## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER A-10-805

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

#### FORD MOTOR COMPANY

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-45-9;

IT IS ORDERED AND RESOLVED: That the following 1999 model-year Ford Motor Company Otto-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Gasoline

| Engine Family |     | Displacement<br>(Cubic Inches) | Exhaust Emission Control Systems and Special Features  |
|---------------|-----|--------------------------------|--|
| XFMXH06.8CB5  | 6.8 | (417)                          | Sequential Multiport Fuel<br>Injection<br>Dual Heated Oxygen Sensors<br>Three Way Catalytic Converter<br>Exhaust Gas Recirculation |

Engine models and codes are listed on attachments.

The certification exhaust emission standards for this engine family in grams per brake horsepower-hour are:

| Total               | Carbon          | Nitrogen      |
|---------------------|-----------------|---------------|
| <u>Hydrocarbons</u> | <u>Monoxide</u> | <u>Oxides</u> |
| 1.9                 | 37.1            | 4.0           |

The certification exhaust emission values for this engine family in grams per brake horsepower-hour are:

| Engine Family | Total               | Carbon          | Nitrogen      |
|---------------|---------------------|-----------------|---------------|
|               | <u>Hydrocarbons</u> | <u>Monoxide</u> | <u>Oxides</u> |
| XFMXH06.8CB5  | 0.1                 | 1.9             | 0.4           |

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 2035 et seq.).

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 \_\_23\_day of December 1997.

R. B. Summerfield, Chief Mobile Source Operations Division

E.O. # A-10-805

# 1999AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY DUTY OTTO-CYCLE ENGINES

| Manufacturer: F            | ord Motor Comp.      | any_                   | Engine Far           | nily: <u>XFMXH(</u> | 06.8CB5         |
|----------------------------|----------------------|------------------------|----------------------|---------------------|-----------------|
| Displacement:              | 6,8L, /              | _Liter                 | 417 /                | Cubic               | Inches          |
| All Eng Codes in           | Eng Family: CA       | 498 50                 | os_x_                |                     |                 |
| Fuel Type(s):              | Dedicated <b></b>    | Flex Fuel_ D           | ual-Fuel Bi-F        | uel Gasoli          | ne <u>X</u> CNG |
|                            | LNG LPG_             | _ M85 M100             | Other (spec          | ify)                |                 |
| Maximum Rated              | Power: <u>265</u> HF | @ <u>4250</u> RPM      | А                    | Engine Config       | guration V10    |
| Exhaust Control 5          | System and Spec      | cial Features <u>T</u> | WC, 2HO2S, E         | GR, SFI             |                 |
|                            | •                    |                        | Jse abbreviation     |                     | 930 SEP91)      |
| Engine Model (Engine Code) | Rated HP<br>@ RPM    | Ign. System<br>or PCM  | Fuel System<br>Injtr | EGR Valve           | Catalyst        |
| (Eligine Code)             |                      |                        | Part No.<br>-9F593-  |                     |                 |
| 9WAA-AAB                   | 275 @ 4250           | XC3F-AVB               | XW7E-AB              | F75E-CA             | F81A-CA         |
|                            |                      |                        |                      | F75E-CA             | F81A-CA         |
| 9WAA-AFB                   | 275 @ 4250           | XC3F-AZB               | XW7E-AB              |                     |                 |
| 9WAA-AIC                   | 275 @ 4250           | XC3F-CFC               | XW7E-AB              | F75E-CA             | F81A-CA         |
| 9WAM-AAB                   | 275 @ 4250           | XC3F-BHB               | XW7E-AB              | F75E-CA             | F81A-CA         |

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| Comments: |                 |   |   |
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Engine Family: XH6.8CB5

Issued: NOV 0 7 1937

Revised:

17.02 - 1

E.O. # <u>A-10</u>-805

# 1999AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY DUTY OTTO-CYCLE ENGINES

|                  | Ford Motor Comp        | zarry                 | Engine Fa            | mily: XFMXH         | 06.8085             |
|------------------|------------------------|-----------------------|----------------------|---------------------|---------------------|
| Displacement: _  | 6.8L /                 | _Liter _              | 417 /                | Cubic               | Inches              |
| All Eng Codes in | n Eng Family: CA       | 49S 50                | s <u>x</u>           |                     |                     |
| Fuel Type(s):    | Dedicated_             | Flex Fuel_ D          | ual-Fuel_ Bi-F       | uel Gasolin         | e <u>X</u> CNG_     |
|                  | LNG_ LPG               | M85 M100              | Other (spec          | ify)                |                     |
| Maximum Rated    | Power: <u>275</u> HI   | P@ 4250_RPN           | / F-Series E         | ngine Configu       | ration <u>V10</u>   |
| Maximum Rated    | l Power: <u>265</u> Hl | P@ 4250 RPN           | M E-Series E         | ngine Configu       | ration <u>V10</u>   |
|                  | System and Spe         |                       |                      |                     |                     |
|                  |                        | (L                    | Jse abbreviation     | s per SAE J19       | 930 SEP91)          |
| Engine Model     | Rated HP<br>@ RPM      | Ign. System<br>or PCM | Fuel System<br>Injtr | EGR Valve           | Catalyst            |
| (Engine Code)    |                        | Part No.<br>-12A650-  |                      | Part No.<br>-9D475- | Part No.<br>-5E212- |
| 9WAA-AAB         | 275 @ 4250             | XC3F-AVB              | XW7E-AB              | F75E-CA             | F81A-CA             |
| 9WAA-AFB         | 275 @ 4250             | XC3F-AZB              | XW7E-AB              | F75E-CA             | F81A-CA             |
| 9WAA-AIC         | 275 @ 4250             | XC3F-CFC              | XW7E-AB              | F75E-CA             | F81A-CA             |
| 9WAM-AAB         | 275 @ 4250             | XC3F-BHB              | XW7E-AB              | F75E-CA             | F81A-CA             |
| R/C 6.8-7        |                        |                       |                      |                     |                     |
| 9WAA-AFC         | 275 @ 4250             | XC3F-AZC              | XW7E-AB              | F75E-CA             | F81A-CA             |
| 8-96J-R05        | 265 @ 4250             | F8UF-ABB              | F6VE-AA              | F75E-CA             | F7US-AB             |
| omments:         |                        |                       |                      |                     |                     |

Engine Family: XFMXH06.8CB5

Issued: 11-07-97 Revised: **JUL 30 1998**