

VOLVO POWERTRAIN NORTH AMERICA A DIVISION OF MACK TRUCKS, INC.

EXECUTIVE ORDER A-242-0177 New On-Road Heavy-Duty Motor Vehicles

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 26,000 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: 2022

Vehicle Family Name: NVPT2TRACN00

Vehicle Type: Tractor

Vehicle Subcategory: Heavy-Haul Tractor

CO₂ FAMILY EMISSION LIMITS:

CO₂ Standard (g/ton-mile): 52.4

Highest Projected Family Emission Limit (g/ton-mile): 64.0 Lowest Projected Family Emission Limit (g/ton-mile): 47.0

EMISSION CONTROL SYSTEMS:

Low rolling resistance tires all (LRRA), Low rolling resistance tires (drive) (LRRD), Low rolling resistance tires (steer) (LRRS), Aerodynamic roof fairing (ARF), Aerodynamic side skirt and/or fuel tank fairing (ATS), Weight reduction (WR), Vehicle speed limiter (VSL), Tire pressure monitoring system (TPMS)

BE IT FURTHER RESOLVED: The listed vehicle family is certified to the CO₂ Emission Standards for Heavy-Haul Tractors as specified in Section 1037.106 or to the Optional CO₂ Emission Standards for Tractors at or above 120,000 pounds GCWR specified in Section 1037.670 of the "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 June 27, 2019.

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 June 27, 2019.

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)(2)(B)3 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 June 27, 2019.

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 4th day of January 2022.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment 1 of 1:

Vehicle Family: <u>NVPT2TRACN00</u> Date: <u>12/28/2021</u> EO: <u>A-242-0177</u>

Vehicle Make and Models:

Vehicle MakeModelsVolvoVNL, VNR

Mack Pinnacle PI (CHU), Anthem AN (CXU)

Engine Families in Vehicle Family:

NVPTH10.8CA1 NCEXH0912XCB NVPTH12.8CA1 NCEXH0729XDA

NVPTH12.8CA2

A/C Platform Summary:

A/C Platform ID	Refrigerant Type	Refrigerant Capacity (g)	STD (HFC (g/year))	<u>Leakage Rate (HFC</u> (g/year))
PINNACLE PI CHU: 70" SLEEPER	R134a	1820	27.3	12.2