

Upgrade Kit Installation Instructions

for **HYSTER**

Read These Instructions Completely Before Beginning Installation

These instructions assume that the technician performing this work is experienced with gaseous fuel equipment, its operation and installation.*



Remove Old Carburetor

1. Purge the fuel system by closing the fuel tank valve. Run the engine until it stops.

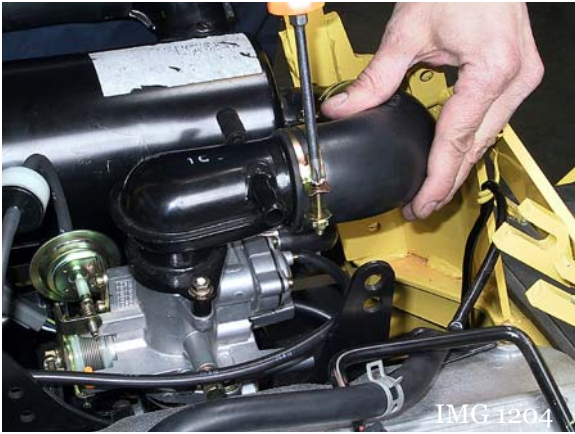


2. Disconnect the battery negative cable.



3. Remove the crankcase vent hose.

*Proper service and repair is important to the safe and reliable operation of all gaseous fueled engines. Any servicing or testing of a gaseous fueled engine must only be performed by accredited personnel. You must always follow installation and service procedures that apply to you. An example of these requirements is found in NFPA-52 for natural gas and NFPA-58 for LPG fuel. These are US standards. Worldwide standards vary. Local, city, and state requirements may also have certain requirements that you must be aware of.



4. Remove the air intake hose from the carburetor.



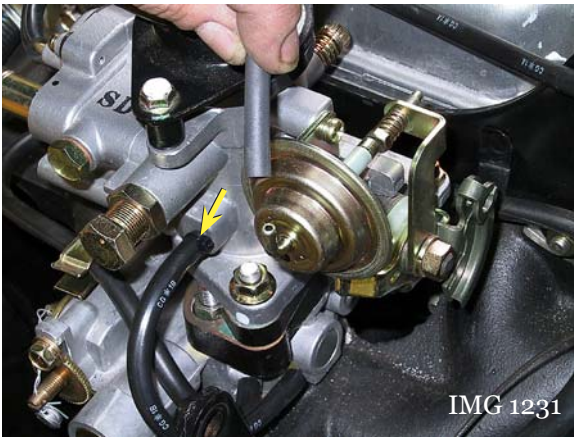
5. Disconnect the governor vent hose from the air cleaner housing. Remove the air cleaner housing.



6. Disconnect the fuel vapor hose from the carburetor.



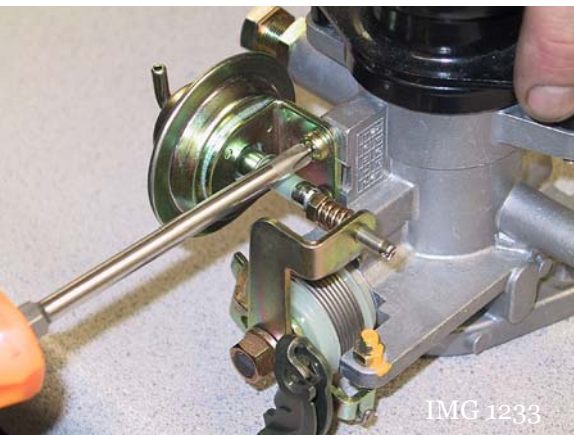
7. Disconnect the throttle cable from the carburetor.



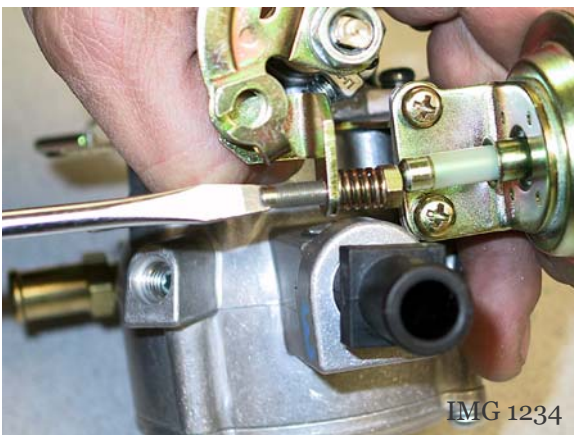
8. Disconnect the vacuum hoses, (three total), from the carburetor body and dashpot.



9. Remove the carburetor fasteners and the carburetor.



10. Remove the vacuum dashpot and the adjustment screw from the old carburetor. Save the screws for reuse.



Install IMPCO Upgrade Carburetor

11. Install the adjustment screw and the vacuum dashpot to the new IMPCO carburetor using the screws from the old carburetor.



12. Remove the nuts, washers and the old adapter plate. Save the nuts and washers for reuse.



13. Set aside the governor.



14. Remove the two studs from the intake manifold and reinstall making sure the shorter threaded end is installed in the intake manifold.



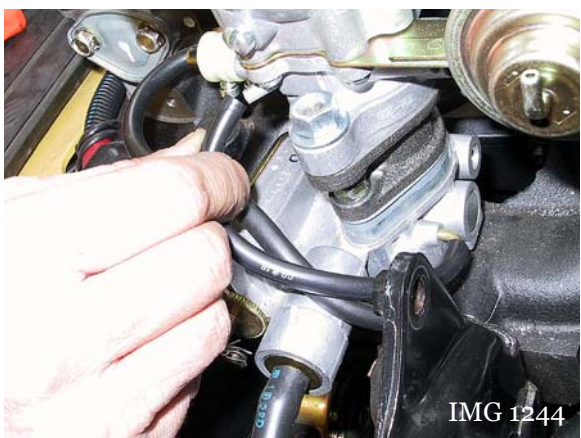
15. Reinstall the governor with a new gasket provided. Install the IMPCO spacer with the new gasket provided. Be sure to remove old gaskets.



16. Install the IMPCO carburetor adapter using a new gasket provided. Use the previously saved nuts and washers. Tighten the nuts to 17 lb ft (23 N•m).



17. Install the IMPCO carburetor to the adapter plate using a new gasket, nuts and washers provided. Tighten the nuts evenly to 17 lb ft (23 N•m).



18. Connect the vacuum hose from the governor to the carburetor throttle body (ported vacuum).



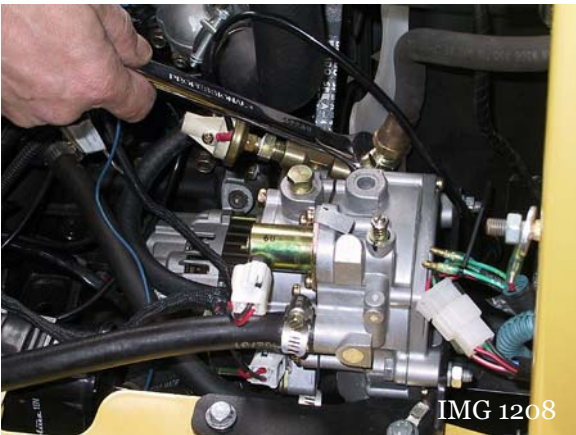
19. Remove the loose vacuum hose from the tee fitting and cap with the vacuum cap provided. Connect the end of the remaining vacuum hose to the carburetor vacuum dashpot.



20. Connect the throttle cable to the carburetor.

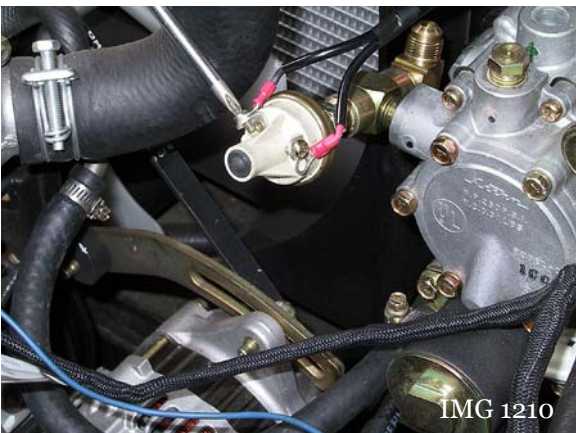


21. Adjust the throttle cable as shown, if necessary.



Remove Old Regulator Assembly, Electric Lockoff Controller, & Vent Canister

22. Disconnect the tank fuel line from the regulator.



23. If equipped, disconnect the electrical connectors from the low pressure switch. Save the screws for reuse.



24. Disconnect the electrical connector from the regulator solenoid.



25. Disconnect and remove the electric lockoff controller.



26. If equipped, reattach the electrical ground strap to the same location.



27. Disconnect the electric lockoff controller electrical connector.



28. Disconnect the electric lockoff controller ground strap from the engine valve cover



29. Disconnect the electric lockoff controller electrical connector from the ignition coil.



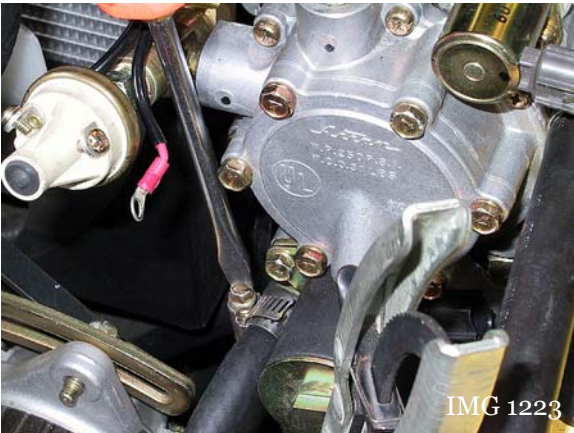
30. Disconnect and remove the regulator vent canister.



31. Place a drain pan under the lift to catch engine coolant when coolant hoses are disconnected.



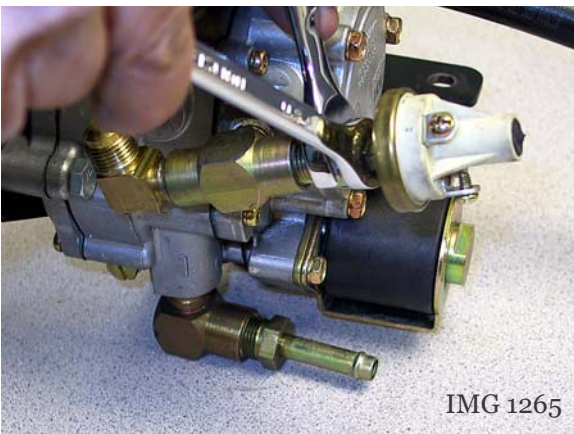
32. Clamp shut the engine coolant lines to the regulator.



33. Remove the coolant lines from the regulator assembly.



34. Remove the regulator assembly bracket bolts and remove the regulator assembly. Save the fasteners for installing the new IMPCO regulator/lockoff assembly.

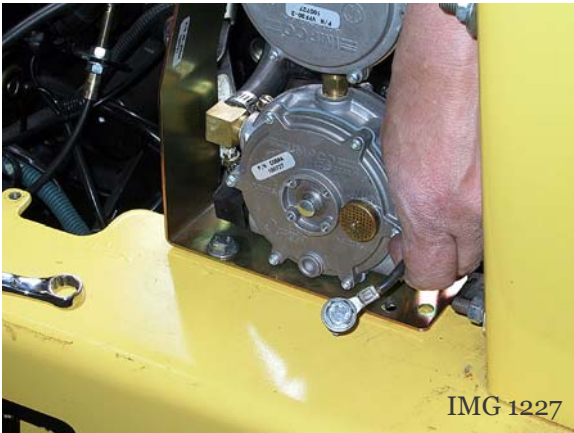


35. If equipped, remove the pressure switch from the old regulator assembly. Save for reuse.



Install IMPCO Upgrade Regulator/Lockoff Assembly

36. Apply liquid Teflon sealant to the fitting threads of the pressure switch. Install the switch to the new IMPCO upgrade kit vacuum lockoff inlet fitting. If not equipped with a low pressure switch, use a 1/8" NPT plug provided.



37. Install the new IMPCO regulator/lockoff assembly to the same location as the old regulator. Be sure to re-attach the electrical ground strap to the bracket. Tighten the regulator assembly bracket bolts to 17 lb. ft. (23 N·m).



38. Remove old regulator coolant hoses and connect the new IMPCO regulator hoses and tighten the clamps. NOTE: Coolant hoses are intentionally 6" long. To prevent kinks, cut the hoses to the correct length if necessary.



39. Connect the fuel tank high pressure hose to the vacuum lockoff inlet fitting. Torque fitting to 20 lb. ft. (27 N·m).



40. Connect the vacuum hose from the lockoff to the carburetor.



41. Connect the crankcase vent hose to the carburetor.



42. Connect the fuel vapor hose from the regulator to the carburetor and tighten clamp.



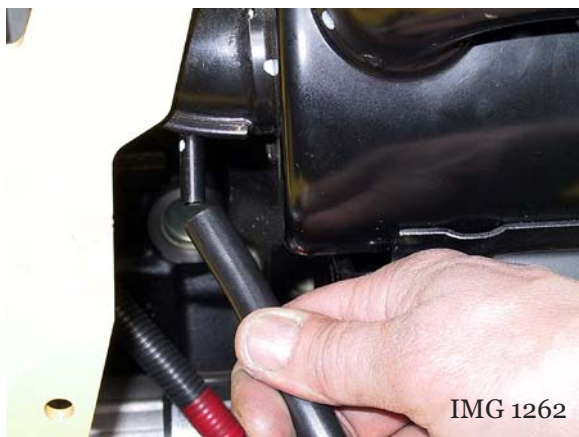
43. If equipped, secure the electrical connectors to the low pressure switch.



44. Cap the unused vent fitting on the air filter housing with a vacuum cap provided.



45. Reinstall the air cleaner housing.



46. Reinstall the governor vent hose to the air cleaner housing.



47. Connect the air intake hose to the carburetor and air cleaner housing using the new clamps provided.



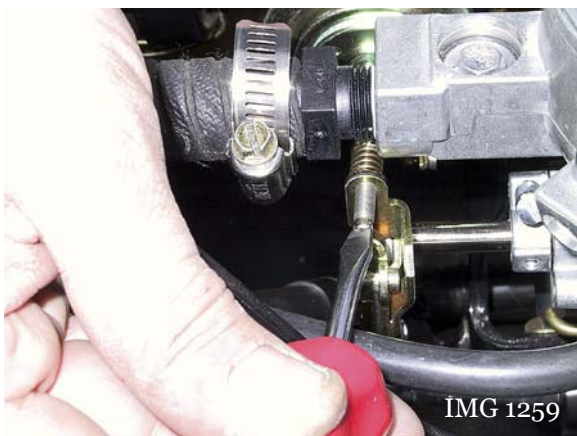
48. Open the fuel tank supply valve and perform a leak check at all fuel line and vapor hose connections. Repair leaks if necessary.
Fill the radiator with coolant as necessary.



49. Connect the battery negative cable.
Start the engine and bleed any air from the coolant system if necessary.
Run the engine to full operating temperature.



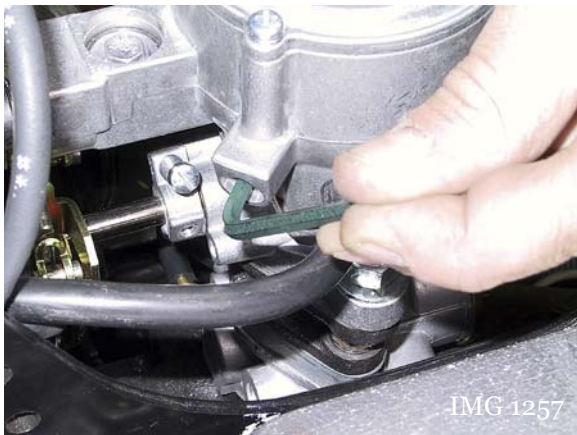
50. Use an engine exhaust gas analyzer and tachometer to:



51. Adjust the vacuum dashpot adjustment screw to 800 RPM at tilt relief with the transmission in neutral.



52. Adjust the engine idle speed at the carburetor to 800 RPM in neutral.



53. Set the idle air/fuel mixture to 0.80 % CO. *



54. Set the power adjustment on the carburetor. With the wheels blocked, parking brake on and foot on the brake pedal, depress the accelerator to full throttle position with the transmission in drive. Set the CO to 0.80%. *

* Idle and power adjustments for open-loop operation. For closed-loop kit # BP-8H-1 use adjustment procedure as described in PPI-46 installation instructions. Use the 0.100" orifice in the vent fitting.