

## Newman owner Mike Crean

This is a small free hand Shunting Locomotive prototype very loosely based on the M636 Alco's operated on the Newman Iron Ore Railway during the 1970s and 1980s in the Pilbara region of Western Australia. These locomotives were noted for their bright orange livery and Western Australia's black Swan on the bonnet.



*Newman at Wilson Park Station siding, May 2008*

**Power**            5HP Robin 4 stroke petrol engine.

**Drive Train**    The engine is belt driven at a ratio of 4:1 to a Ford 4 speed gear box via an electric clutch, ex VK Commodore 12V air conditioning compressor clutch. The clutch is controlled via a mosfet connected to a micro-controller. This arrangement allows for smooth engagement of the drive train. The final drive train ration with the gear box in 1<sup>st</sup> gear is 14:1.

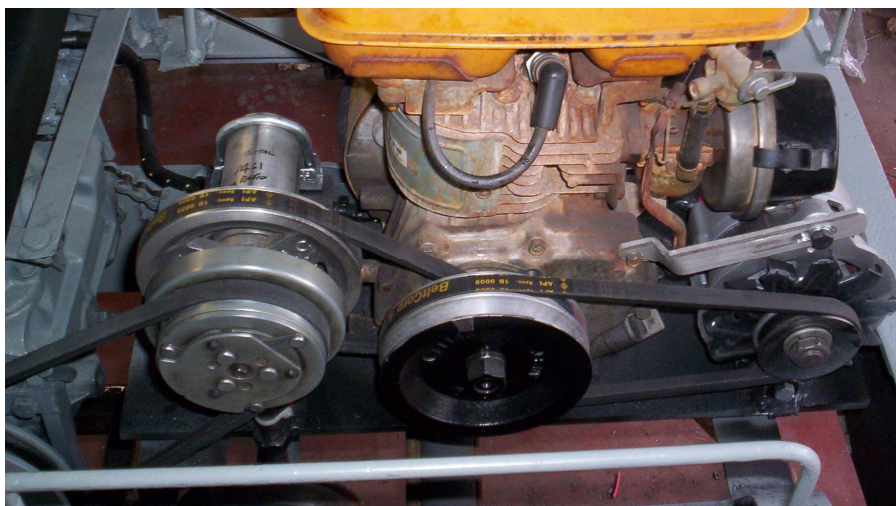
**General**            The locomotive weighs about 300 kg without the driver. 10 kph is the top speed with a 14:1 gear ratio and the gear box in second gear. Acceleration at full power is smooth and more than adequate to operate under all conditions on the CMR network.

The driver's controls are hand throttle, forward/reverse levers, whistle, lighting, clutch switch and hand brake.

Mike has named his locomotive after the iron ore town of Newman located in the Pilbara region of Western Australia.



*Engine compartment.*



*Engine and clutch assembly.*



*Rear of Newman without the cab.*



*Alco 5497 at the Port Hedland railway museum July 2005*

### Mt Newman Locomotive No 5497

As the demand for iron ore increased, more powerful locomotives and longer ore trains were used to haul iron ore from Mt Whaleback to Port Hedland.

This M-636 Co-Co 2684kW diesel-electric locomotive was built by Commonwealth Engineering (N.S.W.) Pty Ltd (Comeng) in November 1975.

Linked with two similar locomotives, this locomotive was used in the 1970s by Mt Newman Mining to haul trains of 144 ore cars carrying 17,000 tonnes of iron ore. By 1983, utilising a locomotive banking system, train length had increased to 180 ore cars carrying 18,000 tonnes. Ten years later, trains of 4 or 5 locomotives were capable of pulling 240 ore cars carrying 25,200 tonnes. On 27 May 1996 the longest train in Australia and the heaviest loaded in the world was run along the Mt Newman railway. It consisted of ten locomotives pulling 540 ore cars carrying 56,500 tonnes.