OMNICOMM is technological partner of KAMAZ-master. Omnicomm Fleet Management and Fuel Monitoring System was selected by the team for use in a series of rally-raids and is installed now on all KAMAZ-master racing trucks.

KAMAZ-master is a team of prominent racers, championed World Cup for 3 times in off-road truck rallies. The racer team won the Silk Way rally several times and is a thirteen-fold winner of the Dakar transcontinental super marathon, which is known as the rally with the highest difficulty category.
Why KAMAZ-Master goes for Omnicomm equipment?

While preparing for the race it is highly important to accurately calculate the required amount of fuel in the tank. During the race it is no less important to monitor fuel consumption to know its exact amount in the tank. Every liter of fuel adds weight to the truck, so it makes no sense to take fuel "in reserve".

100 liters of fuel "in reserve" adds about 83 kg weight to a racing truck

Real life case
In KAMAZ-master’s long-term practice of participation in rally-raids there were cases when the race organizers were late in informing the race participants about changes in road surface. In Dakar 2005 with a total route of 600 km the crew ran out of fuel within just 50 km of the finish line. Original fuel calculations were made for hard route surface, but the organizers changed the route and selected soft shifting sand due to the heat. As a result the team was only finished 18th.

In addition to fuel control Omnicomm fleet management system allows the team to track the route and characteristics of trucks running during practice races, remotely monitor truck location and technical condition of vehicles, which is especially important during test-drives while preparing to the most extreme international races - "Dakar", "Silk Way" and "Kagan Gold."

“We have chosen Omnicomm as a technological partner of our team. Omnicomm solutions are able to operate smoothly throughout the entire rally extreme route, in high vibration and high temperature conditions being fully aware of fuel on board. Reliable. Accurate. Flawless. Omnicomm Fuel level sensors are our warning signal. Now the navigator is aware of exact fuel consumption at any stage of the way, how much fuel is left in the tank and how many miles the truck would pass with remaining fuel. This information allows to calculate the necessary amount of fuel very accurately for different sections of the route and not to carry extra liters of excess weight what is very important for a racing car under competitions conditions”

Vladimir Chagin
KAMAZ-master Team Head
Especially for the KAMAZ-master team Omnicomm has developed a new, advanced multi-function LLD display, installed in the truck cabin. LLD display allows the crew to receive real-time information about amount of fuel remained, control consumption and monitor the amount of fuel left until refueling. Every extra liter in the tank overloads the truck, and it’s of great importance to calculate fuel consumption for the whole route taking into account all modes of engine operation and different coatings during all the rally.

TEST FACILITIES. RESULTS

After the fault in Dakar’ 2005 KAMAZ-master engineers thoroughly investigated the issue of equipment selection so that it complies with all the requirements for reading accuracy and uninterrupted operations. For several years the team has tested solutions offered by various foreign and domestic manufacturers but each time shortfalls were identified which did not allow for the control of fuel parameters on the required scale. With other manufacturers there were many issues when due to shaking and weather conditions the equipment was providing wrong inaccurate results and even totally broke. The team was forced to always have a measuring dipstick to meter the amount of fuel in the tank.

After many unsuccessful tests the technical team drew its attention to Omnicomm equipment. They have challenged it on the following stages:

1 stage
The first test installation of Omnicomm fuel level sensors was carried out in the hot summer conditions in tough road rally “Kagan Gold” held in 2012 in the Astrakhan Region. Decision to test Omnicomm equipment was made by the team of one support vehicle which participated in the race. Strong shaking of fuel in the tank and extreme track conditions did not affect the reading’s accuracy that made it possible for the crew to monitor exact amount of fuel in the tank.

2 stage
The second test for Omnicomm equipment was held on famous race “Dakar” in January 2013. This time the team decided to equip one more car with previously successfully tested equipment. Omnicomm technology ran faultlessly. All solution parts once again proved quality, reliability, performance and confirmed itself as a reliable technological solution. The race handed a victory to the team.

3 stage
The third stage of testing was installation of Omnicomm fuel control system for a major part of racing trucks. The system was tested once again during training in Morocco in May 2013. All results were at the same high quality level what confirmed original decision.

Just before rally-raid Silk Way-2013 after all tests were carried out successfully KAMAZ-master team fully equipped the whole fleet of racing and supporting trucks with Omnicomm fuel level sensors, transport location and technical condition monitoring solution.
“Rally-raids for SUVs and trucks have always been considered a race for strong, goal-oriented and highly motivated people taking high barriers to the targets set. Extreme conditions do not allow the team to relax even for a moment. Our credo is to always pay big attention to transport and crew members’ preparation. After each race we are improving characteristics of technical support by using high-tech and reliable equipment. Now for all races we use Omnicomm solutions to have high-precision measures of fuel level and to monitor the location and truck performance as well.”

Sergey Savostin
Kamaz-master Team Navigator:

Successful cooperation with KAMAZ-master proved that the high quality and reliability of Omnicomm equipment which can be used in the most severe road conditions providing accurate results.

The international rally Dakar-2015 was an absolute triumph for KAMAZ-master team. Its crews occupied the whole podium. The gold winner was the crew of Ayrat Mardeev. The second place went to the crew of Eduard Nikolaev. The crew of Andrey Karginov, winner of the rally in 2014, got the third place.