

[illegible]

ASSEMBLY



- 1) Install the impeller onto the shaft and secure it.
- 2) Secure the impeller onto the shaft.
- 3) Install the shaft into the housing and secure it.
- 4) Secure the shaft into the housing and secure it.
- 5) Secure the housing onto the shaft and secure it.

- 6) Secure the housing onto the shaft and secure it.
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- 8) Secure the housing onto the shaft and secure it.
- 9) Secure the housing onto the shaft and secure it.
- 10) Secure the housing onto the shaft and secure it.

Note: The impeller and housing are made of cast iron. Do not use them for other purposes.

Figure 1



Figure 2



Note: The impeller and housing are made of cast iron. Do not use them for other purposes.

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DISASSEMBLY



- 1) Remove endcover screw, endcover and gasket.
- 2) Remove impeller cover screw, impeller cover.
- 3) Disconnect and separate the top endcover screws of bottom side.
- 4) Loosen the screw above the endcover, push the endcover screw hole to slightly separate the endcover from the motor.
- 5) Loosen the top endcover screw completely and, following this, turn the 2 endcover screws, until completely separated.
- 6) Remove endcover, impeller and bearing shaft.

- 7) DISASSEMBLY: Refigure 3 shows the part and disassembling method. Impeller and endcover screws turning in these. Impeller screw turning the part. Impeller cover screw also, however, turning the part in only and 2 screws 1/2" away from the edge movement to avoid disconnection.
- 8) Reassembling order: Reassembling order of motor shaft.

Note: Do not forget to install endcover and impeller bearing rings of part for each change. Impeller is necessary.

Figure 2



Figure 3



After the replacement of bearing 3 is recommended that the pump is returned to your distributor for service.

DISASSEMBLY

- 1) Loosen bearing endcover bearing endcover and impeller screw, remove endcover.
- 2) Push impeller into body until screws. Then, push the screw up, disassembling endcover and impeller, until completely separated.
- 3) Loosen screw above the endcover, push the endcover screw hole to slightly separate the endcover from the motor.
- 4) Loosen the screw above the endcover, push the endcover screw hole to slightly separate the endcover from the motor. Then, turn the 2 endcover screws, until completely separated.
- 5) Loosen the top endcover screw completely and, following this, turn the 2 endcover screws, until completely separated.
- 6) Remove endcover, impeller and bearing shaft.

Note: Do not forget to install endcover and impeller bearing rings of part for each change. Impeller is necessary.

- 7) Reassembling order: Reassembling order of motor shaft.
- 8) Do not forget to install endcover and impeller bearing rings of part for each change. Impeller is necessary.
- 9) Loosen the top endcover screw completely and, following this, turn the 2 endcover screws, until completely separated.
- 10) Loosen the screw above the endcover, push the endcover screw hole to slightly separate the endcover from the motor.
- 11) Loosen the screw above the endcover, push the endcover screw hole to slightly separate the endcover from the motor. Then, turn the 2 endcover screws, until completely separated.
- 12) Loosen the top endcover screw completely and, following this, turn the 2 endcover screws, until completely separated.
- 13) Loosen the screw above the endcover, push the endcover screw hole to slightly separate the endcover from the motor.
- 14) Loosen the screw above the endcover, push the endcover screw hole to slightly separate the endcover from the motor. Then, turn the 2 endcover screws, until completely separated.

Table 1

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| <p>17 Temperature - Temperature is the average kinetic energy of the particles in a substance. The temperature of a gas can be measured using a thermometer. The temperature of a liquid can be measured using a thermometer. The temperature of a solid can be measured using a thermometer.</p> <p>18 Pressure - Pressure is the force exerted per unit area. The pressure of a gas can be measured using a manometer. The pressure of a liquid can be measured using a manometer. The pressure of a solid can be measured using a manometer.</p> <p>19 Volume - Volume is the space occupied by a substance. The volume of a gas can be measured using a gas syringe. The volume of a liquid can be measured using a measuring cylinder. The volume of a solid can be measured using a measuring cylinder.</p> <p>20 Mass - Mass is the amount of matter in an object. The mass of a gas can be measured using a balance. The mass of a liquid can be measured using a balance. The mass of a solid can be measured using a balance.</p> <p>21 Density - Density is the mass per unit volume. The density of a gas can be measured using a gas syringe. The density of a liquid can be measured using a measuring cylinder. The density of a solid can be measured using a measuring cylinder.</p> <p>22 Boiling Point - Boiling point is the temperature at which a liquid changes to a gas. The boiling point of a gas can be measured using a thermometer. The boiling point of a liquid can be measured using a thermometer. The boiling point of a solid can be measured using a thermometer.</p> <p>23 Melting Point - Melting point is the temperature at which a solid changes to a liquid. The melting point of a gas can be measured using a thermometer. The melting point of a liquid can be measured using a thermometer. The melting point of a solid can be measured using a thermometer.</p> <p>24 Freezing Point - Freezing point is the temperature at which a liquid changes to a solid. The freezing point of a gas can be measured using a thermometer. The freezing point of a liquid can be measured using a thermometer. The freezing point of a solid can be measured using a thermometer.</p> <p>25 Sublimation - Sublimation is the process by which a solid changes to a gas without passing through the liquid state. The sublimation point of a gas can be measured using a thermometer. The sublimation point of a liquid can be measured using a thermometer. The sublimation point of a solid can be measured using a thermometer.</p> <p>26 Condensation - Condensation is the process by which a gas changes to a liquid without passing through the solid state. The condensation point of a gas can be measured using a thermometer. The condensation point of a liquid can be measured using a thermometer. The condensation point of a solid can be measured using a thermometer.</p> <p>27 Evaporation - Evaporation is the process by which a liquid changes to a gas without passing through the solid state. The evaporation point of a gas can be measured using a thermometer. The evaporation point of a liquid can be measured using a thermometer. The evaporation point of a solid can be measured using a thermometer.</p> <p>28 Diffusion - Diffusion is the process by which particles spread out from an area of high concentration to an area of low concentration. The diffusion rate of a gas can be measured using a gas syringe. The diffusion rate of a liquid can be measured using a measuring cylinder. The diffusion rate of a solid can be measured using a measuring cylinder.</p> <p>29 Osmosis - Osmosis is the process by which water molecules move from an area of high concentration to an area of low concentration through a semi-permeable membrane. The osmosis rate of a gas can be measured using a gas syringe. The osmosis rate of a liquid can be measured using a measuring cylinder. The osmosis rate of a solid can be measured using a measuring cylinder.</p> <p>30 Electrolysis - Electrolysis is the process by which an electric current is used to decompose a substance. The electrolysis rate of a gas can be measured using a gas syringe. The electrolysis rate of a liquid can be measured using a measuring cylinder. The electrolysis rate of a solid can be measured using a measuring cylinder.</p> <p>31 Chemical Reaction - A chemical reaction is a process in which one or more substances are converted into one or more new substances. The chemical reaction rate of a gas can be measured using a gas syringe. The chemical reaction rate of a liquid can be measured using a measuring cylinder. The chemical reaction rate of a solid can be measured using a measuring cylinder.</p> <p>32 Physical Change - A physical change is a change in which the substance remains the same but its physical properties change. The physical change rate of a gas can be measured using a gas syringe. The physical change rate of a liquid can be measured using a measuring cylinder. The physical change rate of a solid can be measured using a measuring cylinder.</p> <p>33 Chemical Change - A chemical change is a change in which the substance changes into a new substance. The chemical change rate of a gas can be measured using a gas syringe. The chemical change rate of a liquid can be measured using a measuring cylinder. The chemical change rate of a solid can be measured using a measuring cylinder.</p> <p>34 Reversible Change - A reversible change is a change in which the substance can be changed back into its original state. The reversible change rate of a gas can be measured using a gas syringe. The reversible change rate of a liquid can be measured using a measuring cylinder. The reversible change rate of a solid can be measured using a measuring cylinder.</p> <p>35 Irreversible Change - An irreversible change is a change in which the substance cannot be changed back into its original state. The irreversible change rate of a gas can be measured using a gas syringe. The irreversible change rate of a liquid can be measured using a measuring cylinder. The irreversible change rate of a solid can be measured using a measuring cylinder.</p> | <p>36 Boiling Point - Boiling point is the temperature at which a liquid changes to a gas. The boiling point of a gas can be measured using a thermometer. The boiling point of a liquid can be measured using a thermometer. The boiling point of a solid can be measured using a thermometer.</p> <p>37 Melting Point - Melting point is the temperature at which a solid changes to a liquid. 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Abstract



THE UNIVERSITY OF CHICAGO

1. **Identify the problem:** The problem is that the company is not meeting its sales targets.

JAMES R. HANCOCK

