

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-12-17

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 1997 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: Tractor, Wheel Loader, Industrial Equipment

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
VNV530R8DARA	8.7 (530)	Turbocharger Charge Air Cooler Engine Control Module

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 matter (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-hp)</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>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>
0.1	0.5	5.2	0.1	4	2	13

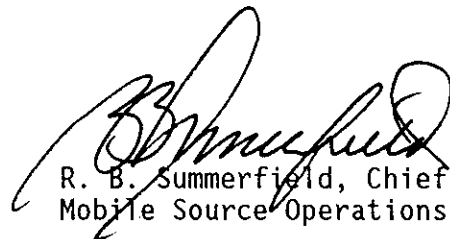
BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

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 20<sup>th</sup> day of March 1997.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY OFF-ROAD DIESEL ENGINES

Page 1 of 1

Manufacturer Navistar International Transportation Corp. Engine Family VNV530R8DARA  
 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 320 HP @ 2100 RPM ( 240 KW) @ 2100 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: Tractors, Wheel loaders, Industrial equipment.  
 Exhaust ECS ( e.g. , MFI, TC, CAC ) : EM ECM DI TC CAC

( Use abbreviations per SAE J1930 JUN93 )

Engine Mode ( Eng. Code )	Rated HP @ RPM	Fuel Rate @ Rated HP mm <sup>3</sup> / stroke ( lbs/hr )	Fuel Pump & Injector Part No.	ECM / PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
<u>DTA-530E</u> IA320	320 @ 2100	166.3 ( 117.0 )	<u>Injectors</u> 1824741C1	<u>ECM</u> 1807349C1,C2,C3,*C4 1807348C1 1807350C1		
IA315	315 @ 2200	153.5 ( 113.2 )	"	"		
IA300	300 @ 2000	157.1 ( 105.3 )	"	"		
IAF300	300 @ 2000	165.9 ( 111.2 )	"	"		
IA290	290 @ 2100	146.4 ( 103.0 )	"	"		
IA265	265 @ 2200	124.1 ( 91.5 )	"	"		
IAL265	265 @ 2100	130.0 ( 91.5 )	"	"		
IA260	260 @ 2200	121.4 ( 89.5 )	"	"		
IA250	250 @ 2200	113.9 ( 84.0 )	"	"		

Date Issued : 1/27/97

Revisions : 4/9/97 | \*8/13/97 | | | | | |