

Instructions for Certifying Imported Mini Trucks

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Certification and Compliance Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

I. Introduction

EPA has revised regulations that affect the importation of vehicles that were originally built and used as motor vehicles but have been converted for nonroad use. These regulatory provisions were published in the Federal Register on October 8, 2008 (73 FR 59053), and can be found on our web site at: <http://www.epa.gov/otaq/regs/nonroad/marinesi-equipld/bondfrm.pdf>. Under the revised regulations, EPA now requires certification of engines and vehicles converted for nonroad use that are imported on or after December 8, 2008.

Japanese Kei-class light-duty trucks, also known as mini trucks, which have been converted to limit speed to 25 miles per hour (mph), are impacted by the new regulations. Generally, mini trucks are small trucks or vans with small spark-ignited (SI) engines with displacement below 1000 cubic centimeters and maximum engine power less than 30 kilowatts (kW) with a governed maximum speed of 25 mph or less. Mini trucks can also fall into the Large SI category if they are **either** >1000cc displacement **or** > 30kW maximum engine power with a governed maximum speed of 25 mph or less (after 2011 model year the maximum engine power will be determined without any mechanical governor).

The revised regulations do not abolish importation of these products, but they do add the requirement to certify engines before importation. Certification of nonroad engines generally involves testing the engines to show that emission levels are below the standards, applying to EPA for a certificate of conformity, and complying with other requirements specified in the applicable regulations (either 40 CFR 90, 40 CFR 1054 or 40 CFR 1048) for certified engines. In order to be considered nonroad, mini trucks must be speed limited to less than 25 mph, and the manufacturer (the importer will be referred to as the manufacturer through out this document) must prove the minitruck has a robust tamper-proof speed limiting method.

If the imported engine/vehicle was originally equipped with automotive-type emission controls, we would expect only minor modifications to be needed to meet nonroad engine emission standards. If the engine/vehicle does not have emission controls, extensive modifications may be needed to comply with nonroad engine emissions standards.

EPA has determined that only mini trucks that have been permanently modified from the original motor vehicle design such that the resulting vehicle speed is 25 mph or less are considered to be nonroad vehicles. All other mini trucks are classified as motor vehicles and must meet all applicable regulations for motor vehicles. This is consistent

with EPA's motor vehicle exclusion determinations per the Code of Federal Register (CFR), 40 CFR 85.1703 for mini trucks.

As discussed above, mini trucks generally fall into the Small SI (40 CFR 90) category which includes engines ≤ 19 kW (engines with displacement ≤ 1000 cc **and** power ≤ 30 kW may optionally meet Small SI standards). Engines with power >30 kW **or** displacement > 1000 cc must be certified to the Large SI (40 CFR 1048) standards. The following requirements apply uniquely to Large SI engines:

- More stringent exhaust emissions standards including a useful life of 5000 hours (§1048.101)
- Field-testing standards (§1048.101 (c) and 1048.515)
- Evaporative controls (§1048.105)
- Diagnostic requirements (§1048.110)
- Different steady state duty cycle (§1048.505)
- Transient duty cycle for engines governed to operate with maximum test speed at or below 3400 rpm (§1048.510)
- In-use testing program for manufacturers (Part 1048 Subpart E)
- Lower threshold for production line testing (Part 1048 Subpart D).

This document is intended to provide an overview of the processes and procedures that must be completed in order to obtain an EPA certificate of conformity, found in 40 CFR 90. However, beginning in 2011 Model Year, the procedures that must be completed in order to obtain an EPA certificate of conformity can be found in 40 CFR 1054. 40 CFR 1054 establishes a new set of emission standards and also includes additional reporting requirements. Most other general certification procedures remain the same. The following outlines the new/expanded requirements for 40 CFR 1054:

- Evaporative emissions compliance – full requirements are outlined in 40 CFR 1060. Requirements include:
 - Fuel line permeation (§1060.102) 15 g/m²/day standard
 - Fuel tank permeation (§1060.103) 1.5 g/m²/day standard @ 28°C (2.5 g/m²/day @ 40°C)
 - Optional Diurnal certification (to replace fuel line and fuel tank certification) (§1060.105(e))
 - Running Loss demonstration (§1060.104)
- Compliance at varying atmospheric pressures (§1054.205@)
- Listing of ports at which engines have been imported over the last twelve months (§1054.205(aa)(1))
- Names and addresses of agents you have authorized to import your engines (§1054.205(aa)(2))
- Location of a test facility in the US where your engines can be tested (§1054.205(aa)(3))

Any individual or company intending to certify and/or import mini trucks into the U.S. should read all of the applicable regulatory provisions as the certificate holder is responsible for all warranty and in-use compliance activities. The applicable regulations for minitrucks (certified as nonroad engines) are as follows:

Power <30 kW AND Engine Displacement < 1000 cc		Power >30 kW OR Engine Displacement > 1000 cc (and power >19 kW)
2009 and 2010 MY	2011 MY and Beyond	2009 MY and Beyond
40 CFR 90	40 CFR 1054, 40 CFR 1060, 40 CFR 1068, 40 CFR 1065	40 CFR 1048

II. Pre-Application

In order to hold a certificate you have to be the importer of the product or the manufacturer of record. In order to be established as the manufacturer of record, the items in this section must be completed by the certificate holder prior to preparation and submission of the certification application. Be sure to allow ample time to complete the steps in this section.

A. Obtaining a Manufacturer Code

The CFR defines a nonroad engine manufacturer as any person engaged in the manufacturing or assembling of new (as defined in 40 CFR 1048.801) nonroad engines or the importing of such engines for resale, or one who acts for and is under the control of any such person in connection with the distribution of such engines.

All manufacturers that plan to certify vehicles or engines with EPA must first obtain a three-character EPA manufacturer code. This code will be used in each certified engine family name and provides a direct link to the certifying company.

Obtaining a manufacturer code is done via the Agency's Central Data Exchange (CDX). CDX is the single point of entry for electronic environmental information submissions to the Agency. Once you complete this process, the manufacturer code for your company will be sent to the business e-mail address you provided.

If you are a new manufacturer who has not obtained a three-character manufacturer code from EPA, please follow the steps in the manufacturer code request instructions found at <http://www.epa.gov/otaq/verify/index.htm>

B. EPA Contact Persons

The manufacturer must assign a primary contact person to work with EPA. EPA will direct all communications, including issuance of the Certificate of Conformity, to the manufacturer's primary contact, unless otherwise directed.

Information for the manufacturer's primary contact person may be mailed via standard U.S. mail to (express Mail such as FedEx or UPS to this address will be returned to sender):

Heavy-Duty and Nonroad Engine Group
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. N.W.
Mail Code 6405J
Washington, DC 20460

For express mail deliveries such as FedEx or UPS, please use the following address: (regular U.S. mail delivered to this address will be returned to sender):

Heavy-Duty and Nonroad Engine Group
U.S. Environmental Protection Agency
1310 L Street, NW
Suite 656C
Washington, DC 20005

Each manufacturer will be assigned a primary EPA contact. However, initial Questions should be directed to Mike Marko at the above address or by e-mail at marko.michael@epa.gov. Mr. Marko will direct manufacturers to the primary EPA certification contact person as appropriate.

C. Manufacturer's Model Year Certification Plans (Letter of Intent)

EPA suggests that each manufacturer provide written certification plans for each model year in advance of submitting the certification application. The submission of the certification plan allows manufacturers to notify EPA of any variations from the certification requirements that may require advanced approvals, such as deviations from the required test procedures, test equipment, or test facilities specified in the regulatory requirements. This is also the time to provide justification for the worst case test engine selection. Any issue where EPA approval is needed should be addressed in advance of acting on the issue to avoid non-approval and required retesting, reselection, etc. The plans should include an estimate of the number of engine families to be certified as well as any unusual circumstances that may affect certification.

Manufacturers who choose not to request advance approval in a timely manner may face delays in processing the certification application. As a general rule, the EPA certification contact will not respond to model year plans that have been submitted unless further discussion or clarification is needed.

D. Bond Requirement and U.S. Agent for Service

40 CFR 90.1007 (40 CFR 1054.690) specifies the bond requirement which covers any possible compliance action— recall, penalties, warranty failure, etc. A fact sheet explaining the bond requirements as well as the worksheet that must be submitted at the time the Application for Certification is submitted can be found on our web site at <http://www.epa.gov/otaq/certdat2.htm>.

An Agent for Service is defined as a contact located in the United States that will receive all correspondence (test orders, subpoenas, etc.) and ensure that the certificate holder is informed. The agent for service information is required to be submitted at the time of certification.

III. Application for Certification

A. Model Year

The model year of an imported used mini truck will be the same as the calendar year of importation or date of conversion if operated as a speed-limited mini truck before importation. A mini truck that is converted near the end of a calendar year and not imported until the following calendar year is required to meet the standards of the following calendar year. For example, if a mini truck is converted in November of 2010 and is imported in January of 2011, it will be required to meet the 2011 model year standards as defined in the appropriate section of the regulations. Manufacturers must apply for certification on an annual basis.

B. Determining Engine Families

Manufacturers' product lines are divided into engine families. In order for multiple engines to be classified in the same engine family, in addition to the base engine being from the same engine manufacturer, the following criteria must be identical for all of the engines, as defined 40 CFR 90.116 (d) (40 CFR 1054.230 (b)):

- Combustion cycle
- Cooling mechanism
- Cylinder configuration
- Number of cylinders
- Engine class. Engines of different displacements that are within 15% of the largest displacement may be included within the same engine family as long as all engines are within the same class
- Location of valves, where applicable
- Number of catalytic converters, location, volume and composition

- Thermal reactor characteristics
- Fuel required
- Useful life – which will be 1000 hours for all minitrucks

EPA is willing to consider grouping multiple model years of original production of a given brand of mini truck into a single model year of importation if a manufacturer can provide a complete justification that they are identical in all material respects.

C. General Certification Application Requirements

A complete Certification Application must include the following:

1. Certification Application Fee
2. Signed Statement of Compliance
3. FileMaker Pro Application

1. Certification Application Fee

Once engine families have been determined, certification application fees can be submitted. EPA will not start the review process until confirmation is received that all required fees have been paid. To expedite review of the certification application, payment should be submitted at least two weeks in advance of the submission of the rest of the application.

The fee filing form and corresponding fees must be submitted for each engine family to be certified. Fee regulations, amounts, filing forms, and guidance letters can be found at: <http://www.epa.gov/otaq/fees.htm>

2. Statement of Compliance

A signed statement of compliance is required as part of a complete certification application. The signed statement of compliance signifies that the manufacturer understands and accepts the emission standards and other requirements of the applicable CFR section to which the engines are being certified. In the statement of compliance, manufacturers should specifically refer to the set of regulations to which the engine complies. The signed statement of compliance should be mailed to the Heavy-Duty and Nonroad Engine Group address given above.

Requirements for this statement are specified in 40 CFR 90.107 (1054.205 (u)) and a sample statement of compliance are included in Appendix A.

3. FileMaker Pro Application

Engine family applications must be submitted using a FileMaker Pro template created by EPA for Nonroad SI engines. The files for this template and instructions can be found at: <http://epa.gov/otaq/certdat2.htm>

D. Application Data Requirements

1. Confidential Business Information (CBI)

Information considered CBI is clearly marked in the FileMaker Pro template. Only non-CBI material entered into the template will be posted on EPA's engine certification data website. For additional information on CBI, please refer to 40 CFR 90.4 (40 CFR 1054.815).

2. Durability Testing / Deterioration Factor (DF) Calculation

The manufacturer is required to test the worst case engine, which is defined as the engine most likely to exceed the emission standard within a given engine family (40 CFR 90.117, 40 CFR 1054.235). The most important factors for determining the worst-case vehicle for mini trucks are substantially different than for manufacturers producing engines from an assembly line. We consider the extent of service outside the United States to be the most important factor in selecting a worst-case test engine. This approach allows a manufacturer to adequately demonstrate that all imported engines from the engine family will comply with all emission standards for the post-importation useful life of the mini truck, which is 1000 hours.

The emission results from the test engine serve to predict the maximum emission level for all engines in the engine family throughout the engine's useful life. There will be a multiplicative deterioration factor applied to the test results from the test engine to show that it complies with the standards for the post-importation useful life of 1000 hours. For small-volume manufacturers (up to 10,000 U.S. sales per year for the whole company) and for small-volume emission families (up to 5,000 U.S. sales per year for the engine family), this deterioration factor can be assigned by EPA. Please contact your certification representative for assigned deterioration factors.

Manufacturers that do not qualify for an assigned deterioration factor must follow the procedures specified in 40 CFR 90 (40 CFR 1054) to determine a deterioration factor based on durability testing, which is generally based on service accumulation in a laboratory. This is the conventional approach used by engine manufacturers for certifying their new engines.

If a manufacturer tests the worst-case engine, based on the engine's service outside the U.S., then we would allow the manufacturer's application and

certificate of conformity to include any engines, within the same engine family, installed in vehicles that had a lower mileage than the test engine.

An example of this is as follows: A mini truck has 120,000 kilometers at the time of importation; the engine is taken out of the vehicle and tested. The deterioration factors are applied to the test results and the resulting certification levels pass all applicable emission standards. These test results are considered to be the worst-case emissions for the engine family. The certificate of conformity may therefore cover engines from the same engine family that are installed in mini trucks with an odometer reading of less than 120,000 kilometers at the time of importation.

3. Certification Testing

Please refer to 40 CFR 90.119 (a) and Table 2 of Appendix A to Subpart E of 40 CFR 90 (40 CFR 1054 Subpart F) to determine the applicable test cycles for the engines to be certified. Please refer to 40 CFR 90 Subpart E (40 CFR 1054 Subpart F) for information about certification testing allowed in the regulations. When testing an engine at its full useful life, you may follow the scheduled maintenance instructions in 40 CFR 90.118(b) (40 CFR 1054.245 (b) (4)).

4. Certification Fuel

There are three options for certification fuel permitted in 40 CFR Part 90. The first fuel option is average in-use gasoline (e.g., Clean Air Act Baseline), specified in 40 CFR 90, Subpart D, Appendix A, Table 3 (40 CFR 1065 Subpart H). The second option is to use the fuel specified in 40 CFR 1065, subpart H, for gasoline-fueled engines. The third option allows small SI engine manufacturers to use other fuels, such as natural gas, propane, methanol, or others, under conditions described at 40 CFR 90.308(b)(2) and (3) (40 CFR 1054.645).

5. Data Carry Over

Under 40 CFR 90.119 (c) (40 CFR 1054.235 (d)), the engine manufacturer may request to use test data from a previous EPA model year to represent a new EPA model year. This is known as data carry over. Spaces are provided in the FileMaker Pro certification template for manufacturers to designate “carry over” data. Any differences between the previous and new model year engines must be shown. The engine for which the carry over data is being used must fully comply with the applicable standard.

Calendar year is the only change that allows data to be carried over. Data may not, for example, be carried over into an engine family that has different catalyst loading.

6. Test Data Used by Multiple Manufacturers

Due to the nature of the used mini truck industry, EPA anticipates multiple manufacturers contracting with a testing facility to use the same set of test results. This may be acceptable given the following conditions are satisfied:

- The test data is representative. The test data must be used for an engine family that is identical (as described above in the definition of an engine family). The only difference in the engine family would be the manufacturer code.
- The statement of compliance (found in Appendix A) includes a statement referencing the contract between the manufacturer and the testing facility generating the test data.

The in-use and warranty liability resides with the certificate holder. For example if the same set of test data is used by 5 manufacturers, all 5 manufacturers would be subject to the recall investigation.

7. Labeling

All vehicles are required to have an engine information label per 40 CFR 90.114 (40 CFR 1054.135). The label must be permanently affixed prior to importation or introduction into U.S. commerce in order to be compliant.

Label requirements and sample language are included in Appendix B. If mini trucks have a label from the original manufacturer's initial certification in Japan, the label to be installed per U.S. EPA regulations should include an additional sentence. This sentence should read: "This label replaces the label from the original manufacturer." The original label must not be removed.

8. Warranty

Warranty period is defined in 40 CFR 90.1103 (40 CFR 1054.120), two years of engine use from the date of sale to the ultimate purchaser.

9. Production Line Testing

Manufacturer Production Line Testing (PLT) is required for all Small SI engines covered under part 90 and the procedures are described in Subpart H of 40 CFR 90 (40 CFR 1054 Subpart D). Per 40 CFR 90.701 (b) (40 CFR 1054.301 (a) PLT is optional for small volume engine manufacturers (annual U.S.-directed production volume $\leq 10,000$ engines for non-handheld) and small volume engine families (annual U.S.-directed production volume ≤ 5000 engines). All Small SI engines are subject to Selective Enforcement Audit (Subpart F of 40 CFR 90, Subpart E of 40 CFR 1068).

E. Completing the Application

1. EPA Review

EPA generally reviews each application within 30 calendar days of receipt and fees payment confirmation. As part of the review, EPA will determine whether to request additional information (audit) and/or to perform confirmatory testing. Manufacturers should keep the test engine in its certification configuration until the end of production.

EPA will contact the manufacturer should additional information or other circumstances cause a delay.

2. Certificate of Confirmatory

Once EPA determines that the regulatory requirements are met, it will issue a certificate of conformity for an engine family. Engines covered by the certificate can be introduced into commerce as of the date listed on the certificate. The certificate ceases to be valid for new production at the end of the production period or December 31 of the calendar year for which the model year is named, whichever date is sooner.

The certificate of conformity is signed by the Director of the Compliance and Innovative Strategies Division who is delegated with signature authority by the EPA Administrator. A certificate is not valid without this signature. An electronic version of the original signed certificate will be e-mailed to the "Contact Person" listed on the Engine Family page of the FileMaker Pro application. Check to ensure that the correct contact person and contact information (mailing address, phone number, fax number, and e-mail address) are listed on the application.

A sample certificate is included in Appendix C.

IV. Appendices

A. Appendix A – Sample Statement of Compliance

Manufacturer Primary Contact
XY Engine Company
4567 Industrial Highway
El Monte, CA 91731

March 1, 200x

Heavy-Duty and Nonroad Engine Group
U.S. Environmental Protection Agency
Mail Code 6403J
1200 Pennsylvania Ave, NW
Washington, DC 20460

Dear _____:

Please find enclosed the model year 200x application for engine family 6XYES.1452GR. On behalf of XY Engine Company, I hereby certify that the test engine(s), as described in this application for certification, has been tested in accordance with the applicable test procedures, utilizing the fuels and equipment required under subparts D and E of 40 CFR 90, and that on the basis of such tests the engine(s) conforms to the requirements of 40 CFR 90. I further certify that the test engine(s) was/were tested by {Name of Test Laboratory}, the testing facility identified in this certification application, under a contract between XY Engine Company and [Name of Test Laboratory]. I further certify that all engines in this engine family comply with all requirements of 40 CFR 90 and the Clean Air Act and that the engines are not modified in any way that would affect emissions performance.

Sincerely,

[MANUFACTURER PRIMARY CONTACT]
SIGNATURE

Enclosures

Refer in this letter to any alternate or special test procedure approvals or any other approvals required from EPA for this engine family. It is recommended that manufacturers print the statement of compliance on company letterhead.

B. Appendix B – Sample Label Wording

General engine label requirements are included in 40 CFR 90.114.

The following is a list of items which must be included on the permanent and legible label identifying each nonroad engine:

1. The heading “Important Engine Information”
2. The full corporate name and trademark of the engine manufacturer
3. Date of engine manufacture [day (optional), month and year] – this information may be excluded from the label if it is stamped on the engine and included in the owner’s manual
4. The statement “This engine conforms to [model year] U.S. EPA regulations for small nonroad engines.”
5. EPA standardized engine family designation
6. Engine displacement [in cubic centimeters]
7. Other information concerning proper maintenance and use or indicating compliance or noncompliance with other standards may be indicated on the label
8. For Phase 2 engines, the useful life category as determined by the manufacturer pursuant to 40 CFR 90.105. Such useful life category shall be shown by one of the following two statements to be appended to the statement “This engine conforms to [model year] U.S. EPA regulations for small nonroad engines.”
 - a. “EMISSIONS COMPLIANCE PERIOD: [useful life] HOURS”
 - b. “EMISSIONS COMPLIANCE PERIOD: CATEGORY [fill in C, B or A as indicated and appropriate from the tables in 40 CFR 90.105], REFER TO OWNER’S MANUAL FOR FURTHER INFORMATION”

The following is a list of items which may be omitted from the label and included in the owner’s manual if there is insufficient space on the engine:

1. The statement “This (specify vehicle or engine, as applicable) is certified to operate on (specify operating fuel(s)).”
2. Identification of the Exhaust Emission Control System (Abbreviations may be used and must conform to the nomenclature and abbreviations provided by the Society of Automotive Engineers procedure J1930, “Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms,” September 1991.
3. All engine lubricant requirements

The following is a sample emission label which conforms to these requirements:

Important Engine Information
Company XY, inc This engine is certified to operate on gasoline. This engine conforms to 2006 U.S. EPA regulations for small nonroad engines. EMISSIONS COMPLIANCE PERIOD: 500 HOURS Engine Family: 6XYXS.1451AB Engine Displacement: 145 cc Date of Manufacture: 4/2006 Exhaust Emission Control: TWC Lubricant Requirements: SF15W-40

If a manufacturer wants to modify the label (according to 40 CFR 90.114), then the manufacturer must submit in writing a request for an alternate label. Requests for alternate labels should be directed to the certification representative listed in the body of this guidance document. The following is guidance on engine label wording when engines are certified to meet only federal regulations or both California and federal regulations:

Federal-Only Label

Labels indicating compliance with federal regulations only should follow wording specified at 40 CFR 90.114(c)(7):

“This engine conforms to (model year) U.S. EPA regulations for small nonroad engines.”

As an option, the manufacturer may substitute PH1 or PHASE 1 (PH2 or PHASE 2, PH3 or PHASE 3, etc.) for model year.

Common California and Federal Label

To indicate that a CARB certified engine also meets federal standards, the label should read as follows:

“This engine conforms to U.S. EPA PH2 (or PHASE 2) and [DATES] California emission regulations for Small [Off-Road or Nonroad] engines.”

or

“This engine conforms to U.S. EPA PH2 (or PHASE 2) regulations for small nonroad engines and [DATES] California emission regulations for Small [Off-Road or Nonroad] engines.”

(Substitute PH2, PHASE 2, PH3, PHASE 3, etc. for PH1 or PHASE 1 wherever applicable.)

C. Appendix C – Sample Certificate of Conformity

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

200x Model Year Certificate of Conformity

Manufacturer: **ABC Inc.**
Small SI Engine Family **xABCS.0685AA**
Certificate Number: **ABC-NRSI-0x-42**
HC+NOx FEL: g/kW-hr **68**
Date Issued: **6/30/200x**

Karl J. Simon, . Director
Compliance and Innovative Strategies Division
Office of Transportation and Air Quality

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR 90, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued for the following small nonroad engine family, more fully described in the documentation required by 40 CFR 90 and produced in the stated model year. This certificate of conformity covers only those new small nonroad engines which conform in all material respects to the design specifications described in the documentation required by 40 CFR 90 and which are produced during the model year stated on this certificate. This certificate of conformity does not cover small nonroad engines imported prior to the effective date of the certificate.

This certificate of conformity is conditional upon compliance of said manufacturer with the averaging, banking and trading provisions of 40 CFR Part 90, Subpart C both during and after model year production. Failure to comply with these provisions may render this certificate void ab initio.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 90.126 and 90.506 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR 90. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR 90.

This certificate does not cover small nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.