

# A-8591 WATER PUMP KIT INSTRUCTIONS

1. Assemble the components from the kit in your old pump casting per the line drawing below.
2. If you have an original radiator on your model A, you can use the shaft/impeller assembly the way they are. If you have a repo radiator you will need to grind or file some of the props on the impeller. There are 3 props on the impeller that pump the water. We recommend grinding or filing down 1/3 of each of the 3 props. This will slow down the pumping rate of the pump. The reason is that repo radiators are much more efficient than the original radiators. Repo radiators are more efficient because they have smaller tubes to dispense the heat. Consequently they can not handle the same flow rate as original radiators. There is a drawing below showing how to grind your impeller.
3. Bolt the pump on the head and check for end play. If there is too much end play, the fan may hit the pump casting, or the impeller may hit the inside of the head. If you turn the fan and find something hitting, you have two alternatives. Firstly, you can purchase a pump shaft collar. The collar slips over the end of the shaft at the nose of the pump and prevents the shaft from moving in and out. Option #2 is to weld onto the back end of the shaft and grind it down until you have eliminated end play. You want to have about .030" end play. End play is caused by wear in the head. If you look back into the head, you will see a hole bored where the end of the shaft rides. Originally this surface was perfectly flat. As miles are put on the motor, the shaft would bore a hole into the head. This is why there is usually end play in most pumps.
4. Grease both the front and rear grease fittings on the pump. These fittings should be greased every 500 miles. (fittings are not supplied with the kit)
5. Install the fan belt and set the belt deflection at about 1". Overtightening will cause the front bearing to fail prematurely

