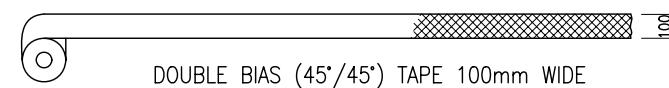
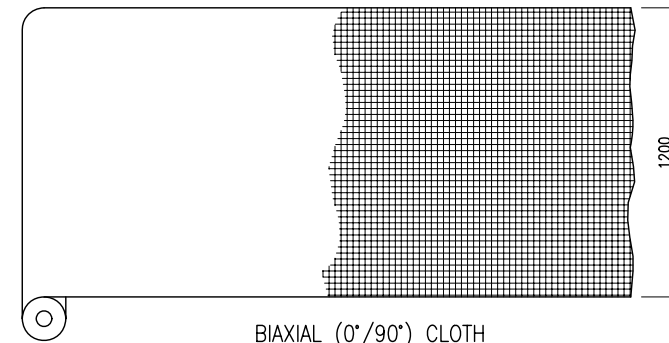


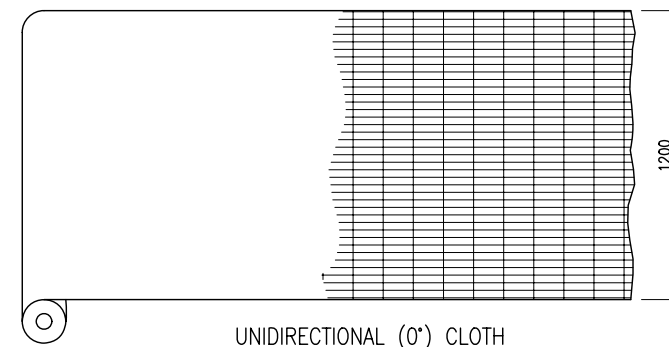
MDF OR SECOND GRADE PLYWOOD	16mm	8 SHEETS
MARINE PLYWOOD	12mm	1 SHEET
FOAM	10mm 75kg/cu m (standard density)	28 SHEETS (SHEET SIZE 2170x1220)
FIBREGLASS	400gsm BIAIXAL CLOTH (1200mm WIDE)	125 LIN METRES
	400gsm DOUBLE BIAS TAPE (100mm WIDE)	465 LIN METRES
	450gsm CHOPPED STRAND MAT (1200mm WIDE)	10 LIN METRES
	600gsm DOUBLE BIAS CLOTH (1200mm WIDE)	12 LIN METRES
	900gsm UNIDIRECTIONAL CLOTH (1200mm WIDE)	11 LIN METRES
	750gsm TRIAXIAL CLOTH (1200mm WIDE)	28 LIN METRES
PEEL PLY		150 LIN METRES
RESIN	POLYESTER, VINYLESTER OR EPOXY	175 LITRES
FILLETING POWDER		20 kg
SANDING FILLER		5 kg
LEXAN FOR WINDOWS	6mm THICK TINTED	2300 x 600
PAINT-HIGH BUILD PRIMER/UNDERCOAT	PREFERABLY 2 POT POLYURETHANE	APPROX 12-16 LITRES
PAINT-GLOSS TOP COAT	PREFERABLY 2 POT POLYURETHANE	APPROX 12 LITRES
FOLDING SYSTEM	LASER OR WATER JET CUT 5083 ALLOY, H321 TEMPER (ALLOW APPROX \$1300 AUD)	
PIVOT PINS	6061 ALLOY T6 TEMPER (ALLOW APPROX \$100 AUD)	
ALUMINIUM FLAT BAR 25mm x 6mm	FOR BACKING PLATES	2 LIN METRES
SIKAFLEX SEALANT		2 CYLINDERS
VARIOUS FABRICATED & STANDARD FITTINGS (eg RONSTAN)		
VARIOUS NUTS, BOLTS & SCREWS		
CONSUMABLES	Gloves Paper towels Mixing jugs & cups Measuring pumps for epoxy Mixing sticks Solvent for cleaning - acetone for polyester or vinylester - white vinegar for epoxy Brushes Sanding disks Sand paper Gyprok (dry wall) screws (for temporary assembly)	
TOOLS REQUIRED Jig Saw Drill & Drill bits Best to have both mains power and cordless. Several hole saws 100mm Angle Grinder Rubber backed sanding disk for grinder Random Orbital Sander (pref 150mm dia) Files & Rasp Ruler 8 metre measuring tape Square Filleting tools May be home made or modified putty knives or plasterer's tools. Spreader (for fairing compound) Plastic Gyprok filler spreaders work well Several chisels Stanley knife (sometimes called a box cutter) Scissors Laminating tables 3 sheets 16mm plywood (second grade) covered with plastic. May be supported on sawhorses. Saw horses Standard saw horses or the folding clamping cheapies. (The legs can be shortened if required)		



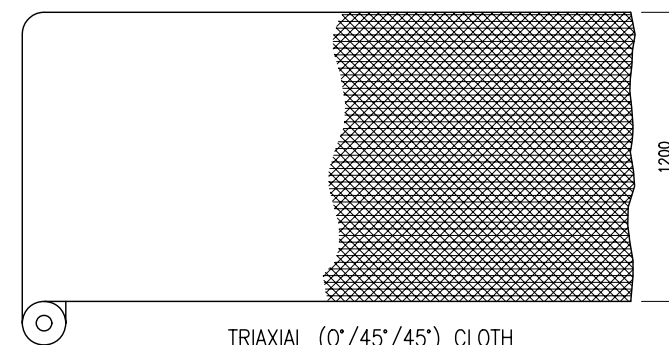
DOUBLE BIAS (45°/45°) TAPE 100mm WIDE



BIAIXAL (0°/90°) CLOTH



UNIDIRECTIONAL (0°) CLOTH



TRIAIXAL (0°/45°/45°) CLOTH

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PHOTOCOPIER

SCALE UP A4 DRAWING BY
1.414 TO OBTAIN A3 SIZE

Scarab 18 Sport

18 foot (5.50 metre) FOLDING TRIMARAN
MATERIAL LIST FOR FOAM SANDWICH CONSTRUCTION

Team Scarab

MULTIHULL DESIGNS BY RAY KENDRICK
466 DEVERON ROAD GLENWOOD QLD 4570

DATE: SEPT 08
SCALE: NOT TO SCALE

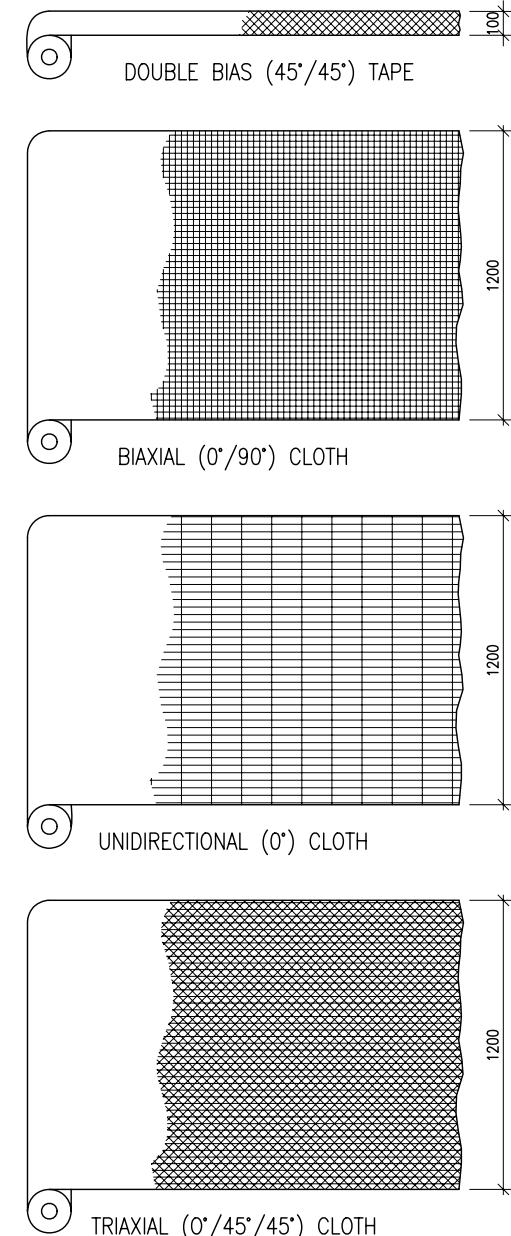
DRAWING NUMBER
S18-SP10

MAIN HULL COMPONENTS	
COMPONENT	MATERIAL
HULL PANELS *	6mm PLY COVERED BOTH SIDES WITH 300gsm DOUBLE BIAS CLOTH
BULKHEADS	9mm PLY (UNCOVERED)
PARTIAL BULKHEADS	9mm PLY (UNCOVERED)
SHELF **	9mm PLY (UNCOVERED)
SETTEE RISERS	9mm PLY (UNCOVERED)
CENTREBOARD CASE	9mm PLY (UNCOVERED)
COCKPIT SEAT RISERS	6mm PLY COVERED BOTH SIDES WITH 300gsm DOUBLE BIAS CLOTH
COCKPIT SEATS	6mm PLY COVERED BOTH SIDES WITH 300gsm DOUBLE BIAS CLOTH
CABIN SIDES	6mm PLY COVERED BOTH SIDES WITH 300gsm DOUBLE BIAS CLOTH
DECK ***	6mm PLY COVERED BOTH SIDES WITH 300gsm DOUBLE BIAS CLOTH
HATCH	6mm PLY COVERED BOTH SIDES WITH 300gsm DOUBLE BIAS CLOTH
* BOTTOM PANEL TO HAVE 1 EXTRA LAYER OF 300gsm DOUBLE BIAS CLOTH ON THE OUTSIDE	
** SHELF COMPRISES BUNK/SETTEE TOPS AND COCKPIT FLOOR	
*** DECK PANEL TO BE INITIALLY LAMINATED ON THE UNDERSIDE SURFACE WITH 300gsm DOUBLE BIAS CLOTH. PANEL THEN FITTED & GLUED TO SHEER ANGLES, BULKHEADS & STRINGER. TOP OF PANEL THEN LAMINATED WITH 300gsm DOUBLE BIAS CLOTH.	

FLOAT HULLS	
COMPONENT	MATERIAL
HULL PANELS *	6mm PLY COVERED BOTH SIDES WITH 300gsm DOUBLE BIAS CLOTH
BULKHEADS 2 & 5	9mm PLY (UNCOVERED)
DECK **	6mm PLY COVERED BOTH SIDES WITH 300gsm DOUBLE BIAS CLOTH
BULKHEADS 4A,4B & 8A & 8B	9mm PLY FILLETED & TAPED TO HULL PANELS BOTH SIDES WITH 2 LAYERS 400gsm DOUBLE BIAS (45°/45°) TAPE x 100mm WIDE
BEAM MOUNTING DIAPHRAGMS	
* BOTTOM PANEL TO HAVE 1 EXTRA LAYER OF 400gsm BIAIXAL ON THE OUTSIDE	
** DECK PANEL TO BE INITIALLY LAMINATED ON THE UNDERSIDE SURFACE WITH 300gsm DOUBLE BIAS CLOTH. PANEL THEN FITTED & GLUED TO SHEER ANGLES, BULKHEADS & STRINGER. TOP OF PANEL THEN LAMINATED WITH 300gsm DOUBLE BIAS CLOTH.	
1 REMOVE TEMPORARY FRAMES.	
2 CLEAN UP JOINTS REMOVING ALL RUNS & "DAGS".	
3 FILL JOINTS WITH FILLER & ROUND OFF.	
4 TAPE ALL HULL JOINTS INSIDE WITH 100mm WIDE 400gsm DOUBLE BIAS FIBREGLASS TAPE	
5 FIBREGLASS INSIDE OF STEM AS PER DETAIL	
6 FILLET & TAPE IN ALL BULKHEADS	
7 FLOATS-FILLET & TAPE IN BEAM MOUNTING DIAPHRAGMS BETWEEN BULKHEADS 4A 4B & 8A 8B	
8 GLUE FIBREGLASS ANGLES TO SHEER LINE, HOLDING WITH TEMPORARY SCREWS.	
9 GLUE & FILLET IN DECK STRINGERS.	
10 CUT EXCESS OFF SIDE & CHINE PANELS AT STERN & GLUE IN TRANSOM	
11 FLOATS-CUT DECK PANEL, CHECK LOCATION OF BEAM OPENINGS & CAREFULLY CUT.	
12 DRY FIT DECK AND MAKE ANY ADJUSTMENTS REQUIRED, GLUE DECK DOWN USING STRAPS TO HOLD WHILE GLUE SETS.	
13 RADIUS DECK EDGE & LAMINATE 300gsm DOUBLE BIAS CLOTH OVER DECK & LAP 50mm ONTO HULL SIDES.	

MDF or Second grade plywood	16mm	8 SHEETS
Plywood	6mm Gaboon (Okume) or Pacific Maple	20 SHEETS (SHEET SIZE 2400x1220)
	9mm Gaboon (Okume) or Pacific Maple	6 SHEETS (SHEET SIZE 2400x1220)
	12mm Gaboon (Okume) or Pacific Maple	2 SHEETS (SHEET SIZE 2400x1220)
Fibreglass	300gsm BIAIXAL CLOTH (1200mm WIDE)	115 lin metres
	400gsm DOUBLE BIAS TAPE (100mm WIDE)	465 lin metres
	450gsm CHOPPED STRAND MAT (1200mm WIDE)	10 lin metres
	600gsm DOUBLE BIAS CLOTH (1200mm WIDE)	12 lin metres
	900gsm UNIDIRECTIONAL CLOTH (1200mm WIDE)	11 lin metres
	750gsm TRIAXIAL CLOTH (1200mm WIDE)	28 lin metres
Peel Ply		150 lin metres
Resin	Epoxy	170 litres
Filleting powder		20 kg
Sanding filler		5 kg
Lexan for windows	6mm thick tinted	2300 x 600
Paint – High build undercoat	Preferably 2 pot polyurethane	Approx 12–16 litres
Paint – Gloss top coat	Preferably 2 pot polyurethane	Approx 12 litres
Folding system	LASER OR WATER JET CUT 5083 ALLOY, H321 TEMPER (ALLOW APPROX \$1300 AUD)	
Pivot pins	6061 ALLOY T6 TEMPER (ALLOW APPROX \$100 AUD)	
Aluminium flat bar 25mm x 6mm	For backing plates	2 lin metres
Sikaflex sealant		2 cylinders
Various fabricated & standard fittings	(eg Ronstan)	
Various nuts, bolts & screws		
Consumables	Gloves Paper towels Mixing jugs & cups Measuring pumps for epoxy Mixing sticks Solvent for cleaning – acetone for polyester or vinylster –white vinegar for epoxy Brushes Sanding disks Sand paper Gyrok (dry wall) screws (for temporary assembly)	
TOOLS REQUIRED	Jig Saw Drill & Drill bits Several hole saws 100mm Angle Grinder Rubber backed sanding disk for grinder Diamond cutting disc for angle grinder Random Orbital Sander (pref 150mm dia) Files & Rasp Ruler 8 metre measuring tape Square Filleting tools Spreader (for fairing compound) Several chisels Stanley knife (sometimes called a box cutter) Scissors Laminating tables Saw horses	Best to have both mains power and cordless. For cutting thick fibreglass eg trimming beam flanges May be home made or modified putty knives or plasterer's tools. Plastic Gyrok filler spreaders work well
		3 sheets 16mm plywood (second grade) covered with plastic. May be supported on sawhorses. Standard saw horses or the folding clamping cheapies. (The legs can be shortened if required)

PHOTOCOPIER
SCALE UP A4 DRAWING BY
1.414 TO OBTAIN A3 SIZE



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Scarab 18 Sport
18 foot (5.50 metre) FOLDING TRIMARAN
MATERIAL LIST FOR PLYWOOD CONSTRUCTION

Team Scarab
MULTIHULL DESIGNS BY RAY KENDRICK
466 DEVERON ROAD GLENWOOD QLD 4570

DATE: SEPT 08
SCALE: NOT TO SCALE
DRAWING NUMBER
S18-SP11