

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER B-66U-1
Relating to Conversion of Diesel Powered Off-Highway Vehicles to Electricity

Orange EV
T-Series Pure Electric Terminal Truck

Pursuant to the authority vested in the undersigned by Section 39515 and Section 39516 of the Health and Safety Code and Executive Order G-14-012; and

Pursuant to Health and Safety Code Section 43004, which provides, in pertinent part, that the standards applicable for exhaust emissions for gasoline-powered motor vehicles shall apply to motor vehicles which have been modified or altered to use a fuel other than gasoline or diesel; and

Pursuant to Health and Safety Code Section 43006, which provides that the Air Resources Board may certify the fuel system of any motor vehicle powered by a fuel other than gasoline or diesel which meets the standards specified by Section 43004; and

Pursuant to Vehicle Code Sections 27156 and 38395, which provide in pertinent part that the prohibitions in Section 27156 and Section 38391, respectively, regarding alterations, modifications or modifying devices, apparatuses or mechanisms which modify or alter the original design or performance of required motor vehicle or off-highway motor vehicle pollution control devices or systems shall not apply to alterations, modifications, or modifying devices, apparatuses, or mechanisms found by the Air Resources Board to not reduce the effectiveness of required motor vehicle or off-highway motor vehicle pollution control devices or result in emissions from any such modified or altered vehicle or off-highway vehicle which are at levels which comply with existing state or federal standards for the model year of the vehicle or off-highway motor vehicle being modified or converted;

IT IS ORDERED AND RESOLVED: That the T-Series Pure Electric Terminal Truck electric vehicle conversion kit manufactured by Orange EV of 500 NW Business Park Lane Riverside, MO 64150 is approved for installation on 2002 to 2014 model-year diesel powered off-highway vehicles originally incorporating engines certified to Tier 4 Final standards for Rated Power Class less than 560 kilowatts, or less stringent standards, listed in Exhibit A, of this document.

BE IT FURTHER RESOLVED: That because the motor vehicles converted in accordance with the systems covered by this order are powered by battery-stored electricity and have no on-board systems which consume any fuel other than electricity; the vehicles have no exhaust emissions and therefore comply with the exhaust emission standards applicable to 2014 and older model year diesel powered off-highway vehicles incorporating engines originally certified to 2014 Tier 4 Final Rated Power Class less than or equal to 560 kilowatts standards.

The T-Series Pure Electric Terminal Truck system includes the following major components:

Component	MFR Part Number	Description
Motor	62-003-00001-N	Electric Traction Motor
Motor Controller	62-001-00002-N	Signal Controller for Traction Motor
Energy Storage System	61-001-00029-N	Battery
BMS	61-002-00022-N	Battery Management System
PDC/DC	60-002-00027-N/ 60-002-00327-N	Power Supply/Voltage Regulators
Rear Axle/Drive Shaft	25-002-00013-N/ 69-002-00033-N	Rear Axle & Drive Shaft
A/C Unit	57-002-00003-N	Cooling for Cabin
Heating Unit	56-002-00007-N	Heating for Cabin

BE IT FURTHER RESOLVED: That because the motor vehicles converted in accordance with the systems covered by this order have no parts that affect emissions for which there is an applicable emission requirement, the conversion system manufacturer is not required to provide an emission control system warranty pursuant to Health and Safety Code Section 43205 or 43205.5, or Title 13, California Code of Regulations, Sections 2035 et seq, 2425, 2435 and 2436. Motor vehicles converted in accordance with the system covered by this order shall not be equipped with any on-board system which consumes any fuel other than electricity. Any changes to the design or operating conditions of their system which violates this condition shall invalidate this Executive Order.

Marketing of the T-Series Pure Electric Terminal Truck using any identification other than that shown in this Executive Order or marketing of the T-Series Pure Electric Terminal Truck for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board.

Exemption of the T-Series Pure Electric Terminal Truck system shall not be construed as an exemption to sell, offer for sale, or advertise any component of the assembly as individual devices.

This Executive Order shall not apply to any T-Series Pure Electric Terminal Truck advertised, offered for sale, sold with, or installed on a new motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

This Executive Order does not constitute any opinion as to the effect the use of Orange EV T-Series Pure Electric Terminal Truck electric vehicle conversion system may have on any warranty either expressed or implied by the manufacturer.

In addition to the foregoing, the Air Resources Board reserves the right to review this Executive Order and the exemption provided herein to assure that the exempted vehicle conversion kit continues to meet the standards and procedures of Title 13, California Code of Regulations, Sections 2222, et seq. and 2470, et seq.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIM MADE BY THE APPLICANT CONCERNING THE RANGE, DURABILITY, OR SAFETY ASSOCIATED WITH THE USE OF ORANGE EV'S T-SERIES PURE ELECTRIC TERMINAL TRUCK.

Executed at El Monte, California, this 6 day of September 2016.

A handwritten signature in black ink, appearing to read "Annette Hebert", written in a cursive style.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

EXHIBIT-A

ORANGE EV T-Series Pure Electric Terminal Truck					
Truck Manufacturer	Truck Model	Intended Use	Engine Year	Engine Displ. (liters)	Engine Family Number
Kalmar Ottawa	YT30	Off Hwy	2002	5.9	2CEXL0359ABA
Kalmar Ottawa	YT30	Off Hwy	2004	5.9	4CEXL0359AAD
Kalmar Ottawa	YT30	Off Hwy	2005	5.9	5CEXL0359AAC
Capacity	Yard Tractor	Off Hwy	2006	5.9	6CEXL0359AAB
Kalmar Ottawa	Yard Tractor	Off Hwy	2006	5.9	6CEXL0359AAD
Kalmar Ottawa	C30	Off Hwy	2006	5.9	6CEXL0359AAD
Kalmar Ottawa	YT30	Off Hwy	2006	5.9	6CEXL0359AAD
Kalmar Ottawa	YT30	Off Hwy	2007	6.7	7CEXL0409AAC
Kalmar Ottawa	Yard Tractor	Off Hwy	2007	6.7	7CEXL0409AAC
Kalmar Ottawa	YT30	Off Hwy	2008	6.7	8CEXL0409AAC
Kalmar Ottawa	Yard Tractor	Off Hwy	2009	6.7	9CEXL0409AAC
Kalmar Ottawa	Yard Tractor	Off Hwy	2010	6.7	ACEXL0409AAC
Kalmar Ottawa	Yard Tractor	Off Hwy	2011	6.7	BCEXL0409AAC
Kalmar Ottawa	Yard Tractor	Off Hwy	2014	6.7	ECEXL06.7AAH