

MOBILE DREDGE PUMP FOR MOSQUITO CONTROL

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A useful and economic dredge pump has been developed at Fort Monmouth, N. J., for the excavation of muck bottom in tidal streams. Credit for the idea and construction of the unit belong to Victor Blondek and Captain J. Charles Morgan. The principle involved is that of pumping stream-bed material and water, the mixture of which may be deposited as a back fill along the banks of the stream.

The unit consists of a 4" centrifugal pump that may be purchased for \$375 or less. To this is attached a 15 foot length of 4" high pressure hose for intake suction and an appropriate length of hose for effluent flow. The power for this pump is furnished by a salvaged Jeep motor (4

cylinder, 60 horsepower). The engine cooling can be conveniently arranged by constant circulation of stream water filtered through an interchangeable glass-wool filter.

Since operation has been designed for dredging a narrow tidal stream, it is mounted on a raft floated on six (6) fifty-five (55) gallon drums. This raft is easily moved along the stream by two or three men. Operational costs involve approximately six (6) gallons of gasoline per day plus nominal upkeep costs on the engine.

Experience has shown that this dredge pump, operated by a three or four man crew, will clean 60-80 lineal feet of channel 8' wide and 20" deep in one day. It is estimated that approximately fifteen (15)

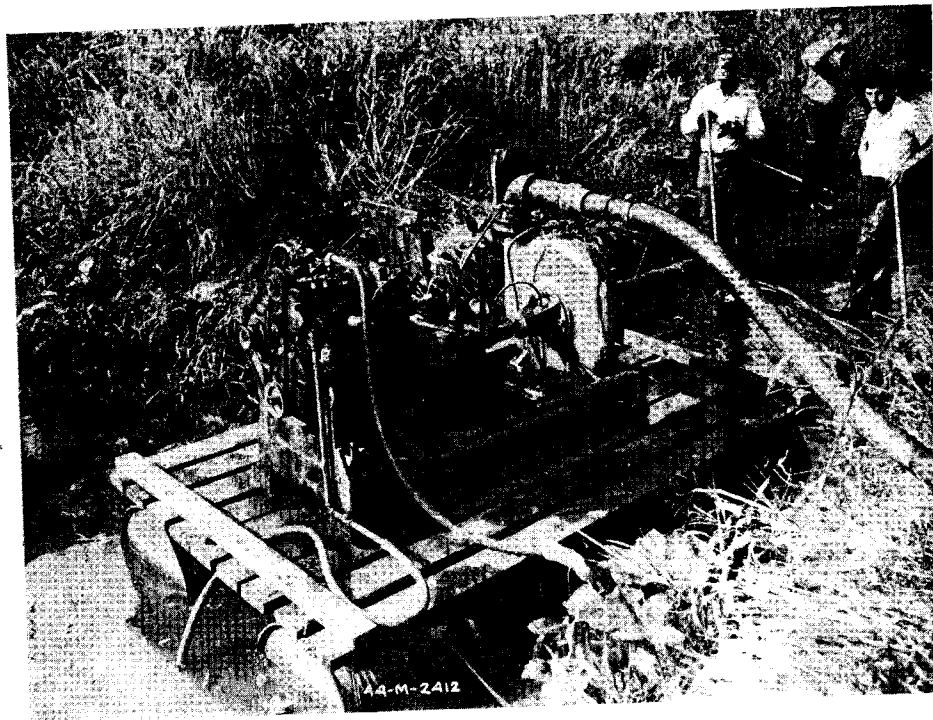


Fig. 1. Mobile dredge pump for mosquito control. Showing details of float construction.

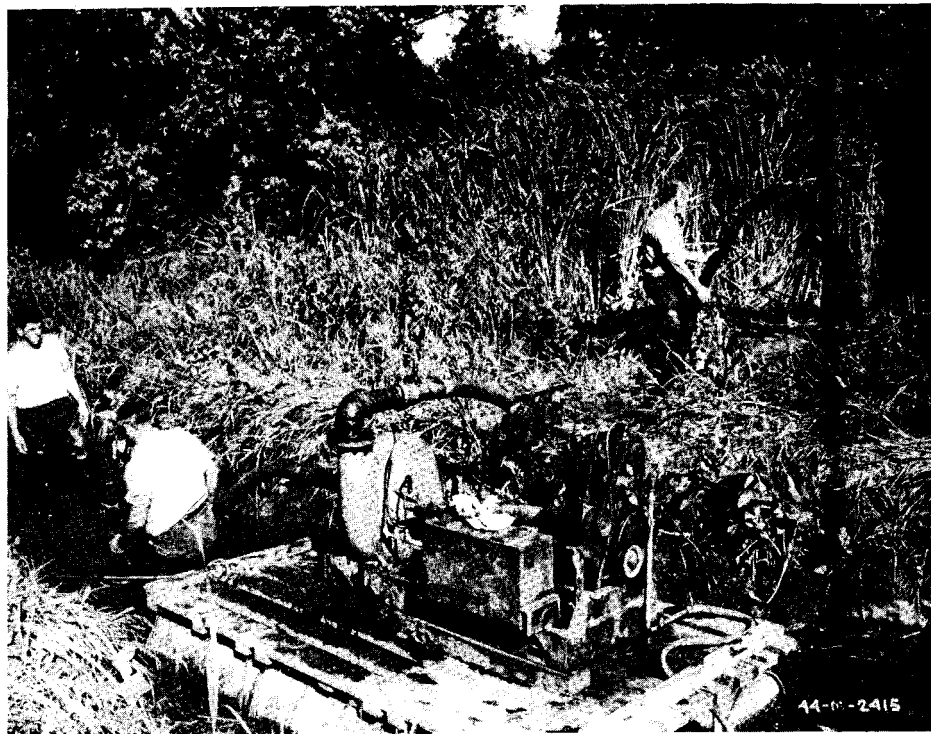


Fig. 2. Mobile dredge pump for mosquito control in operation.

laborers would be needed to accomplish this work by hand. Based on prevailing wages, about \$60 is saved per day. At Fort Monmouth, this dredge saved \$3000.00 in one year.

This convenient dredge offers the benefits of both removing the stream bottom

periodically and giving excellent distribution of back fill. Salt marsh drainage systems can be kept open and in a state of constant flow. The problem of transporting this unit is solved in the ingenuity of assembling the raft according to one's particular needs.