

State of California
AIR RESOURCES BOARD

EVALUATION OF HOLLEY PERFORMANCE PRODUCTS' FORD SYSTEMAX 1 KIT
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE
SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
CALIFORNIA CODE OF REGULATIONS

June 1997

State of California
AIR RESOURCES BOARD

EVALUATION OF HOLLEY PERFORMANCE PRODUCTS' FORD SYSTEMAX 1 KIT
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE
SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
CALIFORNIA CODE OF REGULATIONS

by

Mobile Source Operations Division
9528 Telstar Avenue
El Monte, CA 91731

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Holley Performance Products of 2800 Griffin Drive, Bowling Green, Kentucky 42102 has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for their Ford SystemAX 1 Kit designed for 1986-93 Ford passenger cars equipped with the 5.0L High Output engine.

Based on submitted emissions test data, the staff concludes that the Ford SystemAX 1 Kit will not adversely affect exhaust emissions from vehicles for which the exemption is requested.

The staff recommends that Holley Performance Products be granted an exemption as requested and that Executive Order D-115-7 be issued.

TABLE OF CONTENTS

	Page Number
SUMMARY	i
CONTENTS	ii
I. INTRODUCTION	1
II. CONCLUSION	1
III. RECOMMENDATION	1
IV. FORD SYSTEMAX 1 KIT DESCRIPTION	1
V. DISCUSSION OF THE FORD SYSTEMAX 1 KIT	2

EVALUATION OF HOLLEY PERFORMANCE PRODUCTS' FORD SYSTEMAX 1 KIT
FOR AN EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE
SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
CALIFORNIA CODE OF REGULATIONS

I. INTRODUCTION

Holley Performance Products of 2800 Griffin Drive, Bowling Green, Kentucky 42102 has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for their Ford SystemAX 1 Kit designed for 1986-93 Ford passenger cars equipped with the 5.0L High Output engine.

II. CONCLUSIONS

Based on submitted emissions test data, the staff concludes that Holley Performance Products' Ford SystemAX 1 Kit will not adversely affect exhaust emissions from the vehicles for which the exemption is requested.

III. RECOMMENDATION

The staff recommends that Holley Performance Products be granted an exemption for their Ford SystemAX 1 Kit for installation on those applicable Ford vehicles. The staff also recommends that Executive Order D-115-7 be issued.

IV. FORD SYSTEMAX 1 KIT DESCRIPTION

The Ford SystemAX 1 Kit is designed for installation on 1986-93 Ford passenger cars equipped with the 5.0L High Output engine. The purpose of the kit is to increase the engine's performance and power output.

The Ford SystemAX 1 Kit includes the following main components: Lower intake manifold, timing chain set, and camshaft. The new lower intake manifold is a stock replacement that has been designed to maximize the air flow characteristics of the stock upper intake manifold. It retains all stock injector and emission sensor locations and is designed to be used only with a stock Ford 5.0L H.O. EFI upper manifold. The timing chain set is a stock replacement timing chain with one crankshaft gear and one camshaft gear, which are both non adjustable. The camshaft is manufactured by Competition Cams, model # 281-HR10, part no. 35-440-8 with the following specifications: Duration at 0.50", intake/exhaust 220/220 degrees, camshaft lift intake/exhaust 0.320/0.320 inches. The engine package is designed to work with all the vehicle's stock emissions control system.

V. DISCUSSION OF THE FORD SYSTEMAX 1 KIT

A 1992 Ford Mustang with a 5.0L engine was used for the evaluation of the Ford SystemAX 1 Kit. Testing consisted of one Cold Start CVS-75 Federal Test Procedure in the modified configuration. The dynamometer inertia weight and horsepower settings were 3750-lbs and 11.6 hp, respectively. The emissions testing was conducted by Northern California Diagnostic Laboratory and was evaluated against the vehicle's emission standards. Table 1. list those results.

Table 1.

	HC	CO	NOx
Device	0.25	0.86	0.09
Standards	0.41	3.4	1.0

Emission test results submitted by Holley were below the vehicle's applicable emission standards. The ARB did not confirm submitted test results. Therefore, based on the test results, the staff concludes that the installation of the Ford SystemAX 1 Kit will not have an adverse effect on exhaust emissions on those applicable vehicles.

Holley Performance Products has submitted all the required information and fulfilled the requirements for an exemption.