Special Measures for FY2009

2009.4.28

MITSUBISHI
HEAVY INDUSTRIES, LTD.

Hideaki Omiya, President
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1. Overview of FY2008 Performance

**First half**

As the global economy, especially emerging economies, was solid, the Company achieved overall increases in both sales and profit.

Progressed in line with the 2008 Business Plan
- Posted record sales in the first half (with overseas sales accounting for 51%).
- Focused on energy and environment-related operations using the overall strength of the Group (Established an Energy and Environment Business Strategy Office).
- Standardization/commoditization reform (MD Project) is underway in 70% of all products.

**Net sales**

<table>
<thead>
<tr>
<th></th>
<th>(In billion yen)</th>
<th>2007 1H</th>
<th>2008 1H</th>
<th>2007 2H</th>
<th>2008 2H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass and Medium-Lot Manufactured Machinery</td>
<td>(Of the total)</td>
<td>1,446.4</td>
<td>1,574.6</td>
<td>1,756.6</td>
<td>1,801.0</td>
</tr>
</tbody>
</table>

**Operating income**

<table>
<thead>
<tr>
<th></th>
<th>(In billion yen)</th>
<th>2007 1H</th>
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<th>2007 2H</th>
<th>2008 2H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass and Medium-Lot Manufactured Machinery</td>
<td>(Of the total)</td>
<td>55.8</td>
<td>72.7</td>
<td>80.1</td>
<td>33.1</td>
</tr>
</tbody>
</table>

**Second half**

With the global slowdown, sales of the Mass and Medium-Lot Manufactured Machinery business plummeted. With the sharp appreciation of the yen, profit declined.

Took emergency steps to improve earnings.
(December 2008)
- Suspended some lines of the Mass and Medium-Lot Manufactured Machinery business.
- Redeployed human resources to the Ordered Goods business.
- Expanded service engineering work.

Achieved operating income of over ¥100.0 billion.

(On the total) Figures in Mass and Medium-Lot Manufactured Machinery

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<tbody>
<tr>
<td>MD: modular design</td>
<td></td>
<td>445.0</td>
<td>448.2</td>
<td>468.5</td>
<td>357.1</td>
</tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MD: modular design</td>
<td></td>
<td>18.0</td>
<td>15.5</td>
<td>22.0</td>
<td>-22.5</td>
</tr>
</tbody>
</table>
## 2. Recent Business Situation by Segment

### Shipbuilding & Ocean Development
- New negotiations over commercial vessels were sluggish. We actively responded to demand for vessels for government and other public offices.

### Power Systems
- Plant negotiations were postponed or suspended because of difficulties raising funds.
- We hope that demand will increase, reflecting an electricity shortage in emerging countries and global action to reduce CO₂.

### Machinery & Steel Structures
- We expect firm demand for fertilizer plants in response to the breadbasket issue and for methanol plants using natural gas.
- We hope that the railroad business will expand with economic stimulus measures.
- We are looking for a recovery in demand for metals machinery in emerging economies.

### Aerospace
- Demand for commercial aircraft slowed temporarily as airlines faced worsening business conditions.
- We started mass producing Boeing 787s (new model). (For reference: 886 B787s (Boeing) at the end of March)

### Mass and Medium-Lot Manufactured Machinery
- GM & SV:
  - Physical distribution equipment and engines: Global demand continued to fall. We are looking for a recovery in demand in China and India with economic stimulus measures.
  - Turbochargers: Demand continued to decline with the production cuts made by automakers.
- Air-Con:
  - Residential air conditioners and air conditioners for buildings: The important European market continued to slow.
  - Automotive thermal system: Auto manufacturers in Japan and the United States, our major customers, continued to slash production.
- Industrial Machinery:
  - Demand for printing machinery continued to fall, reflecting the economic downturn.
  - Gear machines for automobiles slowed. Negotiations over large machines are moving in China.
3. Outlook for FY2009
Performance and Emergency Plan

The business environment will remain difficult in FY2009.

- Demand is continuing to decline with the global economic slowdown.
- The yen remains strong.
- We have frozen targets (for FY2010) in the 2008 Business Plan.
- To secure a profit in FY2009 and FY2010, we will launch a Company-wide emergency plan named “Challenge 09”
4. Outlook for FY2009 Performance (1)

Change in operating income

**FY2008 → FY2009**
- The results of the Mass and Medium-Lot Manufactured Machinery business are deteriorating rapidly due to the global slowdown.
- The results of the Ordered Goods business will remain higher than the level in FY2007 despite the effects of exchange rates and falling sales.

Factors of change in operating income

- **Exchange rate**
- **Change in sales**
- **Rising materials costs**
- **Increase in R&D**

**Challenge 09**

Against US dollar: 103yen → 95yen
Against euro: 145yen → 125yen
### 4. Outlook for FY2009 Performance (2)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Segment</th>
<th>Order received</th>
<th>Net sales</th>
<th>Operating income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2008</td>
<td>2009 Forecast</td>
<td>2008</td>
</tr>
<tr>
<td>Ordered Goods</td>
<td>Shipbuilding &amp; Ocean Development</td>
<td>271.3</td>
<td>120.0</td>
<td>240.1</td>
</tr>
<tr>
<td></td>
<td>Power Systems</td>
<td>1,148.8</td>
<td>1,380.0</td>
<td>1,209.1</td>
</tr>
<tr>
<td></td>
<td>Machinery &amp; Steel Structures</td>
<td>527.8</td>
<td>420.0</td>
<td>542.2</td>
</tr>
<tr>
<td></td>
<td>Aerospace</td>
<td>510.8</td>
<td>550.0</td>
<td>512.3</td>
</tr>
<tr>
<td></td>
<td>Ordered Goods total</td>
<td>2,458.9</td>
<td>2,470.0</td>
<td>2,503.8</td>
</tr>
<tr>
<td>Mass and Medium-Lot Manufactured Machinery</td>
<td>GM &amp; SV</td>
<td>439.3</td>
<td>320.0</td>
<td>432.7</td>
</tr>
<tr>
<td></td>
<td>Air-Con</td>
<td>186.2</td>
<td>140.0</td>
<td>187.5</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>141.3</td>
<td>120.0</td>
<td>185.0</td>
</tr>
<tr>
<td></td>
<td>Mass and Medium-Lot Manufactured Machinery total</td>
<td>767.0</td>
<td>580.0</td>
<td>805.4</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>99.0</td>
<td>100.0</td>
<td>121.1</td>
</tr>
<tr>
<td></td>
<td>Inter-group consolidation adjustments</td>
<td>-56.2</td>
<td>-50.0</td>
<td>-54.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3,268.7</td>
<td>3,100.0</td>
<td>3,375.6</td>
</tr>
</tbody>
</table>

* Unfixed foreign currencies: 3.5 billion dollars, 0.9 billion euros
5. Outline of FY2009 Company-Wide Action

Promoting two-track management combining an emergency plan for securing a profit in the short term with a plan for enhancing growth

**Challenge 09: The Company is working as one to overcome the current challenges**

- Cost reduction activities
- Securing sales
- Action for strong yen

**Continuing to bolster growth businesses in the difficult business environment**

Continuing to enhance resources for growth businesses (R&D expenses, capital expenditure, investment and loans, and employees)
6. Company-Wide Emergency Plan
“Challenge 09” (1)

1. **Bolstering and accelerating innovation in manufacturing**

   - **Establishing the foundations through innovation in three main areas**

     - **(1) Standardization/commoditization reform (MD Project):**
       - Expanding the repeat production model by commoditizing drawings and parts more quickly
         - (1) Targeting products that account for 70% of the net sales
         - (2) Reducing lead times
           -- Lead times were reduced for 17% of products in FY2008 (ongoing activity, aiming for 30%)

     - **(2) Product liability reform:**
       - Reforming the manufacturing processes using simulation technology
         (Improving the yield ratio of castings and accuracy in setting the clearance of turbine blades)
       - Bolstering the quality control system with partners

     - **(3) Supply chain reform:**
       - Visualizing the flow of goods and information through the entire supply chain using IT
       - Speeding up VE activities by setting up a Company-wide business partner team

   - **Upgrading EPC operations:**
     (Risk management reflecting best practice and the improvement of IT tools for operations)

   - **Accelerating value chain business process reform by deploying engineers of the Technical Headquarters:**
     (Eliminating bottleneck processes and developing business support and SCM systems)

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MD: modular design, VE: Value Engineering, EPC: Engineering, Procurement and Construction, SCM: Supply Chain Management
6. Company-Wide Emergency Plan
“Challenge 09” (2)

2. Cutting costs across the board
   - Cutting general expenses
     (including travel expense, printing cost, office supplies expense, communication expense, and entertaining expense)
   - Reducing overtime by improving business efficiency

3. Action for Mass and Medium-Lot Manufactured Machinery
   - Rearranging working location of about 1,000 employees
   - Adjusting operating time by production line
     (Target production lines: Sagamihara plant: about 40%; Matsusaka plant: about 80%; Ritto plant: about 50%; Itosaki plant: about 60%)
   - Reviewing the capital expenditure plan
     (Capital expenditure is reduced in FY2009 with ¥14.0 billion carried over from the 2008 business plan)
   - Accelerating overseas production plans (Turbochargers in MTA in Thailand, forklifts in Dalian in China)
   - MCC, an automotive thermal systems subsidiary in the United States, will cease production (July 2009).
   - Reorganizing the overseas printing machinery selling system

4. Cutting officers’ remuneration
   - Underway from April 2009

MTA: Mitsubishi Turbocharger Asia Co., Ltd.  MCC: Mitsubishi Heavy Industries Climate Control Inc.
6. Company-Wide Emergency Plan “Challenge 09” (3)

- Bolstering customer visit services and proposal-based services
- Expanding after-sales services for resold pre-owned machinery (e.g. sheet-fed offset presses for Korea)
- Sharing market information and share-ride sales activities by setting up a Company-wide sales manager meeting
- Discussing the latest market and customer trends intensively at an Executive Committee meeting every other week

- Expanding global sourcing
  Discovering good suppliers by sharing information on suppliers obtained by the material department of each business site

- Accelerating overseas production plans
  (Bringing forward the production of turbochargers in MTA in Thailand and forklifts in Dalian in China; beginning the operation of a joint-venture plant making marine diesel engines in China)

**Action for strong yen**

- Overseas sales (non-consolidated)
  FY2002: 1.9 times
  FY2008: 2.4 times

- Amount of overseas procurement (non-consolidated)
  FY2002: 3.2 times
  FY2008:...

- Orders received by overseas production Group companies
  FY2002:...
  FY2008: (13 companies)(21 companies)
7. Action to Enhance Growth Businesses (1)

Energy & Environment (1)

Speeding up the global expansion of Energy & Environment

- **Gas turbines:**
  - Launching a 1600ºC J-series gas turbine featuring the largest power generation capacity and highest thermal efficiency in the world
  - Building a system producing 50 units annually
  - Developing steam turbines for GTCC jointly with GE
  - Tokyo Electric Power Kawasaki thermal power plant (where our GT was delivered) received the Best Plant Award of Power Engineering in 2008.

- **Integrated coal gasification combined cycle (IGCC)**
  - IGCC+CCS: Speeding up commercialization, using the world’s leading technologies
  - Achieved a world first with 2,000 hours of continuous operation at the Nakoso IGCC demonstration plant

- **Renewable energy:**
  - Wind turbines: Building a global production system; accelerating the promotion of offshore wind turbines
  - Continuing to promote solar cells, the world’s top geothermal generation, and biomass power generation

- **Nuclear energy:**
  - Expanding orders for global strategic reactors (US/EU-APWR, ATMEA1)
  - Expanding the fuel business (establishment of Mitsubishi Nuclear Fuel Co., Ltd.)

- **Lithium ion batteries: Promoting development for manufacturing**

7. Action to Enhance Growth Businesses (2)

Providing solutions in all Energy & Environment fields, using cutting-edge technologies

The Energy & Environment Business Strategy Office is building a comprehensive system for advancing this business.

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7. Action to Enhance Growth Businesses (3)

Nakoso Power Plant
IGCC Demo. Plant (250MW)

- Demonstrating reliability comparable to conventional thermal power plants
  - Achieving a world first with 2,000 hours of continuous operations
  - Starting preparations for continuous operations for 5,000 hours and a test using low-grade coal

IGCC: Integrated coal Gasification Combined Cycle, CCS: Carbon dioxide Capture and Storage
### 7. Action to Enhance Growth Businesses (4)

**Aerospace**

**Promoting advanced projects with certainty**
- **Commercial aircraft business:**
  - MRJ: First flight in 2011; delivery of first aircraft in 2013
  - Boeing 787 composite-material wing boxes: Starting mass production in earnest
  - Engines (TRENT1000, TRENT XWB) for commercial aircraft: Promoting development and production

- **Space equipment business:**
  - H-II B rocket: Launching the first rocket in September 2009
    (The rocket will be mounted with the H-II transfer vehicle (HTV) for an demonstration of international space station technology.)

- **Defence business:** Participating to the project for the successor to the F-4 Fighter; promoting the joint development of BMD by Japan and the U.S.


**Transportation Systems, Plants**

**Expanding global operations in plant engineering**
- **Fertilizer and methanol plants:** Expanding orders, especially for emerging countries
- **CO₂ capture plants:** Expanding sales for EOR and CCS in addition to sales for chemicals especially overseas
- **Transportation systems:** Promoting large-scale projects

EOR: Enhanced Oil Recovery
CCS: Carbon Capture and Storage
APM: Automated People Mover
7. Action to Enhance Growth Businesses (5)

- Building a global network for power systems after-sales service
  - Bolstering operations in Europe and the Middle East by acquiring MP in April 2009

(Establishing a trilateral global system)
  - Ten repair bases (U.S. and Europe / Middle East and Asia)
  - Nine field service bases (U.S. and Europe / Middle East and Asia)

- Expanding alliances: Increasing sales of key components and acquiring licensing fees
  - Expanding the joint venture with L&T of India (boilers and steam turbines)

- Investing in chemical plants for the Middle East; acquiring operational expertise

- Strengthening the business for transportation system operation
  - Established an O&M operating company in the U.S. (January 2009)

MP: Maintenance Partners NV, L&T: Larsen & Toubro Limited, O&M: Operation & Maintenance

Building the optimal system for operation (Machinery & Steel Structures Headquarters)

- Creating processes geared to global operations
- Transforming the business into a profitable unit
Continuing to invest in growth businesses and key technologies

- R&D expenses of ¥120.0 billion for FY2009
  - Investing in major development projects
  - Developing key technologies that will lead to next-generation products
    (270 technologies or more in three years)
  - Working with the world’s leading thinkers through open innovation
    (Speeding up collaboration with Tsinghua University, Cambridge University, MIT, among other institutions)

Recruiting key personnel for growth

- Planning to hire about 1,500 people in FY2009
  (About 1,800 people were hired in FY2008.)
  - Growth businesses: Actively recruiting in response to the expansion of operations
  - Mass and Medium-Lot Manufactured Machinery: Continuing to recruit key personnel
8. Developing the Next Medium-Term Management Plan

Developing a new business plan based on changes in the business environment

- Accelerating the expansion of growth businesses
  - Energy and Environment
  - Transportation Systems
  - Aerospace
  - Chemical Plants

- Reviewing the business strategy
  - Mass and Medium-Lot Manufactured Machinery
  - Shipbuilding & Ocean Development

Product strategies

Business process

- Seeking new innovation in manufacturing
  - Production and procurement systems in response to the standardization/commoditization reform
  - Establishing a global production system

- Modernizing business processes
  - Promotion of integration and IT

Perspectives in developing a new plan

- Rebuilding the business structure
  → Bolstering earnings capabilities in a new competitive environment

- Developing global resources
  → Expanding M&A and overseas production

- Establishing the optimal business operation system
  → Reviewing the organizational structure including alliances and Group companies

2010 Business Plan (to be announced in April 2010)