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Toyota takes hard-line against Antonov in high stakes hybrid vehicle technology court case

- Car giant flexes financial muscle with costly counter action in Japan
- Antonov says move is 'posturing and precipitous' and reveals Toyota's nervousness over pending European patent judgement
- Antonov patents fundamental to hybrid vehicle driveline developments
- Patents cover the use of a drivetrain which balances the drive from an engine and an electric motor with the load from a vehicle and a generator

Antonov, an automotive technology company, has just discovered that on 15 February 2006 the Toyota Motor Company initiated a law suit in Japan challenging the validity of one of Antonov's Japanese patents JP 2894760 which is fundamental to hybrid vehicle developments.

The car giant has taken the action even though the patent system in Japan is equivalent to that in Europe and even though both companies are awaiting a judgement from a German law suit which is already pending. The Japanese patent is the direct counterpart to Antonov's European patent EP 0414782; a patent which the company alleges Toyota has infringed.

Antonov says it has no option but to defend against Toyota's precipitous counter action in order to protect its intellectual property rights. The company focuses exclusively on new technology developments and the major source of its income is the licensing of its advanced transmission and driveline designs to vehicle manufacturers.

Despite being in regular contact with Antonov, Toyota did not inform the company directly, or its current Japanese patent attorneys, with regards to the law suit, which only became known to Antonov this week. Antonov immediately issued a statement, on Monday (20 March 2006), to satisfy the financial regulatory authorities as the German patent action is already in the public domain and shareholders have to be notified of all legal actions affecting the company.

Antonov believes that Toyota's hard-line action in Japan indicates its apparent lack of confidence with regards to winning the German court judgement expected in August this year and is attempting to force Antonov to negotiate a settlement under the threat of significant costs incurred via the courts in Japan.

Antonov says it will defend its Japanese patent fully and has in place a 'put and call' option to the value of €2 million to underwrite the necessary defence to Toyota's aggressive action, with additional funding facilities available if required.



Antonov and its legal advisers remain firmly of the view that Toyota's second generation Prius vehicle infringes the company's intellectual property rights. This view is endorsed by the fact that Antonov has already rejected an unrealistically low offer from Toyota to settle, forcing the company to seek compensation through the German court system, which provides a relatively swift and cost effective route to a legally binding decision with the entire process expected to cost Antonov no more than €100,000.

Commenting on the car giant's uncompromising tactics Antonov chief executive John Moore said: "Toyota must be made aware that its recent aggressive strategy will not intimidate Antonov in its defence of its patents. However, we are prepared to be reasonable and co-operate with Toyota on realistic terms."

He added: "As I have said before, we would not have taken legal action against Toyota unless we were confident that we had a strong case. It is crucial that we protect our patents and seek royalty payments in respect of all products manufactured using our designs or sold in the territories where our patent cover exists. We believe that Toyota has not only infringed our patents but also licensed our technology to other manufacturers and we look forward to the German court's judgement in August."

Over the past 15 years, Antonov has made substantial investments in a range of technologies with the common goal of improving the fuel efficiency of cars. Licences have been granted on reasonable terms to companies such as Honda interested in applying these technologies to their vehicles and a number of these technologies are on course for high volume production application. Others are at an earlier stage of development. As a result of these significant investments, Antonov says it has no choice but to vigorously defend its intellectual property when challenged.

Specific notes about Antonov patent action

Antonov's patents are filed in the UK, Germany, France, Spain, Italy and Japan.

The company filed its action against Toyota in April 2005 at the patent court in Düsseldorf alleging infringement of its patents by the driveline of the Toyota Prius and Lexus RX400h. The case received its preliminary hearing on 22 September 2005 having previously been postponed by the company to allow further negotiations with Toyota. In line with Antonov's expectations, the court announced that an oral hearing for the case will be heard on 29 August 2006. Prior to this hearing, the courts have set a timetable for the parties to prepare their submissions. Toyota had until 16 January 2006 to respond to Antonov's writ. Antonov has the opportunity to address Toyota's response by 2 May 2006. Toyota then has a final opportunity to refine its defence by 7 August 2006 shortly before the oral hearing.



Antonov's legal action in Europe was taken after a process of in-depth consultation with patent, legal and automotive industry experts. The action has been taken in Germany, as the German legal system provides a relatively rapid and cost effective route to a legally binding decision. Antonov expects that the entire process should cost in the region of €100,000.

General notes about Antonov automotive technology developments

Antonov is a technology exploitation company originally created to develop the inventions of its founder, Roumen Antonov. It now holds a broad intellectual property portfolio in mechanical power transmission. It is currently focusing on applications in the automotive industry, due to the potential for high product volumes, but there are also applications in other sectors that are being explored.

Antonov was founded in 1990. It was listed on the Alternative Investment Market of the London Stock Exchange in May 1995 and the Amsterdam Stock Exchange in 1997. It has invested more than £28 million in pure automotive research, product development and continuing innovation to bring its inventions to market and has licensed its technology to a number of automotive companies including NZWL (1999) and Honda (2002).

In 2005 Antonov launched into the US market its variable drive for a Rotrex supercharger which endows an engine with better low end torque. With the trend to making engines smaller in pursuit of improved powertrain efficiency and lower emissions the Antonov variable drive is highly relevant technology for the motor industry. The release of the Antonov variable drive into the world's largest market for tuner products underpins its ongoing discussions with OEM vehicle manufacturers interested in high volume applications. Antonov will manage the supply of the initial series production up to 10,000 units per year but expects to licence the technology to high volume clients either directly or through their Tier 1 suppliers.

The Antonov variable drive technology is also being applied to other power transmission systems that can benefit from a simple multi-speed transmission. These include a 2-speed pulley system for engine accessory drives, which enables the vehicle alternator and air conditioning to be run more efficiently whilst providing the output needed by modern cars when the engine is idling. There is also growing interest in the use of a 2-speed variable drive in conjunction with an AC electric motor as a lower cost alternative to permanent magnet motors in fuel cell and electric vehicles.

For 2006 Antonov has granted an 'option agreement' to Great Wall Motor - one of the largest pick-up truck and SUV manufacturers in China - for its 6-speed automatic transmission patents. Antonov is working closely with GWM to create a full business plan for the development of the transmission and its production launch, which will lead to the development of an independent transmission manufacturing capability for GWM in China. Antonov will also create future transmission designs to GWM specifications. Other Antonov technologies currently under development include a highly compact dual clutch countershaft automatic transmission.