

All Vintage Trucks

Vintage truck prints, posters, manuals and more!



Mack Daddy of Trucks

Summer 2012 Newsletter



About the Show

From the Producers of *Deadliest Catch*, *Ax Men*, and *Storage Wars*

Hosts Curt Doussett and Kinga Philipps scour the country on a quest to find objects with unexpected value and incredible stories forgotten in America's basements, barns, attics, and backyards. From a Civil War drum and a Native American tobacco bag to a 19th-century steamboat chair and a 150-million-year-old stegosaurus bone, some of our nation's great treasures are waiting to be discovered ... and might even be worth a small fortune! Could

you have a museum-worthy artifact hidden in your house?

In the first season of *America's Lost Treasures*, we travel to ten U.S. cities, inviting locals to bring in their artifacts to find out what they're really worth. Working with top museum curators, appraisers, and other experts, Curt and Kinga each trace the history of three chosen artifacts. When the investigation is complete, owners and their families learn the true story—and value—of their treasured objects. At the end of each one-hour episode, it's down to two finalists, and a winner is awarded \$10,000 as special recognition for the impor-

tance of the artifact in American history, which will be featured in a special exhibit at the National Geographic Museum in Washington, D.C., coming in 2013.

America's Lost Treasures: Wilmington, Delaware

Mack Daddy of Trucks

Curt checks out a restored Mack Truck. Definitely an American icon, but is it a lost treasure? We think the restored 1963 Mack truck owned by All Vintage Trucks LLC is definitely a lost treasure. Mack trucks were first used in Britain during World War I to move troops and supplies to the front lines. The trucks took on their K-9 trademark in 1917 when British soldiers, impressed with the trucks' ruggedness, used the British mascot as inspiration, calling the pug-nacious vehicles "Bulldog Macks." Eventually becoming America's workhorses, Mack trucks were instrumental in building America's infrastructure. When President Eisenhower signed the Federal-Aid Highway Act of 1956, construction began on the Interstate Highway System, which has also been called "the greatest public works project in history."

- **MACK DADDY OF TRUCKS**
- **PROGRAM TO AIR ON NATIONAL GEOGRAPHIC TV CHANNEL JULY 25 @ 9:00 PM**
- **FILMING DONE AT THE MACK MUSEUM—SEE THE 3 MINUTE PROMOTIONAL VIDEO—GO TO WWW.ALLVINTAGETRUCKS.COM AND CLICK ON "VIDEOS"**

Inside this issue:

MACK DADDY OF TRUCKS—NATIONAL GEOGRAPHIC	1
CUMMINS FUEL INJECTION SYSTEMS (CONTINUED)	2,3
NEW ADDITIONS	3
MACK LMSWM PRINTS	3
SELECTED PICS, ATHS NATIONAL	4
SELECTED PICS, MACUNGIE	4

Cummins Fuel Injection Systems, 1932 to 1960 (Continued)



"THE PRIMING VALVE MUST BE CLOSED AT ALL TIMES WHEN THE ENGINE IS RUNNING; OTHERWISE, AN EXCESSIVE CHARGE OF FUEL WILL BE DELIVERED TO THE INJECTORS AND THE ENGINE WILL RUN AT UNCONTROLLED SPEED."

The gear pump housing contains two gear pumps which are driven by a drive shaft coupled to the fuel pump main shaft. When the float chamber is filled, the raised position of the float closes a valve regulating the fuel level in the chamber. The pump discharge pressure created by the closed valve opens a spring-loaded by-pass valve permitting recirculation of the fuel back to the pump suction. When the height of the fuel in the float chamber falls sufficiently to allow the float to open, the by-pass valve automatically closes and fuel is discharged into the float chamber. The No. 2 pump draws fuel from the float chamber and delivers it under pressure through a check valve, screen and tube to the fuel distributor. When sufficient pressure is built up in the lines above the gear pump, the ported piston valve is forced down against the spring pressure until the ports open allowing the discharge from the pump to recirculate to the pump suction. The air pressure chamber helps to keep a constant pressure against the fuel at all times which helps prevent excessive wear and chattering of the gears. When enough fuel is used to decrease the pressure against the regulator, the spring pushes it upward, thus shutting off the flow of fuel through the bypass. A conical screen helps clean the fuel before it goes to the distributor. The check valve assembly above the conical screen prevents the return flow of fuel after the engine has been shut down. The emergency control valve can be used in an emergency to bring the speed of the engine under control.

The distributor mechanism at the top of the pump assembly has two functions. First, it allows the fuel from the fuel supply line to pass to the metering pump as the plunger is on its downward stroke (see Figs P. 3). Second, the distributor provides another passage from the metering pump to the injector next in firing order. This is accomplished by means of a rotating distributor disk and the stationary distributor cover to which the fuel lines to the individual injectors are connected. The distributor works on exactly the same principle as a rotary distributor on a gasoline engine, except that passages are used instead of wires to provide a path for fuel instead of electrical voltage. The mating surfaces of the disc and cover are finely machined to make an oil-tight joint and accordingly, fuel cannot leak between the surfaces from one hole to another. The drilled holes in the disc and cover act as fuel passages when the holes in the disc are rotated to align with the corresponding holes in the cover. Fuel cannot pass through the distributor when the holes are not properly indexed. All fuel lines remain full of fuel at all times. Fuel received by the metering pump from the gear pumps and discharged from the metering pump through the distributor to the injectors is under low pressure at approximately 120 to 160 psi.

The single disk fuel pump has one metering pump which measures and forces fuel to all injectors and delivers an equal amount of fuel to all cylinders (see Figs. next page). 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. Control of engine speed and load is accomplished by varying the stroke of the metering pump plunger either by the governor or operator control. A long stroke of the plunger sends a heavy charge of fuel to the injector and a short stroke sends a correspondingly smaller fuel charge. This is accomplished by moving the vertical lever and roller either towards the fulcrum (small fuel charge) or outwards from the fulcrum increasing the pump stroke and delivering a larger fuel charge.

The hand priming pump draws fuel from a connection just below the fuel inlet check valve and delivers it to a connection following No. 2 pressure pump and by-passing the gear pumps. Fuel can be forced to the injector when the priming valve is open. The purpose of the priming valve is to bleed all fuel lines of air or to provide a solid column of fuel from the fuel tank to the injector. It is located on the side of the distributor housing and provides a passage for fuel during priming operations without the use of the metering pump. The priming valve must be closed at all times when the engine is running; otherwise, an excessive charge of fuel will be delivered to the injectors and the engine will run at an uncontrolled speed.

ALL VINTAGE TRUCKS LLC

Widest selection of antique truck art, prints, manuals and more!

355 Lang Blvd.,
PO Box 250
Grand Island, NY 14072

Phone: 716-774-0153
Fax: 716-774-8708
Email: info@allvintagetrucks.com

Selected Pics from the ATHS National Antique Truck Show



Selected Pics from the ATCA Antique Truck Show, Macungie 2012

