

Name: _____ Model # _____ Serial # _____

Customer Problem: _____

PRELIMINARY CHECKS-----

- 1. Make a quick visual inspection of the machine:
 - Is the machine safe to operate?
Missing or damaged guards/shields/throttle lockouts, loose saw chain, broken chain brake, etc.
 - Make visual inspection of fuel = is oil present?
- 2. Check for engine/equip. maintenance problems:
 - Dirt in the air filter housing
 - Operation of choke and throttle linkage

COMPRESSION-----

- 3. Check the cold engine compression: _____ psi
 - Specs: _____ min _____ max
Keep pulling the starter rope until needle stops rising.

FUEL SYSTEM-----

- 4. Take a sample of the fuel mix:
 - Is the fuel mixed correctly?
 - Does the fuel smell stale?
 - Is there water in the fuel?
 - Test the ethanol content _____ %
Any concentration above 10% will cause problems.

- 5. Does the engine start easily and run?

- 6. Pull the fuel filter and check its condition.

- 7. Test the carburetor and fuel lines for leaks:
 - Pressure test fuel inlet line/carb to 10psi (.5 bar)
If pressure is not held, hook up to carb inlet and retest.
 - Carb still holding 10psi, push the purge bulb
The needle should drop and hold at 7psi (.5 bar). Continue to push the bulb until the gauge reads zero.
 - Switch tester to vacuum mode & push bulb
The carb should hold up to 10"(.4 bar) vacuum
 - Hook pressure tester to purge outlet-push bulb
The bulb should pump gauge up to 7psi (.5 bar) & hold it.

FUEL SYSTEM-----

- 8. Pressure/Vacuum test of the remote tank vent:
 - Pump the tester on pressure mode
The gauge needle should go up & hold 1½ - 5psi (.1-.3 bar)
 - Switch to the vacuum mode and test
The vent should hold NO Vacuum.

- 9. Vented Cap 1-way check valve test:
 - Hook pressure/vacuum tester to one tank line & block others
The tank should hold NO vacuum.

- 10. Pressure test tank for leaks:
 - Keep same line hook up as #9.*
 - Switch tester to pressure = should hold 5psi

IMPULSE TEST-----

- 11. Pull the carburetor and verify fuel pump pulse:
 - Put a few drops of oil in pulse hole & pull rope
Oil should blow out of hole indicating a strong pulse.

CARBURETOR-----

- 12. Does the rotor turn freely?

- 13. Hold the throttle wide open:
 - Does the barrel valve line up with the bore?

- 14. Pull limiter caps if so equipped.

ZAMA CARBURETOR REPAIR-----

- 15. Remove four purge retainers screws:
 - Check condition of purge bulb.
- 16. Remove center screw & remove purge pump:
 - Did carb fail purge pressure test? (see #7)
If yes, pump will have to be cleaned or replaced.

- 17. Remove fuel pump diaphragm & gasket:
 - What is the condition of the pump diaphragm?
Are the flapper valves laying flat?
 - Are there signs of corrosion or rust inside?
If yes, carb may have to be replaced.

- 18. Remove high speed mixture screw & plug:
- 19. Remove carb inlet screen:
- 20. Remove metering diaphragm cover & diaphragm:
 - Are there signs of corrosion or rust inside?
If yes, carb may have to be replaced.
 - Check condition of metering diaphragm.
Replace if wrinkled or stiff.

- 21. Remove inlet needle & lever assembly:
 - Did carb pass inlet pressure test? (see #7)
If no, clean, repair or replace inlet needle to correct.

- 22. Pull rotor assembly (DO NOT LOSE cam roller):
- 23. CLEAN CARBURETOR (Ultrasonic cleaner preferred):
Parts Needed: _____

- 24. Install rotor assembly (Make sure cam roller is in place):
- 25. Install inlet needle & lever assembly:
 - Adjust lever height with "Z" gauge (0 -.3mm gap)
- 26. Install metering diaphragm, gasket & cover.
Always mount the gasket first & the diaphragm on top.
- 27. Install new or cleaned carb inlet screen:
- 28. Install high speed mixture screw & plug:
Lightly seat needle & pre-set per carb bulletin.
- 29. Install fuel pump diaphragm & gasket:
The fuel pump diaphragm must lie on the carb body.
- 30. Install the purge pump, purge bulb & retainer.
Don't forget shorter screw in the center of the purge body.
- 31. Bench test carb before installing on eng. (see #7):
- 32. Test run engine & adjust carb per service bulletin:
Install NEW limiter caps if so equipped.

WALBRO CARBURETOR REPAIR-----

- 33. Remove the four carb assembly screws:
 - Check condition of purge bulb.
- 34. Remove purge pump:
 - Did carb fail purge pressure test? (see #7)
If yes, the purge check valve is a likely cause.

- 35. Remove metering diaphragm & gasket:
 - Are there signs of corrosion or rust inside?
If yes, carb may have to be replaced.
 - Check condition of metering diaphragm.
Replace if wrinkled or stiff.

- 36. Remove inlet needle & lever assembly:
 - Did carb pass inlet pressure test? (see #7)
If no, clean, repair or replace inlet needle to correct.

- 37. Remove the fuel pump body:
 - Remove the fuel pump diaphragm & gasket.
 - What is the condition of the pump diaphragm?
Are the flapper valves laying flat?

- 38. Remove inlet filter screen from the pump body:
Note: Fuel comes in from under this screen.
- 39. Remove high speed mixture screw or fixed jet:
- 40. Pull rotor assembly:
- 41. CLEAN CARBURETOR (Ultrasonic cleaner preferred):
Parts Needed: _____

- 42. Install rotor assembly:
- 43. Install high speed mixture screw or fixed jet:
Lightly seat needle & pre-set per carb bulletin.
- 44. Install new inlet filter screen into the pump body:
- 45. Install inlet needle & lever assembly in pump body:
 - Adjust lever height with "W" gauge.
- 46. Install fuel pump gasket & diaphragm:
The fuel pump diaphragm must lie on the pump body.
- 47. Install the pump body assembly on the carb body:
Pump diaphragm & gasket should be sandwiched between.
- 48. Install metering diaphragm & gasket:
Always mount the gasket first & the diaphragm on top.
- 49. Install the purge body & check valve assembly:
- 50. Install the purge bulb, retainer & screws:
- 51. Bench test carb before installing on engine (see #7):
- 52. Test run engine & adjust carb per service bulletin:
Install NEW limiter caps if so equipped.