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BURNS DOWNDRAFT MANIFOLDS

INFORMATION/INSTRUCTION/FEATURES



Warning - Make sure the fuel shut off is closed before starting to work!

1. **PORTS** - The ports on a Model A engine are 1 3/8"; on a Model B they are 1 1/2". These manifolds allow efficient use on either engine because the ports at the engine are smoothly tapered to 1 3/8" for an excellent port match on The Model A. For use on The Model B or an A with enlarged ports, the tapered port sizing should be carefully ground out to the size required. Do this with a sanding drum or grinder burr. This applies to both manifolds.

2. **FINS** - The earliest Burns single manifolds were made without fins. The single manifold you purchased is of the later design, with fins on top of the runners. All the used manifolds that I have seen have the fins near the ports "damaged". This was because they interfered with the exhaust manifold. Rather than eliminate the fin ends and the interference, we chose to produce them as original - if headers are used they don't cause a problem and look like they should. This manifold, when used with stock exhaust, MUST have the fins reduced in height for clearance. This can be done by sanding, filing, machining, etc. Carefully take them down until the intake ports go up enough to be in line with the exhaust ports. Reproduction exhaust manifold are somewhat larger in diameter than originals, so slightly more must be taken off the fins. Also, be aware that used exhaust manifolds tend to droop at the rear, which increases the problem. I recommend using a straight manifold with gland rings and a new gasket. The dual manifolds have none of this interference.

3. **HEAT PLATE** - This is the flat section that touches the exhaust manifold on the Burns single. Its purpose is to provide heat to the intake manifold for faster warm-up and better atomization of the fuel/air mixture. This plate is machined so that on a standard manifold the intake/exhaust port ends touch the engine block. To install, line up the manifold ports to each other and scribe the exhaust manifold flat. Use this to locate the holes in the new manifold. Drill the new manifold - you may have to elongate the holes for adjustment. Snug the bolts and check port alignment. Remember, being accurate pays dividends in smooth running. Install the intake/exhaust set-up on engine; snug washers/nuts on studs. Loosen the bolts holding the manifolds together and tighten nuts to 50 foot/lbs. Re-tighten the bolts holding manifolds together. The dual manifolds have no heat plate and therefore don't bolt to the exhaust manifold, simply line up the ports and tighten the washers and nuts onto the studs to 50 foot/lbs.