

Test Report

Number: GZHH00395447

Applicant: MAY CHEONG TOY PRODUCTS FTY LTD
UNIT 901-2, 9/F., EAST OCEAN CENTRE,
98 GRANVILLE ROAD, TSIMSHATSUI EAST,
KOWLOON, HONG KONG

Date: Feb 25, 2021

Attn: ICY HUANG

Sample Description:

One (1) style of submitted sample said to be :

Item Name : **R/C Work Machines UNIMOG U430 (19CM)**
Item No. : **82181/19181**
Client 's reference Item Name : **R/C Work Machines MACK Granite Refuse Truck (19CM)**
Client 's reference Item No : **82180/82182/82184/82185/82186**
Labelled Age Group : "5+"
Applicant Specified Age : Over 5 years
Grading for Testing
Appropriate Age Grade for : Over 5 years
Testing
Packaging Provided by : Yes
Applicant
Country of Origin : China
Date Sample Received : Feb 01, 2021 & Feb 25, 2021
Testing Period : Feb 01, 2021 ~ Feb 25, 2021

Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

To be continued



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Conclusion:

<u>Tested sample</u>	<u>Requirement</u>	<u>Result</u>
Submitted sample(s)	EN IEC 62115:2020+A11:2020- Safety of electric toys	Pass (Subjected to remark)
	AS/NZS 62115:2018- Safety of electric toys	Pass (Subjected to remark)
	BS EN IEC 62115:2020+A11:2020- Safety of electric toys	Pass (Subjected to remark)

Authorized by:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch, Hardlines



Victor T.J. Wang
Assistant General Manager



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Tests Conducted

1 Safety of Electric Toys

As per European Standard on Safety of Electric Toys EN IEC 62115:2020+A11:2020

Battery Type: 3.0 V, AA size x 2 pcs for Vehicle (Replaceable type)
: 3.0 V, AAA size x 2 pcs for Transmitter (Replaceable type)

Normal Use Operation: The motor powered by battery.

Clause	Requirement	Assessment
1	Scope	--
2	Normative reference	--
3	Term and definitions	--
4	General requirement	--
5	General conditions for test	--
6	Criteria for reduced testing	NA
6.1	General	--
6.2	Short-circuit resistance	NA
6.3	Low power electric toys	NA
6.4	Battery circuits	NA
7	Marking and instructions	P See remark(1)
7.1	General	P
7.2	Marking on electric toys	P
7.2.1	Identification	P
7.2.2	Electric toys with replaceable batteries	P
7.2.3	Transformer toys and power supply toys	NA
7.2.4	Electric toys with more than one power supply	NA
7.2.5	Electric toys with detachable lamps	NA
7.2.6	Symbols	NA
7.2.7	Durability	P
7.3	Instructions and markings on packaging	P
7.3.1	General	P
7.3.2	Transformer toys and power supply toys	NA
7.3.3	Electric toys that are used with replaceable batteries	P
7.3.3.1	General	P
7.3.3.2	Coin batteries	NA
7.3.3.3	Button batteries	NA
7.4	Instructions for electric toys that can be connected to class I equipment	NA
7.5	Instructions for ride-on electric toys	NA



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Clause	Requirement	Assessment
7.6	Temperature warnings	NA
8	Power input	NA
9	Heating and abnormal operation	P
9.1	General	P
9.2	Test condition	--
9.3	Normal operation	P
9.4	Normal operation with insulation short-circuited	P
9.5	Abnormal operation with temperature controls made inoperable	NA
9.6	With accessible moving parts locked	P
9.7	Additional transformers and power supplies	NA
9.8	Abnormal supply to electric toys via a USB connection.	NA
9.9	Fault condition in electronic circuits	NA
9.10	Compliance criteria	P
10	Electric strength	P
10.1	Electric strength at operating temperature	P
10.2	Electric strength under humid conditions	P
11	Electric toys used in water, electric toys used with liquid and electric toys cleaned with liquid	NA
12	Mechanical strength	P
12.1	Enclosures	P
12.2	Attachment strength	NA
13	Construction	P
13.1	Nominal supply voltage	P
13.2	Transformers, power supplies and battery chargers	NA
13.3	Thermal cut-outs.	NA
13.4	Batteries	P
13.4.1	Small batteries	P
13.4.2	Other batteries	P
13.4.3	Electrolyte leakage	P
13.4.4	Electric toys placed above a child	NA
13.4.5	Parallel connection of batteries	P
13.4.6	Battery compartment fasteners	P
13.5	Plug and sockets	NA
13.6	Charging batteries	P
13.7	Series motors	NA
13.8	Working voltage	NA
13.9	Electric toys connecting to other equipment.	NA



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Clause	Requirement	Assessment
13.10	Speed limitation of ride-on electric toys	NA
14	Protection of cords and wires	P
14.1	Edges and moving parts	P
14.2	Fixed parts	NA
15	Components	P
15.1.1	General	NA
15.1.2	Switches and automatic controls	NA
15.1.3	Other components	NA
15.2	Prohibited components	P
15.3	Transformers and power supplies	NA
15.4	Battery chargers	NA
15.5	Batteries	NA
16	Screws and connections	P
16.1	Fixings	P
16.2	Connections	NA
17	Clearances and creepage distances	P
18	Resistance to heat and fire	P
18.1	Resistance to heat	NA
18.2	Resistance to fire	P
18.2.1	General	P
18.2.2	Non-metallic parts	P
18.2.3	Insulating material	NA
19	Radiation and similar hazards	--
19.1	General	--
19.2	Optical radiation Toys incorporating lasers and or light emitting diodes (LED) or UV emitting lamps shall comply with Annex E. Electric toys incorporating LEDs shall comply with 19.E.2. Electric toys incorporating lasers shall comply with 19.E.3 Electric toys incorporating UV-emitting lamps shall comply with 19.E.4	NA
19.3	Other electromagnetic radiation Electric toys with an integrated field source that may produce harmful electromagnetic radiation Measurements methods are given in Annex I.	NA



Tests Conducted

Clause	Requirement	Assessment
Annex D	<p>Electric toys with protective electronic circuits</p> <p>D.1 General During the tests of 9.9 an electronic circuit prevents the hazardous conditions listed in 9.10</p> <p>D.2 Dangerous malfunction <input type="checkbox"/> D.2.1 General The electric toy cause an unintended operation that may impair safety or present a dangerous malfunction due to influence from electromagnetic phenomena (EMP) <input type="checkbox"/> D.2.2 Electrostatic discharges In accordance with IEC 61000-4-2:2008, test level 4</p> <p>D.2.3 Radiated fields In accordance with IEC 61000-4-3:2006+A1:2007+A2:2010 test level 3. cover 80 MHz to 1 000 MHz and 1,4 GHz to 2,0 GHz <input type="checkbox"/> D.2.4 Transient bursts In accordance with IEC 61000-4-4:2012. - Test level 3 with a repetition rate of 5 kHz is applicable for signal and control lines - Test level 4 with a repetition rate of 5 kHz is applicable for the power supply lines <input type="checkbox"/> D.2.5 Voltage surges In accordance with IEC 61000-4-5:2014, - Test level 4 is applicable for the line-to-line coupling mode, a generator having a source impedance of 2 Ω being used - Test level 4 is applicable for the line-to-earth coupling mode, a generator having a source impedance of 12Ω being used <input type="checkbox"/> D.2.6 Injected current In accordance with IEC 61000-4-6:2013 test level 3 being applicable. During the test, all frequencies between 0,15 MHz to 80 MHz are covered <input type="checkbox"/> D.2.7 Voltage dips and interruptions Class 3 voltage dips and interruptions in accordance with IEC 61000-4-11: 2004. <input type="checkbox"/> D.2.8 Mains signals In accordance with IEC 61000-4-13:2002/AMD2:2015, Table 11 with test level class 2 using the frequency steps according to Table 10</p>	NA
Annex J	Safety of remote controls for electric ride-on toys	NA

Abbreviation : P = Pass

A = Applicable NA = Not Applicable



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Tests Conducted

Remark:

- (1) Only the English version of the marking and instructions were assessed. According to the standard, instruction sheets and other texts required by the standard shall be written in the official language of the country in which the product is to be sold.

2 Safety of Electric Toys

As per Australian / New Zealand Standard on Safety of Electric Toys AS/NZS 62115:2018

Battery Type: 3.0 V, AA size x 2 pcs for Vehicle (Replaceable type)
: 3.0 V, AAA size x 2 pcs for Transmitter (Replaceable type)

Normal Use Operation: The motor powered by battery.

Clause	Requirement	Assessment
1	Scope	--
2	Normative reference	--
3	Term and definitions	--
4	General requirement	--
5	General conditions for test	--
5.7.2	Electric toys that are used with batteries	P
6	Criteria for reduced testing	NA
6.1	General	--
6.2	Short-circuit resistance	NA
6.3	Low power electric toys	NA
6.4	Battery circuits	NA
7	Marking and instructions	P See remark(1)
7.1	General	P
7.2	Marking on electric toys	P
7.2.1	Identification	P
7.2.2	Electric toys with replaceable batteries	P
7.2.3	Transformer toys and power supply toys	NA
7.2.4	Electric toys with more than one power supply	NA
7.2.5	Electric toys with detachable lamps	NA
7.2.6	Symbols	NA
7.2.7	Durability	P
7.3	Instructions and markings on packaging	P
7.3.1	General	P
7.3.2	Transformer toys and power supply toys	NA
7.3.3	Electric toys that are used with replaceable batteries	P



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Clause	Requirement	Assessment
7.3.3.1	General	P
7.3.3.2	Coin batteries	NA
7.3.3.3	Button batteries	NA
7.4	Instructions for electric toys that can be connected to class I equipment	NA
7.5	Instructions for ride-on electric toys	NA
7.6	Temperature warnings	NA
8	Power input	NA
9	Heating and abnormal operation	P
9.1	General	P
9.2	Test condition	--
9.3	Normal operation	P
9.4	Normal operation with insulation short-circuited	P
9.5	Abnormal operation with temperature controls made inoperable	NA
9.6	With accessible moving parts locked	P
9.7	Additional transformers and power supplies	NA
9.8	Abnormal supply to electric toys via a USB connection.	NA
9.9	Fault condition in electronic circuits	NA
9.10	Compliance criteria	P
10	Electric strength	P
10.1	Electric strength at operating temperature	P
10.2	Electric strength under humid conditions	P
11	Electric toys used in water, electric toys used with liquid and electric toys cleaned with liquid	NA
12	Mechanical strength	P
12.1	Enclosures	P
12.2	Attachment strength	NA
13	Construction	P
13.1	Nominal supply voltage	P
13.2	Transformers, power supplies and battery chargers	NA
13.3	Thermal cut-outs.	NA
13.4	Batteries	P
13.4.1	Small batteries	P
13.4.2	Other batteries	P
13.4.3	Electrolyte leakage	P
13.4.4	Electric toys placed above a child	NA
13.4.5	Parallel connection of batteries	P
13.4.6	Battery compartment fasteners	P
13.5	Plug and sockets	NA



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Clause	Requirement	Assessment
13.6	Charging batteries	P
13.7	Series motors	NA
13.8	Working voltage	NA
13.9	Electric toys connecting to other equipment.	NA
13.10	Speed limitation of ride-on electric toys	NA
14	Protection of cords and wires	P
14.1	Edges and moving parts	P
14.2	Fixed parts	NA
15	Components	P
15.1.1	General	NA
15.1.2	Switches and automatic controls	NA
15.1.3	Other components	NA
15.2	Prohibited components	P
15.3	Transformers and power supplies	NA
15.4	Battery chargers	NA
15.5	Batteries	NA
16	Screws and connections	P
16.1	Fixings	P
16.2	Connections	NA
17	Clearances and creepage distances	P
18	Resistance to heat and fire	P
18.1	Resistance to heat	NA
18.2	Resistance to fire	P
18.2.1	General	P
18.2.2	Non-metallic parts	P
18.2.3	Insulating material	NA
19	Radiation and similar hazards	--
19.1	General	--
19.2	Optical radiation Toys incorporating lasers and or light emitting diodes (LED) or UV emitting lamps shall comply with Annex E. Electric toys incorporating LEDs shall comply with 19.E.2. Electric toys incorporating lasers shall comply with 19.E.3 Electric toys incorporating UV-emitting lamps shall comply with 19.E.4	NA
19.3	Other electromagnetic radiation Electric toys with an integrated field source that may produce harmful electromagnetic radiation Measurements methods are given in Annex I.	NA



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Tests Conducted

Clause	Requirement	Assessment
Annex D	<p>Electric toys with protective electronic circuits</p> <p>D.1 General During the tests of 9.9 an electronic circuit prevents the hazardous conditions listed in 9.10</p> <p>D.2 Dangerous malfunction <input type="checkbox"/> D.2.1 General The electric toy cause an unintended operation that may impair safety or present a dangerous malfunction due to influence from electromagnetic phenomena (EMP) <input type="checkbox"/> D.2.2 Electrostatic discharges In accordance with IEC 61000-4-2:2008, test level 4</p> <p>D.2.3 Radiated fields In accordance with IEC 61000-4-3:2006+A1:2007+A2:2010 test level 3. cover 80 MHz to 1 000 MHz and 1,4 GHz to 2,0 GHz <input type="checkbox"/> D.2.4 Transient bursts In accordance with IEC 61000-4-4:2012. - Test level 3 with a repetition rate of 5 kHz is applicable for signal and control lines - Test level 4 with a repetition rate of 5 kHz is applicable for the power supply lines <input type="checkbox"/> D.2.5 Voltage surges In accordance with IEC 61000-4-5:2014, - Test level 4 is applicable for the line-to-line coupling mode, a generator having a source impedance of 2 Ω being used - Test level 4 is applicable for the line-to-earth coupling mode, a generator having a source impedance of 12Ω being used <input type="checkbox"/> D.2.6 Injected current In accordance with IEC 61000-4-6:2013 test level 3 being applicable. During the test, all frequencies between 0,15 MHz to 80 MHz are covered <input type="checkbox"/> D.2.7 Voltage dips and interruptions Class 3 voltage dips and interruptions in accordance with IEC 61000-4-11: 2004. <input type="checkbox"/> D.2.8 Mains signals In accordance with IEC 61000-4-13:2002/AMD2:2015, Table 11 with test level class 2 using the frequency steps according to Table 10</p>	NA
Annex J	Safety of remote controls for electric ride-on toys	NA

Abbreviation : P = Pass A = Applicable NA = Not Applicable



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3 Safety of Electric Toys

As per British Standard on Safety of Electric Toys BS EN IEC 62115:2020+A11:2020

Battery Type : 3.0 V, AA size x 2 pcs for Vehicle (Replaceable type)
: 3.0 V, AAA size x 2 pcs for Transmitter (Replaceable type)

Normal Use Operation: The motor powered by battery.

Clause	Requirement	Assessment
1	Scope	--
2	Normative reference	--
3	Term and definitions	--
4	General requirement	--
5	General conditions for test	--
6	Criteria for reduced testing	NA
6.1	General	--
6.2	Short-circuit resistance	NA
6.3	Low power electric toys	NA
6.4	Battery circuits	NA
7	Marking and instructions	P See remark(1)
7.1	General	P
7.2	Marking on electric toys	P
7.2.1	Identification	P
7.2.2	Electric toys with replaceable batteries	P
7.2.3	Transformer toys and power supply toys	NA
7.2.4	Electric toys with more than one power supply	NA
7.2.5	Electric toys with detachable lamps	NA
7.2.6	Symbols	NA
7.2.7	Durability	P
7.3	Instructions and markings on packaging	P
7.3.1	General	P



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Clause	Requirement	Assessment
7.3.2	Transformer toys and power supply toys	NA
7.3.3	Electric toys that are used with replaceable batteries	P
7.3.3.1	General	P
7.3.3.2	Coin batteries	NA
7.3.3.3	Button batteries	NA
7.4	Instructions for electric toys that can be connected to class I equipment	NA
7.5	Instructions for ride-on electric toys	NA
7.6	Temperature warnings	NA
8	Power input	NA
9	Heating and abnormal operation	P
9.1	General	P
9.2	Test condition	--
9.3	Normal operation	P
9.4	Normal operation with insulation short-circuited	P
9.5	Abnormal operation with temperature controls made inoperable	NA
9.6	With accessible moving parts locked	P
9.7	Additional transformers and power supplies	NA
9.8	Abnormal supply to electric toys via a USB connection.	NA
9.9	Fault condition in electronic circuits	NA
9.10	Compliance criteria	P
10	Electric strength	P
10.1	Electric strength at operating temperature	P
10.2	Electric strength under humid conditions	P
11	Electric toys used in water, electric toys used with liquid and electric toys cleaned with liquid	NA
12	Mechanical strength	P
12.1	Enclosures	P
12.2	Attachment strength	NA
13	Construction	P
13.1	Nominal supply voltage	P
13.2	Transformers, power supplies and battery chargers	NA
13.3	Thermal cut-outs.	NA
13.4	Batteries	P



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Clause	Requirement	Assessment
13.4.1	Small batteries	P
13.4.2	Other batteries	P
13.4.3	Electrolyte leakage	P
13.4.4	Electric toys placed above a child	NA
13.4.5	Parallel connection of batteries	P
13.4.6	Battery compartment fasteners	P
13.5	Plug and sockets	NA
13.6	Charging batteries	P
13.7	Series motors	NA
13.8	Working voltage	NA
13.9	Electric toys connecting to other equipment.	NA
13.10	Speed limitation of ride-on electric toys	NA
14	Protection of cords and wires	P
14.1	Edges and moving parts	P
14.2	Fixed parts	NA
15	Components	P
15.1.1	General	NA
15.1.2	Switches and automatic controls	NA
15.1.3	Other components	NA
15.2	Prohibited components	P
15.3	Transformers and power supplies	NA
15.4	Battery chargers	NA
15.5	Batteries	NA
16	Screws and connections	P
16.1	Fixings	P
16.2	Connections	NA
17	Clearances and creepage distances	P
18	Resistance to heat and fire	P
18.1	Resistance to heat	NA
18.2	Resistance to fire	P
18.2.1	General	P
18.2.2	Non-metallic parts	P
18.2.3	Insulating material	NA
19	Radiation and similar hazards	--
19.1	General	--
19.2	Optical radiation Toys incorporating lasers and or light emitting diodes (LED) or UV emitting lamps shall comply with Annex E. Electric toys incorporating LEDs shall comply with 19.E.2. Electric toys incorporating lasers shall comply with 19.E.3 Electric toys incorporating UV-emitting lamps shall comply with 19.E.4	NA



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Clause	Requirement	Assessment
19.3	Other electromagnetic radiation Electric toys with an integrated field source that may produce harmful electromagnetic radiation Measurements methods are given in Annex I.	NA
Annex D	<p>Electric toys with protective electronic circuits</p> <p>D.1 General During the tests of 9.9 an electronic circuit prevents the hazardous conditions listed in 9.10</p> <p>D.2 Dangerous malfunction <input type="checkbox"/> D.2.1 General The electric toy cause an unintended operation that may impair safety or present a dangerous malfunction due to influence from electromagnetic phenomena (EMP) <input type="checkbox"/> D.2.2 Electrostatic discharges In accordance with IEC 61000-4-2:2008, test level 4</p> <p>D.2.3 Radiated fields In accordance with IEC 61000-4-3:2006+A1:2007+A2:2010 test level 3. cover 80 MHz to 1 000 MHz and 1,4 GHz to 2,0 GHz <input type="checkbox"/> D.2.4 Transient bursts In accordance with IEC 61000-4-4:2012. - Test level 3 with a repetition rate of 5 kHz is applicable for signal and control lines - Test level 4 with a repetition rate of 5 kHz is applicable for the power supply lines <input type="checkbox"/> D.2.5 Voltage surges In accordance with IEC 61000-4-5:2014, - Test level 4 is applicable for the line-to-line coupling mode, a generator having a source impedance of 2 Ω being used - Test level 4 is applicable for the line-to-earth coupling mode, a generator having a source impedance of 12Ω being used <input type="checkbox"/> D.2.6 Injected current In accordance with IEC 61000-4-6:2013 test level 3 being applicable. During the test, all frequencies between 0,15 MHz to 80 MHz are covered <input type="checkbox"/> D.2.7 Voltage dips and interruptions Class 3 voltage dips and interruptions in accordance with IEC 61000-4-11: 2004. <input type="checkbox"/> D.2.8 Mains signals In accordance with IEC 61000-4-13:2002/AMD2:2015, Table 11 with test level class 2 using the frequency steps according to Table 10</p>	NA
Annex J	Safety of remote controls for electric ride-on toys	NA

Abbreviation : P = Pass A = Applicable NA = Not Applicable



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Tests Conducted

Remark:

(1)

Only the English version of the marking and instructions were assessed. According to the standard, instruction sheets and other texts required by the standard shall be written in the official language of the country in which the product is to be sold.



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Tests Conducted



End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019 (Non-binary acceptance based on guard band $w = U$) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results.

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