



Doosan Engine

# Investor Relations 2013 Operating Results



March 2014  
Doosan Engine

# Table of Contents

## I. 2013 Operating Results

## II. Mid to Long-Term Strategy

## III. Investment Points

## Appendix

### **Disclaimer**

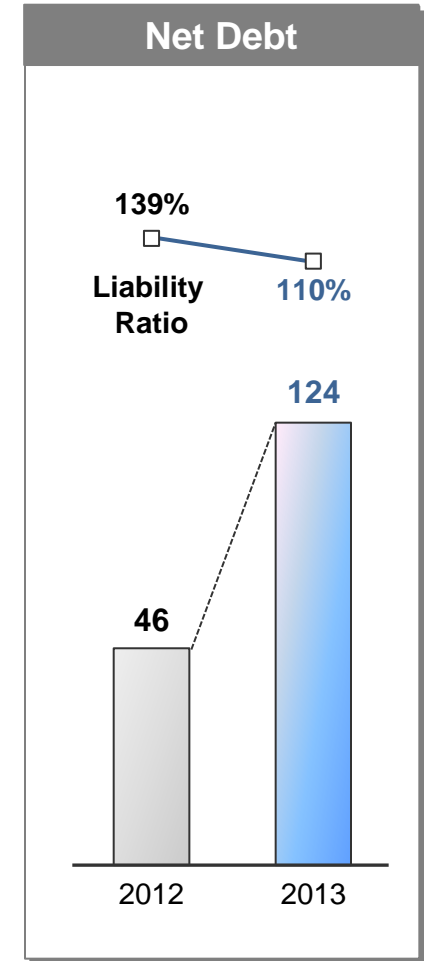
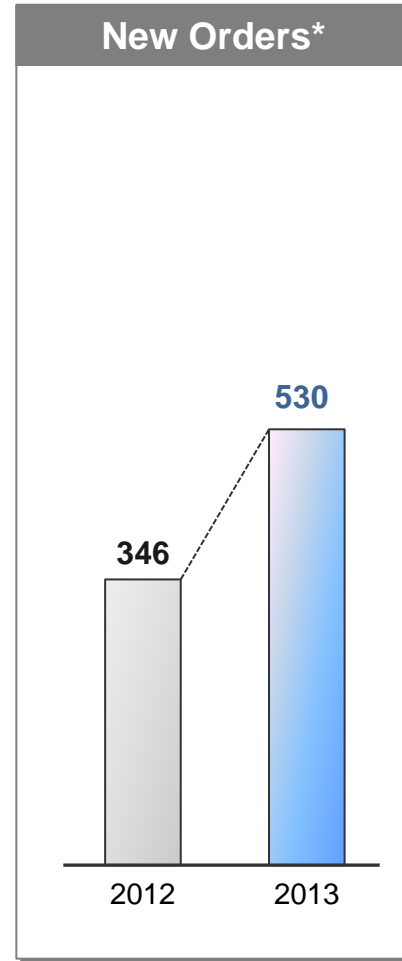
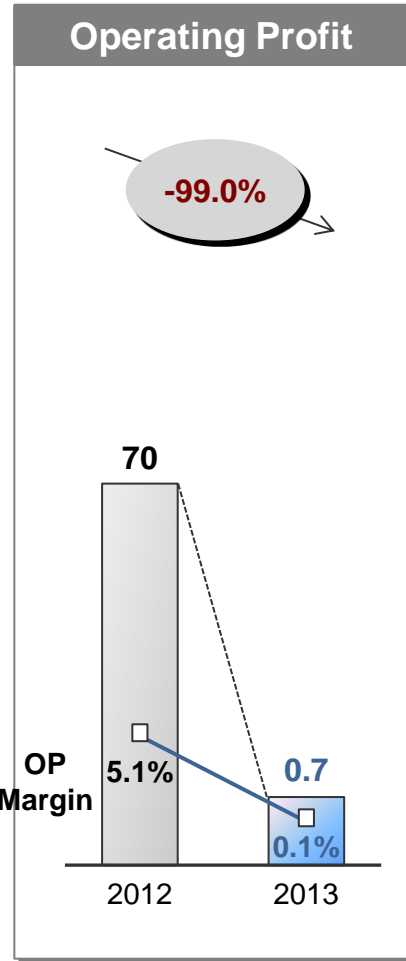
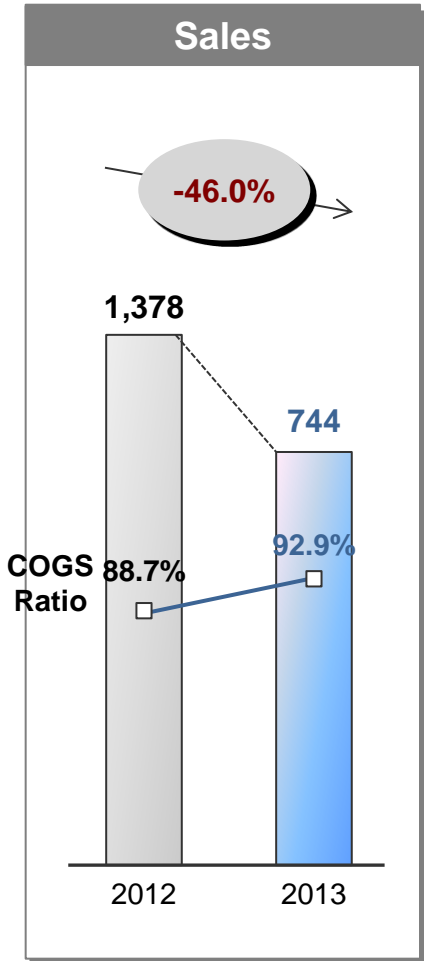
This presentation contains preliminary figures which may be materially different from the final figures.

While the statement in this presentation represent our current assumptions, plans and expectations, and we believe these judgments are reasonable, they are not guarantees of future performance and involve known and unknown risks, uncertainties such as FX & raw material costs, and other factors that may cause actual results to differ materially from the results, performance, achievements or financial position expressed or implied in this presentation.

This presentation is provided only as a reference material. Doosan Engine assumes no responsibility for investment decisions. We trust your decisions will be based on your own independent judgment.

# 2013 Operating Results Summary

(Wbn)



\* New Orders : Based on receiving advance receipts

# 4Q13 Income Statement

✓ Sales W144bn, Operating Profit W0.1bn(OPM 0.1%)

(Wbn)

|                            | '13.4Q              | '13.3Q  | QoQ      | '12.4Q  | YoY      |
|----------------------------|---------------------|---------|----------|---------|----------|
| Sales                      | 144 <sup>1</sup>    | 173     | -16.6%   | 314     | -54.0%   |
| COGS ratio(%)              | (90.9%)             | (97.2%) | (-6.3%p) | (98.1%) | (-7.2%p) |
| Gross Profit               | 13                  | 5       | +175.7%  | 6       | +123.7%  |
| SG&A                       | 13                  | 12      |          | 32      |          |
| Operating Profit           | 0.1                 | -7      | TB       | -26     | TB       |
| OP Margin(%)               | (0.1%) <sup>2</sup> | (-4.3%) | (+4.4%p) | (-8.4%) | (+8.5%p) |
| Other gain & loss          | -4                  | 1       |          | 0.5     |          |
| Financial income & expense | -0.5 <sup>3</sup>   | -6      |          | -0.9    |          |
| Equity Method gain & loss  | 8 <sup>4</sup>      | 2       |          | 111     |          |
| Pretax Profit              | 5                   | -10     | TB       | 84      | -94.3%   |
| Tax                        | 2                   | -3      |          | -7      |          |
| Net Profit                 | 3                   | -7      | TB       | 91      | -96.8%   |

## 4Q Main Points (QoQ)

### 1 Sales -16.6%(QoQ)

- Sales fell due to the delay deliveries in marine engines and diesel power plants

### 2 OP Margin 0.1% (Turned Black)

- Benefit from product mix improvement (COGS ratio '13.3Q : 97.2% → '13.4Q : 90.9%)

### 3 4Q Financial Income/Expense +W0.5bn

- Interest income & expense -W2.2bn
- FX translation gain & loss +W2.8bn
- Forward hedging gain & loss -W0.3bn

### 4 Gain/Loss on Equity Method +W8.1bn

|            | '13.3Q | '13.4Q |
|------------|--------|--------|
| DII        | 6      | 3      |
| DHEL       | -4     | 5      |
| DII + DHEL | 2      | 8      |

# 2013 Income Statement

✓ Sales W744bn, Operating Profit W0.7bn(OPM 0.1%)

| (Wbn)                      | 2012  | 2013         | YoY    |
|----------------------------|-------|--------------|--------|
| New Orders <sup>1)</sup>   | 346   | <b>530</b>   | +53.0% |
| Sales                      | 1,379 | <b>744</b>   | -46.0% |
| COGS ratio(%)              | 88.7% | <b>92.9%</b> | +4.2%p |
| SG&A                       | 85    | <b>52</b>    |        |
| Operating Profit           | 69    | <b>0.7</b>   | -99.0% |
| OPM(%)                     | 5.1%  | <b>0.1%</b>  | -5.0%p |
| Other Gain <sup>2)</sup>   | 13    | <b>5</b>     |        |
| Other Loss <sup>2)</sup>   | 12    | <b>9</b>     |        |
| Financial Income           | 121   | <b>100</b>   |        |
| Financial Expense          | 120   | <b>107</b>   |        |
| Gain/Loss on Equity Method | 136   | <b>4</b>     |        |
| Pretax Profit              | 208   | <b>-5</b>    | TR     |
| Net Profit                 | 190   | <b>-5</b>    | TR     |
| Net Debt                   | 46    | <b>124</b>   |        |
| Debt ratio                 | 139%  | <b>110%</b>  |        |

1) New Orders : Based on receiving advance receipts

2) Other gain & loss are classified as non-operating profit and loss according to the financial accounting standard

| Main Issues                    |  |
|--------------------------------|--|
| <b>New Orders</b>              | <ul style="list-style-type: none"> <li>• <b>New Orders W530bn (+53% YoY)</b> <ul style="list-style-type: none"> <li>- Marine engine orders improved thanks to the recovery in the commercial vessel market</li> <li>- Diesel power plant new orders struggled due to the emerging market risk</li> </ul> </li> </ul>   |
| <b>Sales</b>                   | <ul style="list-style-type: none"> <li>• <b>Sales W744bn(-46% YoY)</b> <ul style="list-style-type: none"> <li>- Sales declined from the decrease in engine orders and delay in deliveries</li> </ul> </li> </ul>   |
| <b>Non-Operating gain/loss</b> | <ul style="list-style-type: none"> <li>• <b>Financial Income/Expense -W6.3bn</b> <ul style="list-style-type: none"> <li>- Interest income &amp; expense -W7.3bn</li> <li>- FX Translation Gain &amp; Loss -W0.3bn</li> <li>- Forward Hedging Gain &amp; Loss +W0.5bn</li> </ul> </li> <li>• <b>Gain/Loss on Equity Method +W4bn</b> <ul style="list-style-type: none"> <li>- Equity Method Gain W16bn</li> <li>- Equity Method Loss W12bn</li> </ul> </li> </ul> |

# 2013 Balance Sheet

✓ **Net Debt W124bn, Liability Ratio 110%**

(Wbn)

|  | '12.12       | '13.12       | +/-           |
|--|--------------|--------------|---------------|
| Current assets                         | 641          | <b>489</b>   | <b>1</b> -152 |
| Non-current assets                     | 1,145        | <b>1,173</b> | +28           |
| <b>Total assets</b>                    | <b>1,786</b> | <b>1,662</b> | -124          |
| Current Liabilities                    | 718          | <b>538</b>   | -180          |
| Advance receipts                       | 393          | <b>325</b>   | -68           |
| Non-current liabilities                | 320          | <b>334</b>   | +14           |
| <b>Total liabilities</b>               | <b>1,038</b> | <b>873</b>   | <b>2</b> -165 |
| Paid in capital                        | 69.5         | <b>69.5</b>  | 0             |
| Capital Surplus                        | 367          | <b>367</b>   | 0             |
| Retained earnings                      | 333          | <b>349</b>   | +16           |
| Accumulated other comprehensive income | -22          | <b>4</b>     | +26           |
| <b>Total equities</b>                  | <b>748</b>   | <b>790</b>   | <b>3</b> +42  |
| Total debt                             | 313          | <b>312</b>   | -0.5          |
| Cash & Cash Equivalents                | 267          | <b>188</b>   | -79           |
| <b>Net Debt</b>                        | <b>+46</b>   | <b>+124</b>  | <b>4</b> +78  |
| <b>Liability ratio</b>                 | <b>139%</b>  | <b>110%</b>  | -29%p         |

## Key Points

### 1 Current assets –W152bn

- Cash & Cash Equivalents –W79bn
- Account receivable declined from the decrease number of engine shipments –W55bn

### 2 Total liabilities –W165bn

- Advance receipts dropped W68bn since new orders decreased
- Account Payable decreased -W50bn
- Short term debt fell-W25bn

### 3 Total equities +W42bn

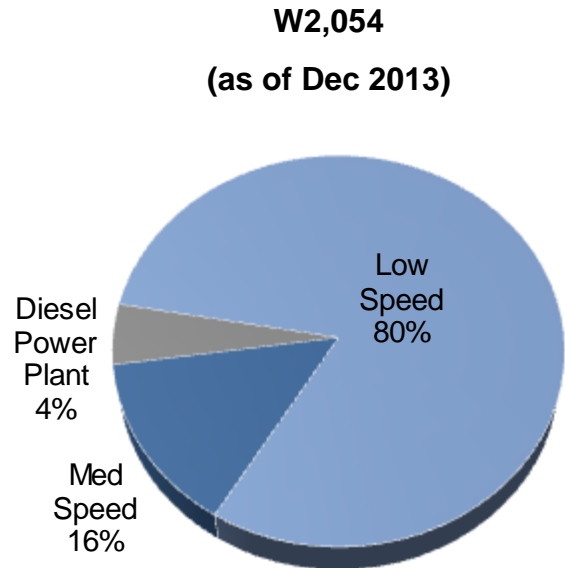
- Gain on revaluation on land W36bn

### 4 Net debt +W78bn

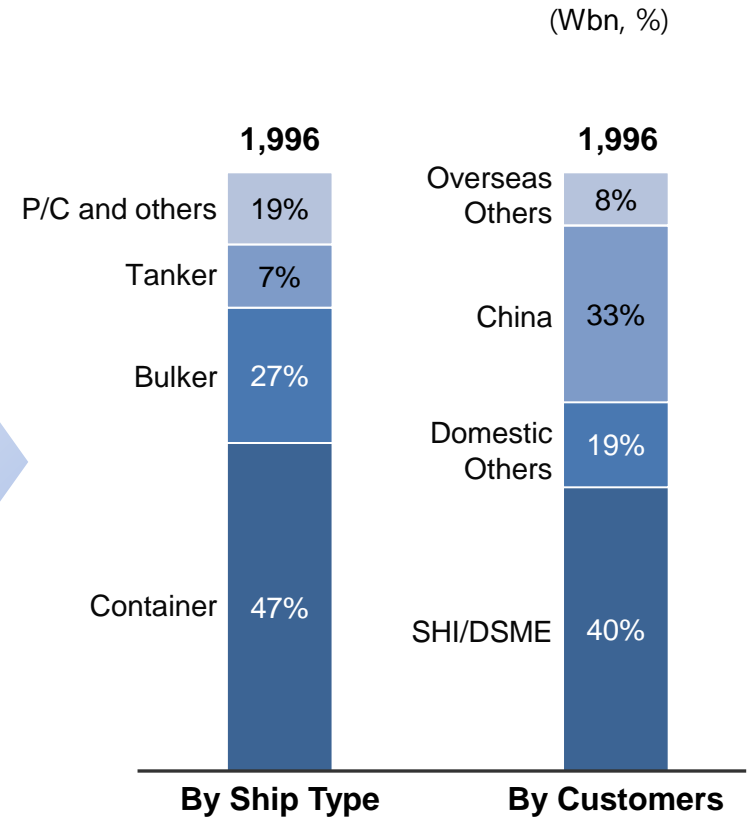
# Order backlog

✓ Order backlog : W2.1tr, marine engine accounts 96%

## Order Backlog Breakdown



Marine engine  
(low speed+  
med speed)  
: W1,996bn

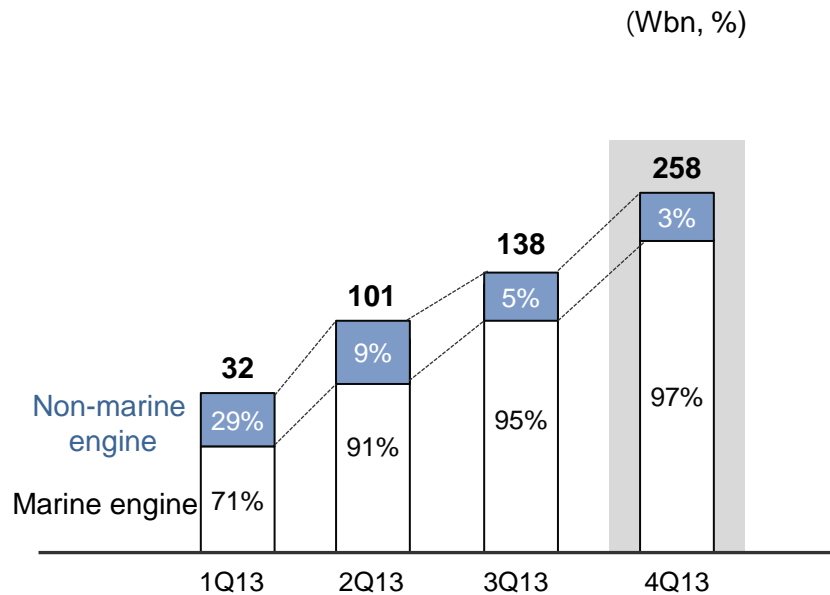


※ Backlog : Recognized upon contract sign basis  
(Reflection of cancellation and order changes)

# Quarterly & Annual New Orders

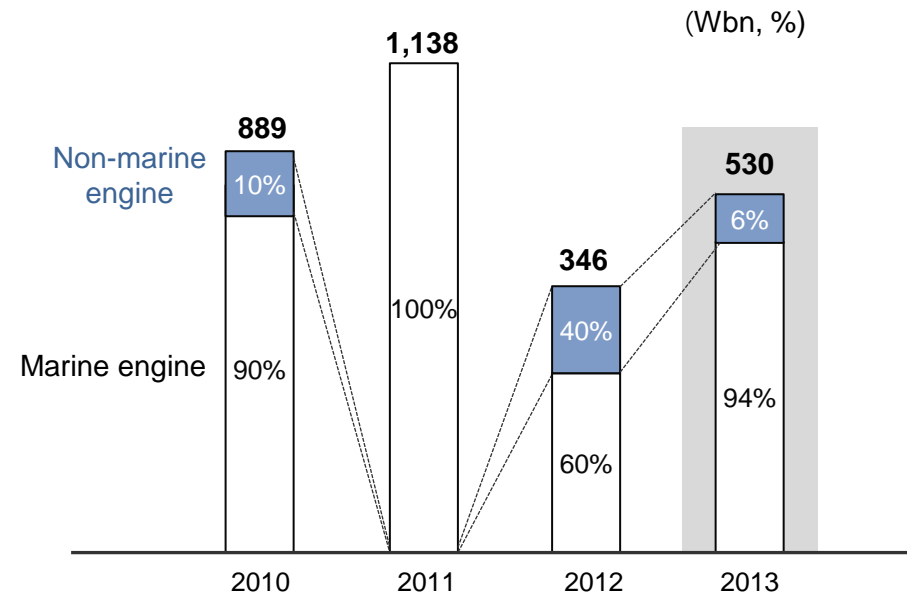
- ✓ 4Q13 New Orders : W258bn(Including non-recognized orders the actual new orders reached W290bn)
- ✓ 2013 New Orders : W530bn(+53% YoY), Marine engine new orders showed great improvement thanks to the recovery in the commercial vessel market

## Quarterly New Orders Trend



- Marine engine : W250bn
  - Non-recognized order W40bn(As of Dec 2013)
- Non-marine engine : W7bn
  - Diesel Power Plants W0.5bn, Parts W7bn

## Annual New Orders Trend



- Marine engine
  - 2013 Marine engine new order : W497bn (+140% YoY)
- Non-marine engine
  - 2013 Non-marine engine new order : W33bn (-76% YoY)

# Table of Contents

**I. 2013 Operating Results**

**II. Mid to Long-Term Strategy**

**III. Investment Points**

**Appendix**

# Mid to Long-Term Growth Strategy

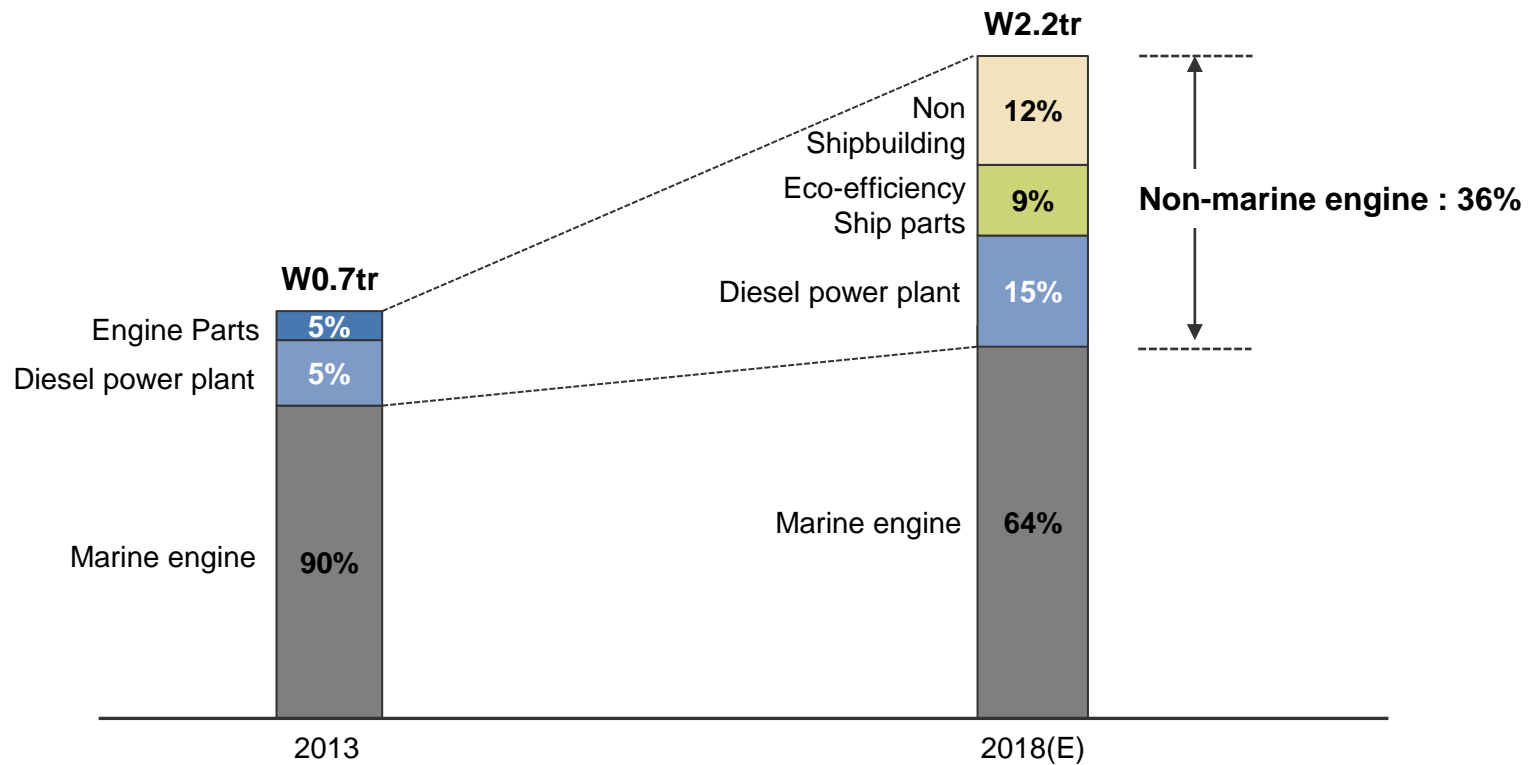
- ✓ Implementing a diverse business portfolio by strengthening diesel power plant and focusing on expansion into non-shipbuilding business
- ✓ Securing profitability in new orders and cost competitiveness by strengthening marine engine business

| Strategy  | '14 Key Strategy  | Main Issues   |
|---|---|---|
| <p>1</p> <p><b>Stable<br/>Business<br/>Portfolio</b></p>                      | <ul style="list-style-type: none"> <li>• Strengthening diesel power plant business</li> <li>• Building a diversified portfolio by expanding into non-shipbuilding business</li> </ul> | <ul style="list-style-type: none"> <li>• Expanding new order pool by focusing on target markets</li> <li>• Implementing EPC based system engineering</li> <li>• Gradual expansion into offshore equipment part business</li> <li>• Successfully launching its SCR business</li> </ul> |
| <p>2</p> <p><b>Strengthen<br/>Engine<br/>Business<br/>Competitiveness</b></p> | <ul style="list-style-type: none"> <li>• Strengthening marine engine business</li> </ul>  | <ul style="list-style-type: none"> <li>• Focus on securing profitability in new orders</li> <li>• Securing cost competitiveness</li> </ul>  |

# Mid to Long-Term Vision

✓ Focusing on non-marine engine areas to achieve W2.2tr sales by 2018

## Mid to long-term Financial Aspiration – Sales



# Table of Contents

**I. 2013 Operating Results**

**II. Mid to Long-Term Strategy**

**III. Investment Points**

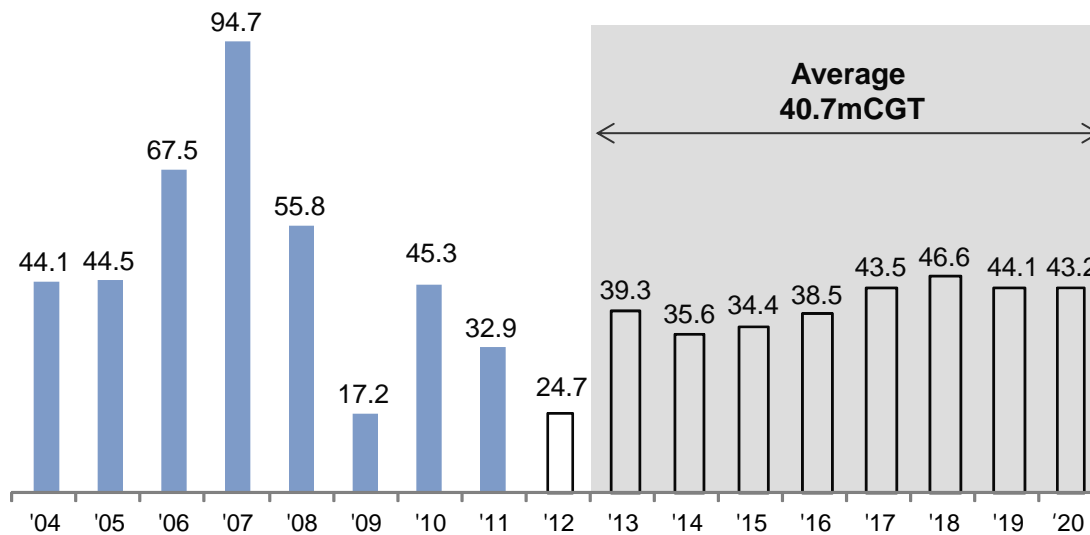
**Appendix**

# Shipbuilding market outlook

- ✓ The global new order outlook will start to recover from 2013 and likely to maintain an annual average of 41mCGT level until 2020
- ✓ Eco-efficiency ship parts market will significantly grow to W3tr in 2020 after the market develops in 2014

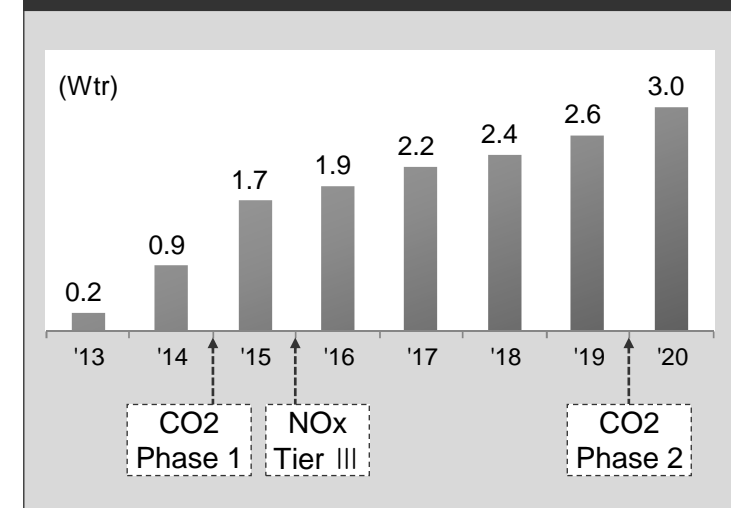
## Global new order outlook

(mCGT)



\* Source : Clarkson Forecast Report('13.9)

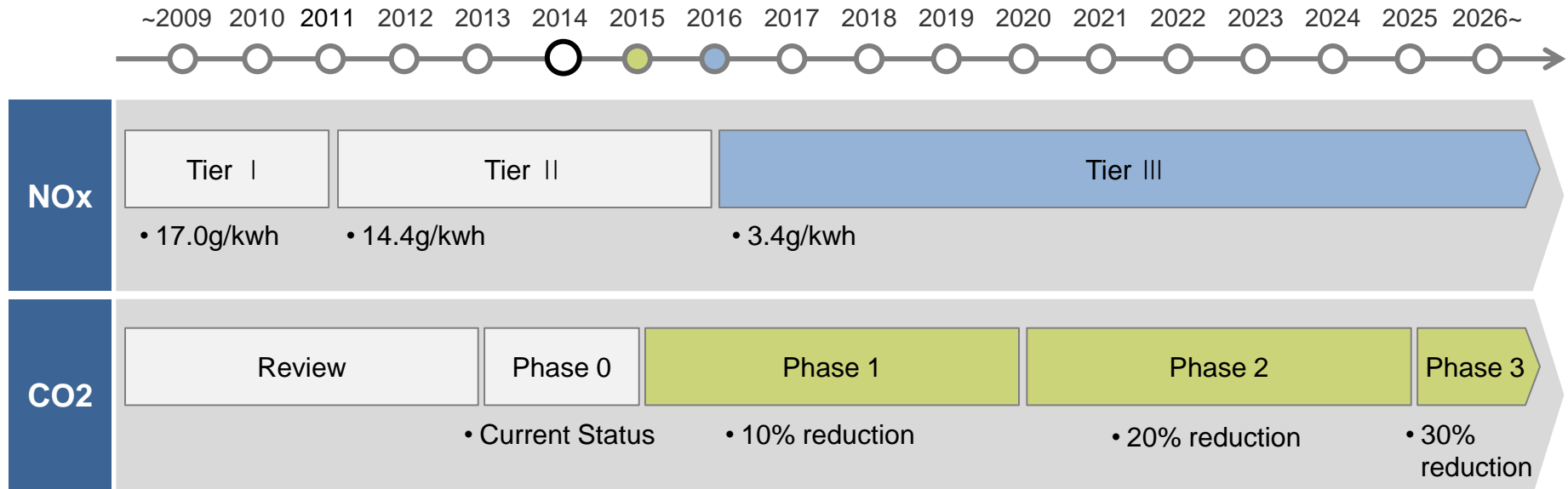
## Eco-efficiency ship parts market size outlook



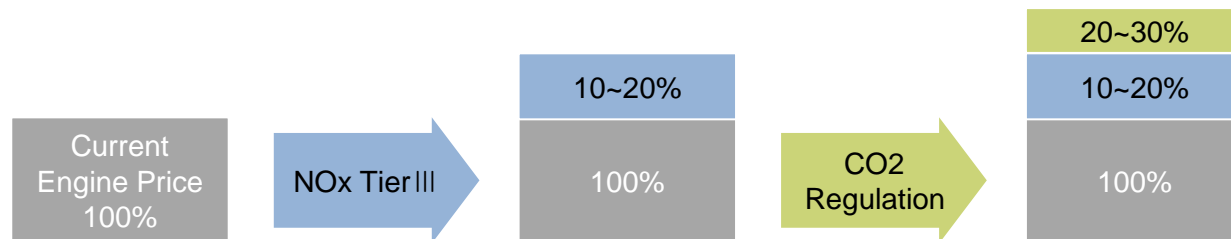
\* Source : Doosan Engine Estimates

# Investment Points 1. IMO environmental regulation trend

## IMO regulation Milestone



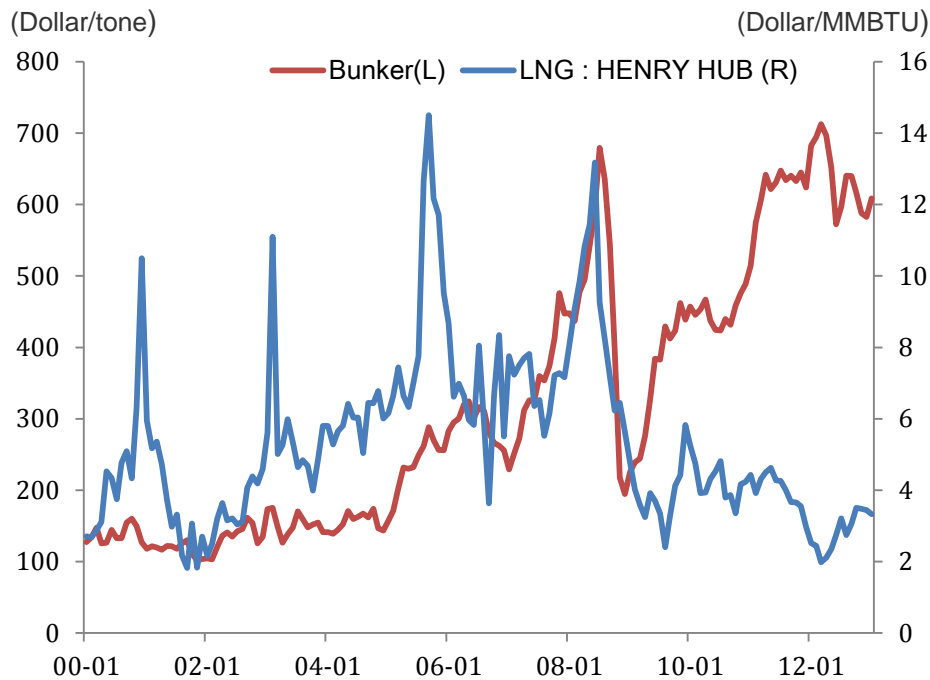
## Impact on Engine Price



# Investment Points 2. ME-GI(Electric driven-Gas Injection) Engine(1/2)

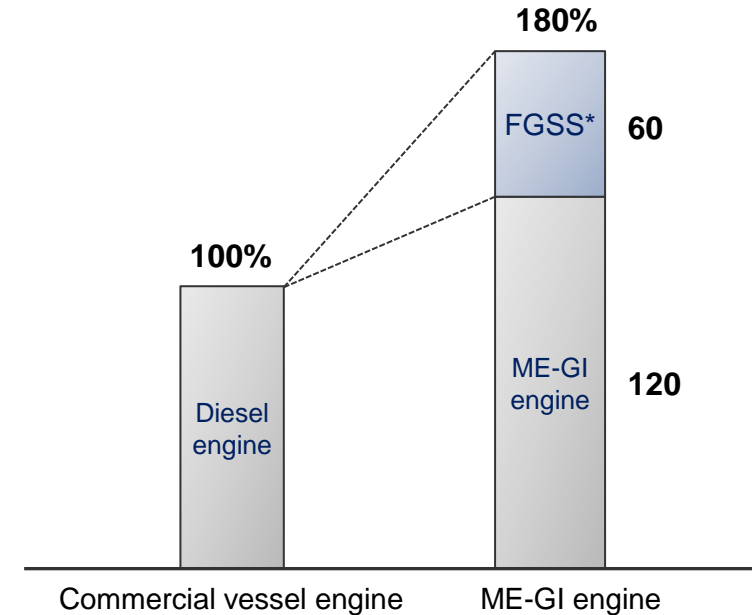
- ✓ The expansion of shale gas led to the decrease of natural gas price, LNG is environment friendly and secures economic efficiency
- ✓ The price of ME-GI engine is higher than the conventional diesel engine, therefore it will create new business opportunity

## LNG price & bunker price trend after 2000



※ Source : Bloomberg

## Engine price impact

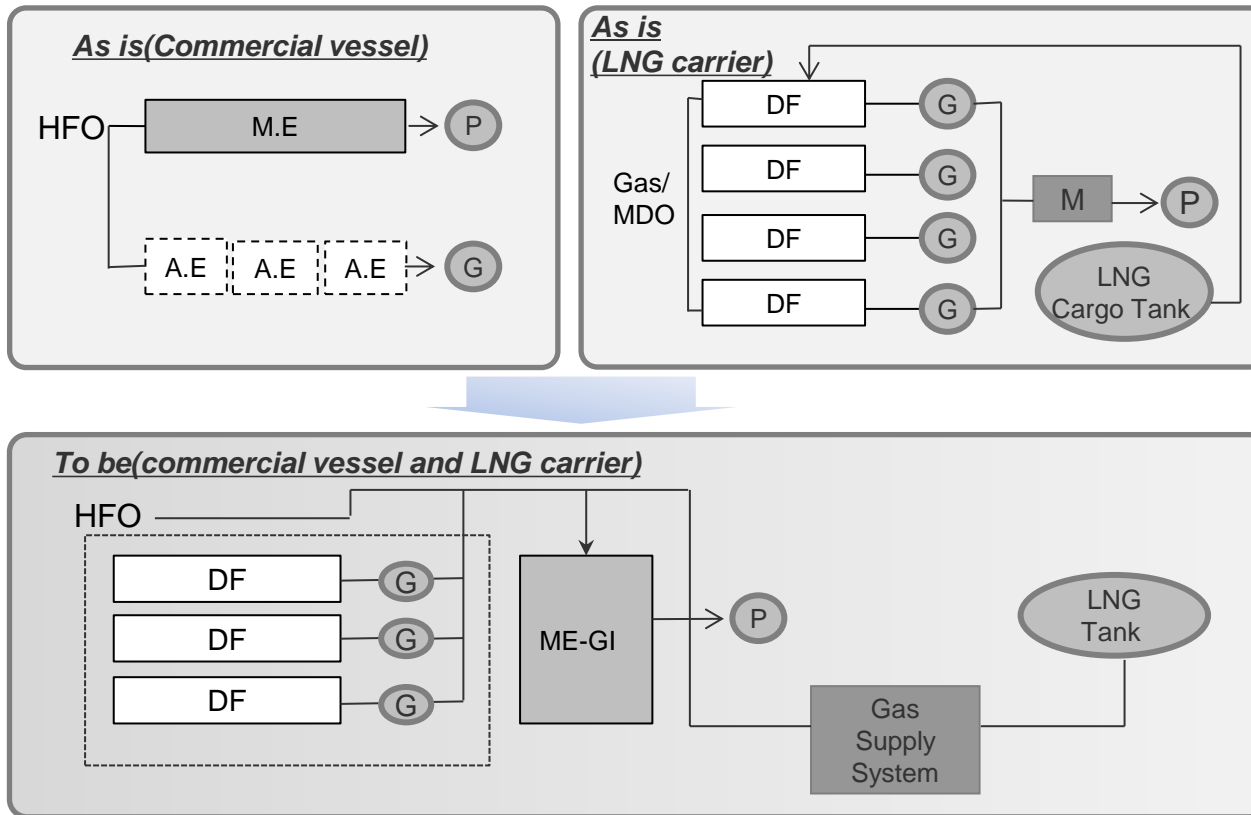


\* FGSS : Fuel Gas Supply System, we expect to outsource from DSME

# Investment Points 2. ME-GI(Electric driven-Gas Injection) Engine(2/2)

- ✓ ME-GI engine meets environment regulation issues and easily generates massive output power
- ✓ The future engine propulsion system in commercial vessel(diesel engine) and LNG carrier(DF engine) will likely replace to ME-GI engine

## The change of engine propulsion system



### [ Engine efficiency & Environment regulation ]

|                     | Engine efficiency | Environment regulation |
|---------------------|-------------------|------------------------|
| Diesel engine       | 46%               | X                      |
| Med speed DF engine | 40%               | O                      |
| <b>ME-GI engine</b> | <b>46%</b>        | <b>△</b>               |

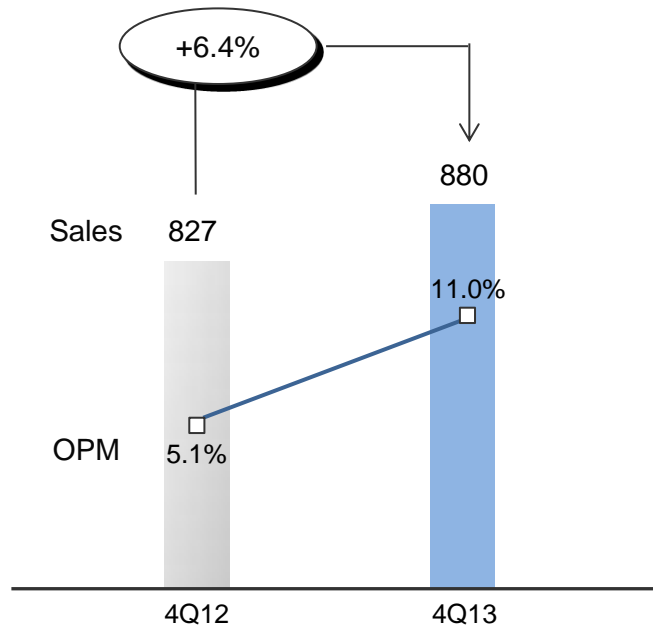
• M/E= Main Engine A/E= Auxiliary Engine, DF=Dual Fuel, P=Propeller G=Generator HFO=Heavy Fuel Oil  
MDO= Marine Diesel Oil, M=Motor

# Investment Points 3. Bobcat Earnings

- ✓ 4Q13 Sales : W880bn(+6% YoY), 2013 Sales : W3.5tr(-2.5% YoY)  
→ DHEL earnings improvement led to 4Q13 equity method gain of Bobcat W8.1bn
- ✓ 2013 Gain(Loss)on equity method of Bobcat : +W4.2bn  
(Equity method gain W16bn, Equity method loss W12bn)

## Bobcat Sales and Operating Profit Trend

(Wbn,%)



※ Source : Doosan Infracore IR Presentation(Feb 2014)

## Bobcat Operating Results

(Wbn, %)

|        | FY 2012 | FY 2013 | YoY      |
|--------|---------|---------|----------|
| Sales  | 3,674   | 3,583   | -2.5%    |
| OP     | 224     | 283     | +26.4%   |
| OPM(%) | (6.1%)  | (7.9%)  | (+1.8%p) |

## Equity Method Gain/Loss

(Wbn, %)

|                                       | FY 2012 | FY 2013 |
|---------------------------------------|---------|---------|
| Stake(%)                              | 15.5%   | 15.5%   |
| Acquisition Cost                      | 738     | 738     |
| Book Value                            | 447     | 457     |
| Gain(Loss) on Equity Method of Bobcat | *137    | 4       |

\*Gain(Loss) on equity method includes gain on equity investment evaluation and gain on disposal of equity investment

# Appendix

- I. **Company overview**
- II. **History**
- III. **Plants**
- IV. **Production infrastructure**
- V. **Business area**

# Appendix 1. Company Overview

## Overview

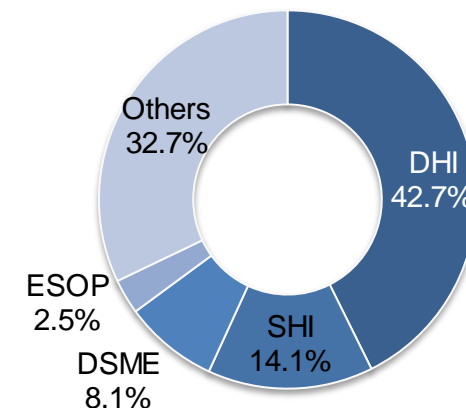
|                           |  |
|---------------------------|--|
| <b>Company</b>            | Doosan Engine Co., Ltd   |
| <b>Date of Foundation</b> | Dec 30, 1999   |
| <b>Address</b>            | Sinchon-dong 69-3, Seongsan-gu,<br>Changwon-si, Gyeongnam      |
| <b>Business</b>           | Marine diesel engines /<br>Diesel engines for power plants     |
| <b>Exports</b>            | Local/direct Exports(96%),<br>Domestic (4%)                    |
| <b>Capital</b>            | W69.5bn  |
| <b>No. of Employees</b>   | 1,005 [As of Dec 2013]   |
| <b>Subsidiary</b>         | Doosan Marine Industrial (DMI) Dalian<br>Co., Ltd (100% owned) |

## Business Areas

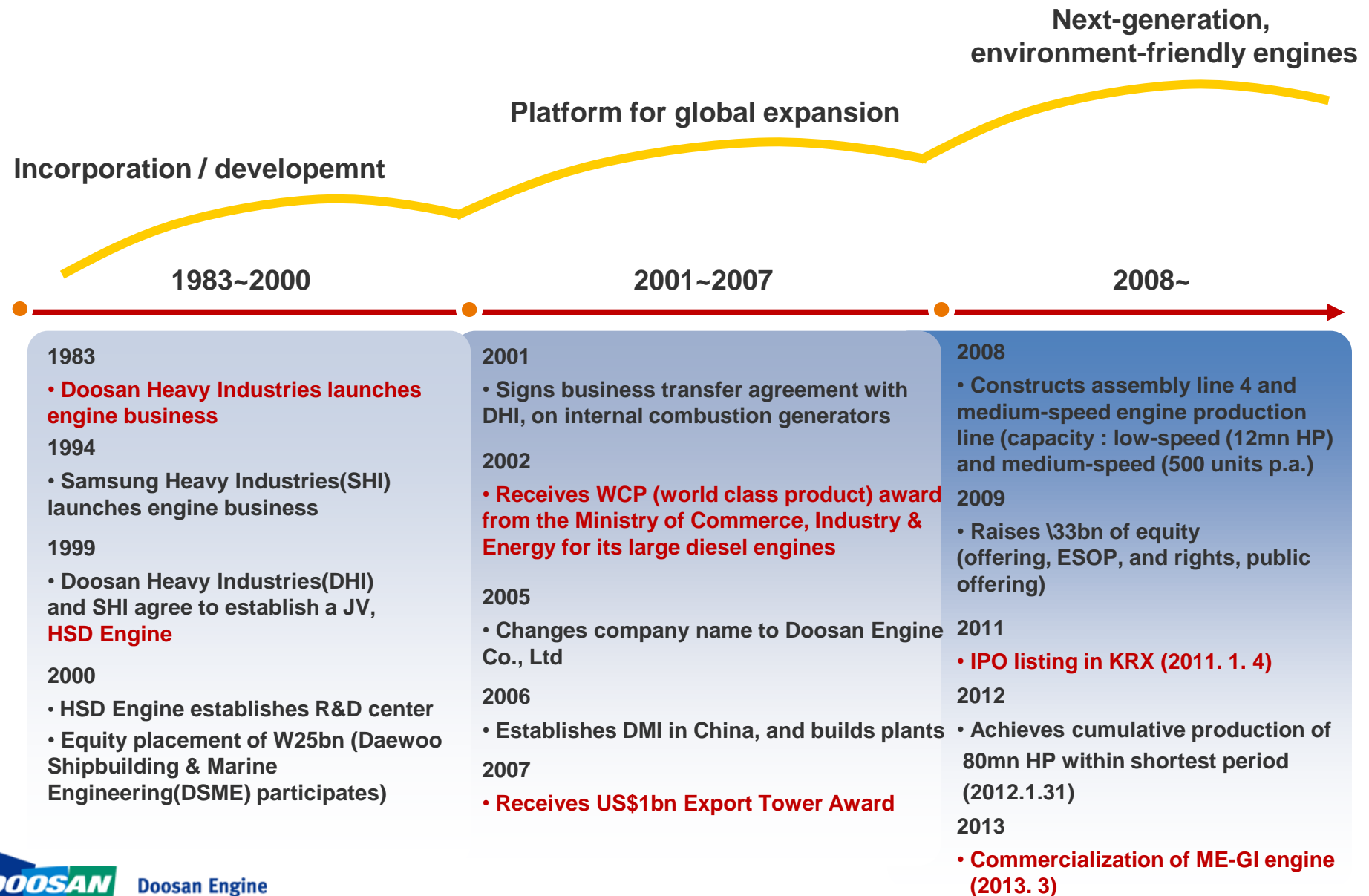
| Business Areas       | Sales (2013) | % of sales |
|----------------------|--------------|------------|
| Low-speed engine     | W538bn       | 72%        |
| Med-speed engine     | W131bn       | 18%        |
| Diesel power plant   | W35bn        | 5%         |
| Engine parts and C/S | W40bn        | 5%         |
| Total                | W744bn       | 100%       |

## Shareholders

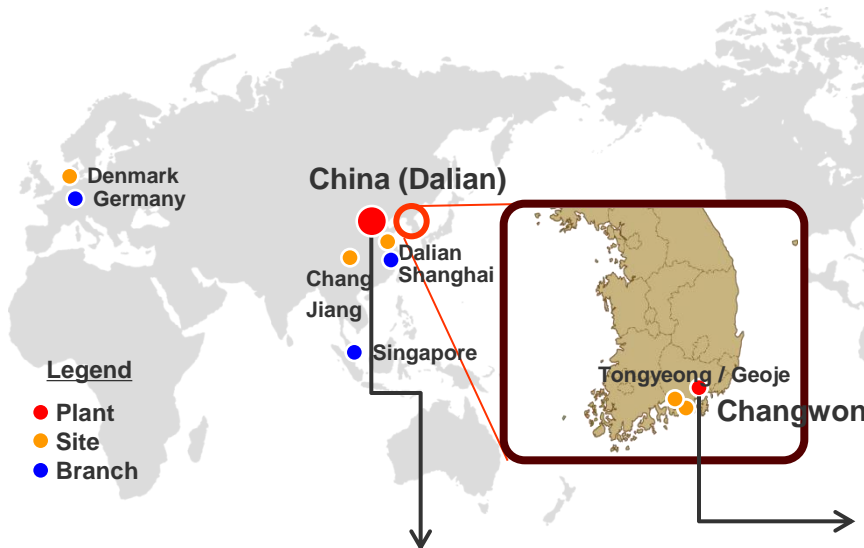
[ As of 2013.12.31 ]



# Appendix 2. History



# Appendix 3. Plants



**Dalian, China plant**



- Size : 57,904m<sup>2</sup> (17,500 pyeong)
- Product line-up : Diesel engine parts
- Production capacity : 250 blocks of engine canning parts

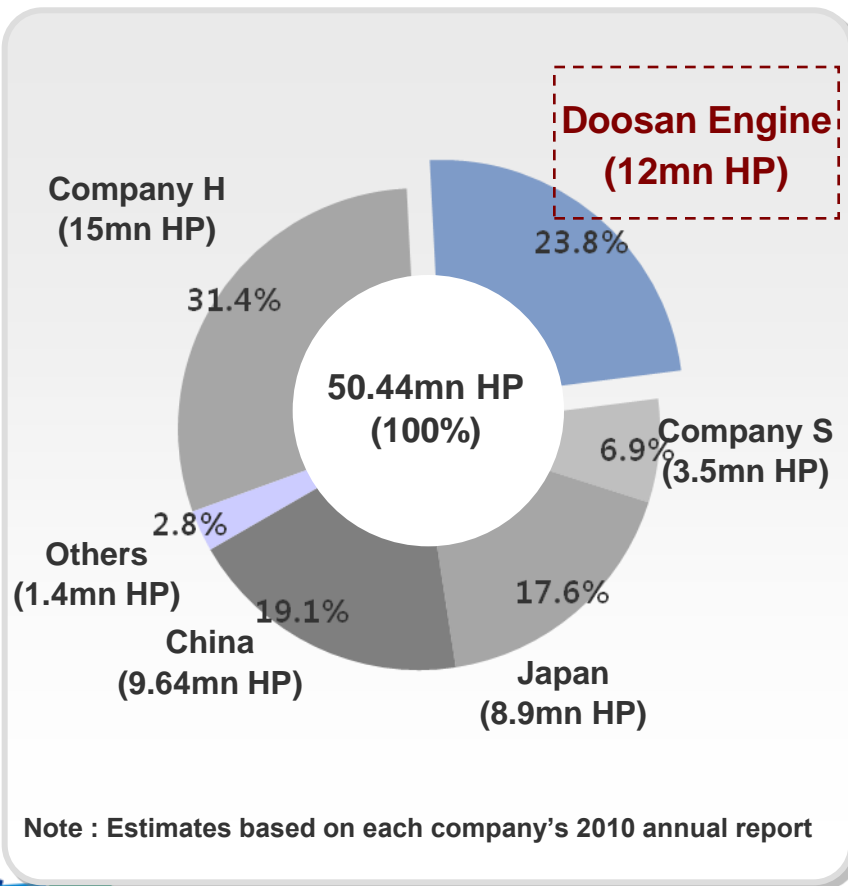


- Products : Diesel engines
- Size : 328,000m<sup>2</sup>(99,500 pyeong)
- Overview

| Classification          | Size(m <sup>2</sup> )  | Production CAPA (per year) |
|-------------------------|------------------------|----------------------------|
| Low-speed engine plants | 42,720 (12,922 pyeong) | 12,000,000 HP              |
| Med-speed engine plant  | 17,010(5,145 pyeong)   | 2,000,000 HP               |
| Processing plant        | 27,100(8,197 pyeong)   |                            |
| Canning plant           | 4,894(1,480 pyeong)    |                            |
| <b>Total Capacity</b>   |                        | <b>14,000,000 HP</b>       |

## Second largest diesel engine production facility in the world

### Low-speed diesel engine production Capacity



### Production facilities and infrastructure

#### 1. Large low-speed diesel engine plant

- Production capacity : 12mn HP  
(Operating in 6mn HP)
- Assembly and testing plants
- Processing plant (7 Plano Millers, 8 Boring)
- Canning plant(250 blocks/year)

#### 2. Medium-speed diesel engine plant

- Production capacity : 500units
- Assembly and testing plants
- Processing plant (5 Plano Millers, 4 Mill-Turns)

#### 3. Top-of-line production infrastructure

- High-quality supply chain  
(Quality/stable procurement and joint R&D)
- Cutting-edge production system  
("Flow production", "fool-proof" system)
- Skilled design and production workforce

## Appendix 5. Business area : Low-speed diesel engines

### Low-speed diesel engines



- Main Business(2013 Sales- 72% of total sales)
- Uses : Large vessels  
(e.g. containerships, crude tankers, LNG carriers)
- Market position : No.2 globally, with 24% m/s
- Customers : SHI, DSME, Yangzijiang(China)  
Sinopacific(China), COSCO(China)

Containership engines



Crude tanker engines



LNG carrier engines

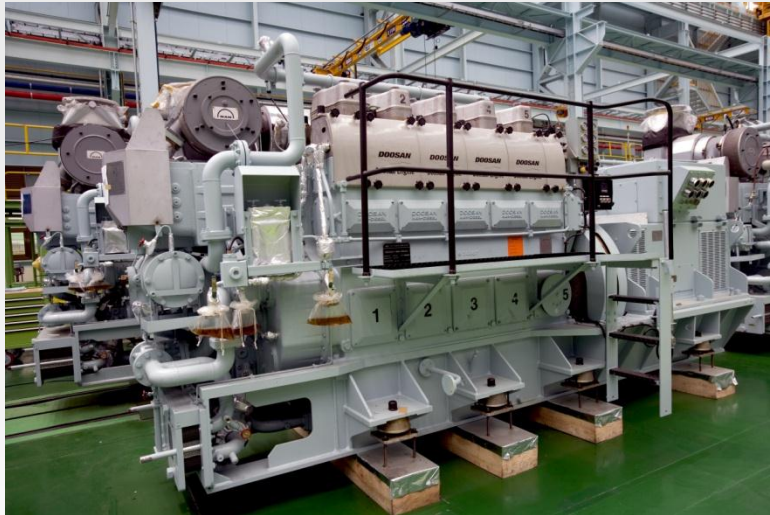


Bulk carrier engines

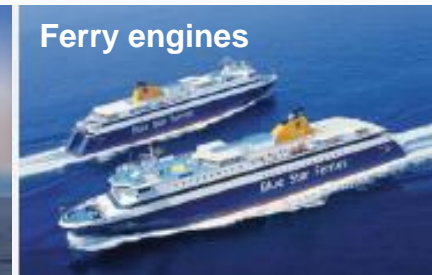


# Appendix 5. Business area : Med-speed diesel engines

## Medium-speed diesel engines



- New growth business  
(Sales : 18% of total sales in '13)
- Uses : Auxiliary engines in large ship engines,  
Propulsion engines in small to mid-sized ships
- Customers : SHI, DSME, China, Brazil



# Appendix 5. Business area : Power plants (Low-speed & Medium-speed)

## Diesel Power Plant

### Med-speed Diesel Power Plant

- Med-speed diesel power plant engine
- Generates 1~25MW power suited for small capacity power plant
- Installed in small islands or remote areas and used for emergency purpose  
(Philippines, Fujairah, Bangladesh)



## Emergency Generators for Nuclear Power Plants

### No.1 supplier of emergency generators for nuclear power plants

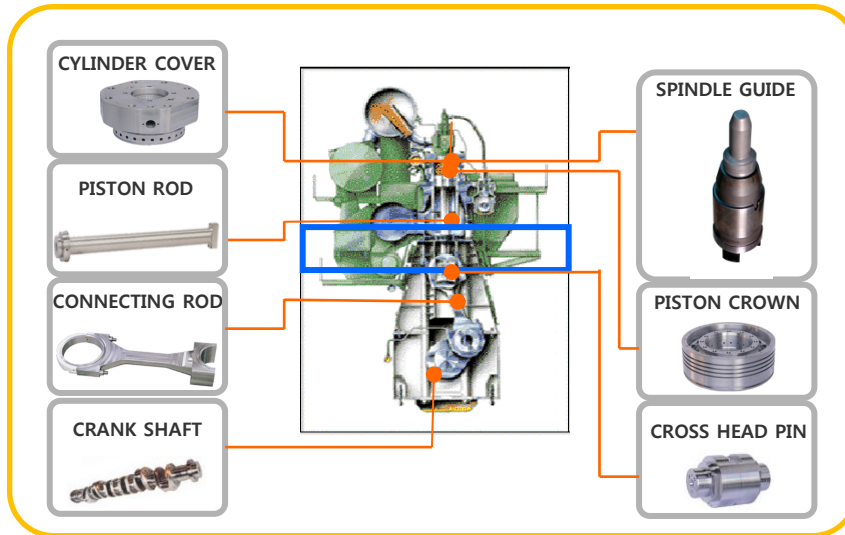
- Exclusive supplier of emergency generators for nuclear power plants in Korea; Orders to grow from rise in nuclear power plant exports
- Generates power capacity of 3,500 ~ 9,000KW
- Supplied to the major nuclear power plants in Korea



※ DPP (Diesel Power Plant) : Power plant with small capacity that is used in a place where construction is difficult (e.g. islands)  
EDG (Emergency Diesel Generator) : EDG is a diesel-powered emergency backup systems for nuclear power plants

# Appendix 5. Business area : Parts & C/S

## Main engine parts



- Uses : Ship engines, Retrofit
- Customers :
  - 14 agencies (12 domestic, 2 overseas)
  - Ship owners: A.P.Moller(Denmark), CSCL(China), NOVO Ship(Russia)
- Market size : 600bn(as of 2012)
- Business overview
  - Domestic production of engine parts
  - Developing paid A/S items



CYLINDER COVER



ROD(CON/PISTON)



ALPHA RETROFIT



CROSS HEAD PIN

## Appendix 6. IR Contact point

For further information about our company or affiliates, please contact us at the following.

| Company              | Name                  | Phone                | E-mail                       |
|----------------------|-----------------------|----------------------|------------------------------|
| <b>Doosan Engine</b> | <b>Mr. LEE Moosup</b> | <b>82-2-519-5878</b> | <b>moosup.lee@doosan.com</b> |
| Doosan Corp.         | Ms. LEE Jiwon         | 82-2-3398-1248       | jiwon4lee@doosan.com         |
| Doosan Heavy         | Ms. WON Youngsoo      | 82-2-513-6789        | youngsoo.won@doosan.com      |
| Doosan Infracore     | Ms. OH Hyunji         | 82-2-3398-8416       | hyunji.oh@doosan.com         |
| Doosan E&C           | Ms. LEE Hayoung       | 82-2-510-3896        | hayoung.lee@doosan.com       |