



***Gale Banks  
Engineering  
presents***



# North American Market Challenges for Diesel Engines

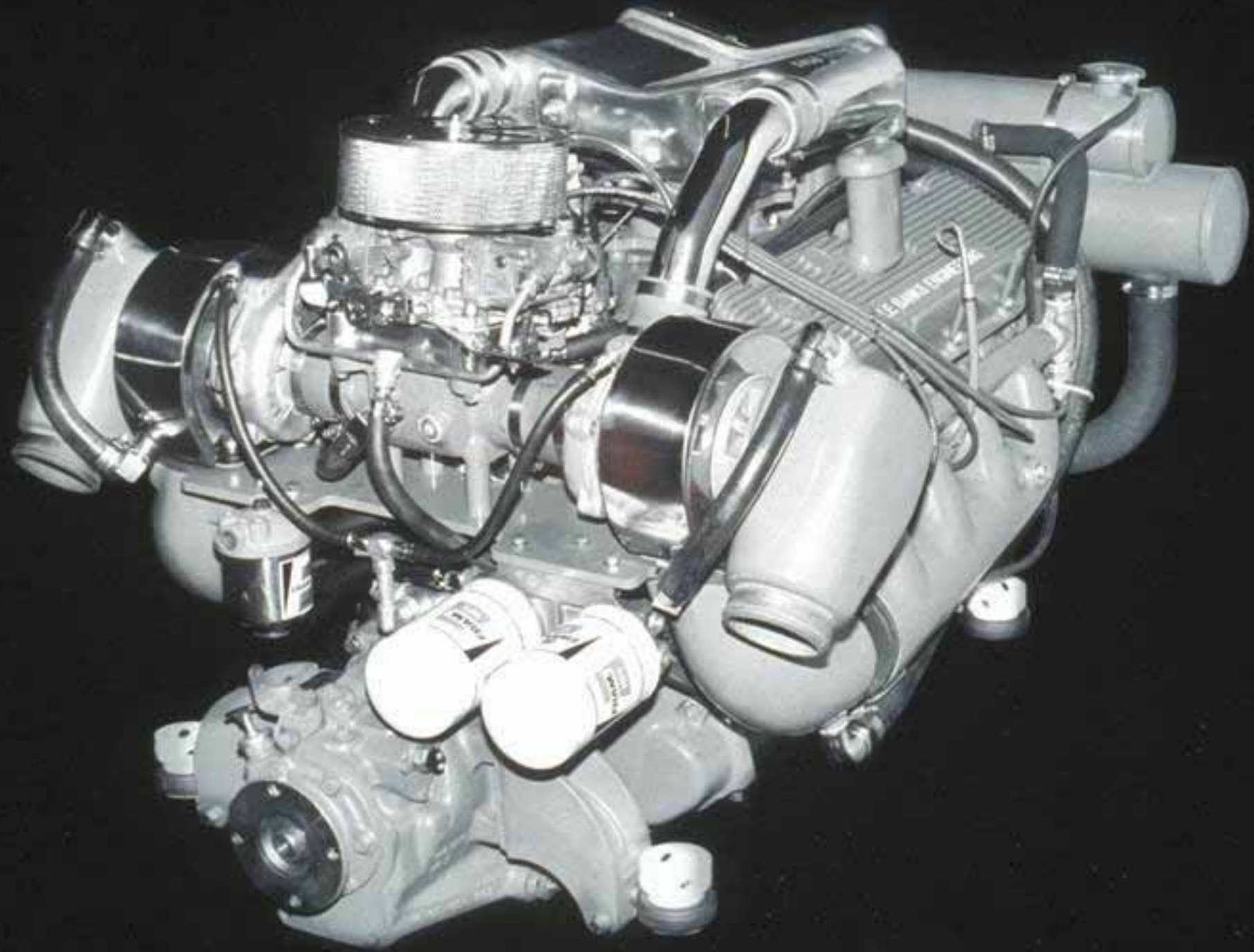




**BANKS CAMPUS -- AZUSA, CALIFORNIA**











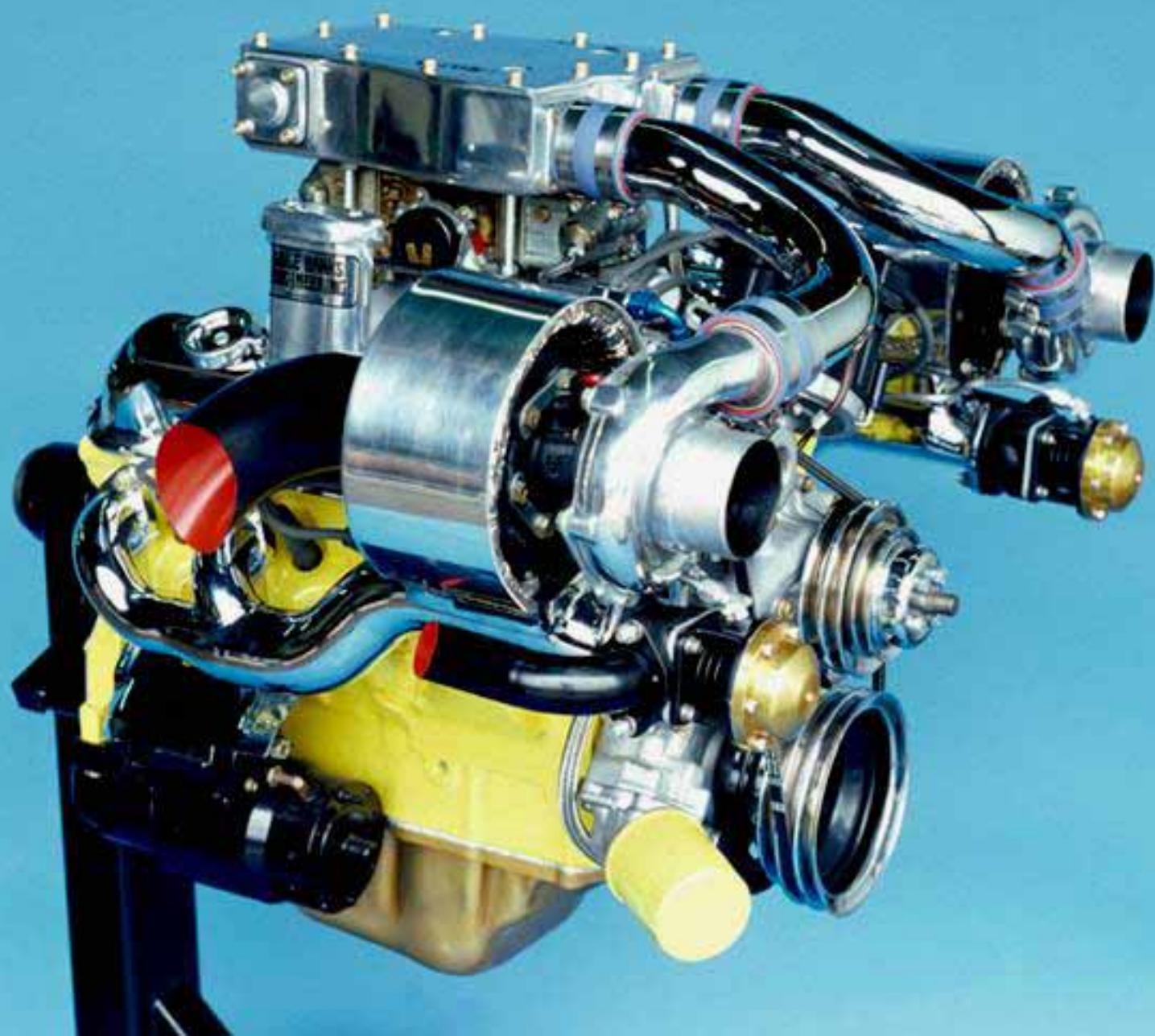












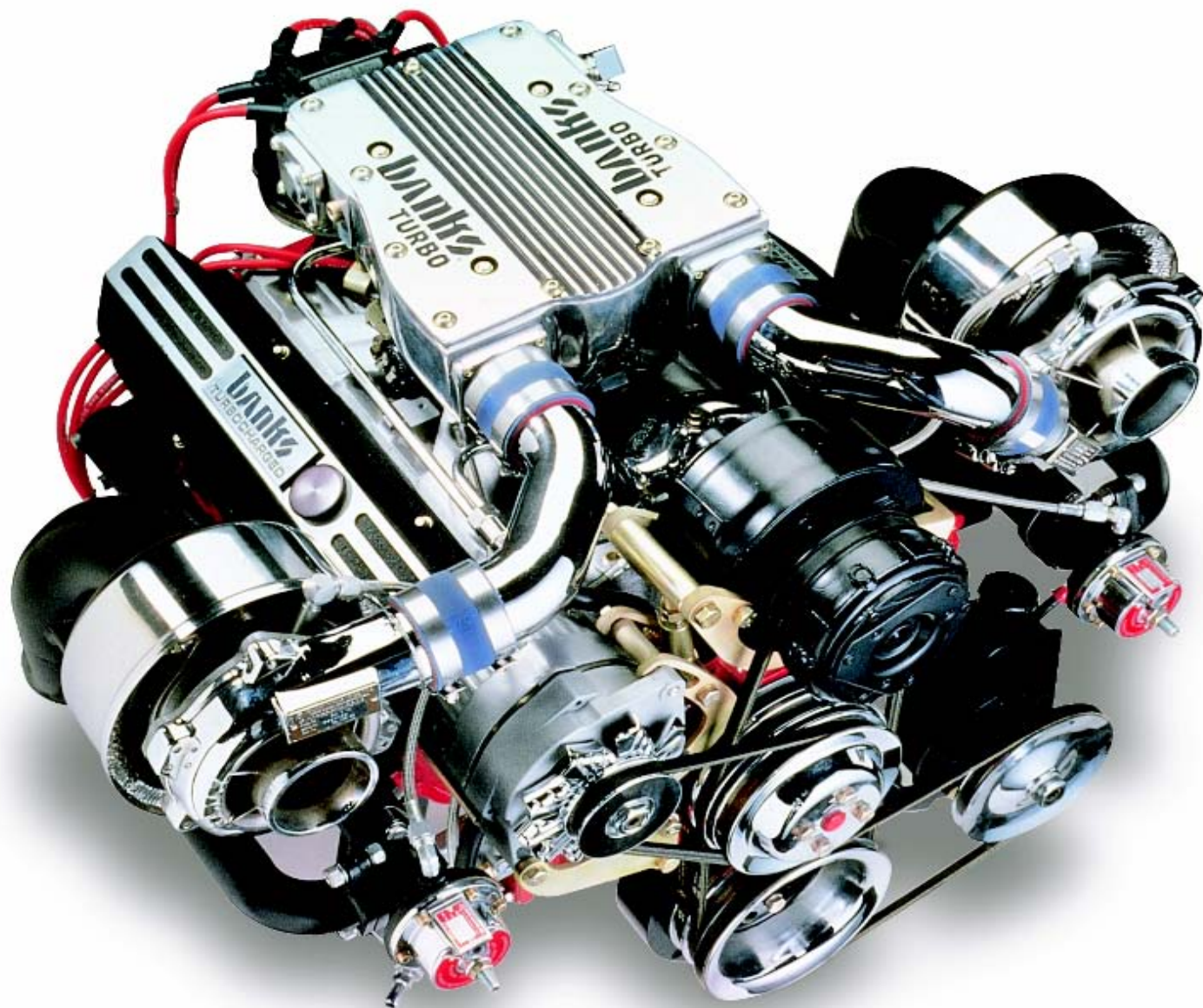
# 1981

## *Year of the Regal*



*W*ill they become the '57 Chevys of the '80s? These sleek and slippery "A-Special" coupes are breaking records on the track and in the showroom. Completely redesigned . . .









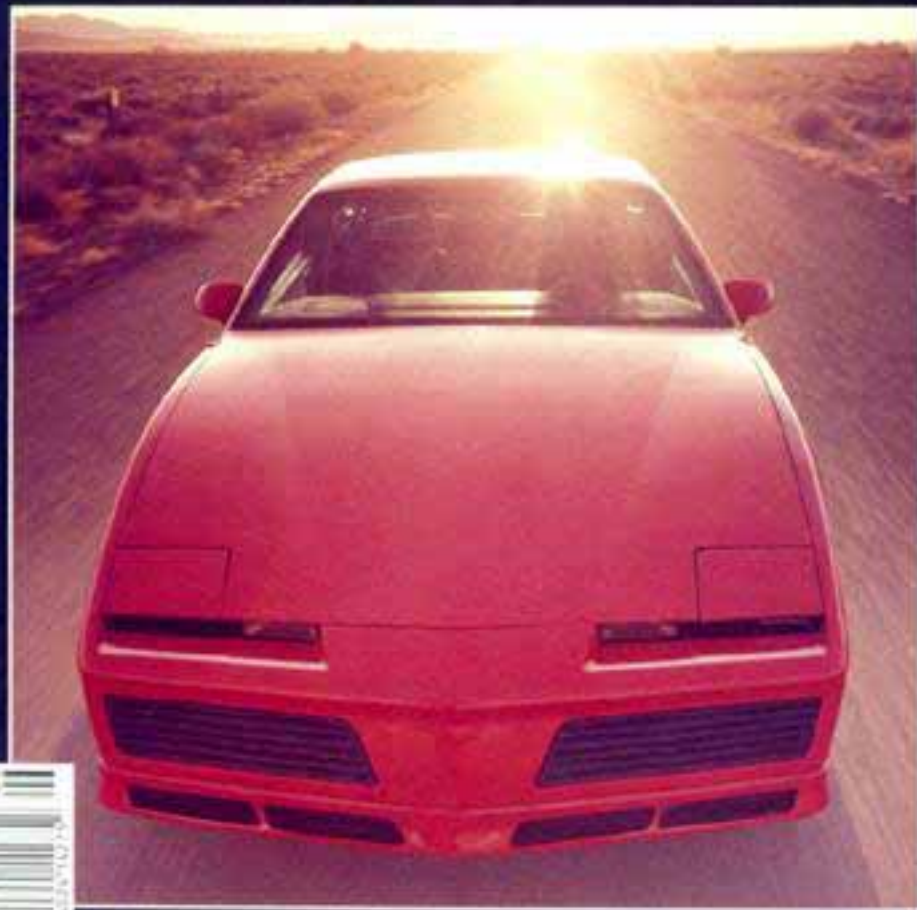
BMW 325e Two more cylinders and tons more torque

# CAR AND DRIVER

JUNE 1984 • \$2.25

BREAKING THE BARRIER!

## 200-MPH TRANS AM







**LISTER JAGUAR: NOSTALGIA IS BETTER THAN EVER  
STOCK CARS FOLLOW IN GRANT'S FOOTSTEPS**

# AutoWeek

September 21, 1987  
\$1.25 USA \$1.75 Canada

## WORLD'S FASTEST PASSENGER CAR

**Banks Engineering Trans Am  
blisters the Salt at 268 mph**



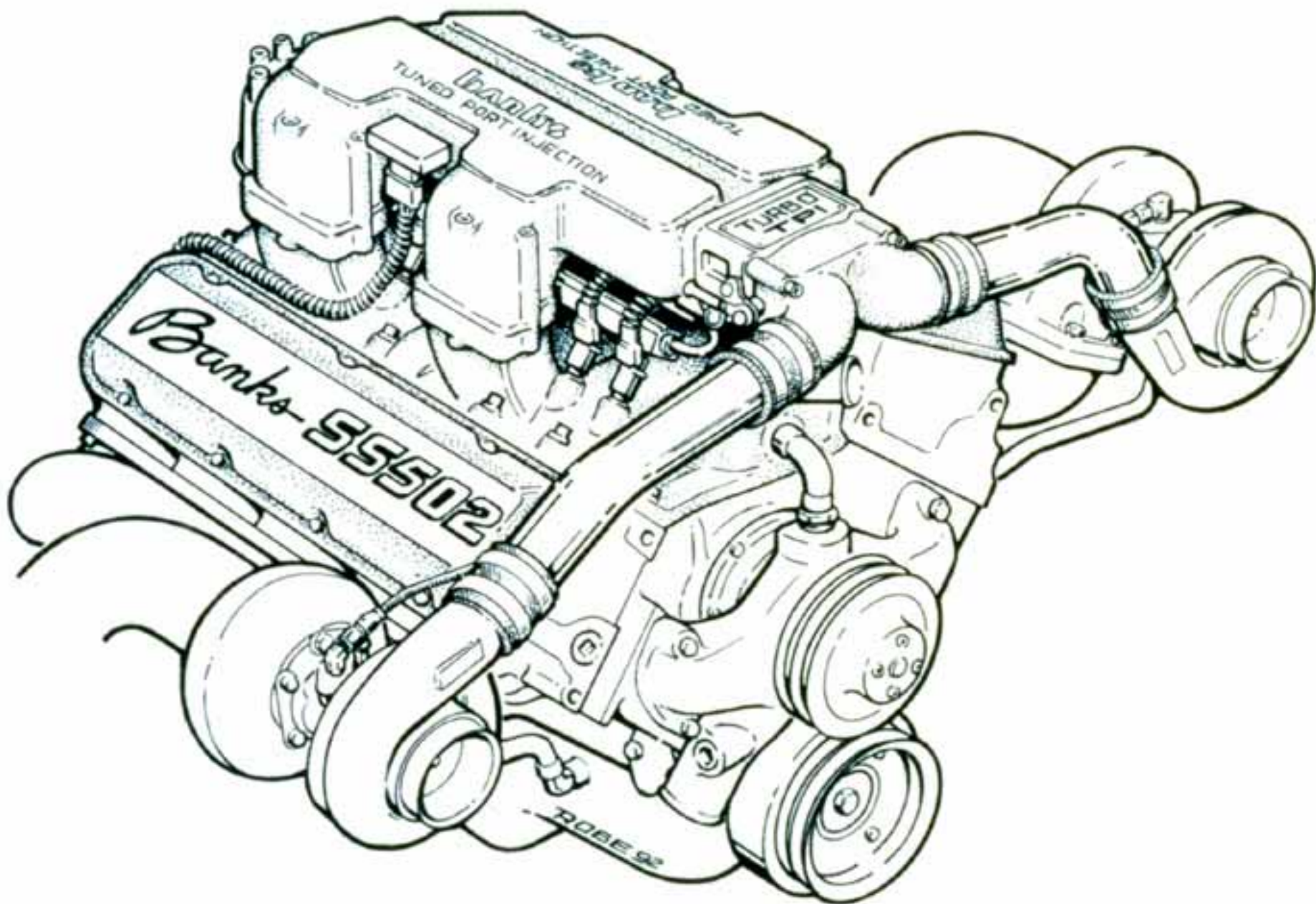
**George Romney: An elder  
statesman speaks out**

















# One goes down in history. The other goes down your street.

The record-setting Cyclone LSR.



The Cyclone street machine.



On September 14, 1990, the Cyclone LSR from GMC Truck rewrote the record books by becoming the first truck ever to break the 200 mph barrier in the flying mile. This specially modified Cyclone clocked an amazing one-way speed of 210.069 mph in the IMSA speed trial.

For GMC Truck, the Cyclone LSR represents our commitment to leadership in truck technology. You'll find every state-of-the-art advancement in engine design, fuel management, aerodynamics, handling and performance-tuned suspension in the new Cyclone street machine.

In January 1991, GMC Truck introduced to you the hottest truck ever to roam the planet. Your Cyclone has a 280-horsepower, intercooled, turbocharged 4.3L V6 engine at heart. Its handling is clean and precise, with on-road all-wheel drive, 4-wheel anti-lock brakes, and speed-rated tires rounding out 16" aluminum wheels. Plus, with an M.S.R.P. of just \$25,500\*, it's a downright steal.

Call 1-800-CYCLONE.

\*MSRP. Excludes destination charge and taxes. ©1991 GMC Corp.

**CYCLONE**



EXCLUSIVELY FROM





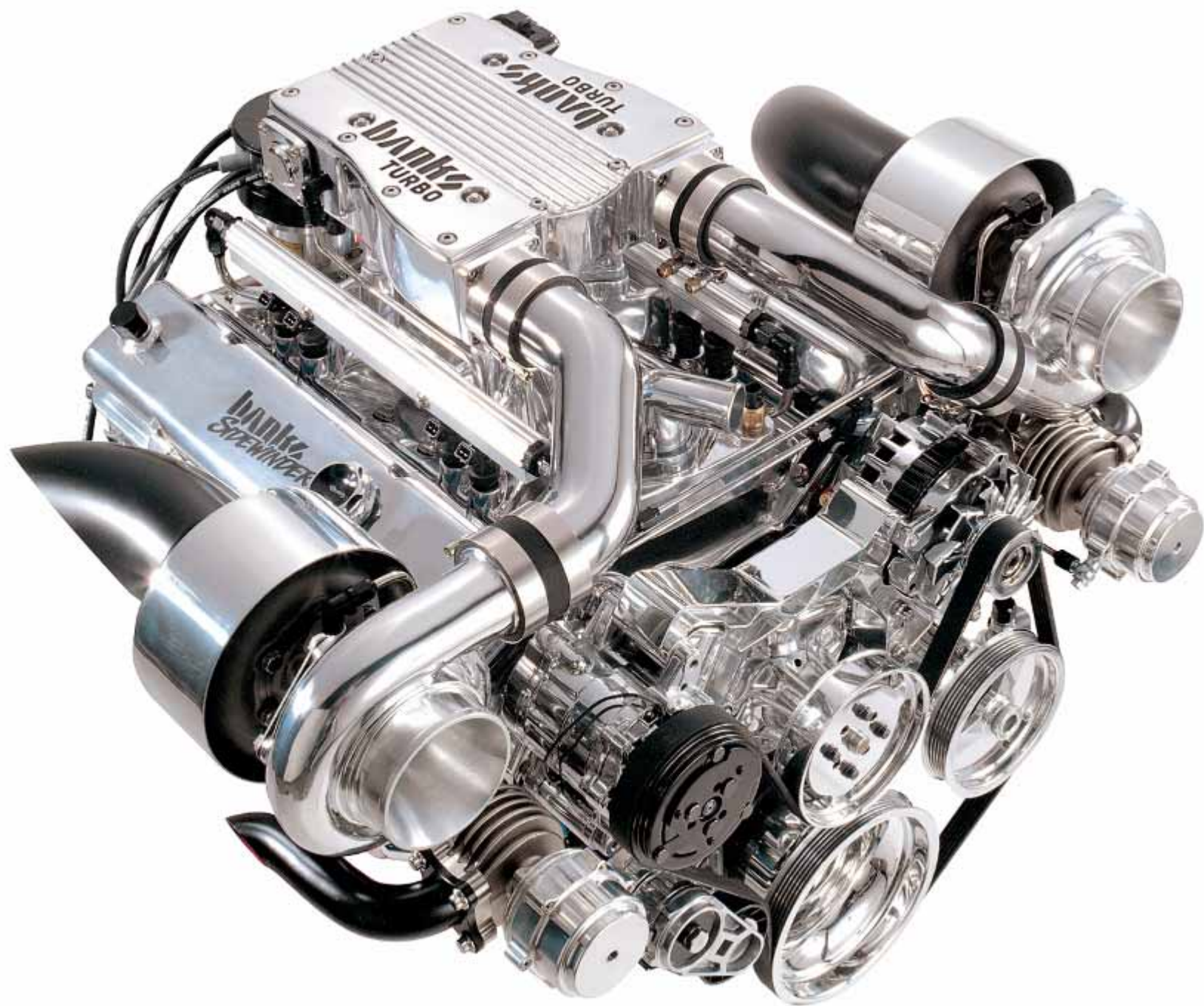
















POWER SYSTEMS

BRAKE SYSTEMS

PERFORMANCE PARTS



**Trucks | SUVs | Motorhomes**





**October 25, 1902  
Gross Pointe, Michigan**

**Oldfield drives  
Ford's 999 to  
victory in the  
Manufacturers  
Challenge Cup**



**Both became the most recognized figures in motoring – Barney Oldfield as a driver and Henry Ford as a builder.**



**The message is clear:**

***Performance sells***

**And has to this day**

**GOAL:**

***Eliminate the stone-age  
perception of diesel***



# The Diesel Fuel Advantage

***No octane limitation***

**Displacement  
being equal**

***Diesel has greater  
potential***

**Banks/GMC  
Syclone**

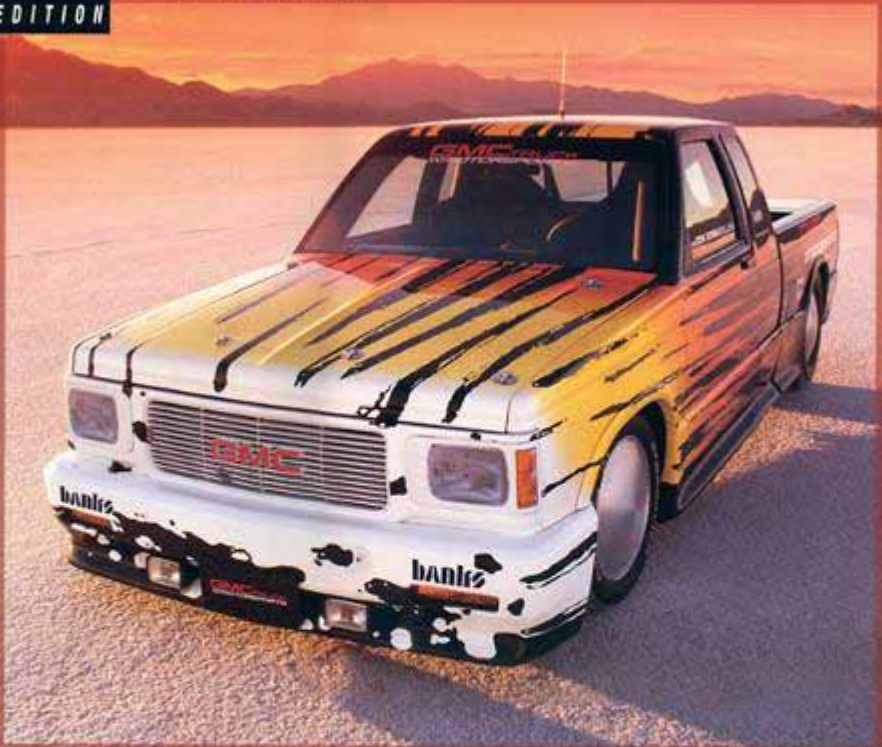
**204 mph**

**300 CID**


**Racing gas**

THIRD  
ANNIVERSARY  
COLLECTOR'S  
EDITION

210.069 M.P.H.  
SEPTEMBER 14, 1990



World's Fastest Truck



Driver: Don Stringfellow

**GMC TRUCK**

**banks**  
*RACE SHOP*

**GMC TRUCK**



# Ford/Roush Rocket Ranger

205 mph

371 CID

Racing gas

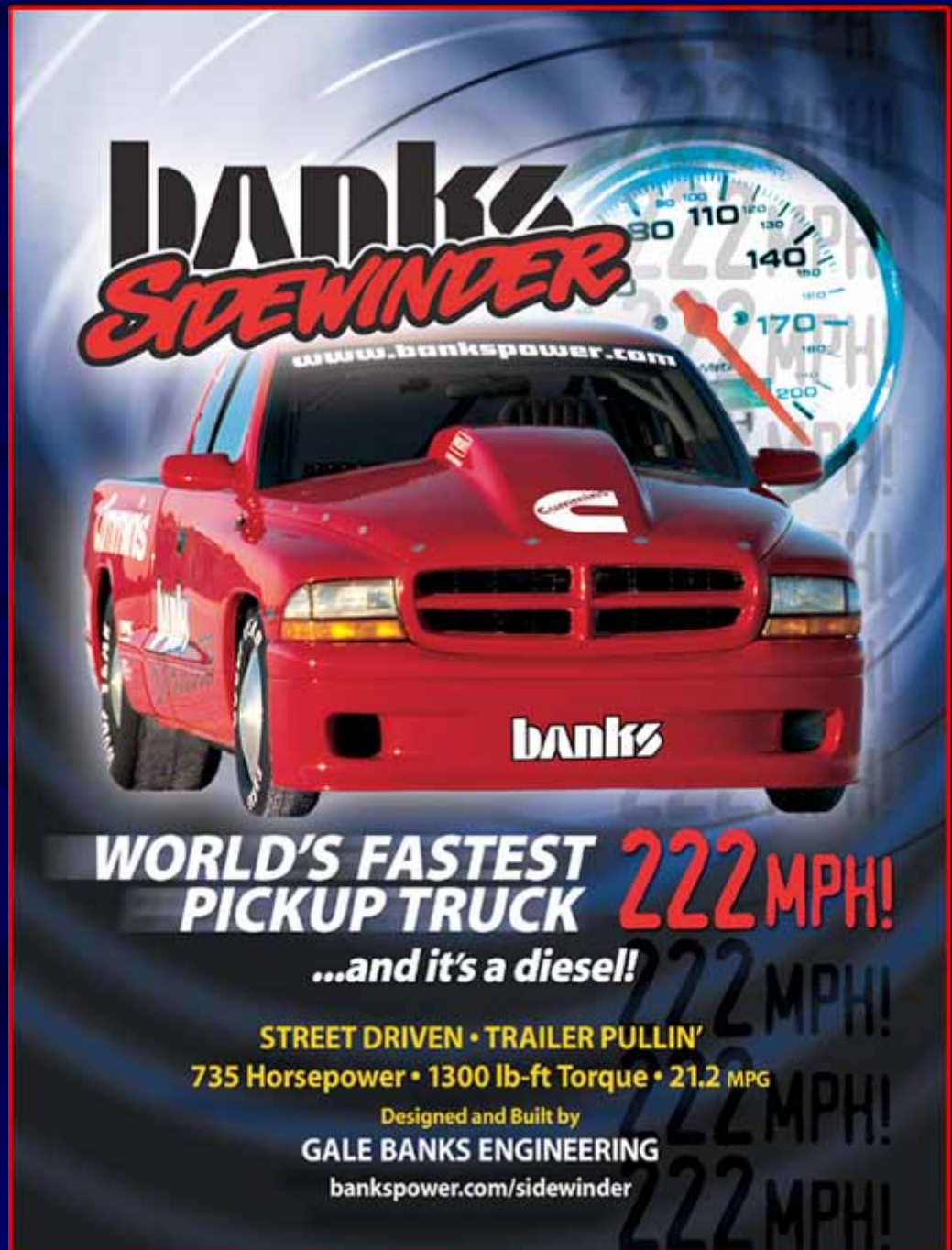


# Banks Sidewinder

222 mph

360 CID

#2 diesel



**banks**  
**SIDEWINDER**

www.bankspower.com

**WORLD'S FASTEST PICKUP TRUCK** **222MPH!**

*...and it's a diesel!*

STREET DRIVEN • TRAILER PULLIN'  
735 Horsepower • 1300 lb-ft Torque • 21.2 MPG

Designed and Built by  
GALE BANKS ENGINEERING  
bankspower.com/sidewinder





**Diesel owns the  $3/4$  and  
1-ton pickup market**

***Compared to gasoline offerings:***

***Diesel horsepower is now equal***

***Diesel torque is superior***

**The diesel option costs  
more yet the majority  
of these trucks are  
diesel powered**



# **The light-duty solution**

***Don't design to equal  
gasoline performance***

**Design to blow them off**

***While maintaining  
diesel utility***

**We know diesel has  
come a long way, but  
*public perception  
is way behind***



# **SOLUTION:**

***High-visibility  
demonstrations of  
diesel's prowess***

**Move market demand to  
diesel by winning over the  
opinion leaders**

***The market will follow***

# **NEED #1:**

*Reconsider basic  
engine design*

*Decrease engine mass*

*Increase specific power*



# Light-duty diesel

*Reduce peak  
cylinder pressure*

*Sacrifice a little torque*

*Turn the engine faster*

*Produce more horsepower*

**Both torque and  
horsepower  
potential now  
greatly exceed  
gasoline**

***Lower torque reduces  
drivetrain mass  
requirement***



**Improve transient  
torque curve**

***With intelligent  
turbo machinery***



# NEED #2:

A comprehensive diesel  
fuel standard  
*with consideration of the  
high speed engine  
requirement*



# **The American automotive market**

**We do not have  
the same market  
forces as Europe**

**Diesel engines  
cost more**



**Americans buy  
performance**

**Performance always  
costs more...**

*There's the price  
justification for diesel*

**Let's make diesel  
the preferred  
automotive  
engine option**

***At any engine  
displacement  
diesel should  
outperform gasoline***



***Banks  
Sidewinder***  
**Current power:**  
**125 hp/liter**  
**4000 rpm max**  
**735 bhp**



# ***Banks Streamliner***

**Power goal:**

**200 hp/liter**

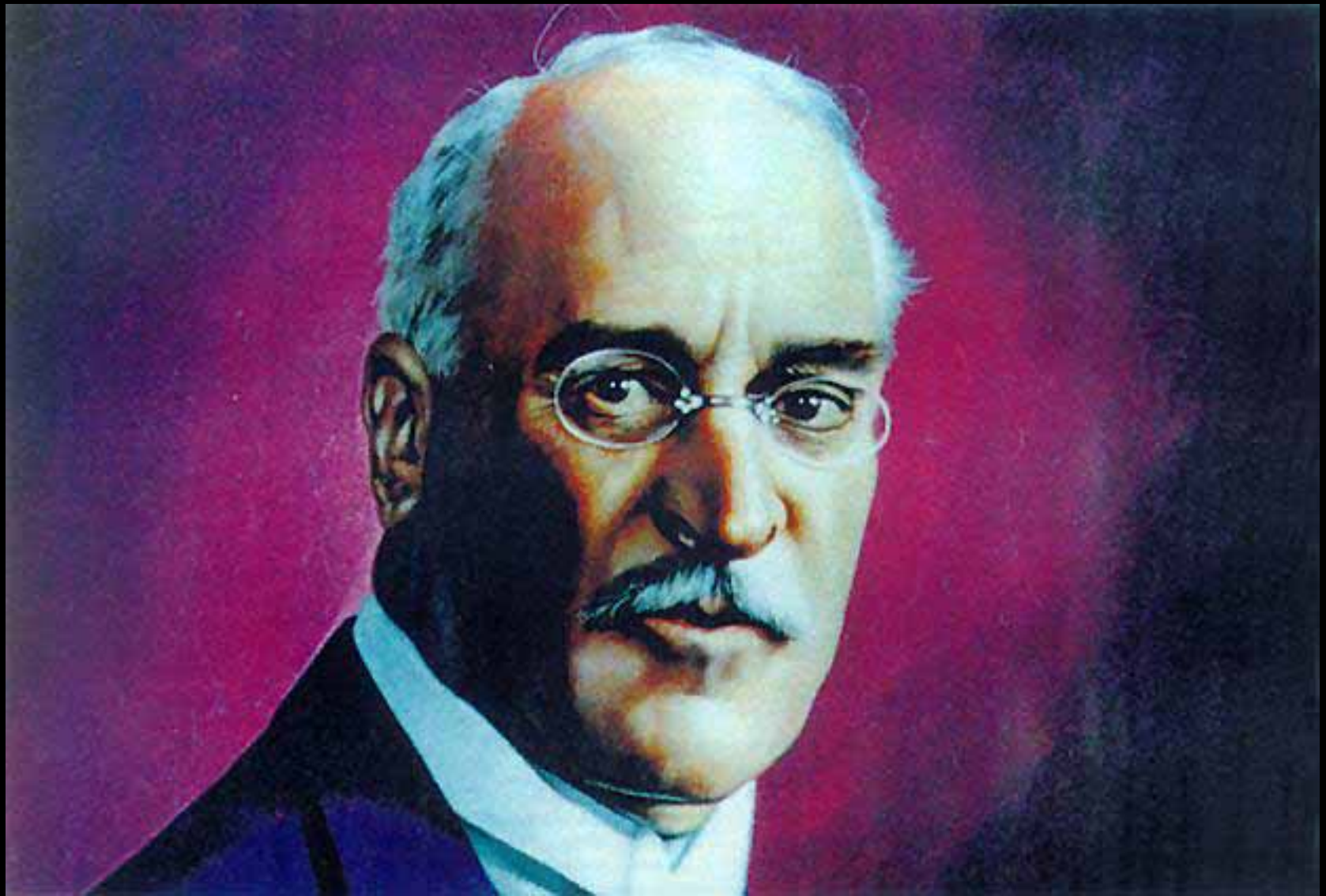
**5500 rpm max**

**1180 bhp**









**This is Rudolph Diesel**





**This is Performance Diesel**