

Although a commercial offering - there was an edition with proper BBC 'LS' nomenclature; see the box 'BC1 Origins' - the speaker was truly 'of the BBC'. But it was innovative, too, and would influence British speaker design for a couple of decades through the pioneering use of plastics for woofers. During the 1960s and 1970s, the BBC approach (revived by Doug Stirling for the LS3/5A V2) was to use cabinets made with 'thin wall', heavily-damped plywood panels, with front baffle and back panel fixed by screws, providing further 'lossy' mechanical coupling. The BC1 followed this practice, its enclosure made from 3/8in birch ply, battened at the joints, with 3/8in bitumen-impregnated felt bonded to the inside of the panels to provide damping.

A 3-way bass reflex system intended to operate in a free-standing position, the BC1 was normally found on a dedicated trolley - a no-no in these days of spikes and earthquake-resistant speaker fixing. I had my circa 1976 pair restored at Spendor a few years ago and was able to try them both with the trolleys and on 12in stands. While they look so 'right' on the trolleys, those wheeled frames do not help the speaker's Achilles' Heel: sloppy lower octaves.

BOX: Spendor BC1 Specification

Impedance 8 ohms nominal

HF Drive Unit Coles 4001G, Celestion HF1300

LF Drive Unit Spendor 200mm, 26mm coil

Sensitivity 84dB/1W/1m (74dB/1V/1m)

Power handling 55W

Frequency resp 50Hz to 15kHz

Crossover point 3kHz and 13kHz

Pair matching within 1dB

Dimensions 635x300x300mm (HDW)

Weight 14kg

Derek Hughes supplied a copy of a wonderful letter from 1980, sent by his father, Spencer Hughes, to . Part of the BC1 design team and founder of Spendor, the company that would manufacture it, 'Spen' was responding to a query about the origins of Spendor. Because it

describes the speaker's origins 'from the horse's mouth,' so to speak, we're reprinting it here:

Dear Sir,

The Spendor BC1 was not, as it has so many times been described, a development of the BBC loudspeaker type LS3/6. Perhaps a short history of the lead into, and the development, of the two systems may be of interest.

From the very early days, even before hi-fi, the BBC has designed its own monitor loudspeaker systems as commercial systems were not, and most are still not, accurate enough for broadcast work. These designs were based on available units matched by, what were in those days, very complex crossover networks and mounted in custom designed cabinets.

During the mid-1960s, the development work carried out by the BBC had advanced to a stage which was beyond the capabilities of the available paper pulp cone bass units. The decision was taken to investigate the possibilities of using some form of plastic as a cone and surround material. It was assumed that plastic would be a consistent material unlike paper pulp, which to some degree seemed to depend on the mood of pulp stirrer. Over the years it has been found that it was not quite that easy.

The section of the BBC Research Department involved in this operation was headed by Mr. Del Shorter, now retired, with Mr. H.D. Harwood now of Harbeth Acoustics, second in command and myself completing the investigating team.

Some two years were spent making 12in unit cones in a variety of shapes and from a range of plastics; this could be a story on its own. The first successful unit was made from the now well-known Bextrene and used in the development of the BBC studio monitor type LS5/5. This loudspeaker was described in an article written by Mr. H.D. Harwood in the March 1968 issue of .

My part, as a laboratory technician, in the operation was to do most of the actual work both on the plastic investigation and the development of the LS5/5. With that experience I decided that it should be possible to make a loudspeaker from scratch in the home environment. With the aid of our electric fire, a compressor working in reverse and an iron bedstead the first vacuum former was built. Bins full of malformed cones were produced before any measure of success was achieved and the

first 8in unit was produced. This unit turned out to be almost certainly the first commercial 8in Bextrene driver and still arguably the best.

The first pair of BC1s was constructed using these units and Celestion HF1300 units. The cabinets were smaller than the current model and initial listening tests indicated that the performance could be improved by an increase in size, hence the present design. At this point it was all being done for fun.

The second pair of BC1s was made for a friend who took them to Merrow Sound of Guildford. The third pair was sold to Merrow Sound and Spendor was on the way to a small niche in the audio world.

Now some difficulties were beginning to arise as under the terms of my contract with the BBC, the design had to be offered to them. Fortunately the 'Pop' era had just started and the main request was for more power, so the BC1 was turned down. Around about this time there was a special requirement within the BBC for one pair of speakers about the size of the BC1s. Being a kind soul, I suggested that my design could be used, so I was given the task of producing an official version of the BC1, later designated the LS3/6.

This design used an 8in unit made by Research Department, the Celestion HF1300 and a redesigned crossover. The main change in the crossover was the addition of a large multi-tap autotransformer to allow adjustment of levels between the two units, normal BBC practice at that time.

Some months later BC1s were fitted with an amplifier mounted in the back panel and the 4001G super tweeter added. This addition was for purchase tax reasons, but it did have two extra gains. Firstly, it improved the overall dispersion characteristics, secondly, from the broadcasting angle, it made any 625-line breakthrough to be more easily detected.

Now the LS3/6 was offered to a number of commercial companies and eventually taken by Rogers, then under the control of Jim Rogers. With approval, and a little assistance from the BBC, Rogers added the Celestion HF2000.

As Spendor was now a commercial company it was agreed that a royalty should be paid to the BBC for each BC1 produced. This was in recognition of the work I had done on the loudspeaker whilst still employed by the BBC.

To perhaps prove the order of development of the two systems, it is of note that out of over two thousand BC1s supplied to the professional market there are over six hundred in operation with the BBC and as far

as I know very few, if any, LS3/6 speakers.

In addition to the above, the name Spendor is derived from the first names of myself and my wife Dorothy. Mrs. Hughes provided practical assistance in the early days with her coil winding expertise and now as Managing Director is responsible for all accounting, sales and general management. Derek Hughes, the son, another ex-BBC employee, deals with an amplifier design and assists me with research and development and general running of the factory.

Yours,
Spencer Hughes