

**Product Name :**  
Farm Tractor 4WD Trainer 4-Cylinder Diesel Tractor Cutaway Model

**Product Code :**  
NLAB-AUTOMOTIVETVET17002



**Description :**

Farm Tractor 4WD Trainer 4-Cylinder Diesel Tractor Transmission Cutaway Model

**Technical Specification :**

## 4-Cylinder Diesel Tractor Transmission Cutaway Model

The 4-Cylinder Diesel Tractor Transmission Cutaway Model is a fully functional educational training system designed to demonstrate the construction and operation of a modern agricultural tractor powertrain. It enables students and technicians to study the interaction between the engine, transmission, clutch, hydraulic system, differential, and drivetrain in a safe laboratory environment.

The model features a **4-cylinder diesel engine** equipped with a **rotary fuel injection pump**, accurately illustrating the fuel delivery system and engine operating principles. Major mechanical components have been carefully sectioned to expose internal assemblies, allowing clear observation of the engine, transmission, clutch mechanism, hydraulic lift system, and final drive components.

The trainer incorporates a **single-disc clutch, multi-speed gearbox with reduction unit, rear hydraulic lifting mechanism, rear differential lock, and front-wheel drive engagement system**, providing a comprehensive understanding of agricultural tractor transmission systems. The unit is electrically driven by a **230 V AC motor**, allowing safe operation without engine combustion while demonstrating the movement of internal components.

Mounted on a robust steel frame fitted with heavy-duty wheels, the trainer can be easily moved between

classrooms and laboratories, making it ideal for technical education and practical demonstrations.

## Key Features

- Fully functional tractor transmission training model
- 4-cylinder diesel engine with rotary fuel injection pump
- Single-disc clutch assembly
- Multi-speed gearbox with reduction unit
- Rear hydraulic lifting mechanism
- Rear differential locking system
- Front-wheel drive engagement mechanism
- Precision cutaway components for internal visibility
- Electrically operated using a 230 V AC motor
- Heavy-duty mobile stand with lockable wheels

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Durable construction for long-term educational use

## Technical Specifications

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**Engine Type:** 4-Cylinder Diesel Engine

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**Fuel Injection System:** Rotary Fuel Injection Pump

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**Clutch:** Single-Disc Clutch

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**Transmission:** Multi-Speed Gearbox with Reduction Unit

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**Hydraulic System:** Rear Hydraulic Lift

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**Differential:** Rear Differential with Differential Lock

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**Drive System:** Selectable Front-Wheel Drive

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**Operation:** Electric Motor, 230 V AC

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**Mounting:** Steel Stand with Heavy-Duty Wheels

## Educational Experiments

- Diesel engine construction and operation
- Fuel injection system demonstration
- Clutch engagement and disengagement
- Gear shifting and transmission operation
- Reduction gear mechanism study
- Differential and differential lock operation
- Hydraulic lift system demonstration
- Front-wheel drive engagement
- Power transmission analysis
- Preventive maintenance and servicing procedures

## Applications

- Agricultural Machinery Training
- Tractor Maintenance Education
- Automotive Engineering Laboratories
- Mechanical Engineering Demonstrations
- Technical and Vocational Training
- Farm Machinery Service Training
- Industrial Skills Development
- Research and Educational Institutions

## Industries Served

- Agricultural Engineering Colleges
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Technical Universities

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Vocational Training Institutes

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Farm Equipment Training Centres

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Automotive Training Institutes

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Mechanical Engineering Departments

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Agricultural Machinery Service Workshops

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Research and Development Laboratories

## Naugralabequipments

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