The Rega RB1000 Tonearm

Neville Roberts

At over seven times the cost of the venerable RB251, is the flagship of the Rega tonearm range, the RB1000, worth the money? Neville Roberts investigates...

As a young man, Roy Gandy, had the vision of designing a turntable that was better made and more reliable than the ones he had been selling as a part-time Hi-Fi retailer. This vision became a reality in 1973 when he formed a partnership with a colleague, Tony Relph, and registered the company name 'Rega', formed from the first two letters of their respective surnames. Although this partnership did not survive for long, the company nevertheless continued to evolve with Gandy at the helm and, in 1975, the Rega Planar 2 turntable was launched and quickly established itself in the market as one of the finest budget turntable around. By 1980, Rega was employing thirteen staff, exporting to twelve countries and had twenty UK dealerships.

The company's philosophy has always been to make high quality products at affordable prices. In 1976, Gandy turned his attention to designing and manufacturing his own tonearm. To this end, he found a casting company that worked with him to develop an entirely new production method that enabled the accurate casting of the one-piece arm tube. All this culminated with the launch in 1983 of his Rega award-winning Britain series of arms and the legendary RB300 and RB250 (prior to this, Rega had used Japanese and Danish manufactured arms on their turntables). The lower-cost RB250 used the same arm tube as the RB300, but saved money by not including a tracking force adjuster and by utilising a lower-cost plastic end stub to hold the counterweight, rather than the stainless steel end stub of the RB300. The RB300 can be easily identified by the combination of black arm tube and silver counterweight together with the large tracking force adjuster on the side of vertical pivot. Although the RB250 requires the tracking force to be set using the counterbalance weight position, this does have the advantage of allowing the arm tube's vertical bearings to be supported on both sides of the bearing housing, which is one of the reasons that many consider the RB250 to be a better design. Neither arm provided any means of adjustment of the vertical tracking angle (VTA), but more about that later.

The arms evolution

The RB100 is Rega's entry level arm, which is fitted as standard to the Rega P1 turntable. It has a simple machined aluminium arm tube with the headshell bonded to it. It also features a three-point arm base fixing, in place of the threaded arm pillar of the RB250 and RB300.

The RB301 evolved from the RB300 tonearm. As with the RB100, the armboard mounting features a 3-point configuration rather than a 23mm arm pillar. The counterweight is stainless steel and VTA is adjustable by using shims inserted underneath the 3-point fixing.

Next came the RB600, which was basically a higher specification version of the RB300 tonearm, manufactured to higher tolerances and with a silver finished arm. This was also the first arm to utilise high quality tonearm cable and phono connectors, instead of the 'el cheapo' cable and connectors of the previous arms! The tonearm cable was Klotz GY 107 and the interconnects were terminated with Neutrik phono connectors. This arm was subsequently replaced by the RB700, which sported a newly developed coating for the arm tube and the bearing housing was redesigned and manufactured to higher tolerances. Additionally, there was a new rigid stainless steel 3 point mounting block to support the arm as well as a new, and in my opinion, considerably improved design for the bias adjuster as a small 'piston' underneath the arm clip.

Finally, we come to the Rega flagship designs, the first of which was the RB900 arm. This was similar to the RB600 but had a better finish to the arm, employed a rigid 3 point mounting system and was fitted with higher specification bearings. This arm was finally replaced by the RB1000.

The RB1000 in focus

The RB1000 is a development of the RB900 and benefits from more stringent quality control, a top quality finish and improved bearing specifications. The arm tube is polished aluminium with no external coating applied and is fitted with a new style rotary bias control. The arm wiring is a continuous run from cartridge tags to phono

plugs and is a low capacitance and high performance audio cable made by Klotz. The phono connectors are Neutrik ProFi Gold featuring a "ground before signal" function, achieved by a special spring-loaded shell element which protrudes out of the shell around the centre pin.

The Rega RB1000 is manufactured using modern computerised CNC engineering centres and assembled and checked by hand. The bearings are of an extremely high quality and are hand-graded. In fact, they are of a type normally found in navigational gyroscopes! The precision stainless steel shaft onto which these bearings fit is ground to a tolerance of within 5 microns. The bearings are selected and fitted onto shafts by hand and this results in the fit between the shaft, bearing and one piece arm tube all being interference fits with zero tolerance.

The base has a 3 point stainless steel mounting block and vertical bearing housing, which is CNC machined from solid stainless steel. This holds the second set of bearings which are hand fitted and into which the vertical shaft is fitted. These are also interference fits and therefore zero tolerance. Incidentally, this base is the same as on the RB700, but is ever so slightly larger than on the rest of the range. The arm pillar tube is a slightly larger diameter too!

As with all Rega arms, no provision is made for fine adjustment of the VTA, other than by the use of optional shims fitted underneath the 3 point fixing. Evidently, Roy Gandy is not a great believer in VTA adjustment, other than what is basically required to suit a particular make of cartridge. However, there are many people who believe (as indeed I do!) that VTA fine-tuning is one of the many essential adjustments required for an optimal tonearm/cartridge setup procedure! If the arm is too high (VTA too great), the sound will be harsh and thin with poor imaging. If set too low, the sound will be dull with 'boomy' bass, lacking detail and again with poor imaging. The correct point is unmistakable where the instruments and vocals snap into focus and everything sounds clear. To cater for us 'tweakers', there are several solutions out there in the form of VTA adjusters for the older RB250, RB300 and RB600, such as the Michell Engineering VTA Adjuster. However, the only company I am aware of that makes adjusters for the entire current range of Rega 3 point fixing arms is ISOkinetik. These are of a particularly high quality and one was fitted to the arm being tested.

All this sounds good in theory, but how does it sound in practice and is it really worth the extra cost compared to the other arms in the range?

Sound appraisal

The arm was installed on an ISOkinetik Modular One turntable and fitted with a Lyra Clavis DC moving coil cartridge. After carefully setting up the arm, the arm/cartridge resonance was checked and found to be around 10Hz, which is ideal. Tracking ability was the same as I usually get with this cartridge at 80 microns, as one would expect.

I slipped a copy of my old favourite Stravinsky's 'The Firebird Suite' (The Atlanta Symphony Orchestra - Telarc digital recording DG-10039) onto the turntable. It was incredible – the orchestra was singing to me! Rega's literature warns you not to be surprised if, when you listen to familiar music for the first time, you hear detail that you have not heard before. I can see what they mean! I was sure that a couple of extra musicians had somehow slipped into the orchestra while I was changing over the arm!

At the other end of the music spectrum, a friend of mine had persuaded me to obtain a copy of the three LP set of Laurent Garnier's 'Tales of a Kleptomaniac' (Pias Recordings PIASR 160 TLP) as a 'test' recording of techno/dance music. Especially on the first LP, there is an amazing techno bass line, but with some acoustic saxophone, trumpet, trombone and guitar mixed in for good measure. The bass was incredibly tight and while my woofers were massaging my kneecaps with the bass, the top end was coming through crystal clear! There was no tendency for the top end to be swamped by the bass – it was all there – power and detail faithfully reproduced. I was actually enjoying it!

Moving back onto home territory with some baroque music, I once again had the impression that I was hearing more from my records that I had been used to. Since the arm was the only thing that I had changed, this was the only possible variable that could have made the difference.

Of course, it should be noted that the RB1000 costs twice as much as an RB700, over four times that of a Rega RB301 and seven times that of a RB251, so is it really worth the money? Well, in my opinion, the answer is definitely 'yes'! The RB1000 has an unmistakable openness to the sound and the performance is more 'lifelike' when compared to the more junior arms of the range.

Then, what about modified 250 and 300 series arms by specialists in the field, such as Audio Origami? There is little doubt that these upgrades have an enormously beneficial effect and transform these arms into ones that can compete favourably with others way above their price point. I am a huge fan of these upgrades and, in my experience, for a modest outlay, these modifications tighten the slightly woolly bass, open up the sound stage and improve the overall tonal clarity when compared to the unmodified arms. But, of course, these upgraded arms are still fundamentally budget arms and the decision is whether to buy a Lotus or use the money to turbo-charge and tune up a Ford? Although the 1000 will set you back a lot more than an upgraded basic model, the result is something with just that bit more refinement in both looks and performance.

Conclusions

As with everything else in high-end audio, it boils down to the law of diminishing returns. Naturally, all this is subject to your turntable is up to the job, but assuming it is, whether the extra cost is worth the money will inevitably be down to individual preference. In my opinion, it certainly is.

Although considerably more expensive than other arms in the range, the RB1000 is very much a 'fully upgraded' product. The only extras that should be considered are a means to set the VTA accurately and perhaps a nice under-slung counterbalance weight. Other arms benefit from upgrades to the tonearm wiring, interconnect cable, phono plugs, foam filling, etc. and when you add up the cost of all these upgrades, it makes the RB1000 a very attractive proposition indeed.

The sound quality reproduced by this arm is fantastic, which only goes to prove that, as someone once said to me, there is always something more that can be extracted from a good mechanical analogue recording medium, such as an LP. At around £1,000, the Rega-branded RB1000 can compete very favourably with other arms and upgraded hybrids with a 4-figure price tag. I still think it needs a proper VTA adjuster as standard though – sorry Roy!

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