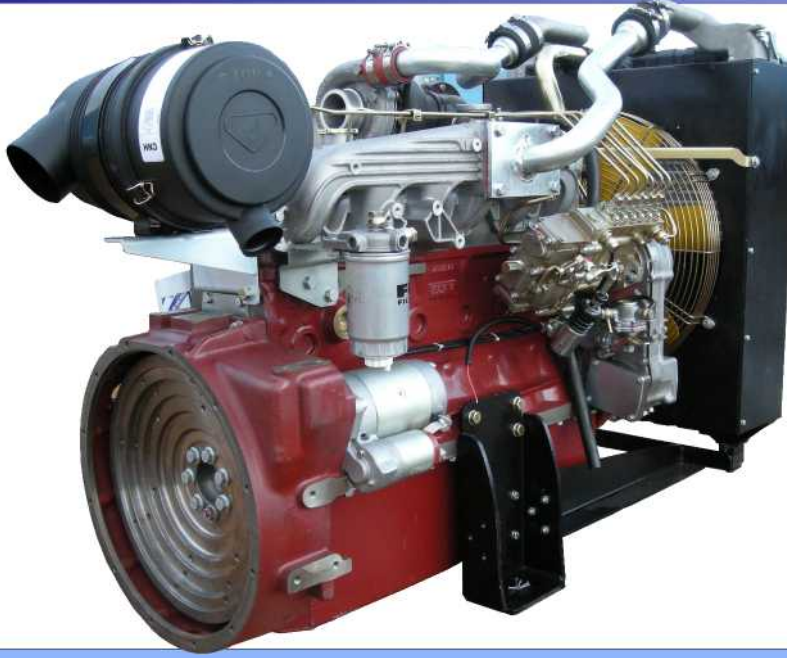




# **D6304 G Series Engines**



## **DIESEL ENGINE USER & MAINTENANCE MAUAL**



### PERFORMANS / PERFORMANCE

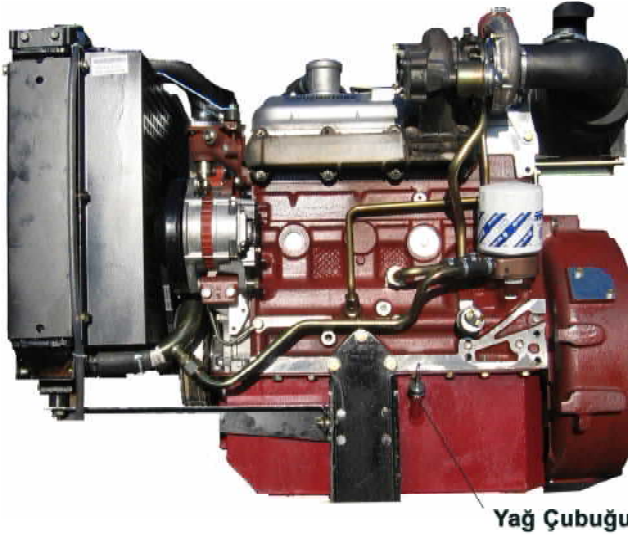
MODEL	6304 G	
GÜÇ DEĞERLERİ POWER RATING	50 Hz - 1500 RPM	
	STANDBY Azami	PRIME Sürekli
kW	160	145
Alternatör Çıkışı / Alternator Output (%90 verim/efficiency) kVA	178	161

SAE Güç Std Atm Şartları : 25 C hava sıcaklığı, 1000 mbar Atm Basıncı, %30 bağıl nem / SAE Power under std atm conditions : 25 C air temp, 1000 mbar air press, %30 atm humidity

### TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

MODEL	6304 G
Motor Tipi / Engine Type	Turboşarjlı + Intercooler- Sıralı Su Soğutmalı Turbocharged + Intercooled-Inline-Water Cooled
Silindir Hacmi / Displacement	5.9 lt
Silindir Sayısı / No of Cylinder	6
Çap x Strok / Bore x Stroke	104 x 115
Sıkıştırma Oranı / Compression Ratio	17:1
Intercooler	Var
Marş Motoru / Starter	12 V - 2.5 kW
Alternatör / Alternator	12 V - 45 A
Yakıt Tüketimi / Fuel Consumption	
Tam yük / full load %100 lt/saat (lt/hr)	220 gr/kwSaat
Ani devir dalgalanması (maks) / Max RPM fluctuation	1%
Soğutma Suyu Kapasitesi / Coolant Water Capacity	
Motor lt	~12
Motor + Radyatör lt	~47
Ölçüler Uz x Gen x Yükseklik (cm) / Dimensions	180 x 65 x 105
Ağırlık - kuru / Weight - Dry	650 kg
Volan Muhafaza / Flywheel	SAE 3

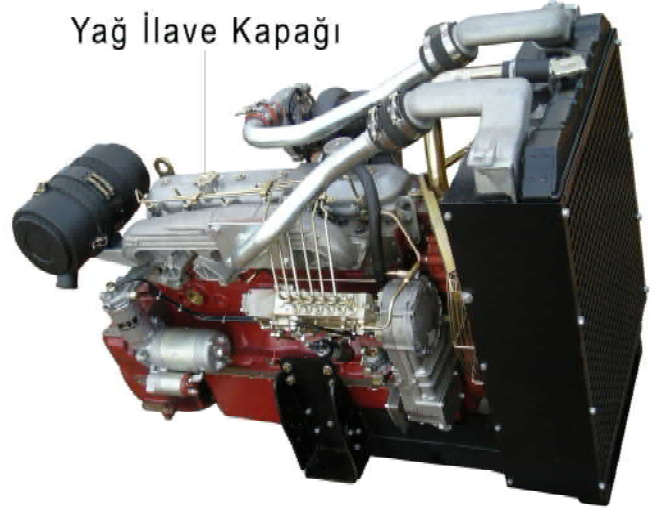
## OIL LEVEL CHECK



OIL LEVEL CHECK STICK

OIL SUPPLIMENT COVER

Yağ İlave Kapağı



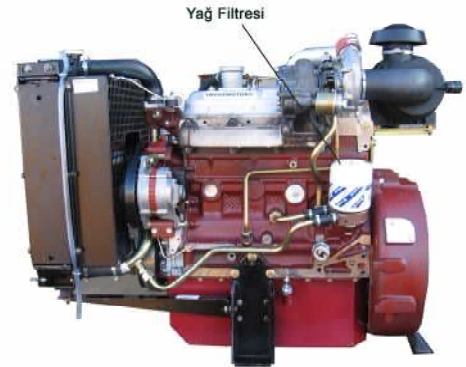
## Oil Level Check

Check if there is any leakage of oil or water at the outside of the engine. Check double times the level of oil from oil level stick. If the level is below the bottom sign of the level stick please add oil from top as seen on the picture until oil level reaches to mid of low high level of level stick.

# ENGINE OIL AND OIL FILTER CHANGE



OIL FILTER

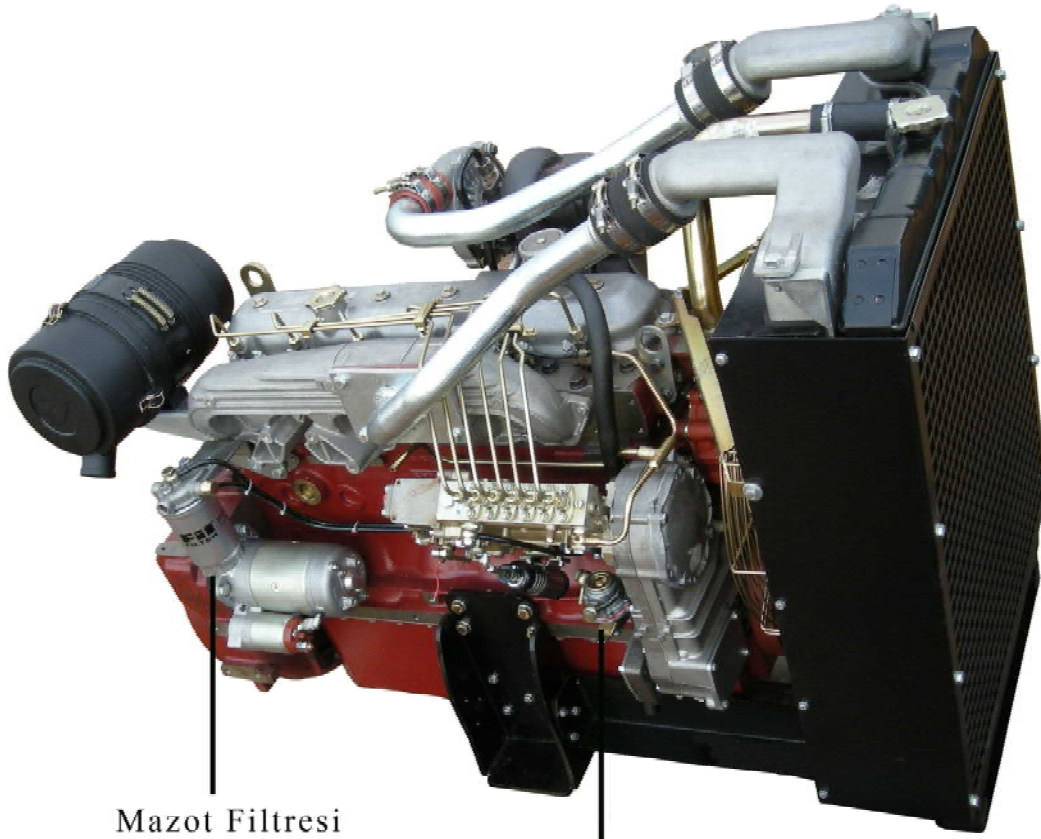


## Oil And Oil Filter Change

Replace the oil and oil filter on periods mentioned on the periodic maintenance manual. Do not forget the very first oil filter replacement is after 50 Hours of engine run. Use original oil filters. After replacement tighten the filter by turning  $\frac{3}{4}$  times after reaching to tightening point.



## FUEL FILTER CHANGE



Mazot Filtresi  
FUEL FILTER

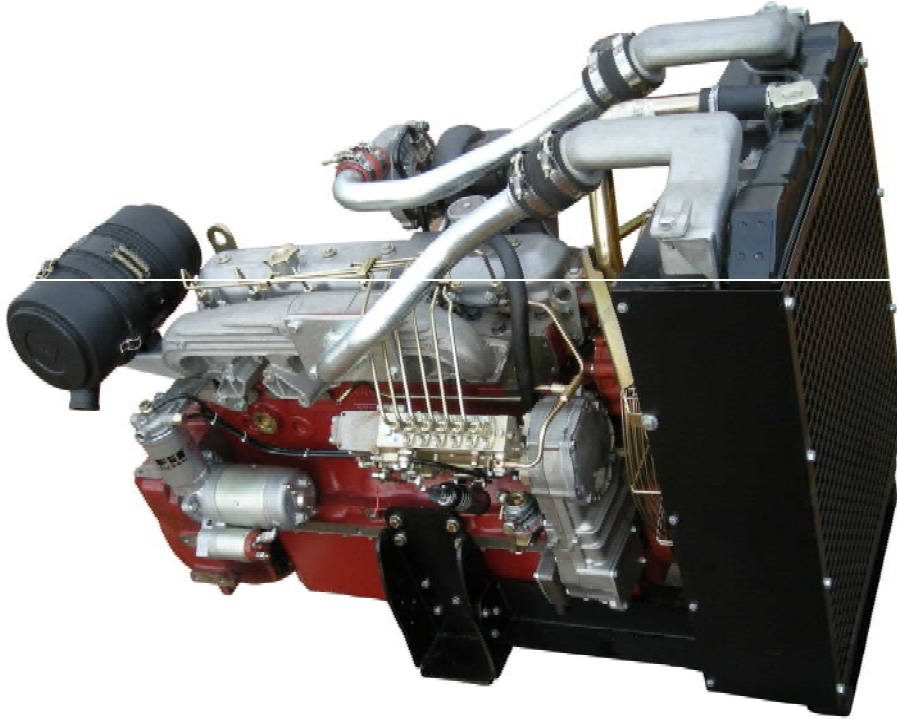
Besleme Pompası  
FUEL FEED PUMP

### Fuel Filter Change

Be careful to avoid heat sources during replacement of fuel filters. During loosening of fuel filter some amount of fuel may leak. After replacement of fuel filter by using the fuel feed pump evacuate the air inside the fuel pipes of the engines.

# COOLING WATER AND ANTIFREEZE CHECK

RADIATOR WATER COVER



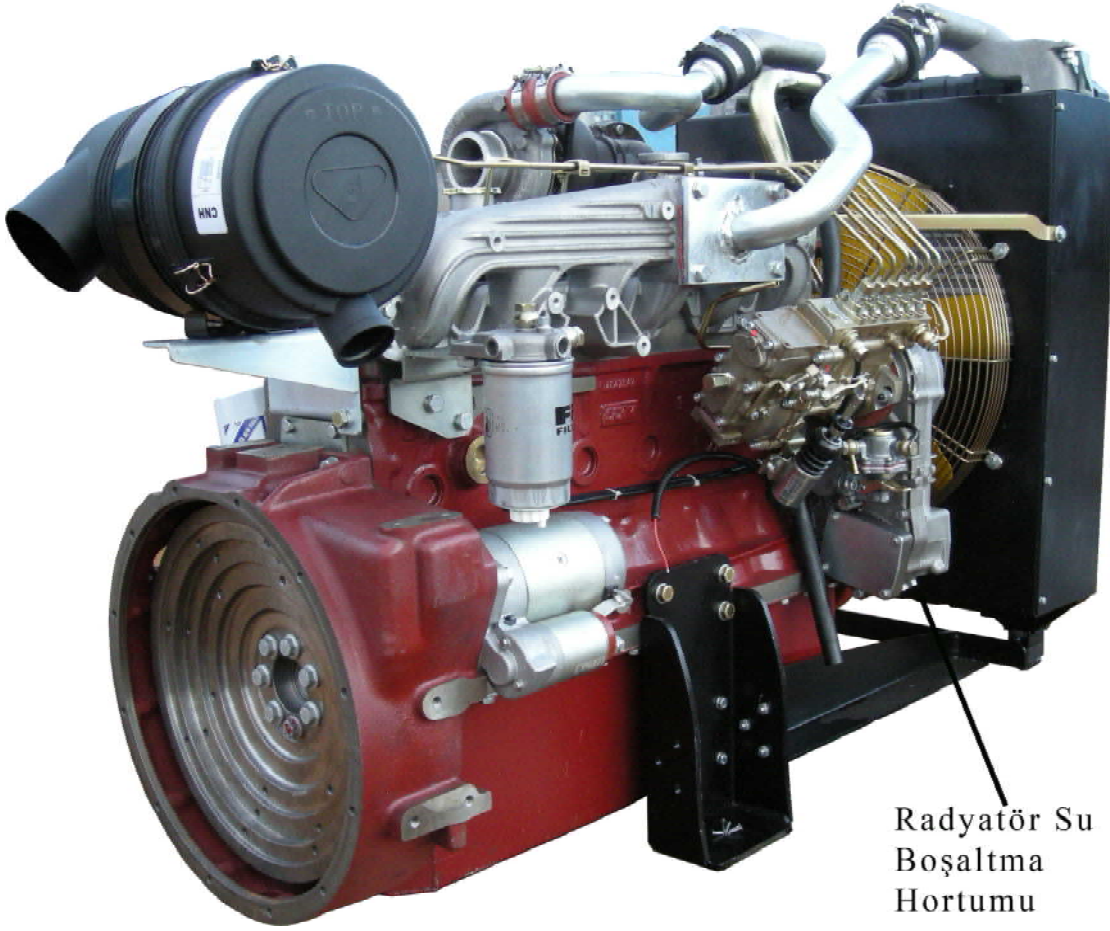
## Cooling Water and Antifreeze Level Check

Check antifreeze ratio before winter. Always add antifreeze according to  $-10^{\circ}\text{C}$  less than min level recorded in the area. Check the radiators fins if it is enough clean or not. If dirty please clean with pressurized water.

If your engine is under cover or installed in a closed area then strictly apply the regulations or rules of the applicant company which uses our engine.

**WARNING :** Never use salty or limed water in the radiator.

# RADIATOR WATER REPLACEMENT



Radyatör Su  
Boşaltma  
Hortumu  
RADIATOR WATER  
DISCHARGE HOSE

## Radiator Water Replacement

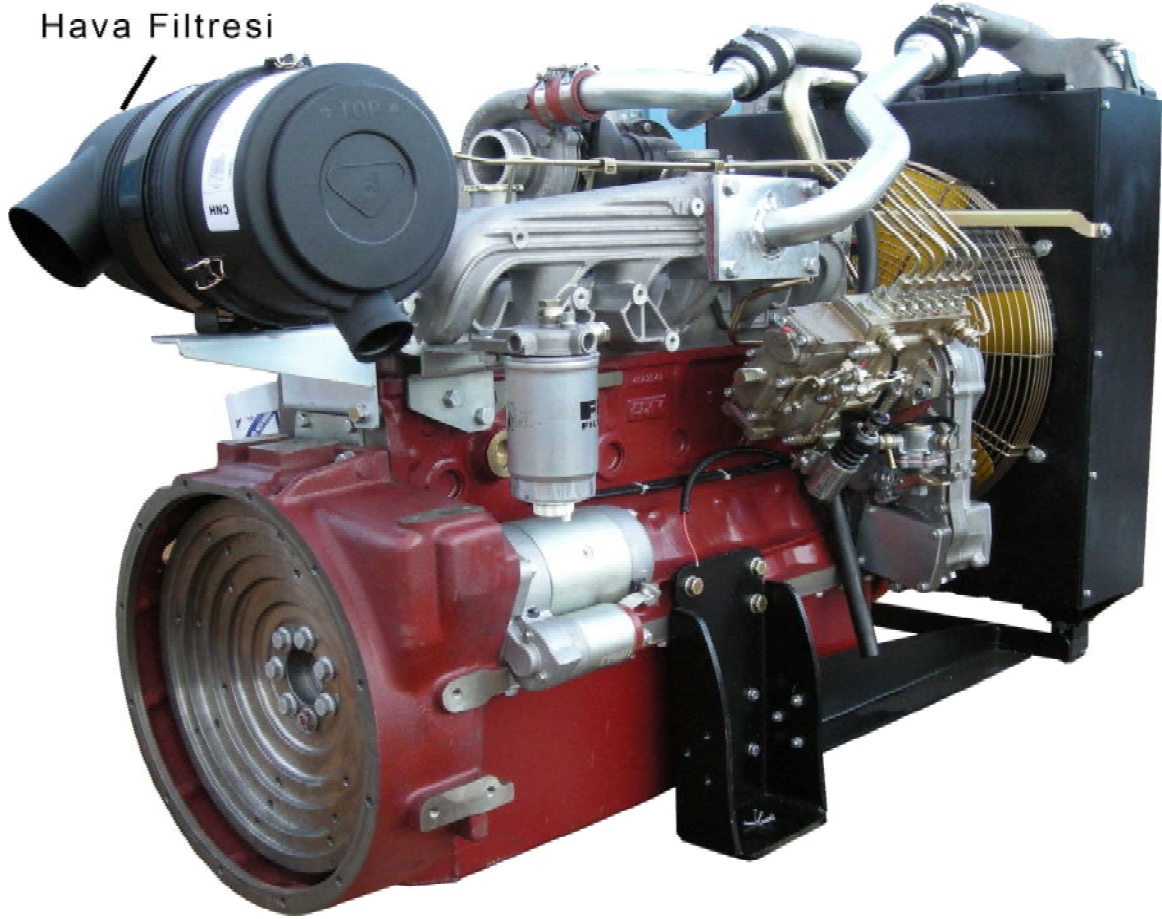
Discharge the water inside the radiator by using the hose seen in the picture. Eventhough the engine runs in hot weather conditions add some antifreeze to water to avoid corrosion.

**WARNING :** Never use salty or limed water in the radiator.

## Air Filter Check

AIR FILTER

Hava Filtresi

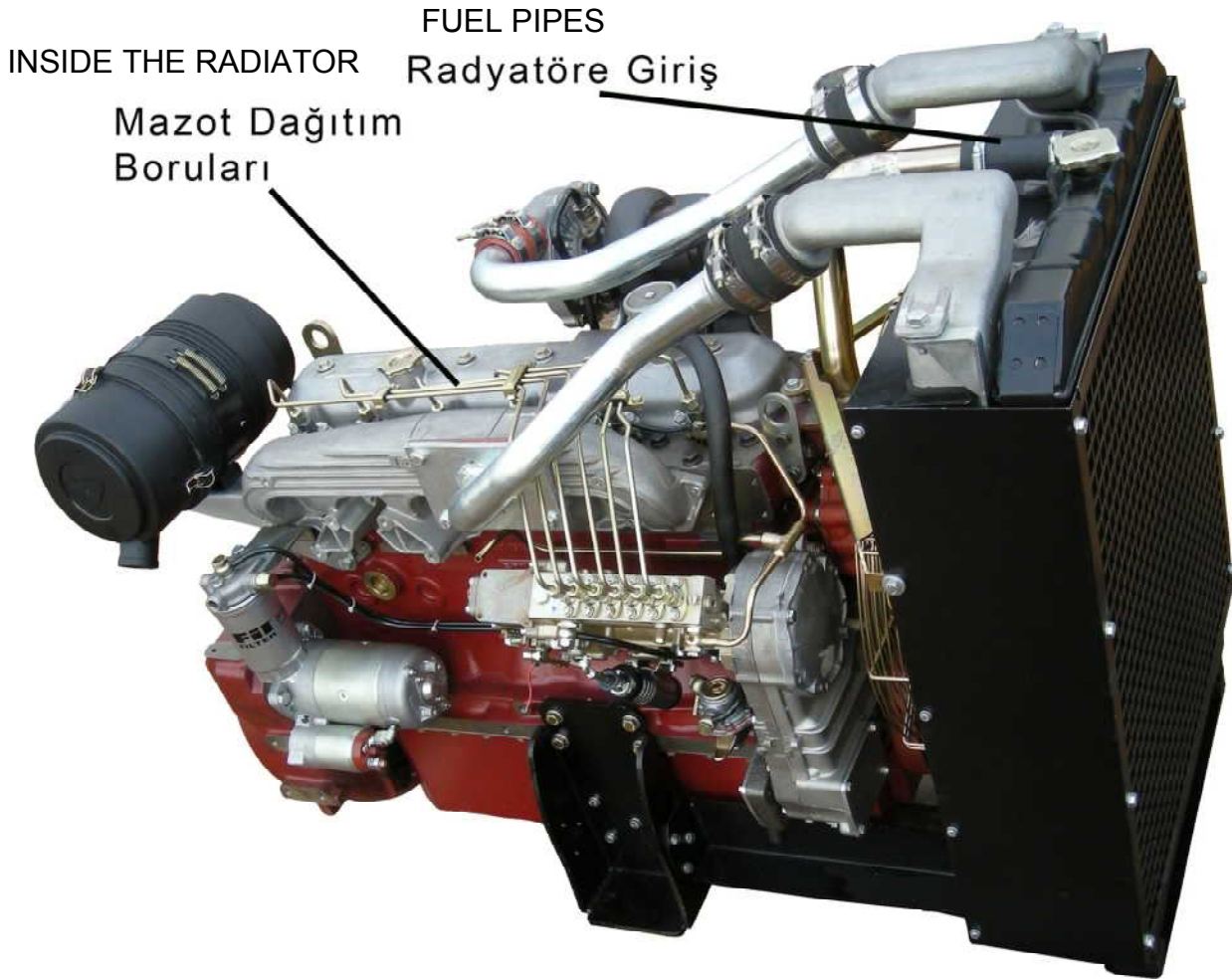


## Air Filter Check

If you use your engine under dirty conditions frequently check your air filter as seen in picture. Give pressureized air through inside the air filter. Please keep in mind that engine performance is directly related with the amount of water sucked in to the engine.



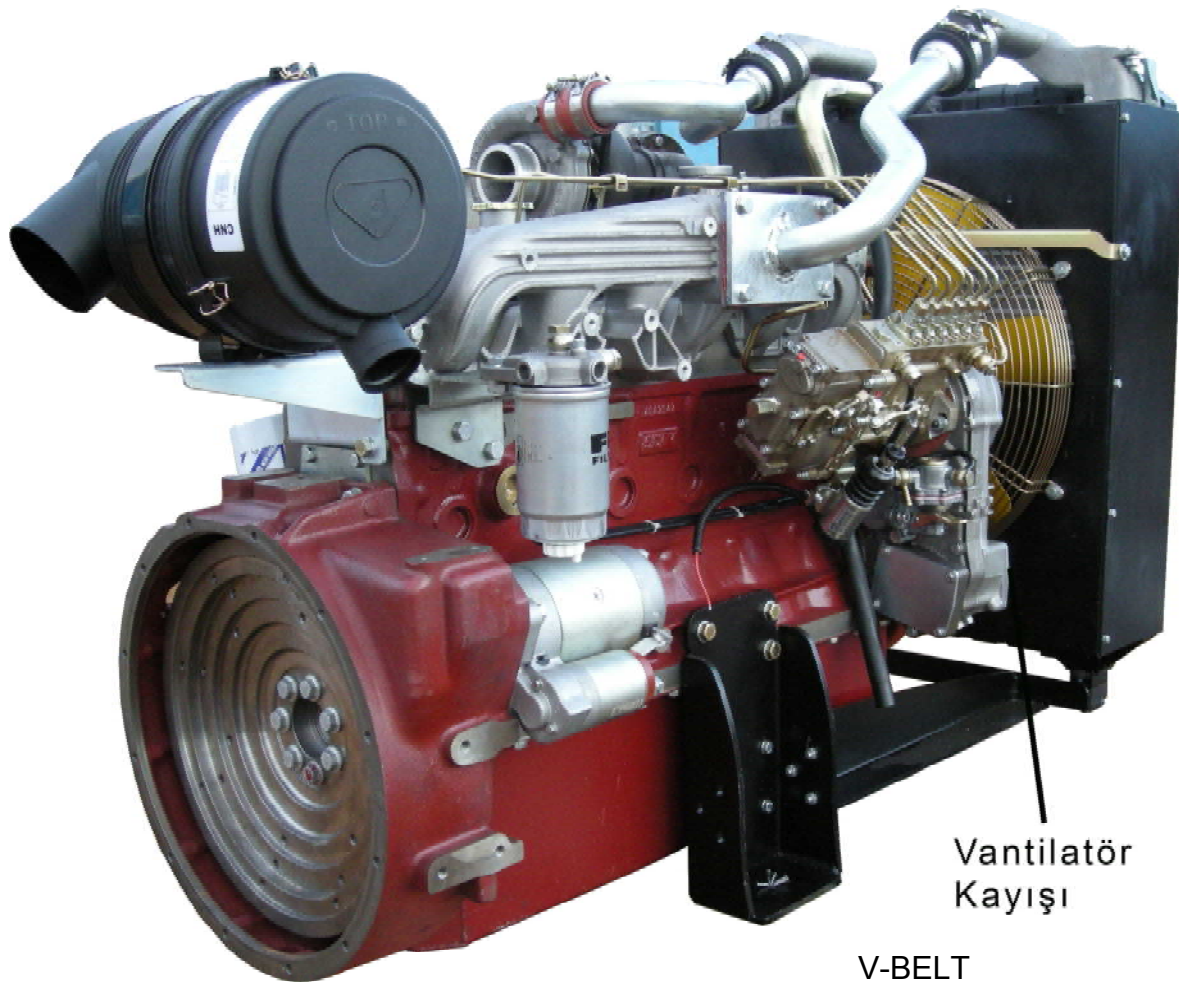
## Checking of Hoses and Pipes



## Checking of Hoses and Pipes

Check the tightness of the fuel pipes connections and adapters by using a suitable wrench. Also check the tightness of the clamps of radiators hoses.

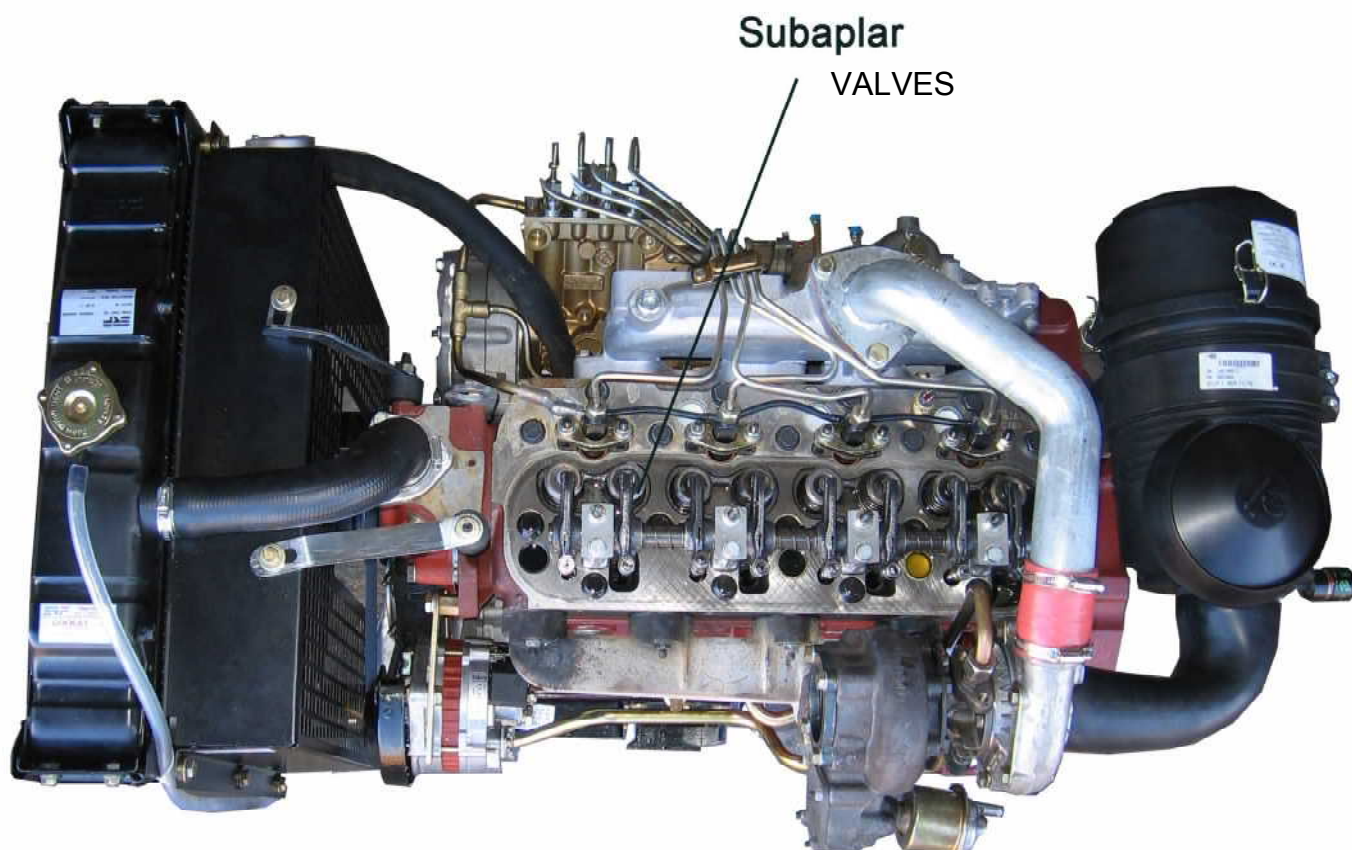
## V-Belt Replacement



## V-Belt Replacement

Replace the v-belt without removing the radiator. It is possible to do this. After replacing the v-belt tighten the belt via alternator. The tightness of the v-belt can be checked as follows : The belt shall move 1-2 cm towards the crankshaft pulley when checked at the midway of the longest visible length.

## Valves Check



## Valves Check

Disassemble the upper cover of cylinder head. Adjust valve and rocker arm gaps.

When engine is hot:

Intake : 0.25 mm

Exhaust : 0.35 mm

When engine is cold :

Intake : 0.30 mm

Exhaust : 0.40 mm

**WARNING :** Adjustment of valves by unexperienced personel may cause serious damages to your engine. !

## WARNINGS

Condition	Description	To Do
If the engine will not run for a long period	Şayet motorunuz 1 ay veya daha fazla bir süre çalışmayacak ise yakıt deposuna ... Koruyucu dizel motor katkısı kullanmanız tavsiye olunur. Aksi takdirde dizel yakıtının kalitesine göre enjeksiyon pompasının iç kısımlarında korozyon veya paslanma meydana gelebilir ve enjeksiyon pompası arıza yapabilir * Bu durum sadece yıldız pompalar için geçerlidir	.... Add diesel fuel additive to your fuel tank and run the engine 5-10 minutes
Cooling Water	Motor soğutma suyu içerisine kesinlikle antiriz koyunuz. Bu hem motorun iç çeperlerini paslanmadan koruyacak hemde sıfırın altına inen sıcaklıklarda motor bloğının patlamasını engelleyecektir.	



## OIL STANDARTS

TEMPERATURE	OIL STANDART
<div><div>-20<sup>0</sup>C</div><div>Below level</div><div>operating conditions</div></div>	<div>SAE 5 W - 30</div>

## WARRANTY

1. During the warranty period do all the maintenance and repair operations through yopur seller's authorized service except periodic maintenance. Your engine mayd damage seriously if unexperienced and unauthorized personel do the job. This may lead to out of warranty condition.

3. Use quality fuel in your engine. Using bad fuel or different fuels may lead to damaging of fuel pump and fuel injectors out of warranty.

5. Your engine is under guarantee. In case of problem please inform your sellers technical service immediately. Your problem will be solved as soon as possible.

6. Thank you for choosing Yavuz Motor