

Tom Marshall's Weekly News, January 9, 2006

Stanley Burner Parts Required: To me, it seems difficult to make the subject “semi-technical stuff” interesting. This week I’ll mention the original-type vaporizing Stanley burners. When I mention all the parts required, one might ask, “Why didn’t they simply use an oil burner like we use in our homes?” We could go on to ask, “Why didn’t they put a gasoline engine in the car, rather than fool with steam?” To answer the first question, the first practical atomizing burner was supposedly invented by Abner Doble about 1912, who sold his patents to the “No-Coal” people for manufacture of home-heating burners. Doble later did use atomizing burners in the 40 or so Doble steam cars produced in the 1920s. In answer to the second, obviously some people thought steam was better: a well-known type of power at the turn of the 20th century: quiet, simple, smooth, and powerful.

When describing a Stanley, we often say, “and the burner bolts to the bottom of the boiler” and let it go at that. A few ask whether Stanleys burn wood or coal. To explain a Stanley burner further, it *is vaporizing*, which means we burn no liquid fuel but must vaporize it first. Originally the fuel was gasoline (less refined than today, with no additives), and after 1913 Stanleys came equipped with kerosene burners. The burners were essentially the same with the exception of the vaporizer and pilot systems.

Here are the parts needed for a Stanley fuel system: burner grate casting, under-grate baffles, inside burner pan, mixing tubes, exterior burner pan, firebox liner with insulation, vaporizer coil, vaporizer cable, burner fork, nozzles and clean-out plugs, pilot casting with mixing tube, pilot vaporizer, pilot nozzle casting, pilot nozzle and clean-out screws, support framework from boiler, main fire valve, firing-up valve, pilot valve, air replacement valve (main), air replacement valve (pilot), automatic fuel by-pass valve, steam pressure fuel shut-off, main fuel shut-off valve, and fuel pressure retaining valve.