

NIGER: GOROU BANDA POWER PLANT PROJECT TRANSPORT OF NO. 4 ENGINES FROM TEMA (GHANA) TO NIAMEY (NIGER)

| PROJECT | EQUIPMENT | WEIGHT |
|---------|--|---------|
| POWER | 5 PRIME MOVERS / 18 AXLE LINES TRAILER / OVERBRIDGES / HYDRAULIC JACKS | 256 TON |



Fagioli were contracted for the transport of 4 engines weighing 256 ton each from Tema port (Ghana) to Niamey power plant (Niger) for a total of 1550 km for each trip. -Offloading of no. 4 engines type at Tema port (Ghana) from vessel onto 18 axles modular trailers and storage operations in the port area.

-Inland transport of engines onto a 18 axles modular trailer with 5 prime movers pulling/pushing from the Port of Tema (Ghana) to the new Gorou Banda Power Plant (Niamey, Niger) across Ghana and Burkina Faso for a total distance of approx. 1550 km each trip.

-Discharging of the engines FOT at Gorou Banda site.

The above mentioned operations were repeated four times to allow the completion of the whole transport activity for a total of more than 12.000 km transiting through the countries of Ghana, Burkina Faso and Niger. The operations started on the 24th of September 2014 and ended on the 22nd of June 2015.



The transport was one of the most demanding ever performed by Fagioli due to many factors (including weak infrastructures, extreme weather conditions, social upheaval problems) which forced the operators to face and prepare unexpected contingencies to resolve the unexpected problems which raised themselves unexpectedly on a regular daily basis. Some of the main difficulties faced during the transport operations were the following:

Road slopes; Over-bridging activities (8 each trip); By-pass construction (4 each trip); Bridges support structures (3 each trip); High temperatures; Heavy rains and river flooding ; Roads in poor conditions (picture bottom right); Crossing of 2 borders (Ghana – Burkina Faso and Burkina Faso – Niger); Coup d'etat in Burkina Faso; Equipment maintenance on the road; Intermediate storage of 3 engines in Ouagadougou due to by-passes construction delay for the late rains in Burkina Faso; Transport permit issues; Areas with high security risk for the crew and components. Fagioli supported local authorities to find engineering solutions for the repairing of several bridges which were in bad and worsening condition, with holes appearing and deteriorating support structures. Many by-passes were built (picture at the top) and over-bridges positioned along the roads (central pictures at the bottom) to allow the passage of the convoy. The unstable weather conditions such as extremely hot temperatures alternating with sudden heavy rainfalls (with the consequent raising of the level of the rivers where the bypasses were supposed to be built) slowed the transport operations several times. Poor and worsening road conditions during the whole journey forced Fagioli personnel to intervene with day-by-day maintenance inspections and interventions on the trucks and trailers as well as detailed supervision on the civil road repairs executed by local companies. Eventually, the engines safely arrived at destination where they were installed by the client with gantry lifting system.

