

The right cranes for the job

- The seven Potain crane operators in their cabs look down on the works from far above. It is movement of these enormous cranes that determine the rate of work at the site. One crane is fixed to each of the seven piers.

The cranes have been designed to handle the concrete linings, reinforcement and formwork that are assembled at the worksite.

According to Daniel Barthélémy, Potain's marketing director "each crane can lift 20 tonnes, which is the weight of the reinforcement that is installed for each vertical pier section".

- Top slewing cranes are used at the Millau worksite. They are made up of units that measure almost 6m in length and 2.5m in cross section. As the piers gain in height additional units are added (these are painted red and white to meet civil aviation criteria). The cab is then separated from the rest of the crane and lifted by a telescopic cage fitted with jacks. A new unit is then added through one of the open sides of the cage and the cab is put back roughly 6m higher. To make the work of crane operators easier, a detailed specification was drawn up for the cranes on the worksite. First, they had to be able to withstand winds of up to 193 km/h*, while taking account of the difference in wind speed between the top and bottom of the pier.
- The position of the brackets that hold the crane to the pier was decided with reference to the wind speed gradient. In addition, it was necessary to make the work of the crane operators as easy as possible. The cranes were equipped with lifts for the operator; the air-conditioned cab had a rest area with a dinette, a fridge and toilet. Five star accommodation ... several tens (or even hundreds) of metres in the air! "Bernard Le Gouriérec, a sales officer, continues "A closed circuit video camera was installed in the cab. This makes the movements on the ground safer, and also means that it is possible to work in fog. We have done all we could to make sure that this collaboration with Eiffage is successful. We have also dispatched a

permanent maintenance team to the site". This is essential when working with gigantic cranes like the P2, which was 264m high and weighed 404 tonnes and had a winch with a cable more than a kilometre long. Although they are huge they can nevertheless position the loads they lift to within a centimetre. If the wind speed exceeds 72 km/h the cranes are allowed to turn freely in the wind and work stops.

- Potain S.A.S. is... • A company set up in 1928 by Faustin Potain • The world's largest crane manufacturer • A subsidiary of the American Manitowoc group • Group turnover of 1.3 billion euros in 2002 • A staff of 2,200 worldwide.
Source <http://www.viaducdemillau.com>