Union Jack Notes

UNION JACK SPEED CHART

The speeds listed below are approximate and not guaranteed. They are based on the listed displacement and may vary if displacement (weight) varies. All speeds assume well-faired hulls driving through properly sized propellers with suitable gearing to match the power and torque curves of the engine in question. All speeds are in knots per hour. To convert to miles per hour, divide by .87. Horsepower is given as constant 24-hour rated SHAFT HORSEPOWER (SHP); NOT brake horsepower (BHP), nor intermittent ratings. If only BHP is known, multiply this figure by .70 for approximate constant SHP. Figures assume S.A.E. methods. If ratings given in D.I.N., these will be about 8% less than S.A.E. If ratings given in KW, this will give ratings about 75% of BHP (S.A.E.) ratings. In all cases, it makes no difference if the engine is diesel or gasoline powered.

30' 11" LOA, 28' 0" LWL, 11' 6" Beam, 17,100 lbs displacement

Shaft HP =	Speed in knots
40 SHP	7 knots
50 SHP	7.5 knots
60 SHP	8 knots
70 SHP	8.5 knots

Maximum prop size: 24"

Range

•@ 7.5 knot cruising speed

•Will require 50 SHP

- •50 ÷ 20* = Fuel in Gals/Hr = 2.5
- •Fuel carried = 350 gals

•350 ÷ 2.5 = 140 Hrs of running

•140 X (7.5 ÷ .87) = 140 X .86 = 1207 Miles

* 1 gal Diesel fuel produces 20 hp/hour

The variable is the fuel consumed per hour, dependent on the shp used..

Re. Metric sizes for hull plating

"In Australia only metric sizes of steel plate are available, which differ somewhat from the sizes indicated on the plans. Would you recommend 3mm or 4mm plate for the deck and the hull?"

Designer's notes: 10 Ga. = 3.25 mm or .128" 3 mm = .118" 4mm = .157"

Structurally either will work, but in the US 1/8" (.125") is considered the minimum practical for welding.



Joinery Profile



Body Plan