



# CASE STUDY

## Big, Big & Better

### Client Objectives

For anyone that's ever laid eyes on a LeTourneau L1850 Front End Loader, their first impression is usually that of amazement and awe. The LeTourneau L1850 weighs 230 tonnes and stands over 20 feet high, now for anyone who's actually stood beside one, the feeling of small would be considered a gross understatement.

The L1850's are imported into Australia and widely used throughout our mining and quarry industries. They're imported from overseas, assembled locally and then transported to their destination. In this case, LeTourneau required a heavy lift and shift provider to assist in the assembly, transportation and installation of the most critical component of the L1850, its 175 tonne main frame.

LeTourneau engaged Tutt Bryant Heavy Lift & Shift (formerly Muswellbrook Crane Services) to undertake this project after a careful selection process. Tutt Bryant Heavy Lift & Shift in the Hunter region has an enviable reputation for delivering on previous heavy lift and shift projects, which along with its efficient methodologies and thorough pre-planning processes, provided LeTourneau with the confidence of the standard and reliability of service. In order to meet LeTourneau's objectives, the main frame was required to be transported from Muswellbrook to Bulga Mine for final assembly. The heavy haul unit was at a combined weight of 345 tonnes, and needed to be carefully navigated 90km along narrow and steep sections of the Golden Highway in the Hunter region of NSW. With the entire process having to be achieved within the allocated timeframe of 1 ½ days, Tutt Bryant Heavy Lift & Shift was left with a very large task at hand.



Above - The two-in-front, two-in-back formation was essential to the transportation of the combined 345 tonne haul to Bulga Mine



Above - Professional synchronisation between drivers was critical to the smooth and safe hauling of the load



Above - Utilising an equalising beam, the 2 x 160 tonne, 1 x 140 tonne & 1 x 100 tonne slew cranes unloaded the main frame upon arrival at Bulga Mine



## Solution

Considering the limited timeframe Tutt Bryant Heavy Lift & Shift had to work with, pre-planning was imperative to the success of the project. Pre-planning studies were conducted to have the main frame transported, pre-assembled and then transported to Bulga Mine for the final assembly in the most time efficient manner. Firstly, the L1850's main frame components had to be transported from the Brisbane wharf to Muswellbrook in shipping form for pre-assembly.

Following the pre-assembly process, four of the largest capacity slew cranes in the fleet – 2 x 160 tonne, 1 x 140 tonne and 1 x 100 tonne were used with equalising beam and associated rigging to multi crane lift the 175 tonne main frame onto the new 12-line low loader ready for transportation to Bulga Mine. In order to transport the 175 tonne main frame, Tutt Bryant Heavy Lift & Shift utilised four Mack Titan prime movers at a combined HP of 2410HP. Operating in unison and utilising a two-in-front, two-at-back formation, the Tutt Bryant Heavy Lift & Shift drivers had the arduous task of having to coordinate speeds and navigate the combined gross weight of 345 tonne for the 90km drive. The professional synchronisation between the four drivers was critical to the smooth and safe hauling of this load.

Following the transportation of the L1850 main frame to Bulga Mine, the main frame was unloaded and positioned onto stands for its final assembly using the same four slew cranes and rigging equipment. Detailed pre-planning by means of a critical lift plan ensured that the Tutt Bryant Heavy Lift & Shift operators and riggers working on the four individual cranes understood the parameters for the careful and skilful manoeuvre of the load, and executed it in a professional and coordinated fashion.

## Client Benefit

The heavy lift and shift was completed by Tutt Bryant Heavy Lift & Shift within the required timeframe to allow the main frame to be fitted and installed on time. Tony Passfield, Business Development Manager for Tutt Bryant Heavy Lift & Shift, Hunter Region credits the company's diligent pre-planning, efficient transportation methodology and the skill, commitment and expertise of their staff as the primary reasons behind the successful completion of the project. The task was undertaken without any issues and within the allocated timeframe further enhancing Tutt Bryant Heavy Lift & Shift's reputation as the leading provider for complete solutions in craneage and heavy haulage in the Hunter region.

### Key Equipment

#### Drake steerable semi modular 12-line low loader

Critical to the success of this project is the newly acquired Drake steerable semi modular 12-line low loader. Comprising of three sections – 1 x 2 lines, 1 x 3 lines and 1 x 7 lines – this low loader can be widened for oversized loads as was utilised in this case. In its 12-line configuration, the low loader is capable of hauling a combined load of 384 tonnes, and the hydraulic steering on all axles ensured mobility for the smooth and efficient transport of heavy loads.



Above - Drake semi modular 12 line low loader. This 12 line loader consists of 3 sections, 1 X 2 line, 1 x 3 line and 1 x 7 line trailers