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48V DC electric inboard motor

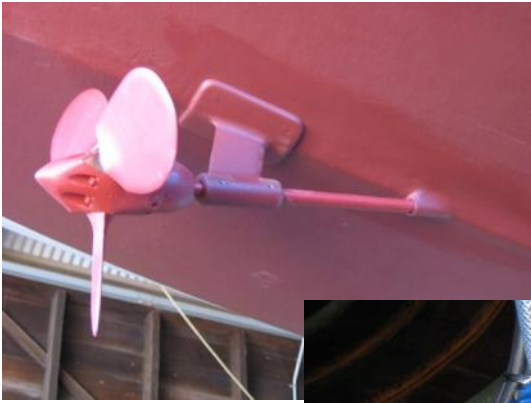
Classic timber yacht with 4.8kW electric inboard motor

'Larool' is a classic 12m racing yacht that was meticulously restored by Simon Sadubin from Sydney Harbour Wooden Boats. 'Larool' previously had no motor and the compact and lightweight Mastervolt-Bellmann 4.8kW (13HP) electric inboard motor was a logical solution to power this classic yacht. The electric drive system generates a high torque and is highly efficient, giving the boat a top speed of almost 7 knots. The motor is supplied as a 'plug & play' package inclusive of controller, display and throttle.

At 48V, 120Ah maintenance free AGM battery bank powers the motor and can be recharged from the mains or via solar panels.



Larool: Classic timber 1950's 30-square metre yacht



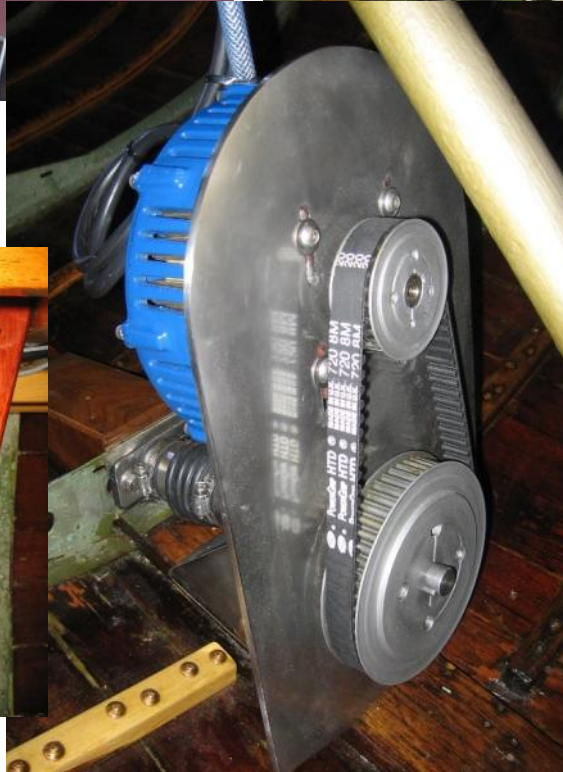
Feathering propeller



'Larool' under restoration at Sydney Harbour Wooden Boats



Stepless throttle



Mastervolt/Bellmann electric inboard motor with 2:1 reduction



Display with key switch

Motorcontroller and battery bank



For more information on electric propulsion visit:

www.ecoboats.com.au

Visit Sydney Harbour Wooden Boats at: www.shwb.com.au

PERFORMANCE TEST



Date / Location / Conditions:

Aug 2010 / Sydney Harbour / Wind: 10 knots / No current

Drive system & batteries:

Mastervolt-Bellmann DriveMaster (Aquapella) 4.8kW (2:1 reduction)
 Propeller: 13" diameter / 12" pitch, 3 blade feathering
 120Ah (5.700 wattH) battery bank, sealed AGM deep cycle
 approximately 4200 watts of usable energy @ 80% depth of discharge



Larool moored at CYCA, Rushcutters Bay, Sydney

Boat details:

Boat name:	Larool	L.O.A	12.5m
Displacement:	2.8 tons	L.W.L	8.7m

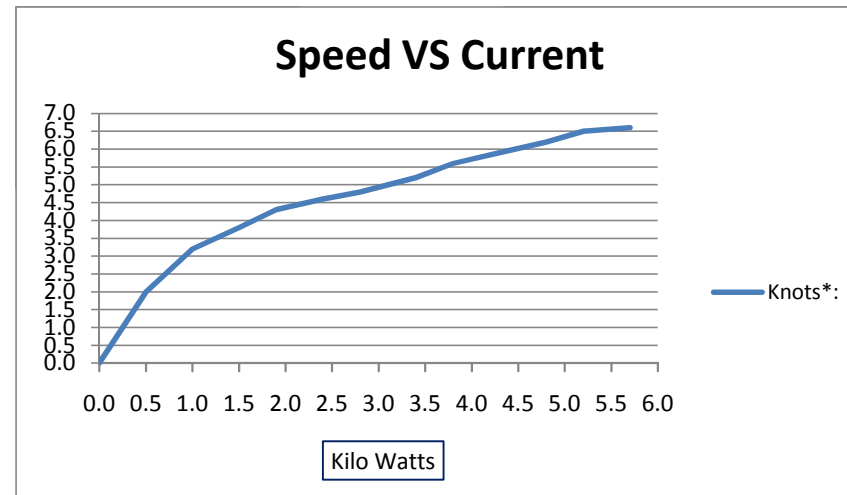


Electric motor



Instrument Panel

Amps:	KiloWatts:	Knots*:	Remarks:
0	0	0.0	
10	0.5	2.0	
20	1	3.2	
30	1.5	3.8	
40	1.9	4.3	Cruising speed
50	2.4	4.6	
60	2.8	4.8	
70	3.4	5.2	
80	3.8	5.6	
90	4.3	5.9	
100	4.8	6.2	S1 Continuous top speed
110	5.2	6.5	
120	5.7	6.6	Maximum speed



Remarks:

Cruising speed is approx 4.3 knots where the battery bank gives up to 2 hours running time to 80% depth of discharge
 S1 or 'continuous' top speed is approx 6.2 knots, at this speed a running time up to 35 minutes can be expected
 Maximum speed of 6.6 knots only to be used for short periods of time/emergencies

**speeds stated are the average of 2 runs in opposite direction*

Note; mast & rigging were not fitted at time of testing

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