GRIFFON 2000 TD PASS-BY NOISE TESTING AT 100m

Pass-by noise tests have been carried out for the Griffon 2000 TD hovercraft on 08 January 2003 at Royal Victoria Country Park beach, Netley Abbey Southampton. The tests were undertaken for three engine speeds (1500 rpm, 1800 rpm and 2000 rpm), and at a distance of 100 m parallel to the shore. The wind speed was less than 3 m/s offshore, and the sea state was calm.

INSTRUMENTATION

Noise levels were measured using a Larson Davis type 2900B Dual Channel Real Time Analyser (serial number 0927), fitted with a Larson Davis type 2541 ½-inch free field microphone (serial number 5099) and Larson Davis type PRM 900B preamplifier (serial number 3159). The microphone was fitted with a windshield during the measurements. The analyser, microphone and preamplifier were last calibrated in a calibration laboratory in April 2002 and calibration certificates are available. Prior to and on completion of the survey, the analyser and microphone calibration was checked using a Larson Davis type CAL 200 Sound Level Meter Calibrator (serial number 2206). The Calibrator was last calibrated on 14 May 2002, in accordance with the requirements of ISO 10012 and a calibration and conformance certificate is available.

METHODOLOGY

For each engine speed, at least two passes were made at a steady velocity; if the noise levels recorded differed by greater than 2 dB, further pass-bys were made. The maximum A-weighted noise level ($L_{Amax,\ slow}$) and the A-weighted, continuous equivalent noise level (L_{Aeq}) are recorded for each pass-by. The L_{Aeq} was recorded for a period of approximately 20 seconds, from the time at which the noise level from the hovercraft exceeded the normal ambient level.

RESULTS

The pass-by noise levels for each engine speed generally varied by no more than 1 dB(A) and the results have therefore been logarithmically averaged. The resulting levels are shown in Table 1.

Engine Speed	Average Passing Speed (knots)	Pass-by Noise Levels, dB	
		L_{Aeq}	L_{Amax}
1500	19.4	65.4	72.7
1800	25.9	69.0	74.6
2000	32.0	71.0	77.1

TABLE 1: Pass-by noise levels at 100 m

GRIFFON 2000 TD PASS-BY NOISE TESTING AT 25m

Pass-by noise tests have been carried out for the Griffon 2000 TD hovercraft on 08 January 2003 at Royal Victoria Country Park beach, Netley Abbey Southampton. The tests were undertaken for three engine speeds (1500 rpm, 1800 rpm and 2000 rpm), and at a distance of 25 m parallel to the shore. The wind speed was less than 3 m/s offshore, and the sea state was calm.

INSTRUMENTATION

Noise levels were measured using a Larson Davis type 2900B Dual Channel Real Time Analyser (serial number 0927), fitted with a Larson Davis type 2541 ½-inch free field microphone (serial number 5099) and Larson Davis type PRM 900B preamplifier (serial number 3159). The microphone was fitted with a windshield during the measurements. The analyser, microphone and preamplifier were last calibrated in a calibration laboratory in April 2002 and calibration certificates are available. Prior to and on completion of the survey, the analyser and microphone calibration was checked using a Larson Davis type CAL 200 Sound Level Meter Calibrator (serial number 2206). The Calibrator was last calibrated on 14 May 2002, in accordance with the requirements of ISO 10012 and a calibration and conformance certificate is available.

METHODOLOGY

For each engine speed, at least two passes were made at a steady velocity; if the noise levels recorded differed by greater than 2 dB, further pass-bys were made. The maximum A-weighted noise level ($L_{Amax,\ slow}$) and the A-weighted, continuous equivalent noise level (L_{Aeq}) are recorded for each pass-by. The L_{Aeq} was recorded for a period of approximately 20 seconds, from the time at which the noise level from the hovercraft exceeded the normal ambient level.

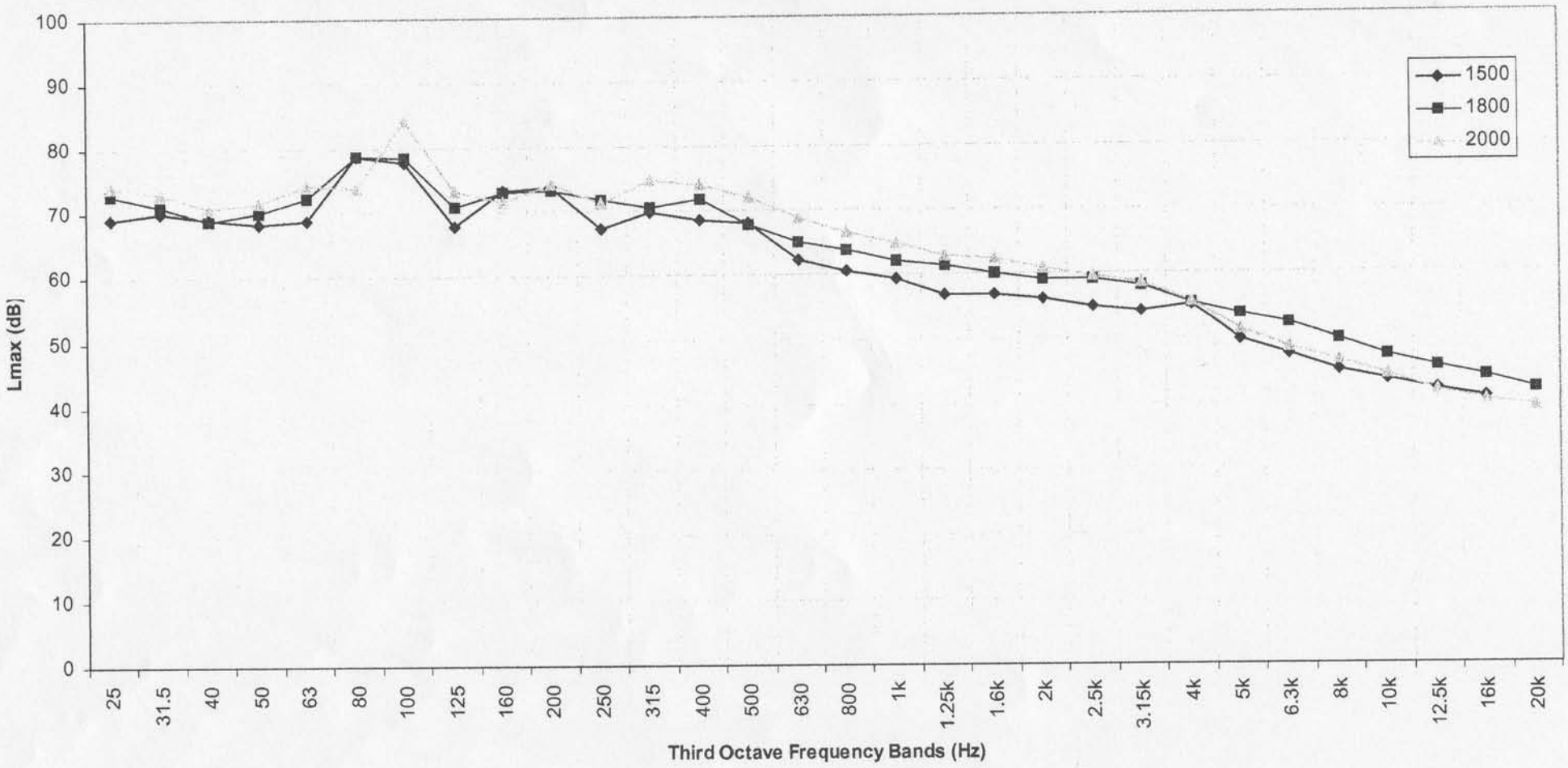
RESULTS

The pass-by noise levels for each engine speed generally varied by no more than 1 dB(A) and the results have therefore been logarithmically averaged. The resulting levels are shown in Table 1.

Engine Speed	Average Passing Speed (knots)	Pass-by Noise Levels, dB	
		L_{Aeq}	L_{Amax}
1500	18.5	71.8	77.3
1800	28.8	75.9	82.6
2000	33.2	76.9	82.9

TABLE 1: Pass-by noise levels at 25 m

Griffon 2000 TD at 100m for 3 engine speeds



The English Cogger Partnership 5A Charlecote Mews Staple Gardens Winchester Hampshire SO23 8SR
Tel: +44 (0)1962 858800 Fax: +44 (0)1962 858809 Web: www.tecp.co.uk

Griffon 2000 TD at 25m for 3 engine speeds