

HIFI CRITIC



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MARTIN COLLOMS TRIES THE DYNAVECTOR DRT XV1S AND KOETSU URUSHI VERMILION

MARTIN COLLOMS

INTRODUCTION

When auditioning cartridges, or for that matter loudspeakers, the procedure is often made difficult by relative or absolute errors in frequency response or timbre. Try as you might, these differences always affect how the music plays in your mind. How do you assert that the bass timing is good when the bass is boosted and the presence band deficient? Such errors alter the way that bass tunes play and warps their relationship to other instruments that are nominally in other parts of the frequency range. I could just as easily say the same about low feedback valve amps with significant output impedances, which consequently sound different with each speaker and speaker impedance they are partnered with.

Both these cartridges, and several others including a Koetsu *Red T* that they were compared with, deliver respectably neutral frequency responses and sound essentially neutral too, yet their timbres remained somewhat different. Seeking an explanation, the Dynavector is a little heavier and has a slightly higher compliance. This places its arm/cartridge resonance lower down, further below the audible range. Generally this resonance is simple, with 12dB octave roll-off slopes either side of the frequency peak, and is inherently moderately damped (rather more so if additional damping is present in the arm), so it peaks at maybe 8-12dB. Now an alternative lower mass, lower compliance cartridge might deliver a resonance at 12Hz, compared with the heavier, higher compliance cartridge model at 9Hz.

Typically this can amount to a 1.5 - 2.5dB difference in response lift at 25 Hz. While this hardly amounts to a big hill of beans in critical comparisons, it might subtly affect the bass weight, and tilt the overall tonal balance just a bit. The slightly stronger, more weighty bass from one might be preferred in a given system and yet the mid-through-treble performances and overall merit might be very similar. The difference might well have been neutralised if, for example, a heavier tonearm had also been used in the comparisons.

Clean bass weight can audibly support the rhythm line, and perhaps a more neutral but drier design might suffer unjustified criticism in an A/B comparison. Thus it is essential to spend time with all the devices on test and allow their essential character to filter into the critic's consciousness.

While these thoughts seemed relevant when monitoring with the Wilson *Sophia 3* loudspeakers, I was caught out by two recent review loudspeakers,

both of significant inherent quality, but which did not take to vinyl replay. While I will assert that the black disc replay chosen was relatively neutral, naturally uncompressed, and not audibly limited in its production, it also sounded somewhat dull and distant with these speakers, and rather obviously so. It was as if they had been balanced at higher sound levels and with brighter, louder and more compressed material. In this context, a discussion of such subtle differences between a pair of cartridges would appear to be redundant.

The System

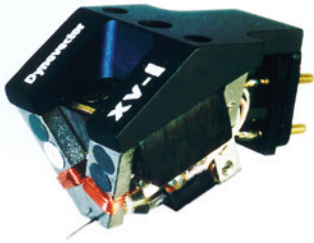
For this review I used a Linn *LP12*, with no base fitted and standard feet, *Keel* subchassis, *Radikal* DC motor drive, and cover detached. This was used with a Naim *ARO* tonearm; three arms tops were available, all with one headshell hole needle-filed by +/-1.5mm to allow lateral angle optimisation for each cartridge. Normal and heavy counterweights were also available, and the tonearm may be adjusted for azimuth, VTA and offset/lateral angle. This well tried unipivot design is self-centering and self-leveling, and partly damps the main resonance by converting the mode into momentary rocking, normally (and rather cleverly) rotating about the line of the cantilever.

Phono pre-amps used included an Audio Research *Reference 2 Phono*, VDH *The Grail* and Naim *SuperLine/SuperCap*. Main control was by an Audio Research *Reference 5*, balanced drive to the Krell *Evo 402e* power amp, Transparent *XL MM2* speaker cable to the Wilson Audio *Sophia 3* speakers.

All digital systems were temporarily disconnected from the mains to maximise the resolution of the analogue replay.



Dynavector DRT XV-1s



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Thanks to Peter Swain of Cymbiosis, I first heard this cartridge compared with a Miyabi *Shilabe* and a Koetsu *Red T*. Results were very encouraging so I was keen to do a formal review. Priced at £3,295, the physically impressive appearance is dominated by the massive 'V' front yokes in soft iron, inset with eight cylindrical Alnico magnets running fore'n'aft. The yokes are also wound with eddy flux damping copper windings, the body is machined African ebony, and the whole is built onto an acrylic chassis and mounting. A mono version and a still more costly stereo variation are also available.

Our *DRT XV-1s* supplies a nominal 0.3mV output from a low impedance 6ohm coil. Cantilever compliance is a moderate 10cu (or mm/N as we should say). The naked stylus is a Vital (*Pathfinder*) line contact with 7x30uM tracing radii, mounted on a solid boron cantilever. The whole weighs an above average 12.6 grams, recommended downforce is 1.8-2.2g, and a wide 20Hz-20kHz response within tight +/-1dB limits is specified.

Set up was easy: square it up to the disc surface; set the lateral angle with the protractor; tweak the outrigger weight on the unipivot to set azimuth (cooperatively listening out for best focus and separation); set 1.9-2.4g downforce (2.1g was optimum in the *ARO*); and drop the needle in the run-in groove. Then, nothing seems to happen. Initial

groove contact only gives a damped 'clunk', as one waits for the music to play.

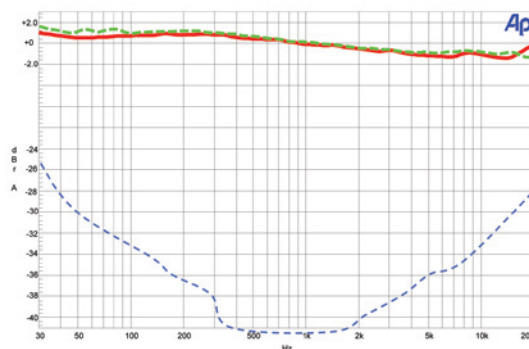
From the start, the exceptional stability of the stylus in the groove stands out: the low surface noise, a kind of locked-in quality, and a lack of emphasis of pops or ticks. Yet when the music begins there seems to be more of everything – focus, depth, detail.

Even playing some severely worn secondhand discs, this cartridge somehow managed to cut through the crap and deliver cleaner playback, with lower distortion and noise, with one old disc after another. One might suspect a trick, a softened and dulled treble perhaps, but this is absolutely not the case, because the overall character is wide open, explicit and sparkling.

Tracing control is also exemplary. Previously lazy sibilants and tizzy hi-hats were bullied into line and rendered crisp and clear, with negligible distortion or slurring. Thankfully this behaviour was also well maintained right to the end of a side, where increasingly cramped shorter wavelength modulations were traced better than normally encountered, with more than a hint of that 12in arm quality. This cartridge also provides timbre that's comparable with digital sources, though it's unmistakably analogue in its creamy, flowing musical lines, the low fatigue, and exceptional honesty to what is in the grooves. It appeals to both the head and the heart, and it really does tell you more about your recordings. Consistent top to bottom quality results in a state-of-the-art score of 175.

Lab tests showed excellent generator build and alignment with an almost perfectly uniform frequency response (+/-1.1dB, 20Hz-20kHz), high 40dB channel separation maintained over a wide 400Hz-2kHz span. A moderately damped fundamental resonance of +10dB at 10.5Hz confirmed the nominal compliance of 10mm/N (cu), and suit to medium mass arms. Tracking angle and azimuth were correctly aligned, while distortion was particularly low thanks to the well calibrated magnet system and coil winding. It tracked well, only failing the +18dB 'torture test' at over 4g.

Dynavector XV-1s Cartridge Frequency Response/ Separation



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Manufacturer Dynavector	Model DRT XV-1s	Price (UK): c£ 3,295
Type: low output m-c	Nominal output: 0.3mV	Impedance: 10ohms
Cantilever: boron rod	Stylus: nude line contact	Enclosed body type
Cartridge weight: 12.5g	Recommended downforce: 2.1g	Loading: 100+ ohms
Output 3.45cm/s: 0.22mV	Frequency response 50Hz-10kHz	+/-1.0dB
Channel Balance: 0.015dB	Frequency response 30Hz-20kHz	+/-1.1dB
Separation	typically 30dB 50Hz-8kHz	28 dB at 20kHz
Distortion	300Hz lateral +9dB: 0.46 %	300Hz vertical +6dB: 2.2 %
Trackability	300Hz lateral +15dB: 2.1g	300Hz vertical +12dB: 1.2g
Supertrack	(+18dB lateral)	Failed at 4g
Stylus finish; alignment	excellent	excellent
LF resonance, 12g test arm	Frequency: 10.5 Hz	Rise: 10dB
Suggested arm type	Effective mass: 8-16 g	Damping: optional

Conclusions

First impressions were confirmed, that this is a particularly evenhanded design whose exceptional neutrality ensures fine compatibility with many systems. Set up is straightforward, and since this cartridge is so close to the state of the art, results may well depend on the rest of the system. The open neutrality is sometimes accompanied by a certain emotional coolness or detachment, but vibrant sounds are delivered consistently over the whole frequency range. Clarity, image depth, width, focus, plus detail and transients are all top drawer, and it is easy set up and match. This cartridge is pure class and strongly recommended.