

# Technical Information

41.2005

## STIHL Data Charts

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### 1. New Data Charts 2005 / 2006

The new 2005 / 2006 edition of the CARB / EPA Data Charts has been enlarged to include the current model series.

The presentation of carburetor settings has been revised to facilitate adjustments by service technicians.

Less important particulars concerning ignition leads, starter rope, piston stroke and bore diameter, for example, have been omitted. These values can be found in the corresponding service manuals or spare parts lists.

The Data Charts 2005 / 2006 CARB / EPA are available now on the CD STIHL Service Communication System or can be ordered as hardcopy printouts:

|                     |               |
|---------------------|---------------|
| MS 1                | 0456 400 3000 |
| MS 2 (old machines) | 0456 400 3002 |
| FS                  | 0456 400 3004 |
| BG BR SH SR         | 0456 400 3006 |
| TS BT               | 0456 400 3008 |
| FH HL HS HT         | 0456 400 3009 |
| KM MM SP            | 0456 400 3010 |

### 2. Carburetor setting

The machines in a single model series may be equipped with different carburetors.

The carburetor designation is specified to facilitate adjustment of the carburetor setting.



Carburetor



Limiter cap(s) on the H and L adjusting screws



Setting for adjusting screws without limiter caps

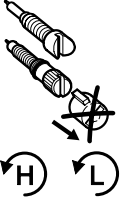
**or**  
Basic setting for adjusting screws with limiter cap removed  
(only by service technicians)



Setting for adjusting screws without limiter caps

**or**  
Setting for adjusting screws with fitted limiter cap  
(as indicated in the user manual)

**Example:**

|                              |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                              |  |                                                                                    |  |  |
|                              |                                                                                   | H L                                                                                                                                                                 | H L                                                                               | H L                                                                               |
| <b>FS 75, 80, 85</b><br>4137 | WT-447                                                                            | — —                                                                                                                                                                 | 1 1                                                                               | — —                                                                               |
|                              | C1Q-S63<br>C1Q-S69                                                                |  —                                                                                 | 1 1/2 1                                                                           | 3/4 1                                                                             |
| <b>FS 550</b><br>4116        | HD-22                                                                             |   | 1 1/4 1 5/8                                                                       | 1/4 1/4                                                                           |

**FS 75, 80, 85:**

- Carburetor WT-447 without limiter caps has the following setting:  
**H = 1**  
**L = 1**
- Carburetors C1Q-S63 and C1Q-S69 have both an H and an L adjusting screw. A limiter cap is fitted on the H adjusting screw; the L adjusting screw is without limiter cap.

The basic setting without limiter cap  
(for service technicians) is:

**H = 1 1/2**

**L = 1**

The setting with limiter cap on the H adjusting  
screw is:

**H = 3/4 (limited)**

**L = 1 (not limited)**

(as indicated in the user manual)

**2.1 Setting the speeds**

Speeds are set by the service technician using a tachometer with the machine at operating temperature and when the following conditions have been met:

- Chainsaw **with** saw chain and guide bar
- Clearing saw / brushcutter **with** attachment
- Blower **with** blower tubes
- Hedge trimmer **with** cutting tool
- Cut-off machine **with** wheel

**3. Symbols**

The symbols used in all Data Charts are explained below. Only those symbols which are actually needed appear on the individual Data Charts.

**FS 550:**

- Carburetor HD-22 has both an H and an L adjusting screw. Limiter caps are fitted on both adjusting screws.

The basic setting without limiter cap  
(for service technicians) is:

**H = 1 1/4**

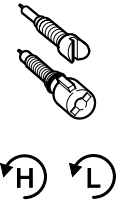
**L = 1 5/8**

The setting with limiter cap is:

**H = 1/4 (limited)**

**L = 1/4 (limited)**

(as indicated in the user manual)

|                                                                                     |                                                                                                                        |                                                                                     |                                                                                                                                     |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
|    | Carburetor type                                                                                                        |    | Idle speed                                                                                                                          |
|    | Limiter cap(s) on the H and L adjusting screws                                                                         |    | Permissible maximum speed                                                                                                           |
|    | Setting for adjusting screws without limiter caps<br>or<br>Basic setting for adjusting screws with limiter cap removed |    | Maximum possible speed in engines with speed limitation                                                                             |
|    | Setting for adjusting screws without limiter caps<br>or<br>Setting for adjusting screws with fitted limiter cap        |    | Tightening torque for cylinder base screws                                                                                          |
|    |                                                                                                                        |                                                                                     | Tightening torque for hex nut on flywheel                                                                                           |
|    |                                                                                                                        |                                                                                     | Tightening torque for clutch carrier                                                                                                |
|   |                                                                                                                        |                                                                                     | Tightening torque for hex nut on clutch                                                                                             |
|  |                                                                                                                        |                                                                                     | Tightening torque for hex nut on starter cup                                                                                        |
|  |                                                                                                                        |                                                                                     | Tightening torque for starter cup                                                                                                   |
|  |                                                                                                                        |                                                                                     | Tightening torque for hex nut on fan wheel                                                                                          |
|  | Spark plug type                                                                                                        |  | Tightening torque for bearing screws of clutch shoes                                                                                |
|  | Electrode gap on spark plug                                                                                            |  | Maximum permissible spindle speed on cut-off machines                                                                               |
|                                                                                     |                                                                                                                        |  | Valve clearance in STIHL 4-MIX engines                                                                                              |
|                                                                                     |                                                                                                                        |  | Delivery rate of the oil pump at $n = 10,000$ rpm<br>One value = fixed displacement pump<br>Two values = variable displacement pump |