

Heavy Metal

It's not often that you find an integrated amplifier promising 80W RMS per channel of full Class A power, for under £900. So David Price couldn't resist trying the massive JungSon JA-88D...

What is wrong with transistor amplifiers, I think, can be surmised in two words – “switching distortion”. The sound of those little three legged semiconductor turning themselves on an off on demand is omnipresent, and most people get used to it – rather like rain in winter. It has a similar effect on the sound too; it becomes grey and dull, and less than pleasant to be out in.

Indeed, switching distortion creates a kind of ‘hash’ or ‘mush’; it’s like a dreary, cloying fog that simply takes the fun out of life. In most of the better designed solid-staters, it’s relatively benign. For example, in the little Rega Brio reviewed earlier on in these pages, it manifests itself as a sort of gentle cloudiness, a bit like twiddling your camera lens out of focus slightly and knocking the shutter speed up a bit, as if to create an ‘underlit’ photograph.

Often, in good mid-price amplifiers such as the Naim Nait 5i, you really don’t notice it so much, enjoying instead the bits of the sound that the amp gets very right, such as bass grip and transient speed. Still, move to the likes of a full Class A Sugden A21a, and again the Naim (et al.) sounds a tad dull and mushy...

So why not use Class A, like the Sugden, all the time? Well, one twiddle of the volume control holds the answer. In order to run full Class A, you need the output transistors constantly switched on (hence no switching distortion, geddit?). This creates vast amounts of heat, and so your output power is chronically limited by the amount of heat your casing can dissipate. As most amps are just 430mm wide (and not half as deep), then you’ll be lucky if you even get the 20W the Sugden squeezes out. The result then is that you seem to be stuck between high powered and punchy Class AB amplifiers like the Naim, or (to be brutally frank) deliciously open and spacious sounding, but weak-kneed curios like

the Sugden.

The result then is that Class A amplifiers are low powered – because of real physical cost and engineering constraints, and the only way to get real wallop is to throw vast amounts of money at the problem by building a massive powerhouse of a thing, such as a Krell, capable of dissipating several bonfires-worth of heat without so much as an expired output device.

Well, imagine my surprise when I heard about the JungSon JA-88. It runs 80W per channel (quoted – see MEASURED PERFORMANCE) of pure Class A, for just £899. I kid thee not. And it’s not as if it’s a chimera, like its 80W come with a following wind and only for nanoseconds before the whole thing goes up in smoke. No, this is the real deal – 29.5kg of it, with an impressive measured performance and best of all – fantastic sound.

True budget esoterica then, so what’s the catch? Well, for some, the catch will be that it’s Chinese, which, for some, seems to be shorthand for ‘rubbish’. Well, don’t let this fool you; the Chinese are doing some truly accomplished kit now. It has rough edges, and I wouldn’t for a moment suggest they’re as consummately well made as Japanese products, but the Japanese manufacturers (by virtue of their size, if nothing else) chase relatively conservative sections of the market. After all, it’s not as if everyone wants to buy a vast, swingeing box that’s as big as a kitchen sink (literally) and likely to bend your floorboards, and that raises the ambient temperature of your listening room to sauna levels within minutes...

Chinese products aren’t badly made as such; one look at an Apple PowerBook shows how well they can mass produce intricate electronic equipment. It’s just that often they are well built in the sense that they’re big and heavy, and you get a lot of metal for the money. Contrast that to Japanese kit (admittedly more expensive), which is exquisitely

finished and (these days) very tastefully styled too. Okay, and so to the JA-88D. It is built like the proverbial outdoor lavatory; its sheer bulk and weight makes you think it’s superbly made (kind of like a 1970s Volvo estate), until you look closely... At 470x430x190mm it’s so big and brash that you’re instantly impressed; even Krell owners will look twice. The trouble is that upon closer inspection, it feels like its thick sheet aluminium casing has been beaten by a big bloke with a hammer – kind of like, one imagines, they used to make Land Rovers. Specifically, the cooling slats have a slightly rough, abrasive edge – something you’d not find even on seventies Japanese jobbies.

Of course, given its almost unbelievably low price, it’s churlish to complain, so I’m not - I’m merely drawing attention to the fact, so you know what to expect. Another thing to expect is the garish fascia. It’s big, and sports large bright blue backlit VU meters (which thankfully are defeatable). I think it’s a shame; if only these had been deleted, and the two dollars or so it cost to fit these went towards a better finished top-plate... My point is that here is what you will soon find is a remarkable product, but spoilt (slightly) by some rather poor detailing. If JungSon had the maturity not to pander to button pushers in Beijing showrooms, it would find it far easier to garner the audiophile credibility it so desperately warrants. Another thing is the volume control, which is a little noisy as it runs up from 0 to 99 – there’s



the odd click and pop through the speakers, and disappointingly at close to full whack some faint signs of mains hum too. Again, it's a shame – spoiling the ship for a dollop of tar, so to speak. In practice, neither of these problems intrude; you're not constantly changing volume and by the time the mains hum intrudes, the thing is driving so loud that it's the least of your worries.

Other detail touches are lovely; not least the natural hardwood remote control (something of a nod and a wink to some illustrious Italian brands there, methinks). The massive chunk of brushed aluminium used for the fascia is also rather breathtaking – it looks thick enough to resist the best efforts of a sniper rifle. On a lightly sarcastic note, I think the Chinese-English instruction manual (well, 'bit of paper') is also good value – for entertainment's sake if nothing else – and reminiscent of the worst excesses of 'Japlish' manuals from the seventies...

SOUND QUALITY

Okay, so I've had my fun; after all the carping, the spectre of 80W (or more) of pure Class A and no negative feedback (it is claimed) will soon show it's a serious bit of kit. My advice is switch off the disco lights (sorry, "ocean blue LED power

metres" [sic]), light the blue touch paper and go! Well, give it twenty minutes, then go – as it's not great until it's at full operating temperature.

We're off, and the first thing you notice is that clarity of this thing across the midband. Just as with Sugden's A21a, it's glass clear in a way that no Class AB amplifier is. Some, very special, tube amplifiers also possess such a 'see through' sound, but we're talking massive price tags here. Note that although all tube amps run Class A, often their myriad failings elsewhere (usually the output transformers and poor passive componentry) prevent them from

Or rather, because of the way it was recorded, it sounds murky and cloudy on anything that isn't relentlessly transparent. With serious amplification, it becomes a crisp, no-nonsense rock album. Whereas Steely Dan's great outings are very well recorded but obviously mixed for 'FM radio' (as they used to say), 'New Gold Dream' is just straight and live sounding – through the JungSon.

It's a tribute to this amplifier's lack of switching distortion that this album sounds as it does; virtually every other similarly priced bit of kit goes muddy and dull when called to reproduce this album's labyrinthine

"tune your system around this amplifier and you'll get startling results..."

sounding anything but rose-tinted and euphonic. Back to the JungSon, and it has a wonderfully open and even slightly brightly lit sound. It's not 'brightly lit' in the sense of harsh or forward, and not even 'glassy' or 'chrome plated', just that it throws the soundstage into sharp relief.

A great example of this is Simple Mind's 'New Gold Dream'. This is a brilliant album, but (ironically) sports a rather murky, cloudy production.

mix. It scythes through all those layers of swirling analogue synthesizers, and cuts right to the heart of the music. Vocals are smooth, not in the euphonic, valve-sense, but in the sense that there's no discernable glare, brittleness or grain – and through the reference Yamaha NS1000Ms I used with the JungSon, this is rare. For example, even surprisingly velvety (for a Class D amp) Lyngdorf Audio SD2175 power

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amplifier actually sounded a little edgy by comparison.

Indeed, the Lyngdorf proved a fascinating reference. It was obviously less dynamically expressive than the JungSon; where there was a powerfully struck snare, the SD2175 seemed to sit on the accent, while the JungSon bashed it out for all to hear. It is this amp's alacrity with microdynamics, allied to its 'hear through' clarity, that made it such a joy.

The next challenge was 4hero's 'Cosmic Tree', which has great swathes of bass energy running through it (not least thanks to the Moog bass synth); the JA-88D was brilliantly articulate. Unlike the Sugden A21a, which took one look at the 12 inch bass cones of the Yam and made its excuses and left, the JungSon was well up for it. The SD2175 was too, with lots of lovely clean, well controlled and tidy bass, but again it sat on the microdynamics, and just didn't want to come out to play when called upon so to do. So here we have a truly transparent, smooth and couth transistor amplifier that is both powerful and punchy enough to aspirate my Yams in my large listening room. Better still, its midband is truly emotionally articulate, and doesn't shy away from dynamic contrasts.

Moving to Bob Marley's 'Jamming', and the JungSon set up a wonderful groove; warm, tuneful and confident in the bass like few other amplifiers I've heard at any price, in simply did not show any signs of stress even approaching full volume. The Yams, which never seem especially bothered to do their best when driven by lesser amps, really picked up their proverbial skirts and ran. Bass was truly tuneful, as opposed to workmanlike (which is how the Lyngdorf can sometimes appear), and the overall effect was exquisite.

The smiles continue as you move your concentration up the frequency band; the midband is truly open as I've said, but is also tuneful and truly musically engaging. Now, Sugden fans will be heartened to hear that I think the A21SE still has the legs on the JungSon in this respect. The latter can't quite muster the former's carefree, joyful, insouciant playfulness here; the A21a and SE both sing their little hearts out in the midband and it really hits home. The JungSon

certainly has most of the (cheaper) A21a's enthusiasm, but can't compare to the pricier A21SE (£1,995, in case you didn't know) in the way it gets into the swing of things. Still, put it (or the Sugdens for that matter) against any of the excellent Class AB transistor amps (the aforementioned Nait 5x, Musical Fidelity A5cr, Lyngdorf SDA2175) and it's a veritable troubadour.

In essence, it sounds like a Sugden A21a on steroids; one that's been working out in the gym for a very, very long time and has emerged a very different, yet still recognisably similar beast. The JA-88D lacks that last one tenth of the A21a's joyful tunefulness in the midband, but the extra dynamic confidence more than makes up for it.

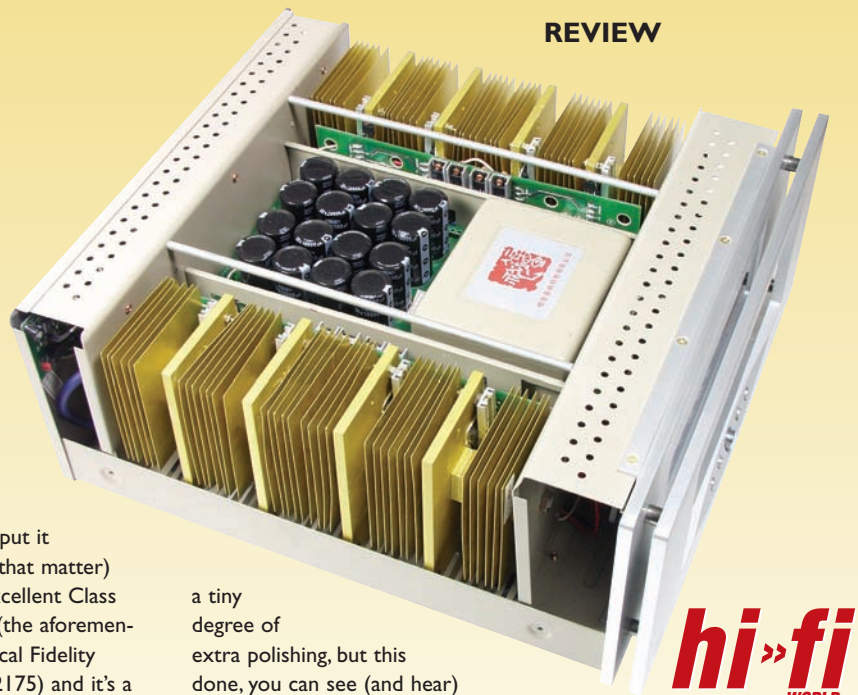
So it's a brilliant, almost perfect thing then is it? Well, no, because up top the JungSon is ever so slightly sharp; Noel Keywood explains this by the slightly high third harmonic distortion figure, which indeed tends to create 'zing'. The JA-88D's figure isn't excessive, I hasten to add, but I've still heard sweeter. Still, for me it's the absence of crossover distortion that more than compensates. The effect is a beguilingly clean amplifier right across the frequency band, with a very marginal treble rush. The fact that its bass is so stunningly strong and powerful counterbalances it nicely; you could almost say it's a sort of natural 'loudness' button...

So to the 'budget esoterica' bit; yes, if you tune your system around this amplifier's brightly lit treble with careful choice of interconnects (which are surely the noughties equivalent of the tone controls and filters that used to come with seventies amplifiers), you can get startling results. It is a diamond that needs

a tiny degree of extra polishing, but this done, you can see (and hear) how beautiful it really is. (I'd counsel Chord Company RCA Signature interconnects and Townshend Isolda DCT speaker cables, plus the best Black Rhodium mains cable you can afford – I used this combo to great effect).

CONCLUSION

What can I say; it's not perfect, but its foibles are marginal and relatively easy to ignore (finish, volume control, slightly bright top). These aside, you have here before one of the best budget audiophile buys in a long time. Power, pace, punch, clarity and insight – it has them all – and for just £899. Enough said.



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VERDICT

Minor foibles aside, a stunning audiophile bargain - clarity and power allied to fine musicality make it a joy to hear.

JUNGSON JA-88D £899

Shadow Distribution

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www.shadowdistribution.co.uk

FOR

- power and punch
- clarity, lucidity
- stunning value

AGAINST

- tacky power meters
- noisy volume control

MEASURED PERFORMANCE

This is another 'unusual' amplifier with its own peculiar output arrangement concocted to overcome the drawbacks in solid-state. Output is modest for the size, measuring 112W into 8ohms and 182W into 4ohms. However, the Jungson clips very softly and symmetrically, just like a valve amp., and totally unlike a solid-state amp. - at least, one with feedback.

There is a price to pay, and that is steadily increasing distortion with level. The JA-88D distorts quite heavily by solid-state and even valve standards, measuring 0.3% just below full output into 8ohms and 0.6% into 4ohms, at all frequencies. The upside is that the distortion produced was not crossover, comprising mainly third harmonic, as our analysis shows. This has a sharpening effect in practice, making an amplifier sound glassily hard but clear. When run at low levels, however, the Jungson produces very little distortion, just 0.005% into 8ohms, so providing it isn't run too hard, it should sound relaxed enough.

Bandwidth is limited to 22kHz, but the amp runs to below 1Hz. A slow protection circuit ensures no

d.c. appears on the output even when applied to the input, our tests revealed.

This is an interesting amplifier, not perfect under measurement by any means but with no crossover. It will likely sound 'interesting'. NK

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| Power | 112watts |
| CD/tuner/aux. | |
| Frequency response | 1Hz-22kHz |
| Separation | 113dB |
| Noise | -106dB |
| Distortion | 0.005% |
| Sensitivity | 600mV |
| d.c. offset | 16/3mV |

