



THE MODEL T FORD

ITS REPAIR, SERVICE, & RESTORATION

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Rebuilding Fan and Pulley Assembly

The Ford radiator fan is sometimes neglected for maintenance, so fans can develop a “wobble” due to wear. The parts can be replaced once the fan is disassembled and this short review may help in performing the task. The fan and pulley assembly shown below is the 1920-1924 style, but the process is similar for earlier and later fan and pulley versions.



Remove the blade and pulley assembly from the fan bracket by first removing the cotter pin and shaft nut.



Next, back out the four fan assembly retaining screws and lock washers and separate the fan blade assembly from the pulley.



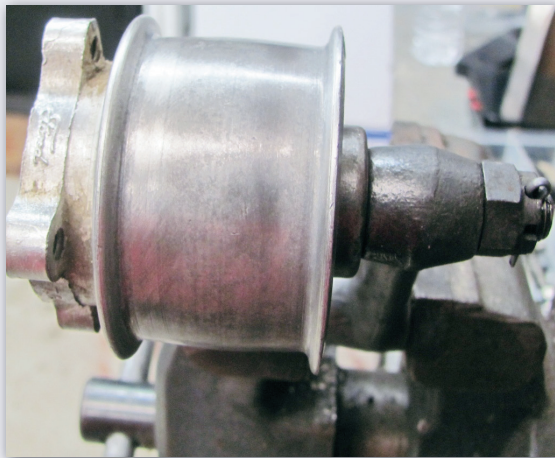
The pulley housing is now open and the end of the fan shaft is exposed. Since the shaft end has two flat areas on its edge, the appropriate tool is needed to turn the threaded shaft out of the threaded fan bracket. Holding the bracket in place and using a Crescent wrench on the fan shaft is one way to remove it.





With the shaft removed, check wear of the bushing and replace the bushings and shaft with new ones as needed. Once the shaft and bushings are cleaned, checked, and free, oil the shaft and place it back into the cleaned pulley. Be sure the fan shaft internal oil passage is free. Sometimes grease is used in the fan hub and it can accumulate and plug the flow of lubricant; heavy oil is preferred.

Pre-oil and place a new felt gasket in the fan shaft cupped cap washer and slip it over the threaded shaft so it is snug to the pulley. Turn the threaded shaft end into the fan bracket (be sure the bracket faces correctly). Adjust with a wrench on the flat edges of the shaft, turning the shaft into the bracket. Spin on the castle nut until the cotter pin aligns. Test the pulley for free wheeling, without excessive play or wiggle. Adjust the tightness of the threaded shaft into the bracket as necessary for smooth pulley action, then secure the cotter pin.



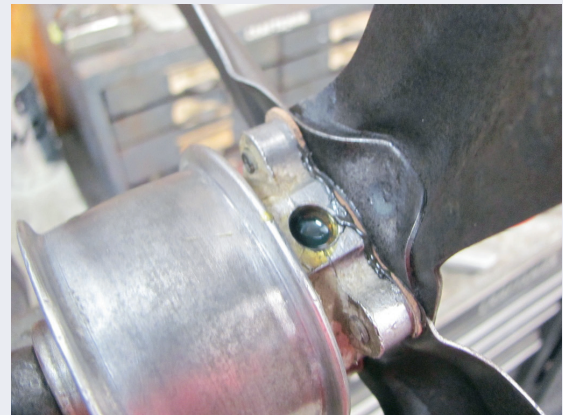
The fan blade assembly should be carefully inspected for any cracks in the metal blades, around the holes, or on the surfaces. Replace the fan assembly if cracked or split, as fan blades coming loose can wreck a radiator and/or cause bodily harm. Minor bends or dents can be removed with a mallet using a suitable mandrel and checking the blade assembly on a flat surface. Each blade may be gently bent to re-shape the pitch to match its neighbor.



Assemble the cleaned and checked parts; add a touch of gasket cement to the gasket on the fan to pulley housing. Replace the fan blade screws and lock washers and tighten the fan to the pulley.



As the last step, add heavy weight oil (600 wt rear axle fluid may be used) to the pulley housing into the oil opening. Fill to the top of the opening and replace the oil plug. The fan assembly is now complete and ready to install on the car. Be sure to place a cotter pin in the large fan bracket bolt so the bolt won't turn loose and cause a rattling noise.



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