

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-12-9

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following Navistar International Transportation Corporation 1996 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Generator

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems and Special Features</u>
TNV530R6DARB	8.7	(530)	Turbocharger Charge Air Cooler

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matters (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

<u>Exhaust Emissions (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

<u>Engine Family</u>	<u>Exhaust Emission (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
	<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
TNV530R6DARB	0.1	0.5	3.9	0.1	-	9	-

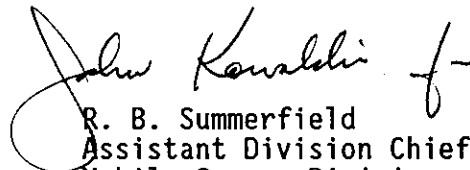
BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

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

Executed at El Monte, California this 11th day of March 1996.


R. B. Summerfield
Assistant Division Chief
Mobile Source Division

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY OFF-ROAD DIESEL ENGINES

Manufacturer Navistar International Transportation Corp. Engine Family TNV530R6DARB
 Displacement : 8.7 / 530 Liters / Cubic Inches Engine Configuration: I - 6
 All Eng Codes in Eng Family: CA 49 50S X Cert Test Procedures: ARB X EPA X
 Valves / Ports per Cylinder 2 valves / cylinder Stroke per Combustion Cycle 4 - stroke
 Maximum Rated Power 350 HP @ 1800 RPM (261 KW) @ 1800 RPM
 Ignition: Compression X Compression with Glow Plug _____ Spark _____
 Fuel Types: Dedicated X Flex-Fuel _____ Dual-Fuel _____ Gasoline _____ Diesel X M100 _____
 M85 _____ CNG _____ LNG _____ LPG _____ Other (specify) _____
 Diesel Cert Fuel: 40 CFR 86.1313-94 X Other (specify) _____
 Primary Service Equipment: Generator
 Exhaust ECS (e.g. , MFI, TC, CAC) : EM DI TC CAC
 (Use abbreviations per SAE J1930 JUN93)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM / PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
GA350	350 @ 1800	215.5 (130.0)	Injection Pumps 1824991C91A, * C92A	Fuel Nozzles 1822141C91		
GA325	325 @ 1800	194.0 (117.0)	1823837C91A, * C92A	"		
GA305	305 @ 1800	182.4 (110.0)	1823837C91C, * C92C	"		

Date Issued : 2/19/96

Revisions : * 5/17/96