

STIHL 4-MIX[®] Engine Check

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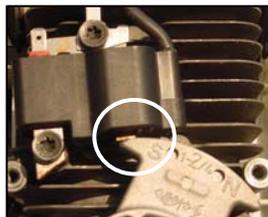
1. Check condition of cutting attachment or blower tube and nozzle.



2. Check throttle for proper operation, opens completely, returns to idle.
3. Empty fuel tank: check for debris, contamination, and verify if oil is mixed.
Warning! Gasoline is extremely flammable. Keep away from spark or other ignition source. Properly dispose of fuel per local regulations.
4. Inspect spark plug connector and high tension lead.
5. Check for spark with a ZAT 4 tester with plug installed, if no spark retest with new plug. Verify stop switch function.
6. Verify that spark plug is correct heat range and set electrode gap to .020" (0.5 mm).

FS 90, FS 100, FS 110, KM 110, HL 100, FC 100, FC 110, HT 100, HT 101	FS 130, KM 130, HT 130, HT 131, BR 500, BR 550, BR 600
STIHL 0000 400 7009 Bosch USR7AC NGK CMR5H	STIHL 0000 400 7011 NGK CMR6H

7. Remove shroud, loosen muffler and inspect fire screen, inspect air filter, remove carburetor.
8. Check for sheared flywheel key by verifying flywheel is in time with crankshaft (note flywheel markings in relation to ignition armature when piston is positioned at top dead center).



9. Verify proper air gap between ignition module and flywheel. Use tool 4118 890 6401.



10. Set valve clearance to 0.1 mm (0.004") when cold. 0.1 to 0.3 mm (0.004" to 0.012") is acceptable.



11. Perform cylinder leak down test. Maximum of 10% leakage is acceptable.

12. Install valve cover and new gasket. Install spark plug, perform crankcase pressure and vacuum test.



Pressure specification:
Pressurize to 0.5 bar (7 psi). Leakage to 0.3 bar (4 psi) in 20 seconds is acceptable.



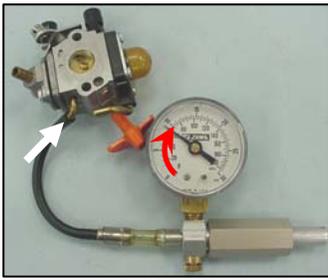
Vacuum specification:
Apply vacuum of -0.5 bar (-7 psi). Leakage to -0.3 bar (-4 psi) in 20 seconds is acceptable.

13. Verify impulse signal

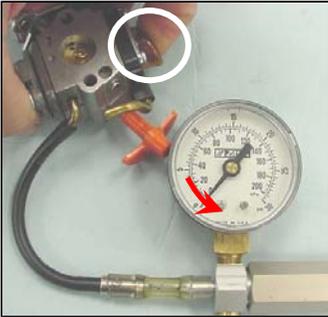


Connect carburetor tester to impulse hose while performing pressure and vacuum tests. Gauge should move while performing tests.

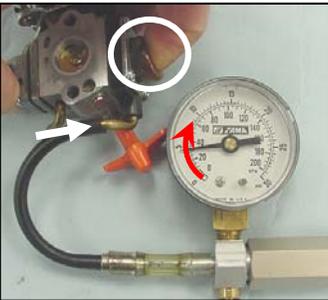
14. Perform carburetor check-shafted products:



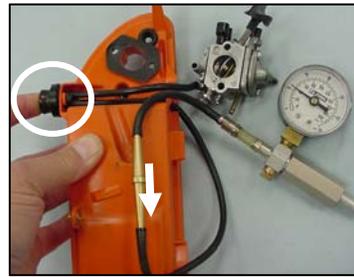
Step 1: Attach tester to fuel line fitting. Pressurize carburetor to 10 psi (0.7 bar). If pressure holds, the fuel pump components and inlet needle are sealing. Go to step 2.



Step 2: With pressure present from step 1, push primer bulb until gauge indicates a slight vacuum. Vacuum should hold for minimum of 1 second. If not, carburetor has an internal leak.



Step 3: Attach tester to return line fitting. Push primer bulb; gauge should indicate pressure and hold. If not, purge primer flange is faulty.



Step 3: Attach tester to primer return hose. Push primer bulb; gauge should indicate pressure and hold. If not, purge primer is faulty.

14. Perform carburetor check-backpack blowers:



Step 1: Attach primer line to primer line fitting and attach tester to fuel line fitting. Pressurize carburetor to 10 psi (0.7 bar). If pressure holds, the fuel pump components and inlet needle are sealing. Go to step 2.

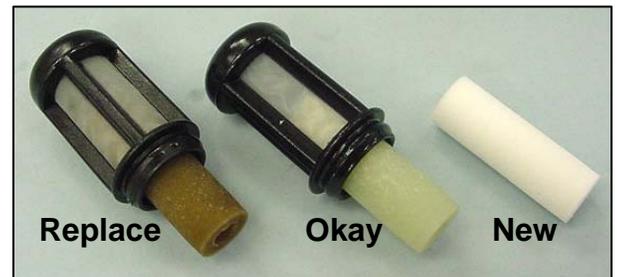


Step 2: With pressure present from step 1, push primer bulb until gauge indicates a slight vacuum. Vacuum should hold for minimum of 1 second. If not, carburetor has an internal leak.

15. Pressure test tank to 5 psi (0.3 bar). There should be no leakage

16. Vacuum test tank, it should slowly leak back to atmospheric pressure. If not, tank vent is faulty.

17. Inspect or replace fuel filter. **Important:** use only STIHL filter part no. 0000 350 3502.



18. Pressure test fuel lines to 5 psi (0.3 bar). There should be no leakage

19. Perform necessary repairs and re-assemble.

20. Set the carb H and L screws with limiter cap removed to initial start-up setting of H = 3 turns out from lightly seated, L = 2 turns out from lightly seated (refer to repair specification charts for detailed settings). Final adjustment may vary significantly.

21. Verify throttle cable adjustment.

22. Start engine, warm up and perform final carburetor adjustments. Verify idle speed and maximum RPM (refer to repair specification charts). Seat limiter caps in place.

23. Test run machine under load.

24. Verify stop switch function.

Checklist complete.