

The Most Modern Marine Diesel Engines
Company & Product Introduction



HYUNDAI SEASALL

1. Company Overview (1/3)

- ◆ Goal : Setting a new paradigm for marine diesel engines by fully applying Hyundai powertrain technologies and thoroughly understanding the marine business.



COMPANY RELOCATION (Q3, 2017)

We recently moved our factory and headquarters from Hyundai Ui-Wang R&D Center to JeonGok Marine Industrial Complex

Area : 10,000sqm, 1st Factory : 1,000units/year, 2nd Factory : Scheduled 3Q, 2019

■ Shareholders Breakdown

No	SHARE HOLDERS		Number of Stock	Percentage of Stock(%)
1	HYUNDAI·KIA MOTOR	Mother Company	83,479	23.40%
2	SK.JEONG	CEO	73,280	20.54%
3	YK.KIM / CY.KIM	DIRECTORS	68,700	19.25%
4	TY.KIM	KEY STAFF	14,100	3.95%
5	Marine Land / JMP	Marine Related Company	35,308	9.90%
6	L&S / TIGRIS	Venture Capital	81,950	22.97%
SUM			356,817	100.00%



Headquarter

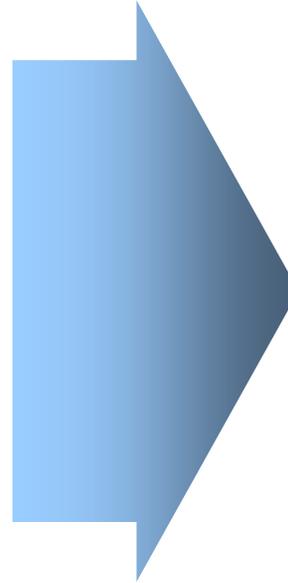
- **Brand Sharing**
- Management Consulting

R&D Center

- **Technology Support**
- Human Resource Support

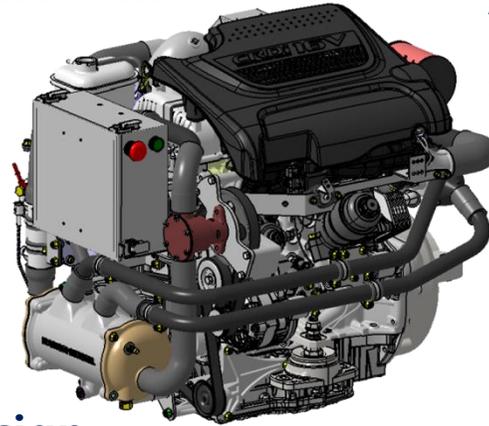
Factory

- **Base Engine supply**
- Service Parts Supply



✓ The Most Modern Diesel Engine – Marinization Technologies

- **Systems designed** for optimized heat control, compactness and serviceability

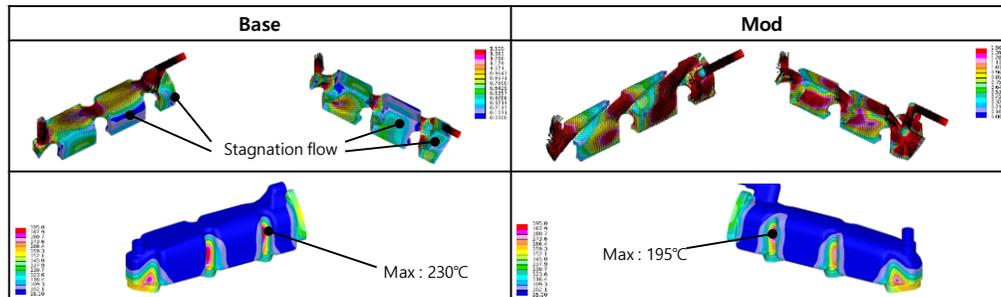
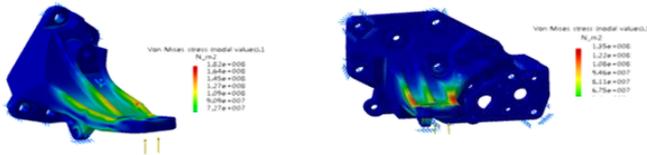


- **CGI cylinder block & head**

Advantage of **Compacted Graphite Iron** compared with Grey Iron

- 75% Higher durability and 85% higher tensile strength
- Approximately double the fatigue strength

- **CAE for optimum design**



- ✓ **World Best Performance and Environmentally Responsible Engines**
 - **Engine Noise - Lower noise level exceeding RCD standards, 75dB**
 - S series engine : 69dB
 - R series engine : 70dB
 - **Global Emission Standard - US EPA Tier-III and Europe RCD Stage II compliant**



EPA
Tier3

RCD
Stage 2



MED/SOLAS



CCNR2



RINA
www.rina.org

Type
Approval



EIAPP
IMO Tier2
NO_x

2. Marine Diesel Technology (3/4)



- ✓ Checks and shares engine fault code with regional distributor and dealer.
- ✓ Provides appropriate maintenance guide and easier after sales service.

SEAS LINK ON THE SMARTER PHONE



“Engine Information, Diagnostics and Boat Track”



2. Marine Diesel Technology (4/4)

✓ Extremely Reliable Engines IMO/SOLAS Certified



BUKH 5250

3. Product – Inboard Diesel

HIGH SPEED DIESEL SERIES



S-series 270PS 3,800rpm



R-series 200PS 3,800rpm

HEAVY DUTY COMMERCIAL SERIES



H-series 380PS 1,800rpm



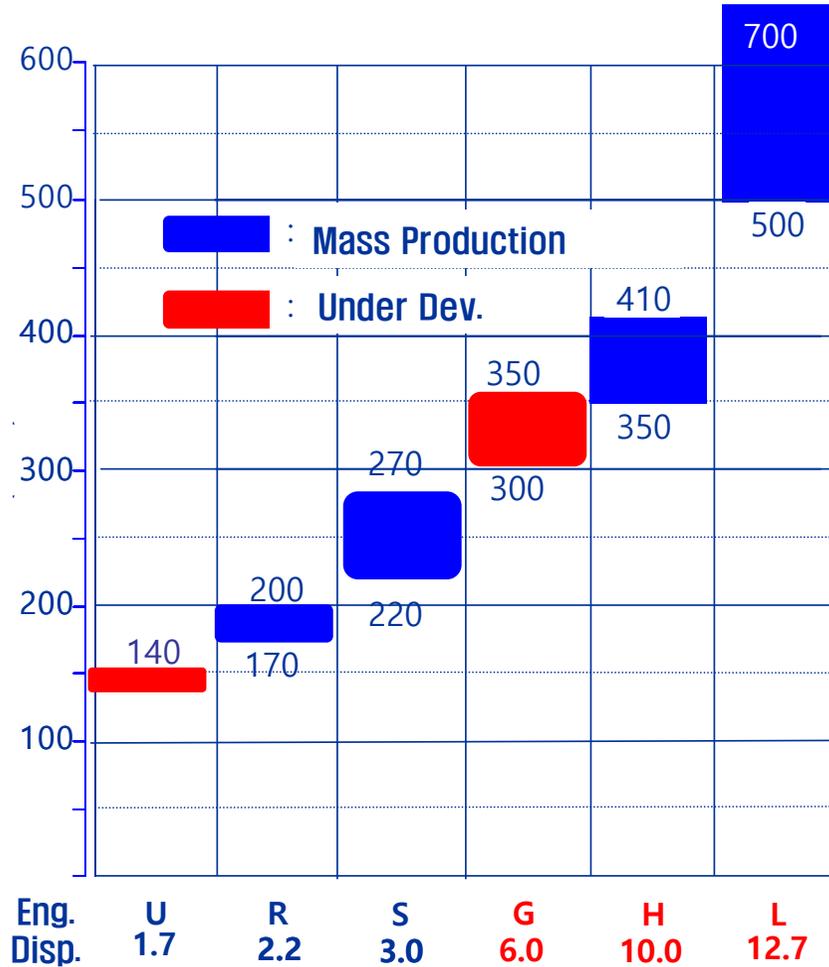
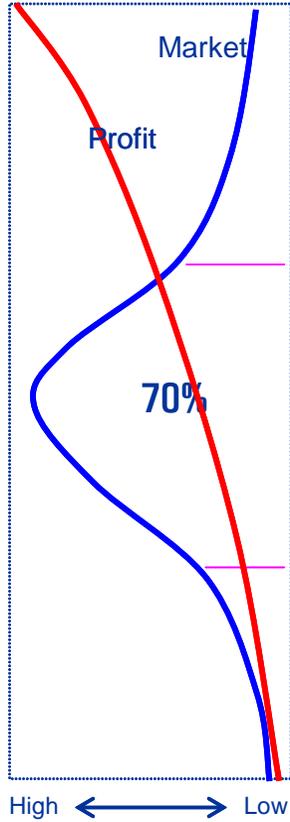
L-series 500PS 1,800rpm
600PS 2,000rpm



L-series 700PS 2,300rpm

3. Product – Inboard Diesel

Recreational Market



Eng. Disp.

U
1.7

R
2.2

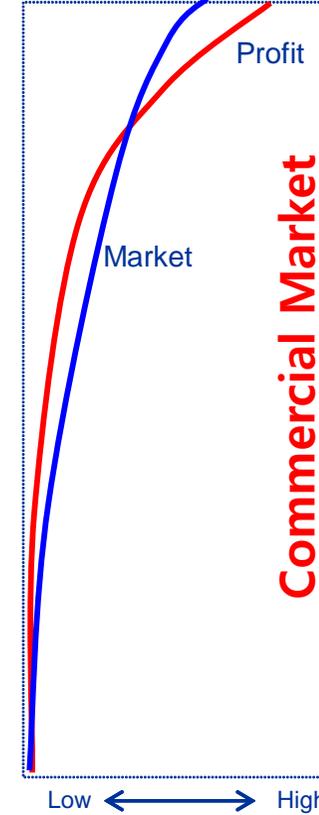
S
3.0

G
6.0

H
10.0

L
12.7

Commercial Market



Engine Duty Rating

S1 – Heavy Duty Commercial

- *Uninterrupted and unlimited use at full power.*

S2 – Medium Duty Commercial

- Full power operation restricted within 30% of total use period
- Cruising speed (RPM) at engine rpm < 90% of rated speed (RPM)
- Operating less than 3,000 hours per year

S3 – Light Duty Commercial

- Full power operation restricted within 20% of total use period
- Cruising speed (RPM) at engine rpm < 90% of rated speed (RPM)
- Operating less than 1,500 hours per year

S4 – Special Pleasure Duty / Special Light Duty Commercial

- *Full power operation restricted within 10% of total use period*
- *Cruising speed (RPM) at engine rpm < 90% of rated speed (RPM)*
- *Operating less than 1,000 hours per year*

S5 – Pleasure Duty

- *Full power operation restricted within 10% of total use period*
- *Cruising speed (RPM) at engine rpm < 90% of rated speed (RPM)*
- *Operating less than 400 hours per year*

3. Product – Inboard Diesel

◆ S270 Comparison

Brand / Model	Hyundai SeasAll	Volvo Penta	Mercury		Yanmar	Steyr
	S270	D4-260	TDI 3.0	QSD 2.8	6BY3-260	SE266E40
Disp.(L)	3.0	3.7	3.0	2.8	3.0	3.2
Crankshaft Power [ps]	270 @3,800rpm	260 @3,500rpm	265 @4,200rpm	220 @3,800rpm	260 @4,000rpm	258 @4,000rpm
Max. Torque (kgm)	57.6 @2,000rpm	62 @2,500rpm	57.7 @2,250rpm	49 @2,600rpm	56 @2,700rpm	54 @2,300rpm
Max. Fuel Consumption (L/h)	53.8	53.2	58.9	50	-	-
Dry weight Bobtail (kg)	334	558	325	360	328	340

➔ *Currently has the industry's best performance and serviceability.*

3. Product – Inboard Diesel

◆ L500 Comparison

Brand / Model	Hyundai SeasAll	VOLVO PENTA	MAN	SCANIA
	L500	D13 MH (R1)	D2876 (LE407)	DI13 071M
Disp. (L)	12.7	12.8	12.8	12.7
Crankshaft Power [ps]	500 @1800rpm	500 @1800rpm	490 @1800rpm	500 @1800rpm
Max. Torque (kgm)	232 @1200rpm	221 @1400rpm	211 @1150rpm	235 @1300rpm
Max. Fuel Consumption (L/h)	88	93	95	90
Dry weight Bobtail (kg)	1310	1520	1160	1190

➔ Can successfully compete against the Volvo Penta D13

3. Product – Diesel Outboard

NEW

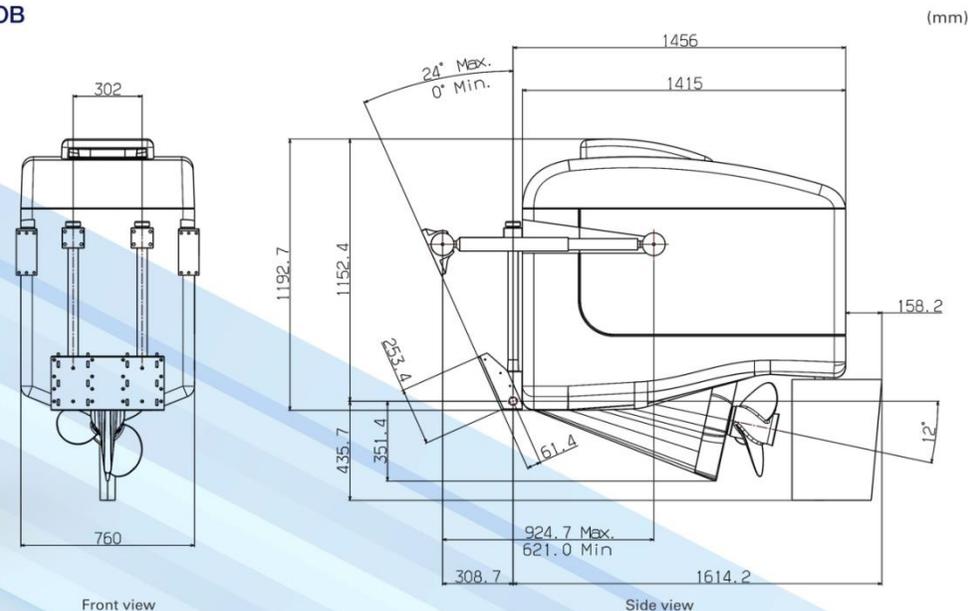
S30-OB 270PS (199 kW)

A world first: A groundbreaking development in outboard diesel technology. A high-power, low profile unit giving all the advantages of a traditional gasoline outboard engine combined with the economy of diesel power. The S30-OB features the simplicity and reliability of shaft-drive systems but with a trim function for optimum boat performance. Skippers will appreciate the innovative rope and debris avoidance feature so important to commercial operators, and engineers will appreciate the easy access for maintenance. The unit can also be fitted with an optional hydraulic pump to power shipboard accessories such as winches or deck cranes.



Engine type	S30-OB
Engine Duty Rating	Light Duty (S3)
Configuration	4-Stroke, 24-Valve DOHC, E-VGT with Intercooler, Fresh Water Cooling
Output [PS (kW)]	270 (199)
Rated rpm	3,800
Cylinders	V6
Displacement [cc]	2,959
Bore X Stroke [mm]	84 X 89
Max. Torque @ rpm	57.6 kg · m @ 2,000~2,600
Injection System	Common Rail Direct injection (CRDi) - Piezo Injector
Alternator	12V-150A
Engine Diagnostics	YES
Fuel Consump.[L/h]	Max. 54.6
Weight[kg]	580
Gear ratio	1.5:1, 1.8:1, 2.0:1

• S30-OB



NEW

S30-OB
User
convenience

New Concept Diesel Outboard User convenience

01

Electronic control system

By applying electronic control system users can perform smooth shifting and acceleration / deceleration.



04

Trim speed adjustment function

Trim speed can be adjusted according to the user's preference.



02

Rope prevention function

A debris guard helps to protect the propeller and prevent the rope jams to provide more security for the vessel.



03

Built-in Hydraulic Pump - Optional

No need for an auxiliary engine with the optional hydraulic pump. It can power winches, net rollers and other deck equipment. An electromagnetic clutch engages the pump only when needed.



06

Side Thruster - Optional

A 5-horsepower side thruster with standard wireless remote control is available for increased maneuverability and user convenience.



05

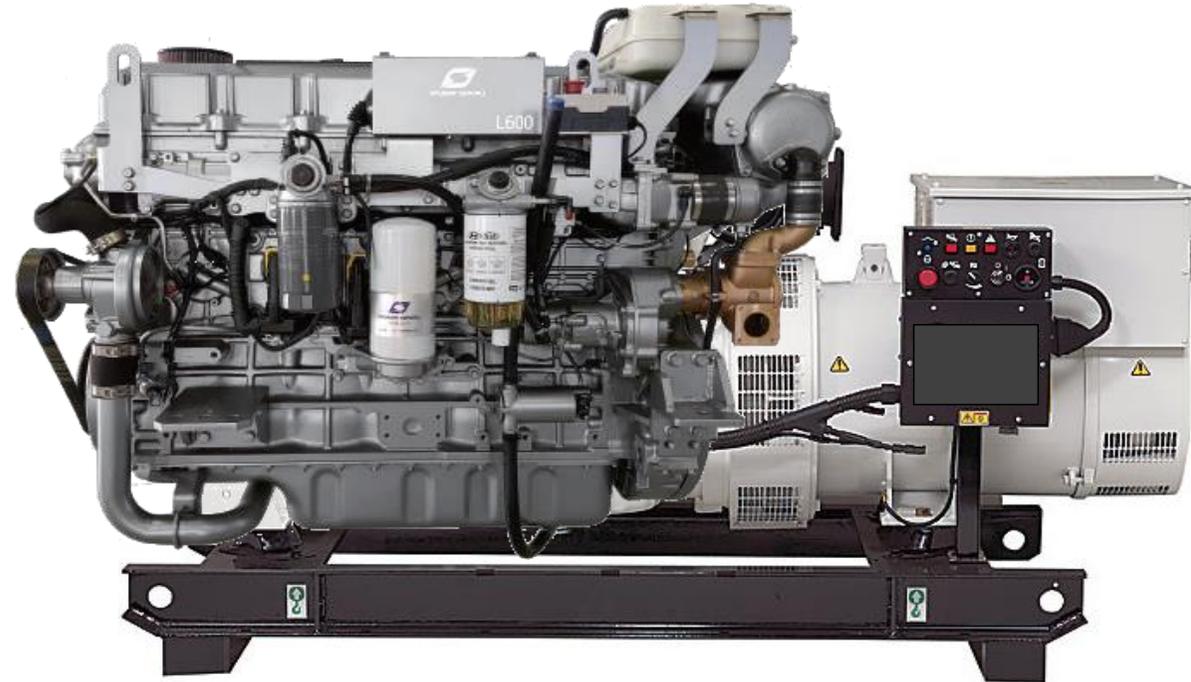
Selectable Transmission Gear Ratio

It is possible to select the optimum gear ratio for the vessel – unlike with traditional gasoline outboards where the gear ratio is fixed. Ratios available are 1.5:1, 1.8:1 and 2:1



Marine Genset Line-up Plan(60~350kW)

MODEL	Power		Base Engine
	60Hz	50Hz	
	Prime	Prime	
HSMG107	63kW	50kW	D4DA
HSMG156	113kW	95kW	5.8L
HSMG265	163kW	137kW	G
HSMG280	166kW	149kW	Q
HSMG350	209kW	197kW	Q
HSMG380	233kW	216kW	H
HSMG500	308kW	284kW	L



Marine Genset



HYUNDAI SEASALL



Marine Diesel Engine
Controller

+

Alternator

6. Brand Positioning (1/2)



HYUNDAI-KIA MOTORS
Venture Network

Cosa significa "Hyundai-SeasAll"?

Hyundai-SeasAll è un progetto di corporate venture interno alla Hyundai Kia Motor Company. L'obiettivo: mettere a punto un motore marino diesel per tutti i mari del mondo. Con questo scopo e grazie ad anni di esperienza, vi presentiamo uno dei motori marini più affidabili, puliti, leggeri e dai consumi ridotti. Potrete presto provare il nuovo standard per i motori marini diesel.



Il modello S240S utilizza come base il motore diesel più avanzato e di successo sviluppato dalla Hyundai Powertrain R&D Center. Si tratta di un 3.0 litri V-6 con iniezione common rail con regolatore "piezo" che equipaggia i veicoli della fascia luxury della Hyundai Kia Motor Company come Veracruz e Mohave.

• Motori marini SeasAll rispettano le norme RCD, EPA Tier II e Tier III

S240S is based on one of the most advanced and successful diesel engines developed by Hyundai Powertrain R&D Center: 3.0 liter V-6 diesel with piezo controlled common rail injection which powers Hyundai Kia Motor Company's luxurious utility vehicle, Veracruz and Mohave.

• European RCD and EPA Tier II compliant with Tier III capability

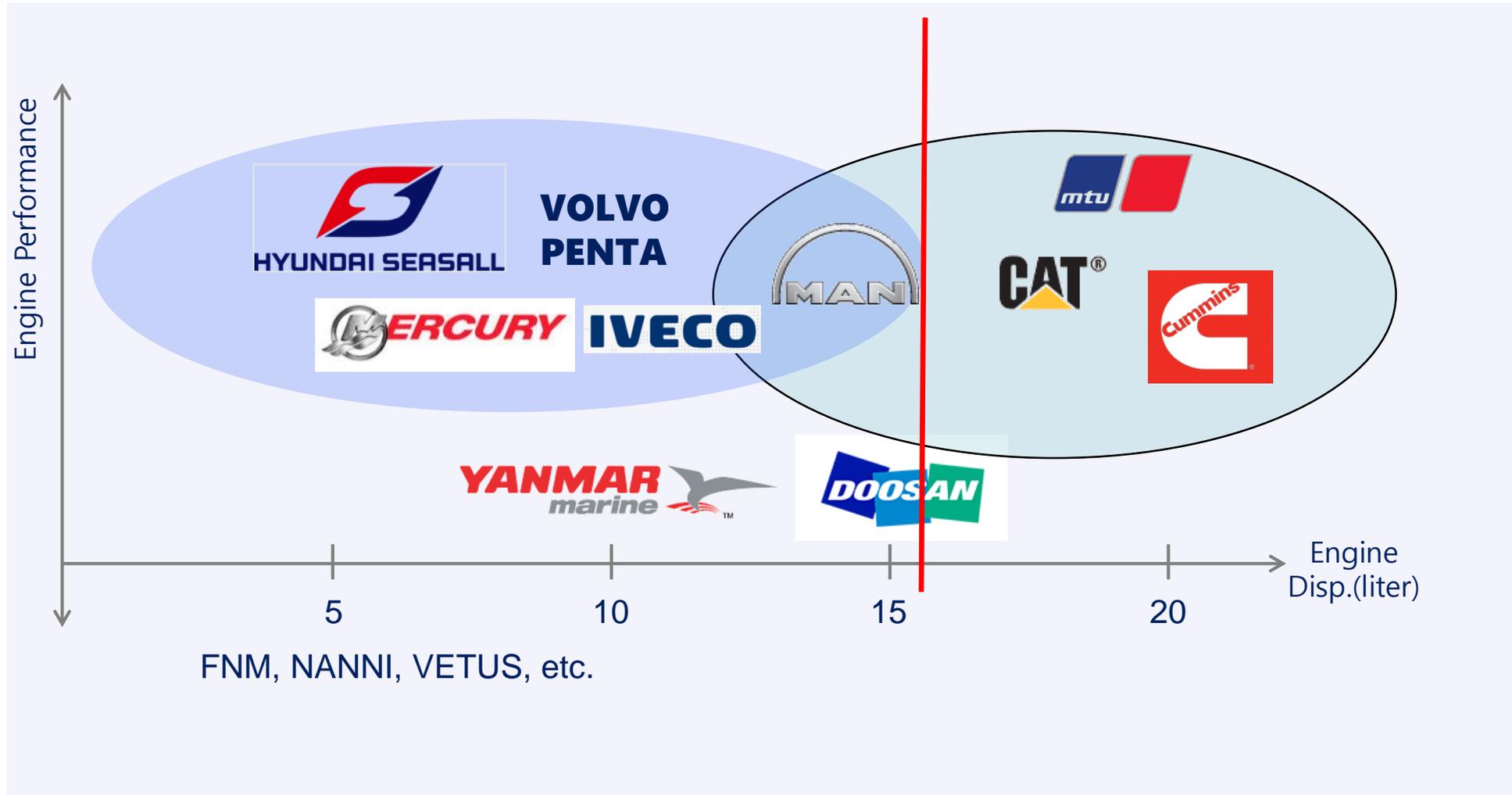


Socoges srl è distributore esclusivo dei motori marini Hyundai-SeasAll



6. Brand Positioning (2/2)

✓ Solid Brand Positioning in the Marine Diesel Market



Distributors around the World

GLOBAL NETWORK



ASIA

- CHINA - JIANGYIN BUKH INTERNATIONAL TRADING CO.,LTD
- ZHUHAI TRITEX-TRIPOWER TRADING PTE.LTD
- HONGKONG - WAKEPOWER MARINE
- MACAU - POSEIDON YATCH LIMITED
- MALAYSIA - SK MACHINERY
- W.MALAYSIA&SARAWAK - MIDAS MARINE SDN.BHD.
- INDONESIA - PT. TRAYAGANTHA PINASTHIKA
- TAIWAN - DECAMARINE
- JAPAN - MIZUNO MARINE
- THAILAND - MF MOTORRAD
- VIETNAM - TRANS-UNDAI SEASALL VINA CO.,LTD

MIDEAST

- UAE - TURBOMOT MARINE ENGINEERING LLC
- BAHRAIN - SEAWORLD COMPANY WLL

AFRICA

- EGYPT - BEST MARINE EGYPT

EUROPE

- CROATIA, SERBIA, BOSNIA, HERZEGOVINA, MONTENEGRO, KOSOVO - HONDA CROATIA
- CYPRUS - PGM SPORT MARINE LTD.
- DENMARK, GREENLAND, FAROE ISLAND - WEST DIESEL ENGINEERING A/S
- FINLAND - KF MARINE, TEKNO-MARINE OY
- ESTONIA - TEKNO-MARINE OY
- GERMANY, SWITZERLAND, AUSTRIA, CZECH, SLOVAKIA, HUNGARY, BELGIUM, NETHERLAND, LUXEMBOURG - ALLPA B.V.
- GREECE, MACEDONIA, ALBANIA - ZOIS EFSTATHIOU S.A.
- UK, IRELAND - ENGINES PLUS LTD
- ITALY, FRANCE, MALTA, SLOVENIA - SOCOGES S.R.L.
- NORWAY - TELEMAR TRADE AS
- RUSSIA - MARINE PRO METAL BOATS(TOP MARINE GROUP)
- SPAIN - SOLE, S.A.
- SWEDEN - DIESEL POWER SWEDEN AB
- TURKEY - BTM CO.
- POLAND - MAZURIA
- PORTUGAL - SOLE DIESEL.

AMERICA

- CANADA - MARINE PARTS SUPPLY OF CANADA
- MADSEN POWER SYSTEMS
- USA - PERFORMANCE DIESEL INC.
- CHILE - MACHINSA S.A.

OCEANIA

- NEW ZEALAND, NEW CALEDONIA, SAMOA, TONGA, VANUATU, SOLOMON ON ISLAND
- HYUNDAI MOTORS NEW ZEALAND LTD
- AUSTRALIA - HYUNDAI MARINE AUSTRALIA
- TAHITI - OCEAN 2000 MARINE SUPPLIES



8. Market Entering

1) Recreational Market



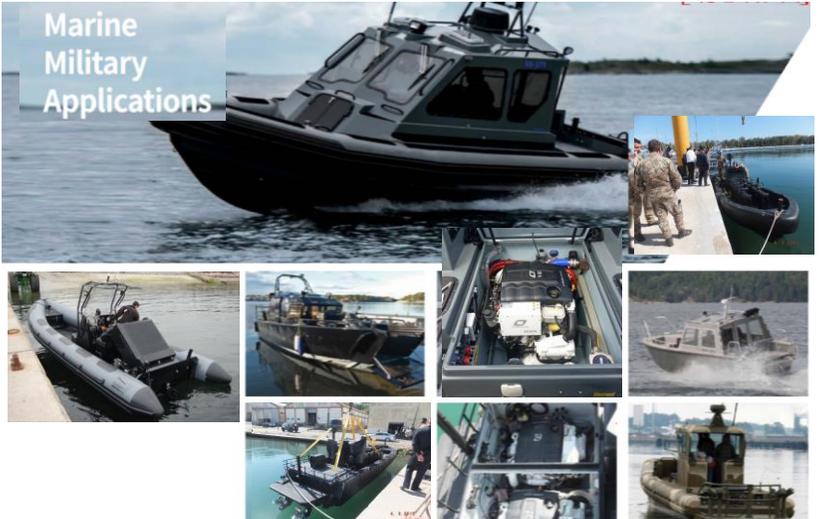
2) Government Market



3) Commercial Market



4) Military Market





Thank you