SEN06495-06

Shop Manual

ENGINE

125E -7 SERIES

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Status		Elapsed time (*1)	Machine monitor					Engine deration (*5)
			Message of SCR Information	Caution lamp (Action level)	Tone of audible alert	Failure code for abnormality (*2),(*3)	Failure code for Inducement strategy status (*4)	
1	Warning	5 hours	1: Please inspect and maintain SCR system.		Long intermittently	CA2271 CB2271	No indication	Torque: over 25%
2	Continuous Warning (Warning 2)	10 hours	2: Without treatment, engine power will be derated.		Triplet (*6) Short intermittently (*7)	CA2271 CB2271	AS00R2 (Warning 2 (SCR Device Abnormality))	Torque: over 25%
3	Low-Level Inducement (Inducement 1)	20 hours	3: Engine power is under deration.		Long intermittently	CA2271 CB2271	AS00R3 (Inducement 1 (SCR Device Abnormality))	Torque: over 25%
4	Severe Inducement (Inducement 2)	Until repairing	4: Engine power is under heavy deration.		Continuously	CA2271 CB2271	AS00R4 (Inducement 2 (SCR Device Abnormality))	Torque: over 50% and RPM: over 40%

*1: Elapsed time of each column describes an accumulated time advancing to the next inducement strategy from the time when Warning to the Inducement starts. Final Inducement is not cleared till abnormality is repaired.

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7B: Starting motor 8: Connector type

SPECIFICATIONS OF STARTER MOTOR BUILT IN SAFETY RELAY (11kW)

Type: Manufactured by NIKKO DENKI, water-resistant, oil-resistant

Specifications: 24 V, 11 kW

Number of teeth of pinion: 12

Weight: 18 kg

Connector type: A

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PC: Hydraulic excavator

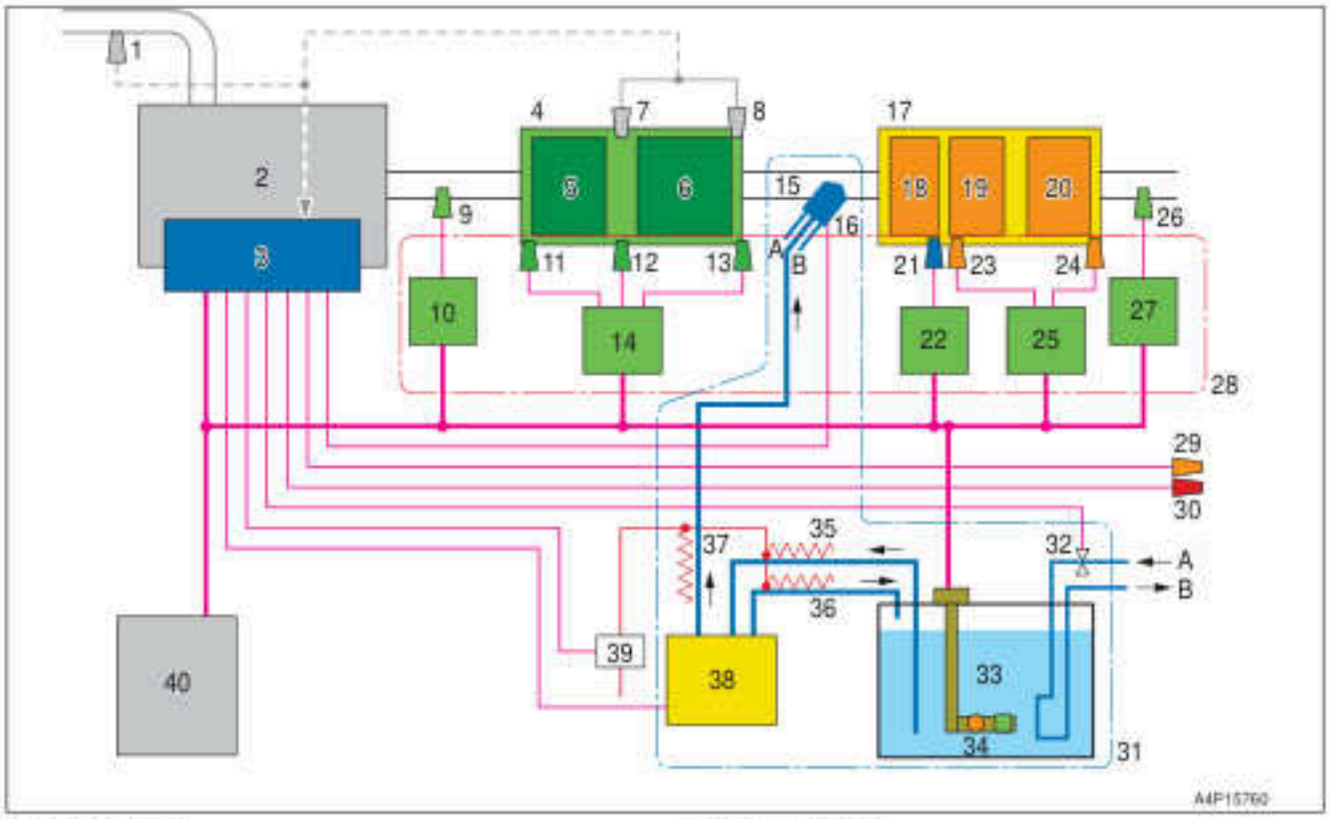
WA: Wheel loader

List of abbreviations used in the circuit diagrams

Abbreviation	Actual word spelled out
A/C	Air Conditioner
A/D	Analogue-to-Digital
A/M	Air Mix Damper
ACC	Accessory
ADD	Additional
AUX	Auxiliary
BR	Battery Relay
CW	Clockwise
CCW	Counter Clockwise
ECU	Electronic Control Unit
ECM	Electronic Control Module
ENG	Engine
EXGND	External Ground
F.G.	Frame Ground
GND	Ground
IMA	Inlet Metering Actuator
NC	No Connection
S/T	Steering
STRG	
SIG	Signal
SOL	Solenoid
STD	Standard
OPT	Option
OP	
PRESS	Pressure
SPEC	Specification
SW	Switch
TEMP	Temperature
T/C	Torque Converter
T/M	Transmission

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UREA SCR SYSTEM DIAGRAM



A: Coolant inlet
B: Coolant outlet
1: Mass air flow and temperature sensor
2: Engine
3: Engine controller
4: KDPF assembly
5: KDOC unit
6: KCSF unit
7: KDPF differential pressure sensor
8: KDPF outlet pressure sensor
9: Turbocharger outlet NOx sensor
10: Turbocharger outlet NOx sensor controller
11: KDOC inlet temperature sensor
12: KDOC outlet temperature sensor
13: KDPF outlet temperature sensor
14: KDPF temperature sensor controller
15: AdBlue/DEF mixing tube
16: AdBlue/DEF injector
17: SCR assembly
18: Upstream SCR catalyst
19: Downstream SCR catalyst
20: Ammonia oxidation catalyst
21: Ammonia sensor
22: Ammonia sensor controller
23: SCR temperature sensor
24: SCR outlet temperature sensor
25: SCR temperature sensor controller
26: SCR outlet NOx sensor
27: SCR outlet NOx sensor controller
28: Smart sensor
29: Ambient temperature sensor
30: Engine room temperature sensor (*1)
31: AdBlue/DEF system
32: AdBlue/DEF tank heating valve
33: AdBlue/DEF tank
34: AdBlue/DEF tank sensor
35: AdBlue/DEF suction line
36: AdBlue/DEF return line
37: AdBlue/DEF pressure line
38: AdBlue/DEF pump
39: AdBlue/DEF line heater relay
40: Machine monitor
*1: There are some machine models which are not equipped with it.

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EGR SYSTEM

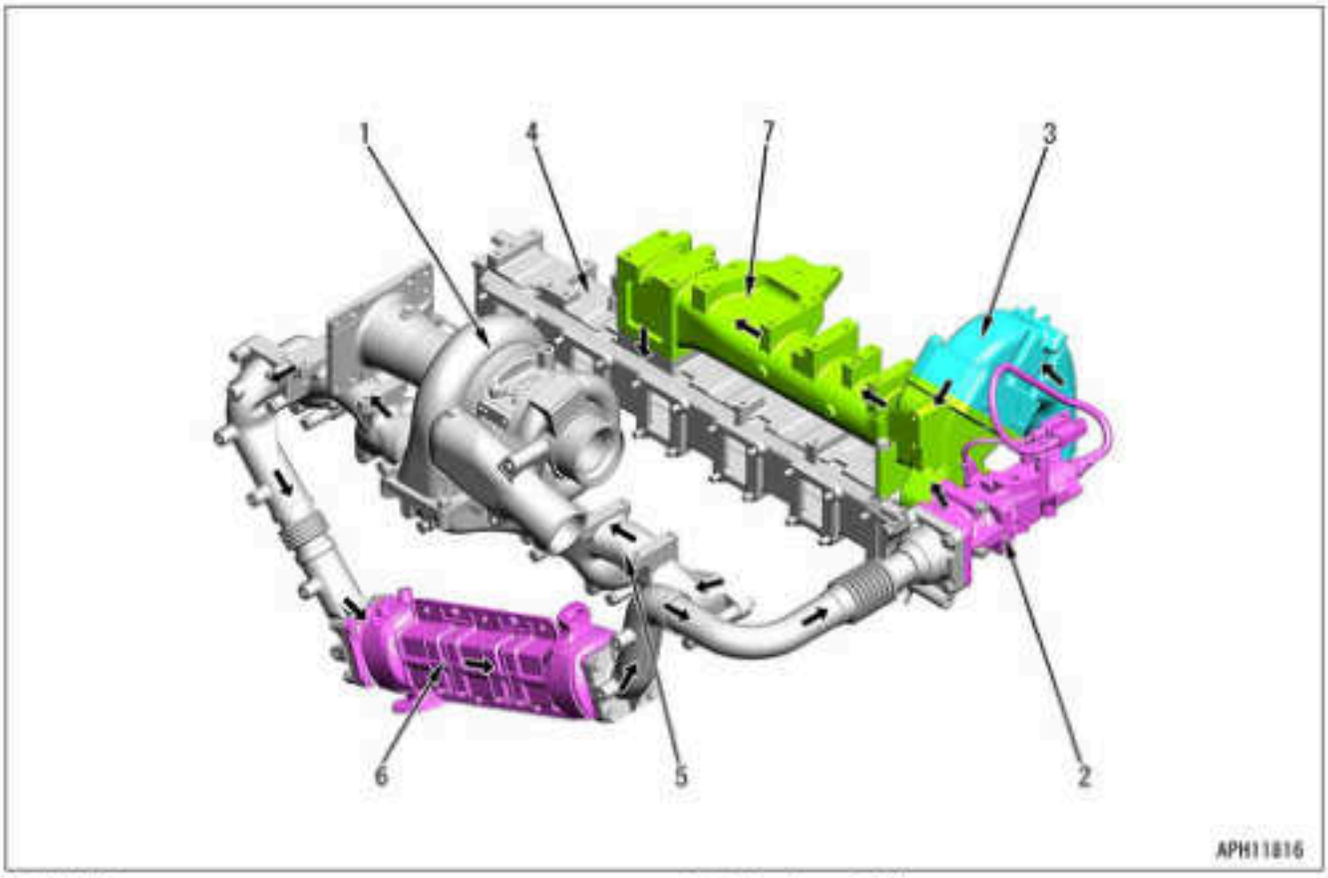
EGR

Abbreviation for Exhaust Gas Recirculation

LAYOUT DRAWING OF EGR SYSTEM

REMARK

The shape is subject to machine models.



1: KVGT
2: EGR valve
3: Intake connector
4: Intake manifold
5: Exhaust manifold
6: EGR cooler
7: Mixing connector

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