California Environmental Protection Agency AIR RESOURCES BOARD	S & S CYCLE, INC.	EXECUTIVE ORDER M-044-0016 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
2007	7SSXC0113161	7SSXE0066161	1853, 1750, 1647	III

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	ENGINE MODEL	* = not applicable
EM	1853 cc: V113E 1750 cc: V107E 1647 cc: V100E	

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 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.

				EARLY COMPLIANCE CREDIT MULTIPLIER			*
HC+NOx (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	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 for certification to the above-listed HC+NOx emission standard, or designated standard as applicable, the engine family has been granted an early-compliance credit multiplier listed above for use in the 2008 model-year in accordance with 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: That the vehicles listed on the supplemental data sheet of this Executive Order and equipped with engines in this engine family are 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 26 day of February 2007.

Annette Hebert, Chief
Mobile Source Operations Division

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Model Designation / Engine Replacement List

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	189.4					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								

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Model Designation / Engine Replacement List

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 Catalytic Converter																Sequential Multiport Fuel Injectio
EIM	560						440										560

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Model Designation / Engine Replacement List

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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 Injecti		
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 Injecti		
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							