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# Volkswagen DRIVER

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**FORGE MOTORSPORT  
BIG BRAKE CONVERSION**  
SEE PAGE 47 FOR THE FULL REVIEW

# Top 5toppers!

## Martin Adams explains the choice of brake upgrade for his modified T5 California...

**WEIGHING 3 tons, when fully loaded up with all the gear to go away, even with the top-of-the-range 174 bhp 2.5 TDI my T5 California was not the easiest thing to get going, or to stop in a hurry. The Revo Technik re-map to 200 bhp helped considerably with the pulling power, but it also encouraged faster driving and so I soon decided that the brakes also needed to be improved.**

So, when the brake warning light came on, to tell me that the pads were getting

low, I gave some thought to an upgrade. At first, I was going to fit the larger diameter discs and twin-pot callipers from the new T5 BiTDI, until I got talking to Dan at Vanworx in Portland, Dorset, who told me about the new big-brake kit from Forge Motorsport.

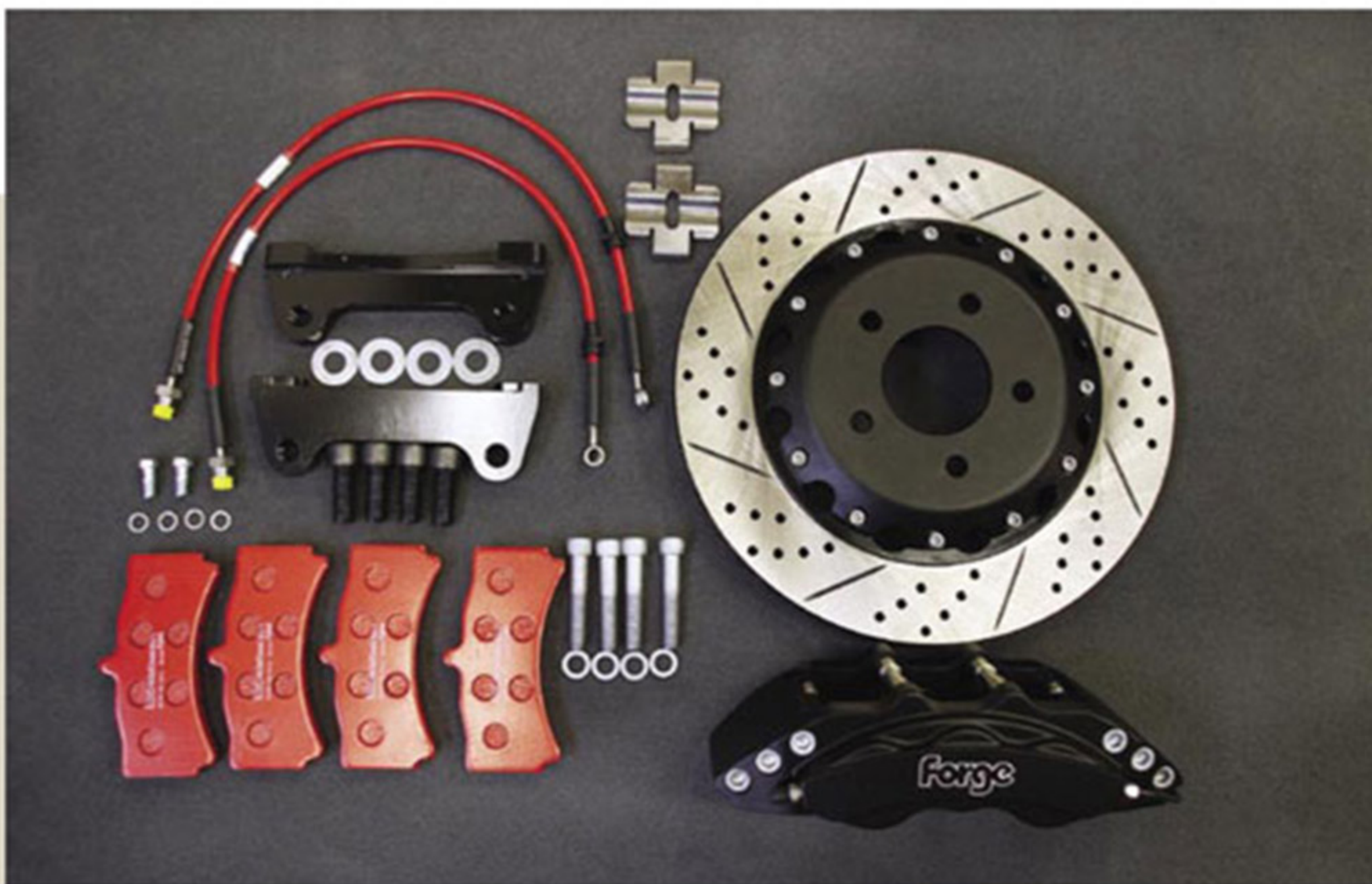
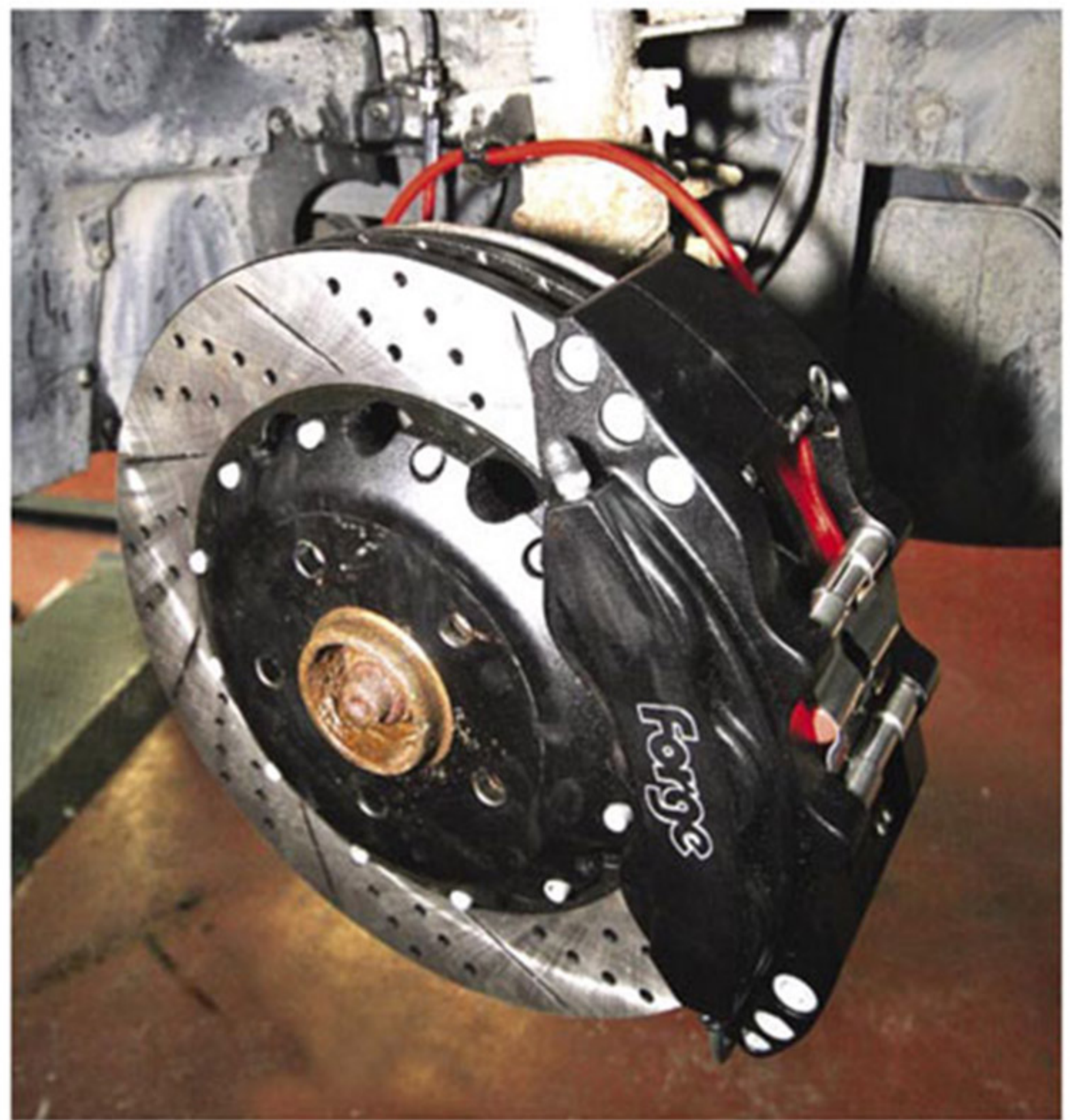
Dan had been dying to fit a set of these big brakes to a T5, and they seemed like the definitive solution, so the kit was ordered and as soon as they arrived Dan took only a few hours to fit them, even though it was a first-time installation for him. The only things missing from the kit were a couple of rubber grommets to hold the brake hoses to the suspension strut.

With the brakes fitted, a straightforward swap with the standard components, with no special machining or modification required, Dan took the T5 out for a test drive and came back with big smile on his face: 'Does just what it says on the tin!' was his satisfied reaction.

After bedding them in, my first long trip was the 600-mile drive down to the Le Mans 24-hour race, fully laden with all our gear for the long weekend away. I'd been rather concerned that the brakes would be too powerful, snatchy and difficult to modulate, but not so – they are very smooth and progressive, but when you really need to pull up in a hurry they provide extremely powerful retardation, with no hint of fade. The only thing with having drilled and grooved 2-piece floating discs is that you get a little noise from the brakes when you first apply them, but you soon get used to it.

The bigger discs will only take a 19-inch diameter wheel or larger, which means that the standard spare won't fit, so I'd have to take a wheel off the back to fit on the front if I ever get a flat tyre on the front. But I'm currently looking for a Range Rover spare wheel, which I believe will overcome this problem. →





The big-brake conversion on Martin Adams's T5 California is from Forge Motorsport. It's the product of nearly three years testing of various designs using Forge's own in-house development facility and personal vehicles, including the Forge Motorsport demo T5 van which we featured in the November 2010 issue.

*The conversion kit comprises the following key features:*

- CNC-machined forged billet aluminium callipers, with 6 pistons per calliper, and staggered piston sizes for progressive brake application and even pad wear (30 mm / 36.5 mm / 38.5 mm)
  - Pad retaining grooves, pins and clips for reduced pad noise and easy pad changes, using a standard disc pad profile available from many popular manufacturers\* (EBC Red Stuff pads are provided as standard).
  - Custom CNC-machined forged billet aluminium calliper mounting bracket
  - 2-piece floating iron alloy discs with directional curved vanes for optimum cooling, slotted and drilled for dust and gas evacuation, aiding long-term durability.
  - CNC-machined lightweight forged billet aluminium rotor hats/bells.
  - Hard anodized finish on callipers, mounting brackets, and disc bells.
  - High strength to weight ratio at 3.46 kg (7.6 lbs)
  - Custom brake lines, manufactured in-house using high-quality 95PVC coated stainless-steel braided Teflon hoses and custom-machined stainless-steel end fittings. Road-legal for any vehicle worldwide, with DOT, TÜV, FMVSS-106, ADR, and LTSA approvals.
- Two sizes of disc diameter are available:**
- 330 mm (13-inch) discs. Generally requires 18-inch diameter wheels for clearance but may fit under some 17-inch wheels designed for big brakes.
  - 356 mm (14-inch) discs. Minimum 19-inch diameter wheels required, although may fit under some 18-inch wheels designed for big brakes.

**'THEY ARE VERY SMOOTH AND PROGRESSIVE, BUT WHEN YOU REALLY NEED TO PULL UP IN A HURRY THEY PROVIDE EXTREMELY POWERFUL RETARDATION WITH NO HINT OF FADE...'**

#### Contacts

**Forge Motorsport**  
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**Vanworx**  
Tel: 1305 824 428  
[www.vanworx.co.uk](http://www.vanworx.co.uk)

\* Replacement pads are available from the following suppliers. The required pad thickness is 17 mm (thicker pads may require shaving for proper fitment).

**EBC:** DP3032C Red Stuff or DP4032R Yellow Stuff  
**AP Racing:** CP5070D51 (specify APF404, DS2500 or DS3000 pad compounds)  
**Mintex:** MDB1977 (specify 1144, 1155 or 1166 compound)  
**Pagid:** E1903 (specify pad compound)  
**Hawk:** HB122 (specify pad compound)  
**Ferodo:** FRP3054 (specify pad compound)  
**Performance Friction (PFC):** 7793.01.18.44 and 7793.03.18.44  
**Porterfield:** R2600-18  
**Stoptech:** ST-60 (309.12470 street/track and 105.12470 street)  
**Wilwood:** 15E-6914K