



Pursuant to the authority vested in California Air Resources Board by Health and Safety Code Divisions 25.5 and 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: The following on-road motor vehicles with a manufacturer's GVWR over 10,000 pounds are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

VEHICLE FAMILY INFORMATION:

Model Year: 2023

Vehicle Family Name: PGUL2VOCVTM5

Vehicle Type: Vocational / Mixed-use Vehicle

Assigned Vehicle Service Class: Heavy HDV

CO₂ FAMILY EMISSION LIMITS:

CO₂ Standard (g/ton-mile): 319

Highest Projected Family Emission Limit (g/ton-mile): *

Lowest Projected Family Emission Limit (g/ton-mile): *

TIRE COEFFICIENT OF ROLLING RESISTANCE:

Tire Coefficient of Rolling Resistance Standard (kg/metric ton): 7.6

Highest Tire CRR Value (kg/metric ton): 6.9

EMISSION CONTROL SYSTEMS:

LRRA- Low rolling resistance tires (all)

BE IT FURTHER RESOLVED: The listed vehicle family is certified to the Optional Phase 2 Custom Chassis CO₂ Emissions Standards as specified in 17 CCR 95663(a)(1)4 and Section 1037.105(h) of the incorporated "California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles" (HDV Test Procedures) adopted October 21, 2014, as last amended September 9, 2021.

BE IT FURTHER RESOLVED: The manufacturer has demonstrated certification compliance with the Greenhouse Gas Emission Standards as specified in Title 17 CCR 95663 and the incorporated "California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles" (HDV Test Procedures) adopted October 21, 2014 as last amended September 9, 2021.

BE IT FURTHER RESOLVED: For the listed air conditioning platform(s) in the attachment, the manufacturer has demonstrated certification compliance with the AC Leakage Standard specified in 17 CCR 95663(a)(1)(B)7 and Section 1037.115 of the incorporated "California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles" (HDV Test Procedures) adopted October 21, 2014, as last amended September 9, 2021.

BE IT FURTHER RESOLVED: For the listed vehicle models, the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1978 (complete vehicles) (vehicle refueling emissions standards), and 13 CCR 2035 et seq. (emission control warranty).

BE IT FURTHER RESOLVED: The engine families that are approved for installation within the vehicle family are listed in the attachment.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

Executed on this 23rd day of February 2023.

Robin U. Cheng, Chief
Emissions Certification and Compliance Division

Vehicle Make and Models: Vehicle

<u>Make</u>	<u>Models</u>
Manitowoc	TMS500-2

Engine Families in Vehicle Family:

PCEXH0540LCA	NCEXH0540LCA
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A/C Platform Summary:

<u>A/C Platform ID</u>	<u>Refrigerant Type</u>	<u>Refrigerant Capacity (g)</u>	<u>STD (HFC (g/year))</u>	<u>Leakage Rate (HFC (g/year))</u>
TMS500E-2 (NEW)	R-134a	2722	40.8	22.8
TMS500E-2 SS	R-134a	2495	37.4	19.2