

Notice: Due to **bus electrical problems** some parts of data were missed. So results during this period, are unreliable.

Overall Information

Table 1- Overall Information

Vehicle plate number	78524
CPK data logger number	LN: 001443, DN: 1930, Sim +989218786219
Bus line	Number 4 (south to north bus line)
Bus Terminals	Tehran South Bus Terminal - Park Way Bus Terminal
Total path distance	22.8 km
DPF producer company	PURltech (Passive system with FBC)
Installation date	28/Jan/2015
Report period	1/Jun/2015 – 15/Jun/2015 (fifteen days)
K value – DPF's upstream	1.84 [m^{-1}]
K value – DPF's downstream	0.05 [m^{-1}]

Table 2- Maintenance Table

Filter maintenance date	DPF has been working from installation date until now without any cleaning.
Dosing status	Dosing value has been kept constant from installation date until now.

Table 3- Fuel and Additive Consumption Information

Bus mileage (from DPF installation date)	19088
Bus mileage over the period	2339 km
Working days over the period	-
Stop days	-
Data logger working days	-
Working hours over the period	-
Average working hours per a day (including stop days)	-
Bus average speed	-
Idle speed time to all working time ration	-
Total bus fuel consumption over the period	1640 lit
Fuel consumption per hour	-
Average fuel consumption	0.70 lit/km
Total bus additive consumption over the period	0.85 lit
Average additive consumption	0.364 cc/km
Additive consumption to fuel ration	520 cc per 1000 lit (batch Dosing with Tank Level)

Notice: because of bus electrical problem some information missed.

Temperature, Pressure and Engine Speed Overview

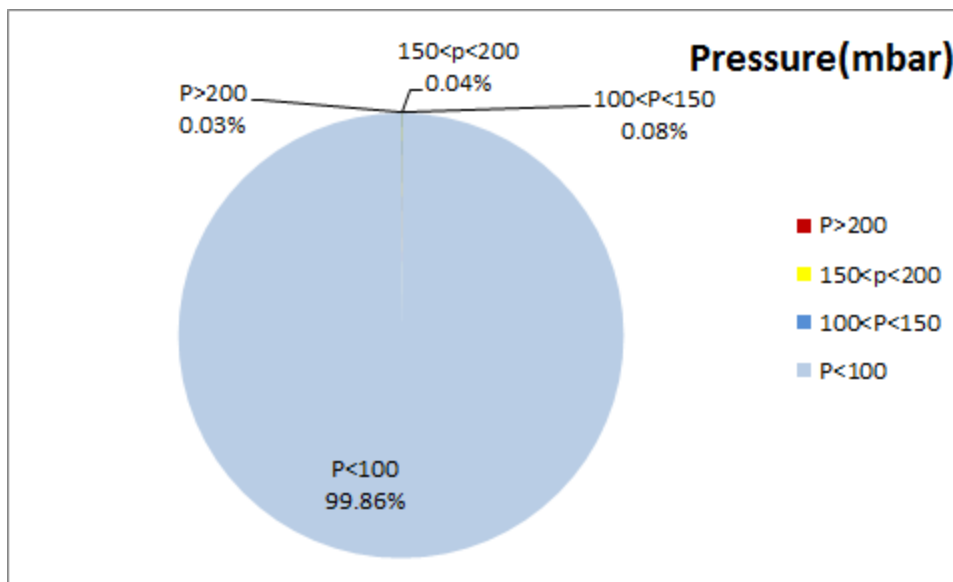


Figure 1- Pressure distribution over the working hours

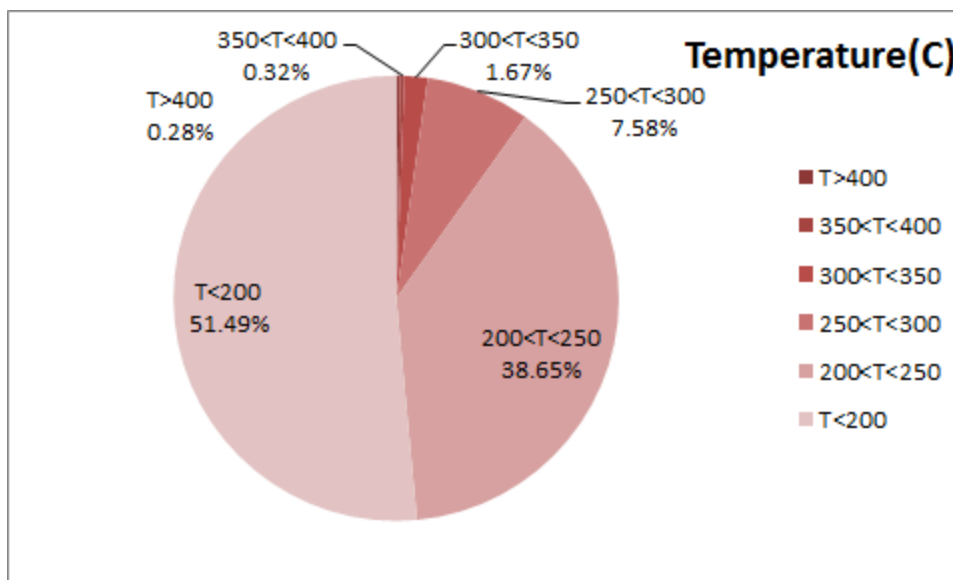


Figure 2-Temperature¹ distribution over the working hours

¹ - Flow temperature (DPF's upstream)

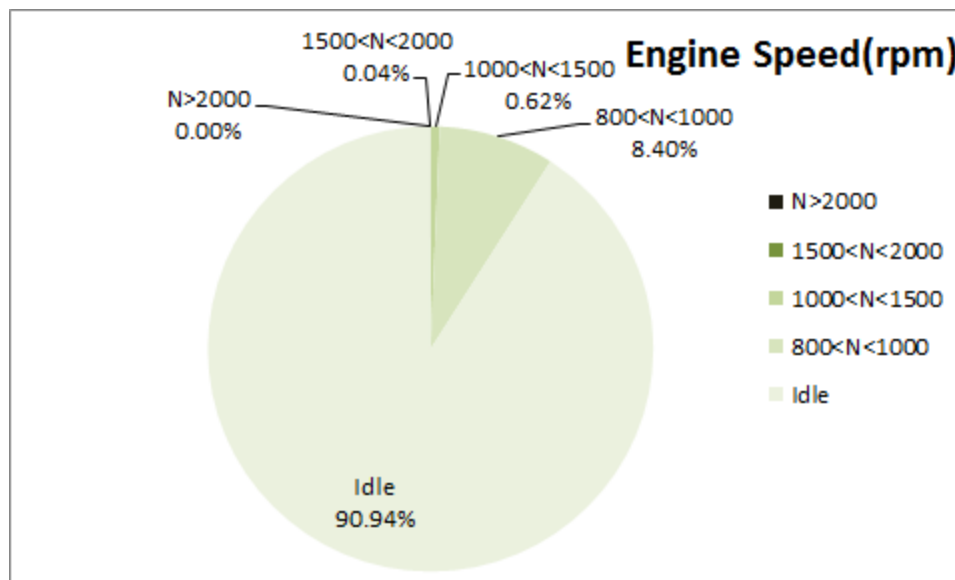


Figure 3- Engine speed distribution over the working hours

Notice: with using bus cooler system, idle rpm increase compare with working times without using ventilation system. So during hot months of year 800 rpm is considered as upper limit for idle engine speed. By the way, these figures' results are fully unreliable due to bus electrical problem.

Table 4- Mean values

Mean temperature ² (C)	Mean pressure(mbar)	Mean engine speed(rpm)
189.08	17.19	685

Table 5- Mean values without idling

Mean temperature(C)	Mean pressure(mbar)	Mean engine speed(rpm)
224.76	22.08	836

Table 6- Max-min values

Max-min temperature(C)	Max-min pressure(mbar)	Max-min engine speed(rpm)
578-50	243-0	1966-251

² - Flow temperature (DPF's upstream)

Detailed Pressure Analysis

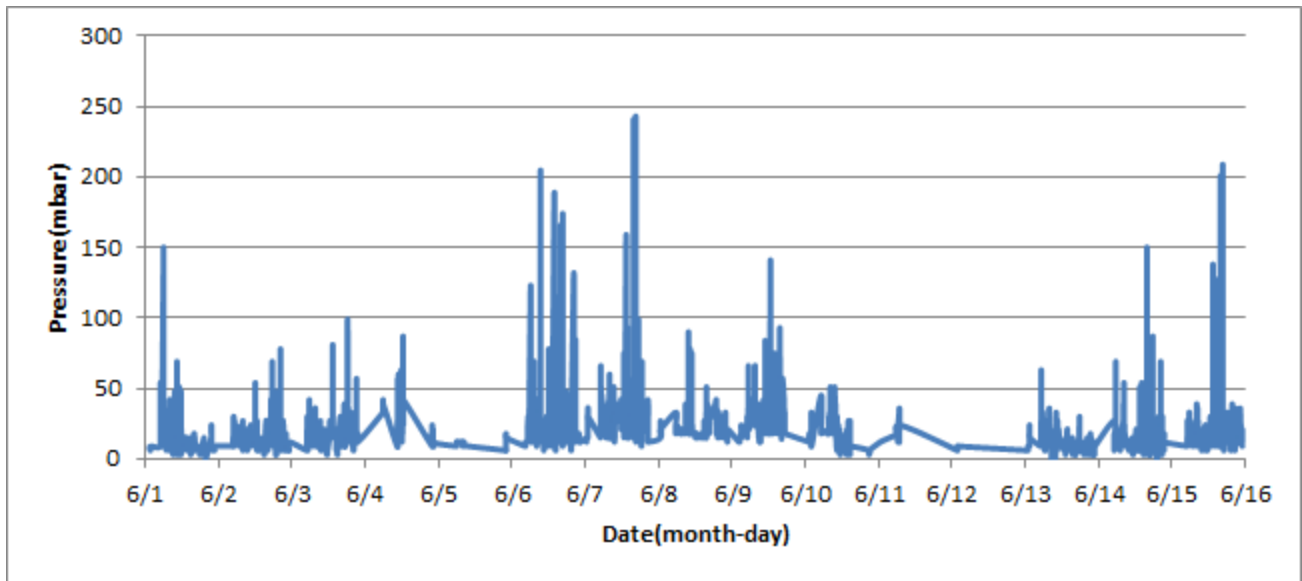


Figure 4- Pressure distribution over the fifteen days

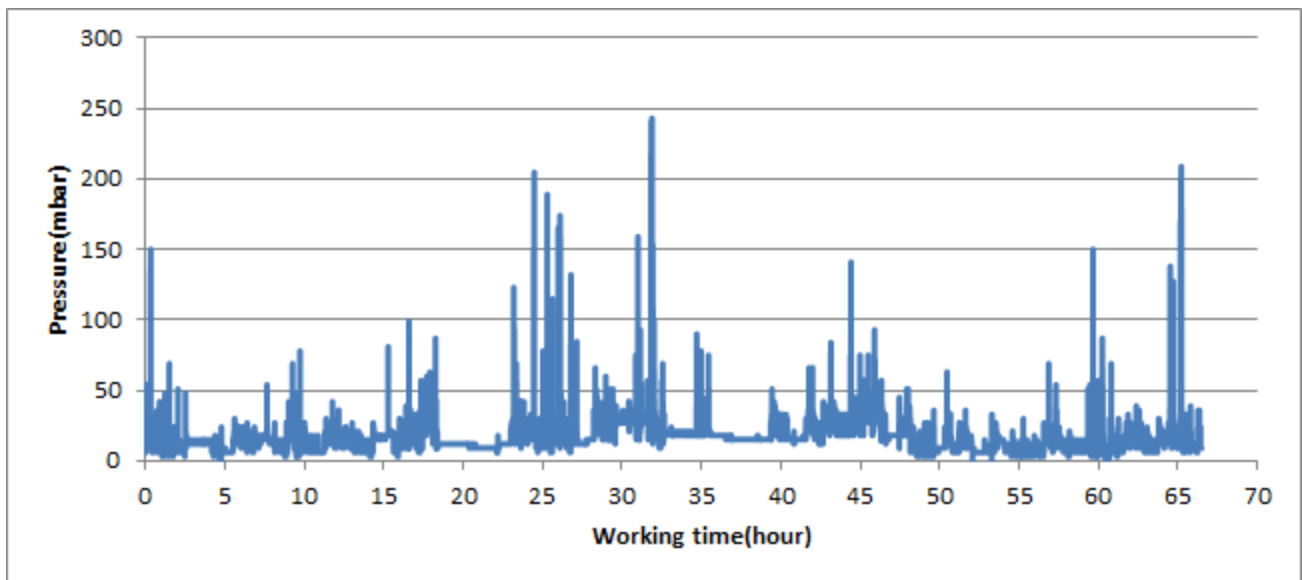


Figure 5- Pressure vs. working hours

Notice: backpressure distribution was shown into two diagrams. As obvious in figure 5, stop-working periods were eliminated and pressure was displayed along working hours.

Detailed Temperature Analysis

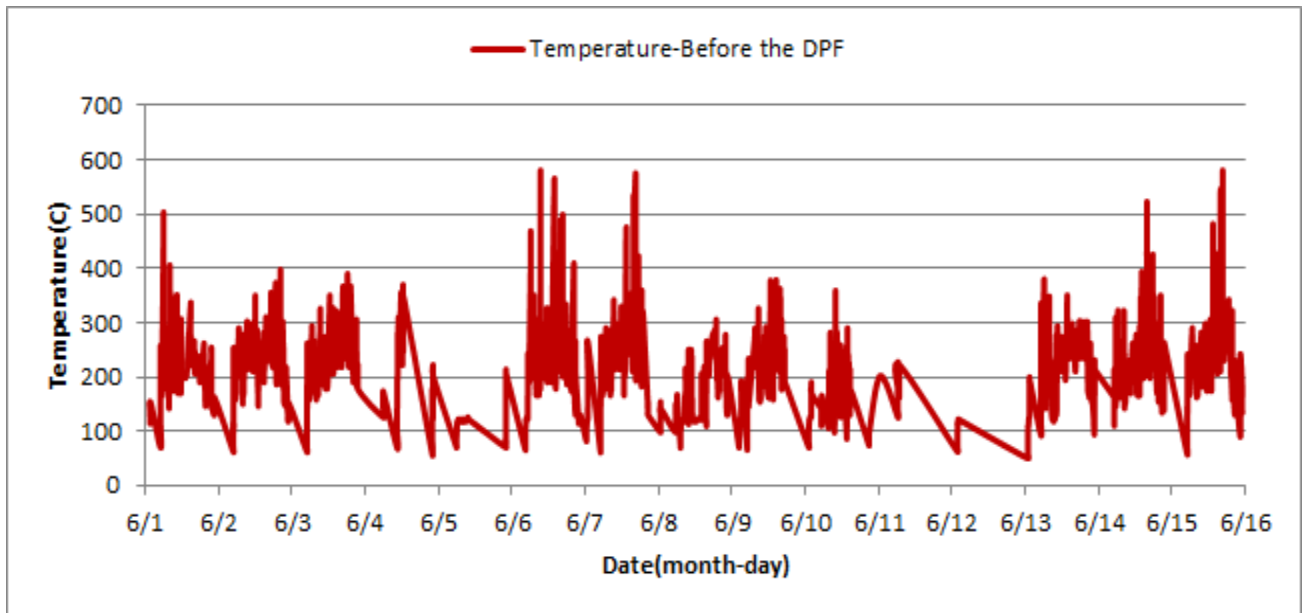


Figure 6- Temperature distribution over the fifteen days

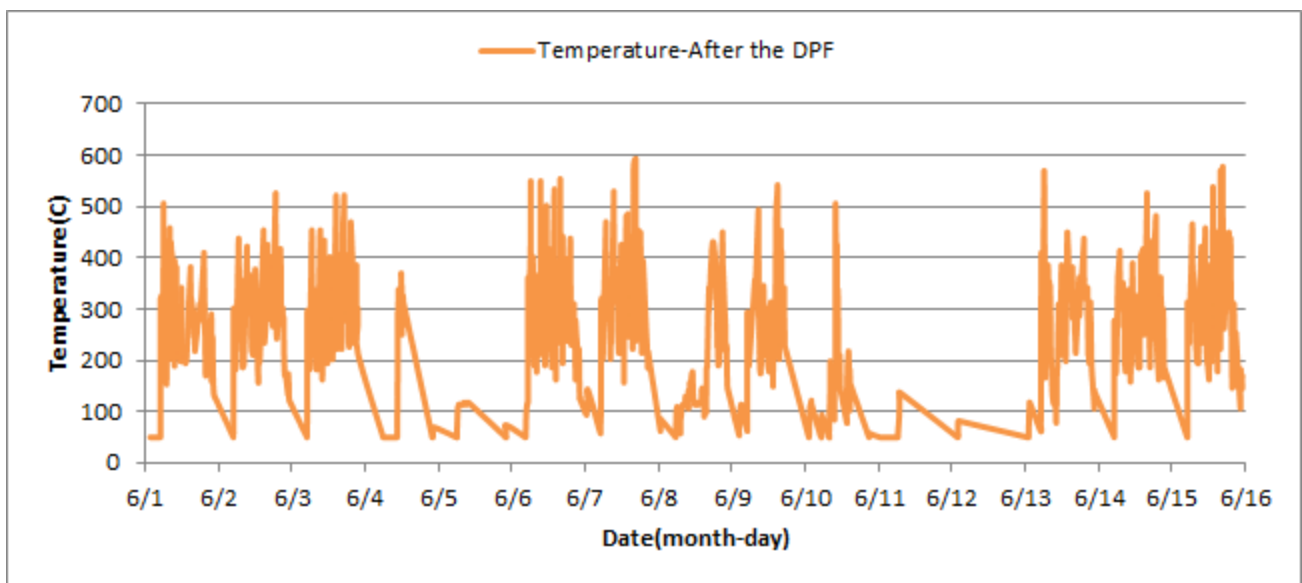


Figure 7- Temperature distribution over the fifteen days

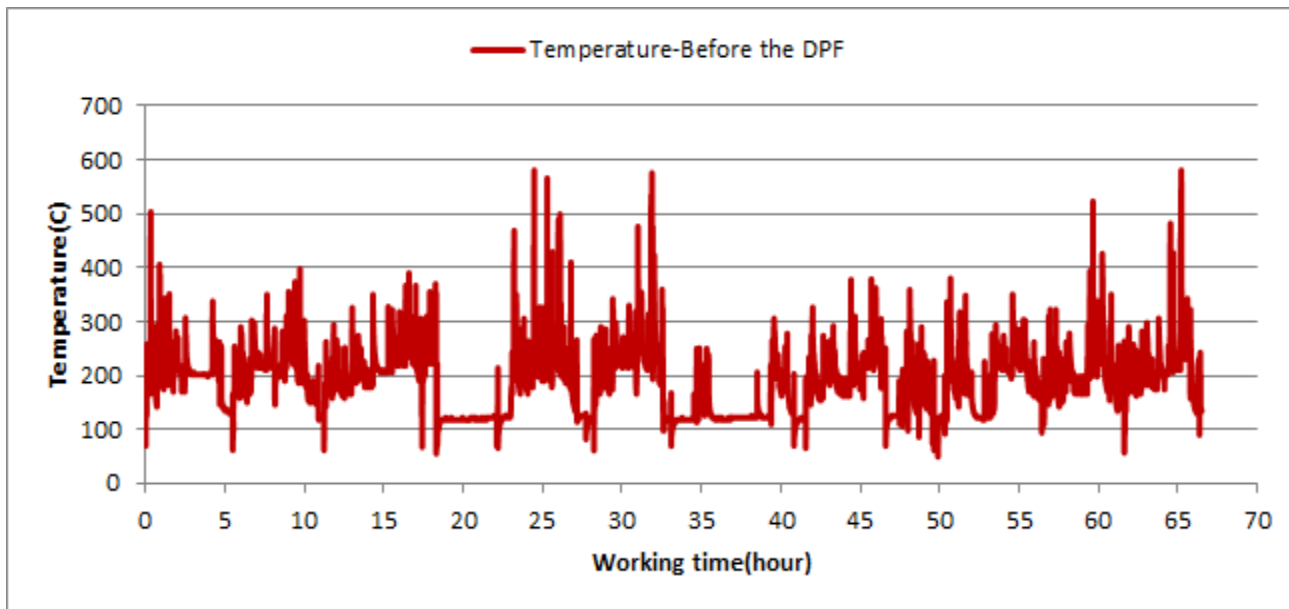


Figure 8- Temperature vs. working hours

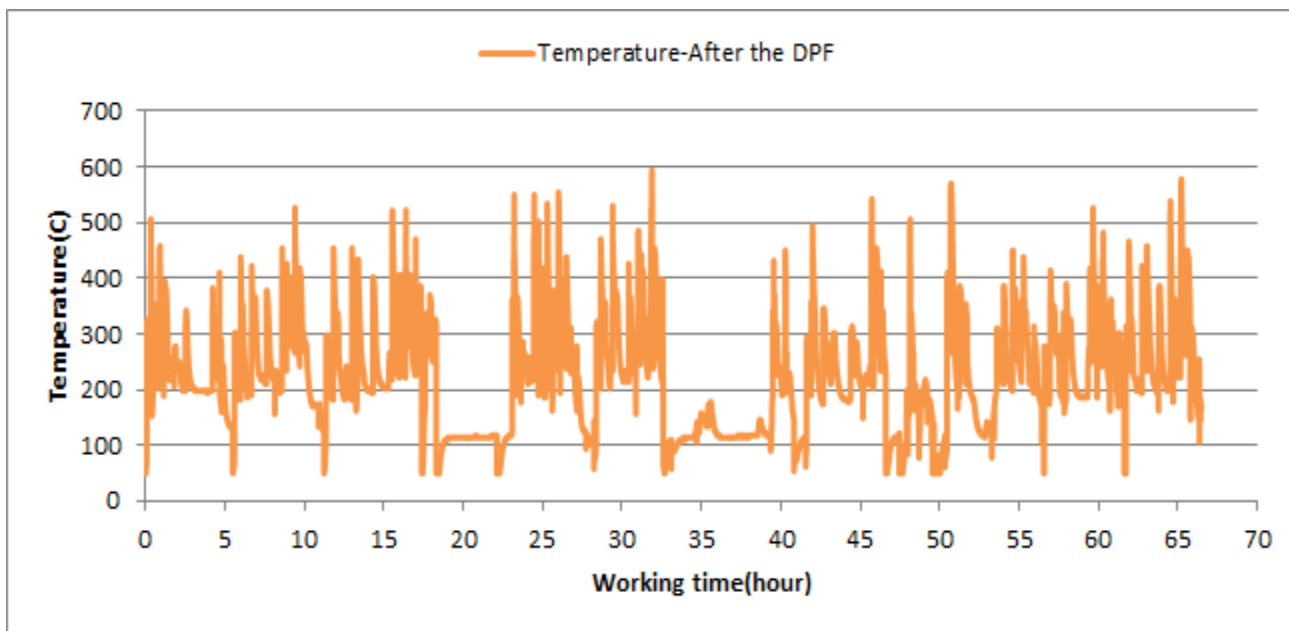


Figure 9- Temperature vs. working hours

Engine Speed Diagrams

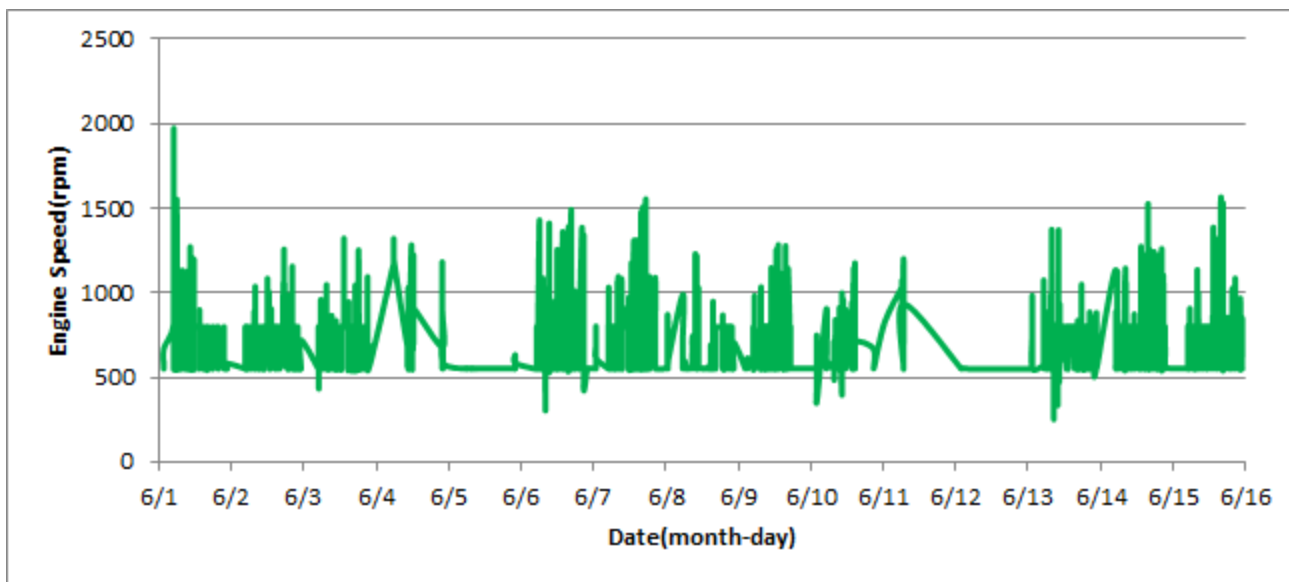


Figure 10- Engine speed distribution over the fifteen days

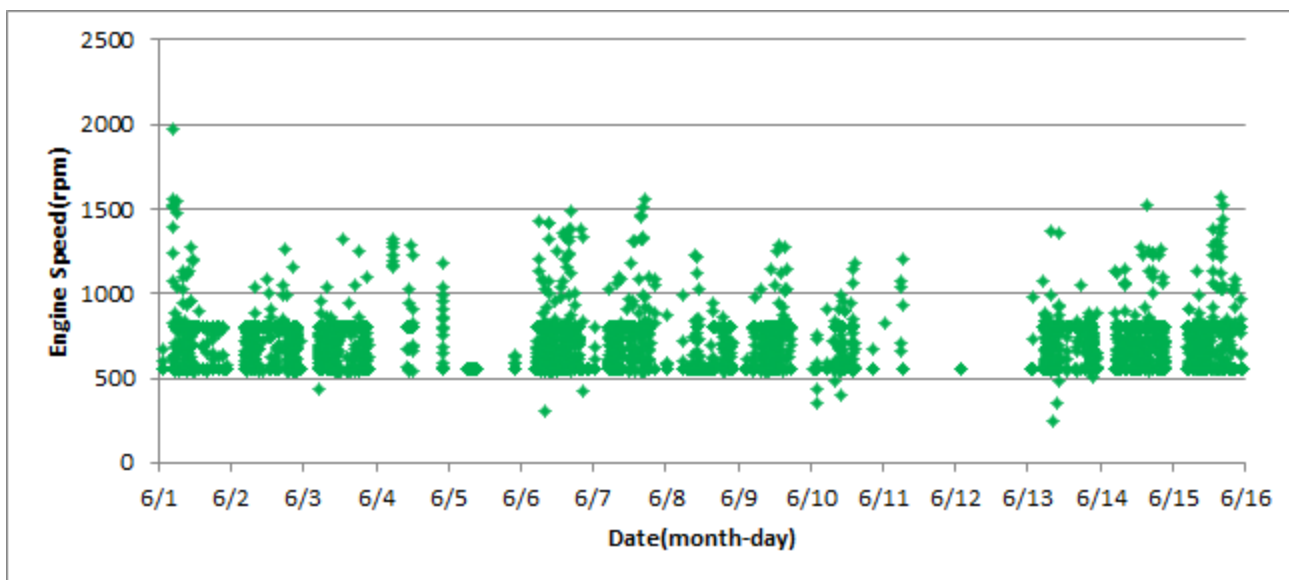


Figure 11- Engine speed diagram for calculating CPK's working days

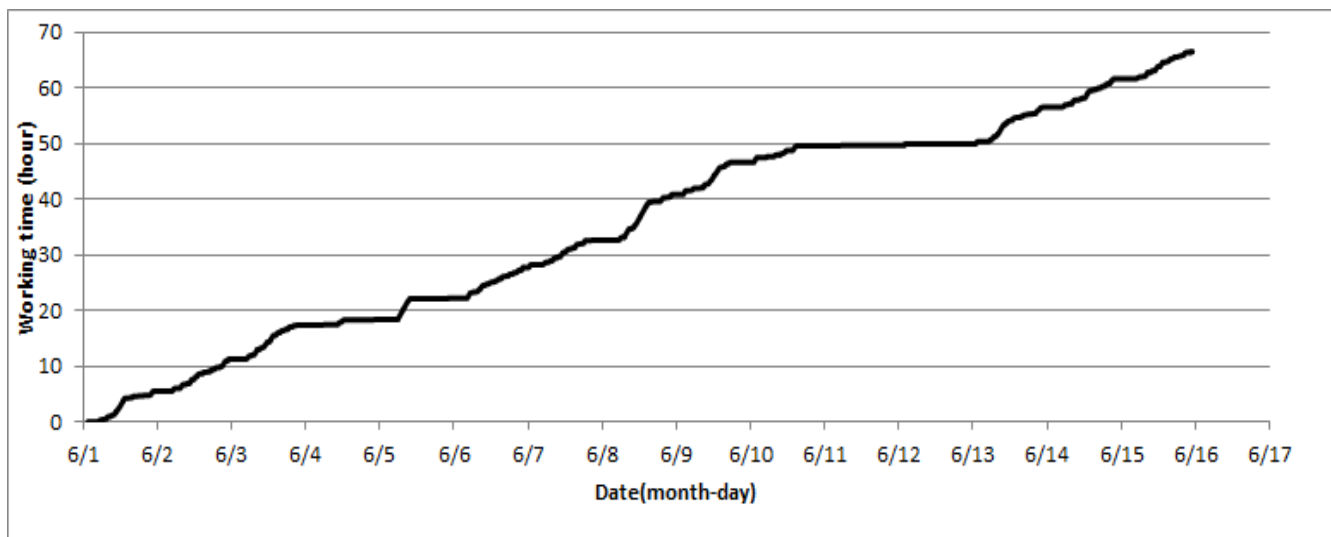


Figure 12- Time diagram for calculating CPK's working days

Notice: As was mentioned above, some data was missed due to technical problems. So working days can't be obtained from this diagram.

Pressure-Engine Speed diagrams

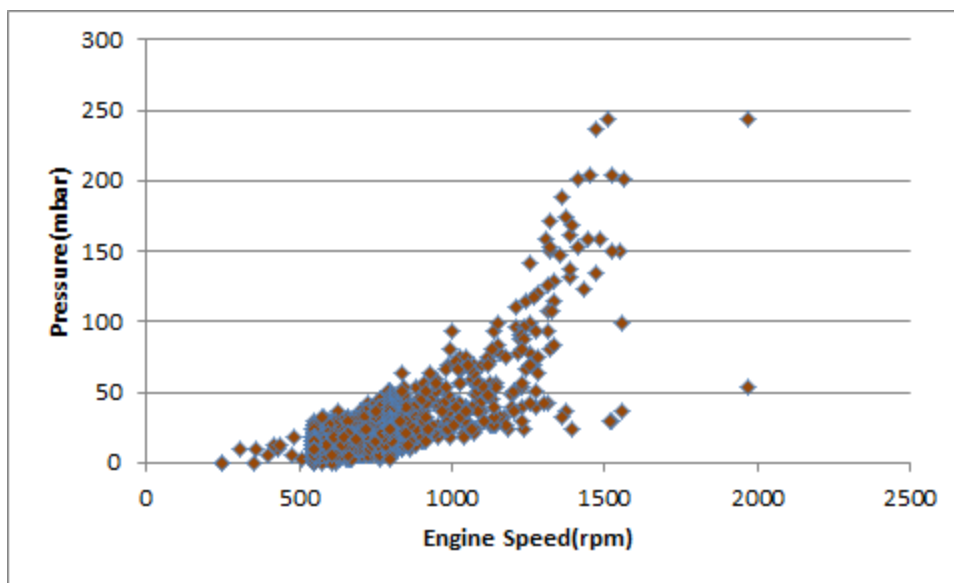


Figure 13- Pressure against engine speed

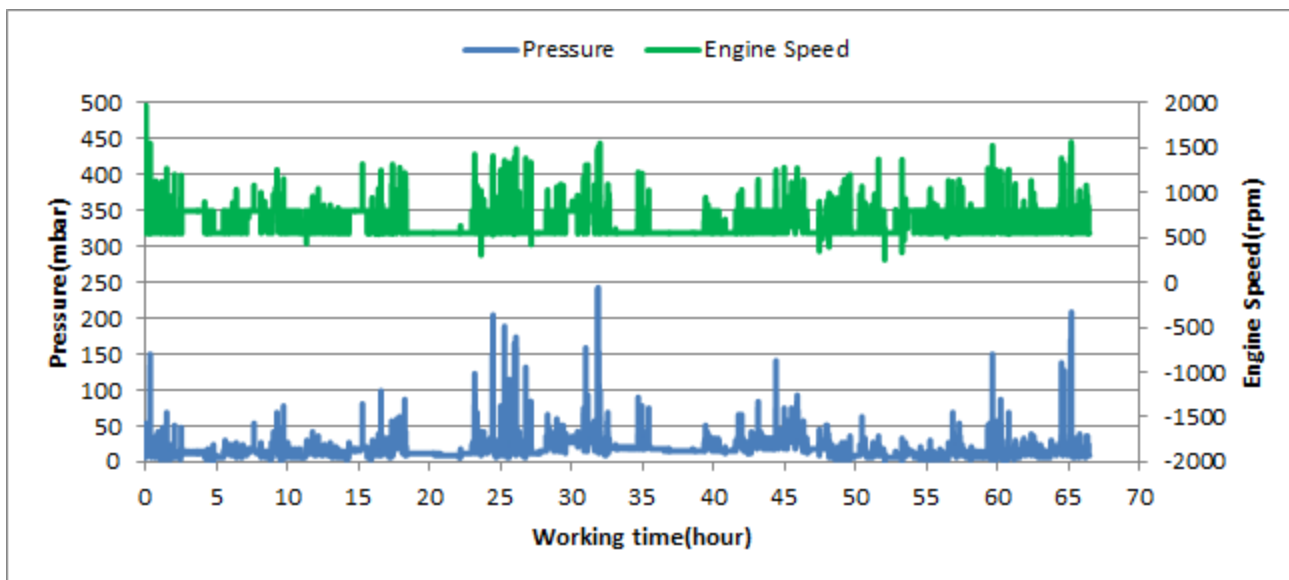


Figure 14- P, N distribution vs. working hours

Temperature- Engine Speed Diagram

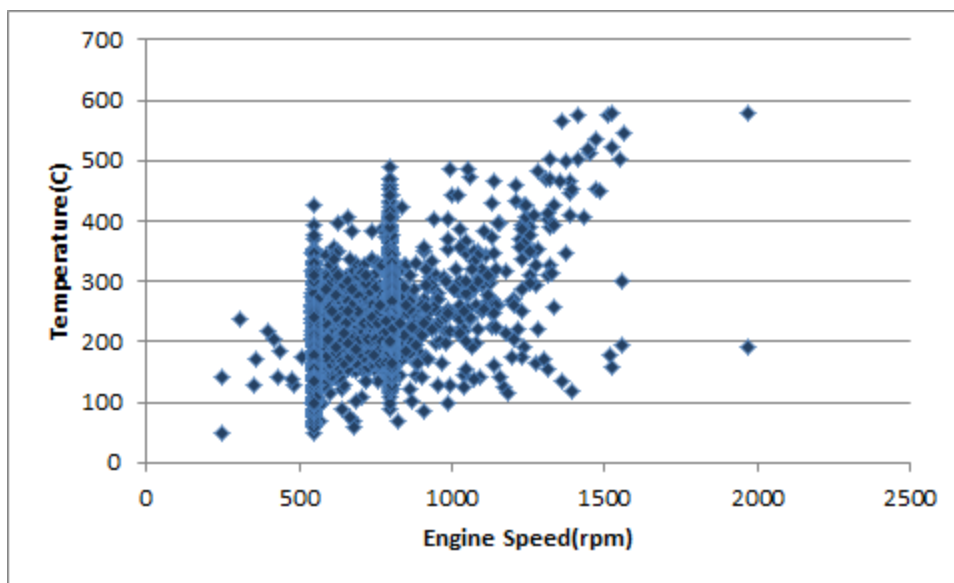


Figure 15- Temperature against engine speed

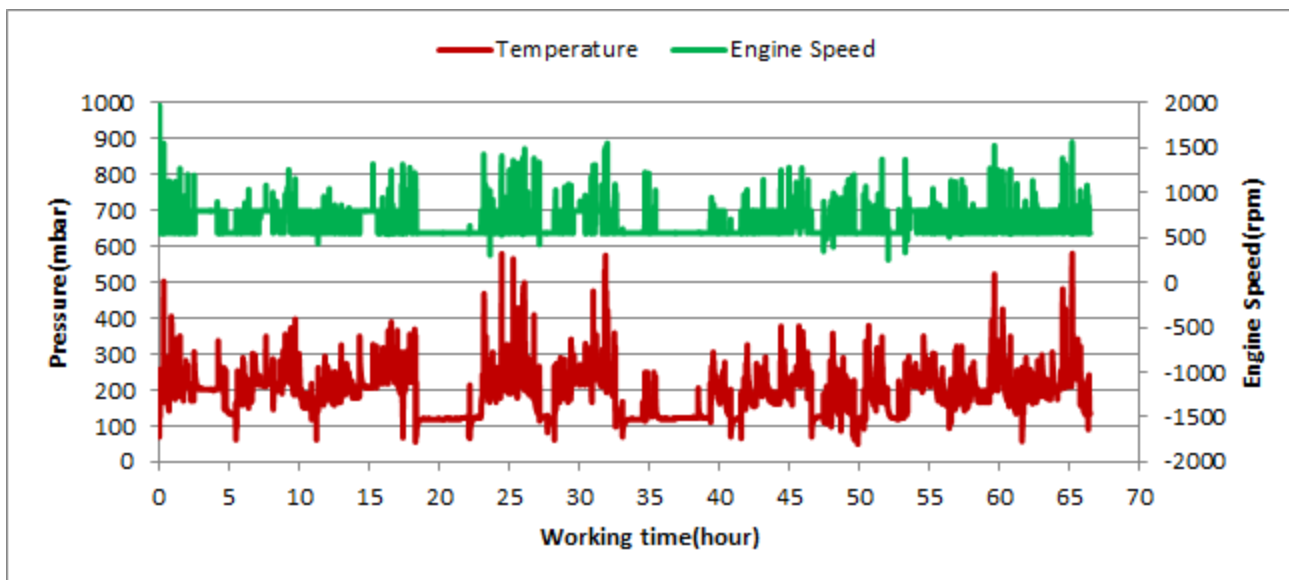


Figure 16- T, N distribution vs. working hours

Filter Operation Analysis

- Reliable conclusion about filter operation can't be obtained from this report due to **bus electrical problem**.

Filter operation status	Excellent <input type="checkbox"/>	Good <input type="checkbox"/>
	Maintenance required <input type="checkbox"/>	Failed <input type="checkbox"/>