

Bridge over the clouds

The world's tallest bridge is under construction on the A75 autoroute in southern France. Helping build the landmark structure is a fleet of seven Potain tower cranes. Marie-Ange Paltz reports.



From January 2005 the drive time between Paris and Barcelona is set to get considerably shorter. That's because from that date the Millau Viaduct in southern France will be open and with it a swift route across the River Tarn, and its surrounding gorge, which presently separates the main highways running to Paris and Barcelona. Central to the construction

of this landmark bridge are seven Potain K5/50C tower cranes belonging to main contractor Eiffage Construction. The project is one of the biggest underway in Europe at present and is particularly noteworthy as once completed, the bridge will be the highest in the world. There are seven concrete piers making up the bridge, each being constructed with the help of one of the Potain tower

cranes. The heights of the individual piers vary from 75 m to 245 m (246 ft to 803 ft). The highest pier with its mast structure on top will measure 355 m (1165 ft) – 14% taller than the Eiffel Tower. The crane assigned to this pier will reach a height under hook of 265 m (869 ft). The cranes are mostly being used for pouring concrete and positioning formwork. Each has been equipped with Potain's Vision Cab, 150LCC50 winches

and the Top Tracing zone limiting system. In total the cranes will need to handle some 36 000 t (39 683 USt) of reinforcement steel and help pour a total of 85 000 m³ (111 176 yd³) of concrete. Potain has two personnel located permanently on site to handle all service and maintenance requirements of the cranes for the duration of the project. The distance between each of the piers is 340 m (1115 ft) and the bridge will span a total of 2.5 km (1.55 miles) once completed. The masts will rise to 90 m (295 ft) above the level of the road and will then be cable-stayed to the road. The road itself will have a gentle slope of 3.035% north to south and a gentle curve. Drivers in this region are already looking forward to shortened journey times and the view from the bridge will certainly be a spectacular one. The view of the bridge itself will also be a pleasant sight thanks to the involvement of acclaimed UK architects Foster and Partners. ♦

Once complete the Millau Viaduct in France will be the world's tallest bridge.



K5/50C
TECHNICAL SPECIFICATION

Maximum capacity:
 20 t (22 USt)

Maximum jib length:
 60 m (197 ft)

Maximum capacity at maximum jib length:
 6.2 t (6.8 USt)

Height under hook for the cranes from Pier 1 to Pier 7 (P1 to P7):
P1: 114 m (374 ft)
P2: 265 m (869 ft)
P3: 241 m (790 ft)
P4: 160 m (525 ft)
P5: 154 m (505 ft)
P6: 131 m (430 ft)
P7: 95 m (312 ft)

