THE MODEL T FORD

ITS REPAIR, SERVICE, & RESTORATION

DAN TREACE, Technical Editor

P.O. Box 76 • Earleton, FL 32631 USA
E-mail: tmodelman@comcast.net
Phone: (904) 616-4362

Clincher Rim Inspection for Tire Care

Clincher rims are designed with a curved, inward rim developed to retain the stiff bead of the clincher tire. Tires made for clincher rims are mounted by stretching the tire casing over the rim. The inward curve of the rim mates with the shaped bead of the clincher tire to hold the tire to the rim. Air pressure within the tube distends the beads into the rim, making it impossible to remove the tire by force with tools or by movement of the vehicle.

While the clincher is long famous for good retention of the tire, air pressure and rim condition are important factors in keeping the tire on the rim and the tire in good condition. When curb damage or long-standing rust takes its toll on the rim, there is risk of tire damage and poor results.

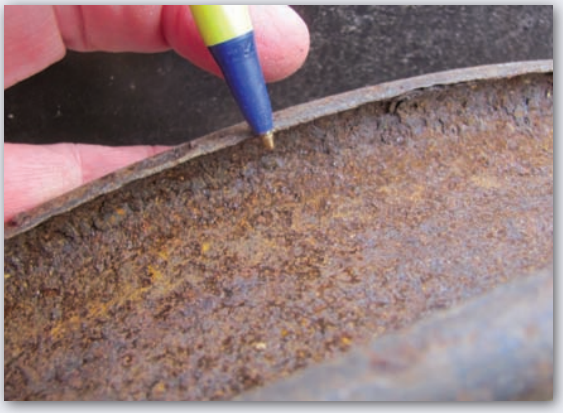
In the following picture, this new clincher tire was mounted on a rim with sharp, narrowed clincher edges - due to heavy rust - which rotted away the thickness of the curved metal rim. That thinned edge then cut into the tire casing and ruined a new tire in less than 100 miles.

Rims with damage caused by curb hits where the rim is bent or folded will, over time, cause the tire to bulge at the bent clincher rim edge, which will shorten the life of the tire considerably.

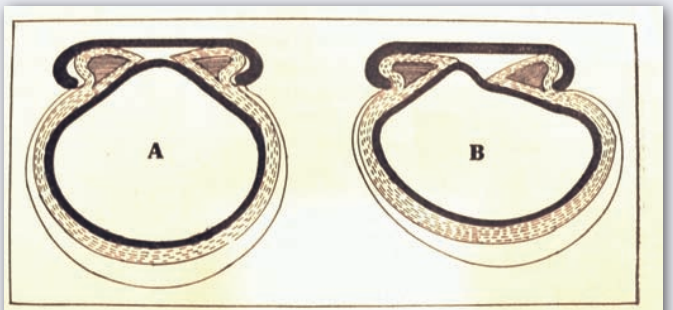
To help avoid tire troubles, be sure to carefully inspect the inner edges of the clincher rims to be sure that the thickness is there for good use. Early non-demountable clincher wheels had edge thickness of 1/8" or .125" (3.17 mm), with a 1/16" smooth radius on that edge. Later rims have more thickness, as shown in the following photo of a new old stock (NOS) rim. New reproduction clincher rims* are made of quality steel, 10 gauge, or .134" (3.4 mm) edge thickness. Note ball point pen tip, for reference.

* American Vintage Rims

Now compare the previous photo with the photo below, which shows a rusted-away clincher rim. It's the same ball point pen tip, but notice that this rim thickness is considerably below the 1/8" minimum and has rusted to a sharp thin edge. Rims like this will eventually cause tire trouble.



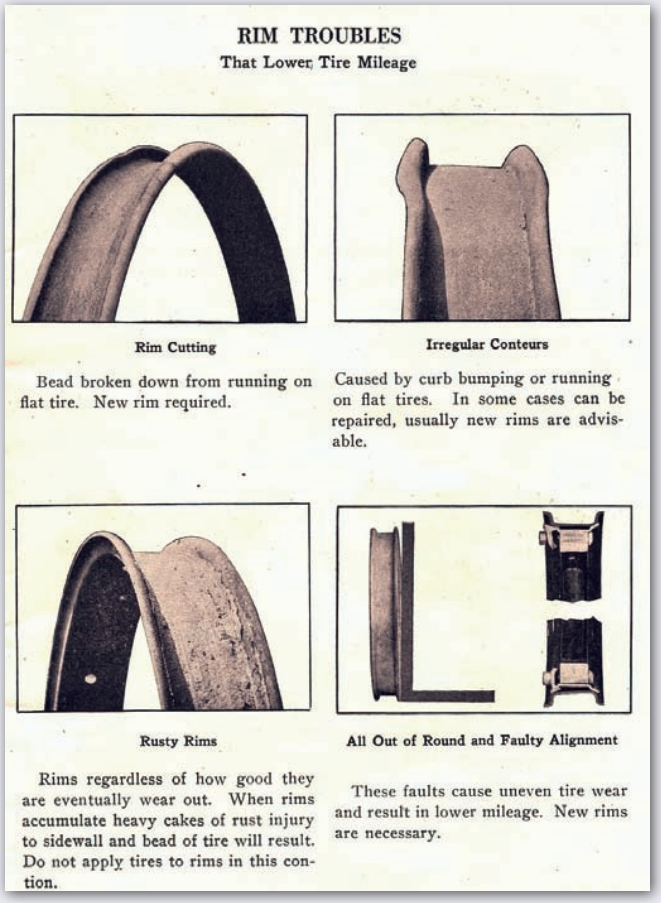
Just as important to rim edge condition is maintaining correct high pressure in the tube of a clincher tire. 30"x 3" tires should maintain 60 psi and 30"x 3½" tires require 65 psi. Low air pressure can allow the tire to roll from the clincher rim and contribute to tire cutting.



Results of Faulty Inflation: A Tire Walls Bending Excessively and Forcing Beads from Rim Flange Channels, Causing Rim Cutting; B the Effect of Side-Roll at Curves or in Turning, Illustrating the Cause for Tube Pinching and Perhaps Throwing a Shoe.

Use care in the inspection of clincher rims on which you may choose to mount tires. The rim should, of course, be round and without rim bends or damage. Especially check the clincher edges to be sure of the minimum 1/8" thickness needed, and for thin or sharp edges from excessive rust. Replace rims that exhibit thin rim edges, damage, and abusive wear.

Photo courtesy of American Vintage Rims



RIM TROUBLES

That Lower Tire Mileage

Rim Cutting

Bead broken down from running on flat tire. New rim required.

Irregular Conteurs

Caused by curb bumping or running on flat tires. In some cases can be repaired, usually new rims are advisable.

Rusty Rims

Rims regardless of how good they are eventually wear out. When rims accumulate heavy cakes of rust injury to sidewall and bead of tire will result. Do not apply tires to rims in this contion.

All Out of Round and Faulty Alignment

These faults cause uneven tire wear and result in lower mileage. New rims are necessary.

• • • •