

12/14/2007

TOOL TEST SUMMARY SHEET

NAME OF DEVICE UNDER TEST (DUT)	Hammer Drill
TEST ENGINEER	Edward Zechmann
TEST DATE	12/14/2004
TEST DESCRIPTION	SWL
TEST LOCATION	UC ANECHOIC LAB
MANUFACTURER	Bosch
MODEL	11236VS
SERIAL NUMBER	489003270
YEAR MADE	
DIMENSIONS (inches)	LENGTH 16, WIDTH 4, HEIGHT 9
TECHNICAL SPECIFICATIONS	SDS chuck 1 1/8 inch hammer drill bit, No drill Bit
MOUNTING CONDITIONS	FREE-FREE, BUNGY CORDS
LOADING CONDITIONS	FULL SPEED NO LOAD Drill Mode
K1 (dBA)	0
K2 (dBA)	1.28
TEMPERATURE (FARHENHEIT, CELSIUS)	82 F, 28 C
HUMIDITY %	16
BAROMETRIC PRESSURE ("Hg, Pa)	29.63 "Hg, 100,350 Pa
TEST ENVIRONMENT	SEMI ANECHOIC, SEMI HEMISPHERICAL
MICROPHONE SET-UP	10-MICROPHONES
SURFACE RADIUS	2.00 meters
RATED POWER (WATTS)	900
ACTUAL INPUT POWER (WATTS)	433
VOLTAGE (VOLTS)	116
CURRENT (AMPS)	3.77
RATED RPM	850
ACTUAL RPM	963
SOUND POWER LEVEL (dBA)	95.8
SOUND POWER (WATTS) A-weighted	0.00376
SWL - k2 (dBA)	94.5
SWL - k2 (WATTS) A-weighted	0.00280
SOUND PRESSURE LEVEL - k2 @ (2m) (dBA)	80.6
AT THE NOMINAL HEARING ZONE OF OPERATOR	
SOUND PRESSURE LEVEL (dBA)	87.5

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Directivity Study

DUT	Hammer Drill
Manufacturer	Bosch
Model Number	11236VS
Serial Number	489003270

A-weighted Sound Pressure Level

	Position1	Position2
Mic #	dBA	dBA
0	82.2	
1	79.5	
2	81.7	
3	79.6	
4	80.8	
5	83.7	
6	81.5	
7	81.2	
8	81.4	
9	83.2	
10	87.5	
dB difference	4.2	

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TOOL TEST DATA SHEET

DUT Hammer Drill
Manufacturer Bosch
Model Number 11236VS
Serial Number 489003270

TEST CONDITIONS

Actual Power (watt) 433
Voltage (Volts) 116
Current (Amps) 3.77
Actual RPM 963
Temperature (Deg. F) 82 F, 28 C
Humidity (%) 16
Baro. Press. (inch of Hg) 29.63 "Hg, 100,350 Pa

Measurement Data

Linear

	Position 1	Position 2
Sound Power Level (Watt)	0.00376	
Sound Power Level (dB)	95.8	
Sound Pressure Level (dB)	81.9	

A-Weighted

	Test 1	Test 2	Test 3	Test 4
Sound Power Level (Watt)	0.00366	0.00377	0.00382	0.00378
Sound Power Level (dBA)	95.6	95.8	95.8	95.8
Sound Pressure Level (dBA)	81.8	81.9	82.0	81.9

Calculations

Average Sound Power Level (Watt)	0.00376
Average Sound Power Level (dBA)	95.8
Average Sound Pressure Level (dBA)	81.9

Std. Deviation S.W.L 0.0802

0.95 Confidence 0.0855

Mean-K2 80.63