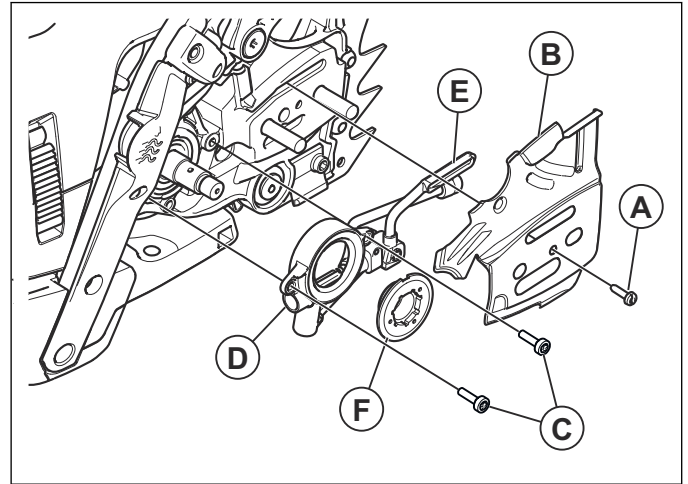


**WARNING:** The saw chain can break if the lubrication is not sufficient.

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

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

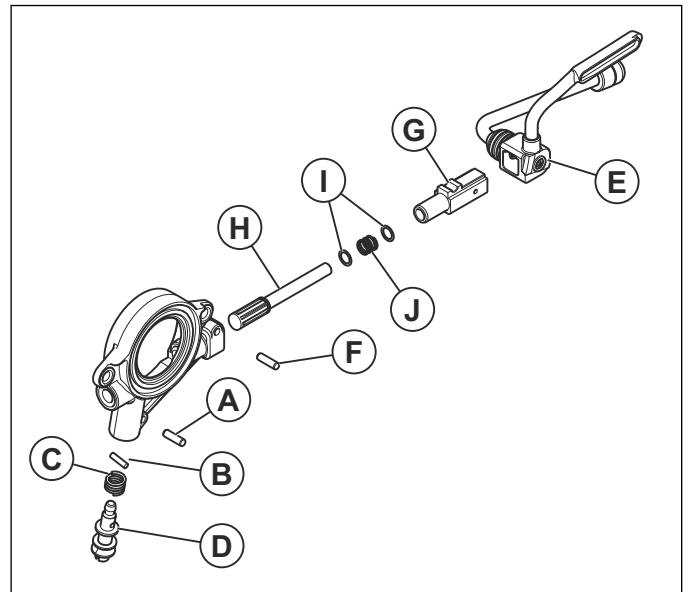
3. Remove the clutch. Refer to *To disassemble and assemble the centrifugal clutch on page 31*.
4. Remove the screw (A) and the guide bar plate (B).



5. Remove the 2 screws (C) and the pump housing (D).
6. Pull out the oil hose (E) from the crankcase.
7. Remove the worm gear (F).
8. 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 33*.
2. Remove the lock pin (A), the pin (B), the spring (C) and the adjustment screw (D).



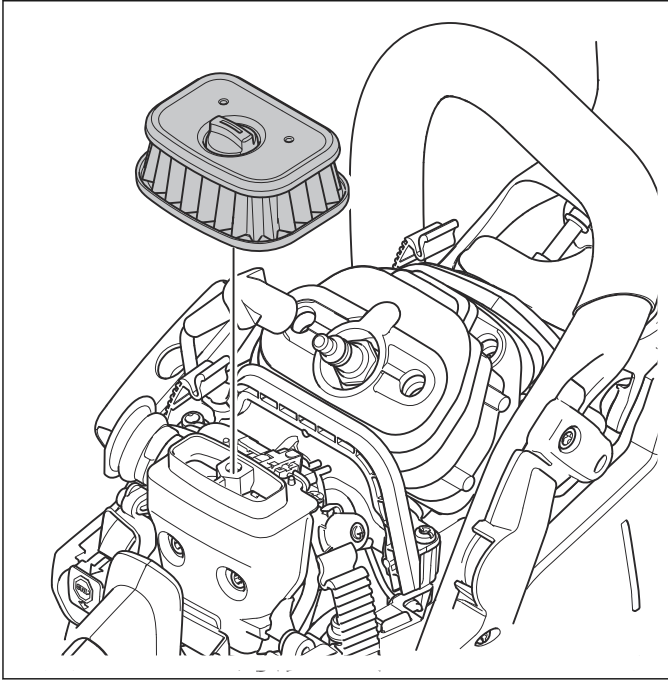
3. Remove the oil hose (E).
4. Remove the lock pin (F), the pump piston guide (G), the pump piston (H), the 2 washers (I) and the spring (J).
5. Clean and examine all parts carefully. Replace damaged parts. Always use the original spare parts.

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. Examine the air filter.
2. Clean the air filter if it is dirty. Shake the air filter and use compressed air to remove dirt particles.
3. Replace the air filter if it is damaged.

## 7.13 Carburetor

### 7.13.1 Carburetor design



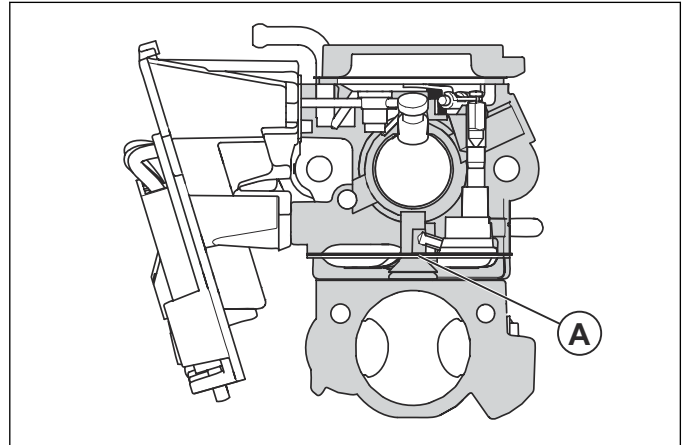
**WARNING:** Fuel and the fumes from the fuel are poisonous, can cause skin irritation and are very flammable.

**Note:** The illustrations that follow does not show the correct carburetor used in this product. The illustrations only show the general function of a carburetor.

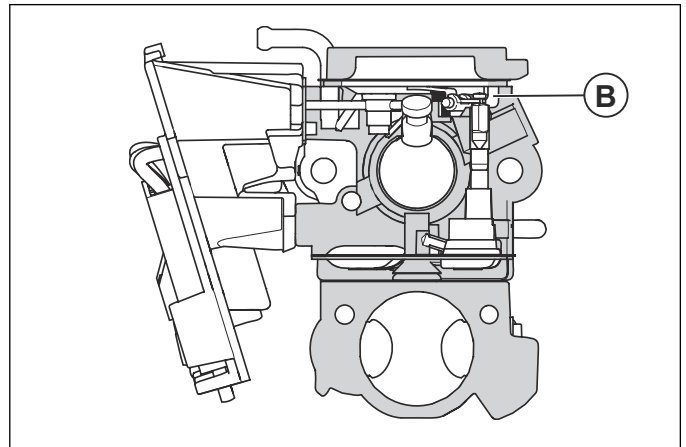
The carburetor has 3 primary systems:

- The pump unit.
- The metering unit.
- The mixing unit.

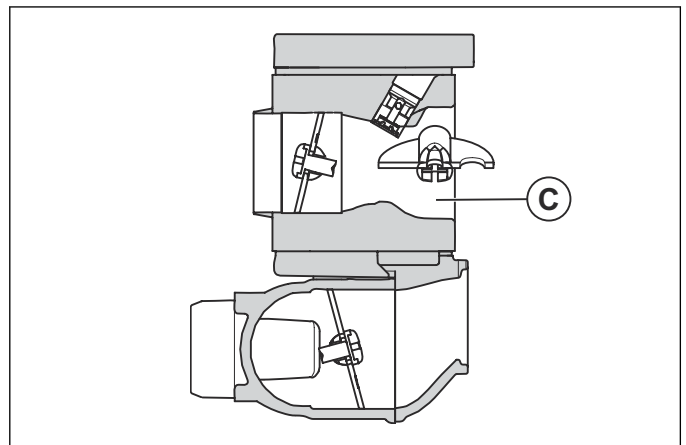
The pump unit (A) moves the fuel from the fuel tank to the metering unit in the carburetor. One side of the pump diaphragm is connected to the crankcase and moves with the pressure changes in the crankcase. An inlet and outlet valve in the diaphragm moves the fuel through a filter screen to the inlet needle.



The metering unit (B) adjusts the quantity of fuel to the correct quantity for the speed and the power output.



The mixing unit (C) contains the choke, the throttle valve and the diffuser jets. Here air is mixed with the fuel to give a fuel/air mixture that can be burned in the combustion chamber of the engine.



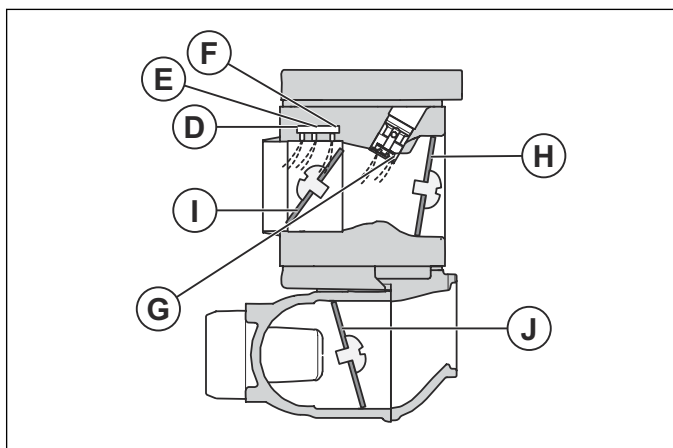
### 7.13.2 Carburetor function

The carburetor operates differently in the following modes:

- Cold start mode
- Idling mode

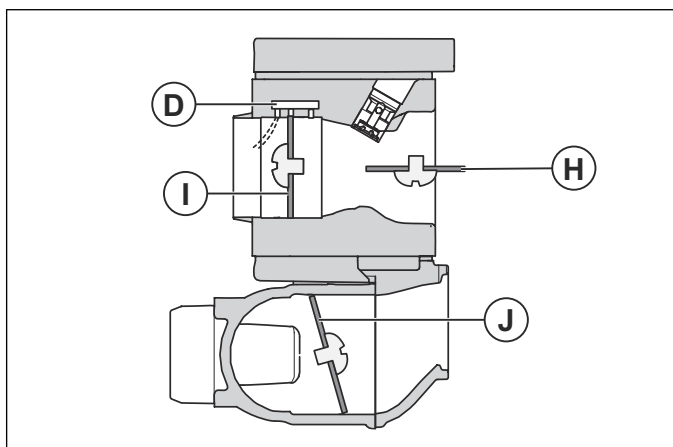
- Part throttle mode
- Full throttle mode

In cold start mode the choke valve (H) is completely shut. This increases the vacuum in the carburetor and fuel is easier to suck from all the diffuser jets (D), (E), and (F). The throttle valve (I) is partly open. The air throttle valve (J) is closed.

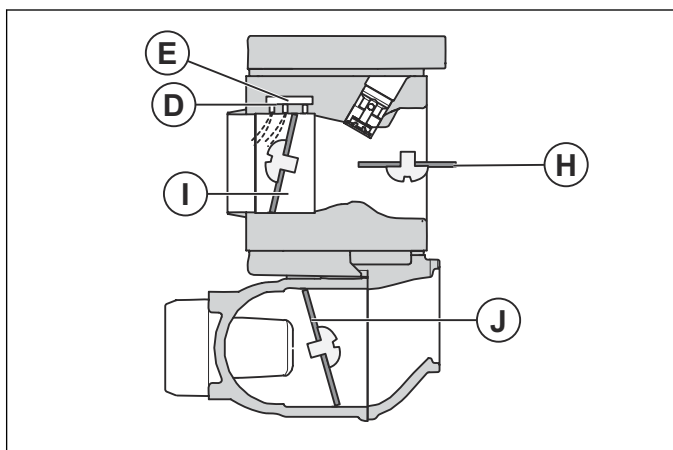


In idling mode, the throttle valves (I) and (J) are closed and the choke valve (H) is open.

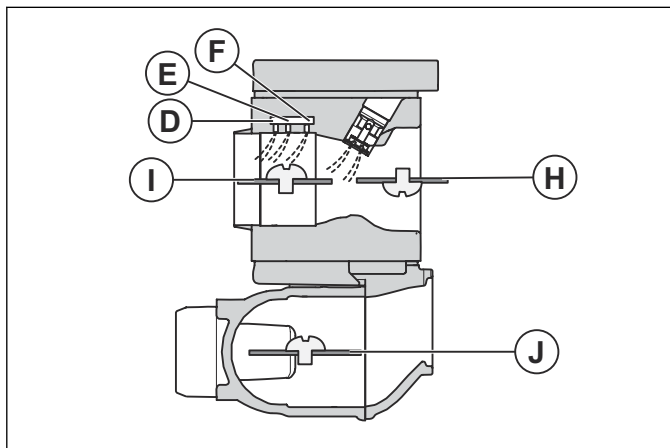
Air is sucked in through an aperture in the throttle valve and a small amount of fuel is supplied through the diffuser jet (D).



In part throttle mode, the throttle valve (I) is partly open and the choke valve (H) is fully open. Fuel is supplied through the diffuser jets (D) and (E). The air throttle valve (J) starts to open.

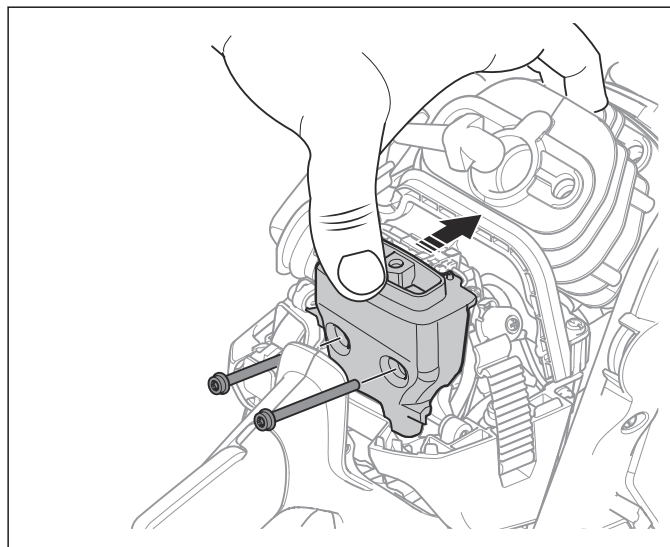


In the full throttle mode both valves are open and fuel is supplied through all four diffuser jets (D, E, F and G). The air throttle valve (J) is fully open.



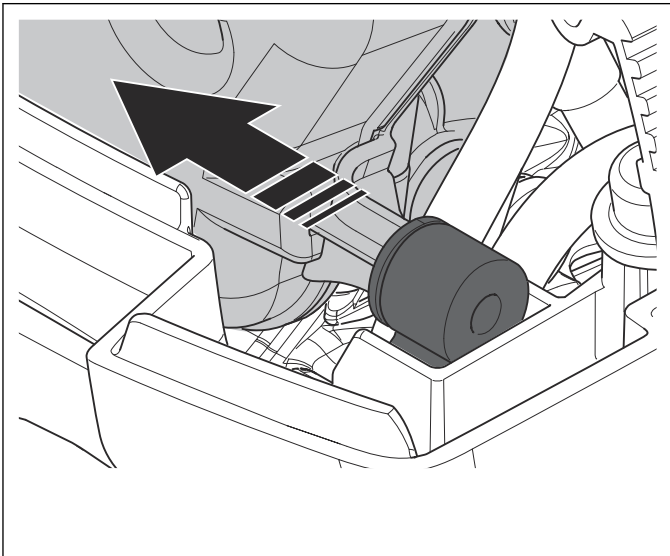
### 7.13.3 To remove and install the carburetor

1. Remove the cylinder cover.
2. Remove the spark plug and the spark plug cap.
3. Remove the air filter. Refer to *To remove and install the air filter on page 34.*
4. Push the air filter holder and the carburetor slightly forward to get access to the screws and remove the 2 screws.

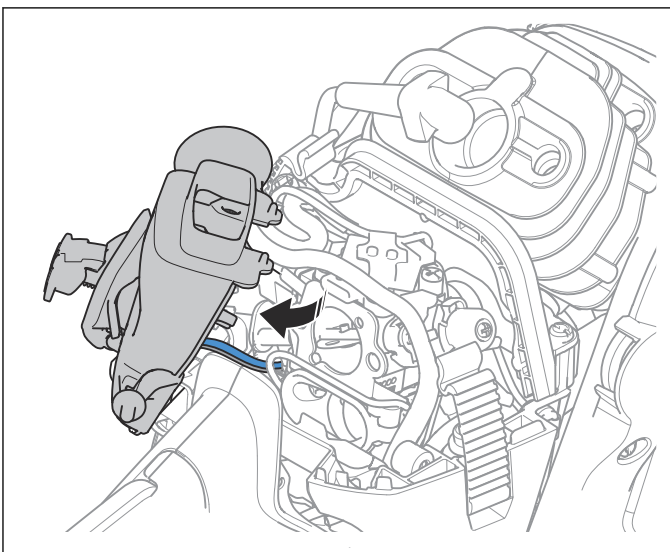


5. Lift the electrical wires from the air filter holder.

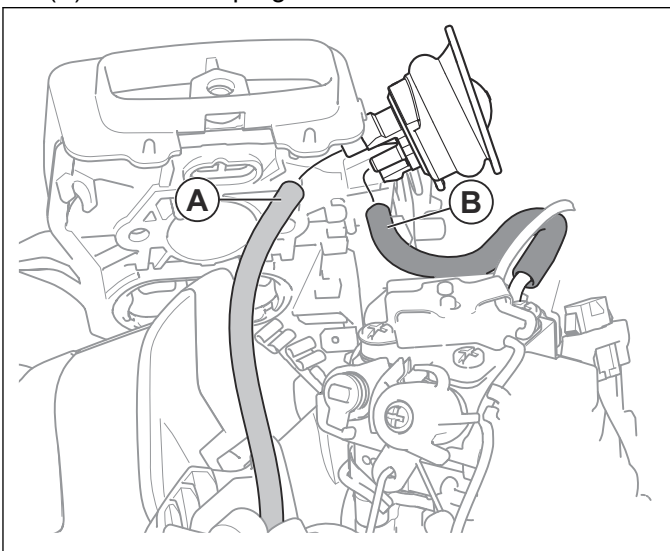
6. Disconnect the air filter holder from the rubber parts on the sides.



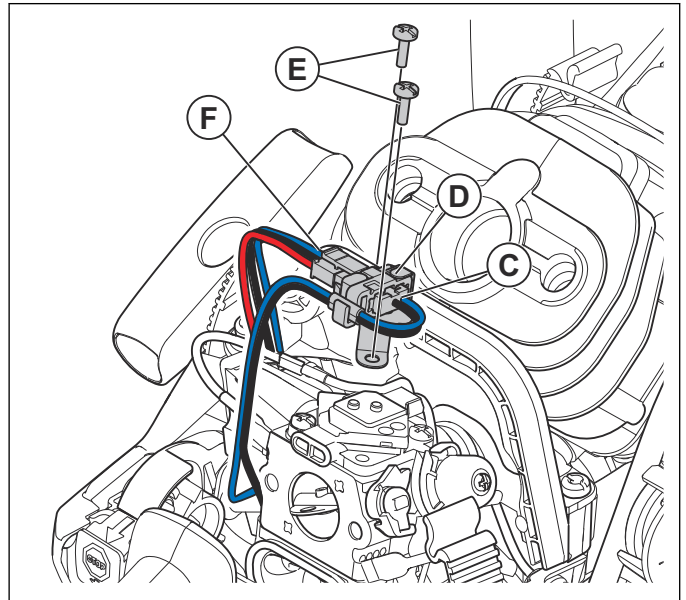
7. Remove the air filter holder.



8. Remove the return hose (A) and the suction hose (B) from the air purge bulb.



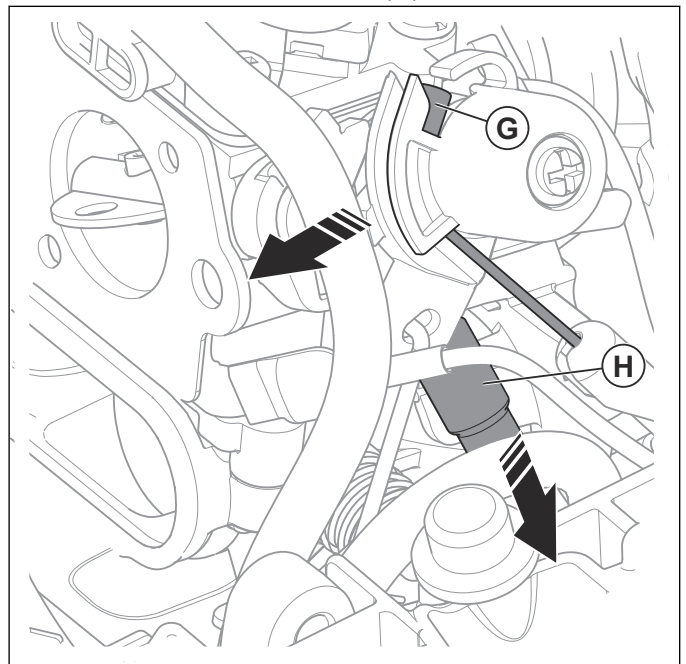
9. Remove the cable connector (C) from the connection clamp (D).



**Note:** Make a note of the position of the return hose and the wires on the air filter holder.

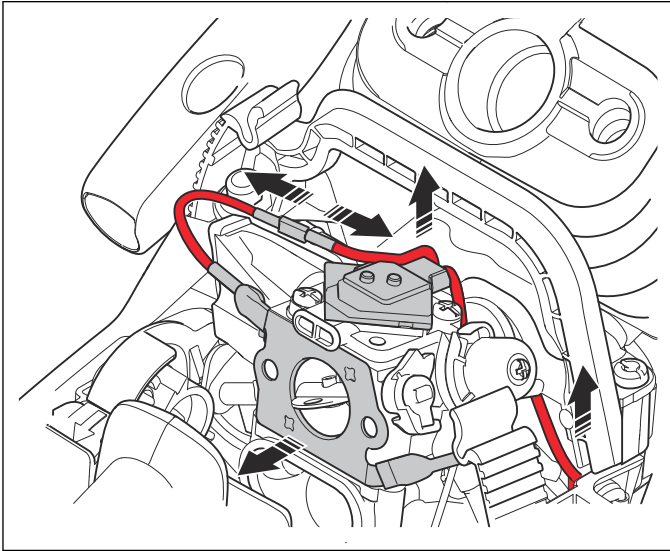
10. Remove the connection clamp from the bracket on the carburetor and remove the air filter holder.

11. Disconnect the throttle wire (G).

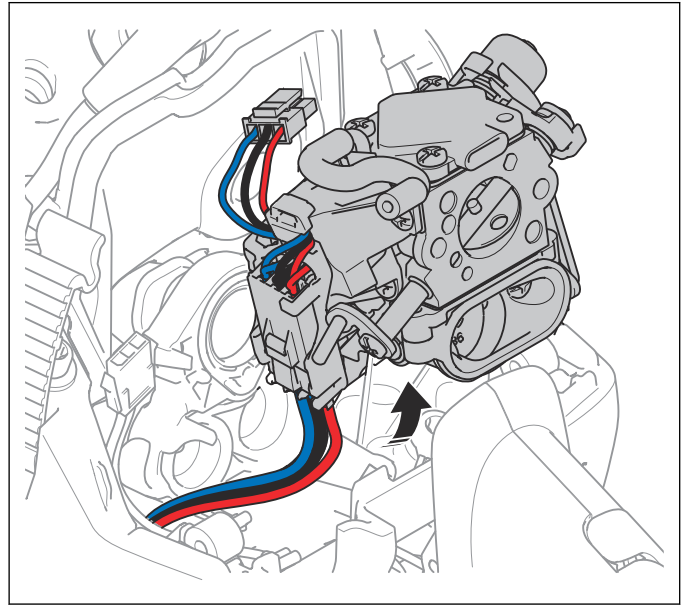


12. Remove the fuel hose (H).

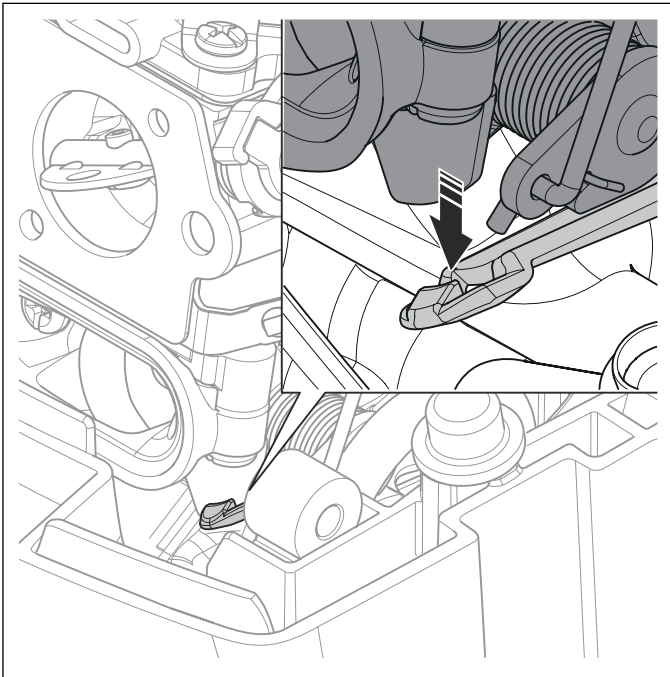
13. For XPG models, disconnect the thermostat wires and the generator wires and remove the heating elements.



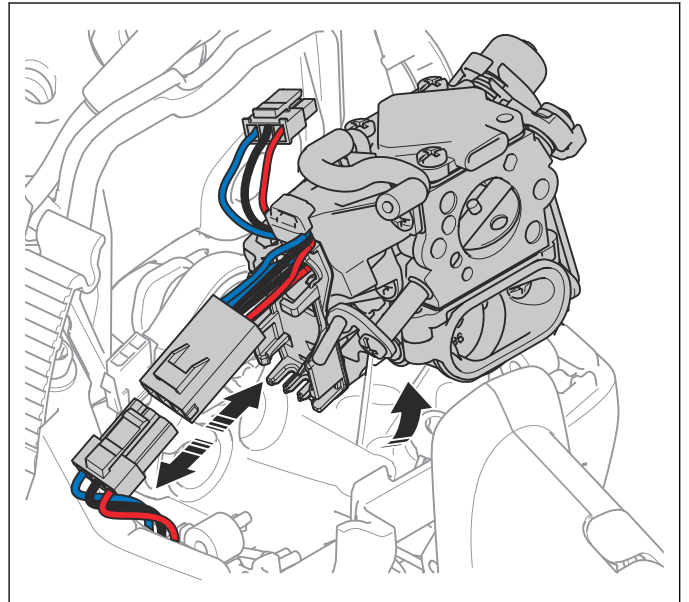
15. Remove the carburetor.



14. Push down the lever to release the carburetor.

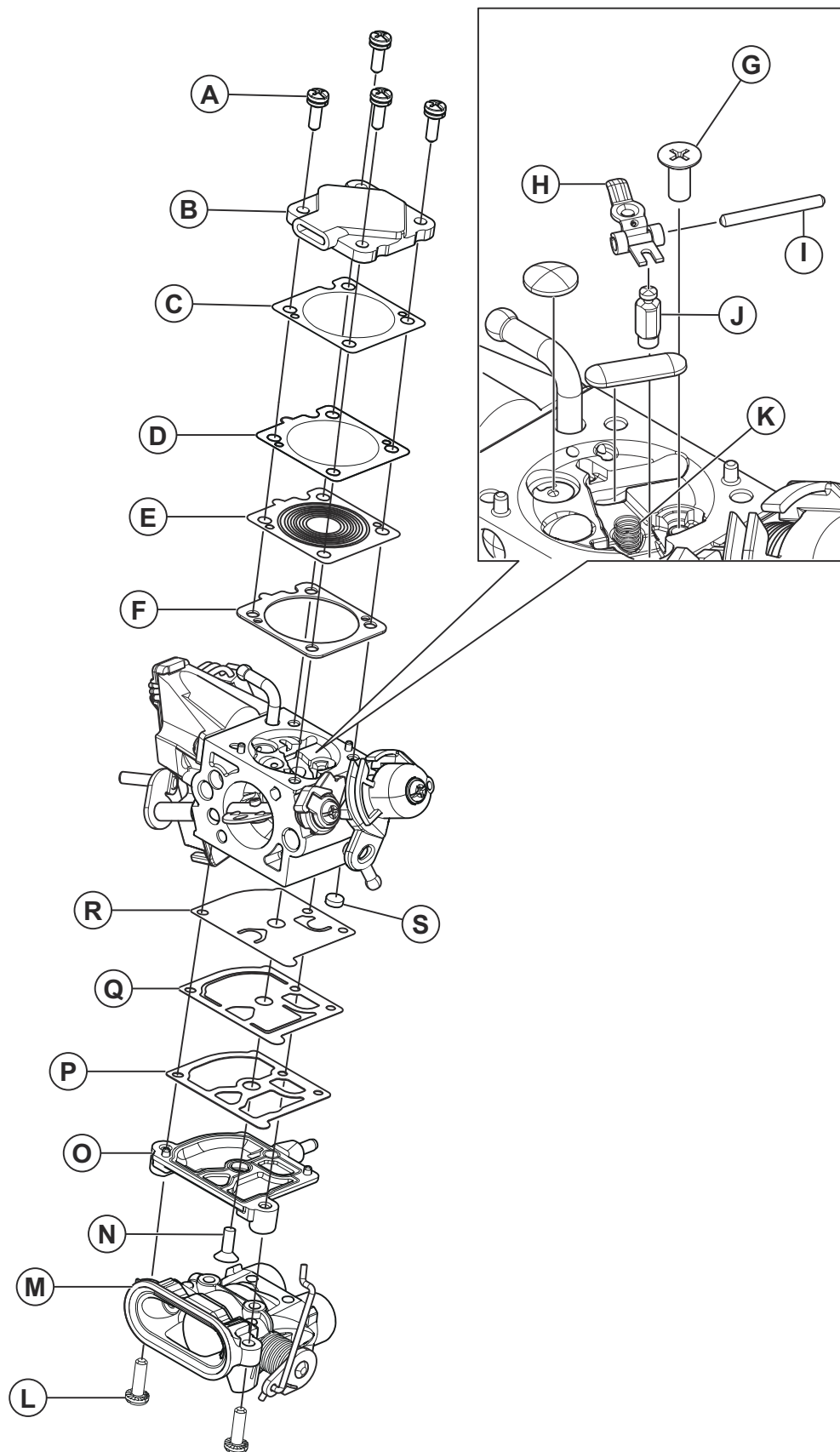


16. Disconnect the cable connectors.



17. Install in the opposite sequence.

### 7.13.4 Carburetor components



### 7.13.5 To disassemble the carburetor

1. Remove the carburetor. Refer to *To remove and install the carburetor on page 35*.
2. Remove the 4 screws (A) from the metering cover (B).
3. Remove the gasket (C), the metering diaphragm (D), the spiral (E) and the gasket (F).
4. Remove the screw (G), the needle valve (J), the metering lever (H), the metering lever pin (I) and the spring (K).
5. Remove the 2 screws (L).
6. Remove the throttle body (M).
7. Remove the screw (N) and the fuel pump cover (O).
8. Remove the gasket (P), the boost diaphragm (Q) and the pump diaphragm (R).
9. Remove the fuel screen (S).

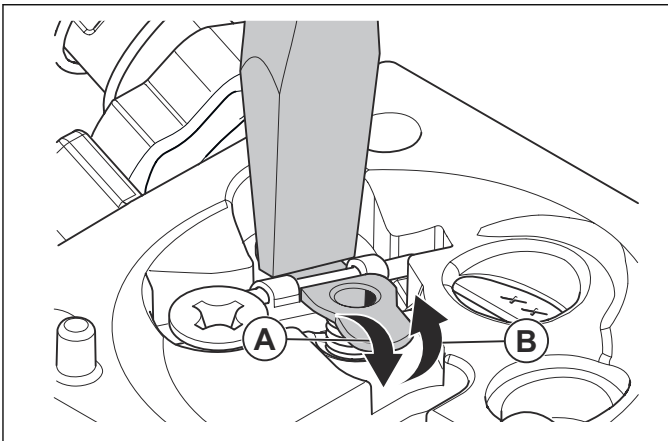
### 7.13.6 To clean and examine the carburetor

1. Clean all parts in clean gasoline. Use compressed air to dry the gasoline. Point the air through all channels in the carburetor housing and make sure that the channels are not blocked.
2. Make sure that there is no play on the throttle valve and the shafts of the choke valve.
3. Examine all parts for damage and wear. Replace the parts that show sign of damage.
4. Use Husqvarna Service Hub (HSH) to examine the AutoTune™ unit. Refer to *Adjustment of the AutoTune™ unit on page 39*.

### 7.13.7 To adjust the metering lever

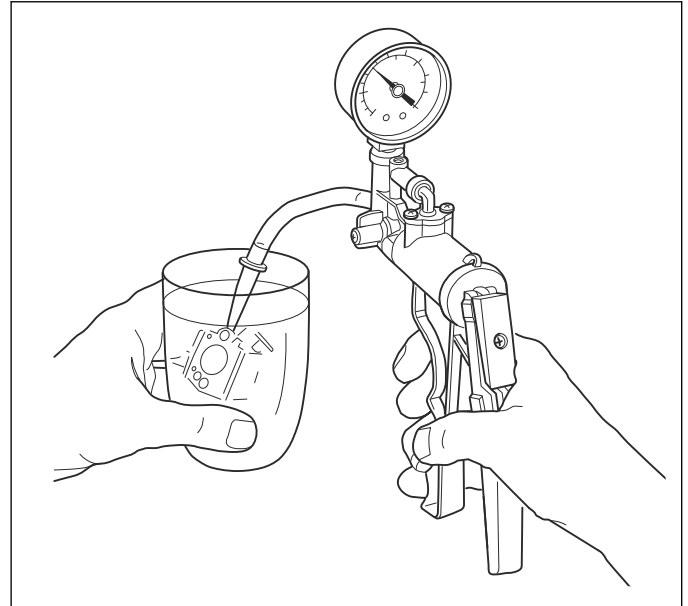
The distance between the metering lever and the gasket surface of the carburetor housing must be 0.55 mm. Adjust the distance if it is more or less than 0.55 mm.

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



### 7.13.8 To do a pressure test of the carburetor

1. Remove the carburetor. Refer to *To remove and install the carburetor on page 35*.
2. Make sure that the carburetor is correctly assembled. Refer to *To assemble the carburetor on page 40*.
3. Connect the pressure tester to the fuel inlet on the carburetor. Increase the pressure to 50kPa. Refer to *Servicing tools on page 9*.



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

### 7.13.9 Troubleshooting leakage

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

### 7.13.10 Adjustment of the AutoTune™ unit

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

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

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

### 7.13.11 To assemble the carburetor



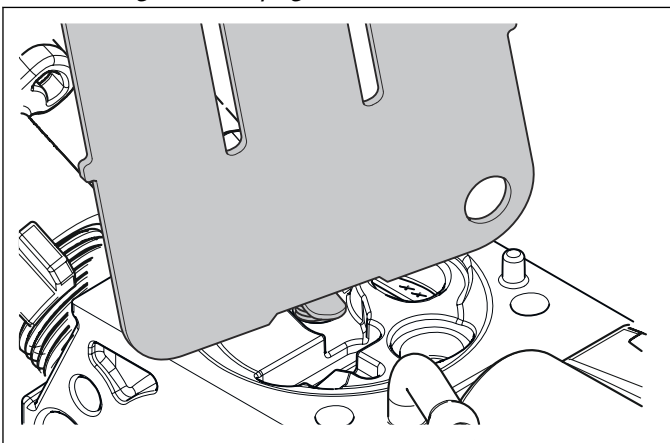
**CAUTION:** Assemble the carburetor in a clean environment. Contamination can cause damage to the product.



**CAUTION:** Make sure that the AutoTune™ carburetor and the ignition module are connected to each other before you install software updates. If the AutoTune™ carburetor and the ignition module are not connected to each other, you will get an error message in Husqvarna Service Hub (HSH).

**Note:** When you replace the carburetor, a firmware download is necessary. With the firmware installed, the carburetor must be approved on the test “Product tests” in Husqvarna Service Hub (HSH) before use. Refer to Husqvarna Service Hub (HSH) for instructions.

1. Lubricate the shaft bearings with two-stroke oil.
2. Attach the fuel screen (S). Use the handle of a small screwdriver.
3. Assemble the pump diaphragm (R), the boost diaphragm (Q), the gasket (P) and the fuel pump cover (O) to the carburetor with the screw (N).
4. Attach the 2 screws (L) and the throttle body (M).
5. Assemble the needle valve (J) and the metering lever (H), the metering lever pin (I) and the spring (K). Tighten the screw (G).
6. Measure the distance between the metering lever (H) and the gasket surface of the carburetor housing. Refer to *Servicing tools on page 9*. The distance must be 0.55 mm. If it is more or less than 0.55 mm, adjust the distance. Refer to *To adjust the metering lever on page 39*.



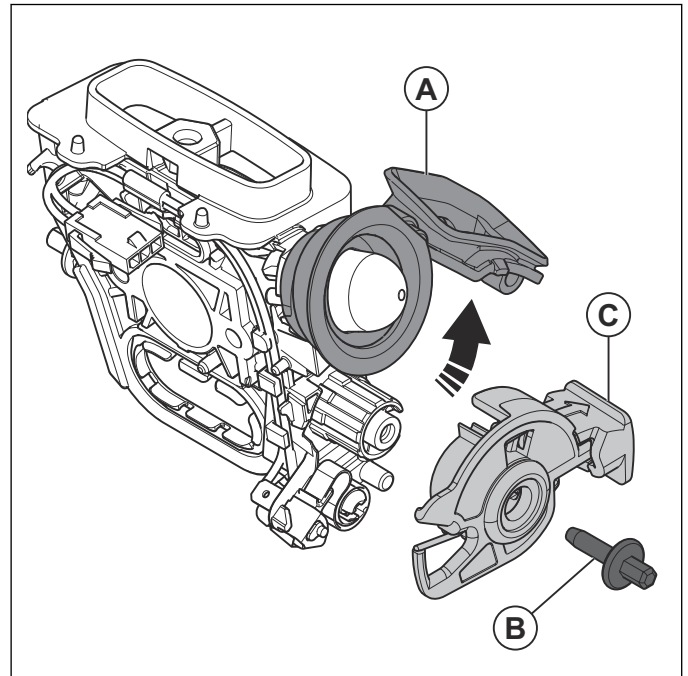
7. Assemble the gasket (C), the metering diaphragm (D), the control diaphragm (E), and the gasket (F) on the carburetor housing. Make sure that you assemble the parts in the correct sequence.
8. Attach the metering cover (B) to the carburetor housing.

9. Do a pressure test of the carburetor. Refer to *To do a pressure test of the carburetor on page 39*.
10. On 560 XP and 562 XP: Attach the 4 screws and washers (A) and tighten the screws.
11. On 560 XPG and 562 XPG: Assemble the heating element on the carburetor. Attach the 4 screws and washers (A) and tighten the screws.

### 7.14 Start/stop switch

#### 7.14.1 To remove and install the start/stop switch

1. Remove the cylinder cover.
2. Remove the air filter.
3. Remove the air filter holder. Refer to *To remove and install the carburetor on page 35*.
4. Remove the rubber seal (A) from the start/stop switch (C).
5. Remove the screw (B) and the start/stop switch.

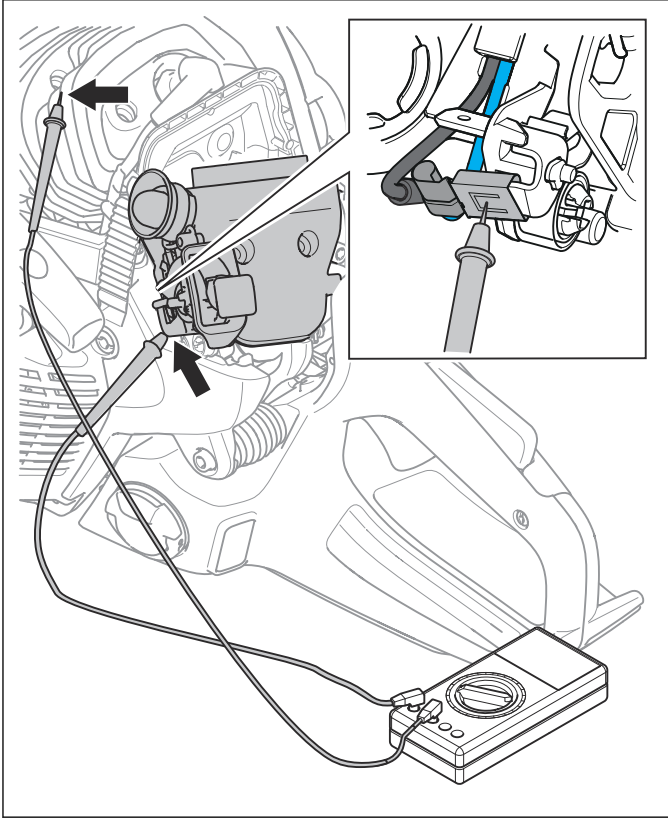


6. Install in the opposite sequence.



### 7.14.2 To do a function test of the start/stop switch

1. Clean the surfaces where you will measure the resistance.
2. Connect a multimeter to the blue cable and the cylinder to measure the resistance. The resistance must not be more than  $0.5 \Omega$ .



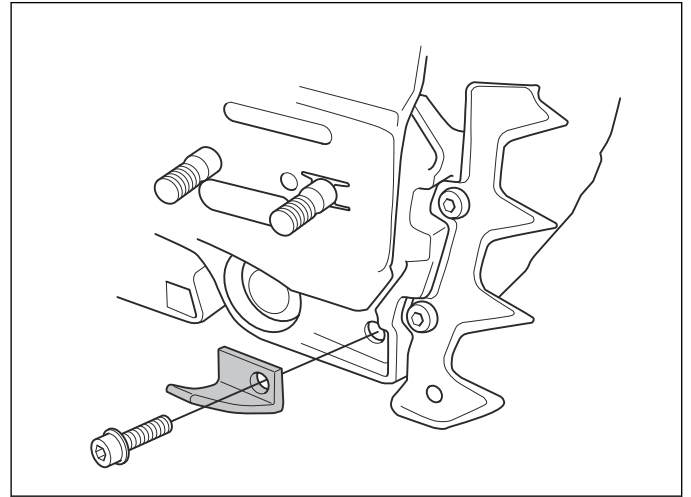
**Note:** The start/stop switch must be in the ON position to give the correct indication. The start/stop switch is in the ON position when you hold the button down.

### 7.15 Fuel tank

#### 7.15.1 To remove and install the fuel tank

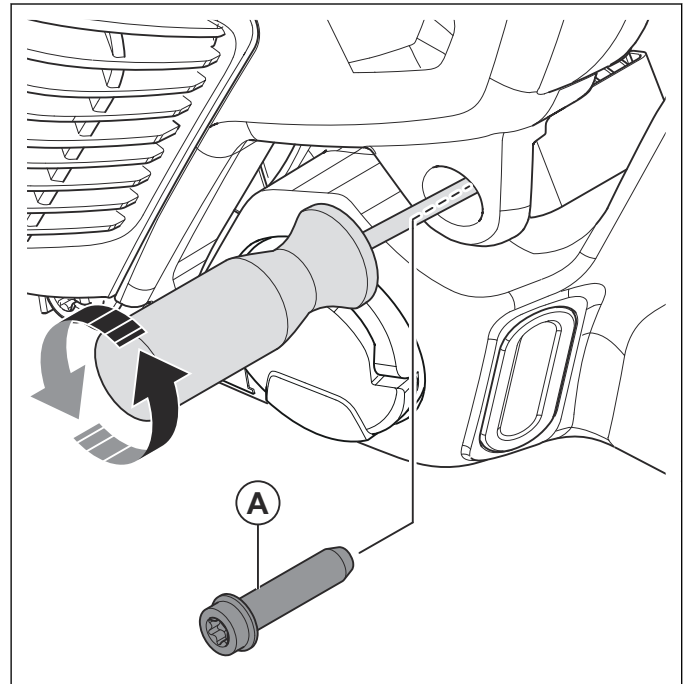
1. Drain the fuel tank.
2. Remove the chain brake system. Refer to *To disassemble the chain brake on page 16*.
3. Remove the cylinder cover.
4. Remove the spark plug cap and the spark plug.
5. Remove the air filter. Refer to *To remove and install the air filter on page 34*.
6. Remove the air filter holder and the carburetor. Refer to *To remove and install the carburetor on page 35*.

7. Remove the screw and the chain catcher.

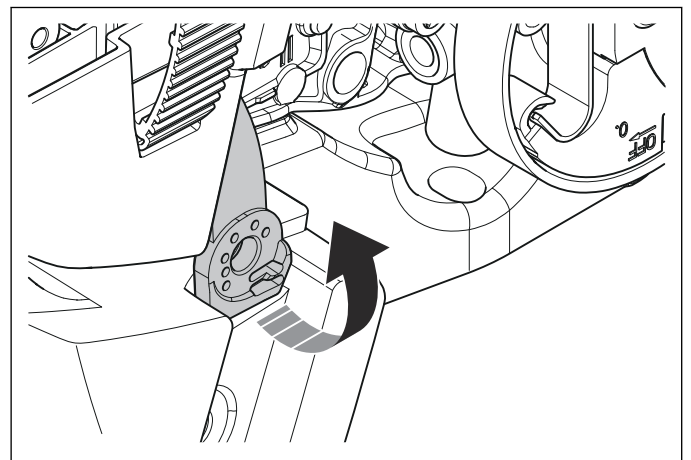


8. Remove the front handle. Refer to *To remove and install the front handle (XP) on page 21*.

9. Remove the screw of the vibration damping system.

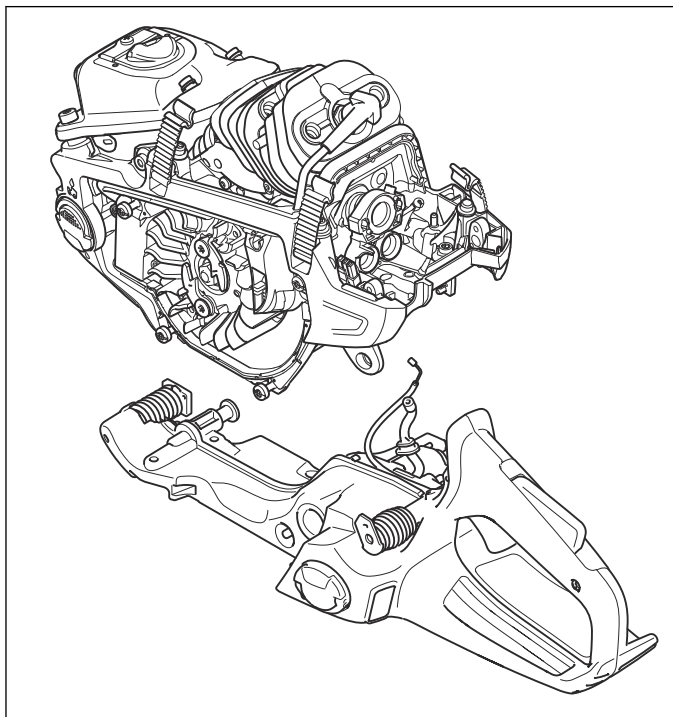


10. Loosen the deflection limiter.



11. Remove the fuel hose and disconnect the wires from the heated handles. Refer to *Handles on page 21*.

12. Remove the tank unit.

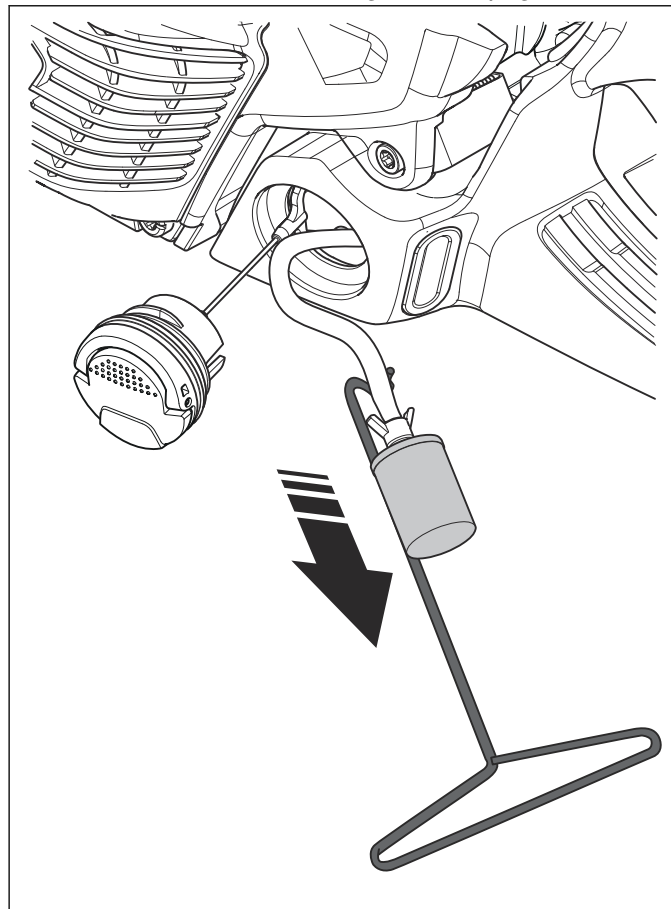


**CAUTION:** Be careful not to cause damage to the hoses when you remove the tank unit.

13. Install in the opposite sequence.

### 7.15.2 To replace the fuel filter

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

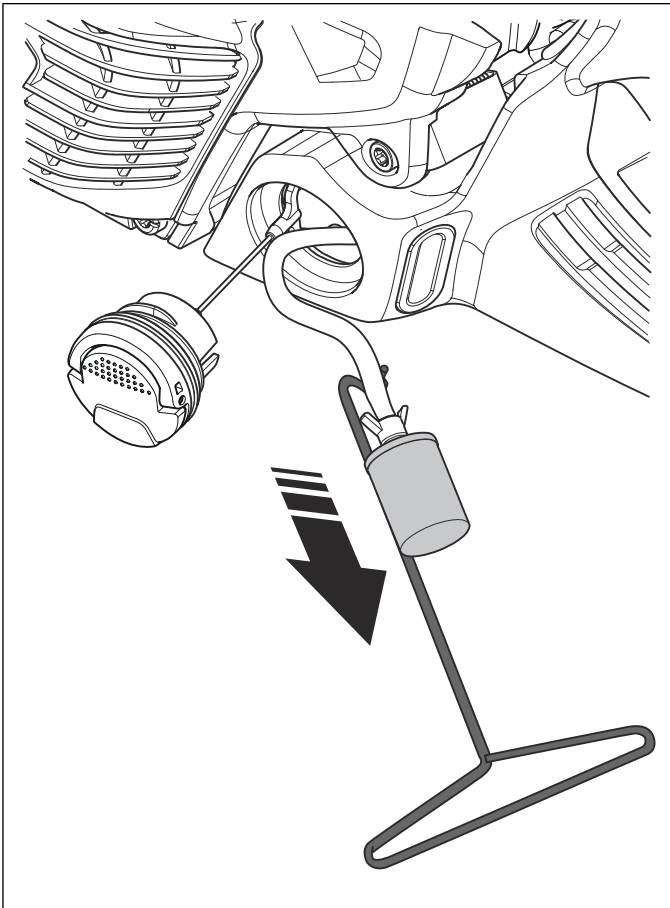


3. Remove the fuel filter.
4. Attach a new fuel filter.
5. Install the fuel tank cap.

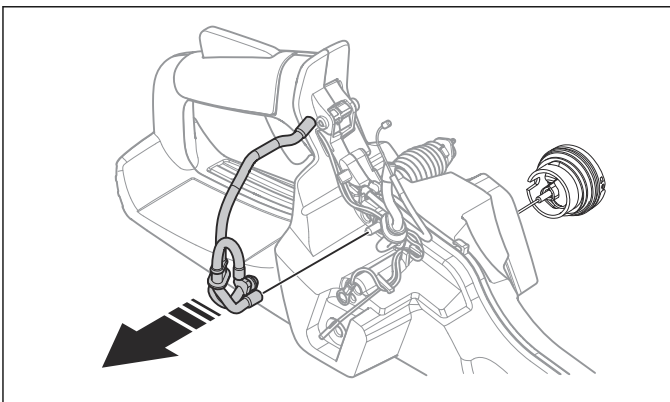
### 7.15.3 To replace the fuel hose

1. Remove the fuel tank. Refer to *To remove and install the fuel tank on page 41*.
2. Remove the fuel tank cap.

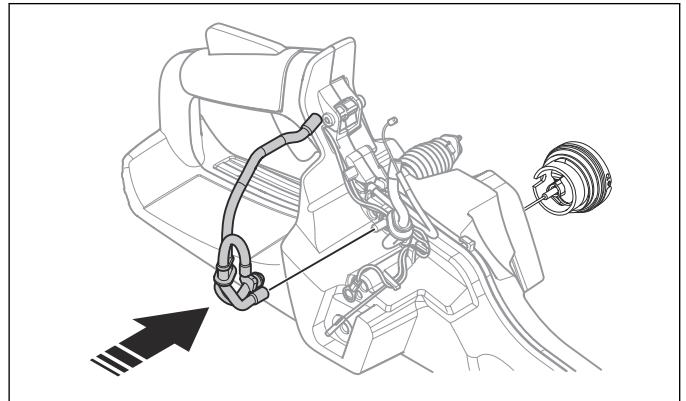
- Use a fuel filter hook to pull out the fuel hose and the fuel filter. Refer to *Servicing tools on page 9*.



- Remove the fuel filter.
- Pull out and remove the fuel hose from the fuel tank as the illustration shows.



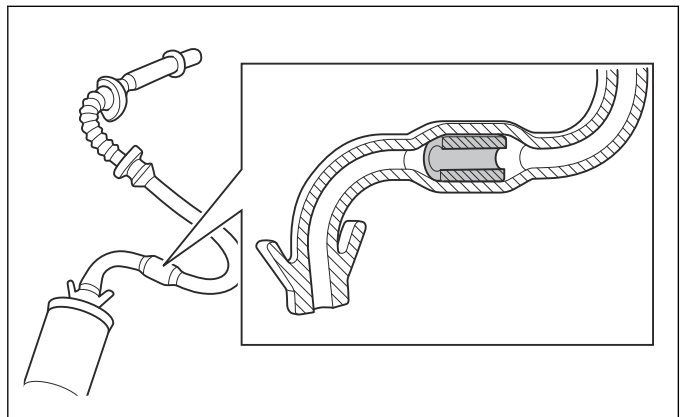
- Attach the new fuel hose to the fuel tank as the illustration shows.



- Attach the fuel filter to the new fuel hose.
- Install the fuel tank cap.
- Install the fuel tank in the opposite sequence. Refer to *To remove and install the fuel tank on page 41*.

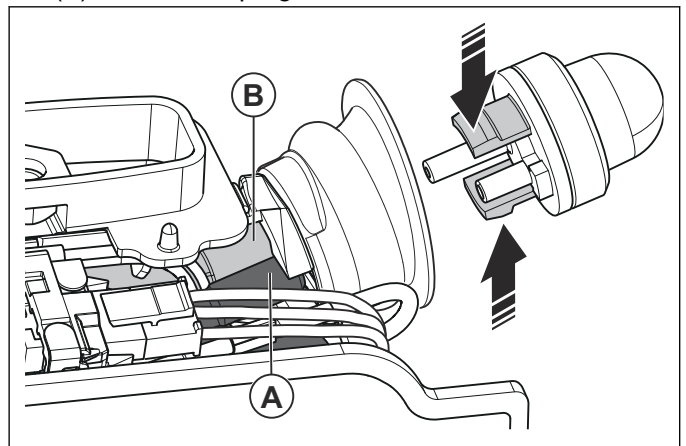
#### 7.15.4 Magnetic tube in the fuel hose

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



#### 7.15.5 To replace the air purge bulb

- Remove the cylinder cover and the air filter.
- Remove the suction hose (A) and the return hose (B) from the air purge bulb.



- Push the snap locks to remove the air purge bulb from the air filter holder.

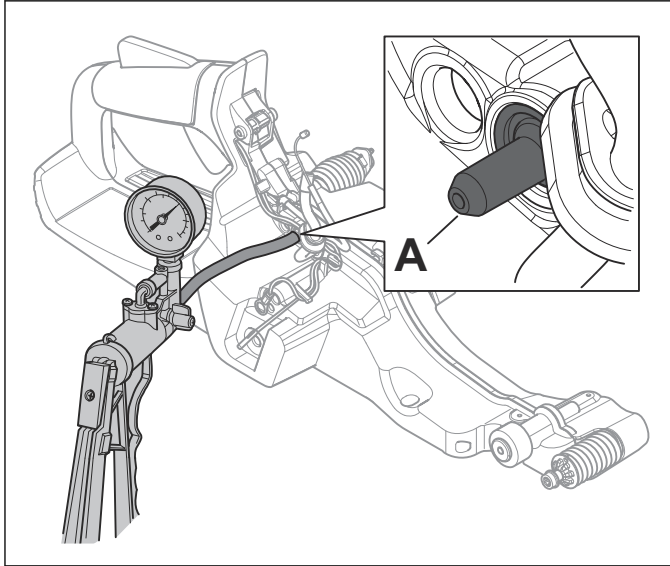
4. Install a new air purge bulb in the opposite sequence.

### 7.15.6 Air pressure in the fuel tank

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

#### 7.15.6.1 To do a pressure test of the fuel tank

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

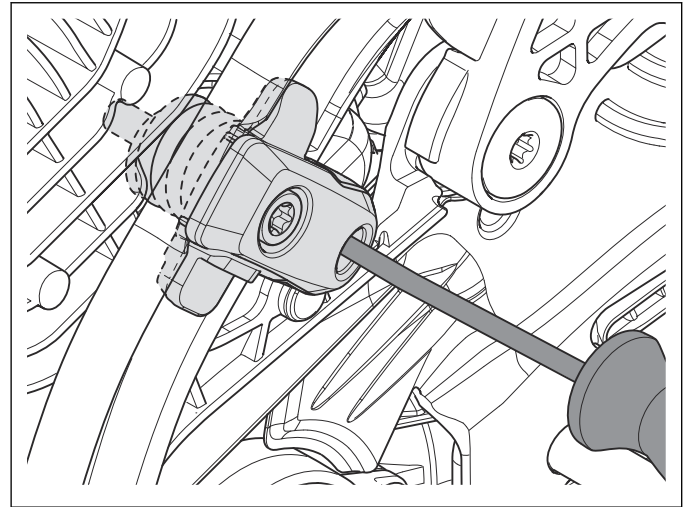


4. Do a test of the negative pressure in the fuel tank.
  - a) Use the pressure tester in vacuum mode to decrease the pressure in the fuel tank.
  - b) The pressure must be between 0.10–0.45 bar.
5. Do a test of the positive pressure in the fuel tank.
  - a) Use the pressure tester in pressure mode increase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

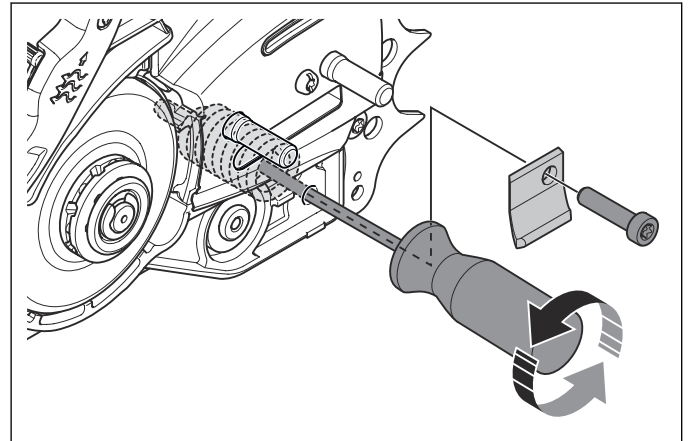
## 7.16 Vibration damping system

### 7.16.1 To disassemble and assemble the vibration damping system

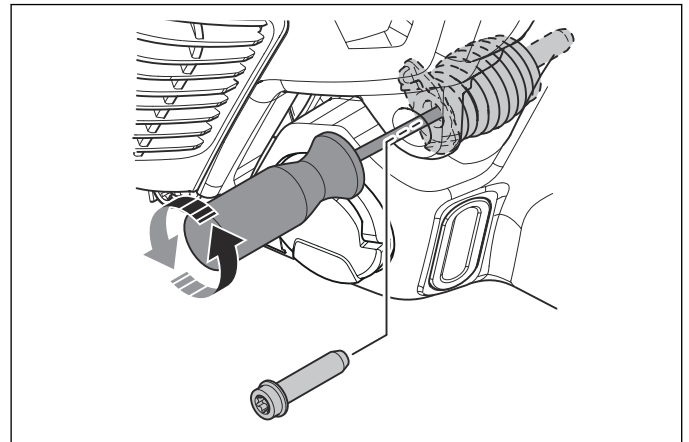
1. Use a Torx screwdriver to remove the vibration damping unit from the cylinder.



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



3. Remove the screw to get access to the vibration damping unit. Use a Torx screwdriver to remove the vibration damping unit.

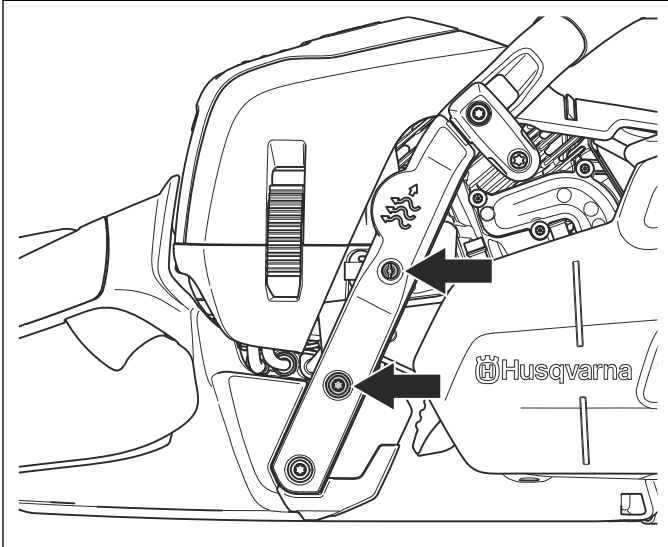


4. Assemble in the opposite sequence.

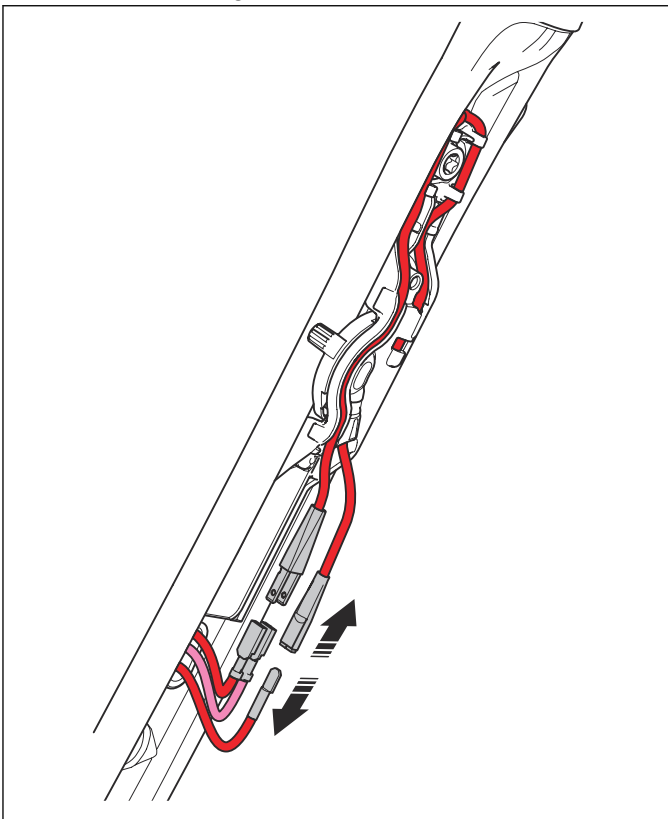
## 7.17 Generator

### 7.17.1 To remove and install the generator

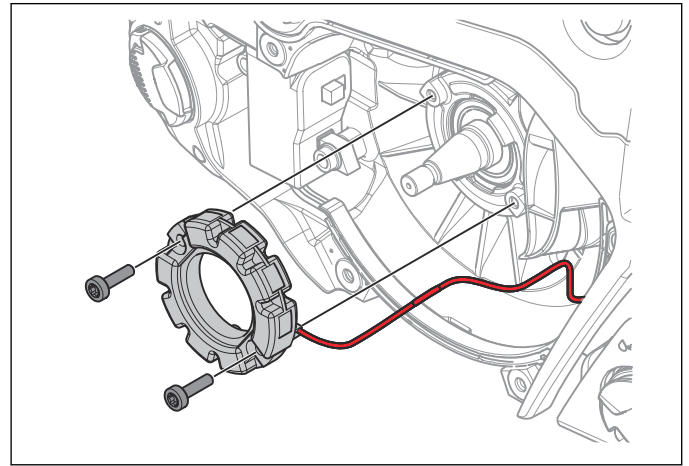
1. Remove the fuel tank. Refer to *To remove and install the fuel tank on page 41*.
2. Remove the starter unit. Refer to *To remove and install the starter unit on page 24*.
3. Remove the flywheel. Refer to *To remove the flywheel on page 30*.
4. Remove the 2 screws and the cover for the heated front handle.



5. Disconnect the generator wire.

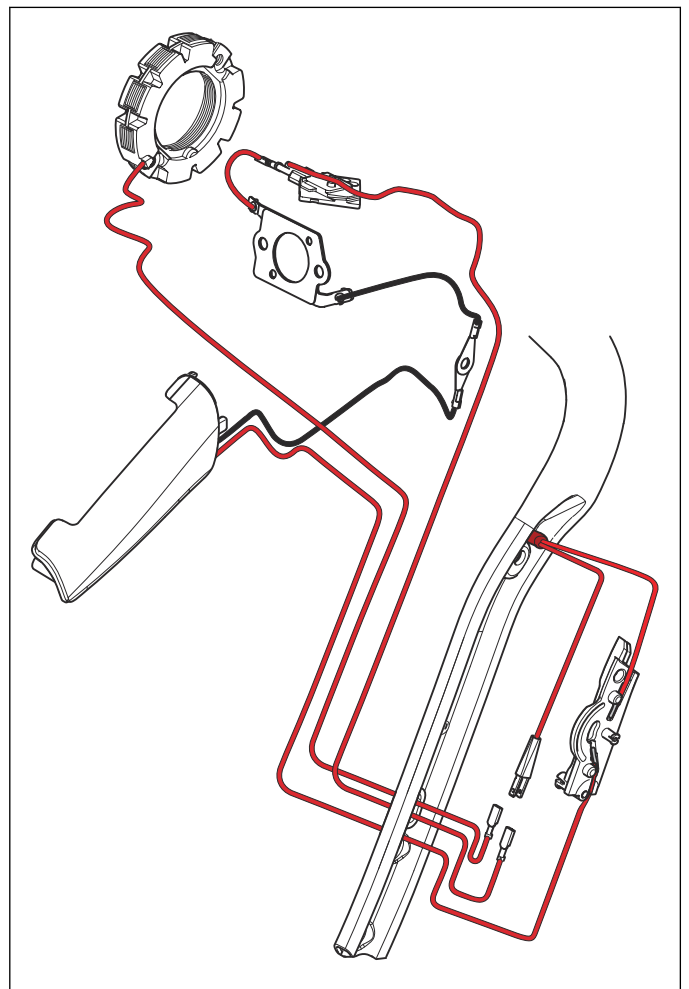


6. Remove the 2 screws and pull out the generator and the wire.



7. Install the generator in the opposite sequence.

### 7.17.2 Product overview of the generator cables

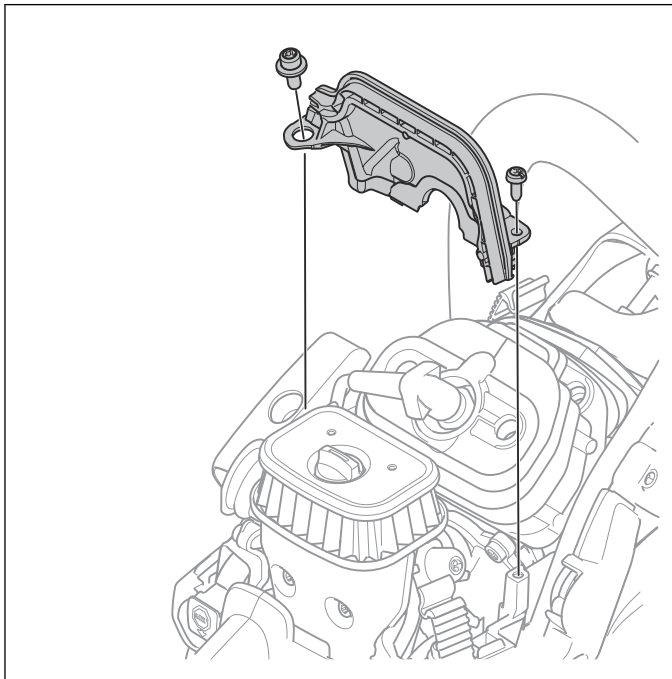


## 7.18 Cylinder and piston

### 7.18.1 To remove the cylinder and piston

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

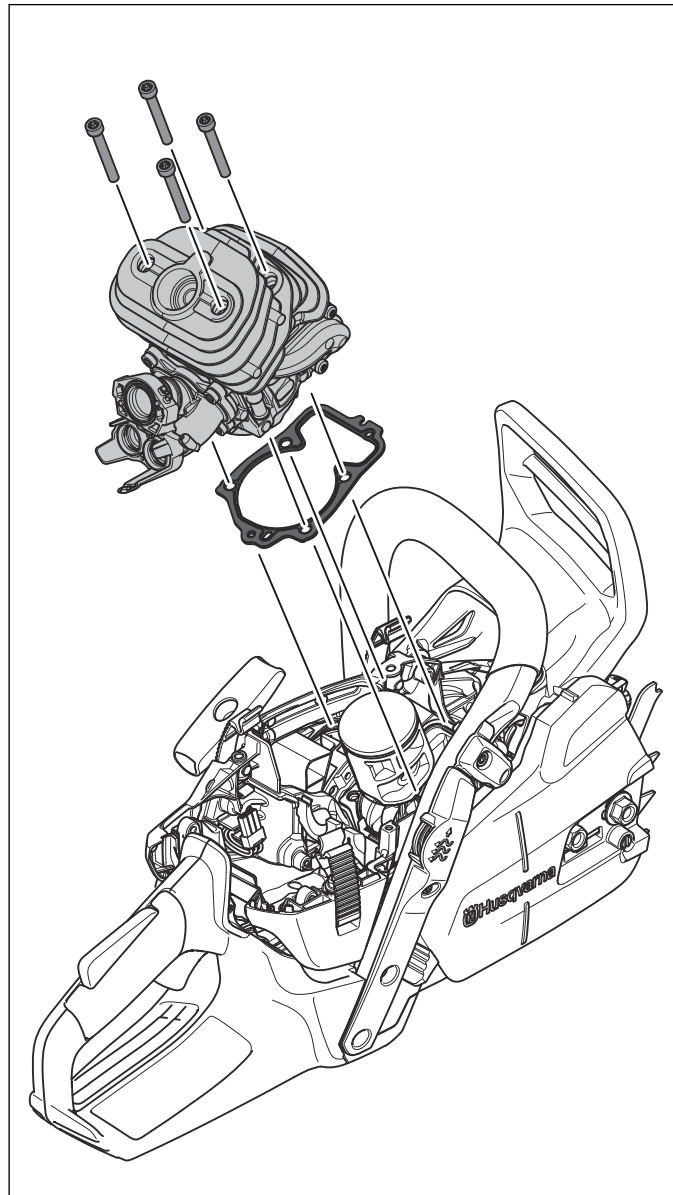
3. Remove the 2 screws and the insulation wall.



4. Remove the carburetor.

5. Remove the muffler and the heat deflector.

6. 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.

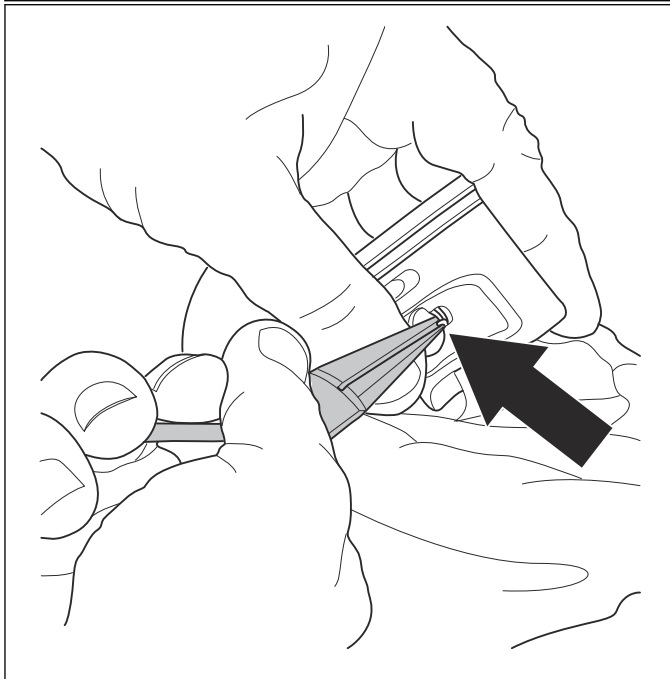
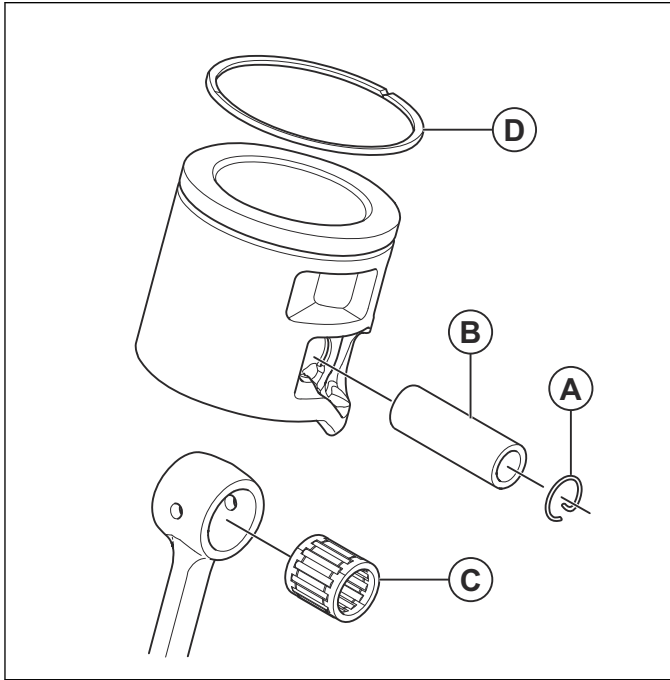
7. Remove the cylinder base gasket.



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

8. Put a cover on the crankcase opening.

- Use pliers to remove the snap ring (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.

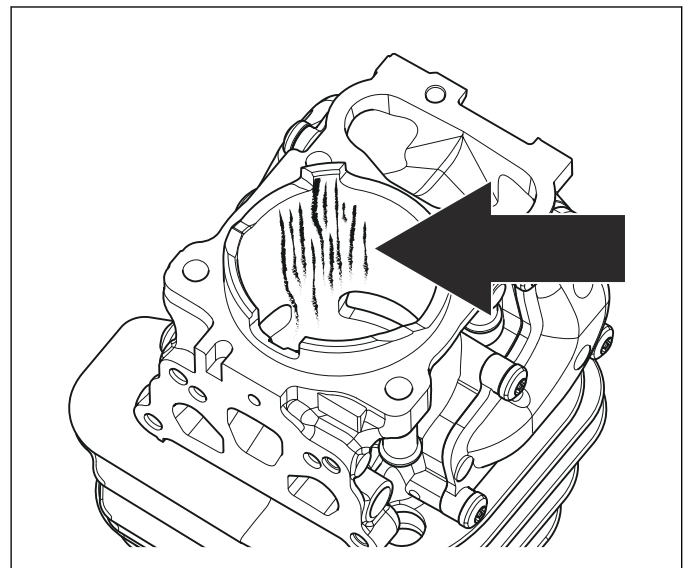
- Push out the piston pin (B) and lift the piston from the connecting rod.
- Remove the needle bearing (C) from the connecting rod. Replace the needle bearing if it is damaged or worn.
- Remove the piston ring (D).

### 7.18.2 To clean the cylinder and piston

- Clean the piston crown.
- Clean the top of the cylinder bore.
- Clean the cylinder exhaust port.
- Clean the bottom of the cylinder and the bottom of the crankcase. Remove all gasket particles and dirt particles.
- Clean the cooling fins.

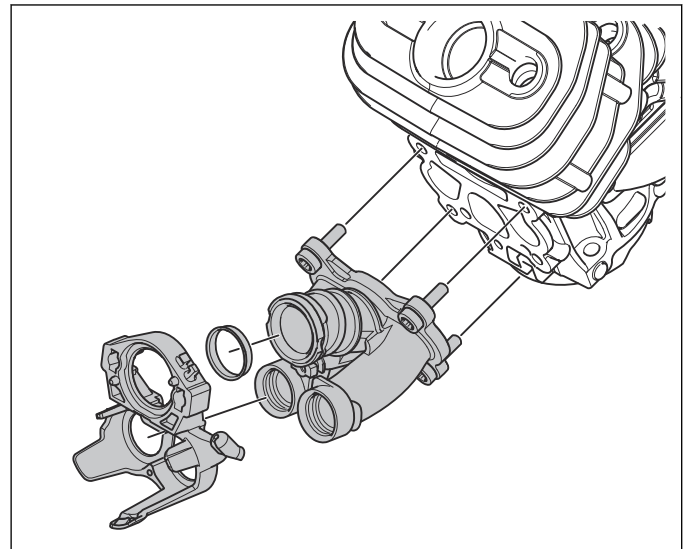
### 7.18.3 To examine the cylinder

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



### 7.18.4 To examine the inlet manifold

- Remove the 4 screws and the inlet manifold from the cylinder.

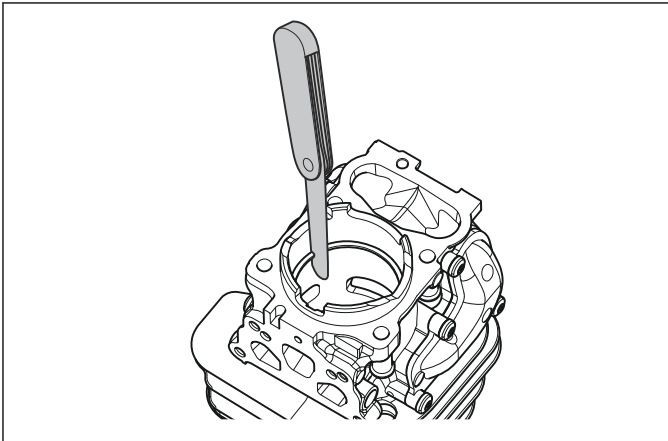


- Remove the flange and support sleeve from the inlet manifold.

3. Examine the parts for damage. Replace damaged parts.

### 7.18.5 To examine the piston

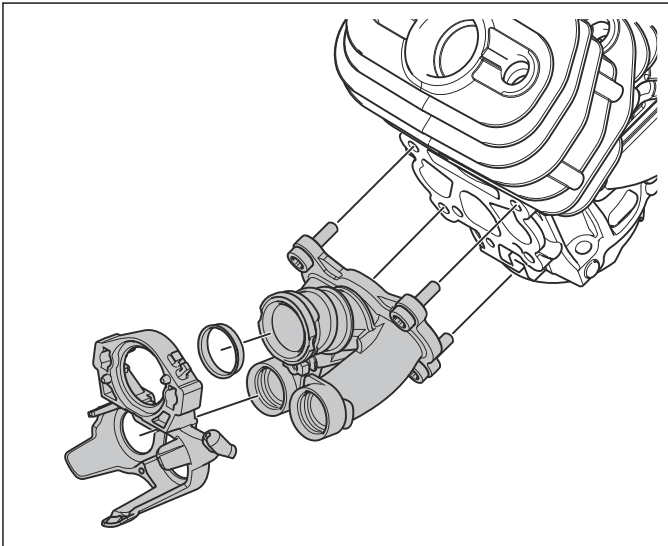
1. Make sure that the needle bearing is not damaged.
2. Make sure that the piston pin does not have damages on the running surface for the bearing.
3. Make sure that the piston ring can move freely in the groove.
4. Put the piston ring in the cylinder and measure the ring gap with a feeler gauge. The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



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

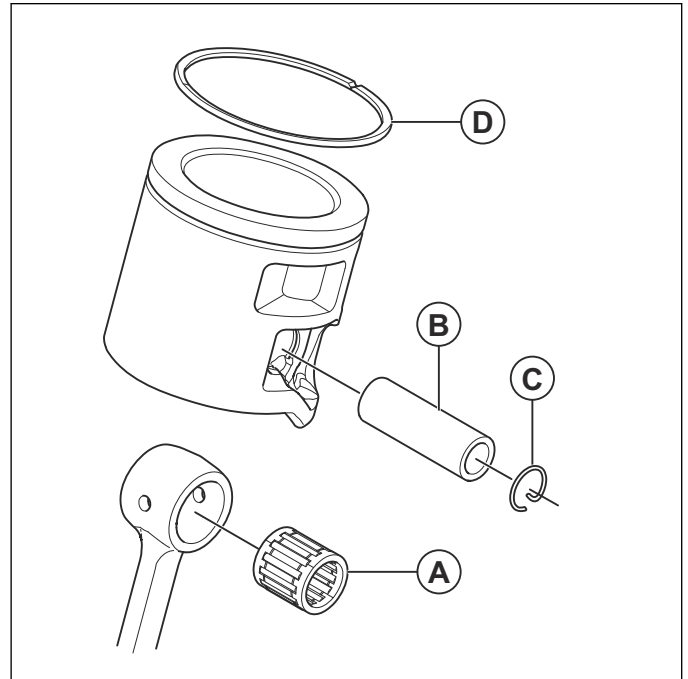
### 7.18.6 To install the cylinder and piston

1. Attach the flange to the inlet manifold.



2. Install the inlet manifold on the cylinder with the 4 screws. Tighten the 4 screws to the correct torque. Refer to *Servicing data on page 7*

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).

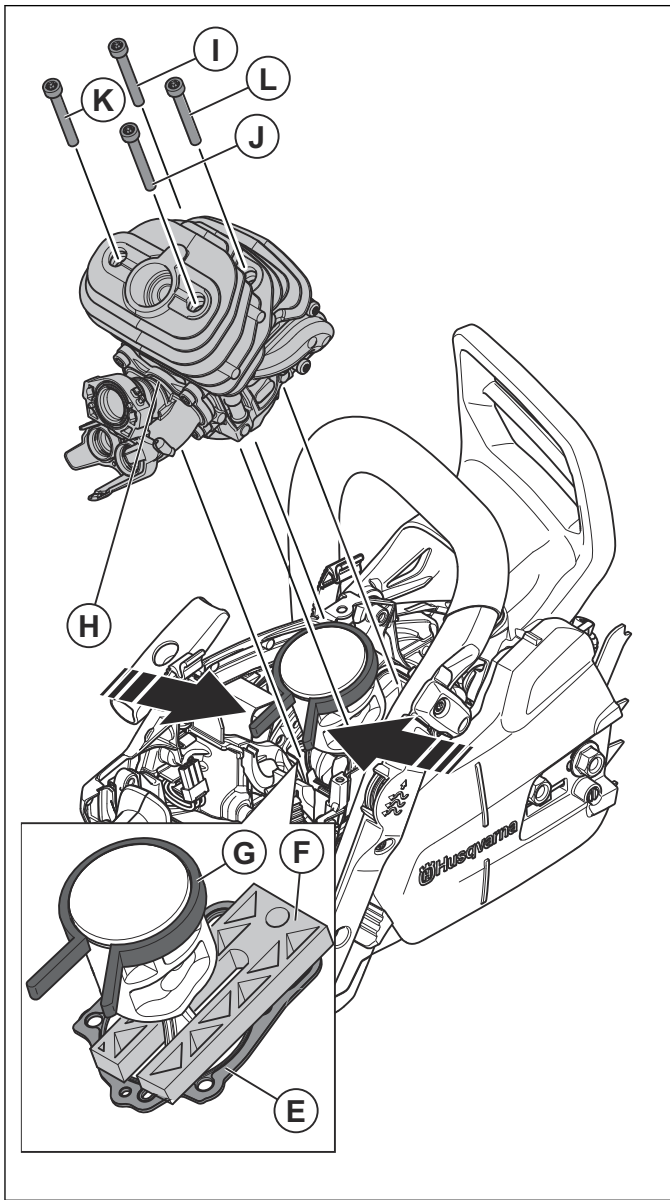


**CAUTION:** Always use a new snap ring.

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



- 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.

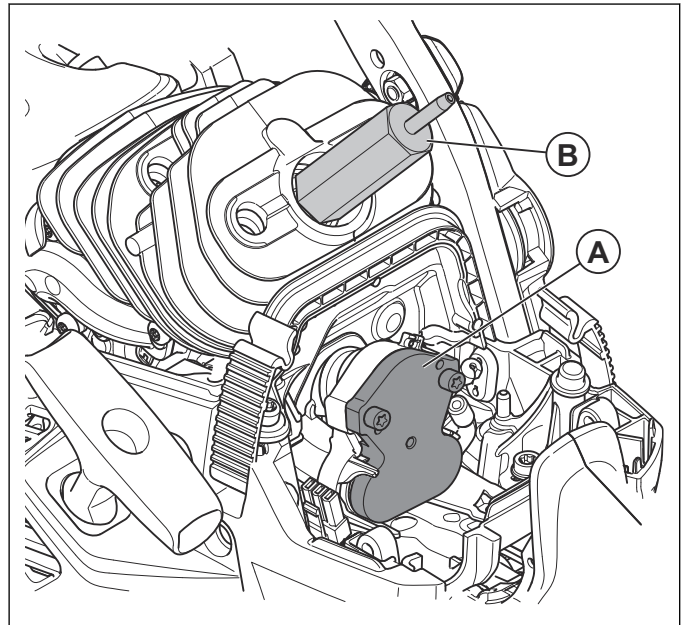
- Attach the support plate (F) from the piston assembly kit. Refer to *Servicing tools on page 9*.
- Use the clamp (G) from the piston assembly kit to compress the piston ring and carefully push the piston into the cylinder opening.
- Put the cylinder (H) in position on the crankcase.
- Install the 4 screws and tighten them in the sequence that follows. Refer to *Servicing data on page 7* for the correct torque.
  - Tighten the screw (I).
  - Tighten the screw (J).
  - Tighten the screw (K).
  - Tighten the screw (L).

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

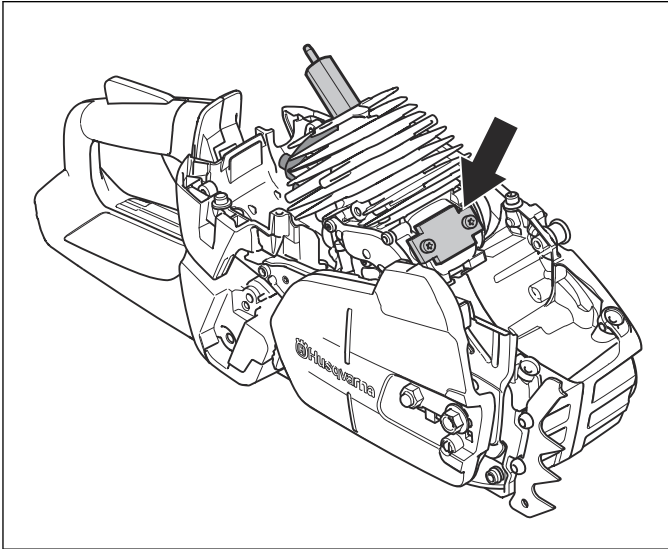
- Install the remaining parts in the opposite sequence to how they were removed.

### 7.18.7 To do a pressure test of the cylinder

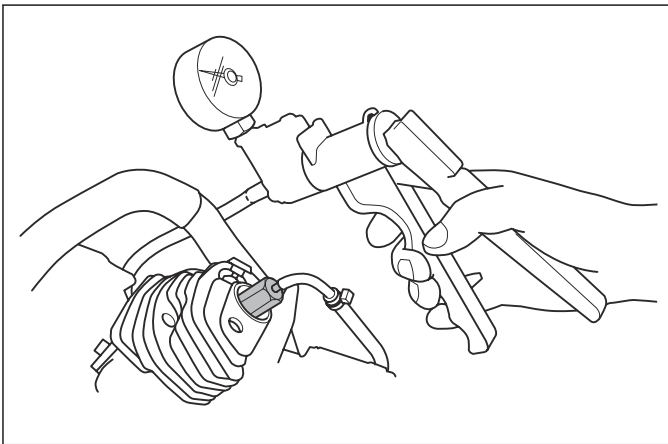
- Remove the cylinder cover.
- Remove the air filter.
- Remove the air filter holder and the carburetor. Refer to *To remove and install the carburetor on page 35*.
- Remove the spark plug.
- Install the plugs for the inlets. Refer to *Servicing tools on page 9*.
- Attach the inlet cover (A) and the spark plug adapter (B). Refer to *Servicing tools on page 9* for the correct cover and adapter.



7. Remove the muffler and attach the outlet cover. Refer to *Servicing tools on page 9* for the correct cover. Tighten the screws for the muffler.



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



9. Increase the pressure to 0.8 bar. Wait for 30 seconds. The pressure must not decrease to less than 0.6 bar.
10. Remove the covers from the muffler and the carburetor.
11. Install the air filter holder and the carburetor. Refer to *To remove and install the carburetor on page 35*.
12. Install the muffler.
13. Remove the spark plug adapter and install the spark plug.



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

## 7.19 Crankshaft and crankcase

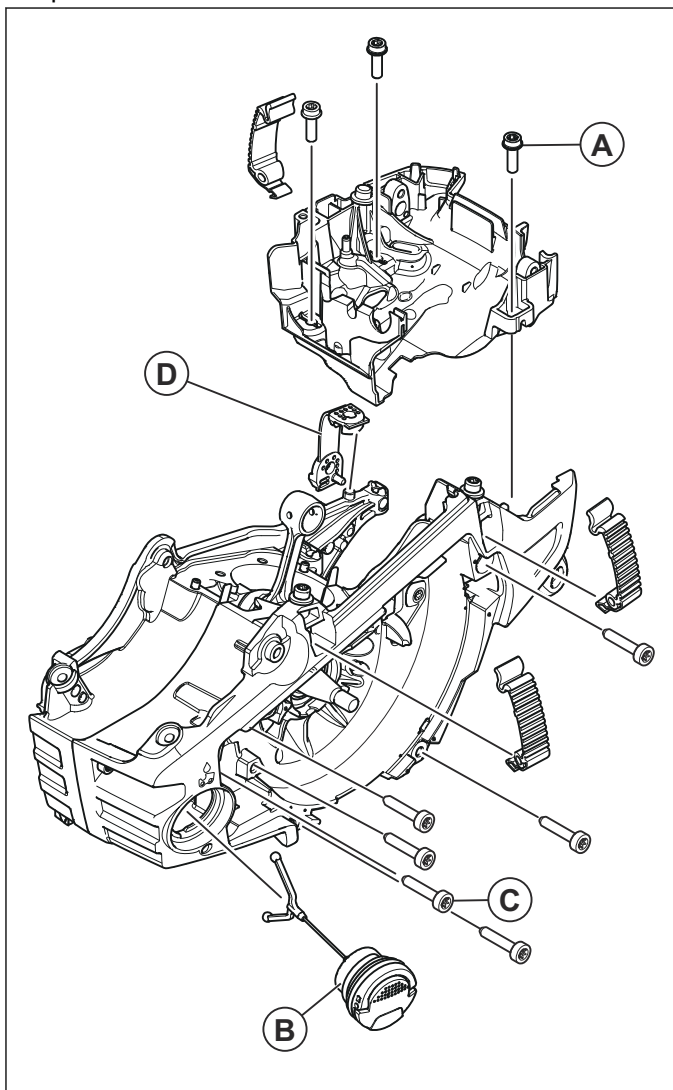
### 7.19.1 To get access to the crankshaft and crankcase

1. Drain the oil tank and the fuel tank.
2. Remove the guide bar and saw chain.
3. Remove the cylinder cover.
4. Remove the spark plug.
5. Remove the chain brake system. Refer to *To disassemble the chain brake on page 16*.
6. Remove the chain catcher. Refer to *To replace the chain catcher on page 20*.
7. Remove the centrifugal clutch. Refer to *To disassemble and assemble the centrifugal clutch on page 31*.
8. Remove the lubrication system. Refer to *To remove and install the lubrication system on page 33*.
9. Remove the starter unit. Refer to *To remove and install the starter unit on page 24*.
10. Remove the muffler. Refer to *To remove and install the muffler on page 20*.
11. Remove the air filter. Refer to *To remove and install the air filter on page 34*.
12. Remove the air filter holder and the carburetor. Refer to *To remove and install the carburetor on page 35*.
13. Remove the start/stop switch. Refer to *To remove and install the start/stop switch on page 40*.
14. Remove the ignition system. Refer to *To remove the ignition system on page 28*.
15. Remove the flywheel. Refer to *To remove the flywheel on page 30*.
16. Remove the fuel tank. Refer to *To remove and install the fuel tank on page 41*.
17. Remove the handle and throttle trigger. Refer to *To disassemble and assemble the rear handle (XP) on page 22*.
18. Disconnect the wires.
19. For models with heated handles, remove the generator. Refer to *To remove and install the generator on page 45*.
20. Remove the cylinder and the piston. Refer to *To remove the cylinder and piston on page 45*.

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

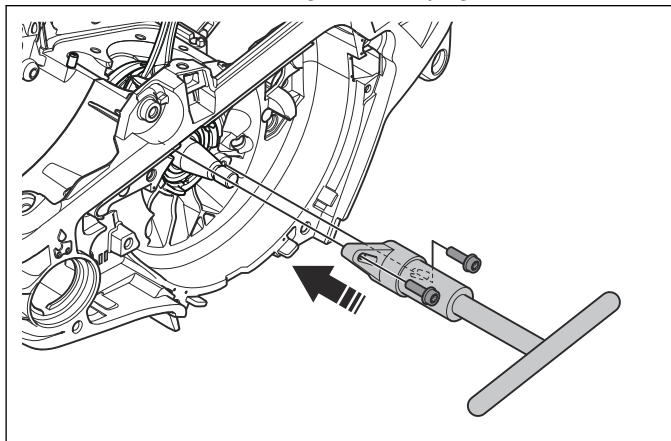
### 7.19.2 To disassemble the crankshaft and the crankcase

1. Get access to the crankshaft and crankcase. Refer to *To get access to the crankshaft and crankcase on page 50*.
2. Remove the 3 screws (A) and the carburetor bottom plate.

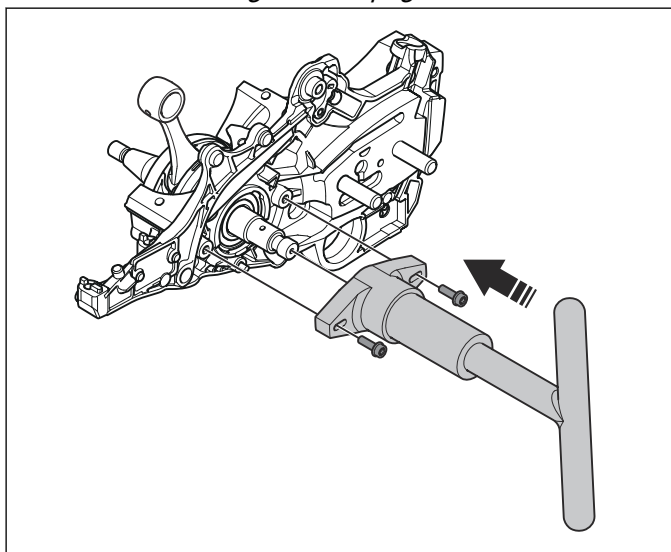


3. Remove the oil tank cap assembly (B).
4. Remove the 6 screws (C).
5. Remove the deflection limiter (D).

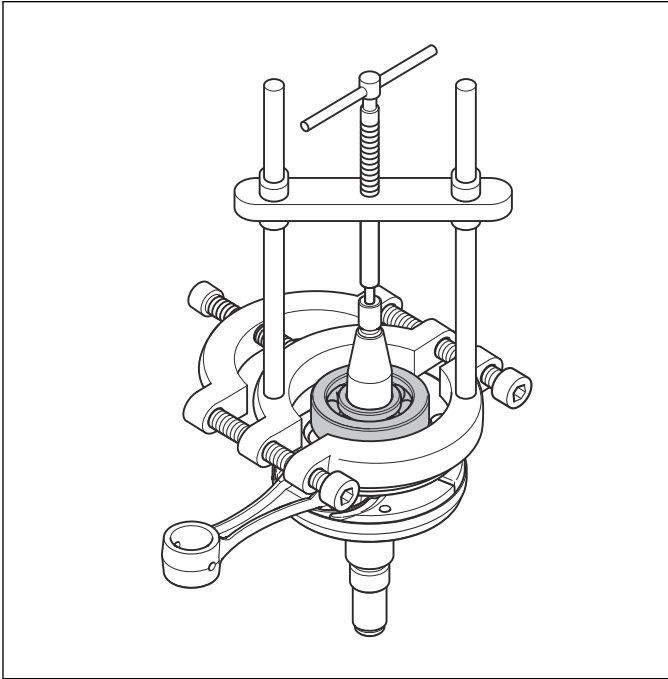
6. Remove the crankcase half on the flywheel side from the crankshaft. Use the crankcase disassembly tool. Refer to *Servicing tools on page 9*.



7. Remove the crankcase half on the clutch side from the crankshaft. Use the crankcase disassembly tool. Refer to *Servicing tools on page 9*.



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

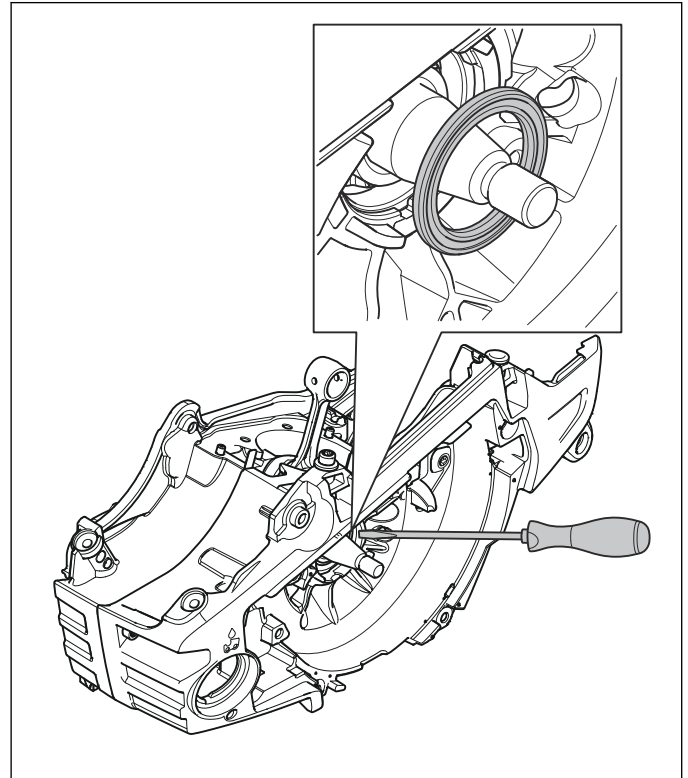


### 7.19.3 To replace the seal rings

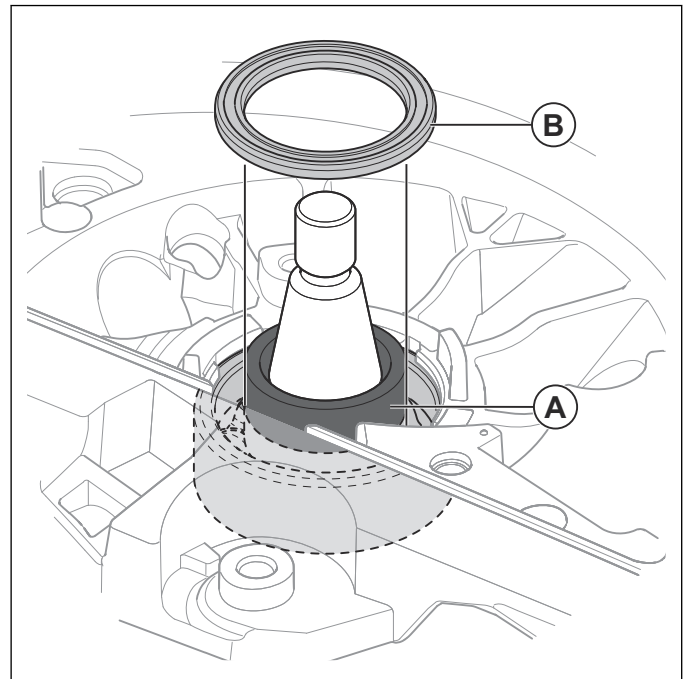
**Note:** Hold the outer part of the bearing when you replace the seal ring. Make sure that the bearing does not move.

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 24*.
  - b) Remove the flywheel. Refer to *To remove the flywheel on page 30*.
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 31*.
  - b) Remove the oil pump. Refer to *To remove and install the lubrication system on page 33*.

3. Use a screwdriver to remove the seal ring.

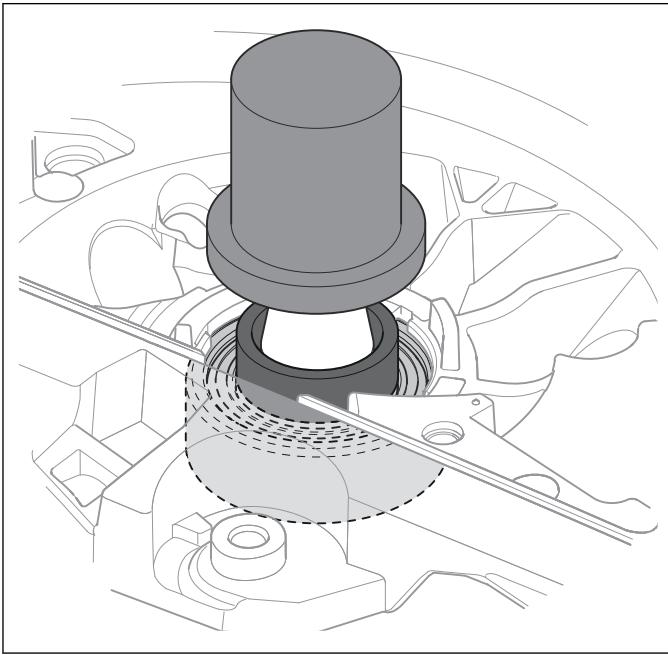


4. Attach the guide ring (A) on the crankshaft axle.



5. Lubricate the new seal ring (B) with two-stroke oil.
6. Put the seal ring on the guide ring.

- Use the press tool to push the new seal ring to the correct position. Refer to *Servicing tools on page 9*



- Remove the seal ring tool and the guide ring.
- Install in the opposite sequence.

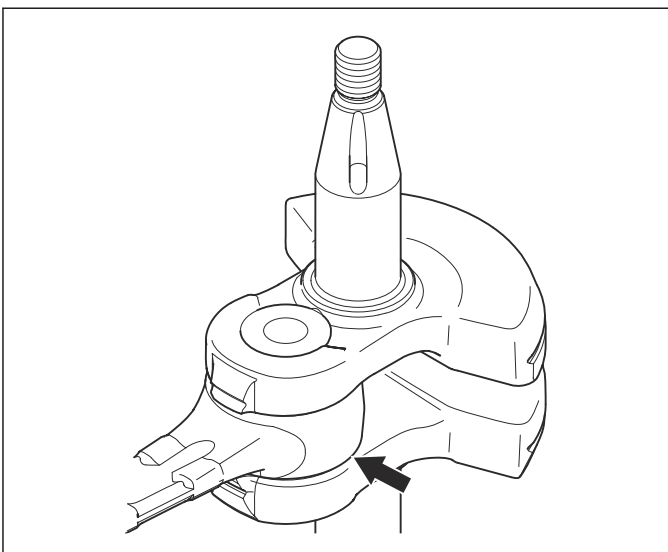
#### 7.19.4 To clean and examine the crankshaft and crankcase



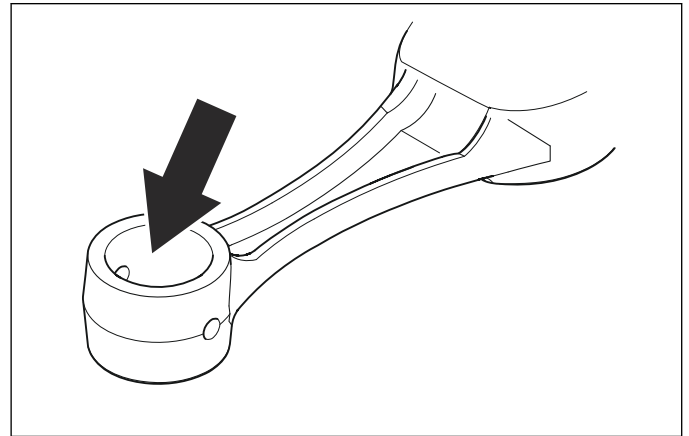
**CAUTION:** Make sure that dirt and unwanted particles do not go into the crankcase and into the bearings.

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

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



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



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

#### 7.19.5 To clean the air channel

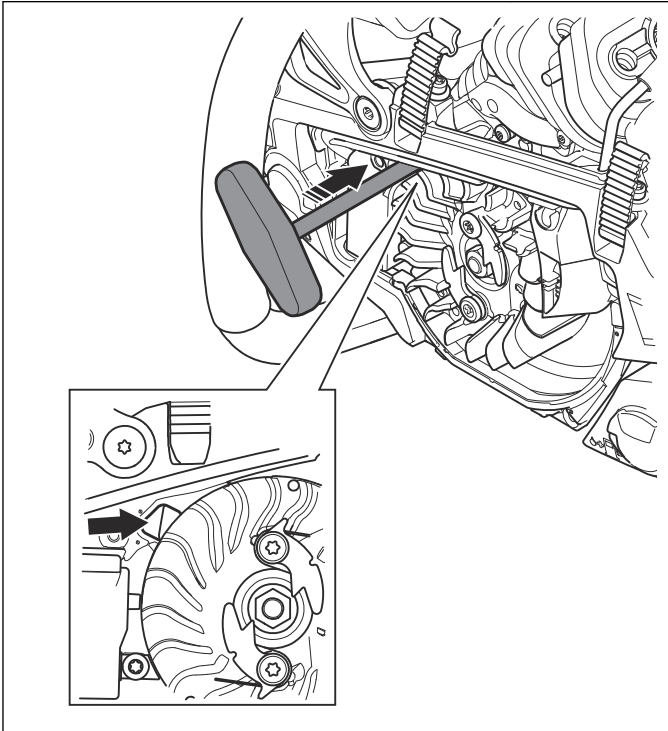
The product has an air channel from the the clutch side to the flywheel side.



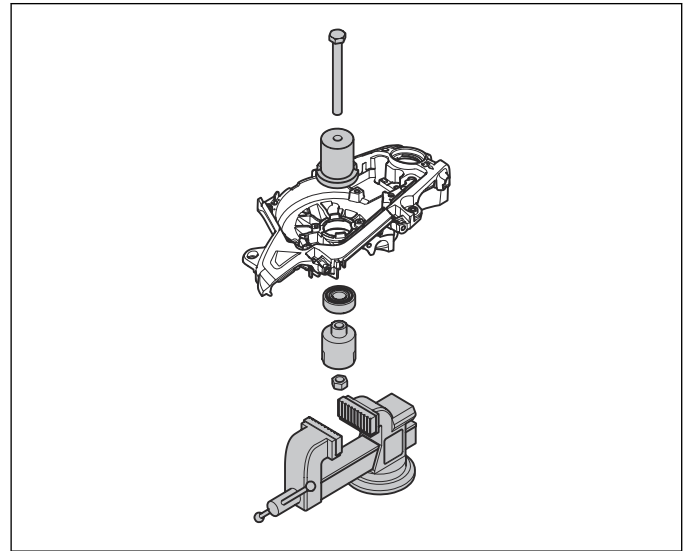
**CAUTION:** Make sure that the air channel does not get clogged. A clogged air channel increases the risk to overheat the product.

- Remove the guide bar from the clutch side.
- Remove the starter from the flywheel side.
- Remove the clutch cover.
- Examine the air channel.

5. 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.



- 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.



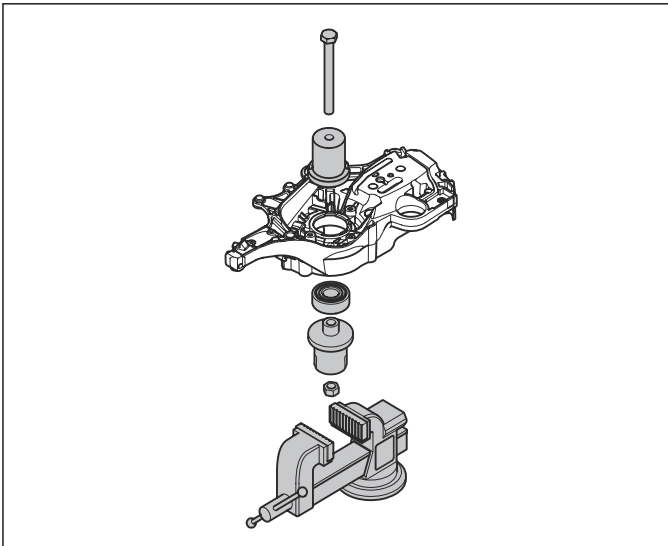
**CAUTION:** Make sure that dirt and unwanted particles do not go into the bearing.



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

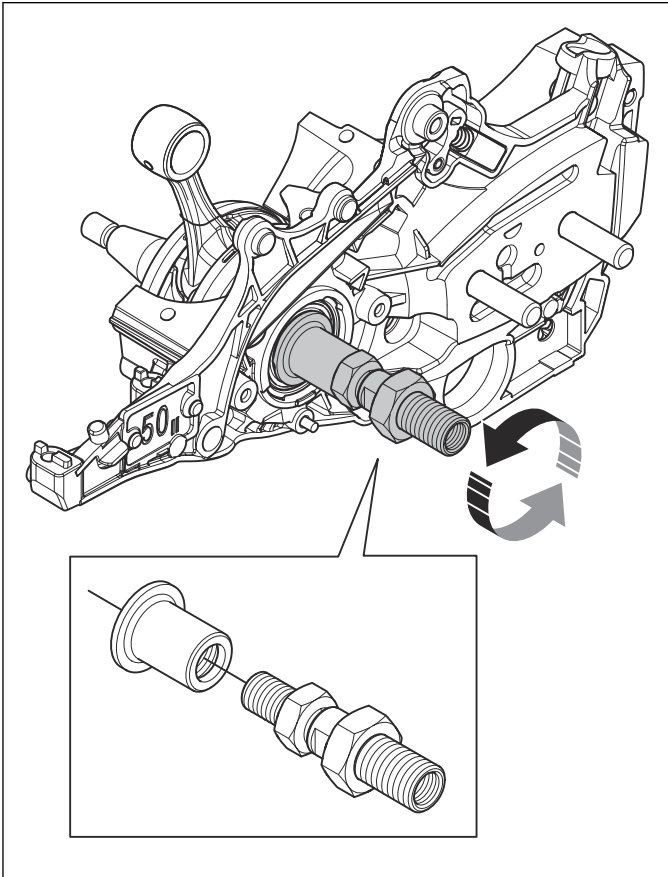
### 7.19.6 To assemble the crankshaft and the crankcase

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.



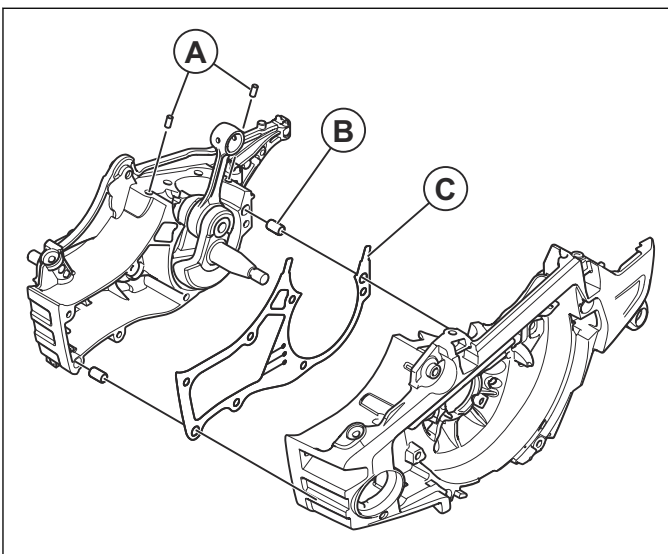
2. On the flywheel side:
  - a) Put the guide shaft in a vise.
  - b) Put the bearing on top of the guide shaft with the sealing up.

- 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.



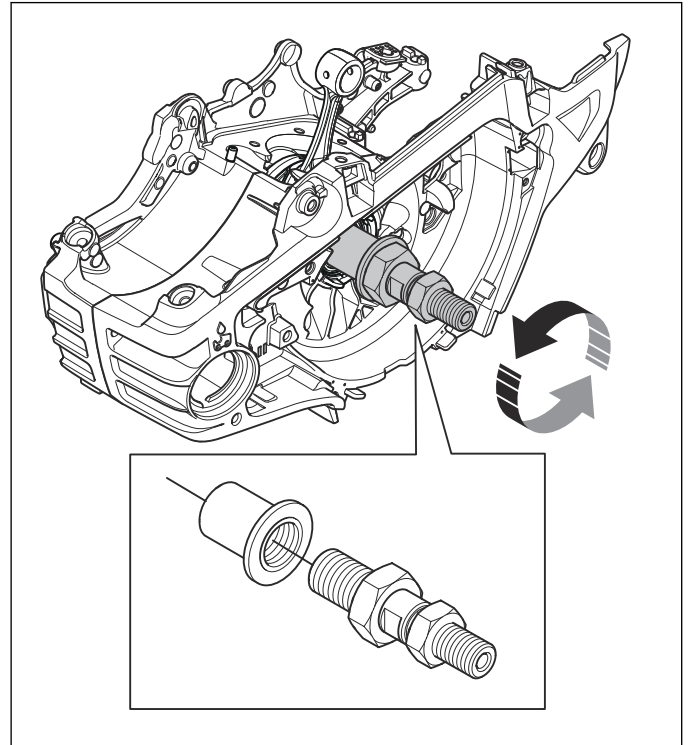
**Note:** Make sure that you keep the crankshaft in the correct position.

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

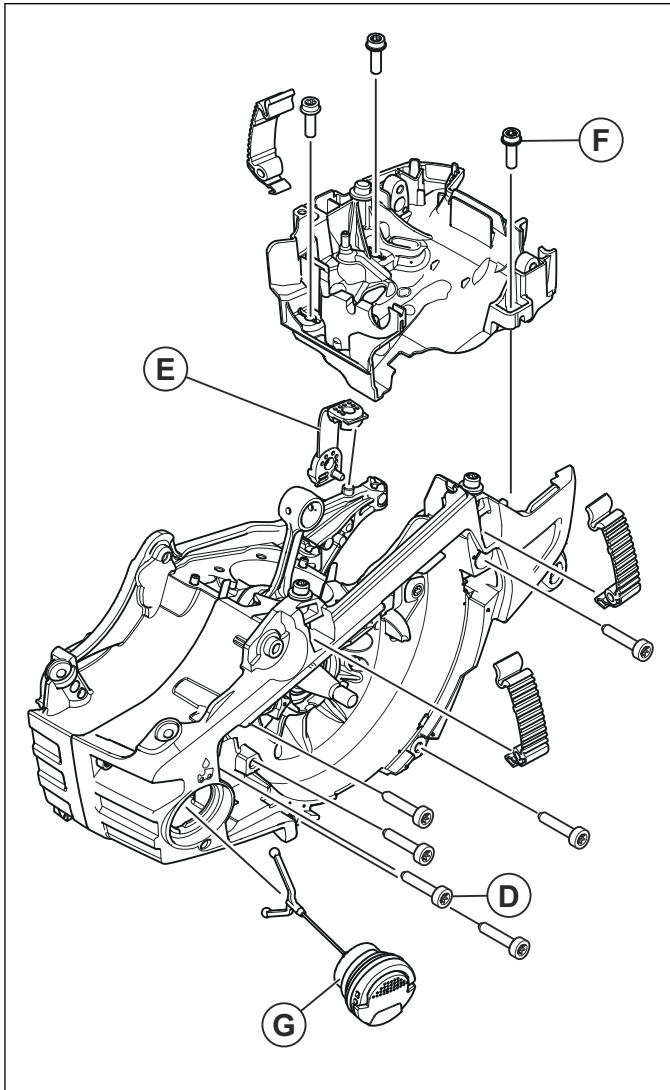


**CAUTION:** Do not push in the crankcase guide pins and cylinder guide pins too much. Make sure that you can see 6 mm of the crankcase guide pins.

- Attach the gasket (C) between the crankcase halves.
- Use the crankshaft assembly tool, refer to *Servicing tools on page 9*. Turn the sleeve and push the crankcase half of the flywheel side. Push until the gasket is fixed between the crankcase halves.



7. Install the 6 screws (D) and tighten them in turn to the correct torque. Refer to *Servicing data on page 7*.



**CAUTION:** Make sure that the crankshaft rotates freely.

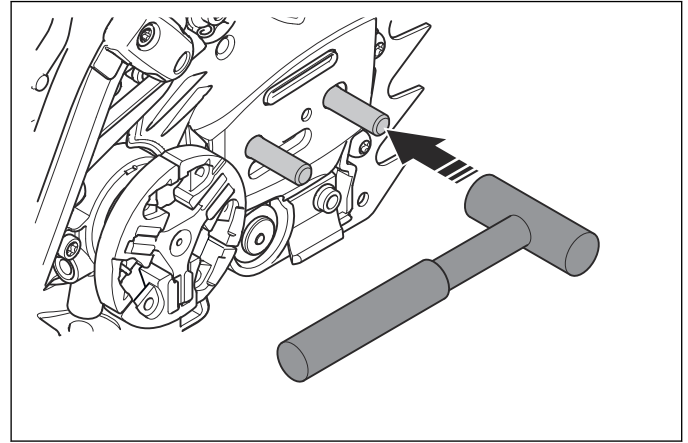
8. Carefully cut the gasket along the cylinder interface. Make sure that you do not cause damage to the crankcase surface.
9. Install the deflection limiter (E).
10. Install the carburetor bottom plate to the crankcase with the 3 screws (F). Tighten the 3 screws to the correct torque. Refer to *Servicing data on page 7*.
11. Install the oil tank cap assembly (G).
12. Assemble the remaining parts as given in *To get access to the crankshaft and crankcase on page 50*.

## 7.20 Guide bar bolts

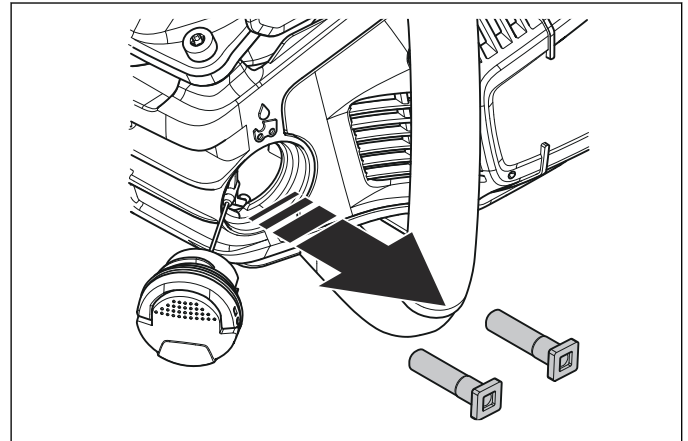
### 7.20.1 To remove the guide bar bolts

1. Drain the oil tank.
2. Remove the clutch cover.

3. Remove the guide bar and the saw chain.
4. Hit the guide bar bolts until they fall into the oil tank.

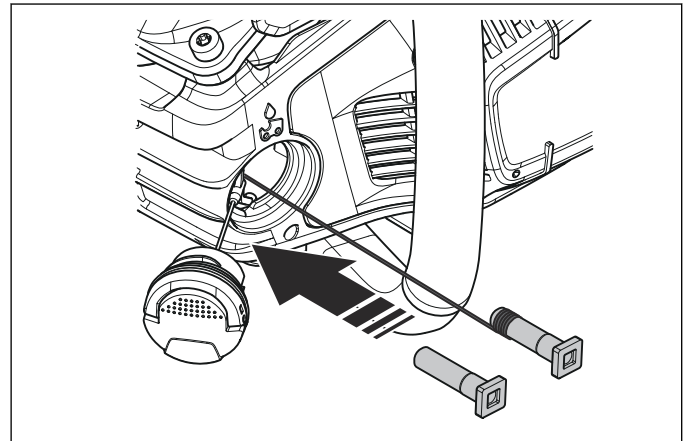


5. Remove the guide bar bolts from the oil tank.



### 7.20.2 To install the guide bar bolts

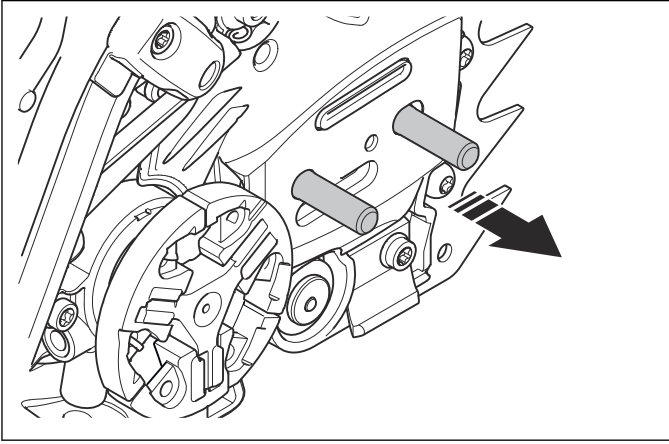
1. Attach a steel wire to the outer part of the guide bar bolt.



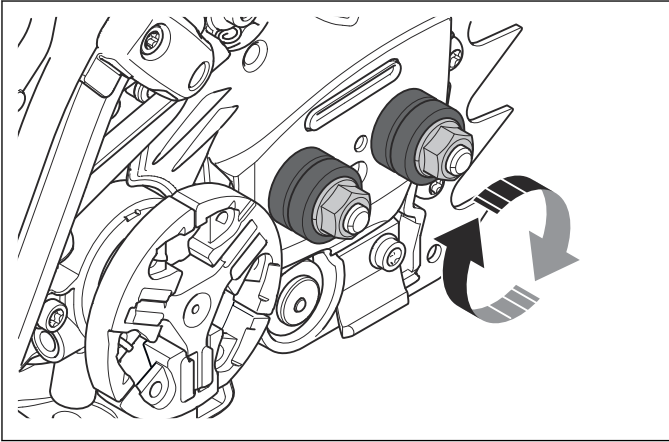
2. Put the steel wire through the oil tank and out through the hole for the guide bar bolt.



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.

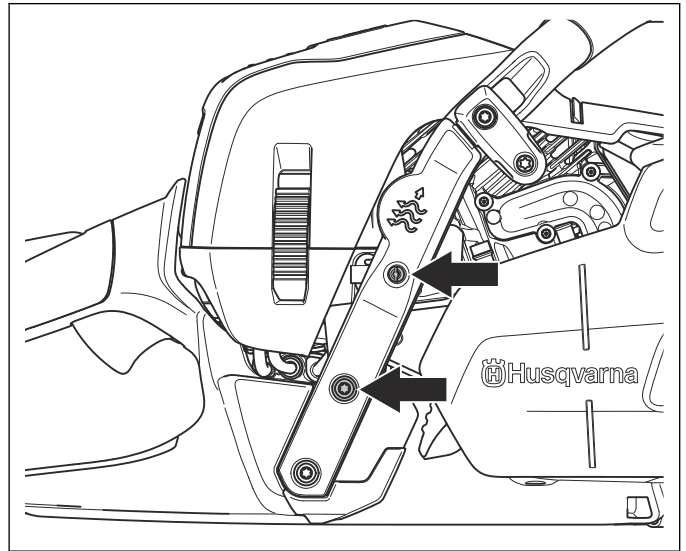
## 7.21 Thermostat and heating element

### 7.21.1 To remove and install the thermostat and heating element

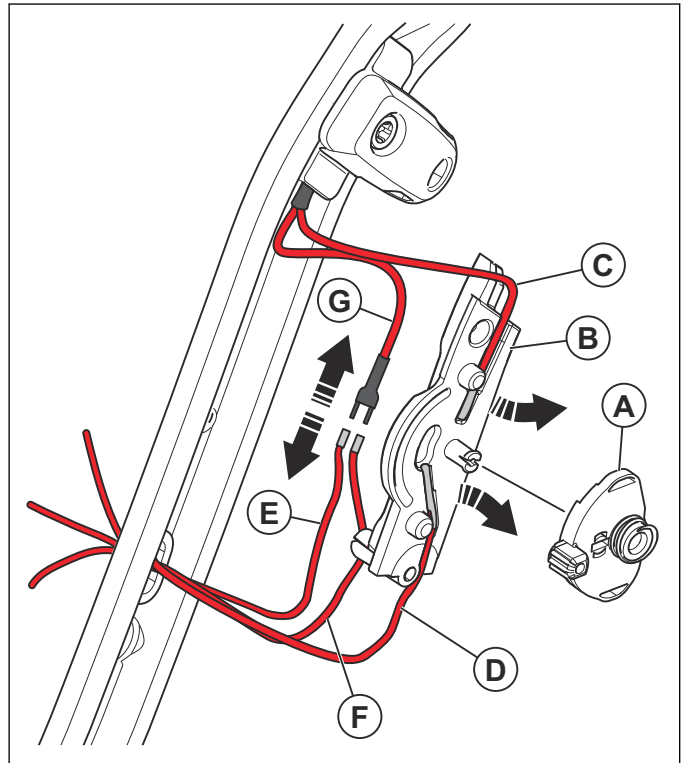
The models 562 XP Mark II and 562 XPG Mark II has a thermostat and heating element.

1. Drain the fuel from the fuel tank.
2. Remove the cylinder cover.
3. Remove the spark plug cap and the spark plug.
4. Remove the air filter.
5. Remove the air filter holder. Refer to *To remove and install the carburetor on page 35*.

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

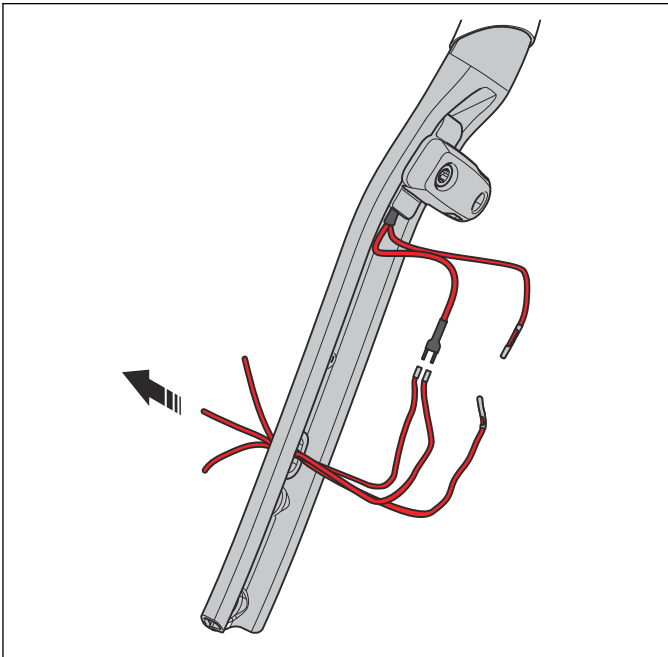


7. Remove the switch (A) from the contact plate (B).

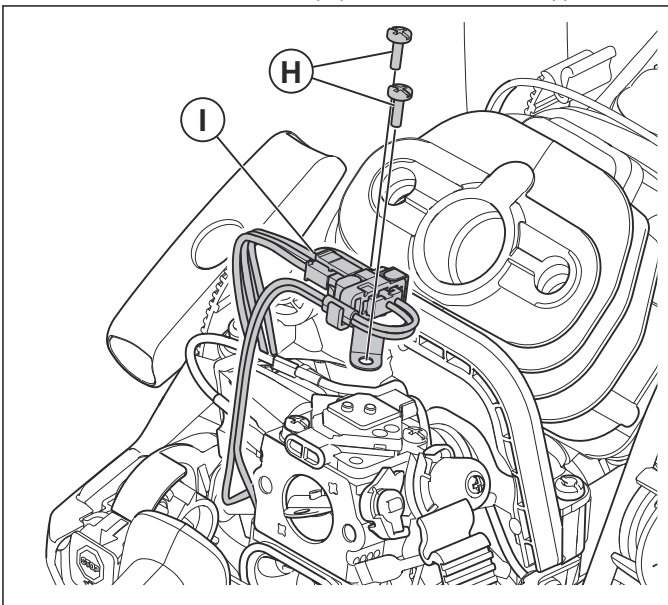


8. Disconnect the wire (C) and the handle wire (D) from the contact plate. Remove the contact plate.
9. Disconnect the generator wire (E) and the carburetor wire (F) from the wire (G).

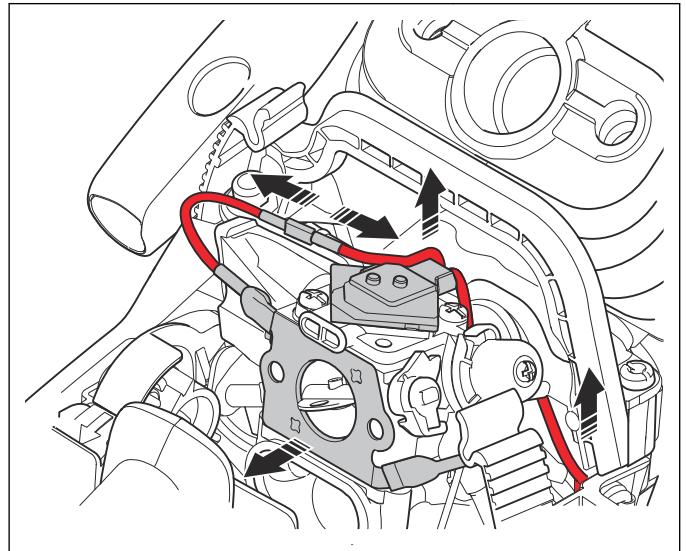
10. Pull out the wires from the handle. Be careful when you pull the wire through the handle.



11. Pull the wires up through the carburetor bottom plate.  
12. Remove the 2 screws (H) and the bracket (I).



13. Disconnect the thermostat wire and remove the thermostat.



14. Disconnect the ground cable and remove the heating element from the carburetor.  
15. Install in the opposite sequence.

## 7.22 To repair a damaged thread

A damaged thread can be repaired with a thread insert.

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

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

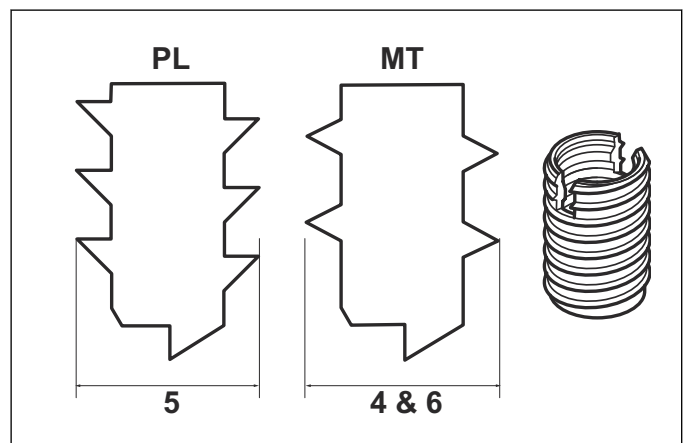
**Note:**

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

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

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

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



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

# 8 Troubleshooting

## 8.1 Troubleshooting

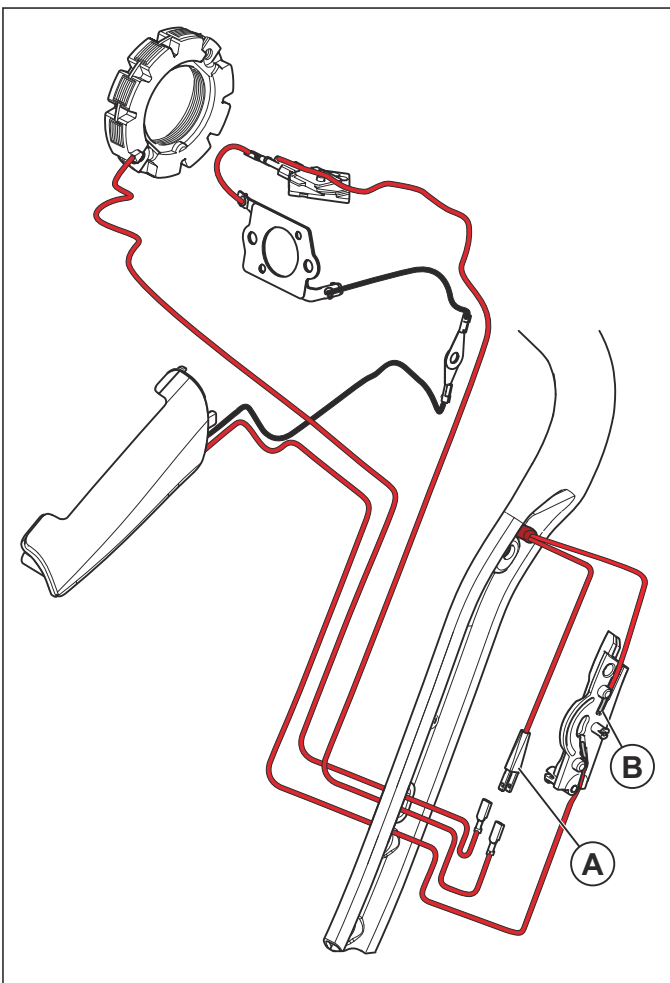
You can do the troubleshooting procedure with most components attached to the product. The necessary tools for the troubleshooting procedure is:

- 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 troubleshooting of the heating element in the front handle

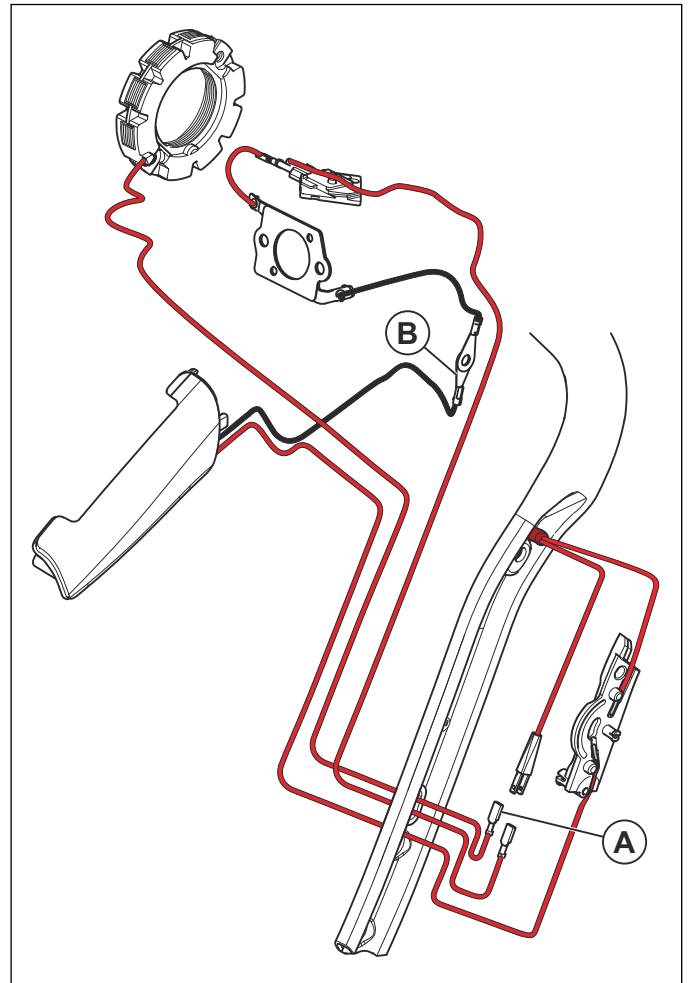
1. Measure the resistance between point (A) and (B).  
The resistance for heating element must be 3.0–4.0  $\Omega$ .



2. Replace the front handle if the resistance is less than 3.0  $\Omega$  or more than 4.0  $\Omega$ .

## 8.3 To do troubleshooting of the heating element in the rear handle

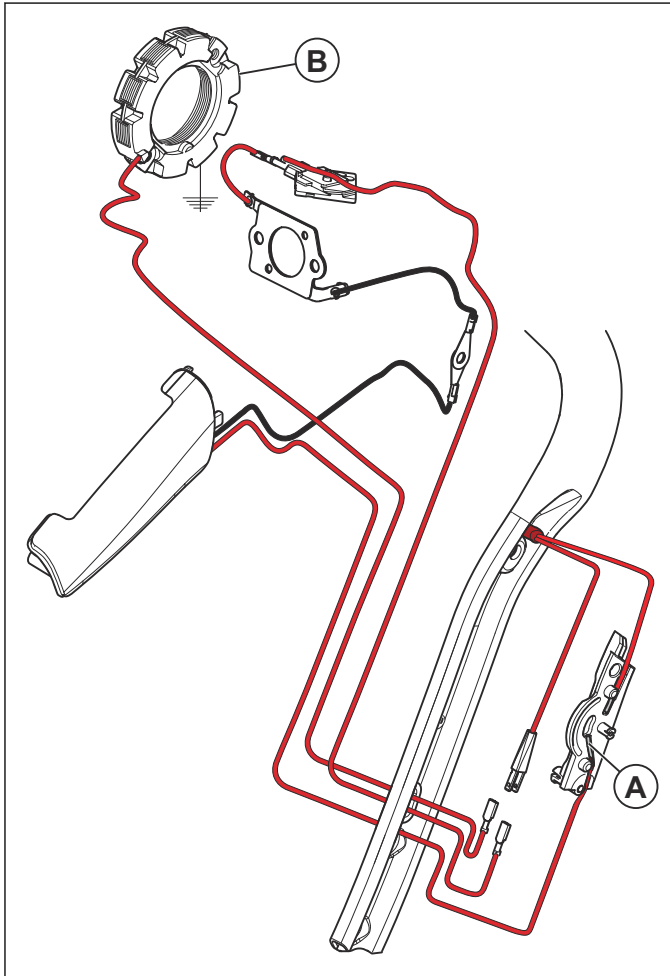
1. Disconnect the cable connections (A) and (B).



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 0.8–1.0  $\Omega$ .
4. Replace the heating element if the resistance is less than 0.8  $\Omega$  or more than 1.0  $\Omega$ .

## 8.4 To do troubleshooting of the generator

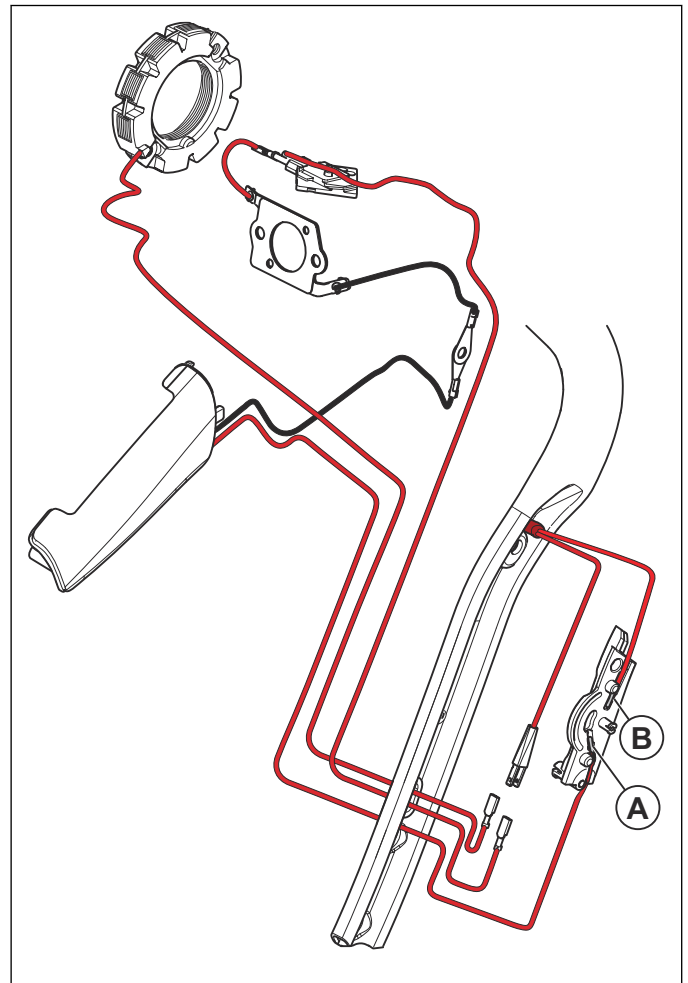
1. Measure the resistance in the generator between point (A) and (B). The resistance for the generator must be  $0.5 \Omega$ .



2. Replace the generator if the resistance is more than  $0.5 \Omega$ .

## 8.5 To do troubleshooting of the start/stop switch

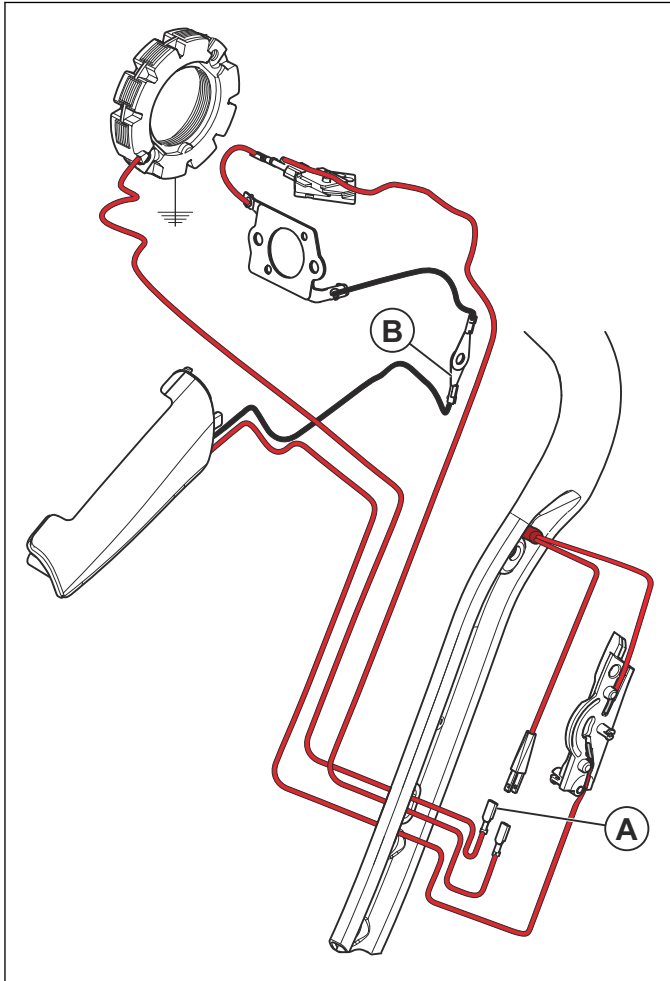
1. Disconnect one of the wires from the start/stop switch and connect the ohmmeter between the points (A) and (B).



2. Measure the resistance with the start/stop switch in the OFF position. The resistance must be more than  $1000 \Omega$  when the start/stop switch is in the OFF position. Replace the start/stop switch if the resistance is less than  $1000 \Omega$ .
3. Measure the resistance with the start/stop switch in the ON position. The resistance must be more than  $0.1 \Omega$  when the start/stop switch is in the ON position. Replace the start/stop switch if the resistance is less than  $0.1 \Omega$ .

## 8.6 To do troubleshooting of the heating element and the thermostat

1. Disconnect the earth cable (A) from the crankcase.



2. Connect the ohmmeter between the connector on the earth cable (A) and the connector on the thermostat wire (B).

3. Measure the resistance at an air temperature of 15 °C or more. The resistance must be 0.0  $\Omega$  when the air temperature is 15 °C or more. Replace the heating element and the thermostat if the resistance is not 0.0  $\Omega$ .

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**Note:** You must replace the heating element and thermostat at the same time.

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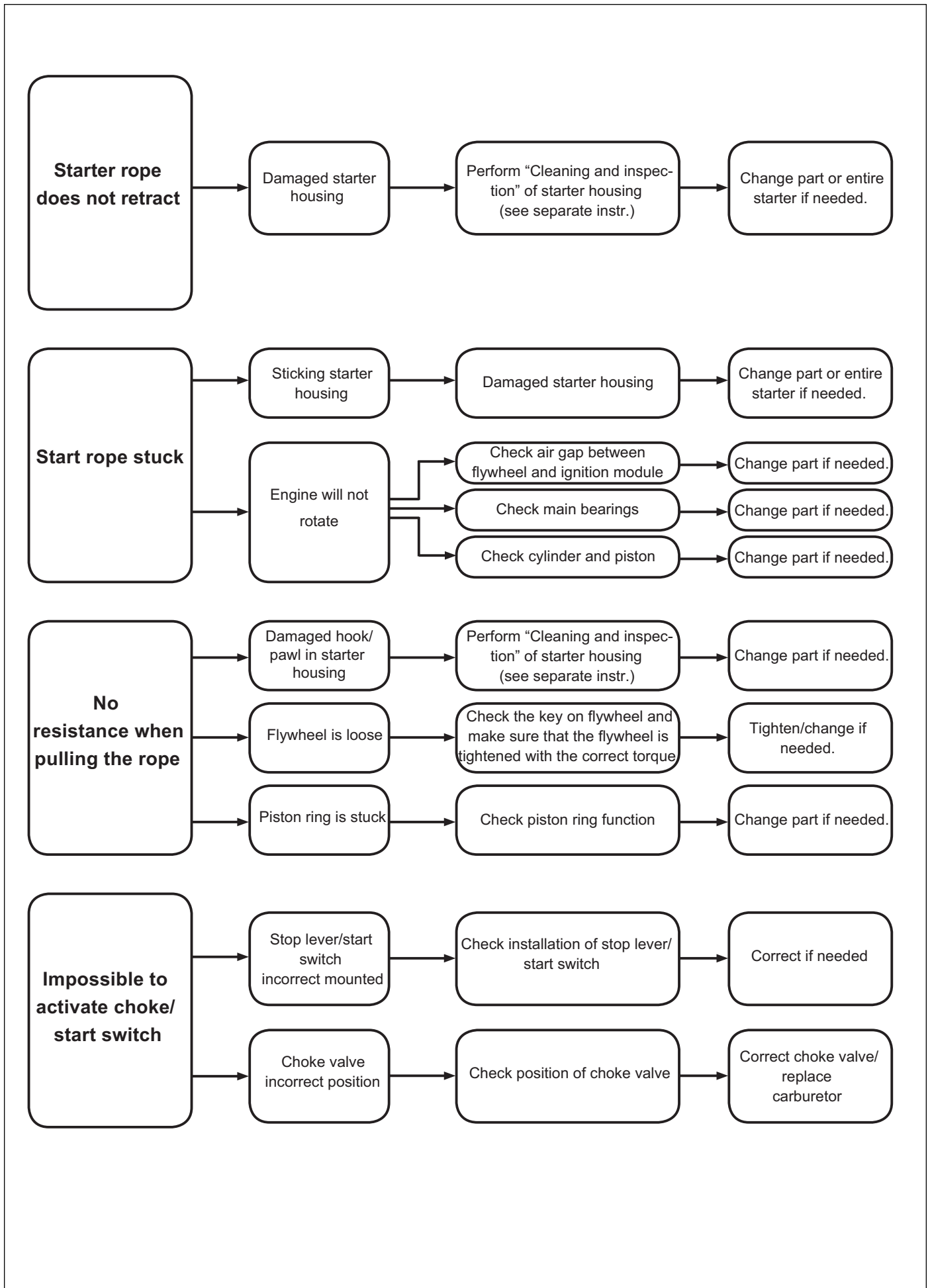
4. Cool the thermostat with a cooling spray and measure the resistance. The resistance must be 8.0  $\Omega$  when the thermostat is cool. Replace the heating element and the thermostat if the resistance is not 8.0  $\Omega$ .

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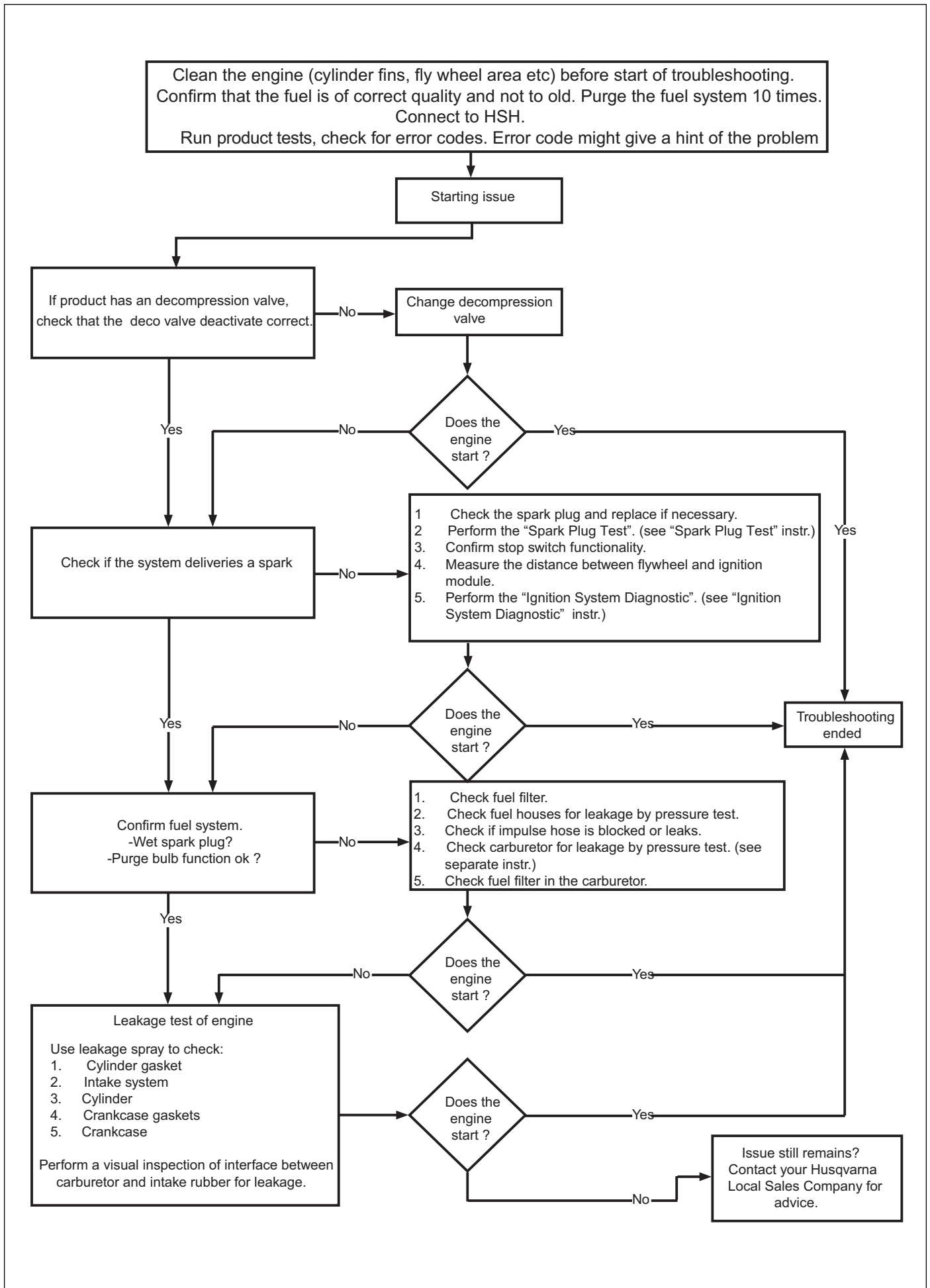
**Note:** You must replace the heating element and thermostat at the same time.

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## 8.7 Troubleshooting diagram

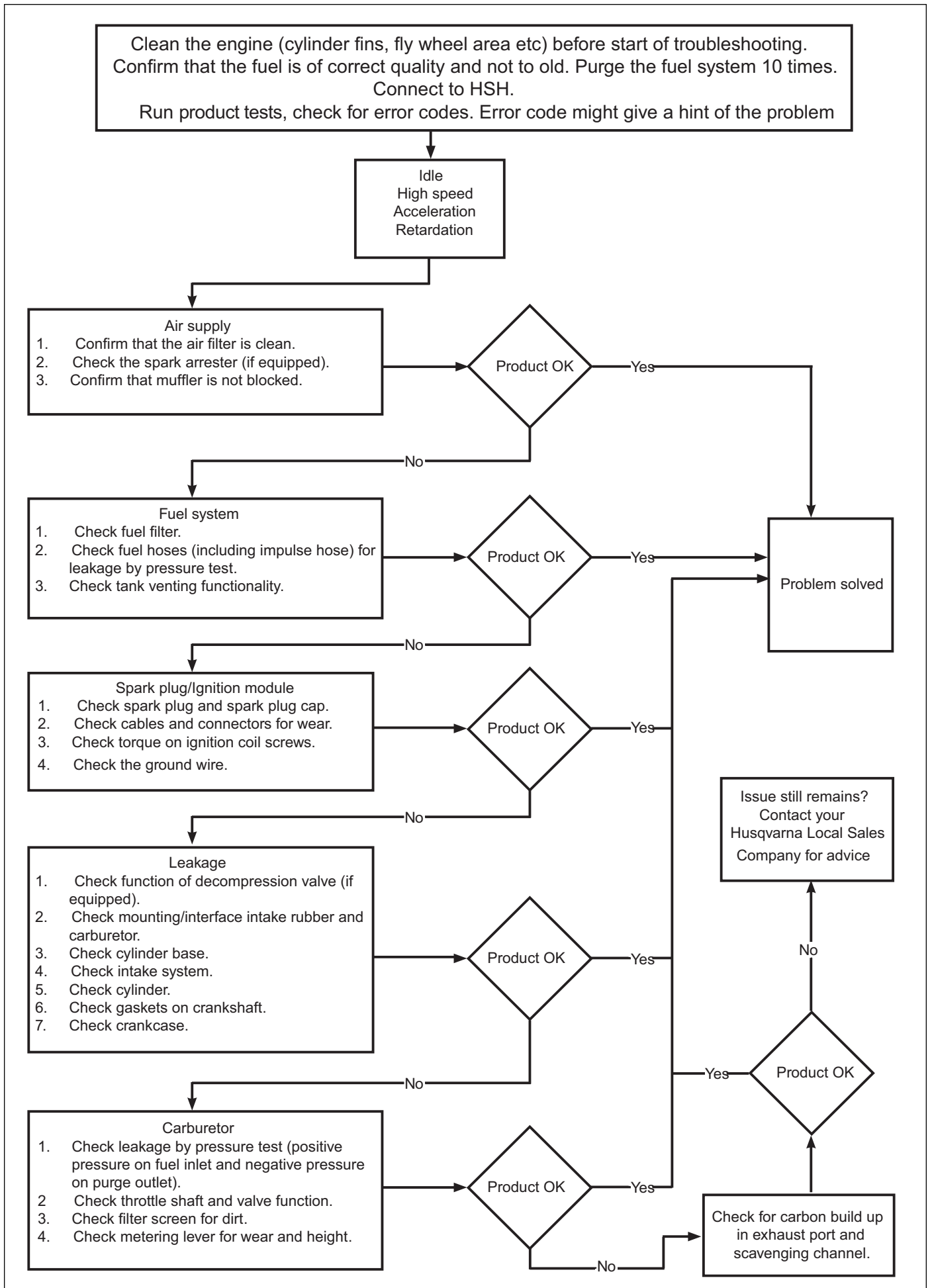


## 8.8 Engine running issue

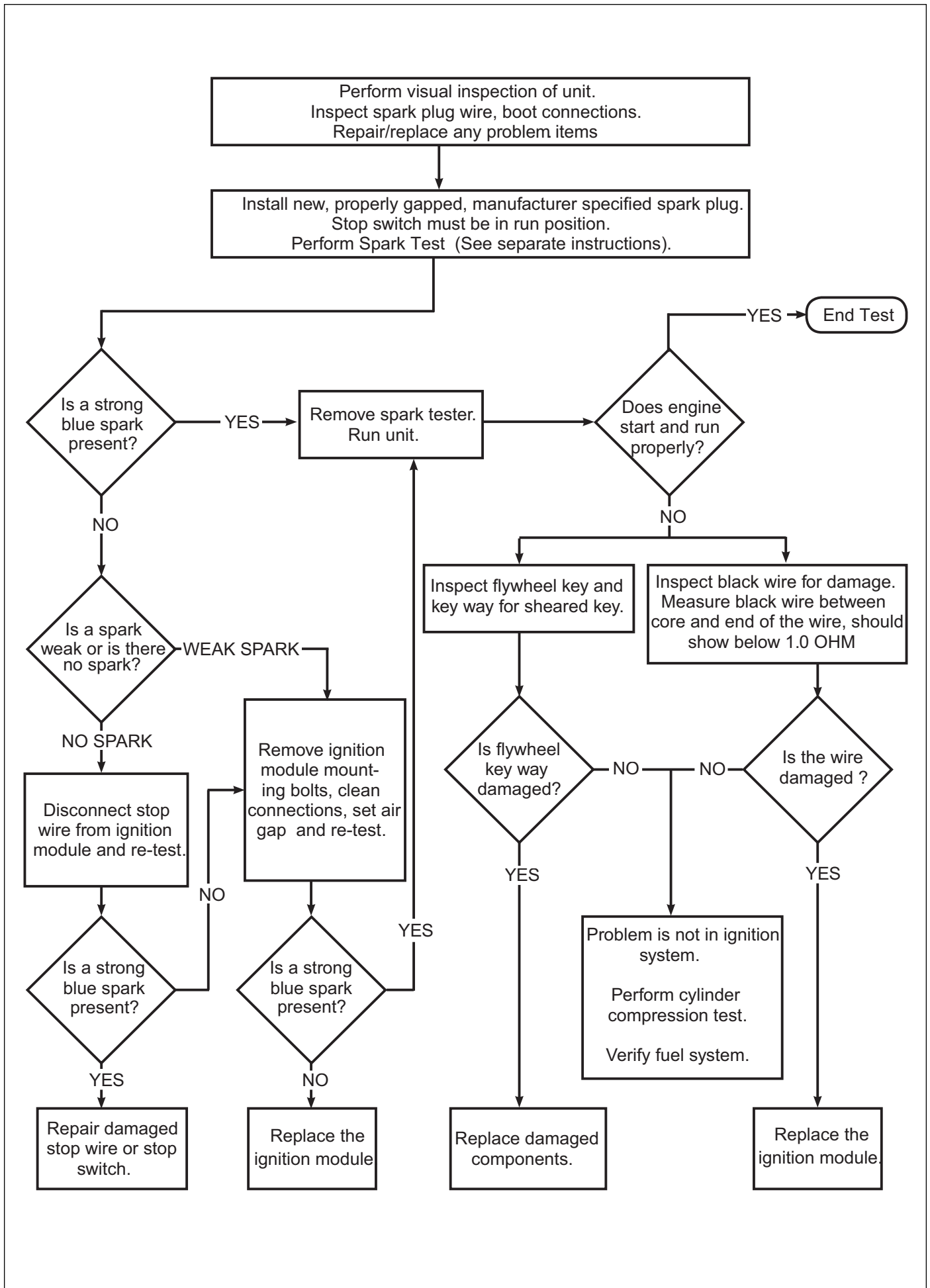




## 8.9 Engine running issue



## 8.10 Ignition System Diagnostic Flow Chart



## 9 Technical data

### 9.1 Technical data

	Husqvarna 560XP Mark II	Husqvarna 560XPG Mark II	Husqvarna 562XP Mark II	Husqvarna 562XPG Mark II
<b>Engine</b>				
Cylinder displacement, cm <sup>3</sup>	59.8	59.8	59.8	59.8
Idle speed, rpm	2800	2800	2800	2800
Maximum engine power acc. to ISO 7293, kW/hp @ rpm	3.5/4.7 @ 9600	3.5/4.7 @ 9600	3.5/4.7 @ 9600	3.5/4.7 @ 9600
<b>Ignition system <sup>1</sup></b>				
Spark plug	NGK CMR6H	NGK CMR6H	NGK CMR6H	NGK CMR6H
Electrode gap, mm	0.5	0.5	0.5	0.5
<b>Fuel and lubrication system</b>				
Fuel tank capacity, liter/cm <sup>3</sup>	0.65/650	0.65/650	0.65/650	0.65/650
Oil tank capacity, liter/cm <sup>3</sup>	0.32/320	0.32/320	0.33/330	0.33/330
Type of oil pump	Adjustable	Adjustable	Adjustable	Adjustable
<b>Weight</b>				
Weight, kg	5.8	6.0	5.9	6.1
<b>Noise emissions <sup>2</sup></b>				
Sound power level, measured dB(A)	116	116	116	116
Sound power level, guaranteed L <sub>WA</sub> dB(A)	118	118	118	118
<b>Sound levels <sup>3</sup></b>				
Equivalent sound pressure level at the operator's ear, dB(A)	107	107	107	107
<b>Equivalent vibration levels, a<sub>hveq</sub> <sup>4</sup></b>				
Front handle, m/s <sup>2</sup>	3.7	3.7	4.0	4.0
Rear handle, m/s <sup>2</sup>	3.7	3.7	4.5	4.5
<b>Saw chain/guide bar</b>				

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

<sup>2</sup> Noise emissions in the environment measured as sound power (LWA) in conformity with EC directive 2000/14/EC.

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

<sup>4</sup> Equivalent vibration level, according to ISO 22867, is calculated as the time-weighted energy total for vibration levels under various working conditions. Reported data for equivalent vibration level has a typical statistical dispersion (standard deviation) of 1 m/s<sup>2</sup>.

	Husqvarna 560XP Mark II	Husqvarna 560XPG Mark II	Husqvarna 562XP Mark II	Husqvarna 562XPG Mark II
Type of drive sprocket/number of teeth	Rim/7	Rim/7	Rim/7	Rim/7
Saw chain speed at 133% of maximum engine speed, m/s (Pitch).	24.6 (0.325) 28.4 (3/8)	24.6 (0.325) 28.4 (3/8)	28.4	28.4









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