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State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-823

Relating to Certification of New Medium-Duty Motor Vehicles and Engines

GENERAL MOTORS CORPORATION

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 1998 model-year General Motors Corporation diesel-cycle engines are certified for medium-duty vehicles with a manufacturer's gross vehicle weight rating (GVWR) of 8,501 to 14,000 pounds:

Fuel Type: Diesel

Engine Family		isplacement Cubic Inches)	Exhaust Emission Control Systems and Special Features
WGMXH06.5521 (L65)	6.5	(395)	Turbocharger Oxidation Catalytic Converter Powertrain Control Module Indirect Fuel Injection
WGMXH06.5524 (L57)	6.5	(395)	Oxidation Catalytic Converter Powertrain Control Module Indirect Fuel Injection

Engine models and codes are listed on attachments.

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

Non-Methane Hydrocarbons + Nitrogen Oxides	Carbon <u>Monoxide</u>	<u>Particulates</u>
3.9	14.4	0.10

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

Engine Family	Non-Methane Hydrocarbons + Nitrogen Oxides	Carbon <u>Monoxide</u>	<u>Particulates</u>
WGMXH06.5521	3.6	1.2	0.07
WGMXH06.5524	3.6	2.4	0.07

BE IT FURTHUR RESOLVED: That, the listed engine models are certified to the optional standards and test procedures applicable to incomplete and diesel medium-duty vehicles of 8,501 to 14,000 pounds GVWR pursuant to Title 13, California Code of Regulations, Section 1956.8(g).

BE IT FURTHUR RESOLVED: That the listed engine models and vehicle models shall be subject to the in-use compliance provision applicable to 1995 and subsequent model-year medium-duty vehicles, set forth in Title 13, California Code of Regulations, Section 2139(c).

BE IT FURTHER RESOLVED: That the listed engine models and vehicle models also comply with the "California Motor Vehicle Emission Control Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHUR RESOLVED: That the listed engine models and vehicle models complies with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(2.0) for the aforementioned model year.

BE IT FURTHER RESOLVED: That, for the listed engine models and vehicle 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.).

Vehicle 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. Q

Executed at El Monte, California this 3 day of June 1997.

R. B. Summerfield, Chief

Mobile Source Operations Division

1998 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET DIESEL MEDIUM-DUTY VEHICLE ENGINES (CERTIFIED USING HEAVY-DUTY DIESEL ENGINE TEST PROCEDURES)

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: WGMXH06.5524

ENGINE CONFIG: V8 VALVES/CYL: 2 DISPLACEMENT: 6.5L 395 CUBIC INCHES

CERT STD: TIER-1 X LEV_ ULEV_

ENGINE INTENDED SERVICE CLASS: M4_ M5_

IN-USE STDS: FULL IN-USE X ALT IN-USE MAX RATED POWER: 160 HP @ 3400 RPM

ALL ENG CODES IN ENG FAMILY: CAX 49S 50S

STROKES/CYCLE: 4

IGNITION: COMPRESSION_ COMPRESSION WITH GLOW PLUG_X SPARK_

FUEL TYPE(S): DEDICATED_X FLEX-FUEL_ DUAL-FUEL_ BI-FUEL_ DIESEL_X CNG_

LNG_ LPG_ M85_ M100_ OTHER____

DIESEL CERT FUEL: 13 CCR 2282 X 40 CFR 86.1313-90 40 CFR 86.1313-94

CNG_ LPG_ M85_ M100_ OTHER _____

EXHAUST ECS (E.G., OC, EGR, PTOX, IFI, TC, CAC): IFI, OC, PCM

NG MODEL	RATED HP <u>@ RPM</u>	FUEL RATE @ RATED HP MM³/STROKE (LBS/HR)	FUEL PUMP & INJECTOR P/N	ECM/PCM P/N	EGR VALVE P/N	PTOX/ CATALYTIC CONVERTER P/N
L57 (1)	160 @ 3400	50.0 (75.4)	10233973 12558156	16252525 16252535	NA	25143901

SSUED: 04-24-97

REV. NO.:

1998 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET DIESEL MEDIUM-DUTY VEHICLE ENGINES (CERTIFIED USING HEAVY-DUTY DIESEL ENGINE TEST PROCEDURES)

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: WGMXH06.5521

ENGINE CONFIG: V8 VALVES/CYL: 2 DISPLACEMENT: 6.5L 395 CUBIC INCHES

CERT STD: TIER-1 X LEV_ ULEV_

ENGINE INTENDED SERVICE CLASS: M4_ M5_

IN-USE STDS: FULL IN-USE ALT IN-USE MAX RATED POWER: 195 HP @ 3400 RPM

ALL ENG CODES IN ENG FAMILY: CA_ 49S_ 50SX

STROKES/CYCLE: 4

IGNITION: COMPRESSION __ COMPRESSION WITH GLOW PLUG X SPARK_

FUEL TYPE(S): DEDICATED X FLEX-FUEL DUAL-FUEL BI-FUEL DIESEL X CNG_

PTOX/

LNG_ LPG_ M85_ M100_ OTHER _____

DIESEL CERT FUEL: 13 CCR 2282 X 40 CFR 86.1313-90_ 40 CFR 86.1313-94_

CNG_ LPG_ M85_ M100_ OTHER _____

EXHAUST ECS (E.G., OC, EGR, PTOX, IFI, TC, CAC): IFI, OC, TC, PCM

NG MODEL	RATED HP _@ RPM_	FUEL RATE @ RATED HP MM³/STROKE _(LBS/HR)	FUEL PUMP & INJECTOR P/N	ECM/PCM P/N	EGR VALVE P/N	PTOX/ CATALYTIC CONVERTER P/N
L65 (3)	195 @ 3400	63.1 (95.1)	10225930 10233973 12558156	16240145 16240155 16240185	NA	25144421 25144427 25143882 25152218 25144425 25143891 25143901 25143188 15991750 15991751 15991752 15991753 15991754 15991755

ISSUED: 04-24-97

REV. NO.:

1998 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET DIESEL MEDIUM-DUTY VEHICLE ENGINES (CERTIFIED USING HEAVY-DUTY DIESEL ENGINE TEST PROCEDURES)

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: WGMXH06.5521

ENGINE CONFIG: V8 VALVES/CYL: 2 DISPLACEMENT: 6.5L

395 CUBIC INCHES

CERT STD: TIER-1 X LEV_ ULEV_

ENGINE INTENDED SERVICE CLASS: M4_ M5_

IN-USE STDS: FULL IN-USE X ALT IN-USE MAX RATED POWER: 195 HP @ 3400 RPM

ALL ENG CODES IN ENG FAMILY: CA__ 49S_ 50SX

STROKES/CYCLE: 4

IGNITION: COMPRESSION_ COMPRESSION WITH GLOW PLUG X SPARK_

FUEL TYPE(S): DEDICATED X FLEX-FUEL DUAL-FUEL BI-FUEL DIESEL X CNG_

DTOY/

LNG_ LPG_ M85_ M100_ OTHER _____

DIESEL CERT FUEL: 13 CCR 2282 X 40 CFR 86.1313-90_ 40 CFR 86.1313-94_

CNG_ LPG_ M85_ M100_ OTHER _____

EXHAUST ECS (E.G., OC, EGR, PTOX, IFI, TC, CAC): IFI, OC, TC, PCM

'NG MODEL	RATED HP @ RPM	FUEL RATE @ RATED HP MM³/STROKE (LBS/HR)	FUEL PUMP & INJECTOR P/N	ECM/PCM P/N	EGR VALVE	CATALYTIC CONVERTER P/N
L65 (4)	195 @ 3400	63.1 (95.1)	10225930 10233973 12558156	16240165 16240175	NA	25144421 25144427 25143882 25152218 25144425 25143891 25143188 15991750 15991751 15991752 15991753 15991754 15991755
L65 (1)	195 @ 3400	64.5 (97.2)		16244335		15963895 25153008
L65 (2)	190 @ 3400	63.6 (95.8)		16239155 16239175		

3SUED: 04-24-97 REV. NO.: