

 **Engine Pump**

**MODEL QP-304**

**INSTRUCTION MANUAL**

For correct operation  
please read carefully



**MATSUSAKA ENGINEERING CO., LTD**

## **BEFORE STARTING**

### **A) Installation**

When installing a centrifugal pump, always remember that the closer the pump is placed to the source of supply, the better will be its performance. To ensure maximum capacity, select a site that will permit the use of shortest and most direct suction piping, and smallest possible vertical lift.

Set pump on a foundation as firm and level as possible (as inclined installation over than 15 degrees may sometimes cause engine burning, and the higher the suction lift is, the more pumping capacity will be reduced).

### **B) Lubrication**

Fill the engine crank-case through lubricating oil hole with mobil oil (No. SAE-30 in summer, SAE-20 in winter season) to the level marked on indicator.

### **C) Fuel**

Use non-lead gasoline for automobiles.

### **D) Suction Piping**

Make certain that the packing is placed in the seat of hose coupling, and all the suction piping line is perfectly free from leak of air.

Also, make it certain that the suction piping line is laid gradually descending from the pump to the source of supply to avoid possible air reservoir through the line, and must be ended with required strainer.

E) Do not try to connect seriously.

F) Please arrange to set a check valve at the delivery end, when so required to apply for shut-and-open application by a cock set at the delivery piping.

## **OPERATION**

A) Remove the flooding cap at the top of the delivery, and set it again tightly after filling up the casing with prime water. (Open the gate valve on the delivery line, if so fitted.)

- B) Open the fuel cock, and close the engine choke, when the engine is cooled down, or not worked for a long time. (Open the engine choke gradually, when engine starts.)
- C) It will start to pump in a while as soon as the engine runs at the rated speed (which is attained when the engine speed control lever is set to the end of opposite position).
- D) QP-304 engine pump is self-priming type, and no more priming is required as long as the casing is filled with water.

## FINISHING

- A) Press down the stop button until the engine stops. (Slow down the engine speed, when driven at high speed, then stop the engine.)
- B) Close the fuel cock without fail.
- C) Drain the pump casing completely under freezing weather. (Drain in the pump may cause damage the pump by freezing.)

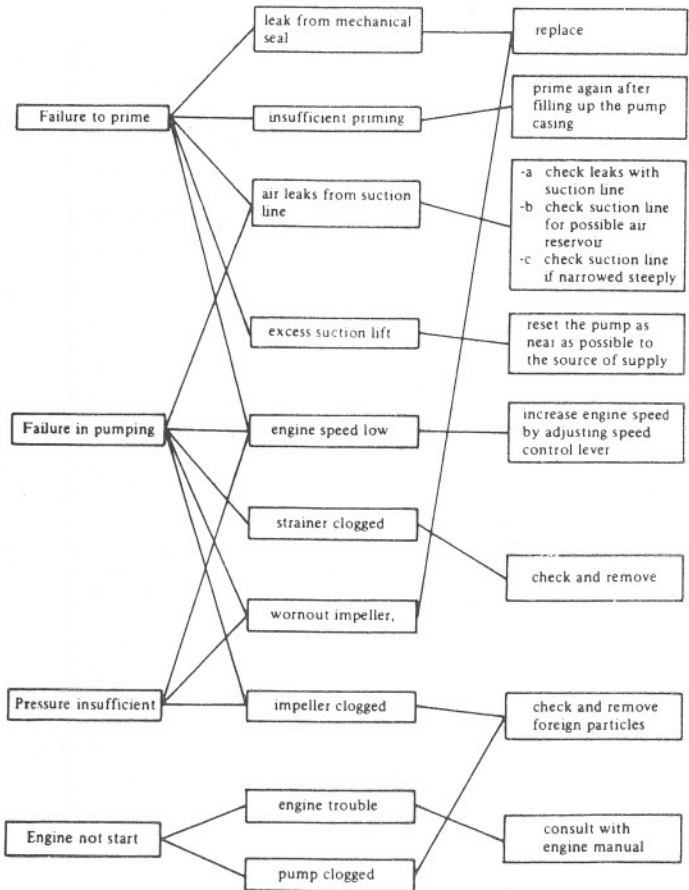
## MAINTENANCE

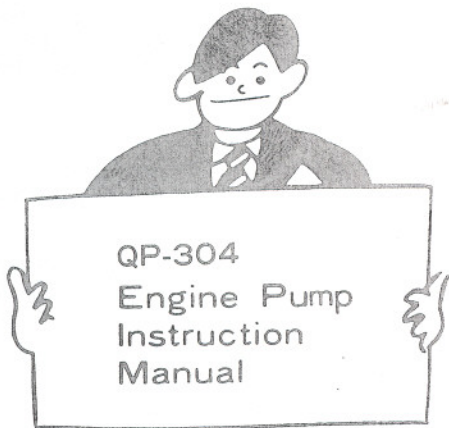
- A) Keep dry the pump inside completely.
- B) Keep the engine well covered from rain and dust.
- C) Handle with care.
- D) Remove fuel for long time storage.
- E) Keep the engine at its compressing stroke (where it gets loaded) for storing long time.

### Remarks:

- \* The engine life is determined mostly by oil checks. Please make it a rule to check the oil before starting engine.
- \* Please change the oil completely after 20 hours works with new pump set.
- \* Fill the pump with water whenever drive the engine. (Dry running will damage the mechanical seal.)

# USE OF TROUBLE & REMEDY





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