

## FORD MOTOR COMPANY

EXECUTIVE ORDER A-010-1656

New Diesel or Incomplete
Medium-Duty Vehicles Using Certified Engines

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Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 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-02-003;

IT IS ORDERED AND RESOLVED: The following diesel or incomplete medium-duty vehicles (MDV) with a manufacturer's GVWR from 8501 to 14000 pounds are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

					EN	GINE DESCRIPTIO	N			
MODEL YEAR	EXECUTIVE ORDER			ENGINE	EMISSION STD CATEGORY 2	FUEL TYPE 1	STANDARDS	ENGINE SIZES (L)	ECS & SPECIAL FEATURES 3  TC, DDI, CAC, EGR-C, OC,	EF OBD
			4 MAN	UFACTURER		Diesel	& TEST PROCEDURE			
			ER FORD M	OTOR COMPANY			PROCEDURE			
2012	A-	010-1655	TORDIN	OTOR GOMP ART	ULEV		Diesel	0.7	ECM, PTOX, SCR-U	000(*)
Gasoline	, LPG o	r Alcohol V	ehicles Only			V	EHICLE DESCRIP	TION		
		FUEL TANK CAPACITY	VEHICLE MODEL	VEHICLE MA	AKE & MODELS	VEH.	ENGINE (L)	ENGINE MODELS / CODES	ENG. OBD	
FAM	FAMILY		(gallons)	YEAR	VEITICEE MIX	OBD		(rated power, in hp)		
*		*	*	2012	Ford: F350 Incomplete		OBD(\$)	6.7	4V F-Series / CFA17N05 (300)	OBD(\$)
		*	*		* .		*	*	*	*

\* =not applicable; GVWR=gross vehicle weight rating, 13 CCR xyz=Title 13, California Code of Regulations, Section xyz; 40 CFR 86.abc=Title 40, Code of Federal Regulations, Section 86.abc; L=liter; hp=horsepower; kw=kilowatt; EF=engine family; (2006dec22)

CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel a.k.a BF=bi fuel; DF=dual fuel; FF=flexible fuel;

SULEV / ULEV / LEV=super ultra / ultra / low emission vehicle;

ECS-emission control system; TWC/OC=three-way/oxidizing catalyst; WU (prefix) =warm-up catalyst; DPF=diesel particulate filter; PTOX=periodic trap oxidizer; HO2S/O2S=heated/oxygen sensor; HAFS/AFS=heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SF/MFI=sequential/multi port fuel injection; DGI=direct gasoline injection; GCARB=gaseous carburetor; IDI/DDI=indirect/direct diesel injection; TC/SC=turbol/super charger; CAC=charge air cooler; EGR / EGR-C=exhaust gas recirculation / cooled EGR; PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; OBD(F) / (P) / (\$)=full / partial / partial with a fine / on-board diagnostic; ECM/PCM=engine/powertrain control module; EM=engine modification; 2 (prefix)=parallel; (2) (suffix)=in series;

Following are: 1) the FTP exhaust emission standards or family emission limit(s) as applicable under 13 CCR 1956.8; 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For dual- and flexible-fuel, the CERT values in brackets [] are those when tested on conventional test fuel.)

	NMHC		NOx		NMHC+NOx		CO		PM		нсно		
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	
STD	0.14	0.14	0.20	0,20	*		15.5	15.5	0.01	0.01	0.050	0.050	
FEL		*	*		*	*	*	*	*		*		
CERT	0.002	0.000	0.12	0.05	*		0.3	0.1	0.001	0.000	0.002	0.0001	
NTE	0.21		0.	0.30		•		19.4		0.02		0.075	

g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle; NTE=Not-to-Exceed emission limit; STD=standard or emission test cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde;

**BE IT FURTHER RESOLVED:** Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: The listed engine models have been certified to the optional emission standards and test procedures in 13 CCR 1956.8 applicable to diesel or incomplete MDV with a 8501-14000 pound GVWR and shall be subject to 13 CCR 2139(c) (in-use testing of engines certified for use in diesel or incomplete MDV with a 8501-14000 pound GVWR).

BE IT FURTHER RESOLVED: The listed engine models are conditionally certified in accordance with 13 CCR Section 1968.2(k) (deficiency and fines provisions for certification of malfunction and diagnostic system) because the on-board diagnostic II (OBD) system of the listed engine models has been determined to have seven deficiencies. The listed engine models are approved subject to the manufacturer paying a fine of \$150 per engine for the fourth through seventh deficiencies in the listed test group that is produced and delivered for sale in California. On a quarterly basis, the manufacturer shall submit to the Air Resources Board reports of the number of engines produced and delivered for sale in California and pay the full fine owed for that quarter pursuant to this conditional certification. Payment shall be made payable to the State Treasurer for deposit in the Air Pollution Control Fund no later than thirty (30) days after the end of each calendar quarter during the 2011 model-year production period. Failure to pay the quarterly fine, in full, in the time provided, may be cause for the Executive Officer to rescind this conditional certification, effective from the start of the quarter in question, in which case all engines covered under this conditional certification for that quarter and all future quarters would be deemed uncertified and subject to a civil penalty of up to \$5000 per engine pursuant to HSC Section 43154.



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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 1968.2 (on-board diagnostic, full or partial compliance), 13 CCR 1976(b)(1)(B)-(C) or 13 CCR 1976(b)(1)(F) {evaporative emission standards}, 13 CCR 2035 et seq. (emission control warranty), and 13 CCR 2235 [fill pipes and openings of motor vehicle fuel tanks]. (The braces {} } are for gasoline, LPG or alcohol fueled vehicles only.)

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this

\_ day of June 2011.

Annette Hebert, Chief

**Mobile Source Operations Division**