

## SB, Husqvarna EPA-models, 2002-02

### Basic adjustment for EPA II carburetors valid from January 2002

After replacing the carburetor or high speed and/or low speed needle on an EPA (The US Environmental Protection Agency) certified product a basic adjustment must be carried out as described below in order to meet the EPA-requirements. This to achieve as low emissions as possible. This instruction is made for USA & Canada only.

On EPA carburetors both the H- and L-needles are fitted with caps to prevent the chain saw operator from changing the adjustment above EPA standard. The caps can be removed to achieve richer or leaner adjustments. To set the needles correctly an adjustment sleeve is fitted from the factory over the caps to lock them in maximum allowed settings (not mounted on model 335XPT).

When correctly set the caps must be fixed on the needles. The adjustment sleeve then can be removed.

Over the caps on complete sparepart carburetor, there is a plastic sleeve which is intended to lock the caps at the richest position (anticlockwise towards stop) during the time that the needles are adjusted. When the adjustment is complete and the caps have been fixed on the needles, the sleeve is no longer of any function and can be removed.

NOTE 1: Always remove the sleeve after complete adjustment on model 335 XPT

NOTE 2: On the complete spare part carburetor, the L-needle is adjusted from the factory.

#### **NOTE! Before making any adjustments the following must be done!**

- Mount, for this model, approved bar & chain combination (See Technical data in the Operator's manual).

Model		Model	
36/41	14"	365 SP	18"
136/141	14"	371/372 XP	20"
45/49	15"	288 XP	24"
51	15"	394/395 XP	24"
55	18"	3120 XP	28" (not adjustable; fixed JET)
55 Rancher	18"	335 CA	14"
335 XPT	14"	357 XP	16"
340/345/350	16"	359	16"
346 XP/351	16"	362 SP	15"
261	15"	385 XP	24"

- The chain should not be tensioned more than that it remains ~0,2 inches to the bar.
- Mount a **new** air filter.

## Replacement of the H-needle or complete carburetor

1. Screw the new H-needle to the bottom and turn it counterclockwise "A" turns.

Model	A	Model	A
36/41	A = 2	365 SP	A = 3/4
136/141	A = 2	371/372 XP	A = 3/4
45/49	A = 1 1/4	288 XP	A = 3/4
51	A = 1 1/4	394/395 XP	A = 3/4
55	A = 1 1/4	3120 XP	A = (not adjustable; fixed JET)
55 Rancher	A = 1 1/4	335 CA	A = 3 1/2
335 XPT	A = 3 1/2	357 XP	A = 3/4
340/345/350	A = 3/4	359	A = 3/4
346 XP/351	A = 3/4	362 SP	A = 3/4
261	A = 3/4	385 XP	A = 1

2. **Check that:**

The H-cap is adjusted to its richest setting. (Turned counterclockwise to stop.)

The cap is not fixed to the needle, it should rotate independently.

Adjust the L-cap to a center position (1/4 turn counterclockwise = minimum, 1/4 turn clockwise = maximum).

3. Start the engine. If necessary, adjust the idling speed with the T-screw until the chain stops.
4. Adjust the H-needle to give a top speed of "B" rpm.

Model	B	Model	B
36/41	B = 13 200	365 SP	B = 13 500
136/141	B = 13 200	371/372 XP	B = 13 500
45/49	B = 12 000	288 XP	B = 12 000
51	B = 12 000	394/395 XP	B = 13 000
55	B = 12 000	3120 XP	B = (not adjustable; fixed JET)
55 Rancher	B = 12 000	335 CA	B = 12 500
335 XPT	B = 13 000	357 XP	B = 13 500
340/345	B = 12 000	359	B = 12 500
350/351	B = 12 000	362 SP	B = 13 000
346 XP	B = 13 000	385 XP	B = 12 500
261	B = 13 000		

Use a narrow blade screwdriver (Ref.no. 531 00 48-63) and insert it through the hole in the cap (max. blade width 2 mm/0.08 inch)

5. Let the engine run at "B" rpm ~ 1 minute, until warm.
6. Adjust the H-needle to a top speed of "C" rpm.

Model		Model	
36/41	C = 13 500	261	C = 13 200
136/141	C = 13 500	365	C = 13 000
45/49	C = 13 200	371/372 XP	C = 14 000
51	C = 12 500	288 XP	C = 13 300
55	C = 12 500	394/395 XP	C = 12 500
55 Rancher	C = 12 500	3120 XP	C = (not adjustable; fixed JET)
335 XPT	C = 14 000	335 CA	C = 13 000
340	C = 13 700	357 XP	C = 14 000
345	C = 13 700	359	C = 13 100
350/351	C = 13 700	362 SP	C = 13 200
346 XP	C = 14 300	385 XP	C = 12 500

- Check that the H-cap is still adjusted to its richest setting. (Turned counterclockwise to stop).  
**NOTE! The H-needle must not rotate!**
- Gently knock the H-cap into position. Use a 5 mm/0.2 inch mandrel (for ex. the locking pin for the bevel gear ref.no. 502 02 61-03).

This is a basic carburetor adjustment. Further fine adjustments, within the limits the caps allow, may be necessary to achieve optimum performance. See the Operator's manual.

## Replacement of the L-needle

- Take off the cap from the L-needle using e.g. a pair of cutting pliers and unscrew the needle.
- Screw the new L-needle to the bottom and then turn it counterclockwise "D" turns.

Model		Model	
36/41	D = 1 1/2	365 SP	D = 1 1/2
136/141	D = 1 1/2	371/372 XP	D = 1
45/49	D = 1 1/2	288 XP	D = 1 1/2
51	D = 1 1/4	*394/395 XP	D = 1 1/2
55	D = 1 1/4	3120 XP	D = 1 (not adjustable; fixed JET)
55 Rancher	D = 1 1/4	335 CA	D = 2
335 XPT	D = 1 3/4	357 XP	D = 1 1/2
340/345/350	D = 1 1/2	359	D = 1 1/2
346 XP/351	D = 1 1/2	362 SP	D = 1
261	D = 1 1/4	385 XP	D = 1

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- \* For the models 365 SP and 3120XP the L-needle is not capped, adjustments acc. to 3-9 should therefore not be done.
- Press a new L-cap on the L-needle to the first stop, which means that the cap is not fixed to the needle, it should rotate independently.
  - Adjust the L-cap to the richest position (turned counterclockwise to stop) without turning the needle.

5. Let the engine run at ~"E" app.1 minute until warm and then let it run on idle.

Model		Model	
36/41	E = 13 200	261	E = 13 000
136/141	E = 13 200	371/372 XP	E = 13 500
45/49	E = 12 000	288 XP	E = 12 000
51	E = 12 000	394/395 XP	E = 12 000
55	E = 12 000	335 CA	E = 12 500
55 Rancher	E = 12 000	357 XP	E = 13 500
335 XPT	E = 13 000	359	E = 12 500
340/345	E = 12 000	362 SP	E = 13 000
350/351	E = 12 000	385 XP	E = 12 500
346 XP	E = 13 000		

6. Adjust the idle speed to "F" rpm.

Model		Model	
36/41	F = 3 000	261	F = 2 700
136/141	F = 3 000	371/372 XP	F = 2 700
45/49	F = 2 500	288 XP	F = 2 500
51	F = 2 600	394/395 XP	F = 2 500
55	F = 2 600	335 CA	F = 2 800
55 Rancher	F = 2 600	357 XP	F = 2 700
335 XPT	F = 2 800	359	F = 2 700
340/345	F = 2 700	362 SP	F = 2 700
350/351	F = 2 700	385 XP	F = 2 700
346 XP	F = 2 700		

7. Adjust the L- needle until the highest possible idling speed is achieved and then turn the L-needle 1/2 turn counterclockwise. Use a narrow blade screwdriver w. ref.no. 531 00 48-63 and insert through the hole in the cap (max. blade width 2 mm/0.08 inch)

**NOTE! If the chain rotates, turn the idling speed screw (T) counterclockwise until the chain stops.**

8. Check that the L-cap is still adjusted to its richest position. (Turned counterclockwise to stop)

**NOTE! The L-needle must not rotate!**

9. Gently knock the L-cap into position.  
Use a 5 mm/0.2 inch mandrel (for ex. the locking pin for the bevel gear ref.no. 502 02 61-03).

This is a basic carburetor adjustment. Further fine adjustments, within the limits the caps allow, may be necessary to achieve optimum performance. See the Operator's manual.