

Model HL 45 Hedge Trimmer
Model FC 55 Power Edger
Model FS 55 Trimmer
Model FS 45 Trimmer

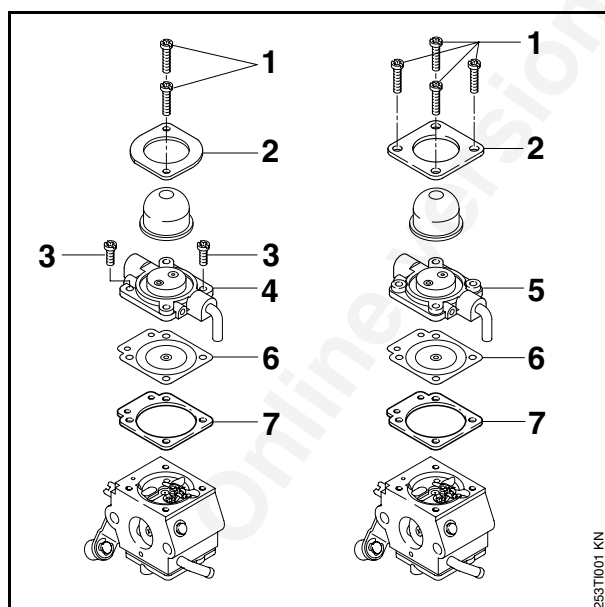
– **Series 4232**
 – **Series 4140**
 – **Series 4140**
 – **Series 4140**

Contents

1. Carburetor with LD Screw
(Flange and End Cover Mounting, Fixed Jet)
2. Model Update
 - 2.1 Carburetor with 3 Adjusting Screws
 - 2.2 Spacer Flange
 - 2.3 Tensioner, Throttle Cable
 - 2.4 Filter Housing (Choke Shutter), Filter Cover
 - 2.5 Ignition Module, Crankshaft
 - 2.6 Fuel Tank, Hose, Retainer
 - 2.7 Clutch (Cup Spring), Washer
 - 2.8 Rewind Starter
 - 2.9 Summary

1. Carburetor with LD Screw

(Flange and End Cover Mounting, Fixed Jet)



Left: Carburetor 4140 120 0600 (C1Q-S44)
 Right: Carburetor 4140 120 0601 (C1Q-S53)
 or 4140 120 0610 (C1Q-S58)

The previous C1Q-S44 carburetor was initially replaced by the C1Q-S53 and then by the C1Q-S58 (with a modified fixed jet). The end cover and flange on the C1Q-S53 and C1Q-S58 carburetors are now mounted with 4 screws of the same length instead of separately with two short screws and two long screws. The individual parts of the previous C1Q-S44 and C1Q-S53 carburetors remain available as spares (see Illustrated Parts List).

Parts availability

The new versions of the end cover and flange may only be used together. For this reason, flange kit 4140 120 2250 has been put together for the C1Q-S44 carburetor. This flange kit comes complete with gasket, metering diaphragm, end cover, 4 new mounting screws and illustrated instructions.

The new flange and end cover are also available as separate items for repairs to the new version of the carburetor.

Summary

Item	Part Name	Previous	New	Remarks
	Carburetor C1Q-S44;	4140 120 0600	4140 120 0610	1)
	Carburetor C1Q-S53;	4140 120 0601	4140 120 0610	1)
	Carburetor C1Q-S58; including items 1, 2, 5 to 7:	- - -	4140 120 0610	
1	Screw	4226 122 7100	4226 122 7100	2)
2	End cover	4226 121 0800	4140 121 0800	1), 4)
3	Screw (2x)	1128 122 7100	- - -	3)
4	Flange	4226 120 2200	- - -	1), 4)
5	Flange	- - -	4140 120 2200	
6	Metering diaphragm	4129 121 4700	4129 121 4700	
7	Gasket	4129 129 0902	4129 129 0902	
8	Flange kit; including items 1, 2, 5 to 7	- - -	4140 120 2250	4)

Modification to be introduced: in progress

Remarks

- 1) Previous version of part no longer available from factory
- 2) Quantity changed from 2 to 4
- 3) Previous version of part remains available for other models
- 4) Use 4140 120 2250 flange kit as replacement part for carburetor 4140 120 0600 (C1Q-S44)

2. Model Update

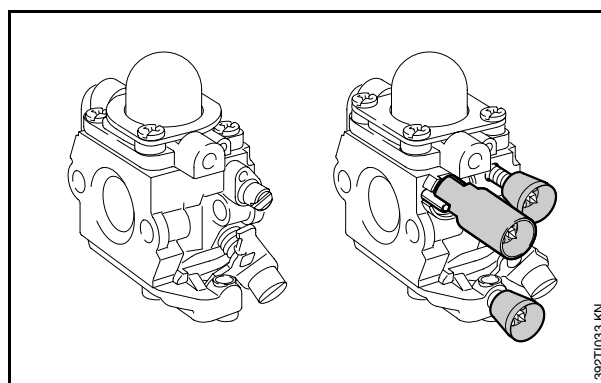
Apart from further optimizing and improving functionality and reliability, the aim of the model update is to comply with the new emission regulations. The modifications to the parts and assemblies affected are described below.

2.1 Carburetor with 3 Adjusting Screws

The carburetor 4140 120 0610 discussed in chapter 1 (BIS* carburetor with LD screw) will be replaced by the new version 4140 120 0603 (with H, L and LA screws).

*BIS = **B**alanced **I**dle **S**ystem

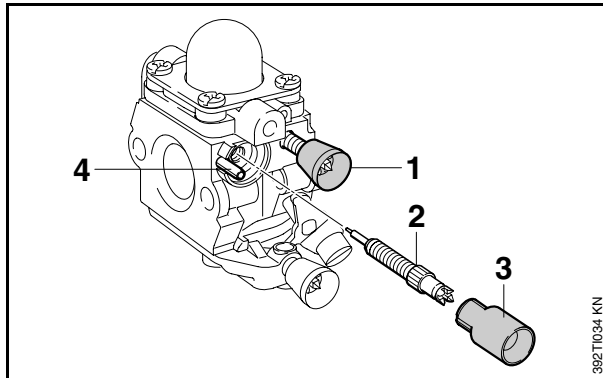
The new carburetor's high speed screw is equipped with a cap to limit its range of adjustment. The low speed screw and idle speed screw are also equipped with funnel-shaped caps to ease insertion of the carburetor screwdriver.



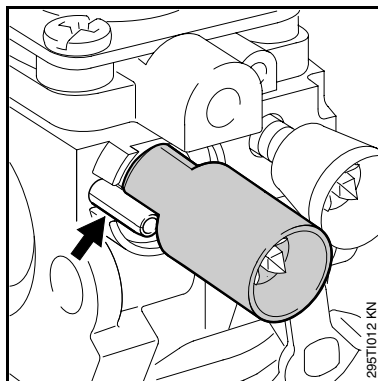
Left: Carburetor with **LD** screw

Right: Carburetor with **H**, **L** and **LA** screws

2.1.1 Construction

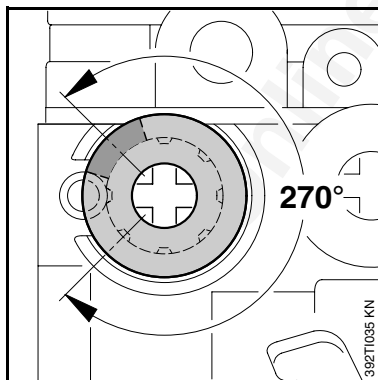


- Low speed mixture screw (1)
- High speed mixture screw (2)
- Limiter cap (3) for high speed screw
- Stop pin (4)



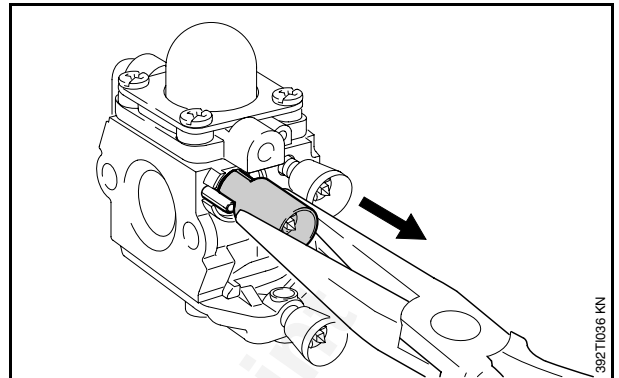
The cap is pushed over the knurled head of the H adjusting screw. The stop pin (see arrow) in the carburetor body serves to limit adjustment.

2.1.2 Function



The pin limits rotation of the cap and thus the range of adjustment of the high speed screw to 3/4 turn (270 degrees).

2.1.3 Repairs / Servicing



The limiter cap has to be removed from the high speed screw to replace a damaged high speed screw or clean the carburetor.

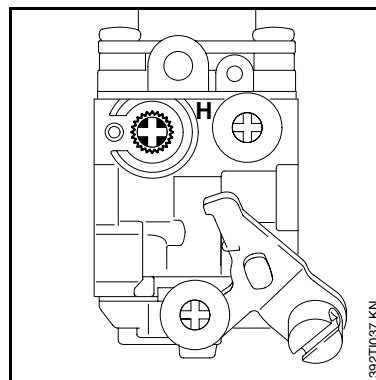
- Use suitable pliers to pull off the cap.

Do not re-use caps because they are damaged during removal.

2.1.4 Adjustment after Repairs / Servicing

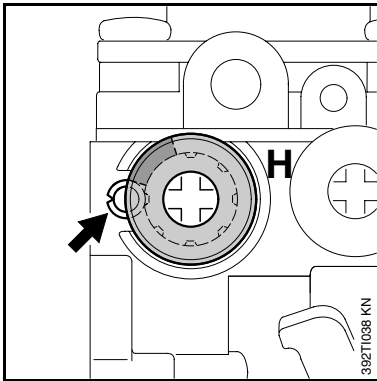
- Check the air filter and clean or replace as necessary.
- Check spark arresting screen and clean or replace as necessary.
- Check fuel filter and clean or replace as necessary.

2.1.5 Standard Setting of H Screw (without cap)



- Starting with the screw lightly against its seat: Open high speed screw (H) $1\frac{1}{2}$ turns.

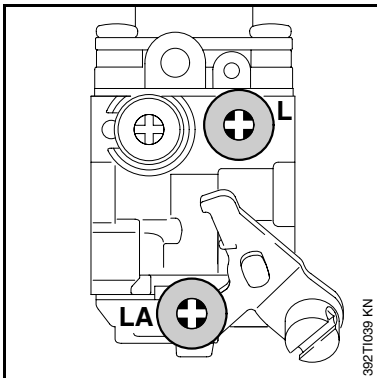
2.1.6 Installing the Cap



Caps that have been removed once **must not be re-used** because they are damaged during removal.

- Position **new** cap for high speed screw (**H**) so that it is in line with "rich" stop (arrow).
- Push cap home as far as stop against carburetor body.

2.1.7 Adjusting Idle Speed



Starting with the screws lightly against their seats:

- Open low speed screw (**L**) one full turn counterclockwise.
- Use idle speed screw (**LA**) to set engine speed to 2,800 RPM.

This adjustment must be checked with a tachometer.

2.1.8 Checking Running Behavior

- Open the throttle several times to check that engine accelerates smoothly.

Engine must run smoothly at idle speed.

2.1.9 Setting Instructions for Users

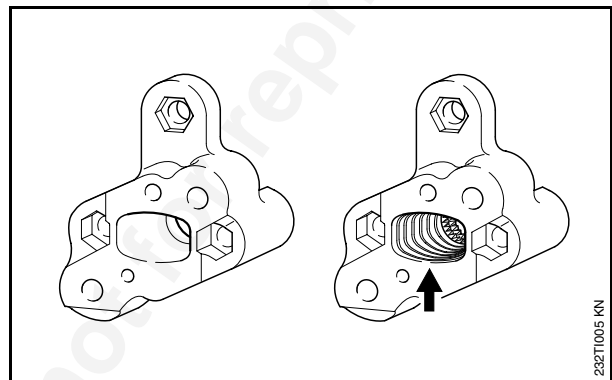
The user may adjust the carburetor's high speed screw within a range of 270 degrees.

This enables the user to make the mixture leaner if necessary, e.g. for operation at high altitude.

In most cases the H screw should remain at the "rich" stop setting.

The procedure for setting the new carburetor is as described in the owner's manual (see chapter "Adjusting the Carburetor").

2.2 Spacer Flange

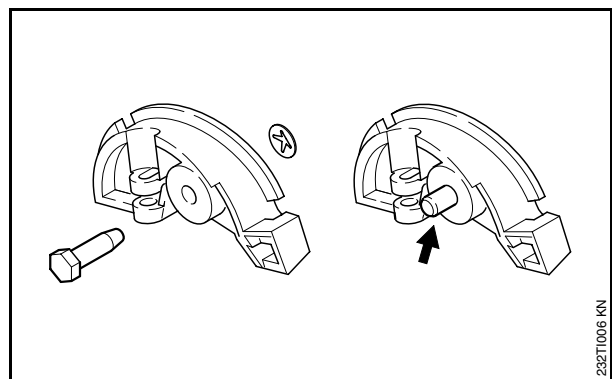


Left: Previous spacer flange 4140 121 1600

Right: New spacer flange 4140 121 1605

The previous spacer flange 4140 121 1600 will be replaced by the new version 4140 121 1605 when the new carburetor is introduced (chapter 2.1). The inner surface of the new spacer flange is structured (arrow) for optimized gas flow.

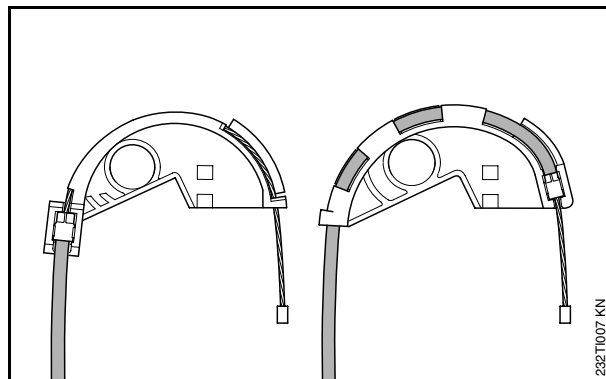
2.3 Tensioner, Throttle Cable



Left: Previous tensioner 4140 182 7600

Right: Tensioner 4140 182 7602
(interim version)

The tensioner 4140 182 7600 was initially replaced by the version 4140 182 7602. This tensioner is supported in the spacer flange on an integrally molded pivot pin. Therefore, the bearing pin 4137 123 8900 and the push nut 9417 003 7512 are no longer required and have been deleted.

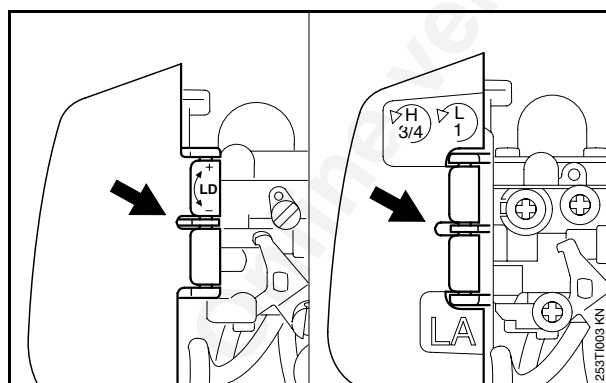


Throttle cable on the tensioner
Left: Tensioner 4140 182 7602
Right: Tensioner 4140 182 7601

Throttle cable 4140 180 1105 (on all machines with a loop handle) and tensioner 4140 182 7601 will be installed in a further line modification from **serial number 2 51 188 982**. The sheath of the new throttle cable has been lengthened so that it extends over the whole tensioner and is held in position by it.

2.4 Filter Housing (Choke Shutter), Filter Cover

Modified versions of the filter housing, choke shutter and the filter cover will be installed at the same time as the new carburetor described in chapter 2.1.



The position of the hinge on the filter housing and filter cover has been moved further outboard (see arrows) to allow good access to the adjusting screws of the new carburetor.

Setting symbols for the new carburetor have been

applied to the new filter cover. Furthermore, a modified choke shutter is installed.

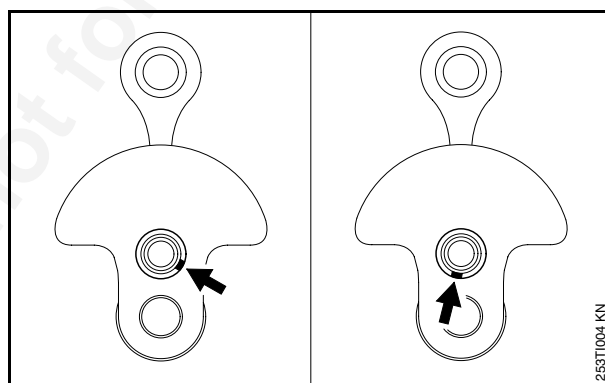
Parts availability

Filter cover 4140 141 0500 remains available as a spare for carburetors 4140 120 0600 / 0601 / 0610 (BIS carburetors with LD screw).

The **new filter housing 4140 140 2850 must be used as a replacement for a damaged filter housing – irrespective of the carburetor version**. The replacement part includes the new replacement filter cover 4140 141 0502. As there are no setting symbols on this filter cover, it can be used as a universal replacement.

The modified choke shutter is made from orange-colored plastic so that it can be easily distinguished from the previous choke shutter (black).

2.5 Ignition Module, Crankshaft



Position of keyway slot for flywheel
Left: Previous crankshaft 4140 030 0400
Right: New crankshaft 4140 030 0401

Ignition timing and governor cut-off speed range have been optimized. For this reason the ignition module 4140 400 1300 will be replaced by ignition module 4140 400 1303 together with a new crankshaft. Compared with the previous version, the position of the keyway slot for the flywheel (see arrows) has been changed on the new crankshaft 4140 030 0401.

Service note

In case of a repair, only the new versions of the parts may be used for machines with carburetor 4140 120 0603.

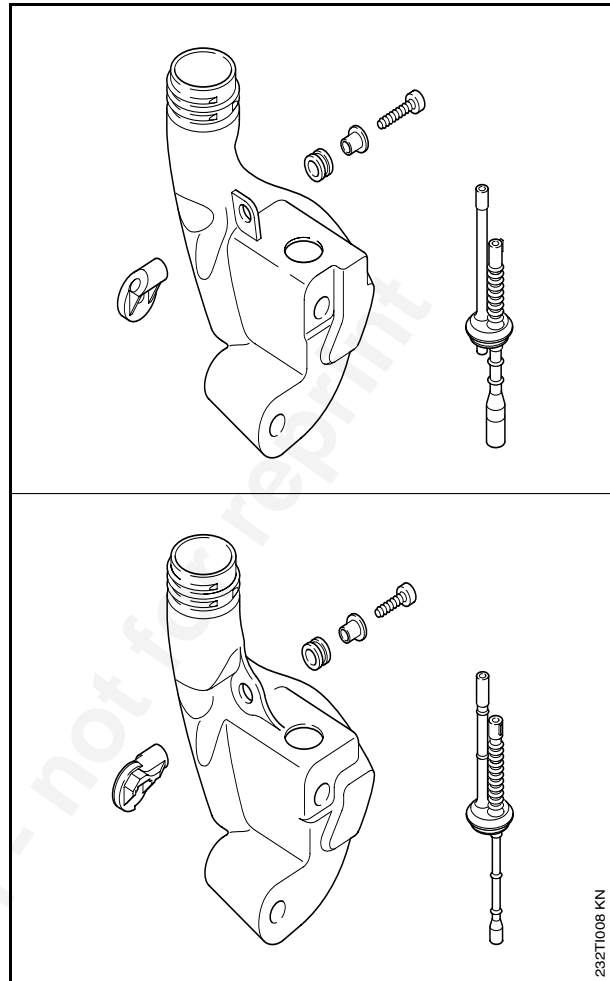
2.6 Fuel Tank, Hose, Retainer

Modified fuel tanks will be installed to coincide with the introduction of the new carburetor (see 2.1). The change in the shape of the tanks has improved access to the carburetor adjusting screws. Furthermore, the capacity of the tanks has been increased from 10 oz. (0.3 liter) to 11 oz. (0.33 liter). The new tank shape makes the use of a new, approx. 3/8" (10 mm) longer retainer necessary. The retainer is mounted to the tank with an IS P5x20 spline screw. The fuel hose has also been modified and standardized for all machines.

Parts availability / Service note

Fuel tank 4232 350 0401 will be supplied as a replacement for all machines. This tank comes complete with the new hose 4140 358 7702 (with pickup body 0000 350 3506) and the modified retainer 4140 353 2402 with mounting screw.

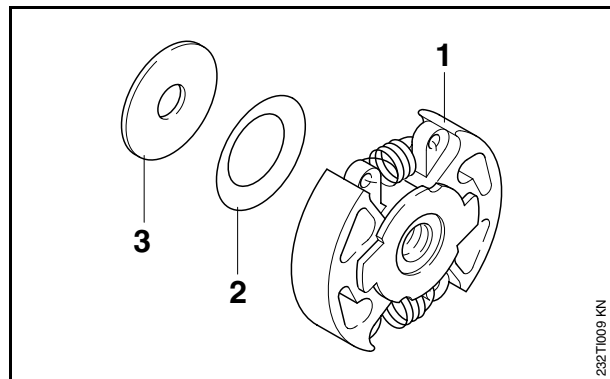
The previous fuel tanks 4140 350 0400 (for FS 45/FS 55, FC 55) and 4232 350 0400 (for HL 45) have been deleted. The previous retainer 4140 353 2400 and its IS D5x24 mounting screw remain available for repairs to older machines.



Top: Component parts of previous version
Bottom: Component parts of new version

2.7 Clutch (Cup Spring), Washer

To achieve a further improvement in operation, the previous clutch 4140 160 2000 has been replaced by the new version 4140 160 2001 (1) on which a cup spring (2) is bonded to the inboard side of the carrier. The previous washer 4130 162 8900 (1.5 mm thick) between the clutch and flywheel has been replaced by a 1.2 mm thick washer 4140 162 8900 (3). New replacement clutches are supplied with the thinner washer and are therefore fully interchangeable.



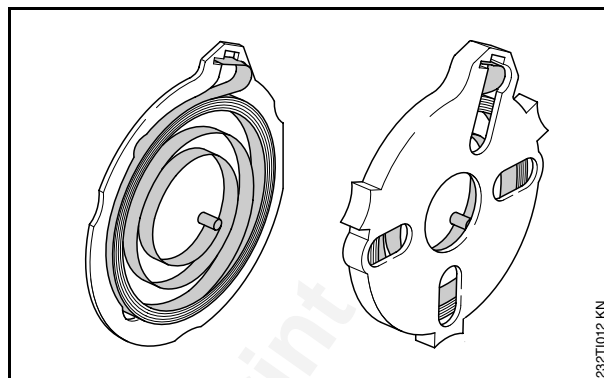
2.8 Rewind Starter

A modified version of the rewind starter 4140 190 4000 will be installed to coincide with the introduction of the new carburetor (see 2.1). The longer starter rope 1120 195 8200 (Ø 3x1060 mm - 41 3/8") and the new rewind spring 4140 190 0601 will be installed to increase the pull length for improved starting convenience.

Service note

The new (longer) starter rope may only be installed together with the new rewind spring. For this reason the previous starter rope 0000 195 8200 (Ø 3 x 800 mm 31 1/2") and the previous rewind spring 4140 190 0600 will remain available as replacements for repairs on older machines.

The new carburetor (see 2.1) is an easy way of identifying machines with the new starter rope and new rewind spring.



Replacement rewind spring (with transport keeper)

Left: Previous version

Right: New version

2.9 Summary

Item	Part Name	Previous	New	Remarks
1	Carburetor C1Q-S58	4140 120 0610	---	1)
2	Carburetor C1Q-S66	---	4140 120 0603	2)
3	Spacer flange	4140 121 1600	4140 121 1605	1)
4	Tensioner	4140 182 7602	4140 182 7601	1)
5	Pin	4137 123 8900	---	1)
6	Push nut	9417 003 7512	---	1)
7	Throttle cable	4140 180 1100	4140 180 1105	1)
8	Filter housing; including items 9 to 14:	---	4140 140 2850	3)
9	Filter housing; including items 10 to 12:	4140 140 2800	- * -	4)5)
10	Lever	4140 141 3700	4140 141 3700	
11	Choke shutter	4140 141 3800	4140 141 3801	1)
12	Push nut	9417 003 7512	9417 003 7512	
13	Filter	4140 124 2800	4140 124 2800	
14	Filter cover	4140 141 0500	4140 141 0502	1)
15	Ignition module	4140 400 1300	4140 400 1303	1)
16	Crankshaft	4140 030 0400	4140 030 0401	1)
17	Fuel tank (FS 45/55, FC 55)	4140 350 0400	---	6)
18	Fuel tank (HL 45)	4232 350 0400	---	6)

Item	Part Name	Previous	New	Remarks
19	Fuel tank; each of above includes items 20 to 24:	- - -	4232 350 0401	
20	Hose	4140 358 7700	4140 358 7702	6)
21	Pickup body	0000 350 3502	0000 350 3506	1)
22	Retainer	4140 353 2400	4140 353 2402	1)
23	Spline screw IS D5x24	9075 478 4159	- - -	1)
24	Spline screw IS P5x20	- - -	9074 478 4135	
25	Clutch; including:	4140 160 2000	4140 160 2001	6)
26	Cup spring 31.7x20.4x0.4	- - -	- * -	5)
27	Washer	4130 162 8900	4140 162 8900	1)
28	Rewind starter; including:	4140 190 4000	4140 190 4000	6)
29	Rewind spring	4140 190 0600	4140 190 0601	1)
30	Starter rope Ø 3x800 mm (31 1/2")	0000 195 8200	- - -	1)
31	Starter rope Ø 3x1060 mm (41 3/4")	- - -	1120 195 8200	

Modification to be introduced: in progress

Remarks

- 1) Previous version of part remains available for older machines and/or other models
- 2) For component parts see illustrated parts list
- 3) Use as replacement for previous **and** new versions of the filter housing
- 4) Previous version of part no longer available from factory (use item 8 as replacement)
- 5) New version of part is not available as separate item
- 6) Previous version of part no longer available from factory

Last Technical Information on models HL 45: 55.1999; FC 55: 41.1999;
FS 55: 39.1999; FS 45: 02.1999