TEST REPORT

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Tested by (name + signature)	:	Jiawei Chen
Approved by (name + signature)	:	David Yang
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Testing Laboratory	:	DEKRA Testing and Certification (Shanghai) Ltd.
Testing location / address	:	3F., #250 Jiangchangsan Road, Building 16 Headquarter Economy Park, Shibei Hi-Tech Park, Zhabei District Shanghai 200436, CHINA
Applicant	:	LEE YEONG INDUSTRIAL CO., Ltd.
Address	:	No.2, Kejia Rd. Douliu City 64057 YUNLIN COUNTY TAIWAN
Test specification:		
Standards	:	EN 62841-1:2015, IEC62841-2-3:2020
Test procedure	:	☐ Basic safety test ☐ Screen test ☐ Quick scan ☐ Basic EMC test ☐ Flash test ☐ IP 54 ☒ Noise test ☒ Vibration test
Test object description	:	Concrete grinder
Trade Mark	:	AGP
Manufacturer	:	LEE YEONG INDUSTRIAL CO., Ltd.
Address	:	No.2, Kejia Rd. Douliu City 64057 YUNLIN COUNTY TAIWAN
Model/Type reference	:	G180
Ratings	:	230-240 Vac, 50-60 Hz, 2000 W
Number of test objects	:	1 pc for noise and vibration measurement

Conclusion:

- The following noise and vibration values (minimum) shall be declared on instruction manual:

Declared dual-number noise emission values in accordance with ISO 4871

Measured A-weighted sound power level, L_{WA} (ref.1pW),in decibels	**101,5 dB(A)**
Uncertainty, K_{WA},in decibels	**3 dB(A)**
Measured A-weighted emission sound pressure level at the work station, L_{pA} (ref.20μPa),in decibels	**90,5 dB(A)**
Uncertainty, K_{pA},in decibels	**3 dB(A)**

Values determined according to noise test code given in EN 62841-1:2015, using the basic standards IEC 62841-2-3:2020.

NOTE - The sum of a measured noise emission value and its associated uncertainty represents an upper boundary of the range of values which is likely to occur in measurements.

Vibration total values (triaxial vector sum) determined according to EN62841

	the work mode description "Concrete grinding"
Vibration emission Value a_h	**6,1 m/s²**
Uncertainty K	**1,5 m/s²**

Summary of testing:

Location of testing and Environmental condition:

Location:	Noise lab of DEKRA Testing and Certification (Shanghai) Ltd.
Background noise:	25,5 dB(A)
Dimension:	3,95m*2,8m*2,4m
Air temperature:	25℃
Relative humidity:	50%
Barometric pressure:	101,1kPa
Wind velocity:	0m/s

Test equipment list:

Equipment	Type	Serial number	Manufacturer	Calibration due date
Microphone	4189	3148398	Brüel & Kjær	2021/03/24
Pulse	3050-A-060	3050-112020	Brüel & Kjær	2021/04/07
Calibrator	4231	3022391	Brüel & Kjær	2021/03/18
Accelerometer	4535B001	32675	Brüel & Kjær	2021/03/22
Accelerometer	4535B001	32674	Brüel & Kjær	2021/03/22

Part 1 Noise test

1.1 Test standards

EN 62841-1:2015, IEC62841-2-3:2020

1.2 Description of the hand-held tool

Product: Concrete grinder

Model: G180

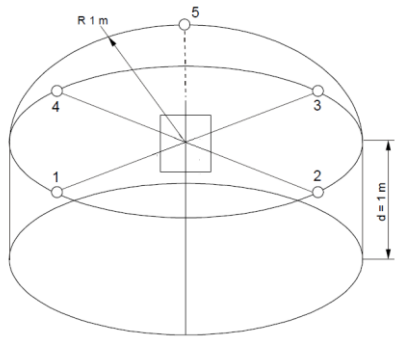
Technical data: 230-240 Vac, 50-60 Hz, 2000 W

1.3 Description of mounting and operation conditions

Mounting: The concrete grinder was suspended and hold horizontally.

Operating conditions: No load/max.speed

1.4 Microphone positions:



1.5 Measurement data

cycle \ point	1	2	3	4	5
1	91,2	90,7	90,0	89,7	90,4
2	91,1	90,6	89,9	89,9	90,2
3	90,9	90,5	89,8	89,8	90,3

1.6 Test result

1.6.1 Sound power level Determination

A-weighted time-average 1 meter surface sound pressure level:

$$\overline{L_{pAi,1m}} = 10lg\left[\frac{1}{5}\sum_{i=1}^{5} 10^{0,1L'_{pA,i}}\right] - K_{1A} - K_{2A}$$

A-weighted sound power level: $L_{WA} = \overline{L_{pAi,1m}} + 10lg\frac{S}{S_0}$

Where:

K_{1A} = 0dB(A);

K_{2A} = 0dB(A);

$10lg\frac{S}{S_0}$ =11dB(A).

cycle	$\overline{L_{pAi,1m}}$	L_{WAi}
1	90,4	101,4
2	90,4	101,4
3	90,3	101,3

sound power level: $\boldsymbol{L_{WA} = \frac{1}{3}\sum_{i=1}^{3} L_{WAi} = 101,4dB(A)}$

1.6.2 Emission sound pressure level Determination

A-weighted Emission sound pressure level at the work station: $L_{pA} = L_{WA} - Q$

Where:

Q = 11 dB(A).

Emission sound pressure level at the work station: $\boldsymbol{L_{pA} = L_{WA} - Q = 101,4 - 11 = 90,4dB(A)}$

Part 2 Vibration test

2.1 Test standards

EN 62841-1:2015, IEC62841-2-3:2020

2.2 Description of the hand-held tool

Product: Concrete grinder

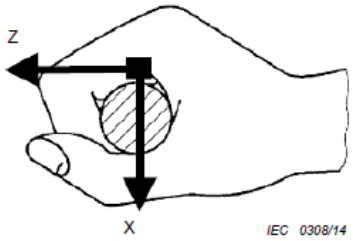
Model: G180

Technical data: 230-240 Vac, 50-60 Hz, 2000 W

2.3 Description of operating and testing conditions

Testing conditions: To be held as in normal use for grinding a horizontal plate.

2.4 Measurement direction



2.5 Measurement data

Main handle:

Operator A				
Direction / No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	3,899	1,434	3,759	5,603
2	4,055	1,362	3,432	5,485
3	3,274	1,881	3,465	5,125
4	3,665	1,399	3,589	5,317
5	3,747	1,645	3,974	5,705
the arithmetic mean total vibration				5,447

Operator B				
Direction / No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	3,889	1,962	3,438	5,549
2	3,970	1,718	3,957	5,863
3	3,734	1,655	3,501	5,380
4	3,750	1,842	3,706	5,585
5	3,418	1,494	3,432	5,069
the arithmetic mean total vibration				5,489

Operator C				
Direction / No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	3,717	1,318	3,850	5,511
2	3,693	1,347	3,984	5,597
3	3,271	1,651	3,769	5,257
4	3,273	1,606	3,588	5,115
5	3,709	1,917	3,389	5,377
the arithmetic mean total vibration				5,371

Auxiliary handle:

Operator A				
Direction / No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	3,747	4,428	1,789	6,071
2	3,750	4,826	1,987	6,427
3	3,594	4,935	1,967	6,414
4	3,812	4,051	2,350	6,039
5	3,781	4,124	1,727	5,855
the arithmetic mean total vibration				6,161

Operator B				
Direction / No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	3,667	4,718	1,896	6,269
2	3,345	4,458	1,990	5,918
3	3,315	4,144	1,804	5,605
4	3,831	4,691	1,749	6,304
5	3,273	4,654	2,031	6,041
the arithmetic mean total vibration				6,027

Operator C				
Direction / No.	a_{hwx}	a_{hwy}	a_{hwz}	The vibration total value
1	3,539	4,361	2,175	6,023
2	3,503	4,960	1,763	6,323
3	3,300	4,435	2,159	5,935
4	3,601	4,991	2,195	6,534
5	3,362	4,894	2,294	6,366
the arithmetic mean total vibration				6,236

2.6 Test result

Main handle:

The average vibration total value $a_{h,CG}$:5,436 m/s^2

$K = 1{,}65 s_R = 0{,}204 m/s^2$ *or* $K = 1{,}5 m/s^2$ *, Whatever is higher.*

Auxiliary handle:

The average vibration total value $a_{h,CG}$: 6,142 m/s^2

$K = 1{,}65 s_R = 0{,}057 m/s^2$ *or* $K = 1{,}5 m/s^2$ *, Whatever is higher.*

The test results shown in this report relate only to the tests performed according to the test program. The test object has not been submitted to a full test program.

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