

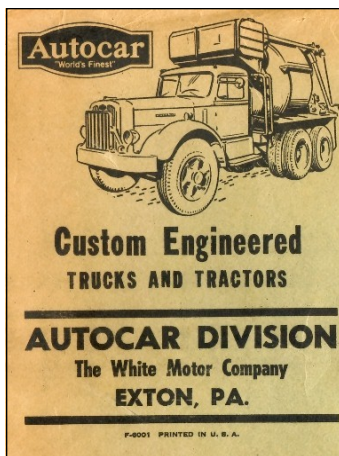
# All Vintage Trucks

Vintage truck prints, posters, manuals and more!



## Autocar Trucks-World's Finest

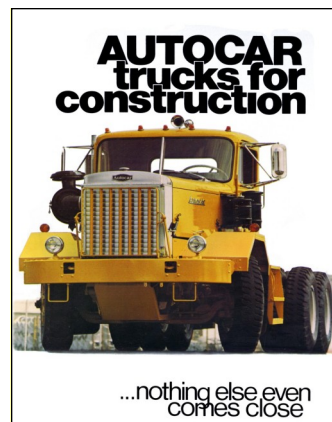
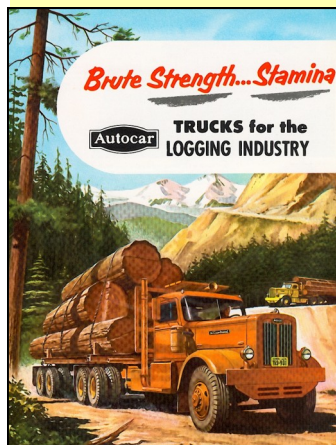
*Early Fall 2012 Newsletter*



The Autocar Company started in 1899 in Ardmore, PA by Louis S. Clarke and his brother Charles as a manufacturer of brass era automobiles; commercial truck manufacturing began in 1907. Under the Clarke brothers, the company was an early innovator, developing the first porcelain-insulated spark plugs—a process patented and later sold to Champion, and which still remains the basis for today's

spark plugs. Other early developments included the first American shaft-drive vehicle, double-reduction gear drives, and the recirculating lube-oil system.

As of 1911, Autocar was making only trucks. The first model had a 97-inch wheelbase, a one and a half ton capacity, and a 2-cylinder gasoline engine under the seat. Later, engines had 4 and 6 cylinders, and wheelbases became longer. By the end of 1922,

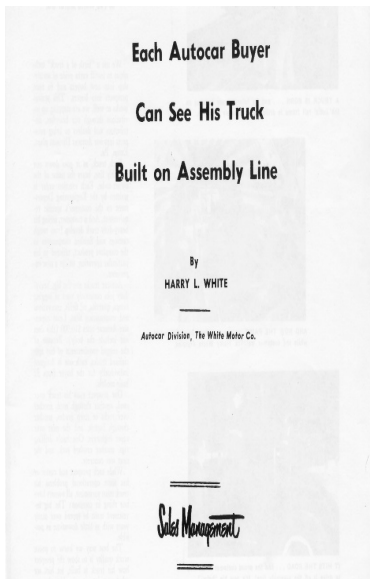


Autocar offered a range of 8 models based on capacity and wheelbase length using Roman numerals and letters to differentiate them. The 1.5 to 2 ton 97 inch wheelbase Type XXI-F and the 2 to 3 ton 162 inch wheelbase Type XXVII-KA were two examples. All of the truck models produced were engine-under-the-seat design but by 1926, conventional engines-under-the-hood were also produced.

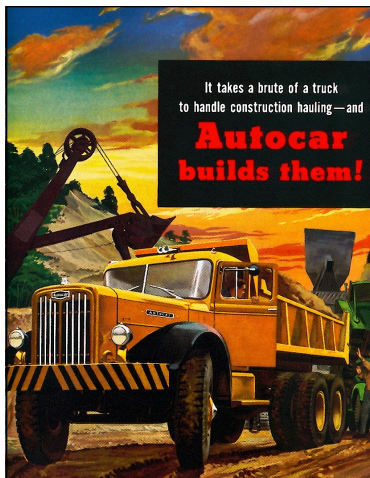
- **FEATURED MARQUE-AUTOCAR TRUCKS**
- **MACK DADDY OF TRUCKS TO BE RE-BROADCAST ON THE NATIONAL GEOGRAPHIC TV CHANNEL IN SEPT-CHECK LOCAL LISTINGS.**
- **NEW VIDEO AVAILABLE ON A MACK MH-613. GO TO [WWW.ALLVINTAGETRUCKS.COM](http://WWW.ALLVINTAGETRUCKS.COM) AND CLICK ON "VIDEOS".**

### Inside this issue:

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AT ONE TIME, AUTOCAR WAS PROBABLY THE OLDEST COMPANY IN THE AUTOMOTIVE INDUSTRY. SINCE 1897 OR PRE "GIT A HOSS" DAYS, THE COMPANY HAS BEEN EXCLUSIVELY MANUFACTURING MOTOR VEHICLES. ORIGINALLY, AUTOCAR MADE PASSENGER VEHICLES BUT QUICKLY SPECIALIZED IN HEAVY DUTY VEHICLES. THE COMPANY HELD MANY 'FIRSTS': FIRST PORCELAIN SPARK PLUG, FIRST SHAFT-DRIVE PRINCIPLE AND FIRST CIRCULATING OIL SYSTEM.



In 1929, Autocar sold 3258 units, though the number fell to 1086 in 1932 and continued to decline during the Great Depression. Larger trucks with six cylinder "Blue Streak" gasoline engines were introduced in 1930 and were used to power larger models like the G, GA and GB 6-wheeler models. In 1933, the engine-under-the-seat U models were completely redesigned and introduced to the marketplace. The company continued to refine these streamlined or cab-over-engine trucks and by 1936, Autocar was awarded a patent covering the methods and mechanics of installation of any engine under the seat in a motor truck. These COE units were manufactured into the 1950's.

Diesel engines from the Cummins Engine Company were featured in 1937 and these new engines added directly to increased sales for the company.

During World War 2, Autocar supplied 46,000 units to the military which included armored half-tracks of various models and several models of motor transport vehicles. By comparison, the company had built only 70,000 units during its entire prewar history. Civilian truck production resumed in 1944 and sales increased greatly after the war due largely to a pent-up demand caused by the war effort. Autocar soon had 100 dealers.

However, the boom after the war ended rather quickly. By 1948, the back log for trucks disappeared and smaller producers like Autocar suffered huge decreases in profits. A financial loss for the company was reported in 1949 and in 1953, Autocar sold out to White Motor Company. White replaced Blue Streak engines with its own Mustang, and production of gasoline-powered trucks ended in 1965.

The Ardmore plant was replaced in 1954 with a new plant in Exton, PA. Unfortunately, the Ardmore plant burned while being torn down in 1956.

Autocar's "Custom Engineering" process for meeting each customer's needs led to a reputation as "World's Finest". The Exton plant ended production in 1980, with production moving to Ogden, UT.

White was taken over in turn by Volvo Trucks in 1980 with Autocar continuing as a division. In 2001 Andrew Taitz purchased the company and structured it under Grand Vehicle Works Holdings which continues to use the brand name for their line of refuse trucks manufactured in Hagerstown, IN.



# Cummins Fuel Injection Systems (continued)

The governors used on the fuel pump may be either mechanical or hydraulic depending on the engine application. Hydraulic governors are used on stationary power applications where a constant speed must be maintained with varying loads. Alternatively, mechanical governors are used on engines where throttle control and flexibility between idling and maximum speeds is required.

Mechanical governors control both the idling speed (500-525 rpm) and prevent over-speeding of the engine beyond its maximum speed rating. This is accomplished by a flyball-type governor acting on an idling spring and a maximum speed spring. When the engine is started and brought up to idling speed, the governor weights work against the small idling spring. As the throttle is opened and the engine speed exceeds 525 rpm, the small idling spring becomes inactive and acts as a solid sleeve. Engine speed is now controlled by the accelerator which is connected by links to the vertical lever (see Fig. 3 and Fig. 5). As the engine reaches maximum speed, the large governor spring takes control limiting the revolutions to the maximum rated speed of the engine.

LIKE THE SD PUMP, THE DD FUEL PUMP HAS ONE METERING PUMP WHICH MEASURES AND FORCES FUEL TO ALL INJECTORS WHICH RECEIVE AN EQUAL AMOUNT OF FUEL.

## The Double Disk Fuel Injection System

Design and development of the double disk pump began sometime in the early 1940's and by the summer of 1946, several hand-built prototypes were being tested. While essentially very similar to the single disk pump, the double disk pump employed two rotating disks and covers instead of one to distribute and inject fuel. One disk was dedicated to incoming fuel while the other handled fuel discharge to the injectors (Fig 7 and 8).

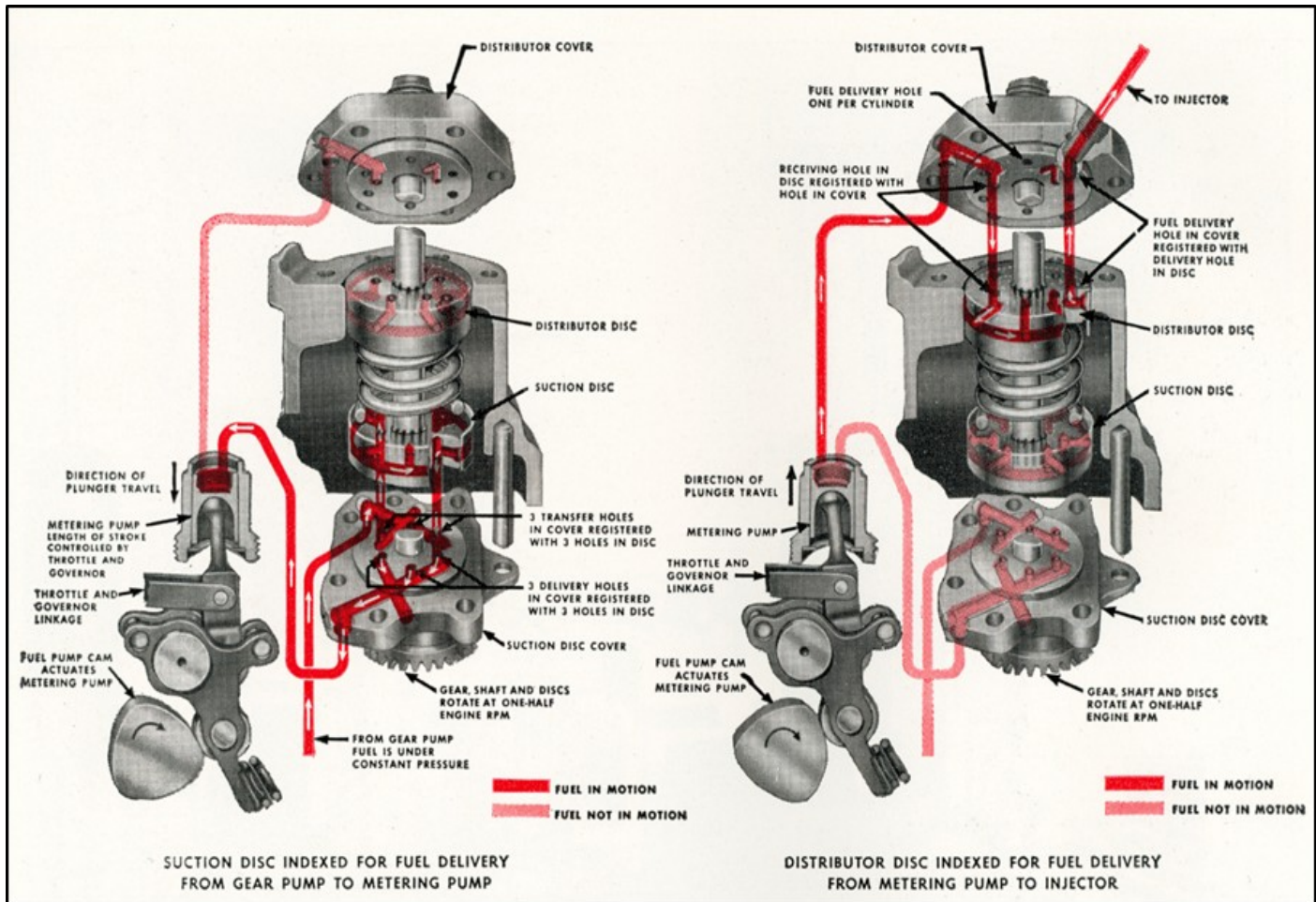


Fig 7: Fuel Distribution of the DD Pump

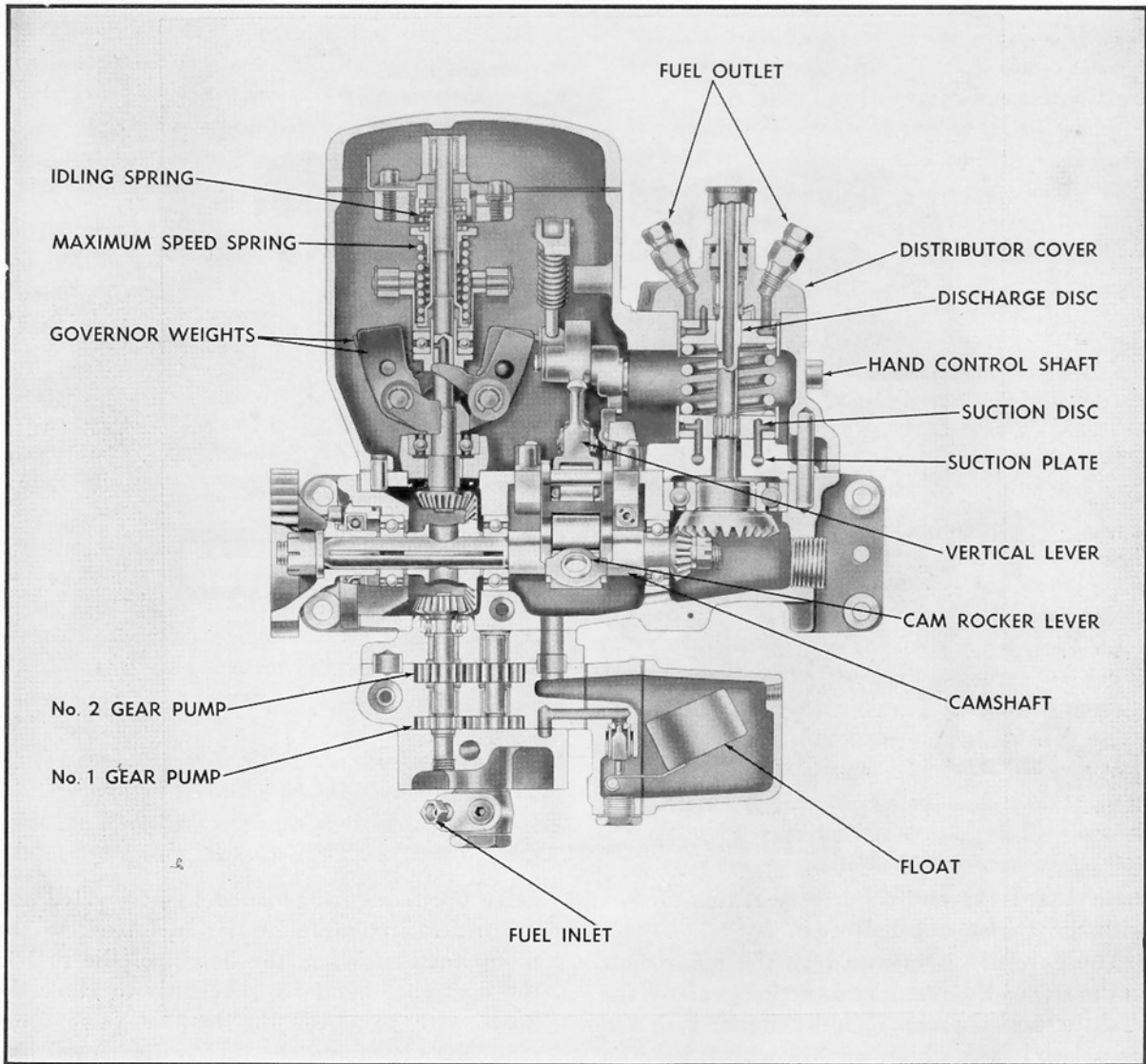


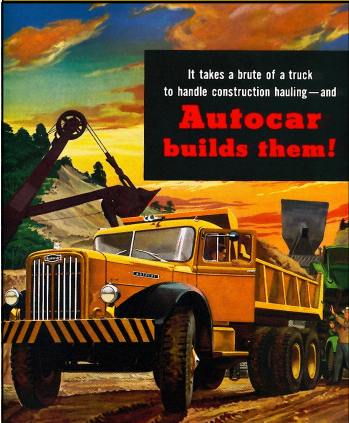
Fig 8: Cross Section of the DD Pump

The suction disk and plate each have six holes. Three of the holes in the plate are connected to the fuel passage from the No. 2 gear pump; the other three holes are connected to the fuel passage which leads to the metering pump. All six holes in the disc are interconnected. While the metering plunger is on its down stroke, the six interconnected holes in the disc transfer fuel from one side of the plate to the other side thereby completing a fuel passage from the No. 2 gear pump to the metering pump. Holes in the discharge disc and cover align during the delivery stroke thus delivering metered charges of fuel to the proper injector in time for the power stroke. Like the SD pump, the DD fuel pump has one metering pump which measures and forces fuel to all injectors which receive an equal amount of fuel. As in the SD system, the plunger of the metering pump is forced upward by the lobes of the fuel cam. On the upstroke, the plunger forces fuel through the indexed passage to the proper injector. As the fuel cam turns, the spring above the plunger pushes the plunger down and more fuel enters from the gear pump through the distributor by a newly indexed passage (see Figs 5 and 7). Control of engine speed and load is accomplished by varying the stroke of the metering pump plunger as in the SD fuel pump.

**To Be Completed in the Next Newsletter**

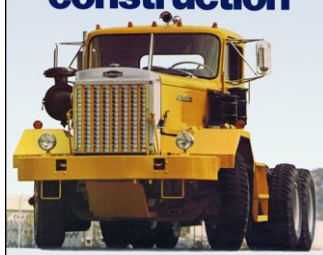


# New Literature Arrivals



It takes a brute of a truck to handle construction hauling—and **Autocar builds them!**

**AUTOCAR**  
trucks for  
construction




...nothing else even comes close

**Autocar** **LOGGER** Specials

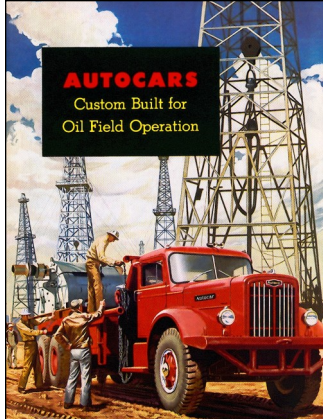
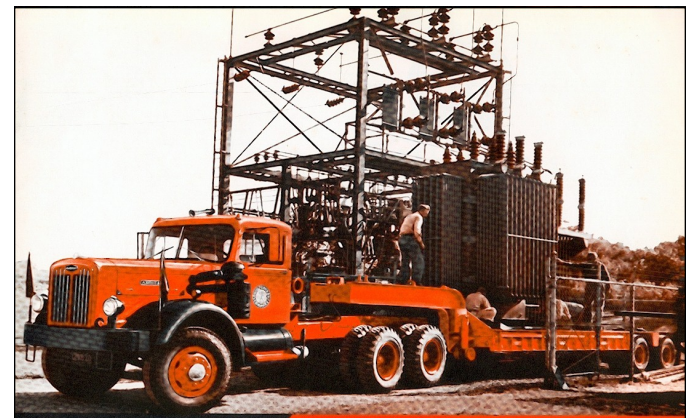


*Brute Strength... Stamina*

**Autocar** **TRUCKS** for the **LOGGING** INDUSTRY



**AUTOCARS**  
Custom Built for  
Oil Field Operation

**Autocar** Custom-Engineered to Cut Costs in Extra-Heavy Equipment Hauling

**AUTOCAR TRUCKS**  
*standard of quality*  
IN THE OIL INDUSTRY



Trucks have to be rugged and dependable to meet the specialized requirements of the oil field operator. Big, hard-to-handle loads of rigging or machinery . . . rough terrain . . . difficult operating conditions and schedules—all these are everyday conditions for Autocars like this DC10466 operated by Colburn Bros., Contractors, Houston, Texas.

Autocars—powered by White Mustang Gasoline Engines or Cummins Diesel Engines—are famous for their economy and long life. And the many exclusive engineering features—like bolt and nut construction, renewable bushings, famous Autocar driver cabs, double channel frame, rugged axles and brakes make Autocars "free choice" in the oil industry—everywhere!

**AUTOCAR DIVISION**  
**THE WHITE MOTOR COMPANY**  
EXTON, PENNA.



"HERE'S THE CAB FOR REAL COMFORT—AND SAFETY, TOO!"

THE AUTOCAR  
**DRIVER CAB**



**Job for Autocar**—This six wheel drive 6x6 goes in and out in the roughest of weather or terrain.

**New 6 x 6 mixer goes through thick and thin . . . thanks to Autocar**

This is really an all-weather, all-terrain job—one of those where nothing less than an Autocar would do. In a hole or up a hill, on shifting sand or in sticky gumbo, the all-wheel drive Autocar delivers the mix on schedule . . . a schedule that construction men know they can depend on day in and day out.

Choice of an Autocar means that your truck will be custom-engineered to do specific job. Precision building job Autocar quality means that it will stay on the job longer with greater economy. Why settle for less than the "World's Finest"?

White Autocar comprehensive service throughout the U. S. A.

**Autocar** Division of The White Motor Company, Exton, Pa.

This advertisement No. A-1065 appears in Engineering News-Record, April 1, Construction Methods & Equipment, Construction & Engineers, April 1, Business Week, November 25, 1968.



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# Autocar Picture Gallery

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## Americas Lost Treasures

The National Geographic TV series “Americas Lost Treasures” is currently being re-broadcast on the National Geographic TV network. Check local listings (Monday and Wednesday evenings) for the episode that originates in Wilmington, DE and that features the “Mack Daddy of Trucks”.