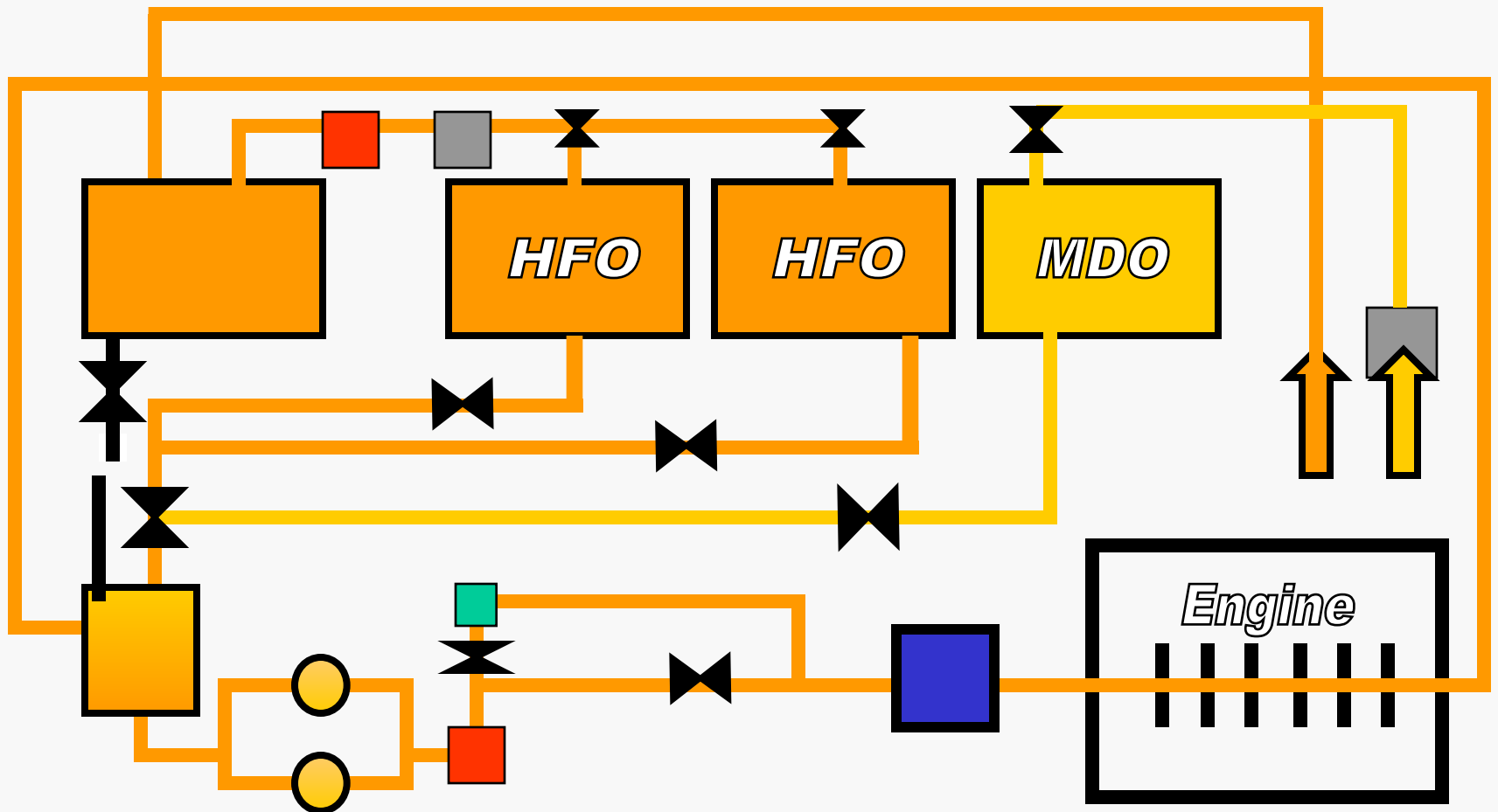
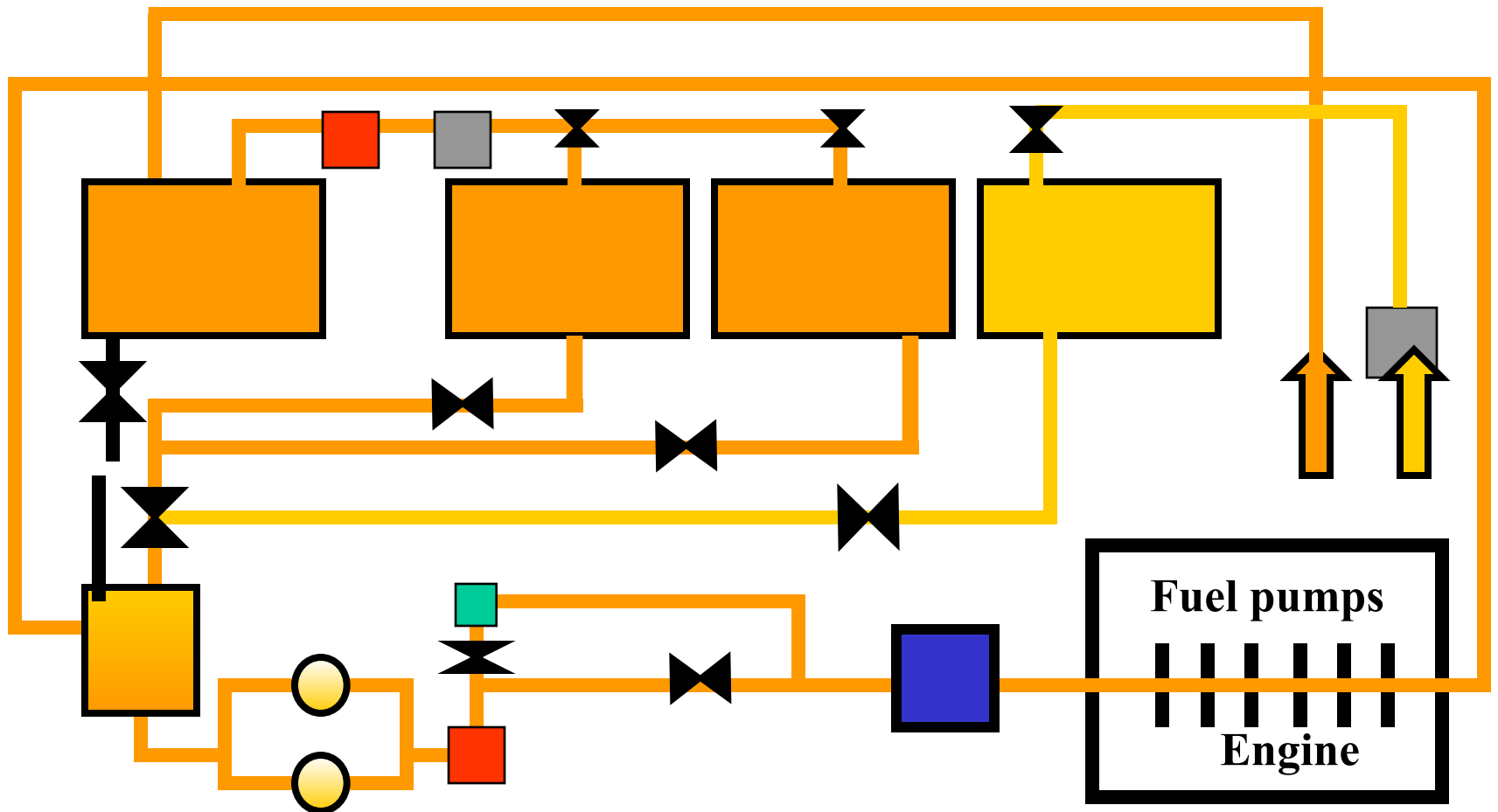


The fuel system



Types of fuels

Diesel engines consume Heavy Fuel Oil (HFO), Marine Diesel Oil (MDO) or Intermediate Fuel Oil (IFO).



Types of fuels

HFO

Heavy Fuel Oil is a *residual* oil that can be made more suitable for driving Diesel engines by *adding* certain *flammable substances*.

MDO

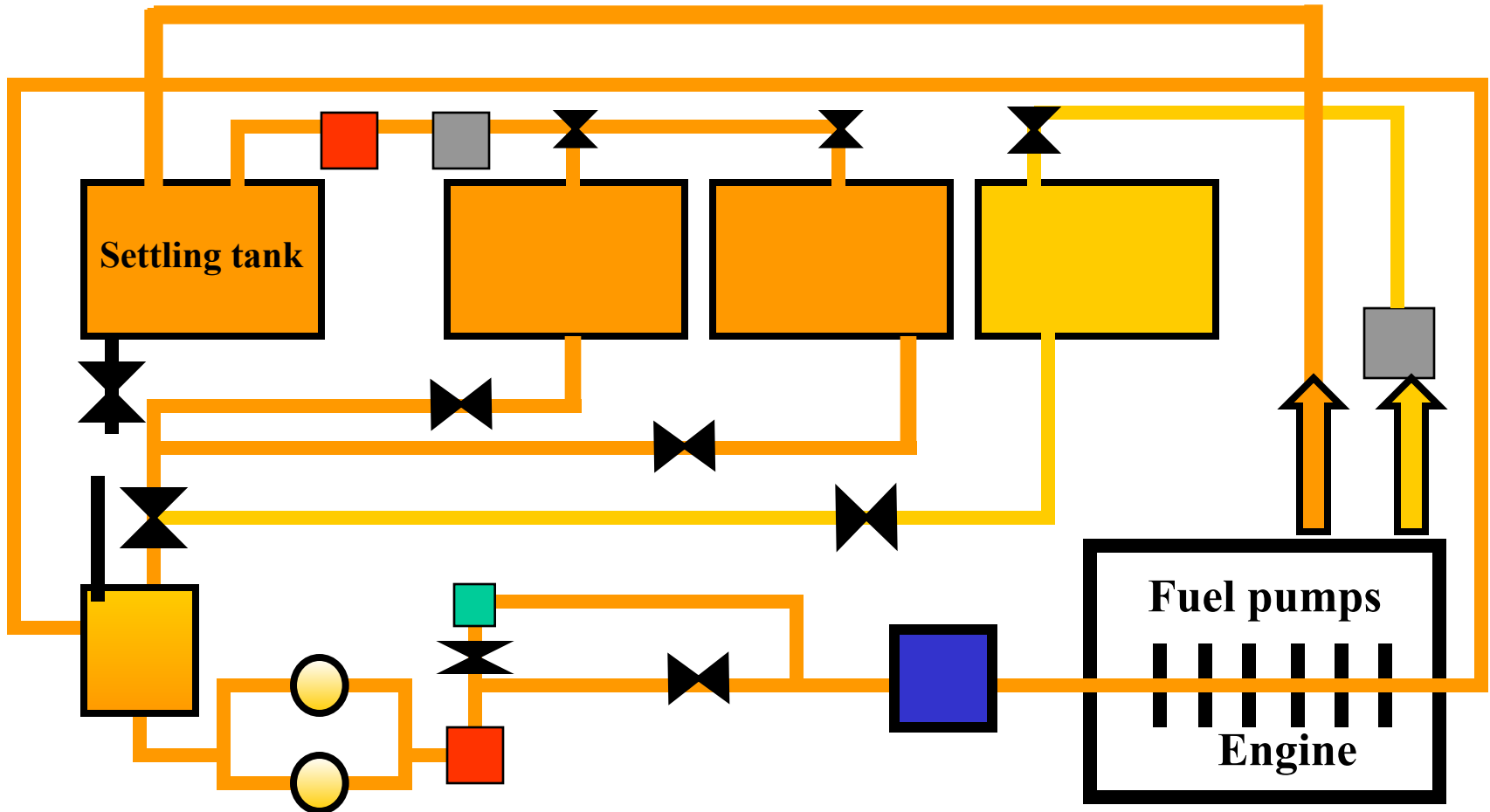
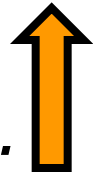
Marine Diesel Oil (MDO) is a *high-grade fuel* of *low viscosity*.

IFO

Modern Diesel engines are run on *Intermediate Fuel Oil* (IFO), a fuel whose *grade* lies between that of HFO and MDO.

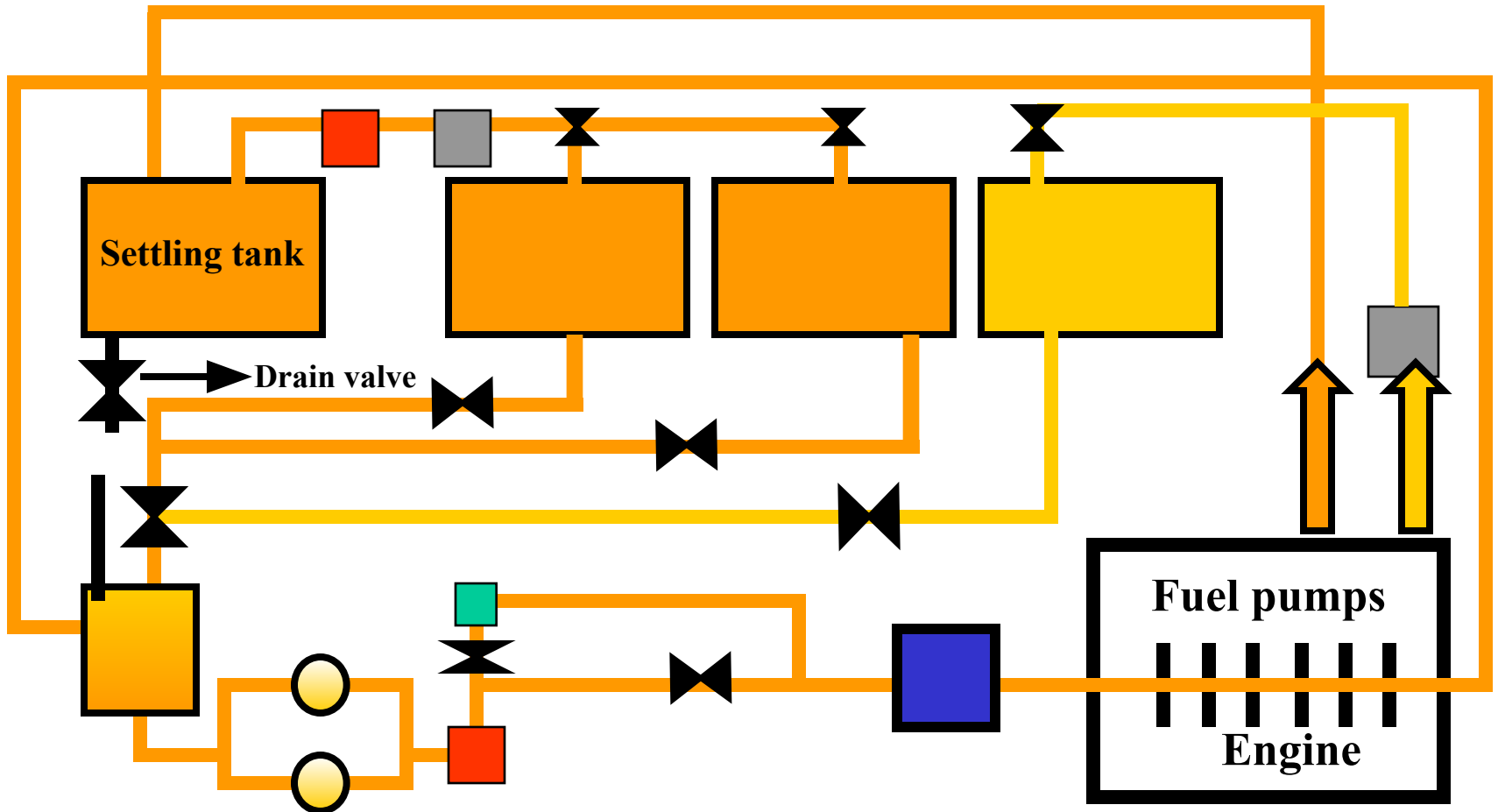
HFO

From the Heavy Fuel Oil bunkertank the *preheated* fuel is led to the *settling tank*.



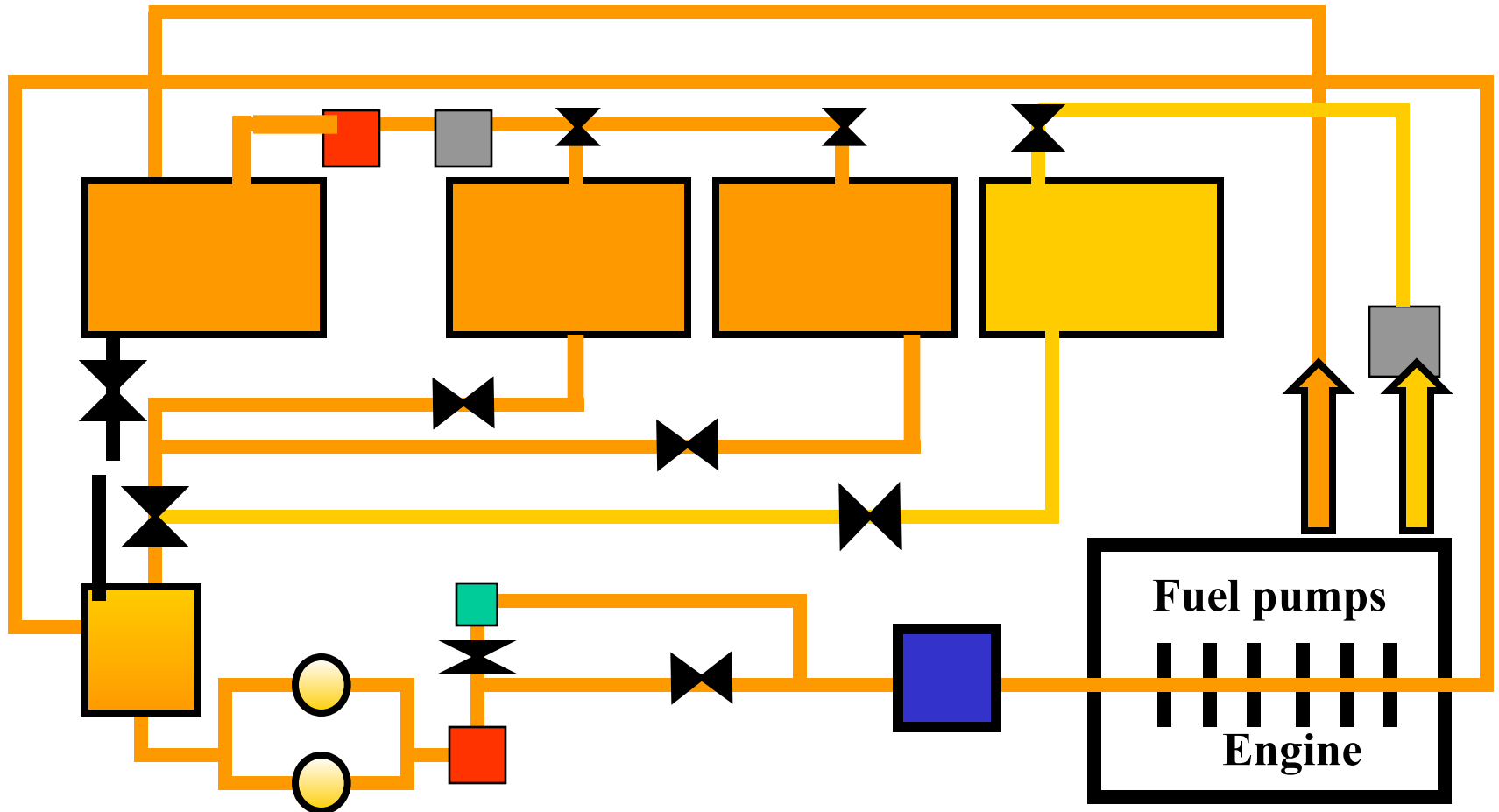
HFO

In the settling tank water and *impurities* are separated from the fuel and *drained off*.



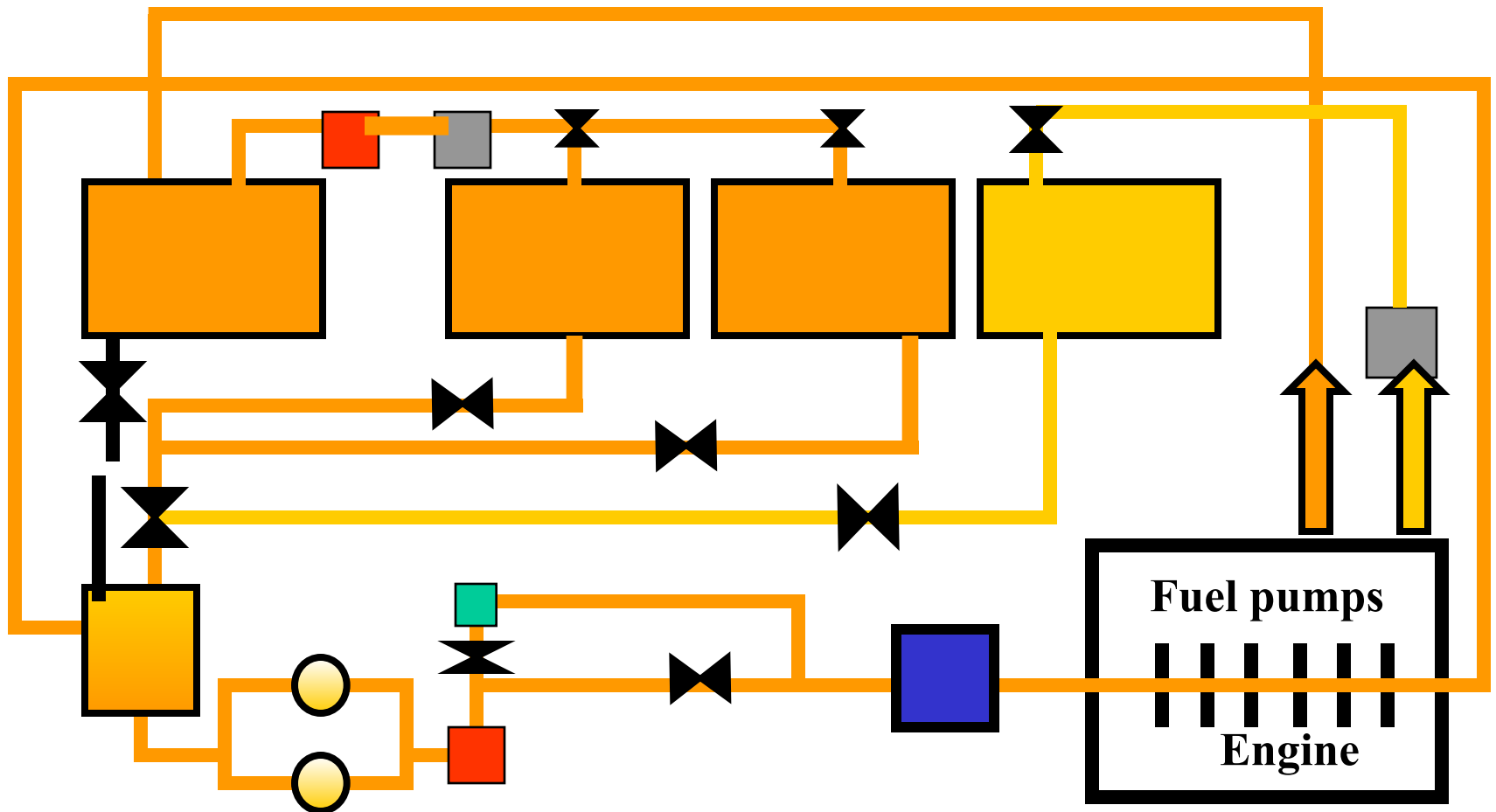
HFO

From the settling tank the fuel is led through a heater ■ to *preheat* the fuel.



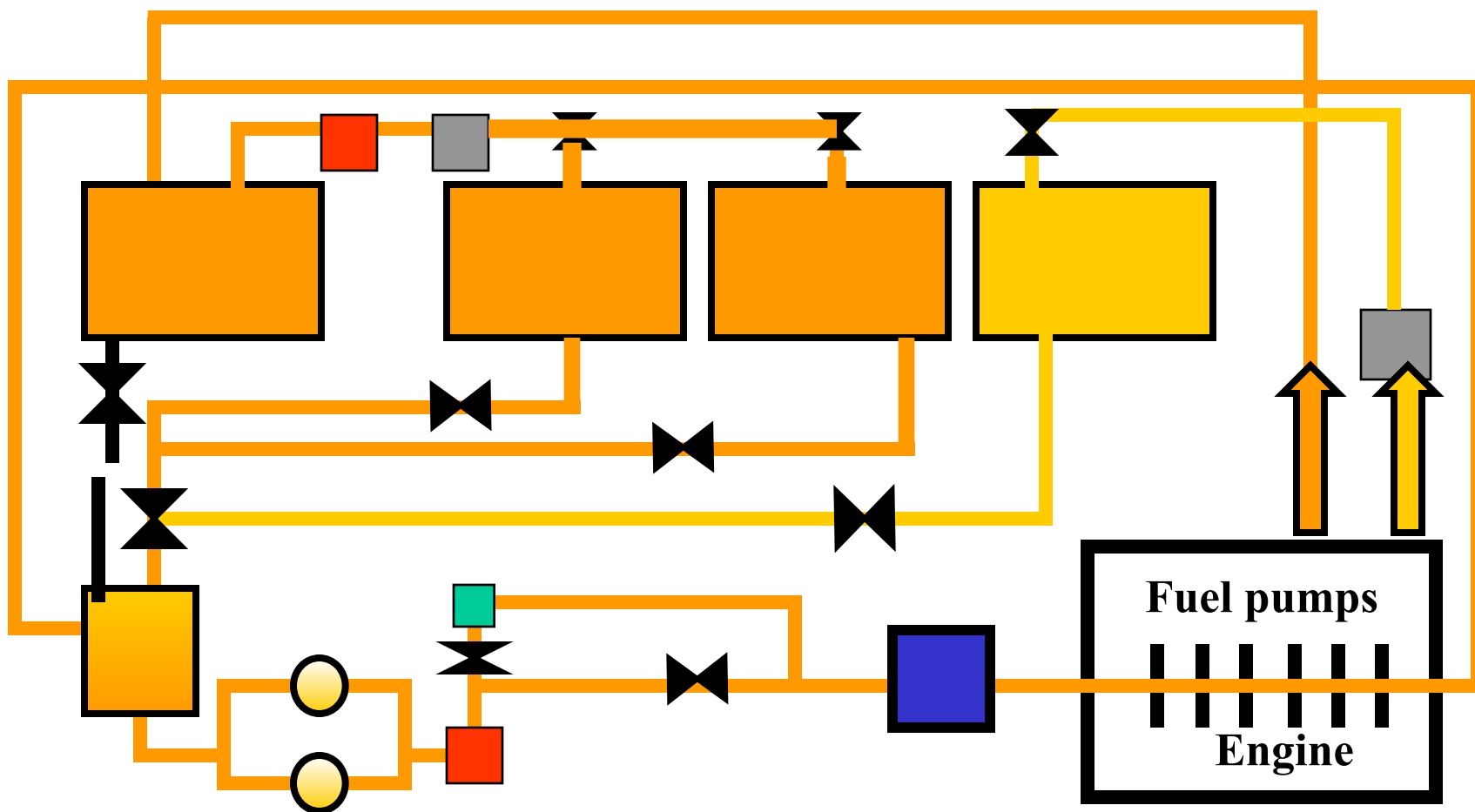
HFO

From the heater the fuel is led through a separator (purifier / clarifier) to purify the fuel.



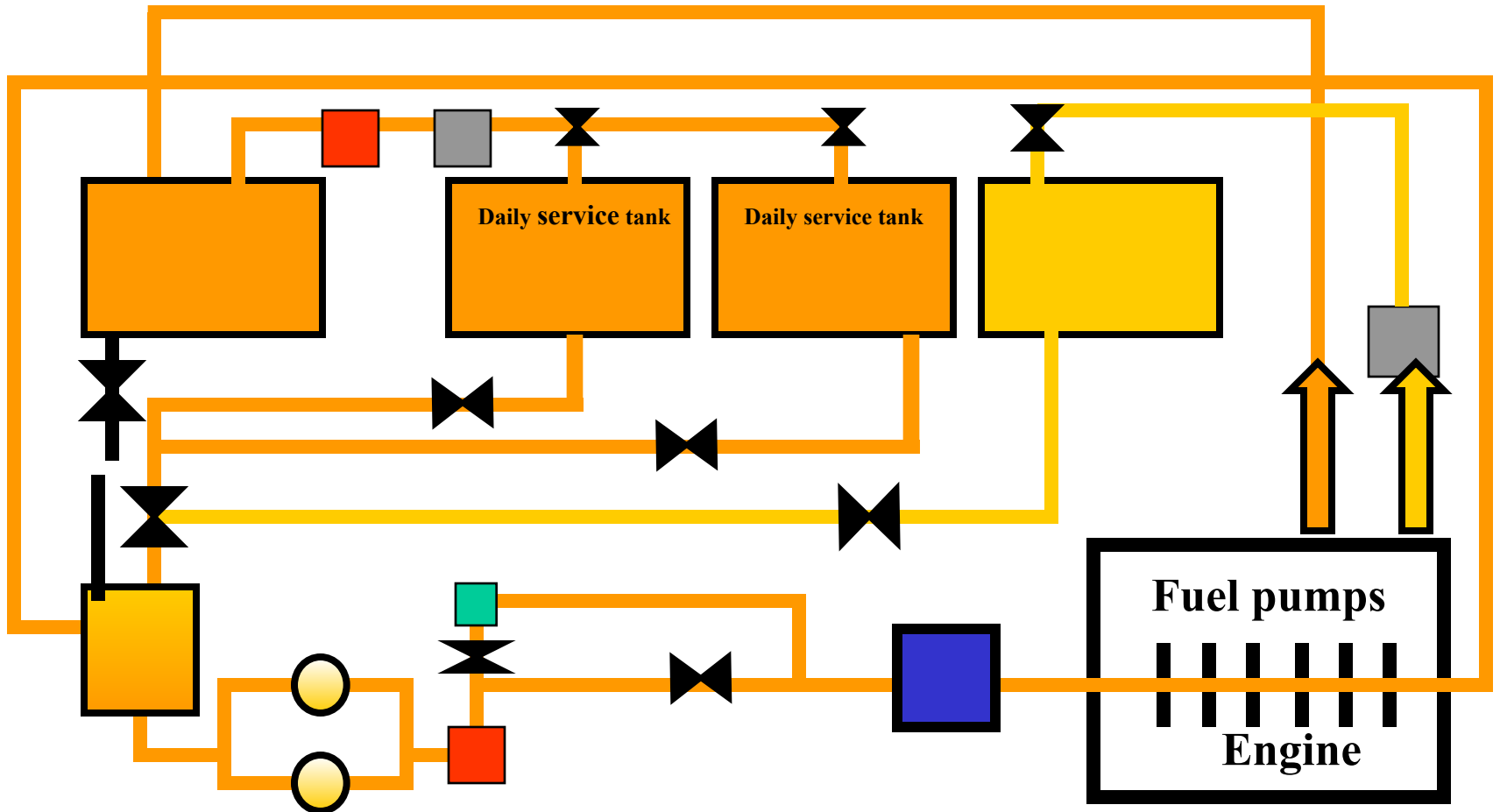
HFO

From the separator the fuel enters the *daily service tank* for HFO.



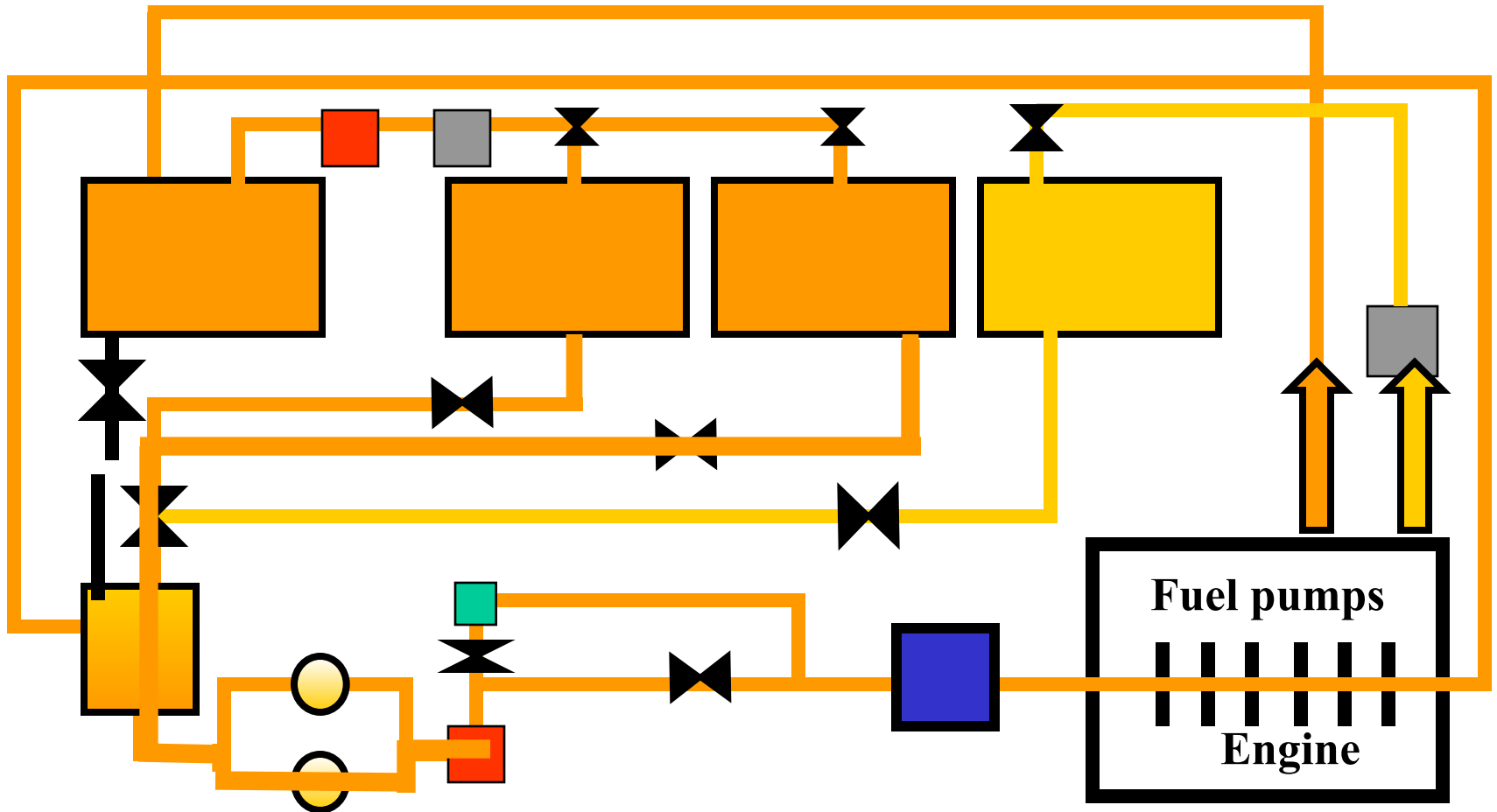
HFO

There are two daily service tanks, so that one tank may be used while the other is being filled.



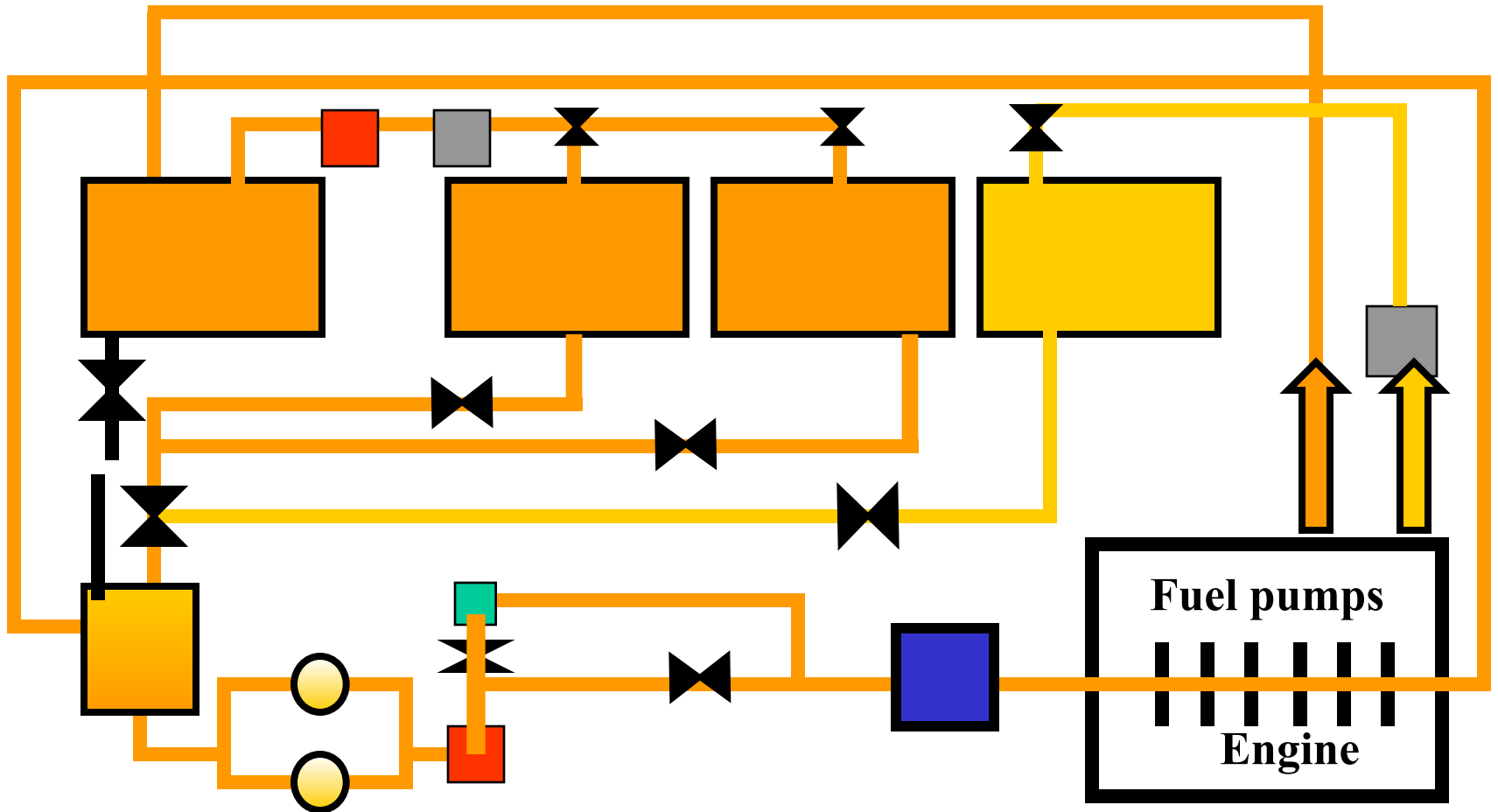
HFO

From the daily service tank the fuel is pumped to a heater ■ by the *low pressure fuel pump* ● (or “booster pump”).



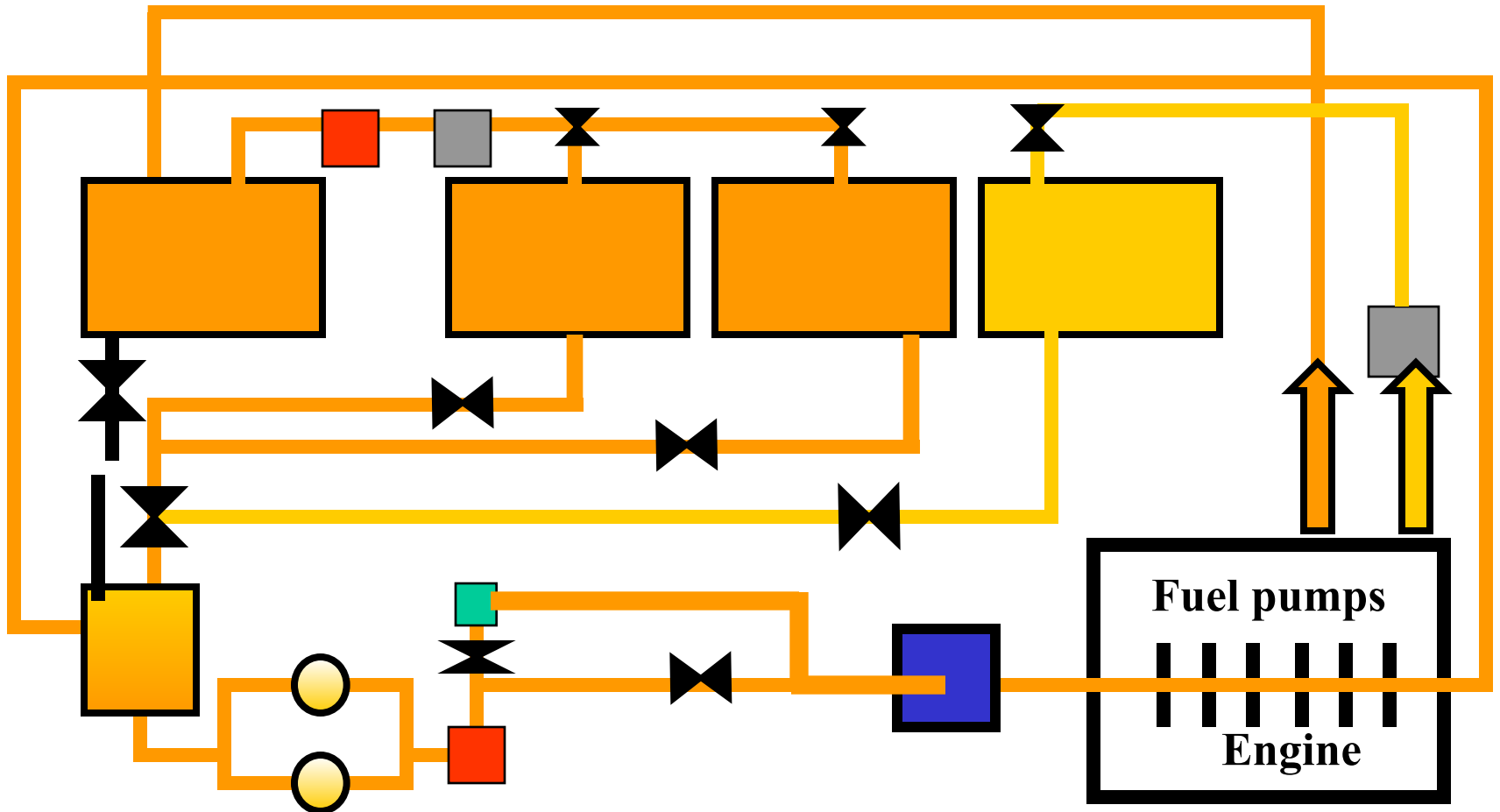
HFO

From the heater the HFO is passed through a *viscosity regulator*  .



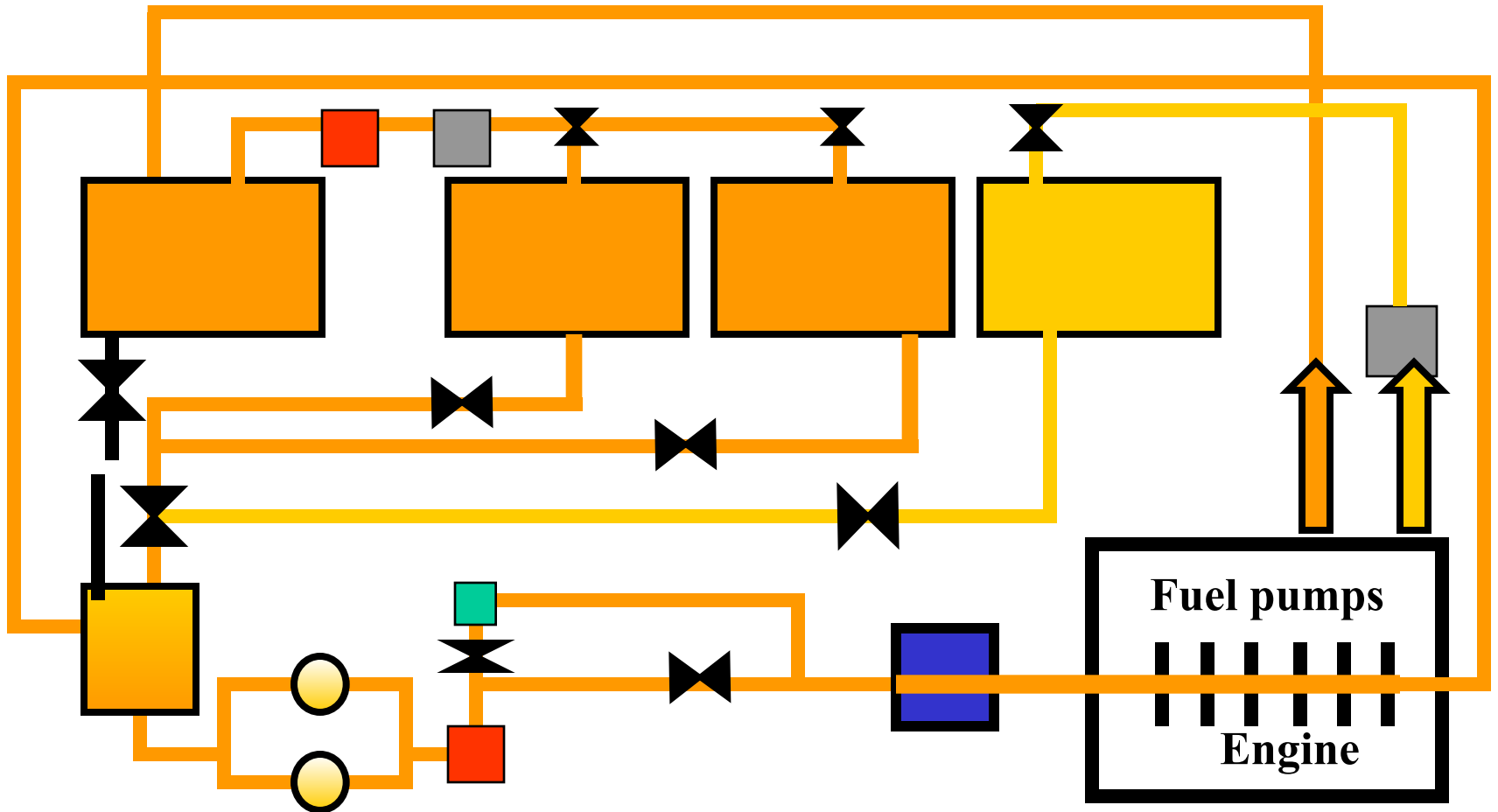
HFO

From the viscosity regulator the fuel is passed through a fuel *strainer* , which filters the fuel.

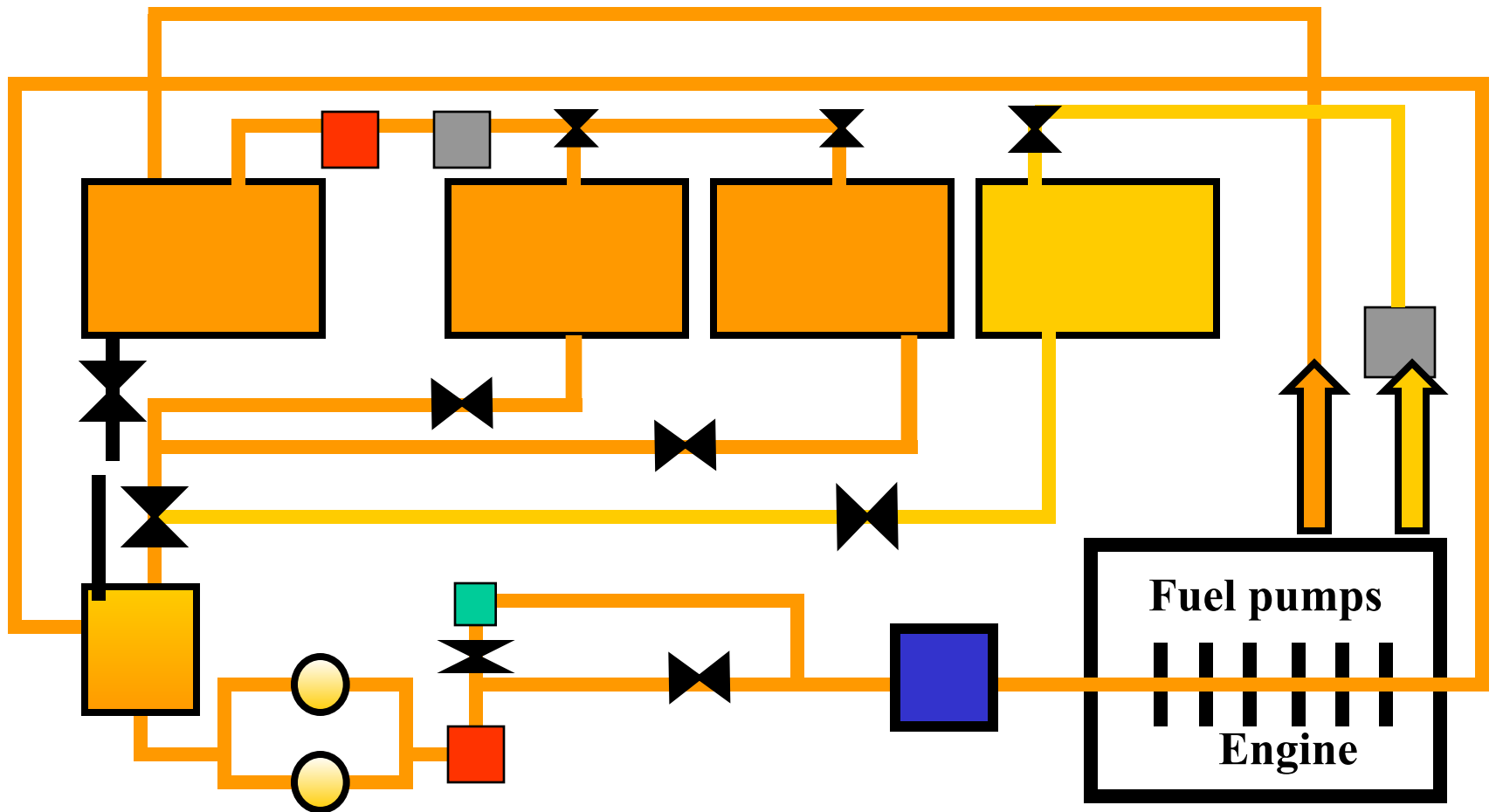


HFO

From the fuel strainer the oil is led to the fuel pumps in the engine.

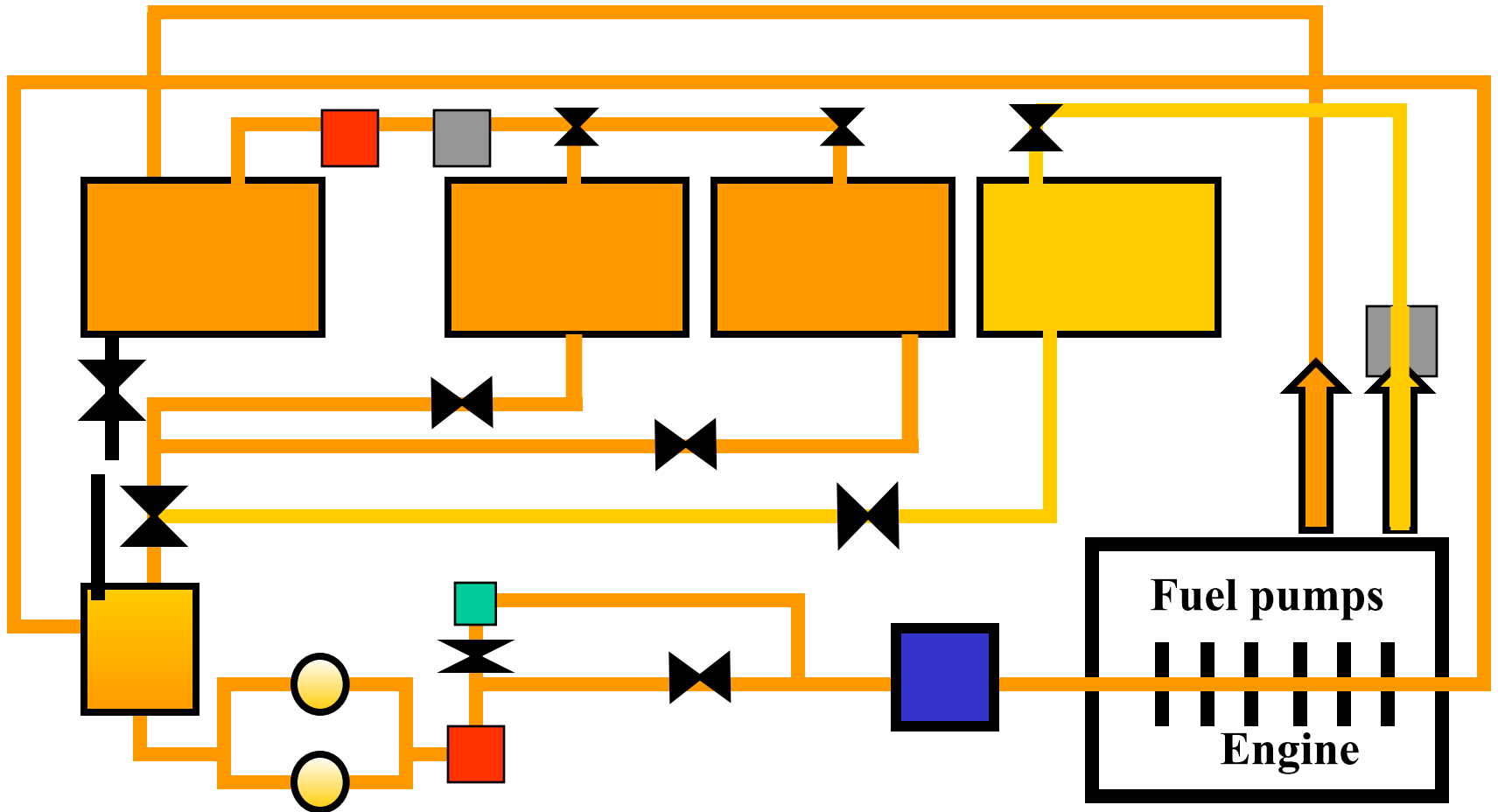


Marine Diesel Oil

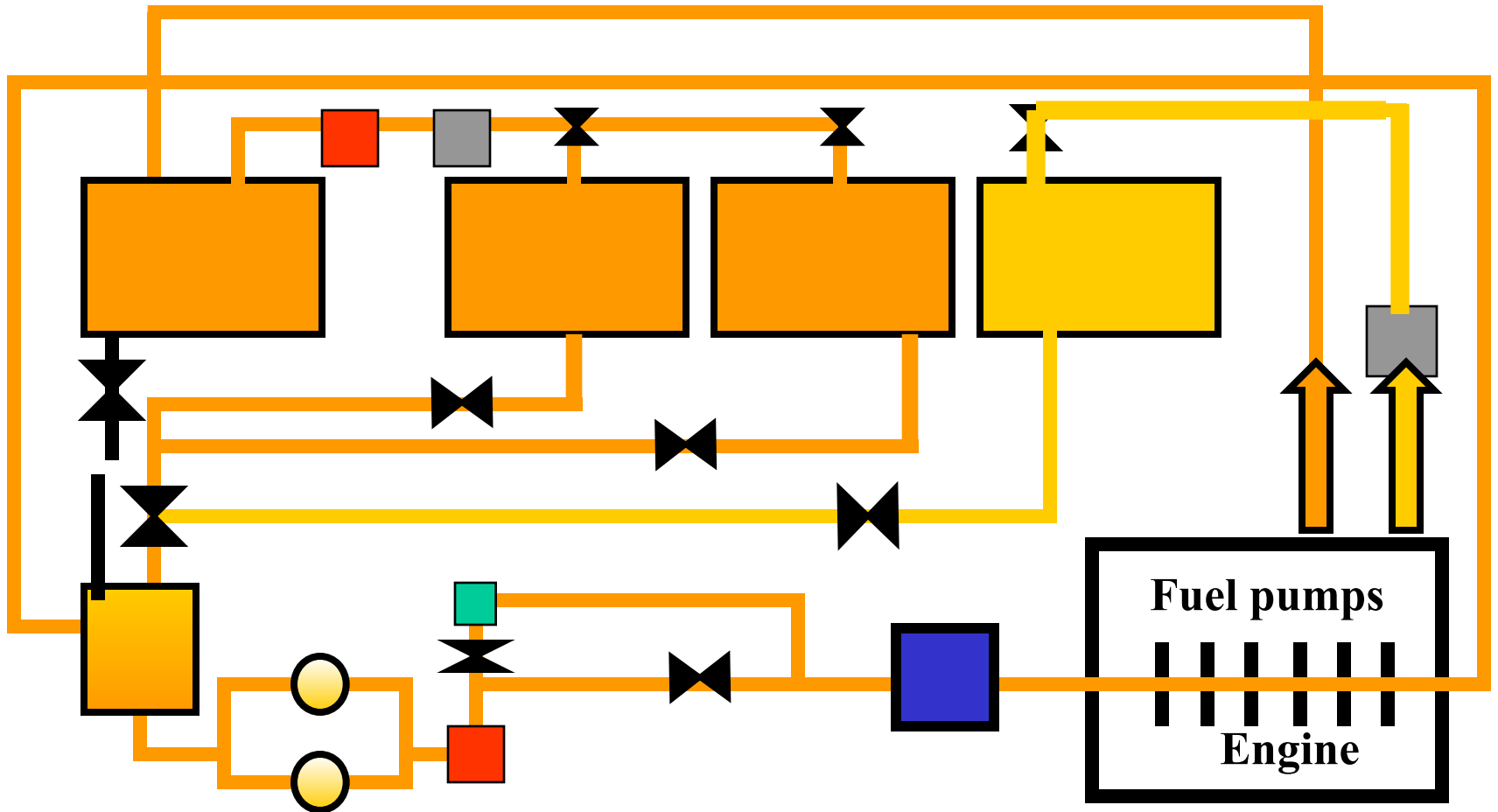


MDO

After the DO has been pumped up from the bunkertank, the fuel passes through a *purifier* .

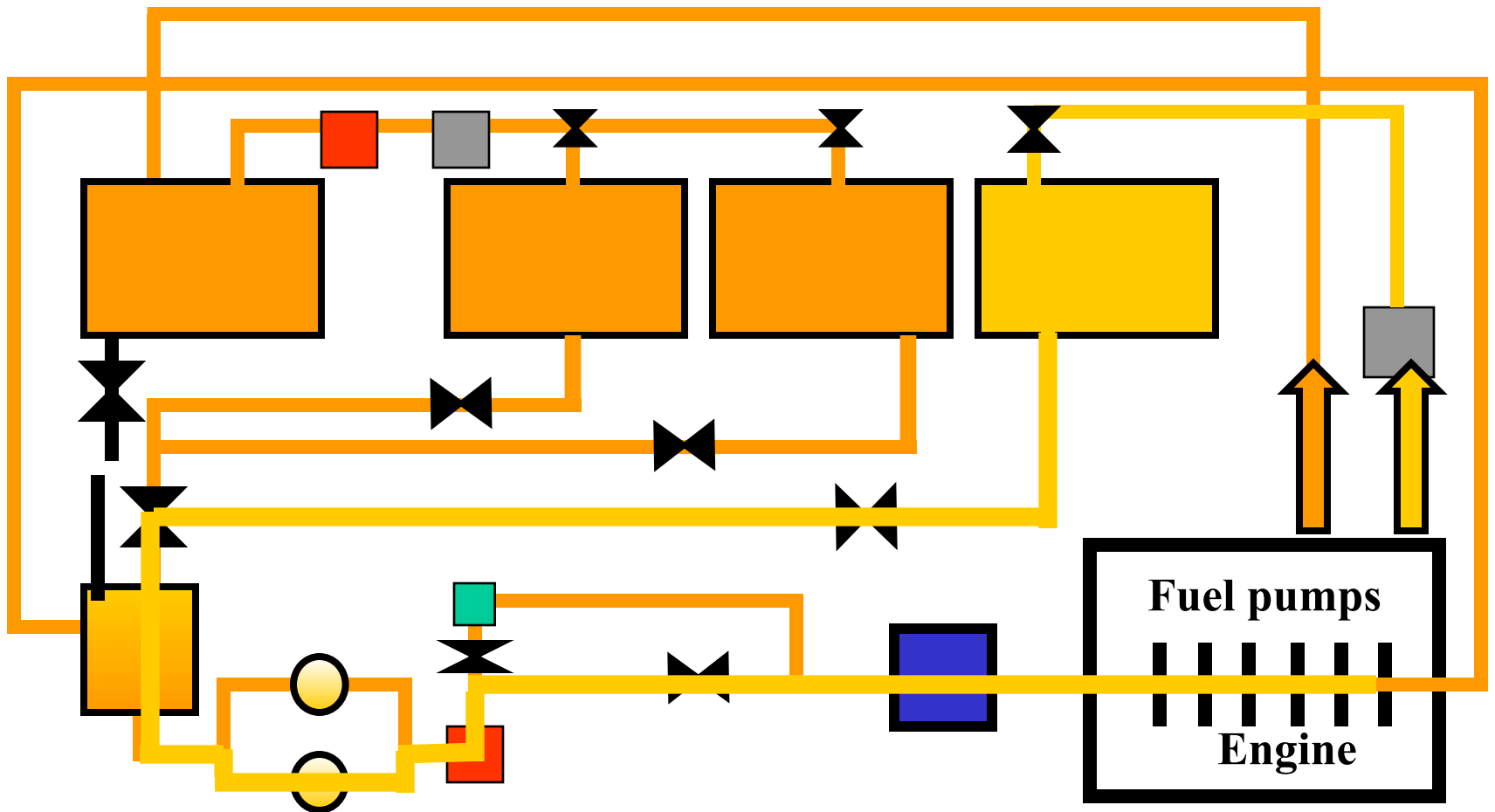


From the purifier the DO enters the *DO storage tank*.

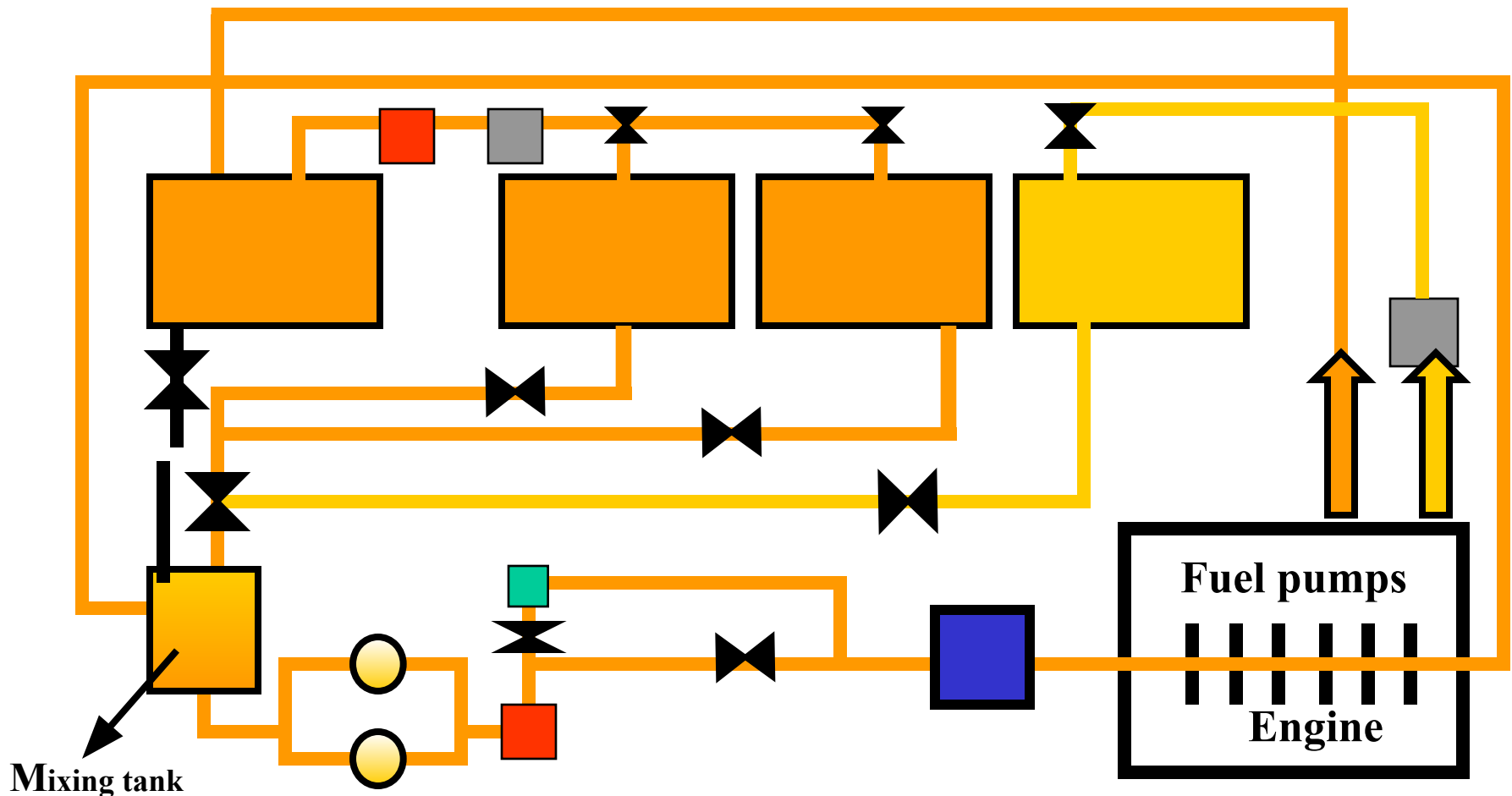


MDO

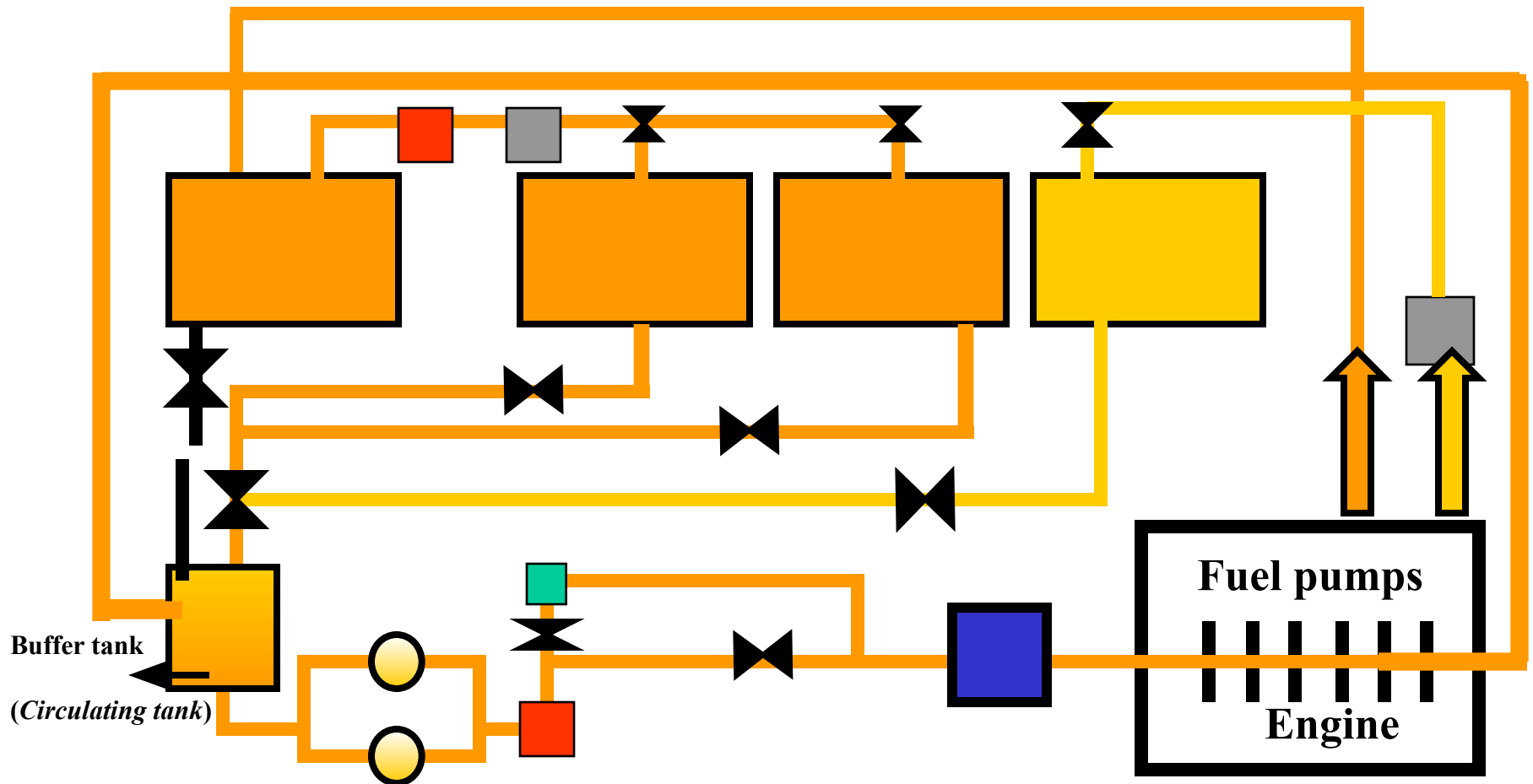
From the DO service tank the fuel is led to the high-pressure fuel pumps in the engine.



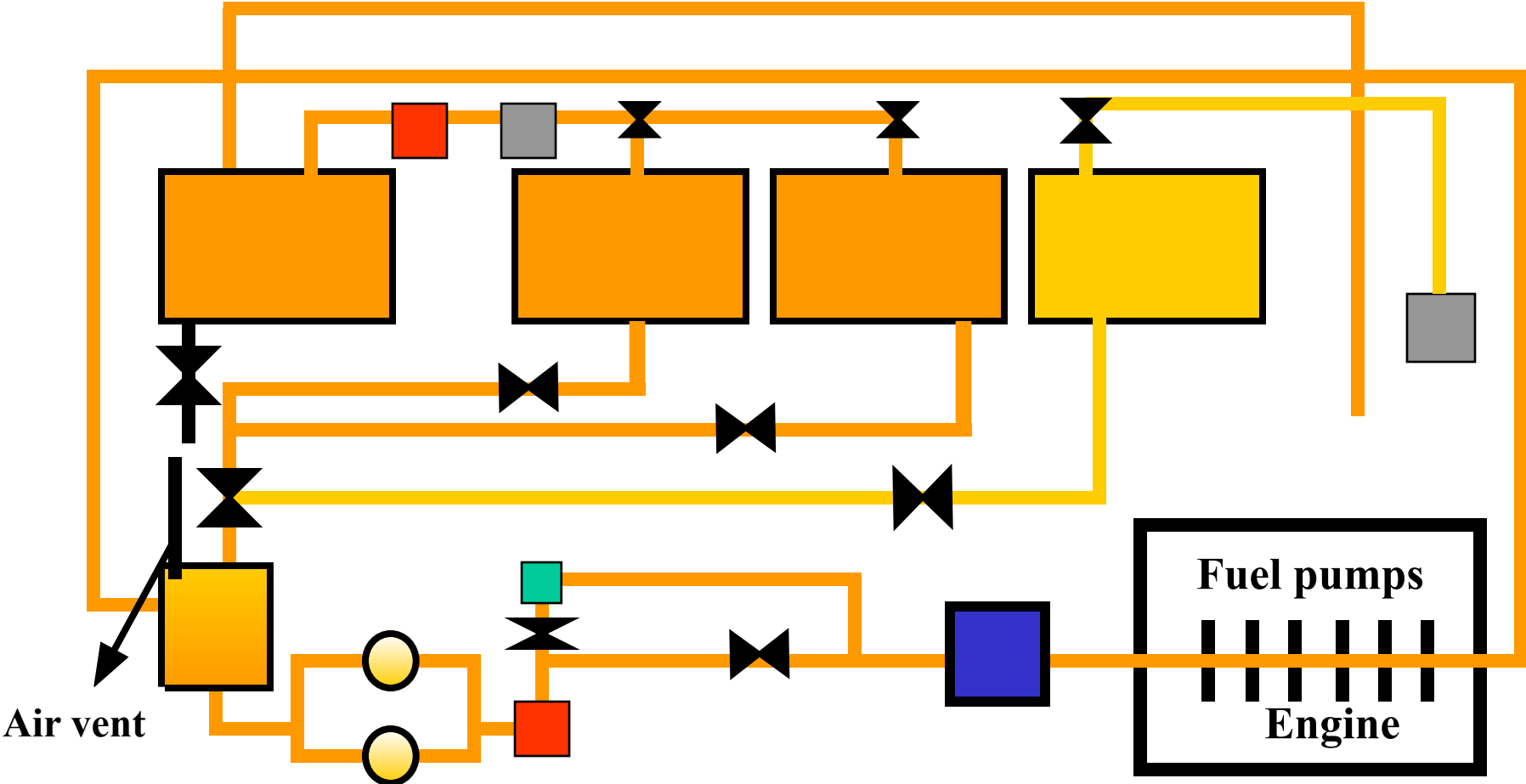
A mixing tank is used for a *gradual transition* from HFO to DO. ←→



The mixing tank, or "buffer tank", can hold a quantity of fuel which will be circulated and led to the engine.



The hot *fuel fumes* can escape through the *air vent* in the mixing tank.



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SHIPPING AND TRANSPORT COLLEGE ROTTERDAM