

EAT Jo N°5

Following its ever-descending prices for its high-value turntables, EAT (European Audio Team) has issued the Jo N°5 moving-coil cartridge to do the same for phono pick-ups
 Review: **Ken Kessler Lab: Paul Miller**

As if to answer my continued pleas for sane price tags, and my continued dismay at the fees charged for some MC cartridges, the inclusively named European Audio Team (EAT) has delivered what may be a game-changer. It was the talk of 2018's High End Show in Munich, not least because it looks unlike nearly any cartridge ever seen before. And another thing: the EAT Jo N°5 sells for £999.

OK, so a grand is still outrageous money for any phono cartridge, but it pales in comparison to the top-end Koetsus and Transfigurations and Ortofons and Lyras and all of those other cost-no-object, hand-crafted designs. Then you hear it and you start thinking, *hmmm*, the Law of Diminishing Returns was just re-enacted...

PRESENTED WITH PANACHE

With her second MC, after the dearer Yosegi [HFN Mar '12], EAT's Jozefina Lichtenegger [see boxout, p61] is doing her best to reconcile two seemingly incompatible goals. The first is wanting to make high-end equipment that represents supreme value. Equally, she wishes to add a frisson of the pleasure she derives from another of her interests: designer fashion.

Think about it. Here we have a relatively affordable cartridge, but one presented with more panache than just about any piece of hi-fi equipment one can name. It is a genuine attempt at treating high-end audio components for what they are: luxury purchases. To that end, it even applies to the packaging [see p63].

For openers, she's coloured the Jo's rounded body in a shade of mint green that can be found in one of her Pucci frocks. She gave the oversized body shell an organic, almost lascivious form. It sits on the end of your tonearm looking like a plump, inviting, yummy marzipan egg, waiting to be popped into one's mouth.

RIGHT: Tracking performance is good from the exquisitely mounted (8x40µm) line-contact diamond despite the relatively low compliance, and output level is higher than quoted at 450µV



But all of that is about the look, and must be regarded as one would the body of a sleek and sexy supercar: secondary to the tech underneath. While one can argue about the aerodynamic qualities of, say, a Ferrari 812 Superfast, the cognoscenti are more concerned with the drivetrain. So, too, the Jo N°5, which, with its body removed, must contain the guts that retrieve music from the grooves of an LP.

To be fair, however, EAT has paid as much attention to the pale green shell as a carmaker would the coachwork, which recalls practices of the past. In the 1980s and '90s, companies making MCs were divided between those who went for rigid shells and those who opted for none at all, *eg*, EMT and van den Hul. Then there were Deccas which were – literally – made from tin cans, the rare ART 1 with its solid graphite body, Koetsu's range of woods, artisan lacquers, semi-precious stones and more.

For the Jo N°5, the body and the stylus guard are produced by 'an additive manufacturing process' called Selective Laser Sintering. It sounds a bit like the

build-up of 3D printing, in that the process sinters thin layers of polyamide powder with a laser to build the final structure. The resultant form does recall one cartridge of the past, albeit smaller: Goldbug's Mr Briar, also egg-shaped, but made from wood.

Which brings us to a non-sonic option. To enhance ownership still further, the EAT Jo N°5, which arrives in a simple card box, can also be purchased with

a handsome, limited-edition walnut enclosure. It is a luscious piece of furniture, measuring 145x155x60mm, with a hinged lid and magnetic closing mechanism, lined with suede.

It is so lavish that I thought it might house a fine dress watch – which is exactly the effect Jozefina wanted to elicit. The deluxe box costs an extra £80 or so, and its worth is based solely on your attitude toward the finer things.

SIMPLE SET-UP

Back to the cartridge, though. It is almost comically large. The cartridge body measures around 30mm from front to back, not counting the pins, and it is 25mm across at its widest point. Its only set-up issue might be its height, since it stands a tall 19mm. Despite the bulk, the 15g bodyweight might have been higher still, and the shell is held in place by a set-screw on its underside, near the back [see p63].

As for the innards, the Jo N°5 is a classic moving-coil design with a nude fine line stylus with an 8x40µm tip radius [see inset shot, boxout p61]. The coils are made of pure 4N copper and the rated, low 0.33mV output was bettered when editor PM got it onto the test bench [see Lab Report, p63].

It tracks at a recommended 2.2g-2.5g, which some might find a bit much when the world swears by 1.8g as a universal ideal, but that's a personal hangup which I do not happen to share. Despite a body with no easy-to-align parallel sides, set-up is not too bad because the vivid colour contrasts with one's headshell, just as its

'I was staggered by the majestic scale from start to finish'



positioning all but shouts out its orientation. I set it up so the top of the cartridge was absolutely horizontal in my SME Series V tonearm, matching the gold line along the arm tube – the usual tonal changes occurred if the back was raised or lowered.

Then we come to the electrical settings. Here I may upset some, because I rarely use factory settings, preferring to establish the load by ear. This cartridge calls for 20ohm, but I preferred it at around 100ohm. I used this with the obvious phono stage, EAT's own E-Glo, with its plethora of adjustments. Suffice it to say, the cartridge responds vividly to both changes in the loading and VTA

ANALOGUE WITH FLAIR

Jozefina Lichtenegger's audio journey is an admirable one, especially to those for whom provenance, hands-on manufacturing skills [note the precise mounting of the N°5's diamond – inset picture] and tenacity are important. Driven by a passion for classical music, a devotee of Bruckner and Wagner, Jozefina started out not with turntables or cartridges, but with valves. In 1999, still in her teens, she worked with VAIC in the Czech Republic, touring the world's hi-fi shows to promote the company's tubes. She eventually relaunched the products herself under the European Audio Team (EAT) brand, and still produces tubes in limited quantities. Her attention turned to turntables, with the now-established two-motor Forté models, and inventive entry-level models priced below £2000. Since then, Jozefina has introduced tonearms, cartridges and a family of valve phono stages in the E-Glo range, now comprising three models [HFN Mar '17]. Jozefina told us she is so committed to vinyl that she will be officially changing the EAT name to stand for 'European Analogue Team'!

adjustments, so do be prepared to exercise patience and a willingness to search to find its sweet spot.

HEY, JO...

Wow... straight out of the box, making music in ten minutes, barely fiddling with the precise settings, the Jo N°5 immediately demonstrated the kind of prowess I associate with freaky/tweaky Japanese moving-coils. You know what I mean – the sort that come in little unmarked boxes, are made by aged descendants of samurais and sho-guns, cartridges which exhibit that certain *je-ne-sais-quoi* which rocked the hi-fi world 40 years ago and forever relegated moving-magnets to second-class citizen status.



LEFT: The curvaceous Jo N°5 is big, bold and no featherweight, and is better suited to modern medium-to-high mass arms. The threaded inserts allow a tight fit to robust headshells

It has bloom, that wonderful, airy, blossoming sound that suggests it was voiced by someone who spends a lot of time listening to massive orchestras. I tested this theory by playing Jackie Gleason's *A Taste Of Brass* [Capitol SW2684], and was staggered by the majestic scale from start to finish. This chubby, green pick-up – its stoutness coincidentally paying homage to the rotund comedian – filled the room with an enormous soundstage and a real sense of occasion like that of being at a concert.

Better still was the impact and the transient attack of the instruments that gave this LP its name. While not as incisively sharp as the Koetsu Urushi's *katana*-like stop-start to every note, the punch of the trumpets on 'A Taste Of Honey' was nearly as visceral and convincing as the sound of big band brass from reel-to-reel tape. This cartridge has rock-worthy punch, which surprised me because I was expecting the performance to be biased toward silkiness and finesse.

SONIC PRESENCE

Ruth Brown's *Miss Rhythm* [Pure Pleasure PPAN18026] was my lone mono title during the listening sessions, the cartridge forming a nice, tight central image. If not quite as expansive as that of the Koetsu Urushi or Onyx [HFN Nov '17] or, to be even more extreme, the DS Audio Master 1 optical cartridge [HFN Dec '17], it was still 'full' enough to make you forget that you were listening to a single channel.

As ever, mono frees the (analytical) listener from having to deal with spatial concerns. Focusing on Ms Brown's vocals, the sound was detailed enough to convey both nuance and power. This is critical with a performer of this versatility, a singer whose delivery could both caress and carouse, whether performing like the mistress of standards on 'Book Of Lies' or the mother of rock 'n' roll on 'Somebody Touched Me'.

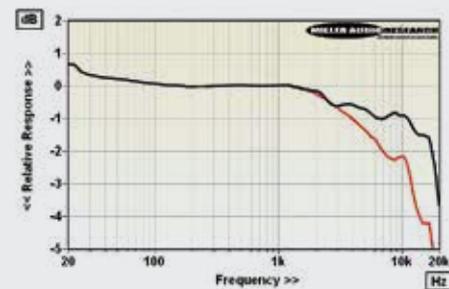
These 60-year-old (and more) tracks, though stylistically of their era, possessed sonic presence through the EAT cartridge that was as vivid and contemporary as anything that might be belted out by a current chanteuse. While it is not the

LAB REPORT

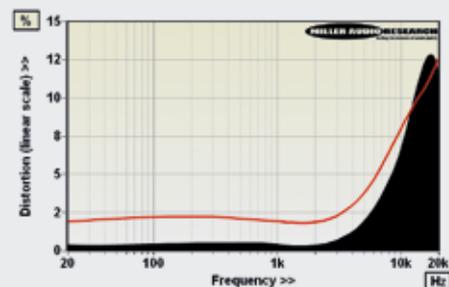
EUROPEAN AUDIO TEAM JO N°5

While the bulbous mint-green carapace that protects EAT's Jo N°5 looks very bulky, it's the internal alloy frame, yoke, magnets and mounting plate that really contribute to the high 15g overall bodyweight. Fortunately EAT's 12cu-specified compliance for the Jo N°5 is bang on the money, maintaining the likely arm/cartridge resonance at a sensibly high 9Hz with 10-11g medium mass tonearms. In practice the claimed 20° VTA is rather closer to 28° and the optimistic 80µm 'trackability' specification more like 65µm/70µm via the left/right channels, respectively, just breaching 1% THD at +16dB (re. 315Hz/5cm/sec). The maximum +18dB groove modulation sent our Jo N°5 skipping off into the lead-out groove at its rated 2.4g downforce, but tracking is still excellent for such a low compliance design.

The functional engineering is contemporary, from its alloy cantilever with crimped end and perfectly-mounted 8x40µm line-contact diamond. Moreover the modest 300µV rated output (re. 1kHz/5cm/sec) actually turns out closer to 445µV – an improvement of 3.4dB – while channel balance is far better than the spec'd 1.2dB at just 0.3dB. The Jo N°5's response is sculpted for a solid bass with a milder mid/presence and 'brighter' aspect to central images [black trace, Graph 1] than those at the periphery of the soundstage [red trace]. The excellent generator symmetry is arguably better reflected by the similar distortion trends of lateral and vertical sweeps [black and red traces, Graph 2]. Lateral (mono) cuts suffer typically <1% up to 3kHz and <7% up to 10kHz (-8dB re. 5cm/sec), the peaked distortion at 20kHz more a reflection of the Jo N°5's potential bandwidth than any non-linearity in the performance of the MC generator. PM



ABOVE: Frequency response curves (-8dB re. 5cm/sec) lateral (L+R, black) versus vertical (L-R, red)



ABOVE: Lateral (L+R, black) and vertical (L-R, red) tracing and generator distortion (2nd-4th harmonics) vs. frequency from 20Hz-20kHz (-8dB re. 5cm/sec)

HI-FI NEWS SPECIFICATIONS

Generator type/weight	Moving-coil / 15g
Recommended tracking force	2.2-2.5mN (2.4mN)
Sensitivity/balance (re. 5cm/sec)	445µV / 0.31dB
Compliance (vertical/lateral)	12cu / 11cu
Vertical tracking angle	28 degrees
L/R Tracking ability	70µm / 65µm
L/R Distortion (-8dB, 20Hz-20kHz)	0.7-25% / 0.5-12%
L/R Frequency resp. (20Hz-20kHz)	+0.8 to -7.7dB / +0.4 to -3.7dB
Stereo separation (1kHz / 20kHz)	28dB / 20dB



ABOVE: Dressed to impress, EAT's standard carton for the Jo N°5 is still very decorative. A walnut case is offered for an extra £80

most transparent cartridge I've used, the Jo N°5 cut through the years, revealing playback that snaps and sizzles. It has always been a test of a good system or individual component to hear what it can do with less-than-audiophilic, archival releases. It speaks volumes of the Pure Pleasure label's handiwork with this LP and the Jo N°5's adept traversing of the groove.

GUTBUCKET BLUES

Yin-and-yang: next up was one of the finest-sounding releases I've ever had the privilege to experience. Reviewed in this issue [see p100], Doug MacLeod's *Break The Chain* on two 45rpm LPs [Reference RM-2519] is so natural-sounding that noted audiophile/collector/horn evangelist John Howes, upon hearing it when I visited him, took just seconds to say, 'I have to get me a copy of this!'.

It's a smorgasbord of gutbucket blues, peppered with semi-conversational moments, fluid guitar and that funky/rustic juke-joint sort of percussion, the entire affair oozing with atmosphere. Here the Jo N°5 managed to convey the metallic-yet-liquid sound of bottleneck guitar and

that kind of almost-lazy drumming which suggests battering away on cardboard boxes rather than a stretched-tight skin.

As required and hoped for, the Jo N°5 conveyed all the gravel in MacLeod's voice, handling textures with the kind of confidence that hints at greatness. This baby loves voices as much as it loves layers of instruments. Moving from powerful and punchy recordings to this more intimate set revealed the cartridge's ability to treat diverse genres with utter equanimity, which thus precludes the thankfully-unfashionable practice of branding a component by suitability for specific types of music – for example, a 'jazz' or 'rock' speaker.

Since Jozefina and her husband Heinz (CEO of Pro-Ject Audio), are both fanatical classical and opera lovers, and neither rock- nor jazz-oriented, when I opened the container I wondered if I might not be the right person to review this cartridge. Yet I found I was listening to a moving-coil that is near-universal in its impartiality – almost humble in its even-handedness. Anodyne it is certainly not. Rather, the Jo N°5 is impeccably balanced, wholly musical and a true delight. ☺

HI-FI NEWS VERDICT

EAT's Jo N°5 is the antithesis of my beloved Deccas or Denon 103s, which flaunt their personalities with the chutzpah of a Kardashian. Instead, it is superbly neutral and mature, despite physical appearance suggesting a show-off. It may lack the ultimate finesse of a top Lyra or Koetsu cartridge, but at £999, it delivers 90% of their performance for 20% of the cost. And that's spelled B-A-R-G-A-I-N.

Sound Quality: 88%



ABOVE: The shell is held in place via a small screw. The colour-coded pins are well spaced and easily accessible