



Test Report issued under the responsibility of:



TEST REPORT
IEC 61 029-2-10
Transportable motor-operated electric tools
Part 2-10: Particular requirements cutting-off grinders

Report Reference No.: 3123143.50
Date of issue: 2013-01-14
Total number of pages: 45 pages

CB Testing Laboratory.....: DEKRA Testing and Certification (Shanghai) Ltd.
Address: 10F, #250 Jiangchangsan Road, Building 16, Headquarter Economy Park Shabei Hi-Tech Park, Zhabei District, Shanghai, 200436, China

Applicant's name.....: LEE YEONG INDUSTRIAL CO., LTD.
Address: No.2, Kejia Rd., Douliu City, Yunlin County 64057, Taiwan

Test specification:
Standard.....: IEC 61029 - 2 - 10:1998 (First Edition) used in conjunction with IEC 61029-1:1990 (First Edition)
Test procedure: CB
Non-standard test method.....: N/A

Test Report Form No.: IEC61029_2_10A
Test Report Form(s) Originator: TÜV SÜD Product Service GmbH
Master TRF: Dated 2007-05-08


Copyright © 2006 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description: DRY-CUT SAW
Trade Mark: AGP
Manufacturer: LEE YEONG INDUSTRIAL CO., LTD.
No.2, Kejia Rd., Douliu City, Yunlin County 64057, Taiwan
Model/Type reference: DRC355
Ratings: 220 - 240 Vac; 50 - 60 Hz; 2200 W; 10,4 A; n₀: 1300 /min;
Ø355 mm; Class I

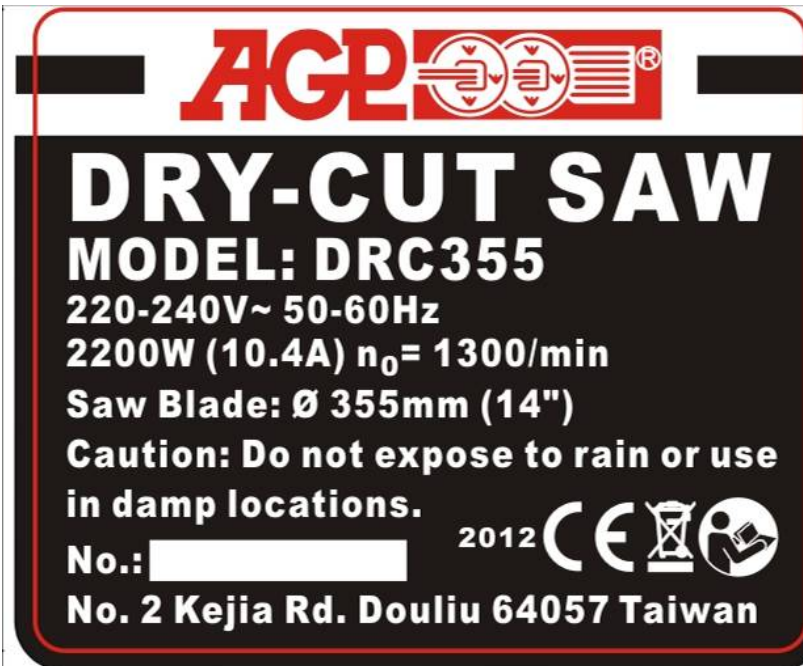
Testing procedure and testing location:	
<input checked="" type="checkbox"/> CB Testing Laboratory: Testing location/ address :	DEKRA Testing and Certification (Shanghai) Ltd. 10F, #250 Jiangchangsan Road, Building 16, Headquarter Economy Park Shibe Hi-Tech Park, Zhabei District, Shanghai, 200436, China
<input type="checkbox"/> Associated CB Test Laboratory: Testing location/ address :	
Tested by (name + signature)..... :	Chris Feng 
Approved by (+ signature)..... :	Cliff Lin
<input type="checkbox"/> Testing procedure: TMP Tested by (name + signature)..... : Approved by (+ signature)..... : Testing location/ address :	
<input type="checkbox"/> Testing procedure: WMT Tested by (name + signature)..... : Witnessed by (+ signature) : Approved by (+ signature)..... : Testing location/ address :	
<input type="checkbox"/> Testing procedure: SMT Tested by (name + signature)..... : Approved by (+ signature)..... : Supervised by (+ signature)..... : Testing location/ address :	
<input type="checkbox"/> Testing procedure: RMT Tested by (name + signature)..... : Approved by (+ signature)..... : Supervised by (+ signature)..... : Testing location/ address :	

3123143.50A

<p>List of Attachments (including a total number of pages in each attachment): Test report constituents: - 3123143.50A covering IEC 61029-1, IEC 61029-2-10 and picture pages (45 pages). - 3123143.50B covering EU_GD to IEC 61029-1 and IEC 61029-2-10 (19 pages).</p>	
<p>Summary of testing: The tool tested passed all the examinations of the applied standards mentioned on page 1 “Test specification” and on page 5 “General remarks”.</p>	
<p>Tests performed (name of test and test clause):</p> <p>All appl. clauses of the standard have been done on product at CBTL.</p> <p>Noise and vibration tests were done at STIET</p>	<p>Testing location:</p> <p>DEKRA Testing and Certification China Ltd. 10F, #250 Jiangchangsan Road, Building 16, Headquarter Economy Park Shibe Hi-Tech Park, Zhabei District, Shanghai, 200436, China</p> <p>Testing and Calibration Laboratory of vibration and noise of STIET No. 10, Bao Qing Rd., 200031, Shanghai, China</p>
<p>Summary of compliance with National Differences:</p> <p>This tool is tested to and complies with EN 61029-1:2009+A11:2010 and EN 61029-2-10:2010, thus complying with the EU group differences.</p> <p>Noise level: Lpa: 93,5 dB (A) Lwa: 105,5 dB (A) K = 3 dB (A) Vibration level: a_{h,D} = 0,9 m/s² K = 1,5 m/s²</p>	

3123143.50A

Copy of marking plate



CAUTION!

NEVER touch the Arbor Lock during operation

ALWAYS ensure that the Arbor Lock fully returns to the " Off " position when released.



- Keep hands and other body parts away from the rotating blade during both cutting and coast down. NEVER reach under or around the blade.
- Use all approved safety equipment including SAFETY GLASSES, HEARING PROTECTION, GLOVES and DUST RESPIRATOR
- Check safety guards for proper function before each use.
- Never freehand cut. ALWAYS properly use the vise.
- Always UNPLUG the machine before performing any adjustments or maintenance.



CAUTION!

NEVER touch the Arbor Lock during operation
Ensure arbor lock is disengaged before operating machine!
After tightening blade, Always rock the arbor back with the wrench to allow the arbor lock to pop up.

Test item particulars	
Classification of installation and use	Class I
Supply Connection	Type X attachment
.....	-
.....	-
Possible test case verdicts:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing	
Date of receipt of test item	2011-10-13
Date (s) of performance of tests	2012-10-8 to 2012-12-19
General remarks:	
<p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator.</p> <p>The tool tested and complies with the following standards: IEC 61029-1:1990; EN 61029-1: 2009+A11:2011</p> <p>The tool also satisfied with part of IEC 61029-2-10:1998 and EN 61029-2-10: 2010</p>	
Factory Location:	
LEE YEONG INDUSTRIAL CO., LTD. No.2, Kejia Rd., Douliu City, Yunlin County 64057, Taiwan	
General product information:	
The machine is intended for stationary use with cutting saw to perform lengthways and crossways straight cuts or mitre cuts to 45° in metal materials without the use of water.	

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
7	MARKING		
7.1	Rated voltage(s) (V).....:	220 - 240 V	P
	Nature of supply.....:	ac	P
	Rated frequency (Hz)	50 - 60 Hz	P
	Input (W or kW).....:	2200 W	P
	Rated current (A) if greater than 10A	10,4 A	P
	Manufacturer's name or trade mark	Trade mark: AGP	P
	Model or type reference	DRC355	P
	Rated operating/resting time		N/A
	Symbol for Class II		N/A
	Symbol for protection against moisture		N/A
	Rated no-load speed rev/min	n ₀ : 1300 /min	P
	Maximum diameter D of the wheel to be used (mm)	355 mm	P
	Indication of direction of rotation of the abrasive wheel	On the fixed guard	P
7.2	Operating time/resting time corresponding to normal use		N/A
	Marking of operation		N/A
7.3	Heating elements: marking according to IEC 60335-1		N/A
7.4	Adjustable voltage or input easily and clearly discernible		N/A
7.5	Marked input for each rated voltage or voltage range		N/A
7.6	Correct symbols used		P
	Symbol for nature of rated supply next to rated voltage		P
	Correct dimensions for Class II symbol and no confusion with any other marking		N/A
	The direction of rotation of the wheel is indicated by:		P
	An arrow raised or		P
	an arrow sunk or		N/A
	Any other means not less visible and indelible.		N/A
7.7	Letter N used exclusively for neutral conductor		N/A
	Marking for earthing terminal		P
	Marking not on screws, removable washers or other removable parts		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
7.8	Use of red push-button (only to open the circuit)		N/A
	Figure 0 indicates only OFF position		N/A
	Figure I indicates ON position		N/A
	Correct symbols used for greater output, input, speed etc.		N/A
	Manual reset buttons of thermal cut-outs cannot be mistaken for main controls		N/A
7.9	Marking easily legible and durable		P
	Marking placed on a main part clearly discernible		P
	Marking and indications related to any component placed in the vicinity of the component involved		P
	Marking not placed on removable parts, if confusion possible		P
	Rubbing test		P
7.10	Regulation devices marked with		N/A
7.11	Switches so marked or placed as to indicate clearly which part of the tool they control		P
7.12	Wiring diagram if more than 2 supply conductors		N/A
7.13	Language of safety markings/instructions	English manual	P
	Installation instructions:		P
	- setting-up or fixing tool in a stable position as appropriate		P
	- unpacking and assembly		P
	- connection to power supply, cabling, fusing, socket-type and earthing requirements		P
	- illustrated description of functions		P
	- limitations on ambient conditions		P
	- list of contents		P
	Operating instructions:		P
	- setting and testing		P
	- tool changing		P
	- clamping of work		P
	- limits on size of work piece		P
	- general instructions for use		P
	Safety precautions:		P
	- precautions and use of clothing (where necessary)		N/A
	- special safety precautions		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	- dust extraction		N/A
	- guards; security and adjustment		P
	Maintenance and servicing:		P
	- regular cleaning, maintenance and lubrication		P
	- servicing by manufacturer or agent; list of addresses		P
	- list of user replaceable parts		N/A
	- special tools which may be required		N/A
	- The handbook or information sheet include all the necessary information for safe working with cutting-off grinders, such as method of operation, abrasive wheel change, maintenance, assembly, transportation, etc.		P
	Additional safety instructions:		P
	- Wear protective glasses;		P
	- do not use damaged abrasive wheels;		P
	- do not use the cutting-off grinders without guards in position;		P
	- use only abrasive wheels recommended by the manufacturer which have marked speed equal or greater to that marked on the machine:		N/A
	- read the operating instructions supplied by the wheel manufacturer.		P
	Additional information:		P
	- how to connect the dust-collecting device, if any		N/A
	- for cutting-off grinders equipped with straight-sided flanges, the recommended thickness of plain abrasive cutting-off wheels and the size of the hole in the wheel.		P

8	PROTECTION AGAINST ACCESSIBILITY TO LIVE PARTS		
8.1	Adequate protection against accidental contact with:		P
	- live parts, even after removal of detachable parts		P
	- basic insulation of metal parts separated from live parts by basic insulation only (Class II)		P
	Lacquer, enamel etc. not relied upon		P
	Uninsulated parts at safety extra-low voltage considered to be live parts		N/A
	Apertures in Class II and Class I tools: 10 N force test with test pin		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Openings in enclosure: 50 N force test with standard test finger		P
8.2	Adequate strength of parts providing protection (do not work loose and are only removable with tools)		P
8.3	Shafts of operation knobs and the like not live		P
8.4	Metal handles or knobs of switch-operating means (tools other than Class III) covered by insulating material		N/A
	Separation by supplementary insulation		N/A
8.5	Capacitors not connected to accessible metal parts in Class II tools		N/A
	Separation by supplementary insulation (in case of metal casing)		N/A
8.6	Risk of electric shock from the pins of a plug		P
	Measured voltage (V) one second after disconnection	0 V	P

9	STARTING		
9.1	Start under normal voltage conditions		P
	Starting three times at 0,85 times rated voltage without load or lower limit of the voltage range	187 V	P
	With centrifugal or other automatic starting switch: three times at 1.06 times rated voltage or upper limit of the voltage range		N/A
9.2	Overload protection devices not operating during normal starting conditions		N/A

10	POWER INPUT AND CURRENT		
10.1	Input deviations at rated voltage and under normal load	(see appended table)	P
10.2	Current deviations at rated voltage and under normal load conditions	(see appended table)	P

11	HEATING		
11.1	No excessive temperatures in normal use	(see appended table)	P
11.2	Tool loading conditions during temperature test:		P
11.3	Temperature rises of windings and core laminations	(see appended table)	P
11.4	Tool operating time	Continuous operation until steady condition.	P
11.5	Operations of thermal cut-outs		N/A

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
11.6	Additional tests if temperature rise of the windings and core laminations exceeds the value of 11.5		N/A
	Heat treatment for 240 h		N/A
	Heating cabinet temperature (EC).....:		N/A
	Insulation resistance after heat treatment		N/A
	Electric strength after heat treatment		N/A
	Humidity treatment		N/A
	Insulation resistance after humidity treatment		N/A
	Electric strength after humidity treatment		N/A
12	LEAKAGE CURRENT		
12.1	Test voltage (V) (1,06 times rated voltage)	(see appended table)	P
12.2	Leakage current test	(see appended table)	P
	Tools with heating element tested according to IEC 60335-1; 13.2		N/A
13	RADIO INTERFERENCE SUPPRESSION		
13.1	Safety of the tool not affected by components for radio and television interference suppression		P
14	MOISTURE RESISTANCE		
14.1	Tools marked with degree of protection against ingress of foreign bodies fulfill this requirement under working conditions		N/A
14.2	Tools with a higher degree than IPX0 comply with IEC 60529 under working condition IP		N/A
14.3	Humidity test		P
	Relative humidity 91 - 95%	93%	P
	Temperature 20 - 30°C	25 °C	P
	Duration of treatment (h)	48 h	P
	Electric strength test after humidity treatment		P
14.4	Spillage of liquid in normal use for tools with liquid container		N/A
	Electric strength test after spillage of liquid		N/A
	No appreciable quantity of water has entered the appliance and no trace of water on insulating parts		N/A
15	INSULATION RESISTANCE AND ELECTRIC STRENGTH		

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
15.2	Insulation resistance	(see appended table)	P
15.3	Electric strength test (50 or 60 Hz)	(see appended table)	P

16	ENDURANCE		
16.1	Extended normal use		P
	No electrical or mechanical failure		P
	Insulation not damaged		P
	Contacts and connections do not work loose		P
	Tests of 16.2 and 16.3		P
	Electric strength test after extended use (75% of values specified in 15.3 (V)	938 V, 1875 V, 2813 V	P
16.2	Intermittent operation with no load for 2 x 24 h		P
	Operating period for short-time or intermittent operation tools	100 s ON and 20 s OFF	P
	Test voltage(s) (V)	198 V, 264 V	P
	Test positions	On horizontal	P
	Operation of overload protection devices during extended normal use		N/A
	Safety of tools not impaired after extended normal use		P
16.3	Tools with a centrifugal or other automatic starting switch		N/A
	Number of starting operations		N/A
	Test voltage(s) (V)		N/A
	After extended use, the safety of tools in normal use not impaired		N/A

17	ABNORMAL OPERATION		
17.1	Prevention against hazards as a result of abnormal or careless operation		P
	Tools incorporating commutator motors		P
	Test voltage (V) (1,3 times rated voltage)	312 V	P
	Tools incorporating induction motors		N/A
	- moving parts are liable to be jammed or stopped by hand		N/A
	- operated by hand look for 30 s max. winding temperature: °C:		N/A
	- attend during use look for 5 min max. winding temperature: °C:		N/A

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Three phase motors with one phase disconnected and under the torque producing normal load max. winding temperature: °C:		N/A
17.2	Tools incorporating electronic devices		P
	Operating with electronic device short-circuited	The PWB was sealing with glue. Short circuited whole PWB	P
	Operating with electronic device open circuited	The PWB was sealing with glue. Open circuited whole PWB	P
	No damage within the meaning of this standard		P
17.3	Tools with switches or other devices for reversing the motor		N/A
	Reversing the direction of rotation under running conditions		N/A
	Test voltage(s) (V)	-	N/A
	No electrical or mechanical failure of the device		N/A
	No damage within the meaning of this standard		N/A

18	MECHANICAL HAZARDS		
18.1	Protection against injury by parts moving in normal use		P
	Adequate mechanical strength of protective enclosures and guards		P
	Protective enclosures, covers, guards etc. not removable without the aid of a tool		P
	Guard for more frequent access does not create danger in case of:		P
	- used as protection of working element		P
	- during use and adjustment		P
	All working elements are secured so that they cannot create dangers		P
	Compliance with tests of Cl. 19		P
	Cutting-off grinders are equipped with an adequate guarding system, which cannot be removed without the aid of a tool.		P
18.1.101	Guards		P
	Guards are provided as part of a cutting-off grinder.		P
	The portion of the abrasive wheel, which is not performing the cutting action, is completely enclosed by a fixed guard.		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	The remaining part of the abrasive wheel is protected by a movable guard, which covers the abrasive wheel rim on both sides and which returns automatically to its rest position when the abrasive wheel is withdrawn from the workpiece.		P
	The guard complies to the following requirements:		P
18.1.102	Thickness of the guards		N/A
	Tensile strength (N/mm ²)		N/A
	Peripheral speed (m/s)		N/A
	Diameter of the abrasive wheel (mm)		N/A
	Thickness of the periphery of the guard (mm)		N/A
	Thickness of the side of the guard (mm)		N/A
	Wheel guard test if necessary.		N/A
18.1.103	Fixed guards:		P
	The opening angle in the guard does not exceed 165° (see figure 102) (°)	Measured: 160°	P
	To prevent ejection of broken parts of the wheel in front of the machine, the lower front part of the guard is below the horizontal plane crossing the spindle axis, for all positions of the arm ($x > 0$).		P
	If the movable guard is made of a steel sheet of at least the guard thickness P and if it overlaps the fixed guard, it can be used to ensure guarding against wheel breakage; in this case, the previous requirement $x > 0$ does not apply.		N/A
18.1.104	Movable guards		P
	In addition to the fixed guard, the movable guard is designed to prevent physical contact with the wheel		P
	The following minimum requirements are met:		P
	distance "b" is reduced to a minimum for the arm movement to be free		P
	b (mm)	b=0 mm	P
	Dimensions "c" and "d" are larger than the maximum radius of the wheel.		P
	c (mm)	190 mm > 177,5 mm	P
	d (mm)	190 mm > 177,5 mm	P
	radius of the wheel (mm)	177,5 mm	P
	Any gaps between fixed guards and movable guards do not allow the standard test finger in figure 1 to touch the wheel.		P
	The movable guard can be either:		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Plain,		P
	wire-netting or		N/A
	perforated		N/A
	In the last two cases, the openings satisfy the test finger requirements of part 1.		N/A
	If an overlapping "a" is foreseen between the fixed guard and the movable guard (see figure 103), it is sufficient to prevent the access to the wheel in the overlapping area;		P
	a (mm)	Measured: 14 mm	P
	If there is no overlapping, the clearance between the fixed guard and the movable guard do not exceed 4 mm (corresponding to the positions "e1", "e2" and "e3" of figure 104).		N/A
	e1 (mm)		N/A
	e2 (mm)		N/A
	e3 (mm)		N/A
	The tool is so designed that during the operations of loading-unloading of parts, the movable guard cannot be lifted inadvertently.		P
	The tool is also designed so as to avoid any inadvertent dropping of the movable guard, where it is necessary to lift it to replace the wheel.		P
18.1.105	Tools have a rear guard behind the wheel to prevent the ejection of the sparks, broken wheels and other debris. The rear guard complies with the requirements of figure 105 as follows:		P
	g > 0; g(mm)	Measured: 55 mm	P
	angle alpha > 18° (°)	Measured: > 18°	P
18.2	Adequate stability		P
	Tilting test through an angle of 10° appliance does not overturn		P
18.3	This sub-clause of part 1 is not applicable.		P
18.4	No sharp edges, burrs, flashes and the like		P
18.101	Workpiece fixing device		P
	Tools have a workpiece fixing device, which is fixed to the table.		P
	It is possible to operate the workpiece fixing device without removing the guards.		P
	The height of the jaws is at least half of the maximum depth of the cut of the cutting-off grinder.		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Height (mm)	Measured: 80 mm	P
	Maximum depth of the cut (mm)	132 mm	P
18.102	Straight recessed flanges		P
	The flanges comply with the following:		P
	peripheral speed of the abrasive wheel is $\leq 63\text{m/s}$ $d_f \leq 0,2 D$ $r \leq 0,17 d_f$ $h \leq 0,17 M$ $t = 1,0 \text{ mm nominal}$		P
	D (mm)	355 mm	P
	d_f (mm)	101 mm	P
	r (mm)	20 mm	P
	h (mm)	37,8 mm	P
	M (mm)	164,8 mm	P
	peripheral speed is $> 63 \text{ m/s}$ $d_f \leq 0,25 D$ $r \leq 0,17 d_f$ $h \leq 0,17 M$ $t = 1,0 \text{ mm nominal}$		N/A
	D (mm)		N/A
	d_f (mm)		N/A
	r (mm)		N/A
	h (mm)		N/A
	M (mm)		N/A
18.103	Tool spindle		P
18.103.1	Characteristics and dimensions		P
	The spindle is made of steel tensile strength $\geq 650 \text{ N/mm}^2$		P
	(N/mm^2)	$> 650 \text{ N/mm}^2$	P
	and elongation $\geq 10 \%$		P
	(%)	$> 10 \%$	P
18.103.2	Spindle end		P
	The cutting-off grinders is designed so as to prevent the abrasive from coming loose under working conditions.		P
18.104	Cutting-off grinders have provisions so the wheel cannot be touched from under the table.		P
19	MECHANICAL STRENGTH		

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
19.1	Adequate mechanical strength tested with the spring operated impact-test apparatus		P
	Tools possess adequate mechanical strength and withstand rough handling		P
19.2	Three blows applied to brush caps		N/A
	Impact energy: 0,5 ± 0,05 Nm	-	N/A
	Compression: 20,0 mm	-	N/A
	Test voltage (V)	-	N/A
	Other parts tested	Air-intake opening, motor enclosure, handle, switch knob	P
	Impact energy: 1,0 ± 0,05 Nm	1,0 Nm	P
	Compression: 28,3 mm		P
	Test voltage (V)	1250 V / 2500 V / 3750 V	P
19.3	Adequate mechanical strength for brush holders and their caps	No-brush caps	N/A
	Removing and replacing the brushes ten times		N/A
	Test torque (Nm)		N/A
	Brush-holder shows no damage		N/A
20	CONSTRUCTION		
20.1	Use tools of class I, class II or class III construction only		P
20.2	Accidental changing of the setting is unlikely to occur in tools with different voltages or different speed setting		N/A
20.3	Accidental changing of the setting of control devices is unlikely to occur		N/A
20.4	Removal of parts which ensure the required degree of protection against moisture without the aid of a tool not possible		N/A
20.5	The fixing of handles, knobs and the like used to indicate the position of switches or similar components in a wrong position not possible		P
20.6	Replaceable components suitable fitted		P
20.7	Replaceable of a flexible cable or cord requiring the displacement of a switch possible without subjecting internal wiring to undue stress		P
	After repositioning of the switch and before reassembling the tool, construction allows verification whether the internal wiring is correctly positioned		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
20.8	Wood, cotton, silk, ordinary paper and similar fibrous or hygroscopic material not used as insulation, unless impregnated chemically rendered non-fibrous.		P
	Driving belts not relied upon to ensure electrical insulation		N/A
20.9	Reinforced insulation only used if it is manifestly impracticable to provide separate basic insulation and supplementary insulation		P
20.10	Insulating barriers of Class II tools, and parts of Class II tools which serve as supplementary insulation or reinforced insulation		P
	- fixed in such a way that they cannot be removed without being seriously damaged		P
	- so designed that they cannot be replaced in an incorrect position, and when omitted, the tool inoperable or manifestly incomplete		P
20.11	Assembly gap with a width greater than 0.3 mm in supplementary insulation		P
20.12	Hazards from parts such as wire, screw, nut, washer or spring becoming loose for falling out of position.		P
	In Class I tools: accessible metal not made live		N/A
	In Class II tools: clearance and creepage distances not reduced to less than 50 % of values shown in 27.1		P
	Class II tools, other than those of the all-insulated type provided with an insulating barrier which encloses the motor and all other live parts		P
20.13	Supplementary and reinforced insulation not likely to be impaired by deposition of dirt, or by dust resulting from wear of parts within the tools		P
	Parts of natural or synthetic rubber used as supplementary insulation in Class II tools resistant to ageing		N/A
	Rubber parts so arranged and dimensioned that creepage distances are not reduced below the values specified in 27.1, even if cracks occur		N/A
	Ageing test for rubber parts		N/A
20.14	Internal wiring etc. not exposed to oil, grease and similar substances for constructions which necessitate the exposure, oil or grease used with adequate insulating properties		P
20.15	No access to brushes without the aid of a tool		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	When tightening screw-type brush-caps, two surfaces clamped together		N/A
	Locking device retaining brushes in position not depending upon the brush-spring tension		P
	Screw-type brush-caps accessible from the outside of the tool made of insulating material or covered with insulating material of adequate mechanical and electrical strength		N/A
	Compliance with tests of 19.1 and 19.3		N/A
	Compliance with tests for supplementary and/or reinforced insulation		N/A
20.16	Radio and television suppressor adequately protected		P
20.17	Tools are fitted with a mains switch		P
	Cutting-off grinders are designed so that when the operating handle (see item 6 in figure 101) is released, the tool automatically returns to its rest position.		P
20.18	Switches are so located that accidental operation is unlikely to occur.		P
	The actuation of the mains switch or control device is neither affected, nor access to the switch or control device is restricted, by adjustment of the table or by the workpiece.		P
20.19	Tools provided with a switch or control device to stop the machine		P
20.20	No danger after voltage recovery		P
20.101	Cutting-off grinders may have either dust extraction and collection facilities or devices for the connection of external dust extraction and collection equipment.		N/A

21	INTERNAL WIRING		
21.1	Internal wiring so rigid, so fixed or so insulated that , in normal use, creepage distances and clearances cannot be reduced below values specified in 27.1		P
	The insulation not damaged in normal use		P
21.2	Internal wiring and electrical connections adequately protected		P
21.3	Wire ways smooth and free from sharp edges, burrs etc.		P
	Holes in metal through which insulated wires pass provided with bushings of insulating material	Bushing used	P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Wiring prevented from coming into contact with moving parts		P
21.4	Class II tools need prevention for direct contact of basic insulated wires and accessible metal parts		N/A
21.5	Use of green/yellow conductors for earthing terminals only		P
21.6	Wiring between different parts of tools are not exposed to undue stress		N/A
	No damage of insulation by using flexible metallic tubes		N/A
	Open-coil springs are not used		N/A
	Flexing test		N/A
	Number of flexings.....:		N/A
	Wiring withstands electric strength test		N/A
	Test voltage (V)		N/A
21.7	Minimum distance of 25 mm between moving parts and wiring or additional prevention		N/A
21.8	Aluminium wires not used for internal wiring		P

22	COMPONENTS		
22.1	Components comply with relevant IEC standards	(see appended table)	P
	Components used in accordance with their markings		P
	Capacitors in series with a motor winding marked with rated voltage and rated capacitance		N/A
	Measured voltage across capacitor with tool operating at 1,1 times rated voltage under minimum load not exceeding 1,1 times rated voltage of capacitor		N/A
22.2	Adequate breaking capacity of mains switches		P
	Mains switches have a contact separation of at least 3 mm		P
	Mains switches rated for frequent operation	50 000 cycles	P
	Switch operated 50 times with motor stalled		P
	Mains switches marked with individual ratings tested in accordance with IEC 60328		N/A
22.3	Mains switches not fitted in the flexible cable or cord		P
22.4	Overload protection devices of the non-self-resetting type		N/A

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
22.5	Plugs and appliance inlets for safety extra-low voltage circuits or for frequencies other than 50 Hz of 60 Hz not interchangeable with plugs, connectors and appliance inlet complying with IEC 60083 or IEC 60320		N/A
22.6	Capacitors not connected between contacts of thermal cut-outs		N/A
22.7	Components for basic radio and television interference suppression are not incorporated in plugs		P
22.8	Inductors for radio and television interference suppression inserted in the earthing circuit		N/A
	Inductor test		N/A
22.9	Appliance couplers comply with IEC 60320		N/A

23	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CABLES AND CORDS		
23.1	Tools are provided with		P
	- power supply cord with type X or M attachment		P
	- appliance inlet		N/A
	Type M attachment not easily replaceable by type X attachment		N/A
	Connector inserted in appliance inlet without difficulties		N/A
	No accidental contact with live parts or pins during insertion or removal of connector		N/A
23.2	Flexible cables or cords not lighter than:		P
	- polyvinyl chloride sheathed (227 IEC 60053)	-	N/A
	- rubber sheathed (245 IEC 60053)	H07RN-F	P
	Class I tools: cord provided with green/yellow conductor, connected to earthing terminal of appliances and earthing contact of plug		N/A
23.3	Tools provided with plug complying with IEC 60083, IEC 60309-1 and IEC 60309-2		P
23.4	The nominal cross-sectional area (mm ²) of flexible cables or cords	1,50 mm ²	P
	Rated current (A)	10,4 A	P
23.5	Conductors relieved from strain and twisting and protected against abrasion		P
	Clear method of strain relief and prevention of twisting for type X flexible cords or cables		P
	Cord anchorages of Class II tools		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	No strain on the earthing conductor due to failure of the cord anchorages of Class I tools		N/A
	Cord anchorages of Class II tools made of or lined with insulating material		P
	Cord anchorages of type X cords:		P
	- no contact between cable or cord and accessible metal parts through clamping screws		P
	- cable or cord not clamped by a metal screw directly bearing the cord		P
	- components not readily lost during cord replacement		P
	- one part of component securely fixed to an integral part of tool		P
	- replacement of cable or cord without special tool		P
	- suitable for all specified types of cable or cord		P
	- allowing for easy replacement of cable or cord		P
	Cord anchorage part of mains switch		N/A
	Removal of screws fixing other components during replacement of cable or cord		P
	Glands not used as cord anchorages		P
	Pull test for cord anchorage		P
	Pull force (N): 100 N		P
	Torque test for cord anchorage		P
	Torque (Nm): 0,35 Nm		P
	Mass of the tool (kg): 17 kg		P
	Cable or cord not damaged		P
	Cable or cord displacement (max. 2mm): 0 mm		P
	Movement of conductors in the terminals (max. 1 mm)	0 mm	P
	Cord anchorage not damaged		P
	Creepage distances and clearances not reduced		P
23.6	Protection of flexible cords against excessive bending at the inlet opening by means of a cord guard of insulating material		P
	Protection of cord guard outside the tool		P
	Fixing of cord guard		P
	Curvature of cable or cord min 1,5 D		P
23.7	Cable or cord introduced into inlet openings without risk of damage		P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Inlet opening for flexible cable or cord in insulating material or bushing of insulating material		P
	Bushing free from ageing effects in normal use		N/A
	No damage to flexible cable or cord due to shape of openings or bushings		P
	Inlet bushing not removable without aid of a tool		N/A
	Inlet bushings reliably fixed		N/A
	Bushings in Class II tools with inlet openings in metal (not of rubber nor part of the cord guard)		N/A
	Bushings in other tools with inlet openings in metal (not of rubber nor part of the cord guard)		N/A
23.8	Sufficient space for introduction and connection of supply cable or cord		P
	No damage to conductors when fitting cover		P
	Checking of correct position of conductors possible before fitting cover		P
	Removal of covers possible without a special tool		P
	Uninsulated end of conductor freed from its terminal not touching accessible metal parts		P
	Loosened wire test (with force of 2 N)		P

24	TERMINALS FOR EXTERNAL CONDUCTORS		
24.1	Tools provided with terminals of screw type or equally effective devices		P
	Use of screws, nuts etc. with metric ISO thread for external conductors		P
	Screws and nuts for fixing external conductors, not used to fix other components		P
	Screws and nuts for fixing external conductors clamping internal conductors		P
	Soldered connections for external conductors in tools with type X or M attachment and rated input not exceeding 100 W		N/A
	Conductors maintained in position by additional means and not by soldering alone		N/A
	Use of barriers to maintain at least 50% of required creepage distances and clearances in case of conductor breaking away		N/A
24.2	Terminals for type X attachment suitable for connection of required size conductors:		P
	Rated current (A) of tool	10,4 A	P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Required cross-sectional area (mm ²)	1,5 mm ² and 2,5 mm ²	P
24.3	Terminals and terminations for type M attachment		N/A
	Pull test of 5 N		N/A
24.4	Terminals prevented from working loose:		P
	- use of two screws		N/A
	- use of one screw, fixed in a recess		N/A
	- use of self-hardening resins		N/A
	Internal wiring not subjected to stress		P
	Creepage distances and clearances not reduced below values specified in 27.1		P
	Torque test with torque 2/3 of torque specified in 26.1 (ten fastening and loosening operations)		P
	Torque test (Nm)	0,53 Nm	P
24.5	Conductors clamped between metal surfaces with sufficient pressure		P
	No damage to conductors		P
24.6	For tools rated current 16 A maximum, no special preparation of conductors required		P
	No slipping out of conductor during tightening of clamping screws		P
24.7	Use of pillar terminals:		
	- rated current (A) of tool		N/A
	- measured thread diameter (mm)		N/A
	- measured hole diameter (mm)		N/A
	- measured length of thread in pillar (mm)		N/A
	- measured length of threaded part of screws (mm) :		N/A
	- differences between diameter of hole and thread diameter (mm)		N/A
	Surface against which the conductor is clamped free from sharp edges		N/A
	Visibility of conductor end inserted into terminal		N/A
	Distance beyond threaded hole (mm)		N/A
	Depth of recess (mm) for recessed threaded holes ..		N/A
	Length of threaded part of (headed) screw mm)		N/A
24.8	Screw terminals:		
	- rated current (A) of tool	10,4 A	P
	- thread diameter (mm)	3,5 mm	P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	- length of thread on screw (mm)	6,1 mm (two full threads in the screw)	P
	- length of thread in screw hole or nut (mm)	4,4 mm	P
	- differences between diameter (mm) of head and shank of screw	3,75 mm	P
	- height of screw head (mm)	2,4 mm	P
	Use of extruded terminal screw hole		
	- edge of extrusion smooth		N/A
	- length of thread in screw hole (mm)		N/A
	- length of extrusion (mm)		N/A
	- 80% of original thickness or adequate mechanical strength		N/A
	Use of terminals with intermediate part (pressure plate):		
	- intermediate part locked against rotation		N/A
	- thickness of intermediate part (mm)		N/A
	- length of thread on screw (mm)		N/A
	- differences between diameter of head and shank (mm)		N/A
	Use of intermediate part with more than one screw.		
	- thread diameter of screw (mm)		N/A
	Use of recessed screw hole or nut:		
	- depth of recess (mm)		N/A
	- length of headed screw (mm)		N/A
24.9	Stud terminals:		
	- rated current (A)		N/A
	- rated diameter (mm)		N/A
	- differences between thread diameter (mm) and inner diameter of washers		N/A
	- differences between thread diameter and outer diameter of washers (mm)		N/A
	A negative deviation of 0,15 mm is allowed for the normal thread diameter and for the nominal difference between diameters of head and shank of the screw		N/A
24.10	Use of thread smaller than specified:		
	Torque test		N/A

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Torque value (Nm) (1,2 times the torque specified in 26.1)		N/A
	Pull test (24.4)		N/A
	Pull force (N)		N/A
24.11	Terminals for type X and M attachment located in proximity to corresponding terminals		P
24.12	Terminals not accessible without the aid of a tool		P
24.13	Conductor cannot slip out, if soldering or welding breaks		N/A
24.14	Location or shielding of terminals and terminations for type X and M attachments such as to prevent hazards from escaped wire		P
	Test with 8 mm escaped wire of stranded conductor		P
25	PROVISION FOR EARTHING		
25.1	Accessible metal parts of Class I tools permanently connected to earthing terminal or earthing contact of appliance inlet		P
	No electrical connection between earthing terminals or contacts and neutral terminal		P
	No provision for earthing in Class II and III		N/A
25.2	Earthing connections not made by screwless terminals		P
	Clamping means adequately locked against loosening		P
	Earthing connections not possible to loosen without the aid of a tool		P
25.3	No risk of corrosion between metal parts of earthing terminal and copper of earthing conductor or other metal in contact with terminal		P
	Body of terminal made of brass or other metal no less resistant to corrosion		P
	Screw or nut of brass or other metal no less resistant to corrosion		P
	No risk of corrosion between copper and aluminium (or aluminium alloy) of enclosure		N/A
25.4	For tools with power supply cords or cables, current-carrying conductors become taut before the earthing conductor if the cable or cord slips out of anchorage		P
25.5	Resistance of earthing circuit (max. 0,1 Ω)	0,01 Ω	P

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
25.6	Terminal screws for earthing conductors don't serve any other purpose, e.g. mechanical fixing		P
26	SCREWS AND CONNECTIONS		
26.1	All screwed connections withstand the mechanical stresses in normal use		P
	Use of screws diameter < 3 mm transmitting contact pressure or tightened by the user		P
	Screws not made of soft metal or liable to creep metal		P
	Diameter of screws of insulation material min. 3mm.:		N/A
	Use of screws of insulating material only for non-electrical connections		N/A
	Screws of insulating material removable for cord replacement etc. not used if replacement by metal screws could impair electrical insulation		N/A
	Torque test on screws and nuts transmitting contact pressure or screws tightened by the user		P
	Torque test	0,8 Nm for screw terminal 1,2 Nm for cord anchorage 1,2 Nm for grip 1,2 Nm for earthing	P
	Number of operations	5 / 10 / 10 / 5 times	P
26.2	Screws in engagement with thread of insulating material		P
	Correct introduction of screw into nut or screw hole ensured		P
26.3	Contact pressure not transmitted through insulating material (unless compensated for shrinkage or distortion)		P
26.4	Space-threaded screws not used for connection of current-carrying parts, unless directly clamping and locking means provided		P
	No thread-cutting screws used for connection of current-carrying parts, unless they generate full from standard machine screw thread		P
	Use of space-threaded or thread-cutting in earthing circuit		N/A
26.5	Screws for mechanical connection between parts of tool locked against loosening if connection carries current		N/A

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
	Rivets for current-carrying connections subject to torsion in normal use, locked against loosening		N/A
27	CREEPAGE DISTANCES, CLEARANCES AND DISTANCES THROUGH INSULATION		
27.1	Creepage distances	(see appended table)	P
	Clearances	(see appended table)	P
	Distances through insulation	(see appended table)	P
	Use of minimum three layers of thin sheet material for reinforced insulation		N/A
	Electric strength test on two layers of insulation		N/A
	Test voltage (V)		N/A
27.2	Distances between metal parts	(see appended table)	P
27.3	Rated current over 25 A	(see appended table)	N/A
28	RESISTANCE TO HEAT, FIRE AND TRACKING		
28.1	External parts of insulating materials: ball pressure test	(see appended table)	P
28.2	Insulating parts retaining live parts in position: ball pressure test	(see appended table)	P
	Insulating parts retaining live parts in position: conical mandrel test	The test is replaced by glow wire test (see appended table)	N/A
28.3	Resistance to tracking	(see appended table)	P
29	RESISTANCE TO RUSTING		
	Ferrous parts adequately protected against rusting		N/A
	Exposure to a 10% solution of ammonium chloride and moisture treatment		N/A
30	RADIATION		
	No emission of harmful radiation		N/A
B	APPENDIX B		
B1.	Reliable operation of thermal cut-outs and overload releases		N/A
	Test current (A) at normal load		N/A
	Test voltage (V)		N/A
	Number of operations:		N/A

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict
B2.	No changes to the setting of thermal cut-outs and overload releases by heating, vibration etc., occurring in normal use		N/A
C	APPENDIX C		
C8.1	Accessible parts not regarded as live parts		N/A
C17.101	Electronic circuits designed and applied that any fault conditions do not render the appliance unsafe	(see appended table)	N/A
C20.101	Parts separated by protective impedance comply with DI or RI		N/A
C20.102	RI is allowed for parts separated by SELV transformer or protective impedance or optocoupler		N/A
C20.103	Protective impedance structure consists of two separate components		N/A
C27.1	Creepage distances and clearances on printed circuit boards		N/A

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict

10.1	TABLE: input data (in normal load conditions)					P
rated input (W)	rated voltage U (V)	rated current I (A)	measured input (W) or current (A)	deviation	load conditions/remark	
2200 W	230 V	10,4 A	2200 W / 10,4 A	< 15%	Attain rated input	
supplementary information						
n/a						

11.1A	TABLE: temperature rise measurements (220-240 V version)			P
	test voltage (V)	207 / 220 / 240 / 254 V		
	ambient temperature °C	17,0 / 19,2 / 19,5 / 20,1 °C		
	operating time	Conditions operation until steady condition		
	torque load (Nm)	11,0 Nm		
	input current (A) / power (W).....	10,1 A / 10,3 A / 10,6 / 10,7 A 1907 W / 2092 W / 2346 W / 2528 W		
	speed (/min).....	993 / 1068 / 1176 / 1249 /min		
temperature rise dT of part/at:		dT (K)	required dT (K)	
Switch ambient		13	30	
Supply cord		12	50	
Internal wire		11	50	
Capacitor		2	60	
Switch knob		8	50	
Motor core		23	Ref.	
Enclosure		13	60	
Handle		5	50	
Brush holder		43	65	
supplementary information				
n/a				

11.3 A	TABLE: temperature rise of windings (220 V version)		P
	test voltage (V)	207 V	
	t1 °C	16,4°C	
	t2 °C	17,0 °C	

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict

temperature rise dT of winding and core laminations (by resistance):	R ₁ (Ω)	R ₂ (Ω)	dT (K)	allowed dT (K)	insulation class
Stator 1	0,4830	0,5852	53	90	Class E
Stator 2	0,4817	0,5875	55	90	Class E
Rotor (1-17 th bar)	0,6383	0,7999	63	90	Class E
temperature rise dT of winding and core laminations (by thermocouplers)			dT (K)	allowed dT (K)	insulation class
n/a					
supplementary information: n/a					
12.1 + 12.2	TABLE: Leakage current measurements at operating temperature				P
	at 1,06 times rated voltage (V)		254 Vac		-
Leakage current I between:			I (mA)	required I (mA)	
L/N and enclosure			0,001 / 0,001	0,75 mA	
L/N and motor core			0,002 / 0,002	5,0 mA	

15.2	TABLE: insulation resistance measurements			P
insulation resistance R between:			R MΩ	required R MΩ
live parts and body (reinforced insulation)			>> 7 MΩ	7 MΩ
live parts and metal parts (basic insulation on Class II tools)			>> 2 MΩ	2 MΩ
metal parts and body (separated from live parts by basic Class II tools)			>> 5 MΩ	5 MΩ

15.3	TABLE: electric strength measurements			P
test voltage applied between:			test voltage (V)	breakdown
L/N and body			3750 V	No
L/N and motor core			1250 V	No
Motor core and body			2500 V	No
L/N and body			3750 V	No
supplementary information				
.....				
.....				

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict

22.1	TABLE: list of critical components					P
object/part No.	manufacturer/trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾	
Power cord*	Nexans	H07RN-F	3 G 1,5 mm ²	IEC 60245	LCIE	
Alternative cord*	Nexans	H07RN-F	3 G 2,5 mm ²	IEC 60245	LCIE	
Alternative cord*	Ta Tun Electric	H07RN-F	3 G 1,5 mm ²	IEC 60245	VDE	
Power plug*	Ta An Electrical	TP-66	250 Vac; 13 A (fuse included)	BS 1363	ASTA	
Alternative plug*	Ta An Electrical	TP-52	250 Vac; 16 A	IEC 60884	VDE	
Alternative plug*	Ta An Electrical	TP-50	250 Vac; 16 A	IEC 60884	VDE	
Alternative plug*	Ta An Electrical	TP-51	250 Vac; 16 A	IEC 60884	VDE	
Alternative plug*	Ta An Electrical	TP-22	250 Vac; 15 A	AS/NZS 3112	N18886	
Alternative plug*	Ching Cheng Wire Material	EL-208	250 Vac; 16 A	SANS 164-1 SABS 164-1	SABS	
Switch	Defond Components	BVG-2122-010	250 Vac; 12,5(12,5) A; 5E4	IEC 61058-1	FIMKO	
X2 capacitor**	Carli Electronics	MPX	0,1 µF ; 275 Vac; X2	IEC 60384-14	VDE	
Alternative capacitor**	Aid Electronics	MEX	0,1 µF ; 275 Vac; X2	IEC 60384-14	VDE	
Y2 capacitor	Success Electronics	SF	3300 pF; 400 Vac	IEC 60384-14	VDE	
PWB	LONG CHANG	CCP-508	1,6 mm (UL/E94733)	IEC 61029	Tested in Appliance	
<p>1) An asterisk indicates a mark which assures the agreed level of surveillance</p> <p>*) or other certified plugs or cables with the same technical data</p> <p>**) or any other certified brand/type with equivalent ratings and the same construction.</p>						

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict

27.1	TABLE: clearances and creepage distance measurements						P
clearances cl and creepage distance cr between:	U _p (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required cr (mm)	cr (mm)	
live parts of different polarity:	-	240	2,5	> 2,5	3,0	> 3,0	
Stator winding and motor core	-	240	2,0	3,2	2,0	3,2	
Rotor winding and motor core	-	240	2,0	3,7	2,0	3,7	
Internal wire and enclosure	-	240	4,0	5,8	4,0	5,8	
Commutator and enclosure	-	240	8,0	9,3	8,0	9,3	
Motor winding and enclosure	-	240	6,0	> 15	6,0	> 15	
supplementary information							
.....							
.....							
	distance through insulation						P
distance through insulation di between:	U r.m.s.	test voltage (V)	required di (mm)	di (mm)			
windings and accessible metal parts separated by reinforced insulation	240	-	2,0 mm	> 2,0 mm			
metal parts separated by supplementary insulation	240	-	1,0 mm	> 1,0 mm			
other metal parts separated by reinforced insulation	-	-	-	-			
supplementary information							
.....							
.....							

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict

27.3	TABLE: creepage distance measurements					N/A
clearances cl and creepage distance cr between:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required cr (mm)	cr (mm)

28.1	TABLE: ball-pressure test			P
	required impression diameter 2 mm (mm)			
part under test		test temperature °C	impression diameter (mm)	
Handle		75	0,8 mm	
Brush holder		125	0,9 mm	
supplementary information				
n/a				

28.2	TABLE: hot mandrel test			P
	mandrel temperature 300 °C (°C).....	Glow wire test at 550 °C		
	test duration 5 min (min)			
	pressure force 12 N (N)			
part under test		ignition of sample or gases		
Handle		No		
Brush holder		No		
supplementary information:				
n/a				

28.3	TABLE: resistance to tracking			P
	test current (A) 1,0 ± 0,1 A.....			
	number of drops 50			
	test solution 0,1% ammonium chloride			
part under test		flashover or breakdown		
Brush holder		No		
supplementary information:				
n/a				

IEC 61029-2-10			
Clause	Requirement + Test	Result - Remark	Verdict

C17.101	TABLE: fault condition test		N/A
	ambient temperature °C		
	model/type		
	rated input		
	rated voltage		
	rated frequency		

No.	component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result

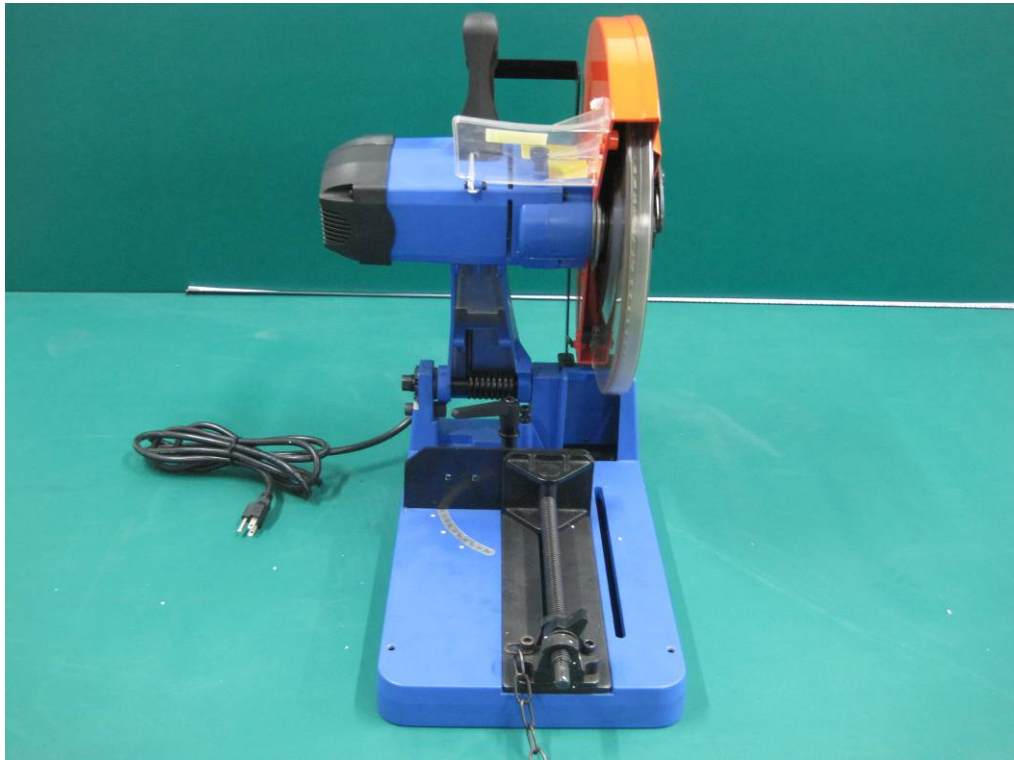
supplementary information:

 n/a

Photos:

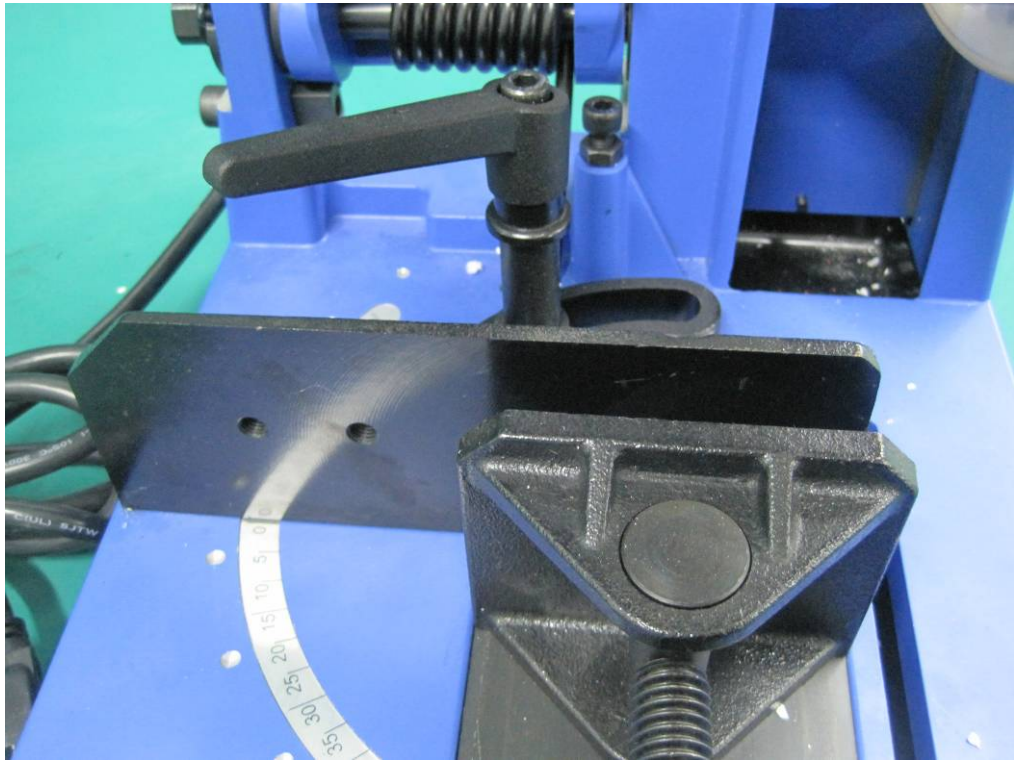


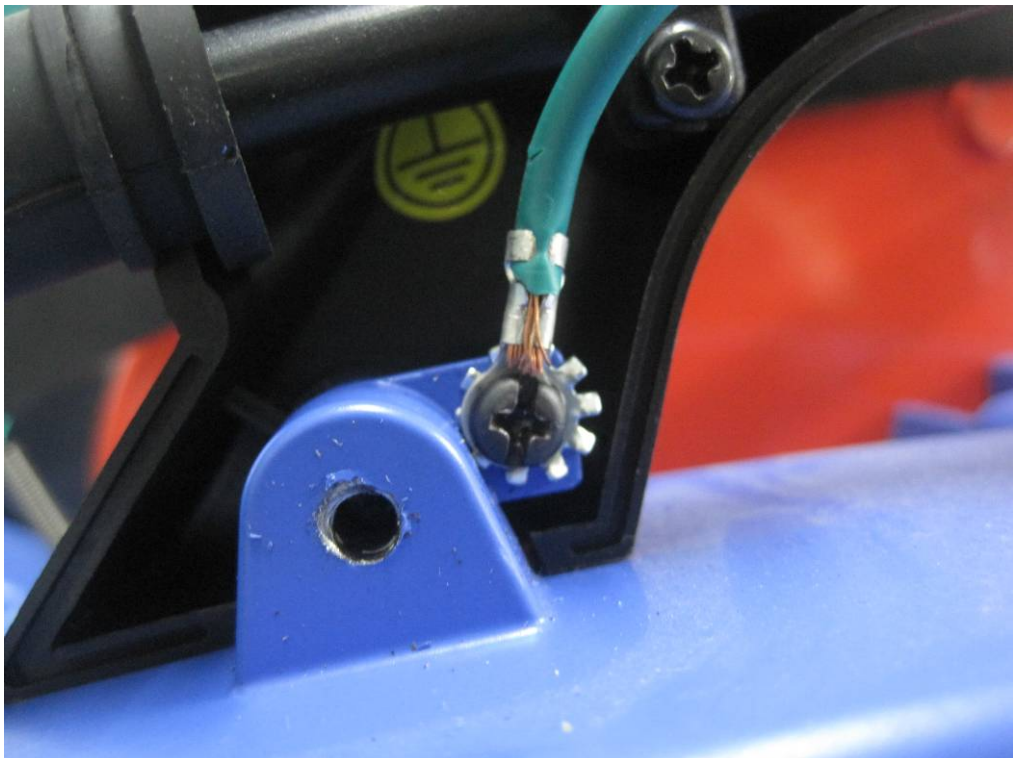
TRF No. IEC 61 029_2_10A

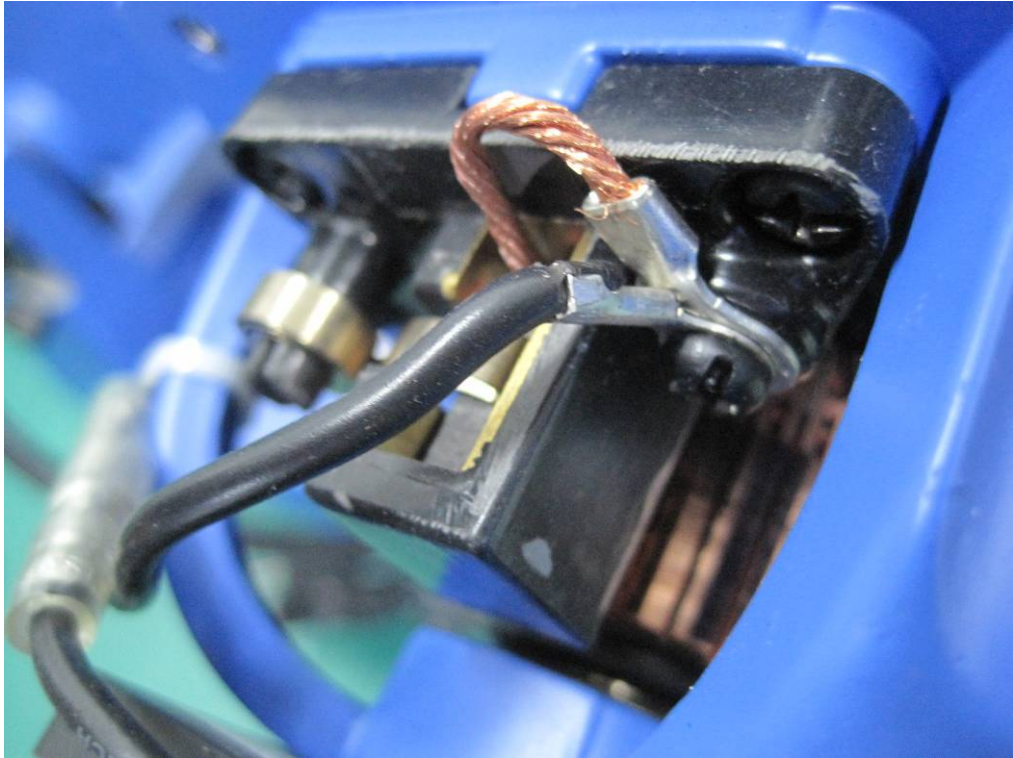


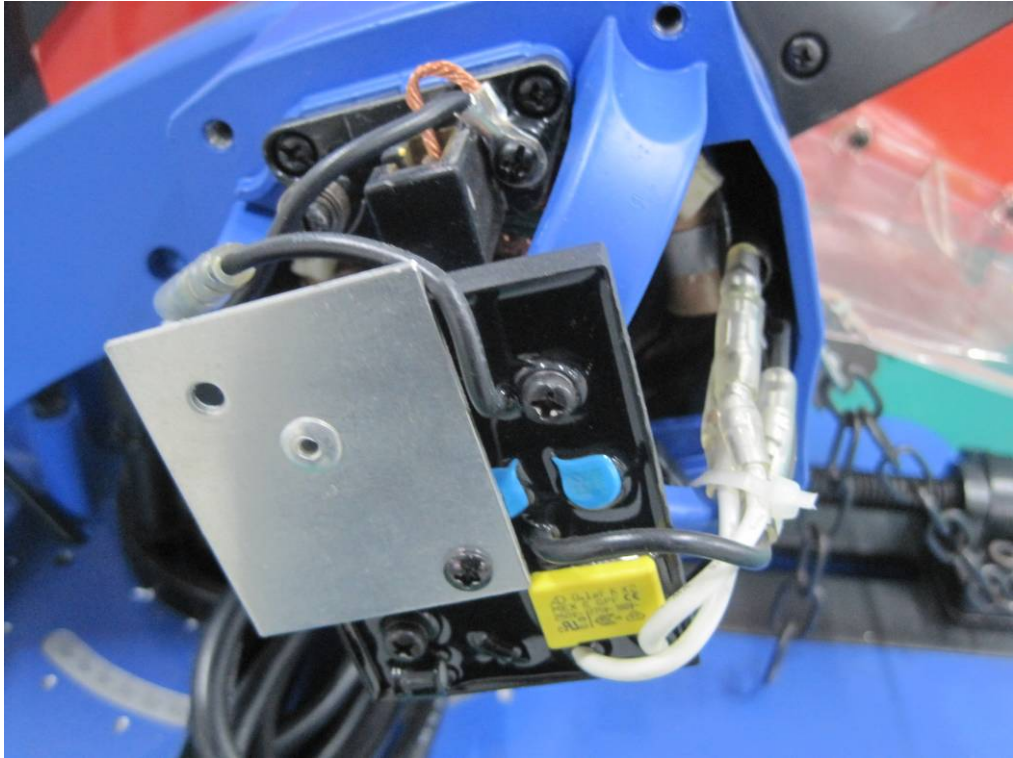


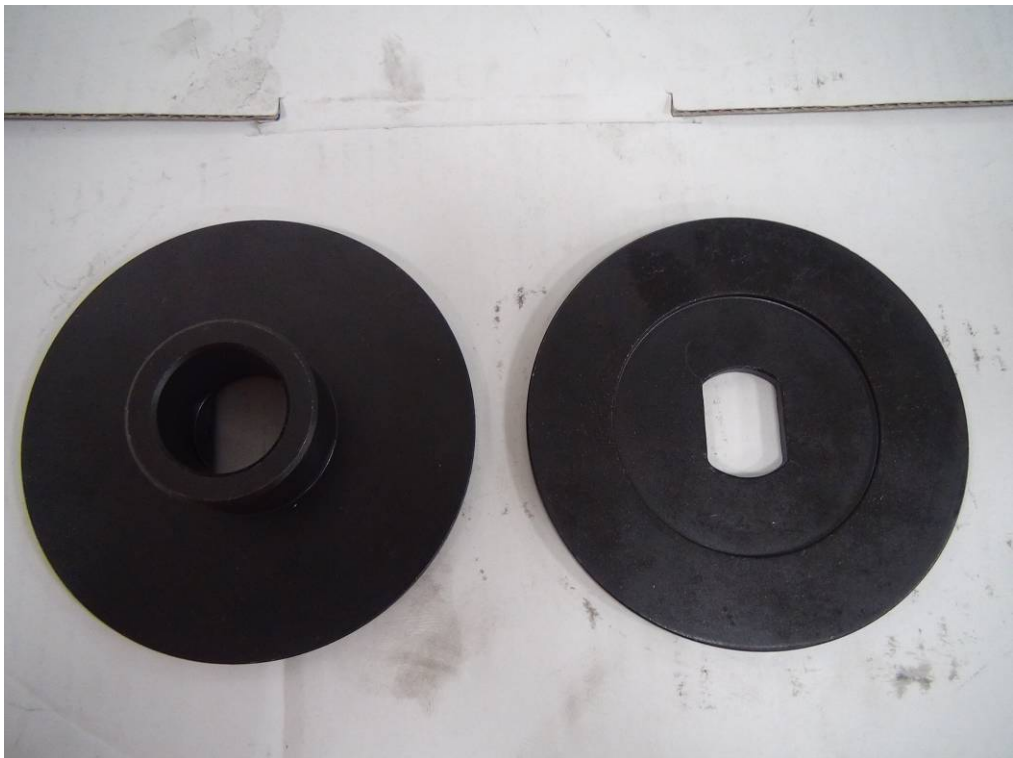
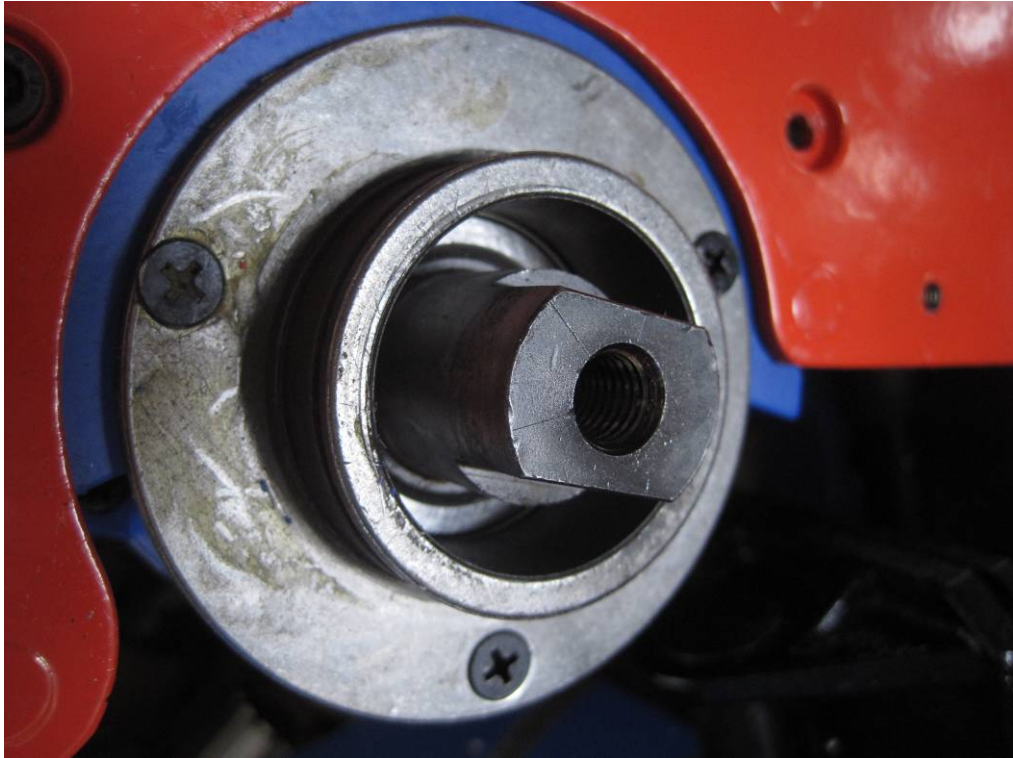


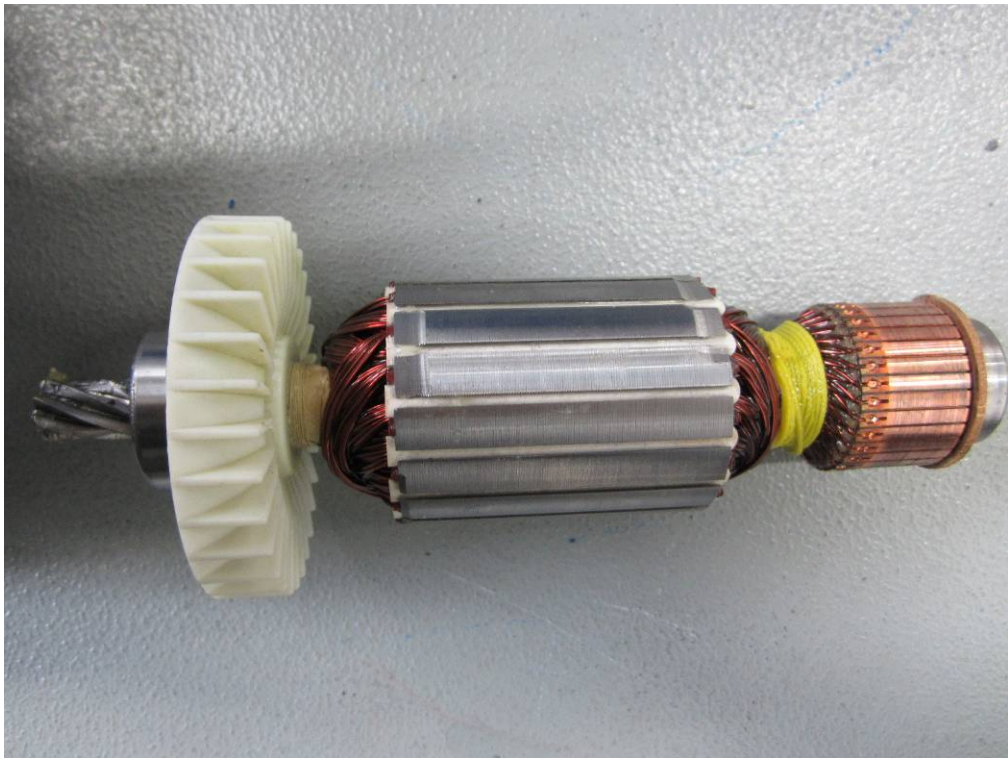


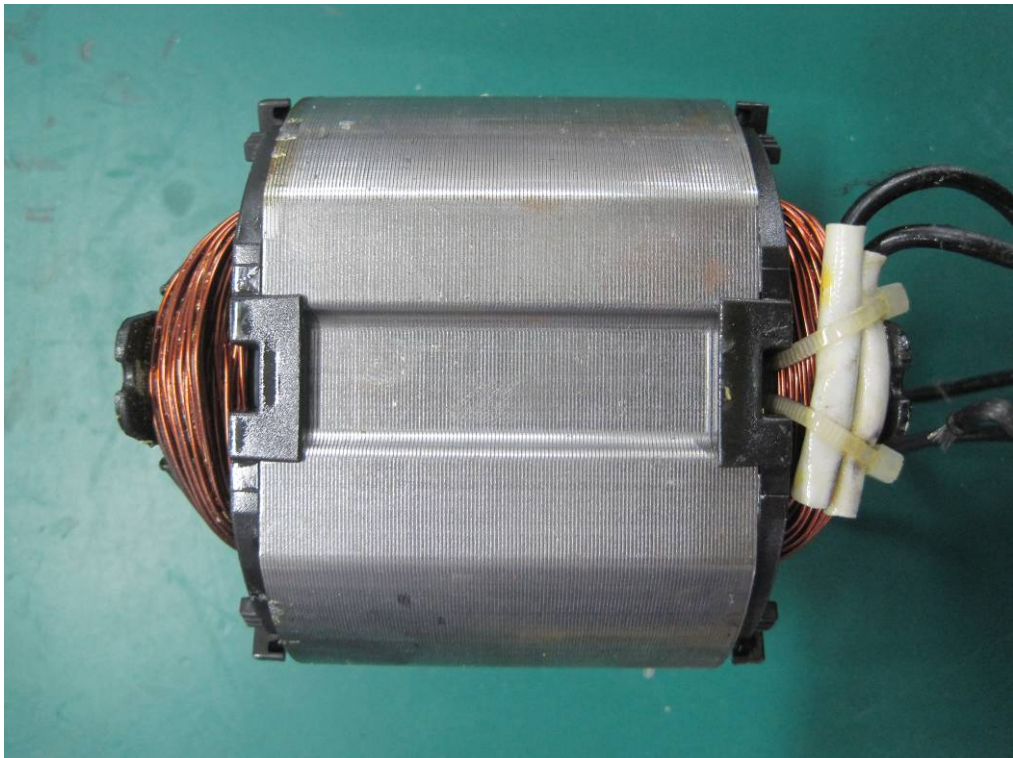
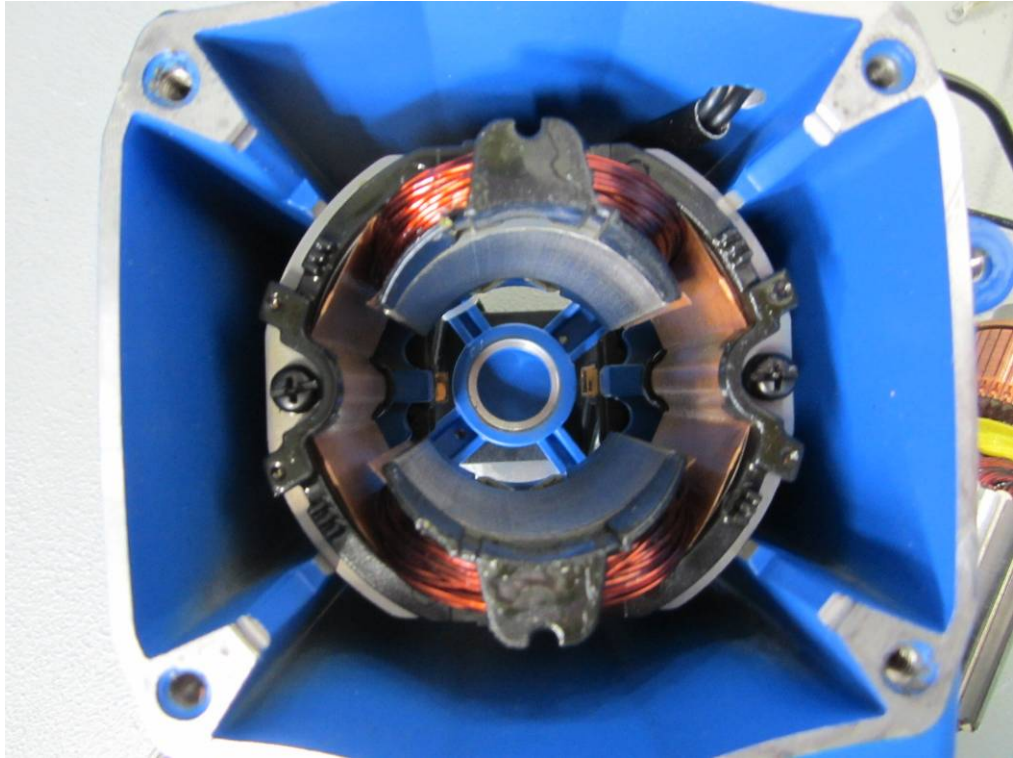












End of test report