



DIESEL INJECTION PUMP WITH 6 IN-LINE CYLINDERS CUTAWAY

A1

Product number
AE410180M



Cutaway model designed to illustrate the internal workings of a 6 in-line cylinder diesel injection pump with a centrifugal governor and automatic advance variator. It features a toothed axle and sleeve for precise pump delivery adjustments, a fuel feed pipe, plunger, and delivery valve, along with a system for excess pressure release and fuel return. The model includes detailed components such as adjusting springs, counterweights, and control levers for hands-on training in fuel delivery regulation and engine speed control.



Features

- **Cutaway Design:** Allows visibility of internal components such as the toothed axle, plunger, fuel delivery valve, and centrifugal governor.
- **Adjustable Components:** Features toothed sleeve for pump delivery adjustment, valve for excess pressure release, and ring nut for regulator spring adjustment.
- **Operational Mechanisms:** Includes counterweights of the speed governor, automatic advance variator, and control levers for detailed understanding of engine speed and timing adjustments.
- **Fuel System Details:** Shows piping for fuel delivery and return, as well as the system's response to cold start adjustments.



Value for Students

- The toothed axle for pump delivery adjustment, fuel feed pipe, plunger for barrel no. 1, fuel delivery valve, and piping for fuel delivery to injectors. Understand the functions and interactions of these components within the injection pump.
- Learn about the centrifugal governor's role in regulating engine speed and the automatic advance variator for timing adjustments. Analyze the effects of adjusting springs and counterweights on pump performance.
- Observe and understand the working of various elements such as the valve to release excess pressure, pipe to return excess fuel to the tank, and the cold start push button that temporarily increases pump delivery.
- Utilize the ring nut for regulator spring adjustments, peak RPM adjusting springs, and idling adjusting spring shaft with cam for control lever operations. Gain practical experience with the control levers and the spring to adjust pump delivery and its connection with the regulator.
- Learn to identify and rectify faults in the fuel delivery system, including pressure and delivery issues, by interacting with the pump's various components and adjustment mechanisms.

Value for Instructors

- The model provides a clear, functional representation of a diesel injection pump, facilitating detailed instruction on fuel delivery and governor systems.
- Offers practical demonstrations of pump adjustment, fuel pressure regulation, and speed control mechanisms. This aids in illustrating theoretical concepts with tangible examples.
- Constructed to withstand frequent use in educational settings, with all components securely visible and accessible for hands-on training.
- Enables instructors to demonstrate complex principles of diesel injection systems, including adjustments and operational effects, in a controlled and interactive environment.
- Plug and play design, requiring no additional mountings, assembly, or special preparation for operation.

Specifications

- Dimensions: 250 x 550 x 450 mm (9.84 in×21.65 in×17.72 in)
- Weight: approx. 16 kg (35 lb)
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