



Verification Report

No.: GZ0803038947A/CHEM

Date: MAR 28, 2008

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BYTECOM FANNER B.V.
RONDVEN 38,6026PX MAARHEEZE THE NETHERLANDS

This report is to supersede test report GZ0803038947/CHEM

Sample Description : FAN
SGS Ref No. : SZ10894282
Model No. (P.O No.) : SF090
Verification Period : MAR 13, 2008 TO MAR 24, 2008

Verification Requested : With reference to RoHS Directive 2002/95/EC, and its amendment directives

Verification Method

1. Review was performed for the samples disjointed from the submitted articles and the related test reports submitted by the Applicant
2. Tests was performed for the samples indicated by the photos in the report with test methods reference to IEC 62321, Ed.1 111/95/CDV: Procedures for the Determination of Levels of Six Regulated substances in Electrotechnical Products
 - (1) Screening by XRF Spectroscopy
 - (2) Wet Chemical Test Method
 - a. Determination of Hexavalent Chromium by Colorimetric Method.
 - b. Determination of PBBs and PBDEs by GC/MS.

Verification Results : Please refer to next page

Verification Conclusion : Based on the review of previous reports and verification results of the submitted samples, the results **comply with** the RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer

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Details on Verification

Part No.	Part Name	Restricted Substances	Results of EDXRF ⁽¹⁾	No. of Related Test Report	Results in Related Test Report(mg/kg)	Result of Wet Chemical Testing ⁽²⁾ (mg/kg)	Conclusion on RoHS	Sample Submitted / Resubmitted Date
1	Black plastic part (fan frame)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	IN		\	N.D.	Comply	
		PBDEs			\	Mono-Octa: N.D. Nona:16, Deca:45	Comply	
2	Black plastic part (fan leaf) (connected w/ No.1)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	IN		\	N.D.	Comply	
		PBDEs			\	Mono-Nona: N.D. Deca:18	Comply	
3	Red/black adhesive plastic w/ white printing (label) (on No.2)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
4	Green “PCB” (in No.2)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	IN		\	N.D.	Comply	
		PBDEs			\	N.D.	Comply	
5	Silvery metal wire (connected w/ No.4)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
6	Black plastic w/ white printing (wire insulation) (on No.5)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
7	Yellow plastic w/ black printing (wire insulation)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
8	Red plastic w/ black printing (wire insulation)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	

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9	White fibre glass tube (cable jacket) (on No.6)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
10	Black plastic w/ white printing (heat shrinkable tube) (on No.9)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
11	Lt-brown plastic part (socket) (connected w/ No.6)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
12	Silvery metal sheet (terminal) (in No.11)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
13	Black body w/ brown printing (on No.4)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	IN		\	N.D.	Comply	
		PBDEs			\	N.D.	Comply	
14	Black plastic w/ white printing (outer shell) (on No.4)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
15	Silvery metal shell (in No.14)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
16	Black rubber (cover) (in No.14)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	

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17	Lt-brown paper w/ liquid (in No.14)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
18	Grey metal foil (in No.14)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
19	Silvery metal pin (in No.14)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
20	Silvery metal ring (in No.2)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
21	Dk-grey core (magnet) (in No.2)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
22	Black plastic part (bobbin) (in No.2)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	IN		\	N.D.	Comply	
		PBDEs			\	Mono-Hepta: N.D. Octa:14 Nona:213, Deca:1278	Comply	
23	Silvery metal rod (shaft) (in No.22)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	IN		\	Negative	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
24	Black rubber ring (thin) (on No.23)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	

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25	Black rubber ring (thick) (on No.23)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
26	White plastic ring (on No.23)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
27	Copper-colored metal column (on No.23)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
28	Silvery metal sheet (silicon steel sheet) (on No.22)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	IN		\	Negative	Comply	
		PBBs	---		\	\	\	
		PBDEs			\	\	\	
29	Copper-colored metal wire w/ transparent surface (on No.22)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	
30	Copper-colored metal wire w/ red surface (on No.22)	Cd	BL	\	\	\	Comply	Mar 13, 2008
		Pb	BL		\	\	Comply	
		Hg	BL		\	\	Comply	
		Cr ⁶⁺	BL		\	\	Comply	
		PBBs	BL		\	\	Comply	
		PBDEs			\	\	Comply	

Remark

- (1) (a) It is the result on total Br while test item on restricted substances is PBBs/PBDEs. It is the result on total Cr while test item on restricted substances is Cr^{6+} .
(b) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for Cr^{6+}) and GCMSD (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321, Ed.1 111/95/CDV (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$\text{BL} \leq (70-3\sigma) < X < (130+3\sigma) \leq \text{OL}$	$\text{BL} \leq (70-3\sigma) < X < (130+3\sigma) \leq \text{OL}$	$\text{LOD} < X < (150+3\sigma) \leq \text{OL}$
Pb	$\text{BL} \leq (700-3\sigma) < X < (1300+3\sigma) \leq \text{OL}$	$\text{BL} \leq (700-3\sigma) < X < (1300+3\sigma) \leq \text{OL}$	$\text{BL} \leq (500-3\sigma) < X < (1500+3\sigma) \leq \text{OL}$
Hg	$\text{BL} \leq (700-3\sigma) < X < (1300+3\sigma) \leq \text{OL}$	$\text{BL} \leq (700-3\sigma) < X < (1300+3\sigma) \leq \text{OL}$	$\text{BL} \leq (500-3\sigma) < X < (1500+3\sigma) \leq \text{OL}$
Br	$\text{BL} \leq (300-3\sigma) < X$	---	$\text{BL} \leq (250-3\sigma) < X$
Cr	$\text{BL} \leq (700-3\sigma) < X$	$\text{BL} \leq (700-3\sigma) < X$	$\text{BL} \leq (500-3\sigma) < X$

(c) OL = Over Limit, BL = Below Limit, IN = Inconclusive, LOD = Limit of Detection

(d) The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition

- (2) (a) mg/kg = ppm=0.0001%, N.D. = not detected (<MDL), --- = not conducted, \ = not available.
(b) Unit and Method Detection Limit (MDL) in wet chemical test

Test Items	Pb	Cd	Hg
Units	mg/kg	mg/kg	mg/kg
MDL	2	2	2

The MDL for single compound of PBBs & PBDEs is 5 mg/kg and MDL of Cr^{6+} for polymer & composite sample is 2 mg/kg.

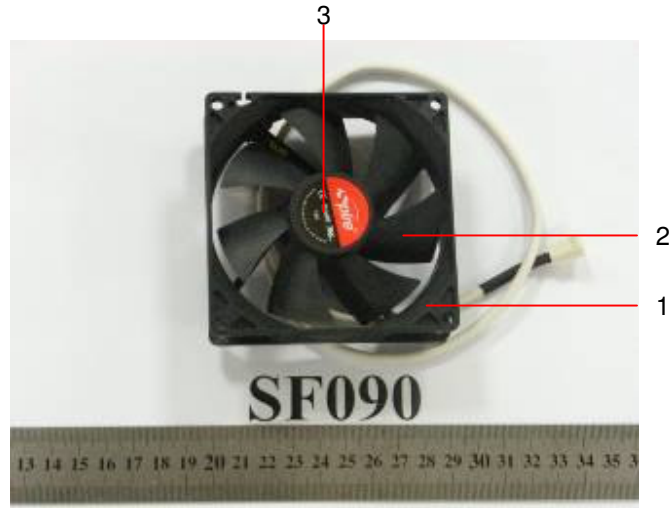
- (c) According to IEC 62321, Ed.1 111/95/CDV, result on Cr^{6+} for metal sample is shown as Positive/Negative.
Negative = Absence of Cr^{6+} coating, Positive = Presence of Cr^{6+} coating
(d) According to 2005/717/EC, DecaBDE is exempt.

Photo Index

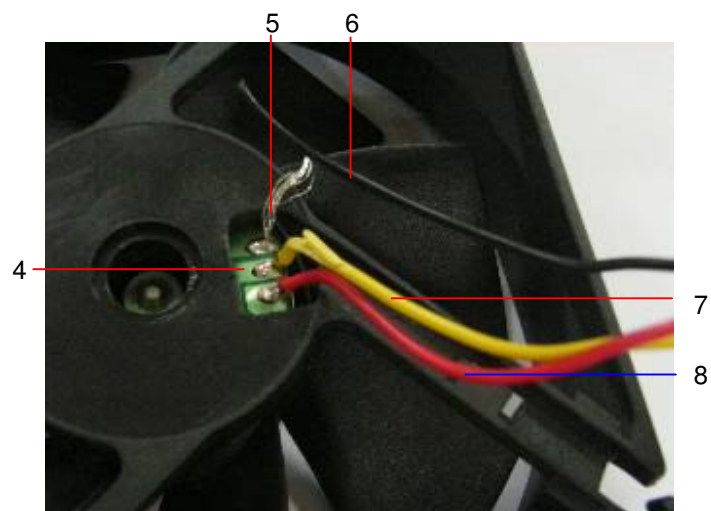
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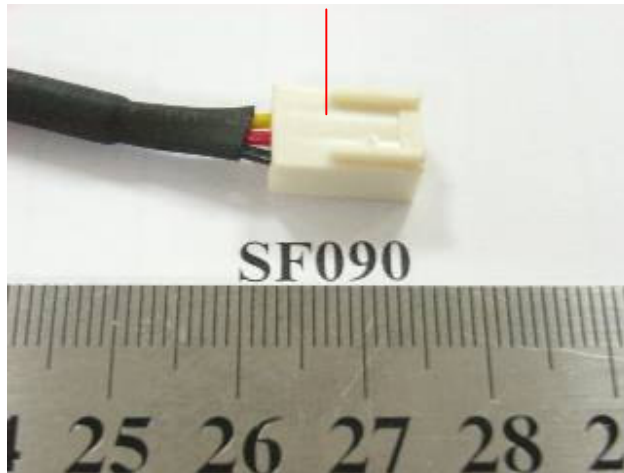
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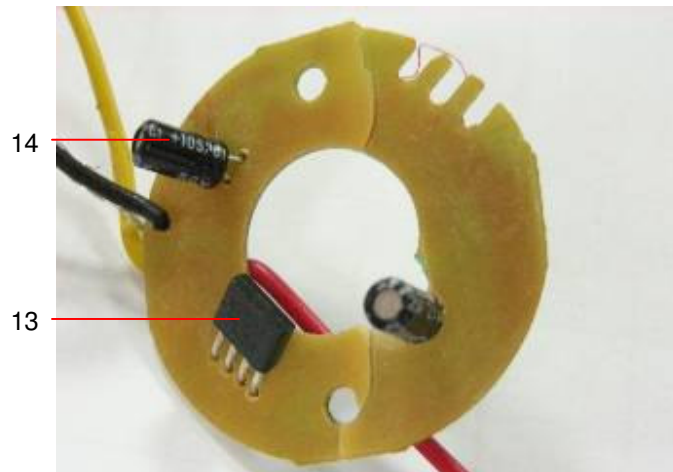


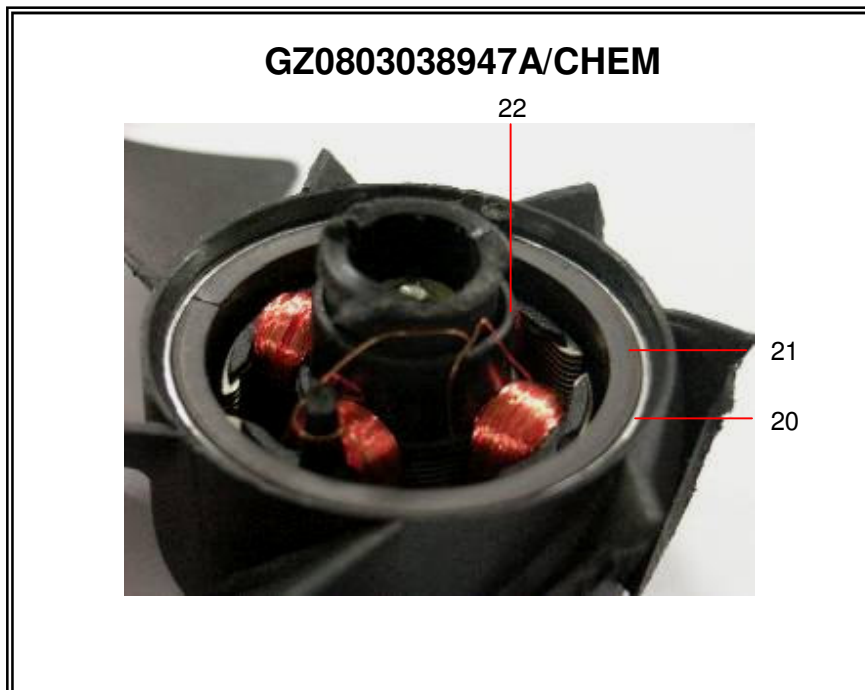
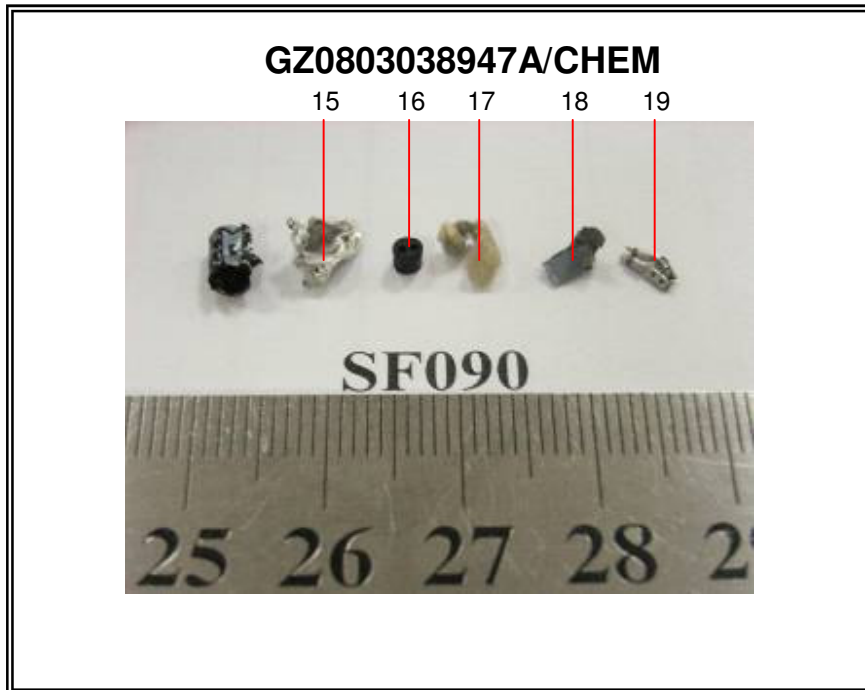
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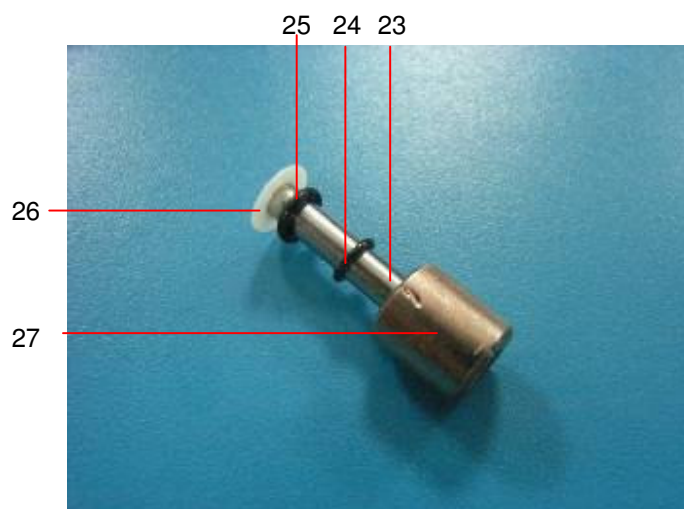


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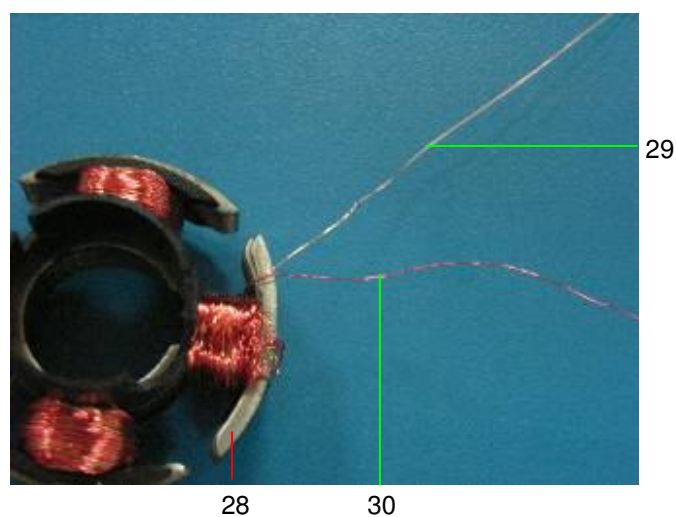




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(SGS authenticate the photo on original report only)

*** End of Report ***