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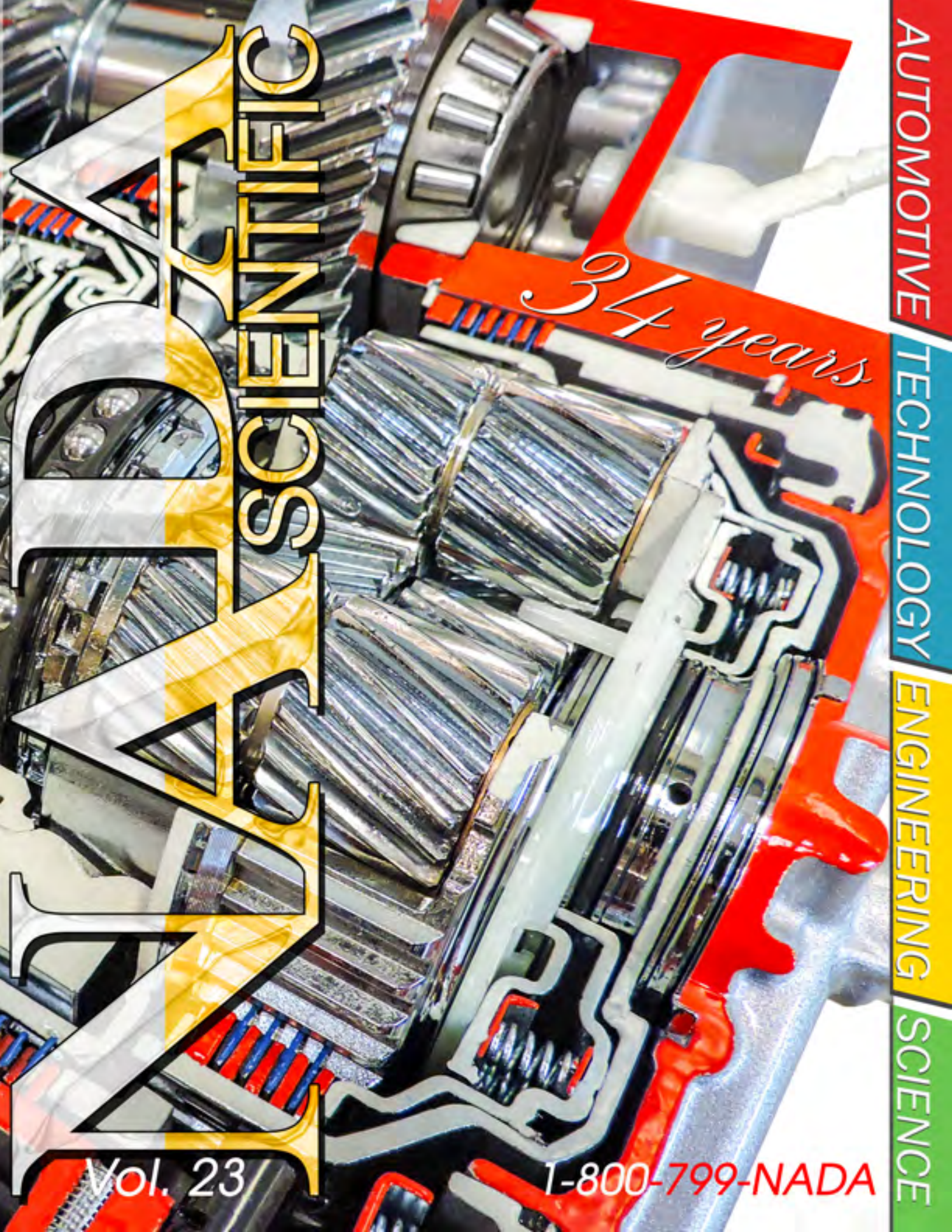
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AUTOMOTIVE TECHNOLOGY ENGINEERING SCIENCE

*34 years*

# TRANSACTIONS AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Vol. 23

1-800-799-NADA



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Electrically Operated



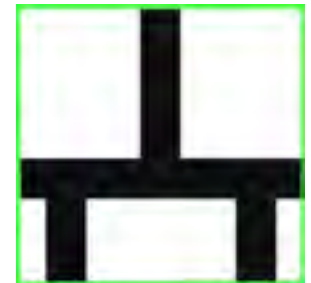
Stand with Wheels



Wall-Mounted



Mounted on Base



Mounted on Table Stand



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Green Technology

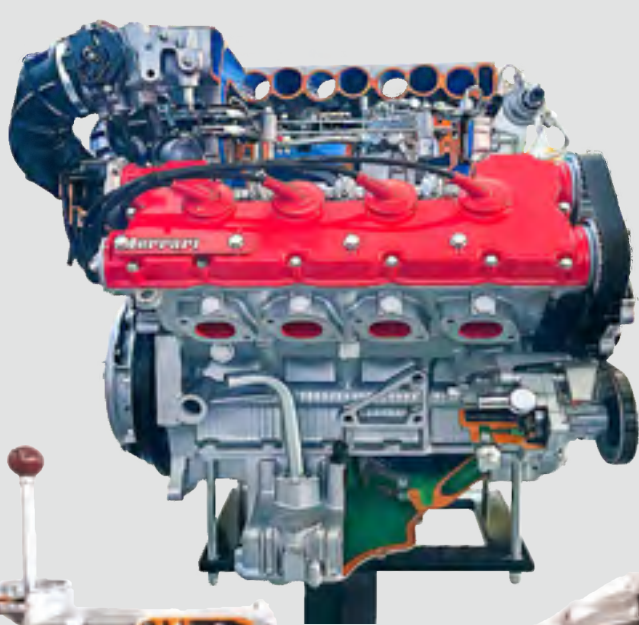


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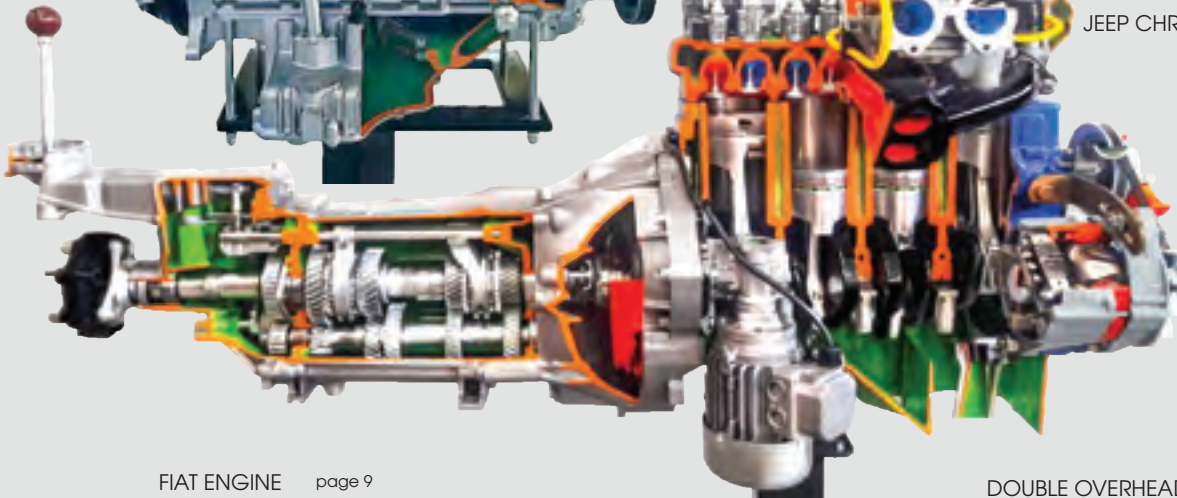
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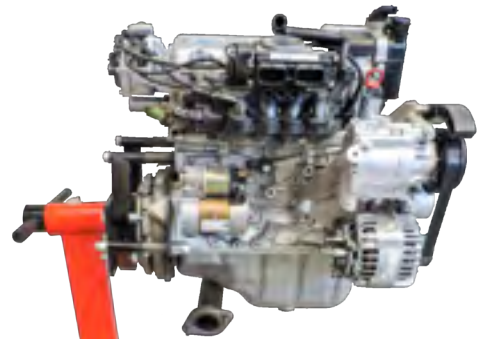
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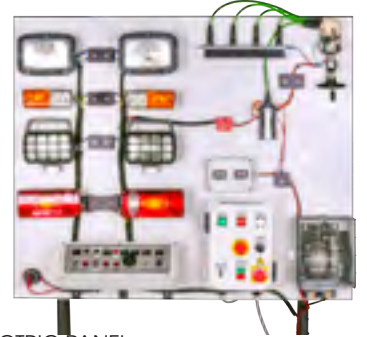
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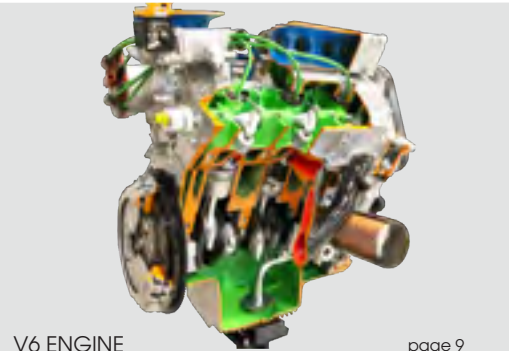
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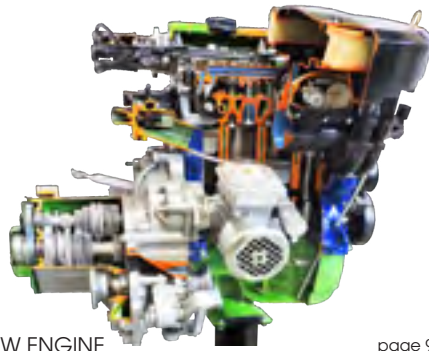
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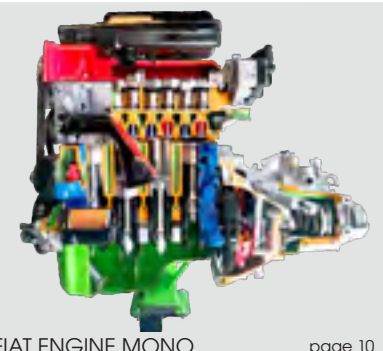
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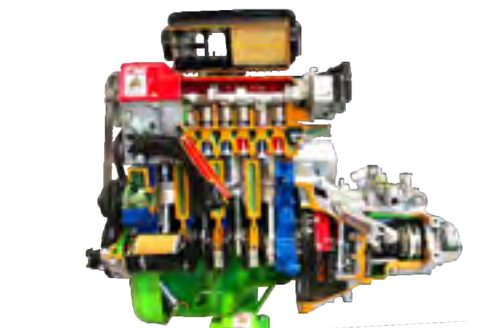
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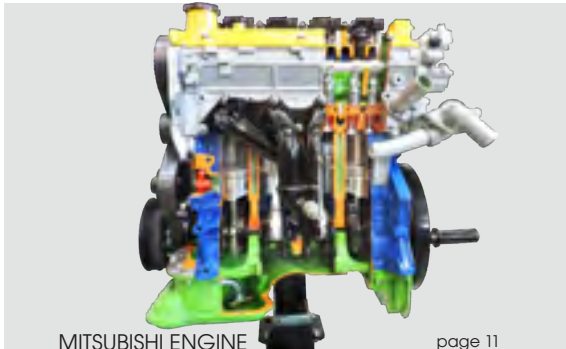
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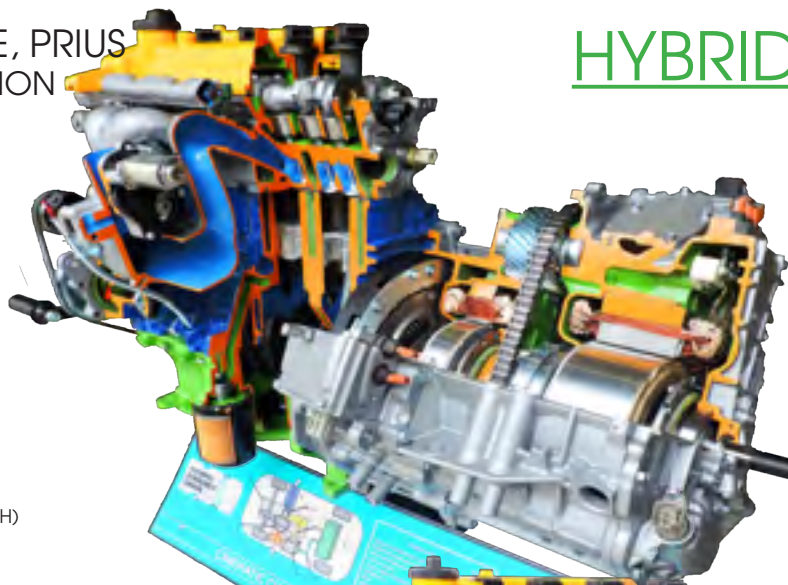
## HYBRID ENGINE, PRIUS MANUAL OPERATION

N98-ND4500



### WEIGHT & DIMENSIONS

104cm x 80cm x 130cm (LxWxH)  
Net Weight: 180 kg  
Gross Weight: 250 kg



# HYBRID TECHNOLOGY

The Toyota Hybrid System (THS) has two sources of power: the gas engine and the electric motor.

### SPECIFICATIONS

- Model: 1NZ-FXE
- Type: Water-cooled series, 4-Cylinder engine
- Valve: DOHC 16 Valves
- Gross displacement: 1,496cc
- Driveshaft with brushes
- Nr 2 camshaft with timing shifter(WT)
- 4 valves per cylinder
- Connecting rod, piston, cooling engine air space, and water pump
- Timing belt
- Multipoint electronic injection with throttle
- Nomenclature panel
- Exhaust collector with Lambda probe
- Mounted on stand with wheels

## HYBRID CUT-AWAY ENGINE, PRIUS ELECTRICAL OPERATION

N98-ND4501



### SPECIFICATIONS

- 4-Cylinder engine
- Displacement: 1,500cc
- Dual Overhead Camshaft (DOHC)
- 4 valves per cylinder
- Roller chain
- VVT-I system (Variable Valve Timing with Intelligence) electronically controlled intake valves
- Multipoint electronic injection with throttle
- Electrical engine
- Epicyclic engine
- Generator
- Transmission belt (CVT)
- Nomenclature panel
- Differential group
- Exhaust manifold with Lambda probe
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

130cm x 90cm x 155cm (LxWxH)  
Net Weight: 190 kg  
Gross Weight: 300 kg



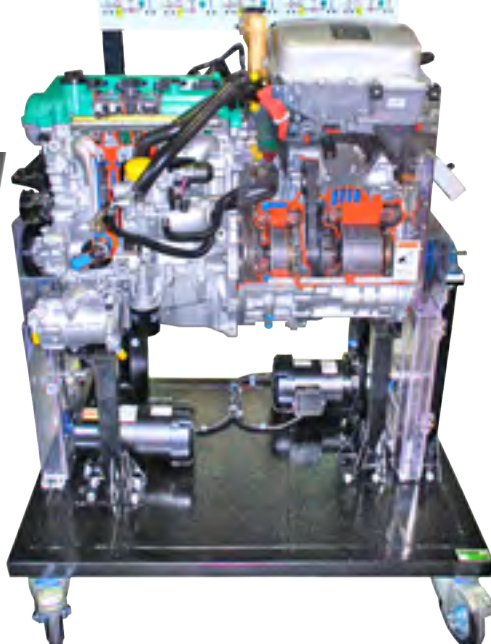
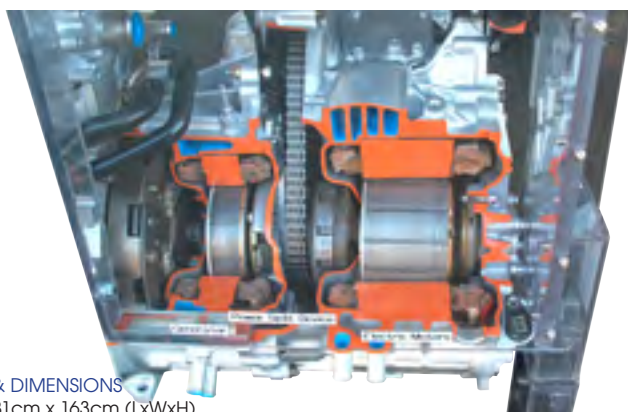
## HYBRID CUT-AWAY TRAINER, PRIUS ELECTRICAL OPERATION

N98-C450-HYB



### WEIGHT & DIMENSIONS

111cm x 81cm x 163cm (LxWxH)  
Net Weight: 350 kg  
Gross Weight: 470 kg



### SPECIFICATIONS

- Model: 1NZ-FXE
- Type: Water-cooled series 4-Cylinder engine
- Valve: DOHC 16 valves
- Gross displacement: 1,496cc
- Plexiglas Safety Shield Included

### MOTORS:

- 3CM AC synchronous motor
- Permanent magnet synchronous motor

### MAX OUTPUT:

- Engine: 77PS / 5,000 rpm
- Motor: 68PS / 1,200 ~ 1,540 rpm

### MAX TORQUE:

- Engine: 11.7kg-m / 4,200 rpm
- Motor: 40.8 kg-m / 0 ~ 1,200 rpm
- Made in Japan



## FERRARI V8 ENGINE

N98-FERRARI2



### WEIGHT & DIMENSIONS

80cm x 100cm x 130cm (LxWxH)

Net Weight: 200 Kg

Gross Weight: 275 Kg

### SPECIFICATIONS

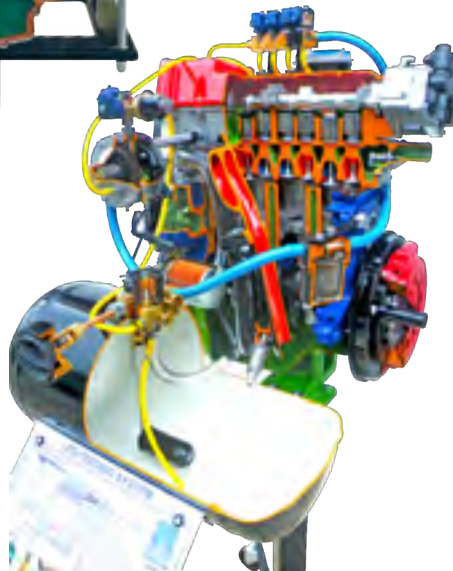
- Ferrari Mondial, 308, or Tema Ferrari
- V8, 4 valves per cylinder
- Displacement: 3,000cc
- Double overhead camshaft (DOHC)
- Mechanic injection with electronic governor KE3 jetronic
- Belt distribution
- Oil pump
- Water pump
- Alternator
- Operation options: electrical or manually by hand crank
- Mounted on stand with wheels

## GAS/LPG MULTIPOINTS FIAT ENGINE ELECTRONIC INJECTION

N98-ND4300



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### SPECIFICATIONS

- 4-Cylinder engine
- Displacement: 1,245cc
- Overhead camshaft (OHC)
- Electronic injection and ignition

### GAS SYSTEM

- Electro-Injectors
- Throttle Body
- Rail
- Sensors / Phonic Wheel
- Lambda Probe

### LPG SYSTEM

- Genius Reducer
- LPG Electro-valve
- LPG Tank with Float Device
- Charge Socket
- Rail and LPG Electro-Injectors
- Electrically operated
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

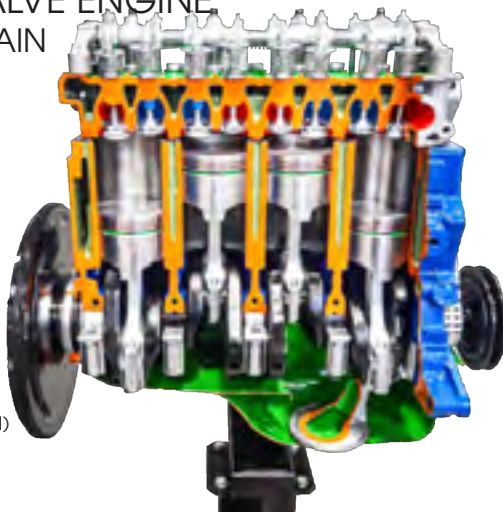
70cm x 80cm x 95cm (LxWxH)

Net Weight: 86 kg

Gross Weight: 120 kg

## OVERHEAD VALVE ENGINE WITH TIMING CHAIN

N98-ND5450



### WEIGHT & DIMENSIONS

70cm x 60cm x 80cm (LxWxH)

Net Weight: 60 kg

Gross Weight: 110 kg

## OVERHEAD CAMSHAFT ENGINE WITH TOOTHED TIMING BELT

N98-ND5440



### SPECIFICATIONS

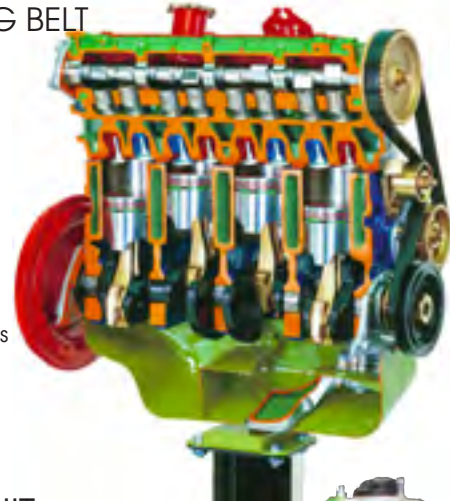
- 4-Stroke engine, Inline-4
- Overhead camshaft
- Toothed timing belt
- Operates manually by hand crank
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

67cm x 48cm x 95cm (LxWxH)

Net Weight: 60 kg

Gross Weight: 100 kg



## DOUBLE OVERHEAD CAMSHAFT ENGINE WITH TOOTHED TIMING BELT

N98-ND5445



### SPECIFICATIONS

- 4 stroke gas engine
- 4 inline cylinders
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

70cm x 60cm x 80cm (LxWxH)

Net Weight: 60 kg

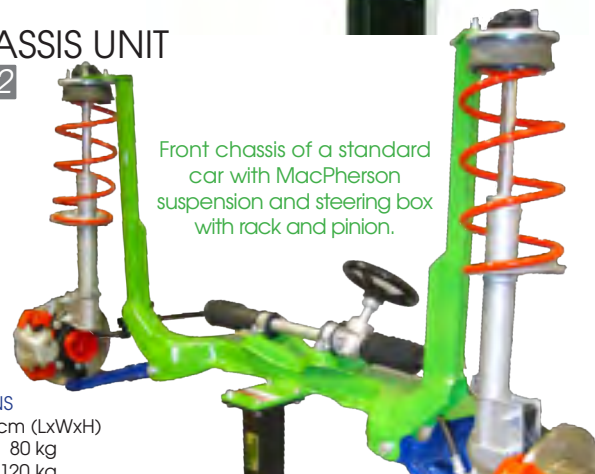
Gross Weight: 110 kg

## FRONT CHASSIS UNIT

N98-ND11202



Front chassis of a standard car with MacPherson suspension and steering box with rack and pinion.



### WEIGHT & DIMENSIONS

155cm x 100cm x 130cm (LxWxH)

Net Weight: 80 kg

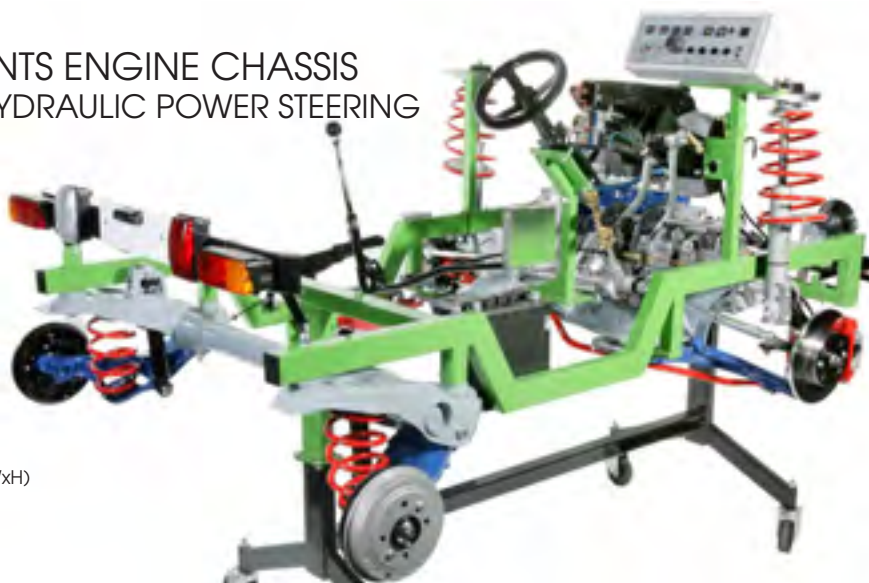
Gross Weight: 120 kg

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## GAS MULTIPOINTS ENGINE CHASSIS WITH ABS AND HYDRAULIC POWER STEERING

N98-ND5272



### WEIGHT & DIMENSIONS

211cm x 163cm x 116cm (LxWxH)  
Net Weight: 337 kg  
Gross Weight: 470 kg

## ELECTRIC POWER-ASSISTED STEERING WITH SUSPENSION

N98-ND10778



### WEIGHT & DIMENSIONS

160cm x 130cm x 150cm (LxWxH)  
Net Weight: 170 kg  
Gross Weight: 270 kg

## AUTOMOTIVE A/C SYSTEM

N98-ND9130



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### WEIGHT & DIMENSIONS

105cm x 75cm x 130cm (LxWxH)  
Net Weight: 70 kg  
Gross Weight: 120 kg

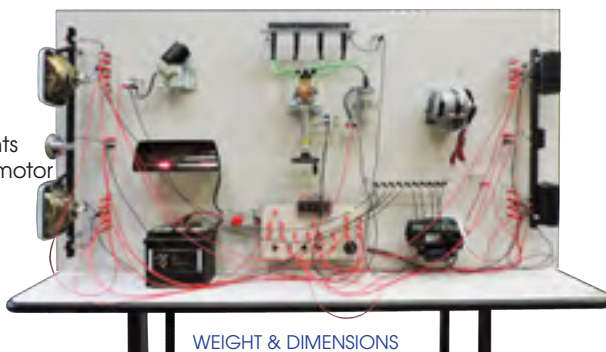
## WIRING SYSTEM TRAINER ELECTRONIC IGNITION

N98-ND9991



### SPECIFICATIONS

- Front and rear lights
- Windshield wiper motor
- Turn indicators
- Instrument panel
- Battery
- Battery ignition
- Spark Plugs
- Fuse Box
- Alternator
- Wires with red and black couplings



### WEIGHT & DIMENSIONS

195cm x 55cm x 205cm (LxWxH)  
Net Weight: 100 kg  
Gross Weight: 210 kg

## ELECTRONIC INJECTION MULTIPOINTS SYSTEM PANEL

N98-ND9900



### SPECIFICATIONS

- Fuel electro-pump
- Inlet fuel piping
- Electronic ECU injection-ignition
- Feeding contractor system
- Fuel steams electro-valve
- Protection fuse
- Activated carbon filter
- Diagnostic socket
- Absolute pressure
- Temperature sensor
- Ignition spark plugs
- Positioning butterfly valve sensor
- Mounted on stand with wheels



### WEIGHT & DIMENSIONS

140cm x 70cm x 210cm (LxWxH)  
Net Weight: 96 kg  
Gross Weight: 170 kg

# TRAINERS

### SPECIFICATIONS

- Front chassis with front-wheel drive (transversally mounted engine)
- Gasoline powered 4-Cylinder engine
- Displacement: 1,200cc
- Electronic Injection MPI (Multipoints)
- Catalytic Converter with O2 (Lambda Sensor)
- Manual Transmission: 5 forward speeds + reverse + differential
- Hydraulic power steering with double jointed steering column
- 4 Sensor ABS brake system
- Radiator with electric fan
- Front disc & rear drum brakes
- Independent front wheel MacPherson suspension
- Working front and rear lighting system controlled by a dashboard

### SPECIFICATIONS

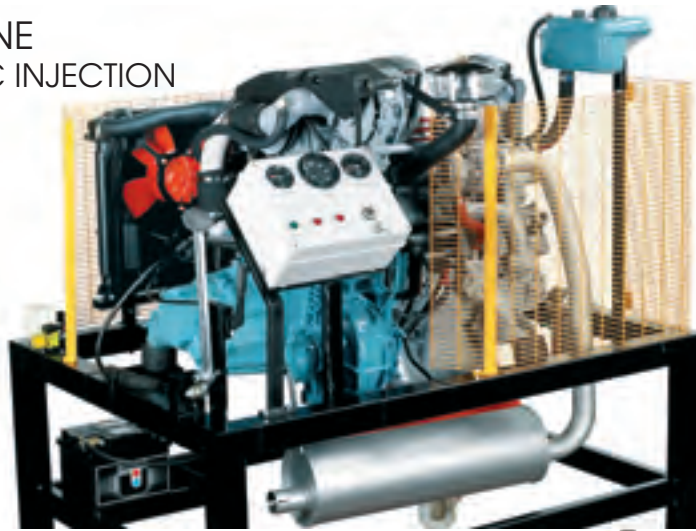
- Operating MacPherson struts, rack and pinion
- Adjustment of the steering effort directly on the rack
- Vehicle speed simulation from 0 to 120 km/h
- Normal/city push-button
- Alternator simulation
- Indicator lamp and voltage/current display
- Body computer with diagnostic socket (with low speed CAN)
- Electrically operated
- Mounted on stand with wheels

### SPECIFICATIONS

- Maximum power: 2 kw
- Cooling liquid 400 gt Freon R134a
- Piston compressor
- Condenser
- Dehydrating filter
- Pressure switch
- Expansion valve
- Evaporation unit
- Resistor
- Thermostat
- Troubleshooting device for simulation of 4 faults
- Terminology table
- Operates electrically at 220V, 3-Phase
- Mounted on stand with wheels

## GAS RUNNING ENGINE MULTIPOINT ELECTRONIC INJECTION

N98-ND9005



### WEIGHT & DIMENSIONS

120cm x 115cm x 140cm (LxWxH)

Net Weight: 150 kg

Gross Weight: 330 kg

## DIESEL RUNNING ENGINE COMMON RAIL

N98-ND9095



### WEIGHT & DIMENSIONS

135cm x 114cm x 151cm (LxWxH)

Net Weight: 348 kg

Gross Weight: 468 kg

## GAS ENGINE FOR ASSEMBLY AND DISASSEMBLY

N98-ND9000



### WEIGHT & DIMENSIONS

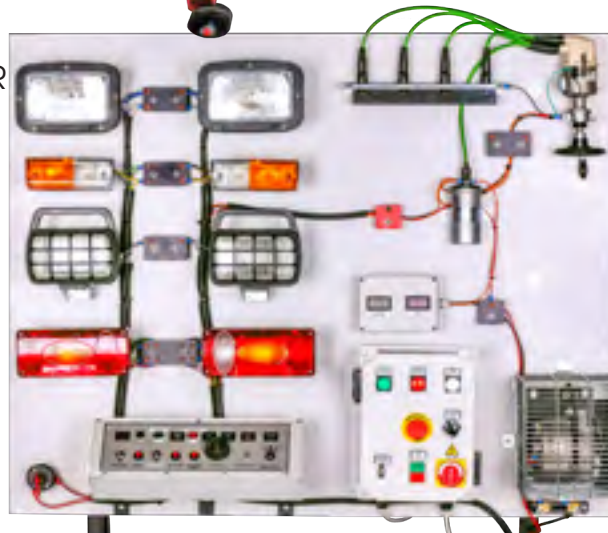
106cm x 89cm x 136cm (LxWxH)

Net Weight: 124 kg

Gross Weight: 188 kg

## ELECTRIC PANEL FOR LIGHTING WITH ALTERNATOR

N98-ND9992



### WEIGHT & DIMENSIONS

130cm x 100cm x 206cm (LxWxH)

Net Weight: 110 kg

Gross Weight: 150 kg

# TRAINERS

### SPECIFICATIONS

- 4-Cylinder FIAT Engine
- 2 valves per Cylinder
- Overhead camshaft (OHC)
- Electronic ignition
- Displacement: 1,300cc
- Gearbox: 5 forward speeds + reverse
- Diagnostic connector
- OBD2 socket connection
- Includes 8 Fault Simulations
- Includes anti-vibration rubber caps
- Mounted on stand with wheels

### SPECIFICATIONS

- 4-Cylinder FIAT Engine
- 2 valves per cylinder
- Overhead camshaft (OHC)
- Turbo-compressor
- Displacement: 1,900cc
- Gearbox: 5 forward speeds + reverse
- Diagnostics socket
- OBD2 socket connection
- Includes 10 Fault Simulations
- On Request: Multi-jet, 1300 cc., DOHC, 4 valves per cylinder
- Includes anti-vibration rubber caps
- Mounted on stand with wheels

### SPECIFICATIONS

- Modern gas engine
- Rotating stand
- Overhauled front-wheel drive engine
- 4-Stroke
- Displacement: 1242 cc
- 4-Cylinders in-line with overhead cam shaft, two valves per cylinder
- Timing system, working with toothed belt
- Electronic ignition with 4 spark plugs
- Electronic injection
- Alternator
- Lubrication system with mechanical oil pump
- Oil filter & Flywheel
- Clutch, mechanical dry, single disc type
- Optional: 219-Piece Toolbox (extra)

### SPECIFICATIONS

- Daytime running lights
- Low beams
- High beams
- Signal lights
- Rear fog lights
- Brake lights
- Reverse lights
- Work lights
- Relays
- Dashboard with lights
- Four spark plugs
- High tension coil
- Electronic distributor
- Battery with isolator
- Functioning alternator with variable speed electric engine
- Voltmeter
- Ampere meter
- Pin outs for tension values of each component



## DIESEL COMMON RAIL

N98-ND10300



### WEIGHT & DIMENSIONS

50cm x 20cm x 30cm (LxWxH)

Net Weight: 8 kg

Gross Weight: 15 kg



# DIESEL

This model offers a detailed cross-section of a manually operated high pressure (1,600 bar) Diesel Common Rail. Examine the radial piston pressure pump, the delivery manifold, and the electro-injector that are all connected with high pressure hoses.

## DIESEL ELECTRO-INJECTOR SOLENOID VALVE

N98-ND10305



### WEIGHT & DIMENSIONS

25cm x 10cm x 10cm (LxWxH)

Net Weight: 0.5 kg

Gross Weight: 1 kg



## MERCEDES A-CLASS

### TURBO DIESEL ENGINE, COMMON RAIL

N98-ND6078

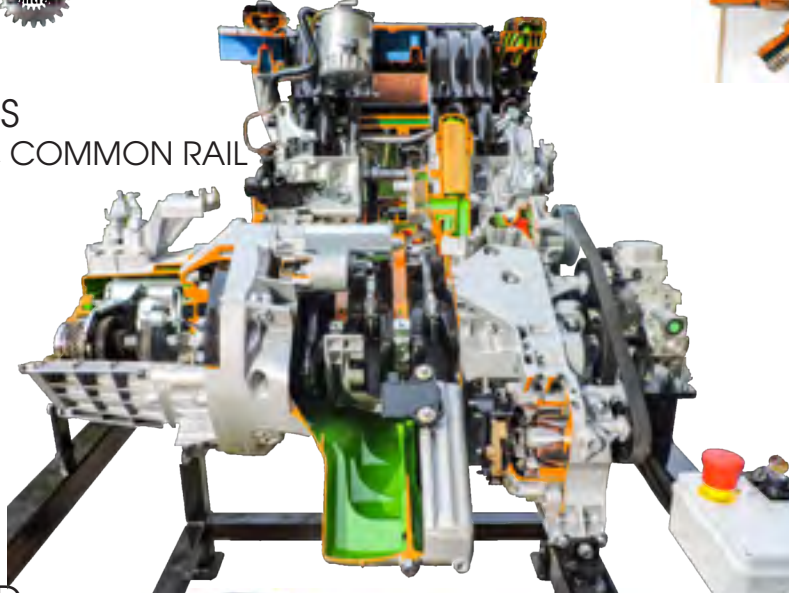


### WEIGHT & DIMENSIONS

119cm x 113cm x 120cm (LxWxH)

Net Weight: 150 kg

Gross Weight: 230 kg



### SPECIFICATIONS

- Daimler-Chrysler A-Class Mercedes Common Rail Turbo Diesel Engine
- 4-Stroke, Inline-4
- Displacement: 1,700cc
- Double overhead camshaft (DOHC) 16 valves
- Timing chain
- Turbo Diesel Common Rail
- Oil pump - water-cooled
- Air filter with box
- Intake manifold
- Air mass flow sensor
- Starter motor, alternator
- Gearbox 5 speeds + reverse, differential
- Operates electrically at 120V
- Mounted on stand with wheels

## DIESEL ENGINE, FWD WITH CLUTCH & GEARBOX ELECTRICAL OPERATION

N98-ND6068



### WEIGHT & DIMENSIONS

130cm x 86cm x 100cm (LxWxH)

Net Weight: 140 kg

Gross Weight: 200 kg



### SPECIFICATIONS

- 4-Stroke engine, Inline-4
- Displacement: 1,300cc
- Indirect injection
- Turbocharged
- VE Bosch type rotary injection pump
- Overhead Camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Power: 45 HP
- Gearbox: 5 forward speeds + reverse + differential
- Single-plate clutch with diaphragm
- Water-cooled
- Operates electrically at 120V
- Mounted on stand with wheels

## TURBO DIESEL TRUCK ENGINE, INLINE-4 WITH TURBOSUPERCHARGER

N98-ND6020

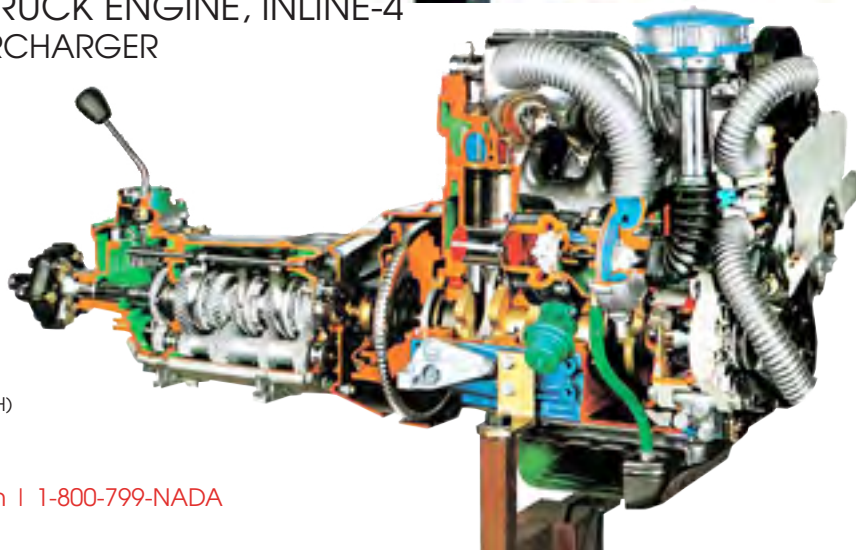


### WEIGHT & DIMENSIONS

160cm x 85cm x 100cm (LxWxH)

Net Weight: 220 kg

Gross Weight: 280 kg



### SPECIFICATIONS

- 4-Stroke engine, Inline-4 cylinder
- Displacement: 2,500cc
- Indirect injection
- VE Bosch type rotary injection pump
- Overhead camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Gearbox: 5 forward speeds + reverse
- Water-cooled
- Operates electrically at 120V
- Mounted on stand with wheels



## TURBO DIESEL ENGINE, RWD WITH CLUTCH & GEARBOX

N98-ND6070

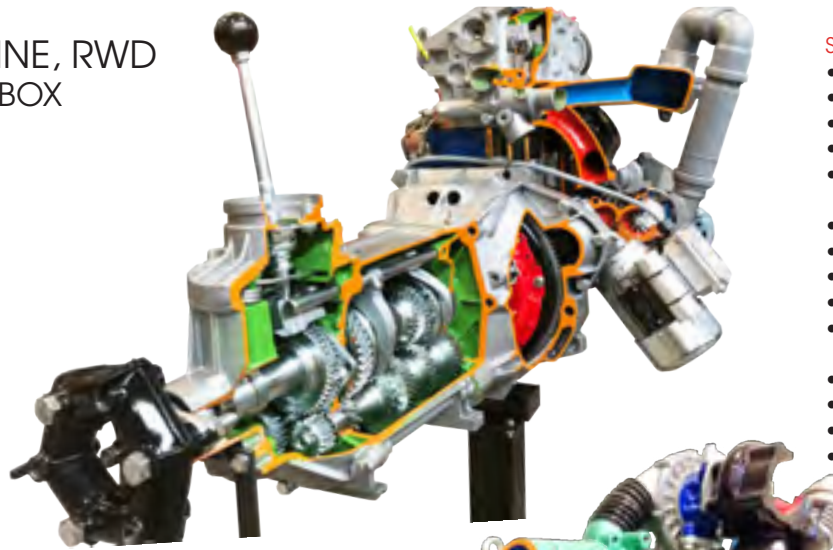


### WEIGHT & DIMENSIONS

60cm x 160cm x 100cm (LxWxH)

Net Weight: 150 kg

Gross Weight: 210 kg



### SPECIFICATIONS

- 4-Stroke engine, Inline-4 cylinders
- Displacement: 1,300/1,700cc
- Indirect injection
- Turbocharged
- VE Bosch type rotary injection pump
- Overhead Camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Gearbox: 4 forward speeds + reverse
- Single-plate clutch with diaphragm
- Water-cooled
- Operates electrically at 120V
- Mounted on stand with wheels

## TURBO DIESEL TRUCK ENGINE WITH DIRECT FUEL INJECTION

N98-ND6075

## TURBO DIESEL TRUCK ENGINE WITH INDIRECT FUEL INJECTION

N98-ND6076



### WEIGHT & DIMENSIONS

90cm x 100cm x 120cm (LxWxH)

Net Weight: 200 kg

Gross Weight: 260 kg



### SPECIFICATIONS

- 4-Stroke engine, Inline-4 cylinder
- Displacement: 2,500cc
- Direct injection
- Turbocharged
- VE Bosch type rotary injection pump
- Overhead Camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Intercooler water-oil
- Water-cooled
- Operates electrically at 120V
- Mounted on stand with wheels

## TURBO DIESEL ENGINE 16-VALVE CHRYSLER/JEEP

N98-ND6010



### WEIGHT & DIMENSIONS

120cm x 90cm x 120cm (LxWxH)

Net Weight: 200 kg

Gross Weight: 270 kg

### SPECIFICATIONS

- 4 stroke engine, Inline-4 cylinders
- Displacement: 2,500/2,800cc
- Power: 150-170 HP at 4,000 rpm
- Double overhead camshaft (DOHC) with timing belt
- 4 valves per cylinder
- Toroidal oil pump
- Common rail-type direct injection with electronic injectors
- Turbocharger with air-air intercooler
- Alternator, oil filter and oil pump
- Operates electrically at 120V
- Mounted on stand with wheels



## TURBO DIESEL V8 TRUCK ENGINE WITH DIRECT INJECTION

N98-ND6084

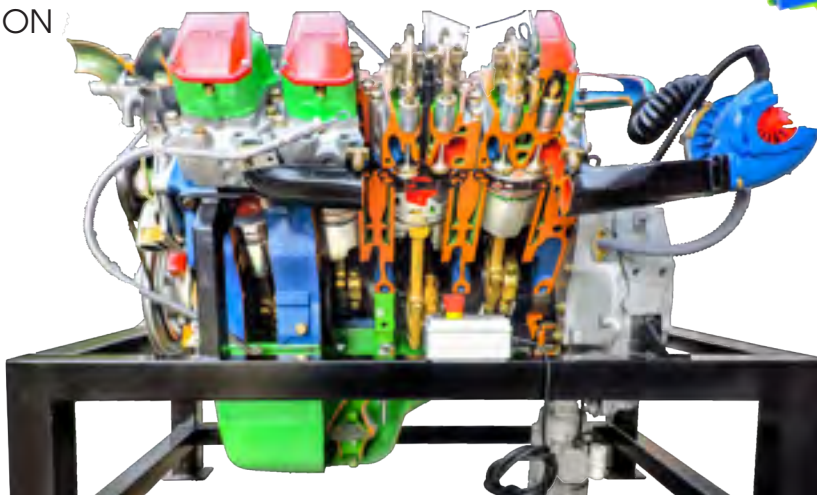


### WEIGHT & DIMENSIONS

185cm x 120cm x 150cm (LxWxH)

Net Weight: 1100 kg

Gross Weight: 1400 kg



### SPECIFICATIONS

- 4-Stroke, V8 Engine
- Displacement: 17,200cc
- Power: 380 HP
- Direct injection
- Bosch type inline injection pump with mechanical governor
- Water/oil intercooler
- 4 valves per cylinder
- Camshaft in the crankcase
- 2 Turbochargers
- Geared distribution
- Operates electrically at 120V
- Mounted on stand with wheels



## DIESEL TRUCK ENGINE WITH INJECTOR PUMPS, INLINE-6 ELECTRICAL OPERATION

**N98-ND6083**



### WEIGHT & DIMENSIONS

200cm x 105cm x 150cm (LxWxH)  
Net Weight: 950 kg  
Gross Weight: 1200 kg



# DIESEL

### SPECIFICATIONS

- Displacement: 7,790/10,380cc (based on availability)
- Diesel 4-Stroke engine, Inline-6
- 4 valves per cylinder
- Maximum power 310/450 HP (based on availability)
- Water-cooled
- Turbocharger
- Electronically controlled pump injectors
- Preheating device
- Plexiglass cover for protection
- Operates electrically at 120V
- Mounted on stand with wheels

## TURBO DIESEL ENGINE TRUCK INLINE-6 COMMON RAIL

**N98-ND6091E**

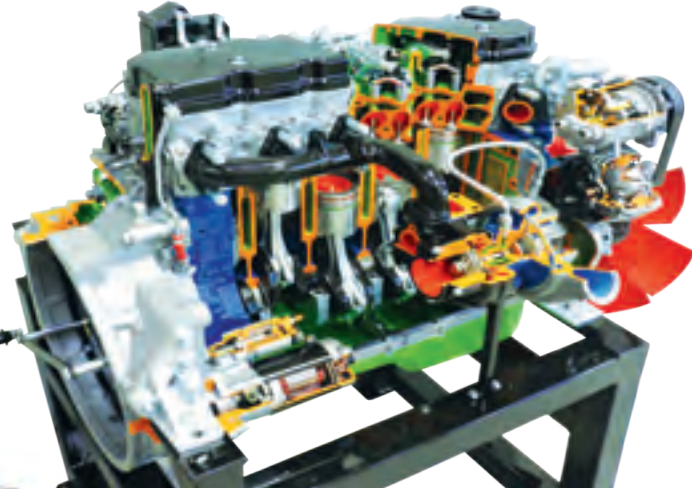


### WEIGHT AND DIMENSIONS

140cm x 100cm x 165cm (LxWxH)  
Net Weight: 510 kg  
Gross Weight: 630 kg

### SPECIFICATIONS

- Displacement: 5,900CC
- Inline 6 with Direct Injection
- Camshaft in Crankcase (OHV)
- Geared Timing
- 4 Valves per Cylinder
- Bosch Common Rail Injection
- Wastegate Turbocharger
- Alternator
- Air Compressor
- Engine Oil Rotor Pump
- Flange Power Steering Pump
- Air Conditioning Pump
- Cooling Fan with Viscous Joint
- Operates electrically at 120V
- Mounted on stand with wheels



## DETROIT DIESEL ENGINE ELECTRICAL OPERATION

**N98-ND6122**



### WEIGHT & DIMENSIONS

110cm x 100cm x 150cm (LxWxH)  
Net Weight: 630 kg  
Gross Weight: 780 kg



### SPECIFICATIONS

- Air intake channels
- Lobe-type volumetric compressor
- Exhaust valves (2 or 4 per cylinder) controlled by camshaft in the monobloc
- Direct injection by means of a pump/injector for each cylinder
- Vibration-damping balancing shafts
- Water-cooled with centrifugal pump
- Lubrication circuit with geared oil pump
- Operates electrically at 120V
- Mounted on stand with wheels

## FIAT/ALFA ROMEO TURBO DIESEL ENGINE 8-VALVE COMMON RAIL

**N98-ND6015**

## FIAT/ALFA ROMEO TURBO DIESEL WITH 5 SPEED GEARBOX + REVERSE

**N98-ND6017E**



### WEIGHT & DIMENSIONS

100cm x 90cm x 120cm (LxWxH)  
Net Weight: 150 kg  
Gross Weight: 210 kg

### SPECIFICATIONS

- 4 stroke engine, Inline-4 cylinders
- 2 valves per cylinder
- Displacement: 1,900cc
- Power: 115 HP at 4,000 rpm
- Overhead Camshaft (OHC) with timing belt
- Common rail type direct injection with electro-injectors
- Turbosupercharger
- Alternator
- Oil pump and filter
- Differential
- Operates electrically at 120V
- Mounted on stand with wheels





## FIAT 4-CYLINDER GAS ENGINE WITH CARBURETOR & GEARBOX ELECTRICAL OPERATION

**N98-ND5000**

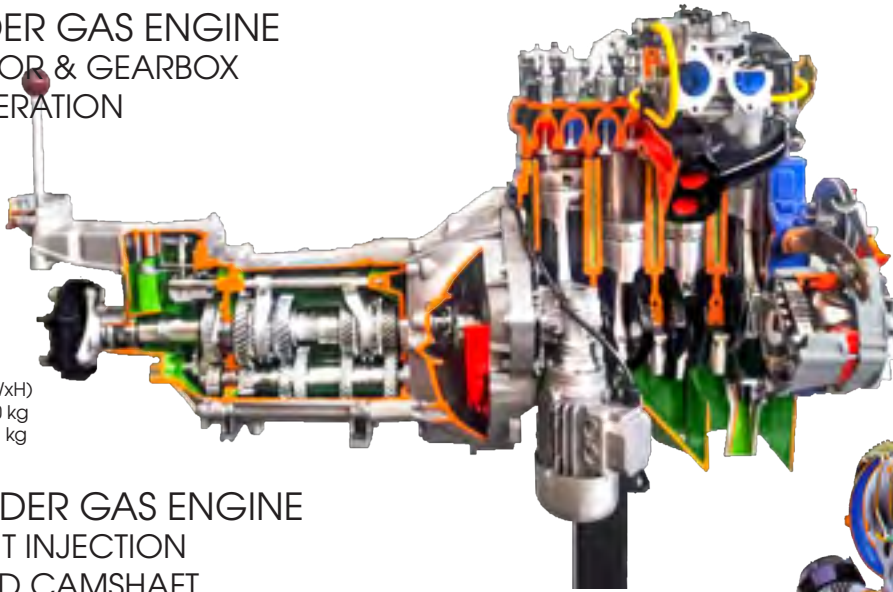


### WEIGHT & DIMENSIONS

155cm x 60cm x 90cm (LxWxH)

Net Weight: 140 kg

Gross Weight: 217 kg



# GAS ENGINE

### SPECIFICATIONS

- Displacement: 1,200/2,000cc
- Camshaft in the crankcase, belt/chain drive
- Overhead valves in-line
- Coil ignition
- Mechanical fuel pump
- Gearbox: 4 forward speeds + reverse
- Dry single-plate clutch
- Operates electrically at 120V
- Mounted on stand with wheels

## BMW 6-CYLINDER GAS ENGINE WITH MULTIPOINT INJECTION DUAL OVERHEAD CAMSHAFT

**N98-ND5176**



### WEIGHT & DIMENSIONS

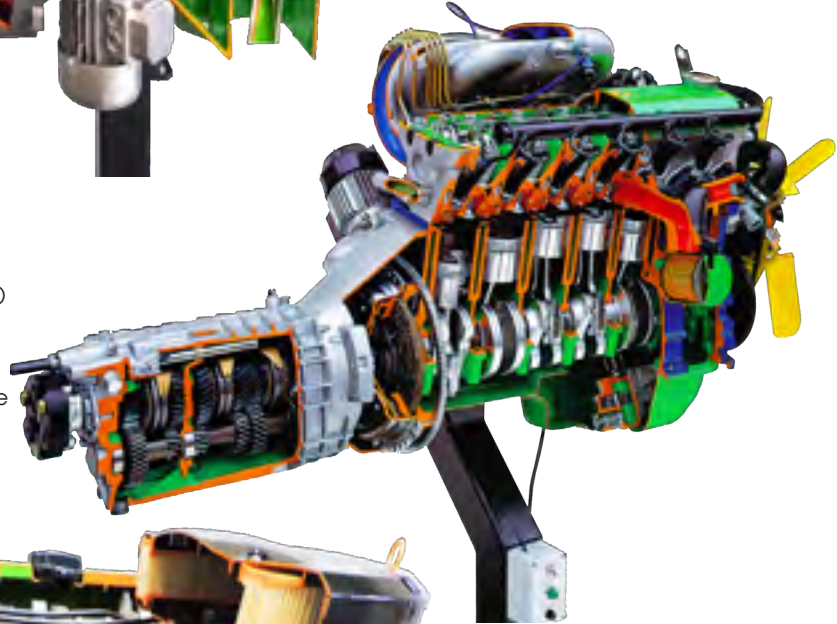
140cm x 80cm x 100cm (LxWxH)

Net Weight: 180 kg

Gross Weight: 265 kg

### SPECIFICATIONS

- Displacement: 2,000/2,500cc
- Double overhead camshaft (DOHC)
- Distribution by a roller chain
- 6 inline cylinders
- 4 valves per cylinder
- Gearbox: 5 forward speeds + reverse
- Operates electrically at 120V
- Mounted on a stand with wheels



## VW 4-CYLINDER GAS ENGINE MULTIPOINT ELECTRONIC INJECTION

**N98-ND5166**

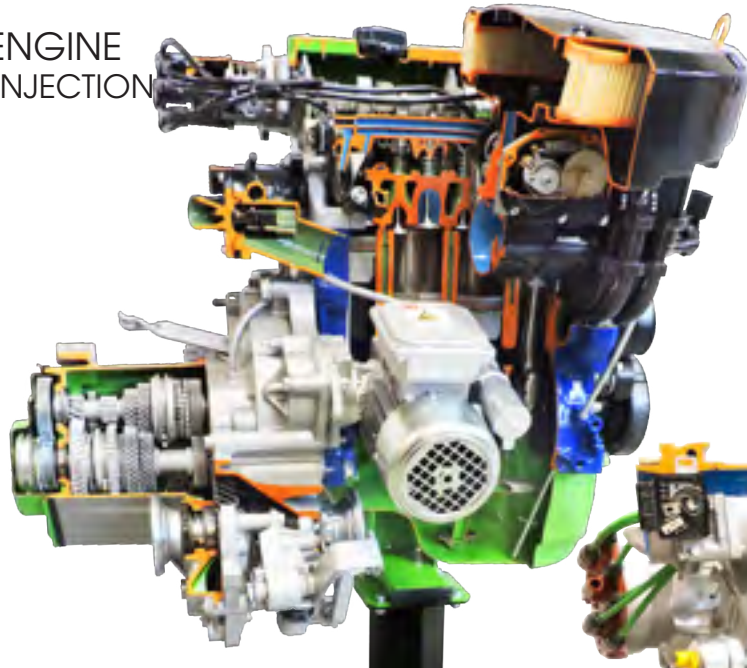


### WEIGHT & DIMENSIONS

96cm x 81cm x 90cm (LxWxH)

Net Weight: 130 kg

Gross Weight: 178 kg



### SPECIFICATIONS

- Displacement: 1,600/1,800/2,000cc
- Overhead Camshaft (OHC)
- Distribution by a toothed belt
- Inline-4 cylinders
- Gearbox: 5 forward speeds + reverse, with integrated differential
- Operates electrically at 120V (also offered as Manual Operation)
- Mounted on stand with wheels

## V6 GAS ENGINE WITH MULTIPOINT ELECTRONIC INJECTION ELECTRICAL OPERATION

**N98-ND5195**



### WEIGHT & DIMENSIONS

120cm x 60cm x 100cm (LxWxH)

Net Weight: 190 kg

Gross Weight: 260 kg

### SPECIFICATIONS

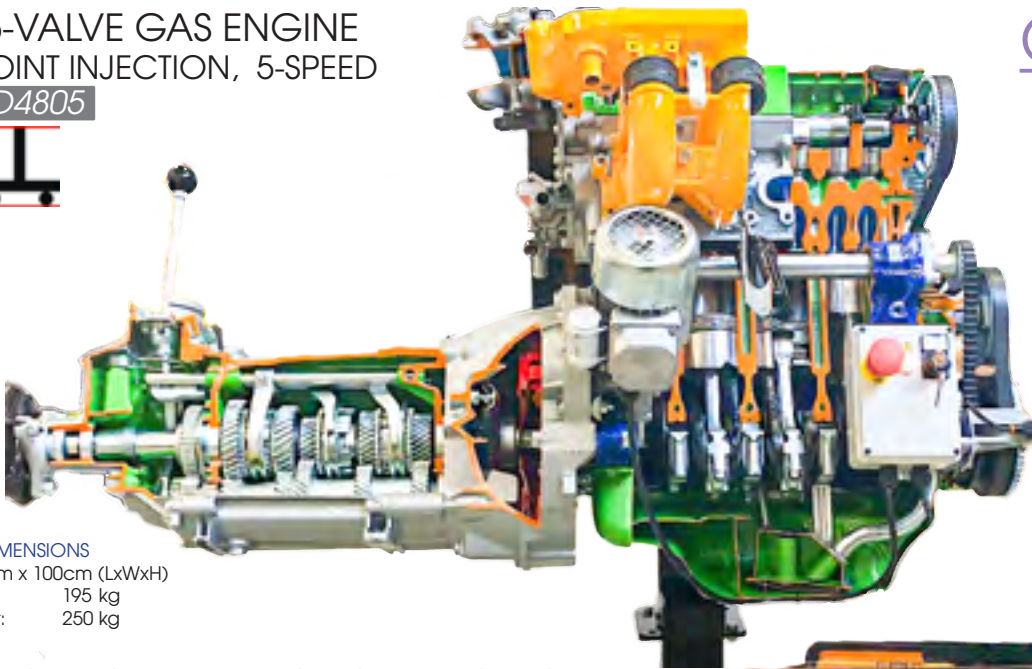
- V6 Alfa Romeo Gas Engine
- Displacement: 2,000-3,000cc
- Double Overhead Camshaft (DOHC)
- Centrifugal water pump
- 12V alternator
- Operates electrically at 120V
- Mounted on stand with wheels





## FIAT 16-VALVE GAS ENGINE MULTIPOINT INJECTION, 5-SPEED

N98-ND4805



### WEIGHT & DIMENSIONS

160cm x 86cm x 100cm (LxWxH)

Net Weight: 195 kg

Gross Weight: 250 kg

## FIAT GAS ENGINE W/MONO-JETRONIC FUEL INJECTION + GEARBOX

N98-ND5220IE



### SPECIFICATIONS

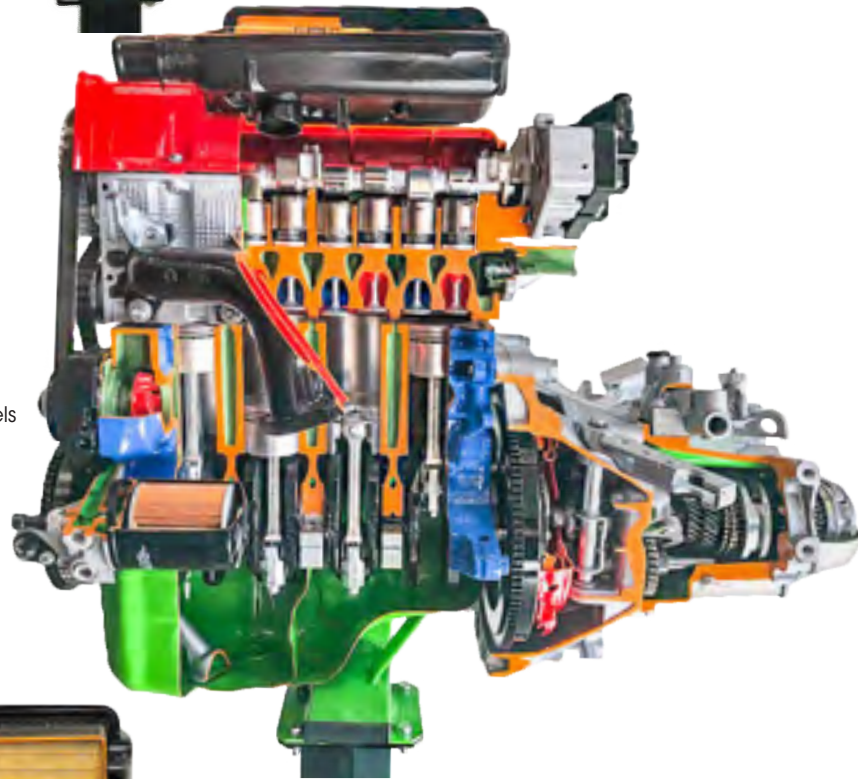
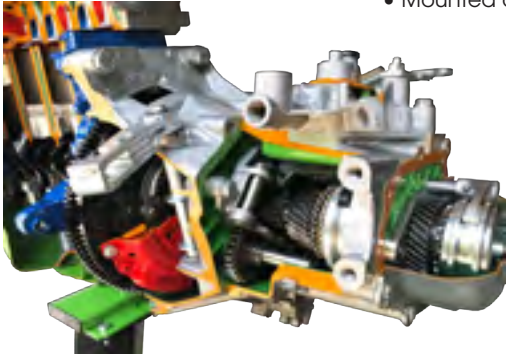
- Inline-4 FIAT gas engine
- Displacement: 1,000/1,300cc
- Overhead Camshaft (OHC)
- Mono-Jetronic Fuel Injection
- Electronic ignition
- Carburetor
- Timing belt distribution
- Gearbox: 5 forward speeds + reverse with differential
- Operates electrically at 120V
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

120cm x 70cm x 100cm (LxWxH)

Net Weight: 90 kg

Gross Weight: 140 kg



## FIAT GAS ENGINE, MULTIPOINT INJECTION + GEARBOX

N98-ND5222IE



### SPECIFICATIONS

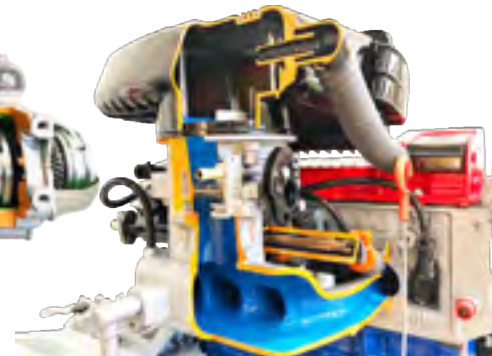
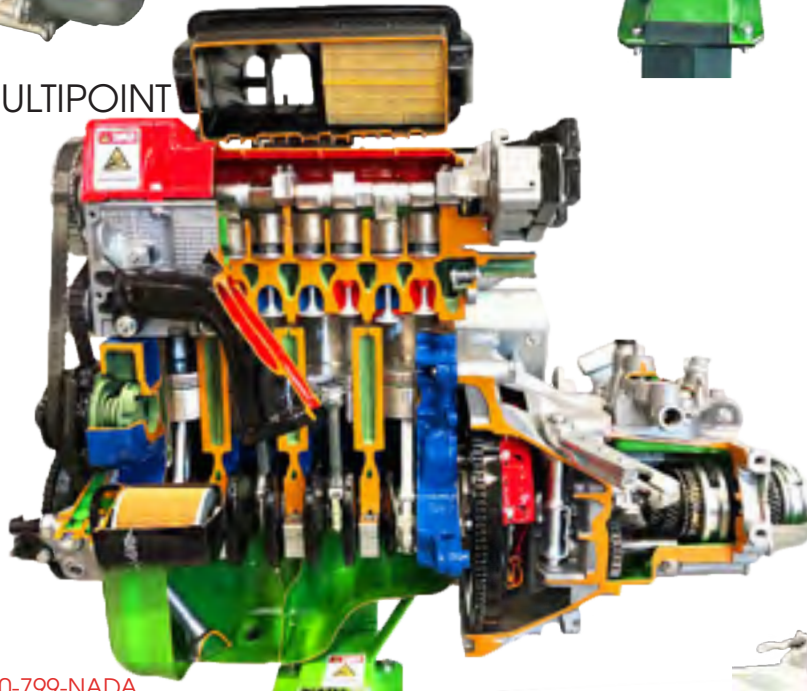
- Inline-4 FIAT gas engine
- Displacement: 1,250cc
- Overhead camshaft (OHC)
- Electronic ignition
- Multipoint electronic injection
- Gearbox with 5 forward speeds + reverse + differential
- Operates electrically at 120V
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

120cm x 70cm x 100cm (LxWxH)

Net Weight: 90 kg

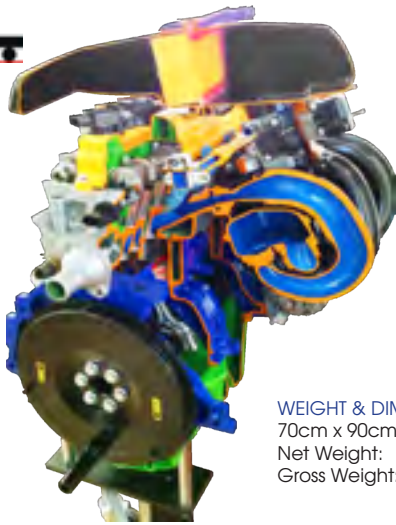
Gross Weight: 140 kg





## TOYOTA 4-CYLINDER GAS ENGINE WITH VARIABLE VALVE TIMING, INDIRECT INJECTION

N98-ND5181



### WEIGHT & DIMENSIONS

70cm x 90cm x 100cm (LxWxH)  
Net Weight: 60 kg  
Gross Weight: 120 kg

# GAS ENGINE

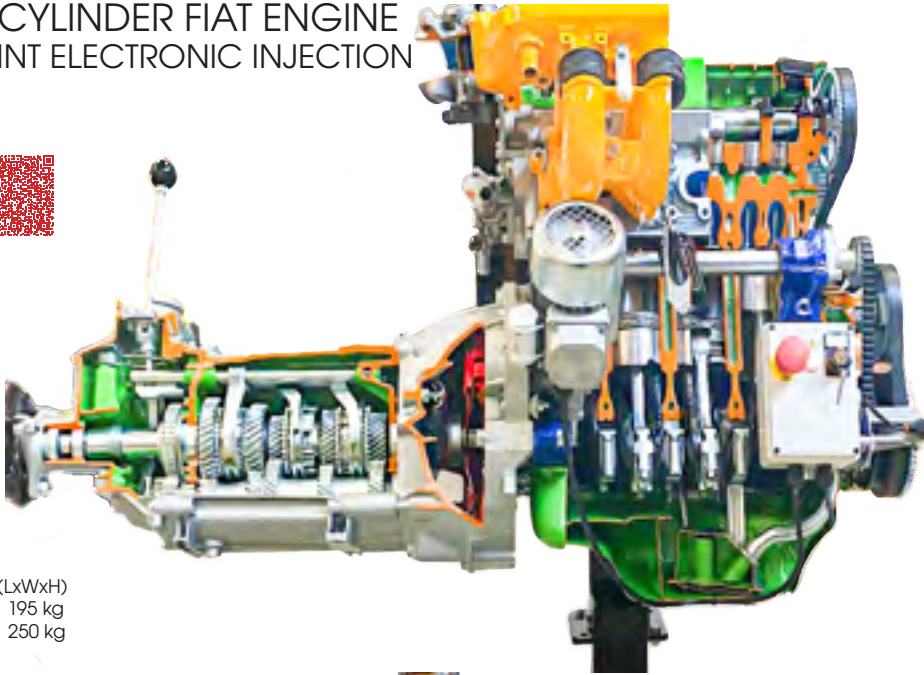
### SPECIFICATIONS

- Toyota 4-Cylinder Gas Engine
- Displacement: 1,000-1,300cc
- DOHC (Double Overhead Camshaft)
- Indirect Injection
- VVT-i System with Electronically Controlled Intake Valves
- Roller Chain
- Multipoint Electronic Injection with Throttle
- 12V Alternator
- Thermostatic Valve
- Operated manually by hand crank
- Mounted on stand with wheels



## 16 VALVE, 4-CYLINDER FIAT ENGINE WITH MULTIPOINT ELECTRONIC INJECTION GEARBOX

N98-ND4806



### WEIGHT & DIMENSIONS

160cm x 86cm x 100cm (LxWxH)  
Net Weight: 195 kg  
Gross Weight: 250 kg

### SPECIFICATIONS

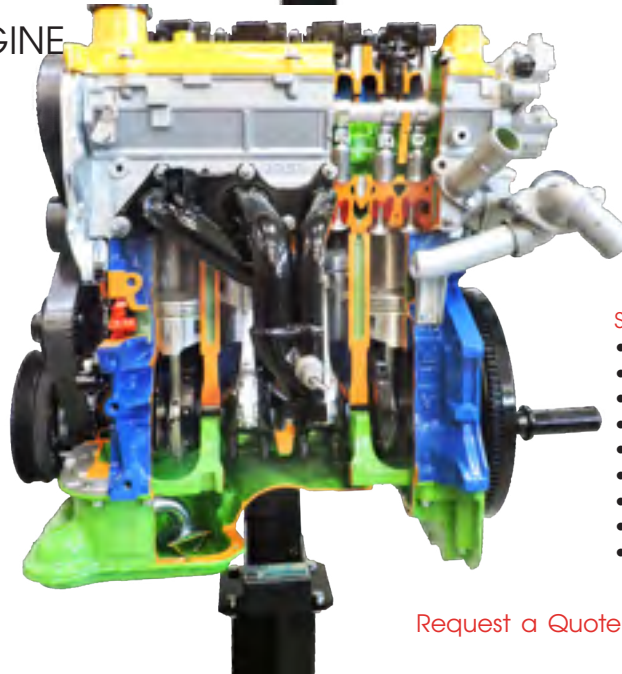
- 4 inline cylinders
- 4 valves per cylinder
- Displacement: 2000 cc
- Double overhead camshaft (DOHC)
- Multipoint electronic injection with ignition integrated control unit
- Vibration damping balancing shafts
- Gearbox with 5 forward speeds + reverse
- Turbosupercharger
- Water-cooled
- 12V alternator
- Membrane clutch
- Operated electrically at 120V
- Mounted on stand with wheels

## AUDI/VOLKSWAGEN GAS ENGINE WITH DIRECT INJECTION

N98-ND4601-F

## MITSUBISHI GAS ENGINE WITH DIRECT INJECTION

N98-ND4601-G



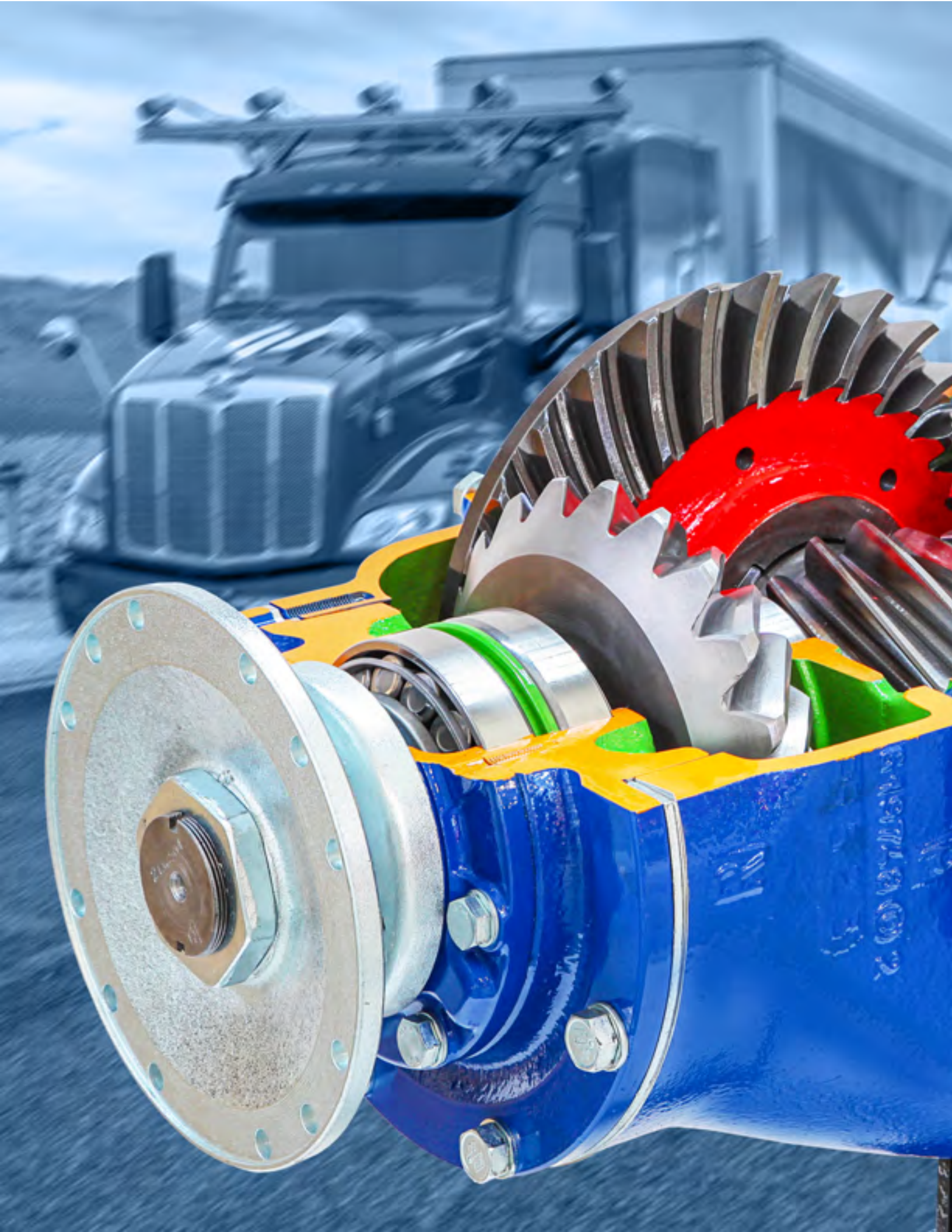
### WEIGHT & DIMENSIONS

82cm x 71cm x 95cm (LxWxH)  
Net Weight: 130 kg  
Gross Weight: 180 kg

### SPECIFICATIONS

- Inline-4 cylinders
- Displacement: 1,400-2,000cc
- Double overhead camshaft (DOHC)
- Multipoint electronic injection
- 4 valves per cylinder
- Water-cooled
- 12V alternator
- Operated manually by hand crank
- Mounted on stand with wheels









**HEAVY-DUTY**  
**DIFFERENTIAL**



## TRANSMISSION CUT-AWAY 4 SPEED + REVERSE

N98-ND11020

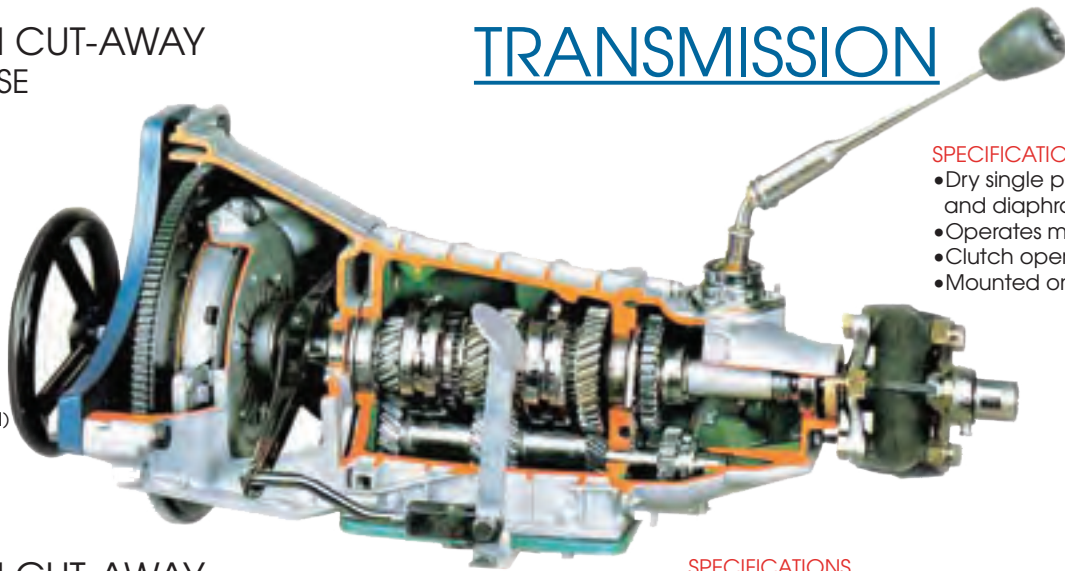


### WEIGHT & DIMENSIONS

90cm x 60cm x 50cm (LxWxH)

Net Weight: 45 kg

Gross Weight: 65 kg



### SPECIFICATIONS

- Dry single plate clutch with spring and diaphragm
- Operates manually by hand crank
- Clutch operates by foot pedal
- Mounted on stand with wheels

## TRANSMISSION CUT-AWAY 5 SPEED + REVERSE

N98-ND11030

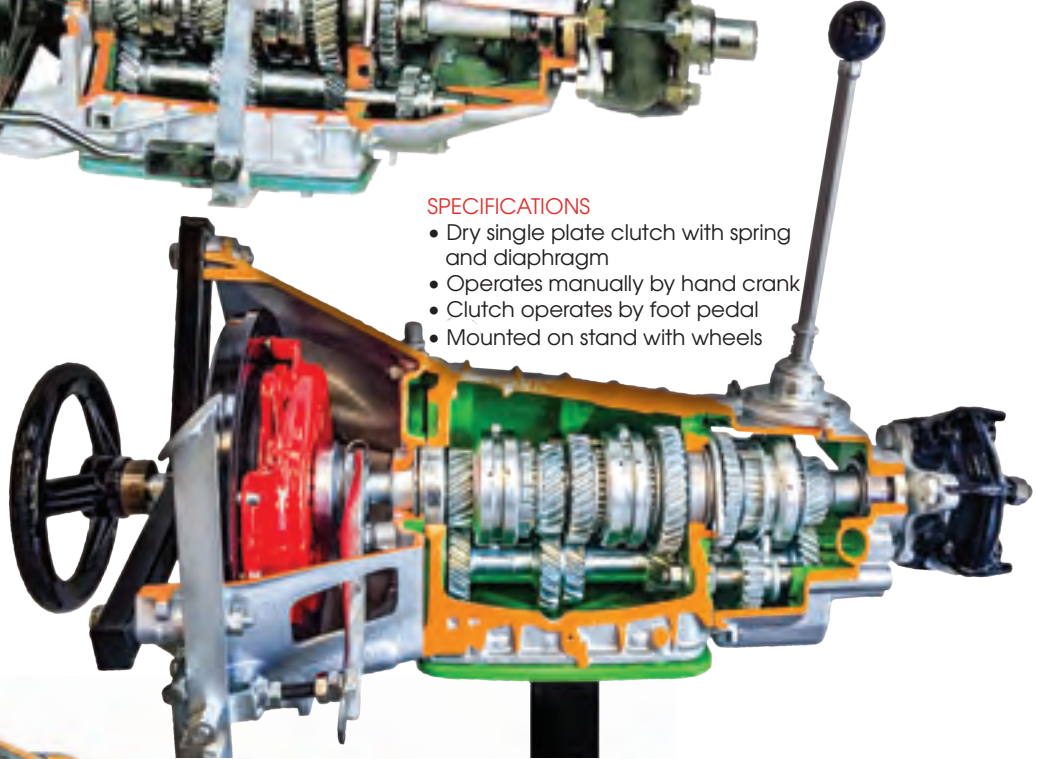


### WEIGHT & DIMENSIONS

95cm x 60cm x 50cm (LxWxH)

Net Weight: 50 kg

Gross Weight: 80 kg



### SPECIFICATIONS

- Dry single plate clutch with spring and diaphragm
- Operates manually by hand crank
- Clutch operates by foot pedal
- Mounted on stand with wheels

## TRANSMISSION, AUTOMATIC 3 SPEED + REVERSE

N98-ND11040



### WEIGHT & DIMENSIONS

100cm x 65cm x 70cm (LxWxH)

Net Weight: 70 kg

Gross Weight: 100 kg



### SPECIFICATIONS

- Hydraulic converter
- Epicycloidal gear change with 3 forward speeds + reverse
- Multiple plate clutches
- Control valves
- Operates manually by hand crank applied on the converter
- Mounted on stand with wheels

## TRANSMISSION, AUTOMATIC 4WD, 5 SPEED + REVERSE

N98-ND11042

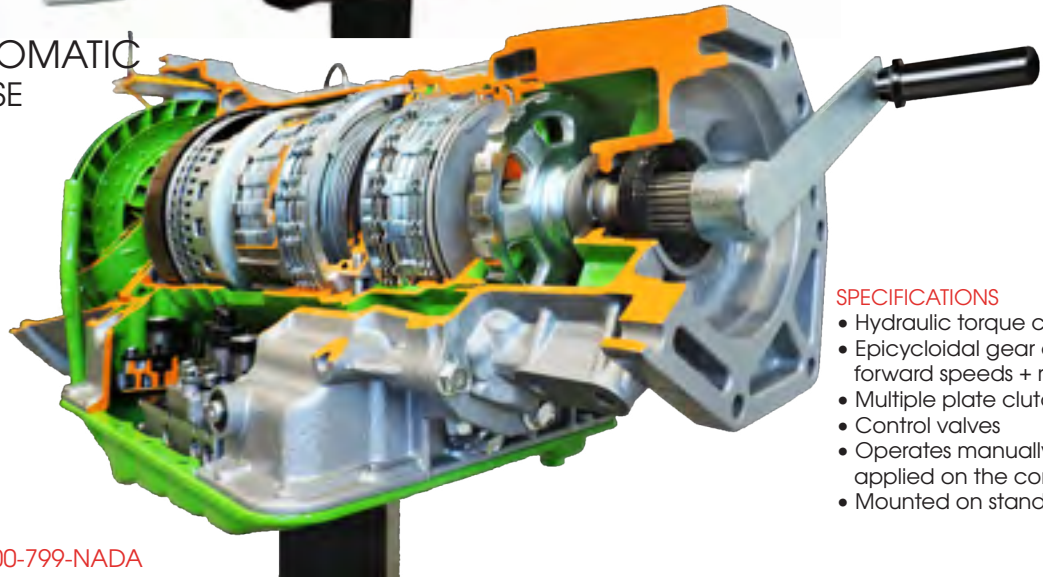


### WEIGHT & DIMENSIONS

81cm x 51cm x 90cm (LxWxH)

Net Weight: 90 kg

Gross Weight: 122 kg



### SPECIFICATIONS

- Hydraulic torque converter
- Epicycloidal gear change with 5 forward speeds + reverse
- Multiple plate clutches
- Control valves
- Operates manually by hand crank applied on the converter
- Mounted on stand with wheels



## TRANSMISSION CUT-AWAY AUTOMATIC, REAR-WHEEL DRIVE 4 SPEED + REVERSE N98-ND11060

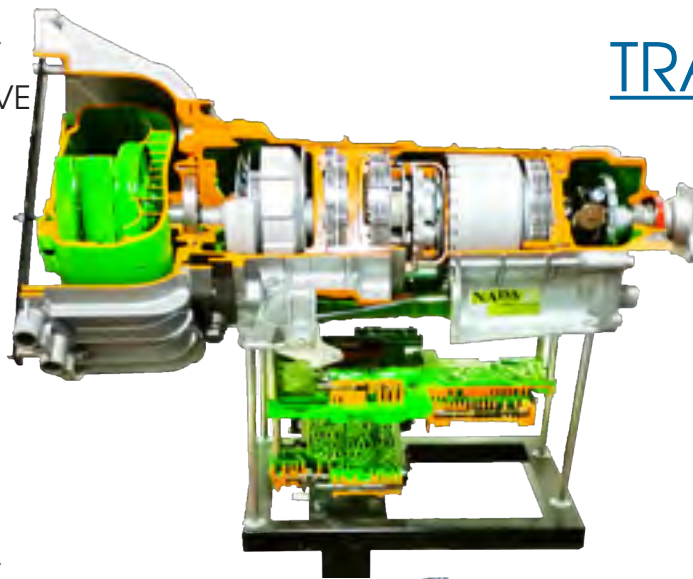


### WEIGHT & DIMENSIONS

90cm x 60cm x 100cm (LxWxH)

Net Weight: 60 kg

Gross Weight: 85 kg



### SPECIFICATIONS

- Rear-Wheel Drive
- 4 forward speeds + reverse
- Casing
- Torque converter
- Oil pump
- Stationary plate clutch
- Rotary plate clutch
- Planetary gear train
- Hydraulic circuit valve
- Centrifugal regulator
- Operates manually by hand crank
- Mounted on stand with wheels

## TRANSMISSION CUT-AWAY AUTOMATIC, FRONT-WHEEL DRIVE 4 SPEED + REVERSE N98-ND11062



### WEIGHT & DIMENSIONS

90cm x 60cm x 100cm (LxWxH)

Net Weight: 60 kg

Gross Weight: 85 kg



An exploded/cut-away view of the hydraulic circuit is provided to better show the various ducts and valves.

This automatic cut-away is carefully sectioned for training purposes and professionally painted with different colors to better differentiate among the various parts. Many parts have been chromium plated and galvanized for a longer life.



## TRANSAXLE DIRECT-SHIFT GEARBOX N98-ND11064



### WEIGHT & DIMENSIONS

80cm x 40cm x 70cm (LxWxH)

Net Weight: 60 kg

Gross Weight: 85 kg



This is a cut-away of a Direct-Shift Gearbox (also referred to as double-clutch gearbox). It has two main shafts; one for the odd gears and the other for the even gears. Each shaft is inserted into one of the discs of the coaxial clutches. The shafts connected to the clutches can transmit motion mechanically to an auxiliary shaft having the relevant speed-gears.

## CVT GEARBOX CUT-AWAY CONTINUOUSLY VARIABLE TRANSMISSION N98-ND11068



### WEIGHT & DIMENSIONS

60cm x 50cm x 80cm (LxWxH)

Net Weight: 45 kg

Gross Weight: 75 kg



The Continuously Variable Transmission (CVT) Gearbox can change continuously through an infinite number of effective gear ratios between maximum and minimum values.

### SPECIFICATIONS

- Electromagnetic clutch
- Forward and reverse insertion lever
- Primary pulley
- Secondary pulley
- Roller belt
- Final reduction unit
- Hydraulic command unit
- Operates manually by hand crank
- Mounted on stand with wheels



## HEAVY-DUTY TRANSAXLE CUT-AWAY ECOSPLIT 16 SPEED + 2 REVERSE

N98-ND11069

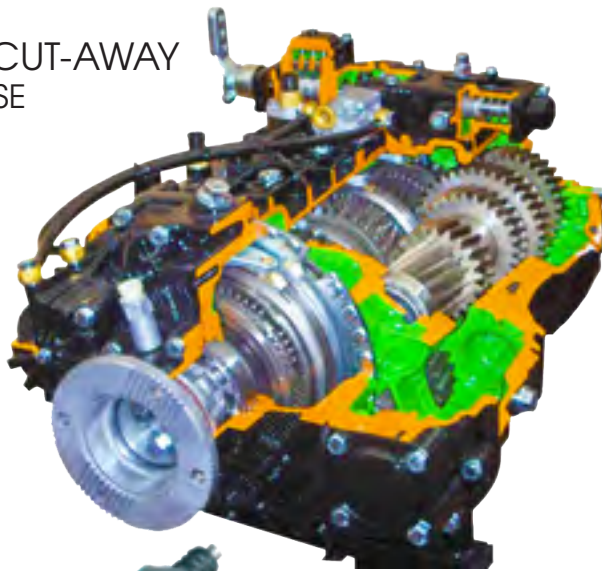


### WEIGHT & DIMENSIONS

90cm x 110cm x 130cm (LxWxH)

Net Weight: 280 kg

Gross Weight: 380 kg



## HEAVY-DUTY GEARBOX 13 SPEED, FULLER

N98-ND11070



### WEIGHT & DIMENSIONS

113cm x 70cm x 128cm (LxWxH)

Net Weight: 340 kg

Gross Weight: 414 kg



## HEAVY-DUTY TRUCK GEARBOX ZF 5HP

N98-ND11071

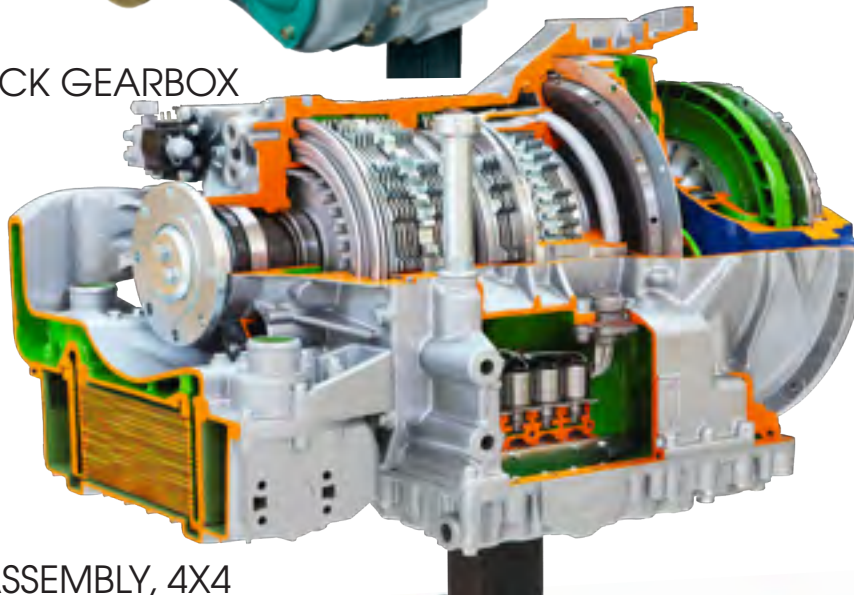


### WEIGHT & DIMENSIONS

100cm x 70cm x 85cm (LxWxH)

Net Weight: 295 kg

Gross Weight: 350 kg



## TRANSMISSION ASSEMBLY, 4X4 CROSS-COUNTRY WITH GEARBOX

N98-ND11300

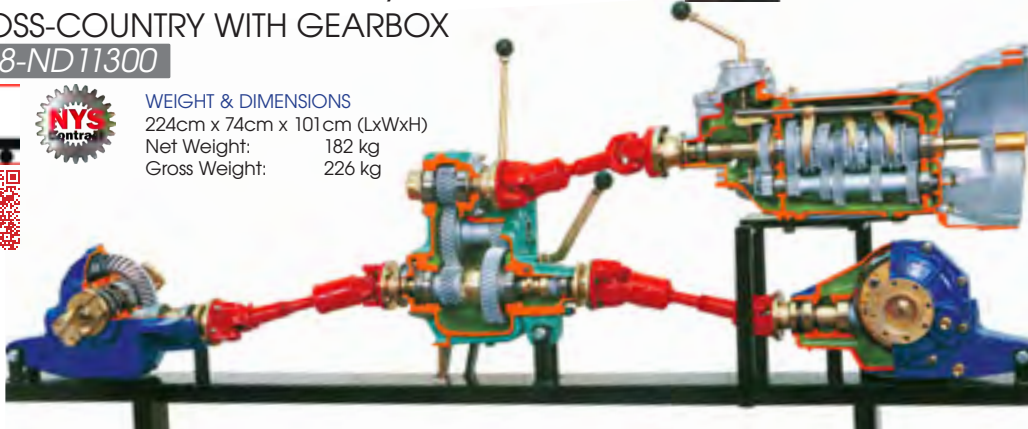


### WEIGHT & DIMENSIONS

224cm x 74cm x 101cm (LxWxH)

Net Weight: 182 kg

Gross Weight: 226 kg



# HEAVY-DUTY

This is a cut-away of a 16 speed manual transmission for heavy-duty vehicles. It is composed of a central box containing 4 forward speed gearings and 2 reverse speed gearings, an epicyclic unit for selecting the speed-gears mounted on the base, and over-gear on top. The over-gear configuration results in the division of each gear into slow or fast obtaining 16 forward gears, which can be inserted and geared down in sequence.

This is a cut-away of a quick change gearbox used in 300/400 HP heavy-duty vehicles with mechanical and pneumatic control. It is a non-synchronized gearbox, which is divided into 2 parts:

1. On the engine side, there are the 1st, 2nd, 3rd, and 4th gears, reverse, and extra low ratio pick-up gears. All these gears are mechanically controlled by the change gear lever.
2. On the output shaft side, there are the standard, low ratio, and semi-low ratio gears, pneumatically controlled by the per-selector provided on the gear lever.

This gearbox is comprised of a hydrodynamic torque converter with a lock-up clutch, a hydrodynamic retarder, and a downstream, multi-ratio planetary transmission.

### SPECIFICATIONS

- Torque converter with lock-up clutch
- Hydrodynamic retarder
- Rotating multi-disc clutches
- Fixed-position multi-disc brakes
- Oil cooler with oil-water exchanger
- Electrovalves
- Mounted on stand with wheels

Transmission Assembly fitted to most 4x4 cross-country vehicles.

### SPECIFICATIONS

- Gearbox: 5 forward speeds + reverse
- 2 speed reduction gear
- Movement restorer with front-wheel drive manual control
- Drive shafts with universal joints
- Self-locking hypoid differentials
- Operates manually by hand crank
- Mounted on stand with wheels



## HEAVY-DUTY TRUCK REAR AXLE WITH LOCKING DIFFERENTIAL

N98-ND11198



### WEIGHT & DIMENSIONS

241cm x 103cm x 106cm (LxWxH)

Net Weight: 600 kg

Gross Weight: 746 kg

### SPECIFICATIONS

- Complete section of the rear axle
- Bevel gear (pinion - crown)
- Differential (satellite and planetary) with locking differential
- Axle shafts
- Reducer and planetary on the hub
- Brakes with jaws/drum
- Double air brake element
- Operates manually by hand crank
- Mounted on stand with wheels

## HEAVY-DUTY TRUCK DIFFERENTIAL WITH DOUBLE REDUCER UNIT

N98-ND11295



### SPECIFICATIONS

- Gear reducer with bevel gear
- Differential reducer with cylindrical gear
- Operates manually by hand crank
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

90cm x 70cm x 70cm (LxWxH)

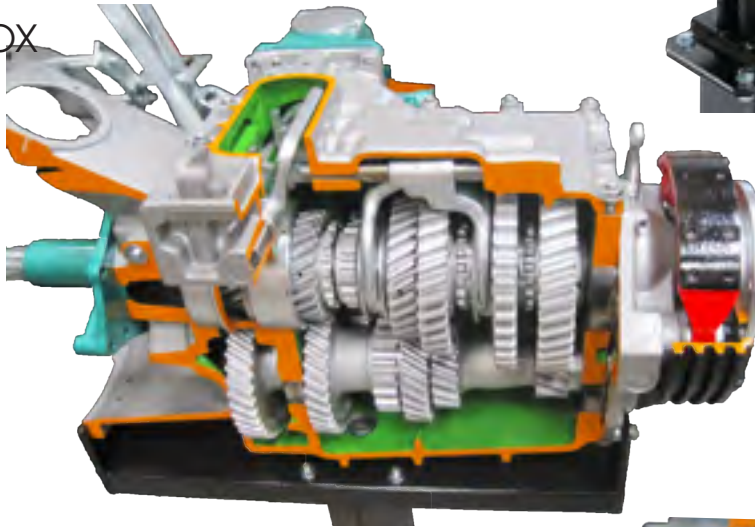
Net Weight: 185 kg

Gross Weight: 230 kg



## HEAVY-DUTY GEARBOX WITH REDUCTION GEAR

N98-ND11080



### SPECIFICATIONS

- 4-Speed gearbox
- 2 hand levers controls normal and reduced gears
- Normal gear ratios: 1st = 5.199, 2nd 2.959, 3rd = 1.747, 4th = 1, R.M. = 5.243
- Reduced gear ratios:
  - 1st = 7.013
  - 2nd = 3.991
  - 3rd = 2.357
  - 4th = 1.349
  - R.M. = 7.072
- Operates manually by hand crank
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

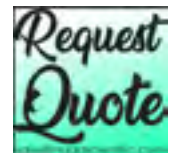
97cm x 67cm x 95cm (LxWxH)

Net Weight: 141 kg

Gross Weight: 183 kg

## TRANSMISSION CUT-AWAY, AUTOMATIC 4WD

N98-ND11061



### WEIGHT & DIMENSIONS

100cm x 65cm x 70cm (LxWxH)

Net Weight: 75 kg

Gross Weight: 100 kg

### SPECIFICATIONS

- ZF 5HP
- Operates manually by hand crank
- Mounted on stand with wheels



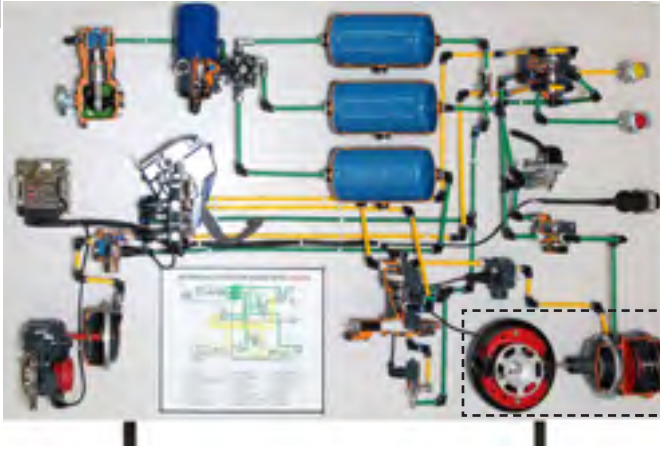
## AIR BRAKING SYSTEM FOR TRUCKS WITH ABS/ASR

N98-ND12195



### WEIGHT & DIMENSIONS

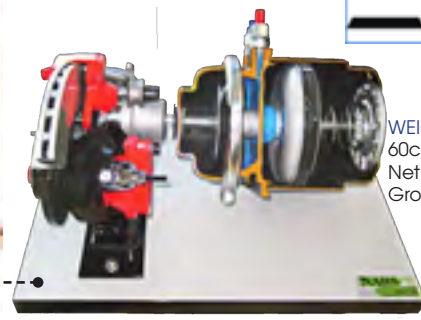
220cm x 36cm x 140cm  
Net Weight: 125 kg  
Gross Weight: 165 kg



## BRAKING SYSTEM

### DISC CALIPER & ROTOR CHAMBER

N98-ND12195-AB



**WEIGHT & DIMENSIONS**  
60cm x 40cm x 40cm (LxWxH)  
Net Weight: 22 kg  
Gross Weight: 24 kg

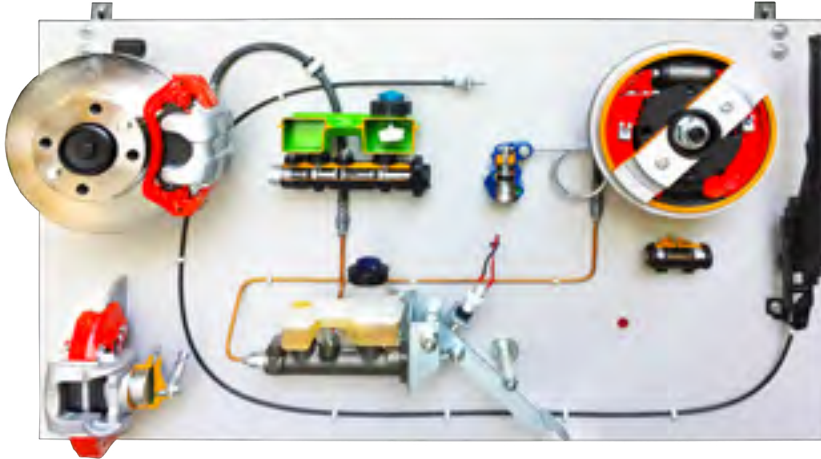
## BRAKING SYSTEM PANEL, DOUBLE CIRCUIT

N98-ND12050



### WEIGHT & DIMENSIONS

110cm x 60cm x 40cm (LxWxH)  
Net Weight: 35 kg  
Gross Weight: 65 kg

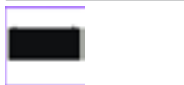


The double circuit brakes wall panel represents a complete double circuit braking system and features components that have been sectioned to provide a clear view of the system. This trainer is operated by a hydraulic pump connected to the disk brake and the drum brake.



## COMPRESSED AIR BRAKING SYSTEM PANEL WITH DOUBLE SPRING BRAKES

N98-ND12170

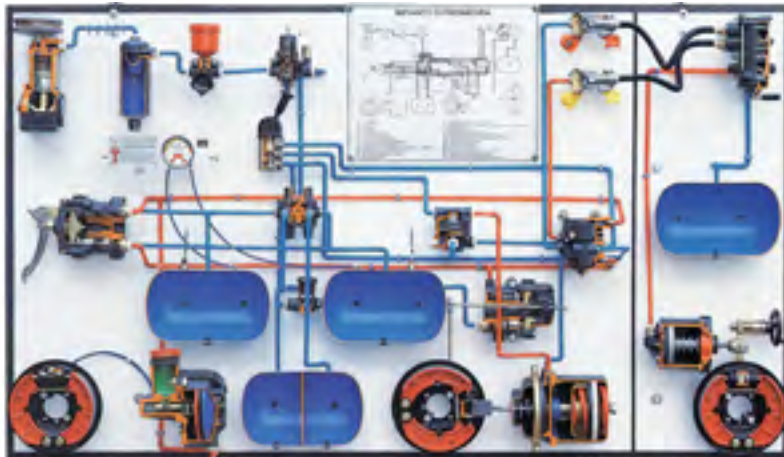


N98-ND12180



### WEIGHT & DIMENSIONS

220cm x 36cm x 140cm (LxWxH)  
Net Weight: 110 kg  
Gross Weight: 150 kg



This Turbo Star Compressed Air Braking System panel includes all elements of a compressed air braking system. It is complete with all connection circuit components for braking systems. Students learn the system with the aid of connection pipes that are painted in multiple colors to differentiate the various circuits.

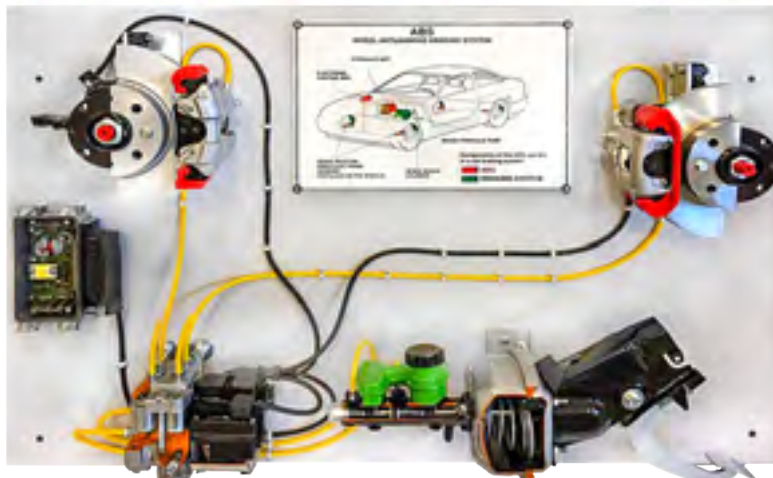
## ABS BRAKING SYSTEM PANEL

N98-ND12230



### WEIGHT & DIMENSIONS

140cm x 50cm x 90cm (LxWxH)  
Net Weight: 60 kg  
Gross Weight: 120 kg



The ABS Brake System Panel is an educational model of a modern ABS braking system for automobiles. All brake parts are provided as detailed cut-away models and are interconnected.

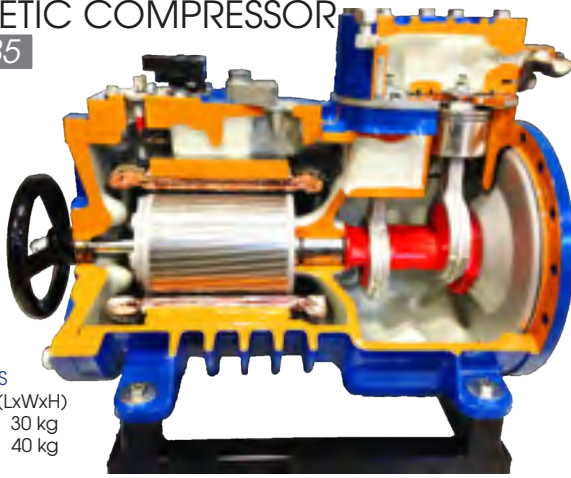
### SPECIFICATIONS

- Self-ventilating disk brake with phonic wheel and sensor
- Rear disk brake with phonic wheel and sensor
- Servo brake with foot control panel and brake pump
- Electronic control unit
- Oil tank
- Mounted on stand with wheels



## SEMI-HERMETIC COMPRESSOR

N98-ND13085



### WEIGHT & DIMENSIONS

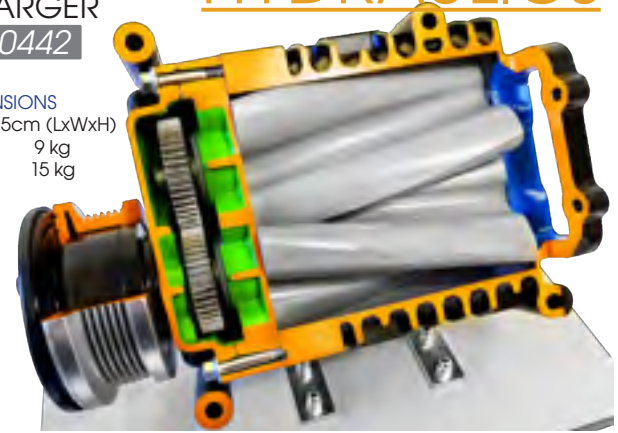
30cm x 50cm x 40cm (LxWxH)  
Net Weight: 30 kg  
Gross Weight: 40 kg

## ROOTS-TYPE SUPERCHARGER

N98-ND10442

### WEIGHT & DIMENSIONS

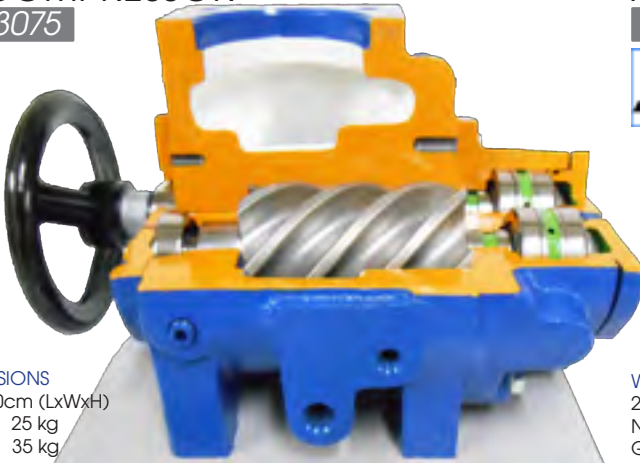
50cm x 20cm x 25cm (LxWxH)  
Net Weight: 9 kg  
Gross Weight: 15 kg



# HYDRAULICS

## SCREW COMPRESSOR

N98-ND13075



### WEIGHT & DIMENSIONS

40cm x 30cm x 30cm (LxWxH)  
Net Weight: 25 kg  
Gross Weight: 35 kg

## AIR COMPRESSOR VANE STYLE

N98-ND10655



### WEIGHT & DIMENSIONS

20cm x 20cm x 20cm (LxWxH)  
Net Weight: 7 kg  
Gross Weight: 12 kg

## RECIPROCATING COMPRESSOR

N98-ND13071



### WEIGHT & DIMENSIONS

40cm x 40cm x 60cm (LxWxH)  
Net Weight: 30 kg  
Gross Weight: 40 kg



## AIR COMPRESSOR

N98-ND13074



### WEIGHT & DIMENSIONS

40cm x 23cm x 20cm (LxWxH)  
Net Weight: 10 kg  
Gross Weight: 13 kg

## AXIAL ALTERNATIVE COMPRESSOR WITH VARIABLE DISPLACEMENT

N98-ND10652



### WEIGHT & DIMENSIONS

20cm x 20cm x 20cm (LxWxH)  
Net Weight: 7 kg  
Gross Weight: 12 kg

## AXIAL ALTERNATIVE COMPRESSOR WITH DOUBLE EFFECT PISTON

N98-ND10653



### WEIGHT & DIMENSIONS

20cm x 20cm x 20cm (LxWxH)  
Net Weight: 7 kg  
Gross Weight: 12 kg



## TURBOCHARGER CUT-AWAY VARIABLE GEOMETRY

N98-ND10441



### WEIGHT & DIMENSIONS

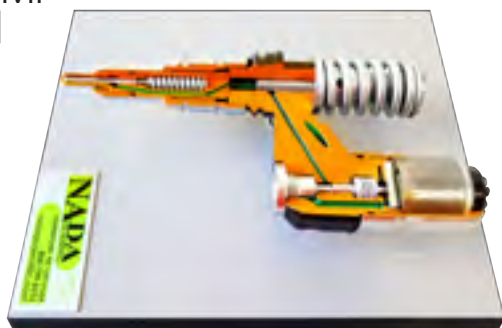
50cm x 20cm x 35cm (LxWxH)

Net Weight: 7 kg

Gross Weight: 10 kg

## INJECTOR PUMP

N98-ND10110



### WEIGHT & DIMENSIONS

40cm x 20cm x 10cm (LxWxH)

Net Weight: 3 kg

Gross Weight: 4 kg

## BOSCH PUMP HIGH PRESSURE, CP4

N98-ND10108



### WEIGHT & DIMENSIONS

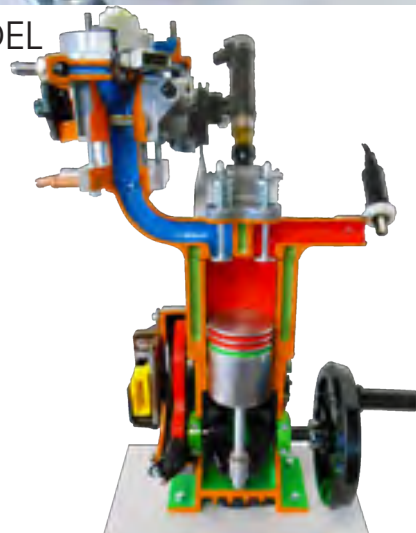
25cm x 20cm x 20cm (LxWxH)

Net Weight: 4 kg

Gross Weight: 8 kg

## GAS ENGINE MODEL 4-STROKE

N98-ND7460



### WEIGHT & DIMENSIONS

40cm x 40cm x 70cm (LxWxH)

Net Weight: 10 kg

Gross Weight: 14 kg

## SELF-VENTILATED BRAKE WITH 4 PISTONS

N98-ND12040



### WEIGHT & DIMENSIONS

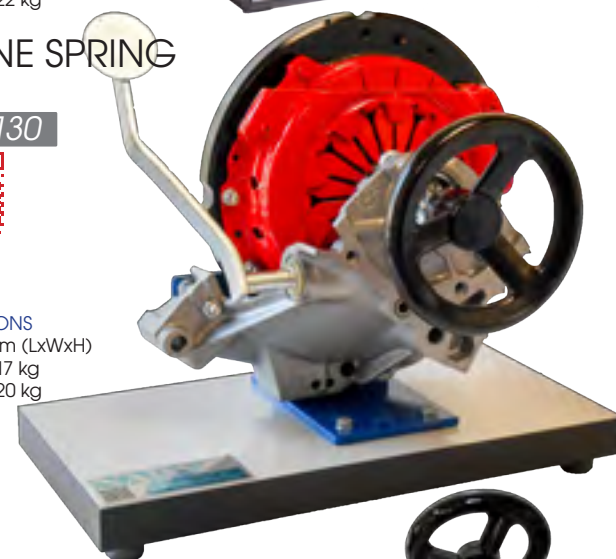
50cm x 25cm x 45cm (LxWxH)

Net Weight: 15 kg

Gross Weight: 22 kg

## MEMBRANE SPRING CLUTCH

N98-ND11130



### WEIGHT & DIMENSIONS

50cm x 40cm x 50cm (LxWxH)

Net Weight: 17 kg

Gross Weight: 20 kg

## IGNITION SYSTEM CUT-AWAY WITH DISTRIBUTOR

N98-ND10030



### WEIGHT & DIMENSIONS

30cm x 30cm x 17cm (LxWxH)

Net Weight: 3 kg

Gross Weight: 5 kg

## CVT TRANSMISSION MODEL

N98-ND7831



### WEIGHT & DIMENSIONS

80cm x 30cm x 40cm (LxWxH)

Net Weight: 12 kg

Gross Weight: 18 kg



## GAS ENGINE MODEL MULTIPOINT FUEL INJECTION

N98-ND7490



### WEIGHT & DIMENSIONS

30cm x 42cm x 67cm (LxWxH)

Net Weight: 21 kg

Gross Weight: 25 kg

## PLANETARY GEAR DEMONSTRATOR

N98-L011-SPG

Each

N98-L012-10P

10/PK



### WEIGHT & DIMENSIONS

13cm x 13cm x 1cm (LxWxH)

Net Weight: 120 g (One Unit)

Net Weight: 3 kg (10/Pack with Case)

## SELF-LOCKING HYPOID DIFFERENTIAL

N98-ND11260



### WEIGHT & DIMENSIONS

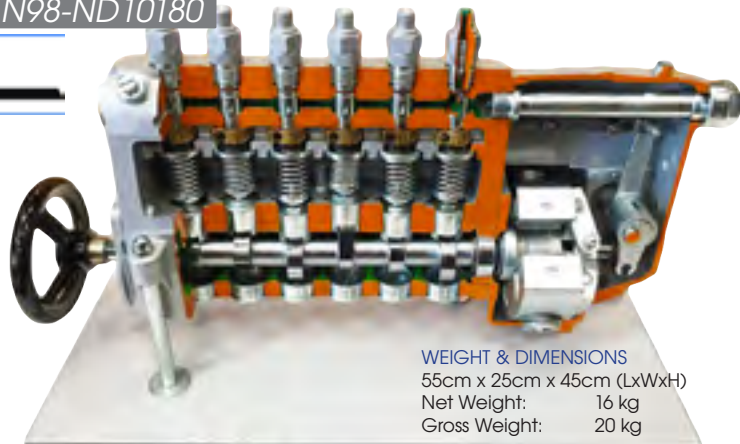
40cm x 30cm x 40cm (LxWxH)

Net Weight: 25 kg

Gross Weight: 30 kg

## INJECTION PUMP WITH 6 INLINE CYLINDERS & CENTRIFUGAL GOVERNOR

N98-ND10180



### WEIGHT & DIMENSIONS

55cm x 25cm x 45cm (LxWxH)

Net Weight: 16 kg

Gross Weight: 20 kg

## POWER STEERING WITH RECIRCULATING BALL SYSTEM

N98-ND10750



### WEIGHT & DIMENSIONS

60cm x 50cm x 50cm (LxWxH)

Net Weight: 20 kg

Gross Weight: 28 kg



## COMPACT PLANETARY GEAR MODEL

N98-L063-HPG



### WEIGHT & DIMENSIONS

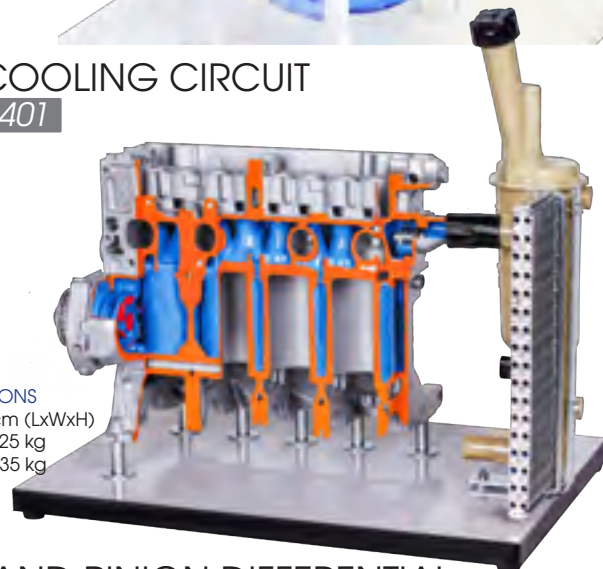
14cm x 12cm x 16cm (LxWxH)

Net Weight: 750 g

Gross Weight: 1 kg

## ENGINE COOLING CIRCUIT

N98-ND10401



### WEIGHT & DIMENSIONS

70cm x 50cm x 74cm (LxWxH)

Net Weight: 25 kg

Gross Weight: 35 kg

## CROWN AND PINION DIFFERENTIAL

N98-ND11281



### WEIGHT & DIMENSIONS

40cm x 30cm x 26cm (LxWxH)

Net Weight: 8 kg

Gross Weight: 10 kg



## MARINE INBOARD DIESEL ENGINE 6-CYLINDER WITH CLOSED COOLING CIRCUIT

**N98-ND7940**

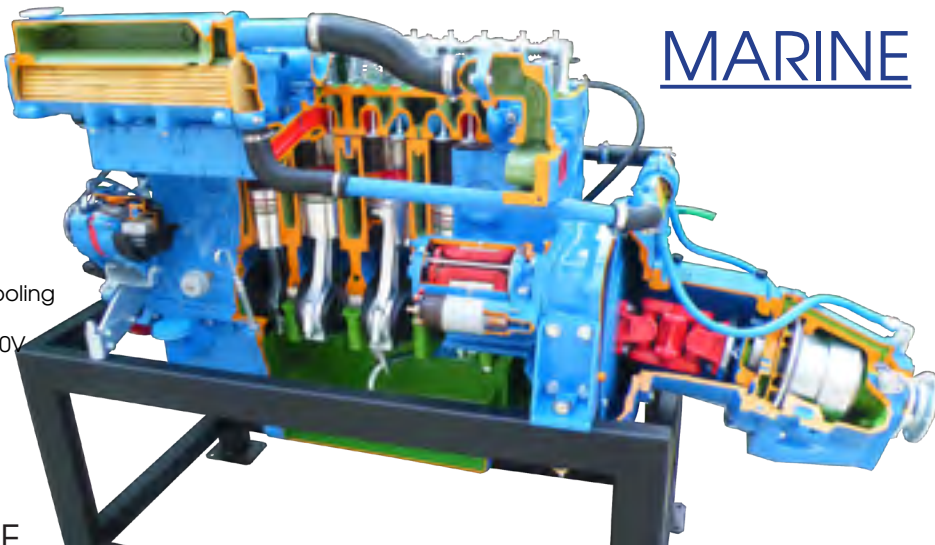


### SPECIFICATIONS

- Inline-6 diesel engine
- Displacement: 6,000cc
- Compression Ratio: 16:1
- Accessories and closed cooling circuit included
- Operates electrically at 120V
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

185cm x 120cm x 150cm (LxWxH)  
Net Weight: 1100 kg  
Gross Weight: 1400 kg



**MARINE**

## MARINE INBOARD V8 DIESEL ENGINE WITH TURBO INTERCOOLER

**N98-ND7950HI**

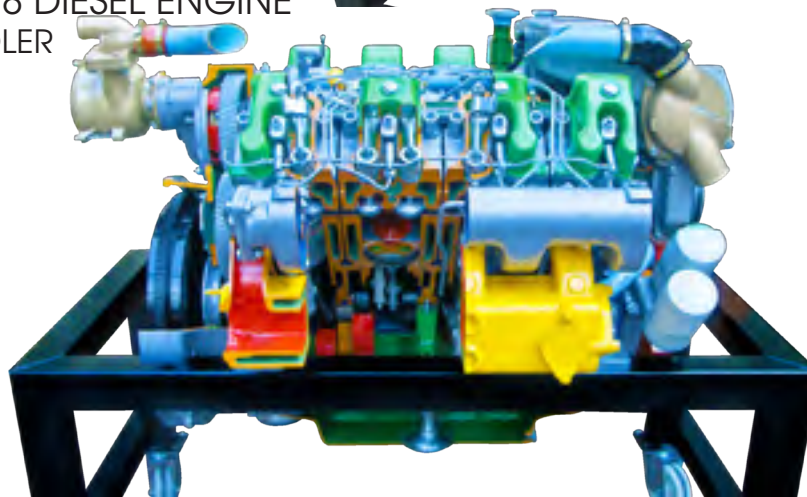


### SPECIFICATIONS

- 4-Stroke diesel engine, V8
- Direct Injection
- Aspiration: Turbocharged - Interrefrigerated
- Bore x stroke: 130mm x 140mm
- Total displacement: 14,858cc
- Freshwater engine cooling system with seawater heat exchanger
- Freshwater cooled exhaust manifold
- Bronze seawater circulating pump
- Operates electrically at 120V
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

185cm x 120cm x 150cm (LxWxH)  
Net Weight: 1100 kg  
Gross Weight: 1400 kg



## FARM TRACTOR, KUBOTA 4-STROKE DIESEL ENGINE

**N98-ND8000**



### SPECIFICATIONS

- 4-Stroke diesel engine
- Power: 20 HP/16 kW
- Water-cooled
- Lubrication of trochoidal pump
- Inline injection pump
- Dry single-disk clutch
- Gearbox: 6 speeds + 2 reverse with gear reducer
- 2 speed power take-off
- Mechanical locking rear differential
- Rear drum brakes
- Sector steering gear box
- Hydraulic lifter
- Operates electrically at 120V
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

190cm x 110cm x 164cm (LxWxH)  
Net Weight: 345 kg  
Gross Weight: 500 kg



**AGRICULTURE**

## DIESEL TRACTOR ENGINE INLINE-4

**N98-ND6077**



### SPECIFICATIONS

- 4-Cylinder Diesel Tractor Engine FIAT 25R
- Displacement: 2,000cc
- Indirect injection
- Camshaft in the crankcase (OHV)
- Bosch inline injection pump
- Timing gears
- Water-cooled
- Gear oil pump
- Operates electrically at 120V
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

100cm x 90cm x 100cm (LxWxH)  
Net Weight: 180 kg  
Gross Weight: 260 kg





## AIRCRAFT ENGINE, RADIAL, SMALL

N98-ND9280-S



### SPECIFICATIONS

- Drive shaft with integral master rod and moving connection rods
- Air cooling system
- Double ignition (2 spark plugs per cylinder and 2 magnetos)
- Includes Tool Box (25-Piece Metric Combination Set, 6-32mm)
- Operates electrically at 120V
- Mounted on stand with wheels



### WEIGHT & DIMENSIONS

120cm x 100cm x 140cm (LxWxH)  
Net Weight: 240 kg  
Gross Weight: 400 kg

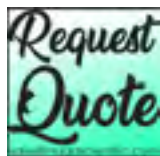
## AIRCRAFT ENGINE, RADIAL, LARGE

N98-ND9280-L



### SPECIFICATIONS

- Drive shaft with integral master rod and moving connection rods
- Air cooling system
- Double ignition (2 spark plugs per cylinder and 2 magnetos)
- Includes Tool Box (25-Piece Metric Combination Set, 6-32mm)
- Operates electrically at 120V
- Mounted on stand with wheels



### WEIGHT & DIMENSIONS

158cm x 158cm x 188cm (LxWxH)  
Net Weight: 584 kg  
Gross Weight: 775 kg



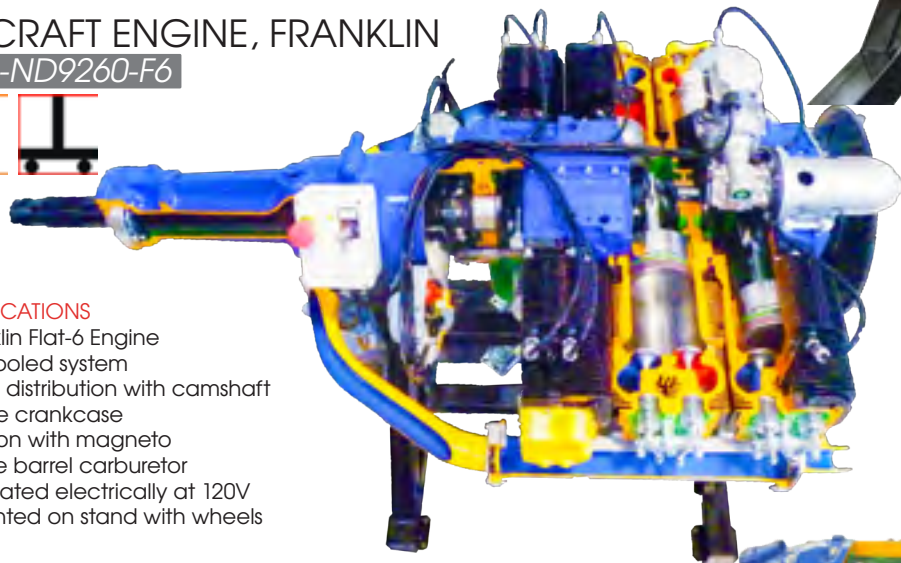
## AIRCRAFT ENGINE, FRANKLIN

N98-ND9260-F6



### SPECIFICATIONS

- Franklin Flat-6 Engine
- Air cooled system
- Gear distribution with camshaft in the crankcase
- Ignition with magneto
- Single barrel carburetor
- Operated electrically at 120V
- Mounted on stand with wheels



### WEIGHT & DIMENSIONS

140cm x 110cm x 150cm (LxWxH)  
Net Weight: 190 kg  
Gross Weight: 280 kg

## AIRCRAFT ENGINE, LYCOMING

N98-ND9260

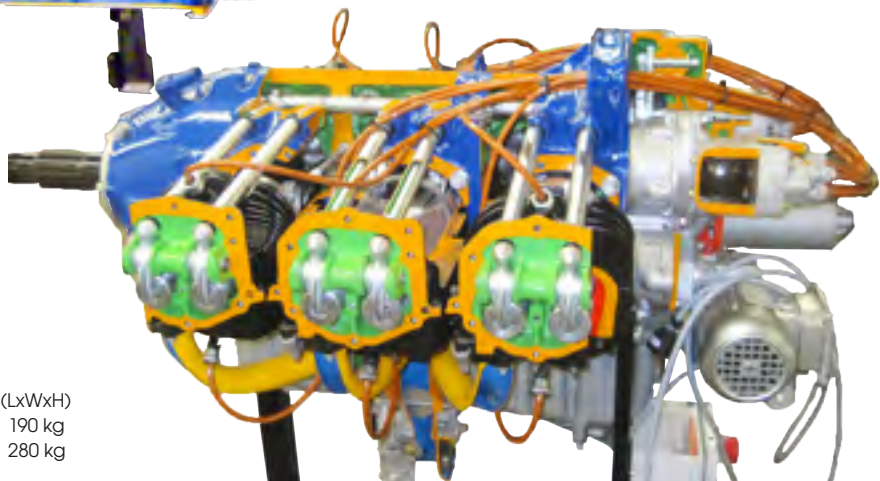


### SPECIFICATIONS

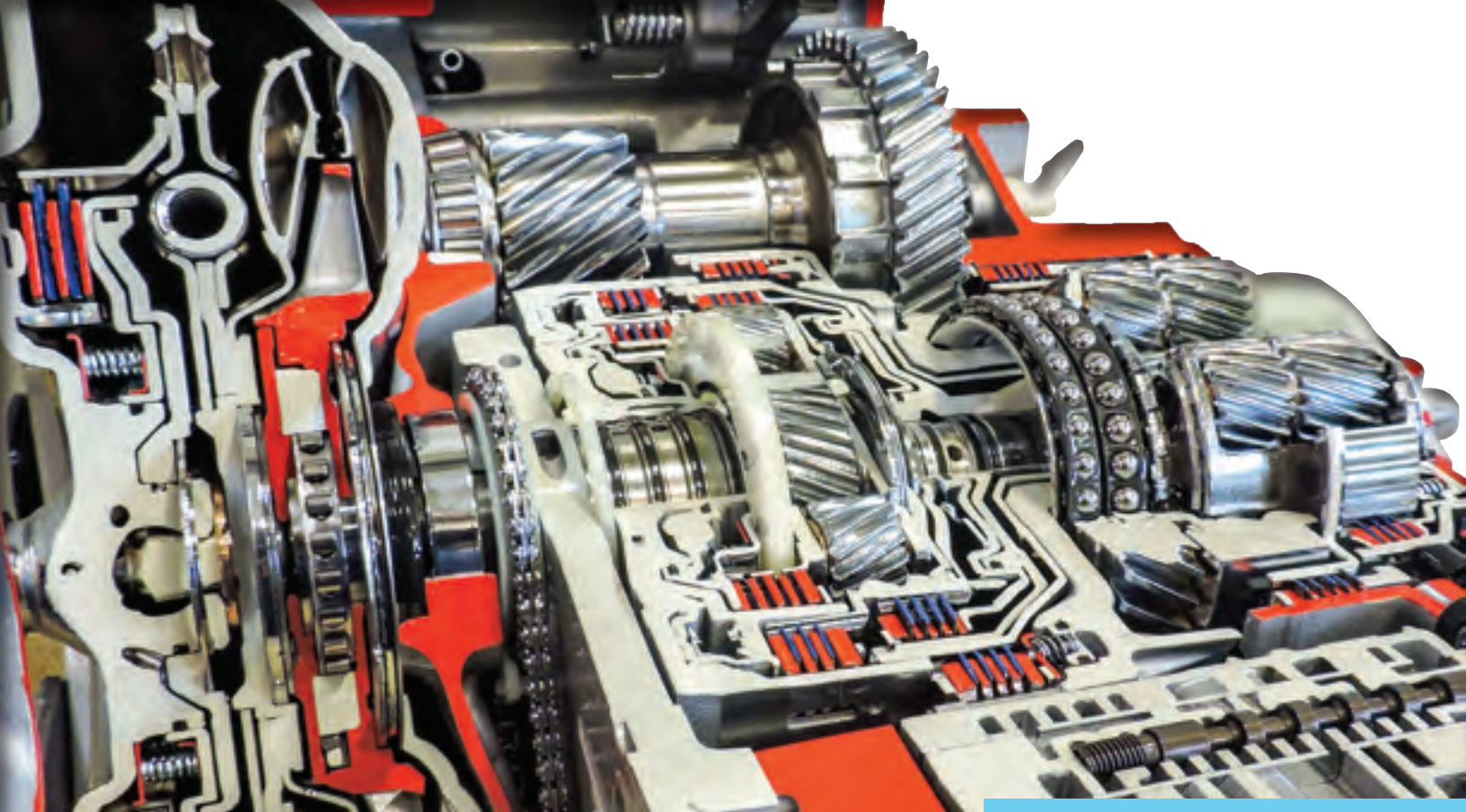
- Lycoming Flat-6 Engine
- Air cooled system
- Ignition with magneto
- Single barrel carburetor
- Operated electrically at 120V
- Mounted on stand with wheels

### WEIGHT & DIMENSIONS

140cm x 110cm x 150cm (LxWxH)  
Net Weight: 190 kg  
Gross Weight: 280 kg

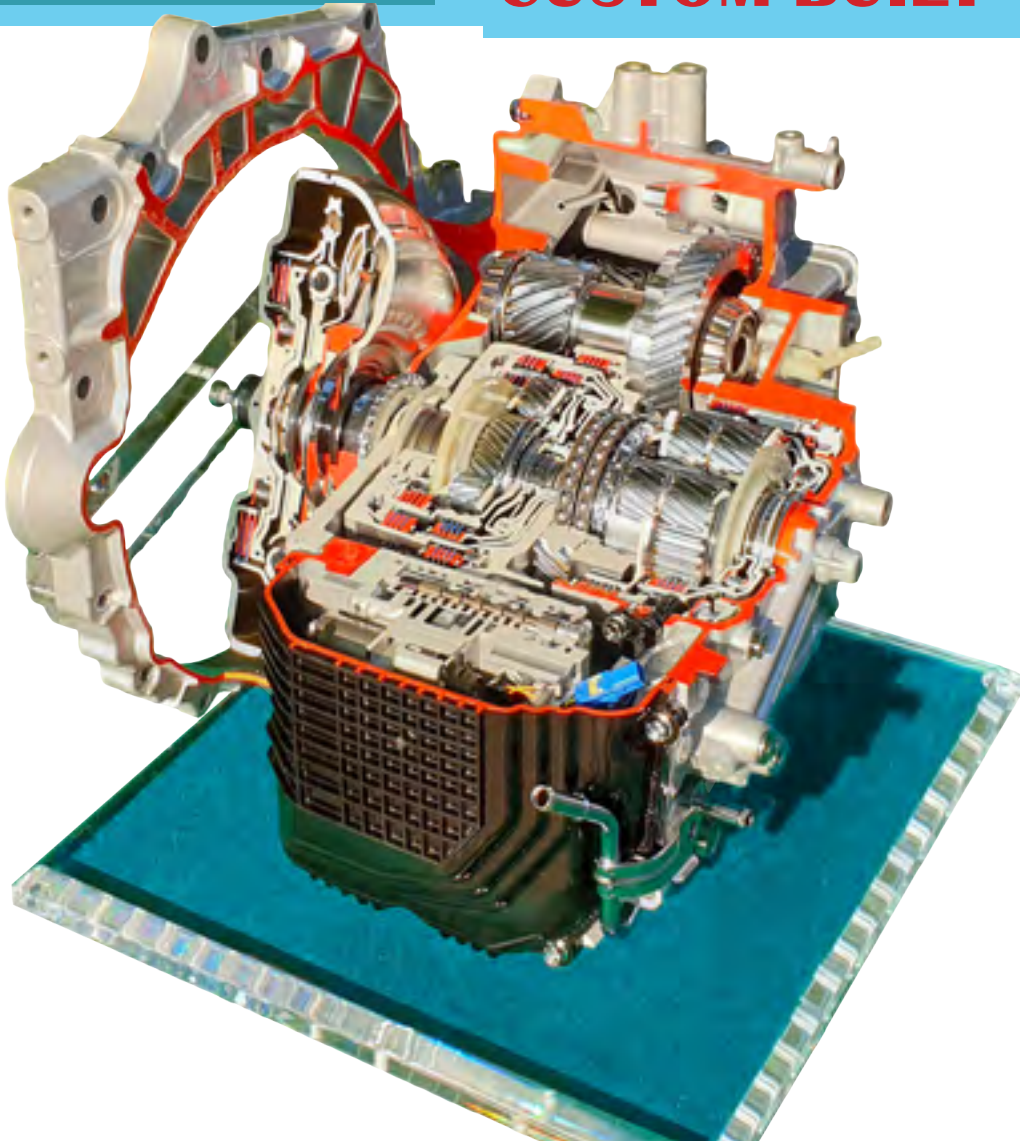
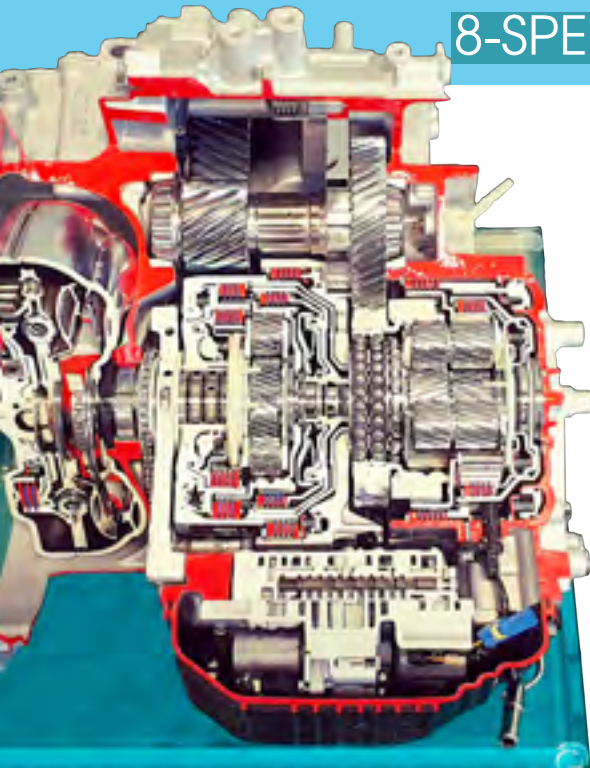




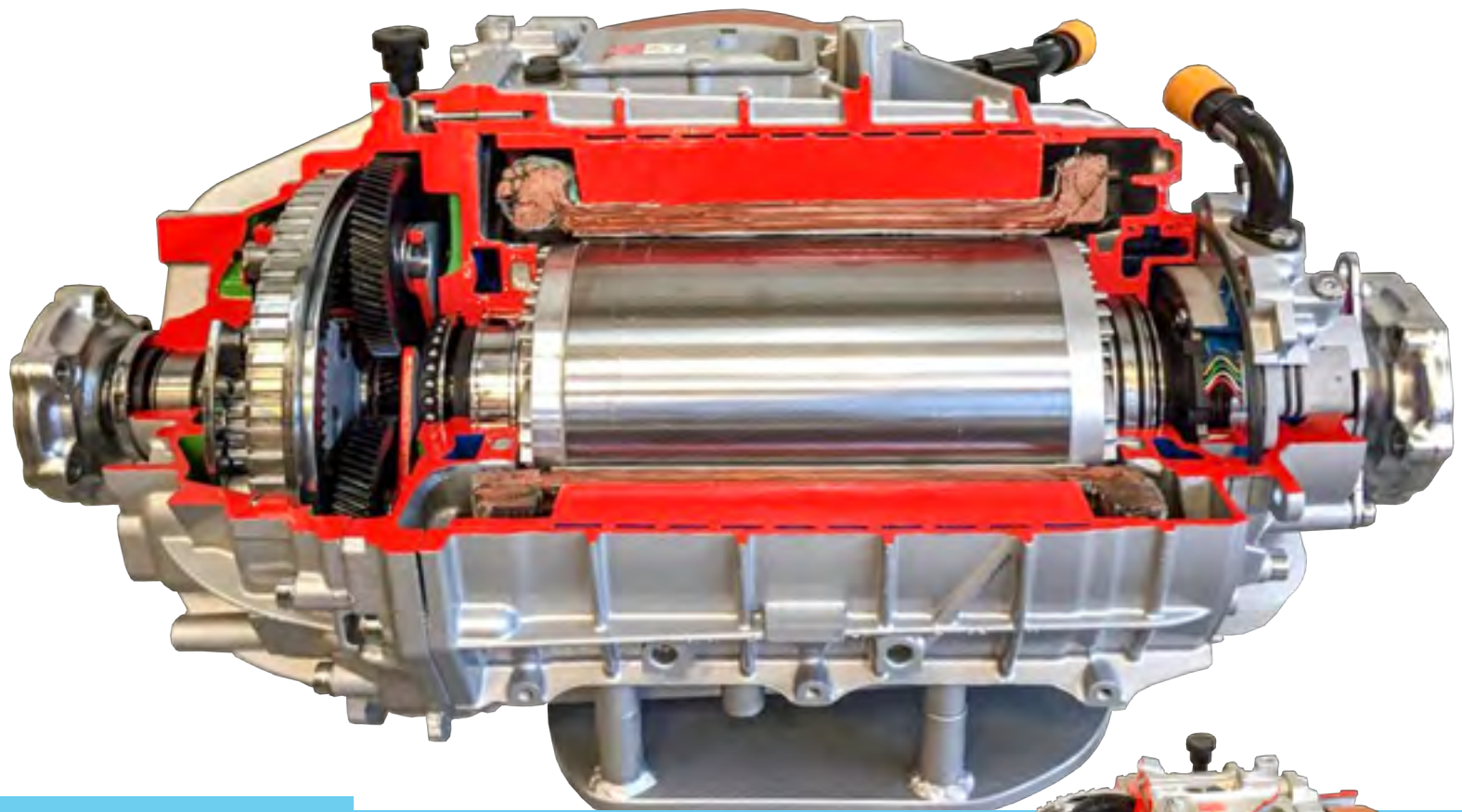


8-SPEED TRANSMISSION

**CUSTOM-BUILT**

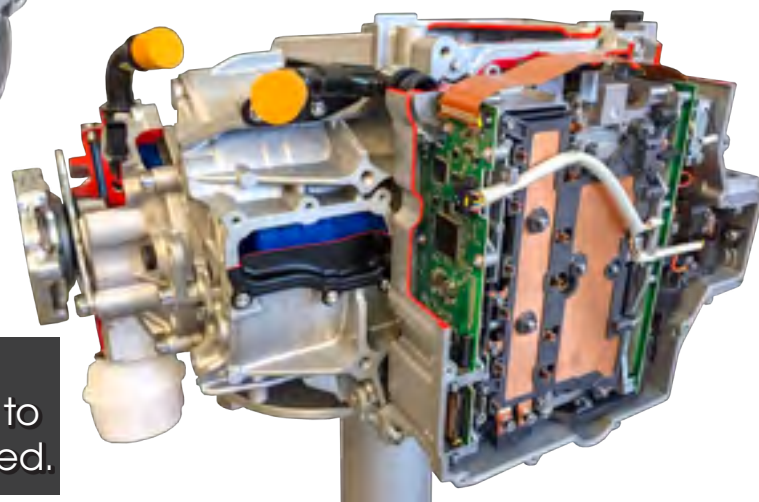
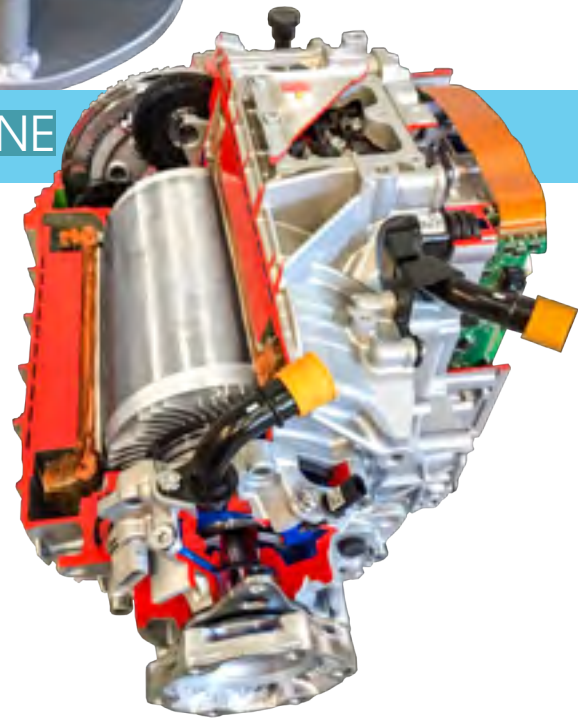
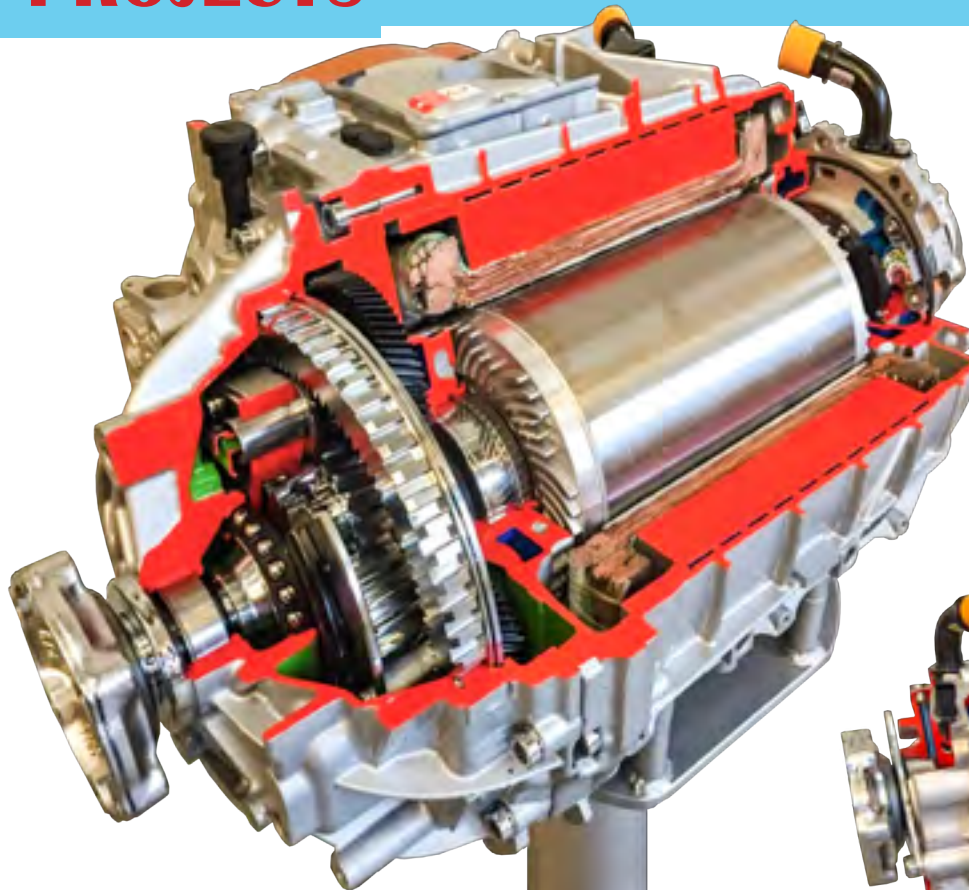






## PROJECTS

### ELECTRIC SUV ENGINE



Contact our technical representative at [sales@nadascientific.com](mailto:sales@nadascientific.com) or [1-800-799-NADA](tel:1-800-799-NADA) to review, discuss, and evaluate your specific need.