

The Dangers of Using an Original Model A Fan

The subject of the dangers of running an original 2 blade Model A fan has been discussed many times in the past, so you may be wondering why once again it is being talked about. Well, it seems there are folks out there who are still driving their Model A's with an original 2 blade fan who have not gotten the message, so again this issue is being discussed.

Why Are We Again Talking about 2 Blade Fans?

One of the participant's was returning from the recent CCRG Convention in Santa Maria in his Model A when all the sudden there was a big bang and the car started to shake violently. The engine was shut off and after the hood was raised it was found that one blade of the 2 blade fan was missing and the fins on the whole backside of the radiator were mashed flat.

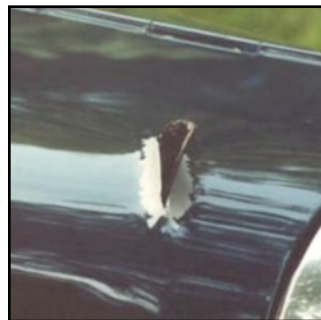


Original Model A fan that failed

Upon closer inspection, it was discovered that the fan was an original factory steel 2 blade fan that would have been installed on the car when it was new. Luckily, the missing blade did not go thru the hood or do additional damage. With all the past articles that have been written and all the many discussions about the dangers of continuing to use original fans, you would think that everyone would have gotten the word but I guess it is still necessary to periodically bring up the subject.

Why Do Original 2 Blade Fans Fail?

More than 60 years ago, when I first came into the Model A hobby, it was commonly known that the original 2 blade fan was subject to fatigue and cracking and it was not uncommon to hear about a fan blade breaking off and either going thru the hood or taking out the radiator.



What can happen when a blade breaks off

Ford even changed the design of the fan in late '31 to help prevent this from happening and after the end of Model A production, Ford offered a fan of a completely different design as a replacement part.

The main reason that the original fan blades fail is that they are made from 2 pieces of formed sheet metal that are welded together and then welded to a center hub and pulley. When completed, each blade is actually 2 thicknesses of sheet steel. Moisture will get between the 2 layers of steel and corrosion will set in. After time, the corrosion will weaken the blades where they attach to the hub and stress cracks will begin to appear. Eventually, these cracks will progress to the point where a blade will completely break off. This usually happens at higher engine speeds when the fan blades are under the most stress. If you are lucky, the blade will go down and get caught in the cross member behind the radiator but most often, the blade will either go thru the hood or severely damage the radiator.

How Do I Know If My Model A Has an Original 2 Blade Fan?

Original 2 blade fans are easy to detect. Raise the hood and see if you have a 2 blade fan which is shaped like a propeller, like the original design. If so, hold a magnet up to it and if the Magnet sticks to the fan it is made from steel and it is most likely an original fan. If the magnet will not stick, the fan most likely is a copy of the original 2 blade fan but made out of aluminum.



Original Model A fan

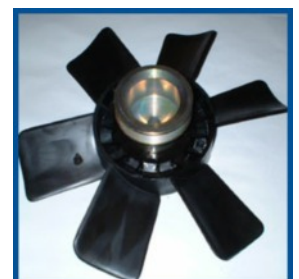
What Do I Replace an Original Fan With?

Currently, there are two options when choosing a new fan. The aluminum copy of the original fan is a popular choice. This fan has the same shape as the original and works very well. Many choose this fan because it has the same appearance as the original steel fan.

A second option is the multi blade plastic fan which also works well but some consider the appearance to be too "modern" for a Model A. Both fans are available from most of the better Model A parts suppliers and both will give good service.



Good quality replacement Aluminum 2 blade and Plastic multi-blade fans



New Fans to Look Out for

Currently on the market are both a 2 and 4 blade version of a fan with steel blades that are attached to an aluminum or steel hub with 4 bolts. The single thickness steel blades are not stiff and will flex, eventually fatigue and fail in the same manner as the original factory fans. These fans, while available new, should be avoided.



Poor quality replacement fans that use bolts to attach the blades to a steel or aluminum hub



Other Fans That May Be in Service

Ford also made 4 blade fans for the 32-34 Model B 4 cylinder engines. Thru the years, these were often used as a replacement for the original 2 blade fans and a lot of them are still in service. These fans should be periodically inspected for cracks in the blades and the rivets attaching the blades to the hubs becoming loose.



Original 32-34 Model B Ford

Under no circumstance should a fan with badly rusted or pitted blades be used. Fatigue cracks can develop which can lead to blade failure.

Summary

Having a blade separate from the rest of the fan can cause extensive damage. Do not use an original factory 2 blade fan. Do not use the poor quality 2 and 4 blade fans where the blades attach to the center hub with bolts. Do not use any fan where the blades are badly pitted or rusty. Periodically inspect the fan to be sure the fan is tight on the water pump shaft and the blades are all in good condition. Consider using either an aluminum 2 blade fan or a multi-blade plastic fan when purchasing a replacement fan.

Tech Tip

When installing an aluminum fan, use a flat washer under the nut. This will help keep the nut from digging into the aluminum and the fan becoming loose on the water pump shaft.

Protecting & Enhancing Your Car's Finish

by Bob Harbicht

Our Technical Director, Chris Wickersham, provides lots of valuable information on how to keep our cars in top running condition. Every member should pay careful attention to his words, because the man knows whereof he speaks!



In addition to the mechanical aspects of our cars, we want them to look good. So I thought I would look into various ways of protecting the finish of our cars, while making them as shiny as possible.

There are any number of commercial products available, many of which do a pretty good job. Meguiar's, Turtle Wax, Mother's, and others have a wide variety to choose from. I decided to test some of the offerings to see what I would recommend to Santa Anita Aers to keep their cars shiny and protected.

I also spent some time on the Internet searching for alternatives to these better-known names. Looking for that little-known trick that would give us a leg up on others. My time was rewarded when I came across a scientific-sounding article extolling the benefits of an unexpected alternative: bacon grease.

Now bacon grease is a little tricky to apply to your car's finish. You need a lot of it! But, that's also one of the benefits: it gives you an excuse to eat a lot of bacon. Now, some of us may have blood pressure that's a little high and bacon is one of the things our doctor has mandated that we steer clear of. But, after all, we do have a duty to take care of our favorite car. And sometimes we need to consider competing interests. I, for one, am willing to sacrifice for my trusty Model A. Besides, I like bacon!

You need to apply the bacon grease in an enclosed garage. Otherwise, you'll have every dog in the neighborhood crowded around your car, impeding your progress. The bacon grease should be warm. In fact, every 15 minutes or so you'll need to go back in the house and fry up two or three more strips of bacon. Bon appétit!

Apply the bacon grease with a brush, preferably a 2-inch, high quality paint brush. After applying a liberal dose, let it dry thoroughly. There is no need to buff it; it will naturally dry to a tough, very shiny finish. One caution, do not park your car for any length of time in direct sunlight! It tends to melt in heat, running down the sides of the car. Sometimes it drips on the brake drums and those mechanical brakes are even less effective with bacon grease on the drums.

I haven't actually had the opportunity to try this out on my car yet. Let me know how it works out for ya.

P.S. You might try adding a quart of wine to the mixture. Mix one pint with the bacon grease then consume the rest yourself; It makes the application a bit easier.