General Machinery & Special Vehicle Business Operation

June 9, 2009

MITSUBISHI HEAVY INDUSTRIES, LTD.

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General Manager,

General Machinery & Special Vehicle Headquarters

Contents

General Machinery & Special Vehicle (GM&SV) Headquarters: Business Outline

The General Machinery & Special Vehicle (GM&SV) Headquarters strives to make a contribution to social infrastructure development and the environment and energy sectors through its wide range of products, from turbochargers and engines to industrial vehicles and special vehicles.

Main Products

Turbochargers


Variable capacity turbochargers for diesel vehicles

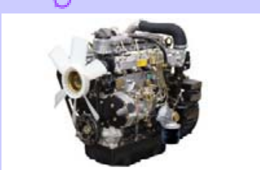

Variable capacity turbochargers for gasoline vehicles

Forklift Trucks (Material Handling Equipment)

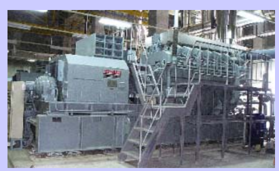

FD25 forklift truck


ESR15N electric reach truck

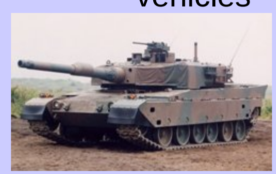
Engines & Equipment


S4S Small-sized diesel engine

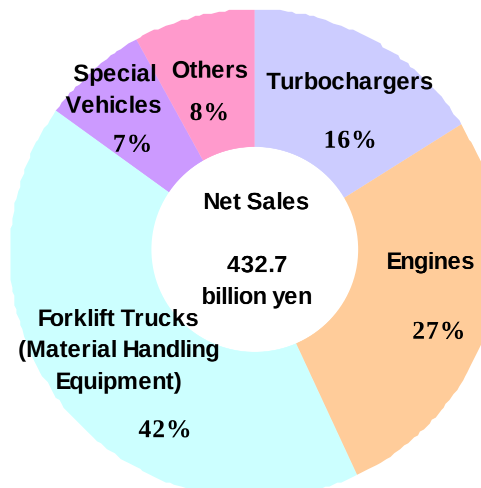

S6RG marine diesel engine


M1203-G diesel generator set

Special vehicles


Type 90 tank

Breakdown of sales for FY2008 (consolidated)



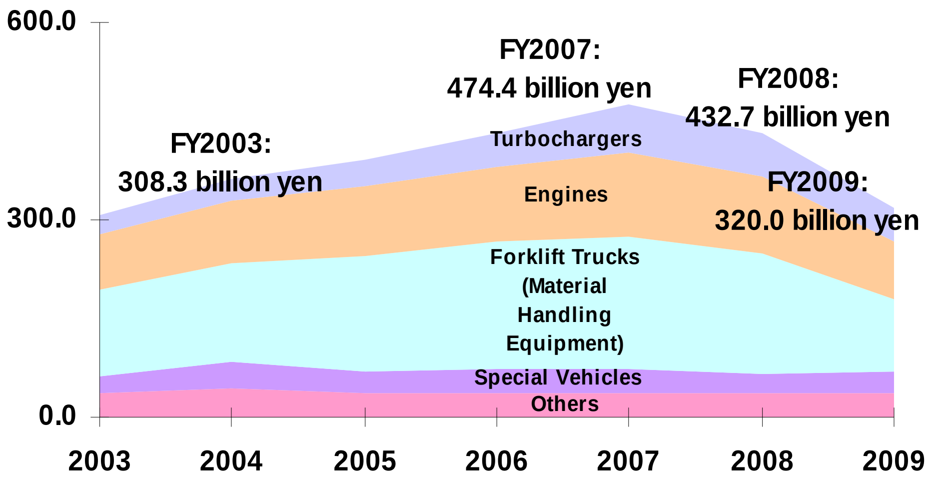
Business Trends and Forecast for FY2009

1. Major downturn in business during FY2008 due to impact of global recession
2. Tough conditions set to continue in FY2009, with sales forecast at 320 billion yen and operating income expected to be down 14 billion yen
3. Emergency measures currently underway to bring about business recovery in spite of difficult conditions

Business environments for individual products

Turbochargers	Considerable decline in demand due to auto manufacturers significantly adjusting and reducing production
Engines	Substantial decline in orders for small-sized engines for construction equipment due to customers scaling back on machinery
Forklift Trucks	Slump in demand in major markets in advanced nations (Japan, US and Europe), coupled with downturn in emerging markets (Russia, etc.)

Net Sales (consolidated)



Forecast for FY2009 (consolidated)

Sales			Operating Income		
2007 (Actual)	2008 (Actual)	2009 (Forecast)	2007 (Actual)	2008 (Actual)	2009 (Forecast)
474.4 billion yen	**432.7** billion yen	**320.0** billion yen	**20.8** billion yen	**-1.3** billion yen	**-14.0** billion yen

FY2008 Summary and Priorities

1. Factors responsible for business slowdown in FY2008

Changes in business environment (factors)	Impact on performance (effects)
Dramatic fall in demand due to impact of global recession	**Hit hard by economic downturn in advanced markets** Major markets in Japan, the US and advanced nations in Europe (full scale expansion into emerging markets still in progress)
Appreciation of the yen (independent from other currencies) **Soaring material costs**	**Profits affected by foreign exchange losses and increased procurement costs** Production based on knock-down production system revolving around Japan (items procured and manufactured in Japan and then exported to overseas bases for assembly)

Urgent need to establish a robust operating structure that is less susceptible to changes in the business environment

(Need to lay foundations capable of ensuring steady profits)

2. Special measures in response to major changes in the business environment

(implemented in FY2008, currently ongoing)

- **Suspension of selected production lines and application for employment adjustment subsidy**
- **Postponement of non-urgent investments**
- **Reassignment of personnel to sites with Ordered Goods**
- **Comprehensive reductions in overtime and general expenses***

* General expenses: Business travel, communication costs, expense accounts, contract charges, printing costs, etc.

Special Measures for FY2009 (Promoting Challenge 09)

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As the current downturn in the market is expected to continue for the time being, we intend to comprehensively cut costs to boost profits and implement product strategies with an emphasis on profitability to lay solid business foundations that will pave the way growth strategies in the future.

Reducing costs	**Pushing full steam ahead with Innovation Activities in Manufacturing** 1. Standardization/commoditization reform (MD* activities) 2. Product reliability reform 3. Supply chain reform
Securing sales	**Expanding service projects, focusing on needs in emerging countries and targeting the energy and environmental sectors**
Tackling the strong yen	**Expanding production in emerging countries (Thailand, China, India)** **Actively stepping up overseas procurement so as to take advantage of the strong yen**

* MD: Modular Design

Future Business Environment (Market Outlook 1)

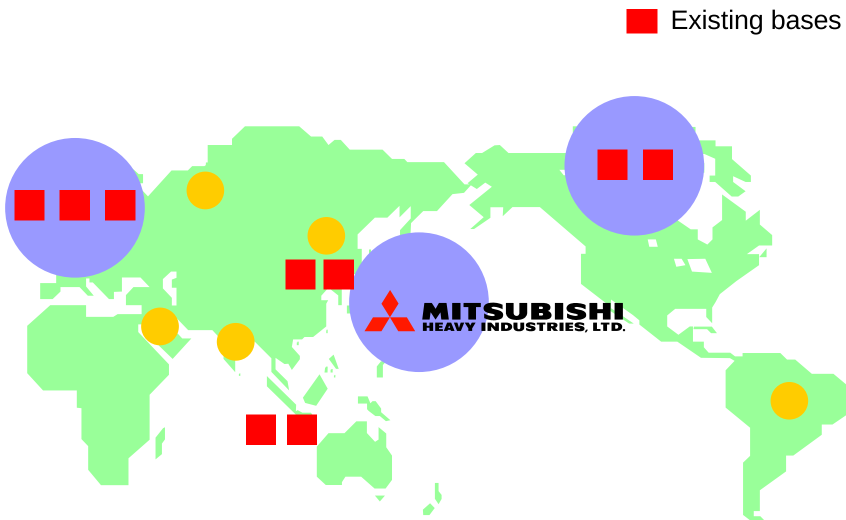
Market scenario after economic recovery (1)

Market polarization

- **Chinese and other emerging markets are expected to get back on track towards rapid growth, creating a massive new market alongside existing advanced markets.**

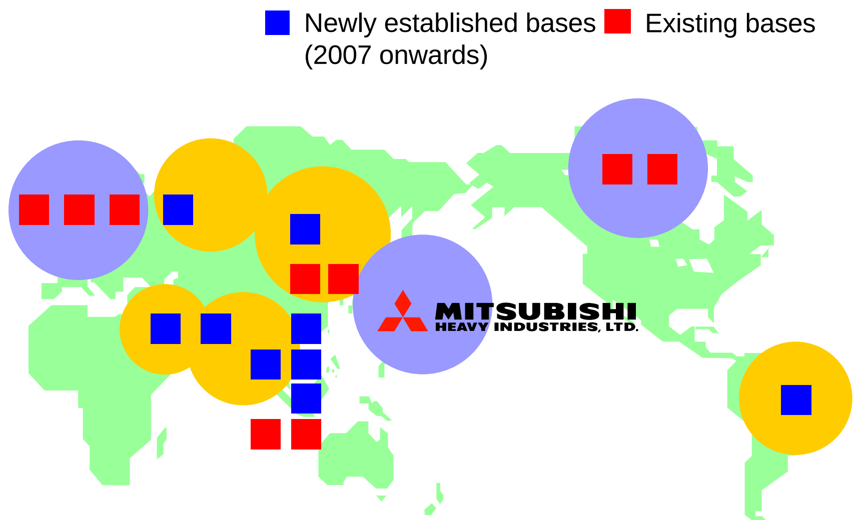
Expanding network of bases

Now



(Majority global coverage via three-way network centered around Japan, the US and Europe)

Future



(Increasing bases in emerging markets to create a multi-polar network)

Envisioned market scale: Advanced markets; Emerging markets

Future Business Environment (Market Outlook 2)

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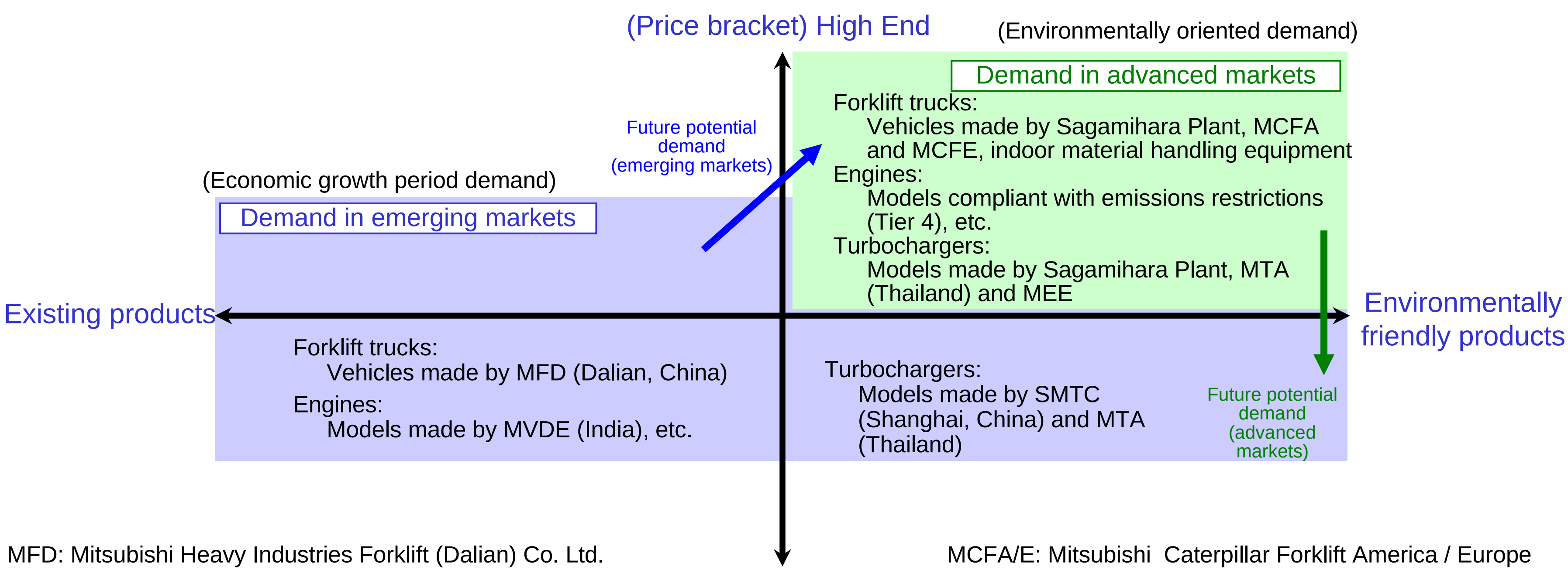
Market scenario after economic recovery (2)

Diversification of demand (growing range of needs in line with market polarization)

- **Increased demand for infrastructure development and in booming logistics sector in emerging markets**
  (Renewed growth from existing sectors, including construction equipment, generators, marine power systems and materials handling equipment such as forklift trucks)
- **Environmentally oriented products set to become mainstream due to tightening of environmental regulations in advanced markets**

Demand Portfolio



MFD: Mitsubishi Heavy Industries Forklift (Dalian) Co. Ltd.
MVDE: MHI-VST Diesel Engines
SMTC: Shanghai MHI Turbocharger Co. Ltd.

MCFA/E: Mitsubishi Caterpillar Forklift America / Europe
MTA: Mitsubishi Turbocharger Asia
MEE: MHI Equipment Europe

Future Growth Strategy
(Active Market Expansion and Optimum Use of Resources)

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Preparations to increase production capacity and establish bases to deal with increased demand in the future are already underway. Even in the severe market situation, necessary resources are maintained, and initiatives to establish business operation structure to adapt with new market framework have started.

1. Market/product strategy (respond to market polarization and diversification of demand)

Expand bases in emerging markets in order to increase incoming orders
(Precisely catering to local needs and establishing a strong market presence)

Launch environmentally friendly products in advanced markets without delay in order to increase market share
(Reinforcing range of indoor material handling equipment, launching engines compliant with emissions restrictions)

2. Production/procurement strategy (establish new global operations aimed at maximum efficiency)

Strengthen capabilities and reviewing division of roles at overseas production bases in order to establish an optimum production system
(Breaking away from knock-down system so as to minimize foreign exchange risks and establishing a specialized production network)

Reinforce procurement capabilities at overseas bases in order to establish a framework for cross-sourcing
(Harnessing cost benefits of overseas procurement and implementing optimum global procurement)

Preparations are also underway to strengthen production capabilities at the Sagamihara Plant and establish new overseas production bases (Thailand (MTA), China (MFD), etc.). The foundations for a new global framework are more or less in place.

3. Technology/quality strategy (differentiate products through the provision of new value and develop next generation technology)

Promote MD* as part of high efficiency product development
(Offering extensive range of variations in line with needs)

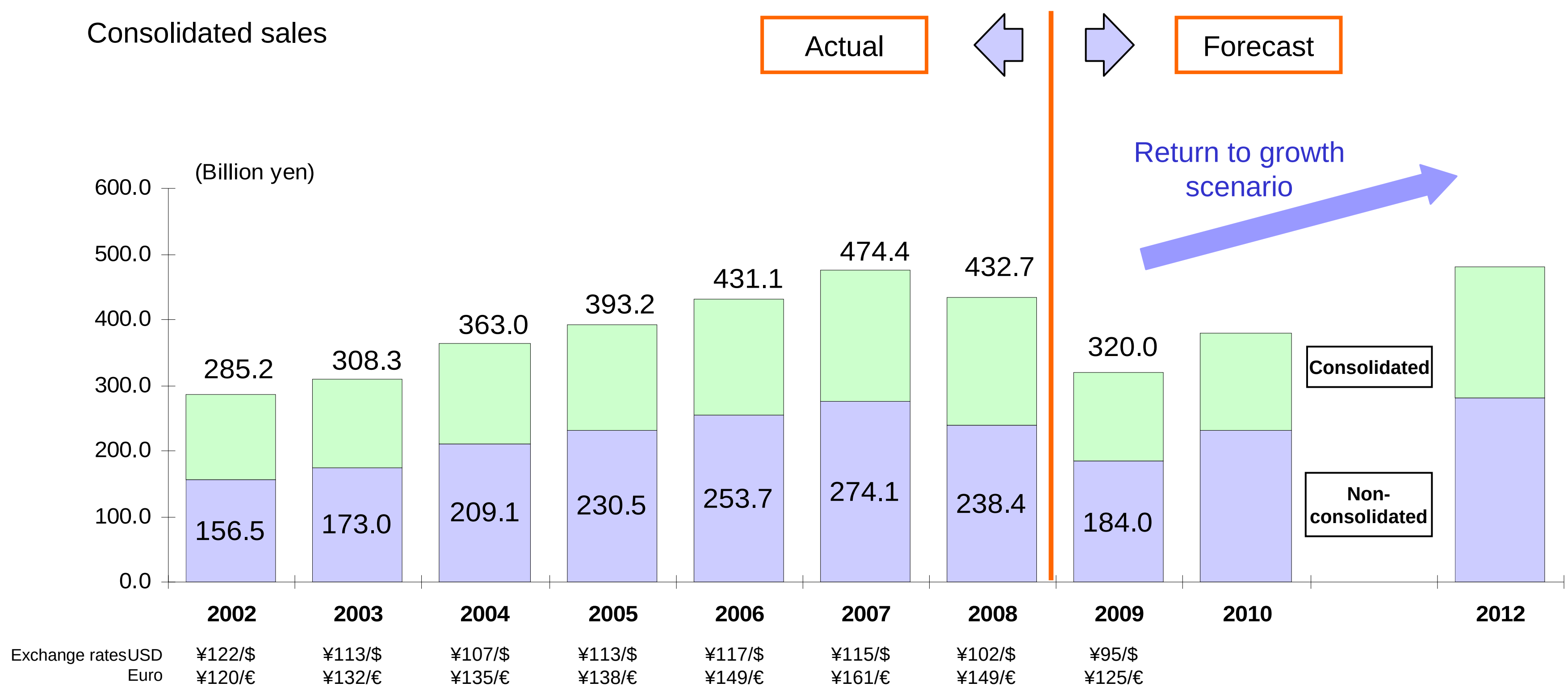
Improve product reliability
(Providing the best possible quality on all markets)

Develop next generation technology and launch new products in the environmental sector

* MD: Modular Design

Business Recovery and Restoration of Growth Scenario

We will implement emergency measures and a forward-looking growth strategy to lay the foundations for business recovery and increase production quickly and effectively in order to return the company to a growth scenario as demand recovers.



Turbocharger Market Trends and Sales Forecasts

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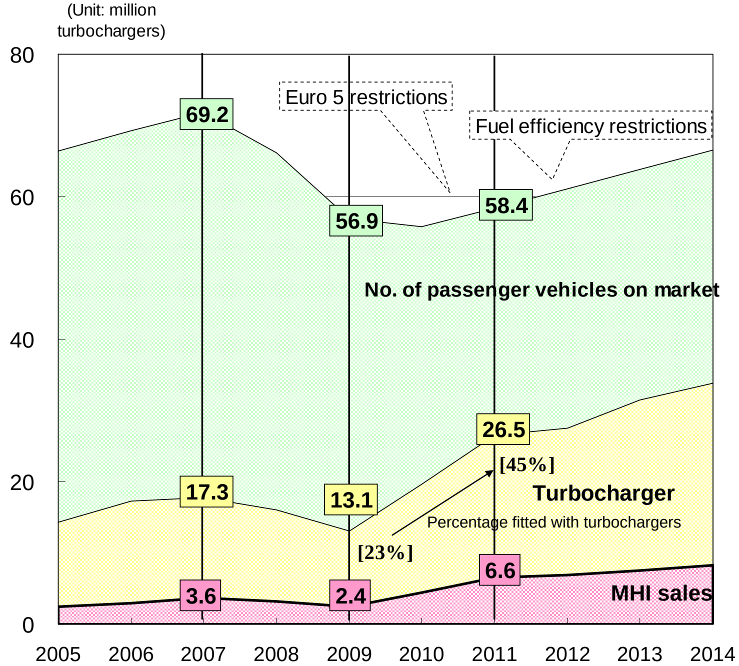
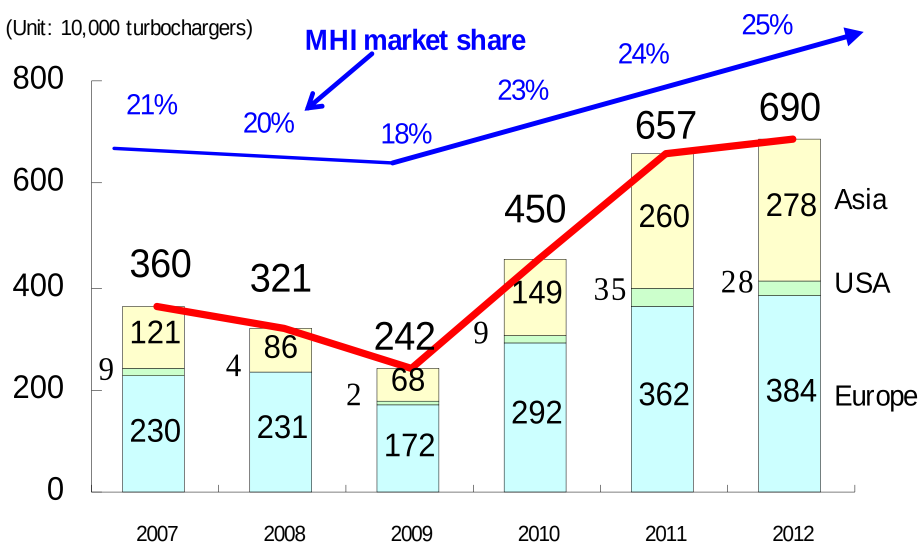
Turbocharger market trends



Sales forecasts and market share according to region



- Turbocharger demand is expected to recover from 2010 onwards due to the tightening of emissions and fuel efficiency restrictions
- Surge in demand expected in Asian markets (China, South Korea and India)

Major Turbocharger Business Strategy (Development, Procurement and Production)

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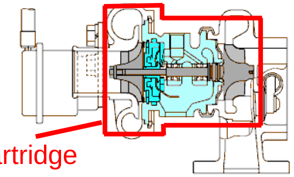
10,000 units	FY2011 global production capacity	
	Cartridges	Assembled units
Production volume	690	690

Turbocharger cross-section



Development strategy

- Comply with emissions restrictions and develop high-performance gasoline turbochargers
  Diesel: Two-stage, 2-way variable and electric power-assisted turbochargers
  Gasoline: High exhaust temperature and variable turbochargers

Production strategy

- Establish three-way increased production framework at Sagamihara Plant, MEE and MTA
- Flexibly accommodate production in order to establish optimum global production

Production | Procurement | Sales | Development

10,000 units	Cartridges	Assembled units
Production volume	250	140

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Accommodate supply and production of KD components

Production | Procurement | Sales

10,000 units	Cartridges	Assembled units
Production volume	100	280

MHI Equipment Europe (MEE)

KYPC (technical partnership)

Shanghai MHI Turbocharger Co. Ltd., etc.

Production | Procurement | Sales

10,000 units	Cartridges	Assembled units
Production volume	40	220

Sales

Mitsubishi Engine North America (MENA)

Accommodate supply and production of KD components

Accommodate supply and production of KD components

Production | Procurement | Sales

10,000 units	Cartridges	Assembled units
Production volume	300	50

Mitsubishi Turbocharger Asia (MTA)

Procurement strategy

- Reinforce procurement capabilities at overseas bases in order to establish world's lowest cost procurement
- Increasing percentage of local and overseas procurement so as to minimize foreign exchange risks

Engine Market Trends and Sales Forecasts

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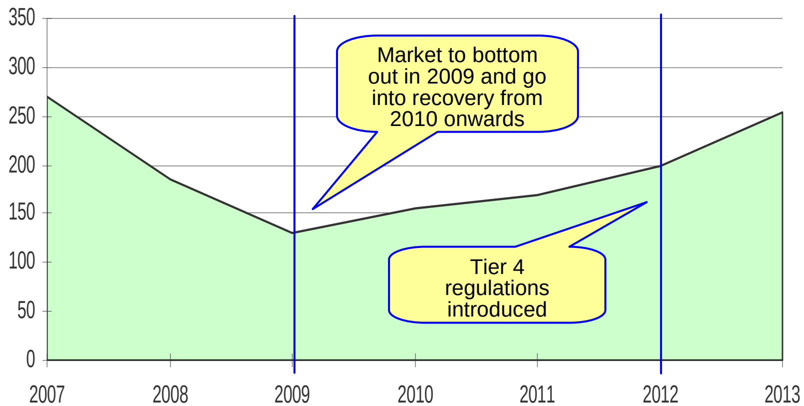
[Industrial machinery and small-sized generators]
Small-sized engine market trends

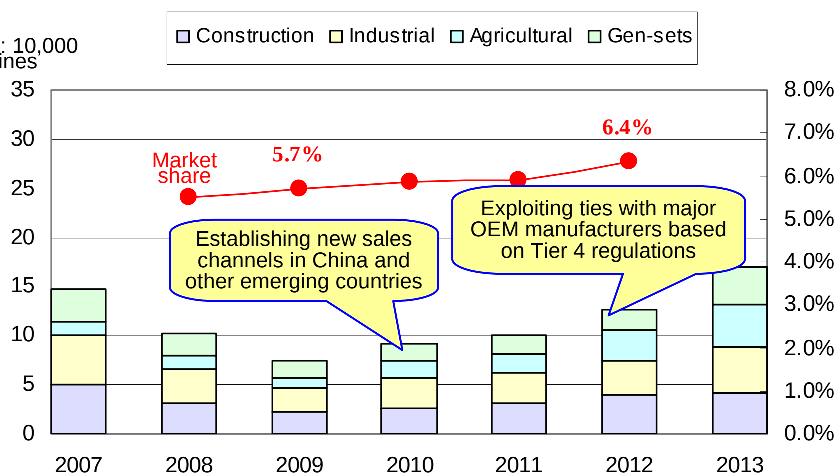
Market trends

Unit: 10,000 engines



Sales forecast

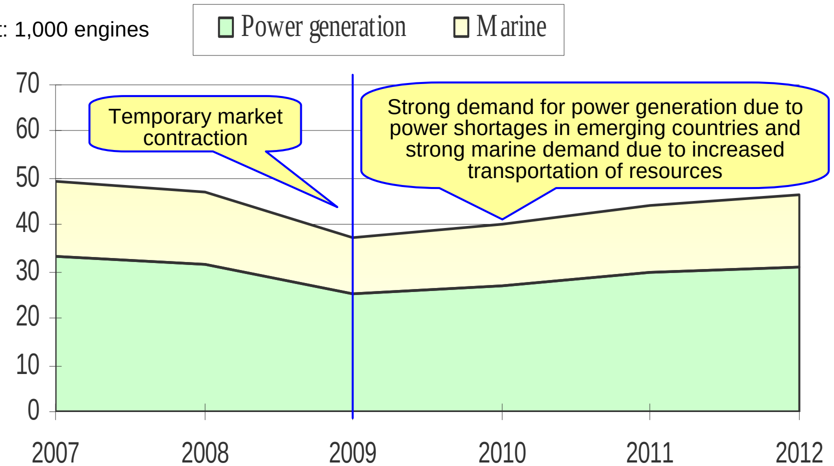
Unit: 10,000 engines



[Medium and large-sized generators and marine engines]
Medium and large-sized engine market trends

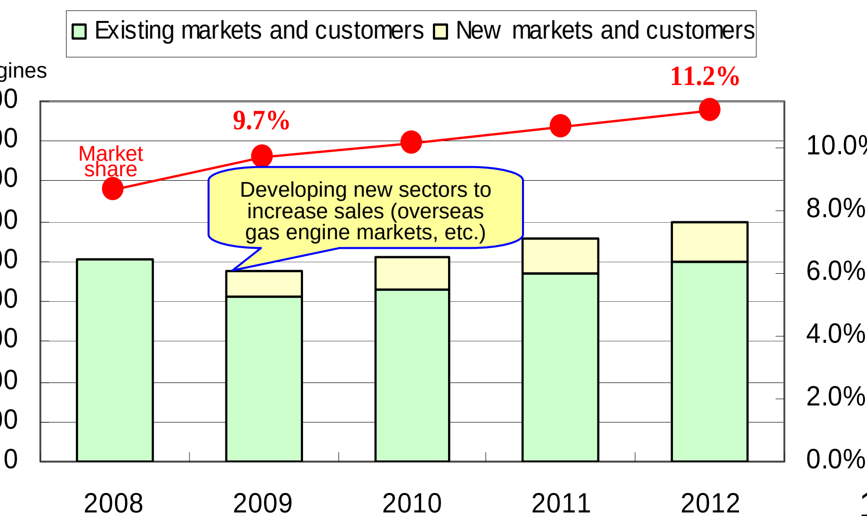
Market trends

Unit: 1,000 engines



Sales forecast

Unit: engines



Major Engine Business Strategy
(Production, Procurement and Sales)

Global business expansion aimed at adapting to diversifying market needs through low costs, high quality and shorted lead time

Europe

- MEE (Europe)

Develop the major OEMs in Europe (based on environmental regulations (Tier 4, hybrid power systems, etc.))

- MEA (France)

Promote local procurement at European production bases (main medium-sized engine products (5Cs))

Asia

- MHIES-A (China/Asia)

Expand sales and develop new markets in Asia (catering to needs in growth markets in emerging countries)

- MVDE (India)

Promote local and overseas procurement, particularly at new plants (small-sized engine production plant completed in Nov 08)

USA

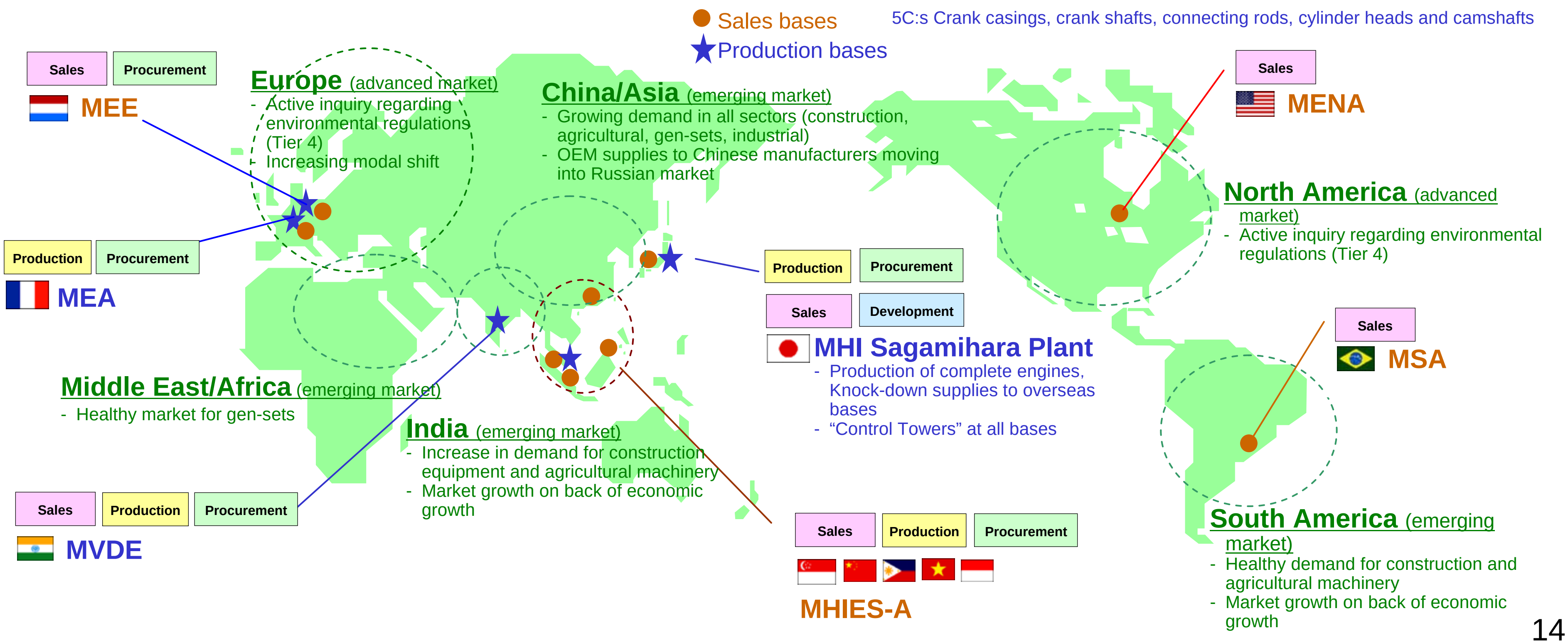
- MENA (North America)

Exploit ties with major OEMs in North America (based on environmental regulations (Tier 4, hybrid power systems, etc.))

- MSA (Brazil)

Exploit ties with new OEMs in South America (increasing sales to construction and agricultural machinery manufacturers)

5C:s Crank casings, crank shafts, connecting rods, cylinder heads and camshafts



Major Engine Business Strategy (Development)

Catering to market needs

Small-sized engines

- **Halve turnaround time by introducing MD production methods**
  Aiming to cut installation and development costs as part of Tier 4 development

Medium and large-sized engines and gen-sets

- **Cater to diversifying customer needs**
  Large generation plant systems with small-sized standard specifications in response to demand for high-output products

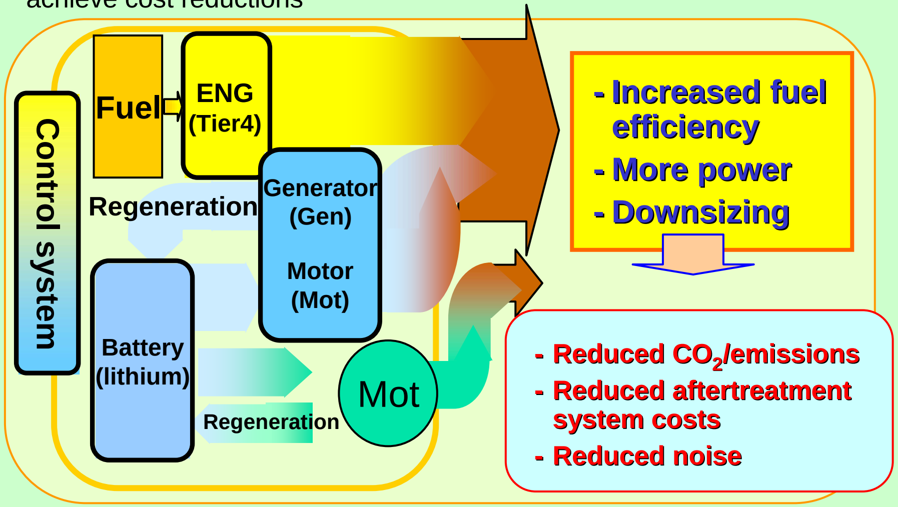
MGS2000C gen-sets for Braintech (Brazil)
(88 S16R gen-sets)

Compliance with environmental regulations

- **Develop core components**
  Developing core emission reduction systems (black smoke filters, emission recycling) and air systems (turbochargers, etc.) using in-house technology in order to secure a competitive advantage
- **Focus on OEM capabilities for industrial vehicles**
  Capitalizing on strengths as a vehicle manufacturer to flexibly cater to a diverse range of needs for vehicles made by other companies

Next generation technology [hybrid power systems]

- **Provide new markets with low cost, high efficiency power systems for the environmentally-friendly age**
  Utilizing MHI's overall technical capabilities as a vehicle and component manufacturer, develop new power trains for industrial vehicles and hybrid system OEM vehicles
- **Develop systems using components developed in-house**
  Tier 4 compliant engines, lithium ion batteries, power electronic systems, motors and control technologies
- **Take advantages of low noise, low fuel consumption and low life cycle cost technologies in response to environmental restrictions**
  - Assisting engine torque and power by motor, one-level higher system performance is achieved
    Motor-assisted downsized engines deliver better fuel efficiency
  - Reducing emissions and simplifying aftertreatment systems in order to achieve cost reductions



Forklift Truck Market Trends

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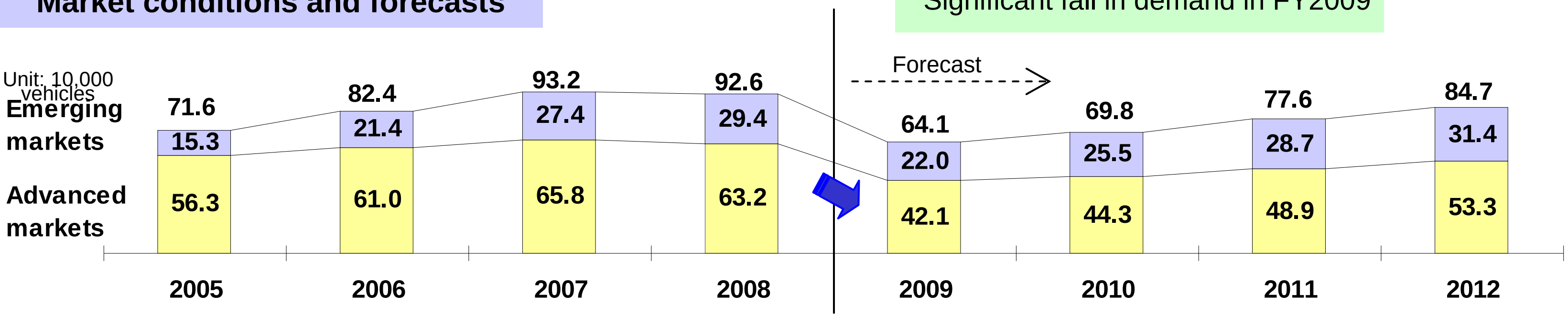
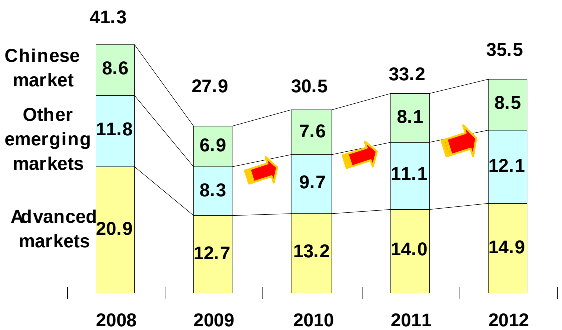
Market conditions and forecasts

Significant fall in demand in FY2009



Internal combustion counterbalance (CB) forklift trucks

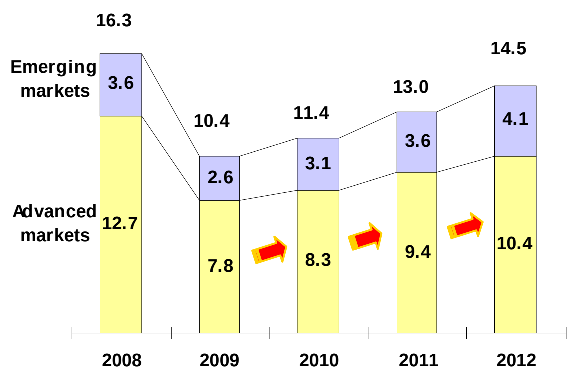
Up 30% (09 → 12)



Despite peaking in advanced markets, demand is still expected to increase in China and other developing markets

Electric counterbalance (CB) forklift trucks

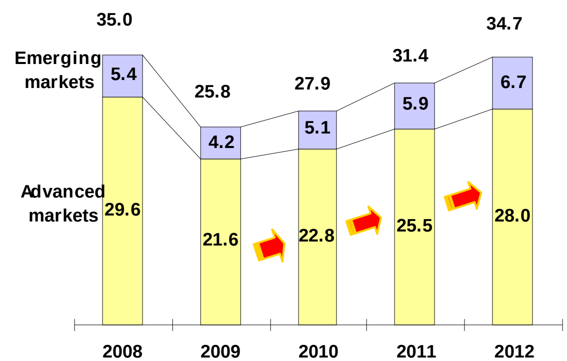
Up 40% (09 → 12)



Demand expected to recover, particularly in advanced markets

Warehouse equipment

Up 35% (09 → 12)



Demand expected to recover, particularly in advanced markets, as with electric CB vehicles

Major Forklift Truck Business Strategy (Production, Procurement and Sales)

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1. Targeting Chinese and other emerging markets

◆ **Establish and reinforce sales and service network**
- Establish distributor network for locally-manufactured Chinese trucks (increasing number of distributors)
- Set up distributors in new territories such as North Africa and Central Asia

◆ **Commence local production in China**
Establish new plants (MFD), commence local production of internal combustion trucks in October 2009 and strengthen supply capabilities and cost competitiveness

MFD: Mitsubishi Heavy Industries Forklift (Dalian) Co. Ltd.

2. Market strategy in advanced markets

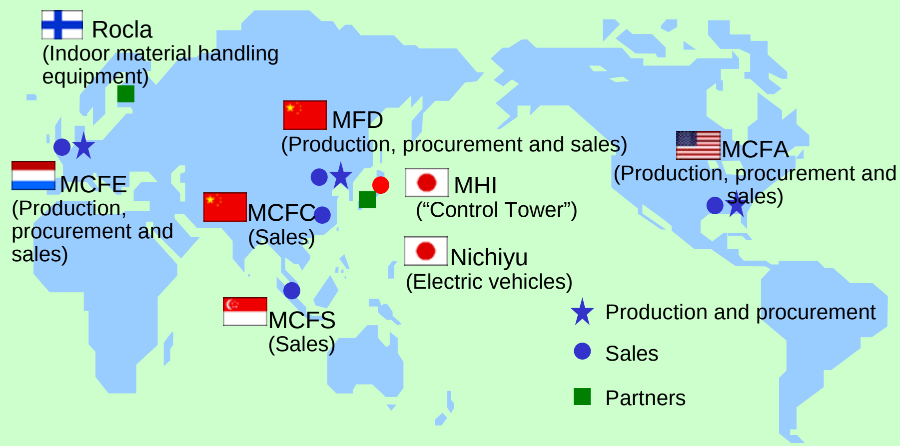
◆ **Further strengthen partnerships with Nichiyu and Rocla in order to cater to increasing demand for electric trucks and warehouse equipments**
- Enhance cost competitiveness through joint purchase
- Promote joint development (electric CB trucks, order pickers for US market)

◆ **Integrate domestic sales network with Nichiyu**
Harness full line-up of products to target new customer segments (April 2009 onwards)

MHI's main market segments for internal combustion trucks (farming and construction industries) + **Nichiyu's main market segments for electric trucks (electronics and food industries)** ⇒ **Large customer segments for internal combustion and electric trucks (transport and auto industries)**

3. Production/procurement strategy

◆ **Establish a cost competitive operating structure that is flexible to exchange rate fluctuations**
Currently operating knock-down system originating from Japan
⇒ Harness global strengths and reinforce capabilities at individual bases to establish an optimum production and procurement system



Envisioned position

Working in partnership with Nichiyu and Rocla, we are aiming to secure the number three position in the world market as a group, with an eye to securing the top spot in the future.

1	
2	
3	
4	
5	MHI
13	NICHIYU
20	Rocla

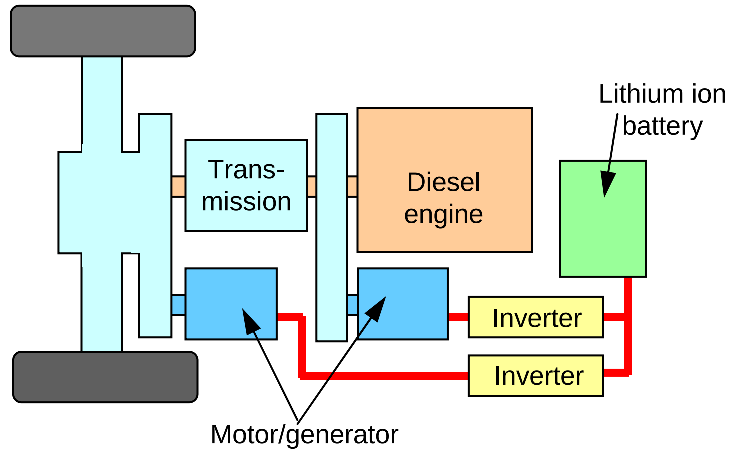
Major Forklift Truck Business Strategy (Development)

Launching world's first hybrid forklift truck onto the market

Domestic supplies of 4-5t trucks to start before the end of the year, which is based on the latest internal combustion model

- Developing a hybrid power system combining MHI's unique engines, power electronic equipment, controllers and lithium ion battery technology
- Maintaining the basic performance of existing vehicles responding to public demand for clean emissions, reduced noise levels and improve fuel efficiency (30% reduction in fuel costs)

Series/parallel hybrid system



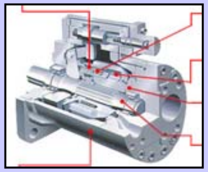
Special Vehicles
(Product Development Based on Advanced Technology)

Work is underway on the development of next generation tanks based on MHI's unique advanced vehicle technology (going into mass production from 2010). We are also reinforcing our product competitiveness based on advanced technology built up in the field of large material handling equipment (motor graders, rocket carriers, automatic guided vehicles, etc.), in which technical differentiation is crucial to securing a share of the market.

Advanced technology built up in the field of special vehicles

Next generation tank development

Electronic controlled unit injectors

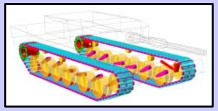


Hydraulic motors

Component technology (engines, transmissions, etc.)

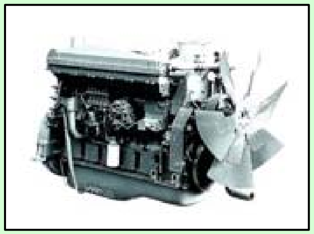
Tracked vehicle technology

Servo/power electronic control technology



Suspension and crawler track structures

Motor control systems



Marine engines

120t loading carriers for iron/steel companies

Mobile harbor cranes

H-Ⅱ rocket carriers

Motor graders

Fire extinguishing robots for fire stations

Automatic guided vehicles for iron/steel companies

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