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PEAKER INNOVATIONS

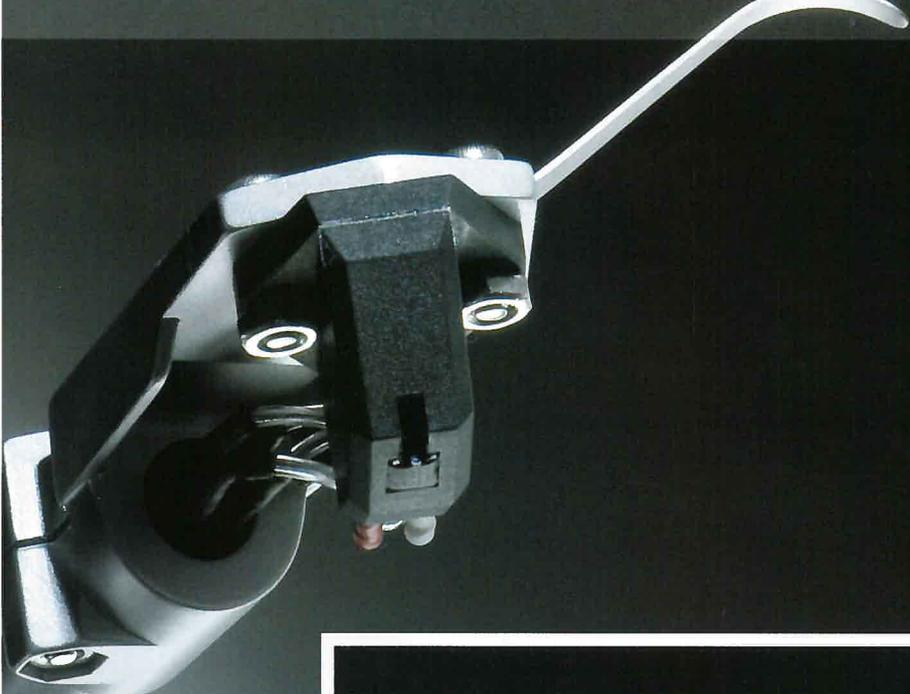
Exciting technology and high-level
sophistication for sound gourmets

ANALOG NEWLY REFINED

High End Turntable
with a Licence for Upgrading

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ROTOR Show

The ZET 3's name reminds you of a sports car, while its magnetic bearing represents the art of engineering on the highest level. A novel feature on this turntable is the upgrade concept, which enables you to enhance it step by step. We armed ourselves with an Allen key and tried out the individual steps. Will they lift the ZET into new acoustic spheres?



by Stefan Schickedanz

The last time that I (as in the course of the following test) busied myself with outboard motors was many moons ago. It was on Lago Maggiore in Ticino before I even had a driving licence, when I very proudly exceeded the speed limit for the first time in an amply powered motorboat speeding between two private islands. Although at the time I was not even old enough to watch James Bond films at the cinema, I felt a bit like the super hero himself.

This feeling is also without doubt familiar to numerous owners of the ZET 3 Transrotor whenever, by virtue of two outboard motors, they take their entry-level model upgraded with diverse extras through the sonic wall to the absolute top high-end in terms of sound, price and design. As long as the owner's budget half does not block access to the joint bank account, the record player – fully fitted out with TR 800-S pick-up arm and Goldring system for a base price of around €4,000 – knows practically no upward limit.

Fully equipped with two external double synchronous motors, a further TR-8009 arm with Merlo Reference pick-up, the stunning TMD bearing and a dedicated XXL turntable stand the list price is then some €14,700. A good reason for me to slip into the role of system / investment advisor and to test out the upgrade path for myself.

Working with the ZET 3 is for me like cooking for myself with fine ingredients

from the market hall or organic food store. The preparations significantly increase the appetite for the upcoming delights in over the many hours of the listening test – which like a noble feast consists of countless courses.

The way in which the new turntable platter used since the middle of last year slides onto the bearing or in which the two-part sub-platter, as if cushioned by pneumatic springs, floats down onto the spindle conveys a touch of magic and nostalgia. In terms of sound, on the other hand, it is at most the occasional clicking and crackling of my old records that brings back memories of bygone times. In the base version of the deck (listened to for comparative purposes throughout with the TR-5009 arm made at SME and the Merlo Reference MC system) the ZET 3 sounds like a very good CD player: crisp, very clear and transparent with a taut, differentiated bass.

The mid-range frequencies lack no nuance, but do not feel quite as richly coloured as you would generally expect from a record player. On the other hand, even with the entry-level version the ZET 3 brings out countless elements of detail, as on Joe Jackson's album 'Body And Soul' (A&M). With the Transrotor you seem to be able to watch the work of the sound engineer very precisely. Wasn't there maybe some hum mixed in with the sound on that one instrument track? However, the vinyl acrobat develops far too much drive for anyone to think of using it for minute analysis.



The recipe for eternal acoustic joy: take one just about still affordable Transrotor ZET 3 with TR 800-S pick-up arm and Goldring MM system.

Then disconnect the motor from the chassis and using a solid motor base put it on the shelf. In its place you can fit a second pick-up arm.

Instead of over-analytical listening, I now have the desire to move onto the next upgrade stage. Turned from aluminium, the motor block migrates from the left rear end of the tapered frame, made of two layers of black acrylic and one of aluminium, onto the bottom of the wooden audio rack. It rests there on a solid motor base.

In this configuration the only direct connection to the deck comes from the precision belts running around the outside of the turntable platter. The spatial impression and the stability and depth of reproduction are promptly improved. Anyone who possess, for example, a special mono pick-up for old recordings could now fit a second pick-up arm in place of the onboard motor – especially as with an arm replacement the original TR 800-S remains spare as it is. I am interested, however, in the effect of the legendary TMD ('Transrotor Magnetic Drive') bearing. Like everything on the ZET 3 it reminds you of vehicle engineering. To be precise, of the so-called Hardy disc, a flexible disc that decouples the motor-gearbox unit from the drive shaft and rear axle in order to dampen vibrations and jolts in the drive train. However, a man like Jochen Räge does not use mundane rubber pads for this, but lots of little magnets inserted into the bearing shells. As much as it is fun to play around with the mother of all platter bearings – the soft, but certain 'snap' into place of the magnetic coupling is something you just have to experience for yourself – I am very >



ally, adding another motor base and a long re belt on the right-hand side, fit on a seed motor for smoother running.

Et voilà! Complete with deck stand, our maître de vinyl, Jochen Räge, serves up an exquisite analogue dish with no expiry date. The home-made ingredients add up to €14,650.

interested in the acoustic effect of this replacement solution, which, with all the accessories, costs €1,050.

The difference is amazing. Of all measures for fine-tuning the ZET 3 that I have tested, this stroke of genius from the 70-year-old company founder leaves the most lasting impression. With this you

Choice ingredients: Jochen Räge sliding on the two-part sub-platter, inside of which is the TMD bearing's magnetic coupling. After the change of bearing, the two motors no longer pull with a long belt on the edge of the platter but on the sub-platter's bottom flexible disc.

are simply submerged deeper into the music and you participate in both enhanced resolution of detail and greater stability of reproduction.

The other upgrade steps also led in this direction, although, if looked at in isolation, not quite so far. However, even with the TMD bearing reproduction appears much more natural and free. While Joe Jackson swings with more drive, the reproduction nevertheless seems to me less forced. Better still, doing a reverse check I find the originally impressive standard set-up really 'digital' and grainy. The whole sound can be called compressed and less contoured and punchy in the bass range. There's no doubt about it: the bearing must quickly go back in – if only for the sake of the tonal colour. And by now I could almost apply for a job with Räge as a show stand constructor – that's how quickly and easily the system can be converted.

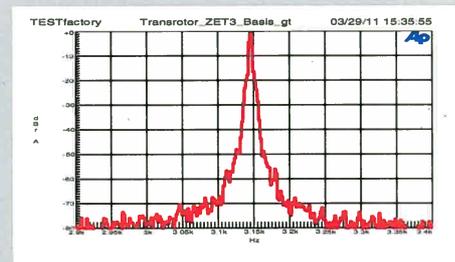
The next stage of expansion would be the second motor. Here you first need not only to check your bank balance (which should have around €1,500 available), but also quite simply to take out your tape measure. Otherwise it could

be that the final upgrade stage also immediately forces itself upon you, at a cost of €3,000: the majestic record deck stand with the secondary virtues of a hi-fi altar.

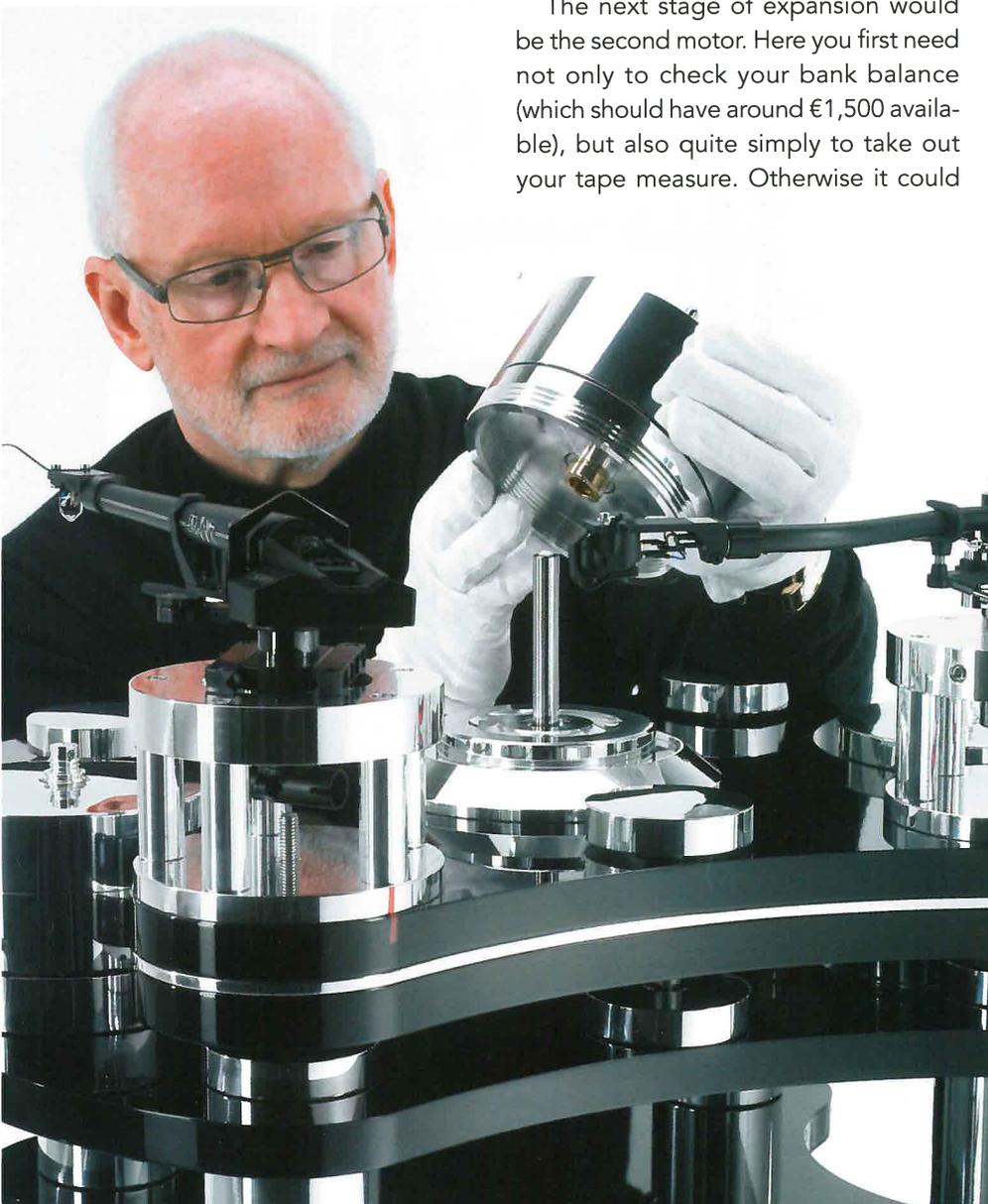
That's because, due to its width increasing from what was once 45 to now over 50 centimetres, the dual-motor ZET 3 is no longer compatible with many racks. I too had to fiddle around a bit in order to at least get a brief impression of the little double floating deck before I lifted it onto the 'drilling platform' made of acrylic and aluminium. Repeatedly switching there between one and two motors was no big deal – at least in terms of the manual task. However, the second motor not only stimulates the start-up of the platter, powered via a long, common belt, but also gives the bass appreciably more oomph.

The extra contours, three-dimensionality, timbre and fine tonality could be excellently appreciated with my Japanese pressing of Holst's Planets (André Previn, Angel Records). Admittedly I found the move onto the rack in this regard almost more significant than the second motor and would do that, in con-

The diagram: Synchronisation analysis



Measured using a single frequency test records, a very narrow peak appears at 3,150 Hertz, which gives even the entry level model of the ZET 3 with standard bearing a very good result. It suffers from synchronisation faults neither near to the ideal frequency nor far away from it.

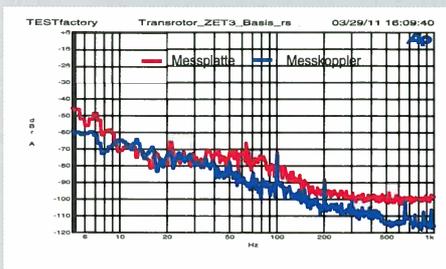


trast to our photo story, before doing any upgrading of the motor (if you have the money and space for that). Then the Konstant mains adapter belonging to the upgrade also has appropriate room.

The relatively conservative ZET 3 thus transformed itself within just a few hours into an extraordinary premium device in both sound and look. A superb piece of engineering that gives the impression with its lovingly made details of being able to thwart time and the throwaway society. This record player grows with the aspirations of its owner.

And what I found really ingenious was that while other record players demand watchmaker's tools and the patience and manual dexterity that I no longer possess, the conversion described here could be accomplished as simply as doing work on a top mountain bike. Pick-up arm bases, on-board drive unit and platter bearing are held in place by identical Allen screws – something of which a full-blown Ikea cupboard can only dream. And before you start dreaming endlessly of a state-of-the-art deck, plump if in doubt for the base version and begin what is sure to be a long friendship. >

The diagram: noise spectral analysis



The noise floor is below the measurement limit and even with a test record (red) and especially with a coupler (blue) the ZET 3 delivers outstanding results. The tracking process can thus take place without interference. The model used for the measurements was the base version with on-board motor.

Transrotor ZET 3

List price: €4,000
Guarantee period: 2+5 years
Dimensions WxHxD (cm): 45 x 23 x 40
Weight: 34kg
Equipment: TR 800-S arm with Goldring 2200 MM system

List price: €8,200
Dimensions: 45 x 23 x 40
Weight: 42kg
Equipment: Second pick-up arm base, motor pad, TR 5009 pick-up arm with Merlo Reference

List price: €9,000
Dimensions: 54 x 23 x 40
Weight: 50kg
Equipment: TMD bearing, second pick-up arm base and motor stands, TR 5009 pick-up with Merlo Reference MC system and second TR 800-S pick-up arm

List price: €10,700
Dimensions: 60 x 23 x 40
Weight: 60kg
Equipment: Second motor with motor pad, Konstant mains adapter, second pick-up arm base and motor stands, TR 5009 pick-up arm with Merlo Reference MC system, TMD bearing and second TR 800-S pick-up arm

List price: €14,700
Dimensions: 60 x 84 x 40
Weight: 105kg
Equipment: Deck stand, second motor with motor pad, Konstant mains adapter, second pick-up arm base and motor stands, TR 5009 pick-up with Merlo Reference MC system, TMD bearing and second TR 800-S pick-up arm

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Germany
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Internet: www.transrotor.de



Test LP Joe Jackson: Body And Soul

Very dynamic music, ideal for an analogue test marathon. Jackson is one of the artists whose music I only have on vinyl. So I was really looking forward to letting him groove away again.



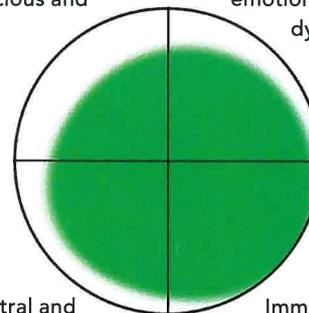
The author Stefan Schickedanz

While still at school, he was already providing photo features for the local edition of the Frankfurter Neue Presse and worked part-time for the BILD to fund his techie hobbies. Aged 25, he combined the two and became test editor at HIFI VISION magazine.

AUDIOphile Character

Effortlessly spacious and soft

Grippingly emotional and dynamic



Neutral and authentic

Immediacy high resolution

AUDIOphile Potential



Recommendation

With great neutrality and ambience, to be improved step by step. You won't need the skills of a watchmaker to reach the final step, but the appropriate amount of money.

Silent RUNNING

Jochen Räge's business has been purring away for over 40 years, yet his platter bearings run with ever less noise. Known as the 'Record Player Pope', he prefers, after all, to tread quietly

by Stefan Schickedanz

In terms of having a passion for collecting exclusive cars and exquisite shoes, Jochen Räge could probably hold his own with any rock star or rapper. However, making sensational appearances are not at all the quiet connoisseur's style. He always left that to his legendary record players – like the deck that made it onto the cinema screens in Stanley Kubrick's disturbing satire of society 'Clockwork

Orange'. Back then the Transcriptor decks, which were still being built in England, formed the basis of the company's operations. Set up in 1971, it began as a pure distributor. But Räge would not be Räge, if he had been satisfied with that. For a man like him there were still things to be improved on the decks conceived by ingenious inventor but less gifted businessman David Gammon and made by John Mitchell – especially if, like Räge, you had commercial training and an en-

gineering degree behind you. And all the more so as the man who enjoys being called the 'Record Player Pope' had been tinkering with tractors on his parents' farm from the age of nine.

„The earlier designs had many more small parts and were significantly more temperamental than our modern decks, which are made exclusively in Germany,” notes the 70-year-old. In doing so he works with a network of 180 suppliers built up over decades. Six years ago,



Turning in personally: engineer Jochen Räge is quite capable of lending a hand himself in the production process.



'Wow!' island: unveiled in 1998, the Gravià was actually intended to remain a one-off. However due to the great response, the 150-kilo gimbal-mounted deck then went very successfully into full production.



Narrow waist: The double deck was produced in 1978 as a test device for the Swiss magazine AUDIO. Even then Räge was using components of the existing Transrotor AC in order to create something new. Back then the motor had to pull two platters. Today, there are two motors for one platter, but otherwise the company perfected the modular design.



Räge moved final assembly from his own house to a farm near Bergisch Gladbach. There twelve employees also look after the finish to the aluminium components, giving them a mirror-like shine.

Jochen Räge's life's work is reflected in the ZET 3. When the hydrodynamic platter bearing was introduced ten years ago, the principle – inspired by a motorised oil pump – caused a sensation. Shortly afterwards, it was incorporated into full production and made available as a retrofit kit to owners of older decks. Another component that can be retrofitted is the TMD (Transrotor Magnetic Drive) bearing, unveiled in 2005, with its ingenious magnetic coupling to reduce

drive influences on the sampling process. Such developments are evidence of the affinity with its customers fostered by the company, now supported by Räge's son Dirk. The peerless amount of work that goes into the production process can be seen, in particular, on the ZET 3's turntable. Cutting out the aluminium block takes nearly 20 minutes and trimming it devours another 40.

And then at the home of the Transrotor the job is to clean and polish with everything you've got! This finish responsible for the even, brilliantly shining appearance of all the aluminium parts is something that Räge does not like to entrust to any external service provi-

der. It eats up more than an hour and is done exclusively by hand. "The man who does the polishing at our company learned it as a proper skill and throughout his working life has done nothing else."

Räge too has dedicated his entire business life to one sector: he exports all around the world, but not to England. Back in 1973 when he had the Transrotor name protected for himself in Germany, he made that promise to John Mitchell. And Räge still keeps to it even though his former business partner has now been dead for some time. That too is a reflection of the company's persistent approach.