

12/14/2007

TOOL TEST SUMMARY SHEET

NAME OF DEVICE UNDER TEST (DUT)
TEST ENGINEER
TEST DATE

Circular Saw
Edward Zechmann, Prasad Kadam
8/27/2004

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

Sound Power Level Measurement
UC anechoic lab
Milwaukee
6460
607D804110259
Normal
1

DIMENSIONS (inches)
TECHNICAL SPECIFICATIONS
MOUNTING CONDITIONS
LOADING CONDITIONS
K1 (dBA)
K2 (dBA)
TEMPERATURE (FARHENHEIT, CELSIUS)
HUMIDITY %
BAROMETRIC PRESSURE ("Hg, Pa)

Length 15, Width 12, Height 11
10 1/4 inch saw blade
free-free, bungy cords
Full speed no load
0
1.01
82 F
41
29.27 "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
SOUND POWER LEVEL (dBA)
SOUND POWER (WATTS) A-weighted

1800
642
114
5.68
5200
4935
102.4
0.01742

SWL - k2 (dBA)
SWL - k2 (WATTS) A-weighted
SOUND PRESSURE LEVEL @ (2m) (dBA)

101.4
0.01381
88.6

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

95.1

12/14/2007

Directivity Study

DUT	Circular Saw
Manufacturer	Milwaukee
Model Number	6460
Serial Number	607D804110259
MODE OF OPERATION	Normal
RUN NUMBER	1

A-weighted Sound Pressure Level

Mic #	Position1 dBA	Position2 dBA
0	88.7	
1	86.3	
2	89.2	
3	89.8	
4	87.2	
5	87.1	
6	88.9	
7	89.3	
8	88.9	
9	88.4	
10	95.1	
dB difference	3.5	

Mic #	A-weighted Directivity Index	
	Position1	Position2
0	0.3	
1	-2.1	
2	0.8	
3	1.4	
4	-1.1	
5	-1.3	
6	0.6	
7	0.9	
8	0.5	
9	0.0	
10	6.7	

12/14/2007

TOOL TEST DATA SHEET

DUT Circular Saw
 Manufacturer Milwaukee
 Model Number 6460
 Serial Number 607D804110259
 MODE OF OPERATION Normal
 RUN NUMBER 1

TEST CONDITIONS

Actual Power (watt) 642
 Voltage (Volts) 114
 Current (Amps) 5.68
 Actual RPM 4935
 Temperature (Deg. F) 82 F
 Humidity (%) 41
 Baro. Press. (inch of Hg) 29.27 "Hg

Measurement Data

Linear

	Position 1	Position 2
Sound Power Level (dB)	102.0	
Sound Power Level (Watt)	0.01598	
Sound Pressure Level (dB)	88.2	

A-Weighted

	Position 1			
	Test 1	Test 2	Test 3	Test 4
Sound Power Level (dBA)	102.4	102.4	102.4	102.4
Sound Power Level (Watt)	0.01753	0.01732	0.01737	0.01747
Sound Pressure Level (dBA)	88.6	88.5	88.6	88.6

Calculations

Average Sound Power Level (Watt)	0.01742
Average Sound Power Level (dBA)	102.4
Average Sound Pressure Level (dBA)	88.6
Std. Deviation of Sound Power Level (dBA)	0.0236
0.95 Confidence of Sound Power Level (dBA)	0.0251
Average Sound Power Level (dBA) -K2	101.40
Average Sound Pressure Level (dBA) -K2	87.56