

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-276-7
Relating to Certification of New Heavy-Duty Motor Vehicle Engines

NISSAN DIESEL MOTOR CO., LTD.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 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-45-3;

IT IS ORDERED AND RESOLVED: That the following Nissan Diesel Motor Co., Ltd. 1990 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

| <u>Engine Family</u> | <u>Displacement Liters (Cubic Inches)</u> | <u>Exhaust Emission Control Systems (Special Features)</u> |
|----------------------|---|--|
| LND0211EAB4 | 3.465 (211) | Engine Modification Direct Injection (Diesel) (Turbocharger) |
| LND0423DAA3 | 6.925 (423) | Engine Modification Direct Injection (Diesel) |
| LND0423EAB7 | 6.925 (423) | Engine Modification Direct Injection (Diesel) (Turbocharger) |
| LND0452EAB7 | 7.412 (452) | Engine Modification Direct Injection (Diesel) (Turbocharger) |

Engine models and codes are listed on attachments.

The following are the certification emission standards for these engine families:

| <u>Hydrocarbons gm/bhp-hr</u> | <u>Carbon Monoxide gm/bhp-hr</u> | <u>Nitrogen Oxides gm/bhp-hr</u> | <u>Particulates gm/bhp-hr</u> |
|-----------------------------------|--|--------------------------------------|-----------------------------------|
| 1.3 | 15.5 | 6.0 | 0.60 |

The following are the certification emission values for these engine families:

| <u>Engine Family</u> | <u>Hydrocarbons gm/bhp-hr</u> | <u>Carbon Monoxide gm/bhp-hr</u> | <u>Nitrogen Oxides gm/bhp-hr</u> | <u>Particulates gm/bhp-hr</u> |
|----------------------|-----------------------------------|--|--------------------------------------|-----------------------------------|
| LND0211EAB4 | 0.8 | 1.9 | 5.2 | 0.43 |
| LND0423DAA3 | 0.9 | 3.3 | 5.0 | 0.48 |
| LND0423EAB7 | 1.2 | 2.5 | 5.5 | 0.30 |
| LND0452EAB7 | 0.8 | 2.1 | 5.1 | 0.44 |

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Section 2036, and Health and Safety Code, Section 43205.5).

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

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 30th day of March, 1989.



K. D. Drachand, Chief
Mobile Source Division

Section 16.03.00.00 Certification Information

E.O.NO. A-276-7
Page 21990 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINESMHDD

Manufacturer NISSAN DIESEL MOTOR CO., LTD. Engine Family : LND0423DAA3
 Liters (CID) 6.925 (423) Engine Type Inline 6
 Emission Control Sys. and (Special Features) EM (DID)

| Engine Model | Fuel Injection Pump Mfr. Part Number | Injector Mfr. Part Number | Maximum Rated HP at RPM | Fuel Rate mm3/stroke (lbs/Hr) | Maximum Rated Torque at RPM | Fuel Rate mm3/stroke (lbs/Hr) |
|--------------|--------------------------------------|------------------------------------|-------------------------|-------------------------------|-----------------------------|-------------------------------|
| FE6 | DIESEL KIKI CO., LTD. 16713 Z5778 | DIESEL KIKI CO., LTD.: 16600 Z5569 | 160 HP @ 3000 RPM | 67.0 (67.5) | 332 lbs.ft @ 1600 RPM | 68.0 (36.5) |

| | | | | |
|--------------|-------------------|--|--|--|
| Issue Date | February 22, 1989 | | | |
| Revision No. | | | | |
| Date | | | | |

Section 16.03.00.00 Certification Information

E.O.# A-276-7
Page 21990 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINESLHDD

Manufacturer NISSAN DIESEL MOTOR CO.,LTD. Engine Family LND0211EAB4
 Liters (CID) 3.465 (211) Engine Type Inline 4
 Emission Control Sys. and (Special Features) EM (_DID, TC_)

| Engine Model | Fuel Injection Pump Mfr. Part Number | Injector Mfr. Part Number | Maximum Rated HP at RPM | Fuel Rate mm3/stroke (lbs/Hr) | Maximum Rated Torque at RPM | Fuel Rate mm3/stroke (lbs/Hr) |
|--------------|---------------------------------------|---------------------------------------|-------------------------|-------------------------------|-----------------------------|-------------------------------|
| FD35T | DIESEL KIKI CO., LTD.: 16700 01D01 | DIESEL KIKI CO., LTD.: 16600 01D02 | 120 HP @ 3500 RPM | 67.5 (52.9) | 210 lbs.ft @ 2000 RPM | 72.0 (32.3) |

| | | | | |
|--------------|-------------------|--|--|--|
| Issue Date | February 22, 1989 | | | |
| Revision No. | | | | |
| Date | | | | |

Section 16.03.00.00 Certification Information

E.O. NO. A-276-7
Page 21990 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINESMHDD

Manufacturer NISSAN DIESEL MOTOR CO., LTD. Engine Family : LND0423EAB7
 Liters (CID) 6.925 (423) Engine Type Inline 6
 Emission Control Sys. and (Special Features) EM (DID, TC)

| Engine Model | Fuel Injection Pump Mfr. Part Number | Injector Mfr. Part Number | Maximum Rated HP at RPM | Fuel Rate mm3/stroke (lbs/Hr) | Maximum Rated Torque at RPM | Fuel Rate mm3/stroke (lbs/Hr) |
|--------------|--------------------------------------|-------------------------------------|-------------------------|-------------------------------|-----------------------------|-------------------------------|
| FE6T | DIESEL KIKI CO.,LTD 16713 Z5779 | DIESEL KIKI CO.,LTD. 16600 Z5570 | 180 HP @ 3000 RPM | 71.5 (72.0) | 332 lbs.ft @ 1800 RPM | 64.4 (38.9) |

| | | | | |
|--------------|-------------------|--|--|--|
| Issue Date | February 22, 1989 | | | |
| Revision No. | | | | |
| Date | | | | |

Section 16.03.00.00 Certification Information

E.O. NO. A-276-7
Page 21990 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

MHDV

Manufacturer NISSAN DIESEL MOTOR CO.,LTD. Engine Family : LND0452EAB7
 Liters (CID) 7.412 (452) Engine Type Inline 6
 Emission Control Sys. and (Special Features) EM (DID , TC)

| Engine Model | Fuel Injection Pump Mfr. Part Number | Injector Mfr. Part Number | Maximum Rated HP at RPM | Fuel Rate mm3/stroke (lbs/Hr) | Maximum Rated Torque at RPM | Fuel Rate mm3/stroke (lbs/Hr) |
|--------------|--------------------------------------|-------------------------------------|-------------------------|-------------------------------|-----------------------------|-------------------------------|
| NE6T | DIESEL KIKI CO.,LTD 16713 95119 | DIESEL KIKI CO.,LTD. 16600 95015 | 210 HP @ 2,800 RPM | 92.5 (87.0) | 456 lbs.ft @ 1800 | 93.0 (56.2) |

| | | | | |
|--------------|-------------------|--|--|--|
| Issue Date | February 22, 1989 | | | |
| Revision No. | | | | |
| Date | | | | |