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Diamond anniversary flagship is a vinyl sensation



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SME Model 60/Series VA

This icon of British hi-fi is typically sparing in its celebration of milestones, but SME's Diamond jubilee demanded something very special indeed. And here it is...

Review: **Adam Smith** Lab: **Paul Miller**

If the engineers at SME felt the need for a motivational quote or two while working on the company's new turntable, Rolls-Royce co-founder Sir Henry Royce's 'Take the best that exists and make it better' would have been a good choice. This summed up the challenge facing the UK company in designing a successor to the previous Model 30 flagship – the result is the £49,950 SME Model 60, and it has a tough act to follow.

The Model 30, originally released in 1989, and its 30/2 and 30/12 'tweaks' [see boxout, p41], are regarded by some as the pinnacle of turntable engineering, and the fact the arrival of SME's new flagship has been over 30 years in the making suggests the company wasn't in any rush to topple its own crown. (For those wondering what happened to Models 40 and 50, the 60's appellation celebrates the diamond anniversary of SME's first hi-fi product, the 3009 tonearm of 1959.)

PERFECT PLATTER?

It's therefore no surprise that the Model 60 contains a mix of old and new technologies. The platter, for example, remains unchanged, with SME asserting that it could find no way to meaningfully improve upon the design of the '30. It is still slightly over-sized at 330mm, weighs 7.5kg, and has a machined, acoustically inert upper surface to support the record. Also unchanged are the record washer and the screw-down clamp.

The two-tier chassis, now with elegant curves, is made from aluminium alloy and sits on four height-adjustable feet that are decoupled from the main, lower chassis by an internal multi-point isolation system. Also fitted to this chassis are the motor mounting pod, and a connection box at the rear that serves to terminate the tonearm wiring to the output phono sockets.

RIGHT: Top view of the silver (natural) anodised chassis with black anodised suspension towers within which are larger, inverted versions of the Model 30 suspension, further stabilised with horizontal bands. Platter/clamp are unchanged

One tower at each corner supports the upper (sub)chassis, using an ostensibly similar system to that of the Model 30/2 but one that has been refined and improved. Suspension is still achieved through a number of rubber support bands but, on the new Model 60, the way in which they 'carry' the subchassis has been inverted, so they describe a wider circle at the top, rather than at the bottom. The number of bands in each corner has also increased from 12 to 15, while the supporting towers no longer incorporate a separate fluid damper in each column, additional bands instead providing lateral anchorage and damping.

The Model 60's bearing is still a high-carbon steel type spinning on a precision ball bearing, ably assisted by sintered bronze bushings. What is new, however, is a silicon fluid-filled damping bath at the base of the bearing housing. This aims

to absorb any microscopic resonances generated by the rotating mass of the main bearing/spindle/platter assembly. In addition, the bearing housing has been lowered within the upper (sub)chassis, so the platter sits closer to the top plate.

Motive power to the platter is provided by a 24V AC motor, replacing the DC type

used for the 30/2. This is a necessary update, says SME, to guarantee the desired accuracy over speed control. Power to this motor is provided by not one, but two external units. The first houses a large transformer and offers an unregulated

DC supply via an umbilical to the second box. Here it's smoothed and regulated, supplying both the DSP-based frequency generator and main synchronous output.

This latter chassis also hosts the on/off and speed change buttons, plus rotary pitch control [pic, p43]. Be aware that SME advises against switching speed from

'The Model 60 has a new tonearm – the Series VA'





33.3rpm to 45rpm, or vice versa, on the fly – you need to stop the deck, change the speed and re-start.

TOTAL CONTROL

The Model 60's speed controller employs a microprocessor to generate two independent sine wave signals that are closely controlled in amplitude, frequency and phase. SME claims this provides 'total

control over the way the custom AC synchronous motor behaves, and enables precise tuning of the motor to obtain the best possible performance' [see PM's Lab Report, p45].

Both transformer and control box are machined from solid aluminium and are meticulously engineered as the deck itself. To wire everything together, the Model 60 is supplied with a Siltech Explorer mains

ABOVE: The Model 60 is fitted with the new Series VA tonearm, its one-piece headshell, tri-lobe cross-section tube and rear counterweight carrier all CNC-machined from a single block of an advanced, inert polymer material

cable and shielded Siltech Silver Gold connection leads terminated with latching LEMO connectors.

A-CLASS ARM

Perhaps the most notable addition to the Model 60 is a new tonearm, designated 'Series VA' – the 'Advanced' iteration of the longstanding Series V. This features a bearing yoke still made from a magnesium/aluminium alloy, but the arm tube is no longer metal. Instead it is hewn from an 'advanced polymer resin', and not 3D-printed but machined from a solid block just like the magnesium alloy armtube of the standard Series V.

Other upgrades include the shape of the tube, which now has a more rigid 'tribular' cross-section rather than one that's cone-shaped. Also new is the semi-circular support cradle under the arm. The old arm lock was arguably more secure but could leave a mark on the matt finish of the armtube. Never again...

Furthermore, the arm is now directly wired into the RCA output panel on the rear of the deck, and the ↻

THE MODEL 30

Although SME's first hi-fi product, the 3009 Series I tonearm, appeared in Sept 1959, we would have to wait another 30 years for its inaugural turntable, the Model 30 [HFN Nov '90]. This was elevated to 30/2 status in the early 2000s and 'expanded' further a decade later as the wider, heavier 30/12 version complete with 12in SME V tonearm [HFN Mar '12; pictured below]. The Model 30 introduced SME's signature rubber O-ring isolation system resulting in a suspended deck that, frankly, never really felt like one. Not here the delicate wobble we all know from the classic Linn/Thorens-style setup as the heavyweight '30 seemed almost completely immune to external factors.

Moreover, the deck was perfectly complemented by SME's Series V tonearm, itself first shown in 1984 and officially launched two years later [HFN Jun '86]. That arm has been seen in 12in versions and with gold-plated appendages, but only now, with the Series VA fitted to the Model 60, has it witnessed a fundamental update of its own. Other SME decks have followed in the last decade, notably the Model 20/3 [HFN Mar '11] which is based along similar lines, but it is still the Model 30 and its updates that have gained the most effusive plaudits across the world. Only now, some 30 years later, has the deck been comprehensively overshadowed.



TURNTABLE



swivelling 90° DIN connection on the base of the Series V is absent. So, if you must ask... the Series VA, like the Series V, will only be available with SME's turntables and not sold separately.

The fit and finish of the deck and control/PSU enclosures is spectacular and every physical interaction a tactile delight. Our review sample came in the standard anodised metal finish, available in silver (natural) or black. Increase your budget to £54,950 and you can have a machined honeycomb finish in black, blue [as seen on this month's cover] or silver. Stretch further to £59,950 and you can opt for the hand-polished bare metal 'Diamond' version.

DECK OF DREAMS

For listening, the Model 60 was set up in editor PM's listening room [see p39] and fitted with an Ortofon MC Windfeld Ti cartridge [HFN Jan '18] feeding a Nagra Classic Phono stage, T+A P 3100 HV preamplifier [HFN Oct '20] and Constellation Inspiration Mono 1.0 power amplifiers [HFN Oct '19], into Bowers & Wilkins 801 D4 speakers [HFN Nov '21].

Hearing the deck in full flow was an extraordinary experience, and a vinyl lover's dream. Its presentation has an effortlessness and neutrality that is nothing short of enthralling, and completely free of unwanted 'character'. This meant I always felt I was listening to what the artist or producer intended, rather than a nicely polished 'Model 60' version.

This turntable also possesses one of the most eerily silent backgrounds I have ever (not) heard from vinyl – levels of groove noise were astonishingly low, and pops and clicks were only noticeable by their absence. And when not being quiet, the Model 60 turned in a performance that

ABOVE: Seen with the all-black Model 60, the outboard 33.3/45rpm speed controller is itself fed unregulated DC from *another* enclosure with a large, but isolated, AC mains transformer

was revelatory, playing familiar recordings in an almost unfamiliar fashion.

As a perfect example, there's a stray 'squeak' of a guitar string a few minutes into Rebecca Pidgeon's version of 'Spanish Harlem' [*The Raven*, Chesky Records JR115]. I've always known this minor background flaw was there, but the Model 60 pulled it right into the spotlight. Fortunately, this wasn't something the deck only did to side-effects on recordings; I lost count of the number of times I looked up from making listening notes, thinking 'What was that?'

So while the Model 60 won't transform your LPs into something brand new, I'll wager it will introduce you to subtleties you've missed before. This clarity and resolving power comes courtesy of the turntable's midband and lower treble talents. To call its detail retrieval abilities 'formidable' would be a gross understatement. No matter what sort of music I chose to pass under the stylus, the Model 60 lifted every element out of the groove and served them up in a way I have seldom encountered.

MUSICAL MASTERCLASS

Jennifer Warnes' 'Bird On A Wire' [*Famous Blue Raincoat*; Impex Records IMP6021] is a great song and well-known test track for good reason – it's a masterclass in instrument positioning. Yet its semi-circle of musicians has never sounded as spacious or as beautifully defined to my ears than through SME's flagship. Warnes was locked centre stage with millimetric precision, and as each instrument did its stuff – from rich bass guitar to pristine percussion – I could 'see' its position with ease. ↻

'I'll wager you'll hear subtleties that you've missed before'

AJAY SHIRKE

In 2016, ten years after the passing of SME's founder, Alastair Robertson-Aikman, the hi-fi world's most iconic precision engineering brand moved out of family hands to be acquired by Ajay Shirke's Cadence group. Former aerospace man Stuart McNeilis was appointed as CEO, and the company signed up a UK distributor, Padood (also handling Nagra).

Ajay is an audiophile to his core, so while taking SME 'to the next level' he was also determined not to deviate from the path of the brand's founder. 'Our first new product was the Synergy [HFN Mar '19]', says Ajay, of the integrated turntable/arm/cartridge/phono stage solution that 'addressed the needs of people who did not have the time or even the expertise to choose and install a cartridge or optimise a phono stage'. Other decks followed but it was the Synergy that set the basis for SME's exploration of new-generation polymers and isolation techniques.

'It forced us to modify our CNC processes to machine non-metallic materials in a dry process', says Ajay. 'Not only was this key to developing the new Series VA armtube but it also enabled the successor for our flagship 30, the new Model 60.'

New materials will also shape SME's future roadmap. 'We will soon see many new products from SME, both above and below the Model 60,' reveals Ajay. 'The new material solutions offer the prospect of a longer tonearm (longer than 12in), as well as derivatives downwards from the Model 60 and a limited edition, cost-no-object Model 75.' PM



TURNTABLE



ABOVE: The 90° swivel joint at the base of the Series V tonearm is replaced in the Series VA with captive leads that feed a pair of gold-plated RCA outputs. A separate LEMO socket connects to the outboard speed controller via a screened umbilical

This astonishing, incredible level of detail never once left the Model 60 sounding like a surgical instrument heartlessly dissecting the music. Rather, its level of insight worked to knit the music together as a whole. Detail is definitely not the enemy; I've always found that more information equals more musical enjoyment, and the Model 60 showcased this theory exquisitely.

The sense of sumptuous clarity continued into the top end, with vocal performances in particular an absolute joy to behold. On the *a cappella* version of 'Too Many Walls' [12in single; Polydor CATHX 4], Cathy Dennis was a clear and vivid presence, her singing given a scale greater than I have ever heard. Even more striking was the reproduction of the track's few vocal plosives, although – again – rather than being a distraction this just added to the sense of realism on offer.

DEEP AND DETAILED

Across the lower registers, the Model 60 sounded impeccable. The deck's bass delivery was extended, fluid and taut, and when impact was required, it provided it happily. It was flawless, too, when it came to the detail and texture of bass instruments. The prominent bassline underpinning Donald Fagen's 'Morph The Cat', from the album of the same name [Reprise Records 9362-49975], was fruity, deep and slick in its tunefulness.

This track highlighted yet another trump card that the Model 60 has up its sleeve, namely keeping this bass detail in the picture as the vocals and other instruments joined in – this feeling of balance was a constant during my listening. The swirling synthesisers behind Rosa

Walton and Jenny Hollingworth's densely layered instrumentation in Let's Eat Grandma's 'Donnie Darko' [*I'm All Ears*; Transgressive Records TRANS347XX] were loud and clear, as were the subtle percussive effects tucked away in David Axelrod's 'Holy Thursday' [*Songs Of Innocence*; Capitol ST2982].

And while SME's Model 60 can stun with its handling of complex pieces, give it something simple and the space and sheer scale that it brings to the table is utterly captivating. Michael Hedges' guitar strings on 'Aerial Boundaries', from his album of the same name [Windham Hill 371032-1], were as crisp and natural as you could ask for – each note rang out strongly and cleanly, and decayed sweetly into the far distance.

The end of the side signs off with Mike Manring's fretless bass joining in on the duo's instrumental take on 'After The Gold Rush'. This stunning reproduction of one of my favourite electric instruments almost had me purring with delight. ☺

HI-FI NEWS VERDICT

With its Model 60, SME has taken the deck many already considered to be 'the best' and made it even better. Both turntable and arm are exquisitely engineered and finished, and combine to weave a musical spell that's at once both compelling and exacting. It is no overstatement to rank the Model 60/Series VA as the new standard by which all high-end turntables should be judged, regardless of price. Now, pick a colour...

Sound Quality: 92%



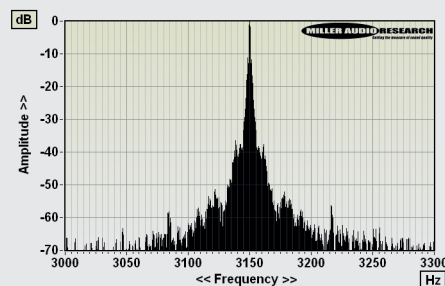
LAB REPORT

SME MODEL 60/SERIES VA

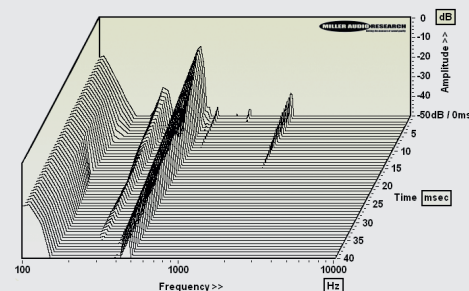
Without doubt, the Model 60 is the most pitch-stable belt-driven deck we have tested, its ~0.005% absolute speed accuracy and mere 0.01% peak-wtd wow [see Graph 1, below] comparable with the best of today's direct-drive offerings [*HFN Jun '16*]. There are minor flutter modes at ±12Hz, ±30Hz and ±65Hz but these amount to no more than a peak-wtd 0.02%. Furthermore, the sintered bronze bearing, with oil-damped ball, is so precisely machined and polished that both through-groove and through-bearing rumble are at the limit of measurement at -75.5dB and -76.5dB (DIN-B wtd, re. 5cm/sec), respectively.

The Series VA tonearm's spring-loaded downforce dial is calibrated to within ~2% over a 0-3g range (1g = 1.02g; 2g = 2.05g downforce) and while its design is based on the Series V [*HFN Mar '11*] the new polymer armtube brings the overall effective mass down to 9-10g. While this might render the Series VA fractionally less compatible with heavier, low-compliance MCs, the trend these days for a slightly more relaxed MC suspensions, in pursuit of improved tracking, actually makes the VA more relevant. The side-mounted oil bath is also retained if additional damping of especially 'excitable' pick-ups is required...

As with the Series V, the VA's bearings are free of any perceptible play and, for our purposes, are essentially frictionless (<5mg in both planes). Also, resonances within the arm itself are resolved into just two components – a bending mode at 105Hz with a harmonic at 270Hz (structural harmonics are not necessarily integer multiples) and another, higher-Q, resonance at 450Hz. The freedom from more complex resonances, and general clutter, is quite remarkable [CSD waterfall, Graph 2]. PM



ABOVE: Wow and flutter re. 3150Hz tone at 5cm/sec (plotted ±150Hz, 5Hz per minor division)



ABOVE: Cumulative tonearm resonant decay spectrum, illustrating various bearing, pillar and 'tube' vibration modes spanning 100Hz-10kHz over 40msec

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.33rpm (-0.005%)
Time to audible stabilisation	5-6sec
Peak Wow/Flutter (Peak wtd)	0.01% / 0.02%
Rumble (silent groove, DIN B wtd)	-75.5dB (-75.4dB with clamp)
Rumble (through bearing, DIN B wtd)	-76.5dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-62.5dB
Power Consumption	18W (1W standby)
Dimensions (WHD) / Weight (TT only)	557x212x417mm / 48kg