

United Plantations Berhad Tour Malaysia - March 2019

This photo-report will illustrate both the production of palm oil with a focus on the railways used on UPB estates and also their range of the diesel locos which started life as Motor Rail Simplex products or have been built locally using key elements of the Simplex design. UPB is the only plantation owner in Malaysia to use railways to harvest the palm oil bunches although other palm oil plantation rail systems survive in Sumatra, Indonesia. The UPB railways are all 700 mm gauge. More reports by other tour participants will likely appear in the publications of the Narrow Gauge Railway Society and the Industrial Railway Society.

The Palm Oil Process

Harvesting Palm Oil Bunches by Rail

Removing bunches from the tree



Using a traditional long handled extendable knife to cut the bunches



Using a Stihl motorised knife to cut the bunches

Collecting



Traditional method using a water buffalo and cart



Modern method using a tractor and an elevating/tipping trailer

Transfer to rail



Transferring bunches manually into the rail cages.



Transferring bunches manually

Transport to the mill



Simplex No. 16 starts its journey back to the mill



En route to the mill with around 40 cages



The terrain is reasonably flat but there is clearly a summit here

Steaming the bunches



Several cages at a time are loaded into the steaming vessels seen in the background to make it easier to extract the palm oil

Into the crusher



This cage has been lifted off its frame to be emptied into the crusher

There are variations in the process

- Rotary tipplers or removable cages

- Cages from the field direct to the steamer or dedicated steamer cages



Cages being lifted by crane



Dedicated large cages waiting to go into the steamer



These larger cages are tipped using the rotary tippler

The Palm Oil Process

The bunches are steamed and processed to produce palm oil (red), palm kernels and fibre which can be used for mulch or boiler feed. The kernels are processed off site to produce palm kernel oil (clear). Both oils are further processed to provide a wide range of products used in items as varied as soaps and chocolates.



A Range of Simplex Locos







John Raby
March 2019