

Niche Marketing to Improve Margins

by Marvin Bozarth

The remark I hear most frequently from retreaders is, "Our margins are too low." Consequently, some of those individuals are improving their margins by performing specialized retreading or other work that requires more service and equipment—and they are finding that the extra challenge is worth the effort.

One such retreader is Industrial Tire Recycling, Inc. (ITR) of Granite City, Illinois. Although the parent company, Brahler's Truckers Supply, Inc., is a full-service commercial tire dealer with a Michelin Retread Technologies precure retread plant in Jacksonville, Illinois, it is obvious the ITR facility for industrial retreading is a very important component of the company.

When I asked owner Richard Brahler why he is so involved in the ITR operation, he smiles and says one word, "Margins." The ITR plant specializes in precure retreaded press-on solid tires and urethane-filled tires for sizes 6.00-9 through 14.00-24. The most popular are the 10-16.5 and 12-16.5 tires used on skid-steer loaders as well as 7.00-15 and 8.25-15 tires used on forklifts.

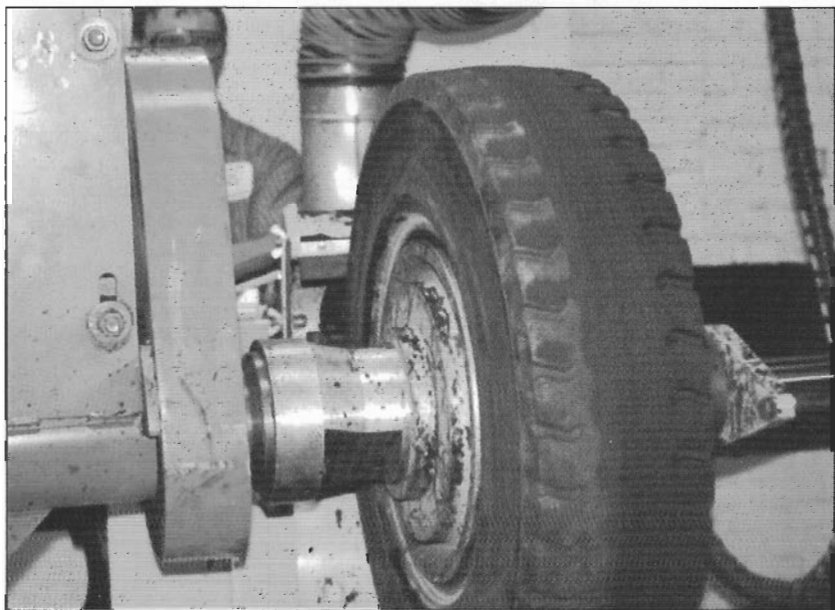


Photo 1 - Special adapters center this 825-15 press-on solid tire on the buffer.

I have retreaded enough of these tires to know they can be very profitable. However, the process requires special adapters to fit the variable rim diameters and bolt hole patterns. Also, the tires and wheels are extremely heavy, difficult to handle and require a great deal of care to avoid personal injuries.

Retreading industrial solid tires is not popular because of the handling difficulties and special equipment requirements. That is one reason why a significant percentage of ITR's production comes from other retreaders. ITR has developed special designs and compounds for these tires which are purchased from an off-shore supplier. They are developing dealer partners and offer training and tread materials to those who wish to start their own industrial retread operations. Future plans call for furnishing equipment for the retread process as well.

ITR also offers urethane filling for pneumatic tires and a service to press solid industrial tires on and off the wheels. Nevertheless, many customers press their own retreads on and off the wheels.

When solid tires arrive at the plant for retreading, the initial inspection process is



Photo II - The buffed diameter is checked closely on both shoulders. Tires worn too far are built up or rejected.

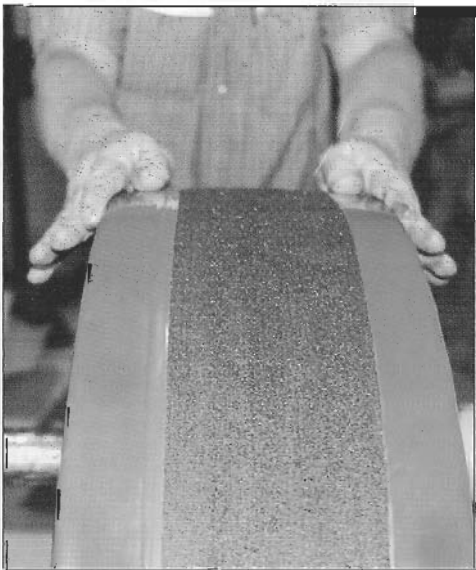


Photo III - After applying cement and filling any injuries, both shoulders are stripped with bonding gum.

rather simple. Since there are no internal cavities, the primary concerns are examining for severe cuts that may destroy the tires' integrity and excessive wear that makes retreading impractical.

In the buffing process, the tires are mounted with special adapters that generally fit the bead areas of the press-on solid tires and special stud adapters to fit the hole patterns of the units with mounted wheels. Because the buffing procedure requires very precise dimensions, the tires are measured on both shoulders to verify no difference exists in their height. Diameter tolerances must be kept within less than 1/8" (3.2mm). This is extremely important as skid-steer loaders, forklifts and other similar equipment have very stiff suspension systems; any variation in the tire diameters on the vehicle would cause serious traction problems.

After buffing, the tire is cemented and buzz-outs repaired in a manner similar to a normal retreaded tire. It is then placed on a builder. The builder may have a lathe chuck to support the tire or it may use bead rings or the bolt hole pattern. The tire shoulders are stripped similar to the method used by many retreaders on pneumatic tires, increasing the amount of cushion in the shoulder area of the tire for better pressure while improving the appearance of the finished product.

The precure tread is prepared on a build-up table and the ends are cut and hand buffed before the cushion is applied. On some designs with wide lug

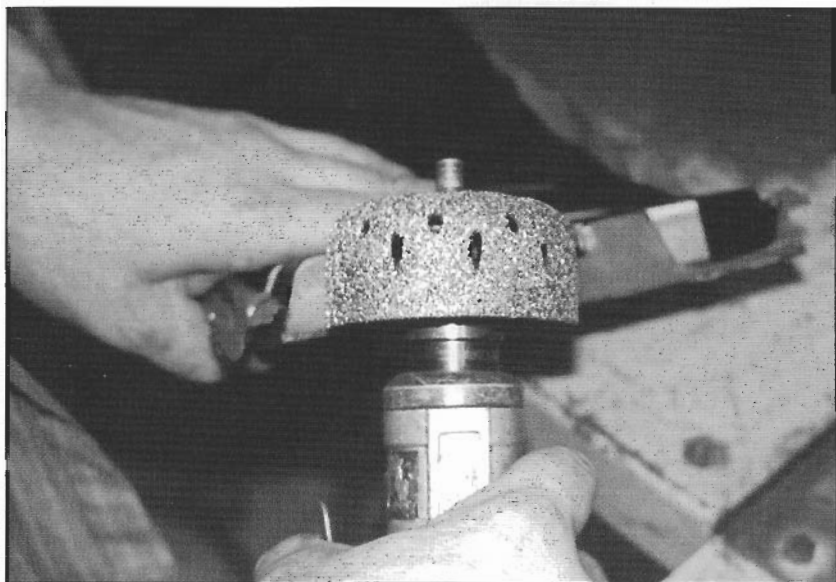


Photo IV - The precure tread is cut to length and the tread ends buffed and cemented before the cushion is applied.

voids, the void area of the tread is drilled to facilitate venting during the retreading process. The tread is applied to the casing, again in a manner similar to the precure process of retreading a pneumatic truck tire, and tightly stitched. The solid tire improves the stitching somewhat over pneumatic tires, which is important with these heavy treads.

Envelopes are placed on the tires in preparation for curing in autoclaves. This process requires a very creative retreader in order to seal the envelopes on the sidewalls or they must use special inside bead area envelopes to create a seal. The envelopes are somewhat difficult to deal with because of the size variances for the many types of tires retreaded.

The ITR plant successfully uses steam plate and electric chambers for curing industrial and regular pneumatic tires. The curing cycle for solid or urethane-filled tires can be extremely long because the heat penetrates the retread to the buff line only from one side. There is no heat available from the internal surface as there is no void or air cavity in the tire. The tire's temperature prior to placement in the chamber can dramatically affect the



Photo V - After application to the casing, the tread is thoroughly stitched down.

cure time as it actually becomes a heat sink pulling the heat away from the buffed surface. Because of this, curing times can range up to ten hours on certain types of solid tires.



Photo VI - In some cases, the shoulder design is filled with a hand-held extruder gun.

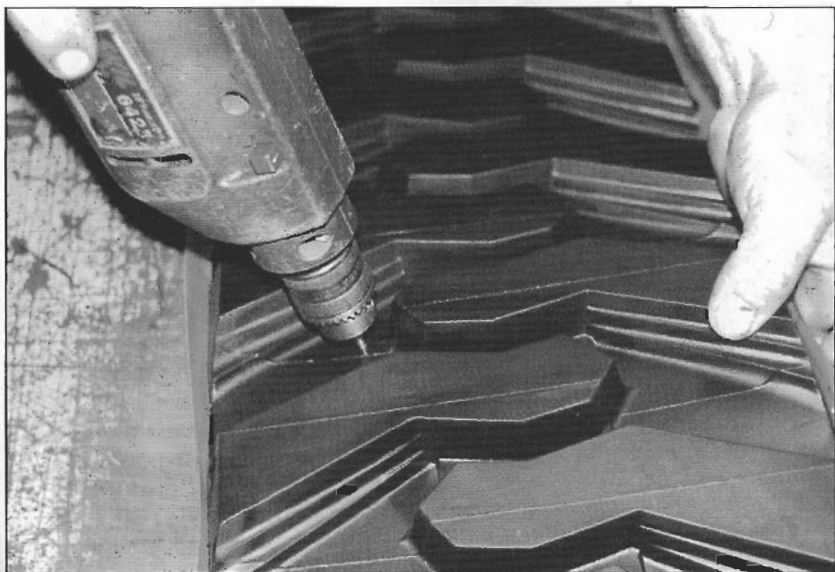


Photo VII - Some tread designs with large voids require venting.

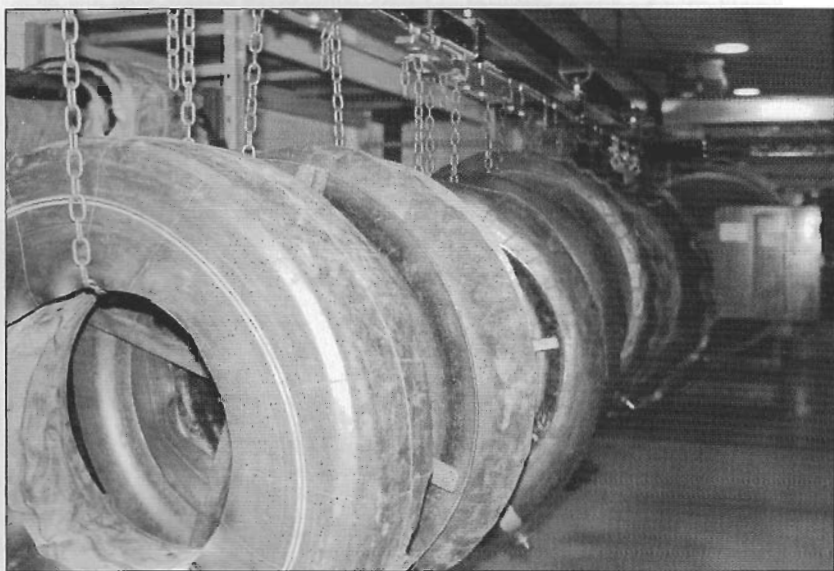


Photo VIII - After envelopes are applied and sealed with a variety of devices, the tires are cured in a precure chamber for up to 10 hours, depending on the tread depth.



Photo IX - ITR General Manager Ron Bentele, left, and Plant Manager Doug Perkins examine two finished retreads as Sales Manager Steve Wardlow looks on.

The appearance of this plant's finished product is every bit as good as regular precured pneumatic truck tires even though these tires are used in rather severe operations and can receive a considerable amount of damage. The ITR sales force is very demanding when it comes to the look of their finished product.

Industrial tire retreading can produce excellent gross profit. However, a word of caution. When a retreader processes only a few of these tires, they tend to get pushed back to allow regular tires to run through production. If you plan to retread industrial tires, you must make a commitment to increase production, designate certain pieces of equipment and individuals to produce the product, and ensure that the tires will be processed in a timely manner, thereby offering your customer a service they desire.

This type of product also offers an excellent opportunity to provide an exchange program, especially in the more popular sizes such as 10-16.5, 12-16.5, 7.00-15 and 8.25-15.

On the surface, this retreading process looks rather simple. However, speaking from experience it requires someone who enjoys tire retreading, is very creative with equipment and ideas, doesn't mind lifting rather heavy objects and likes better gross profits.

For more information on the industrial tire retreading process, contact Ron Bentele, general manager, or Steve Wardlow, sales manager, at Brahler's Truckers Supply, at 800-243-8473. ■



Photo X - Sets of finished retreads ready for delivery.