



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY  
2585 PLYMOUTH ROAD  
ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF  
AIR AND RADIATION

July 24, 2014

TaoTao USA Inc.  
2425 Camp. Ave. Suite 100  
Carrollton, TX 75006  
Attention: Mr. Matao Cao

**Subject: Highway Motorcycle Exhaust Confirmatory Test Order 14-HMC-CE-26**

Dear Mr. Cao:

This letter is to inform you that the following Engine Family/Model has been selected for the Agency ordered emissions tests under authority of 40 CFR 86.422-78, 427-78(f) & (g), and 434-78 as appropriate:

Engine Family: FTAOC.049MC2  
Manufacture/Commercial Model Name: CY50-A/TaoTao CY 50-A  
Vehicle Type: 2<sup>nd</sup> Certification Emission Data Vehicle (EDV)

Per 40 CFR 86.434-78(a) TaoTao USA Inc. is required to perform service accumulation (SA) and conduct emissions tests for deterioration in accordance with 40 CFR 86 Subparts E and F to the applicable full durability distance of 6,000 km prior to shipping the vehicle for the ordered test. The EDV requested should be a vehicle that is representative for this 2015 engine family. All of the related test reports and a summary table containing all final results and deterioration factors (DFs) must be submitted to the Agency before the date of the scheduled EPA test.

EPA reserves the right to require you to send and prepare another or more test vehicles from the same engine family should we decide to disqualify the one received (ref. 40 CFR 86.422-78 & 427-78(f)).

Please follow instructions provided in Attachment 1 of this Test Order to select, prepare, and deliver the specified test vehicle to the following test facility:

Lotus Engineering, Inc.  
1254 N. Main St.  
Ann Arbor, Michigan 48104  
Phone: (734) 995-2544  
Fax: (734) 995-9301

Primary Contact  
Stan Culross  
&34-478-4750  
[Stan.culross@lotus-usa.com](mailto:Stan.culross@lotus-usa.com)

Secondary Contact  
Joe Kazmierski  
734-3684827  
[joe.kazmierski@lotus-usa.com](mailto:joe.kazmierski@lotus-usa.com)

The selected test vehicle shall arrive at the above specified test facility prior to **August 8, 2014**. You are advised to contact the specified test lab and make pre-arrangement to ensure the vehicle arrives as scheduled. You are asked to notify Emily Chen (734-214-4122, Chen.Emily@epa.gov), of EPA and the testing lab at your earliest convenience if you acknowledge that the test vehicle may miss the specified arrival date.

Failure to deliver the test vehicle to the specified test facility on time could result in a reschedule at EPA's determination and a possible delay of issuance of your Certificate of Conformity.

TaoTao USA Inc. may request to send up to three representatives to witness the EPA ordered test by sending the attached Intent to Witness form as instructed on the form. Please send your request in time so that Emily and the specified testing lab can make a coordinated arrangement. The manufacturer representative(s) may be asked to sign a test vehicle set-up concurrence sheet.

**In accordance with 40 CFR 86.427-78(g), the emission results generated by the EPA ordered tests shall be used to determine compliance with applicable emission standards.**

If you have any questions regarding this letter, please feel free to contact Emily Chen of this Center at 734-214-4122 or Chen.Emily@epa.gov.

Sincerely,



Cleophas Jackson, Director  
Gasoline Engine Compliance Center  
Compliance Division  
Office of Transportation and Compliance

Attachments:

1. Instructions on Preparation for EPA Ordered Tests
2. Test Vehicle Information Form (Excel file)
3. Intent to Witness Form
4. Relating Regulations

CC: Mr. James Xu  
Stanley Marketing & Consulting LLC  
9634 153A Street  
Surrey, BC, V3R4H9, Canada



## Attachment 1:

### Instructions on Preparation for EPA Ordered Tests

#### 1. Items that Must be Delivered:

The following items should be delivered to EPA and/or the designated test facility on time:

**A. To the designated test facility, at the time of the EDV delivery and prior to the date of the scheduled test:**

- a) The Emission Data Vehicle specified in this order with completed Service Accumulation and emissions tests for deterioration as required.
- b) Two keys with a tag clearly marked with Engine Family name, make, model, VIN and words "EPA Test Vehicle"
- c) Pre-arranged packing and delivery slip for shipping the test vehicle out of the testing facility
- d) Test Vehicle Information Form (in Attachment 2, specifies manufacturer's original certification test results, shift schedule, etc.)
- e) Appropriate CVS connection components for the specified testing facility, if required.
- f) Sufficient oil/lubricants needed for testing - labeled, placed in a separated container, shipped with the EDV
- g) Clear instructions on adding oil to prevent oil overfilling
- h) The MSDS sheets of all oil/lubricants
- i) A copy of FTAOC.049MC2 Application for Certification - both text application and CSI Forms, non-CBI public version.

**B. To both the EPA and the test facility, prior to the date of the scheduled test, via**

**Email to:** [Stan.culross@lotus-usa.com](mailto:Stan.culross@lotus-usa.com), [joe.kazmierski@lotus-usa.com](mailto:joe.kazmierski@lotus-usa.com)  
[robertdspecht@att.net](mailto:robertdspecht@att.net), [Chen.Emily@epa.gov](mailto:Chen.Emily@epa.gov)

- a) Test Vehicle Information Form (Forms provided in Attachment 2)
- b) Test Vehicle Custody Records (Format specified in Attachment 2)
- c) All test reports and a summary table containing all final results and DFs generated from the tests performed from this new EDV
- d) Copies of FTAOC.049MC2 test reports from the original certification tests, if not submitted before.
- e) FTAOC.049MC2 User's Manual
- f) FTAOC.049MC2 Service Manual and Assembly Manual (if any)

You are advised that failure to supply the requested items indicated above could cause a rescheduling of the ordered test and delay of issuance of Certificate of Conformity.

#### 2. **Testing Fuel Supplied by Manufacturer:**

At a manufacturer's request, EPA may allow a manufacturer to supply testing fuel for the ordered test, provided that the request is submitted to EPA **at least 30 days before the date of the scheduled test.** If we approve your request, you must delivery the following items by

the specified date(s) to the appropriate test coordinators:

- a) To the designated **test facility test coordinator** before the date of the scheduled test:
  - 1) Enough testing fuel for at least two pre-conditioning runs and two test runs of the EDV or no less than 25 gallons
  - 2) Your fuel property analysis report showing the fuel meets the specifications required by Table 1 of 40 CFR 86.513-2004
- and**
- b) To the **EPA's test coordinator** and at least **three weeks** before the scheduled test:
  - 1) 2 liters of the testing fuel for EPA's fuel property verification analysis
  - 2) Your fuel property analysis report showing the fuel meets the specifications required by Table 1 of 40 CFR 86.513-2004

You are advised that we will not issue to you any official EPA test results until we have verified and confirmed that your testing fuel used for this test meets EPA requirements. Should the fuel fail to show satisfactory results, the test(s) in which the fuel was used will be void and you will be responsible to cover all of the costs relating to any necessary re-tests to fulfill this test order. You should expect delay in obtaining your certificate due to uncertainties that this special fuel arrangement involves.

If you intend to send the Agency a request of using your testing fuel due to your concerns relating to research octane number based on 40 CFR 86.513-2004(a)(3), you should also conduct the following actions **at least 30 days before the date of the scheduled test and before we receive your request:**

1. Indicate the minimum research octane number of your certification testing fuel in Verify CIS.5 and attach a copy of your certification testing fuel analysis report with your application for this engine family
2. Send us the User's Manual (or the content intent to be used in the User's Manual) of this engine family that should clearly indicate your recommend minimum research octane number in addition to the anti-knocking index of  $(R+M)/2$  that you may recommend for gasoline fuel **at least 30 days before the date of the scheduled test.**

Failure to specify a recommended minimum research octane number as instructed above may waive objection to the research octane number the EPA may use to conduct confirmatory testing.

### **3. CVS Connection Components Preparation**

At this time, both Lotus Engineering and Environment Canada (EC) testing labs use silicone exhaust boots to connect the exhaust of a test vehicle to CVS. Manufacturers are not required to perform any modifications to the test vehicle's exhaust system prior to shipping. During test setup, if any modification is required to ensure a tight, leak-free seal to the CVS, the testing laboratory will perform the modification and will advise the manufacturer. Manufacturers can expect to receive the motorcycle after testing with modifications performed to its exhaust system.



#### **4. After-Shipment Accumulation for Vehicles Shipped from Abroad**

For a test motorcycle shipped from abroad, to ensure that the motorcycle is operating properly, we request that the manufacturer perform a routine "after-shipment" inspection, conduct some basic diagnostic checks, and accumulate at least 50 km on the motorcycle after it arrives in the United States prior to delivery of the test vehicle to the specified testing laboratory. You may combine the 50 km with required service accumulation specified in the test order, if applicable.

#### **5. Cost of Test (Ref: 40 CFR 86.434-78)**

Manufacturer is responsible for:

- a) All costs including fees or bonds, if any, associated with shipping, delivering, retrieving, importing or exporting, and damage repairing of the test vehicle.
- b) All costs associated with performing the ordered durability service accumulation.
- c) All costs associated with the FTP tests, if ordered tests are to be conducted at the manufacturer's test facility or a test lab of the manufacturer's choice.
- d) All costs associated with sending test observer(s) to witness the ordered tests.
- e) All costs related to the test vehicle final disposal.

Manufacturer is not required to pay for the FTP test(s) conducted either by Lotus Engineering within the terms of EPA contract or by Environment Canada's test lab, except as indicated in section 2 of this instruction.

#### **6. Test Vehicle Custody Records**

To assure the legality of the testing motorcycle, we request that TaoTao USA Inc. record **every action** taken on the motorcycle during your possession of the vehicle. You should record each item as listed in the Test Vehicle Custody Records form (Attachment 1). Where applicable, actions that must be recorded include, but are not limited to, shipping, receiving, "after shipment" inspection, basic diagnostic checks, selection from production line, **daily log** of service accumulation, any scheduled maintenance (ref 40 CFR 86.428-80) and/or unscheduled maintenance (ref: 40 CFR 86.429-78), etc..

**We may also require you to prepare and deliver an additional motorcycle or motorcycles should we disqualify the vehicle received, ref. 40 CFR 86.422-78 & 427-78(f).**

#### **7. Test Vehicle Disposition**

Once testing is completed and EPA issues its final test report, **the test vehicle must be removed by the manufacturer from the specified test facility within two (2) weeks from the final test report issuance date.** EPA will consider the vehicle forfeited by the manufacturer and will proceed to dispose of it four (4) weeks after the final test report issuance date.

Attachment 3:



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY**  
2000 Traverwood Avenue  
ANN ARBOR, MICHIGAN 48105-2498

**Statement of Manufacturer**  
**Intent to Witness EPA Ordered Confirmatory Test**

EPA Test Order # \_\_\_\_\_ Engine Family \_\_\_\_\_

- ☐ We will have ( ) one, ( ) two, ( ) three representative(s) to witness the test at the location designated in the test order.
- All representatives are U.S. citizens: Yes \_\_\_ No \_\_\_ (Only if test at Lotus)
- ☐ We will not send any representative to witness the test at the location designated in the test order.

Manufacturer Contact Information:

Manufacturer Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Authorized Manufacturer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Note:** A signed copy of this form must be **received by the EPA and the designated testing lab** prior to (3) business days of the scheduled test date via fax or Email:

EPA: Attn: Emily Chen  
Fax: 734-214-4869  
Email: [Chen.Emily@epa.gov](mailto:Chen.Emily@epa.gov)

LOTUS ENGINEERING, Inc.,  
Attn: Stan Culross and Joe Kazmierski  
Fax: 734-995-9301  
Email: [Stan.culross@lotus-usa.com](mailto:Stan.culross@lotus-usa.com), [joe.kazmierski@lotus-usa.com](mailto:joe.kazmierski@lotus-usa.com)

Environmental Canada:  
Attn: Nick Carrey  
Fax: 613-946-0003  
Email: [nicholas.carrey@ec.gc.ca](mailto:nicholas.carrey@ec.gc.ca)



## Attachment 4: Relating Regulations

### **A: Certification Tests:**

#### **§86.417-78 Approval of application for certification.**

(a) After a review of the application for certification and any other information which the Administrator may require, the Administrator may approve the application and select a test fleet as appropriate.

#### **§ 86.434-78 Testing by the Administrator.**

(a) At the conclusion of service accumulation, and after emission tests for deterioration, the Administrator may require confirmatory testing. The Administrator will designate where such testing shall be performed.

(b) The manufacturer may request a retest. The results of the retest will be used to determine compliance.

(c) If the emission results exceed the standard, certification will be denied.

#### **§ 86.422-78 Administrator's fleet.**

The Administrator may require additional test vehicles identical in all material respects to vehicles selected in accordance with §86.421. The number of vehicles selected shall not increase the size of the test fleet by more than 20 percent or one vehicle, whichever is greater.

#### **§ 86.427-78 Emission tests.**

(f) The Administrator may require that any one or more of the test vehicles be submitted to him, at such places as he may designate, for the purpose of conducting emissions tests. The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(g) Whenever the Administrator conducts a test on a test vehicle, the results of that test, unless subsequently invalidated by the Administrator, shall comprise the data for the vehicle at that prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards.

#### **§86.416-80 Application for certification.**

(f) Upon request, the Administrator may allow a manufacturer to use alternate certification procedures that are equivalent in terms of demonstrating compliance with the requirements of this part.

## **B. Production Vehicle Tests**

### **§ 86.415-78 Production vehicles.**

(a) Any manufacturer obtaining certification shall supply to the Administrator, upon his request, a reasonable number of production vehicles selected by the Administrator which are representative of the engines, emission control systems, fuel systems, and transmissions offered and typical of production models available for sale under the certificate. These vehicles shall be supplied for testing at such time and place and for such reasonable periods as the Administrator may require.



Isin, Amelie

---

**From:** Klepp, Robert  
**Sent:** Tuesday, August 05, 2014 9:26 AM  
**To:** Jackie Wang; Isin, Amelie; matao cao  
**Subject:** RE: Confirmatory Test

Jackie,

Per our discussion in our call on July 30, EPA requests that Taotao and affiliates report to EPA the results of all completed engine testing to date pursuant to the testing plan EPA approved on May 14, 2014. You should follow the instructions in EPA's February 6, 2014 information request as to the submission at this time, including having an authorized agent for Taotao and affiliates provide a signature and certification. Going forward, you should provide completed test results to EPA on a rolling basis as they become available. You should also provide us with an update as soon as possible on the status of the remaining unfinished testing.

Please note EPA has not extended the due date per the February 4, 2014 information request, which required submission within 60 days of EPA's approval of the test plan, i.e., July 14, 2014, and that deadline still stands.

Sincerely,

Bob

**Robert G. Klepp, Attorney**

Office of Civil Enforcement -- Air Enforcement Division  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
(202) 564-5805

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**From:** Jackie Wang [mailto:jackie@taotao.us]  
**Sent:** Wednesday, July 30, 2014 7:08 PM  
**To:** Klepp, Robert; Isin, Amelie; matao cao  
**Subject:** Confirmatory Test

Hi Robert and Amelie,

Thank you for the phone call today.

This is an email propose regarding to one of our 24 units testing vehicles, the CY50-A (VIN:L9NTEACT7E1000882)

EPA Ann Arbor requested a confirmatory test on this unit (Test Order is attached). So after we finished the 2500KM testing on this unit, we have to run it to 6000KM and then transfer it to Lotus Lab before August 8th.

So we have to have CEE to focus on this unit for now since the due date is one week away.

Thank you for your help.

Jackie Wang

**TAOTAO USA INC. (L.A. Branch)**

Add: 4575 Edison Ave, Chino, CA 91710

Site: [www.taotao.us](http://www.taotao.us)

Office: 909-614-1661

Fax: 909-597-0547

Cell: 909-859-4193 (24/7 available for our dealers)





## LOTUS ENGINEERING REPORT

### EPA Confirmatory Emissions Testing of Recreational Vehicles and Motorcycles

**TAOTAO GROUP CO., LTD.**

**FTAOC.049MC2**

**Testing Numbers: 14082101  
14091602**

**Test Dates: 21-AUG-2014  
16-SEP-2014**

#### SUMMARY:

Lotus Engineering was contracted by Jacobs Technology, Inc. to perform a chassis based emission test on a vehicle from Taotao Group Co., Ltd. for the U.S. Environmental Protection Agency (EPA). The testing procedure is to follow the EPA regulations as stated in 40 CFR 86 subpart F and 40 CFR 1051. The EPA test order for this vehicle is 14-HMC-CE-26



The vehicle selected was Class 1A Highway Motorcycle (HMC) Engine Family FTAOC.049MC2.

The Vehicle Identification Number tested is L9NTEACT7E1000882.

**AUTHORED BY:**  
**Steve Devlin**  
Senior Technician- Emission Lab

**REVIEWED BY:**  
**Joe Kazmierski**  
Test Engineering Manager

**APPROVED BY:**  
**Stan Culross**  
Emission Lab Manager

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b) Driver Trace Analysis	
c) Fuel Properties Data Sheet	
d) Inspection Sheet	
e) Photos of Test Vehicle (inspection photos)	
f) Vehicle Log	
g) Manufacturer Supplied Information	





## 1) Introduction

On August 21 and September 16, 2014, Lotus Engineering performed chassis based emission tests on a vehicle from Taotao Group Co., Ltd. (per EPA test order 14-HMC-CE-26). The vehicle was from engine family FTAOC.049MC2. The model name was CY50-A. The VIN for the vehicle tested was L9NTEACT7E1000882.

EPA emission standards and test procedures are stated in 40 CFR 86 subpart F and 40 CFR 1051. All vehicles accepted in this project undergo a receipt inspection and check-in process. A copy of the inspection sheets is included in Appendix (d) of this report. Copies of the photos taken during the inspection are contained in Appendix (e) of this report. Following the approval of the inspection by the EPA, a chassis based emissions test is performed. During the emissions test, the following constituents are measured: HC, CO, NO<sub>x</sub>, and CO<sub>2</sub>. Table 1 contains the final weighted emission results from tests 14082101 and 14091602 along with the calculated fuel economy.

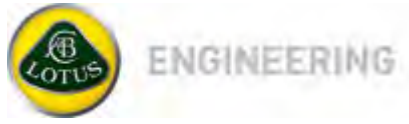
**Table 1: Emission Results for Taotao Group Engine Family FTAOC.049MC2**

**Test # 14082101**

<b>Pollutant</b>	<b>Test Result (g/km)</b>
HC	0.8413
CO	15.12
NO <sub>x</sub>	0.1021
CO <sub>2</sub>	32.5307
CFR Fuel Economy (kpg)	150.6

**Test # 14091602**

<b>Pollutant</b>	<b>Test Result (g/km)</b>
HC	0.8693
CO	15.28
NO <sub>x</sub>	0.1068
CO <sub>2</sub>	34.1752
CFR Fuel Economy (kpg)	145.8



## 2) Test Facilities

Lotus Engineering is unique, offering a blend of technical excellence, passion and performance that is unrivalled in the automotive industry. We have a proven track record taken from almost 60 years of experience in motor racing, producing our own cars and working for hundreds of clients in the automotive industry and beyond. Engineering excellence, innovation and design flair is instilled into everything we do, from powertrain and chassis design, driving dynamics, electrical and electronic integration, through to production and final manufacture.

The Powertrain Testing facility of Lotus Engineering includes 25 engine dynamometer cells and a vehicle emissions laboratory (VEL). Our capabilities in the engine dynamometer cells range from small single cylinder gasoline engines to large multi-cylinder diesel engines. The VEL contains two constant volume samplers - one for diesel testing and one for gasoline testing. There are two chassis dynamometers - a large 48" roll and a smaller single 18" roll. We have experience measuring emissions on many different types of vehicles and engine platforms. For example, we have tested high end performance cars, light off-road mini-bikes, outboard engines, and small hand-held engines.

The equipment used for tests 14082101 and 14091602 is located in the VEL test cell V1. The dynamometer used for this testing was our single roll motorcycle dynamometer made by Eaton, model A-15-U, S/N 4118. The CVS bag sample system was made by Horiba, model CVS-40, S/N 40-0010. The analyzers used to measure the bag samples are made by Pierburg, model AMA-2000, S/N U2009-B.

## 3) Installation

The Taotao Group vehicle was placed on the motorcycle dynamometer with the drive wheel centered on the roll. A fan was positioned 12"- 18" from the front tire of the vehicle. This fan has been calibrated to produce the same wind speed that is being output by the vehicle's drive wheel. A photo of the vehicle on the dynamometer is shown in Figure 1 below.



Figure 1: Test vehicle on the Motorcycle dynamometer

#### 4) Performance Verification

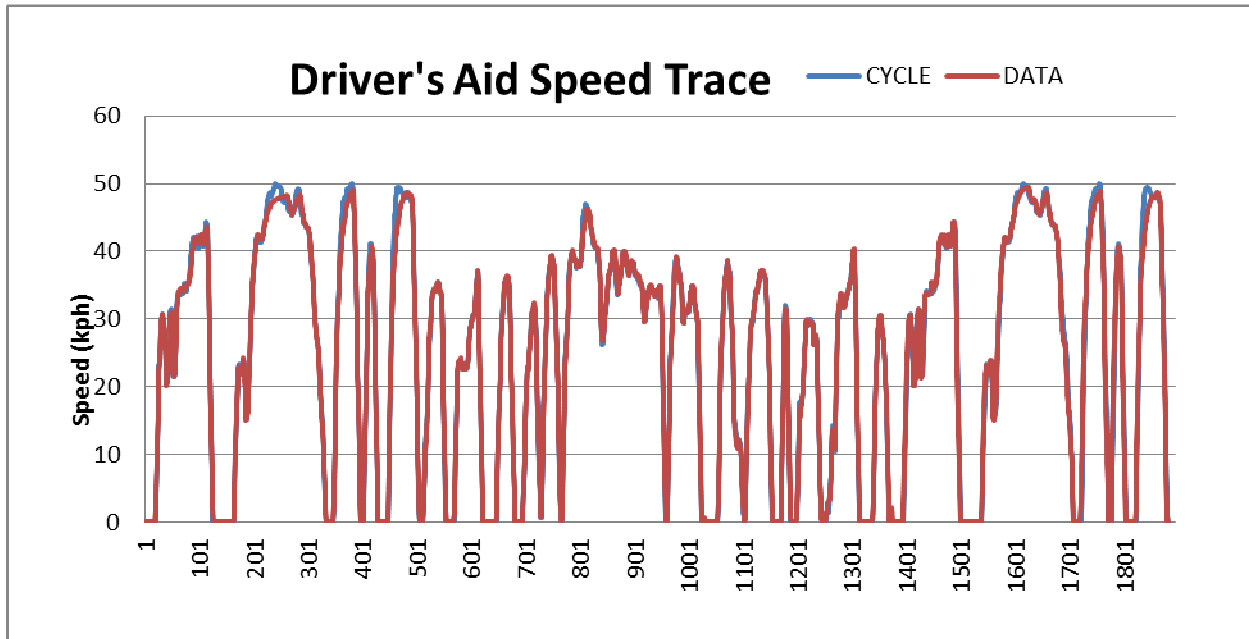
The vehicle tested is classified as a Highway Motorcycle (HMC-1A). It has a 49 cc engine. Equivalent Inertial Mass (EIM) was tested at 160kg. Lotus Engineering weighed the vehicle and found the actual vehicle weight with driver to be 160kg. "A" and "C" road load force coefficients can be found at 40 CFR 86.529-98. For this vehicle, the "A" coefficient is 5.19 and the "C" coefficient is 0.0241. The procedure for dynamometer warm-up is to run the dynamometer for 15 minutes at 30kph. After the warm-up, unloaded coast downs are performed. The dynamometer is ramped up to 90kph and then allowed to coast down. The amount of time it takes the dynamometer to ramp down from 70kph to 60kph is recorded and regulated by 40 CFR 86.529-98. The recorded time for test 14082101 was 4.1, 4.0, and 4.1 seconds. The recorded time for test 14091602 was 4.1, 4.1, and 4.1 seconds.



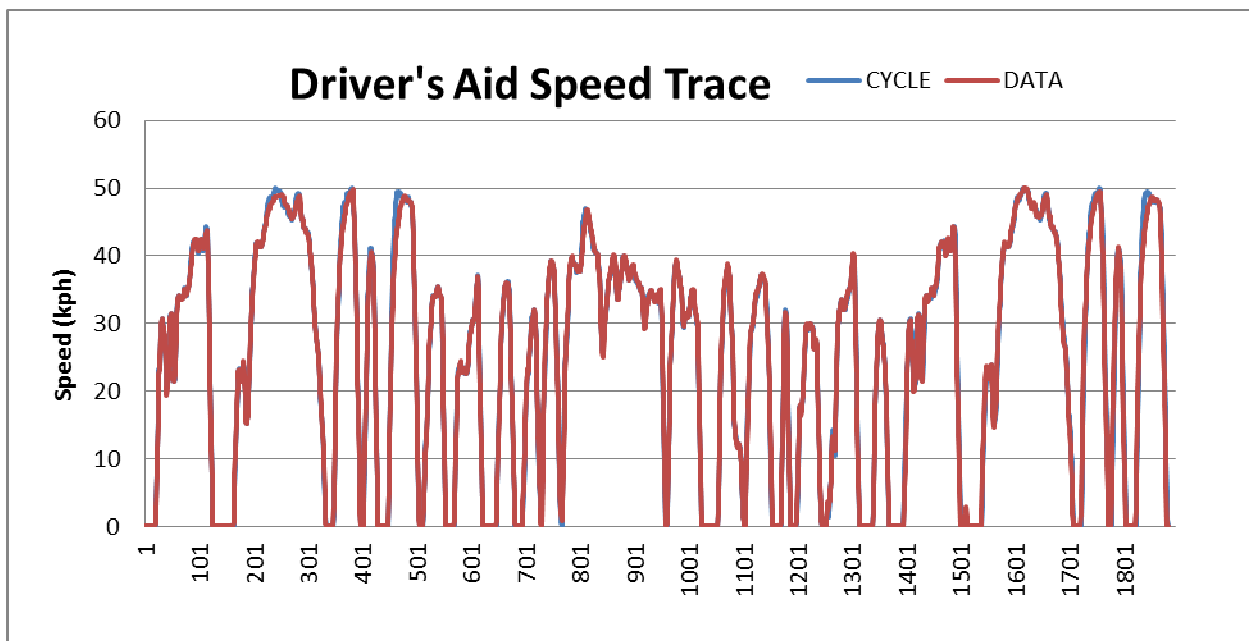


Figure 2: Vehicle speed versus Driver Trace

Test # 14082101



Test # 14091602

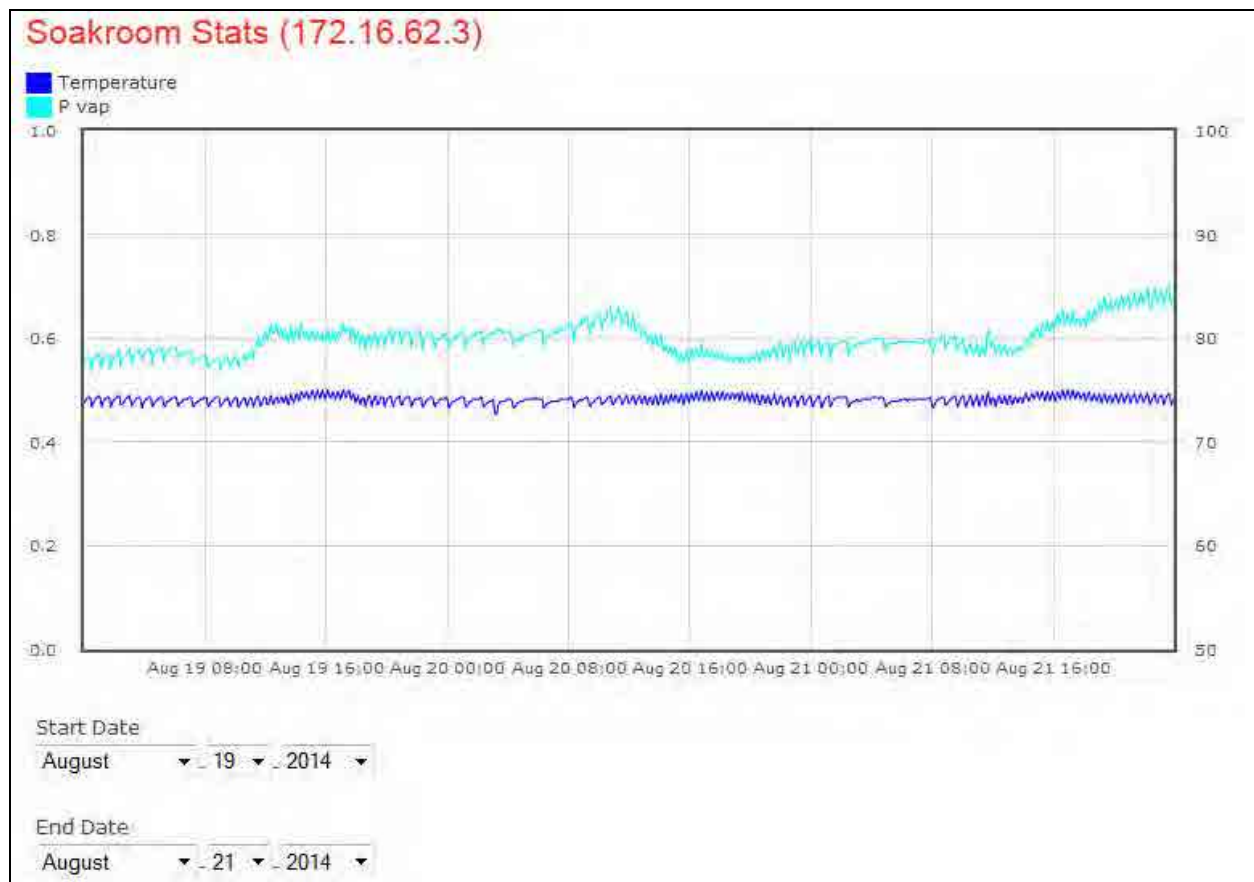




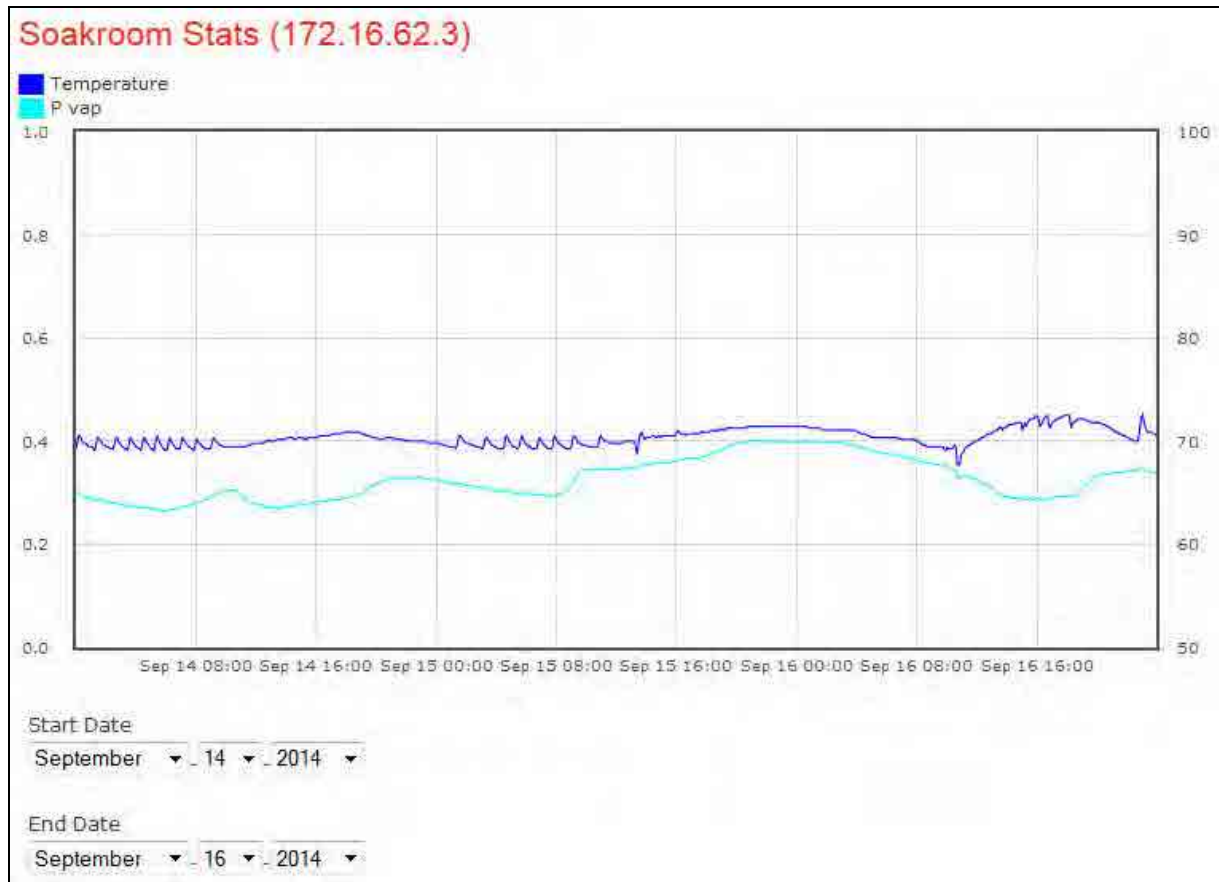
This vehicle was preconditioned the day prior to testing. Before the vehicle ran the preconditioning cycle, the vehicles top speed was measured and found to be 49.9 km/h. A proportional driver's trace was created using a ratio of 0.850 (49.9/58.7), this driver's trace was used for the preconditioning and emissions test. Before the preconditioning, the vehicle's fuel tank was drained and then re-filled with 2.5 liters of Indolene. A copy of the fuel properties data sheet is contained in Appendix (c) of this report. The preconditioning cycle involves running the cold transient and cold stabilized portions of the test. The time when the preconditioning cycle ended is logged in the Vehicle Log Sheet, a copy of which is included in the Appendix (f) of this report. Soak time for test 14082101 was 26 hours. Soak time for test 14091602 was 19 hours. Soak temperature, in degrees Fahrenheit, is shown in Figure 3 below.

Figure 3: Soak room stats

Test # 14082101



Test # 14091602



## 5) Testing & Results

The test cycle that was ran for this vehicle was the Class IA (proportional) motorcycle trace using a ratio of 0.850 (49.9/58.7), which can be found in 40 CFR Part 86-Appendix I paragraph (b) (proportional) and described in 40 CFR Part 86.515-78(d). The test cycle is divided up into three different parts: the Cold Transient, the Cold Stabilized, and the Hot Transient portion. From the driver's trace analysis, contained in Appendix (b), there were multiple violations during the test, during which the vehicle was at WOT (wide open throttle); also see Figure 2 on page 6. From this conclusion we determine that this was a valid test. Emissions are measured during each of the three portions of the test cycle. Table 2 below contains the bag readings from the analyzers for tests 14082101 and 14091602.



Table 2: Mass Bag Results

## Test 14082101

Pollutant	COLD TRANSIENT	COLD STABILIZED	HOT TRANSIENT
HC Sample (ppm)	71.0150	60.6030	66.8321
HC Ambient (ppm)	6.8553	7.1031	7.1568
CO Sample (ppm)	582.33	464.34	575.16
CO Ambient (ppm)	3.19	2.64	2.79
NOx Sample (ppm)	2.5310	1.9934	2.3457
NOx Ambient (ppm)	0.0435	0.0327	0.0297
CO2 Sample (%)	0.1261	0.1153	0.1213
CO2 Ambient (%)	0.0499	0.0500	0.0499

## Test 14091602

Pollutant	COLD TRANSIENT	COLD STABILIZED	HOT TRANSIENT
HC Sample (ppm)	76.5611	57.9643	65.8851
HC Ambient (ppm)	5.0165	5.1225	4.9778
CO Sample (ppm)	585.27	450.60	600.30
CO Ambient (ppm)	2.09	2.04	1.98
NOx Sample (ppm)	2.5395	2.3581	2.4297
NOx Ambient (ppm)	0.0313	0.0216	0.0230
CO2 Sample (%)	0.1207	0.1150	0.1194
CO2 Ambient (%)	0.0457	0.0458	0.0463

The final weighted emission result for each pollutant is calculated by taking 43% of the weighted combination of the cold transient phase and the cold stabilized divided by the distance travelled during those phases. This result is added to 57% of the weighted combination of the cold stabilized phase and hot transient phase divided by the distance travelled during those phases. This can be found in 40 CFR 86.544-90. Table 3 below contains the final weighted emission result for each pollutant along with the calculated fuel economy. Table 3 also contains the deterioration factors (DFs) reported by the manufacturer to EPA in their certification application and the projected end of useful life emission levels based on the test results and DFs.





Table 3: Final Weighted Test Results, Manufacturer DFs, and Projected End of Useful Life Emissions

Test 14082101

Pollutant	Test Result	Manufacturer reported DF (Multiplicative)	Projected End of Useful Life Emissions
HC	0.8413 g/km	1.000	0.8413 g/km
CO	15.12 g/km	1.000	15.12 g/km
NOx	0.1021 g/km	N/A	N/A
HC+NOx	0.9434 g/km	N/A	N/A
CO2	32.5307 g/km	N/A	N/A
CFR Fuel Economy	150.6 kpg	N/A	N/A

Test 14091602

Pollutant	Test Result	Manufacturer reported DF (Multiplicative)	Projected End of Useful Life Emissions
HC	0.8693 g/km	1.000	0.8693 g/km
CO	15.28 g/km	1.000	15.28 g/km
NOx	0.1068 g/km	N/A	N/A
HC+NOx	0.9761 g/km	N/A	N/A
CO2	34.1752 g/km	N/A	N/A
CFR Fuel Economy	145.8 kpg	N/A	N/A

A copy of the Test Results Sheet is included in the Appendix (a) of this report

## 6) Observations

- Top speed was measured before the pre-conditioning cycle; a top speed of 49.9 km was recorded. A proportional drive cycle was made using a ratio of 0.850. Several driver's errors were noted during the pre-conditioning and test, the vehicle was at WOT during all error points.
- On August 16, a test of this vehicle was attempted which resulted in an aborted test. The vehicle had a prolonged crank period at the start of the test. The vehicle then stalled after the first hill in the test and would not restart. The vehicle was removed from the dyno for inspection. During the inspection, the throttle cable was found to have come loose at both the throttle housing and carburetor mount bracket. EPA and manufacturer were informed of the issue; the throttle cable was repaired and adjusted.



## 7) Appendices



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## a) Test Results Data Sheet

Test # 14082101 – Page 1



ENGINEERING

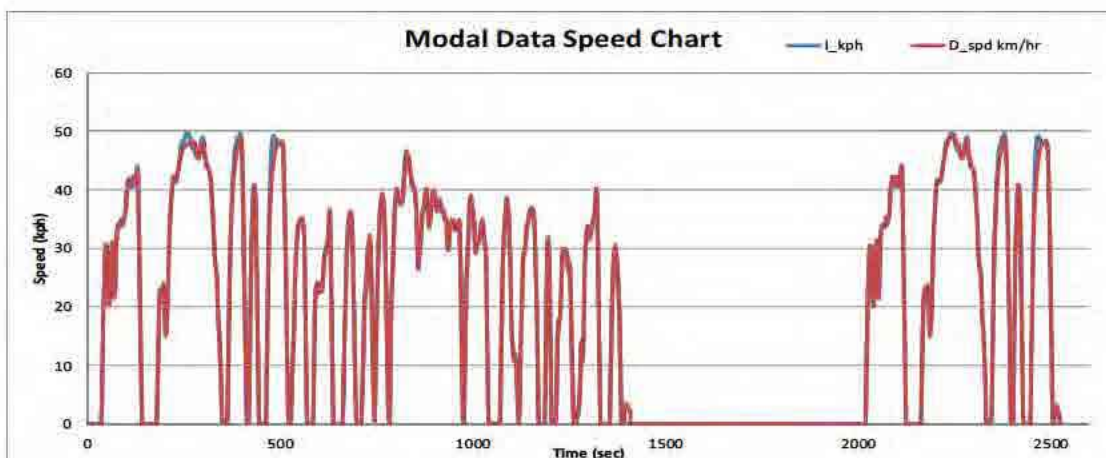
### LOTUS ENGINEERING INC. VEHICLE EMISSIONS LAB

Date/Time..... 8/21/14 11:59 AM	Transmission..... Automatic
Test Number..... 14082101	Engine..... 49 cc
Data file number..... 751831	Preconditioning..... 6023.51 km
Client's name..... Jacobs - EPA	Start Odometer..... 6032.72 km
O.E.M. name..... TAOTAO GROUP CO., LTD.	End Odometer..... 6045.84 km
Model Year..... 2014	Inertia Weight..... 160 kg
Vehicle Number..... L9NTEACT7E1000882	Horse Power Coeff..... A=5.19 C=.0241
Vehicle Type..... Scooter	Coast Down Times..... 4.1, 4.0, 4.1 secs
Engine Family..... FTAOC.049MC2	Fuel Tank Capacity..... 5 L
Vehicle Make..... Tao Tao	Amount of Fuel Added..... 2.5 L
Vehicle Model..... CY50-A	Drive wheel Tire Pressure.... 32 psi
Emission control system..... TWC-PAIR	Operator..... S Devlin
Idle RPM..... 1700 rpm	Observer..... S Culross
Dyno Used..... M/C dyno-S/N:4118	Driver..... E Knight

### FINAL WEIGHTED RESULTS FOR TEST per 40 CFR 86.544-90

CH4 (g/km)..... N/A  
 HC (g/km)..... 0.8413  
 NMHC (g/km)..... N/A  
 CO (g/km)..... 15.12  
 NOx (g/km)..... 0.1021  
 CO2 (g/km)..... 32.5307  
  
 HC + NOx (g/km)..... 0.9434  
  
 CFR Fuel Economy (kpg)..... 150.6

### Comments



**LOTUS ENGINEERING INC.  
VEHICLE EMISSIONS LAB**

Test Number..... 14082101

**FUEL PROPERTIES**

Test Fuel..... EEE  
Supplier..... Haltermann  
Net Heating Value..... 18484  
Specific Gravity..... 0.742  
Carbon Fraction..... 0.8649  
Fuel RVP..... 9.2  
Batch Number..... CE1421LT10  
Drum Lot.....

**MASS BAG RESULTS**

	<u>COLD TRANSIENT</u>	<u>COLD STABILIZED</u>	<u>HOT TRANSIENT</u>
CH4 Sample (ppm)			
CH4 Ambient (ppm)			
HC Sample (ppm)	71.0150	60.6030	66.8321
HC Ambient (ppm)	6.8553	7.1031	7.1568
CO Sample (ppm)	582.33	464.34	575.16
CO Ambient (ppm)	3.19	2.64	2.79
NOx Sample (ppm)	2.5310	1.9934	2.3457
NOx Ambient (ppm)	0.0435	0.0327	0.0297
CO2 Sample (%)	0.1261	0.1153	0.1213
CO2 Ambient (%)	0.0499	0.0500	0.0499
Barometer (in Hg)	29.15	29.15	29.15
Rel Humidity (%)	59.0	57.0	58.6
Dry Bulb (F)	71.9	72.4	71.7
Phase Distance (km)	3.91	5.28	3.93
CVS Volume (scf)	3159.4	5248.8	3095.9
Dilution Factor	69.9989	79.8740	72.2517
Rel Humidity (%)	59.0	57.0	58.6
Humidity Corr Factor	0.9804	0.9748	0.9760

**PHASE MASS**

CH4 (g)			
HC (g)	3.3152	4.5933	3.0220
NMHC (g)			
CO (g)	60.33	79.90	58.43
NOx (g)	0.4174	0.5434	0.3791
CO2 (g)	125.9351	179.2783	115.5999

**PHASE MASS PER KM**

CH4 (g/km)			
HC (g/km)	0.8479	0.8699	0.7689
NMHC (g/km)			
CO (g/km)	15.43	15.13	14.87
NOx (g/km)	0.1068	0.1029	0.0965
CO2 (g/km)	32.2085	33.9542	29.4147
Fuel Economy (kpg)	150.1	146.8	160.8





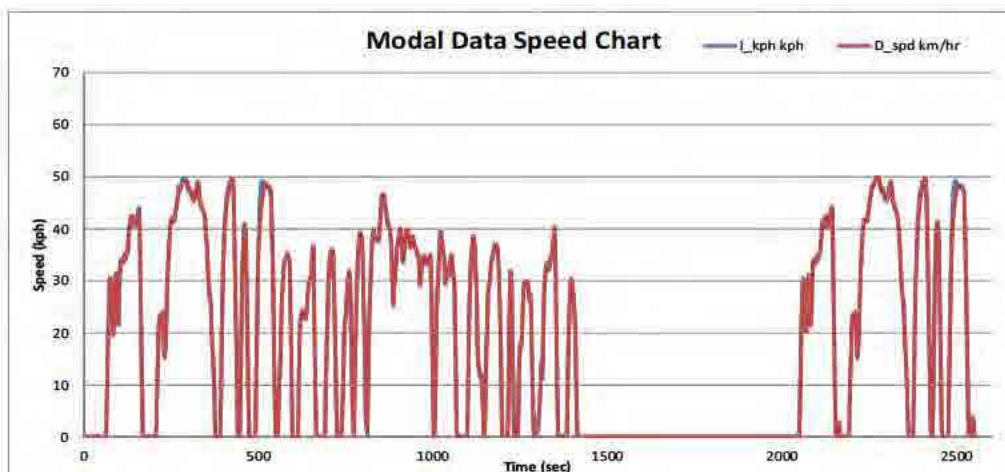
ENGINEERING

**LOTUS ENGINEERING INC.  
VEHICLE EMISSIONS LAB**

Date/Time..... 9/16/14 11:04 AM	Transmission..... Automatic
Test Number..... 14091602	Engine..... 49 cc
Data file number..... 751833	Preconditioning..... 6057.79 km
Client's name..... Jacobs - EPA	Start Odometer..... 6070.93 km
O.E.M. name..... TAOTAO GROUP CO., LTD.	End Odometer..... 6084.06 km
Model Year..... 2014	Inertia Weight..... 160 kg
Vehicle Number..... L9NTEACT7E1000882	Horse Power Coeff..... A=5.19 C=0.0241
Vehicle Type..... Scooter	Coast Down Times..... 4.1, 4.1, 4.1 secs
Engine Family..... FTAOC.049MC2	Fuel Tank Capacity..... 0.6 gals
Vehicle Make..... Tao Tao	Amount of Fuel Added..... 0.3 gals
Vehicle Model..... CY50-A	Drive wheel Tire Pressure..... 32 psi
Emission control system..... TWC-PAIR	Operator..... S Devlin
Idle RPM..... 1700 rpm	Observer..... S Culross
Dyno Used..... M/C dyno-S/N:4118	Driver..... E Knight

**FINAL WEIGHTED RESULTS FOR TEST per 40 CFR 86.544-90**

CH4 (g/km)..... N/A  
 HC (g/km)..... 0.8693  
 NMHC (g/km)..... N/A  
 CO (g/km)..... 15.28  
 NOx (g/km)..... 0.1068  
 CO2 (g/km)..... 34.1752  
  
 HC + NOx (g/km)..... 0.9761  
  
 CFR Fuel Economy (kpg)..... 145.8

**Comments**


**LOTUS ENGINEERING INC.  
VEHICLE EMISSIONS LAB**

Test Number..... 14091602

**FUEL PROPERTIES**

Test Fuel..... EEE  
Supplier..... Haltermann  
Net Heating Value..... 18479  
Specific Gravity..... 0.743  
Carbon Fraction..... 0.865  
Fuel RVP..... 9.2  
Batch Number..... CE2121LT10  
Drum Lot.....

**MASS BAG RESULTS**

	<b><u>COLD TRANSIENT</u></b>	<b><u>COLD STABILIZED</u></b>	<b><u>HOT TRANSIENT</u></b>
CH4 Sample (ppm)			
CH4 Ambient (ppm)			
HC Sample (ppm)	76.5611	57.9643	65.8851
HC Ambient (ppm)	5.0165	5.1225	4.9778
CO Sample (ppm)	585.27	450.60	600.30
CO Ambient (ppm)	2.09	2.04	1.98
NOx Sample (ppm)	2.5395	2.3581	2.4297
NOx Ambient (ppm)	0.0313	0.0216	0.0230
CO2 Sample (%)	0.1207	0.1150	0.1194
CO2 Ambient (%)	0.0457	0.0458	0.0463
Barometer (in Hg)	29.32	29.32	29.32
Rel Humidity (%)	39.5	39.7	40.4
Dry Bulb (F)	74.7	74.4	73.2
Phase Distance (km)	3.92	5.28	3.93
CVS Volume (scf)	3344.3	5263.7	3124.3
Dilution Factor	71.7101	80.7910	72.0269
Rel Humidity (%)	39.5	39.7	40.4
Humidity Corr Factor	0.9006	0.8996	0.8952

**PHASE MASS**

CH4 (g)			
HC (g)	3.9110	4.5475	3.1110
NMHC (g)			
CO (g)	64.31	77.85	61.63
NOx (g)	0.4092	0.5993	0.3646
CO2 (g)	131.0435	190.2091	119.3786

**PHASE MASS PER KM**

CH4 (g/km)			
HC (g/km)	0.9977	0.8613	0.7916
NMHC (g/km)			
CO (g/km)	16.40	14.74	15.68
NOx (g/km)	0.1044	0.1135	0.0928
CO2 (g/km)	33.4295	36.0245	30.3762
Fuel Economy (kpg)	142.5	143.5	154.4



## b) Driver's Trace Analysis for test 14082101

LOTUS

Thu Aug 21 12:38:15 2014

Driver: KNIGHT Date: 08-21-2014

Vehicle No. Odometer:

Engine No. PROJECT 7518 Transmission: AUTO Test # 14082101

Vehicle Make. Tao Tao Engine Displacement:

Inertia wt. 160 kg Test Condition: FTP

H.P. at 50 MPH: Fuel Type: INDOLINE

### DRIVER'S MONITORING

-----

TOLERANCE (TIME IN SECOND(s)) - 1.0

TOLERANCE (MILES PER HOUR) - 2.0

DRIVERS PERFORMANCE - 30.565

ERROR # 1 - occurred at 459.4 and lasted 11.0 second(s)

ERROR # 2 - occurred at 1834.5 and lasted 11.7 second(s)

END OF DRIVER ERRORS



## Driver's Trace Analysis for test 14091602:

LOTUS

Tue Sep 16 11:42:23 2014

Driver: KNIGHT Date: 09-16-2014

Vehicle No. Odometer:

Engine No. PROJECT 7518 Transmission: AUTO Test # 14091602

Vehicle Make. Tao Tao Engine Displacement:

Inertia wt. 160 kg Test Condition: FTP

H.P. at 50 MPH: Fuel Type: INDOLINE

### DRIVER'S MONITORING

-----

TOLERANCE (TIME IN SECOND(s)) - 1.0

TOLERANCE (MILES PER HOUR) - 2.0

DRIVERS PERFORMANCE - 99.949

ERROR # 1 - occurred at 459.5 and lasted 9.6 second(s)

ERROR # 2 - occurred at 1834.9 and lasted 9.2 second(s)

END OF DRIVER ERRORS





ENGINEERING

# c) Fuel Properties Data Sheets

Test # 14082101



Telephone: (800) 969-2542

## Product Information

FAX: (281) 457-1469

Johann Haltermann Ltd.

PRODUCT: **EPA TIER II EEE**  
FEDERAL REGISTER  
PRODUCT CODE: **HF0437**

Batch No.: **CE1421LT10**

Tank No.: **105**

Date: **5/16/2014**

TEST	METHOD	UNITS	HALTERMANN Specs			RESULTS
			MIN	TARGET	MAX	
Distillation - IBP	ASTM D86	°F	75		95	89
5%		°F				116
10%		°F	120		135	130
20%		°F				151
30%		°F				174
40%		°F				201
50%		°F	200		230	220
60%		°F				230
70%		°F				240
80%		°F				258
90%		°F	305		325	315
95%		°F				340
Distillation - EP		°F			415	413
Recovery		vol %		Report		97.3
Residue		vol %		Report		1.1
Loss		vol %		Report		1.6
Gravity	ASTM D4052	°API	58.7		61.2	59.0
Density	ASTM D4052	kg/l	0.734		0.744	0.742
Reid Vapor Pressure	ASTM D5191	psi	8.7		9.2	9.2
Carbon	ASTM D3343	wt fraction		Report		0.8649
Carbon	ASTM D5291	wt fraction		Report		0.8658
Hydrogen	ASTM D5291	wt fraction		Report		0.1341
Hydrogen/Carbon ratio	ASTM D5291	mole/mole		Report		1.846
Stoichiometric Air/Fuel Ratio				Report		14.577
Oxygen	ASTM D4815	wt %			0.05	None Detected
Sulfur	ASTM D5453	wt %	0.0025		0.0035	0.0031
Lead	ASTM D3237	g/gal			0.01	None Detected
Phosphorous	ASTM D3231	g/gal			0.005	None Detected
Silicon	ASTM 5184	mg/kg			4	None Detected
Composition, aromatics	ASTM D1319	vol %			35	28
Composition, olefins	ASTM D1319	vol %			10	1
Composition, saturates	ASTM D1319	vol %		Report		71
Particulate matter	ASTM D5452	mg/l			1	0.4
Oxidation Stability	ASTM D525	minutes	240			1000+
Copper Corrosion	ASTM D130				1	1a
Gum content, washed	ASTM D381	mg/100mls			5	<0.5
Fuel Economy Numerator/C Density	ASTM D5291		2401		2441	2429
C Factor	ASTM D5291			Report		1.0077
Research Octane Number	ASTM D2699		96.0			97.4
Motor Octane Number	ASTM D2700			Report		89.1
Sensitivity			7.5			8.3
Net Heating Value, btu/lb	ASTM D3338	btu/lb		Report		18484
Net Heating Value, btu/lb	ASTM D240	btu/lb		Report		18318
Color	VISUAL			Report		Undyed

APPROVED BY:

*[Signature]*



Telephone: (800) 969-2542

## Product Information

FAX: (261) 457-1469

Johann Haltermann Ltd.

PRODUCT: **EPA TIER II EEE**  
**FEDERAL REGISTER**  
 PRODUCT CODE: **HF0437**

Batch No.: **CE2121LT10**Tank No.: **105**Date: **5/28/2014**

TEST	METHOD	UNITS	HALTERMANN Specs			RESULTS
			MIN	TARGET	MAX	
Distillation - IBP	ASTM D86	°F	75		95	90
5%		°F				105
10%		°F	120		135	121
20%		°F				144
30%		°F				168
40%		°F				198
50%		°F	200		230	219
60%		°F				230
70%		°F				240
80%		°F				257
90%		°F	305		325	312
95%		°F				337
Distillation - EP		°F			415	396
Recovery		vol %		Report		95.4
Residue		vol %		Report		1.1
Loss		vol %		Report		3.5
Gravity	ASTM D4052	°API	58.7		61.2	59.0
Density	ASTM D4052	kg/l	0.734		0.744	0.743
Reid Vapor Pressure	ASTM D5191	psi	8.7		9.2	9.2
Carbon	ASTM D3343	wt fraction		Report		0.8650
Carbon	ASTM D5291	wt fraction		Report		0.8644
Hydrogen	ASTM D5291	wt fraction		Report		0.1355
Hydrogen/Carbon ratio	ASTM D5291	mole/mole		Report		1.867
Stoichiometric Air/Fuel Ratio				Report		14.607
Oxygen	ASTM D4815	wt %			0.05	None Detected
Sulfur	ASTM D5453	wt %	0.0025		0.0035	0.0033
Lead	ASTM D3237	g/gal			0.01	None Detected
Phosphorous	ASTM D3231	g/gal			0.005	None Detected
Silicon	ASTM 5184	mg/kg			4	None Detected
Composition, aromatics	ASTM D1319	vol %			35	28
Composition, olefins	ASTM D1319	vol %			10	1
Composition, saturates	ASTM D1319	vol %		Report		71
Particulate matter	ASTM D5452	mg/l			1	0.4
Oxidation Stability	ASTM D525	minutes	240			1000+
Copper Corrosion	ASTM D130				1	1a
Gum content, washed	ASTM D381	mg/100mls			5	<0.5
Fuel Economy Numerator/C Density	ASTM D5291		2401		2441	2425
C Factor	ASTM D5291			Report		1.0088
Research Octane Number	ASTM D2699		96.0			97.4
Motor Octane Number	ASTM D2700			Report		89.0
Sensitivity			7.5			8.4
Net Heating Value, btu/lb	ASTM D3338	btu/lb		Report		18479
Net Heating Value, btu/lb	ASTM D240	btu/lb		Report		18241
Color	VISUAL			Report		Undyed

APPROVED BY:



## d) Inspection Sheet

**Test Vehicle Inspection/Release Sheet - EPA Compliance Testing**

Indicate below which submittal of this form is currently being prepared:

- ☐ Submittal immediately following Vehicle Receipt Inspection (1<sup>st</sup> Submittal)  
☒ Submittal immediately following Vehicle Check-In (2<sup>nd</sup> Submittal)  
☐ Submittal immediately following Vehicle Release back to Manufacturer (3<sup>rd</sup> Submittal)

Record the following from the Test Vehicle Information Form received from the Manufacturer:

Test Vehicle Manufacturer Taotao Group Co. Ltd.Engine Family Name FTAOC.049MC2EPA Test Order # 14-HMC-CE-26**Note:** Where possible, information in this section should be taken from the vehicle's VECI label.Vehicle Type Class 1A Highway MotorcycleModel Name CY50-AVehicle ID Number (VIN) L9NTEACT7E1000882Model Year 2014Vehicle Odometer Reading 2.1 km Date Received 08/07/14

Yes No N/A

- ☒ ☐ ☐ Two sets of keys with a tag marked with vehicle maker/model/VIN  
☒ ☐ ☐ Appropriate exhaust flange  
☒ ☐ ☐ Test Vehicle Information Form (Shift Schedule, Mfr. Test Results, etc.)  
☒ ☐ ☐ Owner's Manual Nom. Pressure Printed on Drive Tire 36.0 psig  
☐ ☒ ☐ Service Manual Recommended Fuel Type Gasoline  
☒ ☐ ☐ Sufficient engine oil/lubricant provided for the test by the manufacturer?

Comments: Fuel Tank Capa. 5L = 1.3Gal.

Blue Sheet states drive wheel tire pressure @ 32 psi.

Vehicle is missing both mirrors.

Vehicle mileage accumulation log sheet states that the vehicle has 6000.1 km on it.

**Vehicle Discharging Packing Slip**

- ☐ Packing slip attached to this form  
☐ Packing slip not available.

**Mfr. Test Vehicle Information/Release Sheet**

- ☐ Attached to this form  
☐ Not available

**Photographic Documentation**

Please take the following photographs of the vehicle and save them to CD. The detail pictures are optional, unless there is damage. Take photographs documenting any damage noted in the "Vehicle Damage" section below.

Check Photographs taken, and use File Names indicated beside check boxes:

- |                                                                               |                                                    |                                                    |                                                |
|-------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| <input checked="" type="checkbox"/> Front View                                | <input checked="" type="checkbox"/> L Side View    | <input checked="" type="checkbox"/> Fr. Suspension | <input checked="" type="checkbox"/> Rear View  |
| <input checked="" type="checkbox"/> R Side View                               | <input checked="" type="checkbox"/> Top View       | <input checked="" type="checkbox"/> VIN or ID#     | <input checked="" type="checkbox"/> VECI Label |
| <input checked="" type="checkbox"/> Emiss. Comp. 1                            | <input checked="" type="checkbox"/> Emiss. Comp. 2 | <input checked="" type="checkbox"/> Emiss. Comp. 3 | <input type="checkbox"/> Emiss. Comp. 4        |
| <input checked="" type="checkbox"/> Nominal Pressure printed on tire sidewall | <input checked="" type="checkbox"/> Tire Tread     | <input checked="" type="checkbox"/> Detail #1      | <input checked="" type="checkbox"/> Detail #2  |

**Vehicle Damage**

Inspect the vehicle for damage. Check the damage code for each type of damage noted and record the location for each particular type of damage. Use the comments section below if more space is needed.

<input type="checkbox"/> No damage noted	<input type="checkbox"/> Oil Leak	_____
<input type="checkbox"/> Dent _____	<input type="checkbox"/> Stain	_____
<input type="checkbox"/> Scratch _____	<input type="checkbox"/> Loose Fitting	_____
<input type="checkbox"/> Chip _____	<input checked="" type="checkbox"/> Other	Scuff marks on lower body
<input type="checkbox"/> Crack _____		panel

If there was vehicle damage, detailed description and the impact on vehicle operation should be provided below:

Will not effect vehicle operation.

If there is damage, detail next steps in the process below, upon consultation with EPA and then the manufacturer.

**Engine Data** - Enter the following engine data, to the extent that it can reasonably be determined through visual examination of the vehicle. Comment below on any supporting gauges or labels.

Engine Manufacturer Taotao Group Co. LTD. Number of Cylinders 1  
 Engine Displacement 49 cc Engine Stroke/Cycle 4

☒ Air Cooled ☐ Liquid Cooled

Yes No N/A  
☐ ☐ ☒ ← If the vehicle is an ATV or UTV, does the engine have in-use operating speeds over 4000 rpm? If the vehicle is a motorcycle check the N/A box.

Based upon the engine displacement, vehicle type, vehicle class (where applicable), and the type of driver's trace used by the vehicle's manufacturer in support of their certification application, specify the particular paragraph of Appendix I of 40 CFR Part 86 that describes the driver's trace that will be used for this vehicle, in the check boxes or spaces below:

☐ Appendix 1(b)  
☐ Appendix 1(c)  
☒ Appendix 1(c) proportional ← (Note: Only applicable to vehicles with engine displacements < 50 cc, and top speeds < 58.7 km/hr)

Vehicle top speed reported by manufacturer = 50.2 km/hr (Enter "TBD" if not reported by mfr.)  
☐ Other trace as specified in Comments below:

Comments: Manufacturers "Blue Sheet" notes top speed of 31.2 mph (50.2 kph)

Top speed run performed on 08/15/2014 had a maximum speed of 49.9 kph.





**Emissions Control System Components** - Check all revealed by reasonable visual inspection.  
Enter location of VECI label, if found.

- |                                                                                |                                                                                                      |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Closed Crankcase System                               | <input type="checkbox"/> Multiport Fuel Injection                                                    |
| <input type="checkbox"/> Carburetor Idle Mixture Adj. Sealed                   | <input type="checkbox"/> Sequential Fuel Injection                                                   |
| <input type="checkbox"/> Other Emission Related Adjustable Parameters Apparent | <input type="checkbox"/> Oxidation Catalyst                                                          |
| <input type="checkbox"/> Engine Modification                                   | <input type="checkbox"/> Three Way Catalyst                                                          |
| <input type="checkbox"/> Throttle Body Injection                               | <input type="checkbox"/> Pulsed Secondary Air Injection                                              |
| <input checked="" type="checkbox"/> VECI Label —>                              | <input type="checkbox"/> O <sub>2</sub> Sensor <input type="checkbox"/> Heated O <sub>2</sub> Sensor |
- Location: Just below seat on step thru panel.

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Evaporative Emissions Control System Components** - Check all revealed by reasonable visual inspection. Enter ID information or SAE required text if present on fuel hose.

Fuel Tank: ☒ Metal      Fuel Hose: ☒ Rubber      Enter below, any markings or labels that are present on the parts. If no markings are visible then so state below:  
☐ Plastic      ☐ Vinyl

Fuel Hose - "Rewin EPA NRFL"

**Emission Control System Part Numbers** - Record the following emission control system part numbers from the vehicle as received, if present and visible.

ECM/PCM _____	Throttle Sensor _____
Carburetor <u>AJ30825</u>	EGR Valve _____
Intake Air Sensor _____	Muffler _____
Intake Manifold _____	Air Filter _____
Injection Pump _____	Fuel Tank _____
O <sub>2</sub> sensor 1 _____	Fuel Line <u>Rewin EPA NRFL</u>
O <sub>2</sub> sensor 2 _____	Fuel Cap <u>TT5002</u>
Mass Flow Sensor _____	Crankcase PVC Valve _____

Other Parts, P/N's, & Adjustable Parameters: \_\_\_\_\_

Comments: Besides noted - no other visible P/N's



Record the following information from catalyst(s) & other aftertreatment parts (if visible)

Part #	Quantity	Part Locations & Dimensions	Part Mfr. (if visible)

Comments: None Visible

**Other ATV or UTV Attributes** - If vehicle is an ATV or UTV: Check box if it has a tilt bed & record approximate range of rear wheel travel, and ground clearance, if they can be easily determined.

Yes No

☐ ☐ Does the ATV or UTV have a Tilt Bed?

☐ ☐ Does the ATV or UTV have a mechanical power take off (PTO) or permanently installed hydraulic system for operating utility-oriented accessory devices?

Note:

Approx. Range of ATV/UTV Rear Wheel Travel \_\_\_\_\_ cm —> Must be > 18 cm for off-road

Ground Clearance of ATV or UTV \_\_\_\_\_ inches or \_\_\_\_\_ cm

**Vehicle Weight Data to be recorded regardless of vehicle type:**

Gross Vehicle Wt. Rating (kg) =	82.0		
Measured Mass of Vehicle (kg) =	83.5	E.I.M. (kg as specified by Manufacturer) =	160.0
E.I.M. Calculated based on Measured Mass of Vehicle (kg) =			160

**Signatures**

Signed by: Stanley J. Ware

Date: 8/15/14

Verified by: Stanley J. Ware

Date: 8/15/14



**Record of Vehicle Release from Test Lab to Manufacturer:**

Delivery to: \_\_\_\_\_

Delivery Destination Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Person to receive the vehicle: \_\_\_\_\_

Vehicle release authorized by \_\_\_\_\_ Date Released: \_\_\_\_\_

e) Photos of Test Vehicle (Inspection Photos)





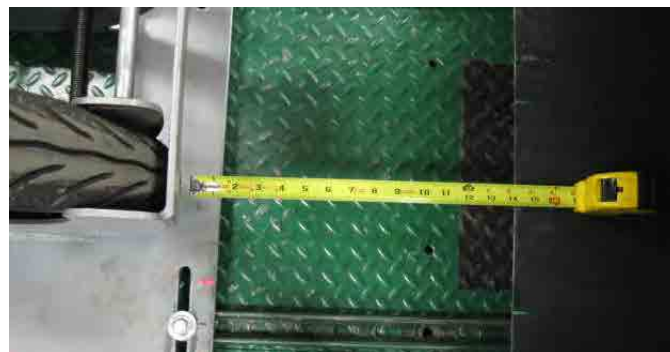


ENGINEERING





ENGINEERING





ENGINEERING

f) Vehicle Log



EMISSIONS LAB VEHICLE LOG SHEET

Vehicle ID: Taotao 50 Project #: 7518

VIN: LNTEACT7E1000882

DATE	MILEAGE	WORK DONE	COMMENTS	INITIALS / TIME
8/15/14	6000.1 Km	Changed weights to 160 Ks. Installed <del>0-3</del> GALS EEE		ED SC
		Confirmed 32 PSI rear tire pressure - Moved wheel check.		ED DMO
8/15/14	6000.1 - 6010.6 Km	MC178MOL/ NO SHIFTS 1st 2 bags as prep on soak @ 8:55 am		ED/DMO
8/15/14	6010.6	- Drained fuel, Installed 0-3 GALS EEE - Changed weights to 160 Ks. - Confirmed 32 PSI rear tire pressure - Moved wheel check		ED ED ED
8/15/14	6010.6 - 6013.5 Km	MC178MOL/ NO SHIFTS #14081502	Coast down	DMO
		ABOVE TEST WAS USED AS A TOP SPEED RUN, MAX SPEED = 49.9 KPH		SJC
8/15/14	6013.5 - 6022.6	MC1-49-9/ NO SHIFTS BAGS 1+2 AS PREP ON SOAK @ 7:40 PM		SJC
8/16/14		CONSTRAINING DRIVER'S REL. Added. 3 gallons BBR to tank Tire pressure set to 32 PSI		DMO JAN
8/16/14	6022.6 - 6023.51	<del>MC1-49-9</del> MC1-49-9/ NO SHIFTS #14081601	Test Aborted	
8/16/14		VEHICLE HAD PROLONGED CRANK PERIOD AT START UP. VEHICLE THEN STALLED AFTER FIRST HILL AND WOULD NOT RESTART. VEHICLE WAS REMOVED FROM DYNO FOR INSPECTION. DURING INSPECTION, THE THROTTLE CABLE WAS FOUND TO HAVE COME LOOSE AT BOTH THE THROTTLE HOUSING AND CARB MOUNT BRACKET.		

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ENGINEERING



# EMISSIONS LAB VEHICLE LOG SHEET

Vehicle ID: Taotao 50

Project #: 7518

VIN: L9NTEACT7E1604882

DATE	MILEAGE	WORK DONE	COMMENTS	INITIALS / TIME
8/18/14	6023.51	Repaired throttle cable and adjusted		
		Rode up and down alley couple of times	ED	
8/20/14	6023.51	Drained fuel, Installed 0.4 GALS EER	DMO	
		Confirmed 32 psi rear tire pressure	ED	
8/20/14	6023.51	MCI-49-9 / NO SHIFTS		
	6032.72	1st 2 bags as prep. on soak @ 9:45am	ED	
8/21/14	6032.72	DRAINED FUEL, INSTALLED 0.3 GALS EER		
		CONFIRMED 32 PSI REAR TIRE PRESSURE	ED	
8/21/14	6032.72	MCI-49-9 / NO SHIFTS		ED
	6045.84	#14082101	COAST DOWNS	SD
9/15/14	6045.84	CHANGED inertia to 160 kg		ED
		DRAINED FUEL. Added .4 gallons EER		DMO / 12:15pm
9/15/14	6045.84	TIRE PRESSURE Set to 32 psi		DMO
9/15/14	6045.84	MCI-49-9 / NO SHIFTS	Prep aborted - wrong trace had been selected	DMO
	6048.59	1st two bags as prep. on soak @		
9/15	6048.59	MCI-49-9 / NO SHIFTS		ED
	6057.79	1st two bags as prep. on soak @ 3:34pm		
9/16/14	6057.79	DRAINED FUEL, INSTALLED .3 GALS EER	ED	
		CONFIRMED 32 PSI REAR TIRE PRESS	ED	
9/16/14	6057.79	MCI-49-9 / NO SHIFTS		
	6070.93	#14091602	COAST DOWNS	SD
		DURING FIP AT THE 2ND PHASE WHEN		
		SCOOTER CAME TO IDLE IT WOULD IDLE FOR		
		FOR 4 SEC. THEN START TO IDLE ROUGH.		

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Project #: 7518

VIN: L9NTEACT7E1000882

Page 1 of 1



## g) Manufacturer Supplied Information

EPA		Office Of Transportation and Air Quality April, 2012			
<b>Highway Motorcycle - Test Vehicle Information</b> <b>Attachment 2-1</b>					
EPA Test Order #	14-HMC_CE-26	<b>This form is filled by:</b>			
Engine Family Name	FTA0 C.049MC2	Name	James Xu		
Certificate Holder Name	Taotao USA Inc.	Company	Stanly Marketing & Consulting		
Certificate Holder EPA ID	TA0	Phone #	425-223-3488		
Commercial Model Name	CY50-A	E-Mail	stanleyconsult@gmail.com		
Manufacturer Model Name	CY50-A	Date	2014/8/7		
Test Vehicle Engine Manufacturer	Taotao Group Co.Ltd.	Signature			
Test Vehicle Manufacturer	Taotao Group Co.Ltd.				
Original Certification EDV (Y/N)?	Y				
Production Vehicle (Y/N)?	N				
<b>Certification Information: Exhaust</b>					
Constituent	CO	THC+NOX	THC	NOX	CO2
Units	(g/km)	(g/km)	(g/km)	(g/km)	(g/km)
Standard	12.0		1.0	n/a	n/a
Manufacturer Test Result	7.308		0.599		
Certification Value	7.3		0.6	n/a	n/a
Certification DF	1.000		1.000		n/a
Modified DF*					n/a
DF Type			Multiplicative		n/a
* For use when test vehicle's mileage is different than the durability test distance.					
<b>Test Parameters</b>		<b>Manufacturer Start Procedures:</b>			
Test Vehicle VIN or Other ID	L9NTRACT7E1000882				
Engine Code	1P39QMB				
Engine Displacement (cc)	49				
Make/Model Name	CY50-A				
Motorcycle Class	CY50-A				
Idle Speed (rpm)	1700				
Drive Wheel Tire Pressure (psi)	32				
Equivalent Inertial Mass [EIM] (kg)	160				
Force Coefficient A (nt)	107				
Force Coefficient C (nt/(km/h) <sup>2</sup> )	0.0241	Coefficients are determined based on EIM, using CFR 86.529-78 (b) figure F78-9			
Fuel Tank Capacity	5 L	Conversion Factor: 3.785 liters/gal			
50% Fuel Tank Capacity	2.5 L				
Transmission Type:	Automatic				
Shift Schedule, if applicable		Y/N			

TA0 HMC Test Vehicle Information Page 1 of 3



40 CFR 86.528-78 (h) (1) for Class I or Class II HMCs	
40 CFR 86.528-78 (h) (2) for Class III HMCs	
Use manufacturer shift schedule on page 2	

Shift Point (km/h)					
Upshift (gear)	1 <sup>st</sup> -2 <sup>nd</sup>	2 <sup>nd</sup> -3 <sup>rd</sup>	3 <sup>rd</sup> -4 <sup>th</sup>	4 <sup>th</sup> -5 <sup>th</sup>	5 <sup>th</sup> -6 <sup>th</sup>
Speed (KPH)					
Downshift (gear)	2 <sup>nd</sup> -1 <sup>st</sup>	3 <sup>rd</sup> -2 <sup>nd</sup>	4 <sup>th</sup> -3 <sup>rd</sup>	5 <sup>th</sup> -4 <sup>th</sup>	6 <sup>th</sup> -5 <sup>th</sup>
Speed (KPH)					

Manufacturer Specified Sec-by-Sec Shift Schedule					
Schedule Time (sec.)	Gear Shift (from - to)	Schedule Time (sec.)	Gear Shift (from - to)	Schedule Time (sec.)	Gear Shift (from - to)

Vehicle Pre-check	Y/N
Carburetor Idle Mixture Adjustment Sealed?	Y
Other Adjustable Parameters Apparent?	N
Closed Crankcase System?	Y

**Part Number, if Present:**

Part	Manufacturer	Part #
ECM/PCM	N/A	N/A
Carburetor	Fujian Hualong Carburetor Co., Ltd	TT5003
Intake Air Sensor	N/A	N/A
Intake Manifold	N/A	N/A
Injection Pump	N/A	N/A
O2 sensor 1	N/A	N/A
O2 sensor 2	N/A	N/A
Mass Flow Sensor	N/A	N/A
Throttle Sensor	N/A	N/A
Catalyst/Aftertreatment 1	Nanjing Enserver Technology Co., Ltd	TT5009
Catalyst/Aftertreatment 2	N/A	N/A
EGR Valve	N/A	N/A
Muffler	N/A	N/A
Air Filter	Taizhou Yuexiang Vehicle Parts Co., Ltd.	TT5006
Fuel Tank	Taizhou Xinzhou Machinery Co., Ltd	TT5001
Fuel Line	ANGZHOU REWIN VEHICLE PARTS CO., LTD	Rewin



ENGINEERING



Office Of Transportation and Air Quality  
April, 2012

Fuel Cap  
Crankcase PVC Valve

Taizhou Xinzhou Machinery Co., Ltd

TT5002

N/A

N/A

**Contact Information:**

**Certificate Holder**

Name

Jacky Wang

E-Mail

[jackie@taotao.us](mailto:jackie@taotao.us)

Title

Branch Manager

Phone

909-614-1661

Company Name

Taotao USA Inc.

**Consultant, if**

Name

James Xu

E-Mail

[stanleyconsult@gmail.com](mailto:stanleyconsult@gmail.com)

Title

manager

Phone

425-223-3488

Company Name

Stanley marketing & consulting LLC

**Notes to EPA:**





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY  
2565 PLYMOUTH ROAD  
ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF  
AIR AND RADIATION

September 18, 2014

TaoTao USA Inc.  
2425 Camp. Ave. Suite 100  
Carrollton, TX 75006  
Attention: Mr. Matao Cao

Cc: Mr. James Xu  
Stanley Marketing & Consulting LLC  
9634 153A Street  
Surrey, BC, V3R4H9, Canada

**Subject: Confirmatory Test Results for EF FTAOC.049MC2 & Test Order 14-HMC-CE-26**

Dear Mr. Cao,

This letter is to provide you with the final confirmatory test report for Engine Family FTAOC.049MC2. In accordance with 40 CFR 86.434-78(b) and 86.427-78(g), the emission test results within this report is the Agency's final results within the 2 tests conducted and shall be used to determine compliance with applicable emission standards.

The attached report indicates that Engine Family FTAOC.049MC2 has failed to meet the applicable CO emission standard of 12.0 g/km at the vehicle's end-of-useful life. Therefore, your Application for Certification for this Engine family is rejected in accordance with 40 CFR 86.434-78(c).

Please feel free to contact Emily Chen (734-214-4122 and [Chen.Emily@epa.gov](mailto:Chen.Emily@epa.gov)) should you have any questions.

Sincerely,

A handwritten signature in blue ink, which appears to read "Cleophas Jackson", is placed above the typed name.

Cleophas Jackson, Director  
Gasoline Engine Compliance Center  
Compliance Division  
Office of Transportation and Air Quality

Enclosure:

EPA Confirmatory Test Report for Engine Family FTAOC.049MC2



**United States Environmental Protection Agency**  
**Confirmatory Testing - Vehicle Test Report**  
**Test Location: Lotus Engineering Vehicle Emissions Lab**

Date/Time.....	9/16/14 11:04 AM	Transmission.....	Automatic
Test Number.....	14091602	Engine.....	49 cc
Data file number.....	751833	Preconditioning.....	6057.79 km
Client's name.....	Jacobs - EPA	Start Odometer.....	6070.93 km
O.E.M. name.....	TAOTAO GROUP CO., LTD.	End Odometer.....	6084.06 km
Model Year.....	2014	Inertia Weight.....	160 kg
Vehicle Number.....	L9NTEACT7E1000882	Horse Power Coeff.....	A=5.19 C=0.0241
Vehicle Type.....	Scooter	Coast Down Times.....	4.1, 4.1, 4.1 secs
Engine Family.....	FTAOC.049MC2	Fuel Tank Capacity.....	0.6 gals
Vehicle Make.....	Tao Tao	Amount of Fuel Added.....	0.3 gals
Vehicle Model.....	CY50-A	Drive wheel Tire Pressure.....	32 psi
Emission control system.....	TWC-PAIR	Operator.....	S Devlin
Idle RPM.....	1700 rpm	Observer.....	S Culross
Dyno Used.....	M/C dyno-S/N:4118	Driver.....	E Knight

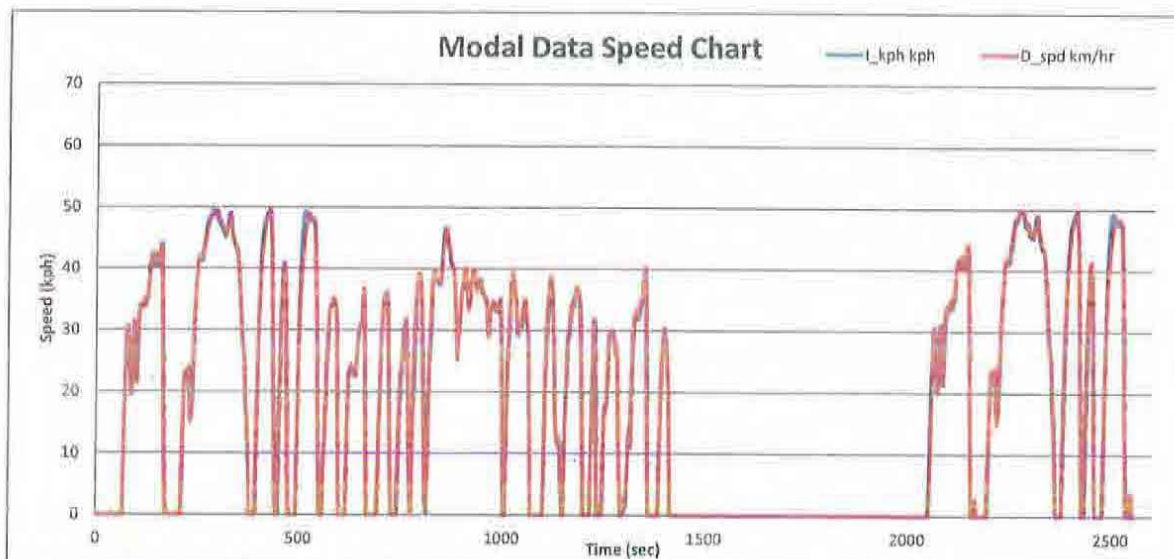
**FINAL WEIGHTED RESULTS FOR TEST per 40 CFR 86.544-90**

CH4 (g/km)..... N/A  
HC (g/km)..... 0.8693  
NMHC (g/km)..... N/A  
CO (g/km)..... 15.28  
NOx (g/km)..... 0.1068  
CO2 (g/km)..... 34.1752

HC + NOx (g/km)..... 0.9761

CFR Fuel Economy (kpg)..... 145.8

**Comments**





**United States Environmental Protection Agency**  
**Confirmatory Testing - Vehicle Test Report**  
**Test Location: Lotus Engineering Vehicle Emissions Lab**

Test Number..... 14091602

**FUEL PROPERTIES**

Test Fuel..... EEE  
 Supplier..... Haltermann  
 Net Heating Value..... 18479  
 Specific Gravity..... 0.743  
 Carbon Fraction..... 0.865  
 Fuel RVP..... 9.2  
 Batch Number..... CE2121LT10  
 Drum Lot.....

**MASS BAG RESULTS**

	<u>COLD TRANSIENT</u>	<u>COLD STABILIZED</u>	<u>HOT TRANSIENT</u>
CH4 Sample (ppm)			
CH4 Ambient (ppm)			
HC Sample (ppm)	76.5611	57.9643	65.8851
HC Ambient (ppm)	5.0165	5.1225	4.9778
CO Sample (ppm)	585.27	450.80	600.30
CO Ambient (ppm)	2.09	2.04	1.98
NOx Sample (ppm)	2.5395	2.3581	2.4297
NOx Ambient (ppm)	0.0313	0.0216	0.0230
CO2 Sample (%)	0.1207	0.1150	0.1194
CO2 Ambient (%)	0.0457	0.0458	0.0463
Barometer (in Hg)	29.32	29.32	29.32
Rel Humidity (%)	39.5	39.7	40.4
Dry Bulb (F)	74.7	74.4	73.2
Phase Distance (km)	3.92	5.28	3.93
CVS Volume (scf)	3344.3	5263.7	3124.3
Dilution Factor	71.7101	80.7910	72.0269
Rel Humidity (%)	39.5	39.7	40.4
Humidity Corr Factor	0.9006	0.8996	0.8952

**PHASE MASS**

CH4 (g)			
HC (g)	3.9110	4.5475	3.1110
NMHC (g)			
CO (g)	64.31	77.85	61.63
NOx (g)	0.4092	0.5993	0.3646
CO2 (g)	131.0435	190.2091	119.3786

**PHASE MASS PER KM**

CH4 (g/km)			
HC (g/km)	0.9977	0.8613	0.7916
NMHC (g/km)			
CO (g/km)	16.40	14.74	15.68
NOx (g/km)	0.1044	0.1135	0.0928
CO2 (g/km)	33.4295	36.0245	30.3762
Fuel Economy (kpg)	142.5	143.5	154.4



## LOTUS ENGINEERING REPORT

### EPA Confirmatory Emissions Testing of Recreational Vehicles and Motorcycles

**TAOTAO USA Inc.**

**FTAOC.049MC2**

**Testing Numbers: 15020402**

**Test Dates: 02-FEB-2015**

#### SUMMARY:

Lotus Engineering was contracted by Jacobs Technology, Inc. to perform a chassis based emission test on a vehicle from TaoTao USA Inc. for the U.S. Environmental Protection Agency (EPA). The testing procedure is to follow the EPA regulations as stated in 40 CFR 86 subpart F and 40 CFR 1051. The EPA test order for this vehicle is 14-HMC-CE-26



The vehicle selected was Class 1A Highway Motorcycle (HMC) Engine Family FTAOC.049MC2.

The Vehicle Identification Number tested is L9NTEACT2E1005584.

**AUTHORED BY:**  
**Steve Devlin**  
Senior Technician- Emission Lab

**REVIEWED BY:**  
**Joe Kazmierski**  
Test Engineering Manager

**APPROVED BY:**  
**Stan Culross**  
Emission Lab Manager

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3. Installation.....	4
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5. Testing & Results .....	7
6. Observations.....	8
7. Appendices.....	8
a) Test Results Data Sheet	
b) Driver Trace Analysis	
c) Fuel Properties Data Sheet	
d) Inspection Sheet	
e) Photos of Test Vehicle (inspection photos)	
f) Vehicle Log	
g) Manufacturer Supplied Information	



## 1) Introduction

On February 4, 2015, Lotus Engineering performed chassis based emission tests on a vehicle from TaoTao USA Inc. (per EPA test order 14-HMC-CE-26). The vehicle was from engine family FTAOC.049MC2. The model name was CY50-A. The VIN for the vehicle tested was L9NTEACT2E1005584.

EPA emission standards and test procedures are stated in 40 CFR 86 subpart F and 40 CFR 1051. All vehicles accepted in this project undergo a receipt inspection and check-in process. A copy of the inspection sheets is included in Appendix (d) of this report. Copies of the photos taken during the inspection are contained in Appendix (e) of this report. Following the approval of the inspection by the EPA, a chassis based emissions test is performed. During the emissions test, the following constituents are measured: HC, CO, NO<sub>x</sub>, and CO<sub>2</sub>. Table 1 contains the final weighted emission results from tests 15020402 along with the calculated fuel economy.

**Table 1: Emission Results for TaoTao USA Engine Family FTAOC.049MC2**

Pollutant	Test Result (g/km)
HC	0.5939
CO	14.26
NO <sub>x</sub>	0.0734
CO <sub>2</sub>	33.8188
CFR Fuel Economy (kpg)	153.2

## 2) Test Facilities

Lotus Engineering is unique, offering a blend of technical excellence, passion and performance that is unrivalled in the automotive industry. We have a proven track record taken from almost 60 years of experience in motor racing, producing our own cars and working for hundreds of clients in the automotive industry and beyond. Engineering excellence, innovation and design flair is instilled into everything we do, from powertrain and chassis design, driving dynamics, electrical and electronic integration, through to production and final manufacture.

The Powertrain Testing facility of Lotus Engineering includes 25 engine dynamometer cells and a vehicle emissions laboratory (VEL). Our capabilities in the engine dynamometer cells range from small single cylinder gasoline engines to large multi-



cylinder diesel engines. The VEL contains two constant volume samplers - one for diesel testing and one for gasoline testing. There are two chassis dynamometers - a large 48" roll and a smaller single 18" roll. We have experience measuring emissions on many different types of vehicles and engine platforms. For example, we have tested high end performance cars, light off-road mini-bikes, outboard engines, and small hand-held engines.

The equipment used for tests 15020402 is located in the VEL test cell V1. The dynamometer used for this testing is our single roll motorcycle dynamometer made by Eaton, model A-15-U, S/N 4118. The CVS bag sample system was made by Horiba, model CVS-40, S/N 40-0010. The analyzers used to measure the bag samples are made by Pierburg, model AMA-2000, S/N U2009-B.

### 3) Installation

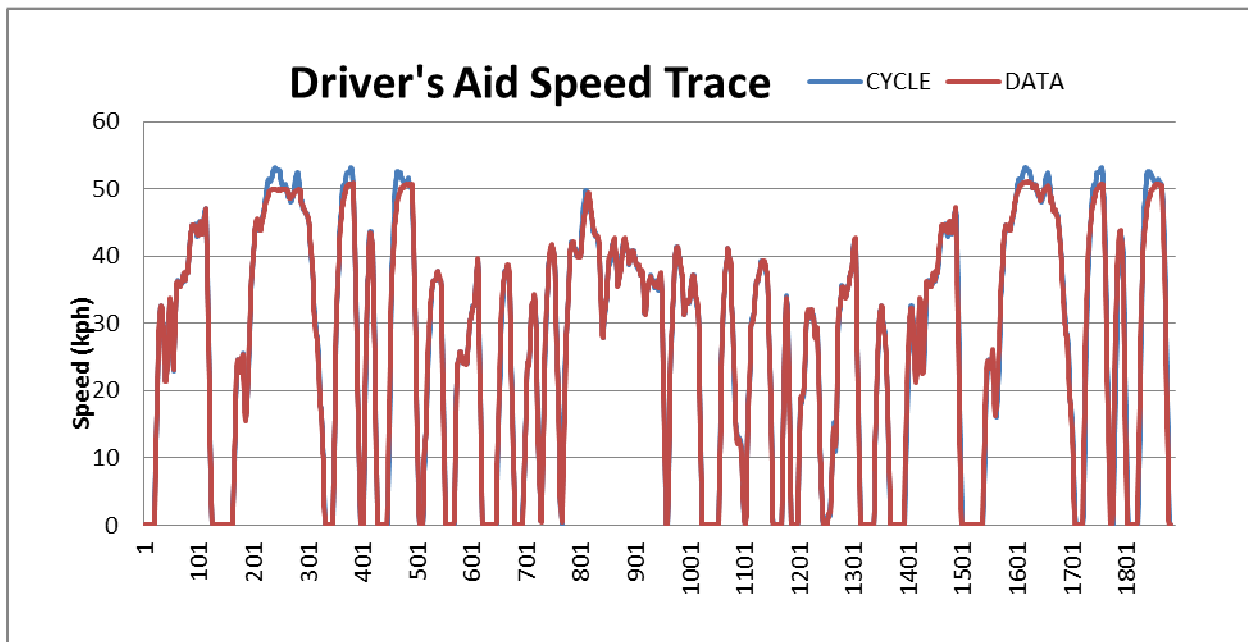
The TaoTao USA vehicle was placed on the motorcycle dynamometer with the drive wheel centered on the roll. A fan was positioned 12"- 18" from the front tire of the vehicle. This fan has been calibrated to produce the same wind speed that is being output by the vehicle's drive wheel. A photo of the vehicle on the dynamometer is shown in Figure 1 below.



**Figure 1: Test vehicle on the Motorcycle dynamometer**

#### 4) Performance Verification

The vehicle tested is classified as a Highway Motorcycle (HMC-1A). It has a 49 cc engine. Equivalent Inertial Mass (EIM) was tested at 160kg. Lotus Engineering weighed the vehicle and found the actual vehicle weight with driver to be 160kg. "A" and "C" road load force coefficients can be found at 40 CFR 86.529-98. For this vehicle, the "A" coefficient is 5.19 and the "C" coefficient is 0.0241. The procedure for dynamometer warm-up is to run the dynamometer for 15 minutes at 30kph. After the warm-up, unloaded coast downs are performed. The dynamometer is ramped up to 90kph and then allowed to coast down. The amount of time it takes the dynamometer to ramp down from 70kph to 60kph is recorded and regulated by 40 CFR 86.529-98. The recorded time for test 15020402 was 4.0, 4.1, and 4.1 seconds.



**Figure 2: Vehicle speed versus Driver Trace**



This vehicle was preconditioned the day prior to testing. Before the vehicle ran the preconditioning cycle, the vehicles top speed was measured and found to be 53.0 km/h. A proportional driver's trace was created using a ratio of 0.903 (53.0/58.7), this driver's trace was used for the preconditioning and emissions test. Before the preconditioning, the vehicle's fuel tank was drained and then re-filled with 0.65 gallons of Indolene. A copy of the fuel properties data sheet is contained in Appendix (c) of this report. The preconditioning cycle involves running the cold transient and cold stabilized portions of the test. The time when the preconditioning cycle ended is logged in the Vehicle Log Sheet, a copy of which is included in the Appendix (f) of this report. Soak time for this test was 21 hours. Soak temperature, in degrees Fahrenheit, is shown in Figure 3 below.

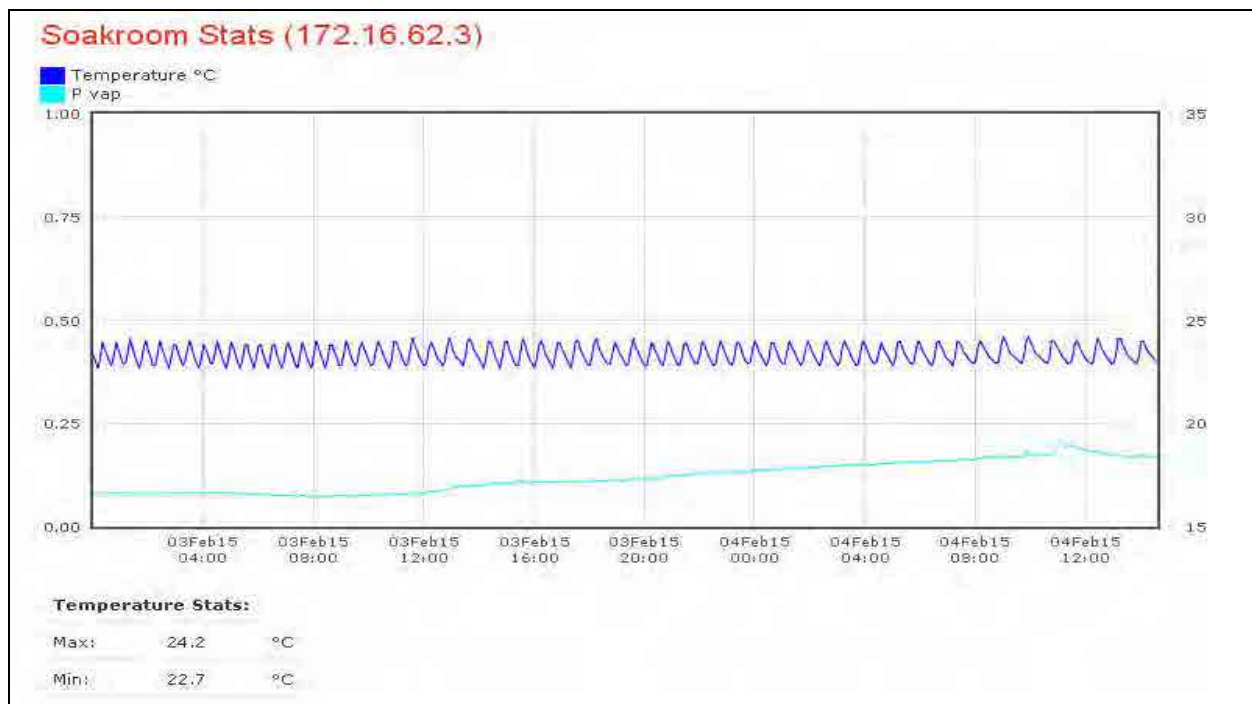


Figure 3: Soak room stats





## 5) Testing & Results

The test cycle that was ran for this vehicle was the Class IA (proportional) motorcycle trace using a ratio of 0.903 (53.0/58.7), which can be found in 40 CFR Part 86-Appendix I paragraph (b) (proportional) and described in 40 CFR Part 86.515-78(d). The test cycle is divided up into three different parts: the Cold Transient, the Cold Stabilized, and the Hot Transient portion. From the driver's trace analysis, contained in Appendix (b), there were no violations during the test; also see Figure 2 on page 5. From this conclusion we determine that this was a valid test. Emissions are measured during each of the three portions of the test cycle. Table 2 below contains the bag readings from the analyzers for tests 15020402.

**Table 2: Mass Bag Results**

<b>Pollutant</b>	<b>COLD TRANSIENT</b>	<b>COLD STABILIZED</b>	<b>HOT TRANSIENT</b>
HC Sample (ppm)	62.2235	45.3287	49.0947
HC Ambient (ppm)	6.5809	6.8310	6.9233
CO Sample (ppm)	592.77	464.21	551.60
CO Ambient (ppm)	2.57	2.09	2.32
NOx Sample (ppm)	2.2428	1.3620	2.0840
NOx Ambient (ppm)	0.0763	0.0723	0.0663
CO2 Sample (%)	0.1600	0.1454	0.1518
CO2 Ambient (%)	0.0749	0.0745	0.0748

The final weighted emission result for each pollutant is calculated by taking 43% of the weighted combination of the cold transient phase and the cold stabilized divided by the distance travelled during those phases. This result is added to 57% of the weighted combination of the cold stabilized phase and hot transient phase divided by the distance travelled during those phases. This can be found in 40 CFR 86.544-90. Table 3 below contains the final weighted emission result for each pollutant along with the calculated fuel economy. Table 3 also contains the deterioration factors (DFs) reported by the manufacturer to EPA in their certification application and the projected end of useful life emission levels based on the test results and DFs.

**Table 3: Final Weighted Test Results, Manufacturer DFs, and Projected End of Useful Life Emissions**

Pollutant	Test Result	Manufacturer reported DF (Multiplicative)	Projected End of Useful Life Emissions
HC	0.5939 g/km	1.000	0.5939 g/km
CO	14.26 g/km	1.000	14.26 g/km
NOx	0.0734 g/km	N/A	N/A
HC+NOx	0.6673 g/km	N/A	N/A
CO2	33.8188 g/km	N/A	N/A
CFR Fuel Economy	153.2 kpg	N/A	N/A

A copy of the Test Results Sheet is included in the Appendix (a) of this report

## 6) Observations


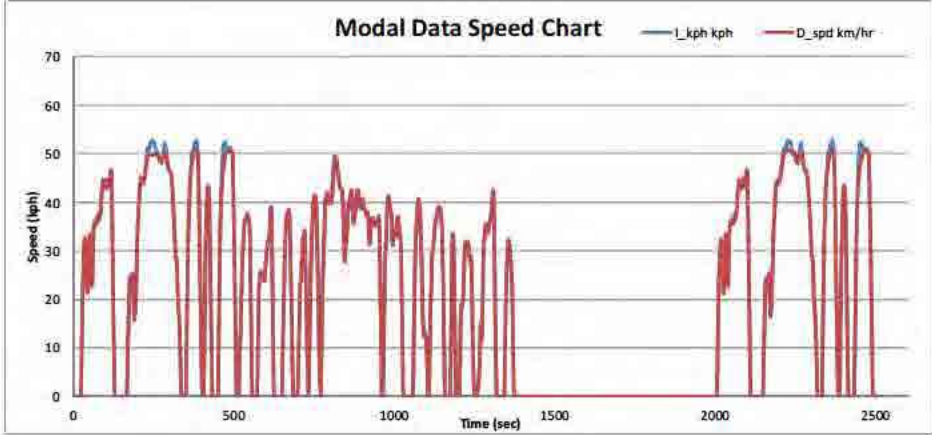
- Top speed was measured before the pre-conditioning cycle; a top speed of 53.0 km/h was recorded. A proportional drive cycle was made using a ratio of 0.903. Several driver's errors were noted during the pre-conditioning and test, the vehicle was at WOT during all error points. Engine idle speed was measured at 1810 rpm and 1790 rpm using two separate instruments.

## 7) Appendices



ENGINEERING

## a) Test Results Data Sheet

 <b>LOTUS ENGINEERING INC.</b> <b>VEHICLE EMISSIONS LAB</b>	
Date/Time..... 2/4/15 1:33 PM Test Number..... 15020402 Data file number..... 751847 Client's name..... Jacobs - EPA O.E.M. name..... TAOTAO GROUP CO., LTD. Model Year..... 2014 Vehicle Number..... L9NTEACT2E1005584 Vehicle Type..... Scooter Engine Family..... FTAOC.049MC2 Vehicle Make..... Tao Tao Vehicle Model..... CY50-A Emission control system..... TWC-PAIR Idle RPM..... 1700 rpm Dyno Used..... M/C dyno-S/N:4118	Transmission..... Automatic Engine..... 49 cc Preconditioning..... 6023.6 km Start Odometer..... 6033.35 km End Odometer..... 6047.27 km Inertia Weight..... 180 kg Horse Power Coeff..... A=5.19 C=0.0241 Coast Down Times..... 4.0, 4.1, 4.1 secs Fuel Tank Capacity..... 1.3 gals Amount of Fuel Added..... 0.65 gals Drive wheel Tire Pressure..... 32 psi Operator..... S Devlin Observer..... D Oesterle Driver..... E Knight
<b>FINAL WEIGHTED RESULTS FOR TEST per 40 CFR 86.544-90</b>	
CH4 (g/km)..... N/A HC (g/km)..... 0.5939 NMHC (g/km)..... N/A CO (g/km)..... 14.26 NOx (g/km)..... 0.0734 CO2 (g/km)..... 33.8188  HC + NOx (g/km)..... 0.6673  CFR Fuel Economy (kpg)..... 153.2	
<p>Comments: Performed top speed check, measured 53.0 kph. Pre-conditioning and emissions test were performed using a proportional drive cycle with a top speed of 53.0 kph (0.903 ratio.) Idle speed check, measured 1810 rpm and 1790 rpm using two separate instruments. During the emissions test, the vehicle failed to meet the driver's trace, the vehicle was at WOT during these excursions.</p>	
<p align="center"><b>Modal Data Speed Chart</b></p> 	





**LOTUS ENGINEERING INC.  
VEHICLE EMISSIONS LAB**

Test Number..... 15020402

**FUEL PROPERTIES**

Test Fuel..... EEE  
Supplier..... Haltermann  
Net Heating Value..... 18319  
Fuel Density..... 0.742  
Carbon Fraction..... 0.8624  
Fuel RVP..... 9.2  
Batch Number..... CH2221LT10  
Drum Lot.....

**MASS BAG RESULTS**

	<u>COLD TRANSIENT</u>	<u>COLD STABILIZED</u>	<u>HOT TRANSIENT</u>
CH4 Sample (ppm)			
CH4 Ambient (ppm)			
HC Sample (ppm)	62.2235	45.3287	49.0947
HC Ambient (ppm)	6.5809	6.8310	6.9233
CO Sample (ppm)	592.77	464.21	551.60
CO Ambient (ppm)	2.57	2.09	2.32
NOx Sample (ppm)	2.2428	1.3620	2.0840
NOx Ambient (ppm)	0.0763	0.0723	0.0663
CO2 Sample (%)	0.1600	0.1454	0.1518
CO2 Ambient (%)	0.0749	0.0745	0.0748
Station Barometer (in Hg)	29.13	29.13	29.13
Rel Humidity (%)	48.9	49.6	49.6
Dry Bulb (F)	77.6	78.2	78.3
Phase Distance (km)	4.15	5.60	4.17
CVS Volume (scf)	3130.4	5304.9	3119.7
Dilution Factor	59.4297	68.2290	63.2526
Rel Humidity (%)	48.9	49.6	49.6
Humidity Corr Factor	0.9815	0.9930	0.9941

**PHASE MASS**

CH4 (g)			
HC (g)	2.8501	3.3437	2.1540
NMHC (g)			
CO (g)	60.92	80.83	56.50
NOx (g)	0.3608	0.3682	0.3391
CO2 (g)	140.0584	197.8602	126.3620

**PHASE MASS PER KM**

CH4 (g/km)			
HC (g/km)	0.6868	0.5971	0.5165
NMHC (g/km)			
CO (g/km)	14.68	14.43	13.55
NOx (g/km)	0.0869	0.0658	0.0813
CO2 (g/km)	33.7490	35.3322	30.3026
Fuel Economy (kpg)	150.9	148.6	167.2



## b) Driver's Trace Analysis for test 15020402

LOTUS

Wed Feb 04 15:05:08 2015

Driver: KNIGHT Date: 02-04-2015

Vehicle No. Odometer:

Engine No. PROJECT 7518 Transmission: AUTO Test # 15020402

Vehicle Make. Tao Tao Engine Displacement:

Inertia wt. 160 kg Test Condition: FTP

H.P. at 50 MPH: Fuel Type: INDOLINE

### DRIVER'S MONITORING

-----

TOLERANCE (TIME IN SECOND(s)) - 1.0

TOLERANCE (KILOMETERS PER HOUR) - 1.8

DRIVERS PERFORMANCE - -99.809

ERROR # 1 - occurred at 236.7 and lasted 11.9 second(s)

ERROR # 2 - occurred at 460.1 and lasted 9.8 second(s)

ERROR # 1 - occurred at 1747.9 and lasted 3.5 second(s)

ERROR # 2 - occurred at 1835.0 and lasted 12.2 second(s)


END OF DRIVER ERRORS





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## c) Fuel Properties Data Sheets



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**Telephone: (800) 969-2542**

**FAX: (281) 457-1469**

Johann Haltermann Ltd.

**PRODUCT:** EPA TIER II EEE

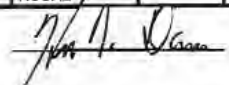
**PRODUCT CODE:** HF0437

**Batch No.:** CH2221LT10

**Tank No.:** 105

**Date:** 8/27/2014

TEST	METHOD	UNITS	HALTERMANN Specs			RESULTS
			MIN	TARGET	MAX	
Distillation - IBP	ASTM D86	°F	75		95	91
5%		°F				110
10%		°F	120		135	122
20%		°F				141
30%		°F				165
40%		°F				195
50%		°F	200		230	218
60%		°F				231
70%		°F				242
80%		°F				259
90%		°F	305		325	315
95%		°F				340
Distillation - EP		°F			415	401
Recovery		vol %		Report		96.8
Residue		vol %		Report		1.3
Loss		vol %		Report		1.9
Gravity	ASTM D4052	°API	58.7		61.2	59.2
Density	ASTM D4052	kg/l	0.734		0.744	0.742
Reid Vapor Pressure	ASTM D5191	psi	8.7		9.2	9.2
Carbon	ASTM D3343	wt fraction		Report		0.8647
Carbon	ASTM D5291	wt fraction		Report		0.8624
Hydrogen	ASTM D5291	wt fraction		Report		0.1375
Hydrogen/Carbon ratio	ASTM D5291	mole/mole		Report		1.899
Stoichiometric Air/Fuel Ratio				Report		14.654
Oxygen	ASTM D4815	wt %			0.05	None Detected
Sulfur	ASTM D5453	wt %	0.0025		0.0035	0.0028
Lead	ASTM D3237	g/gal			0.01	None Detected
Phosphorous	ASTM D3231	g/gal			0.005	None Detected
Silicon	ASTM 5184	mg/kg			4	None Detected
Composition, aromatics	ASTM D1319	vol %			35	27
Composition, olefins	ASTM D1319	vol %			10	1
Composition, saturates	ASTM D1319	vol %		Report		72
Particulate matter	ASTM D5452	mg/l			1	1.2
Oxidation Stability	ASTM D525	minutes	240			1000+
Copper Corrosion	ASTM D130				1	1a
Gum content, washed	ASTM D381	mg/100mls			5	<0.5
Fuel Economy Numerator/C Density	ASTM D5291		2401		2441	2417
C Factor	ASTM D5291			Report		1.0035
Research Octane Number	ASTM D2699		96.0			96.4
Motor Octane Number	ASTM D2700			Report		88.6
Sensitivity			7.5			7.8
Net Heating Value, btu/lb	ASTM D3338	btu/lb		Report		18488
Net Heating Value, btu/lb	ASTM D240	btu/lb		Report		18319
Color	VISUAL			Report		Undyed

APPROVED BY: 



## d) Inspection Sheet

**Test Vehicle Inspection/Release Sheet - EPA Compliance Testing**

Indicate below which submittal of this form is currently being prepared:

- ☒ Submittal immediately following Vehicle Receipt Inspection (1<sup>st</sup> Submittal)  
☐ Submittal immediately following Vehicle Check-In (2<sup>nd</sup> Submittal)  
☐ Submittal immediately following Vehicle Release back to Manufacturer (3<sup>rd</sup> Submittal)

Record the following from the Test Vehicle Information Form received from the Manufacturer:

Test Vehicle Manufacturer Tao Tao Group Co, LTD.Engine Family Name FTAOC.049MC2 EPA Test Order # 14-HMC-CE-26

Does Engine Family Name on the Test Vehicle Information form match that on EPA Test Order?

☒ Yes ☐ No If not, enter the Engine Fam. Name from Test Order: \_\_\_\_\_**Note:** Where possible, data in this section should be taken from the vehicle's VECI label.Vehicle Type Class 1A Highway Motorcycle Model Name CY-50AVehicle ID Number (VIN) L9NTEACT2E1005584 Model Year 2015Total Service Accumulation 6,023.6 km Date Vehicle Received 01/23/15Vehicle at End of Useful Life? ☒ Yes ☐ No

Source of Service Accumulation Data:

- ☒ Manufacturer's Service Accumulation Log (Preferred Source whenever available)  
☐ Vehicle Odometer (If Mfr's. Service Accumulation Log has not been provided)

Yes No N/A

- ☐ ☒ ☐ Two sets of keys with a tag marked with vehicle maker/model/VIN  
☒ ☐ ☐ Appropriate exhaust flange  
☒ ☐ ☐ Test Vehicle Information Form (Shift Schedule, Mfr. Test Results, etc.)  
☒ ☐ ☐ Owner's Manual Mfr. Specified Drive Tire Pressure 32.0 psig

Units

Fuel Tank Volume 1.30 gals.1/2 Fuel Tank Vol. 0.65 gals.

Yes No N/A

↑ Calculated Automatically

- ☐ ☒ ☐ Service Manual Mfr. Specified Fuel Type 90+ Octane Unleaded  
☒ ☐ ☐ Sufficient engine oil/lubricant provided for the test by the manufacturer?

Comments: Only 1 key was sent with the vehicle not 2 as specified.



**Vehicle Discharging Packing Slip**

- ☐ Packing slip attached to this form  
☐

**Mfr. Test Vehicle Information/Release Sheet**

- ☐ Attached to this form  
☐ Not available

**Photographic Documentation**

Please take the following photographs of the vehicle and save them to CD. The detail pictures are optional, unless there is damage. Take photographs documenting any damage noted in the "Vehicle Damage" section below.

Check Photographs taken, and use File Names indicated beside check boxes:

- |                                                                                  |                                                 |                                                    |                                                |
|----------------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| <input checked="" type="checkbox"/> Front View                                   | <input checked="" type="checkbox"/> L Side View | <input checked="" type="checkbox"/> Fr. Suspension | <input checked="" type="checkbox"/> Rear View  |
| <input checked="" type="checkbox"/> R Side View                                  | <input checked="" type="checkbox"/> Top View    | <input checked="" type="checkbox"/> VIN or ID#     | <input checked="" type="checkbox"/> VECI Label |
| <input checked="" type="checkbox"/> Emiss. Comp. 1                               | <input type="checkbox"/> Emiss. Comp. 2         | <input type="checkbox"/> Emiss. Comp. 3            | <input type="checkbox"/> Emiss. Comp. 4        |
| <input checked="" type="checkbox"/> Nominal Pressure<br>printed on tire sidewall | <input checked="" type="checkbox"/> Tire Tread  | <input checked="" type="checkbox"/> Detail #1      | <input checked="" type="checkbox"/> Detail #2  |

**Visual Inspection for Vehicle Damage, Oil Leaks, Loose Fittings, and Missing Parts**

Visually inspect the vehicle for damage, oil leaks, loose fittings, etc., and for missing parts not approved by the EPA. Check the appropriate boxes below & record the location for each particular type of damage. Use

- |                                                     |                                              |
|-----------------------------------------------------|----------------------------------------------|
| <input checked="" type="checkbox"/> No damage noted | <input type="checkbox"/> Oil Leak _____      |
| <input type="checkbox"/> Dent _____                 | <input type="checkbox"/> Stain _____         |
| <input type="checkbox"/> Scratch _____              | <input type="checkbox"/> Loose Fitting _____ |
| <input type="checkbox"/> Chip _____                 | <input type="checkbox"/> Missing Parts _____ |
| <input type="checkbox"/> Crack _____                | <input type="checkbox"/> Other _____         |

If there is vehicle damage, or if any parts are missing whose absence has not been approved by EPA, enter description(s) and the impact(s) on vehicle operation in the spaces below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If there is damage, or if any parts are missing whose absence has not been approved by the EPA, discuss with EPA and then the manufacturer. Then detail next steps in the process below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Engine Data** - Enter the following engine data, to the extent that it can reasonably be determined through visual examination of the vehicle. Comment below on any supporting gauges or labels.

Engine Manufacturer Tao Tao Group Co, LTD. Number of Cylinders 1  
 Engine Displacement 49.00 cc Engine Stroke/Cycle 4  
☒ Air Cooled ☐ Liquid Cooled  
 Yes No N/A If the vehicle is an ATV or UTV, does the engine have in-use operating speeds  
☐ ☐ ☐ <— over 4000 rpm? If the vehicle is a motorcycle check the N/A box.

**Note:** If the vehicle's throttle cable is not firmly attached at both ends, then firmly attach it now.

**Note:** Based upon the engine displacement entry above and, when available, the top speed of the vehicle reported by the manufacturer (entered below), an "X" will appear in the appropriate **red outlined check box below**, indicating the particular paragraph of Appendix I of 40 CFR Part 86 that describes the driver's trace to be used for this vehicle (unless the black outlined box below is checked):

- ☐ Appendix 1(b) <— **Note:** Applicable to most vehicles with displacements < 170 cc  
☐ Appendix 1(a)(2) <— **Note:** Applicable to all vehicles with displacements  $\geq$  170 cc  
☒ Appendix 1(b) proportional <— **Note:** Only applicable to vehicles with engine displacements < 50 cc, and top speeds < 58.7 km/hr

Vehicle top speed reported by manufacturer = 45.8 km/hr (Enter "TBD" if not reported by mfr.)

☐ Other trace as specified in Comments below:

Is there any mechanism installed on the vehicle that could limit its maximum speed, or limit its maximum engine speed?

Yes No

☐ ☒

If yes, describe the mechanism in the "Comments" section below.

**Note:** If the mechanism is a vehicle speed governor, it shall be disabled prior to testing, unless it can be shown that the governor is permanently installed on all production vehicles of this type, and that it is unlikely to be removed.

**Note:** If the mechanism is an engine speed governor, it must be in operation during the testing of this vehicle.

Manufacturer's recommended Engine Idle Speed —> 1,700  $\pm$  100 rpm

Source of Mfr's. recommended Engine Idle Speed:

- ☒ Label on Vehicle (Most Desirable) ☐ Owner's Manual (Next Most Desirable)  
☐ Mfr. Test Veh. Info Form (i.e. "Blue Sheet") = Source of last resort

Comments: Vehicle top speed was drawn from the manufacturer's Blue Sheet.





**Emissions Control System Components** - Check all revealed by reasonable visual inspection.  
Enter location of VECI label, if found.

- |                                                                                |                                                                                                      |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Closed Crankcase System                    | <input type="checkbox"/> Multiport Fuel Injection                                                    |
| <input checked="" type="checkbox"/> Carburetor Idle Mixture Adj. Sealed        | <input type="checkbox"/> Sequential Fuel Injection                                                   |
| <input type="checkbox"/> Other Emission Related Adjustable Parameters Apparent | <input type="checkbox"/> Oxidation Catalyst                                                          |
| <input type="checkbox"/> Engine Modification                                   | <input type="checkbox"/> Three Way Catalyst                                                          |
| <input type="checkbox"/> Throttle Body Injection                               | <input type="checkbox"/> Pulsed Secondary Air Injection                                              |
| <input checked="" type="checkbox"/> VECI Label —>                              | <input type="checkbox"/> O <sub>2</sub> Sensor <input type="checkbox"/> Heated O <sub>2</sub> Sensor |
- Location: Just below seat on step through panel.

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Evaporative Emissions Control System Components** - Check all revealed by reasonable visual inspection. Enter ID information or SAE required text if present on fuel hose.

Fuel Tank: ☒ Metal      Fuel Hose: ☒ Rubber      Enter below, any markings or labels that are present on the parts. If no markings are visible then so state below:  
☐ Plastic      ☐ Vinyl

\_\_\_\_\_  
\_\_\_\_\_

**Emission Control System Part Numbers** - Record the following emission control system part numbers from the vehicle as received, if present and visible.

ECM/PCM _____	Throttle Sensor _____
Carburetor <u>AJ40110</u>	EGR Valve _____
Intake Air Sensor _____	Muffler _____
Intake Manifold _____	Air Filter <u>TT5006</u>
Injection Pump _____	Fuel Tank _____
O <sub>2</sub> sensor 1 _____	Fuel Line <u>Rewin EPA NRFL</u>
O <sub>2</sub> sensor 2 _____	Fuel Cap <u>TT5002</u>
Mass Flow Sensor _____	Crankcase PVC Valve _____

Other Parts, P/N's, & Adjustable Parameters: Idle adjustment screw on carb (see Detail #2)

\_\_\_\_\_  
\_\_\_\_\_

Comments: Aside from those already noted, no other part numbers are visible.

\_\_\_\_\_  
\_\_\_\_\_





Record the following information from catalyst(s) & other aftertreatment parts (if visible)

Part #	Quantity	Part Locations & Dimensions	Part Mfr. (if visible)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Other ATV or UTV Attributes** -If vehicle is an ATV or UTV: Check box if it has a tilt bed & record approximate range of rear wheel travel, and ground clearance, if they can be easily determined.

Yes No

☐ ☐ Does the ATV or UTV have a Tilt Bed?

☐ ☐ Does the ATV or UTV have a mechanical power take off (PTO) or permanently installed hydraulic system for operating utility-oriented accessory devices?

Note:

Approx. Range of ATV/UTV Rear Wheel Travel \_\_\_\_\_ cm —> Must be > 18 cm for off-road

Ground Clearance of ATV or UTV \_\_\_\_\_ inches or \_\_\_\_\_ cm

**Vehicle Weight Data to be recorded regardless of vehicle type:**

Gross Vehicle Wt. Rating (kg) =	75.0	E.I.M. (kg as specified by Mfr.) =	160
Measured Mass of Vehicle (kg) =	82.50	E.I.M. Calculated based on Measured Mass of Vehicle (kg) =	160

**Signatures**

Signed by: \_\_\_\_\_

Date: 03 Feb 15

Verified by: \_\_\_\_\_

Date: 03 Feb 15



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**Record of Vehicle Release from Test Lab to Manufacturer:**

Delivery to: \_\_\_\_\_

Delivery Destination Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Person to receive the vehicle: \_\_\_\_\_

Vehicle release authorized by \_\_\_\_\_ Date Released: \_\_\_\_\_

e) Photos of Test Vehicle (Inspection Photos)





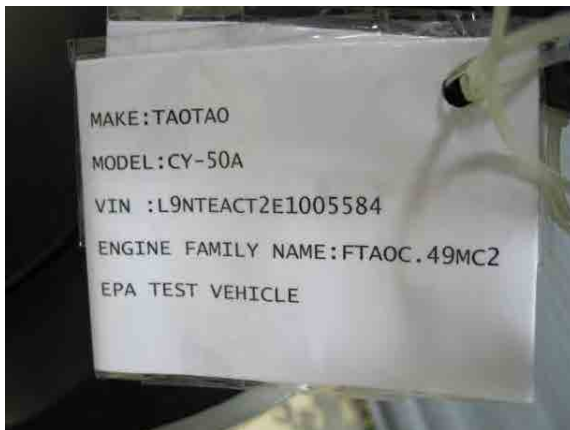
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f) Vehicle Log



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EMISSIONS LAB VEHICLE LOG SHEET

Vehicle ID: TAD TAD CY-50A

Project #: 7518

VIN: L9NTEACT2E1005584

50% - 165 GAL  
32 PSF

DATE	MILEAGE	WORK DONE	COMMENTS	INITIALS / TIME
2/3/15	<del>0</del> KM 6023.6	CONNECTED NEG SIDE OF BATTERY. - CONFIRMED 32 PSF REAR TIRE PRESSURE. - CONFIRMED ENG OIL LEVEL, MIDDLE OF SAFETY, USE - INSTALLED EXH BOOT		
2/3/15		Added - 65 gallons fuel to tank (EERE)		
2/3/15		Performed top speed check by direction of Bob Specht. Measured actual top speed of 53.0 kph.		JK 2:40
		Loaded proportional drive trace using 53.0 kph max speed.		JK 2:50
		Performed idle speed check after top speed. Measured idle speed as 1,800 rpm using (2) separate instruments.		JK 3:10
2/3/15	<del>0</del> KM <del>945</del> KM 6033.35	PREP-53 / NO SHIFTS 1st 2 BAGS AS PREP ON SCAR & 3 SSpm		ED
2/4/15	<del>945</del> KM <del>945</del> KM 6033.35	- CONFIRMED 32 PSF REAR TIRE PRESSURE. - CONFIRMED ENG OIL LEVEL - OK. - CHANGED WEIGHTS TO 160 LBS. - MOVED WHEEL CHAIR.		
2/4/15	<del>945</del> KM 6047.27 <del>6047.27</del> KM	MCL-53 / NO SHIFTS #15020402	COAST Downward	SD
2/4/15	6047.27 KM	NOTE Regarding 15020402: Vehicle failed to meet the speed required by the driver's trace. Errors occurred at 236.7, 460.1, 1747.9, 1835.0 seconds. Throttle was held at WOT during errors.		

ME-FO-014 Rev 2

Page 1 of 1





## g) Manufacturer Supplied Information

EPA		Office Of Transportation and Air Quality April, 2012			
<b>Highway Motorcycle - Test Vehicle Information Attachment 2 -1</b>					
EPA Test Order #	14-HMC_CE-26	<b>This form is filled by:</b>			
Engine Family Name	FTA0C.049MC2	Name	James Xu		
Certificate Holder Name	Taotao USA Inc.	Company	Stanly Marketing & Consulting		
Certificate Holder EPA ID	TA0	Phone #	425-223-3488		
Commercial Model Name	CY50-A	E-Mail	stanleyconsult@gmail.com		
Manufacturer Model Name	CY50-A	Date	2015/1/21		
Test Vehicle Engine Manufacturer	Taotao Group Co.Ltd.	Signature			
Test Vehicle Manufacturer	Taotao Group Co.Ltd.				
Original Certification EDV (Y/N)?	Y				
Production Vehicle (Y/N)?	N				
<b>Certification Information: Exhaust</b>					
Constituent	CO	THC+NOX	THC	NOX	CO2
Units	(g/km)	(g/km)	(g/km)	(g/km)	(g/km)
Standard	12.0		1.0	n/a	n/a
Manufacturer Test Result	9.181		0.464		
Certification Value	9.2		0.5	n/a	n/a
Certification DF	1.000		1.000		n/a
Modified DF*					n/a
DF Type					n/a
	Multiplicative				
* For use when test vehicle's mileage is different than the durability test distance.					
<b>Test Parameters</b>		<b>Manufacturer Start Procedures:</b>			
Test Vehicle VIN or Other ID	L9NTEACT2E1005584	No Special start procedures, No service manual provided			
Engine Code	1P39QMB				
Engine Displacement (cc)	49				
Make/Model Name	CY50-A				
Motorcycle Class	HM C-1A				
Idle Speed (rpm)	1700				
Drive Wheel Tire Pressure (psi)	32				
Equivalent Inertial Mass [EIM] (kg)	160				
Force Coefficient A (nt)	5.19				
Force Coefficient C (nt/(km/h) <sup>2</sup> )	0.0241	Coefficients are determined based on EIM, using CFR 86.529-78 (b) figure F78-9			
Fuel Tank Capacity	5 L	Conversion Factor: 3.785 liters/gal			
50% Fuel Tank Capacity	2.5 L				
Transmission Type:	Automatic				
Shift Schedule, if applicable.		Y/N			

TA0 HMC Test Vehicle Information Page 1 of 3





40 CFR 86.528-78 (h) (1) for Class I or Class II HMCs
40 CFR 86.528-78 (h) (2) for Class III HMCs
Use manufacturer shift schedule on page 2

Shift Point (km/h)					
Upshift (gear)	1 <sup>st</sup> -2 <sup>nd</sup>	2 <sup>nd</sup> -3 <sup>rd</sup>	3 <sup>rd</sup> -4 <sup>th</sup>	4 <sup>th</sup> -5 <sup>th</sup>	5 <sup>th</sup> -6 <sup>th</sup>
Speed (KPH)					
Downshift (gear)	2 <sup>nd</sup> -1 <sup>st</sup>	3 <sup>rd</sup> -2 <sup>nd</sup>	4 <sup>th</sup> -3 <sup>rd</sup>	5 <sup>th</sup> -4 <sup>th</sup>	6 <sup>th</sup> -5 <sup>th</sup>
Speed (KPH)					

Manufacturer Specified Sec-by-Sec Shift Schedule					
Schedule Time (sec.)	Gear Shift (from - to)	Schedule Time (sec.)	Gear Shift (from - to)	Schedule Time (sec.)	Gear Shift (from - to)

Vehicle Pre-check	Y/N
Carburetor Idle Mixture Adjustment Sealed?	Y
Other Adjustable Parameters Apparent?	N
Closed Crankcase System?	Y

## Part Number, if Present:

Part	Manufacturer	Part #
ECM/PCM	N/A	N/A
Carburetor	Fujian Hualong Carburetor Co.,Ltd	TT5003
Intake Air Sensor	N/A	N/A
Intake Manifold	N/A	N/A
Injection Pump	N/A	N/A
O2 sensor 1	N/A	N/A
O2 sensor 2	N/A	N/A
Mass Flow Sensor	N/A	N/A
Throttle Sensor	N/A	N/A
Catalyst/Aftertreatment 1	Nanjing Enserver Technology Co.,Ltd	TT5009
Catalyst/Aftertreatment 2	N/A	N/A
EGR Valve	N/A	N/A
Muffler	N/A	N/A
Air Filter	Taizhou Yuexiang Vehicle Parts Co.,Ltd.	TT5006
Fuel Tank	Taizhou Xinzhou Machinery Co.,Ltd	TT5001
Fuel Line	ANGZHOU REWIN VEHICLE PARTS CO., LTD	Rewin



Fuel Cap	Taizhou Xinzhou Machinery Co.,Ltd	TT5002
Crankcase P/V Valve	N/A	N/A

<b>Contact Information:</b>	
<b>Certificate Holder</b> Name	Jacky Wang
E-Mail	<a href="mailto:jackie@taotao.us">jackie@taotao.us</a>
Title	Branch Manager
Phone	909-614-1661
Company Name	Taotao USA Inc.

<b>Consultant, if</b> Name	James Xu
E-Mail	<a href="mailto:stanleyconsult@gmail.com">stanleyconsult@gmail.com</a>
Title	manager
Phone	425-223-3488
Company Name	Stanley marketing & consulting LLC

<b>Notes to EPA:</b>
Top speed 28.5mph at test
Engine oil is good for testing



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY  
2565 PLYMOUTH ROAD  
ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF  
AIR AND RADIATION

July 23, 2015

TaoTao USA Inc.  
2425 Camp Ave. Suite 100  
Carrollton, TX 75006  
Attention: Mr. Matao Cao

**Subject: Confirmatory Test Results for EF FTAOC.049MC2 & Test Order 14-HMC-CE-26**

Dear Mr. Cao,

This letter is to inform you that your emission data vehicle representing Engine Family FTAOC.049MC2 has failed to meet the applicable CO emission standard (see attached Test report). Therefore, your application for certification of this Engine family will be denied in accordance with 40 CFR 86.437-78.

Please work with the test facility directly to remove your test vehicle within two (2) weeks from the date of this letter. EPA will consider the vehicle forfeited by the manufacturer and will proceed to dispose of the test vehicle after four (4) weeks from the date of this letter.

If you proceed with any of the alternatives listed under 40 CFR.437-78(a)(3)(ii), your notification should be submitted to the Agency within four (4) weeks after the date of this letter.

Please feel free to contact Emily Chen (734-214-4122 and Chen.Emily@epa.gov) should you have any questions or need assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Cleophas Jackson".

Cleophas Jackson, Director  
Gasoline Engine Compliance Center  
Compliance Division  
Office of Transportation and Air Quality

Enclosure:

EPA Confirmatory Test Report for Engine Family FTAOC.049MC2

Cc: Mr. James Xu  
Stanley Marketing & Consulting LLC  
9634 153A Street  
Surrey, BC, V3R4H9, Canada



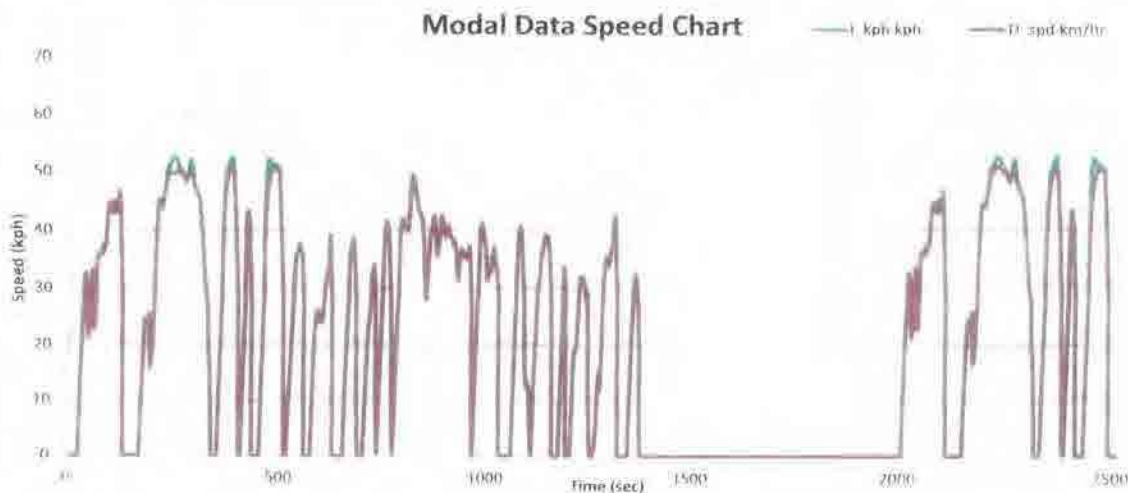
**United States Environmental Protection Agency**  
**Confirmatory Testing - Vehicle Test Report**  
**Test Location: Lotus Engineering Vehicle Emissions Lab**

Date/Time	2/4/15 1:33 PM	Transmission	Automatic
Test Number	15020402	Engine	49 cc
Data file number	751847	Preconditioning	6023.6 km
Client's name	Jacobs - EPA	Start Odometer	6033.35 km
O.E.M. name	TAOTAO GROUP CO., LTD.	End Odometer	6047.27 km
Model Year	2014	Inertia Weight	160 kg
Vehicle Number	L9NTEACT2E1005584	Horse Power Coeff	A=5.19 C=0.0241
Vehicle Type	Scooter	Coast Down Times	4.0, 4.1, 4.1 secs
Engine Family	FTAOC, 049MC2	Fuel Tank Capacity	1.3 gals
Vehicle Make	Tao Tao	Amount of Fuel Added	0.65 gals
Vehicle Model	CY50-A	Drive wheel Tire Pressure	32 psi
Emission control system	TWC-PAIR	Operator	S Devlin
Idle RPM	1700 rpm	Observer	D Oesterle
Dyno Used	M/C dyno-S/N 4118	Driver	E Knight

**FINAL WEIGHTED RESULTS FOR TEST per 40 CFR 86.544-90**

CH <sub>4</sub> (g/km)	N/A
HC (g/km)	0.5939
NMHC (g/km)	N/A
CO (g/km)	14.26
NO <sub>x</sub> (g/km)	0.0734
CO <sub>2</sub> (g/km)	33.8188
HC + NO <sub>x</sub> (g/km)	0.6673
CFR Fuel Economy (kpg)	153.2

**Comments:** Performed top speed check, measured 53.0 kph. Pre-conditioning and emissions test were performed using a proportional drive cycle with a top speed of 53.0 kph (0.903 ratio.) Idle speed check, measured 1810 rpm and 1790 rpm using two separate instruments. During the emissions test, the vehicle failed to meet the driver's trace, the vehicle was at WOT during these excursions.







**United States Environmental Protection Agency**  
**Confirmatory Testing - Vehicle Test Report**  
**Test Location: Lotus Engineering Vehicle Emissions Lab**

Test Number: 15020402

**FUEL PROPERTIES**

Test Fuel: EEE  
 Supplier: Haltermann  
 Net Heating Value: 18319  
 Fuel Density: 0.742  
 Carbon Fraction: 0.8624  
 Fuel RVP: 9.2  
 Batch Number: CH2221LT10  
 Drum Lot:

**MASS BAG RESULTS**

	<u>COLD TRANSIENT</u>	<u>COLD STABILIZED</u>	<u>HOT TRANSIENT</u>
CH4 Sample (ppm)			
CH4 Ambient (ppm)			
HC Sample (ppm)	62.2235	45.3287	49.0947
HC Ambient (ppm)	6.5809	6.8310	6.9233
CO Sample (ppm)	592.77	464.21	551.60
CO Ambient (ppm)	2.57	2.09	2.32
NOx Sample (ppm)	2.2428	1.3620	2.0840
NOx Ambient (ppm)	0.0763	0.0723	0.0663
CO2 Sample (%)	0.1600	0.1454	0.1518
CO2 Ambient (%)	0.0749	0.0745	0.0748
Station Barometer (in Hg)	29.13	29.13	29.13
Rel Humidity (%)	48.9	49.6	49.6
Dry Bulb (F)	77.6	78.2	78.3
Phase Distance (km)	4.15	5.60	4.17
CVS Volume (scf)	3130.4	5304.9	3119.7
Dilution Factor	59.4297	68.2290	63.2526
Rel Humidity (%)	48.9	49.6	49.6
Humidity Corr Factor	0.9815	0.9930	0.9941

**PHASE MASS**

CH4 (g)			
HC (g)	2.8501	3.3437	2.1540
NMHC (g)			
CO (g)	60.92	80.83	56.50
NOx (g)	0.3608	0.3682	0.3391
CO2 (g)	140.0584	197.8602	126.3620

**PHASE MASS PER KM**

CH4 (g/km)			
HC (g/km)	0.6868	0.5971	0.5165
NMHC (g/km)			
CO (g/km)	14.68	14.43	13.55
NOx (g/km)	0.0869	0.0658	0.0813
CO2 (g/km)	33.7490	35.3322	30.3026
Fuel Economy (kpg)	150.9	148.6	167.2

CH BOX 94 - LaGrande

DEPARTMENT OF HOMELAND SECURITY  
U.S. Customs and Border ProtectionPage: 1  
ABI CERTIFIED  
CST# 714

DEC 16 2015

## ENTRY/IMMEDIATE DELIVERY

DEC 16 2015

Oceanland Service Inc  
15241 Don Julian Rd  
City of Industry, CA 91745 626-573-8429 Fax: 626-382-1402

19 CFR 142.3, 142.16, 142.22, 142.24

Form Approved  
OMB No. 1651-0024  
Exp. 04-30-2015

1. ARRIVAL DATE 120815	2. ELECTED ENTRY DATE	3. ENTRY TYPE CODE/NAME 01	4. ENTRY NUMBER 065-3879530-0
5. PORT 2704	6. SINGLE TRANS. BOND	7. BROKER/IMPORTER FILE NUMBER 3879530 / DFW-OI691	
	8. CONSIGNEE NUMBER 51-062096500		9. IMPORTER NUMBER 51-062096500
10. ULTIMATE CONSIGNEE NAME TAOTAO USA INC. 2425 CAMP AVE STE 100 CARROLLTON, TX 75006-1358		11. IMPORTER OF RECORD NAME TAOTAO USA INC. 2425 CAMP AVE STE 100 CARROLLTON, TX 75006-1358	
12. CARRIER NAME EGLV	13. VOYAGE/FLIGHT/TRIP 0674E	14. LOCATION OF GOODS-CODE(S)/NAME(S) Z952 HANJIN SHIPPING CO, BERTHS T132-140	
15. VESSEL CODE/NAME EVER LEADING			
16. U.S. PORT OF UNLADING 2704	17. MANIFEST NUMBER	18. G.O. NUMBER	19. TOTAL VALUE 46,548
20. DESCRIPTION OF MERCHANDISE MODEL ATK150-C ATV			
21. IT/BL/AWB CODE M	22. IT/BL/AWB NO. EGLV 143585457611	23. MANIFEST QUANTITY	24. H.S. NUMBER 8703.21.0050
H	CHQF CNGU05110243	202 CTN	8714.10.0050

## 27. CERTIFICATION

I hereby make application for entry/immediate delivery. I certify that the above information is accurate, the bond is sufficient, valid, and current, and that all requirements of 19 CFR Part 142 have been met.

SIGNATURE OF APPLICANT

X ATTY IN FACT *[Signature]*

PHONE NO.

626-573-8429

DATE

12/03/15

## 29. BROKER OR OTHER GOVT. AGENCY USE

Containers:

TEMU6086218

Req. Exam at: W493 F.C.L. LOGISTICS LTD. (CES)

Transfer By:

Entry Bond [X]

Carrier Bond [ ]

CHL Bond [ ]

CFS Bond [ ]

## 28. CBP USE ONLY

☐ OTHER AGENCY ACTION REQUIRED, NAMELY:☒ CBP EXAMINATION REQUIRED☐ ENTRY REJECTED, BECAUSE\*\*\*\*\*  
Delivery Authorized  
by DHS-CBP  
for examination at  
*[Signature]*  
Name: *[Signature]* Date: 12/10/15  
\*\*\*\*\*DELIVERY  
AUTHORIZED:

SIGNATURE

DATE

Paperwork Reduction Act Statement: An agency may not conduct or sponsor an information collection and a person is not required to respond to this information unless it displays a current valid OMB control number and an expiration date. The control number for this collection is 1651-0024. The estimated average time to complete this application is 15 minutes. If you have any comments regarding the burden estimate you can write to U.S. Customs and Border Protection, Office of Regulations and Rulings, 799 9th Street, NW., Washington, DC 20229.

CX140

EPA-001908

17/31

# 缙云县翔远实业有限公司

JINYUN COUNTY XIANGYUAN INDUSTRY CO.,LTD  
Xiandu Hardware Industry Zone,Xinbi Town,Jinyun County,Zhejiang,China

## 商业发票

### COMMERCIAL INVOICE

致:

TO: TAOTAO USA INC

发票号码:

INVOICE NO: 20151202R

S/C NO: 151202

信用证号码:

L/C NO:

日期:

DATE: NOV 1, 2015

装船港目的港

FROM: NINGBO

TO: DALLAS, TX

唛号  
MARKS&NO.

货名数量  
DESCRIPTION&QUANTITY

单价  
UNIT PRICE

总价  
AMOUNT

FOB NINGBO

ATV

OFF ROAD USE ONLY

MADE IN CHINA

ALL TERRAIN VEHICLE

ATK150-C

8705.21.0050  
30PCS

USD1200/PC

USD36000

SPARE PARTS

4557PCS

USD2.315/PC

USD10548

8714.10.0050

TOTAL AMOUNT: USD46548

NGU

B/L: CNGU05110243

CONTAINER NO: TEMU6086218

SEAL NO: EMCHSY6574

缙云县翔远实业有限公司  
JINYUN COUNTY XIANGYUAN INDUSTRY CO.,LTD

俞 舒 标



# 24/31

## 缙云县翔远实业有限公司

JINYUN COUNTY XIANGYUAN INDUSTRY CO.,LTD  
Xiandu Hardware Industry Zone,Xinbi Town,Jinyun County,Zhejiang,China

### 装箱单

### PACKING LIST

发票号码:

INVOICE NO: 20151202R

日期:

DATE: NOV 1, 2015

唛号 MARK&NO	货名数量 DESCRIPTION&QUANTITY	毛重 GROSS WEIGHT	净重 NET WEIGHT	体积 MEASUREMENT
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ATV

OFF ROAD USE ONLY

MADE IN CHINA

ALL TERRAIN VEHICLE

ATK150-C	30PCS 30CTNS	9450KGS	7950KGS	60CBM
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SPARE PARTS

4557PCS 172CTNS	1300KGS	1200KGS	8CBM
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总计

4587PCS 202CTNS	10750KGS	9150KGS	68CBM
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B/L: CNGU05110243

CONTAINER NO: TEMU6086218

SEAL NO: EMCHSY6574

缙云县翔远实业有限公司

JINYUN COUNTY XIANGYUAN INDUSTRY CO.,LTD

金标



NAME	QTY	NO.	CTN	UNIT	TOTAL
GASKET FOR SCOOTER	1	2186	1	\$0.5	1
SWITCH FOR SCOOTER	20	2161		\$1.6	33
SWITCH FOR SCOOTER	20	2161		\$1.6	33
BATTERY FOR ATV	100	无箱号	10	\$5.5	553
CARBURETOR FOR ATV	45	2163	1	\$2.6	117
PLASTIC COVER FOR ATV	30	2185	1	\$0.3	10
COIN FOR ATV	20	2192	1	\$1.8	35
COIN FOR ATV	20	2193	1	\$1.8	35
COIN FOR ATV	20	2194	1	\$1.8	35
COIN FOR ATV	20	2195	1	\$1.8	35
COIN FOR ATV	20	2196	1	\$1.8	35
COIN FOR ATV	20	2197	1	\$1.8	35
COIN FOR ATV	20	2198	1	\$1.8	35
COIN FOR ATV	20	2199	1	\$1.8	35
COIN FOR ATV	20	2200	1	\$1.8	35
COIN FOR ATV	20	2201	1	\$1.8	35
COIN FOR ATV	20	2202	1	\$1.8	35
COIN FOR ATV	20	2203	1	\$1.8	35
COIN FOR ATV	20	2204	1	\$1.8	35
COIN FOR ATV	20	2205	1	\$1.8	35
COIN FOR ATV	20	2206	1	\$1.8	35
COIN FOR ATV	20	2207	1	\$1.8	35
COIN FOR ATV	20	2208	1	\$1.8	35
COIN FOR ATV	10	2266		\$1.8	18
INTUBE FOR ATV	50	2266	1	\$0.3	16
SWITCH FOR ATV	30	2176		\$0.8	23
CARBURETOR FOR ATV	45	2164	1	\$2.6	117
MOTOR FOR ATV	20	2256	1	\$3.4	68
MOTOR FOR ATV	20	2257	1	\$3.4	68
MOTOR FOR ATV	20	2258	1	\$3.4	68
MOTOR FOR ATV	20	2259	1	\$3.4	68
MOTOR FOR ATV	20	2260	1	\$3.4	68
MOTOR FOR ATV	20	2261	1	\$3.4	68
MOTOR FOR ATV	20	2262	1	\$3.4	68
MOTOR FOR ATV	20	2263	1	\$3.4	68
MOTOR FOR ATV	20	2264	1	\$3.4	68
MOTOR FOR ATV	20	2265	1	\$3.4	68
AXLE FOR ATV	10	无箱号	10	\$3.1	31
CABLE FOR ATV	20	2180	1	\$2.0	39
AXLE FOR ATV	5	无箱号	5	\$3.1	16
CABLE FOR ATV	20	2180		\$2.9	59
PIPE FOR ATV	10	2168	1	\$5.1	51
RELAY FOR ATV	50	2176		\$0.5	26
AXLE FOR ATV	20	2191	1	\$4.9	98
PLASTIC COVER FOR ATV	7	2187	1	\$7.8	55
PLASTIC COVER FOR ATV	7	2188	1	\$7.8	55
PLASTIC COVER FOR ATV	7	2189	1	\$7.8	55
PLASTIC COVER FOR ATV	6	2190	1	\$7.8	55
RIM FOR ATV	8	2179	1	\$1.3	25
RIM FOR ATV	10	2179		\$1.3	25
RIM FOR ATV	2	2180		\$1.3	25
PLASTIC COVER FOR SCOOTER	30	2158		\$1.0	29
PLASTIC COVER FOR SCOOTER	10	2177	1	\$2.9	29
PLASTIC COVER FOR SCOOTER	10	2178	1	\$2.9	29
KICKSTAND FOR DIRT BIKE	5	2165	1	\$0.5	3
FORK FOR DIRT BIKE	2	2165		\$3.3	7
COIN FOR ATV	50	2176	1	\$0.5	26
CHAIN FOR ATV	20	2176		\$1.0	20



CHAIN FOR ATV	15	2266		\$1.0	15
PLASTIC COVER FOR SCOOTER	20	2184		\$1.3	26
KEY FOR ATV	100	2175	1	\$1.3	130
BATTERY COVER FOR ATV	15	2184	1	\$0.7	10
TIRE FOR ATV	2	无箱号	8	\$28.0	56
ENGINE GEAR FOR ATV	10	2226	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2227	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2228	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2229	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2230	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2231	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2232	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2233	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2234	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2235	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2236	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2237	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2238	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2239	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2240	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2241	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2242	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2243	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2244	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2245	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2246	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2247	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2248	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2249	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2250	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2251	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2252	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2253	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2254	1	\$2.6	26
ENGINE GEAR FOR ATV	10	2255	1	\$2.6	26
OIL TANK FOR SCOOTER	2	2186		\$5.9	12
PIPE FOR SCOOTER	5	2161	1	\$8.5	42
RIM PAD FOR SCOOTER	12	2172	1	\$3.5	42
RIM PAD FOR SCOOTER	13	2173	1	\$3.5	46
RIM FOR SCOOTER	14	2174	1	\$2.0	27
BOLT FOR SCOOTER	1	2296	1	\$0.1	0
KICKSTAND FOR DIRT BIKE	5	2296		\$0.8	4
PLASTIC COVER FOR SCOOTER	15	2267	1	\$0.7	10
PLASTIC COVER FOR SCOOTER	15	2268	1	\$0.7	10
PLASTIC COVER FOR SCOOTER	20	2158		\$1.0	20
OIL TANK COVER FOR SCOOTER	200	2171	1	\$0.3	65
MOTOR FOR ESCOOTER	8	2269	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2270	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2271	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2272	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2273	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2274	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2275	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2276	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2277	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2278	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2279	1	\$9.0	72
MOTOR FOR ESCOOTER	8	2280	1	\$9.0	72
CHARGER FOR ESCOOTER	50	2281	1	\$3.3	163

20/31

浙江通业机械有限公司  
ZHEJIANG TONGYE XINWEIYUAN INDUSTRY CO., LTD

商標



21/31

CHARGER FOR ESCOOTER	50	2282	1	\$3.3	163
CHARGER FOR ESCOOTER	50	2283	1	\$3.3	163
CHARGER FOR ESCOOTER	50	2284	1	\$3.3	163
CHARGER FOR ESCOOTER	50	2285	1	\$3.3	163
CHARGER FOR ESCOOTER	50	2286	1	\$3.3	163
CHARGER FOR ESCOOTER	50	2287	1	\$3.3	163
CHARGER FOR ESCOOTER	50	2288	1	\$3.3	163
CHARGER FOR ESCOOTER	50	2289	1	\$3.3	163
CHARGER FOR ESCOOTER	50	2290	1	\$3.3	163
PLASTIC COVER FOR ESCOOTER	50	2291	1	\$8.1	406
PLASTIC COVER FOR ESCOOTER	50	2292	1	\$8.1	406
PLASTIC COVER FOR ESCOOTER	20	2293	1	\$2.6	52
PLASTIC COVER FOR ESCOOTER	200	2294	1	\$0.5	104
PLASTIC COVER FOR ESCOOTER	20	2294		\$0.3	7
PLASTIC COVER FOR ESCOOTER	100	2295	1	\$2.0	195
LIGHT FOR ESCOOTER	100	2295		\$0.7	65
LIGHT FOR ESCOOTER	100	2295		\$0.5	52
SWITCH FOR ESCOOTER	100	2295		\$0.5	52
CHARGER FOR ESCOOTER	100	2295		\$0.3	33
CARBURETOR FOR ATV	100	2159	1	\$5.0	501
CARBURETOR FOR ATV	100	2160	1	\$5.0	501
BEARING FOR SCOOTER	8	2186		\$5.9	18
PLASTIC COVER FOR SCOOTER	4	2181	1	\$7.6	30
PLASTIC COVER FOR SCOOTER	4	2182	1	\$7.6	30
PLASTIC COVER FOR SCOOTER	1	2182		\$7.6	8
PLASTIC COVER FOR SCOOTER	1	2183	1	\$7.6	8
PLASTIC COVER FOR SCOOTER	8	2162	1	\$2.0	16
PLASTIC COVER FOR SCOOTER	4	2183		\$7.6	30
SEAT FOR SCOOTER	2	2169	1	\$3.6	7
SEAT FOR SCOOTER	3	2170	1	\$3.6	11
PLASTIC COVER FOR SCOOTER	200	2158	1	\$0.1	26
MIRROR FOR ATV	117	2166	1	\$0.3	35
MIRROR FOR ATV	100	2167	1	\$0.3	30
HANDLE BAR FOR ATV	120	2167		\$0.3	36
CLUTCH FOR ATV	20	2209	1	\$4.6	91
CLUTCH FOR ATV	20	2210	1	\$4.6	91
CLUTCH FOR ATV	20	2211	1	\$4.6	91
CLUTCH FOR ATV	20	2212	1	\$4.6	91
CLUTCH FOR ATV	20	2213	1	\$4.6	91
CLUTCH FOR ATV	20	2214	1	\$4.6	91
CLUTCH FOR ATV	20	2215	1	\$4.6	91
CLUTCH FOR ATV	20	2216	1	\$4.6	91
CLUTCH FOR ATV	20	2217	1	\$4.6	91
CLUTCH FOR ATV	20	2218	1	\$4.6	91
GEAR FOR ATV	30	2219	1	\$1.6	47
GEAR FOR ATV	30	2220	1	\$1.6	47
GEAR FOR ATV	30	2221	1	\$1.6	47
GEAR FOR ATV	30	2222	1	\$1.6	47
GEAR FOR ATV	30	2223	1	\$1.6	47
GEAR FOR ATV	30	2224	1	\$1.6	47
GEAR FOR ATV	20	2225	1	\$1.6	31

4557

172

10548

雲縣 裕远实业有限公司  
YUNXIAN COUNTY YUYUAN INDUSTRIAL CO., LTD



SHIPPER'S ADDRESS (complete name and address)  
JINLIYI COUNTY XIANGYUAN INDUSTRY CO., LTD.  
NO. 8 XIWU ROAD, JINLIYI COUNTY  
LISHUI CITY, ZHEJIANG, CHINA

CONSIGNEE'S ADDRESS (complete name and address)  
JIAOYUO USA INC.  
2425 CAMP AVE. SUITE 100, CARROLLTON, TX 75006  
TEL: 214-636-3980 FAX: 214-635-3983



XY151154

DATE OF LADING NO. CMO005110213

CHINA INT'L FREIGHT CO., LTD.  
BILL OF LADING  
(NON-NEGOTIABLE UNLESS CONSIGNED TO ORDER)

RECEIVED in apparent good order and condition except as otherwise noted the date, number of containers or other packages or units and number below (or transportation from the place of receipt to the place of delivery) subject to the terms hereof.  
If the Bill of Lading is issued to order, then one of the signed bills of lading must be surrendered duly endorsed in exchange for the Goods or delivery order. On presentation of this document (duly endorsed) to the Delivery Agent by the Holder the rights and liabilities arising in accordance with the terms hereof shall without prejudice to any rule of common law or statute rendering them binding on the Merchant become binding in all respects between the Carrier and the Holder as though the contract evidenced hereon had been made between them.  
IN WITNESS WHEREOF this number of original bills of lading stated below all of the same tenor and date, one of which being accomplished the others to stand void.

Place of origin	Place of delivery	Place of destination
NINGBO, CHINA	DALLAS, TX	LONG BEACH, CA
Port of loading	V. 0674E	Port of discharge
		Place of delivery

SHIPPER'S LOAD & COUNT & SEAL  
202CTNS  
ALL TERRYAN VEHICLE ASSEMBLY PARTS  
ISF NO: 005-95888700543  
THIS SHIPMENT DOES NOT CONTAIN ANY SOLID WOOD PACKAGING MATERIAL  
CNTR NO: TENU00086218/BHCHSY0574/40 HQ  
MADE IN CHINA  
OFF ROAD USE ONLY  
ATY

SAV TOTAL: ONE FORTY FT. HQ CONTAINER ONLY  
Total number of packages

Freight and charges  
Prepaid  
Collected  
FOR DELIVERY OF GOODS PLEASE APPLY TO:  
SUNWAY EXPRESS, INC.  
15241 DON JULIAN ROAD CITY OF INDUSTRY  
CA 91745  
ATTN: WAYNE YE  
TEL: 562-407-0065  
FAX: 562-407-5565

Place and time of issue	Place and time of receipt	Place and time of delivery
NINGBO, CHINA NOV 24, 2015		
On Board Date		
SIGNATURE		
SEQ NO: 00100099		

CHINA INT'L FREIGHT CO., LTD.  
BY AS CARRIER  
Signature





**United States Environmental Protection Agency  
Declaration Form**

**Importation of Motor Vehicles and Motor Vehicle Engines Subject to Federal Air Pollution Regulations**

U.S. E.P.A., Compliance & Innovative Strategies Division, 2000 Traverwood Drive, Ann Arbor, MI 48105 <http://www.epa.gov/otaq/imports> Phone (734) 214-4100; Fax (734) 214-4676.

This form must be submitted to the U.S. Customs and Border Protection (Customs) (42 USC 7522, 7601: 19 CFR 12.73) for each motor vehicle (including motorcycles, disassembled vehicles, kit cars, light-duty vehicle/motorcycle engines) imported into the U.S., except that this form is not required for motor vehicles that are imported by their original manufacturer and are new and are covered by an EPA certificate of conformity and bear an EPA emission control label. One form per shipment may be used, with attachments including all information required to fully describe each vehicle or engine as below. Check the box below indicating the provisions under which you are importing this vehicle or engine. Offroad vehicles/engines and heavy-duty engines must use form 3520-21. Note: Although only imports using codes G, I, K, L, M-3, and O require specific written authorization from EPA, Customs may request EPA review of importer documentation and eligibility for any import using this form. A nonconforming vehicle that is ineligible for the exemptions or exclusions listed below, must be imported through an independent commercial importer (ICI) under codes A, C, J, or Z. For codes A, C, J, and Z, EPA does not authorize the release to the vehicle owner.

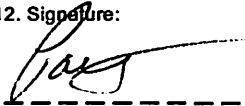
**Penalties:** Any person who knowingly makes any false or fraudulent statement, or omits or conceals a material fact can be fined up to \$250,000 or imprisoned for up to 5 years, or both (18 USC 1001). Any person who improperly imports a motor vehicle (including a motorcycle) or engine may be fined up to \$32,500 per vehicle or engine (42 USC 7524), and may be subject to forfeiture of the entire importation bond, if applicable (40 CFR 85.1513), and the U.S. Customs Service may seize the vehicle or engine (19 CFR 162.21).

**Description and Declaration of Motor Vehicle or Motor Vehicle Engine (Note: Heavy-duty Engines must use form 3520-21)**

1. Port code: 2704	2. Entry date: (mm/dd/yyyy) 12/03/2015	3. Customs entry number: 065-3879530-0	4. Vehicle Identification Number (VIN), or engine serial number: PER ATTACHED LIST
5. Manufacture date (mm/yyyy): 11/2015		6. Manufacturer (make): TAOTAO	7. Model: ATK150-C
8. ICI imports only, codes A, C, J, Z - EPA certificate no., model year and expiration date of applicable certificate:			

**Names, Addresses, and Telephone Numbers of Relevant Parties**

**Certification:** I certify that I have read and understand the purpose of this form, the penalties for falsely declaring information, or for providing misleading information, or for concealing a material fact. The information I have provided is correct, and all required attachments are appended to this form. I authorize EPA Enforcement Officers to conduct inspections or testing permitted by the Clean Air Act. I am the owner, importer, or agent for the owner or importer.

9. Importer (code B: must be certificate holder or their agent for shipments of new vehicles prior to introduction into commerce; codes A, C, J, Z: must be ICI): TAOTAO USA INC	10. Owner: TAOTAO USA INC	11. Storage location: 2425 CAMP AVE, CARROLLTON, TX 75006	12. Signature: 
			13. Date: 12/29/2015
			PAUL C. TERRY, OWNER AND SERVICE INC/ 626-573-8429/ATTY IN FACT FOR TAOTAO USA INC

**U.S. conforming and "identical" vehicles**

☒ **code B - U.S. certified** - unmodified vehicle bearing a U.S. EPA emission control label in engine compartment (or on motorcycle frame) in English.

☐ **code F - U.S. certified, catalyst restoration** - U.S. certified vehicle as described above, except that the catalyst, oxygen sensors or fuel filler neck restrictor were removed or damaged. The importer attests that the catalyst and oxygen sensors and fuel filler neck restrictor, as applicable, will be re-installed or replaced after importation. If leaded gasoline was used, the importer attests that after importation (1) the fuel tank will be drained and refilled with unleaded gasoline, (2) the catalyst and oxygen sensors, if they were left on the vehicle during use of the leaded gasoline, will be replaced, and (3) the fuel filler neck restrictor will be checked and replaced as necessary. No bond or EPA approval is required.

☐ **code EE - Identical in all material respects to a U.S. certified version** - either 1) Canadian vehicle (proof required e.g. Canadian emission control label, registration or title, or letter from the U.S. or Canadian manufacturer representative on letterhead verifying manufacture for sale in Canada) on EPA list of Canadian "identical" models, or 2) vehicle from any country with letter attached to this form from the manufacturer's U.S. representative on letterhead (not a dealer or mechanic) stating that the vehicle is identical to a U.S. EPA certified version with respect to emissions. The importer attests that vehicle is being imported for purposes other than resale or lease. For import of "identical" Canadian vehicles for resale, use code FF.

☐ **code FF - Canadian "identical" models imported for resale or lease** - Canadian vehicle as described above appearing on EPA list of Canadian "identical" models, imported for resale or lease. The importer attests that the importer will satisfy applicable labeling, warranty and CAFÉ requirements as specified by EPA.

**EPA exempted vehicles**

☐ **code M - miscellaneous exemption**, either 1) Canadian vehicle as described above (proof required) and the importer is either permanently emigrating to the U.S. or will reside in the U.S. for greater than one year under a worker or student visa, or 2) Canadian vehicle received by U.S. resident through inheritance, or 3) EPA hardship letter based on unforeseen and extraordinary circumstances is attached to this form.

☐ **code E - vehicle at least 21 years old** (calendar year of manufacture subtracted from year of importation) and in original unmodified configuration is either exempted or excluded from EPA emission requirements, depending on age. Vehicles at least 21 years old with replacement engines are not eligible for this exemption unless they contain equivalent or newer EPA certified engines. Customs may require proof of vehicle age.



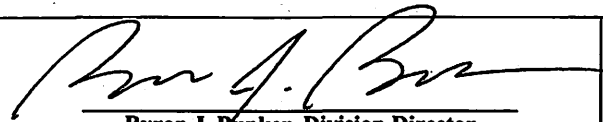
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
2016 MODEL YEAR  
CERTIFICATE OF CONFORMITY  
WITH THE CLEAN AIR ACT

OFFICE OF TRANSPORTATION  
AND AIR QUALITY  
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: Taotao USA Inc.  
(U.S. Manufacturer or Importer)  
Certificate Number: GTAOX0.15G2T-005

Effective Date:  
08/04/2015

Expiration Date:  
12/31/2016

  
Byron J. Bunker, Division Director  
Compliance Division

Issue Date:  
08/04/2015

Revision Date:  
N/A

Engine Family Name: GTAOX0.15G2T

Permeation Family Name(s):  
GTAOPMETALC2

Evaporative Family Name:  
N/A

Exhaust Emission Test Procedure:  
40CFR86, Subpart E: Chassis test

Exhaust Emission Standards:

HC: N/A

CO: 35 g/km

HC+NOx: 1.5 g/km

Permeation Emission Standards (grams/m<sup>2</sup>/day):

Fuel Tank: 1.5

Fuel Hose: 15.0

Vehicle/Engine Category: ATVB-Meeting EPA ATV Definition

Fuel Type(s): Gasoline

Engine Type: 4-Stroke, 1-cylinder, Air Cooled

Engine Displacement(s) Covered (in cubic centimeters):  
149

Key Emission-Related Components:

Air Injection, 1-Catalyst(s), Carburetor

Full Useful Life: EPA Required Minimum

Sales Area(s): 49 States

Models Covered:

\* 4FUN, ATK150-A, ATK150-C, GK4 150, TARGA 150

Pursuant to §213 of the Clean Air Act (42 U.S.C. §7547) and 40 CFR Parts 1051, 1065 and 1068, this Certificate is hereby issued with respect to test vehicles or engines which have been found to conform to the requirements of the regulations on control of air pollution from new recreational vehicles and new recreational vehicle engines (40 CFR Parts 1051, 1065 and 1068) and which represent the vehicle models listed above by engine family and permeation/evaporative families, more fully described in the application of the above named manufacturer/importer. Vehicles or engines covered by this Certificate have demonstrated compliance with the applicable emission standards, as more fully described in the manufacturer/importer's application. This Certificate covers the above models, which are designed to meet the applicable emission standards specified in 40 CFR Parts 1051.

EPA is issuing this Certificate subject to the conditions and provisions of 40 CFR Part 1051, Subpart D and G.

This Certificate covers only those vehicles which conform, in all material respects, to the design specifications that applied to those vehicles described in the documentation required by 40 CFR Parts 1051, 1065 and 1068 and are produced during the 2016 model year production period as defined in 40 CFR Parts 1051, 1065 and 1068. The manufacturer/importer shall obtain the approval of the California Air Resources Board (in the form of an Executive Order issued by the California Air Resources Board) prior to introducing any vehicle covered by this Certificate into commerce (1) in the State of California, or (2) in a State that, under the authority of §209(e) of the Clean Air Act, has adopted and placed into effect the California standards to which this engine family has been certified. This Certificate does not cover vehicles sold, offered for sale, introduced, or delivered for introduction into commerce in the U.S. prior to the effective date of the Certificate.

jl

TEMU6086218

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L5NAELTN3F1001036	LY157QMJJ150513036
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Insp. No: 20160104-1500-00 Inspector(s): Aasim Rawoot and Colin Wang  
 Insp. Date: 1/4/2016 Insp. Time: 15:00

**Information for Facility Where Inspection Occurred**

Facility Name: ERG Chantilly Facility Type: ERG Remote (FCL)  
 Address 1: 14555 Avion Parkway POC: Aasim Rawoot  
 Address 2: Suite 200 POC Title: Inspector  
 City/State: Chantilly, VA Zip: 20151  
 CBP POC: CBPO Rosales CBP Phone: 310-233-2737 (x518)

**Importer Information (from Entry Documents)**

Company or Name: Taotao USA Inc. Entry No: 065-38795300  
 Address: 2425 Camp Ave. Importer No: 51-062096500  
 Address 2: STE 100 Entry Date: 12/8/2015  
 City: Carrollton Quantity (engine family): 28 (GTAOX0.15G2T)  
 State: TX Zip: 75006 Quantity (model): 28 (ATK 150-C)  
 Importer POC: Oceanland Service Inc. Phone: 626-573-8429

**Box Information**

VIN/ESN: L5NAELTN4G1003749 MFG on Box: Jinyun County Xiangyuan Industry  
 Model indicated: Arrow 150 Date of MFG: Not reported Other Info on box: ATV, ESN listed  
 49 or 50 State Certified: ☒ 49 ☒ 50 ☐ NR Power: Not reported ☒ hp ☐ kW Displacement: Not reported ☐ cc ☐ ci ☐ liter

**ECI Information**

Label Present: ☒ Y ☐ N MFG on ECI: Jinyun County Xiangyuan Industry  
 Engine Family: GTAOX0.15G2T Certificate Holder on ECI: Taotao USA Inc.  
 Evap. Emissions Family: GTAOPMETALC2 49 or 50 State Certified: ☒ 49 ☒ 50  
 Date of MFG: Not reported Emission Control Devices Listed: TWC, PAIR  
 Tune-up Specs Listed: ☒ Y ☐ N Power: Not reported ☒ hp ☐ kW Displacement: 149 ☐ cc ☐ ci ☐ liter  
 Does ECI Contain an Exhaust Compliance Statement: ☒ Y ☐ N MY Standards in Exh. Compliance Statement: 2016  
 Does ECI Contain an Evap. Compliance Statement: ☒ Y ☐ N MY Standards in Evap. Compliance Statement:  
 Can ECI label be removed without destroying: ☒ Y ☐ N <- if yes, document with photos Type of Fuel: 90 octane  
 ECI Notes: - There is a space on the ECI for the date of manufacture, but it appears to be blank. Please confirm in field.  
 - The ECI label is riveted, so ERG assumed that it cannot be removed without destroying.

**Visual Inspection Information**

Headlight: ☒ Y ☐ N Turn Signal: ☒ Y ☐ N Horn: ☒ Y ☐ N Mirror: ☒ Y ☐ N Tail/Brake Light: ☒ Y ☐ N  
 Model name: Exhaust Emission Control Devices Observed: PAIR, muffler  
 VIN/ESN: Removable Hang-tag (MFG, model/engine, normalized emission rate): ☒ Y ☐ N  
 Fuel Tank Material: metal Running loss line observed (gasoline engines only)? ☒ Y ☐ N ☐ N/A  
 Fuel lines marked: Yes (15 g/m2/day) Crankcase vented to atmosphere: ☒ Y ☐ N  
*Unless there is an obvious compliance issue, the following measurements only need to be completed if time permits.*  
 Fuel tank size: N/A - Remote Inspect ☐ gal ☐ L Fuel hose length (fuel tank to cut-off): N/A - Remote Inspect ☐ in ☐ mm  
 Fuel hose Dia. (inner): N/A - Remote Inspect ☐ in ☐ mm Fuel hose length (cut-off to engine): N/A - Remote Inspect ☐ in ☐ mm  
 Fuel hose Dia. (outer): N/A - Remote Inspect ☐ in ☐ mm Total fuel hose length: N/A - Remote Inspect ☐ in ☐ mm  

	Observed PN	Certified PN	Observed PN	Certified PN
Fuel Tank	TT.5XY1.035	5XY1.035	Muffler/Catalyst:	None visible
PAIR:	None visible	5XY1.008	Fuel Injector:	N/A
Carburetor:	TT.5XY1.054	5XY1.054	Intake Assembly/Filter:	None visible
Throttle Body	N/A	N/A	Oxygen Sensor:	N/A
Other:	N/A	N/A	Spark Plug:	5XY1.019

- Presence or absence of the catalyst should be confirmed in the field.

Visual  
Inspection  
Notes:



**Owner's Manual Information**

Listed Model(s):	Vehicle/Equipment Weight:	240	Units:	kg
Emissions Warranty? If Yes, how long?:	10,000 km/5 years	Rated Power:	6.3	<input type="checkbox"/> hp <input type="checkbox"/> kW
Min. Warranty under Regs. (after insp.):	5,000 km/30 months	Rated Power RPM:	Not reported	(e.g., @ 7,000 rpm)
Engine Displacement:	149.6 cc	Type of Fuel:	Not reported	(e.g., 91 octane, ULSD)

**Carburetor Inspection**

*A/F mixture screw inspection should be completed for all types of engines ( using hand tools only ).*

Carburetor ID Marking, Manufacturer, logo, numbers, etc.:	KF; TT.5XY1.054		
Is air/fuel mixture screw adjustable on vehicle (check for all SI engines)?	no, sealed		
<i>If A/F screw is adjustable, obtain photograph of inspector adjusting it.</i>			
If so, describe the range of adjustability:	N/A Remote		
Tools needed to adjust a/f screw:	N/A Remote	Time required:	N/A Remote
Tools needed to remove a/f screw:	N/A Remote	Time required:	N/A Remote
<i>Main jet, pilot jet, and jet needle inspection should be only be completed for recreational V&amp;E's ( <u>using hand tools only</u> ).</i>			
Tools needed to access the main jet, pilot jet, jet needle:	N/A Remote		
Time required to adjust jet needle:	N/A Remote	No. of positions:	N/A Remote
Time required to remove main jet:	N/A Remote	Time to install:	N/A Remote
Time required to remove pilot jet:	N/A Remote	Time to install:	N/A Remote
Carb. Inspection Notes:			

**Certification Application Information**

Cert. Holder/Importer:	Taotao USA Inc.	MFG:	Jinyung County Xiangyuan
Regulatory Category:	Recreational	Regulatory Sub-Category:	ATV
Engine Family:	GTAOX0.15G2T	Cert. Date Range:	8/4/2015 - 12/31/2016
Evap./Perm. Family:	GTAOPMETALC2	Exhaust Emission Control Devices on Cert. App.:	TWC, PAIR
Carb. adjustments:	none, sealed	If plastic fuel tank, is it fluorinated?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A
49 or 50 State Certified:	<input type="checkbox"/> 49 <input type="checkbox"/> 50 <input type="checkbox"/> NR	Running loss line (gasoline engines only)?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A
Rated Power:	5.5 <input type="checkbox"/> hp <input type="checkbox"/> kW	Rated Power RPM:	7000
		Displacement:	149 <input type="checkbox"/> cc <input type="checkbox"/> ci <input type="checkbox"/> liter

**Inspection Summary**

Evidence taken (indicate how it was marked):	None
Areas of Concern:	<ul style="list-style-type: none"> <li>- Follow up with yellow highlights while at the port</li> <li>- This is a revised inspection worksheet (entry number was corrected in this revision)</li> </ul>
Inspection photo numbers:	Entry.065-38795300.pdf; EPA 065-38795300.pdf
Additional Inspection/analysis done on (date):	none
Inspectors:	Aasim Rawoot
Photographer:	CBPO Rosales
Inspector Signature:	Date: 1/10/2016

**Guidance for Inspectors:**

*Inspector should obtain copies of the following when conducting inspections for CBP:*

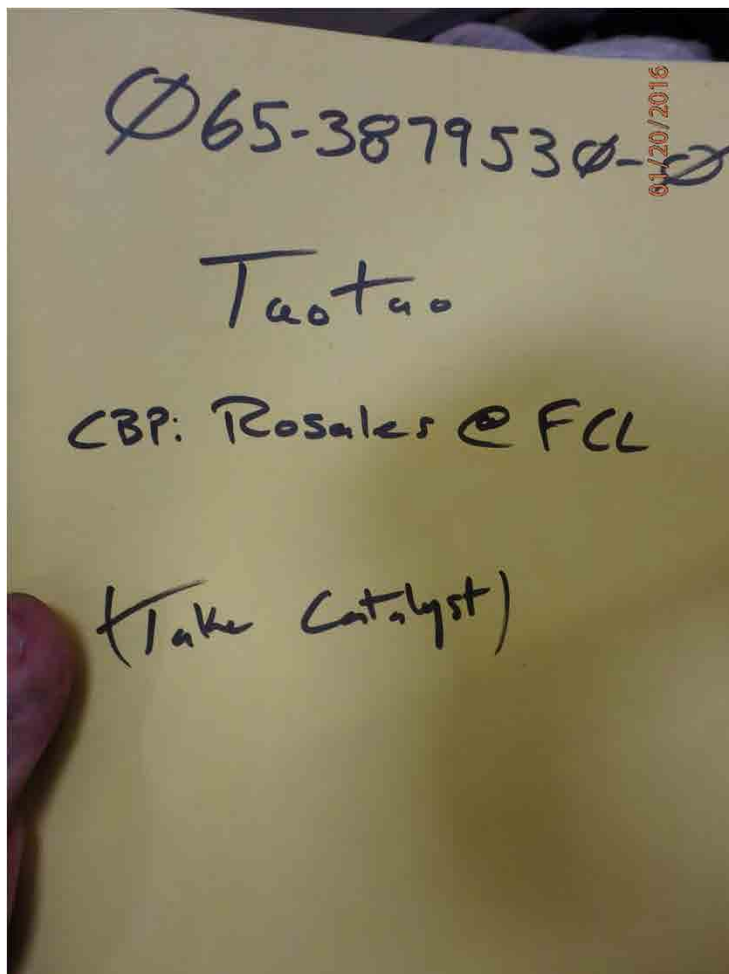
- Entry documents
- Invoice/Packing lists
- Bill of lading
- VIN list
- EPA declaration form (3520)

*Inspector should obtain the following key photographs:*

- All sides of box that the unit is contained in (include close-up photos of labels on boxes)
- All sides of vehicle/engine to include any labels, model names, or trade names.
- Removable hang-tag (MFG, model/engine, normalized emission rate)
- Emission control label
- Engine serial number engraved on engine and/or VIN engraved on frame
- Owner's manual - front page, specification table, emissions warranty statement
- As equipped (obtain photographs of part numbers for each if possible):
  - o Carburetor - include A/F mixture screw (if carbureted)
  - o Exhaust system (include muffler or any bulges in exhaust pipe)
  - o Crankcase ventilation system
  - o Throttle body (if fuel injected)
  - o Oxygen Sensor (if fuel injected)
  - o PAIR
  - o Fuel lines
  - o Fuel tank
  - o Running loss line

**Possible ECDs:**

- |                               |                                            |                                               |                           |
|-------------------------------|--------------------------------------------|-----------------------------------------------|---------------------------|
| OC Oxidation catalyst         | AIR Secondary air injection (pump)         | DFI Direct fuel injection                     | HO2S Heated oxygen sensor |
| TWC Three-way catalyst        | PAIR Pulsed secondary air injection        | O2S Oxygen sensor                             | EM Engine modification    |
| CFI Continuous fuel injection | MFI Multi-port (electronic) fuel injection | TBI Throttle body (electronic) fuel injection |                           |



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CX141

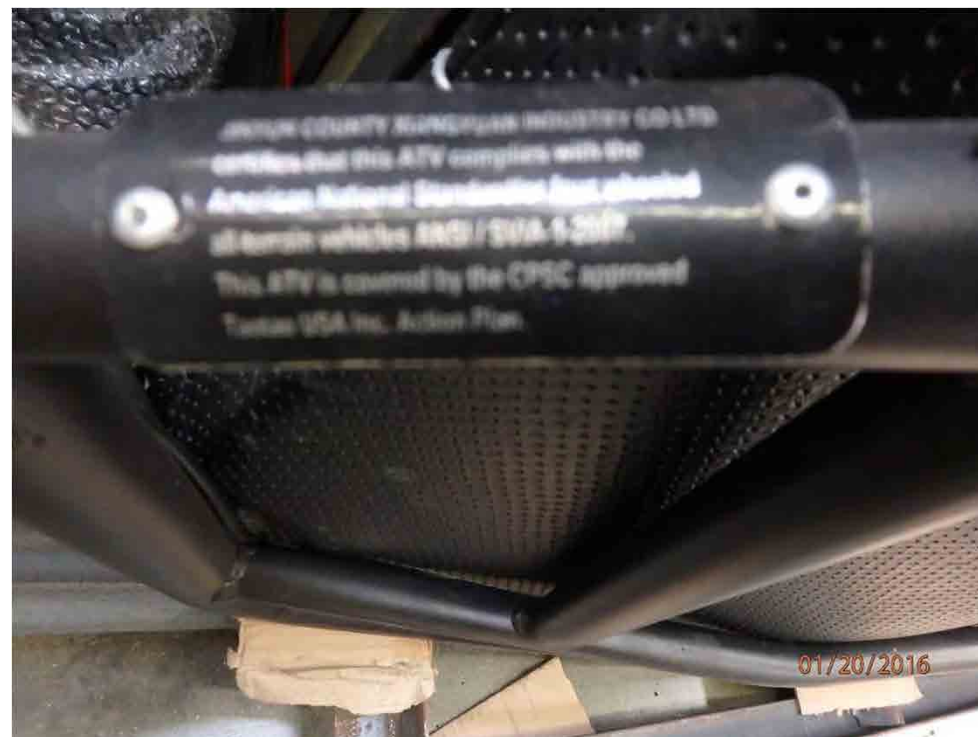


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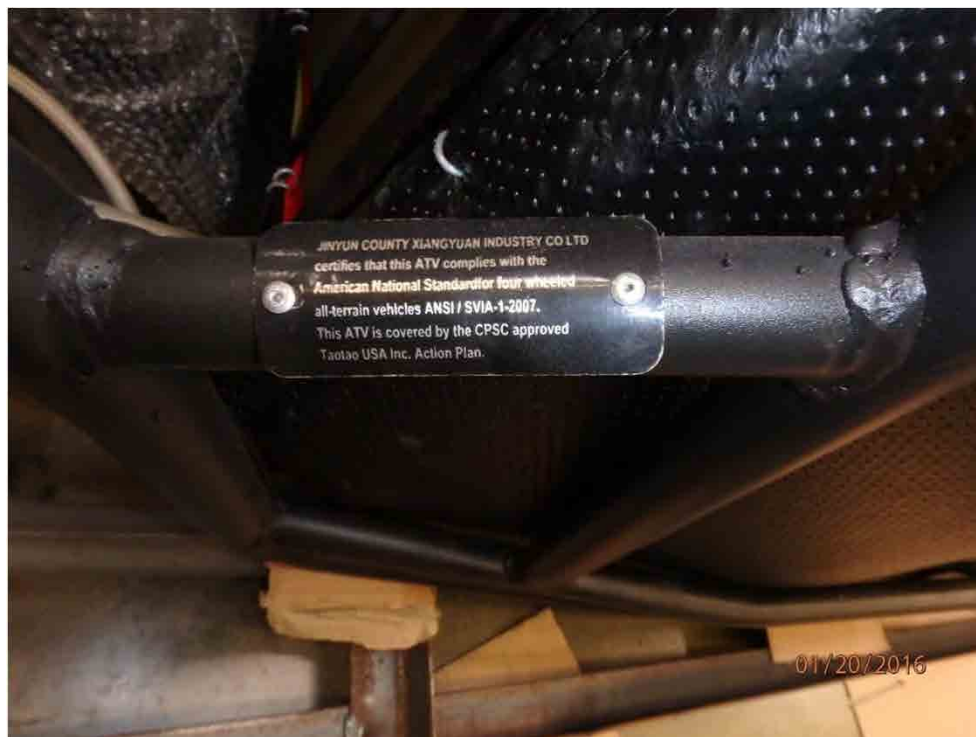


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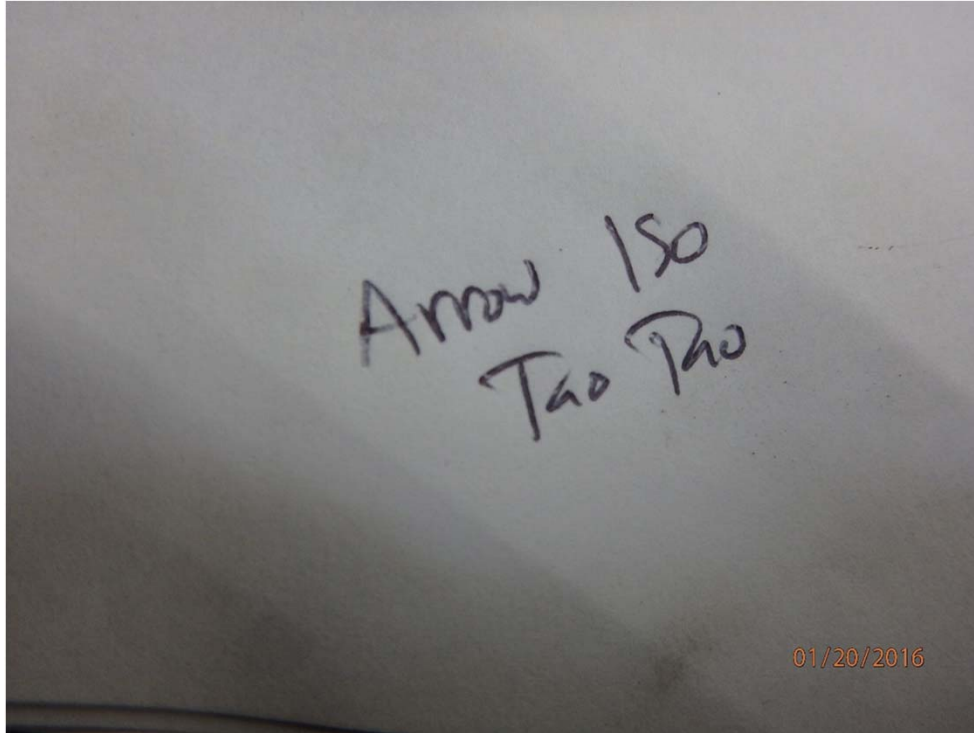
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