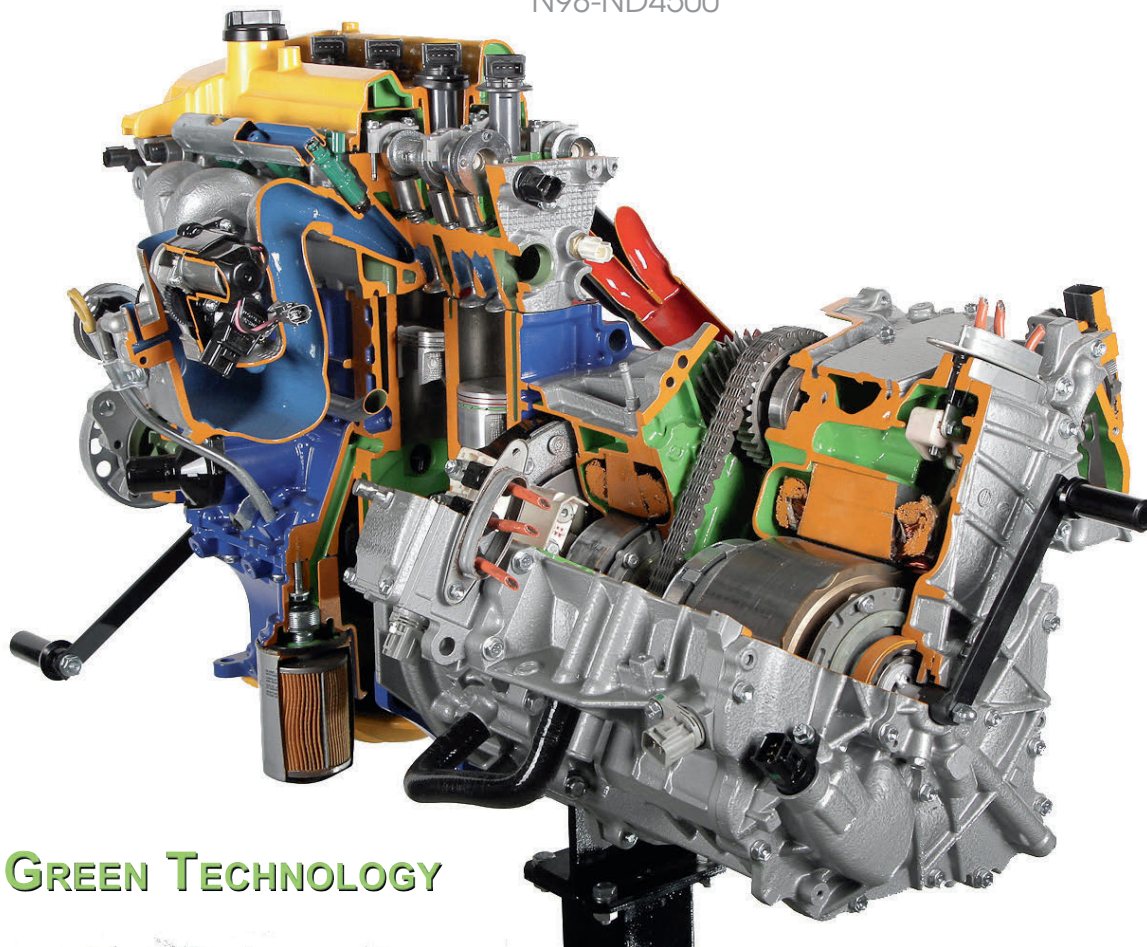


TOYOTA HYBRID CUT-AWAY TRAINER MANUAL OPERATION

N98-ND4500



The Toyota Hybrid System (THS) has two sources of power: the gas engine and the electric motor. The THS recovers energy otherwise lost as heat in the brakes and uses the recovered energy to supplement the power of its fuel-burning engine. MG1 (motor generator 1) generates electrical power and starts the engine. MG2 (motor generator 2) drives the vehicle. During deceleration the wheels drive MG2, which acts as a generator for regenerative power recovery. The hybrid system uses different modes to achieve the most efficient operation in response to driving conditions.

The Toyota Hybrid Cut-Away Trainer is operated manually by two crank handles in order to simulate the different cycles. One crank handle is located on the thermal engine and the other is located on the electric engine. The cut-away model engine has been carefully sectioned for training purposes and professionally painted with different colors to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system, and other key components.

SPECIFICATIONS

- Driveshaft with bushes
- Nr 2 camshaft with timing shifter (VVT)
- 4 cylinders
- Displacement: 1500 cc
- DOHC (overhead camshaft)
- 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 (CTV)
- Gears
- Differential group
- Exhaust manifold with Lambda probe
- Mounted on stand with wheels
- Operated manually by hand crank

WEIGHT & DIMENSIONS

104cm x 80cm x 130cm (L x W x H)
 Net Weight: 180 kg
 Gross Weight: 250 kg

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