



Pursuant to the authority vested in the Air Resources Board by the 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: That the engine and emission control systems produced by the manufacturer are certified for use as a replacement engine in two-wheeled motorcycles as described below. Production engines shall be in all material respects identical to those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	EVAPORATIVE FAMILY	ENGINE DISPLACEMENTS (cc)	CLASS
2004	4SSXC0113161	4SSXE0066161	1853	III
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		ENGINE MODEL		* = not applicable
EM		113		
<small>ABBREVIATIONS: EM=engine modification TWC=three-way catalyst OC=oxidizing catalyst WUTWC/WUOC=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S EGR=exhaust gas recirculation AIR=secondary air injection PAIR=pulsed AIR MFI=multi port fuel injection SFI=sequential MFI TBI=throttle body fuel injection DFI=direct fuel injection TC/SC=turbo/super charger CAC=charge air cooler 2 (prefix)=parallel (2) (suffix)=in series</small>				

The above-listed engine is certified to replace the existing engines of Harley-Davidson models that use the engines and evaporative systems listed on the supplemental data sheet for this executive order.

The following are the exhaust hydrocarbon plus oxides of nitrogen (HC+NOx) and carbon monoxide (CO) standards, or designated HC+NOx standard as applicable, and certification levels in grams per kilometer (g/km), and evaporative standard and certification level in grams per test (g/test) for this engine/evaporative family. The designated HC+NOx standard, as applicable, shall be listed on the permanent tune-up label.

HC+NOx (g/km)				EARLY COMPLIANCE CREDIT MULTIPLIER		*	
CORPORATE AVERAGE STANDARD	DESIGNATED STANDARD	(DIRECT) STANDARD	CERTIFICATION LEVEL	CO (g/km)		EVAPORATIVE (g/test)	
				STANDARD	CERTIFICATION LEVEL	STANDARD	CERTIFICATION LEVEL
*	*	1.4	1.0	12	12	2.0	1.2

BE IT FURTHER RESOLVED: That certification to the designated HC+NOx standard listed above, as applicable, is subject to the following terms, limitations and conditions:

The designated HC+NOx standard shall be the exhaust emission limit for this engine family and cannot be changed during the model year. It serves as the HC+NOx exhaust standard applicable to this engine family for determining compliance with Title 13, California Code of Regulations, Sections 1958(b) and 2101.

BE IT FURTHER RESOLVED: That the listed motorcycles are certified to the aforementioned HC+NOx standard, or designated standard as applicable, prior to the 2008 model year and are hereby granted an early-compliance credit multiplier listed above pursuant to Title 13, California Code of Regulations, Section 1958(g).

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all materials required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Sections 2035 et seq.).

BE IT FURTHER RESOLVED: That this executive order does not provide an opinion as to the effect that the use of the aforementioned engine family as a replacement engine may have on the original vehicle manufacturer's warranty, either expressed or implied, for the vehicle applications listed on the supplemental data sheet of this executive order.

BE IT FURTHER RESOLVED: That compliance with "California Evaporative Emission Standards and Test Procedures for 2001 And Subsequent Model Motor Vehicles" has been demonstrated for the use of the aforementioned engine family as a replacement engine in the listed vehicle applications.

BE IT FURTHER RESOLVED: The use of the this engine family as a replacement engine in the vehicle applications listed on the supplemental data sheet of this executive order is exempted from compliance with the Air Resources Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" pursuant to Executive Order G-70-16-E.

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

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 17TH day of November 2003.


Allen Lyons, Chief
Mobile Source Operations Division

Attachment

Supplemental Data sheet
Model Designation Line Replacement List

M-044-87

MY 1984	FLT	FHL	FLHB	FLHC	FLHP	FLHT	FLHTC	FLHTP	FLTC	FLHS	FXB	FXE	FXEF	FXR	FXRP	FXRS	FXRT	FXS	FXST	FXSB	FXWG
Model Name	1338.6																				
Displacement	EV1340																				
Eng Family	80-EV-1																				
Eng Code	EM																				
Emis Cont	490			350			340		330												290
RLP	169.4			145.6			143.6		141.8												133.4
MY 1985																					
Model Name	1338.6																				
Displacement	EV1340																				
Eng Family	80-EV-2																				
Eng Code	EM																				
Emis Cont	490	340									290										
RLP	169.4	143.6									133.4										
MY 1986																					
Model Name	1338.6																				
Displacement	EV1340																				
Eng Family	80-EV-5																				
Eng Code	EM																				
Emis Cont	490	350		340							290										
RLP	169.4	145.6		143.6							133.4										
MY 1987																					
Model Name	1338.6																				
Displacement	EV1340																				
Eng Family	80-EV-8																				
Eng Code	EM																				
Emis Cont	490										440										
RLP	169.4										163.7										
MY 1988																					
Model Name	1339																				
Displacement	EV1340																				
Eng Family	80-EV-9																				
Eng Code	EM																				
Emis Cont	490										440										
RLP	169.4										163.7										
MY 1989																					
Model Name	1338																				
Displacement	EV1340																				
Eng Family	80-EV-9																				
Eng Code	EM																				
Emis Cont	490										440										
RLP	169.4										163.7										



Attachment

Supplemental Data Sheet
Model Designation / Engine Replacement List

M-044-00C

MY 1990	FLHS	FLHTC	FLHTC U	FLHTP	FLTC	FLTC U	FLTC	FLTC U	FLTRP	FLST	FLSTC	FLSTF	FXDS	FXR	FXRS	FXRS C	FXRS S	FXRT	FXST	FXSTC	FXSTS	FXDB	
Model Name																							
Displacement																							
Eng Family																							
Eng Code																							
Emis Cont																							
EIM																							
RLP																							
MY 1991																							
Model Name																							
Displacement																							
Eng Family																							
Eng Code																							
Emis Cont																							
EIM																							
RLP																							
MY 1992																							
Model Name																							
Displacement																							
Eng Family																							
Eng Code																							
Emis Cont																							
EIM																							
RLP																							
MY 1993																							
Model Name																							
Displacement																							
Eng Family																							
Eng Code																							
Emis Cont																							
EIM																							
RLP																							
MY 1994																							
Model Name																							
Displacement																							
Eng Family																							
Eng Code																							
Emis Cont																							
EIM																							
RLP																							
MY 1995																							
Model Name																							
Displacement																							
Eng Family																							
Eng Code																							
Emis Cont																							
EIM																							
RLP																							
MY 1996																							
Model Name																							
Displacement																							
Eng Family																							
Eng Code																							
Emis Cont																							
EIM																							
RLP																							

SHD1.3P8GARA
80-FI-1
Sequential Multipoint Fuel Injection

440

560

Oxidation Catalytic Converter

440

560

RLP		177.3	163.7	177.3
MY 1996				
Model Name	FLHTC U	FLHTC	FLHR	FLHT
Displacement	FLSTC	FLSTF	FXDL	FLSTN
Eng Family	FXDWG	FXSTC	FXD	FXD C
Eng Code	FXSTB	FLHTC U	FLHTC I	FLHRI
Emis Cont	THD1.3P1G0AA	80-EV-27	80-EV-29	THD1.3P8GARA
EIM	Oxidation Catalytic Converter	560	440	80-FI-2
RLP		177.3	163.7	Sequential Multiport Fuel Injection
				560
				177.3
MY 1997				
Model Name	FLHTC U	FLHTC	FLHR	FLHT
Displacement	FLSTC	FLSTF	FXDL	FLSTN
Eng Family	FXDWG	FXSTC	FXD	FXD C
Eng Code	FXSTB	FLHTC U	FLHTC I	FLHRI
Emis Cont	VHD1.3P1GAAA	80-EV-27	80-EV-29	VHD1.3P8GARA
EIM	Oxidation Catalytic Converter	560	440	80-FI-3
RLP		177.3	163.7	Sequential Multiport Fuel Injection
				560
				177.3
MY 1998				
Model Name	FLHTC U	FLHTC	FLHR	FLHT
Displacement	FLSTC	FLSTF	FXDL	FLSTN
Eng Family	FXDWG	FXSTC	FXD	FXD C
Eng Code	FXSTB	FLHTC U	FLHTC I	FLHRI
Emis Cont	WHDXC01.3CCA	80-EV-27	80-EV-29	WHDXC01.3AEA
EIM	Oxidation Catalyst	560	440	80-FI-3
RLP		177.3	163.7	Sequential Multiport Fuel Injection
				560
				177.3
MY 1999				
Model Name	FLSTC	FLSTF	FXST	FXSTC
Displacement	FXSTB	FLHTC U	FLHTC I	FLHRI
Eng Family	XHDXC01.3CCA	80-EV-29	80-EV-29	XHDXC01.3AEA
Eng Code	Oxidation Catalyst	440	440	80-FI-3
Emis Cont		560	163.7	Sequential Multiport Fuel Injection
EIM		177.3	163.7	560
RLP				177.3