



Case Study

Project brief: Movement of two Tunnel Boring Machines (TBMs) from Herrenknecht AG, Schwanau, Germany to CTRL job-site, Kent. The two machines will help form the missing link between the high speed railway networks of mainland Europe and the United Kingdom.

The Channel Tunnel Rail Link (CTRL) is the UK's first major new railway for over a century - a high-speed line running for 109 kilometres (68 miles) between St Pancras in London and the Channel Tunnel at Folkestone. The railway will provide significant transport and economic benefits.

The high-speed line is being built in two sections. Section one has been under construction since October 1998 and runs between the Channel Tunnel and Fawkham Junction in North Kent. The first section is on schedule for completion by the end of 2006.

ALS had been contracted to transport two tunnelling machines from the Herrenknecht Factory in Schwanau to

the CTRL 320 Job site in Kent, in view of their extensive experience in previous infrastructure projects for the manufacturers. The first machine comprising a total of 969 tonnes (equivalent to 2,835 freight tonnes) was moved over a two week period, utilising road, river and sea transportation.

Combining their intimate knowledge of the UK's Highway network and suitable port infrastructure, ALS identified the most efficient and cost effective route whilst minimising double handling and excessive road transport movement by shipping to within 4 kilometres of the job site by river and sea.

In total the machines moved less than 30 kilometres by road, thereby minimising road congestion and inconvenience to the general public.

The whole operation was a success from collection in Southern Germany through to the UK destination, with all movements being carried out on time, on budget, and with no recorded damages.



- Shield segments awaiting delivery at intermediate storage area.



- Shield segments loading to sea transport



- Gantry section loading to sea transport