BALL DIFF IS "IFFY

Originally Derek did testing with the ball diff [...]
be a performance increase. After building the [...]
several weeks in secret the results are mixed. [...]
better than the stock "greased" diff, but comp[...]
fluid diff it might not be worth the upgrade. If [...]
to get the stock diff sealed, the ball diff will be [...]
the diff requires you to take it out, which is a [...]
feel the stock gear diff sealed (see Dave's diff [...]
than the ball diff. The ball diff is still technical[...]
prone to "diffing out," but it is lighter compo[...]
much less messy than just filling the stock diff [...]
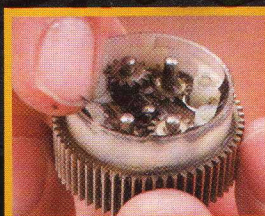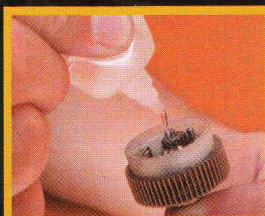
DID SOMEONE SAY DIFF OIL?!?

1/8-scale vehicles use sealed gear diffs, and different viscosity oils are used to tune the diff action. Dave applied this to the Slash, but because the stock diff wasn't a sealed type, he figured out how to seal it up using o-rings and some RTV silicone.

STEP 1. Disassemble the diff and clean out all the stock grease with some motor spray and a rag. Once the parts are clean, the first thing you'll want to do is to file the small outer flanges flush with the diff housing. This will give you clearance for the o-rings you'll be using to seal the outdrives.

STEP 2. Using a medium sized counter sink bit, carefully bevel the edge of the outdrive holes from the outside; do a little at a time, and test fit by placing an o-ring on the outdrive. You'll want to ream out just enough room for the o-ring to sit at about the same height as the original flange that you filed off in step 1.

STEP 3. With the o-rings in place, place a thin shim between the o-ring and the bearing. Apply a small amount of diff oil to the o-rings to keep things lubed, then fill the diff with oil. We found that 30,000-50,000-wt. oil was a good thickness to control the diff action. Fill the diff about 2/3-full, or until the gears are just covered. As you fill, rotate the gears once in a while to get the oil into all the little spaces underneath and around the spider gears.

STEP 4. Before you reassemble the diff, put some RTV silicone on your finger and put a small bead around the edge of the diff casing where the diff cover goes. Make sure it's a continuous bead, then replace the cover, put a small drop of RTV into the screw holes, and screw it back down. Allow the silicone to dry, then reinstall into the truck and you're good to go!

KEE[...]

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