# ISUZU MARINE



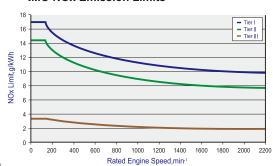


The prevention of pollution by ships has become one of the major global issues. The regulation of NOx emission levels were set for marine diesel engines greater than 130kW installed on vessels constructed on or after January 1st 2000. And "Tier II/III" standards were set in October 2008 for the engines installed on vessels constructed on or after January

Isuzu Marine Engine Products meet IMO(International Maritime Organization) Tier II emission regulations by Isuzu Diesel technologies which are derived from its automotive

In order to leave behind a beautiful earth to our children, as citizens of this earth, Isuzu Marine Engines contribute greatly to environmental protection.

#### **IMO NOx Emission Limits**













At Isuzu Marine Engine Inc., quality comes first.

For the peace of mind of customers around the world, the Manufacturing Division executes a strict quality control system which conforms to ISO9001 international quality control standards backed up with over 60 years' experience and is derived from the quality of

Isuzu marine engines are originally designed for marine applications and all models are manufactured in Japan.



1947 Founded as a manufacturer, distributor, and repairer of marine diesel engines, marine generator sets and marine gears. 1951 Eighty-eight(88) horsepower "DA45" type, the compact high-speed engine was first developed in Japan in cooperation with Isuzu Motors Limited...

Isuzu Motors Limited acquired in capital and the company name was changed from Tokyo Boat Limited to Isuzu Marine Engine Inc..

1972 1973 Started the product supply in the Taiwanese market as our first overseas market with "UM2AB1" & "UM3AB1".

Started the product supply in the European market, and then into Norway, Sweden, Greece and Portugal

Started the product supply in the Middle East market.

\*4EE2TMC" type for pleasure boat, developed and started commercial production at Isuzu diesel engine plant in Poland.

2007 Common-railed marine engine was first developed in Japan.

2008 Certified ISO 14001 and ISO9001.

2010 Certified IMO Tier II emission regulation on all models



### **UM4JB1TCX**

85kW



#### ACCESSORIES

#### Standard.

- · Installation kit Bilge pump
   Control head Kingston valve
  - · Instrument panel
- · Battery relay Extension harness (3m)
- · Seawater pump impeller \*

\* spare parts

· Tool kit

· Owner's manual

#### Option...

- · Extension harness (3m)
- Control cable (4m,6m,10m,12m)
- Stop cable (4m,6m,8m)

#### ENGINE SPECIFICATIONS

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke		mm (in)	93 × 102 (3.66 × 4.02)				
Displacement		Lit. (cid)	2.771 (169)				
Rated output	kW(PS)/min	Medium duty	81 (110) / 3100				
Nated output	KW(P3)/IIIII	Light duty	85 (115) / 3200				
Application			Commercial use				
Governor type			Mechanical				
Combustion type			Direct injection				
Aspiration			Turbo chargered / Intercooler				
Engine cize	LxWxH mm	Engine	773×633×790				
Lingino sizo	EXWALL IIII	with MGN30A	1098.5×633×826				
Facility	kg (lb)	Engine	298 (657)				
Engine weight	kg (ib)	with MGN30A	424 (934)				
Fuel used			Diesel fuel				
Starter		V-kW	24 - 3,2				
Alternator		V-A	24 - 30				
Lubrication metho	od		Full flow pressure circulation				
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)				
Heat exchanger (:	seawater circulat	ion)	Multi-tube type (freshwater→seawater)				
Intercooler			Multi-tube type (seawater circulation)				
D		Crankshaft	Right (clockwise) viewed from front of engine				
Notation direction		Propeller shaft	Right (clockwise) viewed from stern				
Idling speed		min <sup>-1</sup>	500~550				
	Ma	rine Gear Model	MGN30A				
Marian		Clutch type	Wet, Multi-plate hydraulic type				
marine gear		Reverse type	Constant-mesh type gear				
Governor type Combustion type Aspiration Engine size LxWxH Engine weight k Fuel used Starter Alternator Luchrication method Cooling method Heat exchanger (seawater ci		Reduction ratio	2.04, 2.52, 3.05, 3.44				

Specifications subject to change without notice

### **UM4JB1** 49kW



#### ACCESSORIES

#### Standard.

- · Installation kit Kingston valve
- · Battery relay
- · Extension harness (3m)
- Seawater pump impeller \*
- · Bilge pump
- · Control head · Instrument panel
- · Tool kit
- · Owner's manual
  - \* spare parts

#### Option...

- · Extension harness (3m) · Control cable (4m,6m,10m,12m)
- Stop cable (4m,6m,8m)

#### **ENGINE SPECIFICATIONS**

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke		mm (in)	93 × 102 (3.66 × 4.02)				
Displacement		Lit. (cid)	2.771 (169)				
Rated output kW(PS	)/min <sup>-1</sup>	Medium duty	49 (67) / 3200				
Application			Commercial use				
Governor type			Mechanical				
Combustion type			Direct injection				
Aspiration			Natural aspiration				
Engine size L×W×I	-l mm	Engine	768×629×737				
Erigirie size Exwxi	n mm	with MGN30A	1098.5×629×773				
Engine weight	kg (lb)	Engine	290 (639)				
Erigine weight	kg (ID)	with MGN30A	416 (917)				
Fuel used			Diesel fuel				
Starter		V-kW	24 - 3.2				
Alternator		V-A	24 - 30				
Lubrication method			A 1098.5×629×773  be 200 (639)  A 416 (917)  Diesel fuel  W 24 - 3.2  A 24 - 3.0  Full flow pressure circulation  Freshwater, full flow pressure circulation  (Seawater, indirect)  Multi-tube type (freshwater—seawater)  Multi-tube type (seawater incruclation)				
Cooling method							
Heat exchanger (seawat	er circu	lation)	Multi-tube type (freshwater→seawater)				
Intercooler			Multi-tube type (seawater circulation)				
Rotation direction		Crankshaft	Right (clockwise) viewed from front of engine				
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern				
Idling speed		min <sup>-1</sup>	500~550				
	Ma	rine Gear Model	MGN30A				
Marine gear		Clutch type	Wet, Multi-plate hydraulic type				
iviai ilie geai		Reverse type	Constant-mesh type gear				
		Reduction ratio	2.04, 2.52, 3.05, 3.44				

Specifications subject to change without notice

### **UM4JG1TCX** 101kW



#### ACCESSORIES

#### Standard.

- · Installation kit · Battery relay
- Bilge pump
   Control head · Kingston valve
  - · Instrument panel

  - - \* spare parts

· Tool kit

· Owner's manual

#### Option...

· Extension harness (3m)

· Extension harness (3m)

· Seawater pump impeller \*

- · Control cable (4m,6m,10m,12m)
- Stop cable (4m,6m,8m)

#### **ENGINE SPECIFICATIONS**

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke		mm (in)	95.4×107 (3.75×4.21)				
Displacement		Lit. (cid)	3.059 (186)				
	LIMBON C	Medium duty	94 (128) / 3100				
Rated output	kW(PS)/min <sup>-1</sup>	Light duty	101 (138) / 3200				
Application			Commercial use				
Governor type			Mechanical				
Combustion type	0		Direct injection				
Aspiration			Turbo chargered / Intercooler				
Engine size	LxWxH mm	Engine	810×671×891				
Erigine size	L×W×H IIIII	with MGN30A	1165.5×671×891				
Province and the last	1 (0.)	Engine	324 (714)				
Engine weight	kg (lb)	with MGN30A	450 (992)				
Fuel used			Diesel fuel				
Starter		V-kW	24 - 3.2				
Alternator		V-A	24 - 30				
Lubrication meth	nod		Full flow pressure circulation				
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)				
Heat exchanger	(seawater circulat	ion)	Multi-tube type (freshwater→seawater)				
Intercooler			Multi-tube type (seawater circulation)				
Rotation direction		Crankshaft	Right (clockwise) viewed from front of engine				
Rotation directio	in	Propeller shaft	Right (clockwise) viewed from stern				
Idling speed		min <sup>-1</sup>	500~550				
	Ma	rine Gear Model	MGN30A				
Marine gear		Clutch type	Wet, Multi-plate hydraulic type				
iviaririe gear		Reverse type	Constant-mesh type gear				
		Reduction ratio	2.04, 2.52, 3.05, 3.44				

Specifications subject to change without notice

### UM4BG1Z 81kW



#### ACCESSORIES

#### Standard.

- · Installation kit · Kingston valve
- · Battery relay
- · Extension harness (3m)
- · Seawater pump impeller \*
- · Bilge pump · Control head
- · Instrument panel
- · Blow-by pipe · Tool kit
  - · Owner's manual
  - \* spare parts

· Oil drain pump

### Option..

- · Extension harness (3m) · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

#### **■ ENGINE SPECIFICATIONS**

Configuration			4-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke		mm (in)	105 x 125 (4.13 x 4.92)				
Displacement		Lit. (cid)	4.329 (264)				
Rated output	kW(PS)/min <sup>-1</sup>	Medium duty	81 (110) / 2900				
Application			Commercial use				
Governor type			Mechanical				
Combustion type	Э		Direct injection				
Aspiration			Natural aspiration				
Engine size	LxWxH mm	Engine	918×768×978				
Engino oico		with MGN30A	1185×768×978				
Engine weight	kg (lb)	Engine	436 (961)				
Liigiile Weigiit	kg (ID)	with MGN30A	560 (1,235)				
Fuel used			Diesel fuel				
Starter		V-kW	24 - 4.5				
Alternator		V-A	24 - 30				
Lubrication meth	nod		Full flow pressure circulation				
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)				
Heat exchanger	(seawater circ	ulation)	Multi-tube type (freshwater→seawater)				
Intercooler			Multi-tube type (seawater circulation)				
Rotation direction	ın.	Crankshaft	Right (clockwise) viewed from front of engine				
riotation all cette	"	Propeller shaft	Right (clockwise) viewed from stern				
Idling speed		min-1	500~550				
	Ma	rine Gear Model	MGN30A				
Maria a sasa		Clutch type	Wet, Multi-plate hydraulic type				
Marine gear		Reverse type	Constant-mesh type gear				
		Reduction ratio	2.04, 2.52, 3.05, 3.44				

Specifications subject to change without notice

### **UM6BG1TC**

#### 169kW



#### ACCESSORIES

#### Standard.

- · Installation kit
- · Kingston valve · Battery relay
- · Extension harness (5m)
- Seawater pump impeller \*
- · Bilge pump · Oil drain pump · Control head · Blow-by pipe · V-belt \*
- · Instrument panel

- · Tool kit
  - · Owner's manual
  - \* spare parts

#### Option...

- · Extension harness (5m) · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke		mm (in)	105 × 125 (4.13 × 4.92)				
Displacement		Lit. (cid)	6.494 (396)				
Rated output kW(PS)	familian)	Medium duty	154 (210) / 2600				
Rated output kW(PS)	/min ·	Light duty	169 (230) / 2700				
Application			Commercial use				
Governor type			Mechanical				
Combustion type			Direct injection				
Aspiration			Turbo chargered / Intercooler				
Exhaust gas status			IMO Tier II				
Engine size L×W×H		Engine	1264×818×967.5				
Erigine size Lxwxn	mm	with MGN40E	1505.5×818×975.5				
	(0.3	Engine	600 (1,323)				
Engine weight k	g (lb)	with MGN40E	769 (1,695)				
Fuel used			Diesel fuel				
Starter		V-kW	24 - 4.5				
Alternator		V-A	24 - 40				
Lubrication method			Full flow pressure circulation				
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)				
Heat exchanger (seawate	er circu	lation)	Multi-tube type (freshwater→seawater)				
Intercooler			Multi-tube type (seawater circulation)				
		Crankshaft	Right (clockwise) viewed from front of engine				
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern				
Idling speed		min <sup>-1</sup>	500				
	Mar	ine Gear Model	MGN40E				
		Clutch type	Wet, Multi-plate hydraulic type				
Marine gear		Reverse type	Constant-mesh type gear				
		Reduction ratio	1.94, 2.33, 2.91, 3.45				

### **UM4BG1TCX** 147kW



#### ACCESSORIES

#### Standard.

- · Installation kit
- · Kingston valve
- · Battery relay · Extension harness (3m) · Seawater pump impeller \*
- · Oil drain pump · Control head · Blow-by pipe
- · Instrument panel · Tool kit · Owner's manual

\* spare parts

#### Option... · Extension harness (3m)

- · Control cable (4m,6m,10m,12m)
- Stop cable (4m,6m,8m)

#### **■ ENGINE SPECIFICATIONS**

Configuration		4-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke	mm (in)	105 x 125 (4.13 x 4.92)				
Displacement	Lit. (cid)	4.329 (264)				
Rated output kW(PS)/m	Medium duty	134 (182) / 2700				
Rated output KW(PS)/m	Light duty	147 (200) / 2800				
Application		Commercial use				
Governor type		Mechanical				
Combustion type		Direct injection				
Aspiration		Turbo chargered / Intercooler				
Exhaust gas status		IMO Tier II				
Engine size L×W×H n	Engine	1057×764×941				
Lingine size LAWATT II	with MGN35A	1283×941×764				
Engine weight kg (	Engine	507 (1,118)				
Engine weight Kg (	with MGN35A	655 (1,444)				
Fuel used		Diesel fuel				
Starter	V-kW	24 - 4.5				
Alternator	V-A	24 - 50				
Lubrication method		Full flow pressure circulation				
Cooling method		Freshwater, full flow pressure circulation (Seawater, indirect)				
Heat exchanger (seawater circ	ulation)	Multi-tube type (freshwater→seawater)				
Intercooler		Multi-tube type (seawater circulation)				
Rotation direction	Crankshaft	Right (clockwise) viewed from front of engine				
Rotation direction	Propeller shaft	Right (clockwise) viewed from stern				
Idling speed	min <sup>-1</sup>	550				
	Marine Gear Model	MGN35A				
	Clutch type	Wet, Multi-plate hydraulic type				
Marine gear	Reverse type	Constant-mesh type gear				
	Reduction ratio	1.97, 2.56, 3.05, 3.45				

A-culinder vertical in-line A-cucle deigel angine

Specifications subject to change without notice

### **UM6BG1TCX** 210kW



#### ACCESSORIES

#### Standard...

- · Installation kit · Kingston valve
- · Battery relay · Extension harness (5m) · Seawater pump impeller \*
- · Bilge pump
- · Instrument panel
- · Oil drain pump · Control head · Blow-by pipe · V-belt \*
  - - · Tool kit · Owner's manual
- \* spare parts
- Option... · Extension harness (5m)
- Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

#### **ENGINE SPECIFICATIONS**

ENGINE OF E	,,,,	AIIONO					
Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke		mm (in)	105×125(4.13×4.92)				
Displacement		Lit. (cid)	6.494 (396)				
Rated output kW/P	S)/min <sup>-1</sup>	Medium duty	191(260)/2600				
nated output KW(r	o)/min.	Light duty	210(285)/2700				
Application			Commercial use				
Governor type			Mechanical				
Combustion type			Direct injection				
Aspiration			Turbo chargered / Intercooler				
Exhaust gas status			IMO Tier II				
Engine size L×W×	H mm	Engine	1343×864×967.5				
Engine size Extra		with MGN40E	1505.5×864×975.5				
Engine weight	kg (lb)	Engine	645 (1,422)				
Erigine weight	ky (ib)	with MGN40E	814 (1,795)				
Fuel used			Diesel fuel				
Starter		V-kW	24 - 4.5				
Alternator		V-A	24 - 40				
Lubrication method			Full flow pressure circulation				
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)				
Heat exchanger (seawater	circulati	on)	Multi-tube type (freshwater→seawater)				
Intercooler			Multi-tube type (seawater circulation)				
Rotation direction		Crankshaft	Right (clockwise) viewed from front of engine				
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern				
Idling speed		min-1	550				
	Mar	ine Gear Model	MGN40E				
Marine gear		Clutch type	Wet, Multi-plate hydraulic type				
Iviai ii ie geai		Reverse type	Constant-mesh type gear				
		Reduction ratio	1.94, 2.33, 2.91, 3.45				

Specifications subject to change without notice

### **UM6HE1TCX**

257kW



· Instrument panel

· Oil drain pump

· Owner's manual

\* spare parts

· Blow-by pipe

· V-belt \*

· Tool kit

#### ACCESSORIES

#### Standard.

- · Installation kit
- · Bilge pump · Kingston valve · Control head
- · Battery relay
- · Extension harness (5m)
- · Seawater pump impeller '

#### Option... · Extension harness (5m)

- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

#### **ENGINE SPECIFICATIONS**

Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke		mm (in)	110 × 125 (4.33 × 4.92)				
Displacement		Lit. (cid)	7.127 (434)				
	Manager 1	Medium duty	235 (320) / 2700				
Rated output k	w(PS)/min-	Light duty	257 (350) / 2800				
Application			Commercial use				
Governor type			Mechanical				
Combustion type			Direct injection				
Aspiration			Turbo chargered / Intercooler				
Exhaust gas status	5		IMO Tier II				
Engine size L	. Mr. H. mann	Engine	1527×952×1101				
Erigine size L	×vv×m mmi	with MGN40G	1747×952×1101				
For all a constate to	L (0-3	Engine	720 (1,587)				
Engine weight	Kg (ID)	with MGN40G	898 (1,980)				
Fuel used			Diesel fuel				
Starter		V-kW	24 - 4.5				
Alternator		V-A	24 - 50				
Lubrication metho	d		Full flow pressure circulation				
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)				
Heat exchanger (s	eawater circu	ilation)	Multi-tube type (freshwater→seawater)				
Intercooler			Multi-tube type (seawater circulation)				
		Crankshaft	Right (clockwise) viewed from front of engine				
Rotation direction		Propeller shaft	mm (in)				
Idling speed		min <sup>-1</sup>	550				
	Mar	ine Gear Model	MGN40G				
Marine gear		Clutch type	Wet, Multi-plate hydraulic type				
iviai ii ie gedi		Reverse type	Constant-mesh type gear				
	WxH mm wit	Reduction ratio	233 291 345				

Configuration

### **UM6WG1TC-AB** 485kW



#### ACCESSORIES

#### Standard...

- · Installation kit
- · Oil drain pump
- · Battery relay
- · Extension harness (5m)

· Bilge pump

· Control head

- · Seawater pump impeller \*
- · Instrument panel · Zinc bars \* · Tool kit
- · Owner's manual

· Blow-by pipe

· V-belt \*

\* spare parts

#### Option..

- · Extension harness (5m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

#### **■ ENGINE SPECIFICATIONS**

Configuration				6-cylinder, vertical in-line, 4-cycle deisel engine				
Bore x Stroke			mm (in)	147 × 154 (5.78 × 6.06)				
Displacement			Lit. (cid)	15.681 (956)				
			AB1	377 (512) / 1800				
Rated output *1	kW(PS)/	min-1	AB2	447 (608) / 2000				
			AB3	485 (659) / 2100				
Application				Commercial use				
Governor type				Mechanical				
Combustion type				Direct injection				
Aspiration				Turbo chargered / Intercooler				
Exhaust gas status				IMO Tier II				
Engine size LxWxH mm			Engine	2002×1092×1354				
Engine size Lxvvxn			4GN80B	2425×1092×1359				
Franks water	Lear (Ha)		Engine	1,500 (3,307)				
Engine weight	kg (Ib)	with N	MGN80B	1,920 (4,233)				
Fuel used	kg (lb) wit			Diesel fuel				
Starter			V-kW	24 - 7.4				
Alternator			V-A	24 - 50				
Lubrication method				Full flow pressure circulation				
Cooling method				Freshwater, full flow pressure circulation(Seawater, indire				
Heat exchanger (seawar	ter circu	lation)		Multi-tube type (freshwater→seawater)				
Intercooler				Multi-tube type (seawater circulation)				
		Cra	nkshaft	Right (clockwise) viewed from front of engine				
Rotation direction		Propell	er shaft	Right (clockwise) viewed from stern				
Idling speed min		min-1	560~600					
	Mari	ne Gea	r Model	MGN80B				
Exhaust gas status  Engine size LxWxH  Engine weight kg  Fuel used  Starter  Alternator  Lubrication method  Cooling method  Heat exchanger (seawate Intercooler  Rotation direction		Clu	tch type	Wet, Multi-plate hydraulic type				
		Reve	rse type	Constant-mesh type gear				
	F	Reduct	ion ratio	1.68, 2.03, 2.55, 2.96, 3.31, 3.48				

\*1: F/W output, AB1:Continuous heavy duty, AB2:Heavy duty, AB3:Medium duty Specifications subject to change without notice

## **UM6SD1TCX**

279kW



#### ACCESSORIES

#### Standard.

Option..

- · Installation kit · Kingston valve
- · Battery relay
- · Extension harness (5m)
- · Seawater pump impeller \*
- · Bilge pump · Oil drain pump · Blow-by pipe
- · Control head
  - · Instrument panel

· V-belt \*

- · Tool kit · Owner's manual \* spare parts
- · Extension harness (5m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

#### **ENGINE SPECIFICATIONS**

Corniguration		o-cylinder, vertical firmine, 4-cycle delser engine					
Bore x Stroke	mm (in)	117.9 × 145 (4.64 × 5.70)					
Displacement	Lit. (cid)	9.498 (579)					
Rated output kW(PS)/mii	, Medium duty	254 (345) / 2220					
Rated output kW(PS)/mi	Light duty	279 (380) / 2300					
Application		Commercial use					
Governor type		Mechanical					
Combustion type		Direct injection					
Aspiration		Turbo chargered / Intercooler					
Exhaust gas status		IMO Tier II					
Factor de L. W. H. av	Engine	1441×885×1189					
Engine size L×W×H m	with MGN123	1730.5×885×1189					
Engine weight kg (I	Engine	935 (2,061)					
Engine weight Kg (i	with MGN123	1,125 (2,480)					
Fuel used		Diesel fuel					
Starter	V-kW	24 - 7.4					
Alternator	V-A	24 - 40					
Lubrication method		Full flow pressure circulation					
Cooling method		Freshwater, full flow pressure circulation (Seawater, indirect)					
Heat exchanger (seawater c	irculation)	Multi-tube type (freshwater→seawater)					
Intercooler		Multi-tube type (seawater circulation)					
B	Crankshaft	Right (clockwise) viewed from front of engine					
Rotation direction —	Propeller shaft	Right (clockwise) viewed from stern					
Idling speed	min-1	500					
ling speed	Marine Gear Model	MGN123					
Marine gear	Clutch type	Wet, Multi-plate hydraulic type					
Iviai ii io goai	Lit. (cid) 9.498 (579)     Medium duty   254 (345) / 2200     Light duty   279 (380) / 2300     Light duty   279 (380) / 2300     Direct injection     Turbo chargered / Inter     Mo Tier II     Mo Ti	Constant-mesh type gear					
	Reduction ratio	1.52, 1.97, 2.57, 3.08					

6-cylinder, vertical in-line, 4-cycle deisel engine

Specifications subject to change without notice

### **UM6WG1TCX** 537kW



#### ACCESSORIES

#### Standard...

- · Installation kit
- · Bilge pump · Control head
- · Battery relay · Blow-by pipe
- · Instrument panel · Extension harness (5m)
- · Seawater pump impeller \*

#### \* spare parts

· Tool kit

· V-belt \*

· Owner's manual

- Option.. · Extension harness (5m)
- · Control cable (4m,6m,10m,12m)
- · Stop cable (4m,6m,8m)

#### **ENGINE SPECIFICATIONS**

Configuration			6-cylinder, vertical in-line, 4-cycle deisel engine
Bore x Stroke		mm (in)	147 × 154 (5.78 × 6.06)
Displacement		Lit. (cid)	15.681 (957)
Rated output kW(PS)/r	. ,	Medium duty	515 (700) / 2060
Rated output kW(PS)/r	nin	Light duty	537 (730) / 2100
Application			Commercial use
Governor type			Mechanical
Combustion type			Direct injection
Aspiration			Turbo chargered / Intercooler
Exhaust gas status			IMO Tier II
Engine size LxWxH i	L×W×H mm		1771×1066×1391
Lingine size LXVVXIII		with MGN80B	2264×1066×1396
Engine weight kg	(lb)	Engine	1,615 (3,560)
Engine weight Kg	(ID)	with MGN80B	2,100 (4,630)
Fuel used			Diesel fuel
Starter		V-kW	24 - 7.4
Alternator		V-A	24 - 50
Lubrication method			Full flow pressure circulation
Cooling method			Freshwater, full flow pressure circulation (Seawater, indirect)
Heat exchanger (seawater	circ	ulation)	Multi-tube type (freshwater→seawater)
Intercooler			Multi-tube type (seawater circulation)
Rotation direction		Crankshaft	Right (clockwise) viewed from front of engine
Rotation direction		Propeller shaft	Right (clockwise) viewed from stern
Idling speed		min-1	600
	Ma	rine Gear Model	MGN80B
Marine gear		Clutch type	Wet, Multi-plate hydraulic type
iviarine gear		Reverse type	Constant-mesh type gear
		Reduction ratio	1.68, 2.03, 2.55, 2.96, 3.31, 3.48

Specifications subject to change without notice

### **Specifications: Commercial use**

Model		UM4JB1	UM4JB1TCX	UM4JG1TCX	UM4BG1Z	UM4BG1TCX	UM6BG1TC	UM6BG1TCX	UM6HE1TCX	UM6SD1TCX		UM6WG1TC-AB		UM6WG1TCX	
								4 cycle	, vertical,			1	2	3	
Туре				OHV OHC											
Number of cylinder					4						6				
Rore		mm	93	93	95.4	105	105	105	105	110	117.9		147		147
		inch	3.66	3.66	3.75	4.13	4.13	4.13	4.13	4.33	4.64		5.78		5.78
Stroke		mm	102	102	107	125	125	125	125	125	145		154		154
		inch	4.02	4.02	4.21	4.92	4.92	4.92	4.92	4.92	5.70		6.06		6.06
Displacement		L 2.771 2.771 3.059 4.329 4.329 6.494 6.494 7.127 9.498 15.681  CU-In. 169 169 186 264 264 396 396 434 579 956						15.681 957							
Aspiration		cu-iii.	Natural	169         169         186         264         264         396         396         434         579         956           Natural         Turbocharger with Intercooler         Natural         Turbocharger with Intercooler										957	
Injection system			Natural	ruiboonarger	With Intercooler	rvaturai		Med	chanical direct inject	_	With Intercooler				
Output									,						
kW		-	_	_	-	-	-	-	_	_	377		-	_	
Continuous heavy duty		PS	-	-	-	-	-	-	-	-	-	512	-	-	-
Commuous neavy duty		HP	-	-	-	=	-	-	-	-	-	506	-	-	-
		min⁴	-	-	-	-	-	-	-	-	-	1800	-	-	-
		kW	-	-	-	-	-	-	-	-	-	-	447	-	-
Heavy duty		PS	-	-	-	-	-	-	-	-	-	-	608	-	-
,		HP	-	-	-	-	-	-	-	-	-	-	599	-	-
		min-1	-	-	-	-	-	-	-	-	-	-	2000	-	-
Medium duty	kW	49	81	94	81	134	154	191	235	254	-	-	485	515	
	PS	67	110	128	110	182	210	260	320	345	-	-	659	700	
		HP .	66	109	126	109	180	207	256	315	341	-	-	650	691
		min*	3200	3100	3100	2900	2700	2600	2600	2700	2220	-	-	2100	2060
		kW PS	-	85	101	-	147	169	210	257	279	-	-	-	537
Light duty		HP PS	-	115	138	-	200	230	285	350	380	-	-	-	730
		min-	-	114	135	-	197 2800	227	282	345	374	-	-	-	720
Exhasut gas status			-	3200	3200	-	IMO TIER II	2700 IMO TIER II	2700 IMO TIER II	2800 IMO TIER II	2300 IMO TIER II	-	IMO TIER II	-	2100 IMO TIER II
Starting Motor		V-kW	24 - 3.2	24 - 3.2	24 - 3.2	24 - 4.5	24 - 4.5	24 - 4.5	24 - 4.5	24 - 4.5	24 - 7.4		24 - 7.4		24 - 7.4
Alternator		V-A	24 - 30	24 - 30	24 - 30	24 - 30	24 - 50	24 - 40	24 - 40	24 - 50	24 - 40		24 - 7.4		24 - 7.4
Marine gear			MGN30A	MGN30A	MGN30A	MGN30A	MGN35A	MGN40E	MGN40E	MGN40G	MGN123		MGN80B		MGN80B
J															
Reduction gear ratio			2.04/2.52 3.05/3.44	2.04/2.52 3.05/3.44	2.04/2.52 3.05/3.44	2.04/2.52 3.05/3.44	1.97/2.56 3.05/3.45	1.94/2.33 2.91/3.45	1.94/2.33 2.91/3.45	2.33/2.91 3.45	1.52/1.97 2.57/3.08		1.68/2.03/2.55 2.96/3.31/3.48		1.68/2.03 2.55/2.96 3.31/3.48
Dry weight															
Engine		kg	290	298	324	436	507	600	645	720	935		1500		1615
		Ib	639	657	714	961	1118	1323	1422	1587	2061		3307		3560
With Marine gear		kg	416	424	450	560	655	769	814	898	1125		1920		2100
		<b>I</b> b	917	934	992	1235	1444	1695	1795	1980	2480		4233		4630
Dimension	Longth		700	770	040	040	4057	1004	4242	4507	4444		2002		4774
Engine	Length Width	mm	768	773	810	918	1057	1264	1343	1527	1441		2002		1771
Liigiile	Height	mm	629 737	633 790	671 891	768 978	764 941	818 967.5	864 967.5	952 1101	885 1189		1092 1354		1066 1391
	Length	mm	1098.5	1098.5	1165.5	1185	1283	1505.5	1505.5	1747	1730.5		2425		2264
With Marine gear	Width	mm	629	633	671	768	941	818	864	952	885		1092		1066
310 300	Height	mm	773	826	891	978	764	975.5	975.5	1101	1189		1359		1396

Rating Definitions : Ratings are based on conditions of 100kPa (1 bar) and 30 to 60% relative humidity at 25°C(77°F). Continuous Heavy Duty

Duty Cycle; Operation up to 100% of the time at rated power and speed.

Typical operation hours; Continuous usage is allowed up to 24 hours and annual usage is unlimited.

#### Heavy Duty

Duty Cycle; Operation up to 80% of the time at rated power and speed.

Typical operation hours; Continuous usage is allowed up to 10 hours and annual usage up to 4000 hours.

#### Medium Duty

Duty Cycle; Operation up to 60% of the time at rated power and speed.

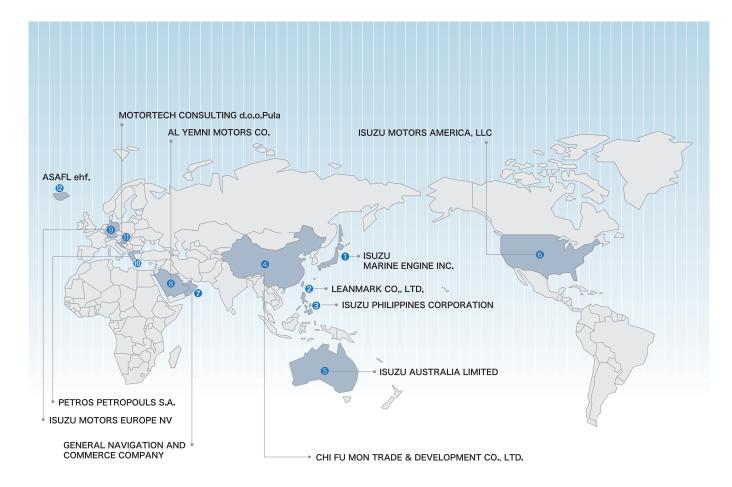
Typical operation hours; Continuous usage is allowed up to 6 hours and annual usage up to 3000 hours.

\* All data and information subject to change without notice.

#### Light Duty

Duty Cycle; Operation up to 40% of the time at rated power and speed.

Typical operation hours; Continuous usage is allowed up to 2 hours and annual usage up to 2000 hours.





#### ① ISUZU MARINE ENGINE INC.

1-2-19 Matsugashima-nishi Ichihara-City, Chiba, Japan

#### ② LEANMARK CO., LTD.

9F-1, No.201, SEC.2, Keelung Road, Taipei Taiwan, R.O.C. Tel: 886-2-27360897 Fax: 886-2-27360890 http://www.leanmark.com.tw

#### 3 ISUZU PHILIPPINES CORPORATION

114 Technology Avenue, Phase II, Laguna Technopark, Binan Laguna, Philippines Tel: 63-2-729-7795 Fax: 63-2-845-1876 http://www.isuzuphil.com

#### ④ CHI FU MON TRADE & DEVELOPMENT CO., LTD.

Floor 3, Building 2, No.2, Xiamei Road, Xinyang Industry Section, Xiamen City, China Tel: 86-592-5147187 Fax: 86-592-5363492

#### **⑤ ISUZU AUSTRALIA LIMITED**

858 Lorimer Street, Port Melbourne. Victoria 3207, Australia Tel: 61-3-9644-6666 Fax: 61-3-9644-6622 http://www.isuzu.com.au

 (6) ISUZU MOTORS AMERICA, LLC
 46401 Commerce Center Drive Plymouth Michigan 48170, USA
 Tel: 1-734-582-9470 Fax: 1-985-876-0575 http://www.isuzuengines.com

#### ⑦ GENERAL NAVIGATION AND COMMERCE COMPANY(GENAVCO) L.L.C

P.O. Box 5563 Za'Abeel Road, Karama Dubai, UAE Tel: 971-4-3961000 Fax: 971-4-396-1308 http://www.genavco.com

#### ® AL-YEMNI MOTORS CO.

Khobar-Dammam Highway, Khobar 31952, P.O. Box 31464, Saudi Arabia Tel: 966-3-8584444 Fax: 966-3-8595500 http://www.isuzu.com.sa

#### **9 ISUZU MOTORS EUROPE NV**

Bist 12 B-2630 Aartselaar, Belgium Tel: 32-3-8703594 Fax: 32-3-8708176

#### **10 PETROS PETROPOULOS AEVE**

lera Odos, 96-104 Athens, Greece Tel: 30-210-349-9250 Fax: 30-210-349-9568 http://www.petropoulos.com

### ① MOTORTECH CONSULTING d.o.o.Pula

Flaciusova 1 52100 Pula, Croatia Tel: 385-52-541-124 Fax: 385-52-541-124 http://www.motortech.hr

#### ② ÁSAFL ehf.

Hjallahrauni 2. 220 Hafnarfirdi, Iceland Tel: 354-562-3833 Fax: 354-562-3 Fax: 354-562-3833

### ISUZU MARINE ENGINE INC.

http://www.isuzumarine.co.jp

