

SMALL GAS ENGINES C.D.E.

Required Tools Checklist

TEAM: _____

The following is a list of tools that MUST be in the tool box in order to properly repair the engine. Additional tools selected by the teams are permitted in the tool box.

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| <p>_____ Two "C" clamps (minimum 4" capacity)</p> <p>_____ Securable tool box</p> <p>_____ Slip-joint pliers</p> <p>_____ B&S 19368 spark tester*</p> <p>_____ 5/8" Spark plug socket</p> <p>_____ Torque wrench (220 in. lb. capacity)</p> <p>_____ B&S #19389 inductive digital tachometer or similar</p> <p>_____ Leaf type feeler gage</p> <p>_____ B&S #381573EN Service & Repair Instructions ▲</p> <p>_____ B&S 19480 tang bending tool*</p> <p>_____ Soft-faced hammer (no rubber mallets)</p> <p>_____ B&S #19433 Strap Wrench Flywheel holder (or equivalent)</p> <p>_____ B&S #19203 Flywheel puller</p> <p>_____ 2- or 3-jawed gear puller, 8" capacity</p> <p>_____ Plastic drinking straw</p> <p>_____ Flashlight – (NO Phone Flashlights)</p> | <p>_____ 1/2" drive, 21 mm deep well socket for flywheel nut or 3/8" drive, 21 mm deep well socket with 1/2" drive adapter.</p> <p>_____ 1/2" drive ratchet or breaker bar</p> <p>_____ 6" (minimum) 3/8" ratchet extension</p> <p>_____ Long-nose pliers</p> <p>_____ Torque wrench (ft. lb.) capable of torquing the flywheel nut</p> <p>_____ Screwdriver, – #2 Phillips</p> <p>_____ Screwdriver, – Slotted, minimum 3/16" tip width</p> <p>_____ B&S 19545 leak down tester*</p> <p>_____ Round wire gauge/bender for spark plugs</p> <p>_____ Equipment to repair rewind starter</p> <p>_____ Tools to unplug fuel lines and fuel passages</p> <p>_____ B&S 19057 bushing driver</p> <p>_____ Metric socket set(s) including, but not limited to 8mm-14mm sockets and appropriate ratchet/breaker bar</p> |
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Deduct 5 points for each missing item

Total Deductions _____

Additional tools are permitted. No deductions for additional tools will be made.

▲The B&S #381573EN Repair Manual is the only reference material permitted with the toolbox. A 10-point deduction will be assessed for each page or part thereof for any other reference materials or notes.

*These are current tool numbers. Some part numbers have changed as versions of the tool has changed. As long as tool is a B&S product and will work properly for this model engine it will be permitted.

Spare parts are not allowed. There will be a 25 pt. deduction for each spare part.

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Suggested Tools

The following is a list of suggested tools that should be considered when repairing your engines. These tools are not required and will not be scored for deductions.

 Calculator

 Oil Rags

 Writing Utensil