

Microfine

Hanna fit a Microline stylus to a quality moving coil cartridge for a fine result. Noel Keywood listens.



Hana pickup cartridges, manufactured by the Excel Sound Corporation of Japan, have a wondrously smooth sound, unaffected by the special build techniques and materials finding their way into some of today's hi-tech designs – boron cantilevers and diamond deposition coming to mind. No criticism of the latter: it's just to get into perspective what I'm reviewing here in their new and lovely ML & MH moving coil (MC) cartridges. And not only are they quietly sublime – but also affordable! Just £95 for either model, a low price for a quality MC.

What we have here are a pair of moving coil cartridges fitted with a Microline stylus. The ML is low output – hence the L suffix – the MH high output. The MH has just enough output for a normal moving magnet (MM) phono stage; you have to turn volume up though and hiss may be an issue if your MM input is a bit noisy in itself. Good modern ones are not, so the MH looks good for those who'd like to enjoy MC quality without having to upgrade to a specialised external MC phono stage.

But, there's a drawback more turns are needed on the signal coils,

increasing effective tip mass and reducing mid-band tracking ability.

The ML has the typically low output of a moving coil cartridge and needs a dedicated MC phono stage. But whilst low output may seem to be a drawback there are benefits and – fundamentally – it's always better to go the low output route if you have a phono stage to suit. This is the quality option. Tracking is better than a high output type.

Both cartridges are built on a moulded black Delrin synthetic body that has captive nuts built in. This makes for easy mounting, especially in fixed headshell arms (Raga and SME). You hold the cartridge body beneath the shell and pop in the aluminium screws supplied from above. Only two screws are needed and supplied, as the screws are long enough to cover all headshell thicknesses. Because the inserts are also long and buried in the body the screws remain concealed, making for neat looking installation.

Weighing 9gms each, both will balance out in any arm and are therefore compatible. Only when cartridge weight exceeds 10gms does it become a possible issue, although most arms accept up to 12gms. I used both in our reference SME309 with removable headshell and there were no fixing or balance issues. Where most cartridges come with a set of fixing screws and matching nuts, often with and without flats (old Audio-Technica). Hanna supply just the two screws mentioned and a stylus brush as accessories.

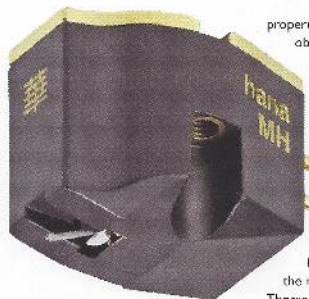
The Microline stylus is an advanced contact shape that perfectly replicates the cutting head of a lathe. Audio Technica explain

in their literature. I believe also Microlines are laser cut, where Shiburas are ground. Whatever the Microline is a modern and advanced long contact shape with small minor radius that makes it able to read high frequencies with ease – and our measurements confirmed this clearly. Both Hannas were ruler flat to 20kHz even on inner grooves. So the Microline stylus in both ML and MH fulfils its promise. These cartridges are better than most at getting information from the groove.

The nude stylus is attached to an aluminium cantilever. All the magnetic circuit parts are cryogenically treated (frozen close to absolute zero) to improve their magnetic properties by altering the crystalline structure of the permeable metals used.

Tracking force is 2gr for both models, with no variation suggested. The MH has a coil impedance of 130 Ohms whereas the ML is 7 Ohms due to its smaller number of turns. The MH suits 47k loads (MM) Hanna say, and the ML the usual 100 Ohm load presented by an MC input.





The MH has the same construction as the ML and higher output, but tracking suffers as a result.

Output of the MH is quoted as 2mV where the ML is 0.4mV.

SOUND QUALITY

The ML and MH were mounted, in turn, into our SME309 arm atop a Timestep Evo modified Technics SL-1210 MkII Direct Drive turntable. Phono stage was an Icon Audio PS3 MkII which has input transformers for MC, making it hiss free, feeding my preferred amplifier for electrostatic loudspeakers, an Icon Audio Stereo 30SE single-ended, in this case fitted with new and special KTI50D valves developed by Icon Audio (see review in this issue). This amplifier fed our Martin Logan ESL-X hybrid electrostatic loudspeakers. An Isotek Evo 3 Mosaic Genesis regenerated mains power supply was also used.

I listened to the ML first, on the basis that it is the higher performance design, the MH being a compromise aimed at those without an MC phono stage. And particular

properties of the ML became obvious very quickly.

Like most long-contact tip shapes the ML makes higher frequencies obvious – no warmth or wooliness here. No blurred images either.

My listening notes pick up the issue of an airy spaciousness and intense insight with intricate detailing.

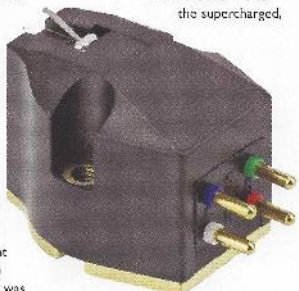
Most impressive of all was the rendition of Marianne Thorsen playing Mozart violin concertos, from TL of Norway. This DXD recording on 180gm vinyl was almost magically transcribed by the ML. It gave more insight into Marianne Thorsen's violin and better presented her wondrous playing than I have heard before.

Not only was there insight into the instrument and space around it, but a firm sense of body too. It was the best I have heard from this 'difficult' LP – and a tribute to the ML's Microline stylus. The slight sense of shimmer I often hear was replaced by a steady confidence in transcription, full of life and vigour

violinist, floating at the back of my mind that I've never heard such a good sound as this before.

Yep, that does count out digital, although possibly not DSD. The complaint that LP is no good for classical performance because of ticks, pops and background noise didn't enter my experience here at all. The instruments of the Trondheim Soloists backing her were all finely displayed across a wide and open sound stage. Beyond wonderful.

From the sublime to the supercharged,

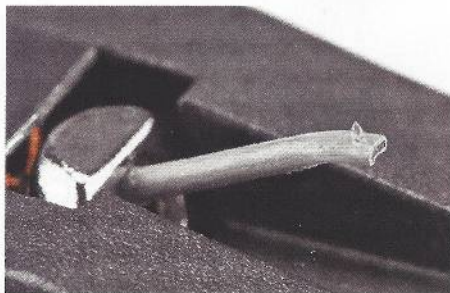


Connection is through colour coded pins, red/ green right-channel +/- and white/blue left channel +/-.

"time to sit back and enjoy the wonderful playing of a superb violinist".

but believably firm and steady too. Time to sit back and enjoy the wonderful playing of a superb

I had to – and wanted to! – spin some 12in 45rpm singles that have higher modulation amplitudes and velocities than 33s, to assess both tracking ability and bass impact. Alison Goldfrap's Ride A White Horse thundered out confidently, with firm and obvious bass from the backing drum synth. Not quite the grip of our Orcofon Cadenza Bronze but similar weight and close enough. Carol Kenyon's Dance With Me was similarly fast, impactful and better resolved than I have ever heard it; there was more insight and retrieval of fine detail, again a sense of open spaciousness yet no glare or edginess. It was as if the performance had been washed clean of slight murk, sent out in new pristine form. The strong background disco beat pounded out – and I



The ML MC stylus cantilever is an aluminium tube and the stylus shank rectangular for accurate orientation on the tube.



The ML has bonded-in brass sleeve-nuts for ease of attachment.

"superb clarity and insight but without the cold mechanics of a boron cantilever"

smiled. No intermittent buzz from obvious mistracking, or the loss of confidence from weak groove contact. The ML showed it could both handle this single and resolve better than I have heard before. Carol Kenyon's vocals complete with added reverb being left out with superb clarity and insight but without the cold mechanics of a boron cantilever, for example.

With Lyn Stanley's Moonlight Sessions LP from a first generation

stamper (45rpm, 180gm) the MH tracked well, as it did with other 12in 45s cut at high level. It only mistracked obviously with the highest level Flute test on Shure's Audio Obscure Course Era IV test disc (TTR115) – an extreme cut. It sounded a tad sharper and harsher than the ML though, the word 'wash' in a Lyn Stanley song sounding distinctly edgy for example. The MH did, all the same, have the revelation of the ML.



The black Dairin body weighs 9gms, a figure all arms can handle.

MEASURED PERFORMANCE

Tracking at 2gms as recommended, both the ML and MH cleared all but the top tracking test of CBS-STR112 test disc (300Hz), failing the top 90µm cut – good, but rivals mortgage biller.

With our B&K201D test disc tracking in the standard 1kHz) was mediocre with both ML and MH, 16cms/sec being just cleared versus 20cms/sec is expected and the top 25cms/sec track hoped for. Worse, the MH jumped out of the groove at 25cms/sec – drastic. It is zero for a cartridge to clear the top 25cms/sec track of B&K 201D, where low tip mass becomes important but over budget cartridges manage it regularly. Overall then, tracking performance was mediocre.

Frequency response (JVC TRS 1007 test disc) of the ML was unusually flat right up to 25kHz our analysis shows. Even on inner grooves (not trace) the ML displayed little tracking loss due to the Microline stylus – impressive. How the ML managed better than most

other cartridges tested to date. The MH was similar.

Output of the ML measured 0.37mV at 3.64cms/sec, a nominal value. The Left channel measured 1dB higher than Right – not so good. Separation between channels was high at 30dB. The MH delivered 2.2mV at 3.64cms/sec as output and adequate for an MM input.

Distortion on lateral modulation was low at 1% across harmonics, and reasonably low too on vertical modulation at 3.3%. Vertical tracking angle measuring 26 degrees, a small amount above the 22 degree ideal. The ML measured well in this area, the MH being similar. NR

Tracking force	2gms
Weight	9gms
Vertical tracking angle	26 degrees
Frequency response	20Hz - 20kHz
Channel separation	30dB
Tracking ability (300Hz)	
Lateral	63µm

vertical	45µm
lateral (1kHz)	16cms/sec

Distortion (45µm)	
lateral	1%
vertical	3.3%
Output (6cms/sec rms)	0.5/2.2mV

FREQUENCY RESPONSE ML



FREQUENCY RESPONSE MH



HANA ML £955.00
HANA MH £995.00



OUTSTANDING - amongst the best (ML).

VALUE - keenly priced

VERDICT

The ML is a smooth and subtle moving coil with deep insight, focused detailing and imagery. The MH is less impressive.

FOR

- specious and insightful
- easy to fit
- low price

AGAINST

mediocre tracking ability

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