# Technical Information

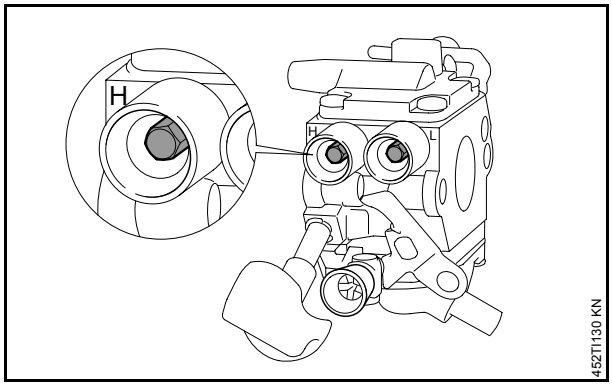
11.2010

## STIHL BR 500, 550, 600 Blower – Series 4282

**Contents**



## 1. Carburetor




BR 500, BR 550 and BR 600 blowers will be equipped with new carburetors in future.

The new carburetors are tuned at the factory so that the engine receives an optimum fuel-air mixture in all environments and operating conditions.

It is no longer possible for the user to make any adjustments on the high speed screw (H) or low speed screw (L).

The idle speed screw (LA) remains unchanged and can be adjusted by the user as before to correct the engine idle speed.

The following features distinguish the new carburetors from the previous carburetors:

– High speed screw (H) and low speed screw (L) now have hex heads.

– Narrow access to both screws, (H) and (L), means that carburetor adjustments are possible only in the service shop with a special servicing tool.

– No limiter caps.

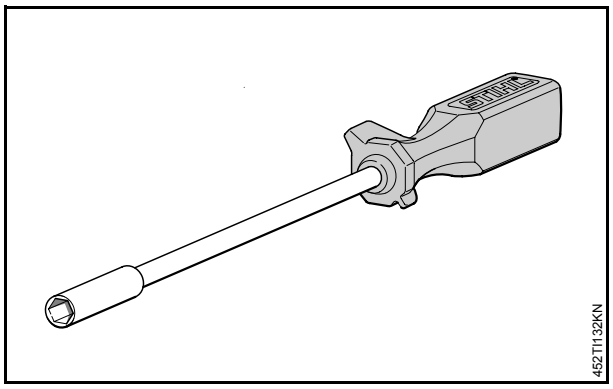
The new carburetors can also be used in older machines.

**Overview**

| Application | Designation of previous carburetor | Part No. of previous carburetor | Designation of new carburetor | Part No. of new carburetor |
|---|---|---|---|---|
| BR 500 | C1Q-S99A | 4282 120 0603 | C1Q-S183 | 4282 120 0606 |
| BR 550 | C1Q-S101A | 4282 120 0605 | C1Q-S185 | 4282 120 0608 |
| BR 600 | C1Q-S100A | 4282 120 0604 | C1Q-S184 | 4282 120 0607 |

### 1.1 Adjusting the Carburetor

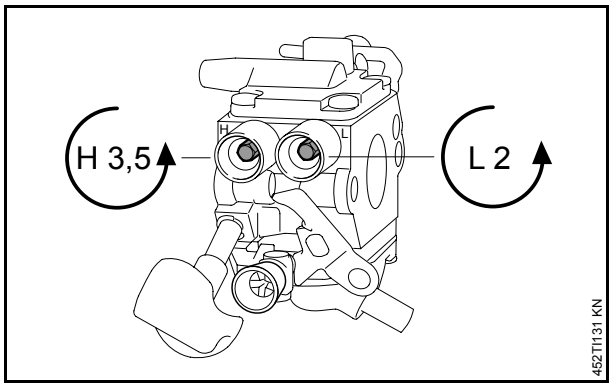
Adjustment of the carburetor with the high speed screw (H) and low speed scree (L) can only be performed in the service shop.




Special screwdriver 5910 890 2307 is required to make the adjustments.

#### 1.1.1 Basic setting

- Screw both adjusting screws clockwise onto their seats.




Perform basic setting as follows:

- High speed screw H: 3 Open 3 1/2 turns counterclockwise
- Low speed screw L: Open 2 turns counterclockwise

#### 1.1.2 Fine tuning

- Check the air filter and replace if necessary.
- The air filter must not be cleaned – always replace a dirty filter.
- Check the spark arresting screen (if fitted) and clean or replace if necessary.
- Warm up the engine.

**Adjusting idle speed**

Adjust idle speed with the aid of a tachometer. Adjust specified engine speeds within a tolerance of ± 200 rpm.

- Adjust engine speed with idle speed screw (LA) to 3,000 rpm.
- Turn the low speed screw (L) clockwise or counterclockwise to obtain the maximum engine speed.

If this speed is higher than 3,400 rpm, abort the procedure and start again from the beginning.

- Use the idle speed screw (LA) to set the engine speed again to 3,000 rpm.
- Set the engine speed to 2,500 rpm with the low speed screw (L).

**Adjusting maximum engine speed**

It is not possible to specify an exact maximum engine speed because power is constantly absorbed by the blower wheel.

- With the engine running at full throttle, turn the high speed screw counterclockwise and use a tachometer to set a 100 rpm drop in speed (rich limit) compared to maximum engine speed.
- Turn the high speed screw 1full turn clockwise (leaner) from that position.

If it is not possible to check engine speed with a tachometer while making adjustments, do not set the high speed screw any leaner by turning it beyond the basic setting.

If the setting is too lean, there is a risk of engine damage.

## 1.2 Summary

| Item | Part Name | Previous | New | Rem. |
|---|---|---|---|---|
| 1 | C1Q-S99A carburetor; including items 7, 10, 11: | 4282 120 0603 | - - - | 1) |
| 2 | C1Q-S183 carburetor; including items 7, 10: | - - - | 4282 120 0606 | 3) |
| 3 | C1Q-S100A carburetor; including items 8, 10, 11: | 4282 120 0604 | - - - | 1) |
| 4 | C1Q-S184 carburetor; including items 8, 10: | - - - | 4282 120 0607 | 3) |
| 5 | C1Q-S101A carburetor; including items 9, 10, 11: | 4282 120 0605 | - - - | 1) |
| 6 | C1Q-S185 carburetor; including items 9, 10: | - - - | 4282 120 0608 | 3) |
| 7 | High speed screw | 4282 122 6700 | 4282 122 6705 | 2) |
| 8 | High speed screw | 4282 122 6701 | 4282 122 6706 | 2) |
| 9 | High speed screw | 4282 122 6702 | 4282 122 6707 | 2) |
| 10 | Low speed screw | 4282 122 6800 | 4282 122 6801 | 2) |
| 11 | Cap | 4229 121 2701 | - - - | 2) 4) |
| 12 | Screwdriver | - - - | 5910 890 2307 | |

Modification to be introduced : in progress

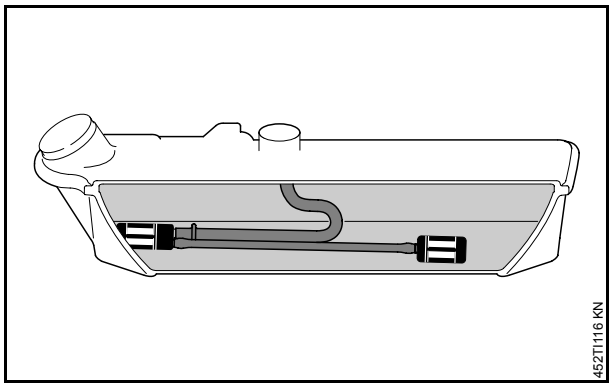
**Remarks**

1) Previous version of part will be supplied from factory only as long as existing stocks last
2) Previous version of part remains available for older models
3) New version of part can also be used for older machines
4) Previous version of part remains available for other models

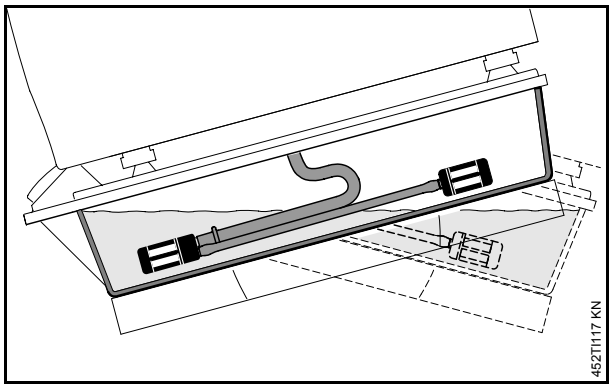
## 2. Fuel Tank with 2 Pickup Bodies

In future, the previous fuel tank 4282 350 0401 will be replaced on all models by the new fuel tank 4282 350 0403.

The new fuel tank can also be installed in older machines.




The new fuel tank features 2 interconnected pickup bodies positioned in the left half and right half of the fuel tank.

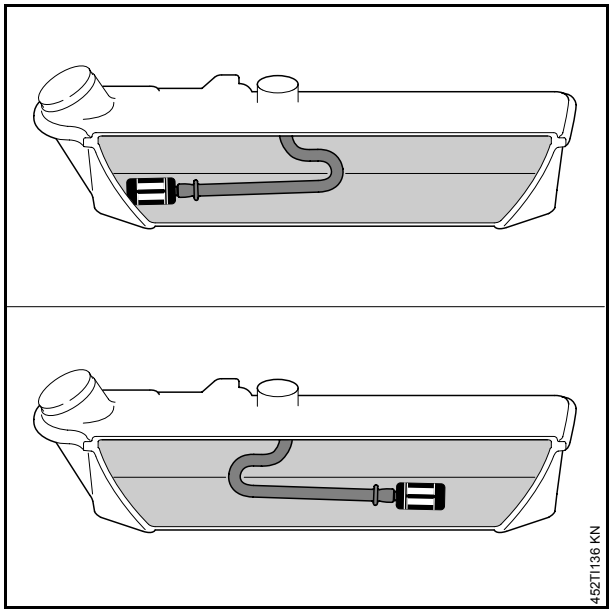



This arrangement means that fuel can be picked up by at least one pickup body when the fuel level is low and the tank is at an angle.

### 2.1 Retrofitting previous fuel tank with a second pickup body

Fuel tank 4282 350 0400 cannot be modified.

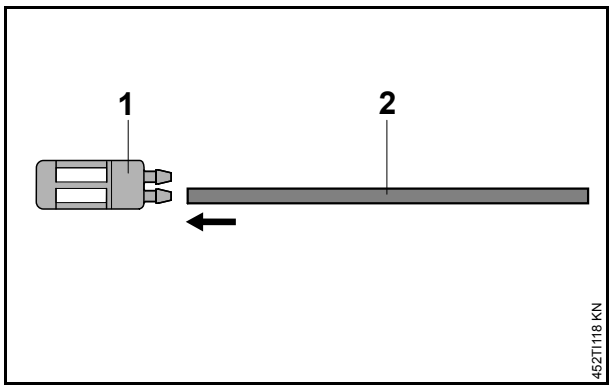
The previous fuel tank 4282 350 0401 can be retrofitted with a second pickup body.



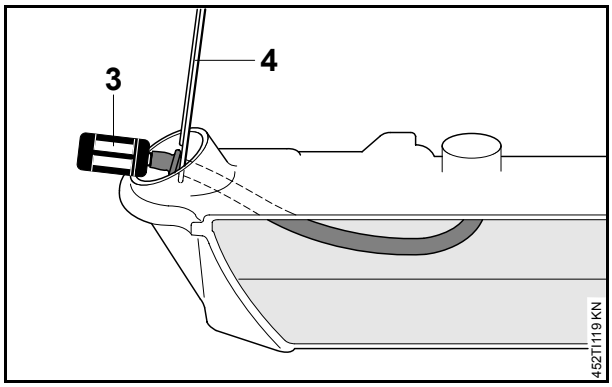

- Check position of pickup body in the tank:

– Pickup body points to left – follow installation instructions under 2.1.1

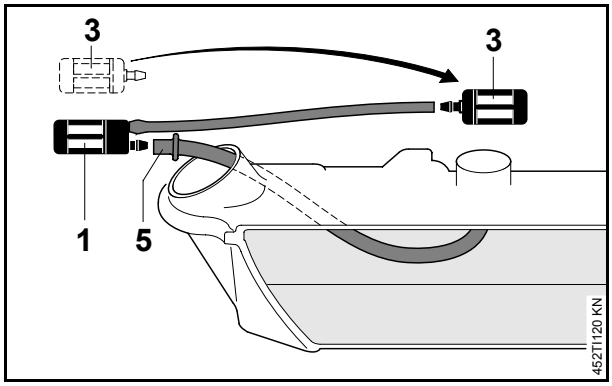
– Pickup body points to right – follow installation instructions under 2.1.2




- Cut 166 mm length from 3.1x5.7 hose (**2**) 0000 930 2803 or 0712 923 8004.
- Connect new pickup body (**1**) 0000 350 3514 to 3.1x5.7x166 mm hose (**2**).

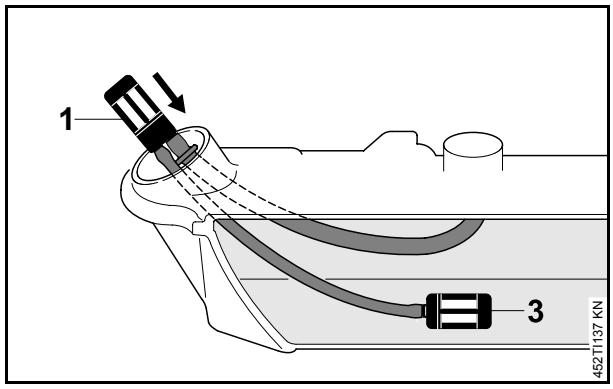



- Use hook (**4**) 5910 893 8800 to pull the previous pickup body (**3**) out of the tank.

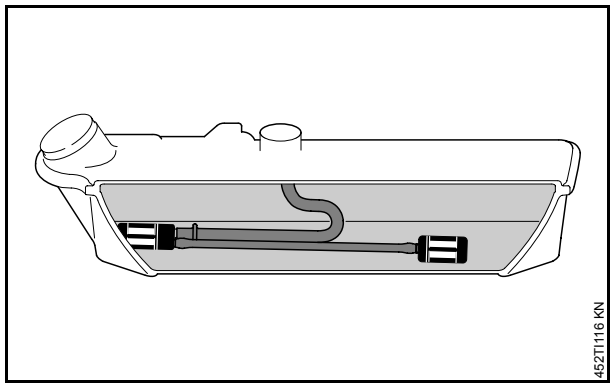



- Pull the previous pickup body (**3**) off the molded hose (**5**).
- Push the second connector on the pickup body (**1**) onto the molded hose (**5**).
- Connect the previous pickup body (**3**) to the other end of the hose.

### 2.1.1 Installation instructions: Previous pickup body positioned on left

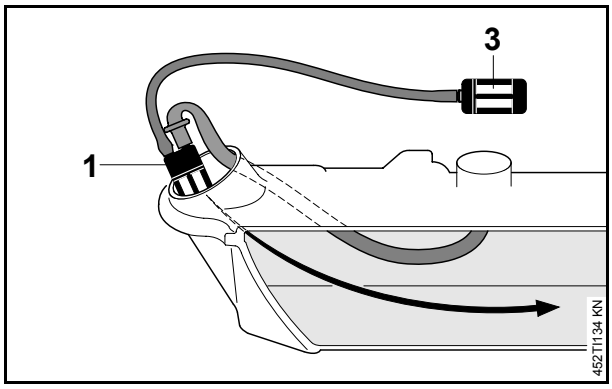



- Push the pickup body (**3**), top first, through the tank's filler opening.
- Push the pickup body (**1**) through the tank's filler opening. At the same time, use the hook 5910 893 8800 to push the pickup body (**3**) into the right half of the tank.

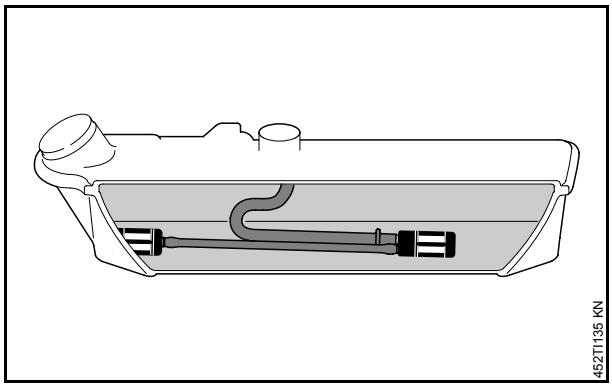



- Check positions of pickup bodies in the fuel tank – they should be as shown in the illustration.

#### 2.1.2 Installation instructions: Previous pickup body positioned on right




- Push the pickup body (**1**), top first, through the tank's filler opening.
- Push the pickup body (**3**) through the tank's filler opening. At the same time, use the hook 5910 893 8800 to push the pickup body (**1**) into the right half of the tank.




- Check positions of pickup bodies in the fuel tank – they should be as shown in the illustration.

## 3. Blowing Attachment

BR 500, BR 550 and BR 600 blowers are now equipped with a new blowing attachment.

Differences between new blowing attachment and previous blowing attachment:

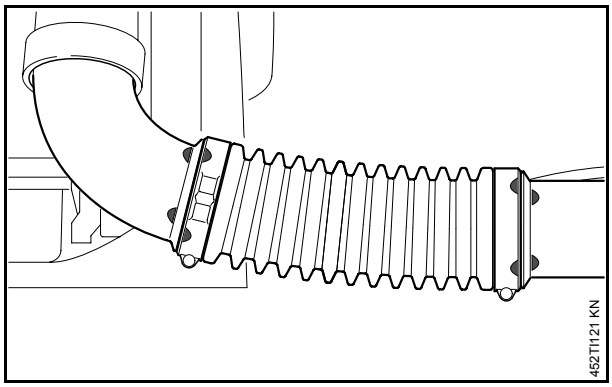
– Alignment marks on hose clamps, elbow and blower tube.

– Longer screws on hose clamps and control handle.

– New, modified nozzles.

### 3.1 Alignment marks on hose clamps, elbow and blower tube

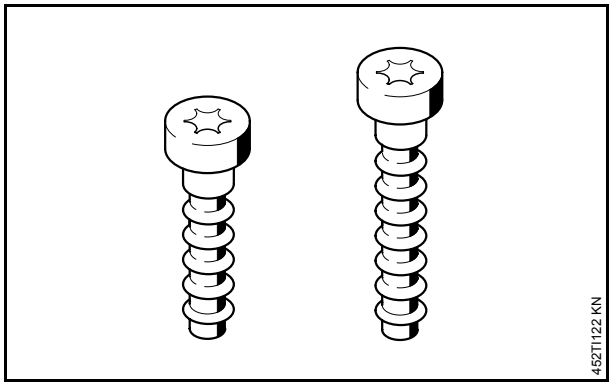
The elbow, hose clamps and blower tube will have alignment marks in future to simplify assembly of the blowing attachment.




The marks serve to ensure correct assembly of the parts – as shown in the illustration. This change has no influence on the availability of spare parts. The new versions of parts can also be used for older machines.

### 3.2 Mounting screws

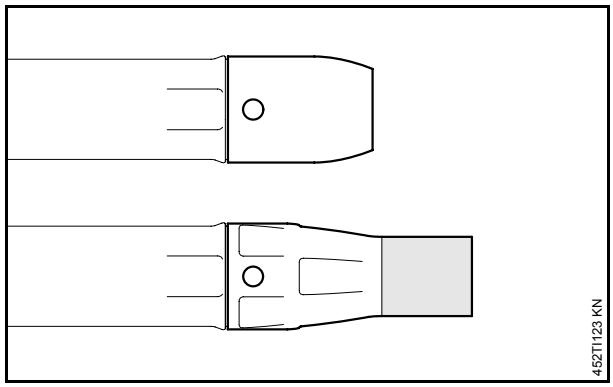
The previous screw for mounting the hose clamps and control handle has been replaced by a new screw that is 5 mm longer.




Left: Previous screw 9074 478 4475
Right: New screw 9074 478 4545

### 3.3 New nozzles

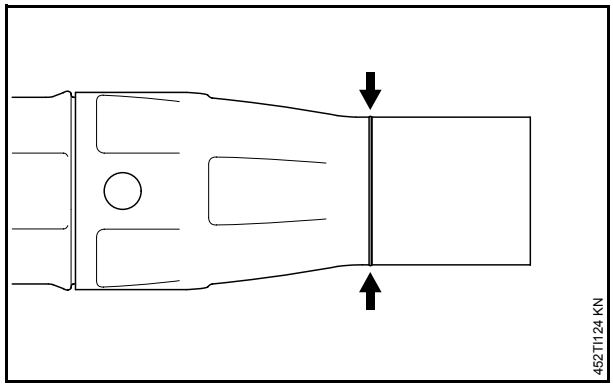
Nozzles are gradually worn during operation as a result of ground contact. On the previous nozzles the wear caused an increase in outlet cross section which reduced blower performance.




Top: Previous nozzle
Bottom: New nozzle

The front ends of the new nozzles are equipped with an cylindrical extension which retains the same outlet cross section as it wears. Blower performance thus remains constant until the wear mark is reached. The new nozzles are therefore longer than the previous nozzles.

**Wear mark**




The nozzle is subject to normal wear and tear and must be replaced when the wear mark is reached.

### 3.4 New blower tubes

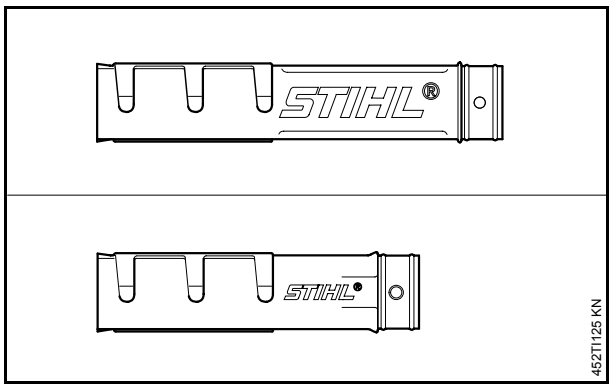
The following features distinguish the new blower tubes from the previous blower tubes:

Blower tubes for BR 500, BR 550, BR 600:

- Label with instructions on length adjustment

Blower tube for BR 550 and BR 600:

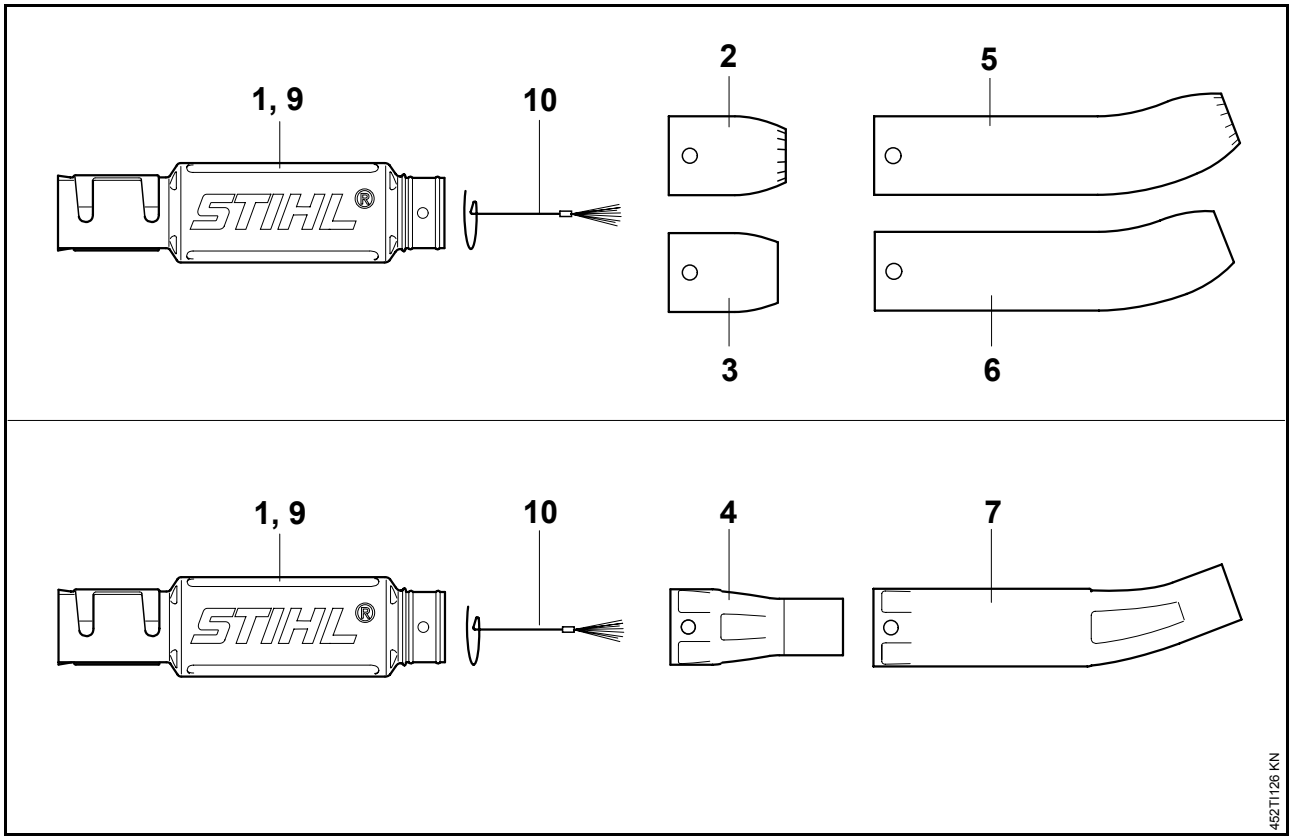
- Shorter – no change in overall length of blowing attachment when used with the new nozzles.




Top: Previous blower tube for BR 550, BR 600

Bottom: New blower tube for BR 550, BR 600

### 3.5 BR 500 parts availability




**Summary**

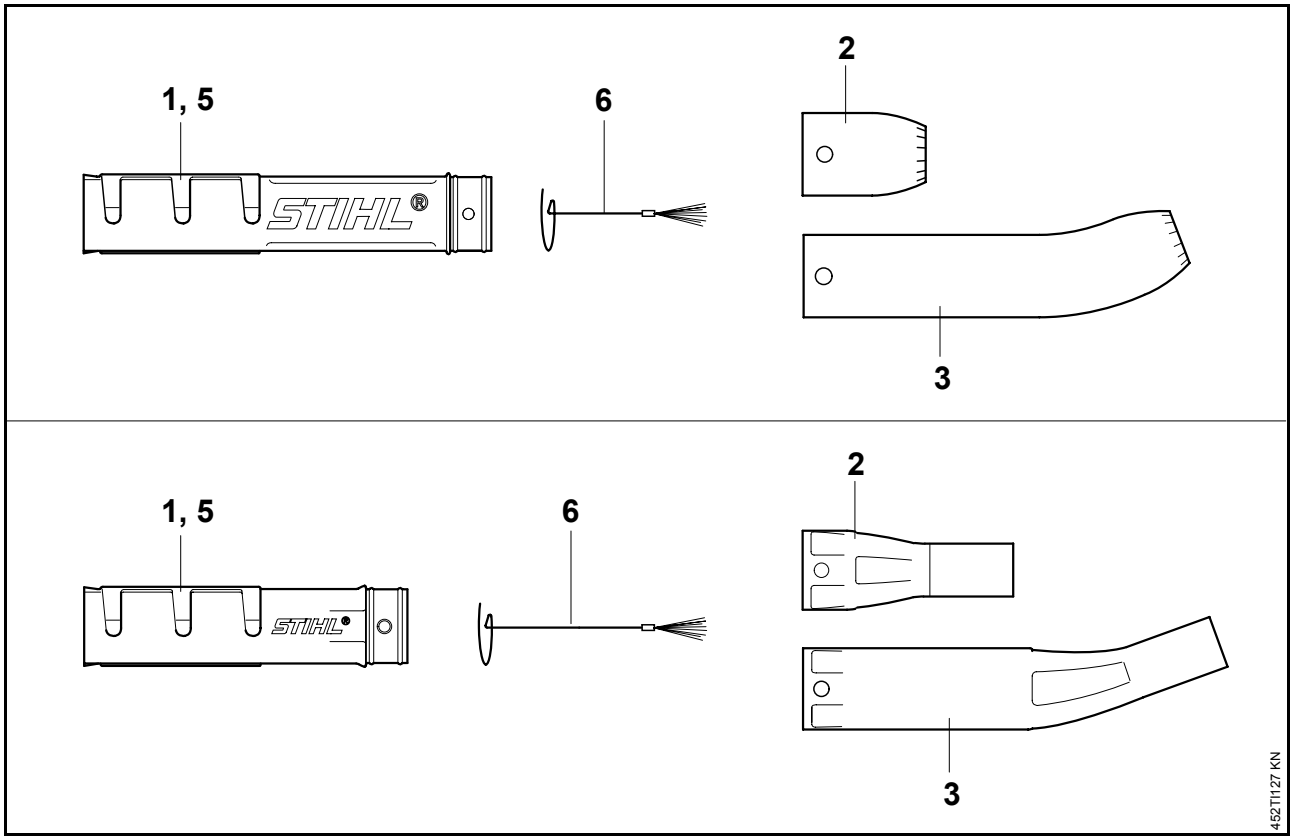
| Item | Part Name | Previous | New | Rem. |
|---|---|---|---|---|
| 1 | Blower tube silencer | 4282 701 9205 | 4282 780 8200 | 1) |
| 2 | Round nozzle | 4282 708 6300 | - - - | 2) |
| 3 | Round nozzle | 4282 708 6310 | - - - | 2) |
| 4 | Round nozzle | - - - | 4282 708 6370 | |
| 5 | Curved nozzle | 4282 708 6320 | - - - | 2) |
| 6 | Curved nozzle | 4282 708 6330 | - - - | 2) |
| 7 | Curved nozzle | - - - | 4282 708 6375 | |
| **Conductive blowing attachment (special accessory)** | | | | |
| 8 | Blower tube kit, including items 4, 9,10 | 4282 007 1012 | 4282 007 1012 | 3) 4) |
| 9 | Blower tube silencer | 4282 701 9202 | 4282 780 8201 | 1) |
| 10 | Antistatic wire | 4282 740 7103 | 4282 740 7103 | |

Modification to be introduced : in progress

**Remarks**

1) Previous version of part no longer available from factory
2) Previous version of part remains available for older models
3) Only modified version of part is available from factory
4) New version of part can also be used for older machines

### 3.6 BR 550 parts availability




**Summary**

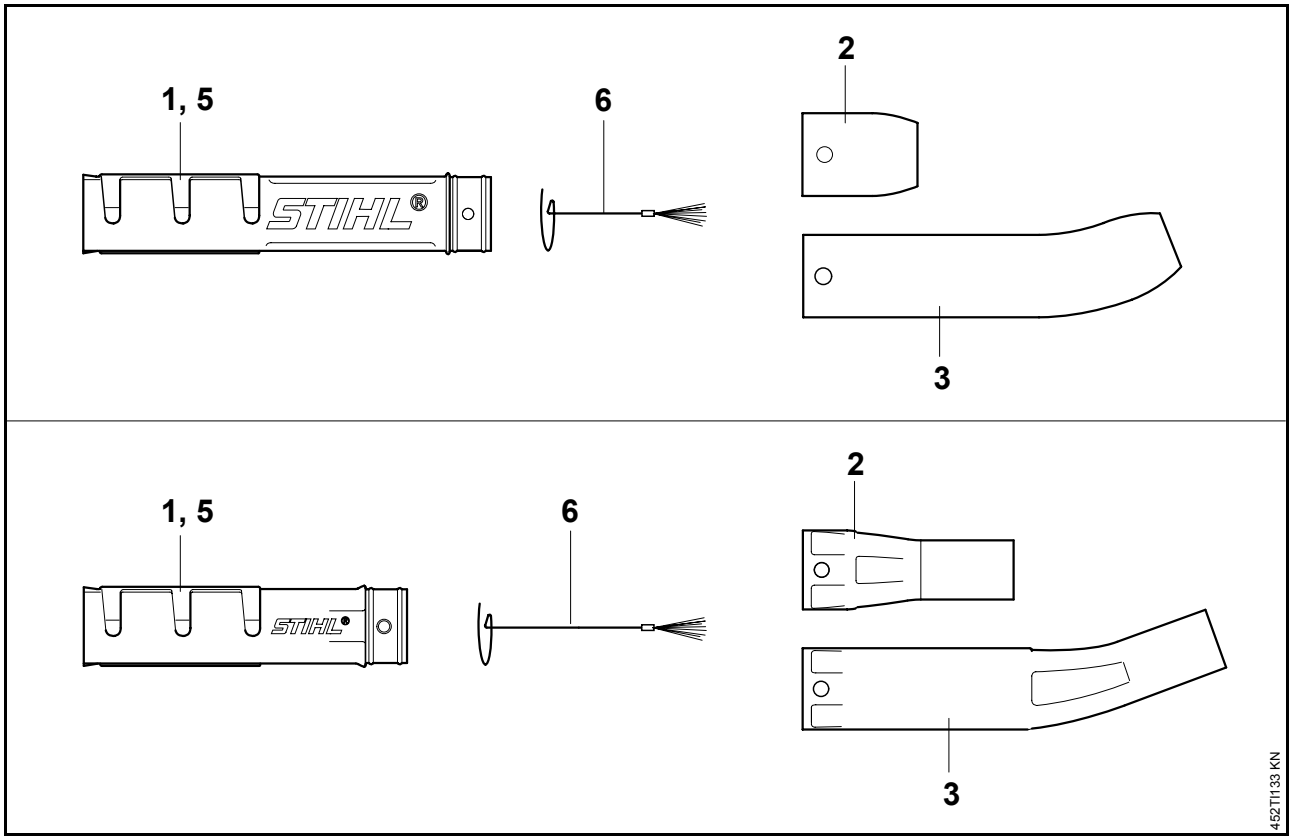
| Item | Part Name | Previous | New | Rem. |
|---|---|---|---|---|
| 1 | Blower Tube | 4282 701 5401 | 4282 700 1800 | 1) |
| 2 | Round nozzle | 4282 708 6300 | 4282 708 6360 | 2) |
| 3 | Curved nozzle | 4282 708 6320 | 4282 708 6365 | 2) |
| **Conductive blowing attachment (special accessory)** | | | | |
| 4 | Blower tube kit, including items 2, 5, 6 | 4282 007 1017 | 4282 007 1017 | 3) 4) |
| 5 | Blower tube | 4282 701 5403 | 4282 700 1801 | 1) |
| 6 | Antistatic wire | 4282 740 7103 | 4282 740 7104 | 2) |

Modification to be introduced : in progress

**Remarks**

1) Previous version of part no longer available from factory
2) Previous version of part remains available for older models
3) Only modified version of part is available from factory
4) New version of part can also be used for older machines

### 3.7 BR 600 parts availability




**Summary**

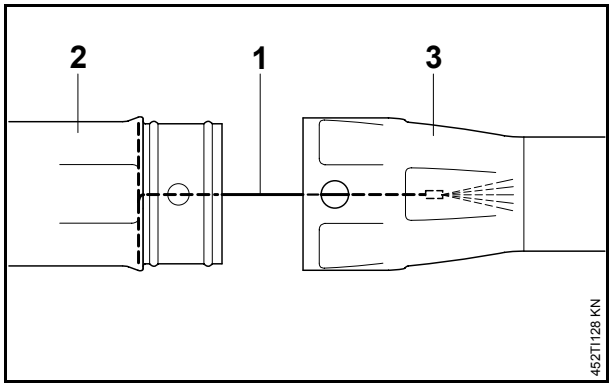
| Item | Part Name | Previous | New | Rem. |
|---|---|---|---|---|
| 1 | Blower tube | 4282 701 5401 | 4282 700 1800 | 1) |
| 2 | Round nozzle | 4282 708 6310 | 4282 708 6350 | 2) |
| 3 | Curved nozzle | 4282 708 6330 | 4282 708 6355 | 2) |
| **Conductive blowing attachment (special accessory)** | | | | |
| 4 | Blower tube kit, including items 2, 5, 6 | 4282 007 1013 | 4282 007 1013 | 3) 4) |
| 5 | Blower tube | 4282 701 5403 | 4282 700 1801 | 1) |
| 6 | Antistatic wire | 4282 740 7103 | 4282 740 7104 | 2) |

Modification to be introduced : in progress

**Remarks**

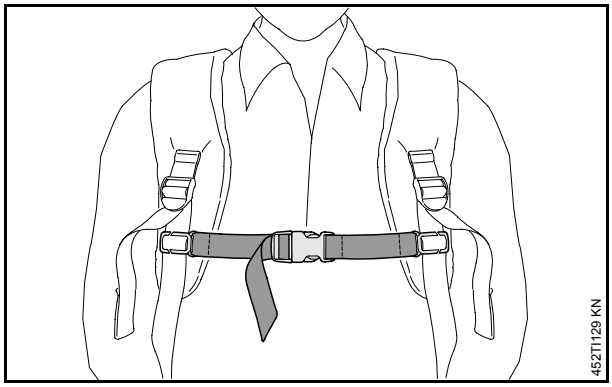
1) Previous version of part no longer available from factory
2) Previous version of part remains available for older models
3) Only modified version of part is available from factory
4) New version of part can also be used for older machines

### 3.8 Installing antistatic wire




- Engage the antistatic wire (**1**) in the slot at the outlet end of the blower tube (**2**).
- Push the nozzle (**3**) over the blower tube (**2**) and engage it in position.

## 4. Chest Strap




A chest strap can be attached to the shoulder straps. The chest strap holds the shoulder straps in position and thus improves wear comfort.

The chest strap 0000 790 7700 is available as a special accessory.