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7/41 HI-FI+

## BACK TO "BASICS"



### KUZMA'S HEAVYWEIGHT STABI XL

amps, VTL, TOM EVANS, DARTZEEL  
digital, TOWNSHEND, AYRE, CYRUS, BRYSTON, DCS  
speakers, DALI, BOSENDORFER





# The DarTZeel NHB-108 Power Amplifier

by Alan Sircom

In our small UK high-end hi-fi pond, Absolute Sounds is the biggest fish around. Possessing all the best-known brands (a profile built across many years), having 'ins' with the best and widest selection of dealers and having the biggest presence in our little community, Absolute Sounds is the – official or unofficial – role model for aspiring high-end distributors throughout the community.

This success is a double-edged sword. The sharp side says, "hey, Absolute Sounds is a success, who cares?" But the other sharp side says, "where do I go from here?" This is a big potential problem for Absolute Sounds owner Ricardo Franassovici, because if the second issue isn't resolved, no matter how successful the Absolute Sounds portfolio is, torpor and boredom set in. Before too long, Ricardo does a Reggie Perrin, rides his Harley off into the sunset, or passes the business on to the next generation, like Yoda handing over to Luke Skywalker, only better English used with, yesss. Such shake-ups could potentially have a significant effect on the Absolute Sounds portfolio.

Ricardo isn't that dumb. He has not relinquished the Absolute Sounds empire, but has made the smart move of re-invigorating his interest in high-end audio. Enter Ricardo's Studio, a wholly new off-shoot of Absolute Sounds with a stripped-down set of new products, designed to work together in a systemic manner. And, keeping the Studio concept simple, there's just the one pre-amp and power amplifier. Depending on

your political allegiances, this is either Back To Basics, or it's Alastair Campbell-esque spin-doctoring. Or if you want to be spin-free it's a single-system approach – which is brave because it's never worked before.

The first product to roll out of Ricardo's Studio is the DarTZeel NHB-108 power amplifier. Ricardo's Little Helpers – the Gnomes of Switzerland – have delivered a solid-state, 100 Watt/channel stereo amplifier, which at £14,000, is the most costly part of the whole Studio concept.



The matching pre-amp – the NHB-18 – is scheduled to control the Studio system, too.

From a technical standing, the power amp is innovative; if not altogether ground-breaking in its individual components, the mix is truly original. The casework is cellular, and each section of the amp is distinctly separated from the others, even to the point of a 20mm thick false bottom to the case. There's no global feedback,

and this means an attendant rise in THD (a bit like a valve amplifier design). The design stresses eliminating temporally-derived distortion over the removal of intermodulation and total harmonic distortion (like a single-ended valve amplifier) but claims linearity up to the 30MHz level (not at all like a single-ended valve amplifier), which can only be heard by dogs with microwave radios.

DarTZeel claims the benefits of the NHB-108 are derived from its ethos of 'simplicity, purity and reliability'.

The simplicity comes from using only a handful of the best components (there are just 14 transistors in the circuit).

Purity hails from having virtually no switches, fuses or relays in the signal path. And, as for reliability, the company claims a life expectancy of up to 40 years for the NHB-108. Strangely though, the normal funky range of brand name components are eschewed in favour of good, solid electronics. This, perhaps, is why the product has a 40 year lifespan; choosing the component to maximise its purpose, rather than selecting electronics on the basis of famous names.

For a power amp, there's surprising user flexibility, the NHB-108 can be adjusted to handle speaker loads as punishing as one ohm; there are also jumpers to control DC offset and to eliminate any potential hum problems in balanced XLR or single-ended phono inputs (we encountered no such hum problems). There is also a set of odd 50-ohm BNC inputs, marked Zeel, which will be used with the forthcoming ►

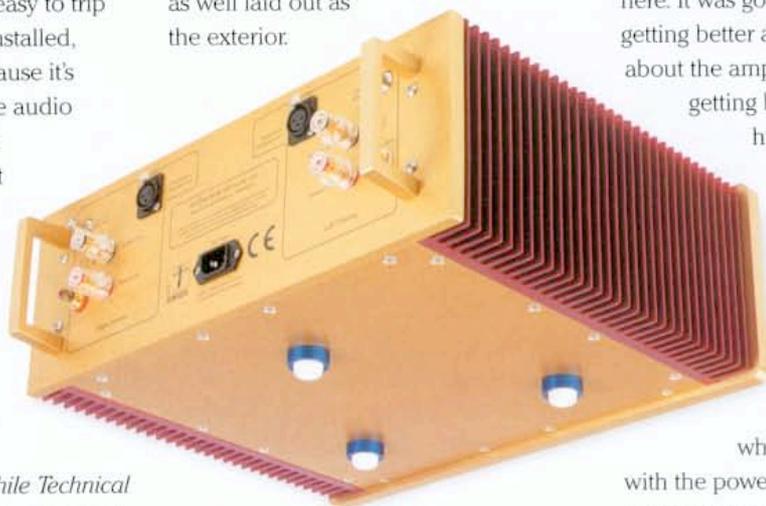
► pre-amp. The only thing to be aware of is that the amplifier must never, ever be used without a set of speakers attached to its heavyweight terminals. If you do, the monitoring circuit kicks in and new fuses are required. The crowbar circuit is relatively easy to trip when setting up, but once installed, it's entirely stable and – because it's absolutely divorced from the audio circuit – completely benign.

What is so special about DarTZeel's ethos is the integrity of the design. Nothing is left to chance. A quick whizz through the company's website – [www.dartzeel.com](http://www.dartzeel.com) – demonstrates this.

If in doubt, download the company's 28-page *Audiophile Technical Manual*; it's practically a recipe book of how to build a good amplifier, and why an amplifier sounds as it does. Or, take a look at the serial number, which isn't hidden away round the back, but vividly displayed on the front panel. This tells you country of origin, batch number, individual number within the batch and version, all of which is explained in the manual. This level of transparency is rare, and all the more attractive for that rarity.

Transparency extends to the casework, too. When you get the box home, the wooden carriage top-plate must be changed for the glass one supplied in the top of the packaging. Fortunately, DarTZeel thinks of everything and includes tools for the changeover, right down to little glass-lifting rubber suction cups (these have an added bonus – they are useful for cat burglary. Please note... the makers of Hi-Fi + do not condone resorting to theft to fund the purchase of the NHB-108; we prefer financing methods where 'APR' does not mean 'A Prison Record'). Normally, a glass top-

plate in an amplifier is rather pointless, as the insides of one amplifier look pretty much like those of another; drab, grey and black. Not here; DarTZeel have made the inside of the amplifier as colourful, as well constructed and as well laid out as the exterior.



There is a touch of bling to the overall design; gleaming yellow-gold casework, orange glow-plug status 'eyes' and matching power button 'nose' (cute), blazing (not literally) red heatsinks and electric blue and yellow internals. This is distinctive, but garish.



The 'eyes' are useful though; they are the window to the DarTZeel's soul, or at least its operational status. Remember, yellow eyes good, red eyes bad (this does not apply to alligators or dinosaurs). As to blinking eyes, flashing eyes or dimmed eyes... take note and address

the potential clipping, DC offset or no signal problem. Simple... and intuitive.

There's a simple formula with high-end hi-fi. The more exotic and more expensive the design, the longer the run-in period. There was no exception here. It was good to start with, but kept getting better and better. On line chatter about the amp suggests that it keeps getting better over hundreds and hundreds of hours of use.

In fact, there was a definite threshold where things got better after a couple of weeks in situ. The down side is that this run-in seems to be able to be overturned by lying fallow for a

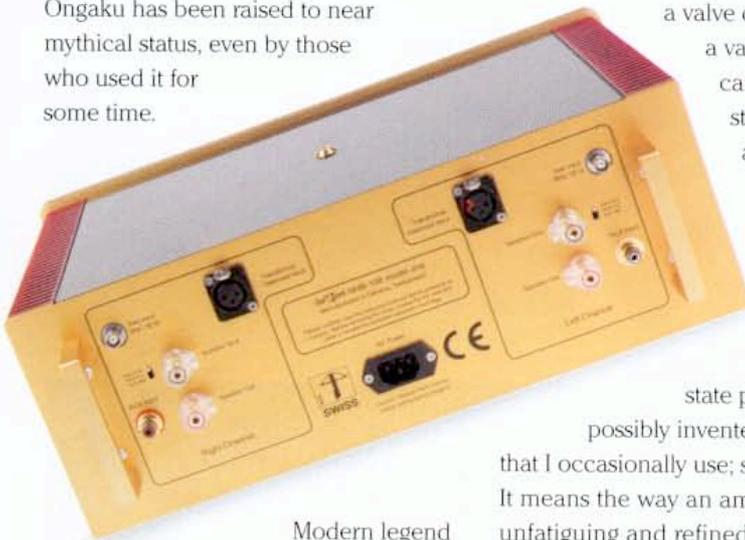
while; a week-long holiday with the power off during the course of the review seemed to roll back the amplifier's run-in by a week. But that's OK; go on holiday and you have the joy of coming to the amplifier anew.

This is no normal power amplifier – it's something really special. It's got all the properties of a really, really good valve amplifier with all the speed, dark noise floor, dynamic range and detail of a transistor amplifier. And that more than makes up for any running in or crowbar concerns. One of the most attractive aspects of single-ended valve amplifiers is that simplicity of sound. The lack of components in the chain seem to manifest as an absence of clutter in the sound and the overall result is a sense of naturalness and 'being there' with the musicians that even the best transistor amps struggle to achieve. Except here. The DarTZeel has that 'thereness'

perfectly defined; no mush, no complexity, just a sense of people playing music in your living room.

Perhaps part of this sensation is due to the soundstaging, which is

▶ little short of magnificent. Don't expect grandiose scale or holographic imagery; you get something far less arch, here. It merely seems like musicians are in the room with you, living and breathing in your space, not in an artificial space of their own. This is uncanny, because it makes many hitherto very natural-sounding amplifiers appear fake and unnatural. In fact, from memory, one of the few amplifiers that betters the DarTZeel's naturalistic soundstaging was the original Audio Note Ongaku, and even here not by a substantial margin. This is high praise indeed; that original Ongaku has been raised to near mythical status, even by those who used it for some time.



Modern legend has it that this had imagery so profoundly good that it could heal the sick. That the DarTZeel even approaches something so enmeshed in legend means it's no normal amplifier.

Then, there's the speed of the amplifier. It's quicksilver fast, addressing dynamic changes like a three-watt SET amplifier and making your speaker cones react as if they were electrostatic headphones. No matter what the scale of the music, the DarTZeel's reaction time is almost psychic; you find yourself listening to other amplifiers and saying the words "rise time" as a pejorative. Yet, for all this speed of attack, this is not a brash sounding amplifier; it's merely fast enough to react to changes in music, and it's only after listening to the DarTZeel that you discover how few amplifiers really do that. With the speed

of the amplifier, you get a sense of organic sustain, decay and release to notes, whether the note is a feedback-filled Hendrix solo, or merely picking out one violin out of many.

So, if this is an amplifier that makes valve sounds, why bother? Why not just make a valve amp? Because, no valve amp can deliver this much power and stay fast. It has all the cojones of a high-end transistor amplifier, all the speaker grip, the bottom end thwack and the good sense of rhythm that is impossible to combine in a valve amp without

sacrificing the benefits of

a valve design. So, it's a valve amp that can play rock to stadium levels, or a transistor amp that can play jazz to nightclub clarity. All in one (almost) fuss-free solid-state package. I

possibly invented an ugly word, that I occasionally use; sitinfrontability. It means the way an amplifier is so unfatiguing and refined that it can extend listening sessions. The DarTZeel practically defines the term. Yet, it also doesn't fall into the trap of making sounds too mellow or sanguine; it does not over-refine its music. Faced with refined-sounding amplifiers, it's wise to turn to the Dark Side for a while, if only to see if the amplifier is refined, or planished smooth. So, out come the Studio One reggae records, out comes Television and out comes Schoenberg. And it's here that the DarTZeel showed its true mettle; it delivered these recordings as harsh and abrasive as they should sound, only the sheer naturalness and absolute detailing made you listen to more of the recording than usual. The compilation *Respect to Studio One* is a particular 'fave' of mine, here; this frankly icky recording is so poor that in general the lower the low-fi system, the

better it sounds. Top notch high-end leaves it compressed and topky. This still applied with the DarTZeel, but then you still wanted to listen to the whole album.

This is one of those designs where tales will be told of its majesty long after it's gone. Like the Ongaku, the Mark Levinson ML-2 or the original Electrocompaniet, the DarTZeel's performance is so sublime that it's hard to rate it with any sense of level-headedness. This is the transistor amp that made valve amps weep, and that's the song future hi-fi buffs will be singing round fires, while quaffing mead. Or something. ▶+

#### TECHNICAL SPECIFICATIONS

Type:	Solid-state stereo power amplifier
Inputs:	1pr RCA/phono 1pr balanced XLR 1pr 50 Ohm BNC
Input impedances:	
RCA:	> 100 kOhms, 5 Hz to 200 kHz.
BNC:	50 ±1 Ohms, 1 Hz to 1 MHz.
XLR:	> 100 kOhms bet. Pin 1 and 2 (hot leg and ground)
Gain:	26 dB @ 8 Ohms.
Nominal output power:	100 watts RMS @ 8 (Hi) and 2 (Lo) Ohms, 160 watts RMS @ 4 (Hi) and 1 (Lo) Ohms.
Output impedance:	< 0.33 Ohms, from 20 Hz to 20 kHz
Dimensions (WxHxD):	440x170x335mm
Net weight:	30kg
Price:	£14000

#### UK Distributor:

Ricardo's Studio  
Tel. (44)(0)20 8971 3909  
Net. [www.absolutesounds.com](http://www.absolutesounds.com)

#### Manufacturer:

DarTZeel  
Net. [www.dartzeel.com](http://www.dartzeel.com)