



# **D 3100 / D3104 & D4100/D4104 Series Engines**



## **DIESEL ENGINE USER & MAINTENANCE MANUAL**

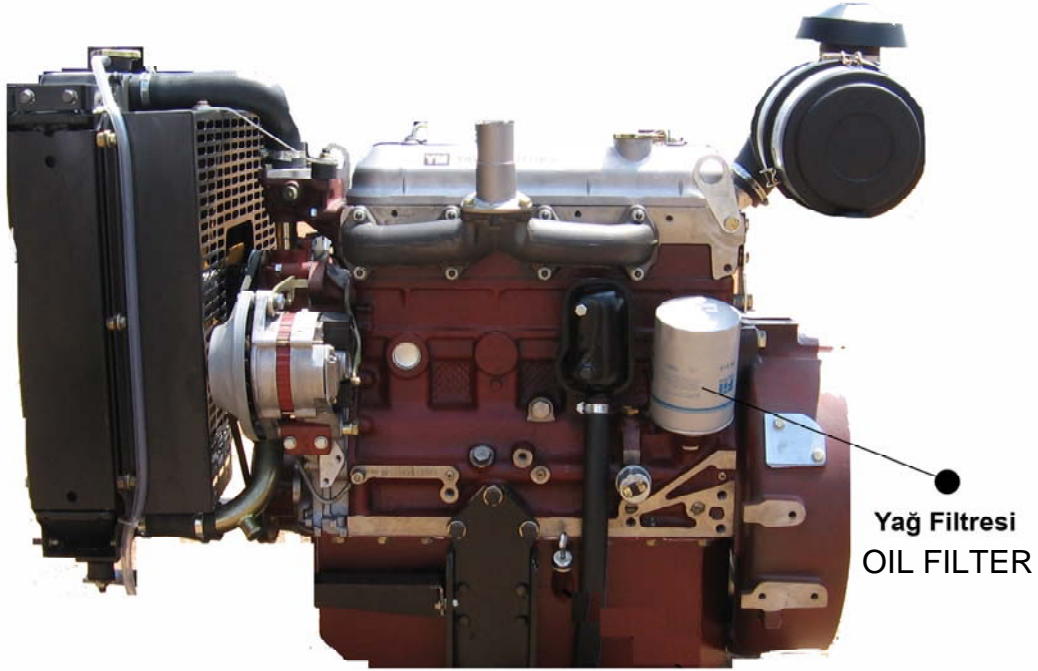
## OIL LEVEL CHECK



### 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.

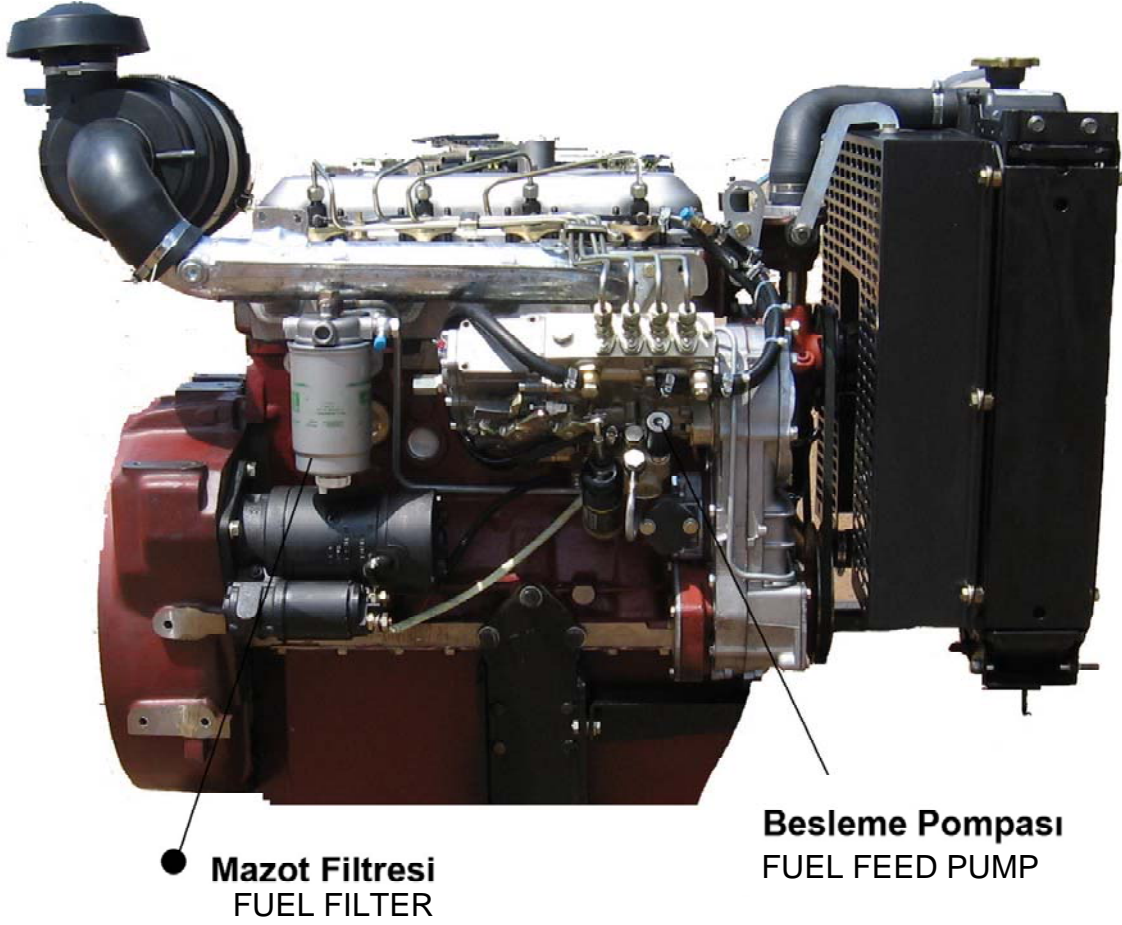
# ENGINE OIL AND OIL FILTER CHANGE



## Oil 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.

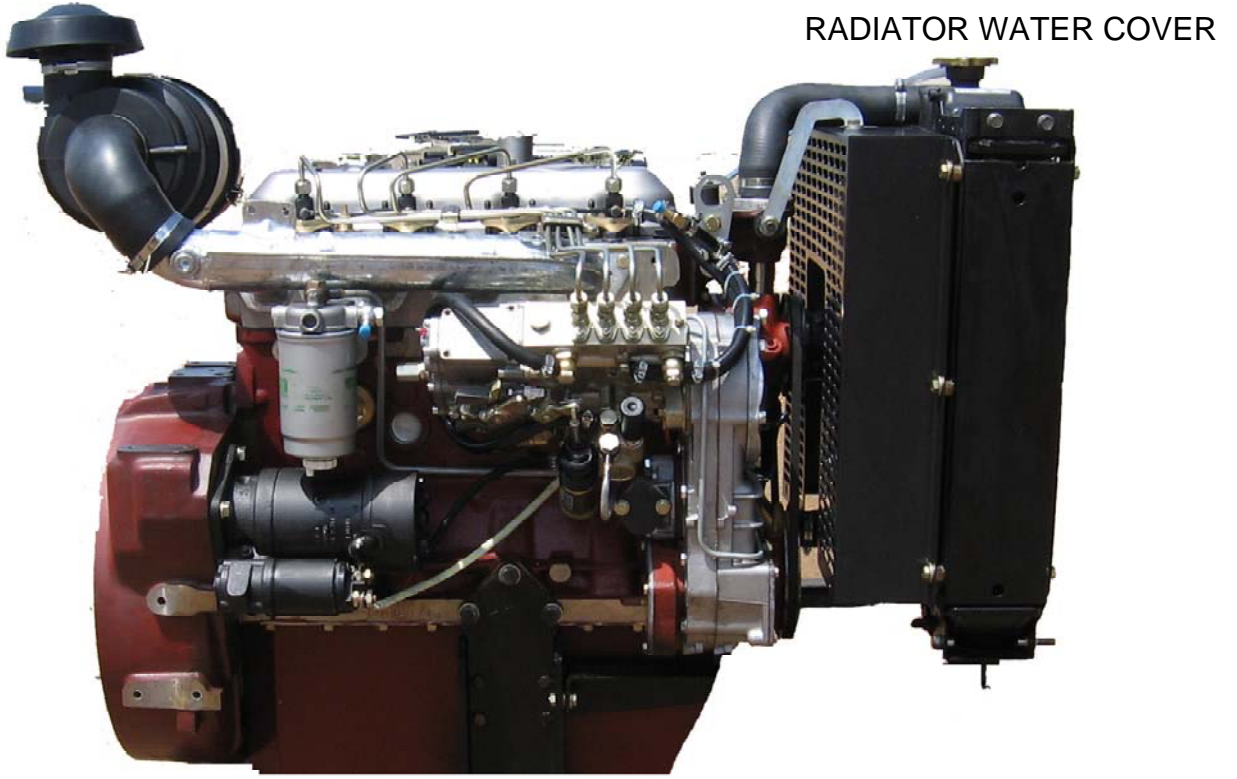
## FUEL FILTER CHANGE



### 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

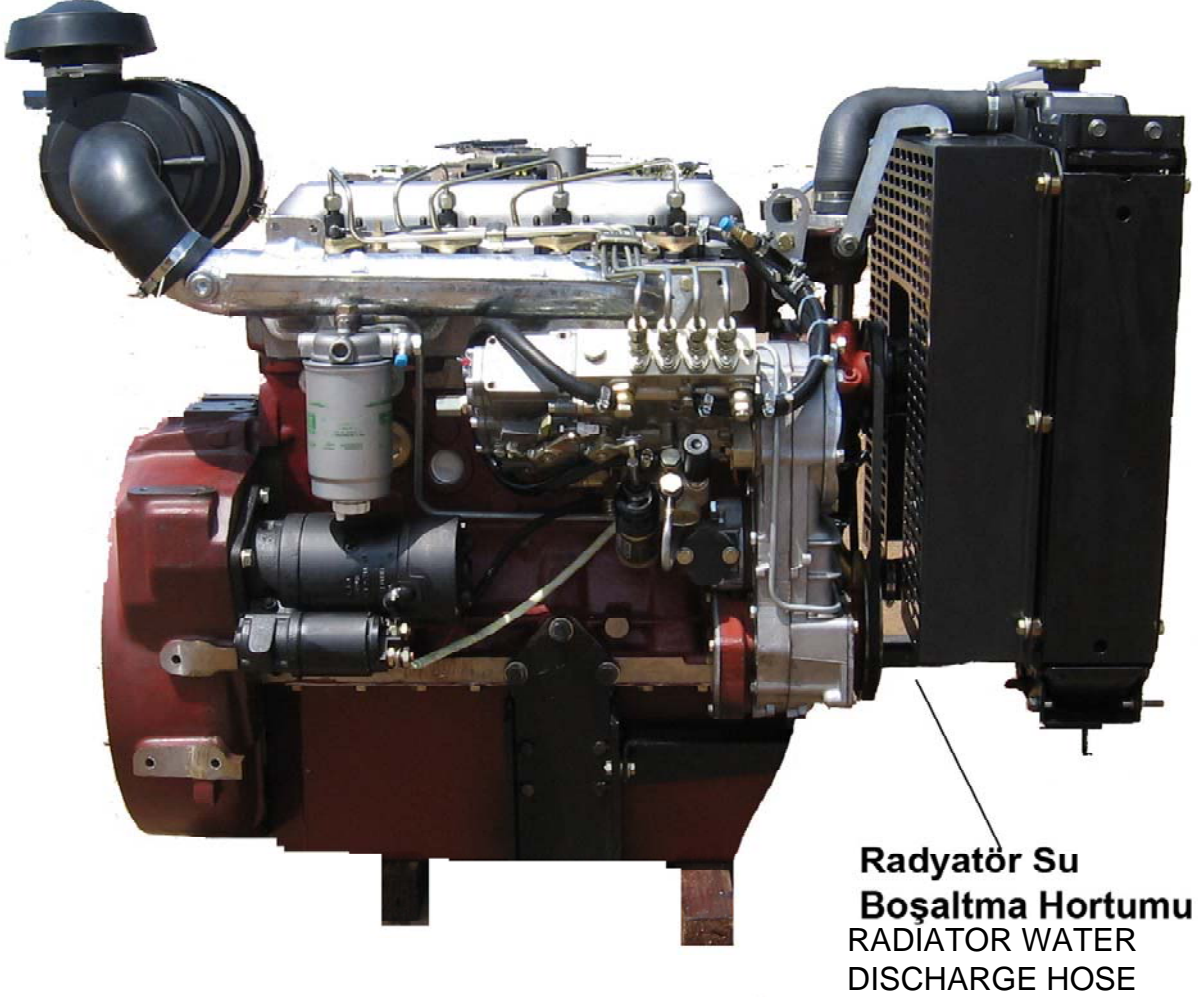
Check antifreeze ratio before winter. Always add antifreeze according to  $-10^{\circ}$  C less than min level recorded in the area. Check the radiators fins if it is enough clean or not. If dirty please clean with pressurized water.

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

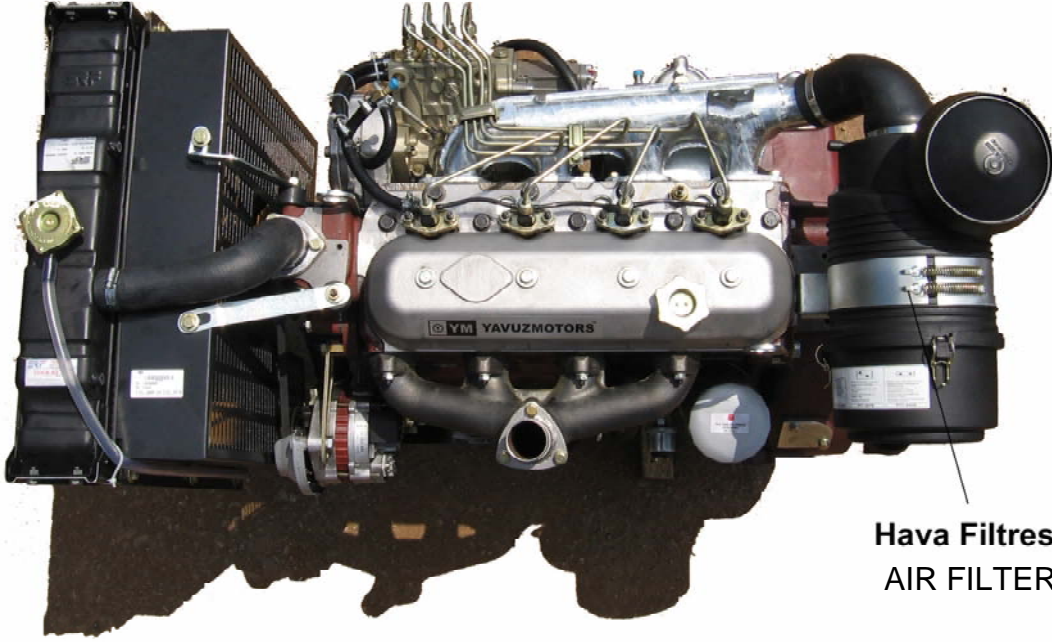


## Radiator Water Replacement

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

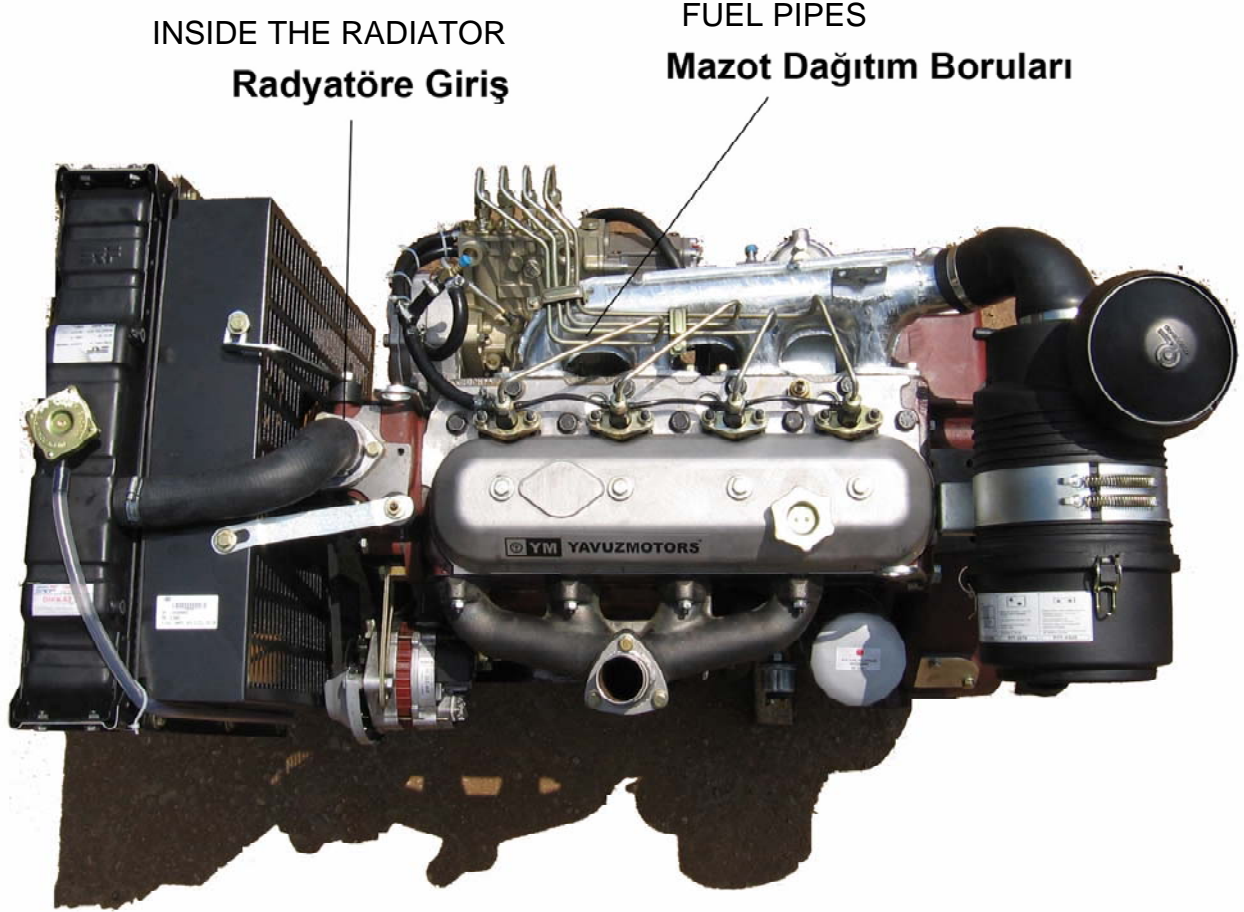


**Hava Filtresi**  
**AIR FILTER**

## 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

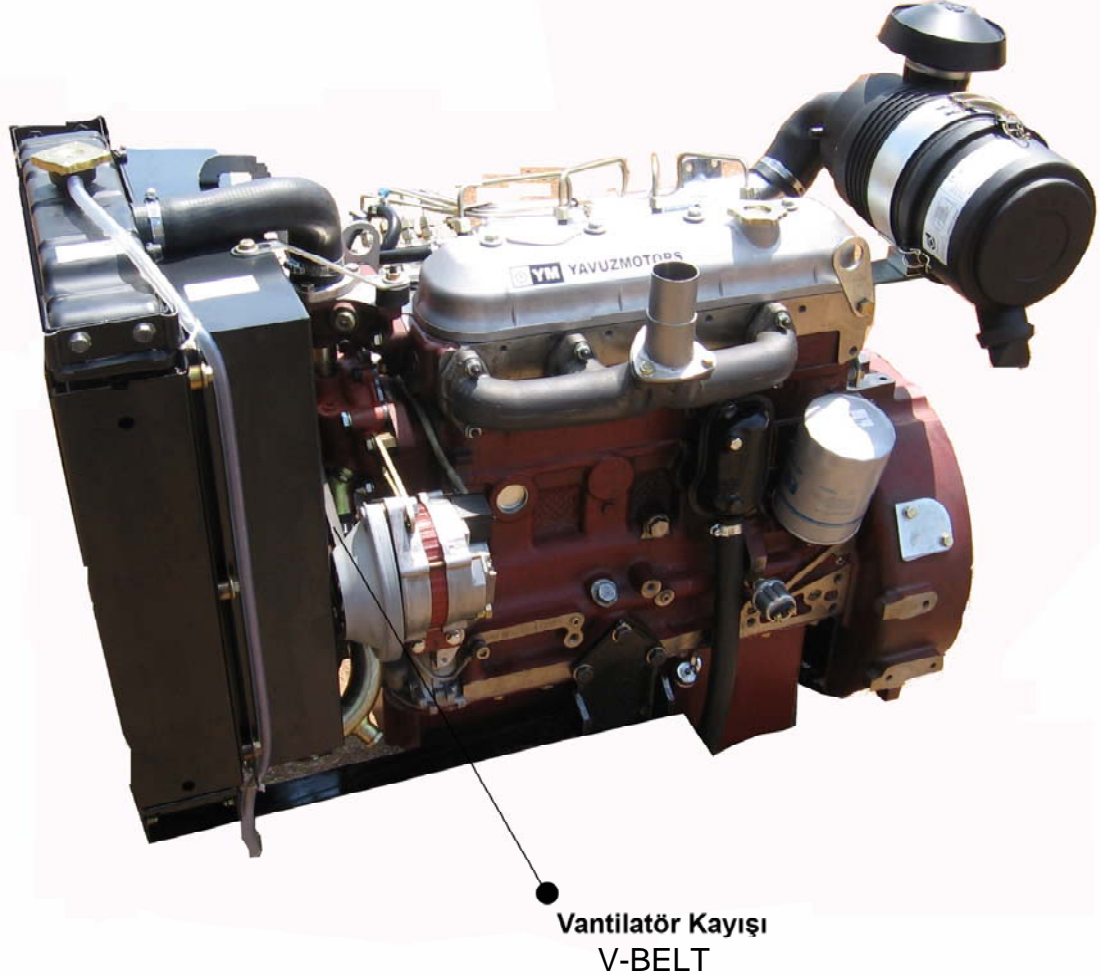


## Checking of Hoses and Pipes

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



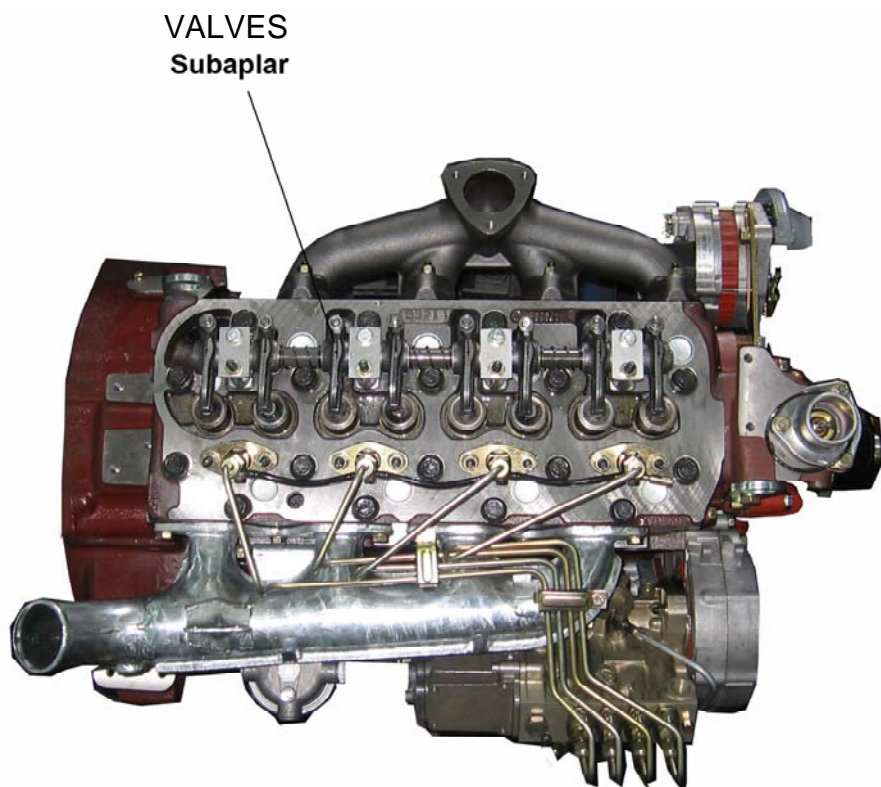
## V-Belt Replacement



## 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

<b>Condition</b>	<b>Description</b>	<b>To Do</b>
If the engine will not run for a long period	<p>■ayet 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</p> <p>* Bu durum sadece yıldız pompalar için geçerlidir</p>	.... Add diesel fuel additive to your fuel tank and run the engine 5-10 minutes
Cooling Water	<p>Motor soğutma suyu içerisine kesinlikle antiriz koyunuz.</p> <p>Bu hem motorun iç çeperlerini paslanmadan koruyacak hemde sıfırın altına inen sıcaklıklarda motor bloğunun patlamasını engelleyecektir.</p>	

## OIL STANDARTS

<u>TEMPERATURE</u>	<u>OIL STANDART</u>
<b>-20<sup>0</sup>C</b> Below level operating conditions	<b>SAE 5 W - 30</b>
<b>-20<sup>0</sup>C</b> Above Level çalışma ortamlarında	<b>SAE 15W-40-CH4 Sınıfı</b>



## WARRANTY

1. During the warranty period do all the maintenance and repair operations through your seller's authorized service except periodic maintenance. Your engine may be damaged seriously if unexperienced and unauthorized personnel do the job. This may lead to out of warranty condition.
2. Use original parts. Otherwise it may lead to damage of your engine without warranty.
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.
4. Use standard oil mentioned on this user manual.
5. Your engine is under guarantee. In case of problem please inform your seller's technical service immediately. Your problem will be solved as soon as possible.
6. Thank you for choosing Yavuz Motor





## **YAVUZ MOTOR AUTHORIZED SERVICES**