SEN06590-03

Shop Manual

ENGINE

95E -7 SERIES

KOMATSU®

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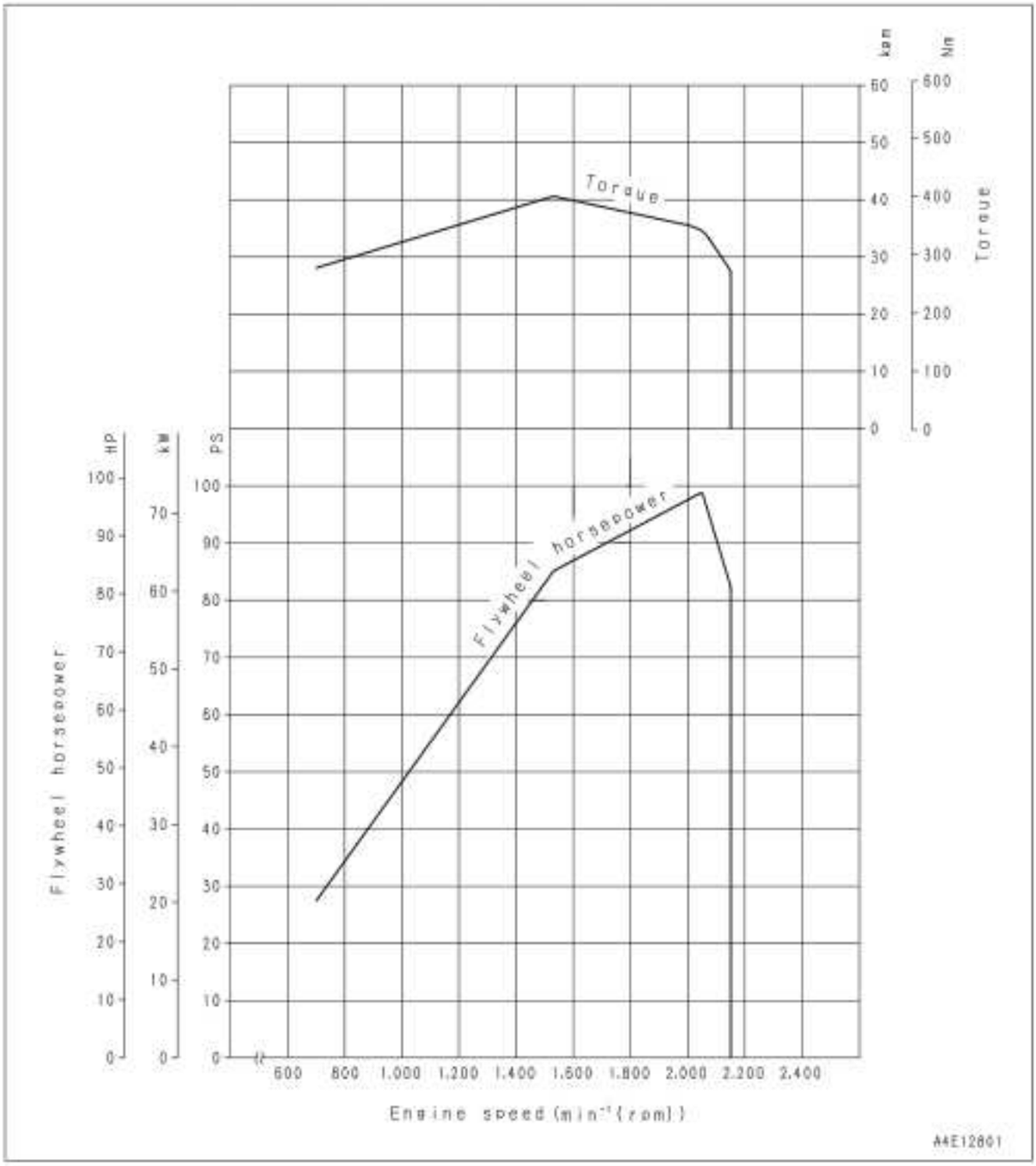
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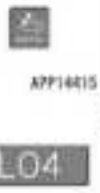
ENGINE PERFORMANCE CURVE: SAA4D95LE-7(PC138USLC-11)

Rated output:72.6±3.6 kW {97.3±4.9 HP} /2050 min^{-1} {2050 rpm} (Gross)

Max. torque: 406±20 Nm {41.4±2.1 kgm} /1530 min^{-1} {1530 rpm} (Gross)



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Status		Elapsed time (*1)	Machine monitor					Engine deration (*5)
			Message of SCR Information	AdBlue/DEF system caution lamp (Action level)	Tone of audible alert	Failure code for abnormality (*2),(*3)	Failure code for Inducement strategy status (*4)	
5	Final Inducement (Inducement 3)	Until repairing	5: Engine is running at low idle.		Continuously	CA3571 CB3571	AS00R5 (Inducement 3 (SCR Device Abnormality))	Engine speed is fixed to low idle

*1: Elapsed time of each stage describes an accumulated time advancing to the next stage after starting "Warning"stage. Final Inducement is not cleared till abnormality is repaired.

*2: These failure codes are displayed on "Current Abnormality" in the operator mode, or "Abnormality Record" in the service mode. The failure code shown here is an example of failure code which is displayed on the machine monitor when an abnormality occurs. For the failure codes, see TROUBLESHOOTING, "TROUBLESHOOTING POINTS FOR UREA SCR SYSTEM".

*3: The failure code which starts with CB may be displayed for the machine equipped with aftertreatment devices branching off to 2 lines.

*4: These failure codes are displayed on "Current Abnormality" in the operator mode, or "Abnormality Record" in the service mode.

*5: These percentages show a torque reduction ratio from the full torque curve, and a speed reduction ratio from the rated speed.

*6: Construction equipment with crawler

*7: Construction equipment with wheel

INDUCEMENT STRATEGY WHEN ABNORMALITY IS FOUND IN THE KDOC SYSTEM BY THE UREA SCR SYSTEM (FOR NORTH AMERICA)

- The Inducement strategy is different if Inducement is triggered by abnormalities in KDOC. Although the total steps are the same and 5, warning indications are different and engine power deration starts from that of "Mild Inducement (Over 25% torque reduction)". The following graph and table show how the Inducement caused by abnormalities in KDOC advances from "Warning" to "Final Inducement".
- The codes in the KDOC abnormality category are CA5391, CA5392, CA5393, CA5394, and CA5395.

Status		Elapsed time (*1)	Machine monitor					Engine deration (*4)
			Message of SCR Information	Caution lamp (Action level)	Tone of audible alert	Failure code for abnormality (*2)	Failure code for Inducement strategy status (*3)	
1	Warning	1 hour	1: Please inspect and maintain SCR system.		Long intermittently	CA5391	No indication	Torque: over 25%

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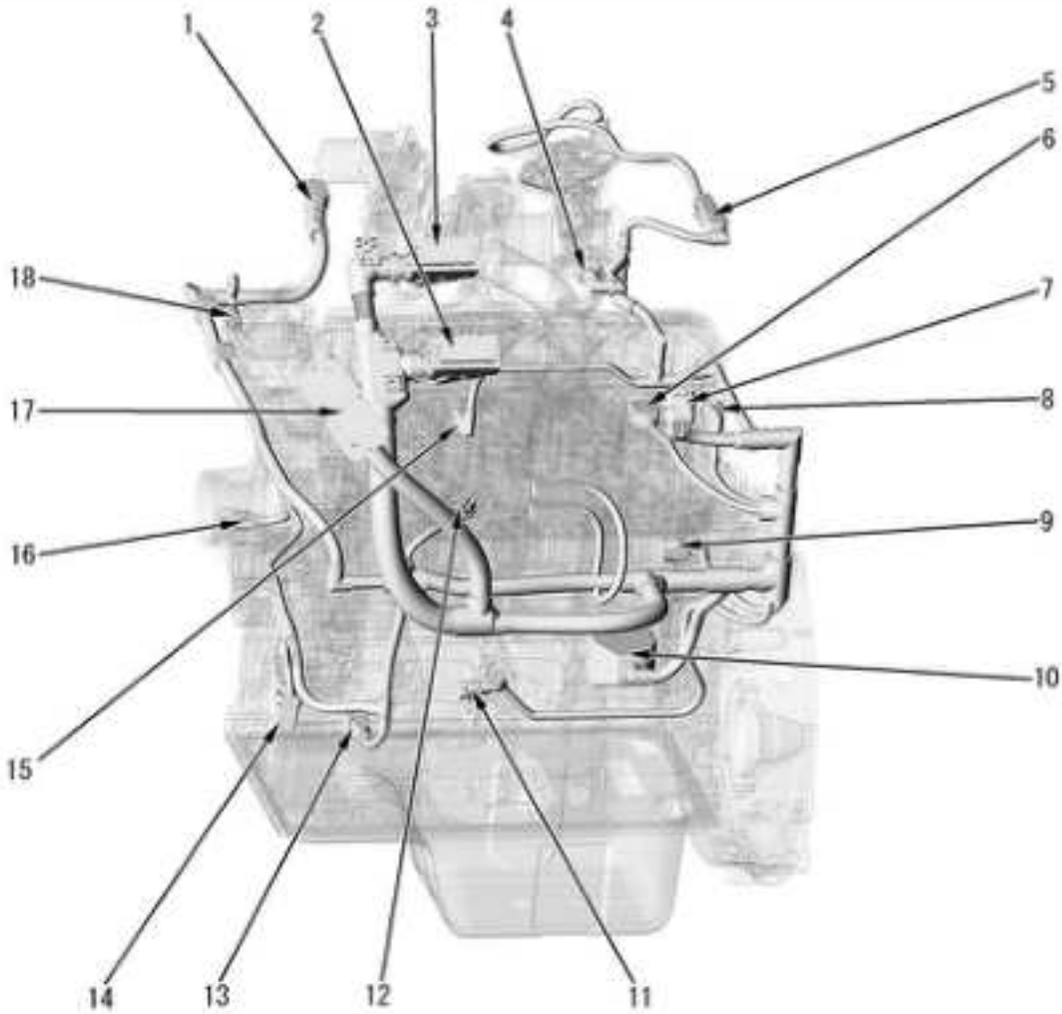
ENGINE WIRING HARNESS

STRUCTURE OF ENGINE WIRING HARNESS

REMARK

The shape may vary depending on the machine models.

General view



No.	Connector	Connector label
1	Variable flow turbocharger	VFT
2	Engine controller	J2
3	Engine controller	J1
4	Crankcase pressure sensor	CCV
5	Exhaust throttle valve	ETV
6	Injector wiring harness #3 and #4	CN2
7	EGR valve	EGR/V
8	Ambient pressure sensor	PAMP
9	Common rail pressure sensor	PFUEL

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EGR SYSTEM

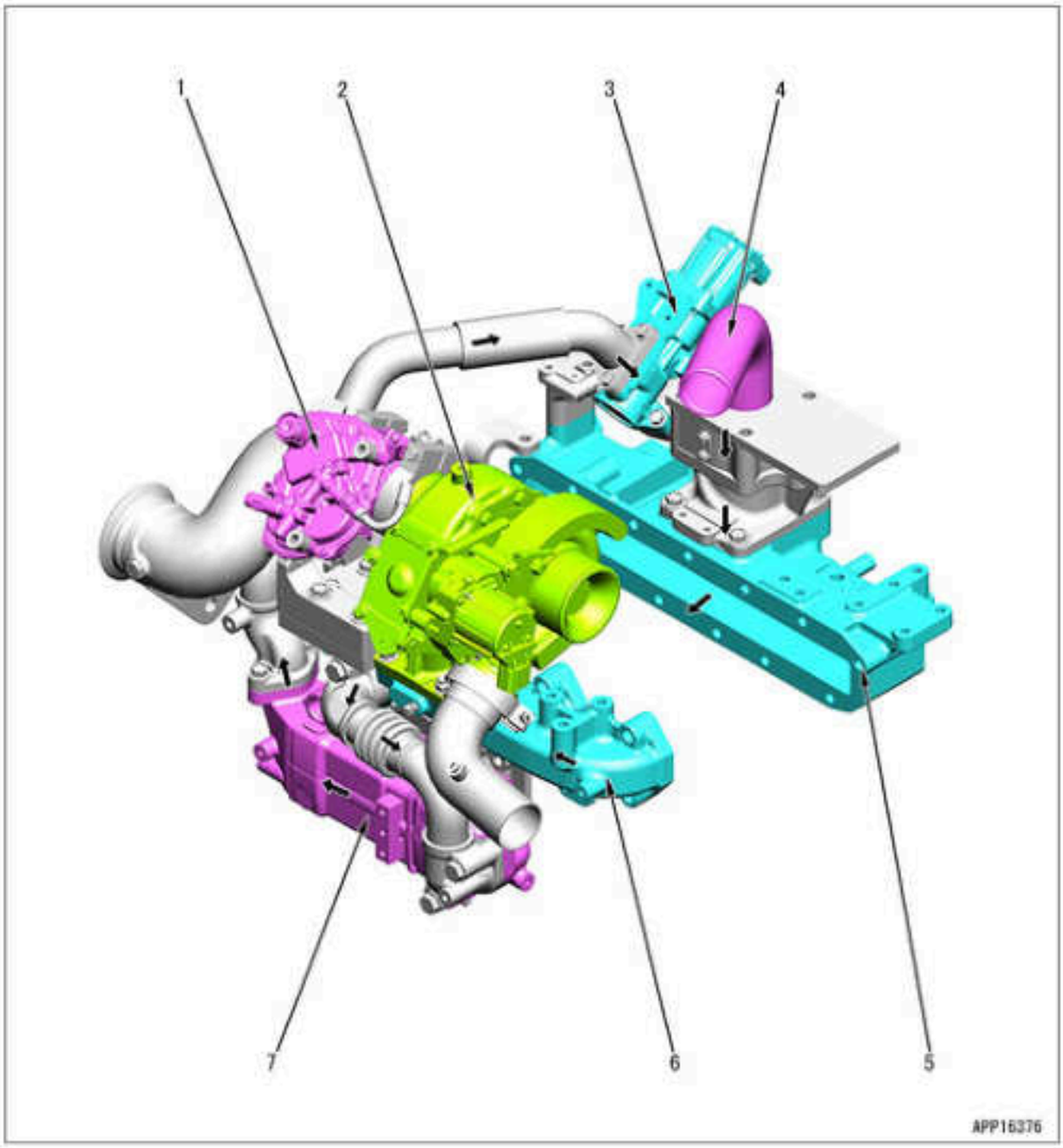
EGR

Abbreviation for Exhaust Gas Recirculation

LAYOUT DRAWING OF EGR SYSTEM

REMARK

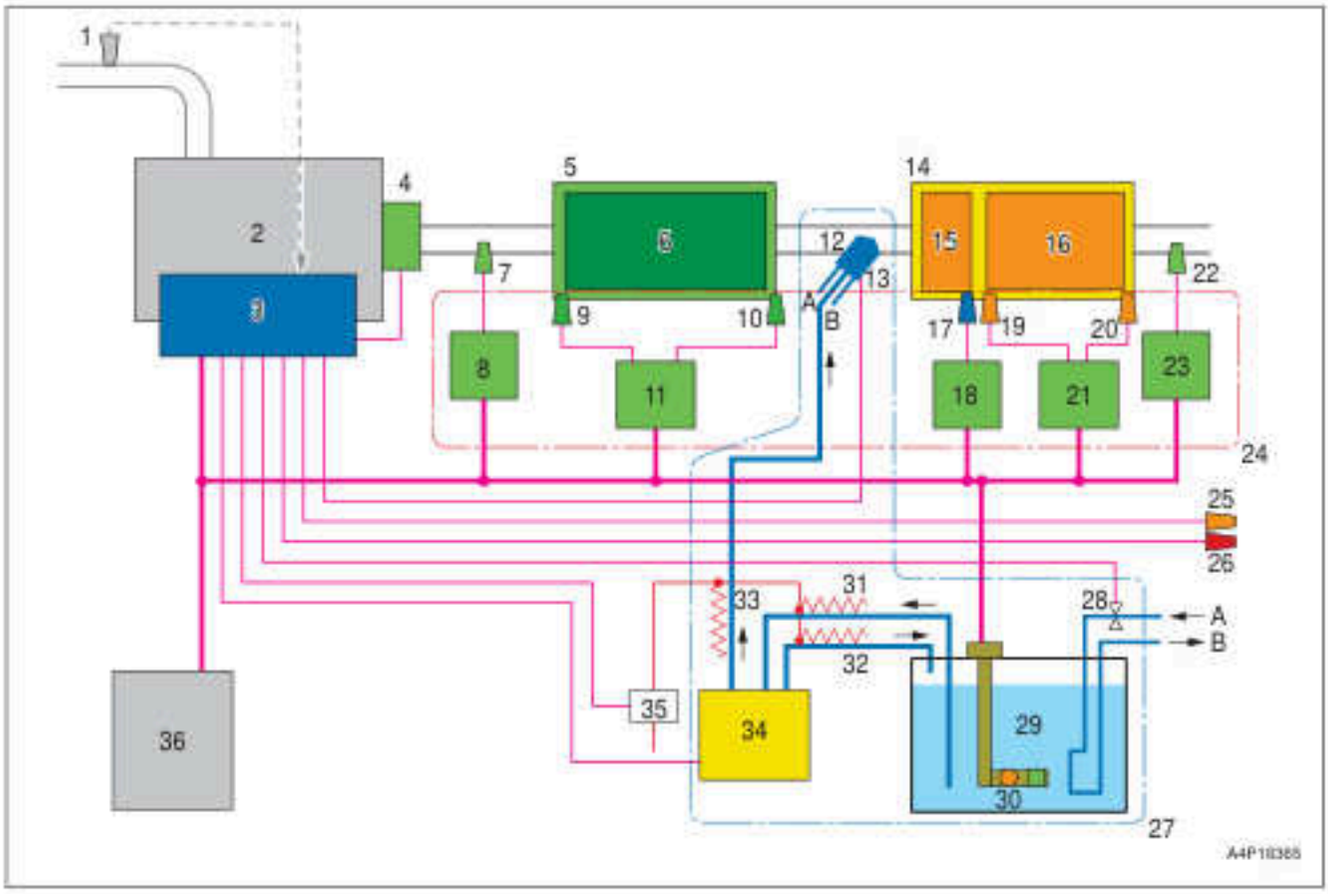
The shape is subject to machine models.



1:Exhaust throttle valve
2:Variable flow turbocharger
3:EGR valve
4:Intake connector
5:Intake manifold
6:Exhaust manifold

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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: Exhaust throttle valve
5: KDOC
6: KDOC unit
7: Turbocharger outlet NOx sensor
8: Turbocharger outlet NOx sensor controller
9: KDOC inlet temperature sensor
10: KDOC outlet temperature sensor
11: KDOC temperature sensor controller
12: AdBlue/DEF mixing tube
13: AdBlue/DEF injector
14: SCR assembly
15: Upstream SCR catalyst
16: Downstream SCR catalyst and ammonia oxidation catalyst (integrated type)
17: Ammonia sensor
18: Ammonia sensor controller
19: SCR temperature sensor
20: SCR outlet temperature sensor
21: SCR temperature sensor controller
22: SCR outlet NOx sensor
23: SCR outlet NOx sensor controller
24: Smart sensor
25: Ambient temperature sensor
26: Engine room temperature sensor
27: AdBlue/DEF system
28: AdBlue/DEF tank heating valve
29: AdBlue/DEF tank
30: AdBlue/DEF tank sensor
31: AdBlue/DEF suction line
32: AdBlue/DEF return line
33: AdBlue/DEF pressure line
34: AdBlue/DEF pump
35: AdBlue/DEF line heater relay
36: Machine monitor

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