



RRP October 2022 Rev 01-i2
£ Sterling Ex VAT

Your needs...
...our tailored solutions.



Beta Kubota standard engine specification;

- Naturally aspirated engine is with or without a gearbox as indicated within section 1, individual gearbox reduction ratios &/or optional extras available are indicated in section 2.
- Heat exchanger, header tank & water cooled exhaust manifold.
- Fresh & sea water pump, injection bend for wet exhaust.
- Mechanical fuel lift pump, fuel & oil filtration and sump pump.
- Flywheel housing & drive plate with heavy inertia ring for super smooth running at low rpm.
- Special quiet air intake filter.
- 12 volt starter with 70 amp battery charging alternator, V belt driven.
- Shutdown solenoid energised to stop.
- Control Panel 'ABV' key switch controlled for engine preheat & start, push button controlled for engine stop, has a tachometer with running hour recorder, green light indicator for 'power on', red warning light indicators & audible alarm for low oil pressure, high water temperature and engine alternator not charging. Complete with 3m of interconnection cable and multi pin plug connector.
- Heavy duty engine feet with flexible mountings, flexible coupling disc on gearbox.
- "Morse" type end fittings for speed and gear control.
- Beta red paint
- Engine test certificate & operators manual.
- Tri-wall packing on a wooden base.
- Not RCD Compliant - For use by and on sale strictly to Non-Recreational Craft up to 24m in length.**

* Subject to installation criteria & warranty registration.

Engine Type	Beta 90
Cylinders	4
BHP	90
RPM	2600
Cubic Capacity	3769
Propellor Guide In Inches	AIA*

^ A general guidance for propeller sizes in inches, based upon 3 blade RH rotation and reduction ratio of 2:1.

* For Accurate Individual Advice please provide us with your vessels current full specification.

£ STANDARD ENGINE/GEARBOX COMBINATIONS

1	Gearbox Type	Beta 90
a	Twin Disc/Technodrive gearbox	15073
b	PRM hydraulic gearbox	15598
c	ZF hydraulic gearbox	16329
d	ZF V drive gearbox	18089
e	"Bobtail" engine with drive plate & housing only - No gearbox	12752
f	"Bobtail" engine with drive plate & B W^^ housing only - No gearbox	13012
g	Price reduction allowance for keel cooling - dry exhaust stub	-740

NB - All mechanical gearboxes must be used with a right handed propeller in ahead

^^ For existing Borg Warner Velvet Drive gearboxes, please specify if 71C or 72C.

£ GEARBOX OPTIONAL EXTRAS

2 Technodrive Hydraulic		Beta 90
a	TM93* - 2.09 / 2.4 / 2.77 : 1	Inc
b	TM93A 8° down angle - 2.09 / 2.4 : 1	212
c	Trolling valve kit - TM93	827

* When installing an engine with a TM93 gearbox due to the oil pump position an R&D 2" spacer bobbin may be required on the output coupling to allow installation of a split coupling. Please refer to section 3.

2 PRM Marine Hydraulic [^]		Beta 90
d	PRM280 - 1.96 / 2.94 : 1	Inc
e	PRM260C - In line* 1.96 / 2.94 : 1	1113
f	PRM500 - 1.94 / 2.57 / 2.9 : 1	875
g	Trolling valve kit - PRM280 / PRM500	1420
h	Hydraulic soft shift kit - PRM280 / PRM500 / PRM750	398
i	PRM280/500 live PTO to customers hydraulic pump SAE J774C**	546

[^] c/w Special 2 stage quiet dampener. (Free wheeling propeller when sailing).

* Borg Warner Velvet Drive replacement.

** continuously running.

2 ZF Hydraulic ^{^^}		Beta 90
j	ZF45/1 - 2.2 / 2.5 / 3.0 : 1	Inc
k	ZF45A 8° down angle - 2.03 / 2.43 : 1	Inc

^{^^} Free wheeling propeller when sailing.

2 ZF V Drive Hydraulic ^{^^^}		Beta 90
l	ZF68IV 15° - 1.99 / 2.48 : 1	Inc

^{^^^} Flexible coupling required but not included please refer to section 3.

£ GEARBOX - OPTIONAL EXTRA PROPELLER SHAFT COUPLINGS

3 R & D Flexible Disc		Beta 90
a	5" Flange - PRM280, TM345 & TM93	176
b	6" Flange - PRM500	305

3 R & D Split Boss Clamp		Beta 90
c	5" Special order bore options; 1, 1 1/4, 1 1/2, 1 3/4, 2" or 30, 35, 40, 45 & 50mm	200
d	6" Special order bore options; 1 1/4, 1 1/2, 1 3/4, 2, 2 1/2" or 30, 35, 40, 45, 50 & 60mm	226
e	Surcharge for "non standard special" bores	50
f	2" Spacer bobbin for TM93	164

3 Centaflex Coupling*		Beta 90
g	AM-30/50 bored to suit; 1 1/4, 1 1/2, 1 3/4, 2" or 25, 30, 35, 40, 45 & 50mm	1085

3 CV Drives		Beta 90
h	Heavy duty drive plate**	POA

* Option negates the requirement for a R & D Flexible Disc or Split Boss Clamp.

** Required when fitting Aquadrive / Python constant velocity drives.

£ CONTROL PANEL OPTIONAL EXTRAS

4 Control Panel		Beta 90
a	ABVW Panel - Sealed push buttons in lieu of keyswitch [^]	90
b	B Panel - As ABV plus water temperature gauge [^]	127
c	BW Panel - Sealed push buttons in lieu of key switch [^]	233
d	C Panel - As panel B plus oil pressure gauge & voltmeter [^]	297
e	CW Panel - Sealed push buttons in lieu of key switch [^]	435
f	Flybridge control – C panel with 3m interconnection cable* and standard panel with 6m interconnection cable* for the Flybridge.	795
g	C/CW Panel - NMEA 2000 Module/Interface	716
h	D Panel - Digital, water resistant to IP67 [^]	864
i	Extension loom**, includes starter relay & 2m cable*	101

[^] Complete with 3m interconnection cable * and multi pin connector

* Additional lengths of cable available, please add £10 for each additional meter required.

** An additional extension loom is required when a panel interconnection cable length exceeds 4m

£ ENGINE OPTIONAL EXTRAS

5		Beta 90
a	Calorifiers with taps - Feed & return	37
b	Sump drain pump - Additional connection to PRM gearbox	66
c	150mm High rise injection bend - in lieu of standard, lagging included	Inc
d	Rear facing sea water pump	Inc
e	Stern bleed kit c/w 3m hose	53
f	Shaft extension PTO - Gear end mounted 38mm shaft dia.	136
g	Extended Rails - For mounting of pumps etc...	408
h	Free issued fitting of customers hydraulic pump in-line, forward end*	1007
i	Bilge pump c/w 1" Jabsco pump, belt, pulley & electromagnetic clutch*	978
j	Mounting for Sea Frost Compressor	610
k	Engine Ensis & Calibration fluid - For extended storage protection beyond 6mths	76

* Includes rails & PTO shaft extension. NB These options may require the engine to be transported in an OSB case please refer to item 11a

£ INSTALLATION OPTIONAL EXTRAS

6		Beta 90
a	Water inlet kit - Seacock with strainer & 2m pipe with clips	350
b	Wet exhaust kit - 3m of exhaust hose, skin fitting & clips. NB Gooseneck not included	419
c	Wet exhaust waterlock/silencer & clips	311
d	Anti-syphon kit - Air vent, 2m of 22mm hose & clips	143
e	Remote mounted coolant header tank kit - Tank, mount fittings, 1.5m x 3/4" pipe & clips	137
f	Fuel hoses for remote mounting of fuel filter - 2 x 1m	17
g	Flexible fuel pipe connections - Engine x 2	90
h	Fuel delivery kit - 5m x 8mm copper pipe & end fittings. From tank to flexible pipe	64
i	Fuel leak off kit - 5m x 8mm copper pipe & end fittings . From flexible pipe to fuel tank	64
j	Diesel fuel filter - Water separator	63
k	Electric fuel lift pump	91
l	Remote oil filter - Bulk head mounted inc 75cm pipe	260
m	Sound deadening insulation foam - 1m x 1m x 38mm	82

£ ENGINE CONTROL OPTIONAL EXTRAS

7		Beta 90
a	Single lever control - For engine & gearbox, side mounted	122
b	1 Pair of 3m control cables*	45

* Cables can be supplied in different lengths, price on application.

£ ELECTRICAL OPTIONAL EXTRAS - NB Minimum recommended battery: Not included.

8		Beta 90
12v	180Ah 1050CCA	v
8		Beta 90
a	Battery leads - 1m pair	106
b	100 Amp Battery isolating switch	48
c	Flat Polyvee belt & pulleys - fitted to standard 70 Amp alternator	223
d	120 Amp 12 Volt alternator in lieu of standard - Polyvee drive, no split charge relay	483
e	175 Amp 12 Volt alternator in lieu of standard - Polyvee drive, no split charge relay	570
f	70 Amp 12 Volt insulated return alternator - in standard position V belt drive	472
g	70 Amp 12 Volt insulated return alternator - in standard position Polyvee drive	610
h	100 Amp 12 Volt insulated return alternator - in standard position Polyvee drive	800
i	175 Amp 12 Volt secondary domestic alternator - Polyvee drive	572
j	125 Amp 12 Volt split charging system - Voltage sensitive for engine & domestic batteries	92
k	24 Volt electric start & 55 Amp alternator	1999
l	80 Amp 24 Volt secondary domestic alternator	625
m	100 Amp 24 Volt secondary domestic insulated return alternator	1104
n	Mounting of customers free issue secondary domestic alternator	565
o	3.5kVA Travel Power* - engine mounted, 230 Volt, single phase 50Hz.	5327
p	5kVA Travel Power* - engine mounted, 230 Volt, single phase 50Hz.	5904

* Develops 230 Volt output @ varying engine RPM. The standard 12v or 24v battery starting alternator is retained.

£ CONSUMABLE OPTIONAL EXTRAS

9		Beta 90
a	Short voyage spares kit - Plastic storage box c/w replacement; 2 x oil filters, 1 x fuel & air filter, impellor, O - rings, alternator belt & 40 Amp fuse.	127

SUPPLEMENT ITEMS ARE STRICTLY NETT

£ BESPOKE ENGINE INSTALLATION SUPPLEMENTS - NET

10	Special Feet	Beta 90
a	Manufactured to suit your existing bearers & shaft alignment/installation*	382

* Customer to provide dimensions for computer aided design drawing.

£ SHIPPING SUPPLEMENTS - NET

11		Beta 90
a	Supplement for wooden export packing case	310
b	2/3 Day delivery in UK mainland*	124

* Highlands, Islands & Overseas - Price On Application.

Beta Marine Ltd operates a policy of continuous improvement and reserves the right to change prices & specification without prior notification. Information given is subject to our current conditions of tender & sale.

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