

Operation/Maintenance BFM 1015

Troubleshooting: Diagnosis Chart



- If engine problems occur, they frequently have their cause in improper operation or maintenance of the engine.
- So, in case of trouble, always check first whether the operating and maintenance instructions have been observed.
- A helpful Diagnosis Chart is to be found on the opposite page.
- If you cannot identify the cause of the trouble or are unable to rectify it yourself, contact your service representative.



Before starting, make sure that nobody is standing in the immediate vicinity of the engine or driven machine.

After repairs :

Important: Never start engine with the speed governor removed.

Disconnect battery terminals!

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Troubles		Remedial Measure			
Engine fails (or difficult) to start		Check P			
Engine starts, but runs unevenly or stalls		Adjust E			
Engine becomes too hot, temperature monitor gives warning (coolant)		Renew W			
Engine gives poor performance		Clean R			
Engine not working on all cylinders		Top up A			
Engine has little or no oil pressure		Lower level S			
Engine oil consumption excessive		Bleed L			
Engine smokes – blue					
– white					
– black					
Causes		Section			
●		Not declutched (declutch where possible)	Operation	P	
●		Below start limit temperature		P	
●		Engine shutdown lever still in stop position (shutdown solenoid defective)		P	
	●	Oil level too high		P	
		●	Oil level too low	S	
		● ● ●	Excessive inclination of engine	P / E	
●		Speed control lever set to middle position		P / E	
	● ●	●	Dirty air cleaner / defective turbocharger	Combustion Air	P / W
	● ●	●	Air cleaner service switch/indicator defective		P
		●	LDA* defective (leaking line)		P
	● ●	●	Charge air pipe leaking		P / W
	●		Coolant pump defective	Cooling System	P / R
	● ●	●	Charge air cooler dirty		P / R
	●		Coolant heat exchanger dirty		P / R
	●		Coolant thermostat does not open		P
●			Battery defective or discharged	Electrics	P

* LDA = manifold pressure compensator

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– black												
Causes										Section		
●										Cable connection to starter loose or oxidized	Electrics	P
●										Starter defective or pinion does not engage		P
●	●		●	●		●	●			Incorrect valve clearance	Engine	E
●	●		●	●						Leaking injection line		P
		●								Vent pipe clogged (coolant heat exchanger)		P / R
●						●				Flame-type heater plug system defective		P
●	●	●	●	●		●	●			Injector defective		P / W
●	●		●	●						Air in fuel system (lack of fuel)		P / L
●	●		●	●						Fuel filter / prefilter contaminate		P/R/W
●					●					Incorrect lube oil SAE class or quality grade	Operating Media	W
●	●		●			●				Fuel quality grade not corresponding to specification under 4.2.1		P / W
		●								Lack of coolant		P / A

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▲ Engine Preservation



8.1 Preservation

A faded technical drawing of an engine component, likely a cylinder head or valve train, is visible in the background of the slide. The drawing shows various mechanical parts and their assembly, with some lines and labels that are difficult to discern due to the low opacity.



Seite fehlt: 8.1 Preservation