



ISUZU CANAL BOAT ENGINES

PARTS LIST



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Isuzu Canal Boat Engine Spares List

This manual try's to cover the parts added within the build of the Isuzu Canal Boat Engine range, when built by HMI. This activity happened between August 2000 and came to an end around the end of 2019.

There was also some Canaline's based on the Isuzu 4LB1-PW01 (35), 4LC1-PW06 (42) & 4LE1 (55), built in 2009/2010, prior to the move to the Kioti block. The CL 70 used the Isuzu 4JG1, but a different marinisation.

Whilst Engines Plus has no legal responsibility for supporting the marinization of the Isuzu industrial engines by HM Plant Ltd / HMI, as the new distributor for Isuzu industrial engines we have used our knowledge to be able to support certain components fitted to these engines.

We also have no record of what was exactly fitted to each engine by HM Plant / HMI

HMI also marinized the engines with a heat exchanger, some parts were the same, but this manual doesn't include these parts, please discuss with EPL.

Core Engines Used

HMI Designation	Isuzu Core Engines Used
IM 3LB22	3LB1-PW16
Isuzu 25(From August 2004)	3LB1-PW16
Isuzu 25 (From August 2006)	3CB1-CZP04
IM 3LD28	3LD1-PW
IM4LB33	4LB1-PW01
	<i>There are some odd 4LB1 builds in the marine field, with PTO's on either side, see below.</i>
Isuzu 35(From August 2004)	4LB1-PW01
IM4LC38	4LC1-PW06
Isuzu 42(From August 2004)	4LC1-PW06
IM4LE48	4LE1-PW03
Isuzu 55 (From August 2004)	4LE1-PW03/15
Isuzu 55 (From May 2006)	4LE2-PW10
IM 4JB70 (From August 2002)	4JB1-PAW01
Isuzu 70 (From May 2006) – CHECK	4JG1-PK

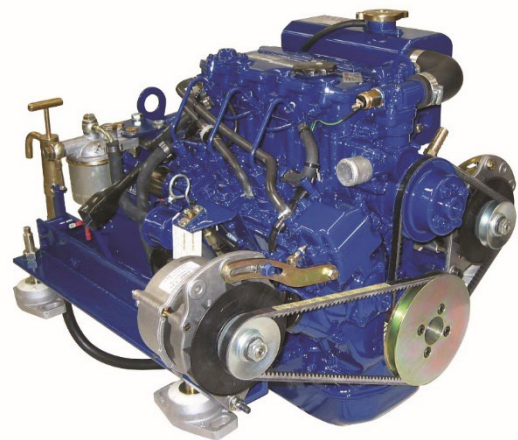
IM 3LB22

- Keel Cooled, Single 70 Amp Alternators, PRM 80 mechanical gearbox, basic panel, SAE 5 flywheel housing
- Picture as below but with single alternator and copper fuel lines



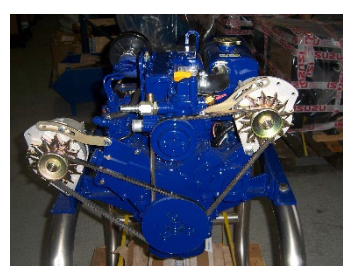
Isuzu 25

- In August 2004, the engine became Isuzu 25, and Twin 70 amp alternators and the standard panel became standard



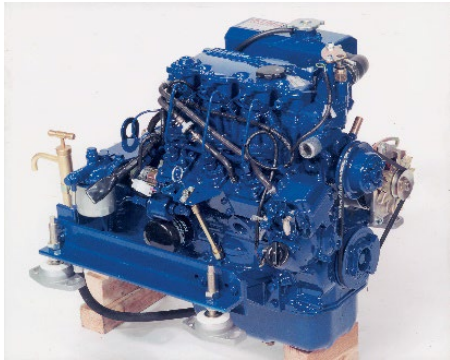
Isuzu 25, 3CB1 based engines (from August 2006)

- Keel Cooled, Twin 70/80/90 Amp Alternators, PRM 80 mechanical gearbox, standard panel, SAE 5 flywheel housing



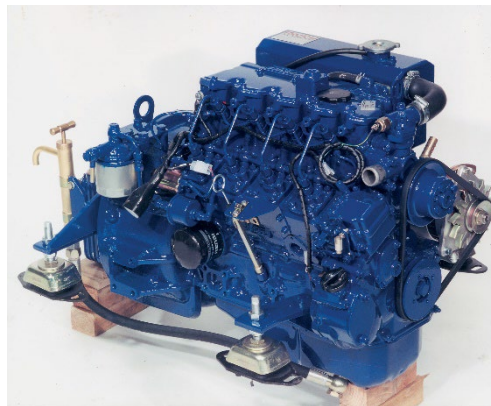
IM 3LD28 (very few sold, in August 2004 this was dropped from the range)

- Keel Cooled, Single 70 Amp Alternator, PRM 80 mechanical gearbox, basic panel, SAE 5 flywheel housing



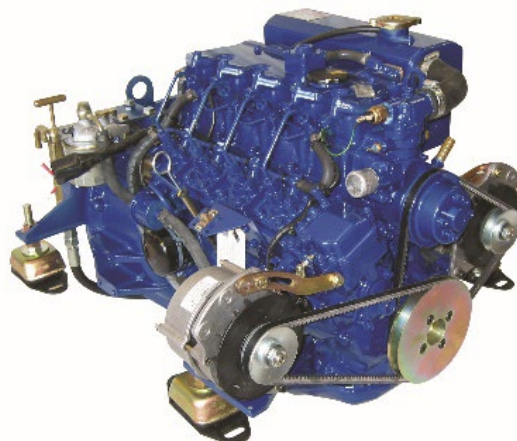
IM 4LB33

- Keel Cooled, Single 70/80/90 Amp Alternator, PRM 120 mechanical gearbox, standard panel, SAE 4 flywheel housing.
- There are some build codes which are not 4LB1-PW01, they are PA04 and PA06.
 - 4LB1-PA04, has GCPTO on starter side, only ever supplied with single alternator.
 - 4LB1-PA06, has GCPTO on fuel pump side, there was an option for Twin 70A alternator (the model below is a 4LB1-PA06)
- Majority are 4LB1-PW01, when Isuzu introduced a dedicate build for HMI
- From 2003 engine supplied as standard with twin 70/80/90 alternators.



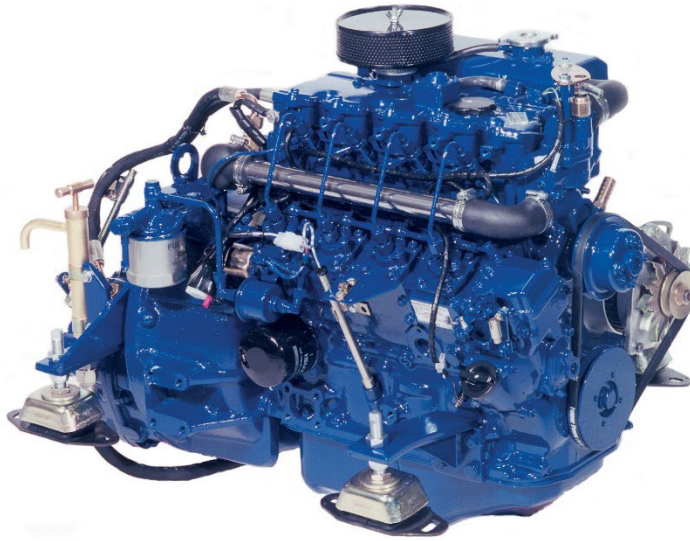
Isuzu 35

- Keel Cooled, Twin 70 Amp Alternators, PRM 120 mechanical gearbox, standard panel, SAE 4 flywheel housing



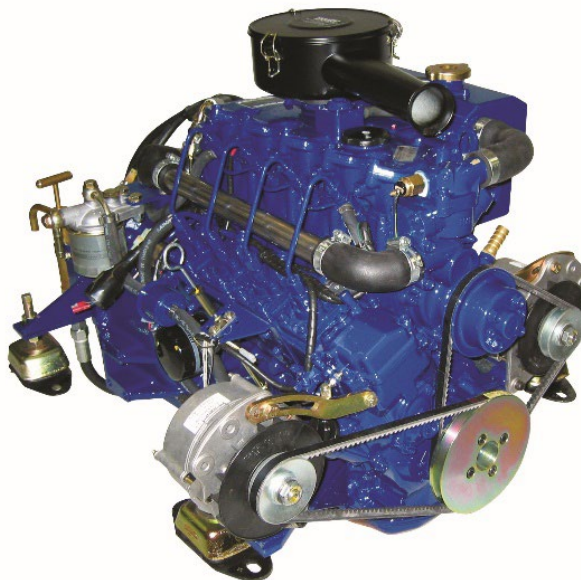
IM 4LC38

- Keel Cooled, Single 70 Amp Alternator, PRM 150 Hydraulic gearbox, standard panel, SAE 4 flywheel housing
- From 2003 engine supplied as standard with twin 70/80/90 alternators.



Isuzu 42

- Keel Cooled, Twin 70 & 70 Amp Alternators, PRM 150 Hydraulic gearbox, standard panel, SAE 4 flywheel housing
- From August 2007, the second alternator became 110 Amp as standard
- Many engines were supplied with Deluxe panel as standard



IM 4LE48

- Keel Cooled, Single 70 Amp Alternator, PRM 150 Hydraulic gearbox, standard panel, SAE 4 flywheel housing
- From 2003 engine supplied as standard with twin 70/80/90 alternators.
- Picture below, shows the single alternator and the option of the 3.5 kva travel power kit, later discontinued to be replaced by the Twin 70A and travel power



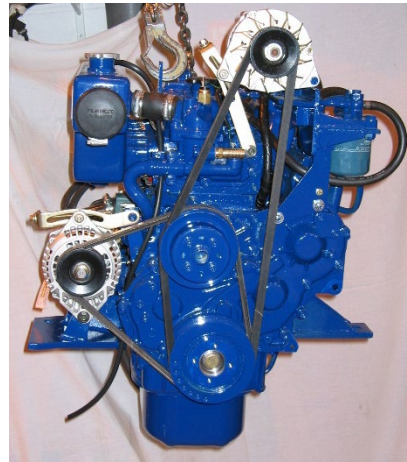
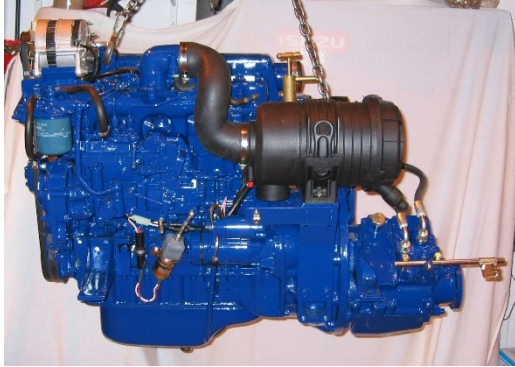
Isuzu 55

- Keel Cooled, Twin 70 & 110 Amp Alternators, PRM 150 Hydraulic gearbox, standard panel, SAE 4 flywheel housing
- Many engines were supplied with Deluxe panel as standard.
- Picture to the right shows, the set one a 3.5 or 5.0 kva Travel power was fitted, to either the 42 or 52



IM 4JB70

- Keel Cooled, Twin 70 & 110 Amp Alternators, PRM 260 Hydraulic gearbox, Deluxe panel, SAE 4 flywheel housing



Isuzu 70

- Keel Cooled, Twin 70 & 110 Amp Alternators, PRM 260 Hydraulic gearbox, Deluxe panel, SAE 4 flywheel housing
- This version is shown with an additional alternator, looks like a customer supplied 24V one
- We don't have enough understanding of the belts fitted to this engine, please discuss with EPL, as the pictures below, shows two variants.



Parts List by Section

Contained with the parts list, is the parts we have available, if they are not listed they are not available through Engines Plus

Core engine

Generic Engine parts which we have changed from the base engine build

For the main engine parts, refer to EQ-HIT

Part No	Description	Qty	Used	Notes	Available
IS8971725491	Fuel Filter	1	Isuzu 25 / 3CB1		Yes
IS8972091141	Stop Solenoid	1	L series	Energised to Stop, was fitted at factory, with 4LB1-PW01 / 4LC1-PW06	Yes
IS8944594011	Extended dipstick	1	4LB, 4LC	May not be in base engine code	Yes
IS8970888140	Extended dipstick	1	4LE	May not be in base engine code	Yes

For the first few years engines were modified to have steel / copper fuel lines, this was then changed to flexible lines ISO 7846 fuel hose, there is no parts available for the copper fuel lines.

Air Filter

Part No	Description	Qty	Used	Notes	Available
EP110066	Air Filter Element	1	IM4LC38 IM4LE48 Isuzu 42 Isuzu 55	Air Filter body / rubber insert is no longer available. Option on 4LB33/Isuzu 35	Yes
SL17610012	Air Cleaner	1	Isuzu 25 / 3CB	Sole Air cleaner	Yes
EP110020	Air Cleaner element	1	IM 4JB70 Isuzu 70	7" Sogefi	Yes
To replace EP110020 housing use EP110560, EP110561					

Cooling / Exhaust

The water-cooled manifold / header tank is no longer available, ASAP supplies have had stock in the past.

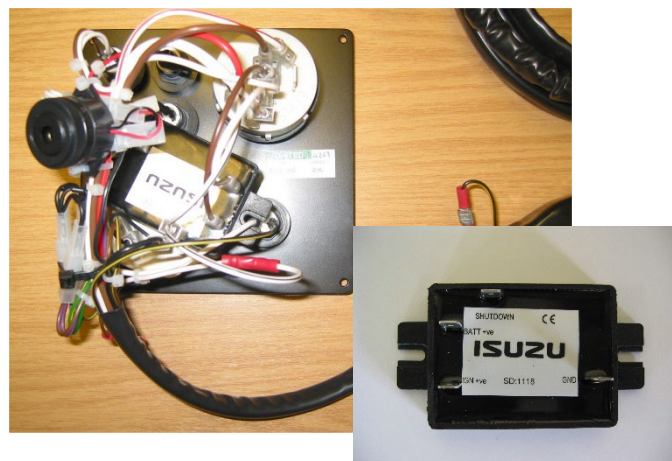
Part No	Description	Qty	Used	Notes	Available
EP410048	Top Hose	1	All L Series		Yes
EP410076	Bottom Hose – Water pump to transfer Pipe	1	IM4LC38 IM4LE48 Isuzu 42 Isuzu 55	Used on IM4LB33 / Isuzu 35 if PRM Hydraulic gearbox was fitted	Yes
EP410245	Bottom Hose – Isuzu 70/4JG1	1	Isuzu 70 4JG1		On request
EP410278	Top Hose	1	Isuzu 25 / 3CB1		On request
EP410090	Pressure Cap	1	All Engines		Yes
EP410181	Filler Neck Assy	1	All L Series		Yes
EP510012	Exhaust Stub – 1 ½ BSP	1	All L Series		Yes
EP510044	Exhaust Stub – 2” BSP	1	4JB70 / ISUZU 70		On request

Electrical / Control Panels

Pictures below are the panel that we offered by HMI



Fitted to engines supplied to Black Prince, this had key stop with a timer relay and a light for the second alternator



Part No	Description	Qty	Used	Notes	Available
EP910203	Temp Switch	1	All	We didn't use the standard Isuzu, as we suffered some contact bounce.	Yes
EP910041	Temp Sender	1	All		Yes
EP910039	Oil Pressure Switch/ Sender	1	All		Yes
EP910040	Adaptor for OPSS	1	All		Yes
EP910021	70/80/90 Amp Alternator	1	All	NLA – A127 Lucas style alternator	
EP910063	110 Amp Alternator	1	All	NLA – No alternative available from EPL	
EP910311	Starter Motor	1	Isuzu 25		Yes
EP910314	Starter Motor	1	IM4LB33 IM4LC38 IM4LE48 Isuzu 33 Isuzu 42 Isuzu 55		Yes
EP910322	Starter Motor	1	IM4JB70 Isuzu 70		Yes
EP910032	Wiring Loom	1	All L Series		Yes
EP910034	4m Extension Loom	1	All		Yes
EP910086	Wiring loom + 2m	1		Ex hire boat version, this has an extra 2m so the connection was 2m away from engine	On request
EP910223	Fuse in loom	1	All		Yes
EP910132	Wiring Loom	1	4JB70	4JB model	On request
EP910207	Wiring Loom	1	Isuzu 70	4JG1 Model	On request
EP910274	Wiring Loom	1	Isuzu 25/3CB1		On request

Part No	Description	Qty	Used	Notes	Available
Gauges and fascia are no longer available, panel wiring loom available upon request					
EP910006	Key switch	1	All Panels		Yes
EP910061	Key	1	All Panels		Yes
EP910070	Aux Lights	1	All Panels	No longer available	NLA
EP910157	Temp Light	1	All Panels	Limited stock	NLA
EP910557	Oil Light	1	All Panels	Limited stock	NLA
EP910213	Stop button	1	All Panels	No longer available	NLA
EP910502	Glow light	1	All Panels	No longer available	NLA
EP910122	Timer Relay, BP engine spec	1			Yes
EP310008	Stop Solenoid	1	4JB70	4JB1 model	On request

Engine Feet & Mounts

There is no engine bearers left, accept EP210047/48 rear feet off the flywheel housing, which we have one set left.

Part No	Description	Qty	Used	Notes	Available
EP210038	AVM's	4	IM4LB33 IM4LC38 IM4LE48 Isuzu 33 Isuzu 42 Isuzu 55	Stamped 35	Yes
EP210090	AVM's	4	IM4JB70 Isuzu 70	Stamped 65	Yes
EP210097	AVM's	4	IM3LB22 IM3LD28 Isuzu 25	3LB1/3LD1/3CB1	On request

Gearbox & Oil cooler parts

Part No	Description	Qty	Used	Notes	Available
EP710520	Oil Cooler	1	ALL	Used with All PRM Hydraulic gearboxes	Yes
EP710013	Oil Cooler Hoses	1	IM4LB33 IM4LC38 IM4LE48 Isuzu 33 Isuzu 42 Isuzu 55		Yes
EP710040	Oil Cooler Hoses	1	IM4JB70 Isuzu 70		Yes
EP710533	90 degree end cap for oil cooler	1	IM4LC38 IM4LE48 Isuzu 42 Isuzu 55	Used on IM4LB33 / Isuzu 35 if PRM Hydraulic gearbox was fitted	Yes
EP710088	Straight end cap for oil cooler	1	IM4LC38 IM4LE48 Isuzu 42 Isuzu 55	Used on IM4LB33 / Isuzu 35 if PRM Hydraulic gearbox was fitted	Yes
EP710019	Stauff Clamp	1		2 parts, each ½ within part number	Yes
EP710022	PRM 150 adaptors	2			Yes
EP710021	Oil Cooler adaptors	2			Yes
EP710021	PRM 260 adaptors	2			Yes

Part No	Description	Qty	Used	Notes	Available
	PRM 80D2	1	3LB22 / Isuzu 25	NLA – replaced by PRM 90	
EP810629	PRM 90D2	1			Yes
	PRM 120D2	1	4LB33 / Isuzu 35	NLA – replaced by PRM 125	
EP810617	PRM 125D2	1			Yes
EPP810021	PRM 150D2	1	38/42/48 /55	4LB1 option 4LC1 / 4LE1 – Std	Yes
	PRM 260D2	1	Option	NLA – replaced by PRM 280	
EP810606	PRM 280D2	1			Yes
EP810038	SAE 5 / 125/150 adaptor plate	1		Isuzu 25/3CB fitted with spacer EP810116	Yes
EP810023	SAE 4 / 125/150 adaptor plate	1			Yes
EP810035	SAE 4 /260 adaptor plate	1	L and J		Yes
EP310084	Saddle Clamp	1			Yes
EP310085	Ball Joint	1			Yes
EP510530	Swivel joint for PRM mechanical	1			Yes
EP310033	PRM 150 Morse Ctrl Bracket	1			Yes
EP310529	PRM 80/90/120/125 morse ctrl Bracket	1			Yes
EP310091	PRM 260 Morse Ctrl Bracket	1			Yes
EP810024	PRM 150 / SAE 4/10" Driveplate	1	All L Series		Yes
EP810040	PRM 120/5 / SAE 4/10" Driveplate	1	All L Series		On request
EP810042	PRM 260/280 SAE 4/10" Driveplate	1			On request
EP810039	PRM 80/120/ SAE 5/7.5" Driveplate	1			Yes

EP810043	PRM 150/ SAE 5/7.5" Driveplate	1			Yes
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Sump Pump Arrangement

There are some engines fitted with a different size pump with a different thread, but the pump looks the same, which were fitted for a short period.

Part No	Description	Qty	Used	Notes	Available
EP710089	Sump Pump	1	L series		Yes
EP710090	Sump Pump Tap	1			Yes
EP710091	Sump Pump Pipe	1			On request
EP710039	Sump Pump Pipe	1	IM 4JB70 Isuzu 70		On request

Alternator Belts

Part No	Description	Qty	Used	Notes	Available
EP810882	Alternator Belt – Std	1	All L Series		Yes
EP810950	Alternator Belt – Std	1	4LB33	Std alternator, when engine has GCPTO	On request
EP810975	Alternator Belt – Aux, 70/80/90	1	L and Isuzu 25/3CB1	Second Alternator A section	Yes
EP811065	Alternator Belt – Aux, 110	1	IM4LB33 IM4LC38 IM4LE48 Isuzu 33 Isuzu 42 Isuzu 55	Second Alternator A section, Option or std dependant on spec	Yes
EP811101	Alternator Belt – Aux, Travel Power	1	IM4LC38 IM4LE48 Isuzu 42 Isuzu 55	Optional Accessory	Yes
EP811180	Alternator Belt – Aux, 80 Amp	1	IM4LC38 IM4LE48 Isuzu 42 Isuzu 55	Optional Accessory, for top mounted when travel power fitted	Yes
EP811030	Alternator Belt – Std, 80	1	Isuzu 25		Yes

Alternator belts on the 4JB70 / Isuzu 70, please discuss with EPL