

through the vent hole in plug screwed in top of mixer. Close the shut-off valve until this ceases. Fill the tank with gasoline strained through a chamois skin to separate any water or dirt; see that a 1/16-inch hole is drilled in the filler pipe cap to give it vent (some of our tanks go out without these vent holes in cap).

First. Fill lubricators with good gas engine oil (not steam engine nor machine oil), raise the feed lever on the one which oils the cylinder regulating the adjustment screw so that the oil feeds about 15 drops a minute. The lubricator on the connecting rod is an automatic centrifugal one which only lubricates when the engine is running. There is an adjusting screw inside this oiler which can be raised to feed more oil or screwed down to decrease the flow of oil.

The main bearings are provided with an oil reservoir beneath them, which allows the oil to feed through a drilled hole in the lower half of main bearing.

Remove the two filler plugs on top of engine frame just in front of the main bearings and pour a half pint of gas engine oil down into the opening which communicates to the reservoir.

Always be sure to replace the plugs after filling the reservoir. Reservoir should be refilled after two weeks' steady run.

See that there is a piece of waste in the oil cup on the top of main bearings of the crank shaft and squirt two table-spoonsful of oil in these when first starting up; after this it is not necessary on those engines having the oil reservoir. On those not having reservoir it will be necessary every 3 or 4 hours' run. See that the needle valve of mixing valve is open $\frac{1}{2}$ to $\frac{3}{4}$ turn.

Second. Pump some gasoline into the mixing valve until it escapes through the vent hole in the plug on top of the "mixer." This pump can be easily operated by pressing down on the lever with your foot.

NOTE—In cold weather in addition to this it is well to squirt some gasoline into the air opening at the bottom of the mixer or you can close this air opening when first starting up, after which, open it.

Third. Fill priming cup on side of cylinder with gasoline; then open it and if the gasoline does not enter the cylinder, turn the fly-wheel very slowly until it does; keep the priming cup open until the engine is running, after which it should be closed.

Fourth. Pull the spark lever, which is attached near the larger of the two gears, back towards the cylinder, which retards the spark.

Fifth. Throw in the switch, grasp a spoke of the fly-wheel near the rim with each hand and quickly turn it to the right as you stand facing the fly-wheel, when explosion should take place, and after the first three or four explosions advance the spark lever by pulling it away from the cylinder, and leave it in that position when the engine is running. If retarded it will cause the engine to heat up and lose power. Also open quickly the throttle or damper in the mixer.