

REASONS to go diesel hydraulic

No O/B engine , no petrol tanks (fire hazard ) , no motor corrosion ,

Remove weight from rear of boat ( 100KG to centre of boat )

Drive legs are adjustable in use , shallow water drive or deep .

Can use large props ( 14 inch Left and Right rotating ) for full power in wind or strong currents .Including reverse.

Props can fully clear water to inspect ,clean or remove debris( ropes, fishing line, sea snakes etc . Entering water not required ) Simple and easy winding hand winch for up and down. Rope and cleat to lock down. Drive legs are on break away hinges in case of impact with logs or rocks etc ,can be restored at sea if necessary

Power is from 4cyl 29HP Kubota diesel ,marinised by Diecon Brisbane coupled to a Southcott twin ,reverse able hydraulic pump. Drive legs house a Southcott hydraulic motor fully enclosed with hi temp epoxy resin and double bias fibre glass.Enables underwater cooling of hydraulic fluid. System design is by Harvest Fleet hydraulics of Tin Can Bay . Southcott pump and motors chosen because commonly found on commercial fishing boats and other industrial equipment found to be robust and reliable.

Prop power is controlled from cockpit by engine throttle and hydraulic pump independantly. As load torque and speed is fully adjustable no gear boxes or clutches are needed nor is prop matching to boat speed and engine .As there is no neutral gear two manual dump valves are installed to instantly remove power to the props if required for safety.

The diesel engine enables the fitting of a high power alternator , then allowing use of larger battery bank and inverter for 240v power at 5KW. This then allows house hold devices ,cooking ,microwave, toaster etc etc (Aircon ? Heater ? Watermaker ?) This would mean no gas , no gas hazards, no gas certificates for insurance. No more lugging gas bottles or no supply. Independance from marinas, and full use of avaiable solar. All these devices are available off the shelf ,including large lithium batteries.

For the horse and buggy mob this whole system can be replaced easily by outboard motors or oars.

Drawbacks

Noise of diesel ( Engine room soundproofing reqd )

Only one main engine ( Dinghy o/b mounted for emergency use )

Fwd storage locker used for engine