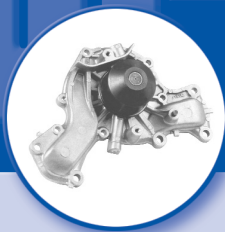


# CARDONE ProTech

Supporting Today's Professional Technician



## Water Pump Failure Caused by Faulty Pulley or Fan Clutch

### Application:

All water pumps with bolt on pulley or fan.

### Problem:

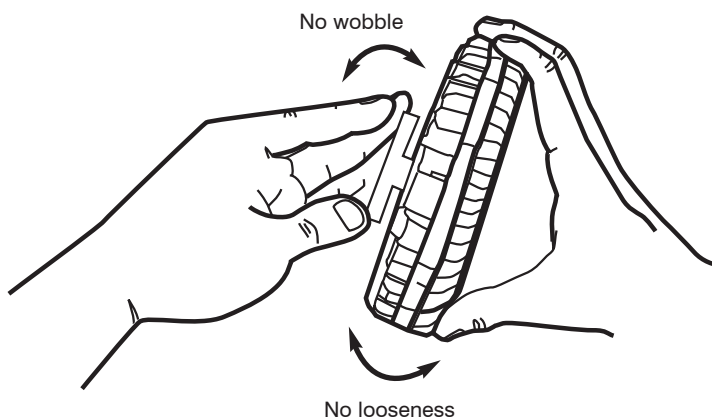
Water pump hub loosens or comes off, snapped shaft or failed bearing.

### Cause:

Defective or out-of-round pulley, defective clutch assembly, damaged fan, or improper installation of fan and clutch assembly.

### Solution:

Check fan and mounting hardware for damage and replace if necessary (Refer to ProTech PT 58-0002 for information about pump damage caused by defective fan assemblies). Carefully inspect all original components that mount to the water pump hub. Be sure to follow all vehicle specific inspection and installation procedures (refer to CARDONE supplied instructions and the vehicle's service manual). The graphic below shows the clutch assembly being inspected for wobble. Proper alignment of this component is essential to prevent wobble. Before installing drive belt, spin fan assembly to ensure unit turns true.



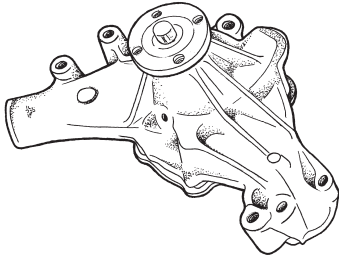
### Note:

Always flush entire cooling system. Failure to do so will lead to premature pump failure and VOID THE WARRANTY.

For other ProTech publications, visit [www.cardone.com](http://www.cardone.com)  
CARDONE Industries, Inc. • 5501 Whitaker Ave. • Philadelphia, PA 19124-1799

# Water Pumps

## Remanufactured Best by CARDONE<sup>®</sup>



- Smog Air Pumps
- Vacuum Pumps
- Water Pumps

**Bearings** - Because CARDONE insists on high quality and reliability in every part, our use of bearings is dependent upon the type of application.

Ball/Ball bearings are used mainly on passenger cars and light duty truck applications. Ball/Roller bearings are used mainly on high torque applications, because they are more durable. This is because the roller takes up more surface area on the shaft.

CARDONE recognizes that high torque applications require Ball/Roller bearings. Therefore, when required, CARDONE will replace Ball/Roller bearings with Ball/Roller and **not substitute** a Ball/Ball bearing like some competitors. In various instances, a water pump with an OEM supplied Ball/Ball bearing is **upgraded** to a Ball/Roller bearing in order to better meet the application requirements.



Ball/Roller

Ball/Ball

- 36 month or 36,000 mile warranty
- Contact your local auto parts store or visit our web site, [www.cardone.com](http://www.cardone.com), for more information on this and other CARDONE products today!

