

LightCraft

12m Harbour-Pilot Boat

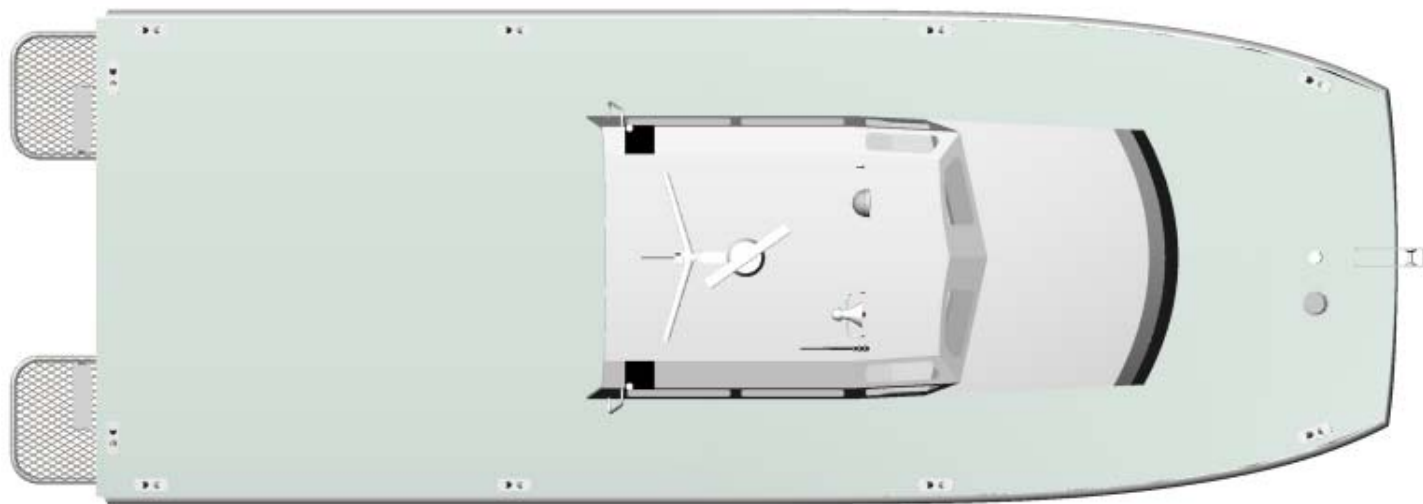


SCY Design

48 Sweetgum St, Ashmore Qld 4214, Australia
Ph: (617) 5597 3521 www.scy.net.au



12m Harbour-Pilot Boat



LightCraft



PRINCIPAL DATA

LOA :	13.0m
Lmoulded:	12.0m
LOP :	11.8m
Beam :	4.4m
Draft :	0.80m
Construction:	Marine Grade Aluminium
Fuel :	1200lts
Freshwater:	300lts
Main Engines:	2 x 7ltr
Max Speed :	-
Cruise Speed:	-

Class Standard :
DNV R3 PATROL
Survey: NSCV 2C

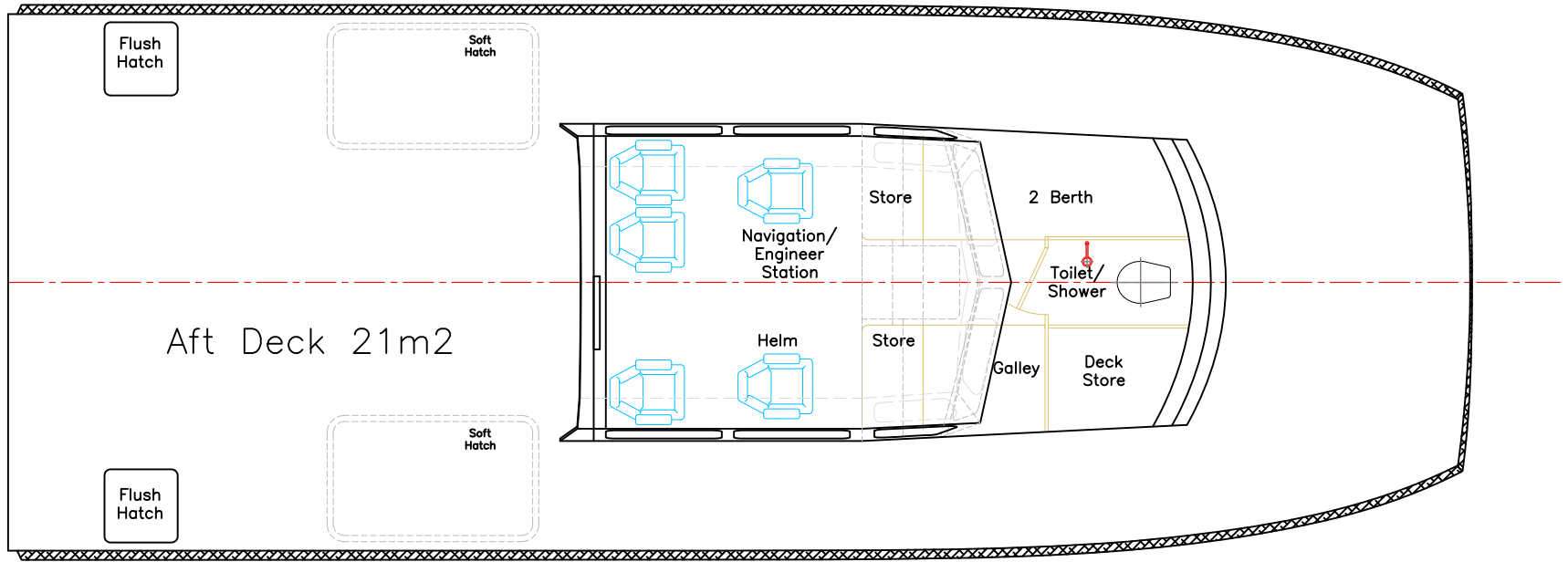
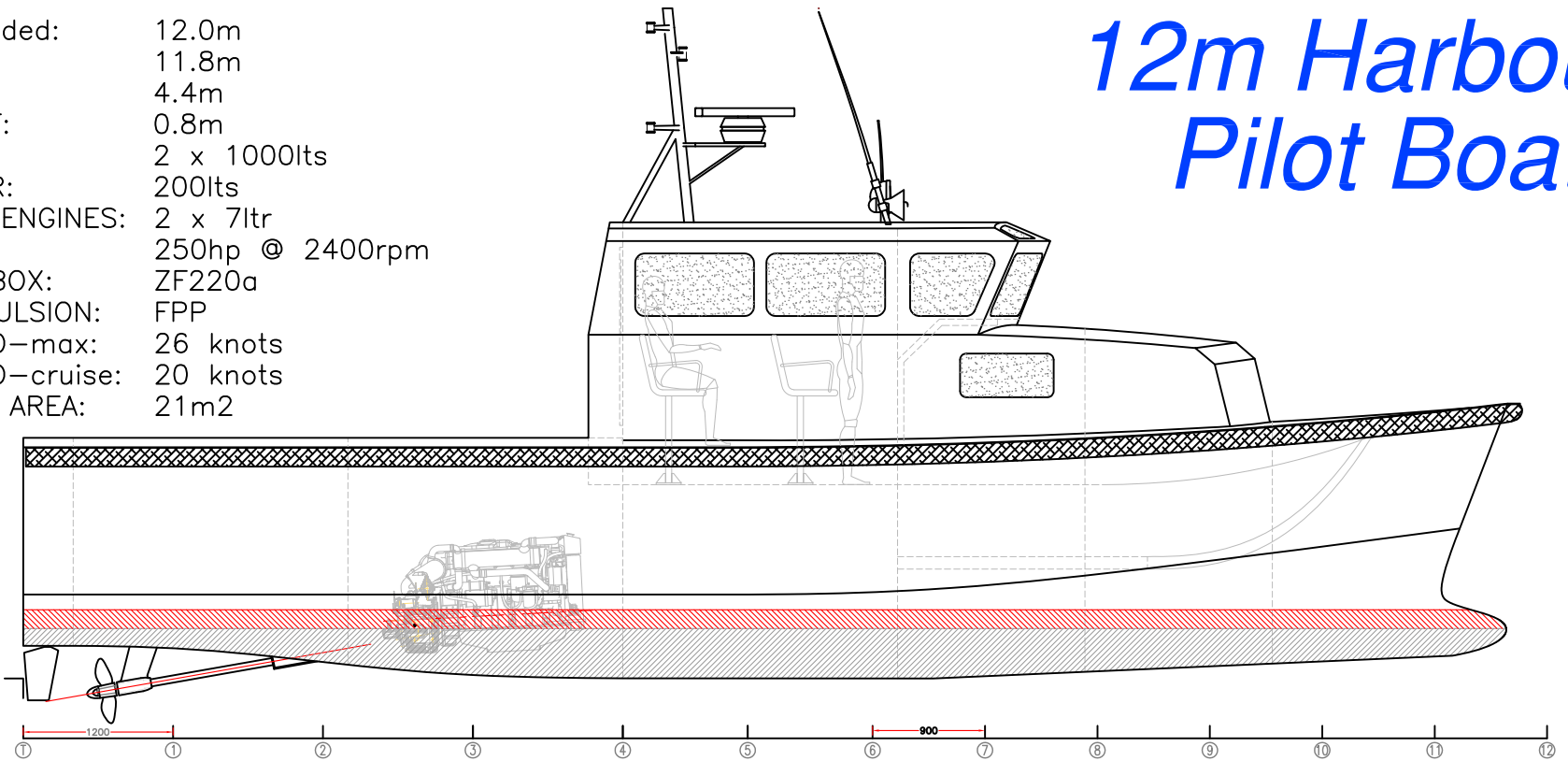
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12m Harbour-Pilot Boat

Lmoulded: 12.0m
 LOP: 11.8m
 BEAM: 4.4m
 DRAFT: 0.8m
 FUEL: 2 x 1000lts
 WATER: 200lts
 MAIN ENGINES: 2 x 7ltr
 250hp @ 2400rpm
 GEARBOX: ZF220a
 PROPULSION: FPP
 SPEED-max: 26 knots
 SPEED-cruise: 20 knots
 DECK AREA: 21m²



LightCraft
 INNOVATIVE WORKBOATS

VESSEL: 12m Pilot/Harbour Boat
 TITLE: PRELIMINARY GENERAL ARRANGEMENT
 DWG No: 12PH-100
 DATE: 10/12/2008
 SCALE:
 DRAWN: MDW

SCY Design
 Consulting Naval Architects & Mechanical Engineers
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LC 1 - Trials Condition

Lightship (Ally construct)				7519	5.10	1.35
fuel - main	20%	1000	0.84	168	5.90	0.23
crew/effects		2	100	200	6.40	2.60
stores				100	7.70	1.85
deck gear				0	2.60	2.25
addn crew		0	75	0	5.35	2.60
deadweight				468	6.50	1.59
departure condition				7987	5.18	1.36

LC 2 - Half Load

Lightship				7519	5.10	1.35
fuel - main	50%	1000	0.84	420	5.90	0.35
crew/effects		2	100	200	6.40	2.60
stores				50	7.70	1.85
deck gear				600	2.60	2.25
addn crew		2	100	200	5.35	2.60
deadweight				1470	4.61	1.79
departure condition				8989	5.02	1.42

LC 3 - Operational Fully Loaded Condition

Lightship				7519	5.10	1.35
fuel - main	100%	1000	0.84	840	5.90	0.35
crew/effects		2	100	200	6.40	2.60
stores				50	7.70	1.85
deck gear				1600	2.60	2.25
addn crew		3	100	300	5.35	2.60
deadweight				2990	4.14	1.77
departure condition				10509	4.83	1.47

LC 4 - Maximum Load Condition

Lightship				7519	5.10	1.35
fuel - main	100%	1000	0.84	840	5.90	0.35
crew/effects		2	100	200	6.40	2.60
stores				50	7.70	1.85
deck gear				1600	2.60	2.25
addn crew		12	100	1200	5.35	2.60
deadweight				3890	4.42	1.96
departure condition				11409	4.87	1.56

12m Pilot Boat: Structural Summary

Design Standard DNV R3

			Struct Wght kg	Part Cost \$Aus	Tooling estimates Jig Plug Mould \$Aus		
Aluminium Welded	5pl 4pl 3pl	Bottom, chine, tunnel fwd BHD's Deck, Frms Deckhouse	3410	34096	5000		
Quick to build, require good aluminium welders All Parts router cut Min tooling required							
Moulded Composite with Ally BHDs Cored Composite Panels, Unidirection Fabrics Iso Polyester Resin	25mm Balsa 15mm Balsa 12mm Balsa	side, deck, bhds bottom, tunnel deckhouse	3704	28361	3000	18000	50000 (note 1)
Cold Moulded Composite Shell E-glass / Epoxy Ally Subframe	5pl 4pl 3pl	Bottom, chine, tunnel fwd Deck Deckhouse	2611	23202	5000		
Low skilled, after initial training period (note 2) Min tooling required Minimum Welding (Only BHD flanges, and nestings) All Parts router cut	4pl Al	BHD's, Frms					

1. Building a plug is not required, you can get mould to +/- 1mm, which is more than adequate for commercial vessel

2. Will need project manager for first boat only