

## HOW TO

# FIX A STRIPPED-OUT WHEEL HEX

### Five steps to go from rounded out to ready to rock

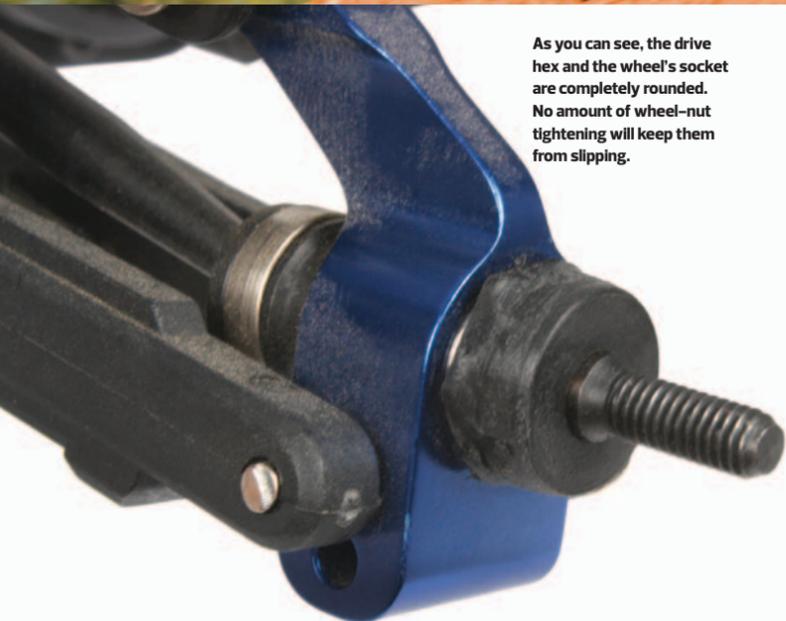
BY PETER VIEIRA

Oh, bumper—an axle nut loosened and now your wheel's hex socket is toast. You could try to unglue the tire and mount it to a new wheel, but man, what a hassle—and you'll have a leftover rim. With a little patience and JB Weld epoxy, you can fix the wheel and keep it in action until the tires wear out. Here's how.

Braaaaap! Massive dirt-roosting power can also be massive wheel-nut-loosening power. If you wreck your wheels because you forgot to check your wheels, we've got the fix.

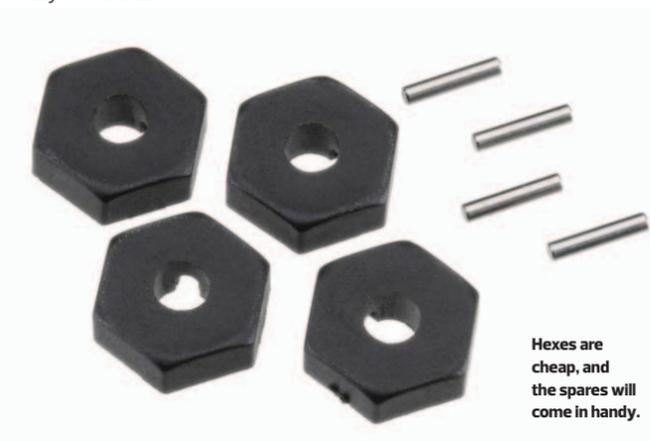


As you can see, the drive hex and the wheel's socket are completely rounded. No amount of wheel-nut tightening will keep them from slipping.



### STEP 1. GET A NEW DRIVE HEX

Don't bother trying to reuse a rounded-off drive hex when replacements are cheap. In the case of the Traxxas Stampede that we're fixing here, a pair of drive hexes complete with four pins is only two bucks.



Hexes are cheap, and the spares will come in handy.

### STEP 2. CLEAN THE HEX AND THE STRIPPED-OUT SOCKET

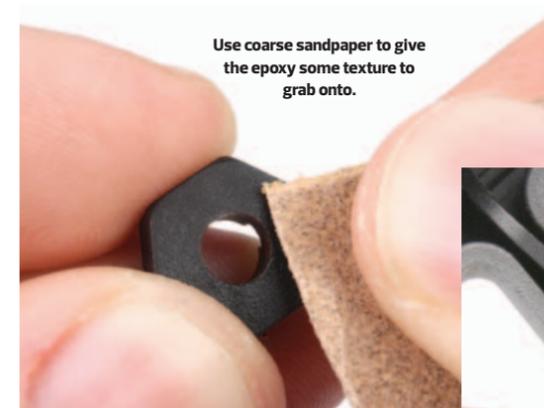
The JB Weld instructions say to avoid cleaning with alcohol, so just use water and dish soap. Clean the wheel socket so that there's no dirt or dust to interfere with the glue. The new drive hex should also be cleaned in case there's any mold release left on it from the manufacturing process, which would interfere with glue adhesion. Test-fit the new hex into the worn socket. If the hex does not sit flat and fully seated in the wheel because of the scarred plastic, clean out the socket as needed for proper fit.



The instructions say to avoid cleaning with alcohol, so just use dish soap.

### STEP 3. ROUGHEN THE HEX AND SOCKET

You can skip roughening the socket if it's already looking pretty torn up. If it's worn smooth, use coarse sandpaper to scratch up the surface. Do the same for the front and sides of the drive hex. This will help the epoxy hold the parts. Wipe any sanding dust off the parts before gluing.



Use coarse sandpaper to give the epoxy some texture to grab onto.



Squeeze out equal amounts of "steel" and "hardener," and mix until the color is a uniform gray.

### STEP 4. MIX AND APPLY THE EPOXY

Follow the instructions on the JB Weld package to mix up the epoxy. Use a craft stick to coat the wheel socket and drive hex. Tip: wear gloves or place a plastic bag over your hand so that you don't get JB Weld on your fingers as you apply it to the hex. Once the socket and hex are coated, press the hex into the wheel. Wipe away any epoxy that squeezes out past the hex hub. Set the wheel aside and let the epoxy harden for 24 hours.



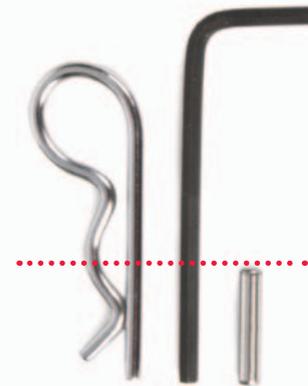
JB Weld is a powerful two-part epoxy. You can get it at any home-improvement store. If the hex is taller than the socket, you can build up the JB Weld around the hex for extra strength. Let the epoxy dry for 24 hours.



### STEP 5. DRILL AND PIN THE HEX HUB

To make certain that the drive hex doesn't spin in the wheel socket, pin the two parts together. Use a spare drive pin for this step, or make a pin by cutting a 1/4-inch piece off of a 1/16-inch hex wrench or the straight leg of a body clip. Drill a 1/16-inch hole through the face of the rim and through the hex hub. Note the position of the slot for the crosspin before you drill so that you don't drill through the slot. Press the pin through the wheel and hub so that it's flush with the face of the drive hex and the face of the rim. If it protrudes past the drive hex, it will rub the wheel bearing. If it protrudes past the face of the rim, it will interfere with the mounting nut. Remove the pin, and grind it to final length if required. The pin should slide in with some friction, but it's OK if it doesn't. Just use a drop of CA to hold it in place.

Drill straight through the wheel and hub. Double-check before you drill to make sure that you don't drill through the slot in the hex hub.



**Left:** You can use a spare crosspin to pin the hub, or cut a section of a hex wrench or a body clip.

**Below:** Press the pin through the wheel and hex, and secure with a drop of CA. Your wheel is now ready for action!



A serrated nut will resist loosening better than a nut with a smooth flange. For maximum hold, try aluminum locknuts with machined serrations.

### STOP THE NEXT STRIP-OUT

To prevent another stripped-out hex due to a loose wheel, be sure to use axle nuts with knurled flanges and nylon inserts. You should feel resistance when the axle threads into the nylon portion of the nut. If you don't, it means the nylon is worn out and the nut should be replaced. When you run your car or truck, check the axle nuts for tightness whenever you make a pit stop for a fresh battery or more fuel. ☺

