Error codes of excavators often appear in the process of use. Usually, when the excavator has problems, the display screen of the excavator will appear error code. Most excavator users are zero-based on error codes. Therefore, when encountering error codes, they will be confused or find a professional repairman to repair. Although you have to find a professional maintenance technician or repair factory to repair, they also need to spend a lot of time to detect the error code. If you have some knowledge of common error codes, you can immediately troubleshoot the excavator. In this way, you can save time and cost. So it is important for you to understand the meaning of these error codes. This paper will introduce several common error codes of Hitachi ZX240-3 excavator, Hitachi excavator-2, -3 series of error codes, etc.

11100-2 Abnormal engine speed

11400-2 Pump 2 Maximum Flow Limit Control Electromagnetic Valve Current Feedback Abnormality

11400-3 Pump 2 Maximum Flow Limit Control Electromagnetic Valve Feedback High Current Abnormality

11400-4 Pump 2 Maximum Flow Limit Control Electromagnetic Valve Feedback Low Current Abnormality

11401-2 Abnormal Current Feedback of Torque Control Solenoid Valve

11401-3 Torque Control Electromagnetic Valve Feedback High Current Abnormality

11401-4 Torque Control Electromagnetic Valve Feedback Low Current Abnormality

11402-2 Current Feedback Anomalies of Solenoid Valve Unit (SF) (Excavation and Regeneration)

11402-3 Feedback high current anomaly of solenoid valve unit (SF) (excavation and regeneration)

11402-4 Feedback low current anomaly of solenoid valve unit (SF) (excavation regeneration)

11403-2 Abnormal Current Feedback of Solenoid Valve Unit (SC) (Bucket Rod Regeneration)

11403-3 Feedback high current anomaly of solenoid valve unit (SC) (bucket rod regeneration)

11403-4 Feedback low current anomaly of solenoid valve unit (SC) (bucket rod regeneration)

11404-2 Abnormal Current Feedback of Solenoid Valve Unit (SG) (Overflow Pressure Control)

11404-3 High Current Abnormality Feedback by Solenoid Valve Unit (SG) (Overflow Pressure Control)

11404-4 Feedback low current anomaly of solenoid valve unit (SG) (overflow pressure control)

11405-2 Current Feedback Abnormality of Solenoid Valve Unit (SI) (Fast Selection of Walking Motor)

11405-3 High Current Abnormality Feedback by Solenoid Valve Unit (SI) (Fast Selection of Walking Motor)

11405-4 Solenoid Valve Unit (SI) (Fast Selection of Walking Motor) Feedback Low Current Abnormality

11410-2 Pump 1 Maximum Flow Limit Control Electromagnetic Valve (Optional) Current Feedback Abnormality

11410-3 Pump 1 Maximum Flow Limit Control Electromagnetic Valve (Optional) Feedback High Current Abnormality

11410-4 Pump 1 Maximum Flow Limit Control Electromagnetic Valve (Optional) Feedback Low Current Abnormality

11910-2 Actual Engine Speed Received from ECM

11918-2 Operating Mode Received by Self-monitor

11911-2 Security Signal Received from ECM

11920-2 Fuel flow received from ECM

11914-2 Coolant temperature of radiator received from ECM

11901-3 High Pressure of Hydraulic Oil Temperature Sensor

11901-4 Hydraulic Oil Temperature Sensor Low Pressure

11905-3 Abnormal high pressure (optional) of the bottom pressure sensor of the arm

11905-4 Low Voltage (Optional) Abnormality of Moving Arm Bottom Pressure Sensor

651-3 Nozzle #1 Driving System Open-circuit Injector 1 Monitor No Input Signal

652-3 Nozzle #2 Drive System Open-circuit Injector 2 Monitor No Input Signal

653-3 Nozzle #3 Driving System Open-circuit Injection 3 Monitor No Input Signal

654-3 Nozzle #4 Drive System Open-circuit Injector 4 Monitor No Input Signal

655-3 Nozzle #5 Drive System Open-circuit Injector 5 Monitor No Input Signal

656-3 Nozzle #6 Drive System Open-circuit Injector 6 Monitor No Input Signal

10002-2 EGR valve control abnormal valve target lifting position and actual lifting position difference more than 20%.

1347-0 The drive system of oil suction control valve is open, and the drive current of + B or grounded short circuit oil suction control valve is higher than 2400 mA or lower than 50 mA. Or the difference between the target current and the actual current is 1000 mA or more.

157-0 Abnormal pressure of common tank (first level) pressure of common tank is more than 185 MPa

157-0 Shared tank pressure anomaly (second level) level I "Shared tank pressure anomaly", and shared tank pressure more than 190 MPa 157-2 Shared tank pressure anomaly (pump overpressure). When the power of suction control valve is 40% or more, or when the target pressure of suction control valve is 90 mm3/sec or less, the actual tank pressure is 40 MPa (410 kg/cm2, 5820 psi) higher than the target tank pressure.

633-7 Pressure Limiter Open Pressure Limiter Open

1240-1 When the power of the suction control valve is 33% or less, or when the pressure of the suction control valve is 2800 mm3/sec or above and the speed is 1200 min-1, the actual tank pressure is 50 MPa (510 kg/cm2, 7270 psi) higher than the target tank pressure.

1239-1 Pressure-free delivery to pump (fuel leakage). When the pressure to suction control valve makes the speed 900 min-1, the actual tank pressure is 15 MPa (150 kg/cm2, 2180 psi) or less.

Hitachi ZX240-3 excavator several common fault code details

(1)Excavator 1 cylinder injector failure, fault display code 0001-11

A Main failure phenomena

a. Individual cylinders of diesel engines do not catch fire.

b. Low power of diesel engine.

B Causes of failure

a.1 Cylinder Injector Electromagnetic Coil Wire Break and Short Circuit.

b.1 Cylinder Injector Electromagnetic Coil Internal Circuit Break and Short Circuit.

C System response ECM records fault codes, which can be viewed on display module or ET. If the cause of the fault codes is short circuit or break of common lines, two cylinders will be affected because they are connected to the injector with the same wire.

(2) Fault Code 0002-11:2 Cylinder Injector Fault

A Main failure phenomena

a. Individual cylinders of diesel engines do not catch fire.

b. Low power of diesel engine.

B Causes of failure

a.2 Cylinder Injector Electromagnetic Coil Wire Break and Short Circuit.

b.2 Cylinder Injector Electromagnetic Coil Internal Circuit Break and Short Circuit.

C System response ECM records fault codes, which can be viewed on display module or ET. If the cause of the fault codes is a short circuit or a break in a common line, two cylinders will be affected because they are connected to the injector with the same conductor.

(3) Fault Code 0003-11:3 Cylinder Injector Fault

A Main failure phenomena

a. Individual cylinders of diesel engines do not catch fire.

b. Low power of diesel engine.

B Causes of failure

a.3 Cylinder Injector Electromagnetic Coil Wire Break and Short Circuit.

b.3 Cylinder Injector Electromagnetic Coil Internal Circuit Break and Short Circuit.

C System response ECM records fault codes, which can be viewed on display module or ET. If the cause of the fault codes is short circuit or break of common lines, two cylinders will be affected because they are connected to the injector with the same wire.

(4) Fault Code 0004-11:4 Cylinder Injector Fault

A Main failure phenomena

a. Individual cylinders of diesel engines do not catch fire.

b. Low power of diesel engine.

B Causes of failure

a.4 Cylinder Injector Electromagnetic Coil Wire Break and Short Circuit.

b.4 Cylinder Injector Electromagnetic Coil Internal Circuit Break and Short Circuit.

C System response ECM records fault codes, which can be viewed on display module or ET. If the cause of the fault codes is short circuit or break of common lines, two cylinders will be affected because they are connected to the injector with the same wire.

(5) Fault Code 0005-11:5 Cylinder Injector Fault

A Main failure phenomena

a. Individual cylinders of diesel engines do not catch fire.

b. Low power of diesel engine.

B Causes of failure

a.5 Cylinder Injector Electromagnetic Coil Wire Break and Short Circuit.

b.5 Cylinder Injector Electromagnetic Coil Internal Circuit Break and Short Circuit.

C System response ECM records fault codes, which can be viewed on display module or ET. If the cause of the fault codes is short circuit or break of common lines, two cylinders will be affected because they are connected to the injector with the same wire.

(6) Fault Code 0006-11:6 Cylinder Injector Fault

A Main failure phenomena

a. Individual cylinders of diesel engines do not catch fire.

b. Low power of diesel engine.

B Causes of failure

a.6 Cylinder Injector Electromagnetic Coil Wire Break and Short Circuit.

b.6 Cylinder Injector Electromagnetic Coil Internal Circuit Break and Short Circuit.

C System response ECM records fault codes, which can be viewed on display module or ET. If the cause of the fault codes is short circuit or break of common lines, two

cylinders will be affected because they are connected to the injector with the same wire.

(7) Fault code 0041-03:8V DC power supply and battery positive short circuit

A Main failure phenomena

a. If the voltage is lower than 8V, it will have a significant impact on the diesel engine, which will be limited to a low idle state.

B Causes of failure

a. ECM detected that ECM charged more than Is or ECM read-out signal voltage was higher than 8.45V persistent Is.

C The system response ECM will record the fault code and view the fault code on the display module or ET. ECM will mark all digital sensor data as invalid data, and all digital sensor data are set to default values.

(8) Barrier code 0041-04:8V DC power supply and ground short circuit

A Main failure phenomena

a. If the voltage is significantly lower than 8V, it will have a significant impact on the diesel engine. The diesel engine will be limited to a low idle state.

B Causes of failure

a. ECM detected that ECM charged more than Is or ECM read-out signal voltage was higher than 8.45V persistent Is

The system response ECM will record the fault code and view the fault code on the display module or ET. ECM will mark all digital sensor data as invalid data, and all digital sensor data are set to default values.