

MAXITOOOL ENGINEERING

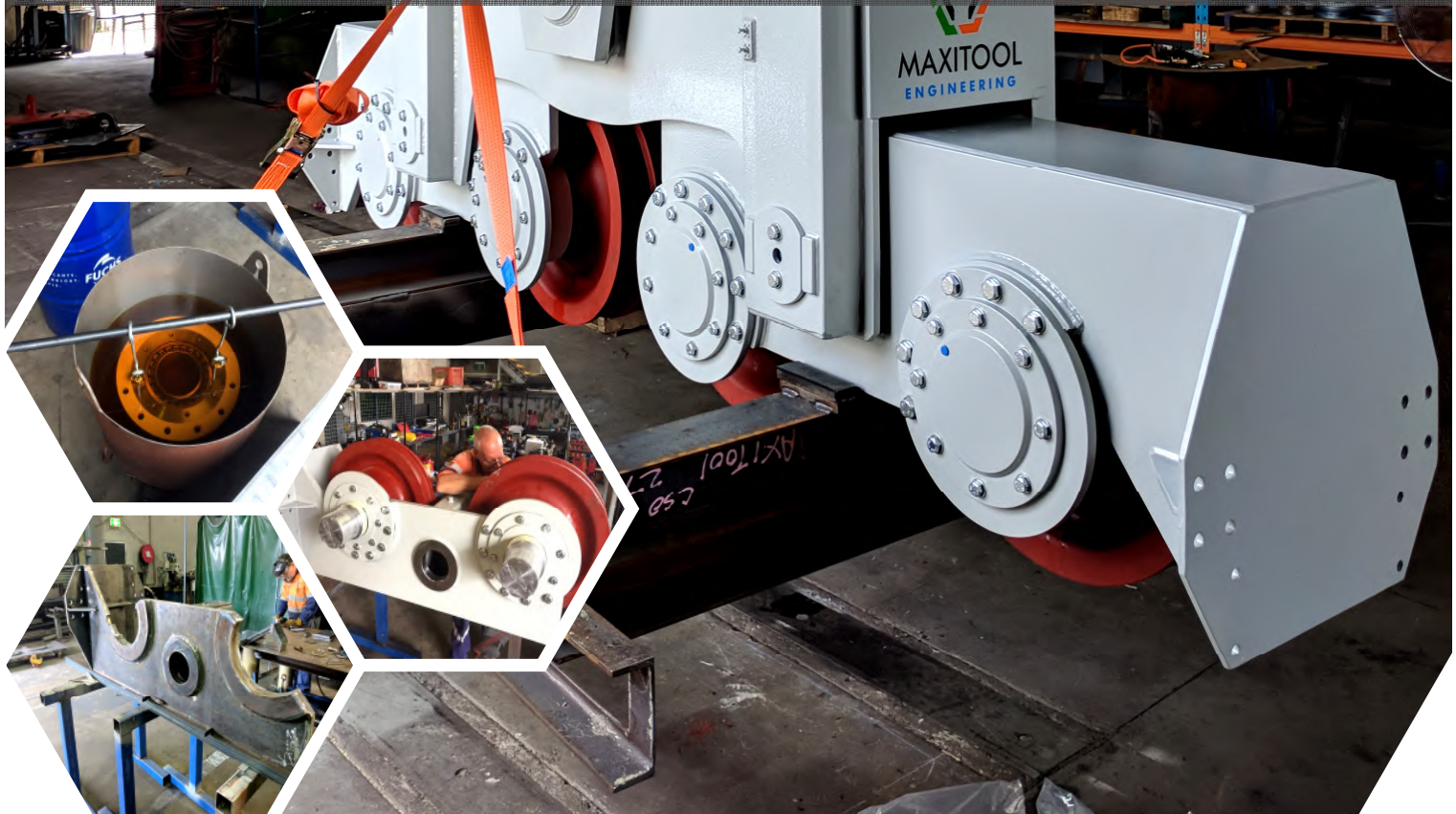
CLIENT: Cape Flattery Silica Mines
PROJECT: Replacement of Reclaimer Bogies

Scope: Manufacture 4 new 4.5t bogie assemblies for 200t reclaimer as part of refurbishment project.

Specific Challenges:

- Managing heat distortion with large plate thicknesses and weld sizes.
- Assembling bearing housings and shafts with interference fits.
- Casting wheels to within a specific hardness range (270-300 Brinell Hardness).

Solution: Dimensional accuracy of the fabricated elements was achieved through a number of advanced welding techniques. These included pre-setting plates in anticipation of deformation, post-weld heat treatment and forming. To fit the bearings and housings onto shafts a 60 litre oil bath was employed. Each housing was heated with the bearing inside before it was placed onto the shaft without the need for pressing, negating the risk of damaging bearings. For the manufacture of the wheels MAXITOOOL Engineering worked with a local foundry. The specified hardness range was successfully achieved by application of heat treatment to the castings after they had cooled. To prevent corrosion all internal surfaces were blasted and primed. Transport frames and an installation jig were supplied for ease of handling and install.



72-74 Swallow Road
EDMONTON QLD 4869



P (07) 4045 3433
E engineer-
ing@maxitool.com.au

Certainty in Safety – Certainty in Quality – Certainty in Value