

hi-finews GROUP TEST

Newcomers and the latest generation of old favourites from some of the biggest names in vinyl replay, but how will these five tonearms stack up when compared head to head?

TONEARMS £240-£1400

TESTED THIS MONTH

REGA RB303	£240
CLEARAUDIO VERIFY	£640
FUNK FIRM FXR II	£1175
AUDIO NOTE ARM THREE v2	£1265
ORTOFON TA-110	£1410



Cutting-edge gear, cherry-picked by the *Hi-Fi News* editor



The pinnacle of sound quality within its peer group



Great sound, great value and a cut above its rivals

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In a record playing system the turntable itself provides the essential platform for spinning precious vinyl discs. And, of course, one's cartridge plays a dominant role in determining the sound of an analogue front end. Oh, and let's not forget how crucial the phono stage is in a vinyl playback chain too.

SHIFTY LITTLE BLIGHTERS

Central to the performance of a record player, however, is the arm. This should provide an inert platform for the cartridge, allowing the stylus to track the minute modulations of a record's groove unimpeded – and without adding colorations to hinder fidelity. But all arms impart a degree of tonal character to the sound of a record player. As the Editor wrote the last time we undertook a group test of arms: 'the little beggars bend, ripple, twist and even expand and contract' [*HFN* June '10]. No wonder they're called *tonearms*!

For auditioning this month's group we employed the services of a fabulous turntable, Clearaudio's massive Innovation with its ceramic magnetic bearing and

optical sensing speed regulation, and a 70mm platter made of Polyoxymethylene (POM) thermoplastic with additional stainless steel sub-platter – a high-end motor unit indeed! The cartridge used was Ortofon's lovely Cadenza Blue moving-coil with ruby cantilever and Fritz Geiger stylus. Step-up was via a super quiet Sensor Prelude phono amplifier made by Poland's RCM Audio. The rest of the test system comprised my resident combo of Mark Levinson No.383 integrated amp driving Townshend Audio's huge Sir Galahad loudspeakers. The listening room was pictured in *HFN* April '10.

LPS ARE FOR PLAYING, NO?

Optimal set-up of the cartridge in each arm was dialled-in using Ortofon's *Pick Up Test Record 0002*. Musical excerpts for the listening included 'The Footstomper' by Harry James from the LP *Comin' From A Good Place* [LAB 6]. This was one of Sheffield Labs' direct-cut live recordings from 1977. Only a limited number of records could be pressed from the master. The dynamic sound of the swing band

is astonishingly real. Next came 'Happiness Is Easy' from Talk Talk's *The Colour Of Spring* [EMI 24 049 1]. Mine is a treasured white label test pressing cut as two single-sided discs. I guess I shouldn't be playing it (or the Sheffield record) over and over again like this, for listening tests, as doubtless they are both collectors' items. But heck, records are for playing, not hoarding, right? I also played 'Double Trouble' by Eric Clapton, recorded live in Tokyo's Budokan Theatre in 1979. The legendary concert was released as the 2LP set entitled *Just One Night* [RSO Records RSDX 2].

Finally I used the first movement of Rachmaninov's *Symphonic Dances* by the Dallas Symphony Orchestra under Donald Johanos, recorded in the orchestra's local McFarlin Auditorium. This audiophile analogue favourite was famously recorded straight to stereo, using a valve-based Ampex tape recorder running at 30ips. My 1988 limited edition Athena 'super cut' pressing is on premium vinyl [ALSW 10001].

REVIEWS BY JOHN BAMFORD
LAB TESTS BY PAUL MILLER

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Clearaudio Verify (£640)

You wouldn't say so to look at it, such is the high quality of finish, but the Verify is in fact Clearaudio's new 'entry-level' tonearm. It's a development of the arm that comes fitted to the German company's Concept record player, an attractively-priced combination of turntable, arm and cartridge that's ready to go, straight out of the packaging, once you've put on the platter and belt.

The Verify's single piece arm tube is formed of carbon fibre, the arm employing a magnetic bearing that functions much like a unipivot design, but with better stability so making it easier to operate. A powerful magnet attracts the arm upwards towards the 'bearing' yoke, the arm tethered in place by a tie wire within the arm pillar that also applies the anti-skating force. Bias is adjusted by rotating a knob situated at the base of the arm pillar, which will be awkward if the arm is installed on a turntable with an enclosed plinth.

A 1.2m Clearaudio 'Directwire' arm cable is fixed to the arm – which negates upgrading – however it does provide a continuous link without any breaks from the cartridge tags through to the RCAs.

A QUIET CONFIDENCE

The Verify grew on me the longer I listened. While initially appearing to lack the pizzazz of the Rega and Audio Note arms, for example, I soon appreciated that there was an absence of 'bloom' that allowed me better to hear into the fine details buried in recordings. So where

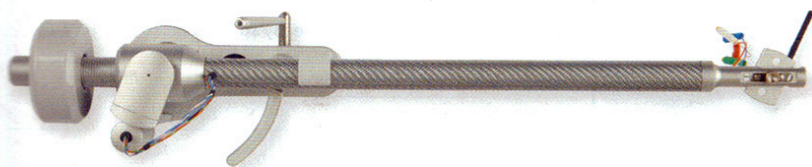
the performance of the Dallas SO seemed less boisterous than with some other arms here – and the Clearaudio certainly didn't deliver the visceral bass power of the timpani with as much energy as the Funk Firm's FXR II – it did create a magnificent image of the acoustic space of the McFarlin Auditorium where the recording was produced.

Likewise with Harry James' 'The Footstomper', the bass player, set back from the plane of the loudspeakers and often quite difficult to 'pitch', was most

distinct and easy to follow. Imaging was also top-notch, the Verify seemingly going about its business with a quiet confidence and proving capable of excellent differentiation between the various instruments spread across the soundstage.

High frequencies were handled in fine manner, the percussion in the Talk Talk track sounding crisp, finely-etched and very natural. With a degree of the smoothness shown by the Ortofon TA-110, the Verify was commensurately kind to the surface imperfections of my over-played copy of the band's *Colour Of Spring* album. Better than any arm in the test group the Verify allowed me to hear deeply into the recording's production, so that I observed instruments and effects part concealed in the mix with ease.

Sound Quality: 80%



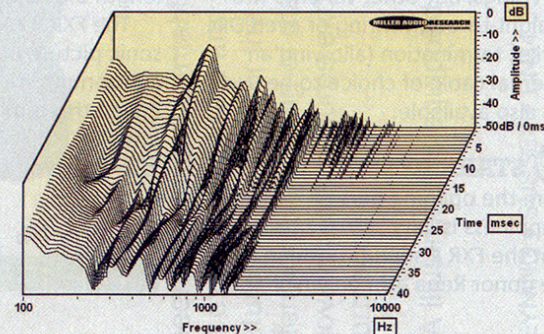
ABOVE: Clearaudio's new entry-level Verify employs a carbon fibre arm tube. Its magnetic bearing arrangement is designed to avoid 'chatter'



ABOVE: Cartridge alignment is a breeze thanks to the design of the offset fixing plate, secured with screws for adjusting azimuth and with a slot for setting overhang

HI-FI NEWS LAB REPORT

We've tested all Clearaudio's carbon-fibre tubed tonearms and also those employing a 'magnetic' bearing so it's reassuring to witness the performance of this Verify derivative combining facets of the alloy-tubed/magnetic bearing Concept [HFN Jul '10] with the carbon-tubed Magnify [HFN Jul '11] and Universal [HFN Nov '10]. As with the Concept, bias and downforce are uncalibrated, the latter actually reducing as the arm moves off parallel. Bearing 'play' is determined by the strength of the surrounding magnetic field. Otherwise, the 9in carbon arm tube shows the same, deferred main beam mode as the Universal at a high 350Hz together with complex, but low-level, higher frequency modes more redolent of the single-piece Magnify. PM



ABOVE: Cumulative resonant decay spectrum, 100Hz-10kHz

Bearing / bias type	Magnetic / twisted wire tether
Effective mass / length	9g / 239.3mm
Offset angle / overhang	23 degrees / 17.3mm
Downforce accuracy (at 2g)	uncalibrated
Cartridge weight/compliance range	2.5-17g / 12-25cu

GROUP TEST VERDICT

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It's no wonder that the world of vinyl replay is inhabited by many hobbyists who enjoy experimenting with combinations of arms and cartridges on their decks, such are the possibilities for tuning the sound.

Hearing Ortofon's TA-110 is a case in point. I was highly enamoured of the TA-100 model last time around, but found this latest '110 rather bloated and soft-focused. Is the sound of this new version significantly different? Without hearing the two side by side it's impossible to say. Don't write off this exquisitely made Ortofon. As it's 40% more expensive than its predecessor we've reduced the sound quality rating, nevertheless.

I still love it to bits and I'd be proud to own it. But in my system it would have to be on a different turntable, as its marriage to Clearaudio's gargantuan Innovation deck was not a successful one.

'Heck – it has ruinously expensive pure silver wiring'

BUDGET CHOICE

Rega's latest RB303 is a chip off the old block. This arm is a dream for vinyl fans on an austerity budget. Okay, so it's not the sweetest-sounding of tonearms and it can sound a little strident on 'hot' cuts, but it is sure-footed and dynamic and one can't argue about the tremendous value offered. I've seen some dealers offering £100 trade-ins for (un-modified) RB250 and RB300 arms – so current Rega owners can



BELOW: Funk Firm FXR II: once a Rega, now a turbo'd hot rod

ABOVE: A star performer, the Clearaudio Verify – fine build and hear-through clarity

upgrade to a new RB303 for little more than a couple of rounds in the pub and a curry with their mates.

Audio Note's Arm Three v2 sounded similarly fast and dynamic but noticeably superior to the Rega in its delicacy of treble and resolution of detail. Image depth seemed greater, too. While £1265

detailed bass and wonderful image perspective. It's expensive given that it's a re-worked Rega – a tweaker's arm if ever there was one – but the man-hours involved in building it will be considerable and it does provide height adjustment of the pillar.

Hurrah! Give the Funk Firm a call if you've an RB250/300/251/301 that you'd like re-worked as the company offer discounts to those supplying donor arms. They make 12in versions of their arm tube as well.

A CLEAR(AUDIO) WINNER

Clearaudio's Verify arm was the star performer of this month's group. It sounded all of a piece in the test system: civilised and 'quiet' with wonderful transparency through to the inner details of recordings.

Clearaudio also makes a £460 'VTA Lifter' for its arms that allows precise and repeatable adjustment of VTA on-the-fly. With the Verify that would make for a vinyl tweaker's heavenly tonearm, for £1100. ☺



ABOVE: Rega's RB303 – vivid sound and an audiophile bargain

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