










## MECHANICAL(H4DOTC DIESEL) > Engine Trouble in General

### INSPECTION

Symptoms	Phenomenon	Possible cause	
The engine does not turn.	The starter does not turn.	Defective harness from the battery to the starter	
		Defective starter switch	
		Defective starter	
		Insufficiently charged battery	
	The starter turns but the flywheel does not turn.	Worn ring gear	
		Starter magnet switch trouble	
Engine turns but does not start.	Fuel is not reaching the fuel pump.	Lack of fuel or insufficient fuel	
		Air in the fuel line	
		Air being drawn in from the fuel pipe	
		Clogged fuel pipe	
		Defective fuel heater	
		Clogged fuel filter	
		Defective fuel pump relay	
		Use of low quality fuel	
		Refer to "Engine Control System". 	
	Fuel is reaching the fuel pump.	Loose fuel delivery pipe	
		Defective fuel pump	
		Defective fuel pump harness	
		Refer to "Engine Control System". 	
	Insufficient fuel spray	Air in the fuel line	
		Clogged fuel pipe	
		Defective fuel injector	
		Clogged fuel filter	
		Refer to "Engine Control System". 	
	Exhaust gas is black and large in quantity.	Fuel injection timing trouble	Refer to "Engine Control System". 
		Fuel injection condition trouble	Defective fuel injector
			Refer to "Engine Control System". 
Faulty compression		Large valve clearance	
		Defective valve stem	
		Defective valve spring	
		Defective piston ring	
		Defective gasket	
Fuel trouble		Defective cylinder block or piston	
		A large quantity of water is mixed in the fuel	

Symptoms	Phenomenon	Possible cause	
		Use of low quality fuel	
	Intake air trouble	Problem in the intake air duct or hose	
		Excessively dirty air cleaner element	
	Exhaust system trouble	Defective DPF	
		Defective exhaust pipe	
		Defective muffler	
	Engine electronic control system trouble	Refer to "Engine Control System". 	
	Exhaust gas is white and large in quantity.	Fuel injection timing trouble	Refer to "Engine Control System". 
		Fuel injection condition trouble	Defective fuel injector
			Refer to "Engine Control System". 
		Faulty compression	Large valve clearance
Defective valve stem			
Defective valve spring			
Defective piston ring			
Defective gasket			
Defective cylinder block or piston			
Fuel trouble		A large quantity of water is mixed in the fuel	
		Use of low quality fuel	
Engine electronic control system trouble		Refer to "Engine Control System". 	
Excessive engine oil consumption	Defective piston ring		
	Defective valve stem oil seal		
Knocking occurs.	Fuel injection timing trouble	Refer to "Engine Control System". 	
	Engine electronic control system trouble	Refer to "Engine Control System". 	
	Fuel trouble	A large quantity of water is mixed in the fuel	
		Use of low quality fuel	
	Intake air trouble	Defective intake air duct or hose	
		Excessively dirty air cleaner element	
Defective engine	Defective piston, cylinder, connecting rods or seizure		
Engine rotation trouble	Engine RPM does not rise.	Refer to "Engine Control System". 	
	Engine RPM is unstable.	Refer to "Engine Control System". 	
		Defective fuel pump	
		Defective fuel injector	

<b>Symptoms</b>	<b>Phenomenon</b>	<b>Possible cause</b>
		A large quantity of water is mixed in the fuel
		Air in the fuel line