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Exclusive SME's Model 15 turntable



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SME Model 15

After a brace of turntables suitable for 12in arms, SME looks to its entry-level, creating the next step up from the 'basic' Model 10 – the Model 15 with full suspension

Review: **Ken Kessler** Lab: **Paul Miller**

SME does not rush things. The Model 15 is the first turntable from this Steyning-based company that we've reviewed since the Model 20/3 [HFN Mar '11], and it comes in below that deck but above the baby in the range, the much-loved Model 10. Without arm, the Model 15 sells for £5373 – a lot of money by any standards, but a bargain when you consider the engineering involved, and a whole lot less than a '20.

Readers familiar with the Model 10 will recognise instantly what this new design offers: the Model 15 is, in essence, 'a Model 10 with a full suspension'. Those who fell in love with the Model 10 because of its 370x250mm footprint certainly will want to be made aware that the addition of the three suspension towers does increase the space requirements to 452x361mm, but even so, it is still a relatively compact turntable, and looks so thanks to the absence of a rectangular base.

TAKING UP ARMS

SME also offers the Model 15 as a complete package with the Series 309 tonearm, identified as the Model 15A selling for £6884. We asked for the unit to be supplied with the Series V arm, for valid comparisons, as that's the arm I use on all of my other turntables, so the unit as tested would cost you £8398. It will, of course, accommodate other arms if one has a converter to an SME cut-out, but that's a debate I leave to the forums and chat rooms. (On the other hand, I'd love to know what this does with a Decca Gold in a Decca International.)

My life was made easier by simply fitting it with my own well-used Series V with Kiseki Blue MC cartridge installed and run-in, rather than unpack the pristine arm that came with the review sample – though PM loaded the new arm for photography and for his lab tests [see p31]. While on the subject of tonearms, especially as I am also enamoured of the SME 12in arms, Brian Laker, Head of Service and Assembly [see boxout, p29], explained that, despite the recent increase in sales of 12in versions,

'There are no plans to make the facility available for either the Model 10 or the Model 15. A change in the centre of gravity precludes the fitting of a 12in arm on the small models.' So now you know.

While the Model 10 remains a good seller, and will continue in present form, there was a £7000 price gap between it and the Model 20/3. Filling the void is the Model 15, born of both the Model 10 and Model 20/3, to satisfy customer demand: SME realised that certain clients liked the compactness of the Model 10, but wanted the added benefits of a true suspended chassis, as in the Model 20/3. For circa £2500 more than the Model 10, you get a full suspension – result!

How this was done is sublimely clever. SME added three 'circles' to the bottom

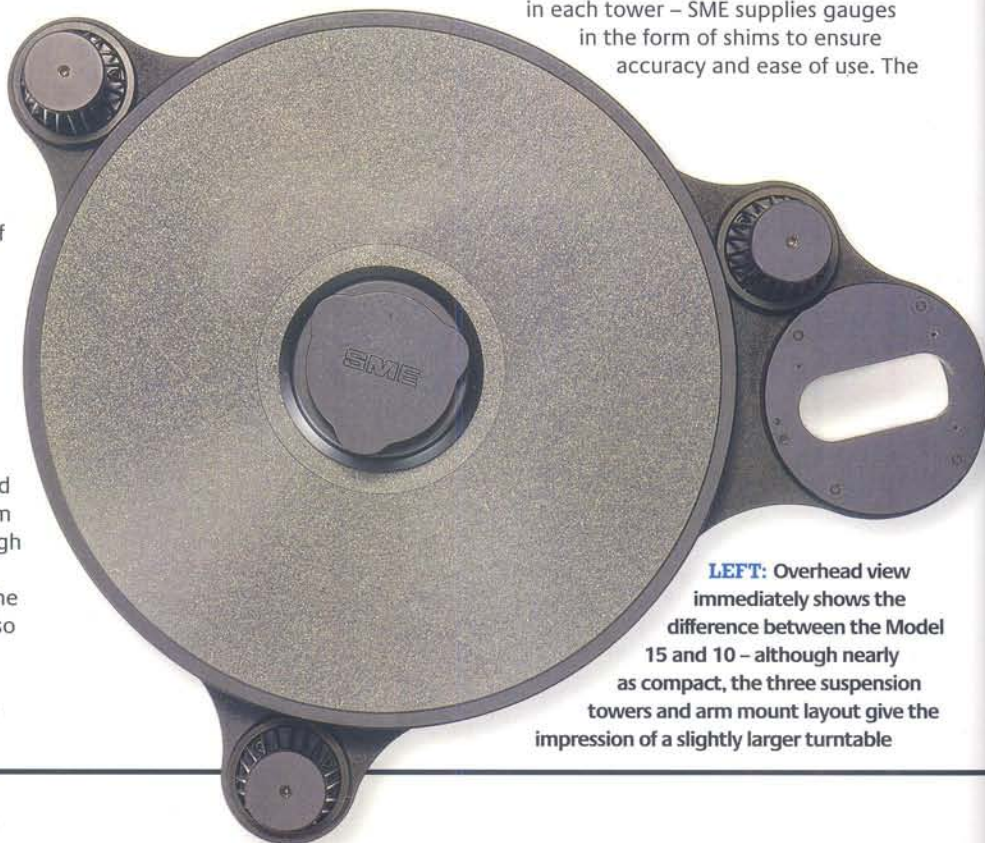
plate, and fitted the towers with one near the arm at roughly 2 o'clock, a second at 10 o'clock and the last front-and-centre at 6 o'clock. As a three-footed construct, it's easy to level, especially thanks to the adjustable feet. The sub-chassis carries the arm board, the entire plate being

more complex and sophisticated than the rigid slab that forms the Model 10's upper chassis and arm mount.

Because its suspension is identical to that used by the Model 20/Model 30

families, the Model 15 has adjustment capabilities for perfect fine-tuning as regards height, isolation and other parameters that the Model 10 achieves only with careful placement. As has been the method in SME's suspended turntables since the first Model 30, adjusting is accomplished through trimming screws in each tower – SME supplies gauges in the form of shims to ensure accuracy and ease of use. The

'I was hoping for a bombastic wall of sound, and was not disappointed'



LEFT: Overhead view immediately shows the difference between the Model 15 and 10 – although nearly as compact, the three suspension towers and arm mount layout give the impression of a slightly larger turntable



LEFT: Isolation is much improved over Model 10 thanks to 'rubber band' suspension of the upper chassis, as per Models 20/3 and 30/2, as well as height-adjustable, springy feet

resultant performance gains include jet-black silences and near-immunity to microphony – not that it's debilitating in the Model 10.

SME'S CLAMP DOWN

In simplified terms, then, beyond this being 'a Model 10 with suspension' one could also say that the Model 15 is 'a Model 20 without the big, rectangular base'. The cost savings will, for many, be as important as the physical downsizing since the rest of the SME 'recipe' is present.

Its distinctive 4.6kg platter is machined from aluminium alloy and fully damped. Records rest on a top surface that is diamond-turned with a fine scroll not unlike an LP groove. According to SME, 'This method of finishing upsets a myriad of tiny fibres which interface with the underside of the record.' Ensuring close mating of LP to platter is a screw-down clamp designed to provide 'the largest possible platter contact even when an appreciable record warp is present' – and I have been happy to prove

this innumerable times over the years with LPs in a visibly warped state.

To save you counting, the sub-chassis is suspended by 30 moulded 'O' rings, dealing with a weight of 11kg including the platter – the weight of the complete Model 15 is 18.5kg. These work in conjunction with a central fluid damper that both controls the sub-chassis motion and 'offers a resistive ground path for acoustic signals, eliminates overshoot and gives almost zero "Q" recovery'. In other words, the Model 15 does not 'jiggle' when you press down and release it.

Like all of its siblings, the Model 15 has an outboard control unit-cum-power supply that delivers fast start-up, impossibly quick braking of the platter and fine speed adjustment through judicious use of the buttons. The speed can be altered in $\pm 0.01\%$

levels, for 33.3, 45 and 78 rpm. This manages a 3-phase, brushless inductance motor with 8-pole neodymium magnets and three integrated Hall position sensors. To compensate for each of the different weight platters throughout the family, the seemingly identical power supplies are microprocessor-controlled, optimised for each model using a closed-loop speed control, implemented through a 'proportional plus' algorithm.

Also consistent with every SME turntable is a full set of tools and lubricants, a drive belt, copious, lucid instructions in a spiral bound booklet, strobe disc and a soft dust cover. The carton in which it arrives is perfect for a one-man job to empty, or re-pack for shipping.

As the Kiseki/Series V had already been in use, the insertion of the Model 15 into my system was an almost instant A/B listening experience. I also used a Koetsu Urushi, fed into the EAT E-Glow phono amplifier, Audio Research REF 5SE preamplifier, D'Agostino Momentum Stereo power amp [HFN Aug '12] and Wilson Alexia speakers [HFN Mar '13]. All wiring was Transparent Reference, but the

standard Series V tonearm cable was kept for arm to phono stage connections.

PRECISION PARTS

Because most people know SME as a maker of tonearms and turntables, they might not realise that audio is but a part of the business. Recall, then, what the initials stand for: SME was founded in 1946 as The Scale Model Equipment Company Limited, to manufacture parts for the model engineering trade. SME also made commercially-available kits, now sought after by collectors. Founder Alastair Robertson-Aikman steered SME into precision engineering for outside clients during the 1950s. Its own name would be used on the legendary SME 3009 tonearm. Over the years, other arms would be added, followed by turntables. SME still produces parts for clients, who must remain anonymous, but they include those in the medical, military and motorsport fields, thanks to its prowess in all aspects of manufacturing including CNC machining, pressure die-casting, metal finishing and other processes.



AIR A'PLENTY

Armed with a stack of LPs that I'd just reviewed, I settled into the listening sessions with their sound via SME's Model 15

TURNTABLE



30/2 and 30/12 still fresh in my head. That may seem a bit cruel, but references are references. As the first LP I played was a live set, I was listening for air and atmosphere. Because it was a big band recording, I was also hoping for a bombastic wall of sound. I was not disappointed.

Lionel Hampton's *Newport Uproar!* [Pure Pleasure LSP-3891] – selected as much because I was present at the 1967 Newport Jazz Festival, when it was recorded, as for its content – was a wise choice for showing off the scale of a system. The SME spread the sound across the room, with front-to-back depth suggestive of a massive proscenium, as was the stage at Newport.

There was air aplenty and, having been to the Montreux Jazz Festival a few weeks earlier (but don't feel any envy, it was Mary J Blige at 130dB), I had the sense of a huge musical event fresh in my memory. When one considers that my room is a mere four metres wide, the effect was still mesmerising. Fill that space – convincingly – with the 20-strong All-Star Alumni Big Band, and it was a 'high-end' moment of disappearing hardware and seamless sound in all dimensions.

For something wholly studio-born, I turned to Dire Straits' *Brothers In Arms* [Mobile Fidelity MFSL 2-441] which also provided the opportunity to play with 45rpm. Despite its digital origins, this is an impressive-sounding LP, especially if you want to hear detail and attack. I do admit to a secret admiration for 'Money For Nothing' and although Dire Straits are, to me at least, a guitar-driven band, and

ABOVE: Sub-platter is locked in place with multiple transit screws during shipping; removable arm base is held in place by four bolts, allowing for fast swaps of multiple arms

the sounds are manipulated, the playing is staggering in its fluidity and speed. Never did the SME stumble. Better still, it allowed one to hear the differences in even similar-sounding cartridges like Koetsu versus Kiseki. The cleanliness and transparency make the Model 15 a perfect choice for a reviewer or inveterate cartridge worrier.

NAKEDLY REVEALING

Just look at what it offers: you get sound that is nakedly revealing, with no unwanted, added textures. Transparency is the order of the day, and those who have played *Brothers In Arms* to death, even in digital form, will hear teensy details that are often buried. Add to that the physical form of the device, which is so

utterly, genuinely 'open architecture' that changing cartridges or arms is freed of whole layers of hassle. To my mind, this is as un-LP12-like as can be, the antithesis of an early Oracle, if not quite as fuss-free as its suspension-less little sister, or a Rega.

Another MoFi 45rpm release – Bob Dylan's *New Morning* [MFSL 1-425] – let me think less about the sound and more about the performance. What this LP produced, and what I certainly was not expecting, were lower registers of such command and mass that it was hard to reconcile with its alt-country-ish feel. 'If Not For You' had the atmosphere of a back porch sing-a-long, but with world-class musicians. ➔

'This was a "high-end" moment of disappearing hardware'

BRIAN LAKER

Brian Laker, Head of Service and Assembly, helped develop the Model 15 from a design initiated by Cameron Robertson-Aikman. 'A number of us,' says Brian, 'were involved in fine-tuning the concept for production. We wanted to add fresh aesthetic details, including the record clamp, which is unique to the Model 15.' The upper section of the clamp makes reference to the three suspension points and the Model 15's footprint. 'It was a bold decision to produce a model with the '15's fantastic flowing lines, neither a square box nor biscuit tin!'

When differentiating between models, the designers were careful to uphold the SME tradition of ensuring that each occupies its own space in the line-up, with no confusing overlap. 'Sensible design means producing turntables that share components, but much is unique to the Model 15, especially the chassis – even though the suspension towers are based on those from the 20/3. The power supplies between the Models 10 and 15 are nearly identical but not interchangeable. The 15's platter is unique to the deck, while the motor is much the same as the 10's.'

What follows the Model 15 will probably be as much of a surprise as this deck's debut-without-preamble at the Munich High End Show. As the existing turntables are all refined to the point where they need no updating for some time, don't expect new suffixes. But bear in mind that 2016 is the company's 70th Anniversary. Do you think it will let it slip by quietly?



LAB REPORT

SME MODEL 15

Inspired by the compact Model 10 and with a performance that aspires to that of the bigger 20/3 [*HFN* Mar '11], the new Model 15 pretty much sets the standard for all sub-£10k decks to match. The new 8-pole asynchronous motor, with neodymium magnets, offers user-adjustable speed control over 33.3, 45 and 78rpm and brings the 4.6kg alloy platter up to speed in a remarkably swift 4 seconds. As supplied, our sample was a mere -0.03% adrift in absolute speed and incurred an equally low 0.015% peak wow – as evidenced by the sharp central peak in the W&F spectrum [see Graph 1, below]. While this is not far off the 0.01% offered by SME's 20/3, the Model 15's peak flutter is a little higher at 0.03% although the shoulders at $\pm 8\text{Hz}$ and $\pm 25\text{Hz}$ are necessarily at very low amplitude.

SME's machining quality is the stuff of legend and the 19mm chrome-steel spindle that runs within sintered bronze bushings in the Model 15's bearing does not disappoint. Rumble through the groove is a mere -71.4dB [red trace, Graph 2 below], improving to -72.5dB with the record clamp in place and the LP firmly mated to the platter's diamond-turned surface [blue trace, Graph 2]. This is about as silent as an LP/stylus will get although the deck itself proves to be quieter still with a through-bearing rumble of just -74.5dB (DIN B-weighted). This bests the TechDAS Air Force Two [*HFN* May '15] by a very small margin and knocks on the door of the quietest thrust bearing we've measured – the SME 20/3 which achieved -75.4dB.

Readers may view a full QC Suite report for SME's Model 15 turntable, tested here with the flagship Series V tonearm, by navigating to www.hifinews.co.uk and clicking on the red 'download' button. PM



ABOVE: Socket for power supply cable is positioned at the back of lower baseplate; review sample shown with Series V arm, the tonearm cable socket visible below arm board 'wing' on sub-chassis; motor housing seen near pillar at right in photo

Most persuasive, though, even beyond the instruments, was Dylan's voice, a sound so distinctive that you'd recognise it over two tin cans and a piece of string. The rasp, the nasality: what was so chill-inducing was the intimacy – Dylan in your listening room. And behind him, a luscious mix of fluidity in the strings, contrasted with wheezy harmonica and percussion made to sound like orange crates. I had no idea so much was going on in this seemingly simple tune.

My heart was ripped out, though, by the anguish and intensity of a performance far removed from the warm 'n' fuzzy *New Morning*. Etta James's version of 'Take It To The Limit' on *Deep In The Night* [Pure Pleasure PPA BSK3 156] is a gospel take on The Eagles. A full, majestic chorus backs her, as do massive and powerful drumming and some of the most natural-sounding piano you could want. This is the stuff of floorstanding speakers and big amplifiers and a willingness to be overwhelmed by the music... The Model 15 didn't simply respect Etta: it consecrated her.

DELIGHTS EVERY SENSE

Damn, was I hearing finer sounds than I deserved. I was in such a good mood that I voluntarily played the Grateful Dead's *Workingman's Dead* [Mobile Fidelity MFSL 2-428] to wallow in the Left Coast's take on rural America. The best way I can describe the SME's treatment was 'woody', but in a good way. The acoustic sections were natural sounding, unprocessed, unfiltered, like cider with the bits in it. It didn't quite convert me to the ranks of the Deadheads, but neither did I feel like shooting a bunch of hippies.

This sonic command, however, may be by-the-by because of another aspect of the SME Model 15: perceived value. Before I make my statement, please be aware that my other 'career' is in the world of the most precise mechanical engineering on the planet: fine wristwatches. I have experienced what the 'best' engineering is, having been to Patek Philippe and Greubel Forsey.

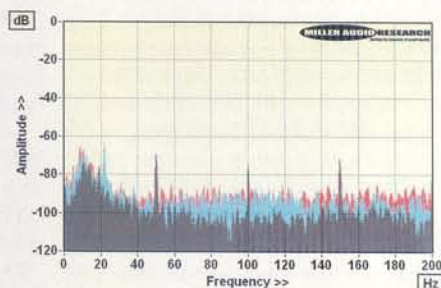
It is not only to SME's, but to Great Britain's credit that this company's workmanship is a match for anything I have seen in Germany, Japan or Switzerland. Or anywhere else for that matter.

For just over £5000 without arm, you will acquire a piece of 'functional sculpture' that will reward not just your hearing, but the senses of touch and sight (the Model 15 is simply flawless on every surface). No kidding: you'll stare at this thing into the wee hours, continually finding details that delight. And as for the sound? That will keep you up all night, too. ☺

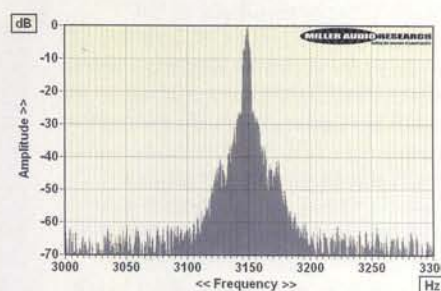
HI-FI NEWS VERDICT

As one who uses a 30/12 as his reference, you could say I am pre-disposed toward SME. Even so, I did not expect the Model 15 to perform so astoundingly that I would think of it in terms of Wilson's Sabrina or the Koetsu Black: high-end products so good that they exacerbate the Law of Diminishing Returns. The world is awash with delightful turntables at all price points, but this is the world's best deck below £10k.

Sound Quality: 90%



ABOVE: Unweighted bearing rumble from DC-200Hz (black infill) versus silent LP groove (with clamp, blue; without clamp, red) re. 1kHz at 5cm/sec



ABOVE: Wow and flutter re. 3150Hz tone at 5cm/sec (plotted $\pm 150\text{Hz}$, 5Hz per minor division)

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.32rpm (-0.03%)
Time to audible stabilisation	4sec
Peak Wow/Flutter	0.015% / 0.03%
Rumble (silent groove, DIN B wtd)	-72.5dB (with clamp)
Rumble (through bearing, DIN B wtd)	-74.9dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-59.2dB
Power Consumption	4W
Dimensions (WHD)	452x175x361mm / 18.5kg