

# Test Report

Report No.: TJD01F002544b

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**Applicant :** CARPENTERS MANUFACTORY LIMITED  
**Address :** HUANG JIN JI INDUSTRIAL ZONE, SHANG JIE VILLAGE, QI SHI TOWN,  
DONGGUAN CITY, GUANGDONG PROVINCE, P.R.CHINA

**Report on the submitted sample(s) said to be:**

Sample Name : Bulldozer  
Item/Lot No. : TC2D01  
Manufacturer : Carpenters Manufactory Limited  
Quantity of Sample : 2pcs/style  
Country of Origin : China  
Exported to : U.S.A  
Client Specified Age Grading : 3Y +  
Labeled Age Grading : Not stated  
Age Group Applied in Testing : Over 3 years(As per client's request)  
Sample Received Date : Jul. 15, 2013  
Sample Tested Date : Jul. 15, 2013 to Jul. 23, 2013

**Test Conducted:**

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

Tested by Edy Li

Reviewed by Conghu

Approved by Victor Wang

Date 2013-07-23



Victor Wang  
Lab Manager

No. 1622545789

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**Executive Summary:**

**TEST REQUEST**

**CONCLUSION**

1) US Consumer Product Safety Improvement Act of 2008 (CPSIA) with amendment (H.R.2715)	
- Lead in surface-coatings and similar materials of children’s products	<b>PASS</b>
- Lead in substrate materials of children’s products	<b>PASS</b>
- Phthalates in children’s toys and child care articles	<b>PASS</b>
2) Consumer Product Safety Commission 16 CFR Ch.II	
- Part 1303 – Ban of Lead in paint and similar surface coating	<b>PASS</b>
3) ASTM F963-11 Standard Consumer Safety Specification for Toy Safety	
- Mechanical and Physical test	<b>PASS</b>
	<b>(Ex. Clause 7.1)</b>
- Clause 4.2 Flammability of toys	<b>PASS</b>
- Clause 4.3.5 Heavy elements – Total Lead content	<b>PASS</b>
- Clause 4.3.5 Heavy elements – Migration of certain elements	<b>PASS</b>
4) California proposition 65 settlements	
- Lead content test	<b>PASS</b>
- Phthalates test	<b>PASS</b>

\*\*\*\*\* For Further Details, Please Refer To the Following Page(s) \*\*\*\*\*

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## 1) US CPSIA WITH AMENDMENT (H.R.2715)

### ▼ Lead in surface-coating and similar materials of children's products

As specified in Consumer Product Safety Improvement Act of 2008 (CPSIA) and 16 CFR Ch.II part 1303 of Consumer Product Safety Commission of U.S.A, method CPSC-CH-E1003-09 was used and total lead content was determined by ICP-OES and/or AAS.

<u>Tested Item</u>	<u>Result (ppm)</u>				<u>MDL</u> (ppm)	<u>Limit</u> (ppm)
	(1)	(2)	(3)	(4)		
Total Lead (Pb)	ND	ND	ND	ND	10	90

Tested Component(s):

- (1) Bright red paint(A1Y)
- (2) Orange paint(A2Y)
- (3) Light yellow paint(A3Y)
- (4) Dark green paint(A5Y)

Remark:

- ppm = parts per million = mg/kg
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- All results shown is/are quoted from CTI test report TLSZF00061943b.

### ▼ Lead in substrate materials of children's products

As specified in Consumer Product Safety Improvement Act of 2008 (CPSIA), method(s) CPSC-CH-E1001-08.1/CPSC-CH-E1002-08.1 were used and total lead content was determined by ICP-OES and/or AAS.

<u>Tested Item</u>	<u>Result (ppm)</u>			<u>MDL</u> (ppm)	<u>Limit</u> (ppm)
	(1)	(2)/(3)	(4)		
Total Lead (Pb)	ND	ND	ND	10	100

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**Tested Component(s):**

- (1) Brown MDF
- (2) Black soft plastic(wheels)
- (3) Yellow plastic(hub of wheels)
- (4) Natural veneer

**Remark:**

- ppm = parts per million = mg/kg
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- The limit for composite test should be divided by the mixed number.
- Result(s) shown of tested component(s) (1) is/are quoted from CTI test report TLSZF00066790b.

**▼ Phthalates in children's toys and childcare articles**

As specified in Consumer Product Safety Improvement Act of 2008 (CPSIA), method CPSC-CH-C1001-09.3 was used and phthalates were determined by gas chromatograph with mass spectrometry (GC-MS).

Tested Item	Result (%)			MDL (%)	Limit (%)
	(1)	(2)	(3)		
Di-2-ethylhexyl Phthalate (DEHP)	ND	ND	ND	0.003	0.1
Dibutyl Phthalate (DBP)	ND	ND	ND	0.003	0.1
Benzylbutyl Phthalate (BBP)	ND	ND	ND	0.003	0.1

Tested Item	Result (%)			MDL (%)	Limit (%)
	(4)	(5)	(6)		
Di-2-ethylhexyl Phthalate (DEHP)	ND	ND	ND	0.003	0.1
Dibutyl Phthalate (DBP)	ND	ND	ND	0.003	0.1
Benzylbutyl Phthalate (BBP)	ND	ND	ND	0.003	0.1

Tested Item	Result (%)			MDL (%)	Limit (%)
	(1)	(2)	(3)		
Diisononyl Phthalate (DINP)	ND	ND	ND	0.005	0.1
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	0.003	0.1
Diisodecyl Phthalate (DIDP)	ND	ND	ND	0.005	0.1

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Tested Item	Result (%)			MDL (%)	Limit (%)
	(4)	(5)	(6)		
Diisononyl Phthalate (DINP)	ND	ND	ND	0.005	0.1
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	0.003	0.1
Diisodecyl Phthalate (DIDP)	ND	ND	ND	0.005	0.1

Tested Component(s):

- (1) Bright red paint(A1Y)
- (2) Orange paint(A2Y)
- (3) Light yellow paint(A3Y)
- (4) Dark green paint(A5Y)
- (5) Black soft plastic(wheels)
- (6) Yellow plastic(hub of wheels)

Remark:

- % = percentage
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- Result(s) shown of tested component(s) (1)~(4) is/are quoted from CTI test report TLSZF00061943b.

## 2) CONSUMER PRODUCT SAFETY COMMISSION 16 CFR CH.II

### ▼ Total Lead content

As specified in CPSC 16 CFR CH.II part 1303, method CPSC-CH-E1003-09 was used and total Lead content was determined by ICP-OES and/or AAS.

Tested Item	Result (%)				MDL (%)	Limit (%)
	(1)	(2)	(3)	(4)		
Total Lead (Pb)	ND	ND	ND	ND	0.0010	0.0090



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8.9	Tension Test.....	Pass
8.10	Compression Test.....	Pass

N/A = Not Applicable

Note:

- Only applicable clause(s) was/were shown.

▼ **Clause 4.2 Flammability of toys**

As specified in ASTM F963-11 standard consumer safety specification for toy safety.

Flammability Test on Solid

<u>Burning Rate (inch/sec)</u>	<u>Limit (inch/sec)</u>
DNI	0.1

-- DNI = Did Not Ignite

Note:

- Only applicable clause(s) was/were shown.

▼ **Heavy elements test - Total Lead content**

As specified in ASTM F963-11 standard consumer safety specification for toy safety clause 4.3.5, acid digestion methods specified in clause 8.3 were used and total Lead content was determined by ICP-OES and/or AAS.

1. Paint and similar surface coating materials:

<u>Tested Item</u>	<u>Result (mg/kg)</u>				<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	(1)	(2)	(3)	(4)		
Total Lead (Pb)	ND	ND	ND	ND	10	90

2. Toy substrate materials:

<u>Tested Item</u>	<u>Result (mg/kg)</u>			<u>MDL (mg/kg)</u>	<u>Limit (mg/kg)</u>
	(5)	(6)/(7)	(8)		
Total Lead (Pb)	ND	ND	ND	10	100

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Tested Component(s):

- (1) Bright red paint(A1Y)
- (2) Orange paint(A2Y)
- (3) Light yellow paint(A3Y)
- (4) Dark green paint(A5Y)
- (5) Brown MDF
- (6) Black soft plastic(wheels)
- (7) Yellow plastic(hub of wheels)
- (8) Natural veneer

Remark:

- mg/kg = milligram per kilogram = ppm
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- Result(s) shown of tested component(s) (1)~(4) is/are quoted from CTI test report TLSZF00061943b.
- Result(s) shown of tested component(s) (5) is/are quoted from CTI test report TLSZF00066790b.

## ▼ Heavy elements test - Migration of certain elements

As specified in ASTM F963-11 standard consumer safety specification for toy safety clause 4.3.5, acid extraction methods specified in clause 8.3 were used and toxic elements content were determined by ICP-OES.

Tested Item	Result (mg/kg)						MDL (mg/kg)	Limit (mg/kg)
	(1)	(2)	(3)	(4)	(5)	(6)		
Soluble Antimony (Sb)	ND	ND	ND	ND	ND	ND	5	60
Soluble Arsenic (As)	ND	ND	ND	ND	ND	ND	2.5	25
Soluble Barium (Ba)	ND	ND	ND	ND	ND	ND	5	1000
Soluble Cadmium (Cd)	ND	ND	ND	ND	ND	ND	5	75
Soluble Chromium (Cr)	ND	ND	ND	ND	ND	ND	2.5	60
Soluble Lead (Pb)	ND	ND	ND	ND	ND	ND	5	90
Soluble Mercury (Hg)	ND	ND	ND	ND	ND	ND	2.5	60
Soluble Selenium (Se)	ND	ND	ND	ND	ND	ND	5	500



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**Tested Component(s):**

- (1) Orange coating(A2Y)
- (2) Light yellow coating(A3Y)
- (3) Brown MDF
- (4) Black soft plastic(wheels)
- (5) Yellow plastic(hub of wheels)
- (6) Natural veneer

**Remark:**

- mg/kg = milligram per kilogram = ppm
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- Results shown of soluble elements are of adjusted analytical results by subtracting analytical correction factor
- Filter paper was used instead of 0.45µm membrane filter in lab testing.
- As received, the test portion of bright red coating (A1Y) and dark green coating (A5Y) are less than 10mg, therefore such components were not tested for soluble elements, as specified in ASTM F963-11 Clause 8.3.
- Result(s) shown of tested component(s) (1) and (2) is/are quoted from CTI test report TLSZF00066791b.  
Result(s) shown of tested component(s) (3) is/are quoted from CTI test report TLSZF00066790b.

**4) CALIFORNIA PROPOSITION 65 SETTLEMENTS**

**▼ Lead content test※**

With reference to concerned California proposition 65 settlements, acid digestion method was used and total Lead content was determined by ICP-OES and/or AAS.

1. Lead in paints and surface-coating materials:

<u>Tested Item</u>	<u>Result (ppm)</u>				<u>MDL</u>	<u>Reference limit</u>
	(1)	(2)	(3)	(4)	(ppm)	(ppm)
Total Lead (Pb)	ND	ND	ND	ND	10	90

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2. Lead in other materials:

Tested Item	Result (ppm)			MDL	Reference limit
	(5)	(6)/(7)	(8)	(ppm)	(ppm)
Total Lead (Pb)	ND	ND	ND	10	600

Tested Component(s):

- (1) Bright red paint(A1Y)
- (2) Orange paint(A2Y)
- (3) Light yellow paint(A3Y)
- (4) Dark green paint(A5Y)
- (5) Brown MDF
- (6) Black soft plastic(wheels)
- (7) Yellow plastic(hub of wheels)
- (8) Natural veneer

Remark:

- ppm = parts per million = mg/kg
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- The limit for composite test should be divided by the mixed number.
- Result(s) shown of tested component(s) (1) ~ (4) is/are quoted from CTI test report TLSZF00061943b.
- Result(s) shown of tested component(s) (5) is/are quoted from CTI test report TLSZF00066790b.
- “※” indicates the method(s) is (are) not applied for CNAS accreditation yet.



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Remark:

- % = Percentage
- ND = Not Detected (less than MDL)
- MDL = Method Detection Limit
- Result(s) shown of tested component(s) (1)~(4) is/are quoted from CTI test report TLSZF00061943b.
- “※” indicates the method(s) is (are) not applied for CNAS accreditation yet.

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## Photo of the sample



\*\*\* End of Report \*\*\*

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