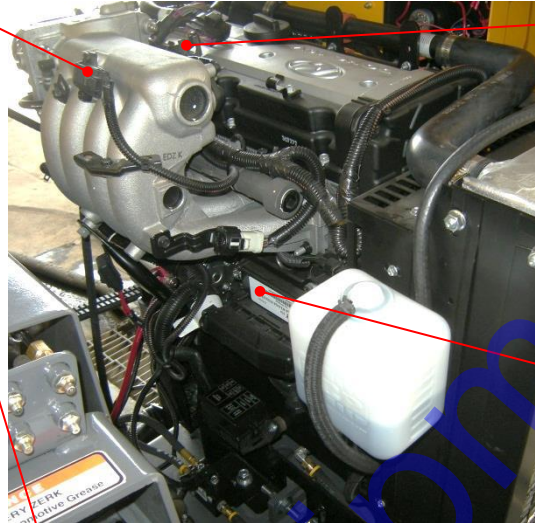


## ENGINE COMPONENTS LOCATION & GENERAL DESCRIPTION

Engine Model • Hyundai / Zenith Power Products 416 DOHC •



**Manifold Absolute Pressure & Intake Air Temperature Sensor (MAP & IAT Sensor)**  
Provides instant manifold pressure & temp information to the engine's ECU.



**Positive Crankcase Ventilation Valve (PCV Valve)**  
Only one part of the PCV system whereby crankcase gases return to the air intake.



**Top Dead Center/CAM Position Sensor (TDC/CMPS)**  
CAM & CRANK positions data to ECU together derive the current combustion cycle.



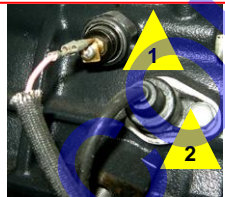
**Engine Control Unit (ECU)**  
Controls actuators via data from a series of sensors ensuring optimal eng. performance.



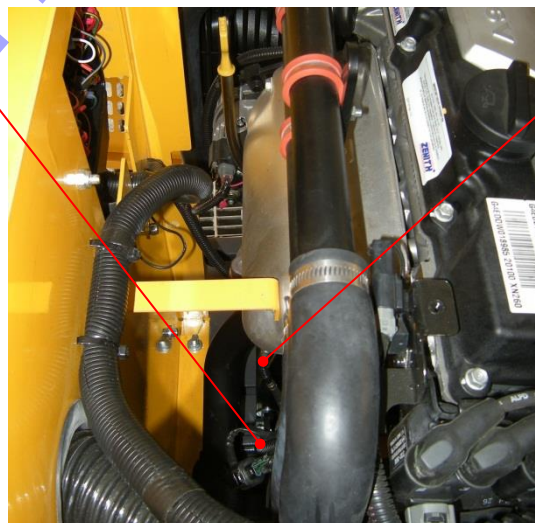
**Water Temperature Sensor (Water Temp Sensor)**  
The ECU adjusts various eng systems based on variable coolant temperature data.



**Throttle Position Sensor/Idle Speed Control Actuator (TPS/ISCA)**  
Electronic throttle control incorporates the TPS in a feedback loop enabling the control.



**[1]- (Oil Pressure Switch, N.C.)**  
Sends a ground signal to the ECU in a no oil pressure condition shutting eng off.  
**[2]- (CRANK Position Sensor)**  
CRANK & CAM positions data to ECU together derive the current combustion cycle.



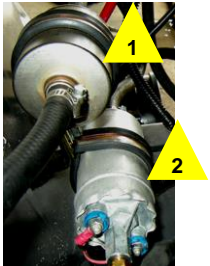
**Oxygen Sensor 1/pre-cat (HO2S Sensor 1)**  
Specifically used for controlling the air to fuel ratio of the engine.



Computer interface comm. port A connector.



(Main 25A Fuse/holder) Primary key switch power via emergency switch.



[1] Fuel Filter & [2] Fuel Pump) ECU controls the fuel pump via a fuel pump relay. Fuel pump pressure is 49.8 PSI.



(Knock Sensor) Senses engine vibrations caused by engine knock, ECU will adjust timing to compensate if needed.



Fuse Box & Relays



(Gasoline Fuel Rail Sensor) ECU monitors Temperature & Pressure via this sensor.



Oxygen Sensor 2/post-cat (HO2S Sensor 2) Specifically used for controlling the air to fuel ratio of the engine.