

LOADED SOUND TEST SUMMARY SHEET

NAME OF DEVICE UNDER TEST (DUT)
TOOL OPERATOR
COMPUTER OPERATOR
TEST DATE

Miter Saw
Edward Zechmann
Automated Mode, Xiandong Zhu
6/7/2006

TEST DESCRIPTION
TEST LOCATION
MANUFACTURER
MODEL
SERIAL NUMBER
MODE OF OPERATION
RUN NUMBER
YEAR MADE

Sound Power Level Measurement
UC ANECHOIC LAB
Global Machinery Company (GMC)
MS1015AUL

DIMENSIONS (inches)
WEIGHT (lbs.)
TECHNICAL SPECIFICATIONS
MOUNTING CONDITIONS
LOADING CONDITIONS
K1 (dBA)
K2 (dBA)
TEMPERATURE (CELSIUS)
HUMIDITY %
BAROMETRIC PRESSURE ("Hg)

Normal
3
2004
LENGTH 18, WIDTH 19, HEIGHT 15
27.6 lbs.
10 inch saw blade, No. MS105840TCT, 40 Teeth
Clamped to oak board on a steel table on rubber feet
FULL SPEED, LOADED WITH OAK BOARD, NO GUIDE
0
1.35
23 C
39
29.93 "Hg

TEST ENVIRONMENT
TOOL TESTING STANDARD
MEASUREMENT STANDARD
MICROPHONE SET-UP
SURFACE RADIUS

SEMI ANECHOIC, SEMI HEMISPHERICAL
ANSI S12.15-1992
ISO 3744:1994-05-01
10-MICROPHONES
2.00 meters

RATED POWER (WATTS)
ACTUAL INPUT POWER (WATTS)
VOLTAGE (VOLTS)
CURRENT (AMPS)
RATED RPM
ACTUAL RPM

1800
NA
NA
NA
5200
NA

SOUND POWER LEVEL (dBA)
SOUND POWER (WATTS) A-weighted
SWLA - k2 (dBA)
SWLA - k2 (WATTS) A-weighted
SOUND PRESSURE LEVEL (dBA) @ 2 meters

111.1
0.13003
109.8
0.09528
97.1

AT THE NOMINAL HEARING ZONE OF OPERATOR
SOUND PRESSURE LEVEL (dBA)

107.2

Average Directivity Study

TEST DATE	6/7/2006
DUT	Miter Saw
Manufacturer	Global Machinery Company (GMC)
Model Number	MS1015AUL
Serial Number	
Mode	Normal
Run Number	3

A-weighted Sound Pressure Level

	Position1	Position2
Mic #	dBA	dBA
0	97.1	96.9
1	92.1	95.2
2	98.5	99.0
3	97.6	99.0
4	96.9	98.6
5	98.2	96.8
6	94.2	91.8
7	98.6	98.3
8	95.5	95.5
9	97.5	97.3
10	107.2	106.1
dB difference	6.5	7.2

A-weighted Directivity Index

Mic #	dBA	dBA
0	0.5	0.1
1	-4.5	-1.6
2	1.9	2.1
3	0.9	2.1
4	0.3	1.8
5	1.6	0.0
6	-2.4	-5.0
7	2.0	1.4
8	-1.1	-1.3
9	0.8	0.5

SOUND DATA SHEET

PRODUCT INFORMATION

TEST CONDITIONS

TEST DATE	6/7/2006		
DUT	Miter Saw	Actual Power (watt)	NA
Manufacturer	Global Machinery Company (GMC)	Voltage (Volts)	NA
Model Number	MS1015AUL	Current (Amps)	NA
Serial Number		Actual RPM	NA
Mode of Operation	Normal	Temperature (Deg. F)	23 C
Run Number	3	Humidity (%)	39

Measurement Data

Baro. Press. (inch of Hg) 29.93 "Hg

Linear (unweighted) Position 1

Sound Power (dB)	109.36	109.80	109.63	109.99	110.14	109.85	111.01	112.24	110.93	111.16
Sound Power (Watts)	0.08631	0.09558	0.09174	0.09970	0.10337	0.09654	0.12616	0.16756	0.12400	0.13058
Sound Pressure (dB)	95.36	95.80	95.62	95.98	96.14	95.84	97.01	98.24	96.93	97.16

Linear (unweighted) Position 2

Sound Power (dB)	111.57	111.45	110.91	110.85	110.65	110.37	110.29	110.16	110.08	109.85
Sound Power (Watts)	0.14371	0.13962	0.12332	0.12170	0.11625	0.10902	0.10698	0.10375	0.10179	0.09667
Sound Pressure (dB)	97.57	97.45	96.91	96.85	96.65	96.37	96.29	96.16	96.07	95.85

A-weighted Position 1

Sound Power (dBA)	109.77	110.13	110.07	110.30	110.52	110.29	111.53	113.00	111.51	111.84
Sound Power (Watts)	0.09494	0.10294	0.10171	0.10723	0.11276	0.10688	0.14219	0.19965	0.14144	0.15282
Sound Pressure (dBA)	95.77	96.12	96.07	96.30	96.52	96.29	97.53	99.00	97.50	97.84

A-weighted Position 2

Sound Power (dBA)	112.23	112.13	111.57	111.51	111.28	110.96	110.94	110.69	110.58	110.33
Sound Power (Watts)	0.16720	0.16328	0.14369	0.14144	0.13421	0.12462	0.12408	0.11734	0.11417	0.10791
Sound Pressure (dBA)	98.23	98.13	97.57	97.50	97.28	96.95	96.93	96.69	96.57	96.33

Calculations

Average A-weighted Sound Data

Sound Power (dBA)	111.14
Sound Power (Watts)	0.1300
Sound Pressure (dBA)	97.14

Std. Deviation SWLA	0.8496
95 % Confidence Level	0.3277
Mean SPLA-k2	95.79