



# Tunnel Boring Machine

## Case study

**Project brief:** ALS' abnormal loads team (a division of Wallenius Wilhelmsen Logistics) coordinated the relocation of a TBM from St. John's Wood, central London to Haringey, London.

This was an extremely challenging operation, moving the TBM components in 4 separate loads with the heaviest piece weighing 105T and measuring 4.40m long x 4.71m diameter.

The 4 components consisted of a Cutting head, Shield Main Drive, Machine Can & Tailskin. The Shield Main Drive and Tailskin were moved under a Special Order obtained from the Highways Agency.

Delivery was completed over a two week period with each separate delivery taking 4 hours for the 9km journey from the shaft portal site at St. John's Wood to the shaft portal site at Haringey, London.

The deliveries were spread in this way due to police restrictions, with the largest items being allowed to move only on consecutive Sunday mornings.





ALS subcontracted the use of a vessel bridge trailer to transport the 23t & 40t pieces and a modular 5 bed 5 trailer with a drawbar unit for the heavier pieces at 103t & 105t.

The ALS team's preparations included detailed route surveys considering multiple bridge heights and street furniture locations and data supplied by Network Rail and British Waterways Board, and required close liaison with the Highways Agency, City of Westminster, Camden and Haringey Borough Councils, the Metropolitan Police and Transport for London (TfL).

The route approved by the Highways Agency presented the ALS team with a large number of problems including substantial quantities of street furniture removal/replacement and parking bay restrictions. An advance letter drop was made to churches, residences and street parking areas along the route to pre-advise of the early Sunday morning movements.

A large number of residential parking bays had to be suspended for the duration of the contract, at an additional cost to the client of £15,000.

The Met. Police "lifter" was also employed and joined each convoy (involving six police escort vehicles) to remove and relocate any obstructing cars parked by the general public along the route. TfL arranged for bus services to be either diverted or re-scheduled to minimise delays and inconvenience to passengers.

ALS representatives were in continual attendance throughout the planning and execution of these deliveries to ensure a smooth operation and to maintain close communication with the client and with the police and other authorities.

The deliveries were completed on schedule. This was the third TBM delivery managed by ALS in central London this year, and ALS is currently working on solutions for similar TBM movements scheduled for 2013-2014.