



TITLE: JAGUAR CARS Whitley, Near Coventry, UK

IAC Bulletin IND/20.00

IAC EQUIPMENT SUPPLIED:

A Sound Quality Suite



This is the second major turnkey project to have been completed by IAC for *Jaguar Cars* at its Whitley Engineering Centre in the West Midlands. The new sound quality suite contains a large, structurally-isolated listening room, which has been built to the same exacting acoustic standard - NR20 - as a typical radio studio, despite being next to a busy and potentially noisy vehicle workshop. The listening room provides a uniquely quiet environment in which members of Jaguar's vehicle refinement team, and Jaguar customers, can assess the quality of a wide range of live and recorded vehicle sounds, relayed through loud speakers or via headphones. The listening 'juries' may be asked to comment on anything from tyre and engine noise to the gentle whirr of an electrically-operated seat, but their thoughts and opinions are considered crucial by Jaguar in creating vehicles which have exactly the right sound identity or personality.

The outer shell of the new sound quality suite was constructed using conventional blockwork. Inside this IAC built the listening room using a range of special modular, pre-fabricated steel acoustic components including wall/floor/roof panels, acoustic doors/windows and silenced ventilation systems. Reverberation within the room was controlled by using sound-absorbing carpets, fabric wall linings and an acoustic ceiling. Adjacent to the listening room is another acoustically-treated quiet room into which vehicles can be brought to have their sound emissions recorded or played live to jurors next door. Completing the facility is a corridor/lobby, which provides a further barrier to outside noise disturbance.

Previously at Jaguar, IAC built one of the world's largest and most advanced noise and vibration testing facilities, incorporating a vehicle semi-anechoic chamber (VSAC) with a cut-off frequency of below 60Hz (see Bulletin No IND/17.99 for details).



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