

Poles Apart



Noel Keywood finds Nagaoka's new MP-150 moving magnet cartridge to be dramatically different to its rivals, and even the company's older designs too...

I gleefully tested Nagaoka's venerable MP-11 pickup cartridge in our May 07 issue. Its age showed, but so did its pedigree, in some areas bettering modern designs thirty years or so younger. Recently, with no fanfare, Nagaoka updated their entire range. Spotting this, we asked to review an MP-150, price £125. Could the new Nagaoka cut it against the likes of today's Goldring's and Ortofon's we wondered, in a part of the market where competition gets serious - and so does sound quality?

Nagaoka as a company specialise in working difficult materials, including magnets, ceramics and diamonds, perhaps explaining their interest in producing a range of pickup cartridges! At least the symbiosis is obvious, unlike Yamaha, whose interests include pianos and fast motorbikes! Bodywork styling takes its cues from biscuit tin design and the 150 comes in fetching shade of green, chosen to commemorate a

"the MP-150 tracks stably and sets up an impressive performance".

bad night out in Roppongi, I suspect... When installed, the large frontal overhang, which completely obscures the stylus and makes cueing a bit

hit or miss, protruded from the headshell of my SME312 with the unbridled attraction of a Ford Transit's rear. You have to look elsewhere to find loveliness in this cartridge - but happily it is there.

What you get in the MP-150 is an induced moving magnet (MM) generator, the stylus being user removable as usual. The static signal coils and Samarium Cobalt field magnet sit in a Permalloy case which provides magnetic shielding, a common arrangement. The cantilever is a tapered tube of hardened aluminium for high stiffness and low tip mass. The stylus is a normal elliptical type, at the narrow end of the taper. At the top of the cantilever sits a small permeable alloy tube acting as a moving magnet element.

Tracking force is quoted at 1.5-2gms and I used 1.8gms., as tracking is fine at that force. At 6.5gms the cartridge is relatively light, in view of its size, probably due to a light plastic body, within which Nagaoka use carbon fibre reinforcement where strength is needed. All arms will accept a cartridge of this weight, so no problem here.

What I have described so far is a standard MM cartridge, little different to any other, including Nagaoka's old MP series from the nineteen eighties. Designs like this are brought up to date by introducing modern materials, especially more powerful magnets, often Neodymium. This changes everything. Output goes up, but is commonly traded against reduced coil turns to improve bandwidth.

This is what Nagaoka have done within their new range I suspect, much like Ortofon and Goldring before them. Our measurements suggest so, showing flat frequency response up to 10kHz. This banishes the warmth we got from earlier models, bringing a clearer more balanced sound, with detail and air around it. As wire degrades sound, through impurities and noise (yes, wire is noisy) what all cartridges need is better wire and less of it. Improved modern materials make both goals possible, and this is what Nagaoka have exploited to update the MP-15 to MP-150.

SOUND QUALITY

Spinning my new 200gm vinyl pressing of Cat Stevens' 'Teaser and the Firecat', which has been rebalanced to bring up lows I should point out, 'Tuesdays Dead' brought out a wonderfully forthright and vigorous delivery from the MP-150. It is fast and clean, with strong midrange dynamics that highlighted the enthusiastic use of percussion on this track, making it both obvious and exciting. A gentle veiling of vocals was apparent too. This likely comes from the stylus because there wasn't a surfeit of inner detail, either within this track or 'Bitterblue', certainly not the level available from a Goldring 1042 with Fritz Geiger S stylus. However, the upper treble lift [see MEASURED PERFORMANCE] was plainly audible and seemingly strengthened detailing, although it is a somewhat different effect in truth. It gave strummed guitar real bite, emphasising Cat Stevens' fluent technique.

Although the stylus doesn't see into the finer intricacies of instruments and is the obvious weak point of this cartridge against a Goldring 1022GX or 1042, at the same time I liked the way the MP-150 cartridge tidily assembled instruments across the soundstage and could resolve finer dynamic shadings, those gentler accents and nuances that go to make up the tapestry of a performance. It was at the same time easy on the ear, with an engaging and enjoyable delivery that worked for me better than the equivalent Ortofon 2M Blue, whilst being tidier and more concise than the 1022GX if not as strenuous at low frequencies.

That the MP-150 is both modern and well honed is right there in its basic delivery: it pushed Amy Winehouse out from the loudspeakers with a candid vigour that had me drawn into 'You Know I'm No Good'. There's none of the warmth of old, nor the soft bass. Kick drum had plenty of force behind it and percussion stabbed out sharply. I fancy the MP-150 is one of the most dynamically engaging cartridges available at its price point, yet at the same time smooth and svelte in its presentation. There are no rough edges, other than that treble lift that just occasionally brought an edge to fricatives.

Often sounding a little raucous with less than sophisticated budget cartridges, the horns at the start of Phil Collins' 'I Cannot Believe It's True' on his album 'Hello I must Be Going' (200gm pressing) were nicely composed and, again, easy on my ear as a result. The MP-150 tracks stably and sets up an impressive performance here, right up amongst the best at the price. Cymbals shimmered brightly for sure, springing vigorously from the mix, but at the price I can forgive this departure from perfect accuracy. Instruments were sharply outlined and clearly placed on a well lit sound stage laid out in front of the loudspeakers.

Bass lines were deftly captured and neatly described, although not sounding as fulsome as from a Goldring. Instead the MP-150 delivers bass with a licheness that underlines the rhythmic pace of music.

I know from past experience that Nagaoka are very well engineered and something to be taken seriously, so 'my' MP-150 did a little travelling, finding itself in an SME M2-10, Rega RB250 and Rega RB300, as well as the SME312. It was a natural partner for the RB300 as this arm supports forceful dynamics from a cartridge. The SME312 is an altogether

smoother and slicker operator, as a 12in arm should be, but not a price match of course. The forward projection of the body nestled beneath the RB300 headshell better than the SME312, and in both arms the counterweight had to be moved forward to balance the low 6.5gms bodyweight, tracking force being set

I would guess the cantilever of the MP-150 is a touch more advanced than that of the nearest Goldrings, explaining the strong dynamics accompanied by a relative lack of mechanical overhang and colouration, but the simple elliptical stylus isn't anything to write home about and here the MP-150 falls

"one of the most dynamically engaging, yet svelte sounding MM cartridges at the price..."

at 1.8gms.

The Nagaoka MP-150 also scored in its ability to make the most of old, worn LPs without introducing harshness or muddle. A long term tester I use for this is 'Down in the Sewer', that runs to end-of-side on the Stranglers first LP, 'Ratus Norvegicus'. A complex performance like this on well worn inner grooves from 1976 isn't easy to make sense of yet the MP-150 did a slick job, usefully smoothing out the upper midband, whilst keeping muddle and distortion at bay. Jean Jaque Burnell's bass work was deftly picked out and Jet Black's drums rolled firmly out to sound stage extremes. Even the rats' squeakings reverberated nicely around the room, given a little boost by the rise in treble that exists even at the last grooves, as our measurements show. The MP-150 stays clean, composed and enthusiastic to the last.

CONCLUSION

Nagaoka have always made a well engineered, but also nicely judged cartridge. They haven't lost their touch with the MP-150. At the price it is one of the nicest, most dynamically engaging and yet svelte sounding MM cartridges available. It's a fun listen that gets a great sound from vinyl, without rough edges ever becoming obvious. Total perfection hasn't been achieved for £125, but engineering good budget products is as much about balancing compromises sensibly such that weaknesses remain subjectively benign and here Nagaoka have been skillful.

back, it's still a very good cartridge though, capably demonstrating just how modern materials have moved moving magnet cartridges ahead. The MP-150 a force to be reckoned with at this price point: it's almost up with the best from Goldring and Ortofon in a neck-and-neck race, if not convincingly ahead.



VERDICT ●●●●●
Dynamically strong and concise, but slightly opaque sounding high end moving magnet.

NAGAOKA MP-150 £125
Musonic
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www.musonic.co.uk

FOR

- revealing midband clarity
- firm, lithe bass
- good dynamics

AGAINST

- stylus lacks resolution
- awkward cueing
- it's, ermm, green!

MEASURED PERFORMANCE

Frequency response of the MP-150 measures flat right across the audio band until 8kHz, where it suddenly rises to a +5dB peak at 18kHz due to tip mass resonance. Tracking loss on inner grooves pulls this down a little to +2dB or so, which is still a little high. Some brightness will be heard in use and inner groove distortion will not be disguised.

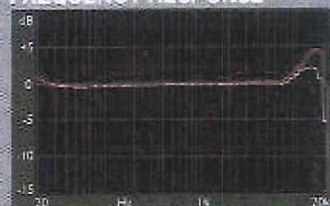
Tracking was good: if not quite up with the best - nor the MP-11 we reviewed. Only top torture tracks induced mistracking however; in use mistracking is unlikely to occur.

Lateral distortion was normal at 1%, but vertical high at 4.6%, due to excessive Vertical Tracking Angle of 30 degrees. This is mostly second harmonic but it may degrade left and right intage cleanliness. Output was fair at 5mV at 5cm/sec rms, preamp hiss should not be obvious.

The MP-150 measures well. Its frequency response means it will be accurate and revealing, with a bright tinge. NK

Tracking force	1.8gms
Weight	6.5gms
Vertical tracking angle	30degrees
Frequency response	20Hz - 10kHz
Channel separation	33dB
Tracking ability (300Hz)	
lateral	85µm
vertical	45µm
lateral (1kHz)	20cm/sec
Distortion (45µm)	
lateral	1%
vertical	4.6%
Output (5cm/sec rms)	5mV

FREQUENCY RESPONSE



Red - Outer grooves
White - Inner grooves