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HI-FI MUSIC GEAR

hardware review

Rega Nd5 moves the MM goal posts

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Rega Nd5 moving magnet cartridge

The Nd5 is the second of three moving magnet cartridges announced by Rega at the Bristol Hi-Fi Show, the first new examples from the company in over a decade. It resembles and is in almost all respects identical to the Nd3 entry level cartridge that we reviewed last earlier in the month, with a PPS body, aluminium cantilever and three point mounting on a fairly bulky body. Where it differs from the majority of MMs including the outgoing Rega models is in the very low inductance coils arranged symmetrically behind the area where tiny neodymium magnets are fixed to the back end of the cantilever. By creating a new way of arranging the coils within the body and using a low 1,275 turns of extremely fine 38 micron wire Rega have managed to reduce the inductance of the generator, this has the effect of increasing the high frequency output that it's capable of.

To achieve this they have used neodymium magnets, specifically N55 types which are the strongest commercially available variety. These are necessary in order for the Nd cartridges to produce a high enough output with so few turns, by comparison the Exact, which the Nd5 replaces, had 1,700 turns in its coils and thicker wire. The other benefit of the Nd design is that there is more space around the magnet at the end of the cantilever, giving it greater potential for movement.

MMs have historically always been less capable when it comes to higher frequencies than their moving coil cousins, which means that they have never been considered worthy contenders for those after the best from their vinyl. So Rega's approach is not insignificant, and combines with the relatively high output of MMs and they're reputed greater tracking accuracy.

It essentially means that you don't need to spend so much to get a cartridge and phono stage that can deliver the sort of results that have been only available with MCs in the past.
While the two Nd models released so far have different coloured bodies the only technical difference between the Nd3 (£175) and Nd5 (£295) is in the stylus, the former has a diamond tip bonded to a titanium shank while the Nd5 has an all diamond stylus with a true ellipse profile. Both have aluminium cantilevers and track at 1.75 grams, and they share outputs in the 5 – 6 mV range that suits MM phono stages with a typical 47 kOhm input impedance.

Installing the Nd5 in a Rega arm is very straightforward thanks to the three point fixing system. First connect the cartridge tags to the output pins matching up the white and blue left hand wires to the relevant pins and likewise the red and green right hand ones, then screw the three stainless steel fixing bolts through the headshell into the threaded holes in the top of the cartridge. Given the essentially plastic nature of the Nd body I was a little concerned about over

tightening and stripping the threads but Rega says that these are good for more than the 0.4nM provided by their cartridge torque driver, and tell me that they have gone as far as 1.5nM before something gave out. And that something was the hex head of the bolt rather than the cartridge body. Using the relatively short Allen key that Rega supplies pretty well ensures that you can't over tighten the bolts.

Installing the Nd5 in any non Rega arms is pretty much the same except that only the two half inch fixing bolts are used and alignment needs to be done with a gauge. The benefit of the three point fixing, apart from the rigidity it confers, is that it aligns the cartridge automatically. After that set the downforce to 1.75g and the anti-skate bias to around 1 and you are away.
I did this on a Planar 2 turntable and left the needle in a groove to run in for a few hours, optimum performance probably requires rather more time but the results achieved after a relatively short period were pretty damn compelling.

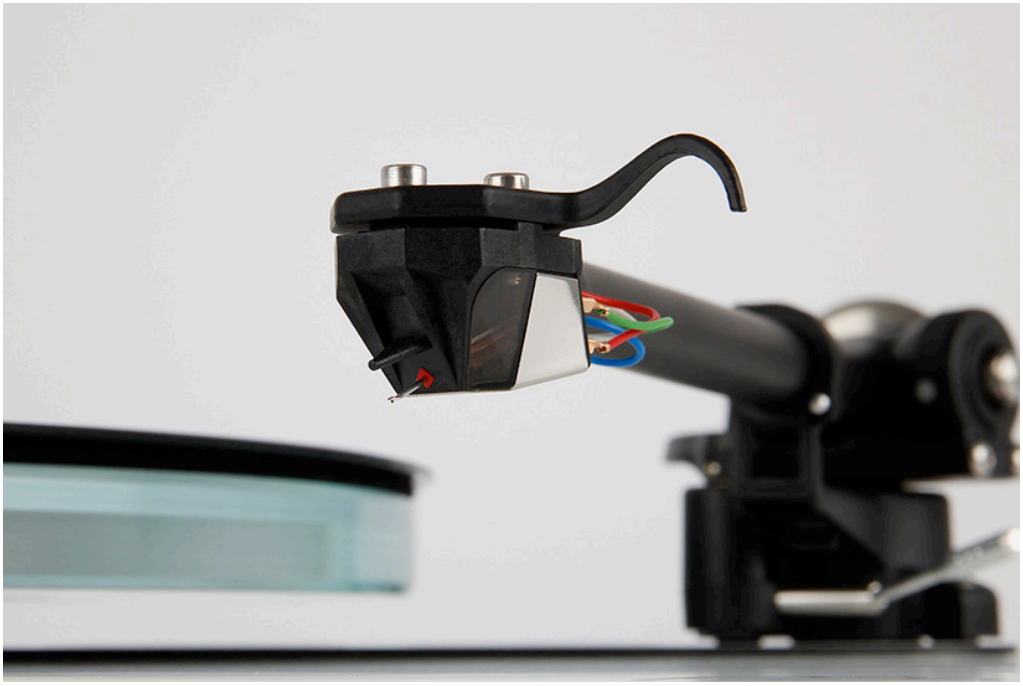
Sound quality

First however I contrasted the Nd5 with the Nd3 just to see what difference a tip can make. Quite a big one is the answer. The Nd5 is faster, tighter and more precisely focused than its more affordable sibling. It produces more of the harmonics and quieter details that combine to create a realistic, three dimensional image and this also results in a more engaging result that makes you want to keep on playing whatever is on the turntable. This is also a far more dynamically nuanced or expressive cartridge, it reveals the energy in acoustic instruments but likewise exposes the occasions when an instrument or voice has been compressed to keep the overall dynamic range of the recording under control. This was apparent with the horn break on Herbie Hancock's arrangement of Court and Spark, where Wayne Shorter plays the soprano saxophone superbly but is clearly delivering more level than was deemed suitable by the

engineer/producer. The vast majority of commercial recordings used limiting or compression because it usually sounds better overall and most sources don't reveal it too obviously. Fortunately the tune sounds excellent as a whole, albeit Nora Jones' vocal is a bit outgunned by both horn and keys.

One thing that Rega products usually excel at is timing and with the Nd5 that is obvious regardless of the music being played, even Mendelssohn Octets have a flow and melody which eludes the majority of digital systems. This is a Rega P2 remember, not a fancy turntable in the scheme of things but clearly a well sorted design that can reveal the benefits of a decent cartridge. It delivers fine detail and depth of image well too, the Nd5 is clearly sensitive to the quieter sounds in the groove and even with a Rega Aria phono stage it lets you know about all the important musical cues in the recording.

I contrasted the Nd5 with a Goldring 1042 as well, this is my reference moving magnet and sells for a similar price to the Rega, the Nd5 has the advantage of being on a Rega turntable



with a matching phono stage but I expected the Goldring to give it a run for its money. In some respects it did, high frequency performance was not far off and dynamic energy was very strong. However the Nd5 is considerably more refined, clean and open, with much more shine in the treble and a presentation that is relaxed and nuanced by comparison. It would be fairer to try both in a different turntable of course and do so over a longer period but I suspect that the work that Rega have done to redesign the generator in its Nd cartridges will give it the edge in most situations.

Rega Nd5 verdict

I also played Timeless by John Abercrombie, this combines low bass synth with guitar and drums on an excellent ECM recording, it sounded stunning on the P2/Nd5 combo. Super deep in the lows and entrancing throughout, it really delivered the goods in a way that a sub £800 record player rarely does, OK the rest of the system is more pricey and helped a lot but the source is critical and by virtue of its neutrality, clarity and tracking ability the Nd5 proved to be more than adequate to the task. In many respects Rega have proved that you don't need to spend a fortune to get high quality results with vinyl, all you need are the records. I thought I had enough of them but this cartridge makes it clear that all the stuff I love on digital could sound better.

Specifications

Type: moving magnet cartridge
Body: PPS
Cantilever: aluminium
Stylus: true elliptical diamond
Tracking Pressure: 1.75g
Input load impedance: 47kOhms
Nominal output voltage: 5-6mV
Channel Balance : not specified
Separation : not specified
Mass: 6gm
Warranty: lifetime warranty against manufacturing defects