

# CONSTRUCTION VEHICLES TRACKING WITH IP67 RATING GPS DEVICES

## INTRO

Construction is a multi-billion-dollar industry that not only adds a significant value to the economy but also requires constant attention, especially in harsh climatic conditions, to bring maximum value and faster return on investment. This creates a need to improve the efficiency of fleet management. Teltonika new IP67 rating GPS trackers open up new opportunities and may have a major impact on this industry.

## CHALLENGE

According to [Businesswire.com](#), the global construction market is expected to grow from USD 11,491.42 billion in 2020 to USD 12,526.4 billion in 2021 at a compound annual growth rate of 9%. Sadly, construction heavy-duty vehicles, machinery, and equipment are often affected by harsh environmental conditions and climate factors. Fact is, grit, salt, rainwater, dew, moisture, snow, ice, mud, clay, sand, dust and other aspects reduce productivity, increasing fuel consumption, causing mobility issues and financial losses.

The research conducted by the [American Automobile Association, Inc.](#) showed that drivers in the U.S. have spent an estimated USD 15.4 billion on rust repairs over the past five years since 2017. The construction market is no exception. It is much more expensive to repair or replace equipment and assemblies if they are already damaged. The study '[Assessment of Heavy Equipment Operating Cost Estimates from Annual Data](#)' found that repair of Cat Backhoe Loaders could cost around USD 6-8 thousand annually, while engine failure because of harsh conditions can be even more costly.

Regular and rigorous inspections are critical for the productivity and longevity of such assets. Failing to timely identify areas of wear could lead to time-consuming and/or expensive repairs causing unwelcome delays, workflow disruptions, hefty penalties, etc. What is more, it is important to keep all machines clean and warm them up, especially during the cold season.

According to the [University of Nebraska study](#), monitoring the condition of machinery and improving preventive maintenance procedures can reduce repair costs by up to 25%. It is estimated that the savings in repair costs per unit of equipment could be around USD 6,000. This is a lot of money and the more machines in the fleet, the more savings could be made. That said, these challenges need to be addressed and Teltonika Telematics can help.

## SOLUTION



To address the issues and showcase a solution, we choose 2G connectivity Teltonika GPS tracker FMB240 with a few distinctive features - [IP67 rating](#) casing and [integrated CAN bus processor](#) with [ALL-CAN300](#) version. The latter is used to track and monitor important parameters and the technical condition of construction vehicles helping to manage the fleet as efficiently as possible. The compact 2 in 1 device FMB240 belongs to the new Teltonika FMx2 series, which also includes [FMB225](#), [FMB230](#), [FMC225](#), [FMC230](#), [FMM230](#) models - all with a new IP67-certified casing protected against dust and resistant to water.

According to manufacturers of construction heavy-duty vehicles, the performance is better when an engine has had time to warm up to more than 40 °C. What's more, if the engine is not yet ready, but is heavily loaded, the wear and tear process can increase dramatically and ultimately lead to more frequent breakdowns and downtime.

**How it works** - instead of looking directly at the gauges of every vehicle in a construction site the old-fashioned way and avoiding discrepancies of readings or guesswork, now the installed GPS tracker FMB240 reads, gathers, and transmits relevant data via GSM network to a server - oil pressure, fuel and battery levels, engine temperature, speed, mileage, the engine load and so on (altogether, up to 100 parameters can be tracked simultaneously).

This will ensure that the entire construction fleet operates in the best possible way averting costly surprises, timely maintenance procedures and the discipline of drivers. Here to add, the installation process of 2 in 1 device, such as FMB240, is significantly simpler, faster, and economical saving telematics service providers and integrators precious resources.

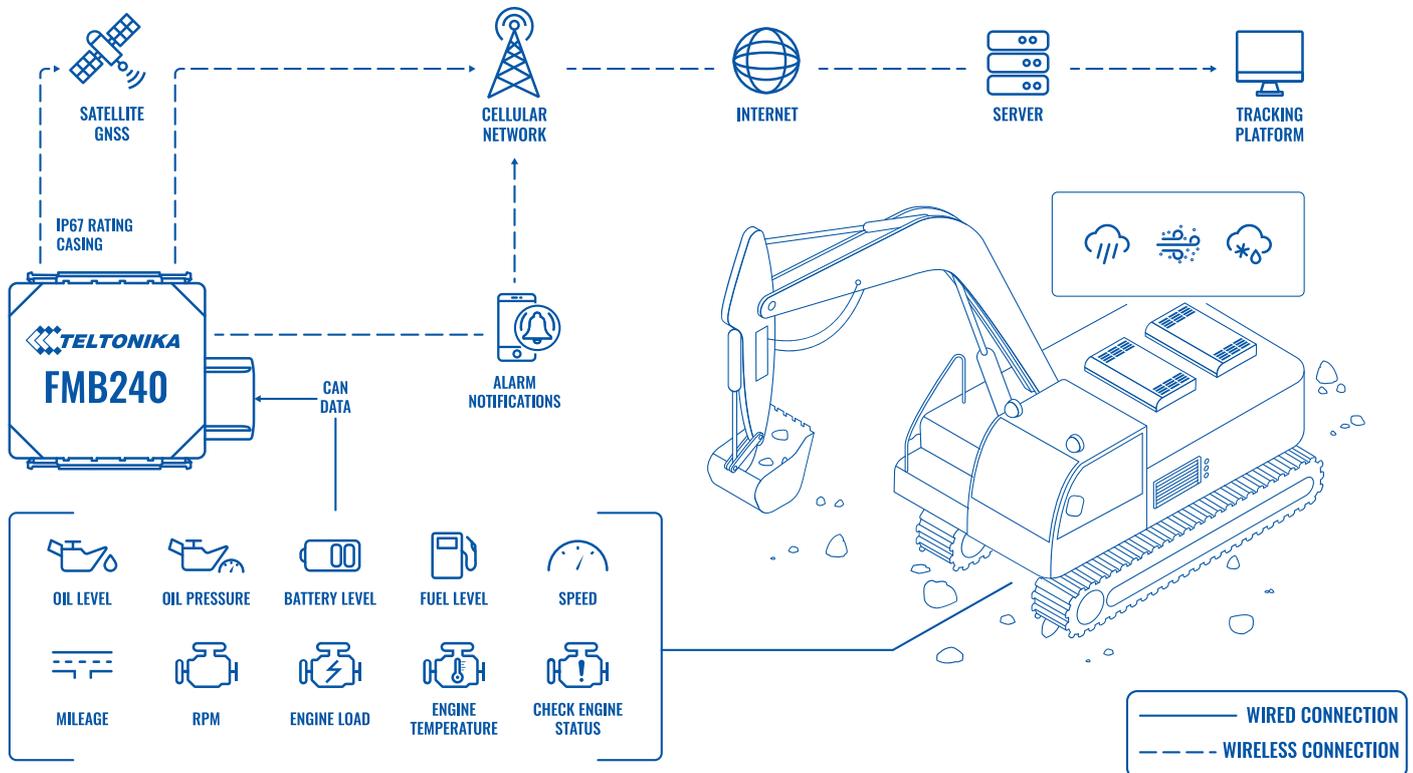
**CERTIFIED AND USER-FRIENDLY CASING**

Still more, rigorously tested and certified IP67 rating casing makes certain the solution will work even in demanding climatic environments and challenging weather, e.g., monsoon seasons, humid subtropical or oceanic climate (e.g., in Western Amazon basin countries, South Asia, Africa, Australia, and the Pacific coast of Central America, etc.), sandstorms and/or dusty winds in regions such as the Middle East, Northern Africa, Central Asia and the like. If so, the Teltonika FMx2 series of GPS trackers can expand business opportunities, opening up new market segments, profitable IoT projects and revenue streams.

To ensure cost-effectiveness, we have expanded the mounting options for the FMx2 series of GPS devices, each of which can be mounted with adhesive tape or fastening straps both in-cabin and on the outside of the vehicle without fear that high-pressure water, dirt, mud or a cloud of dust will compromise its connectivity or data tracking. The new IP67 casing with click type closure ensures both - reliable protection against the elements and ease of use, as it needs no additional tools or any screws to install the tracker and ensures impeccable performance at the same time.

Finally, thanks to the extensive set of features, multiple CAN bus communication and diagnostics protocols support, the FMB240 is a preferred choice not only for construction site fleets but also for international logistics, mining, gas and oil, forestry, agriculture, water transport, utility industries too. Find out more relevant use cases [here](#). The GPS device firmware updates and configuration changes can be made remotely using the [FOTA WEB](#) tool - a powerful software solution from Teltonika helping to manage vehicle trackers with absolute efficiency.

**TOPOLOGY**



## BENEFITS

- **Reliable tracking in harsh conditions** - thanks to its IP67-rated casing, the FMB240 can be utilised in a wide range of challenging environments including construction sites, as it is 100% dust-proof and protected against temporary immersion in water.
- **2 in 1 device to save resources** - because of the integrated CAN bus data processor, the FMB240 model has a significantly simpler, faster installation and setup process saving precious company resources and time.
- **Innovative click type two-phase casing closing** ensures both reliable protection and ease of use at the same time, as they need no additional tools for installation. There are no screws, nuts or bolts to handle.
- **Diverse device mounting options** - different cables can be connected to the GPS tracker if required. Even more, it can be mounted with adhesive tape or fastening straps both in-cabin and on the outside of the vehicle.
- **More projects and business opportunities** - thanks to vehicle GPS tracker FMB240 versatility and durability, it can be used in a broader variety of markets and regions even in severe weather and driving conditions, bringing more projects, income streams, and gaining a significant competitive edge.

## WHY TELTONIKA?

To successfully resolve construction vehicles tracking and monitoring challenges in harsh climatic conditions, we offer a unique choice from Teltonika – the new FMx2 series vehicle GPS tracker FMB240 with integrated CAN bus data processor and innovative click type IP67 rating casing helping to withstand powers of nature and effectively manage fleets.

We are the right place to get all you need to succeed - the most abundant variety of top-quality certified GPS trackers, accessories, and solutions for any use case imaginable in vehicle telematics. From the start of the company 24 years ago until today, Teltonika 2,000 strong and growing team has manufactured 16 million IoT devices, helping to succeed thousands of customers and partners in over 160 countries across the globe.

## FEATURED PRODUCT

FMB240

