

Are quaife / torsen diffs locked?

Posted by pyropete125 - 02 Jun 2014 12:38

Hi all,

I have a 87 924s that has been raced, but I don't know anything about the history or mods done to it. I can tell the easy visual suspension parts. Coil overs, spherical bearings, braces, etc... I understand how a lsd works and how to identify it. My question is specifically for checking a torsen/quaife style differential.

The question I have about the rear that is currently installed. I can tell it has been apart at some point. When both wheels are in the air the, both wheels turn in the same direction, but I can hold one while the other is being turned with little resistance. The other rears I have just spin opposite.

Could this car have a torsen type differential installed?

Thanks

Pete

Re: Are quaife / torsen diffs locked?

Posted by 944Racer72 - 02 Jun 2014 14:28

From your description, I think it is most likely a worn Porsche LSD. Guard will rebuild them to tighten things up.

I would think a torsion would not allow the opposite wheel to spin when one is held. It should essentially go full lock in that scenario.

It definitely sounds like an LSD so at least that is a good start.

Re: Are quaife / torsen diffs locked?

Posted by AgRacer - 02 Jun 2014 15:49

944Racer72 wrote:

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Agreed. Wheels that spin opposite directions when the rear is in the air is an open diff.

I think there is a way to test breakaway torque on the LSD that I would think, would tell you the shape the friction discs are in. The Spec E30 guys have the test outlined in their rules since they regulate that kind of thing.

Re: Are quaife / torsen diffs locked?

Posted by 944Racer72 - 03 Jun 2014 06:54

It's easy to do if you have the diff out of the trans and Porsche specs it in the manual. With everything hooked up, I think you would find too much influence from the drivetrain to know if you had a real reading on the diff itself.
