Overall Information

Table1- Overall Information

Vehicle plate number	33572 (28958)
CPK data logger number	LN: 001521, DN: 1995, Sim Number +989218469643
Bus line	Number 2 (west to east bus line)
Bus Terminals	Khavaran Bus Terminal - Western Bus Terminal
Total path distance	19 km
DPF producer company	HJS_03 (active system with FBC – electrical heater)
Installation date	19/Feb/2015
Report period	01/Apr/2016 – 15/Apr/2016 (fifteen days)
K value - DPF upstream	1.95 [1/m]
K value – DPF downstream	0.02 [1/m]

Table 2- DPF Maintenance History

Filter maintenance date	DPF was cleaned on Oct 5th for the first time. The second cleaning was done on Dec 19th. The third cleaning was done on Apr 2nd after 55613 km.
Dosing status	Dosing value has been kept constant from installation date until now.

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Table 3- Fuel and Additive Consumption Information

Bus mileage (from DPF installation date)	57952 km
Bus mileage over the period	2339 km
Working days over the period	12 days
Stop days	3 days
Data logger working days	12 days
Working hours over the period	150 hours 52 minutes
Average working hours per day (including stop days)	10 hours 46 minutes
Bus average speed	15.5 km/hr
idle speed time to all working time ration	52.09 %
Total Bus fuel consumption over the period	1240 lit
Fuel consumption per hour	8.2 lit/hr
Average fuel consumption	0.53 lit/km
Total Bus additive consumption over the period	0.5 lit
Average additive consumption	251 cc/km
Additive consumption to fuel ration	475 cc/1000lit

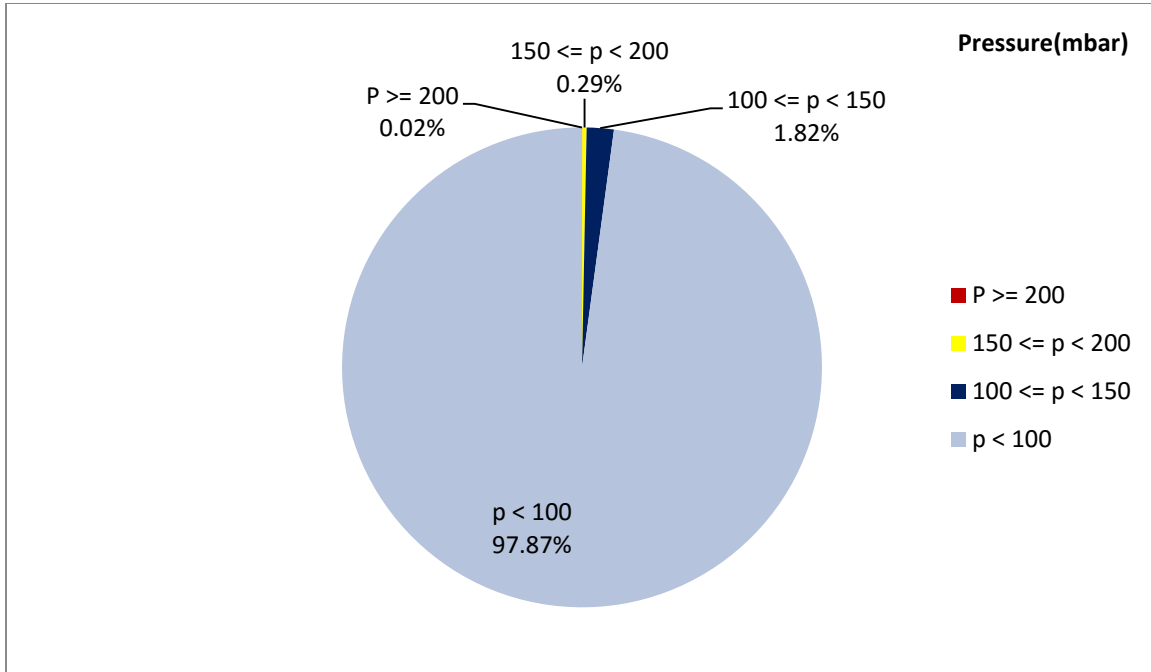## Temperature, Pressure and Engine Speed Overview

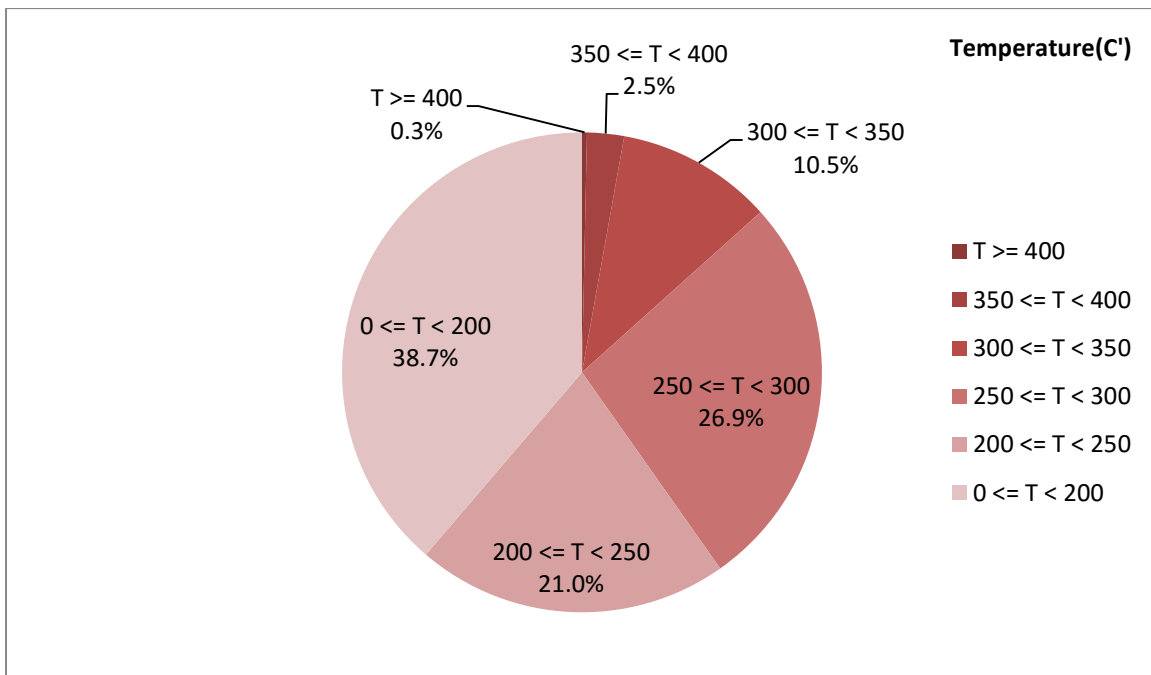
Figure 1- Pressure distribution over the working hours

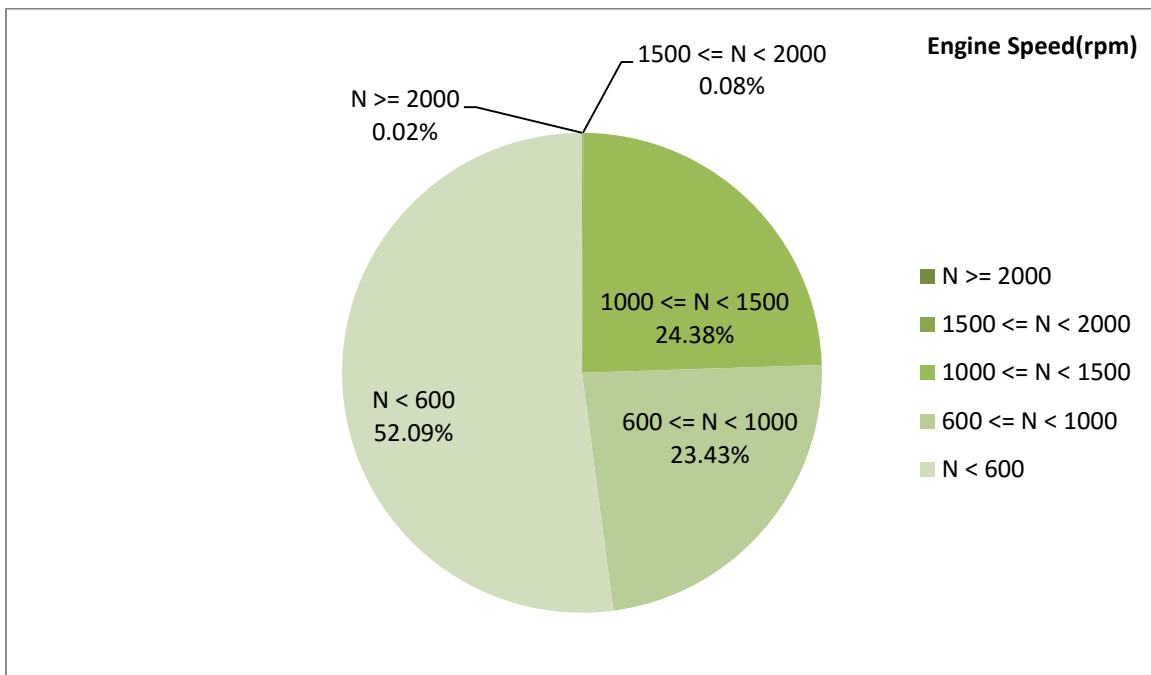
Figure 2-Temperature distribution over the working hours

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Figure 3- Engine speed distribution over the working hours

Table 4- Mean values

Mean temperature (C)	Mean pressure(mbar)	Mean engine speed(rpm)
223.21	21.7	750

Table 5- Mean values without idling

Mean temperature (C)	Mean pressure(mbar)	Mean engine speed(rpm)
274.96	40.95	971

Table 6- Max-min values

Max-min temperature(C)	Max-min pressure(mbar)	Max-min engine speed(rpm)
458-50	264-0	2144-256

Detailed Pressure Analysis
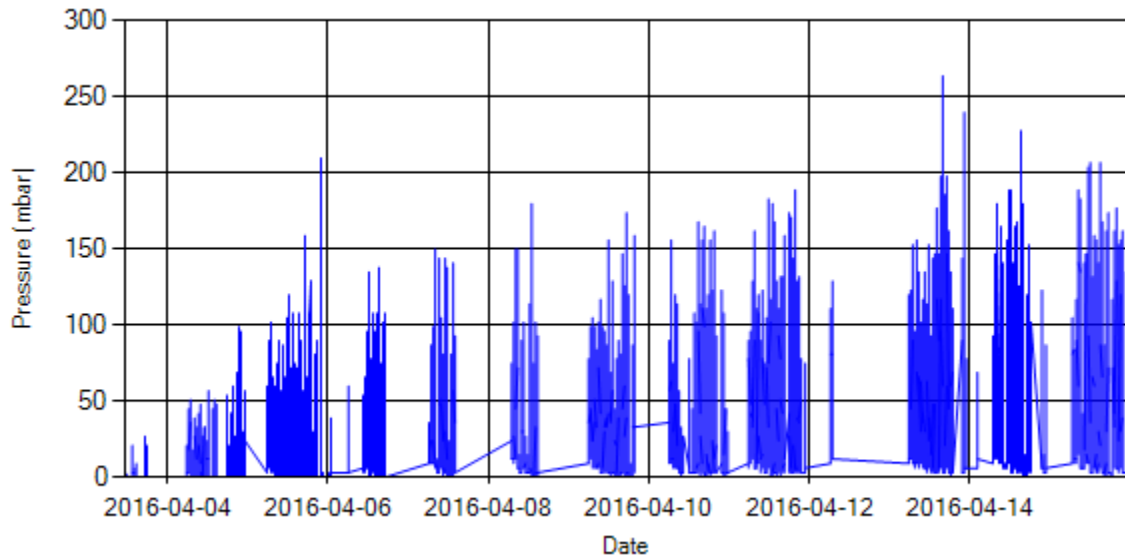
Figure 4- Pressure distribution over the period
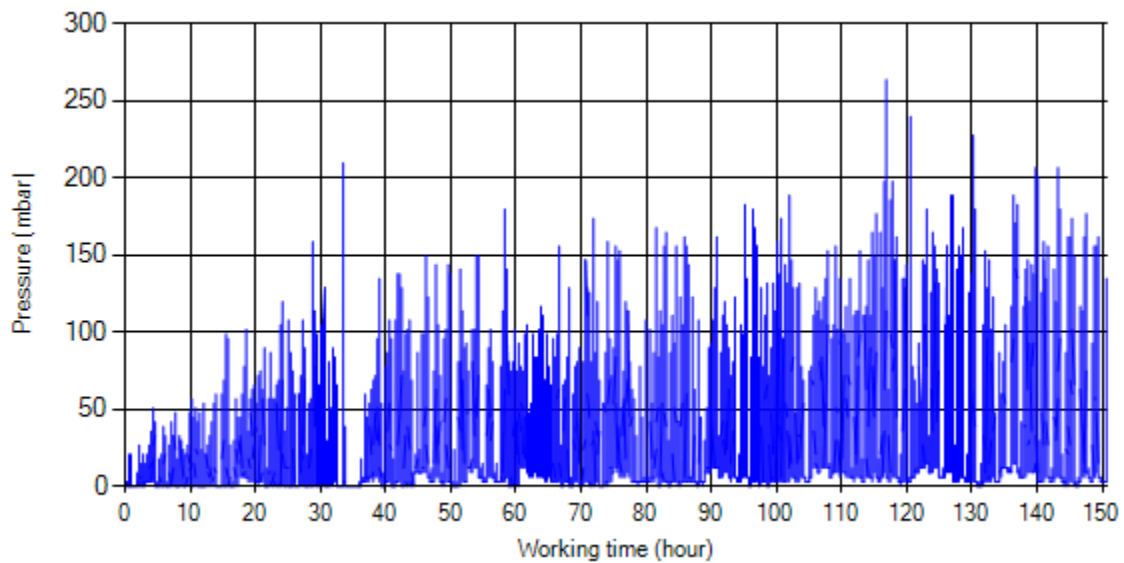
Figure 5- Pressure vs. working hours

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.
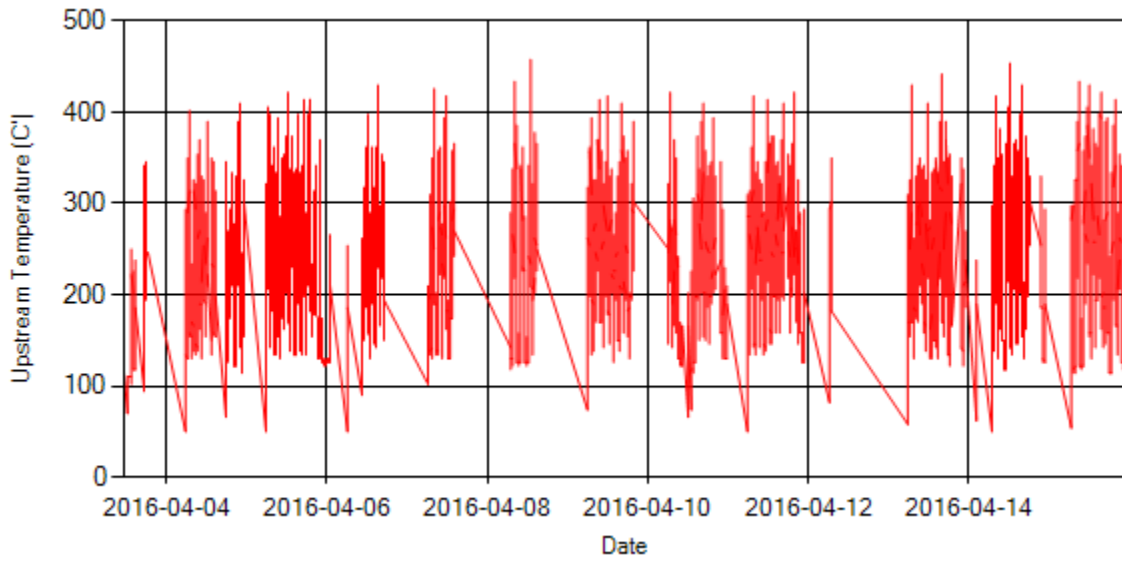
Detailed Temperature Analysis

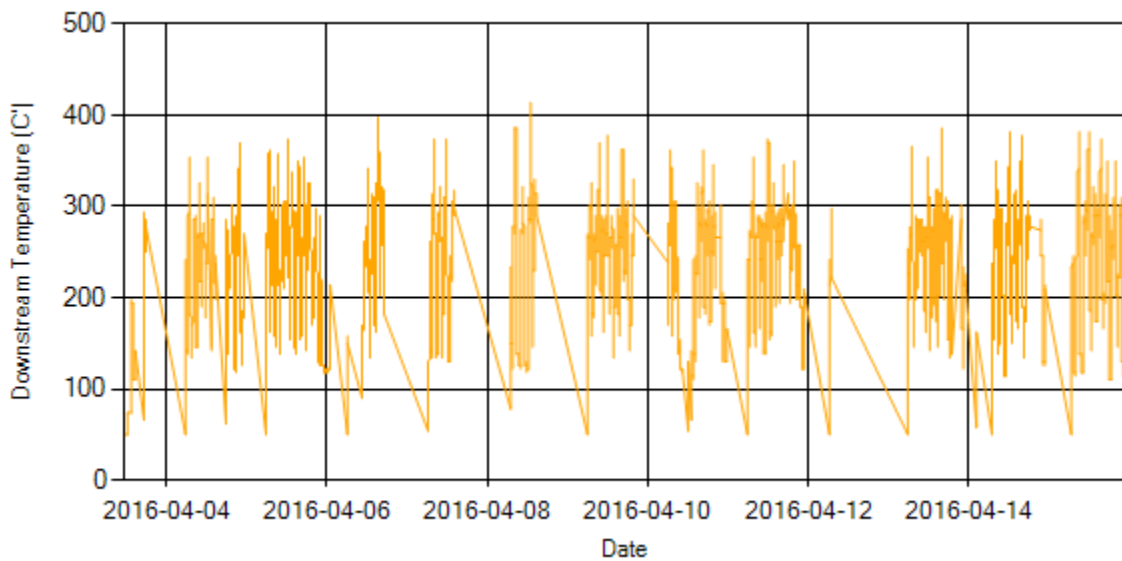*Figure 6- Temperature distribution over the period*
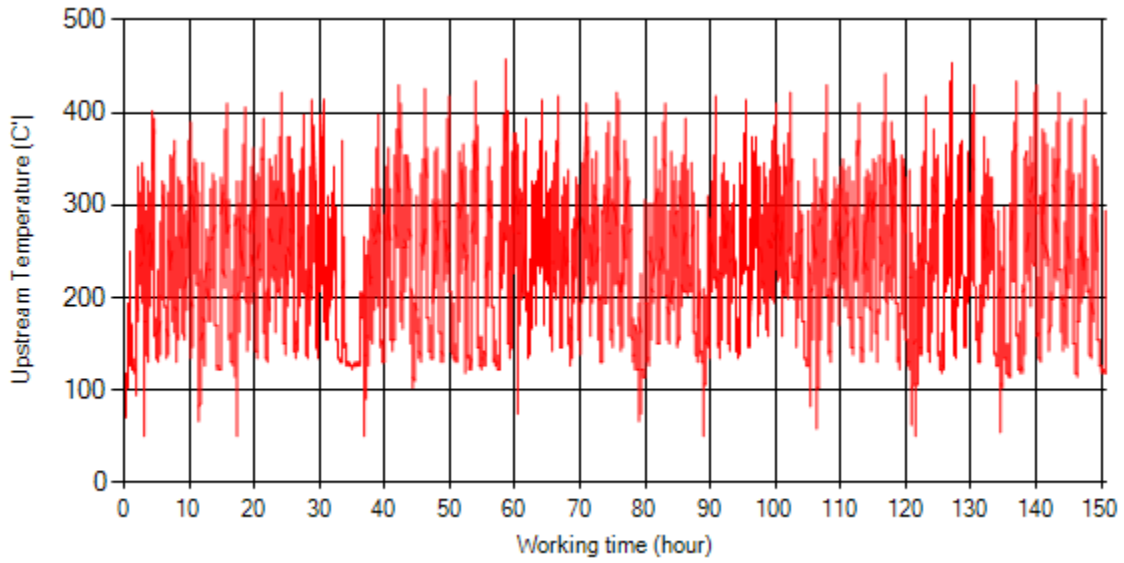

Figure 7- Temperature distribution over the period
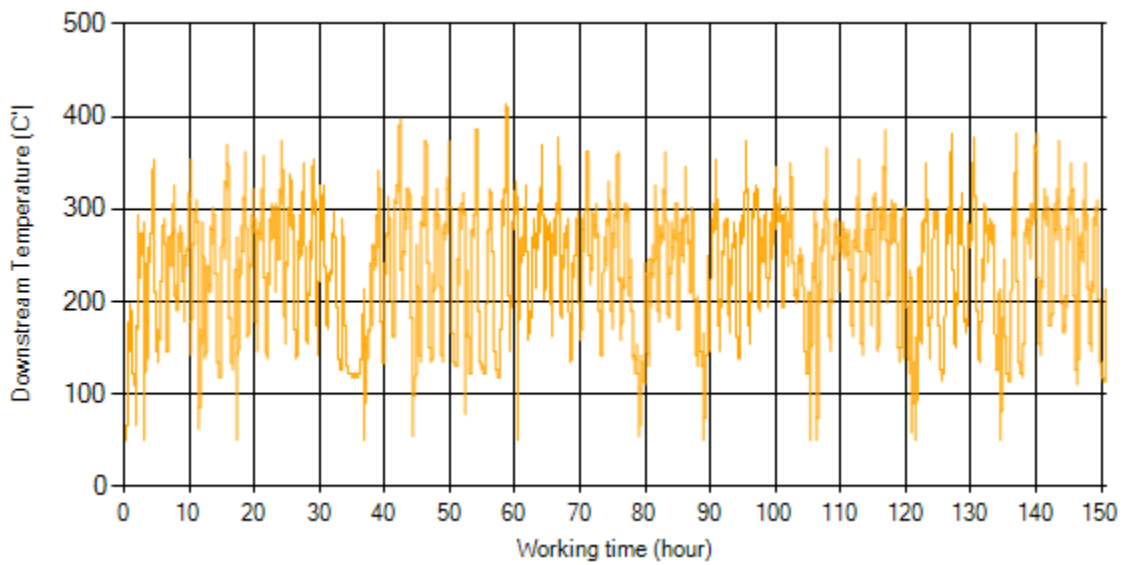
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Figure 8- Temperature vs. working hours

Figure 9- Temperature vs. working hours
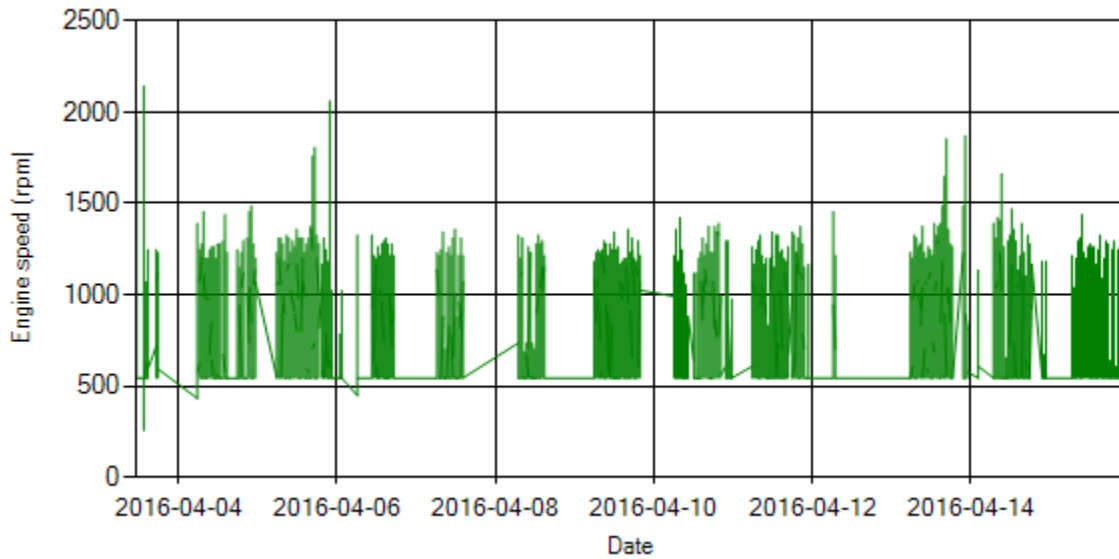
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Engine Speed Diagrams

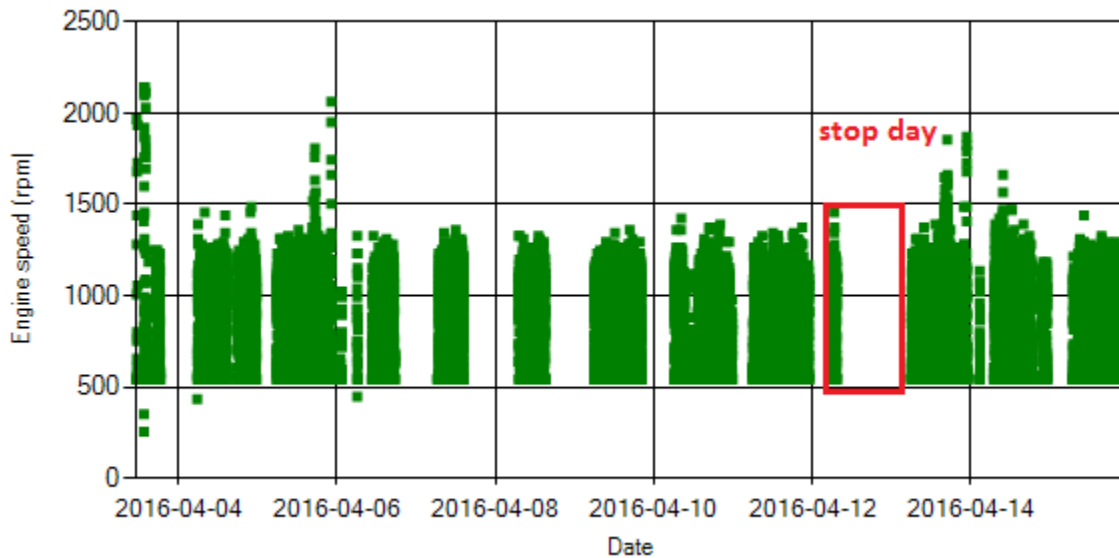*Figure 10- Engine speed distribution over the period*

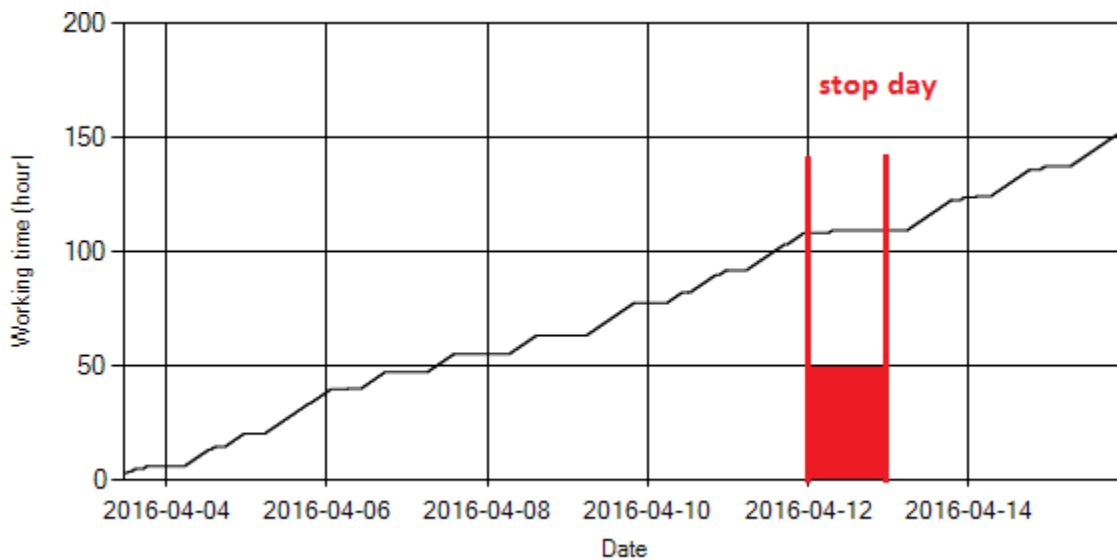*Figure 11- Engine speed diagram for calculating CPK's working days*

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

Notice: Data logger sampling time can be calculated from Figure 12. The lines parallel with Date axis show days without data logger data. As depicted in Figure 12 vehicle was stopped for 1 day.
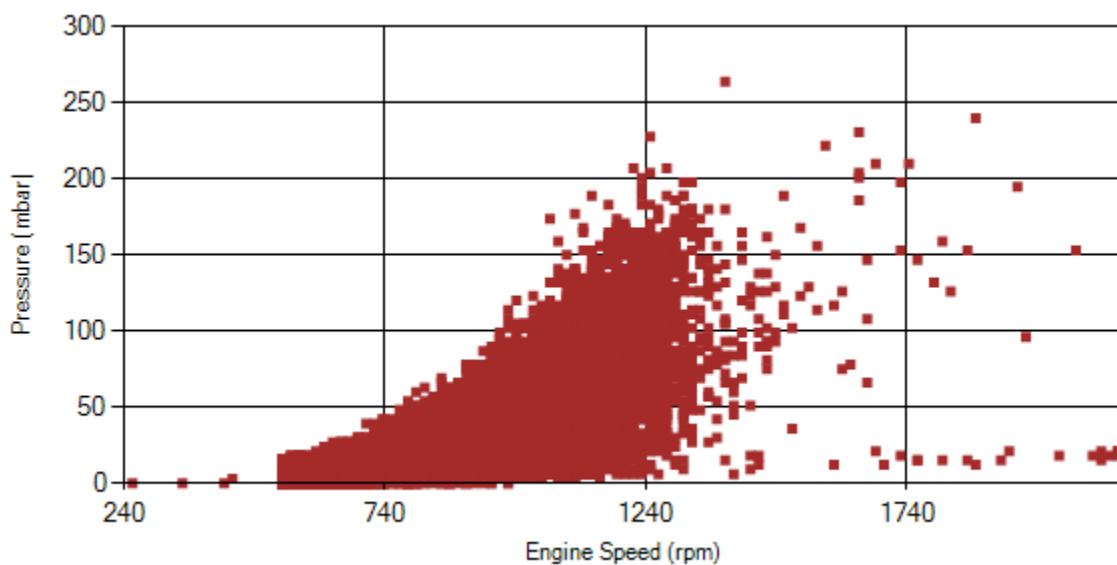
Pressure-Engine Speed diagrams
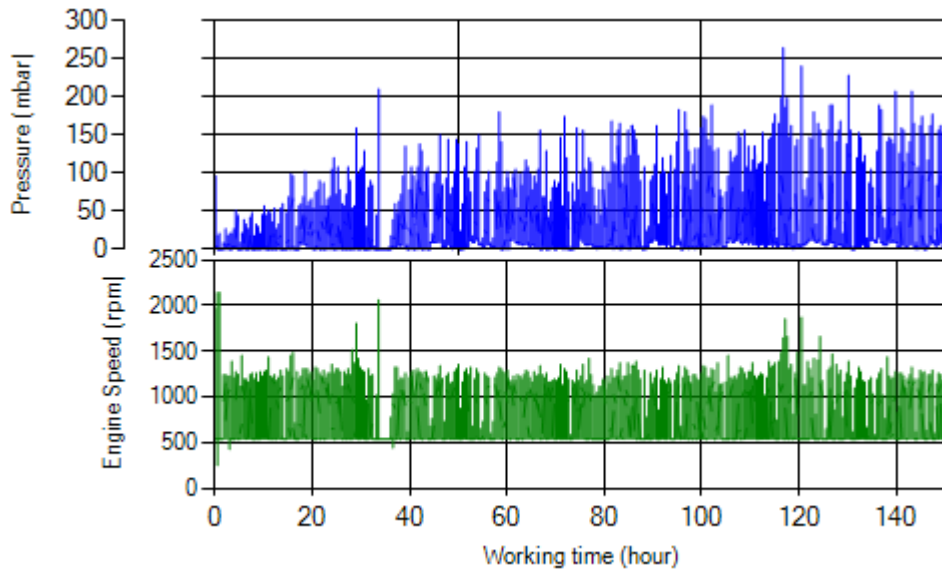

Figure 13- Pressure against engine speed

Figure 14- P, N distribution vs. working hours

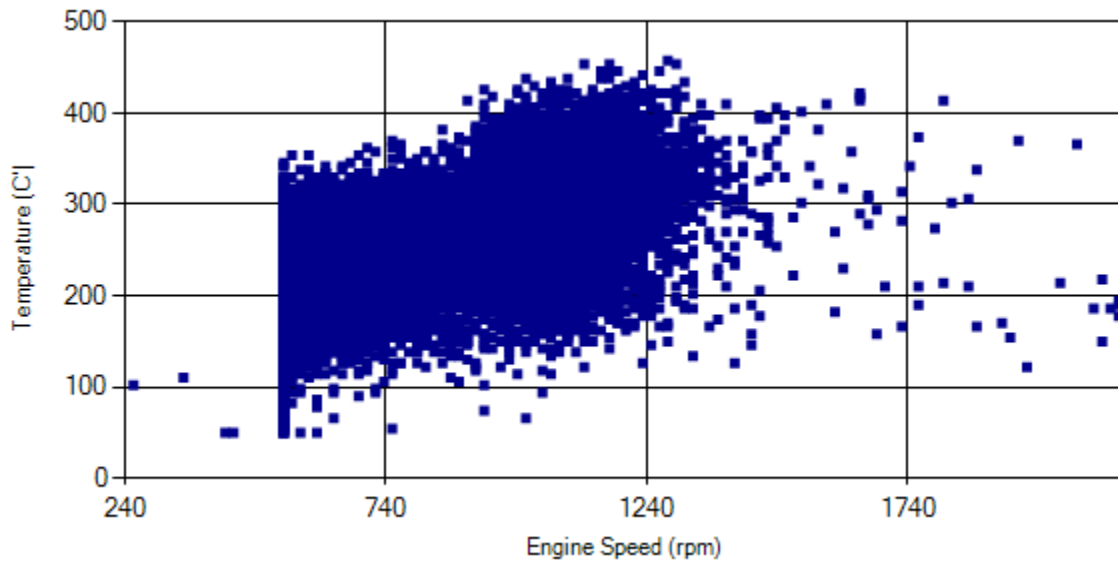## Temperature-Engine Speed diagrams

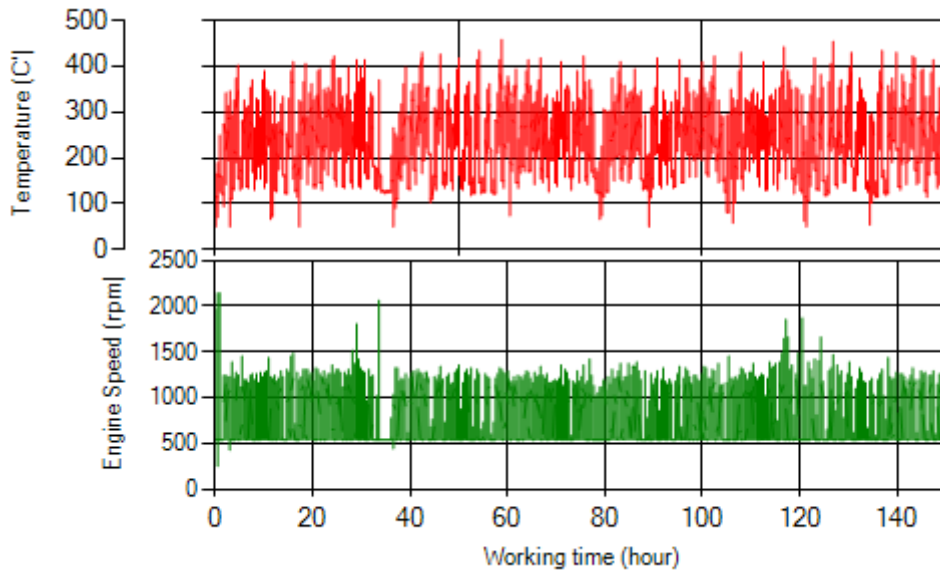*Figure 15- Temperature against engine speed*

Figure 16- T, N distribution vs. working hours

Filter Operation Analysis

- As depicted in figure 1, 0.02% of total working time pressure is above 200 mbar and 0.31% above 150 mbar during this period.
- Figure 2 displays flow temperature distribution for DPF's upstream. It can be obviously observed 2.8% of total working time temperature is above 350℃.

Filter operation status	Excellent ■ Good ☐ Maintenance required ☐ Failed ☐

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