

Overall Information

Table1- Overall Information

| | |
|--------------------------|---|
| Vehicle plate number | 85423 |
| CPK data logger number | LN: 001505, DN: 2001, Sim Number +989218469621 |
| Bus line | Number 4 (south to north bus line) |
| Bus Terminals | South Bus Terminal - Park Way Bus Tehran Terminal |
| Total path distance | 22.8 km |
| DPF producer company | HJS_02 (active system with FBC – electrical heater) |
| Installation date | 19/Feb/2015 |
| Report period | 01/Mar/2016- 15/Mar/2016 (fifteen days) |
| K value - DPF upstream | 1.73 [1/m] |
| K value – DPF downstream | 0.02 [1/m] |

Table 2- DPF Maintenance History

| | |
|-------------------------|---|
| Filter maintenance date | DPF was cleaned on 2016-02-03 for the first time. |
| 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) | 62767 km |
| Bus mileage over the period | 4246 km |
| Working days over the period | 15 days |
| Stop days | 0 day |
| Data logger working days | —* |
| Working hours over the period | - |
| Average working hours per day (including stop days) | - |
| Bus average speed | - |
| idle speed time to all working time ration | - % |
| Total Bus fuel consumption over the period | 2547 lit |
| Fuel consumption per hour | - lit/hr |
| Average fuel consumption | 0.6 lit/km |
| Total Bus additive consumption over the period | 1.1 lit |
| Average additive consumption | 273 cc/km |
| Additive consumption to fuel ration | 455 cc/1000lit |

—* Notice: Due to electrical problem, lots of the data was missed during the period. So next pages result' were driven considering available data.

Temperature, Pressure and Engine Speed Overview

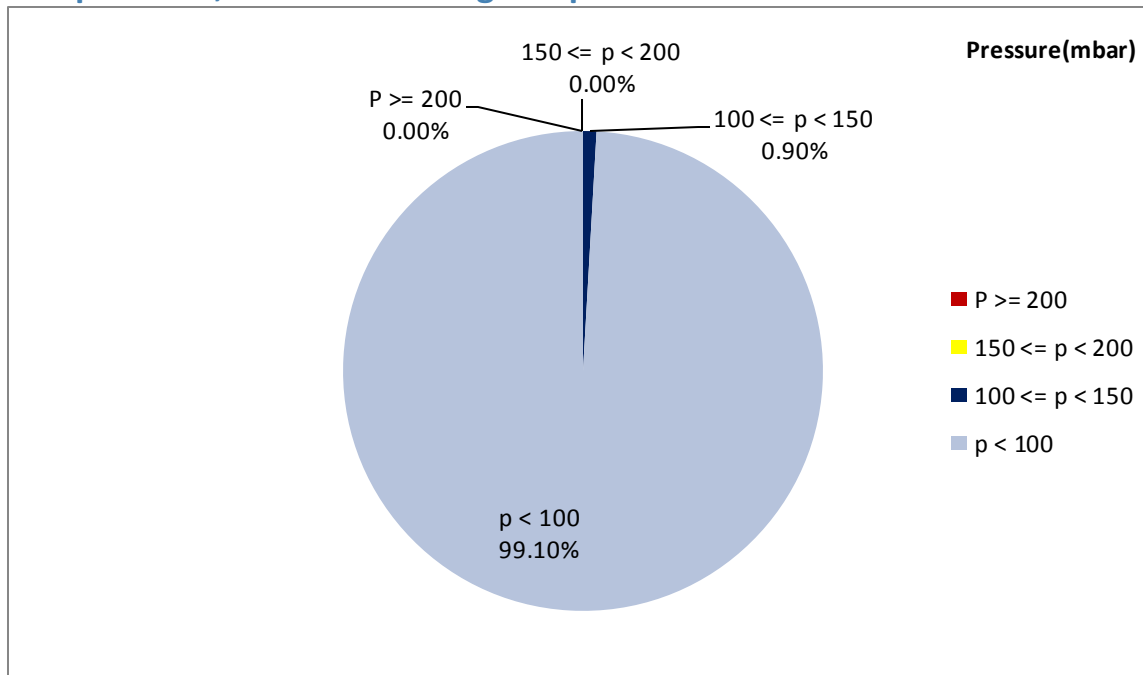


Figure 1- Pressure distribution over the working hours

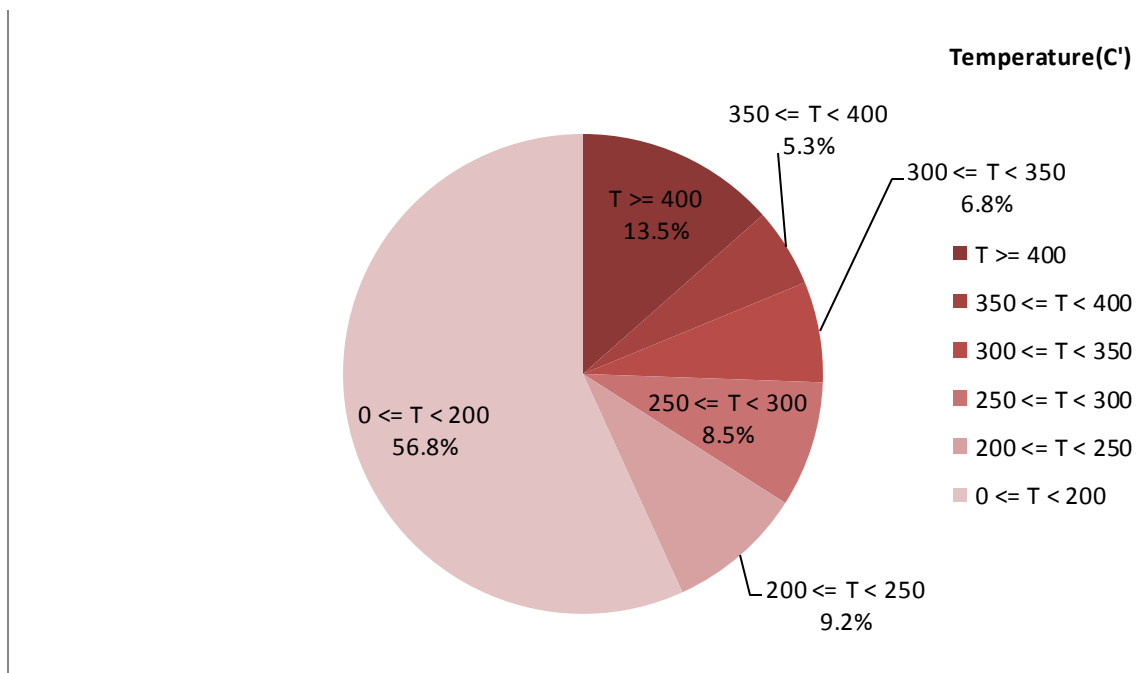


Figure 2-Temperature distribution over the working hours

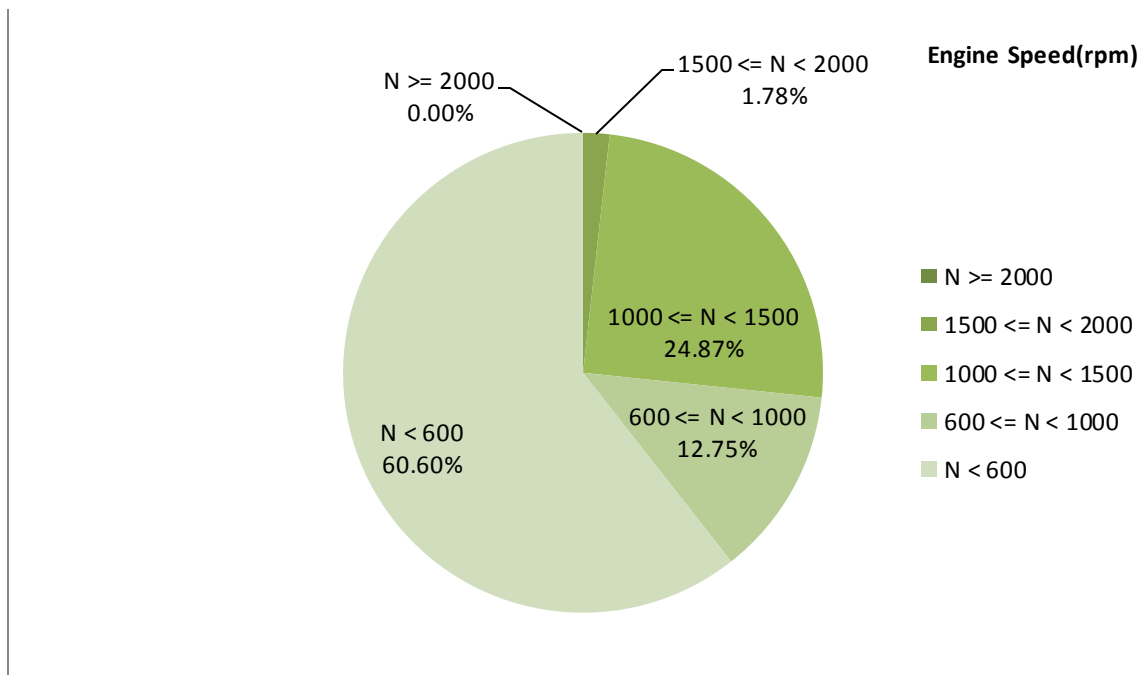


Figure 3- Engine speed distribution over the working hours

Table 4- Mean values

| Mean temperature (C) | Mean pressure(mbar) | Mean engine speed(rpm) |
|----------------------|---------------------|------------------------|
| 230.13 | 13.86 | 763 |

Table 5- Mean values without idling

| Mean temperature (C) | Mean pressure(mbar) | Mean engine speed(rpm) |
|----------------------|---------------------|------------------------|
| 338.6 | 31 | 1098 |

Table 6- Max-min values

| Max-min temperature(C) | Max-min pressure(mbar) | Max-min engine speed(rpm) |
|------------------------|------------------------|---------------------------|
| 626-54 | 132-0 | 1840-544 |

Detailed Pressure Analysis

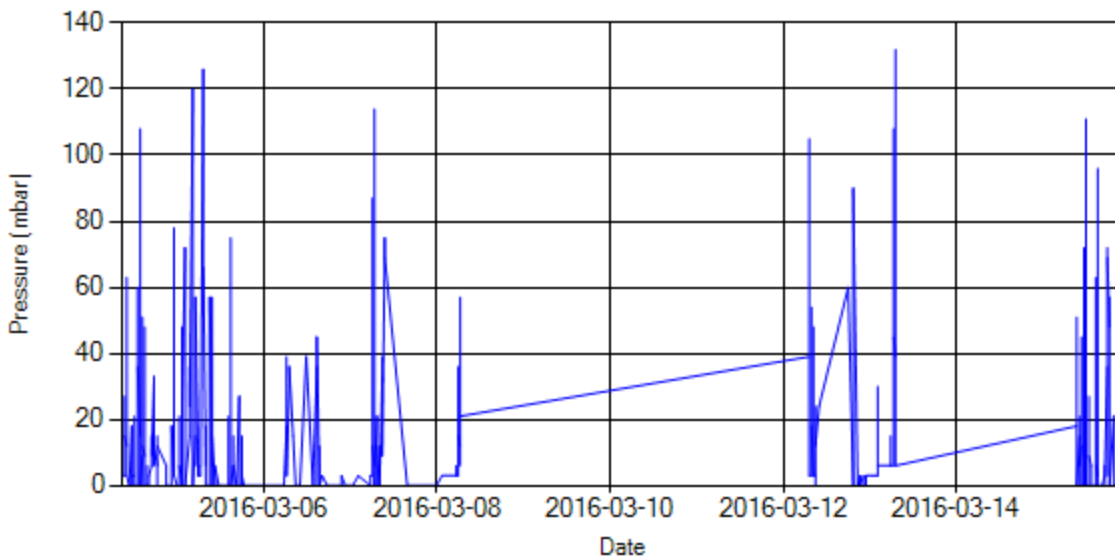


Figure 4- Pressure distribution over the period

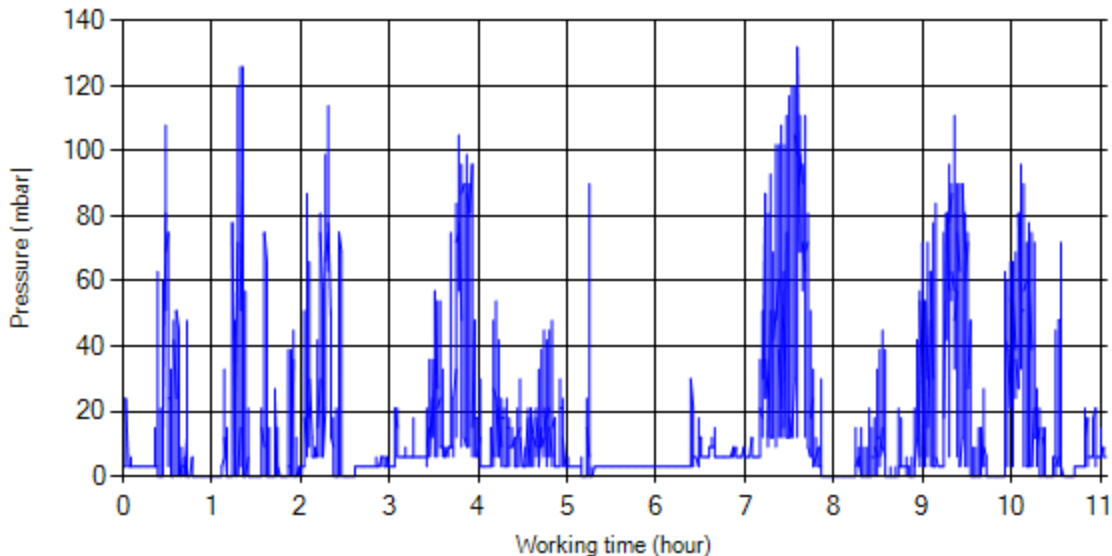


Figure 5- Pressure vs. working hours

Detailed Temperature Analysis

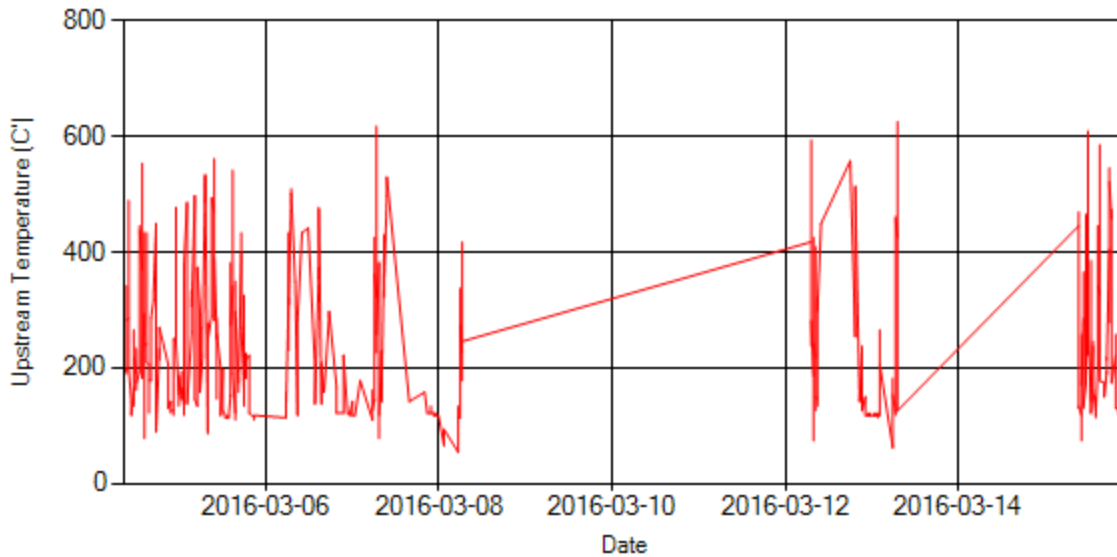


Figure 6- Temperature distribution over the period

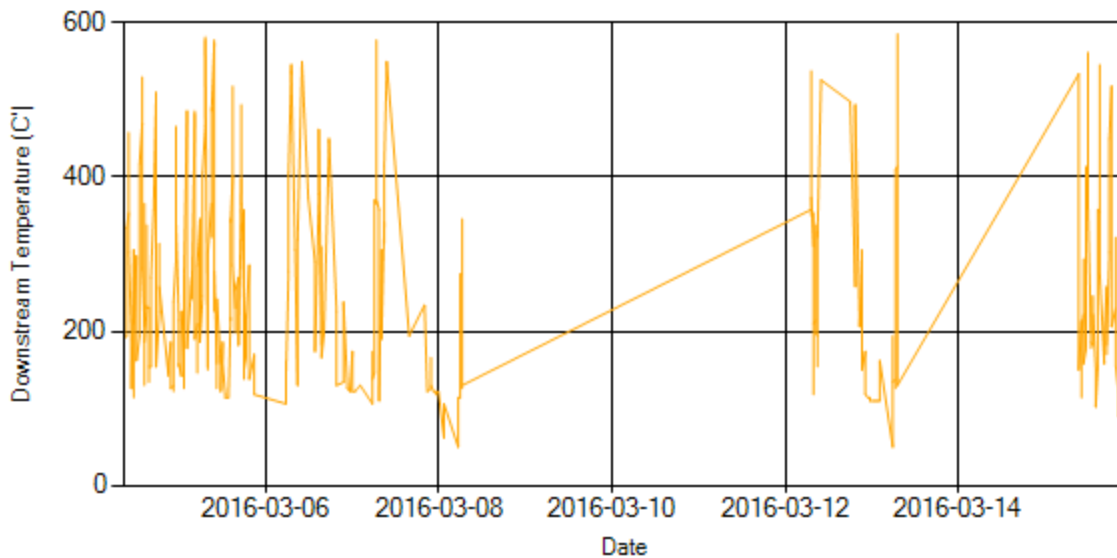


Figure 7- Temperature distribution over the period

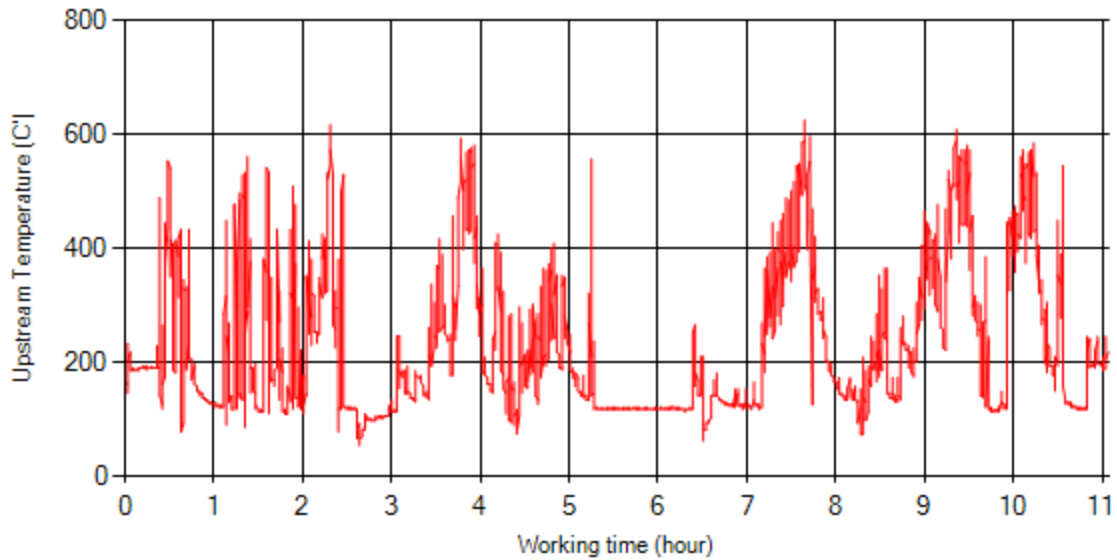


Figure 8- Temperature vs. working hours

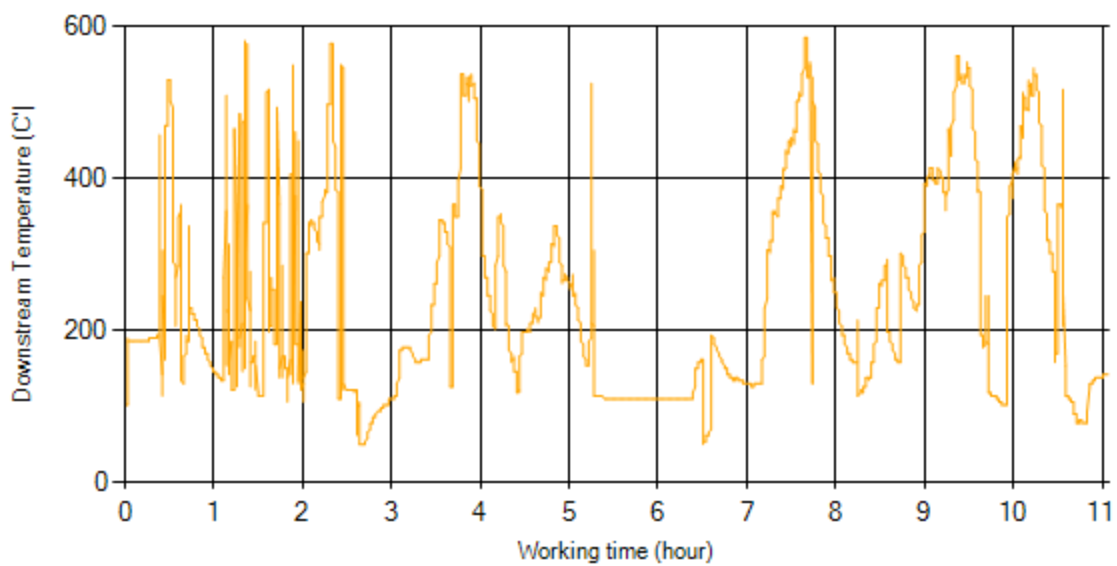


Figure 9- Temperature vs. working hours

Engine Speed Diagrams

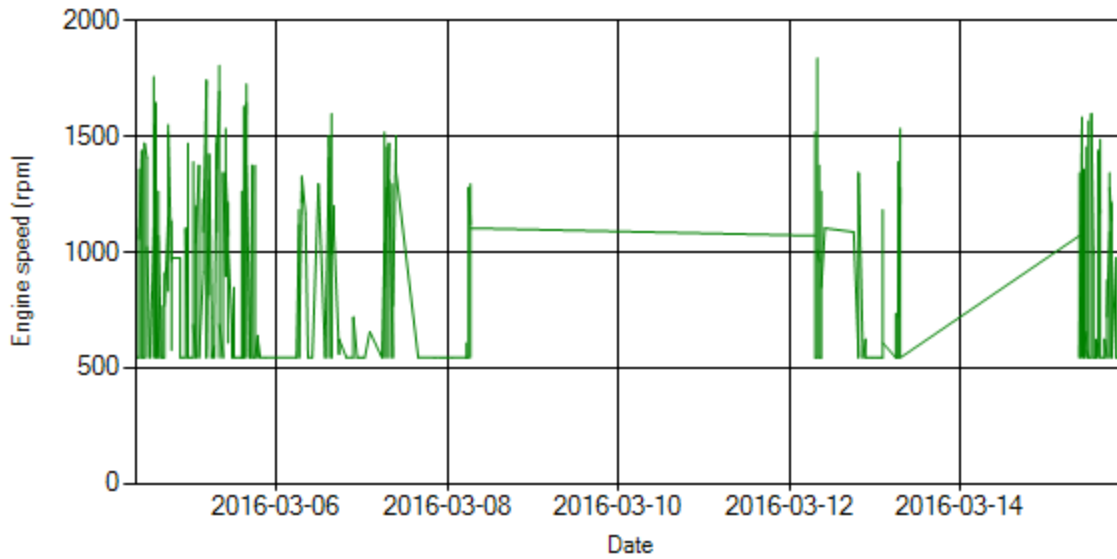


Figure 10- Engine speed distribution over the period

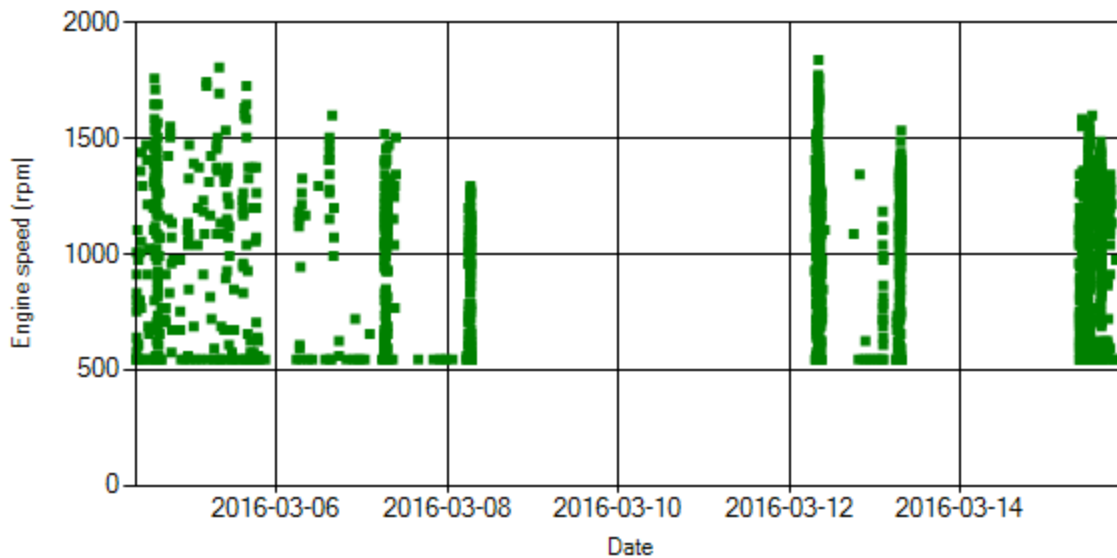


Figure 11- Engine speed diagram for calculating CPK's working days

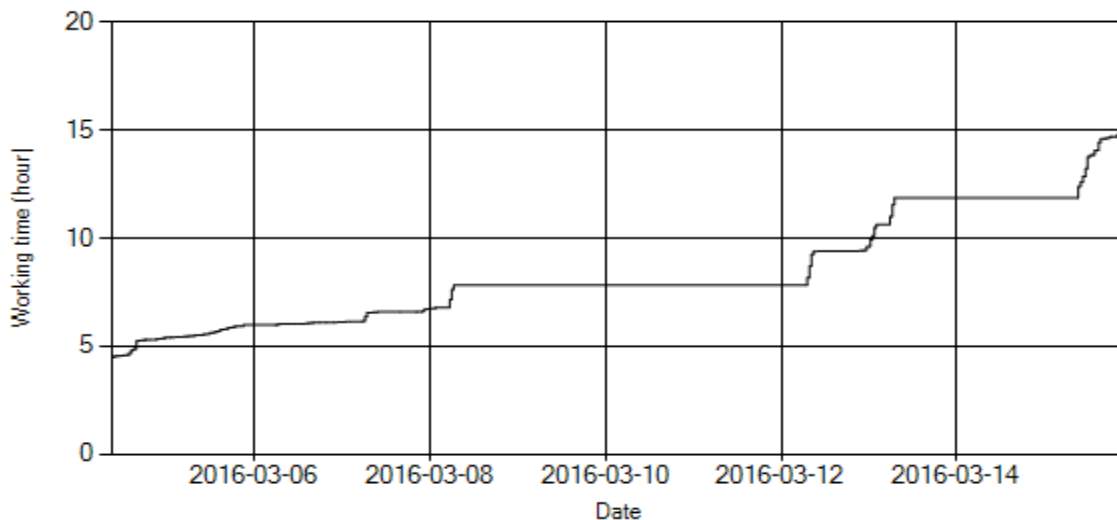


Figure 12- Time diagram for calculating CPK's working days

Notice: Data logger sampling time can be calculated from Figure 12. The lines parallel with Date axis show days without data logger data.

Notice: because of electrical problem and missing lots of data, stop days could not be calculated from figures 11 and 12.

Pressure-Engine Speed diagrams

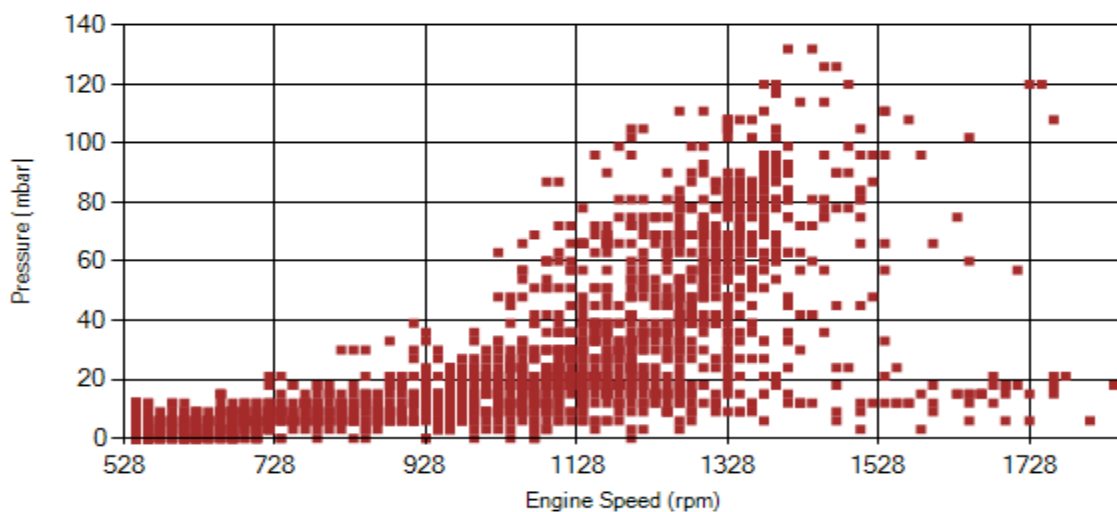


Figure 13- Pressure against engine speed

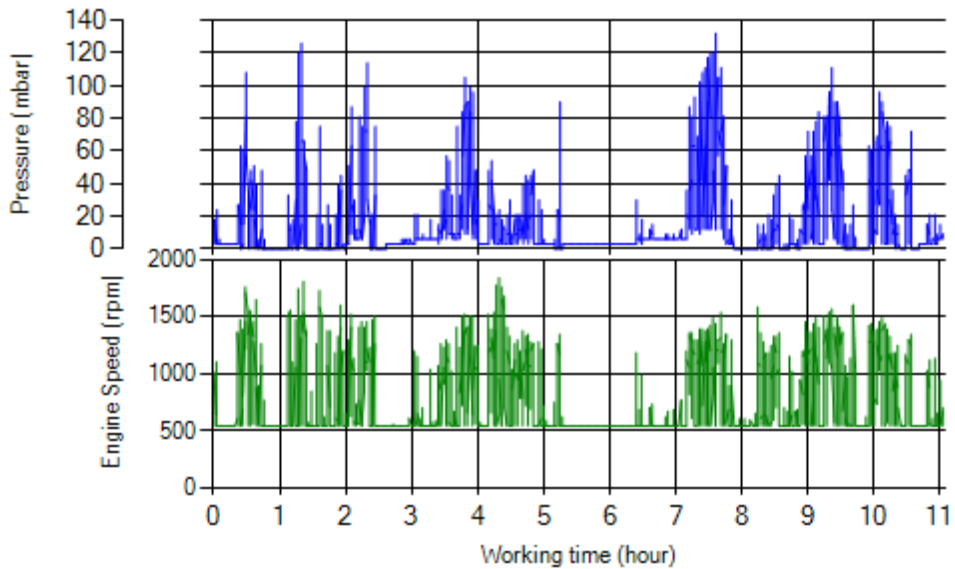


Figure 14- P, N distribution vs. working hours

Temperature-Engine Speed diagrams

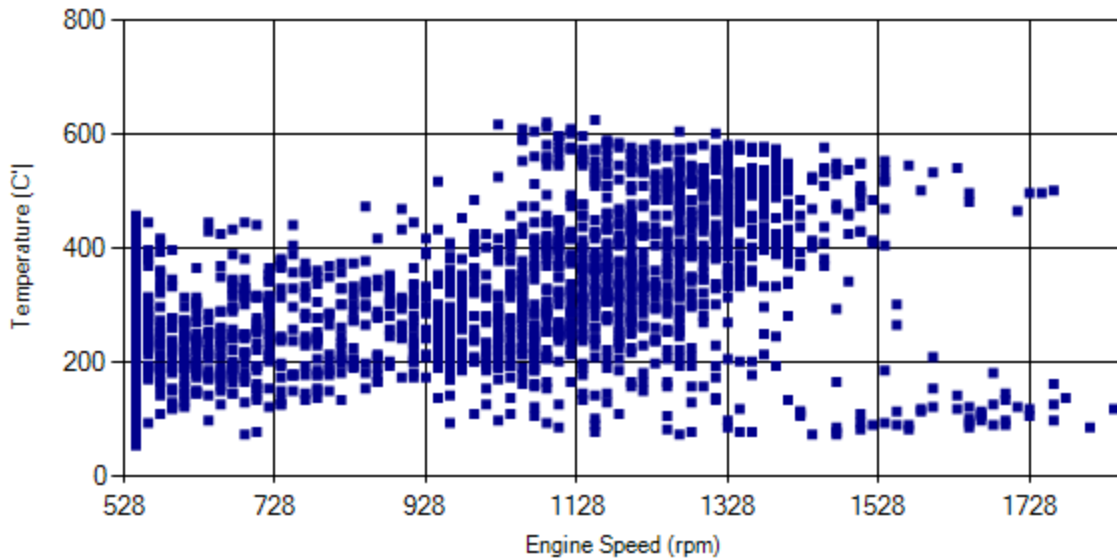


Figure 15- Temperature against engine speed

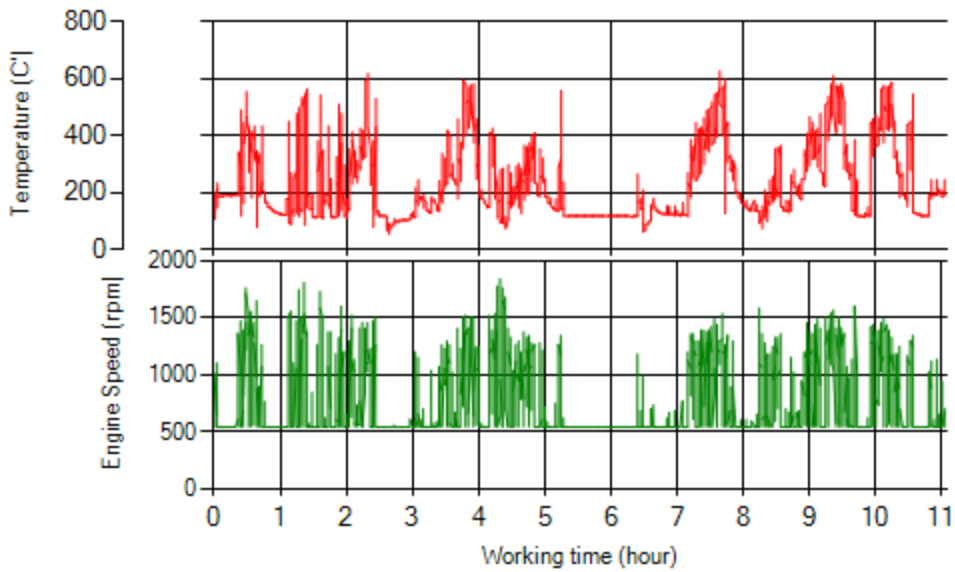


Figure 16- T, N distribution vs. working hours

Filter Operation Analysis

- Due to missing lots of data, reliable judgment could not be done. But considering available data, DPF operation was excellent during the period.

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