

TE series



# OWNER'S MANUAL

## OPERATION & SAFETY

ORIGINAL INSTRUCTIONS

### INTRODUCTION

We appreciate very much your kind application of TE engine pump that has been designed and developed under our long-term experience and original engineering technology in the pump industry.

TE pump is to transfer the water for various purposes. The pump is self-priming centrifugal type coupled with engine and stand-alone type. You may move it to the place of water supply and install there for usage. Please read carefully the contents of this manual for better and durable performance to be attained by the TE engine pump.

### TE engine pump has such special features as follows;

1. Light weight, rust-proof aluminum die-casting housing.
2. Easy handling portable type.
3. Cast iron volute casing is set in the casing, and interchangeable which assures the longer life by replacing the volute casing only.
4. Higher suction lift and short priming time.
5. High quality mechanical seal for shaft sealing.
6. Coupled with non misfire high quality engine.

### SAFETY INSTRUCTION

#### WARNING!

TE Water pump is designed to give safe and dependable service if operated according to instructions.

Read the owner's manual carefully before operating the water pump and do not run the pump in a way not instructed in this manual. Failure to do so could result in personal injury or equipment damage.

The muffler becomes very hot during operation and remains hot for a while after stopping the engine.

Be careful not to touch the muffler while it is hot. Let the engine cool before storing the water pump indoors.

The engine exhaust system will be heated during operation and remain hot even after stopping.

Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting engine.

Never run the engine in an enclosed or confined area. Exhaust contains poisonous carbon monoxide gas; exposure can cause loss of consciousness and may lead to death.

Children and pets must be kept away from the area of operation due to a possibility of burns from hot engine components.

**Caution and warning labels are attached on the engine for your safety. For details, refer to the enclosed owner's manual of engine.**

#### To ensure safe operation

Always make a pre-inspection before you start the engine so that any accidents or equipment damages could be prevented.

For safety, never pump flammable or corrosive liquids such as gasoline or acid. Also to avoid corrosion on the pump, never pump sea water, chemical solutions, or caustic liquids such as used oil, wine or milk.

To prevent fire hazards and to provide adequate ventilation, keep the pump at least 1 meter (3 feet) away from building walls and other equipment during operation. Do not place flammable objects close to the pump.

Know how to stop the pump quickly, and understand the operation of all controls. Never permit anyone to operate the pump without proper instructions.

Gasoline is extremely flammable and is explosive under certain conditions.

-Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the refueling area or where gasoline is stored.

-Do not overfill the tank. After refueling, make sure the tank cap is closed properly and securely.

### 1. BEFORE STARTING

#### A) INSTALLATION

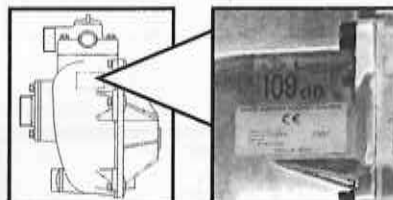
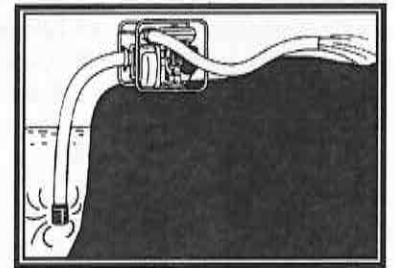
When installing a centrifugal pump, always remember that the closer the pump is placed to the source of supply, the better will be its performance. To ensure maximum capacity, select a site that will permit the use of shortest and most

direct suction piping, and smallest possible vertical lift.

Water source should be more than maximum discharge capacity described on the nameplate of the pump.

Set pump on a foundation as firm and level as possible (as inclined installation over than 14 degrees may sometimes cause engine burning, and the higher the suction lift is, the more pumping capacity will be reduced).

Due to engine-driven, some level of noise will arise in its operation. For reducing noise level if necessary, you may install it in the place surrounded by walls in all directions. The A-weighted emission sound pressure level of TE pump is shown in attached "declaration of conformity" and also it is labeled to the pump.



CE mark and sound pressure level are labeled on the surface of the pump casing in most cases.

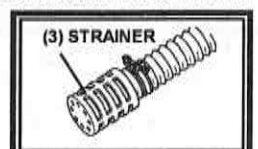
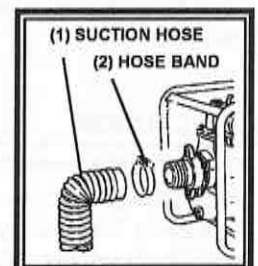
#### B) CONNECT THE SUCTION HOSE

Use commercially available hose, hose connector, and hose band.

The suction hose must be of reinforced, no collapsible construction. Suction hose length should not be longer than necessary, as pump performance is best when the pump is not far above the water level.

Self-priming time is also proportional to hose length.

The strainer that is provided with the pump should be attached to the end of the suction hose with a band as shown.



NOTE: Tighten the hose band securely to prevent the hose from disconnecting under high pressure.

(1) SUCTION HOSE (2) HOSE BAND (3) STRAINER

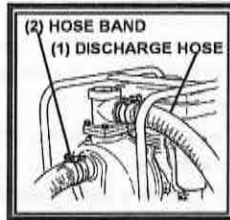
**! CAUTION!**

Always install the strainer on the end of the suction hose before pumping. The strainer will exclude debris that can cause clogging or impeller damage.

**C) CONNECT THE DISCHARGE HOSE**

Use a commercially available hose, hose connector, and hose band.

A short, large-diameter hose is most efficient. Long or small-diameter hose increases fluid friction and reduces pump output.



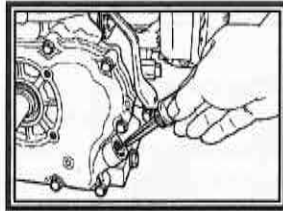
NOTE: Tighten the hose band securely to prevent the hose from disconnecting under high pressure.

(1) DISCHARGE HOSE (2) HOSE BAND

**D) LUBRICATION**

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

Please change the oil completely after 20 hours works with new pump set. In case of the pump with oil bath, lubricating oil is required for the pump as shown in the parts list.



**! CAUTION!**

Engine oil is a major factor affecting engine performance and service life. Before starting engine, check if engine oil is filled to required level and also change it periodically. Read the engine manufacturer's owner's manual for instructions.

**E) FUEL**

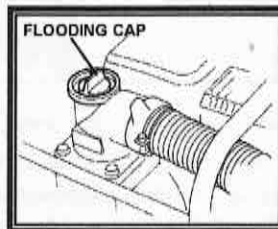
Use non-leaded gasoline for automobiles to gasoline engine, or diesel fuel to diesel engine.

**! CAUTION!**

For gasoline engine, never use an oil/gasoline mixture or dirty gasoline. Avoid getting dirt, dust or water in the fuel tank. Do not use old fuel (over 30 days), which may cause engine failure.

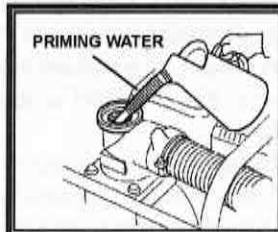
**2. OPERATION**

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.)



**! CAUTION!**

Never attempt to operate the pump without priming water, otherwise the pump will overheat. Extended dry operation will destroy the pump seal. If the unit has been operated dry, stop the engine immediately and allow the pump to cool before adding priming water.



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) Engine pump is self-priming type, and no more priming is required as long as the casing is filled with water.

E) In the event of accident or breakdown, do not run the pump further and follow 5. USE OF TROUBLE & REMEDY of this instruction or consult with the agent or the shop from where you bought it.

**3. FINISHING**

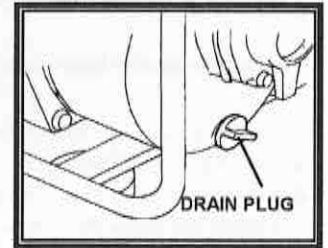
A) Press down the stop button until the engine stopped.

(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.)



**4. TRANSPORTING & STORAGE**

**! WARNING!**

To avoid service burns or fire hazards, let the engine cool before transporting the pump or storing it indoors. When transporting the pump, turn the fuel valve to the OFF position, and keep the pump level to prevent fuel spillage. Spilled fuel or fuel vapor may ignite. When you move or lift the pump, be careful not to handle by yourself only. If you force yourself too much, pull down or drop the pump by mistake, it may cause the personal injury or damage on the pump. You may need suitable support from other persons or machine operator of lifter. There is a hook on the frame for rather heavy pump and the crane shall be hooked here for lifting.

Before storing the pump for an extended period;

A) Be sure the storage area is free of excessive humidity and dust.

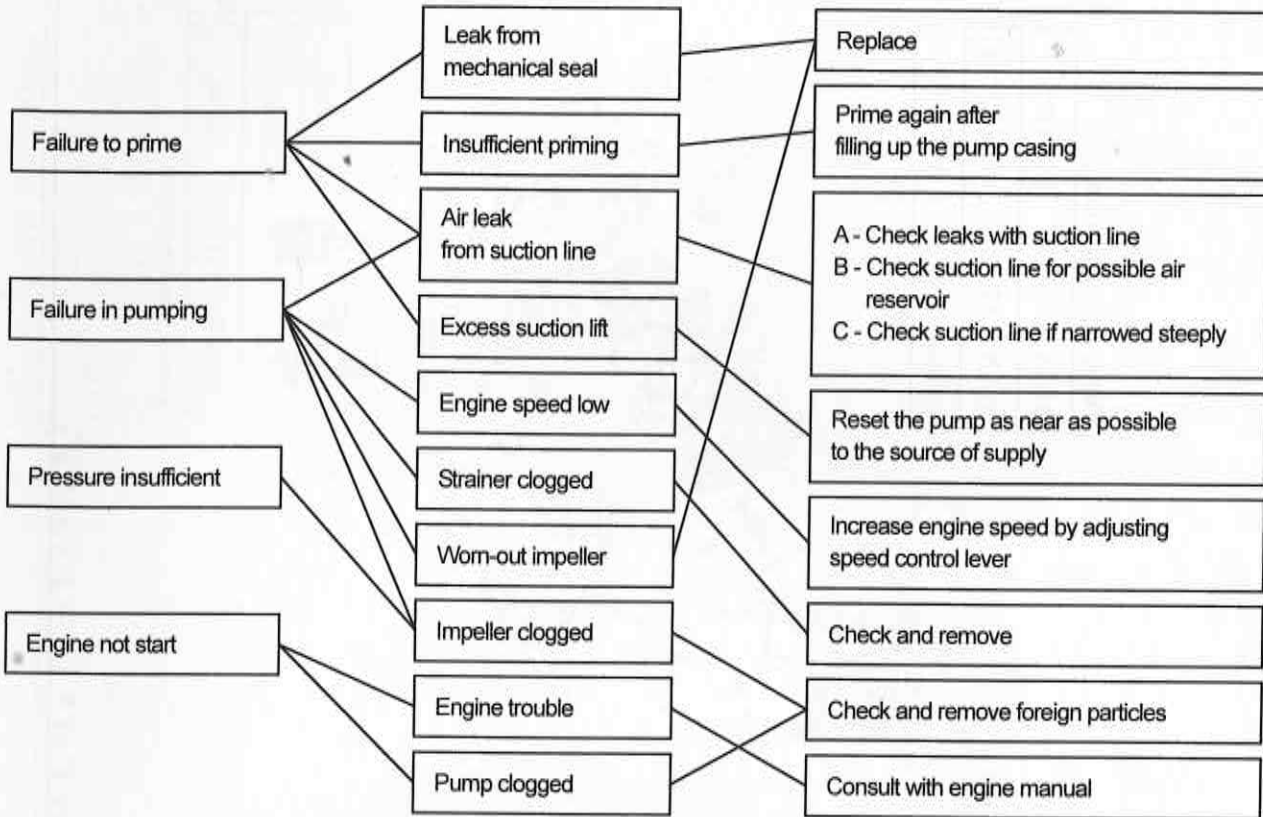
B) Clean the pump interior. Sediment will settle in the pump if it has been used in muddy or sandy water, water containing heavy debris. Pump clean water through the pump before shutting down or impeller may be damaged when restarting. After flushing, remove the pump drain plug, drain as much water as possible from the pump housing and reinstall the plug.

C) Drain the fuel. With the fuel valve OFF, remove the drain screw from carburetor float bowl and drain the carburetor. Turn the fuel valve ON and drain the gasoline (or diesel) in the fuel tank into the suitable container. Reinstall the carburetor drain screw.

D) Change the engine oil.

E) Keep the engine at its compressing stroke (where it gets loaded) for storing long time.

## 5. USE OF TROUBLE & REMEDY



The tools necessary for initial repair or refit are packed together as a standard accessory. Use genuine spare parts provided by the agent or the shop.

NOTE 1: In case of water leakage between engine and pump, usually the cause is damaged mechanical seal. Ask the shop for assistance and replace mechanical seal.

NOTE 2: In case of suction failure;

A) Remove suction hose.

B) Start engine with water inside the pump.

C) Press the palm of your hand to cover the suction hole and wait 30 seconds. If you feel suction on your palm, the pump is working fine. Hose connection may need to be corrected.

NOTE 3: As to the maintenance and trouble shooting of engine, follow the engine manufacturer's owner's manual.

### CAUTION!

If you finally dispose the pump, you are requested to treat it in accordance with the rule in your country or region.

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declare under our sole responsibility that the product in the event of an alteration of the machine(s) not carried out in consultation and agreement with us this declaration shall lose its validity.  
declérons, sous notre seule responsabilité, que le produit En cas de modification de la(des) machine(s) exécutée sans notre consultation ni notre accord, la présente déclaration perd toute valeur.  
Erklären hiermit unsere alleinige Haftung dafür, daß das Produkt im Falle einer Veränderung des Geräts ohne vorherige Beratungen oder Zustimmung von uns, verliert diese Erklärung ihre Gültigkeit und ist nicht bindend.  
Dichiariamo sotto la nostra unica responsabilità che il prodotto La presente dichiarazione perderà la propria validità qualora vengano apportate modifiche alle macchine  
Declaramos bajo nuestra responsabilidad, que esta declaración pierde toda su validez en caso de alteración del ( de los ) producto ( s ) efectuada sin consultarnos y sin obtener nuestra autorización.  
declaramos sob nossa inteira responsabilidade que na eventualidade do produto sofrer uma alteração da(s) máquina(s), sem nos consultar e sem o nosso acordo, esta declaração perderá a sua validade.  
Deklarujemy z pełną odpowiedzialnością, iż w przypadku jakiegokolwiek zmiany dotyczącej produktu, przeprowadzonej bez naszej wiedzy i zgody, niniejsza deklaracja traci swą ważność.

Designation of the machine(s):	Engine Driven Water Pump	Type(s):	TEM25H (0.72 kw)
Designation de la (des) machine(s):	Pompe à eau Pour Moteurs	Type(s) :	TEF25HA (1.60 kw)
Maschinenbezeichnung:	Motor-Wasserpumpe	Typ(en):	TEF3-50H (3.60 kw) TEF3-50R (3.70 kw)
Denominazione della macchina:	Acqua Pompa a Motore	Tipo(i) :	TEF2-40H / TEF2-40R (2.60 kw)
Designación del (de los) artefacto(s):	Agua Bomba del Motor	Tipo(s):	TEW2-50HA (6.0 kw)
Designação da(s) máquina(s):	Bomba de Água Accionada por Motor	Tipo(s)::	TEF3-50RD (3.50 kw)
Przeznaczenie urządzenia(-en):	Pompa Wodna napędzana silnikiem	Typ(y):	

to which this declaration relates is in conformity with the following standard(s) or other normative document(s)  
aquel se rattache la présente déclaration, est conforme a la(aux) norme(s) standard ou autre(s) document(s) normatif(s) suivants;  
auf das sich diese Erklärung bezieht, den folgenden Standards oder Nomen bzw Normenblättern  
a cui la presente dichiarazione fa riferimento e contome aile seguenti normative o ad altri documenti regolamentari  
al que se refiere la presente declaración esta conforme con la(las) norma(s) standard u otro(s) documento(s) normativo(s) siguiente(s):  
a que se refere esta declaração está em conformidade com a(s) seguinte(s) normas(s) ou outro(s) documento(s) normativo(s):  
ktorej dotyczy niniejsza deklaracja, jest zgodna z wymaganiami lub innymi dokumentami normatywnymi

(if applicable) following the provisions of  
(si dapplication) d'après les dispositions de la directive;  
(falls anwendbar) folgenden Bestimmungen der Verordnung BZW. Richtlinie  
(se aplicabile) secondo le disposizioni della direttiva;  
(Si es aplicable) según las disposiciones da directiva;  
(se aplicável) segundo o disposto na directiva  
(jeśli mają zastosowanie) następujących Dyrektyw:

2000/14/EC (ANNEX V)  
2006/42/EC

measured sound power level	TEM25H	Guaranteed sound power level	TEM25H
niveau sonore mesuré	102 dB(A)	Niveau sonore garanti	104 dB(A)
Gemessener Geräuschpegel	TEF25HA / TEF2-40H / TEF2-40R	Garantierter Geräuschpegel	TEF25HA / TEF2-40H / TEF2-40R
Livello della potenza del suono misurato	TEF3-50H / TEF3-50R / TEW2-50HA	Livello della potenza del suono garantito	TEF3-50H / TEF3-50R / TEW2-50HA
Nivel de potencia de sonido medida	105 dB(A)	Nivel de potencia de sonido garantizada	109 dB(A)
nível medido da potência sonora	TEF3-50RD	Nível garantido da potência sonora	TEF3-50RD
Zmierzony poziom mocy akustycznej	109 dB(A)	Gwarantowany poziom mocy akustycznej	113 dB(A)

Reference to the harmonized standards:  
Reference aux normes harmonisées:  
Verweis auf harmonisierte Normen:  
Riferimento agli standard armonizzati:  
Referencia de los estandar armonizados:  
Referência às normas harmonizadas:  
Zastosowane normy zharmonizowane:

EN809:1998

**Hiroshi Nakanishi**



Done at:  
Fait a:  
Durchgeführt von:  
Realizzato da:  
Medido en:  
Efectuado em:  
Miejsc:

**Kyoto, Japan**

Date:  
Date:  
Datum:  
Data:  
Fecha:  
Data:  
Data:

**Feb. 14, 2011**

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