

Engineering Release Notice (ERN)	Location	Change Description	A = Added D = Deleted	W = Was	Document Release Status RELEASED
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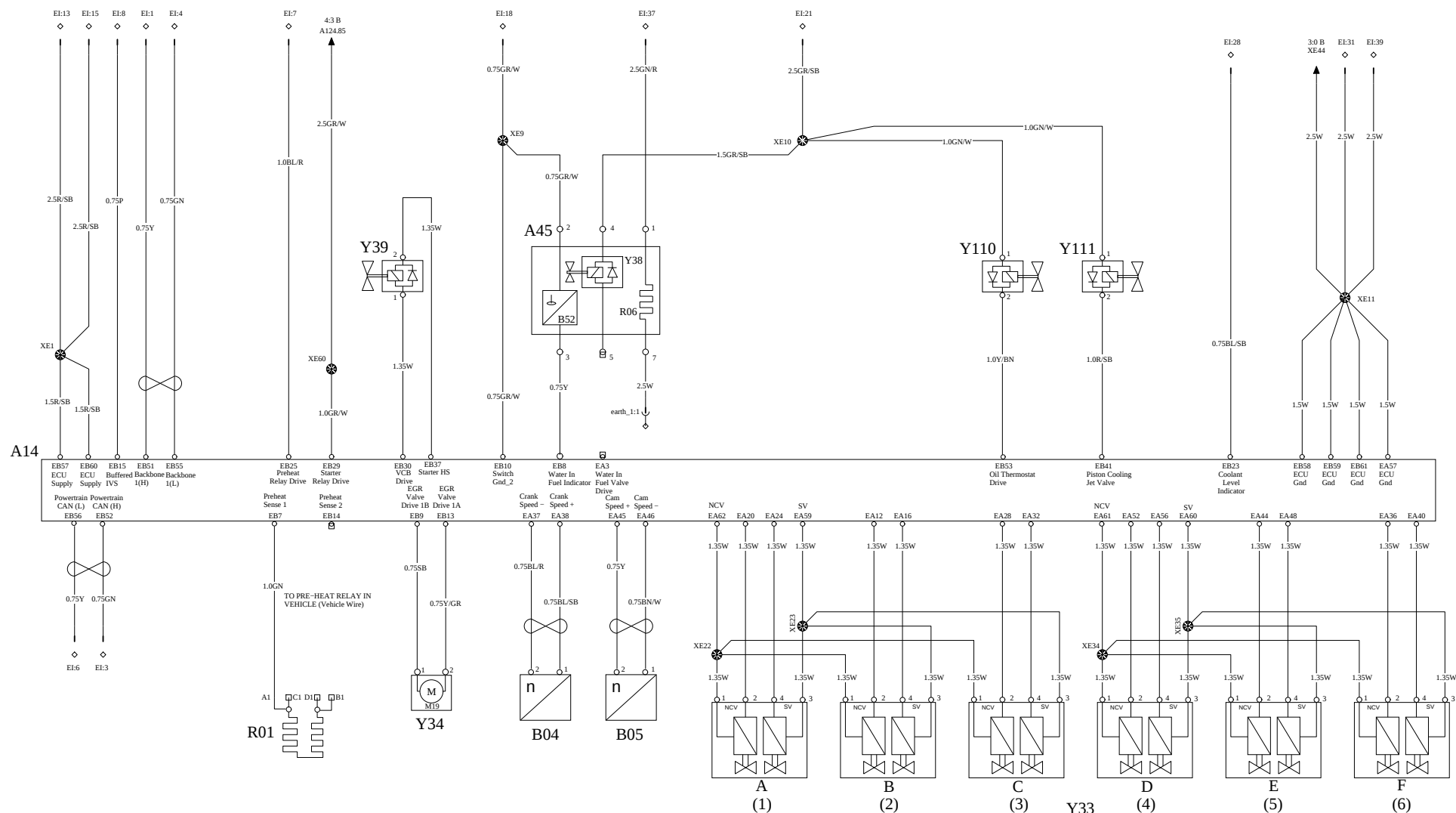
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ENGINE

US14 VBC

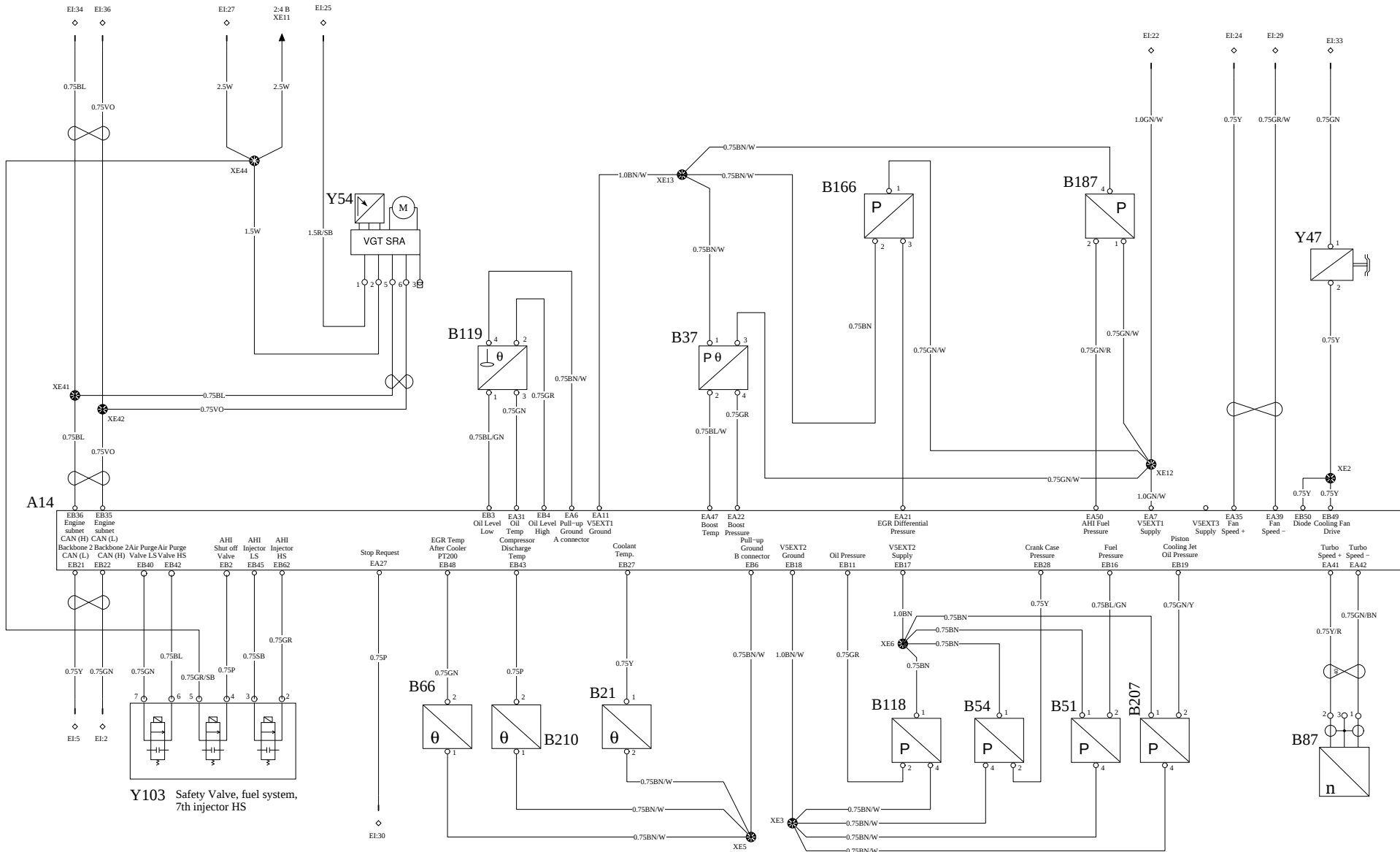
WIRING DIAGRAM



ENGINE

US14 VBC

WIRING DIAGRAM



Symbol	Description
A14	Control unit, EMS (Engine Management System)
A43	Electronic fan control (Incl. B32, Y35)
A45	Fuel conditioner (Incl. R10, B52, Y38)
A124	Comp. group starter motor. Contains M04 and K65
B04	Sensor, engine speed, crankshaft
B05	Sensor, engine speed, camshaft
B187	Sensor, after treatment fuel pressure
B118	Sensor, oil pressure
B119	Sensor, oil level and oil temp
B21	Sensor, coolant temperature, engine
B37	Sensor, boost temperature, boost pressure (EGR Mixer position)
B51	Sensor, fuel pressure
B54	Sensor, crank case pressure
B66	Sensor, EGR temperature
B87	Sensor, turbo speed
B207	Sensor, oil cooling jet pressure
B210	Sensor, compressor discharge temp
B166	Sensor, EGR Differential pressure
G02	Alternator
M04	Starter motor (Included in A124)
K65	Starter motor relay (Included in A124)
R01	Heater, engine preheat
R10	Heater, fuel pre filter (Included in A45)
RLY42	Relay, pre heater
Y103	Safety Valve, fuel system, ATl
Y33	Solenoid valves UI (Unit Injector)
Y34	Actuator, EGR system (Lisk)
Y35	Solenoid valve, engine cooling fan (Included in A43)
G03	Alternator
Y38	Solenoid valve, WIF, fuel pre filter water draining ((Included in A45))
Y39	Solenoid valve, VCB (Volvo Compression Brake)
Y42	Clutch, magnetic air conditioning compressor
Y54	Control unit, Volvo geometric turbo, Can based
B183	Fire sensors
Y110	Solenoid valve, oil thermostat
Y111	Solenoid valve, oil piston cooing jet
X71	GND Stud, Engine block (close to alternator)
B32	Sensor, engine cooling fan speed (included in A43)
B52	Sensor, water level in fuel pre filter (included in A45)

Vehicle interface EI

Pin	Function
EI:1	Backbone1-CAN (H)
EI:2	Backbone2-CAN(H)
EI:3	Powertrain subnet CAN(H)
EI:4	Backbone1-CAN (L)
EI:5	Backbone2-CAN(L)
EI:6	Powertrain subnet CAN(L)
EI:8	IVS
EI:9	Alternator- I-engine-running-1
EI:11	Alternator R-speed-1
EI:13	Power supply for EMS
EI:15	Power supply for EMS
EI:18	Switch ground, coolant level
EI:21	Power supply for Y37, Y38, Y39 & A43
EI:22	Power supply for external sensors (+5V)
EI:23	AC compressor control
EI:25	Power supply VGT & Pre heat relay
EI:26	GND for external sensors (c/o EI:22)
EI:27	GND-EMS-extra
EI:28	Signal, coolant level
EI:31	GND-EMS-2
EI:33	EMS Loads Power Supply 1
EI:35	Starter control-HS
EI:37	EMS loads power supply-3 for R10
EI:39	GND-EMS-1
EI:7	VBC - Preheat drive
EI:10	VBC - Alternator control 1
EI:12	VBC - Alternator
EI:14	VBC - switches, heat sensor
EI:16	VBC - switches, heat sensor feedback
EI:17	VBC - Alternator
EI:19	Not used
EI:20	Not used
EI:24	VBC - Fan Speed +
EI:29	VBC - Fan Speed -
EI:30	VBC - Stop Request
EI:32	Not used
EI:34	Engine subnet CAN H
EI:36	Engine subnet CAN L
EI:38	Prevost - Preheat drive

VOLVO**Group Trucks Technology**

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