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Electrically Operated



Stand with Wheels



Wall-Mount



Mounted on Base



Mounted on Table Stand



New York State Contract



GREEN TECHNOLOGY



NADA
SCIENTIFIC

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CATALOG CONTENTS

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HYBRID CUT-AWAY ENGINE, PRIUS MANUAL OPERATION

N98-ND4500

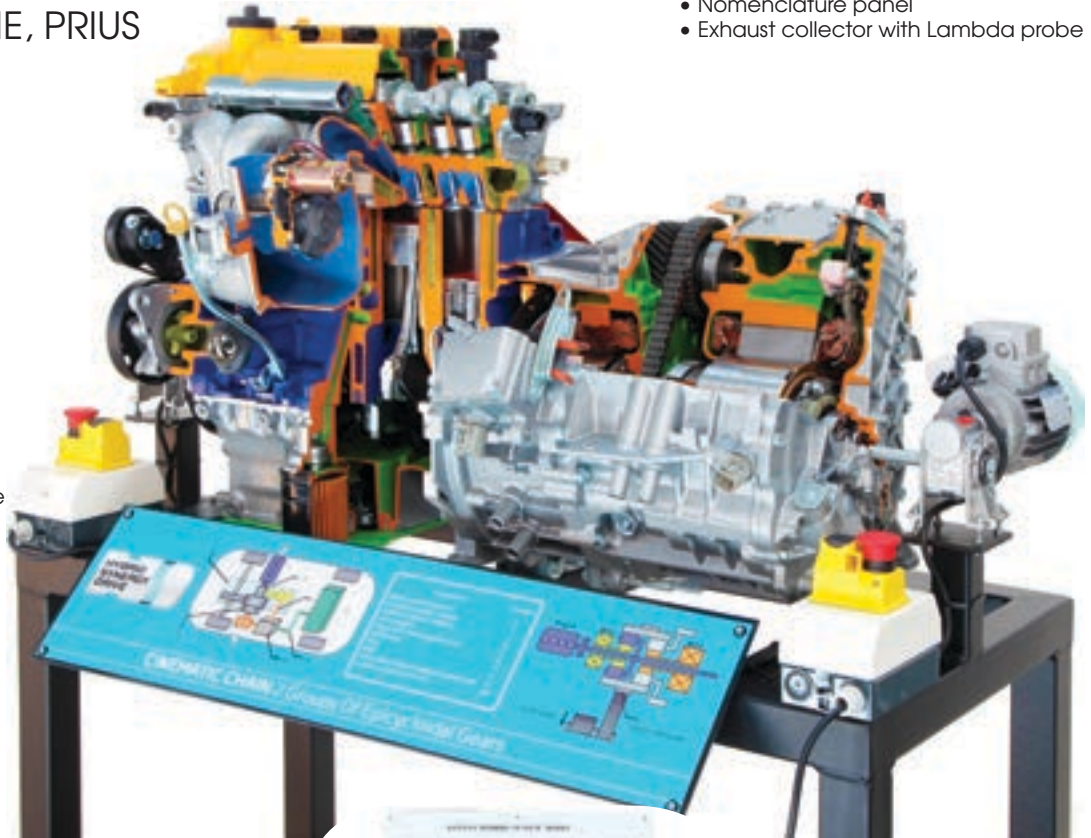


WEIGHT & DIMENSIONS

140cm x 80cm x 130cm (LxWxH)
Net Weight: 180 kg
Gross Weight: 250 kg

HYBRID CUT-AWAY ENGINE, PRIUS ELECTRICAL OPERATION

N98-ND4501



SPECIFICATIONS

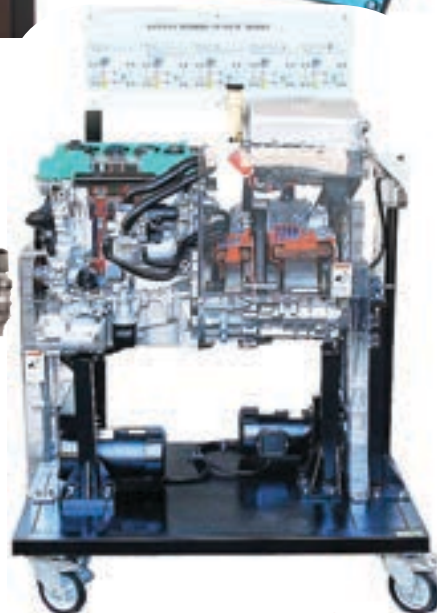
- 4-Cylinder engine
- Displacement: 1,500 cc
- Dual Overhead Camshaft (DOHC)
- 4 valves per cylinder
- Roller chain
- VVT-I system (Variable Valve Timing with Intelligence) electronically controlled intake valves
- Multi-point electronic injection with throttle
- Electrical engine
- Epicyclic engine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

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

155cm x 160cm x 165cm (LxWxH)
Net Weight: 300 kg
Gross Weight: 470 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
- Multi-point electronic injection with throttle
- Nomenclature panel
- Exhaust collector with Lambda probe

SPECIFICATIONS

ENGINE:

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

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

BIODIESEL RUNNING ENGINE

N98-BIODIESEL-R

WITH MULTIGAS ANALYZER

N98-BIODIESEL-MGA



WEIGHT & DIMENSIONS

155cm x 105cm x 140cm (LxWxH)

Net Weight: 330 kg

Gross Weight: 456 kg



ENGINE CHARACTERISTICS

- New agricultural engine
- Fuel by pure biodiesel (B100)
- 4-Cylinder Engine, 1,860cc
- Fixed speed motor, 1,550/1,800 rpm
- Indirect injection
- Water cooling
- Naturally aspirated

NEW DIGITAL CONTROL PANEL MultiGas Analyzer



For emission monitoring of combustion and industrial processes.

GAS/LPG MULTIPOINTS FIAT ENGINE ELECTRONIC INJECTION

N98-ND4300

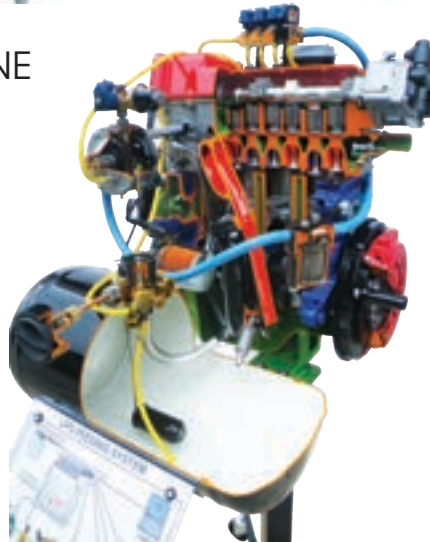


WEIGHT & DIMENSIONS

70cm x 80cm x 95cm (LxWxH)

Net Weight: 86 kg

Gross Weight: 120 kg



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

HYBRID TRANSMISSION, PRIUS MOTOR/GENERATOR

N98-ND11082



WEIGHT & DIMENSIONS

60cm x 70cm x 65cm (LxWxH)

Net Weight: 100 kg

Gross Weight: 130 kg



The Motor Generator 1 (MG1) operates as the control element for the power splitting planetary gear set. It recharges the HV battery and also supplies electrical power to drive Motor Generator 2 (MG2). MG1 effectively controls the continuously variable transmission function of the trans-axle and operates as the engine starter.

MULTI-LINK SUSPENSION

N98-ND9804



SPECIFICATIONS

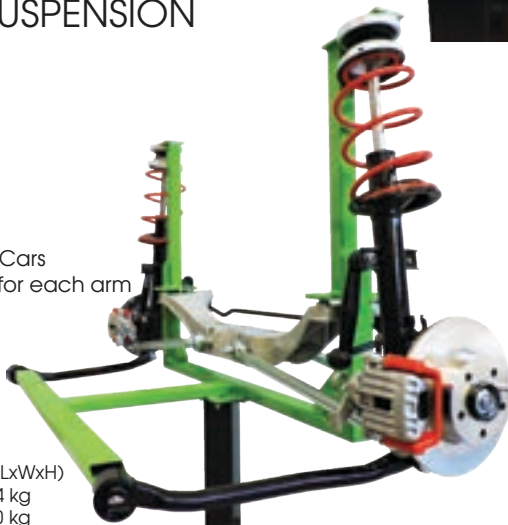
- Used on Mercedes Cars
- Spherical/ball joint for each arm

WEIGHT & DIMENSIONS

170cm x 75cm x 100cm (LxWxH)

Net Weight: 84 kg

Gross Weight: 150 kg



FRONT CHASSIS UNIT

N98-ND11202



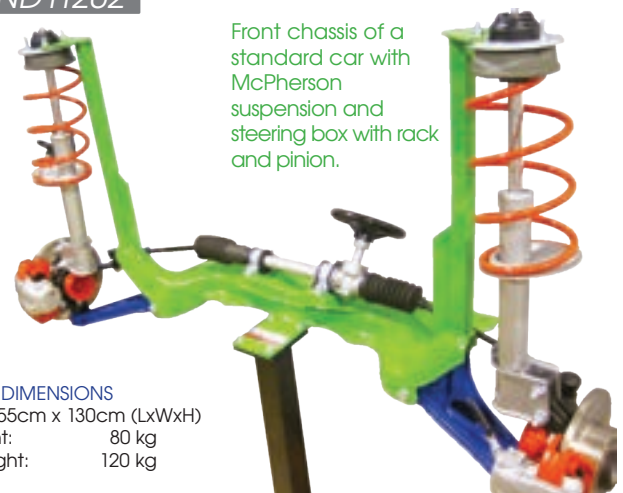
Front chassis of a standard car with McPherson suspension and steering box with rack and pinion.

WEIGHT & DIMENSIONS

100cm x 155cm x 130cm (LxWxH)

Net Weight: 80 kg

Gross Weight: 120 kg



GAS MULTIPPOINTS ENGINE CHASSIS WITH ABS AND HYDRAULIC POWER STEERING

N98-ND5272

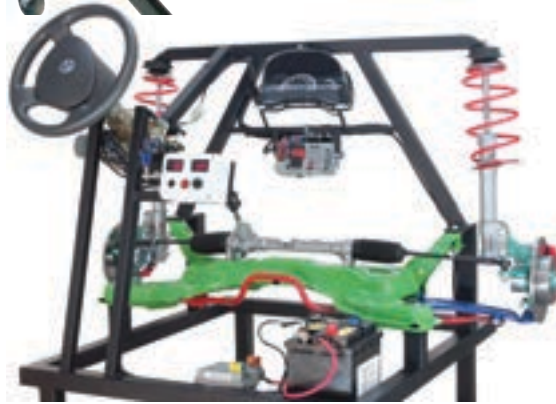


WEIGHT & DIMENSIONS

220cm x 160cm x 115cm (LxWxH)
 Net Weight: 340 kg
 Gross Weight: 490 kg

ELECTRIC POWER-ASSISTED STEERING WITH SUSPENSION

N98-ND10778

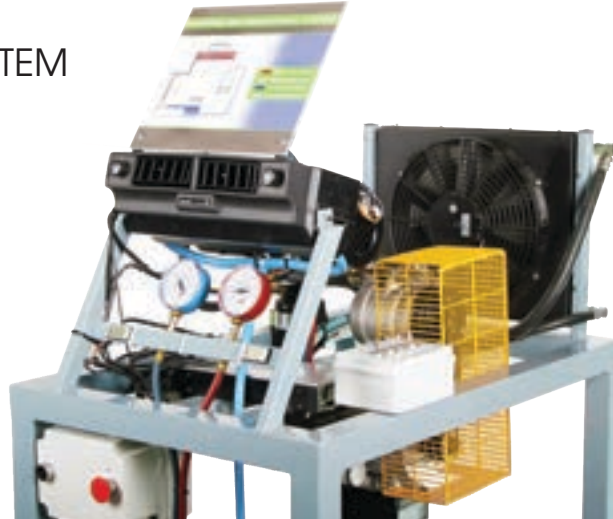


WEIGHT & DIMENSIONS

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

AIR CONDITIONING SYSTEM

N98-ND9130

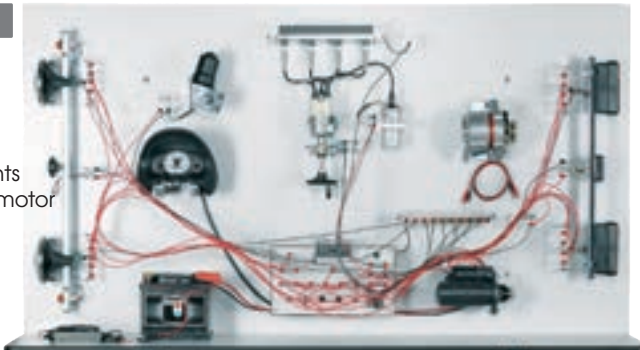


WEIGHT & DIMENSIONS

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

WIRING SYSTEM TRAINER ELECTRONIC IGNITION

N98-ND9991



SPECIFICATIONS

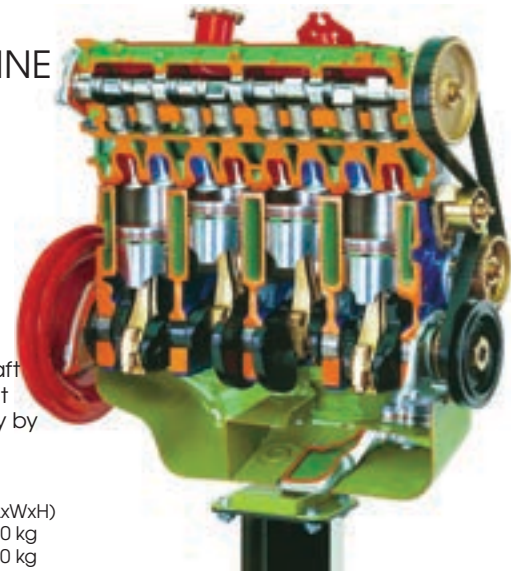
- Front and rear lights
- Windshield wiper motor
- Turn indicators
- Instrument panel
- Battery
- Battery ignition
- Spark Plugs
- Fuse Box
- Alternator
- Wires with red and black couplings

WEIGHT & DIMENSIONS

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

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

WEIGHT & DIMENSIONS

70cm x 60cm x 80cm (LxWxH)
 Net Weight: 60 kg
 Gross Weight: 110 kg

TRAINERS

SPECIFICATIONS

- Front chassis with front-wheel drive (transversally mounted engine)
- Gasoline powered 4-Cylinder engine
- Displacement: 1,200cc complete of all accessories
- Electronic Injection MPI (Multi points)
- 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 McPherson suspension with oscillating arms
- Working front and rear lighting system controlled by a dashboard

SPECIFICATIONS

- Operating McPherson 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)

SPECIFICATIONS

- Maximum power: 2 kw
- Piston compressor
- Condenser
- Dehydrating filter
- Pressure switch
- Expansion valve
- Evaporation unit
- Resistor
- Thermostat
- Troubleshooting device for simulation of 4 faults
- Terminology table

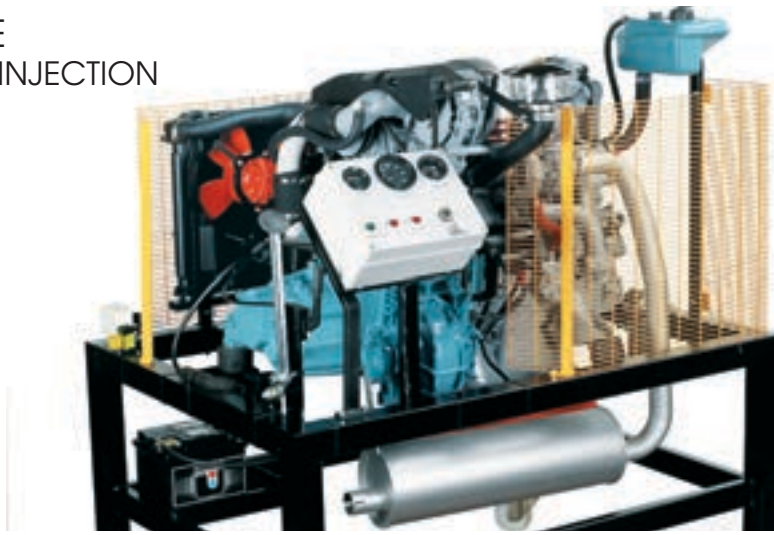
GAS RUNNING ENGINE MULTI-POINT ELECTRONIC INJECTION

N98-ND9005



WEIGHT & DIMENSIONS

115cm x 120cm x 140cm (LxWxH)
Net Weight: 250 kg
Gross Weight: 330 kg



SPECIFICATIONS

- 4 Cylinder FIAT Engine
- 2 valves per Cylinder
- Overhead camshaft
- Electronic ignition
- Displacement: 1300 cu. Cm
- Gearbox: 5 forward speeds + reverse
- Diagnostic connector
- OBD2 socket connection
- Mounted on a stand with wheels
- Includes anti-vibration rubber caps

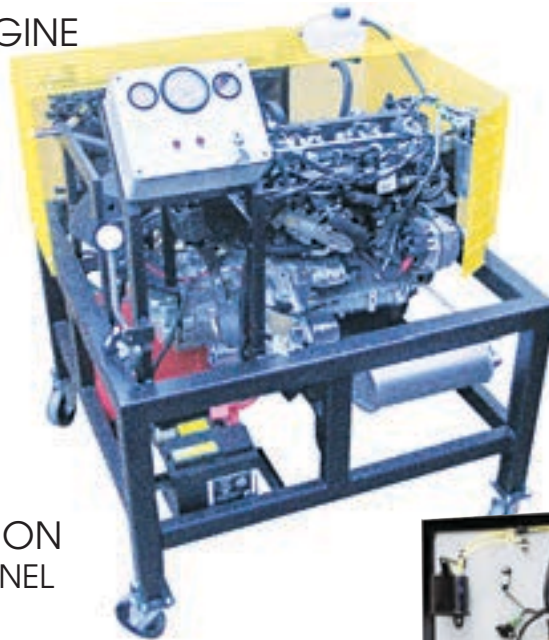
DIESEL RUNNING ENGINE COMMON RAIL

N98-ND9095



WEIGHT & DIMENSIONS

120cm x 130cm x 140cm (LxWxH)
Net Weight: 350 kg
Gross Weight: 450 kg



SPECIFICATIONS

- 4-Cylinder FIAT Engine
- 2 valves per cylinder
- Overhead camshaft
- Turbo-compressor
- Displacement: 1900 cu. Cm
- Gearbox: 5 forward speeds + reverse
- Diagnostics socket
- OBD2 socket connection
- On Request: Multi-jet, 1300 cc, DOHC, 4 valves per cylinder
- Mounted on a stand with wheels
- Includes anti-vibration rubber caps

ELECTRONIC INJECTION MULTIPOINTS SYSTEM PANEL

N98-ND9900



WEIGHT & DIMENSIONS

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



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

LPG TIMED SEQUENTIAL INJECTION

N98-ND10525



WEIGHT & DIMENSIONS

70cm x 120cm x 15cm (LxWxH)
Net Weight: 16 kg
Gross Weight: 30 kg



SPECIFICATIONS

- E.C.U.
- Injection rail
- L.P.G. solenoid valve
- Reducer - vaporizer
- Pressure sensor
- Pressure stabilizer
- Switch commutator
- Nozzles for manifold
- Water temperature sensor
- Gas temperature sensor
- Refueling valve
- Level indicator
- Comes with a terminology table

DIESEL COMMON RAIL

N98-ND10300



WEIGHT & DIMENSIONS

60cm x 20cm x 30cm (LxWxH)
Net Weight: 14 kg
Gross Weight: 16 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

10cm x 25cm x 10cm (LxWxH)
Net Weight: 0.5 kg
Gross Weight: 1 kg



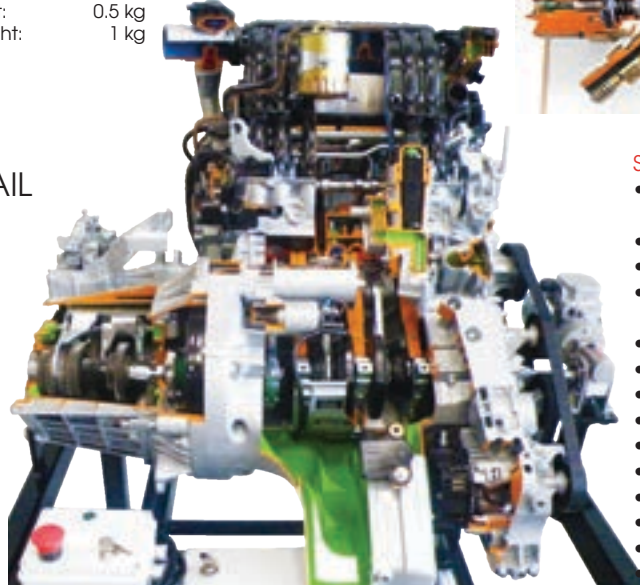
TURBO DIESEL ENGINE A CLASS MERCEDES COMMON RAIL

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, In-line-4
- Displacement: 1700cc
- Double overhead camshaft (DOHC) 16 valves
- Timing chain
- Turbo Diesel Common Rail
- Oil pump - water cooling
- Air filter with box
- Intake manifold
- Air mass flow sensor
- Starter motor, alternator
- Gearbox 5 speeds + reverse, clutch
- Operates electrically at 120V
- Mounted on a stand with wheels

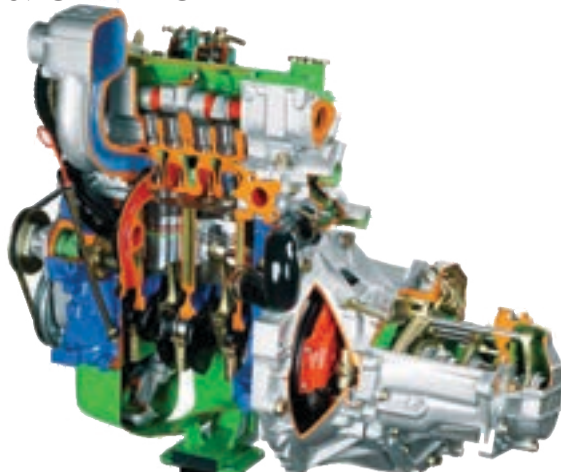
DIESEL ENGINE WITH CLUTCH & GEARBOX FRONT-WHEEL DRIVE

N98-ND6068



WEIGHT & DIMENSIONS

130cm x 86cm x 100cm (LxWxH)
Net Weight: 140 kg
Gross Weight: 200 kg



SPECIFICATIONS

- 4-Stroke engine, In-line-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 cooling
- Operates electrically at 120 volts
- Mounted on stand with wheels

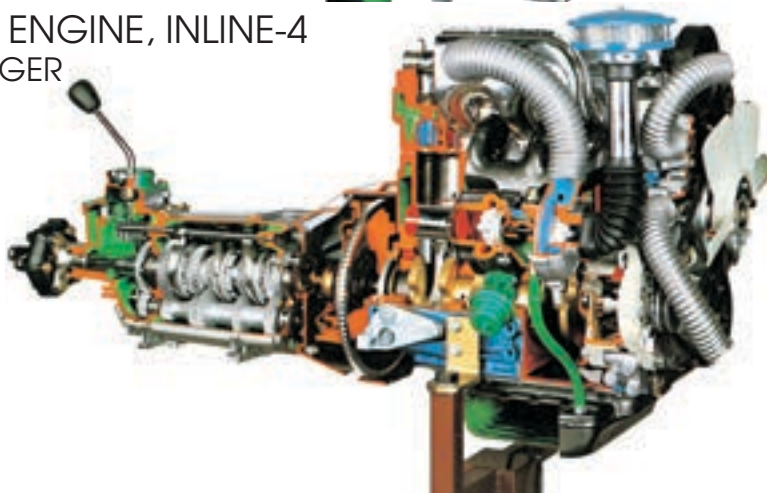
TURBO DIESEL TRUCK ENGINE, INLINE-4 WITH TURBOSUPERCHARGER

N98-ND6020



WEIGHT & DIMENSIONS

85cm x 160cm x 100cm (LxWxH)
Net Weight: 220 kg
Gross Weight: 280 kg



SPECIFICATIONS

- 4-Stroke engine, In-line-4
- 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 cooling
- Operates electrically at 120 volts
- Mounted on stand with wheels

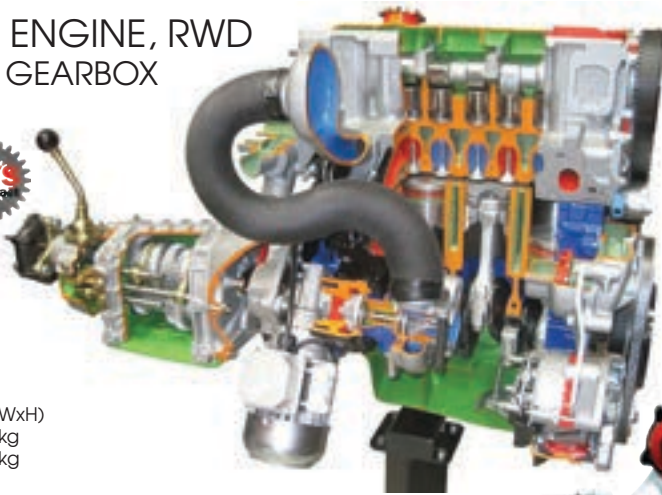
TURBO DIESEL ENGINE, RWD WITH CLUTCH & GEARBOX

N98-ND6070



WEIGHT & DIMENSIONS

60cm x 160cm x 100cm (LxWxH)
Net Weight: 150 kg
Gross Weight: 210 kg



SPECIFICATIONS

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

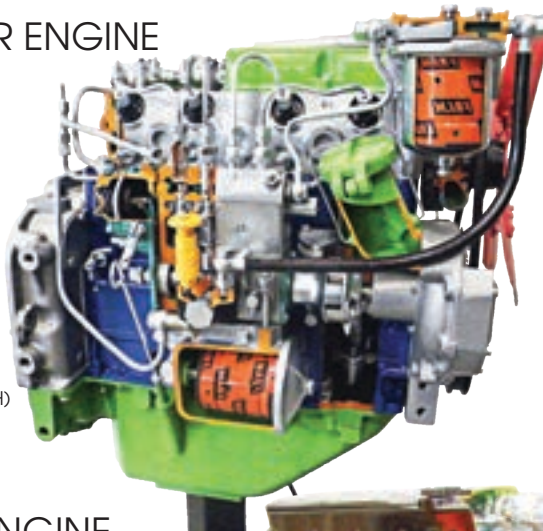
DIESEL TRACTOR ENGINE INLINE-4

N98-ND6077



WEIGHT & DIMENSIONS

100cm x 95cm x 120cm (LxWxH)
Net Weight: 210 kg
Gross Weight: 260 kg



SPECIFICATIONS

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

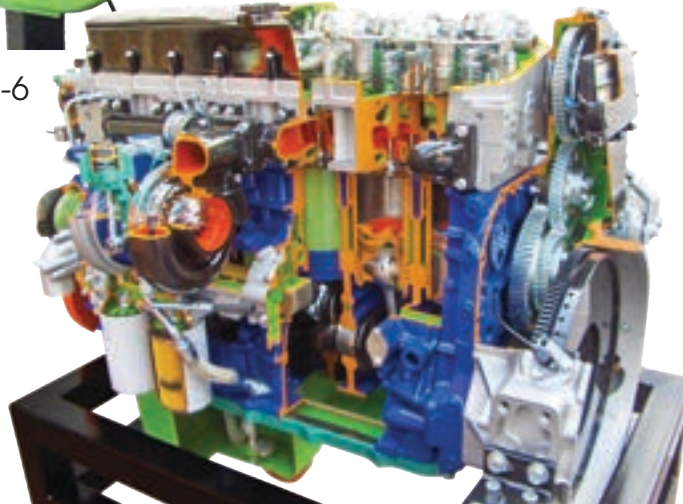
DIESEL TRUCK ENGINE WITH INJECTOR PUMPS, INLINE-6

N98-ND6083



WEIGHT & DIMENSIONS

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

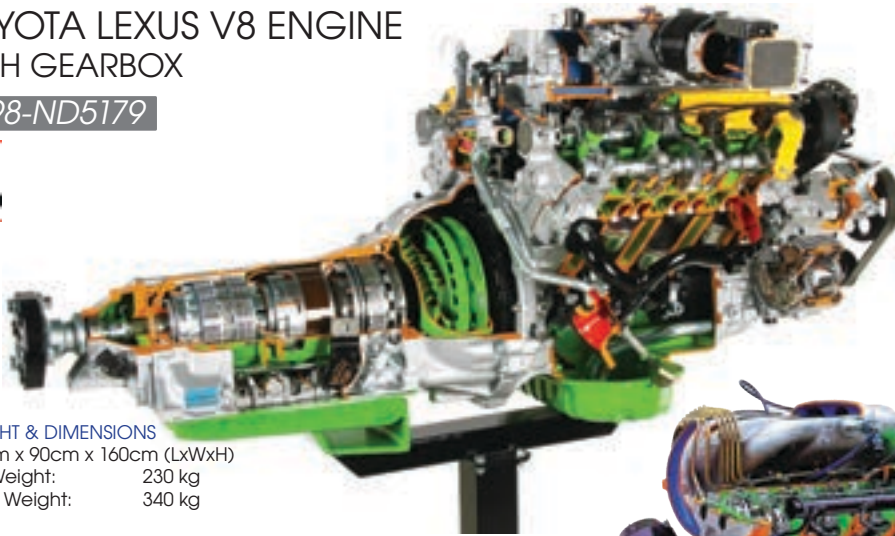


SPECIFICATIONS

- Displacement: 7,790/10,380cc (based on availability)
- 4-Stroke, Inline-6
- 4 valves per cylinder
- Maximum power 310/450 hp (based on availability)
- Water cooling
- Turbocharger
- Electronically controlled pump injectors
- Preheating device
- Operates electrically at 120 volts
- Mounted on stand with wheels

TOYOTA LEXUS V8 ENGINE WITH GEARBOX

N98-ND5179

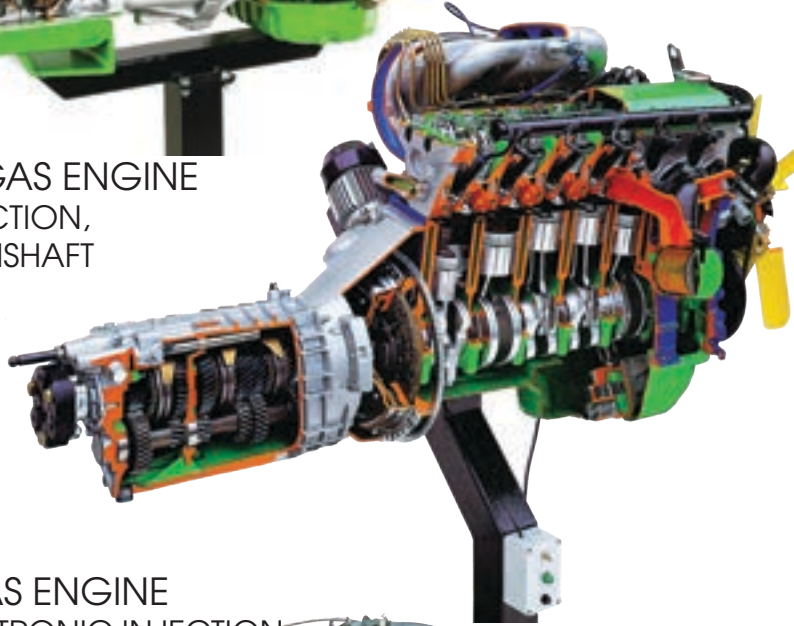


WEIGHT & DIMENSIONS

140cm x 90cm x 160cm (LxWxH)
Net Weight: 230 kg
Gross Weight: 340 kg

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

N98-ND5176

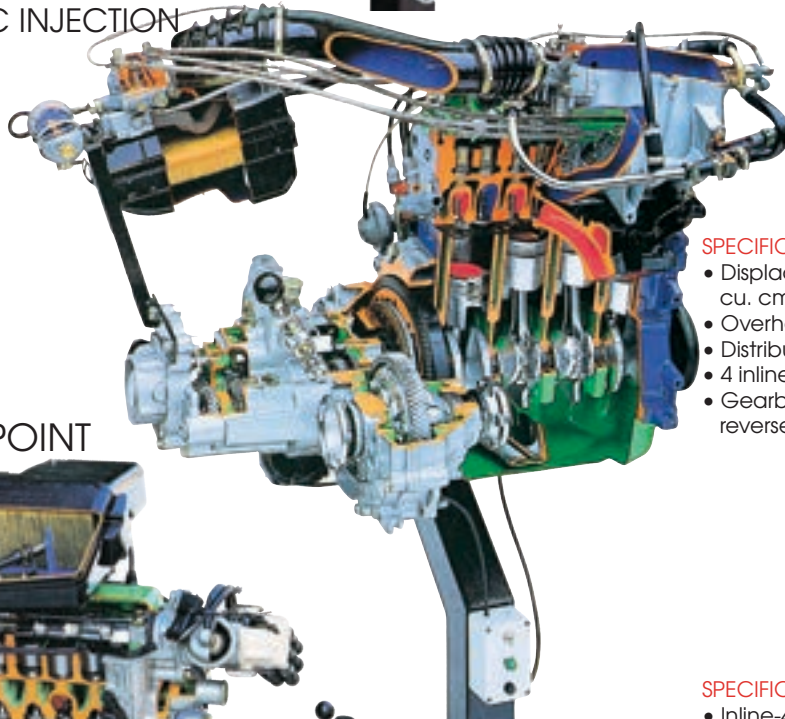


WEIGHT & DIMENSIONS

140cm x 80cm x 100cm (LxWxH)
Net Weight: 180 kg
Gross Weight: 265 kg

VW 4-CYLINDER GAS ENGINE WITH MULTIPOINT ELECTRONIC INJECTION

N98-ND5166

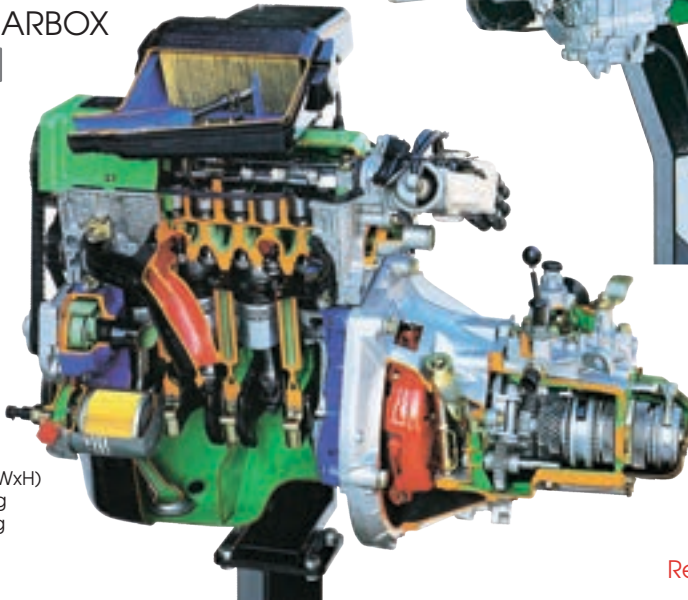


WEIGHT & DIMENSIONS

60cm x 155cm x 90 cm (LxWxH)
Net Weight: 155 kg
Gross Weight: 205 kg

FIAT GAS ENGINE, MULTI-POINT INJECTION + GEARBOX

N98-ND5222IE



WEIGHT & DIMENSIONS

120cm x 70cm x 100cm (LxWxH)
Net Weight: 90 kg
Gross Weight: 140 kg

GAS ENGINE

SPECIFICATIONS

- Displacement: 3968cc
- 4 valves per cylinder (32 total)
- Double over-head camshaft
- Bore and stroke 87,5x82,5
- Compression ratio 1:10
- AISIN AW automatic gearbox: 4 forward speeds
- Multi-point electronic fuel injection
- Electronic ignition
- 12V alternator
- Centrifugal water pump
- Operated manually by hand crank

SPECIFICATIONS

- Displacement: 2000/2500 cc
- Double overhead camshaft
- Distribution by a roller chain
- 4 valves per cylinder
- Gearbox: 5 forward speeds + reverse
- Operated electrically at 120V
- Mounted on a stand with wheels



SPECIFICATIONS

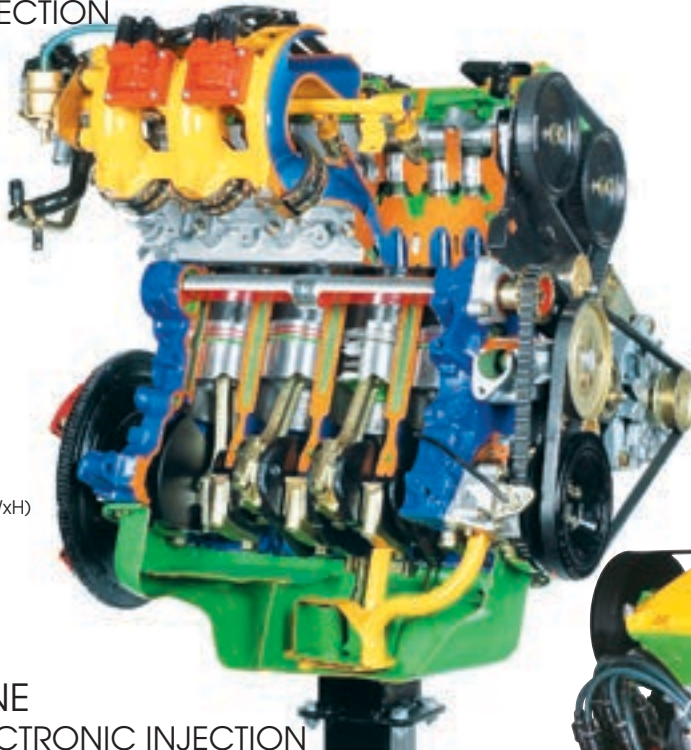
- Displacement: 1600/1800/2000 cu. cm
- Overhead Camshaft
- Distribution by a toothed belt
- 4 inline cylinders
- Gearbox: 5 forward speeds + reverse, with integrated differential

SPECIFICATIONS

- Inline-4 cylinders
- Displacement: 1250 cc
- Overhead camshaft
- Electronic ignition
- Multi-point electronic injection
- Gearbox with 5F + reverse + differential
- Operates electrically at 120V
- Mounted on a stand with wheels

4-CYLINDER FIAT ENGINE, MULTI-POINT ELECTRONIC INJECTION

N98-ND4800



WEIGHT & DIMENSIONS

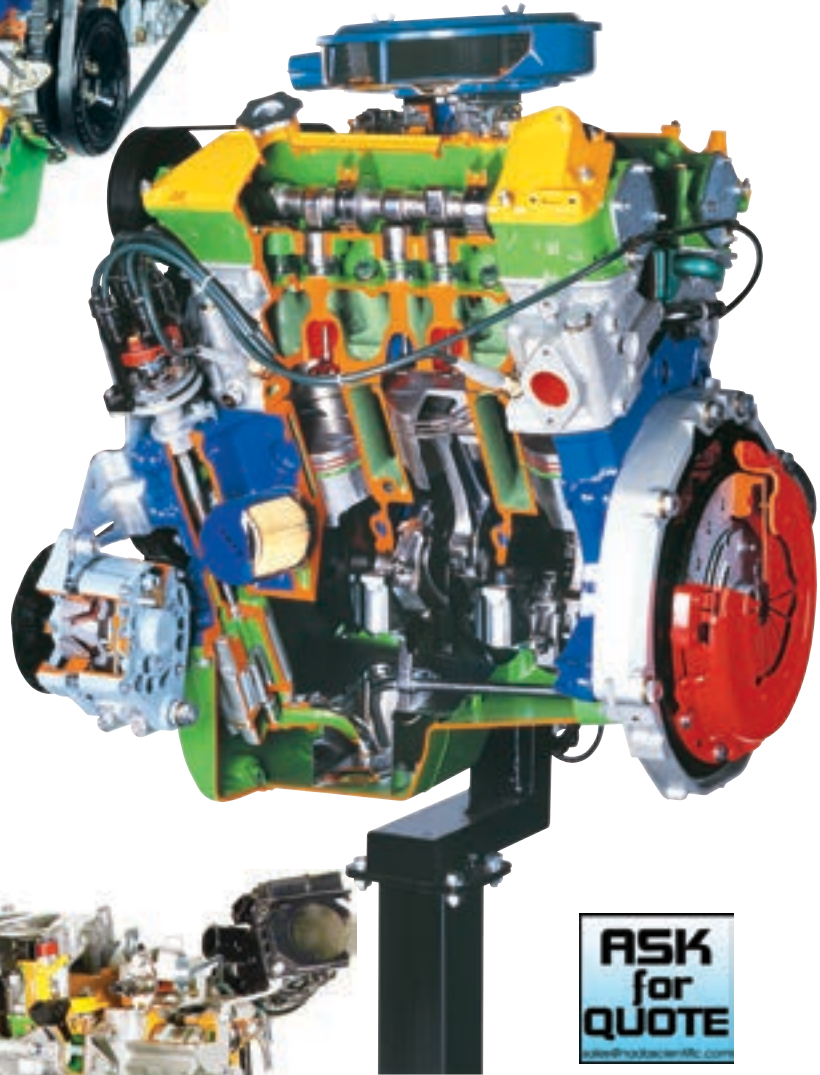
90cm x 120cm x 125cm (LxWxH)

Net Weight: 160 kg

Gross Weight: 210 kg

V6 GAS ENGINE MULTI-POINT ELECTRONIC INJECTION

N98-ND5195



SPECIFICATIONS

- 6V cylinders
- Displacement: 2000-3000 cc
- Double Overhead Camshaft
- Centrifugal water pump
- 12V alternator
- Operated electrically at 120V
- Mounted on a stand with wheels

WEIGHT & DIMENSIONS

120cm x 60cm x 100cm (LxWxH)

Net Weight: 190 kg

Gross Weight: 260 kg

AUDI/VOLKSWAGEN GAS ENGINE WITH DIRECT INJECTION

N98-ND4600-F

MITSUBISHI GAS ENGINE WITH DIRECT INJECTION

N98-ND4600-G



WEIGHT & DIMENSIONS

90cm x 100cm x 125cm (LxWxH)

Net Weight: 150 kg

Gross Weight: 210 kg

SPECIFICATIONS

- Inline-4 cylinders
- 4 valves per cylinder
- Displacement: 2000 cu. cm
- Double overhead camshaft
- Ignition integrated control unit
- Vibration dampening balancing shafts
- 12 volt alternator
- Membrane clutch
- Mounted on stand with wheels
- Operated electrically at 110V



SPECIFICATIONS

- Inline-4 cylinders (4 strokes)
- Displacement: 1800-2200 cc
- Double overhead camshaft
- Multi-point electronic injection
- 4 valves per cylinder
- Water cooling
- 12 volt alternator
- Mounted on stand with wheels
- Operates electrically at 120 volts

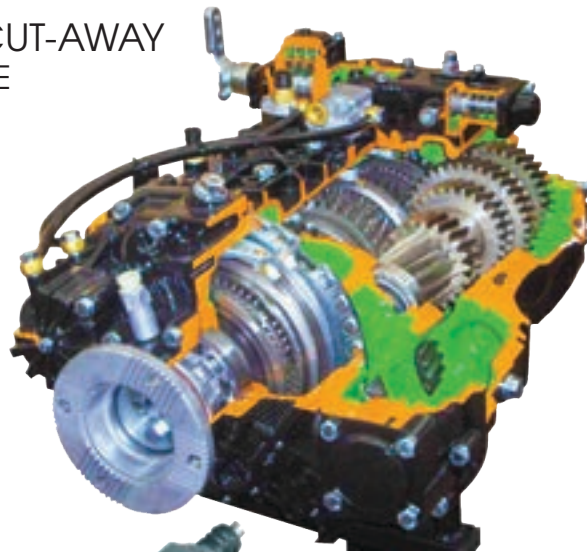
HEAVY-DUTY TRANSAXLE CUT-AWAY ECOSPLIT 16 SPEED + 2 REVERSE

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

110cm x 100cm x 130cm (LxWxH)
Net Weight: 300 kg
Gross Weight: 400 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



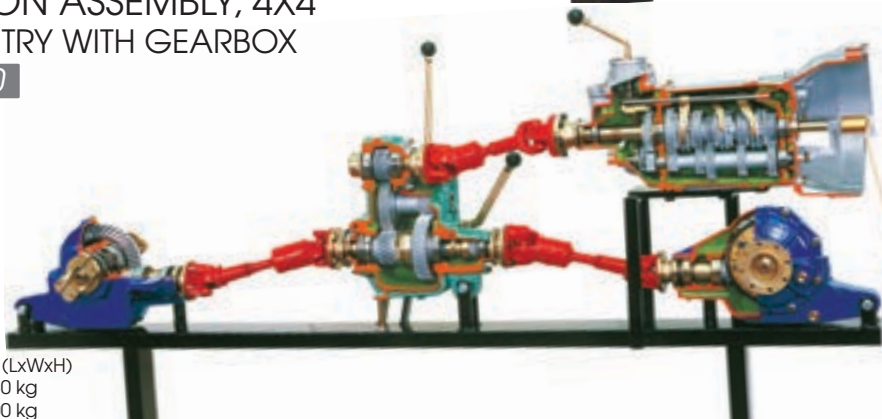
TRANSMISSION ASSEMBLY, 4X4 CROSS-COUNTRY WITH GEARBOX

N98-ND11300



WEIGHT & DIMENSIONS

75cm x 225cm x 105cm (LxWxH)
Net Weight: 230 kg
Gross Weight: 300 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 gears and 2 reverse speed gears, 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

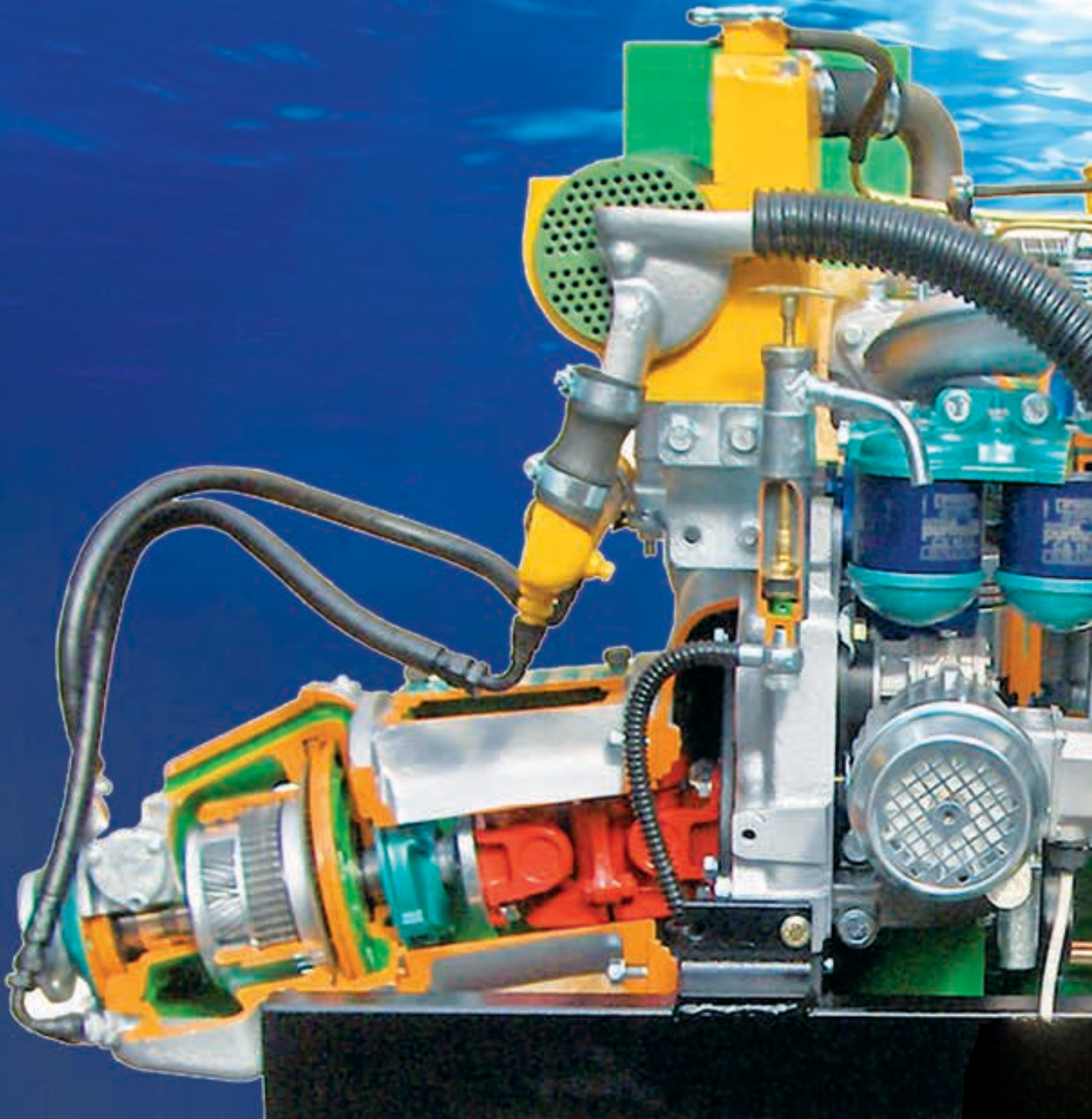
Transmission Assembly fitted to most 4x4 cross-country vehicles.

SPECIFICATIONS

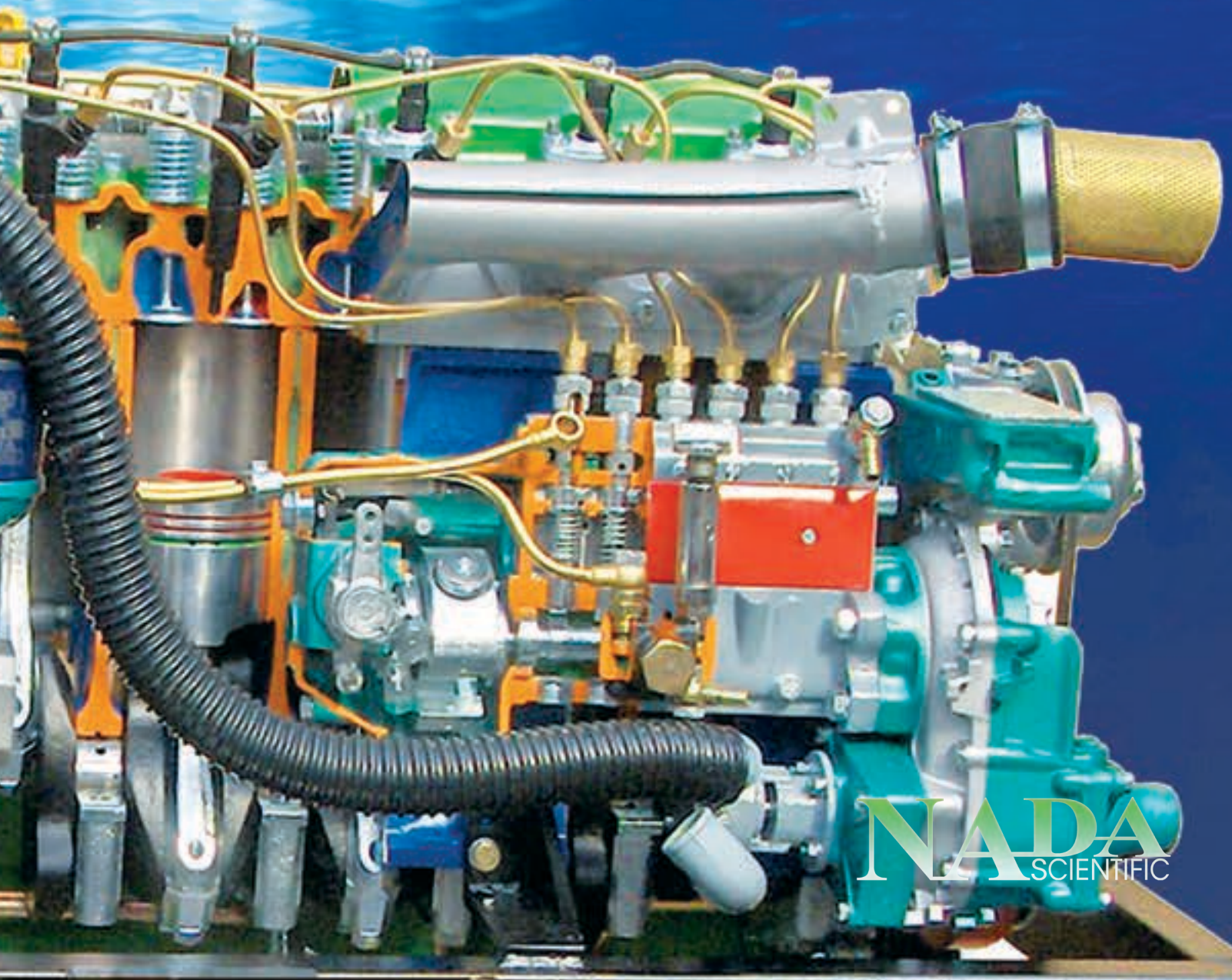
- Gearbox: 5 forward speeds + reverse
- 2 speed reduction gear
- Movement restorer with front-wheel drive manual control
- Drive shafts with universal joints
- Self-locking hypoid differentials
- Operates manually by hand crank

MARINE INBOARD DIESEL ENGINE

N98-ND7940



MARINE



NADA
SCIENTIFIC

HEAVY-DUTY TRUCK REAR AXLE WITH LOCKING DIFFERENTIAL

N98-ND11198



WEIGHT & DIMENSIONS

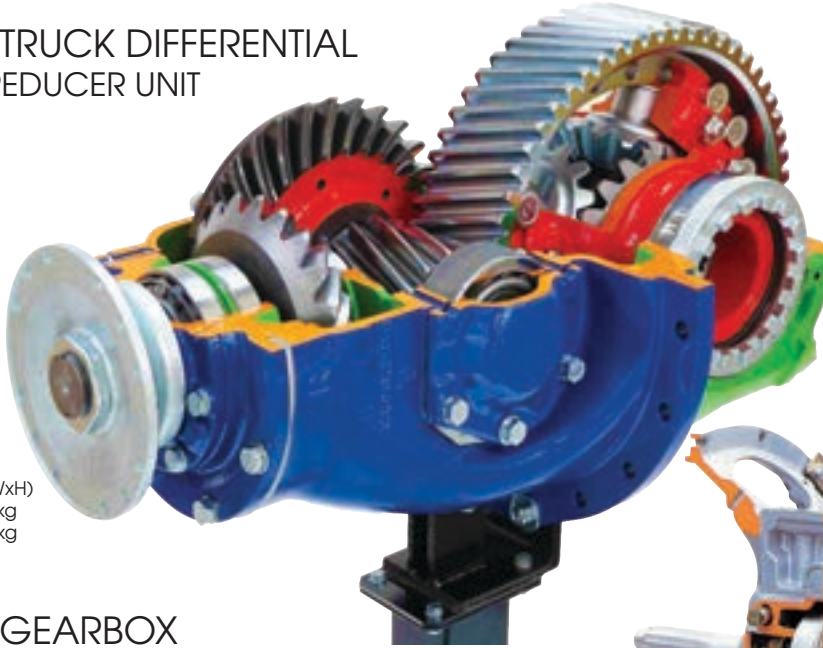
235cm x 95cm x 1050cm (LxWxH)
 Net Weight: 590 kg
 Gross Weight: 700 kg

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
- Mounted on stand with wheels
- Operates manually by hand crank

HEAVY-DUTY TRUCK DIFFERENTIAL WITH DOUBLE REDUCER UNIT

N98-ND11295



WEIGHT & DIMENSIONS

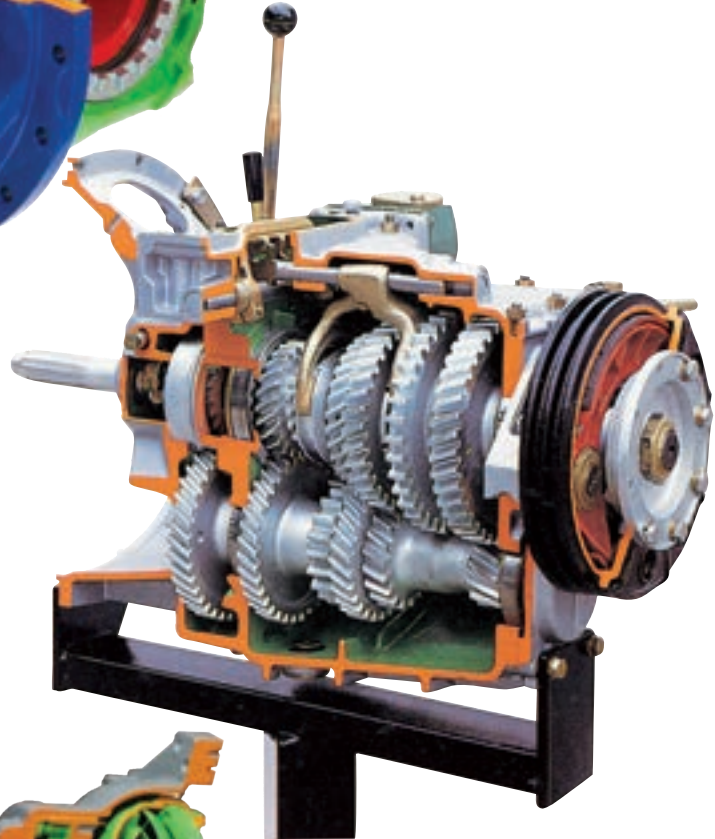
90cm x 70cm x 70cm (LxWxH)
 Net Weight: 185 kg
 Gross Weight: 230 kg

SPECIFICATIONS

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

HEAVY-DUTY GEARBOX WITH REDUCTION GEAR

N98-ND11080



WEIGHT & DIMENSIONS

80cm x 80cm x 140cm (LxWxH)
 Net Weight: 150 kg
 Gross Weight: 210 kg

SPECIFICATIONS

- Mounted on stand with wheels
- Operates manually by hand crank

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
- Mounted on stand with wheels
- Operates manually by hand crank



TRANSMISSION CUT-AWAY

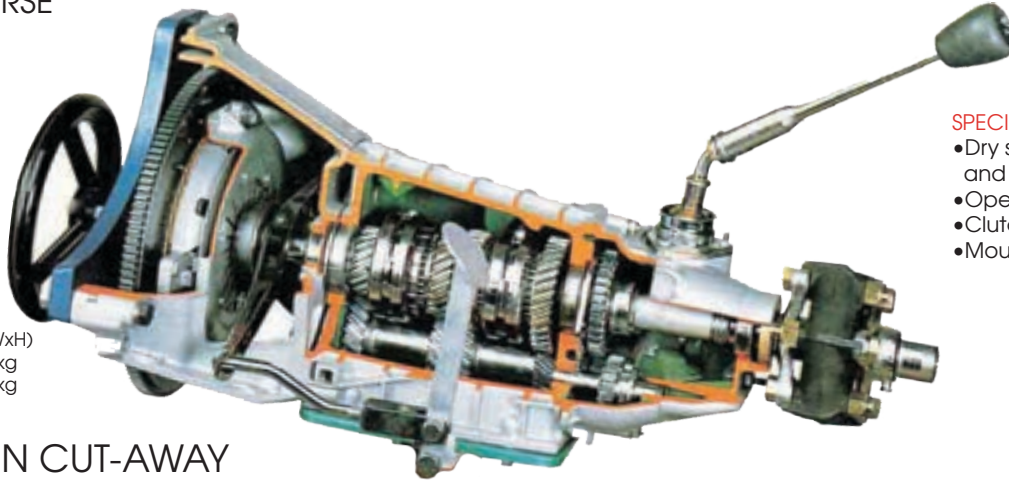
4 SPEED + REVERSE

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

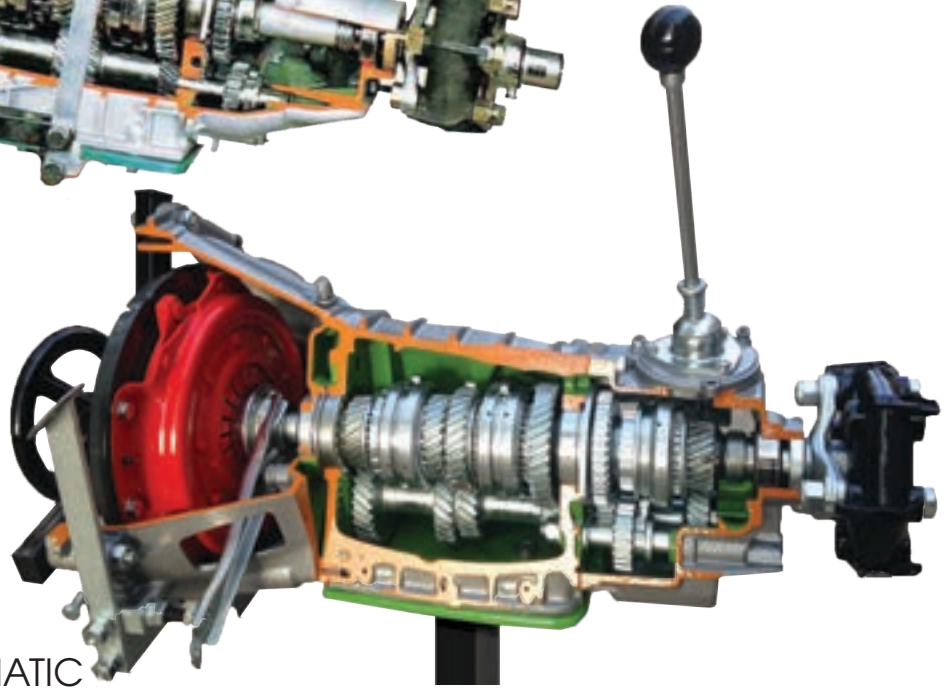


SPECIFICATIONS

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

WEIGHT & DIMENSIONS

95cm x 60cm x 50cm (LxWxH)
 Net Weight: 50 kg
 Gross Weight: 80 kg



TRANSMISSION CUT-AWAY, 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 CUT-AWAY, AUTOMATIC

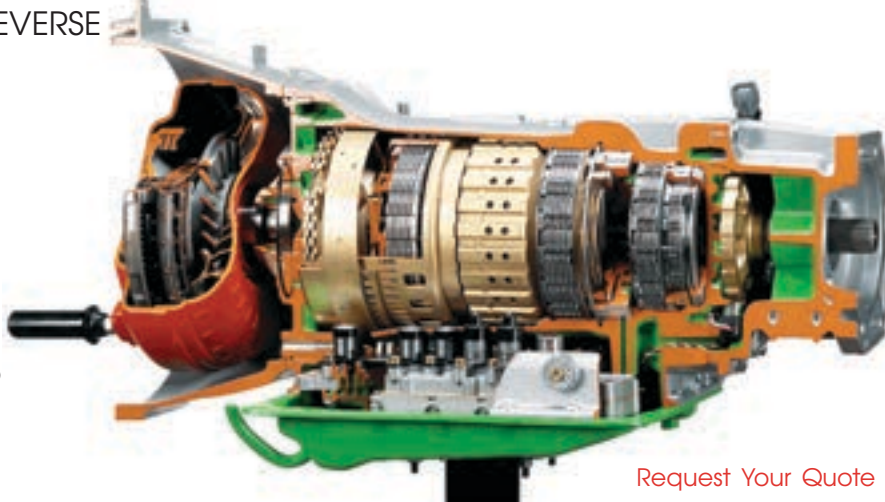
4WD, 5 SPEED + REVERSE

N98-ND11042



WEIGHT & DIMENSIONS

100cm x 65cm x 70cm (LxWxH)
 Net Weight: 75 kg
 Gross Weight: 100 kg

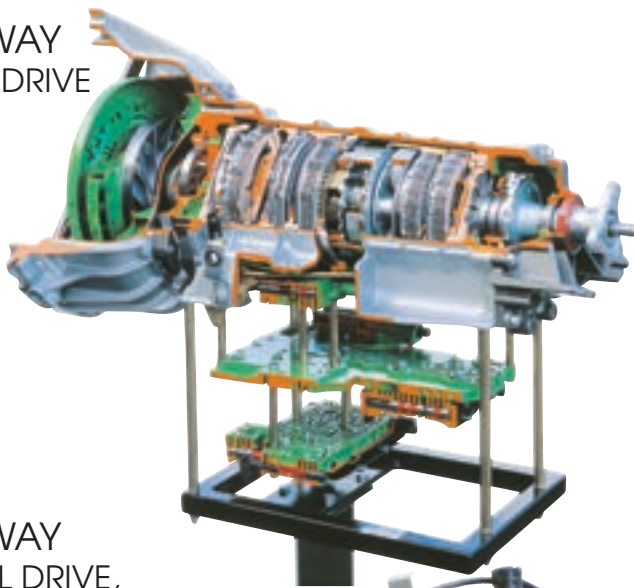


SPECIFICATIONS

- 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



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
- Mounted on stand with wheels
- Operates manually by hand crank

WEIGHT & DIMENSIONS

90cm x 60cm x 100cm (LxWxH)
Net Weight: 60 kg
Gross Weight: 85 kg

**TRANSMISSION CUT-AWAY
AUTOMATIC, FRONT-WHEEL DRIVE,
4 SPEED + REVERSE**

N98-ND11062



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.

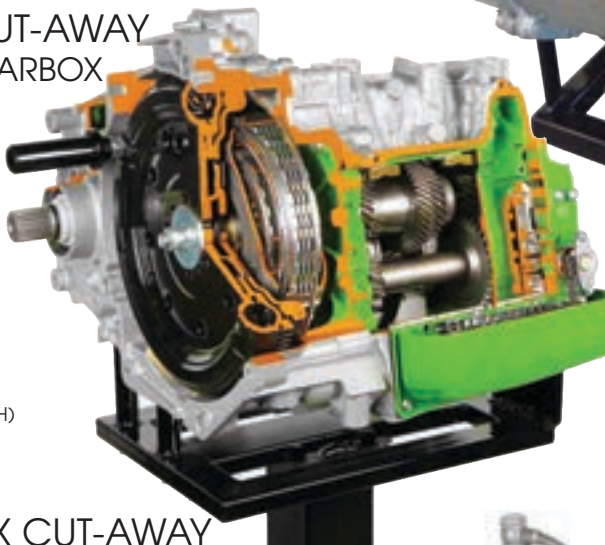


WEIGHT & DIMENSIONS

90cm x 60cm x 100cm (LxWxH)
Net Weight: 60 kg
Gross Weight: 85 kg

**TRANSAXLE CUT-AWAY
DIRECT-SHIFT GEARBOX**

N98-ND11064



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.

WEIGHT & DIMENSIONS

80cm x 40cm x 70cm (LxWxH)
Net Weight: 60 kg
Gross Weight: 85 kg

**CVT GEARBOX CUT-AWAY
CONTINUOUSLY VARIABLE TRANSMISSION**

N98-ND11068



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

SPECIFICATIONS

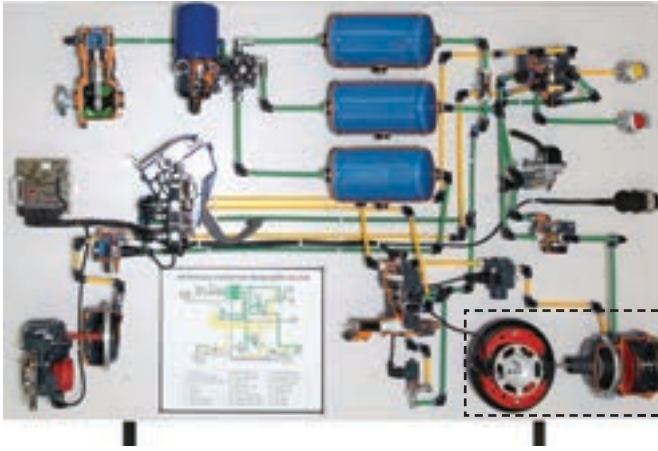
- Electromagnetic clutch
- Forward and reverse insertion lever
- Primary pulley
- Secondary pulley
- Roller belt
- Final reduction unit
- Hydraulic command unit
- Operates manually by hand crank

WEIGHT & DIMENSIONS

60cm x 50cm x 80cm (LxWxH)
Net Weight: 45 kg
Gross Weight: 75 kg

AIR BRAKING SYSTEM FOR TRUCKS WITH ABS/ASR

N98-ND12195

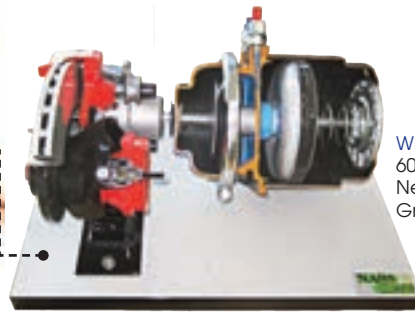


WEIGHT & DIMENSIONS
220cm x 36cm x 140cm
Net Weight: 125 kg
Gross Weight: 165 kg

BRAKING SYSTEM

DISC CALIPER & ROTOR CHAMBER

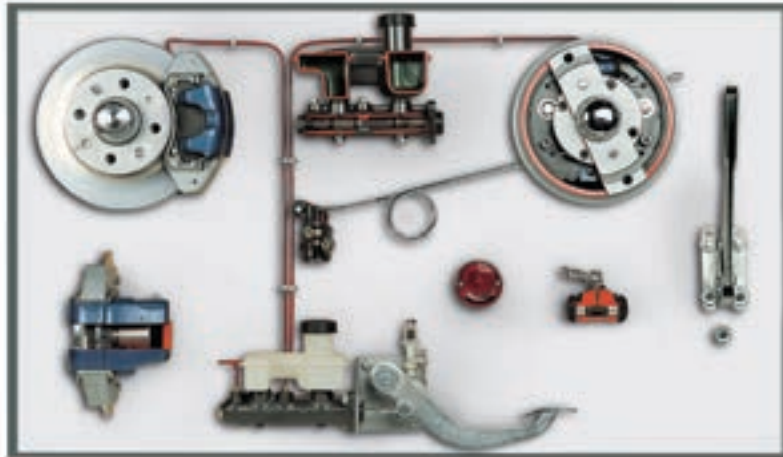
N98-ND12195-AB



WEIGHT & DIMENSIONS
60cm x 80cm x 60cm
Net Weight: 26 kg
Gross Weight: 34 kg

BRAKING SYSTEM PANEL, DOUBLE CIRCUIT

N98-ND12050



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

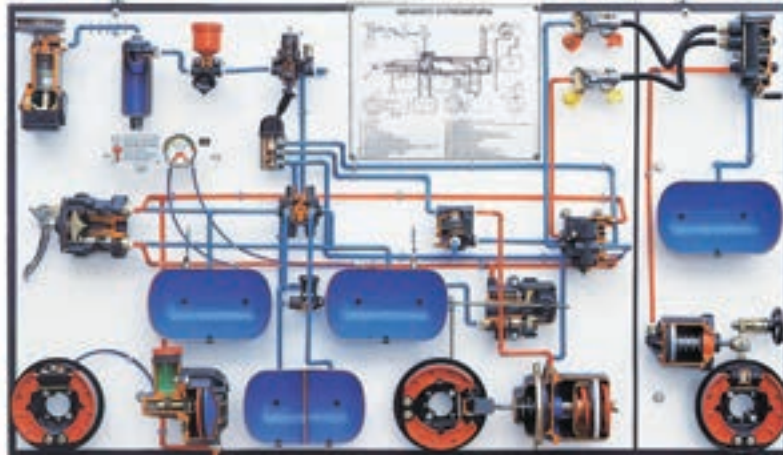
The double circuit brakes wall panel represents a complete double circuit braking system and features components that have been sectioned to provide a clear view of the system during operation. The system is operated by a hydraulic pump connected to the disk brake and the drum brake.

COMPRESSED AIR BRAKING SYSTEM PANEL WITH DOUBLE SPRING BRAKES

N98-ND12170



N98-ND12180

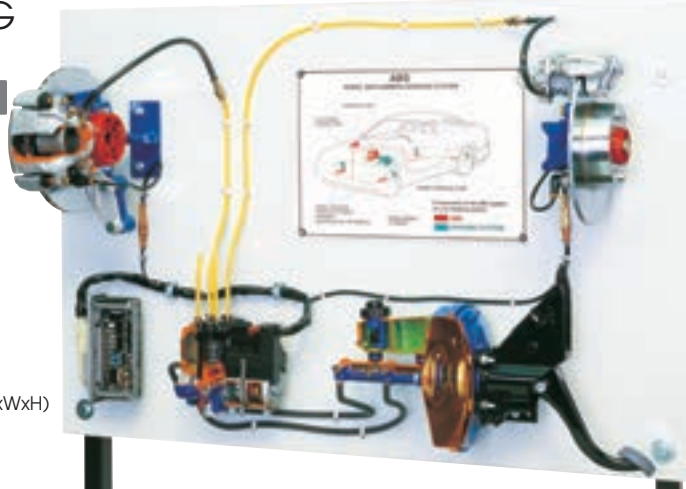


WEIGHT & DIMENSIONS
220cm x 36cm x 140cm (LxWxH)
Net Weight: 110 kg
Gross Weight: 150 kg

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 different 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

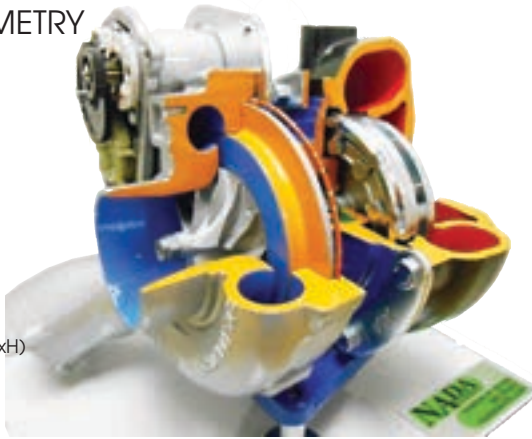
The ABS Brake System Panel is an educational model of a modern ABS braking system for automobiles. All brake parts are provided as detailed cut-away models and are connected together.

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

TURBOCHARGER CUT-AWAY VARIABLE GEOMETRY

N98-ND10441



WEIGHT & DIMENSIONS
50cm x 20cm x 35cm (LxWxH)
Net Weight: 7 kg
Gross Weight: 10 kg

SELF-VENTILATED BRAKE WITH 4 PISTONS

N98-ND12040



WEIGHT & DIMENSIONS
50cm x 25cm x 45cm (LxWxH)
Net Weight: 15 kg
Gross Weight: 20 kg

INJECTOR PUMP

N98-ND10110



WEIGHT & DIMENSIONS
40cm x 20cm x 10cm (LxWxH)
Net Weight: 3 kg
Gross Weight: 4 kg

SELF-LOCKING HYPOID DIFFERENTIAL

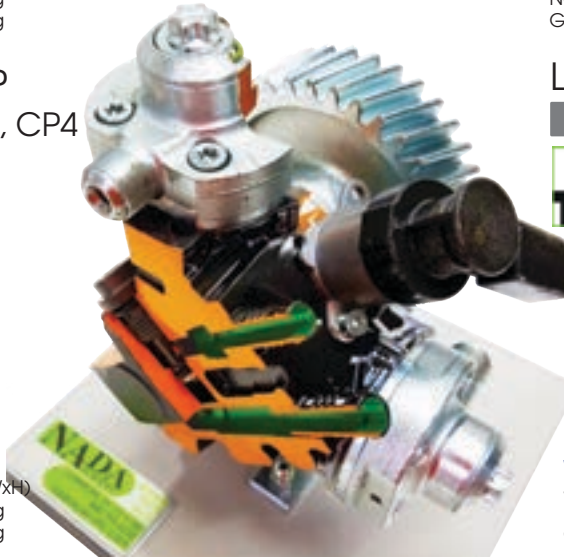
N98-ND11260



WEIGHT & DIMENSIONS
40cm x 30cm x 40cm (LxWxH)
Net Weight: 25 kg
Gross Weight: 30 kg

BOSCH PUMP HIGH PRESSURE, CP4

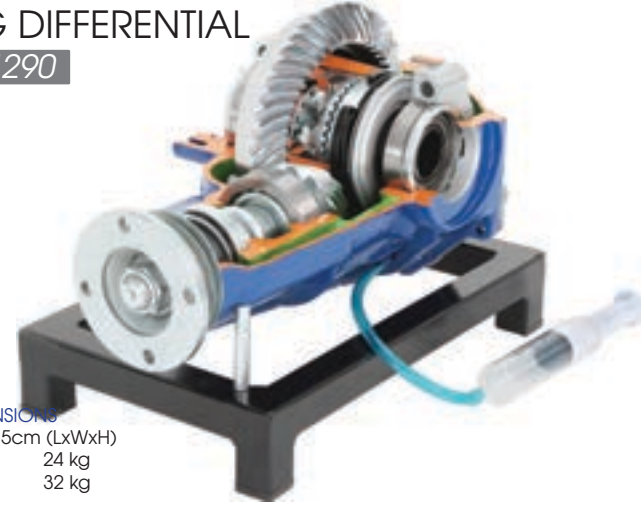
N98-ND10108



WEIGHT & DIMENSIONS
32cm x 26cm x 26cm (LxWxH)
Net Weight: 5 kg
Gross Weight: 6 kg

LOCKING DIFFERENTIAL

N98-ND11290



WEIGHT & DIMENSIONS
50cm x 35cm x 35cm (LxWxH)
Net Weight: 24 kg
Gross Weight: 32 kg

GAS ENGINE MODEL 4-STROKE

N98-ND7460



WEIGHT & DIMENSIONS
40cm x 40cm x 70cm (LxWxH)
Net Weight: 10 kg
Gross Weight: 14 kg

DIFFERENTIAL WITH ELECTRO-HYDRAULIC JOINT, HOLDEX TYPE

N98-ND11291



WEIGHT & DIMENSIONS
40cm x 30cm x 40cm (LxWxH)
Net Weight: 25 kg
Gross Weight: 30 kg

GAS ENGINE MODEL, MULTIPOINT FUEL INJECTION

N98-ND7490



WEIGHT & DIMENSIONS

50cm x 45cm x 80cm (LxWxH)
Net Weight: 21 kg
Gross Weight: 40 kg

PLANETARY GEAR DEMONSTRATOR

N98-OSK16935

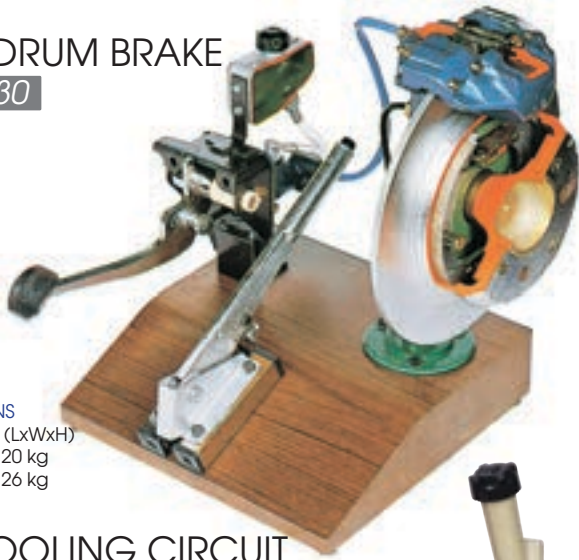


WEIGHT & DIMENSIONS

13cm x 13cm x 1cm (LxWxH)
Net Weight: 120 g (One Unit)
Gross Weight: 2 kg (10/Pack)

DISK AND DRUM BRAKE

N98-ND12030

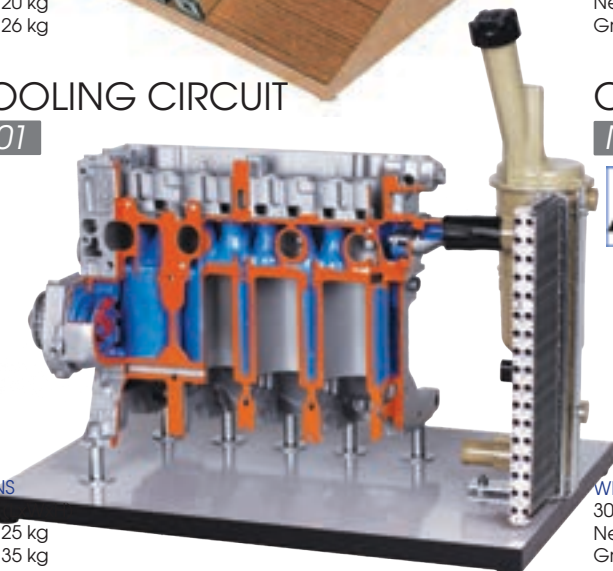


WEIGHT & DIMENSIONS

40cm x 35cm x 40cm (LxWxH)
Net Weight: 20 kg
Gross Weight: 26 kg

ENGINE COOLING CIRCUIT

N98-ND10401



WEIGHT & DIMENSIONS

50cm x 70cm x 74cm
Net Weight: 25 kg
Gross Weight: 35 kg

ELECTRONIC INJECTION FEEDING CIRCUIT

N98-ND10355



WEIGHT & DIMENSIONS

40cm x 60cm x 40cm (LxWxH)
Net Weight: 8 kg
Gross Weight: 16 kg

PLANETARY GEAR 3D

N98-OSK-16924

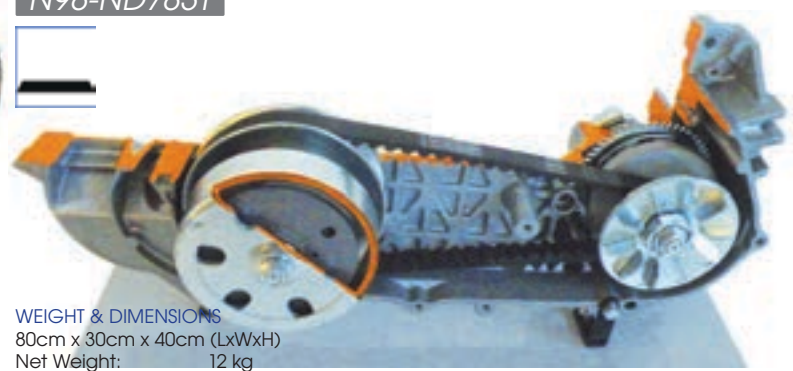


WEIGHT & DIMENSIONS

140cm x 120cm x 160cm (LxWxH)
Net Weight: 750 g
Gross Weight: 1000 g

CVT TRANSMISSION MODEL

N98-ND7831



WEIGHT & DIMENSIONS

80cm x 30cm x 40cm (LxWxH)
Net Weight: 12 kg
Gross Weight: 18 kg

CROWN AND PINION DIFFERENTIAL

N98-ND9806

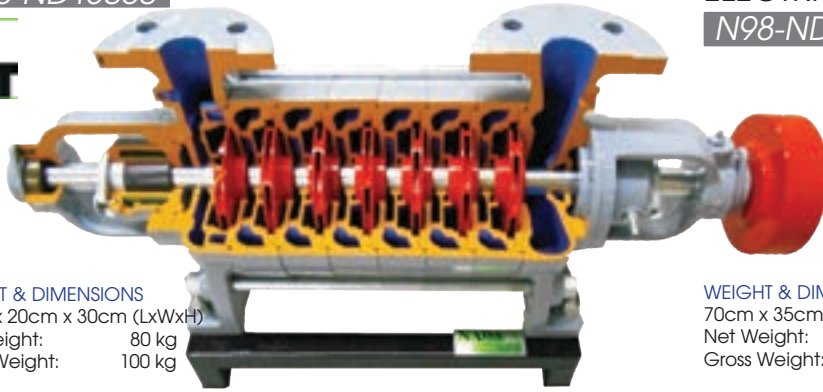


WEIGHT & DIMENSIONS

30cm x 40cm x 26cm (LxWxH)
Net Weight: 8 kg
Gross Weight: 10 kg

MULTISTAGE CENTRIFUGAL PUMP

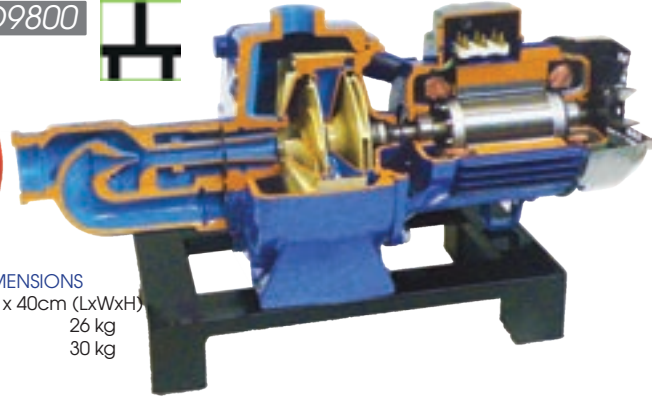
N98-ND13050



WEIGHT & DIMENSIONS
62cm x 20cm x 30cm (LxWxH)
Net Weight: 80 kg
Gross Weight: 100 kg

JET PUMP ELECTRIC SELF-PRIMING

N98-ND9800

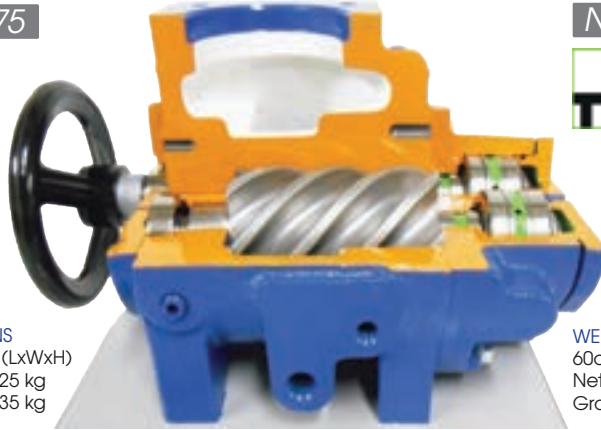


WEIGHT & DIMENSIONS
70cm x 35cm x 40cm (LxWxH)
Net Weight: 26 kg
Gross Weight: 30 kg

HYDRAULICS

SCREW COMPRESSOR

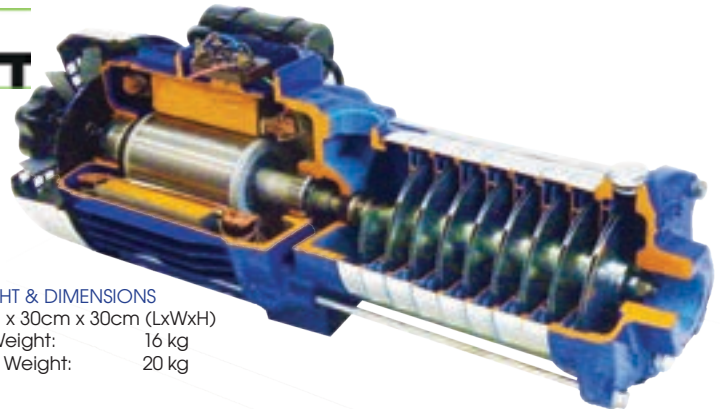
N98-ND13075



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

MULTISTAGE ELECTRO-PUMP

N98-ND9808



WEIGHT & DIMENSIONS
60cm x 30cm x 30cm (LxWxH)
Net Weight: 16 kg
Gross Weight: 20 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

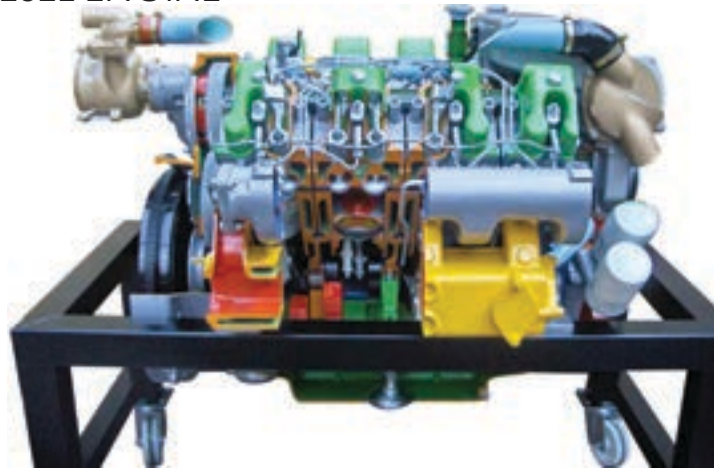
MARINE INBOARD V8 DIESEL ENGINE WITH TURBO INTERCOOLER

N98-ND7950HI



WEIGHT & DIMENSIONS

#120cm x 185cm x 150cm (LxWxH)
Net Weight: 1260 kg
Gross Weight: 1650 kg



SPECIFICATIONS

- 4-Stroke diesel engine, V8
- Direct Injection
- Aspiration: Turbocharged Interrefrigerated
- Bore x stroke: 130mm x 140mm
- Total displacement: 14,858cm³
- Freshwater engine cooling system with seawater heat exchanger
- Freshwater cooled exhaust manifold
- Bronze seawater circulating pump
- Centrifugal pump for freshwater circulation

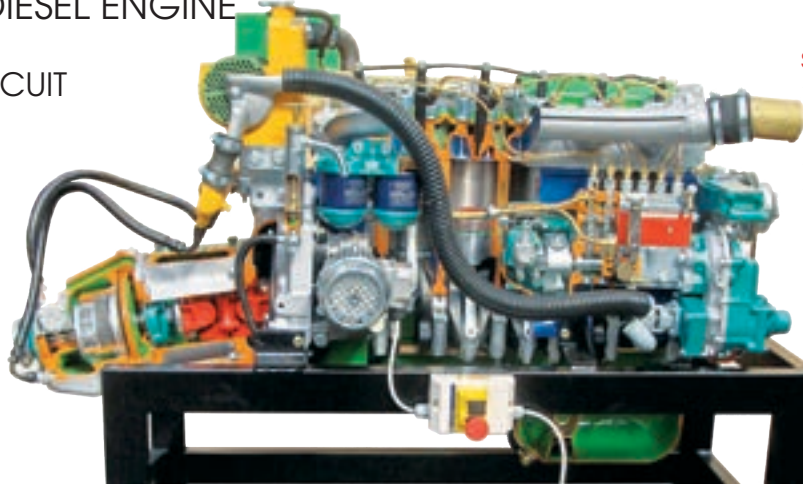
MARINE INBOARD DIESEL ENGINE 6-CYLINDER WITH CLOSED COOLING CIRCUIT

N98-ND7940



WEIGHT & DIMENSIONS

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



SPECIFICATIONS

- In-line-6 diesel engine
- Accessories and closed cooling circuit included
- Operates electrically at 120 volts
- Mounted on stand with wheels



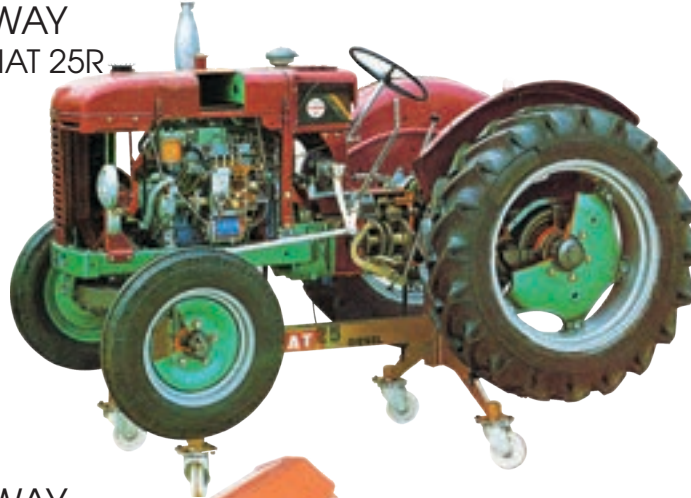
FARM TRACTOR CUT-AWAY 4-STROKE DIESEL ENGINE, FIAT 25R

N98-ND8200



WEIGHT & DIMENSIONS

220cm x 172cm x 180cm (LxWxH)
Net Weight: 950 kg
Gross Weight: 1,150 kg



AGRICULTURE

SPECIFICATIONS

- 4-Stroke, 4-Cylinder diesel engine
- Displacement: 2,000cc
- Indirect injection
- Water cooled
- Overhead valves
- In-line injection pump
- Globe shaped steering box
- Gearbox: 4 forward speeds + reverse
- Operates electrically at 120 volts
- Mounted on stand with wheels

FARM TRACTOR CUT-AWAY 4-STROKE DIESEL ENGINE, KUBOTA

N98-ND8000



WEIGHT & DIMENSIONS

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

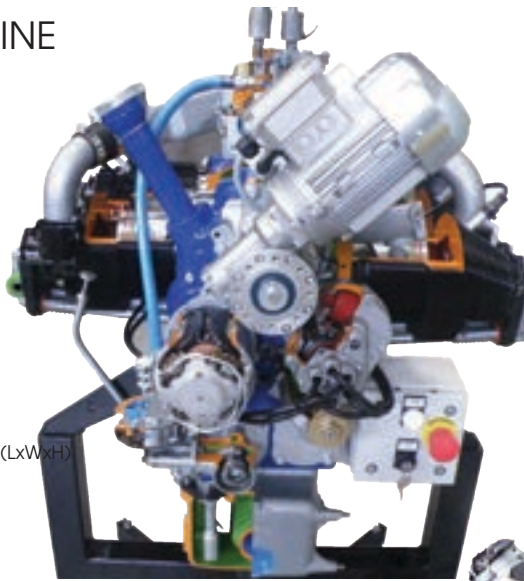


SPECIFICATIONS

- 4-Stroke diesel engine
- Water cooled
- Lubrication of trochoidal pump
- In-line 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
- Operates electrically at 120 volts
- Mounted on stand with wheels

AIRCRAFT ENGINE CONTINENTAL

N98-ND9260-C6



WEIGHT & DIMENSIONS

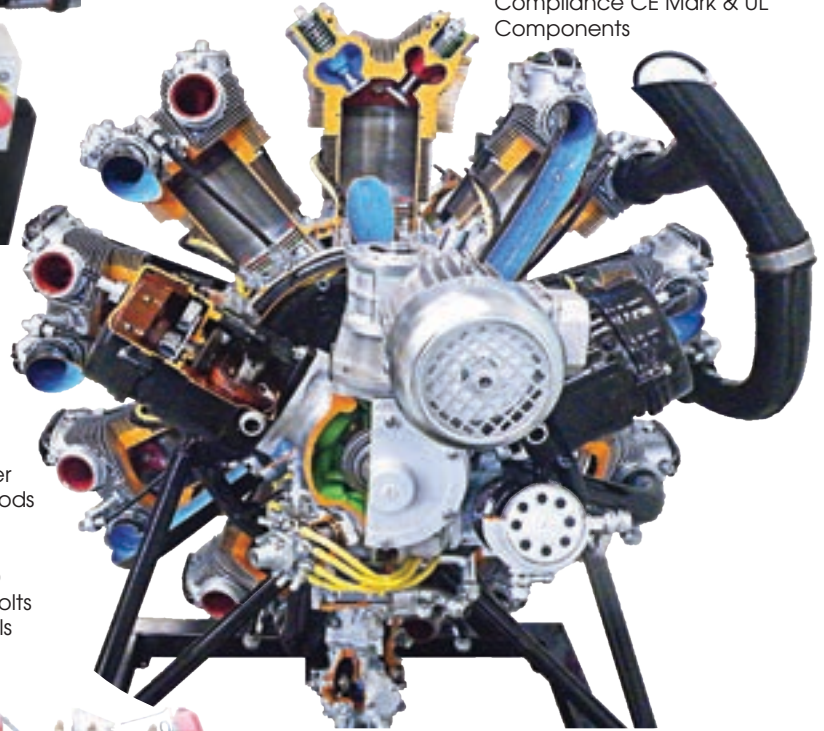
Size: 140cm x 110cm x 150cm (LxWxH)

Net Weight: 190 kg

Gross Weight: 280 kg

AIRCRAFT ENGINE, RADIAL

N98-ND9280



SPECIFICATIONS

- Drive shaft with integral master rod and moving connection rods
- Air cooling system
- Double ignition (2 spark plugs per cylinder and 2 magnetos)
- Operates electrically at 120 Volts
- Mounted on stand with wheels

WEIGHT & DIMENSIONS

150cm x 140cm x 180cm (LxWxH)

Net Weight: 700 kg

Gross Weight: 850 kg

TURBO DIESEL TRUCK ENGINE V8, DIRECT FUEL INJECTION

N98-ND6084



WEIGHT & DIMENSIONS

120cm x 185cm x 150cm (LxWxH)

Net Weight: 1100 kg

Gross Weight: 1400 kg

AERONAUTICS

SPECIFICATIONS

- Continental Flat-6 aircraft engine
- Air cooled system
- Gear distribution with camshaft in the crankcase
- Ignition with magneto
- Single barrel carburetor
- Mounted on stand with wheels
- Electrical Operation 120V with Compliance CE Mark & UL Components



Also available: Lycoming Flat-6 and Franklin

INDUSTRIAL

SPECIFICATIONS

- 4-Stroke engine; V8
- Displacement: 17,200cc
- Power: 380 hp
- Direct injection
- Bosch type in-line injection pump with mechanical governor
- Water/oil Intercooler
- 4 valves per cylinder
- Camshaft in the crankcase
- 2 Turbochargers
- Geared distribution
- Operates electrically at 120 volts
- Mounted on stand with wheels

CUSTOM-BUILT

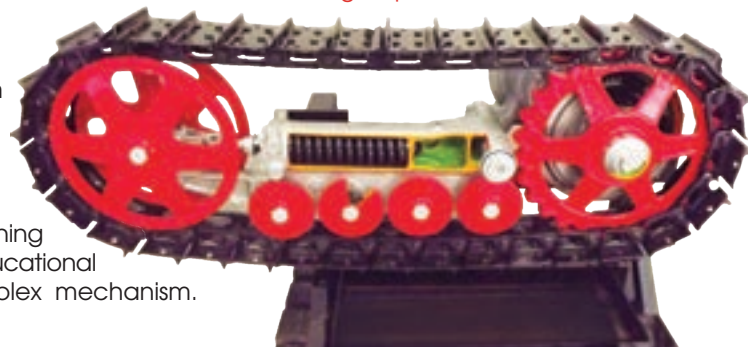
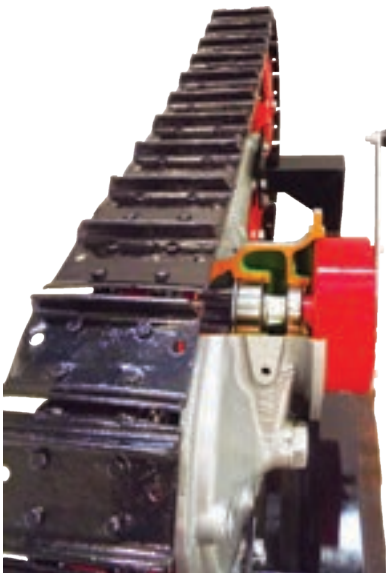
Produce a dynamic industrial technical training aid containing a specific modern mechanism.

TRACK SYSTEM TRAINER

Industry: Government – U.S. Military
Issue: Need for a mobile and dynamic technical system not found in the industry.

Solution: Design the entire system according to the specific requirements of the client.

Outcome: Produced a functional training unit that addressed an educational need for teaching a complex mechanism.





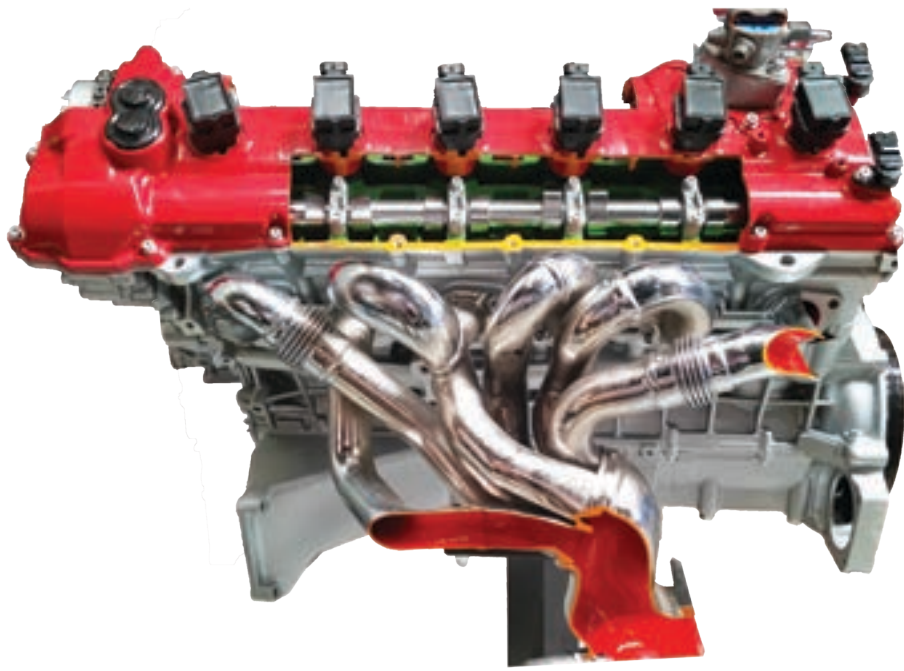
CUSTOM-BUILT PROJECTS

Although we have a strong and diverse line of technical products, we pride ourselves on having the ability to provide our technical, industrial, and government clients with customized solutions. We have the capability and experience to build and modify products according to your specifications. We also build trainers from OEM components supplied by the client.



Industry: Private Company (Fortune 500)
Issue: Need for an electrically powered cut-away of a sports car with colorful exposed internal parts.
Solution: Sourced a Ferrari engine and completed a similar design of our advanced technical engines.
Outcome: Produced a fantastic product that exceeded customer expectations.

FERRARI ENGINE



Contact our technical representative at:
sales@nadascientific.com or **1-800-799-6232**
to review, discuss, and evaluate your specific need.

