California Environmental Protection Agency AIR RESOURCES BOARD	S & S CYCLE, INC.	EXECUTIVE ORDER M-044-0008 New On-Road Motorcycle Engines

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	4SSXC0096155	4SSXE0066161	1564	III
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		ENGINE MODEL		* = not applicable
EM		96		

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

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 hydrocarbons (HC) and carbon monoxide (CO) standards, or designated HC 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 standard, as applicable, shall be listed on the permanent tune-up label.

HC (g/km)				CO (g/km)		EVAPORATIVE (g/test)	
CORPORATE AVERAGE STANDARD	DESIGNATED STANDARD	(DIRECT) STANDARD	CERTIFICATION LEVEL	STANDARD	CERTIFICATION LEVEL	STANDARD	CERTIFICATION LEVEL
*	*	1.4	0.7	12	6	2.0	1.0

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

The designated HC standard shall be the exhaust emission limit for this engine family and cannot be changed during the model year. It serves as the HC 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 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: That the use of 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 4TH day of December 2003.

Allen Lyons, Chief
Mobile Source Operations Division

Attachment

Supplemental Data Sheet
Model Designation / Engine Replacement List

M-044C008

MY 1984

Model Name	FLT	FHL	FLHB	FLHC	FLHP	FLHT	FLHTC	FLHTP	FLTC	FLHS	FXB	FXE	FXEF	FXR	FXRP	FXRS	FXRT	FXS	FXST	FXSB	FXWG
Displacement	1338.6																				
Eng Family	EV1340																				
Eng Code	80-EV-1										80-EV-2										
Emis Cont	EM																				
EIM	490	350							340	330	290										
RLP	169.4	145.6							143.6	141.8	133.4										

MY 1985

Model Name	FLT	FLTC	FXE	FXEF	FXR	FXRDG	FXRP	FXRS	FXRT	FXS	FXST	FXSB	FXWG
Displacement	1338.6												
Eng Family	EV1340												
Eng Code	80-EV-1		80-EV-2										
Emis Cont	EM												
EIM	490	340	290										
RLP	169.4	143.6	133.4										

MY 1986

Model Name	FLT	FLHT	FLHTP	FLHTC	FLTC	FXE	FXEF	FXR	FXRDG	FXRP	FXRS	FXRT	FXS	FXST	FXSB	FXWG
Displacement	1338.6															
Eng Family	EV1340															
Eng Code	80-EV-5					80-EV-6										
Emis Cont	EM															
EIM	490	350			340	290										
RLP	169.4	145.6			143.6	133.4										

MY 1987

Model Name	FLTC	FXRP	FXRS	FLHTP	FLHTC	FLST	FXR	FXRT	FLHT	FXST	FXSTC	FXLR	FXRC
Displacement	1338.6												
Eng Family	EV1340												
Eng Code	80-EV-7	80-EV-8		80-EV-7		80-EV-8			80-EV-7	80-EV-8			
Emis Cont	EM												
EIM	490					440							
RLP	169.4					163.7							

MY 1988

Model Name	FLTC	FLHS	FXRP	FLHTP	FLHTC	FXRS	FXRT	FLST	FXST	FXSTC	FXLR	FXR	FXSTS
Displacement	1339												
Eng Family	EV1340												
Eng Code	80-EV-9												
Emis Cont	EM												
EIM	490					440							
RLP	169.4					163.7							

MY 1989

Model Name	FLTC	FXRP	FLHTP	FLHTC	FLHS	FLHTC U	FLTC U	FLST	FXST	FXSTC	FXLR	FXR	FXSTS	FXSTL	FXRS	FXRT
Displacement	1338															
Eng Family	EV1340															
Eng Code	80-EV-9															
Emis Cont	EM															
EIM	490							440								
RLP	169.4							163.7								

Attachment

Supplemental Data Sheet
Model Designation / Engine Replacement List

M-044-0008

MY 1990

Model Name	FLHS	FLHTC	FLHTC U	FLHTP	FLTC	FLTC U	FXRP	FLST	FLSTC	FLSTF	FXDS	FXR	FXRS	FXRS C	FXRS S	FXRT	FXST	FXSTC	FXSTS
Displacement	1338																		
Eng Family	EV1340																		
Eng Code	80-EV-11						80-EV-13												
Emis Cont	EM																		
EIM	490							440											
RLP	169.4							163.7											

MY 1991

Model Name	FLHS	FLHTC	FLHTC U	FLHTP	FLTC	FLTC U	FLSTC	FLSTF	FXDS	FXR	FXRP	FXRS	FXRS C	FXRS S	FXRT	FXSTC	FXSTS	FXLR	FXDB
Displacement	1338																		
Eng Family	EV1340																		
Eng Code	80-EV-11						80-EV-13												
Emis Cont	EM																		
EIM	490							440											
RLP	169.4							163.7											

MY 1992

Model Name	FLHS	FLHTC	FLHTC U	FLHTP	FLTC U	FLSTC	FLSTF	FXDB-D	FXR	FXRP	FXRS	FXRS C	FXRS S	FXRT	FXSTC	FXSTS	FXLR	FXDC
Displacement	1338																	
Eng Family	EV1340																	
Eng Code	80-EV-15					80-EV-17												
Emis Cont	EM																	
EIM	490					440												
RLP	169.4					163.7												

MY 1993

Model Name	FLTC U	FLHTC U	FLHTC	FLHTP	FLHS	FLSTC	FLSTF	FLSTN	FXDWG	FXR	FXRP	FXRS C	FXRS S	FXRT	FXSTC	FXSTS	FXLR	FXDL
Displacement	1338																	
Eng Family	EV1340																	
Eng Code	80-EV-15					80-EV-17												
Emis Cont	EM																	
EIM	490					440												
RLP	169.4					163.7												

MY 1994

Model Name	FLTC U	FLHTC U	FLHTC	FLHTP	FLSTF	FLHR	FLHS	FLSTN	FXDWG	FXR	FXRP	FXSTC	FXSTS	FXLR	FXDL	FXDS C	FLSTC
Displacement	1338																
Eng Family	RHD1.3P1GARA																
Eng Code	80-EV-19						80-EV-21										
Emis Cont	EM																
EIM	490						440										
RLP	169.4						163.7										

MY 1995

Model Name	FLTC U	FLHTC U	FLHTC	FLHTP	FLHT	FLHR	FLSTC	FLSTF	FLSTN	FXDWG	FXSTC	FXSTS	FXD	FXDS C	FXSTB	FXDS	FLHTC UI
Displacement	1338																
Eng Family	SHD1.3P1GOAA																SHD1.3P8GARA
Eng Code	80-EV-23			80-EV-19	80-EV-23		80-EV-25										80-FI-1
Emis Cont	Oxidation Calalytic Converter																Sequential Multiport Fuel Injectio
EIM	560						440										560

Attachment

Supplemental Data Sheet
Model Designation / Engine Replacement List

M-044-0008

RLP	177.3						163.7										177.3							
MY 1996																								
Model Name	FLHTC U	FLHTC	FLHR	FLHT	FLSTC	FLSTF	FXDL	FLSTN	FXDWG	FXSTC	FXSTS	FXD	FXDS C	FXSTSB	FLHTC UI	FLHTC I	FLHR I							
Displacement	1338																							
Eng Family	THD1.3P1GOAA														THD1.3P8GARA									
Eng Code	80-EV-27				80-EV-29										80-FI-2									
Emis Cont	Oxidation Catalytic Converter														Sequential Multiport Fuel Injectic									
EIM	560				440										560									
RLP	177.3				163.7										177.3									
MY 1997																								
Model Name	FLHTCU	FLHTC	FLHR	FLHT	FLSTC	FLSTF	FLSTS	FXDL	FXDWG	FXSTC	FXSTS	FXD	FXDS C	FXSTSB	FLHTC UI	FLHTC I	FLHR I							
Displacement	1338																							
Eng Family	VHD1.3P1GAAA														VHD1.3P8GARA									
Eng Code	80-EV-27				80-EV-29										80-FI-3									
Emis Cont	Oxidation Catalytic Converter														Sequential Multiport Fuel Injectic									
EIM	560				440										560									
RLP	177.3				163.7										177.3									
MY 1998																								
Model Name	FLHTCU	FLHTC	FLHR	FLHT	FLTR	FLSTC	FLSTF	FLSTS	FXDL	FXDWG	FXSTC	FXSTS	FXD	FXDS C	FXSTSB	FLHTC UI	FLHTC I	FLHR I	FLTRI	FLHRC I	FLHP I	FLHTP I	FLTCRI	
Displacement	1338																							
Eng Family	WHDXC01.3CCA															WHDXC01.3AEA								
Eng Code	80-EV-27					80-EV-29										80-FI-3								
Emis Cont	Oxidation Catalyst															Sequential Multiport Fuel Injection								
EIM	560					440										560								
RLP	177.3					163.7										177.3								
MY 1999																								
Model Name	FLSTC	FLSTF	FLSTS	FXST	FXSTC	FXSTS	FXSTB	FLHTC UI	FLHTC I	FLHR I	FLTRI	FLHRC I	FLHP I	FLHTP I	FLTCRI									
Displacement	1338																							
Eng Family	XHDXC01.3CCA							XHDXC01.3AEA																
Eng Code	80-EV-29							80-FI-3																
Emis Cont	Oxidation Catalyst							Sequential Multiport Fuel Injection																
EIM	440							560																
RLP	163.7							177.3																