Fleet Maintenance Tips & Cost Estimation Guide

This document provides a detailed guide on fleet maintenance tips based on telemetry data such as engine health, speed, coolant temperature, and other parameters. It includes:  
- Maintenance thresholds for each parameter.  
- Actionable tips for regular and urgent maintenance.  
- Estimated repair costs (rough approximation).  
- FAQs for fleet maintenance.

# Engine Health

Indicates the overall condition of the engine based on multiple telemetry factors.

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| Threshold | Condition | Maintenance Tip | Estimated Cost (USD) |
| 0.8 – 1.0 | Excellent | No maintenance required | $0 |
| 0.5 – 0.8 | Moderate | Routine engine check-up | $100 – $300 |
| 0.3 – 0.5 | Degrading | Replace oil, inspect spark plugs | $300 – $700 |
| 0.0 – 0.3 | Critical | Immediate repair; possible engine damage | $700 – $2000 |

# Vehicle Speed Sensor

Measures the vehicle's speed and sends data to the engine control unit.

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| Threshold | Condition | Maintenance Tip | Estimated Cost (USD) |
| 0 – 120 km/h | Normal | No maintenance required | $0 |
| 121 – 140 km/h | Slightly High Speed | Check tires, brake system | $100 – $300 |
| 141 – 180 km/h | Unsafe Speed | Inspect brakes, tire balance | $300 – $700 |
| >180 km/h | Critical Speed | Tire replacement, brake overhauling | $700 – $1500 |

# Engine Coolant Temperature

Indicates the temperature of the coolant, helping prevent overheating.

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| Threshold | Condition | Maintenance Tip | Estimated Cost (USD) |
| 80 – 95 °C | Normal | No maintenance required | $0 |
| 96 – 105 °C | Slightly High | Inspect coolant levels | $100 – $200 |
| 106 – 120 °C | Overheating | Flush and replace coolant | $300 – $600 |
| >120 °C | Critical Overheat | Immediate inspection; radiator issues | $600 – $1500 |

# Engine RPM

Measures engine speed, indicating vehicle performance.

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| Threshold | Condition | Maintenance Tip | Estimated Cost (USD) |
| 600 – 2000 | Normal | No maintenance required | $0 |
| 2001 – 4000 | Slightly High | Inspect fuel injection system | $100 – $300 |
| 4001 – 6000 | High RPM | Check spark plugs and ignition system | $300 – $800 |
| >6000 | Over-revving | Immediate service; possible engine wear | $800 – $2000 |

# Fuel Consumption

Represents the fuel efficiency of the vehicle.

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| Threshold | Condition | Maintenance Tip | Estimated Cost (USD) |
| 5 – 10 L/100km | Efficient | No maintenance required | $0 |
| 11 – 15 L/100km | Moderate | Clean fuel injectors | $100 – $300 |
| 16 – 25 L/100km | High Consumption | Replace fuel filter | $300 – $700 |
| >25 L/100km | Critical Inefficiency | Inspect fuel pump and injectors | $700 – $2000 |