

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.



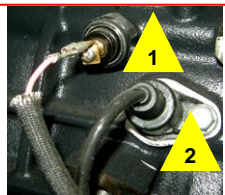
Engine Control Unit (ECU)
Controls actuators via data from a series of sensors ensuring optimal eng. performance.



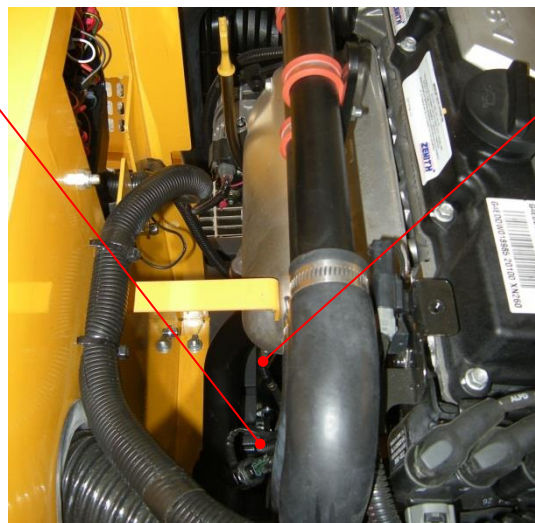
Water Temperature Sensor (Water Temp Sensor)
The ECU adjusts various eng systems based on variable coolant temperature data.



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.



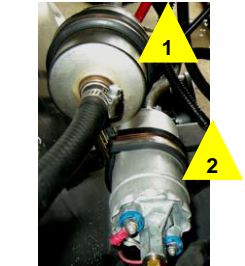
Oxygen Sensor 1/pre-cat (HO2S Sensor 1)
Specifically used for controlling the air to fuel ratio of the engine.



Computer interface comm. port A connector.



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



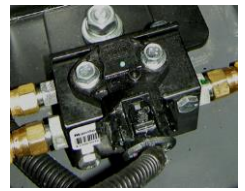
[1] Fuel Filter & [2] Fuel Pump)
ECU controls the fuel pump via a fuel pump relay. Fuel pump pressure is 49.8 PSI.



(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.