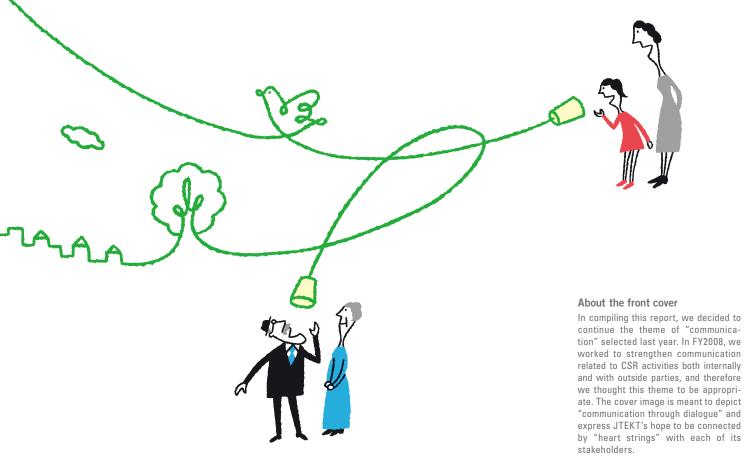
# **CSR Report** 2009



## Making Communication our Strength

Aiming for a stronger future, JTEKT places great emphasis on close communication with society. In FY2008, JTEKT established a new CSR Promotion Committee and issued a CSR Policy. JTEKT considers this CSR Report 2009 to be a tool for gaining society's understanding of the company's efforts to raise its CSR activities to a new level, explaining challenges, and thinking together with everyone how to proceed toward the future.



## JTEKT CSR Report 2009

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#### Applicability of JTEKT CSR Report 2009

Period

FY2008 (April 2008 - March 2009) \*Some items include data from other periods.

#### Activities

All activities of JTEKT Corporation \*Some items include activities of affiliated companies.

#### Content

The 66-page FY2008 report included "environmental data by location" and "efforts of group companies," but we have omitted this information in the 2009 report, resulting in a reduction to 48 pages. You may view the FY2009 report's environmental data by location at our company website: http://www.jtekt.co.jp/

#### **Reference guidelines**

© GRI (Global Reporting Initiative), "Sustainability Reporting Guidelines 2006" (third edition)

◎ Japan's Ministry of the Environment, "Environmental Reporting Guidelines" (2007 edition)

## **Company Information**

#### Company Profile

Company name	JTEKT Corporation
Headquarter	No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka 542-8502 Japan
Head Offices	<ul> <li>Nagoya Head Office</li> <li>No. 7-1, Meieki 4-chome, Nakamura-ku, Nagoya, Aichi Pref. 450-8515 Japan</li> <li>Osaka Head Office</li> <li>No. 5-8, Minamisemba 3-chome, Chuo-ku, Osaka 542-8502 Japan</li> </ul>
President	Motohiko Yokoyama
Capital	36,800 million yen (as of March 31, 2009)
Number of employees	33,029 (consolidated)(as of March 31, 2009) 10,091 (nonconsolidated)(as of March 31, 2009)
Sales	1,017 billion yen (consolidated) (FY2008) 588.4 billion yen (nonconsolidated)(FY2008)
Ordinary income	11.1 billion yen (consolidated)(FY2008) 5.6 billion yen (nonconsolidated)(FY2008)
Consolidated subsidiaries	97 (31 in Japan, 66 overseas)

#### Company History

#### May 2005

Koyo Seiko Co., Ltd. and Toyoda Machine Works Ltd. concluded merger agreement

#### January 2006

JTEKT Corporation established

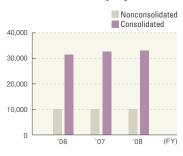
#### July 2007

Electrical power steering system manufacturer JTEKT Sona Automotive India Ltd. established in India jointly with Sona Koyo Steering Systems Ltd.

#### August 2008

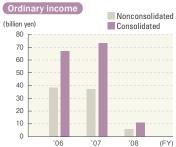
Machine tool sales and service company Toyoda Micromatic Machinery India Limited established in India jointly with Micromatic Grinding Technologies

#### Number of Employees

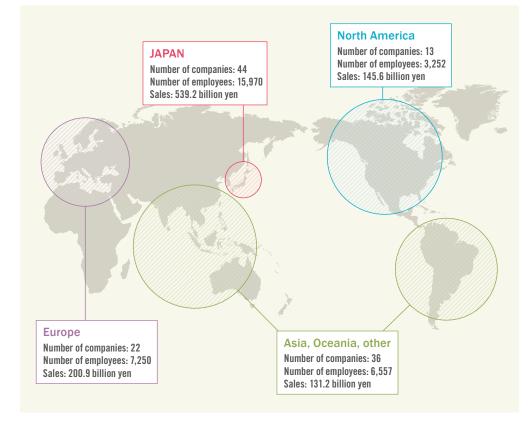


#### Financial Highlights

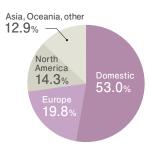




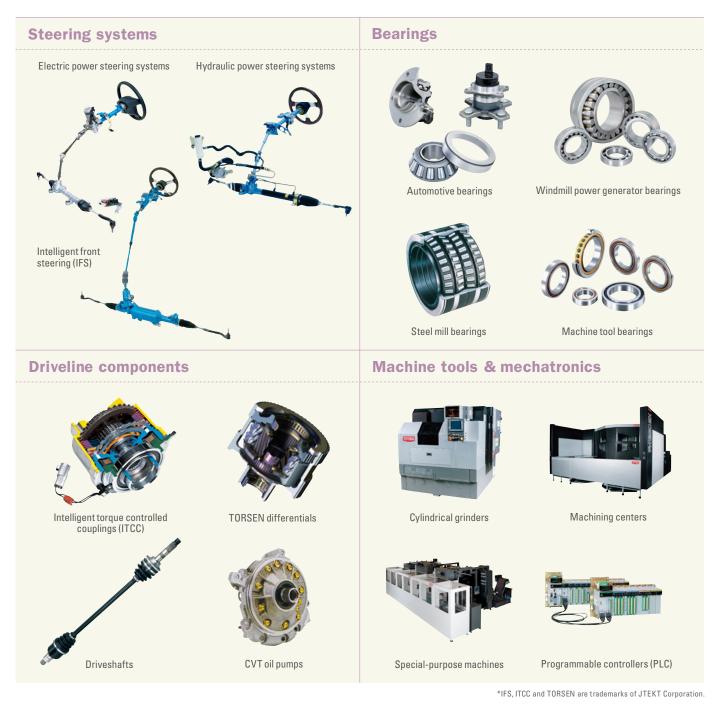
#### Global Network of Operations (FY2008 consolidated)







#### Main Products



#### **Steering systems**

A vehicle's turning function is performed by the steering system. As a system supplier that provides every type of steering system, JTEKT pursues further improvement of steering system environmental friendliness, safety and driving pleasure.

#### **Bearings**

JTEKT bearings are used in a wide variety of industries to support the rotation of all types of machines including household appliances, automobiles, semiconductors, steelmaking equipment, and aerospace products. We respond to advanced, diverse customer demands for features such as long life, light weight, and high-speed rotation.

#### Driveline components

Driveline components support the movement function of vehicles by connecting the engine and the wheels. JTEKT driveline components enable pleasurable driving with quietness and low vibration. We are continuing efforts to create innovative technology to enable further advances in fuel efficiency, light weight, etc.

#### Machine tools & mechatronics

JTEKT is unique as a parts manufacturer because it also possesses machine tool technology. JTEKT's machine tools are created based on a market-in development system and support high-quality, stable manufacturing by customers.

# Raising JTEKT's CSR activities to a new level

In FY2008, JTEKT established a CSR Promotion Committee chaired by the president in order to further strengthen its CSR activities. The following is an interview with President M. Yokoyama regarding CSR and the background to this committee's establishment.

#### JTEKT Corporation President **Motohiko Yokoyama**



#### The very activities required by our Corporate Philosophy are what compose CSR activities

- How does JTEKT view CSR activities?

I consider CSR to be activities required to achieve our Corporate Philosophy, which comprises our Corporate Purpose and our Management Stance. Our Corporate Philosophy is to "seek to contribute to the happiness of people and the abundance of society through product manufacturing that wins the trust of society," and our Management Stance is to "create new value and provide society with joy and inspiration," "aim for growth in harmony with society on a global basis," "maintain respect for people in all activities," and "strive toward the realization of safer, more abundant living circumstances." These very activities are what compose our CSR activities.

Through all activities related to products, sales, manufacturing, purchasing and other functions, we will continuously strive to win the trust of society and contribute to the happiness of people and the abundance society. This will result in the achievement of CSR, I believe.

While the term "CSR" is heard increasingly in recent years, the concept itself is not new, and promoting CSR does not require starting a completely new project. Many companies

For details, see the following pages. \*1 CSR Promotion Committee ≥ P10 \*2 CSR Policy ≥ P8

including JTEKT began carrying out CSR activities before this word came into common use, but I believe identifying, organizing and promoting these within a specific corporate program has been very beneficial and important.

The JTEKT Group has about 30,000 employees worldwide. I believe it is important for all employees, as members of a global business group, to be thinking deeply about how they can contribute to the creation of a sustainable, abundant society, having discussions on this topic, and putting ideas into practice.

## Expanding JTEKT's CSR policy to group companies and suppliers

 What was the background to establishment of the CSR Promotion Committee (\*1) in FY2008?

As I was explaining, while CSR activities are not new to our company, stakeholders' expectations toward us in recent years have risen and diversified. In order to meet these expectations and respond to the trust of society, we considered it important to clarify the direction of our CSR activities, identify issues and track results by an organized method, and carry out activities in a planned, consistent manner. With this in mind, we reorganized our previous Corporate Conduct and Risk Management Committee into a new CSR Promotion Committee and clarified its mission. CSR activities previously centered on economic and environmental issues, but currently we are striving to strengthen social contribution activities as well. Our aim is to carry out CSR activities while giving serious consideration to the views of our wide range of stakeholders beginning with our business partners and shareholders.

- The CSR Policy (\*2) was issued at establishment of the CSR Promotion Committee.

The CSR Policy clarifies our responsibility to meet the expectations of stakeholders, with the most basic responsibility being corporate compliance. The CSR Policy not only must be adopted and put into practice by JTEKT Group companies but also must be expanded to the JTEKT supply chain. We have returned to the recognition that our Corporate Philosophy, Corporate Activities Standards, Employee Conduct Guidelines, and Ethics Code for Directors and Officers form the elements of our CSR Policy and have clarified that group companies and suppliers should follow it as well.

## Fulfilling responsibilities through conscientious business activities is of greatest importance

- How are you striving to raise JTEKT'S CSR activities to a new level?

JTEKT's CSR activities are divided into two main categories. The first is activities we refer to as basic CSR. I believe fulfilling our responsibilities to all stakeholders through carrying out conscientious business activities on a continual basis is of greatest importance. It goes without saying that compliance with laws, regulations and business ethics is the basis, but it also is important to engage in fair, transparent, and free competition; obtain a proper level of profit; pay taxes properly to support society; return profit appropriately to shareholders in the form of dividends; continually provide high-quality, fairly priced products and services to customers; and enable employees to enjoy happy, prosperous lives. In addition, we consider it important to strengthen efforts to prevent and reduce operational risks in order to meet the full expectations of stakeholders.

The second is activities we refer to as proactive CSR. These are activities we carry out proactively in order to contribute to society appropriately for a company of our stature and characteristics. Specifically, we established a Social Contribution Working Group that promotes activities related to environmental conservation, human development, and contribution to local communities. In FY2009, this working group is focusing on the following two themes: (1) Social contribution activities at each business site to give back to the community, and (2) creation of a corporate atmosphere that encourages all employees to actively participate in social contribution activities. My belief is that such activities must be continued regardless of fluctuation in the company's business results.

We have explained this thinking to our group companies and suppliers, and an important task for us is to foster a stronger common awareness and corporate culture with them.

- Thank you for your passionate message.

"Seek to contribute to the happiness of people and the abundance of society through product manufacturing that wins the trust of society."

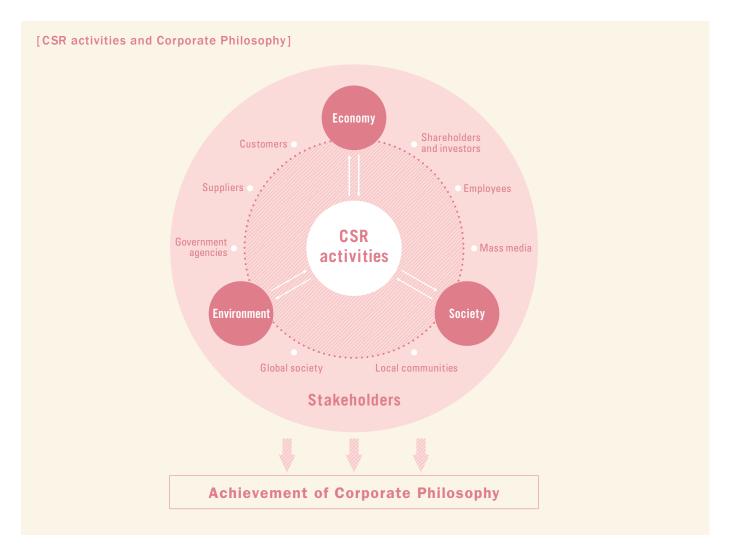
(from Corporate Purpose)

The very activities required by the Corporate Philosophy are what compose CSR activities: This is the definition JTEKT adopted in FY2008. JTEKT'S CSR activities have taken a step forward. This section explains the background to these changes and introduces JTEKT's newly established CSR Policy and CSR promotional structure along with its corporate governance and compliance policies, indispensable elements of proper corporate management.

## CSR Concept

### Achievement of the Corporate Philosophy

As JTEKT began considering how to strengthen its CSR activities, it realized it needed a greater common awareness among employees regarding CSR. Before that, however, it first had to clarify what CSR meant to JTEKT. In FY2008, many internal discussions were held regarding the meaning of CSR, and the conclusion was that to JTEKT, the very activities required by the Corporate Philosophy should be what compose its CSR activities. JTEKT's Corporate Purpose is to "seek to contribute to the happiness of people and the abundance of society through product manufacturing that wins the trust of society." In line with this purpose, JTEKT believes CSR to be viewing economic, environmental and social issues comprehensively, fulfilling its responsibilities to all stakeholders, and meeting stakeholder expectations.



#### **Basic CSR and proactive CSR**

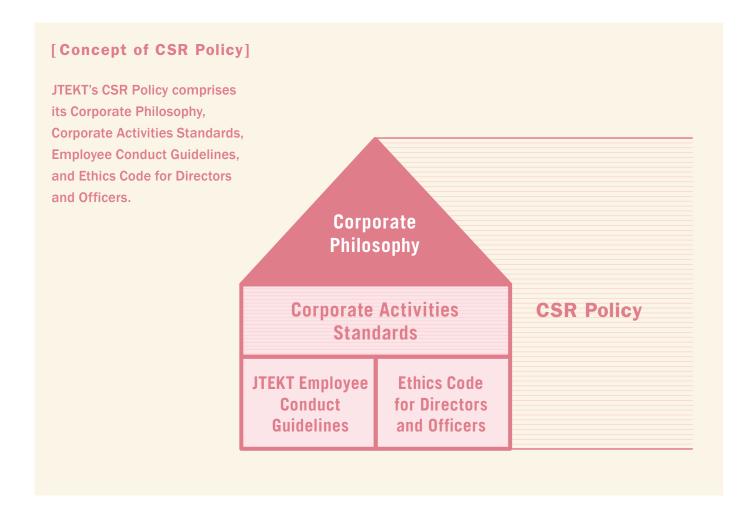
JTEKT's CSR activities are divided into basic CSR and proactive CSR. Basic CSR refers to meeting the expectations of stakeholders through carrying out conscientious, ethical business activities in compliance with the letter and spirit of the law, and proactive CSR refers to clarifying and continually carrying out activities suitable to JTEKT in view of its stature and characteristics centered on the areas of environmental conservation, human development, and contribution to local communities.

#### [Structure of CSR activities]



## **CSR Policy**

#### Sharing a common awareness of CSR



#### **Defining the Corporate Philosophy as JTEKT's CSR Policy**

In February 2009, JTEKT issued its CSR Policy. This comprises the Corporate Philosophy, Corporate Activities Standards, and Employee Conduct Guidelines issued at the merger in 2006 and the Ethics Code for Directors and Officers issued in 2008. This Policy clarifies the actions and attitudes expected of all JTEKT employees in the performance of business activities and daily operations. JTEKT believes a common awareness of this Policy throughout the group will enable it to meet the expectations of stakeholders and fulfill its responsibilities as a corporate citizen.

### --- CSR Policy

The JTEKT Group, in order to fulfill its mission of "contributing to the happiness of people and the abundance of society through product manufacturing," seeks to carry out business activities in harmony with the economy, society, and the environment. As a good corporate citizen, we will continue activities to obtain the further trust of stakeholders and contribute to the sustainable development of society and the environment. We also are sharing this Policy with our suppliers with the expectation of their compliance.

#### CSR Policy

### Corporate Philosophy

**Corporate Purpose** 

Seek to contribute to the happiness of people and the abundance of society through manufacturing that wins the trust of society.

**Management Stance** 

1. Create new value and provide society with joy and inspiration on a broad scale.

- 2. Aim for growth in harmony with society through innovative operations on a global basis.
- 3. Create a bright, energetic corporate atmosphere based on respect for people.
- 4. Strive toward the realization of safer, more abundant living circumstances.

### Corporate Activities Standards

- 1. Follow proper business practices and engage in fair, transparent and free competition based on a respect for the law.
- 2. Derive concepts from the market, provide the best in quality, technology and service, and obtain the satisfaction and trust of customers.
- 3. Carry out global environmental improvement activities proactively and aggressively with deep awareness of their being an important corporate mission.
- 4. Respect the individuality of employees, create workplaces that are motivating to employees and enable them to fulfill their potential, and strive to provide each with abundant living circumstances.
- 5. Maintain close communication not only with shareholders but also with society at large and disclose corporate information properly.
- 6. As a good corporate citizen, aggressively pursue activities that contribute to society.
- 7. Follow international rules, observe the laws, cultures and customs of countries and regions where we have operations, and seek to contribute to their growth.

### Employee Conduct Guidelines

In June 2008, we revised our Employee Conduct Guidelines originally issued in April 2006 based on changes in laws, etc. These Guidelines, now positioned as an element of JTEKT's CSR Policy, provide easy-to-understand guidance and instructions for employees in their daily activities to enable them to carry out the Corporate Philosophy and achieve corporate objectives. Measures to gain full awareness of these Guidelines among employees include posting them on the company's intranet system and providing each employee with an abbreviated pocket-version.

#### Ethics Code for Directors and Officers

In April 2008, the Ethics Code for Directors and Officers was issued to provide conduct guidelines for directors and managing officers. It covers 11 areas such as "ethical conduct in good faith" and "compliance with laws and regulations." This Code not only ensures legally compliant conduct by JTEKT's directors and officers but also, by having top management set a strong example, raises awareness throughout the company of the importance of compliance.

Section 1	Employee's relationship with the company
Section 2	Employee's work in the company
Section 3	Employee's relationship with society
Section 4	Employee's personal activities

Employee Conduct Guidelines

Ethics	Code f	or Dire	ctors ar	nd Officers	(excerpt)

Article 5	Ethical conduct in good faith
Article 6	Compliance with laws and regulations
Article 8	Reporting of illegal and unethical actions
Article 9	Responsibility to comply with the Code

## **CSR Promotion Structure**

Constructing a companywide organization to strengthen CSR activities

#### Systematic promotion of CSR activities

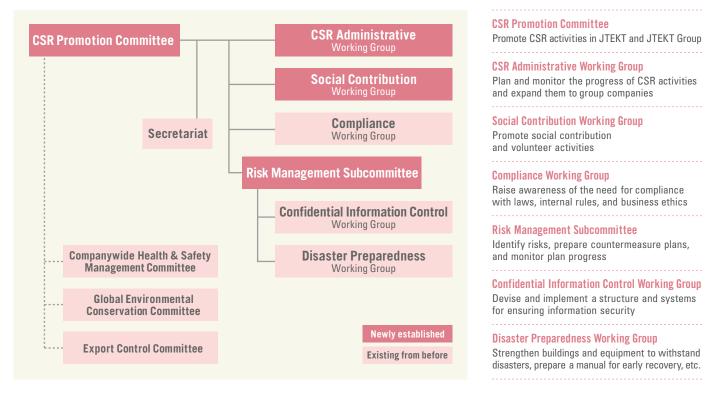
In February 2009, JTEKT established a CSR Promotion Committee chaired by the president in order to systematically promote CSR activities on a companywide and groupwide basis. Within the organization led by this committee, the most suitable activities to accomplish the missions of carrying out the Corporate Philosophy and controlling risk through CSR activities are considered and discussed from many angles. Specialized working groups have been established to form and carry out action plans regarding important topics such as compliance, confidential information control, and disaster preparation and response.

**Roles of each WG/committee** 

#### Missions of CSR Promotion Committee

- 1. Carry out Corporate Philosophy
- 2. Control risk through CSR activities

#### **Organization**



#### **CSR** activities in each department

At JTEKT, CSR activities are promoted by the specialized committees and working groups operating under the CSR Promotion Committee. Individual departments such as General Administration and Personnel each include CSR targets in their annual policies and pursue these targets in a planned manner by the PDCA (\*) cycle. Each working group's lead department compiles achievement results and reports to the CSR Promotion Committee. By this structure, JTEKT aims to promote the energetic, consistent carrying out of CSR activities throughout JTEKT and the JTEKT Group.

\*PDCA is a management tool for continuously improving work by repeating a Plan-Do-Check-Action cycle.

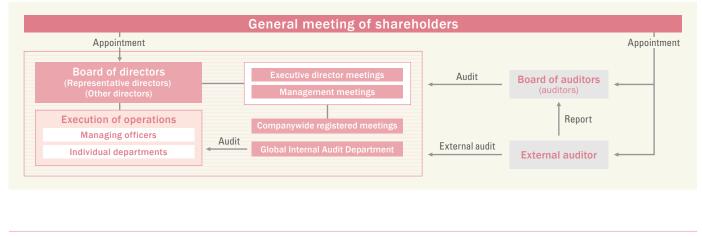


## **Corporate Governance**

#### Improving management transparency

In order to continually raise its corporate value and fulfill social responsibilities as a corporate citizen trusted by the international community, JTEKT strives to make its management transparent not only to shareholders but to all stakeholders. As a means of supervising management, we have adopted an auditor structure consisting of five auditors, including three external auditors, who audit the execution of duties by directors. We also have established a Global Internal Audit Department that

is independent of other internal departments and that audits overall operations including the reasonableness and lawfulness of operational management and procedures. Moreover, JTEKT is striving to construct an appropriate internal control system based on the "J-SOX" internal control reporting system by strengthening its internal control structure, expanding this throughout the JTEKT Group, and reviewing work process controls and IT controls.



#### JTEKT CSR

Compliance

The first responsibility in corporate activities

#### Basic concept

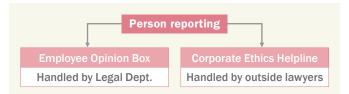
The thinking of JTEKT is that compliance is its first responsibility in corporate activities. In March 2009, JTEKT formalized its compliance program and structure by issuing a Compliance Standard in order to deepen understanding regarding compliance and raise awareness. This Compliance Standard outlines the elements of JTEKT's Compliance Program and the structure for promoting compliance throughout the JTEKT Group.

#### **Promotion structure**

The Compliance Working Group has been established as a group under the CSR Promotion Committee. It plans and carries out activities aimed at raising understanding and awareness of compliance, evaluates activity progress and results, and reports to the CSR Promotion Committee. It also monitors legal disputes and whistle-blowing reports in JTEKT and the JTEKT Group.

#### JTEKT business ethics consultation system established

JTEKT has established a business ethics consultation system by which employees may report problems or concerns related to compliance. By establishing both an Employee Opinion Box (Legal Dept.) and an external Corporate Ethics Helpline, JTEKT has striven to create an environment in which employees can report problems and concerns easily and the company can obtain important information at an early stage. The number of reports received in FY2008 was 31. By posting these two reporting venues on the company's intranet system and in monthly company newsletters, employees are kept fully aware of them.



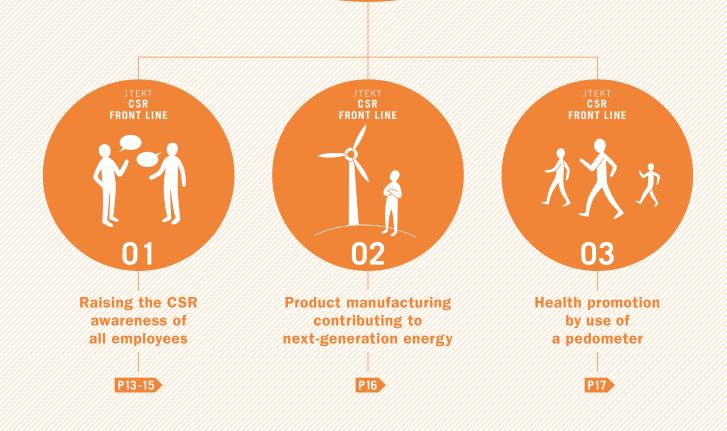
## Start of periodic compliance workshops at each business site

JTEKT in January 2009 began conducting compliance workshops for employees. Through March, it had held workshops at three business sites (the Nagoya and Osaka head offices and Nara Plant) for a total of 252 employees. Participants learned about the basic concept of compliance and JTEKT's whistle-blowing system. Afterward, their level of understanding was confirmed by a questionnaire and short test, and results were used to improve subsequent workshops. JTEKT is continuing to hold these workshops at various business sites in the fiscal year started in April 2009. Special Feature

# JTEKT CSR Frontline

## Supported in our steps and guided in our path by awareness of communication's importance

In FY2008, JTEKT strove to take its CSR activities to a new level by working to identify issues on a companywide basis, having each department come up with improvement ideas, and other means. In this section, we will introduce various "CSR frontline efforts" related to companywide CSR management, environmental conservation, and respect for employees. We hope reading this section will cause you, like us, to be passionate about CSR.



## Roundtable discussion by staff members involved in promoting CSR activities Raising the CSR awareness of all employees

JTEKT inaugurated its CSR Promotion Committee on February 20, 2009, for the purpose of directing and strengthening CSR activities. In late July, several key members of the various working groups operating under this committee participated in a roundtable discussion.



#### The Corporate Activities Standards are at the root of all activities

CSR FRONT LINE

 First, please explain the roles and activities of your working groups (WG).

Hashimoto: The CSR Administrative WG's role is to plan and monitor the progress of JTEKT's CSR activities. Our basic understanding is that the Corporate Activities Standards (page 9) are at the root of all CSR activities, and that by carrying these Standards out, we are promoting CSR. That in turn will lead to achieving the Corporate Philosophy (page 9). We also have the role of expanding CSR activities to group companies.

Yamanaka: The Compliance WG is responsible for designing and operating JTEKT's compliance program based on the CSR Policy (page 8). We prepare the annual action plan and carry out various activities such as conducting workshops to raise awareness of the need for compliance not only with laws, regulations and internal rules but also with corporate ethics.

**Ohnishi:** The Disaster Preparedness WG's role is to carry out risk management related to large-scale disasters such as earthquakes. My main responsibility is to prepare buildings and equipment to withstand earthquakes. Specifically, we're working to reinforce buildings to prevent their collapse, secure machines to prevent their falling over, and improve piping and furnaces so that worker safety is maintained in the case of an earthquake. Disaster preparedness is closely linked with the company's responsibility to ensure the safety of its employees

and also is indispensable in responding appropriately in the case of a disaster in order to resume operations quickly. It also is important from the viewpoint of obtaining the trust of local communities.

— Mr. Maegawa, you also are in the Disaster Preparedness WG. What is your responsibility?

Maegawa: I'm responsible for preparing a procedural manual for quick recovery from disasters and a disaster-related risk management structure. I'm also involved in preparing a system of ensuring we are ready to respond to disasters on a companywide basis, including the conducting of periodic disaster-response drills.

**Uemura:** The Confidential Information (CI) Control WG's role is to prepare a structure to prevent the leakage of important company information. We have worked to identify what types of CI exist, created a CI control structure led by the director overseeing General Administration, and appointed a CI leader and sub-leader in each department. We're also working to prepare systems to monitor workplace entering and exiting and computer network accessing.

Nishihata: The Social Contribution WG is responsible for promoting social contribution and volunteer activities. JTEKT has long carried out various social contribution activities at plants and other business sites related to environmental conservation, social welfare, culture, sports, etc. Our role is to continue promoting such activities and also to create a corporate atmosphere that encourages employees to proactively engage in volunteer activities on an individual basis.

#### CSR activities can now be promoted speedily

— About half a year has passed since the CSR Promotion Committee and your WGs were formed. What changes do you think WG formation has brought about? Uemura: We had been carrying out CI control before our WG was formed, but with the CSR Promotion Committee's establishment, reporting to top management and promoting activities internally and at group companies can be done much more smoothly.

Yamanaka: I feel the same. One result we've already achieved through the WG is issuance of the Compliance Standard (page 11), which all employees can access by the company's online database. Maegawa: Disaster preparedness activities used to focus on earthquake countermeasures, but since starting the WG, we have focused on preparedness for other disasters as well. WG inauguration also has clarified our function and roles and allowed us to carry out work more speedily.

**Ohnishi:** I can agree with that. Now that our roles and responsibilities have been clarified, it is easier to carry out the PDCA (\*1) cycle.



Hashimoto: I think all of us were involved in our respective activities even before our WGs were formed, but WG formation has enabled us to identify issues and promote improvement activities with much greater speed. I think that is the biggest change. Ohnishi: Regarding earthquake preparedness, JTEKT began activities in this area long before our WG was formed, which I believe demonstrates that a culture of social responsibility and care for local communities has long existed at JTEKT. Hashimoto: At the same time, an important task for us is to further strengthen this culture.

Nishihata: In regard to achieving all employees' awareness of the importance of environmental contribution and volunteer activities, I think we have much work to do. Nonetheless, in discussions with employees at our plants, I've felt people are beginning to realize the importance of volunteer activities.

## Raising the CSR awareness of all employees is an important task

— How do the rest of you feel employees are reacting to your efforts?

**Ohnishi:** I think the importance of disaster preparedness is gradually being understood. When I visit plants, I sometimes see that measures have been implemented to prevent parts from falling off shelves or light fixtures from falling during earthquakes, and that encourages me that awareness is growing.

Yamanaka: I feel that compliance awareness is growing as well. For example, we established the JTEKT business ethics consultation service (page 11) and are receiving reports and inquiries from employees on legally questionable conduct by means of this system.

**Uemura:** I also can say that responses from employees are better than before when I've visited various workplaces to explain CI control. In many cases, they have offered valuable improvement suggestions. I feel that CI control activities are being implemented enthusiastically.

Maegawa: My personal focus at this time is raising everyday preparedness for disasters. One measure we have taken is to pass out a whistle (\*2) to each employee to call for help if trapped or buried in an earthquake. Moreover, just carrying it around elevates employees' disaster awareness and preparedness.

Please tell us about the challenges you face and your ambitions.

**Ohnishi:** Although we have begun to see results from our disaster preparedness activities, we still haven't reached the overall level of employee awareness we desire. We want to keep working toward that.

\*1 PDCA cycle: A management tool for continuously improving work by repeating a Plan-Do-Check-Action cycle

#### \*2 Whistle:

A whistle distributed to each employee by the Disaster Preparedness WG with a space for writing one's name, contact information and blood type

#### CSR Administrative Working Group

Consider what CSR means to you from your vantage point



Corporate Planning Dept., Manager **Ryuichi** Hashimoto

CSR Promotion Committee secretariat, CSR Administrative WG, Risk Management Subcommittee

#### **Compliance Working Group**

I feel that compliance awareness is growing



Legal Dept., Domestic Legal Affairs Group Manager **Kotaro Yamanaka** 

Design and operation of compliance program

#### **Disaster Preparedness Working Group**

## Speedy resumption of operations is a company's social responsibility



Environment Control Dept., Manager **Noburo Ohnishi** 

Building reinforcement to withstand earthquakes, etc.

Maegawa: My aim is to make JTEKT a company that is trusted by all stakeholders as one well prepared for disasters. To do that, we must continue efforts to deepen awareness regarding disaster preparedness.

Nishihata: I want to make JTEKT a company that community residents are happy to live nearby. Also, if participation in volunteer activities grows, it will promote communication between employees and put more smiles on people's faces. My hope is to contribute to creating such a corporate atmosphere.

Yamanaka: I think the major task for us is to increase employee awareness regarding compliance. I must say that now there's a big difference in awareness between departments. Our role is to work steadily and resolutely to raise overall awareness.

**Uemura:** Awareness is also important regarding CI control. The content of CI control differs by department, and I feel we must increase awareness by activities suited to each department.

 It seems raising employee awareness is an important common task for all WGs.

**Uemura:** I don't think there's any magic formula for raising awareness. We simply need to continue explaining and stressing it over and over.

Yamanaka: I feel the same. We want to continue steady efforts to raise awareness.

Hashimoto: Regarding CI control and compliance, even a single legal violation or leakage of CI in the JTEKT Group or its supply chain can cause an immediate loss of trust in JTEKT. That makes preventive measures in these areas crucial.

Uemura: Our hope is to establish a system of CI control that can be trusted with confidence by all stakeholders. The ideal situation is that CI control measures are seen as natural and that CI control is achieved without employees paying any special attention to it.

## Planning CSR activities caused us to consider the meaning of the Corporate Philosophy

Hashimoto: Listening to everyone's comments has reminded me of how important raising employee awareness is to successfully promoting CSR activities. But I think CSR must be seen in light of the differing cultures and customs of countries, and in that sense CSR can mean different things to different people. So I think the beginning point is for people to consider what CSR means to them from their own vantage point. - How do the rest of you view CSR?

Yamanaka: I believe the essence of CSR is respect for people, meaning people related to JTEKT and in turn people in general. Ohnishi: I think CSR is envisioning where we need to be 100 years from now and pursuing policies of coexistence/co-prosperity and sustainability in order to get there.



Maegawa: The word "coexistence" is easy to understand. People may not respond to calls for "CSR activities," but when we position these as activities in order for organizations and people to coexist in harmony with society and local communities, people can understand that. That's how I believe they should be positioned.

**Uemura:** It will be good if JTEKT can construct a relationship of strong trust with society and grow together with it.

Nishihata: I view CSR as activities to enable people to live abundant lives. I came to that view through considering our Corporate Philosophy. I never thought about it deeply before, but being a WG member has caused me to realize it truly is a good philosophy.

Hashimoto: Most employees don't have the opportunity to consider and discuss the meaning of the Corporate Philosophy deeply, but I think that our efforts as part of CSR WGs will inspire them to do so, and in turn to think about social responsibility. This will come to shape the natural thinking of JTEKT employees. Our CSR activities will be the basis of this growth.

- Thank you for your comments.

(The moderator for this roundtable discussion was Masayuki Funatsu, Public Relations Group Leader in the General Administration Dept., who also is responsible for preparing this CSR Report.)

#### **Disaster Preparedness Working Group**

l hope everyone will maintain everyday preparedness for disasters



General Administration Dept., Planning Group, Staff **Tetsuya Maegawa** 

Preparation of manual for disaster response and risk management structure

Confidential Information Control Working Group The ideal is CI control achievement without special attention being paid to it



Planning Group, Assistant Manager **Takao Uemura** 

General Administration

Preparation of structure to prevent information leakage

#### **Social Contribution Working Group**

I hope to put smiles on people's faces through promoting volunteer activities



General Administration Dept., Public Relations Group, Staff **Rinako Nishihata** 

Social contribution and volunteer activities

JTEKT CSR FRONT LINE

## FH1250SX wins main prize at the Top 10 New Product Awards **Product manufacturing contributing** to next-generation energy

JTEKT's large-scale horizontal machining center FH1250SX won the main prize at the 51st (2008) Top 10 New Product Awards sponsored by Nikkan Kogyo Shimbun, receiving particular praise for its capability in the area of machining large energy-related parts contributing to environmental conservation.

## Project to create large-scale machining center contributing to environmental conservation

Environmental conservation is a global issue, and with that as a theme, new technologies are being developed and manufacturing processes reviewed in all industrial fields. A part of this is the development of various large parts for energy-related machines, and a few years ago JTEKT began receiving inquiries particularly from American and European customers for a machine tool capable of inexpensively machining such parts. JTEKT's machine tools & mechatronics division began conducting market research in response in 2006, and based on the results, commenced development of the FH1250SX, a large-scale horizontal machining center with a machining range of 2,400mm. This was well beyond the range of any previous JTEKT machine tool.

#### Overcoming obstacles to creating a large machine related to production and transport

The first problem we faced was whether our plant was capable of producing such a machine tool. JTEKT had mainly produced small and medium-sized machine tools, and our production people had doubts as to whether it was possible. The development team began working with the production engineers and resolved each of the problems. The next problem was the transportation method. We went many times to the port to investigate container size, loading method, trailer types, etc. and had to decide the maximum sizes of disassembled machine parts that could be transported under traffic laws. This design project forced to examine issues we had never considered before.

#### High speed and efficiency achieved by combining the JTEKT Group's latest technologies

Our aim was to design a lightweight, highly rigid machine capable of both high-speed machining and handling large parts up to about 11 tons in weight. By using 3D modeling and repeated CAE (\*1) analysis to simulate durability, etc., we succeeded in arriving at the optimal design. Also, working with JTEKT's bearing & driveline division and group companies, we developed an FVPS (\*2) optimal pre-load control system for the main spindle bearings, which improves machining performance by providing the optimal pre-load to the bearings based on main spindle rotational speed and enables high efficiency. This patent-pending world-class technology was achieved through synergy between our product divisions. Since beginning FH1250SX production in 2008, JTEKT has received numerous orders particularly from makers in America and Europe of parts for windmill power generators and other energy-related parts. This machine won the main prize at the Top 10 New Product Awards because of its world-class performance in machining parts for environmental products and contribution to raising Japan's industrial technology level. JTEKT will continue efforts to develop new machine tools capable of machining parts contributing to environmental conservation.



\*1 CAE:

Computer Aided Engineering Computer-aided support for product development

\*2 FVPS: Flexible Variable Pre-load System



Inspecting the machining finish of a windmill power generator gearbox on a 1,250mm square pallet. This machine can machine large parts with the widest machining range, fastest feed speed, and strongest cutting performance in its class.



At the Nikkan Kogyo Shimbun's 51st Top Ten New Product Awards ceremony. This award recognized the high-speed, highly efficient machining performance JTEKT achieved by combining its latest machine tool and bearing technologies.



#### We hope to show our development capability in environmental and other new fields

Through this development project, we improved our technology and know-how related to large machines. We also came to understand JTEKT's technology and production capability more deeply, and utilized these fully. Our customers in energy-related fields such as windmill power generators and petroleum plants are increasing, and this project enabled us to receive valuable information from them. We want to build on this experience and continue meeting the needs of environmentally related fields.



In front of a workpiece model showing the machine's maximum machining range and load

JTEKT CSR FRONT LINE

Enjoyable method of fighting being overweight Health promotion by use of a pedometer

Since April 2008, JTEKT has been promoting a "special checkup and health instruction" program to help employees fight being overweight with particular emphasis on encouraging walking. Individual lifestyle-improvement instruction is being provided centered on the use of a pedometer.



#### Instruction based on internal investigations and centered on promoting walking started

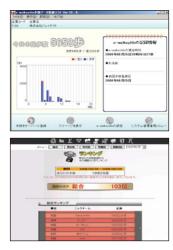
Protecting employees' health of is one of the company's important social responsibilities. Both previous companies had carried out health education, but with the merger in 2006, the new company began planning a program to meet new "special checkup and health instruction" requirements effective from April 2008 issued by Japan's Ministry of Health, Labour and Welfare. To investigate what types of group education and individual instruction were necessary, discussions were held with JTEKT employees around Japan on dietary and other lifestyle habits, and also vascular health measurements were taken, etc. One conclusion was that those who walked more tended to have healthier vascular systems, and based on that, JTEKT began emphasizing not only a healthy diet but also exercise when giving health instruction. Starting in April 2008, it began a program of providing special health instruction focused on encouraging walking.

#### A pedometer is given to persons requiring special health guidance, and data is monitored online

This program is aimed at giving special health-related lifestyle improvement instruction to persons requiring it. Participants are encouraged to maintain awareness of their weight along with how many steps they take and calories they consume each day. They also receive an encouraging e-mail message each month and evaluation every six months. They are given a pedometer that enables their daily steps and weight to be monitored online and speedy instruction to be provided by the health supervisor. This supervisor personally visits each concerned person's workplace and presents this pedometer in front of coworkers so they also can encourage the person to fight hard. A sense of comradeship develops between participants, who can compare their steps, etc. to encourage one another.

#### Continued individual guidance to help employees fight being overweight

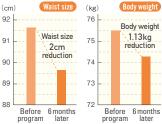
Based on individual instruction, program participants have made various lifestyle improvements, and more than half have achieved targets. Participants not showing improvement after six months are encouraged to keep on trying, and they receive further instruction in order to achieve better results at the next annual checkup. The companywide target is by 2012 to reduce the number of employees whose checkup results indicate two or more items requiring special health instruction by half. We plan to expand our activities aimed at encouraging participants, including giving "overcoming being overweight" certificates to those who have reached targets.



When the pedometer is connected to the Internet, the number of steps taken is monitored online. The content of the site has unique features, such as participant rankings of the number of steps, and guides to various walking courses in Japan, making it enjoyable for participants to view on a daily basis.

## Transition of participant waist sizes and body weights





By giving individual instruction suited to the person's body type (athletic, chubby, etc.), average waist sizes and body weights both fell after six months. Setting realistic goals and working steadily to achieve them are important.



#### What we're all working to create is "JTEKT's healthy lifestyle"

JTEKT has included the management of employee health as an important element of its health & safety policy, and top management itself sets a good example in this area, making for a positive overall corporate atmosphere regarding health maintenance. Employees have cooperated in providing valuable data that has formed the basis of our activities, and I hope to continue working together with all of them to create "JTEKT's healthy lifestyle" suited to everyone's needs.



A class on mental health, required for all newly appointed managers

## **Social Report**

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### Work hard for society while maintaining close communication with all stakeholders

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Consider corporate activities for all stakeholders and manage their implementation. This concept is still new to JTEKT and is just beginning to be shared by its employees. The CSR Promotion Committee and groups operating under it will work hard to promote it.

This section introduces the activities JTEKT carried out in FY2008 to pursue the ideal of coexisting with society as a good corporate citizen. We hope they will convey JTEKT's desire to pursue CSR conscientiously for the sake of all stakeholders.

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CSR Report 2009 18

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Summary of FY2008 activities

**Social Report** 



## Together with shareholders and investors

P(31

## Annual shareholders meetings held to present audit reports and other reports

→ P31

## Together with suppliers



Purchasing policy meeting held to explain important policies





About 400 persons participated in JTEKT supplier group's quality control convention

→ P22



## Together with local communities



Community discussions held to exchange views with local residents





Total of 1,357 employees participated in local cleanup activities



## Social Report Together with customers

Based on the goal of being a "Quality First Company" included in its medium-term management plan, JTEKT is pursuing various activities to reconsider quality improvement based on the principle of putting the customer first.

### Considering the entire society as customers

#### Contributing to society by improving technology and quality

JTEKT products are widely and deeply involved in industry and society. For example, JTEKT supplies about 50% of the electric power steering systems installed in vehicles around the world, and many JTEKT bearings are used in windmill power generators. These products make use of technology that not only contributes to the environment but also plays a key role in quality, and any defect therein will have a negative impact on society as a whole. JTEKT therefore maintains a strong sense of responsibility, recognizing that its customers are not only direct customers but also the people using the products manufactured by these customers, and therefore strives to improve its technology and quality continually.

### Quality control

#### Manufacturing from the standpoint of the customer

In order to satisfy the requirements of the customers to whom JTEKT delivers its products, it has a quality control system that clarifies what must be guaranteed in all business stages from planning, designing, and production through sales and service. Opinions and proposals offered by customers regarding any stage can be incorporated into the quality control system.

#### **Conducting customer satisfaction surveys**

JTEKT conducts customer satisfaction surveys for its main customers. Any problem found through a survey is shared with all concerned departments and processes so the problem can be solved quickly and appropriately.

#### 01 | Steering systems, bearings, driveline components

Customers evaluate us on a 5-point scale in five areas: quality, delivery, technical capability, cost, and sales service. Evaluations are carried out continually, and results from 67 Japanese and 121 foreign customers were compiled as of the end of FY2008. Some customers also expressed desires for quality maintenance and more aggressive submission of technical proposals.

#### Figure -01 Quality control system reflecting customers' opinions and proposals



Product pre-planning / Information collecting Aggressively obtain customer views

Product planning Plan superior products with good quality and total balance

Product design Create high-quality drawings using accumulated technology and experience

Prototype evaluation Check product quality repeatedly under various operating conditions

Process design
 Build quality into the process

 Production preparation
 Carefully prepare for stable production of high-quality products

Production

Manufacture high-quality products based on work standards

• Sales / Service

Provide high-quality products and service winning customers' trust and satisfaction

## TOPICS

JTEKT receives award at QC Circle national competition

In order to foster Champion Circles (\*1) and their leaders, JTEKT selects outstanding circles from its plants and supports their participation in external

competitions held throughout Japan. In FY2008, a total of 17 QC circles participated in 14 conventions, and five of these received awards. Through such activities, JTEKT stimulates awareness at its workplaces of the importance of quality.

→ Figure – 01

\*1: QC Circles that can serve as QC Circle role models for other circles at the same plant and contribute to raising the overall activity level.



Hanazono Plant QC Circle members who received an award at the  $5030^{\rm th}$  QC Circle National Competition

#### 02 | Machine tools and mechatronics

Customers evaluate us on a 5-point scale in seven areas: function, reliability, maintenance, operability & safety, environment friendliness, operating manual, and response. We received evaluation results as of the end of FY2008 from 57 customers. These results showed good marks for machining accuracy and rigidity and also included requests for easier metal chip removal, coolant (grinding fluid) splatter suppression, etc.

#### **Quality control system**

JTEKT acquired certification in the ISO 9001 international standard, ISO/TS 16949 automotive industry standard, AS 9100 aerospace industry standard and other quality management standards at an early stage. JTEKT continues to receive audits twice yearly and uses the results to further revise and improve its quality control system.

#### **Promotion of TQM activities**

JTEKT promotes TQM (Total Quality Management) activities based on the principles of putting the customer first, continuous improvement, and participation by all employees. All members including top management continually strive to make improvements in order to carry out work more efficiently and effectively. At workplaces, we strive to foster mutual instruction and the handing-down of unique skills through small group activities (QC Circle activities), in which workplace members work together to find immediate solutions to problems. A notable activity in FY2008 was the *jikotei kanketsu* work-method improvement activities and creative suggestion activities carried out by administrative and technical departments.

#### Main awards from customers

JTEKT has received many awards from customers as a result of the various activities it carries out based on its Quality First policy.









3rd Companywide J-QC Circle Convention (January 17, 2009)

#### Main awards in FY2008

Customer	Award	Company receiving award
Toyota Motor Corporation	Appreciation for Quality Control Activities	JTEKT Corporation
Quality Management Dept., Toyota Motor Corporation	Appreciation for Repair Cost Reduction Activities	JTEKT Corporation
Head Plant, Toyota Motor Corporation	Zero Quality Defect Award	JTEKT Corporation
Kinuura Plant, Toyota Motor Corporation	Excellent Quality Award	JTEKT Corporation
Mazda Motor Corporation	Excellent Business Results Award	JTEKT Corporation
Sawafuji Electric Co., Ltd.	Quality Award	JTEKT Corporation
Tianjin FAW Toyota Motor Co., Ltd. (TFTM)	Quality Achievement Award	KLF (Chinese bearing manufacturing affiliate) KWA (Chinese bearing manufacturing affiliate)
Guangzhou Toyota Motor Co., Ltd. (GTMC)	Quality Cooperation Award	KLF (Chinese bearing manufacturing affiliate) YKS (Chinese steering manufacturing affiliate)
Toyota Peugeot Citroen Automobiles Czech, s.r.o. (TPCA)	Best Supplier Award	JAPL (European steering manufacturing affiliate)
Toyota Peugeot Citroen Automobiles Czech, s.r.o. (TPCA)	Good Supplier Award	KBE (European bearing manufacturing affiliate)

TOPICS

**Kansai Logistics Center** approved as authorized exporter

On December 5, 2008, Osaka Customs based on its Authorized Exporter Program approved JTEKT's Kansai Logistics Center as an authorized exporter. The program is a system in which an exporter approved in advance as having an organized security control and compliance system is permitted to export articles without delivering the cargo to a bonded area, etc. By this approval, export procedures can be simplified and the number of days required for shipment reduced, enabling faster export.



Receiving authorized exporter certificate

## Social Report Together with suppliers

JTEKT regards suppliers as partners and aims for mutual development and growth based on strong relationships of trust. JTEKT also promotes open and fair business activities to ensure thorough legal compliance.

### Basic policy

#### **Promoting fair business**

JTEKT has stipulated policies for open and fair business practices in its Corporate Activities Standards and its Purchasing Philosophy with the aim of carrying out the optimal purchasing of parts, raw materials, consumable materials, machining services, etc. We have outlined procedures in our website for new suppliers to start business with JTEKT as a means of providing fair, equal opportunities for all.

"Follow proper business practices and engage in fair, transparent and free competition based on a respect for the law."

(from JTEKT Corporate Activities Standards)

### Activities with suppliers

#### **Purchasing policy meetings**

In order to communicate purchasing policies and activities, each year JTEKT holds a purchasing policy meeting for suppliers. In FY2008, 350 persons from 290 suppliers attended, at which time we explained and promoted cooperation with our CSR Policy established in February 2009 (page 8) and stressed the following two purchasing policies: "Quantity Management," focusing on reducing total cost and lowering the breakeven point, and "Providing a Foundation for the Future," aimed at strengthening the company structure. We also presented awards to suppliers that achieved superior results in 2008 in various categories such as quality, cost, and technology development.

#### **Green Purchasing activities**

JTEKT promotes companywide Green Purchasing activities in order to contribute to the creation of a sustainable recycling-based society. For that purpose we issued Green Purchasing guidelines and have requested the cooperation of suppliers.

#### Promoting quality improvement together with suppliers

The JTEKT Supplier Association (\*1), comprising JTEKT's cooperating suppliers, holds a Quality Management Convention every year. The third such convention was held in FY2008 and was attended by about 400 participants from 209 suppliers. There were presentations on improvements by six suppliers and a JTEKT Tadomisaki Plant QC Circle, a message on the promotion of QC activities, and a message by a professor of Kobe International University. We will continue sharing quality management information and issues with suppliers in order to pursue mutual quality improvement.

#### **Purchasing Policy**

• Fair and transparent business transactions We provide open, fair and equal opportunities to all suppliers regardless of nationality or company size, including suppliers with no experience supplying to JTEKT

#### Purchasing Basic Policy

Mutual trust
 through close community

Build mutual trust through close communication with suppliers.

• Coexistence and co-prosperity Achieve harmonious relationships with suppliers based on mutual trust.

#### Long-term, stable business relationships

Achieve stable procurement meeting JTEKT's quality, cost, volume, and delivery requirements through continuous business.

#### Global purchasing

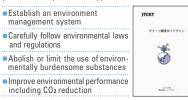
Achieve optimal purchasing from a global viewpoint and improve international competitiveness by a strong supplier chain.



Senior Executive Director T. Inui speaking at the purchasing policy meeting

#### Green Purchasing guidelines

In these guidelines, we make the following particular requests of suppliers:



#### \*1 JTEKT Supplier Association

The JTEKT Supplier Association comprises 209 suppliers. It is intended to foster mutual trust among members and raise their capabilities through activities such as quality management conventions, workshops, and lectures.



Managing Officer H. Fujii speaking at the JTEKT Supplier Association's quality management convention

## Social Report Together with employees

Part of the Management Stance under the Corporate Philosophy is JTEKT's resolve to "create a bright, energetic corporate atmosphere based on respect for people," which since FY2008 has also been positioned as part of JTEKT's CSR Policy. In accordance with this, JTEKT strives to promote workplaces excelling in respect for employee diversification, health & safety, and other such aspects.

### Respect for employees

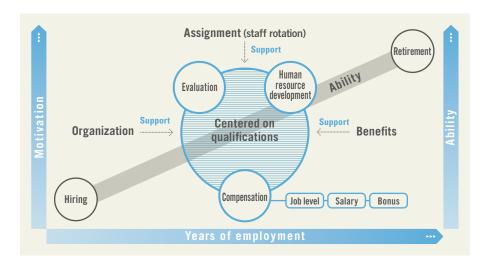
JTEKT fosters workplaces where human rights and diversity are respected and there is no discrimination, and where employees can strive to achieve high goals. We will continue striving to create workplace environments excelling in respect for people and enabling all employees to work comfortably.

### Labor-management relations

Based on the mutual trust and understanding between labor and management that has been steadily built over the years, JTEKT carries out various activities aimed at growing the company and improving the lives of employees. Direct dialogue between labor and management is held at such meetings as Central Production Subcommittee Meetings (\*1), where the companywide situation is explained; Central Labor-Management Meetings (\*2); Labor-Management Meetings (\*3), where common labor-management issues are discussed; and Workplace Discussions at plants and other business sites (\*4).

### Human resource development

Our Corporate Philosophy is to "seek to contribute to the happiness of people and the abundance of society through product manufacturing that wins the trust of society," and under that we aim to carry out human resource development to bring out the creative abilities of all employees in order to "create new value and provide society with joy and inspiration on a broad scale." Our human resource development system, consisting of training, evaluation and compensation, enables employees to continually improve their skills and provides them with a motivating working environment during their years in the company.



- <sup>+</sup>1 Central Production Subcommittee Meetings (semiannual)
- Discussions on safety, quality, and production.
- \*2 Central Labor-Management Meetings (annual)

Labor-management discussions and informationsharing on topics of mutual concern.

\*3 Labor-Management Meetings (as required) Discussions on labor contracts, wages, work hours, etc.

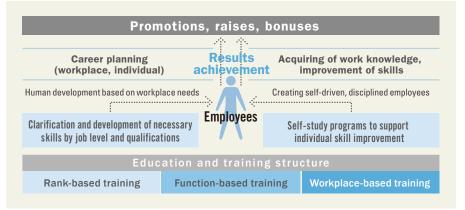
\*4 Workplace Discussions (monthly) Discussions on workplace safety, health, environment, production, quality, etc.

#### **Concept of human resource development**

Based on the following human resource development concept, JTEKT constructed a systematic human resource development system to enable all employees to grow while achieving a sense of accomplishment.

- 1. Develop employees who understand the Corporate Philosophy and are professional, creative, highly skilled, and able to achieve management goals.
- 2. Develop employees who are continually motivated to improve themselves and able to realize their true potential through self-driven, disciplined effort.
- 3. Develop employees who respect human rights, live in harmony with the environment, observe social rules, are sensible, and have an international perspective.

#### Human resource development system



#### Rank-based training types and main content

	Training	Main content
Managers	R3 training for new managers	Policy, daily, and workplace management
	R4 training for new office & engineering staff	Leadership, and preparation of business practice schedule
Office &	R5 training for office & engineering staff	Business communication skills
engineering staff	R6 training for office & engineering staff	Problem solution methods and concepts
	Training for office & engineering new employees	JTEKT employee basic knowledge and mindset
	Training for new Chief Leaders	Management basics and work schedule preparation
Production staff	Training for new Group Leaders	Problem solutions based on QC concept
	Training for new production employees	JTEKT employee basic knowledge and mindset

#### Human resource development for office & engineering staff

The JTEKT training system is composed of three pillars. In rank-based training, the required knowledge and skills and the responsibilities to be fulfilled by employees at each rank are clarified and practical training given. In function-based training, employees are taught advanced knowledge and skills from internal and external instructors who are skilled in special fields. In workplace-based training, employees are systematically taught specific skills related to their job. In addition, we support self-study efforts by employees to obtain various qualifications.

#### VOICE

#### Machining Dept., Kariya Plant **Hiroshi Teranishi**

Mr. Teranishi achieved a runner-up finish in the lathe category at the 25<sup>th</sup> National Skills Grand Prix held in Hyogo Prefecture, an event in which skilled workers selected from around Japan gathered to test their skills against one another.



#### I won a runner-up prize thanks to the help of my superior and senior associates.

I achieved this result thanks to the long training in lathe skills I received from my superior and senior associates. Practical training for the national technical skills test also was helpful for me. As a lathe specialist, I will strive to further improve my skills and contribute to the manufacture of high-accuracy machined parts.



#### TOPICS

Encouragement to take national technical skills tests

As a part of supporting the improvement of employees' skills, JTEKT encourages employees to take national technical skills tests in order to obtain specialized knowledge and skills as well as to foster a spirit of taking on new challenges. Those who have passed such tests become certified technicians, and in JTEKT, about 200 employees have passed such tests and are recognized as certified technicians in such fields as machining, electricity, and maintenance. JTEKT also provides financial incentives to those passing such tests. In the 2008 first-half national technical skills tests, three female employees obtained machineclass level-1 skill certifications, the first female JTEKT employees to do so.

#### Human resource development for production staff

As a manufacturer with business operations in the fields of steering systems, bearings and driveline components, and machine tools and mechatronics, in order to continuously foster human resources with top-level skills, we provide production staff with systematic training at the JTEKT Technical Training Center (\*1) and by OJT (\*2). We utilize national technical skill tests, an in-house technical skill testing system and skill-related lectures in cooperation with workplaces to foster highly skilled production staff that can be active on a global basis.

## Respect for human rights, equal opportunity and diversity

#### Utilization of diverse human resources

Included in JTEKT's Corporate Activities Standards is the following: "Respect the individuality of employees, create workplaces that motivate employees and enable them to fulfill their potential, and strive to provide each with abundant living circumstances." Measures adopted in order to utilize diverse human resources include hiring foreign employees; assisting female employees' career development; changing fixed-term employees to permanent employees; employing handicapped persons; providing assistance for those engaged in child-care or nursing-care; and providing post-retirement employment opportunities. Regarding fixed-term employees, even with the harsh management environment in FY2008 we carried out measures such as job transfers and work sharing to strive to maintain employment. In the handling of fixed-term employees, we follow compliance and do not cancel contracts or dismiss any employees unilaterally.

#### Composition of employees as of March 31, 2009

		Female	Total
Permanent employees	9,467	624	10,091
Fixed-term employees(*1)	527	128	655
Total	9,994	752	10,746

(\*1) Total fixed-term, part-time, reemployed, and temporary employees



→ Figure – 02

## Assisting female employees in developing their careers Figure -01 (balancing career and child-raising, etc.)

We provide equal opportunities based on motivation and qualifications regardless of gender. Specifically, we hire women for management-track positions, assign them based on aptitude, and promote them to management positions. With the adoption of our childcare leave and short-time working systems, we actively assist those who wish to balance their careers with child-raising and to work free from anxiety. Previously these systems applied only to those with children up to 3 years old, but in January 2009, we expanded the range to apply to those with children up to the point of entering elementary school to meet the needs of employees.

#### **Reemployment of retired employees**

#### In view of the increasing ratio of the elderly in Japan today, JTEKT established a Senior Partner System in April 2006 so that retired employees with high motivation and abundant knowledge and experience could continue working. Senior partners use their knowledge and experience to train younger employees who will become leaders of JTEKT. As of the end of March 2009, 450 such senior partners reemployed by JTEKT and related companies were working at various workplaces.

#### \*1 JTEKT Technical Training Center

JTEKT has a Technical Training Center whose purpose is to cultivate superior production-related employees.

#### \*2 **OJT**

Abbreviation for "On the Job Training," or training carried out during actual work.

#### Figure –01 Number of employees who took childcare leave



#### Figure -02 Number of senior partners in FY2008

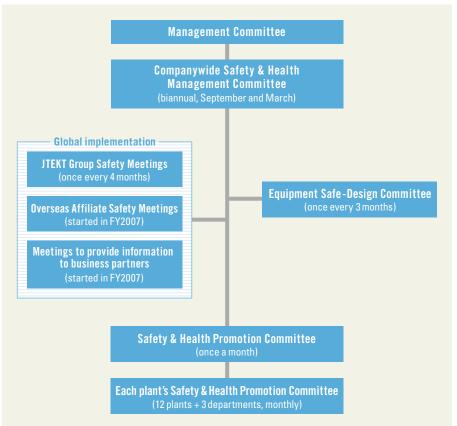
Number of those who are applicable		337
Number of applicants (a)		231
Number of reemployed (b)	JTEKT 183 Related companies 34	217
Rate of reemployment (b /a)		About 94%

### Health & safety

#### Management of safety & health

Under its "Safety & Health Policy," JTEKT conducts various companywide activities in order to create safer, healthier, more pleasant workplaces. In order to carry out this policy in a planned and efficient manner, we have a companywide control system. JTEKT's Companywide Safety & Health Management Committee discusses and determines policies, targets and activities related to safety & health, traffic safety and fire prevention and monitors progress. Regarding overseas safety & health activities, the parent plants in Japan, the overseas subsidiaries, and a secretariat in Japan carry out various activities and duties. Safety & health activity items and important information decided by the Safety & Health Promotion Committee is provided to employees at each plant by that plant's Safety & Health Committee in order to prevent accident reoccurrence and improve safety.

#### **Centralized control system**



#### Activities to achieve zero accidents



We have long promoted safety & health activities based on OSHMS (\*1) centered on risk assessment (\*2), but in order to further strengthen these activities, we have worked to carefully identify risk information and improve our system audit. Specifically, any risk information found through safety patrols and daily safety activities is included in risk assessment, and we received diagnoses by external organizations in order to evaluate the strengths and weaknesses of plants. This resulted in the reduction of total accidents in FY2008 from FY2007. However, the number of lost-day accidents (\*3) did not fall very much. Since most lost-day accidents occurred during abnormality-handling work, changeovers and maintenance, we will strive to reduce the risks in this work in FY2009.

#### Safety & Health Policy

- Maintain deep awareness that employees' safety & health is indispensable to JTEKT's business operations and proactively promote safety & health management activities to achieve this.
- 2. Comply with safety & health laws and the instructions and guidelines issued by administrative authorities by properly reflecting them in company regulations, and strive to identify and eliminate risk factors and hazardous substances in equipment and to promote accident prevention activities based on our safety & health management system with improved risk assessment.
- Raise the safety awareness of all employees, cultivate employees capable of creating safe workplaces, and strongly promote the following safety & health aims:

(1) Eliminate work accidents
(2) Create pleasant workplaces
(3) Prevent traffic accidents
(4) Strengthen fire-prevention management
(5) Promote mental and physical health
(6) Enhance safety & health education

4. Promote change and innovation at every phase while listening to employees' views.

#### \*1 **OSHMS**

Abbreviation for Occupational Safety & Health Management System, a system to responsibly, systematically and continuously promote safety & health management and improve safety & health standards at business facilities.

#### \*2 Risk assessment

Method to investigate potential workplace risks and implement proper risk-reduction measures.

#### \*3 Lost-day accidents

JTEKT defines lost-day accidents as work-related accidents resulting in work absence of 1 day or more.

#### Figure – 01

Change of industrial accident frequency rate [Lost-day accident rate]



Total work hours

#### **Promote activities systematically**

Described below are the main activities we carried out in FY2008.

#### 01 | Activities based on the safety & health management system

We pursued improvement of working methods and facilities by promoting risk assessment. A total of 17 risk assessment workshops were carried out at 12 plants with a total of 408 participants. All 12 plants had already obtained safety-related certifications from outside organizations, but in FY2008, the Kokubu, Kagawa, and Kameyama plants renewed their certifications. The Kariya, Okazaki, and Tokyo plants plan to renew theirs in FY2009.

#### 02 | Enhancement of work environments and employee safety awareness

We improved work environments by including daily safety & health activities in our risk assessment. We also strengthened our internal auditing related to safety by a voluntary OSHMS audit, plant patrols at each plant by the companywide coordinator with the plant's coordinator, plant audits by third-party organizations, etc.

#### 03 | Promoting efforts to improve equipment safety

We reviewed equipment rules (standards). Specifically, we completed standards for drop-prevention devices and emergency-stop circuits and implemented these at production sites. For other items, we only investigated the situation in FY2008 and plan to create standards in FY2009. We also implemented these countermeasures on 534 similar machines in order to prevent accidents. Further, we have expanded items determined by the Equipment Safe-Design Committee to overseas affiliates.

#### 04 | Improving work environments

#### → Figure – 01

Based on the guidelines for noise prevention issued by Japan's Ministry of Health, Labor and Welfare, we reduced noise at 5 class III areas (workplaces requiring improvement by law) in FY2008 (15 machines). Regarding the remaining 18 workplaces (190 machines) still classified as class III, we will strive to achieve zero noise by FY2013. In order to create work environments where older workers and women can work comfortably, we completed work evaluations based on a posture and weight evaluation method (\*1) in order to prevent backache at three plants in FY2007 and nine plants in FY2008 (all 12 domestic plants). Evaluation results did not indicate any workplaces required improvement. There were 19 places regarding which improvements should be studied or work should be limited to men, and all these have been switched to men-only workplaces.

#### Improving awareness and knowledge through education E Figure -02

One of the most important items within workplace safety & health activities is the planned conducting of safety & health training. We carry out rank-based training based on job level, special training based on job type, basic KYT 4R training (\*2), danger training, and skill training.

#### Figure -01 Improvement of workplaces with class II noise (Target: zero in FY2013)

FΥ	Number of improved workplaces (number of improved machines)	Number of workplaces (number of remaining machines)
2006	2 (2)	26 (263)
2007	8 (58)	19 (205)
2008	5 (15)	18 (190)
2009	3 (48)	15 (142)
2010	5 (20)	11 (122)
2011	5 (57)	7 (65)
2012	6 (30)	4 (35)
2013	7 (35)	0 (0)

#### \*1 Posture and weight evaluation method

Factors relating to backache are posture and the weight of objects handled. This method evaluates posture and weight by points to numerically evaluate backache risk.

#### Posture and weight evaluation criteria

Workplaces with 30 points or more	Improvement required
Workplaces with 20 points or more	Improvement should be studied or work limited to male workers

#### Evaluation results (FY2008)

Workplaces with 30 points or more	0
Workplaces with 20 points or more	19 workplaces (switched to men-only workplaces)

#### → Figure – 02

Main training types (number of attendees in FY2008)

Rank-based	Safety management training	
training	Group Leader training	
	New employee training	
	Training Center student training	57
Special training	Grinding stone replacement	61
	Arc welding	59
	Robots	61
	Low-voltage handling	59
	Vibrating tool handling	31
	Organic solvents	246
Others	All-Toyota training for those overseeing outside workers	397
	All-Toyota training for those overseeing construction	544
	Elevated-work training	675
	Electric shock prevention training	665
	Risk assessment training	408
Total		3,561

#### \*2 Basic KYT 4R training

KYT means Kiken (hazard), Yochi (prediction), and Training. 4R means "4 rounds." This is hazard-prediction training through 4 phases.

#### TOPICS

Kariya Plant reaches 15,700,000 hours of zero accidents

In January 2009, the Kariya Labor Standards Inspection Office presented the Kariya Plant with a class 5 zero-accident certificate, an award issued by Japan's Ministry of Health, Labor and Welfare to metal-machining companies achieving zero accidents. This certificate recognizes the Kariya Plant's achievement of zero lost-day accidents from April 6, 2004, to November 20, 2008 (15,700,000 hours).



Receiving zero-accident certificate

#### Achieving mental and physical health

Maintaining the health of all employees is indispensable to business activities. JTEKT actively implements various programs to maintain employees' mental and physical health.

JTEKT proactively promotes mental health measures focused on preventing depression.

In addition to educating managers about mental health and all employees about stress

management, we conduct stress checks so that employees can understand their stress

levels and we can grasp workplace situations. Based on these stress checks, we

counsel high-stress individuals and at an early stage deal with any cases requiring

mental care. As a result of these mental health activities, the number of employees who

missed work due to mental disorders in FY2008 was reduced to 60% of the level of

Stress checks

Stress management

education (6 business sites)

Critical path for mental health improvement

Mental health

(800 managers)

ation for mai

Listening education

(1.200 participants)

Stress management

(9 business sites)

the previous fiscal year (number calculated based on lost work days).

Mental health education for managers

**Health counseling** 

(480 managers)

Listening education

(740 participants)

at workplaces

#### 01 | Achieving mental health

Actions

health education

Mental I

Self-discovery

Early discovery

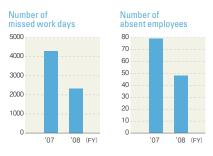
of abnormalities

Managers

All employees

#### → Figure – 01

Figure –01 Number of work absences due to mental disorders



#### 02 | Measures against overworking

Mental

health lecture

#### → Figure – 02

It is a company's obligation to have employees working long hours be interviewed by a doctor to ensure health maintenance. Since 2006, regular employees working long hours have received special checkups, and since May 2008, we are having all such managers receive interviews as well. During interviews, an industrial physician checks their degree of fatigue and work situations. Employees determined to have accumulated fatigue are given lifestyle guidance mainly with regard to limiting overtime work and getting sufficient rest and sleep.

Personnel Dept.	Safety & Health Control Office, industrial physician	Each department	Individuals
Provision of	Grasping of long-hour workers		
information on overtime work	Employees working 45 hours of overtime per month in 3 consecutive months	Instruction to complete questionnaire	Questionnaire completion, submission
	Employees working 70 hours of overtime in one month	Instruction to complete questionnaire, Interview with industrial physician	Questionnaire completion, submission / Interview with industrial physician
Diagnosis by questionnaire, interview with industrial physician Diagnosis by questionnaire (if employee wishes or physician deems necessary, interview with industrial physician)			
	Diagnosis by industrial physician Work (overtime) limitation unnecessary	Compliance with work (overtime) limitation	

#### 03 | Special health checkups and healthcare guidance

JTEKT began a program of special health checkups and healthcare guidance in April 2008 for employees 40 years old and over. Specific guidance is given based on the results of the special checkups and periodic checkups.  $\rightarrow \text{Related article in page 17}$ 

TOPICS

Health promotion by eco-commuting

Since October 2008, JTEKT has provided an "eco-commuting" allowance to employees living 2 to 9 km from the company and commuting by bicycle or on foot. The objective of this allowance is to contribute to the global environment and promote the health of employees.

Figure -02 Number of employees receiving checkups for working long hours (FY2008)

Managers	About 2,640	Average: 220/month
Staff	About 1,290	Average: 107/month

## Social Report Together with local communities

Recognizing its responsibility as a member of local communities, JTEKT actively seeks to communicate with local residents to gain their understanding and trust. We also encourage employees to participate in community cleanup and traffic safety activities as a means of contributing to society.

### Promotion framework

One of the six specialized subcommittees under JTEKT's companywide Global Environment Conservation Committee is the Community Environment Subcommittee. Through FY2008, this Subcommittee promoted activities to make JTEKT a company loved by local residents and trusted by government agencies, but in April 2009, the responsibility for communication with local communities was transferred to the Social Contribution Working Group under the CSR Promotion Committee, and this WG currently promotes these activities.

## **Communication**

#### Holding community discussions

We periodically invite local residents to participate in community discussions at each plant. At these meetings, we report the results of environmental conservation activities, exchange opinions with local residents, and provide plant tours. We build good relationships with local communities through such activities. A total of 153 residents attended such discussions at plants in FY2008.  $\rightarrow$  Related article in page 37

#### **Communication through "View a manufacturing site" events**

JTEKT holds "View a manufacturing site" events to allow local residents to understand plant workplaces better and exchange information. Seven Toyota Group companies have been holding such events since 2000. In FY2008, JTEKT held such an event on November 3 at its Kariya Plant and explained the manufacture of machine tools to 38 visitors. Comments from visitors included, "I was surprised to learn how precise machine tools are," and "I learned how the plant thinks about the environment." There have been requests for such an event at an electric power steering plant, and JTEKT is currently making plans to hold one.

#### **Deepening friendships through plant festivals**

In order to deepen friendships between employees, their families and local residents, many JTEKT plants hold festivals every year. In FY2008, nine plants held festivals that were attended by a total of 8,557 persons. At the festivals there were stage shows, games, booths to sell goods, and various other activities. The Nara Plant gave a plant tour with product explanations to employees' children. Employees of the Higashikariya Plant put on a fireworks display. Visitors at each plant's festival were able to enjoy a wide variety of activities.



Community discussion (Tadomisaki Plant)



"View a manufacturing site" event (Kariya Plant)



Plant festival (Higashikariya Plant)

### Activities to contribute to local communities

#### **Participation in local cleanup activities**

JTEKT aims to exist in cooperation with local communities and actively participates in community beautification activities and cleanup activities around plants. This also serves to raise the environmental awareness of employees. In FY2008, a total of 1,357 employees participated in local cleanup activities.

#### May 9, 2008 : Participation in Kariya Zero Garbage Activity

Fifty-two students from JTEKT's Technical Training Center collected about 15 bags of garbage (70 liters) in 6 hours (Kariya Plant).

May 29 and November 6, 2008 : Participation in the Akemi Industrial Park 530 (Zero Garbage) Campaign Forty employees collected empty cans and plastic bottles and cigarette butts (Toyohashi Plant).

#### Participation in activities to contribute to local communities

JTEKT employees participate in various activities to contribute to local communities. We will continue efforts to create a corporate culture wherein all employees are encouraged to voluntarily participate in activities to support the local community.

**October 4, 2008 : Participation in Moonlight in Fujiwara-kyo** Employees helped set up, light, and then clean up 10,000 painted glass candles made by kindergarten students in the city of Kashihara.

#### February 7 and 14, 2009 : 12<sup>th</sup> JTEKT Challenge Cup in Kariya

Thirty-two teams and about 500 children from elementary schools in the city of Kariya participated in this event, at which JTEKT employees served as referees and also served meals to the children and their parents.

### Fire prevention and traffic safety activities

#### **Promoting fire prevention activities**

Because fire prevention activities are important to a company aiming to win the continual trust of communities, JTEKT carries out various fire prevention activities under the supervision of local firefighting authorities. For example, the Tokyo Plant participated in a joint fire prevention training activity carried out based on a Large-Scale Hazardous Material & Facility Mutual Support Agreement (\*). We conduct fire prevention activities at each business site under a motto of "protecting one's own workplace," and plants are carrying out measures to improve buildings and equipment so that fires won't occur.

#### Creating workplaces where fires do not occur

- Maintain latest versions of fire maps and fire prevention charts & procedures
- Inspect dangerous buildings and equipment based on laws & internal rules
- Inspect high-pressure gas equipment based on laws & internal rules
- Inspect one's own workplace (by workplace manager)
- Carry out initial-stage firefighting training

#### Traffic safety activities together with the local community

As a company involved in the auto industry, JTEKT considers promoting traffic safety to be one of its important social responsibilities and works with local residents, community groups, the police, etc. to actively carry out traffic safety patrols and various other traffic safety activities. The Aichi Prefecture Safe Driving Council designated JTEKT's Toyohashi Plant as a safe-driving model facility. In FY2008, this plant set up a traffic safety booth at its festival and educated visitors on traffic safety by quizzes and flyer distribution.



Kariya Zero Garbage Activity



Moonlight in Fujiwara-kyo



JTEKT Challenge Cup



#### \*Large-Scale Hazardous Material & Facility Mutual Support Agreement

This agreement was made under the Fussa Police Station of the Metropolitan Police Department by six companies having large-scale hazardous material & facilities as specified by Japan's Fire Prevention Law regarding the mutual provision of firefighting equipment, etc. in the case of a fire.



Traffic safety activities at plant festival (Hanazono Plant)

<ul> <li>"Yellow-stop" activities</li> </ul>	<ul> <li>Traffic safety patrol</li> </ul>
April: 430 participants	July: 340 participants
September: 520 participants	December: 750 participants

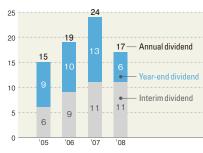
## **Together with shareholders and investors**

JTEKT believes that by continually responding to society's expectations through its business activities and striving to carry out management with a high degree of transparency, it can construct long-term relationships of firm trust with its shareholders and investors.

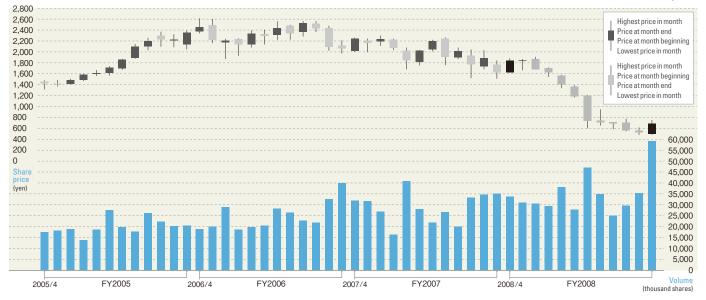
### Business performance and return of profits Brigure - 01

FY2008 consolidated sales were 1,017 billion yen, a decrease of 140.5 billion yen, or 12.1%, from the previous year. As a result of decreased sales caused by a rapid decline in demand, yen appreciation and an increase in raw material costs, consolidated ordinary income was 11.1 billion yen, a decrease of 61.7 billion yen, or 84.8%, from the previous term. Consolidated net income was minus 11.9 billion yen, a decrease of 55.4 billion yen from the previous term. Based on these results, we issued an annual dividend to shareholders of 17 yen per share, a decrease of 7 yen per share from the previous term. We will continue working hard to reform our corporate structure; review and reduce costs; and develop new products that are environmentally friendly, compact and lightweight in order to achieve profit.





#### Transition of share price



### General shareholders meeting

JTEKT holds its general shareholders meeting every June. After an opening message by the President and presentations of an audit report, business report, reports on balance sheets and other financial statements, resolutions are passed.

### Information disclosure

Management transparency is essential to the construction of long-term relationships of trust with shareholders and investors, and therefore JTEKT strives to continually disclose timely, fair and accurate information.



109<sup>th</sup> General Shareholders Meeting

#### **Main IR activities**

- Hold briefings every six months to explain results
- Issue reports (interim and year-end)
- Issue annual reports (interim and year-end)
- Display financial and IR information on website
- Carry out individual visits Conduct plant tours

## Environmental Report

### Strengthening internal and external communications with an eye toward the earth's future

JTEKT, in order to support the sustainable growth of society and the earth, places high priority on environmental conservation when determining its corporate activities.

This section introduces the efforts JTEKT made in FY2008 to promote environmentally friendly manufacturing. JTEKT strove to maintain a comprehensive view, promoting activities on a global basis and striving to lower environmental load in all stages within the business cycle. JTEKT will continue looking toward the future with an eye to make improvements in all areas without being satisfied with the present situation.

## Environmental management



Kickoff meeting on reduction of CO<sub>2</sub> emissions held in Europe and attended by European affiliates





Pre-registration of substances subject to REACH completed



Training for environmental emergency response conducted at each plant



#### **Environmental Report**

## Summary of FY2008 activities



## Activities related to production and logistics

₽44

Improved transport to Kyushu (western Japan) reduced CO<sub>2</sub> emissions 229 tons per year



Waste fluid requiring disposal by subcontractor eliminated by introduction of ozone treatment technology

→ P47



FY2010 target for reducing output of PRTR substances already achieved ■ P47

### Activities in the development and design stage



World's first column type EPS system with motorized tilt & telescopic functions for full-sized and high-end vehicles developed





Weight of mini-vehicle bearings reduced and torque loss reduced 30% by shape change

→ P42



Received 2008 JSPE Technology Award for grinding process technology lowering volume of coolant supply

→ P43



Environmental Report | Summary of activities

## Environmental Report Environmental management

JTEKT, with the aim of being an environmentally friendly manufacturer, carries out environmental conservation activities on a groupwide basis in order to contribute to the creation of a sustainable society. Activities are pursued in all business fields, including activities to reduce environmental load through achieving high productivity and activities to develop environmentally friendly products.

## Promotion structure

Under the direction of the Global Environmental Preservation Committee chaired by the President, JTEKT issues a companywide policy twice yearly, monitors activity progress, studies problems, and determines countermeasures. In April 2009, JTEKT revised its Environmental Policy to clarify that environmental conservation activities must be carried out not only by product development and manufacturing departments but also by sales and administrative departments.



\* Outside the scope of third-party certification

#### Promotion of global environmental management

In view of the globalization of JTEKT's operations and to promote groupwide efforts, we established a Global JTEKT Group Environmental Coordinating Committee to carry out environmental conservation activities in cooperation with affiliated companies in Japan and overseas. In FY2008, JTEKT Group Environmental Coordinating Committee meetings were held with manufacturing affiliates in Japan to set common targets for reduction of CO<sub>2</sub> emissions and waste and to jointly monitor the progress of activities to reach these targets. In Europe, a kickoff meeting for reduction of CO<sub>2</sub> emissions was held to strengthen measures against global warming. Also, JTEKT audited the environmental management of seven affiliates in China.

#### **Environmental Policy**

JTEKT, based on deep awareness of the importance of environmental conservation, will proactively pursue environmental conservation in all business activities in the fields of bearings, driveline components, steering systems, and machine tools & mechatronics at all plants, head offices and sales offices with the active participation of all employees.

- Continuously improve our environmental management system to harmonize our business activities with the environment and promote the cooperation of all suppliers of raw materials, etc.
- Comply with all requirements of environmental laws, regulations, treaties, agreements, etc. related to our business activities and strive actively to prevent environmental pollution. Also, contribute to society by accurately grasping technical needs related to environmental conservation and developing products to meet such needs.
- Raise the environmental awareness of all employees and pursue the following as important environmental management objectives in relation to all our business activities, products and services:
  - (1) Develop and design environmentally friendly products
  - (2) Reduce CO<sub>2</sub> emissions through effective energy utilization
  - (3) Reduce waste
  - (4) Thoroughly control chemical substances and reduce environmentally burdensome substances
- (5) Reduce raw materials and consumable materials
- (6) Reduce CO<sub>2</sub> emissions in logistics
- (7) Maintain and improve community environments
- 4. Maintain an environmental conservation promotion structure, clarify the purposes and targets of environment conservation activities, conduct periodic reviews, and pursue environmental conservation activities with the participation of all employees.
- Maintain an awareness of the community surrounding each business site, maintain good communication with concerned government agencies and local residents, and publicly disclose information on our environmental management activities as necessary.

April 1, 2009

#### торіся

Kickoff meeting held in Europe on reduction of CO<sub>2</sub> emissions

In November 2008, the first meeting of the Global JTEKT Group Environmental Coordinating Committee for Europe was held at JTEKT's affiliate in Belgium as a kickoff meeting on activities to reduce CO<sub>2</sub> emissions. Representatives from all nine European manufacturing affiliates attended this meeting. The participants set common reduction targets for Europe and shared examples of successful activities. Encouraged by this meeting, they will continue working to strengthen activities in Europe.



First meeting of the Global JTEKT Group Coordinating Committee for Europe (JTRE, Belgium)

## Targets and results

### **JTEKT Environmental Action Plan**

To contribute to the creation of a recycling-based society, JTEKT has issued an Environmental Action Plan stipulating its activities policy and targets to be achieved by FY2010. Following this plan, JTEKT along with its affiliated companies is carrying out environmental conservation activities. In the case of action items regarding which the FY2010 goals were already reached, we set even higher targets and are working to achieve them.

\*Per-sales-unit amounts

JTEKT uses per-sales-unit amounts calculated by dividing CO2 emission amount by sales volume as its CO2 emission reduction index.

Asterisk (\*) indicate internal "challenge" targets.

### [1] Enhance environmental conservation activities through further efforts to reduce environmental load

		Target and results percentages in parentheses are in comparison with the bas			h the base year.	
Action items	Details	FY2008 targets	Results	Assessment	<b>Related</b> pages	
Promote measures	• CO2 emissions: 5% reduction from FY2003 by the end of FY2010	266,800 t-CO2 (+5%)	239,665 t-CO2 (-6%)	0		
to prevent	$\bullet$ CO2 emissions per sales unit (*): 30% reduction from FY2005 by the end of FY2010*	386 t/billion yen (–18%)	407 t/billion yen (-14%)	×	44	
global warming	$\bullet$ CO2 emissions per sales unit (global): 30% reduction from FY2003 by the end of FY2010*	462 t/billion yen (-21%)	453 t/billion yen (-23%)	0		
Strengthen control of environmentally burdensome substances and reduce usage       Substances subject to PRTR: 50% reduction from FY2006 by the end of FY2010*       85t (-17%)       68t (-34%)		68t (-34%)	0	47		
	<ul> <li>Zero landfill waste: Zero by the end of FY2010*</li> </ul>	19 t	9 t	0	0	
	Incineration waste: 90% reduction from FY2001 by the end of FY2010*	800t (-80%)	686 t (-83%)	0		
Reduce waste and	<ul> <li>Wastes per sales unit: 30% reduction from FY2003 by the end of FY2010*</li> </ul>	90 t / billion yen (-26%)	88 t / billion yen (—27%)	0	46~47	
promote resource conservation	$\odot$ Weight of primary materials per sales unit: 5% reduction from FY2005 by the end of FY2010	1.520 t /million yen (-3%)	1.456 t / million yen (-7%)	0	40.141	
	$\odot$ Amount of primary materials per sales unit: 5% reduction from FY2005 by the end of FY2010	9.37 million yen/million yen (-5%)	10.19 million yen/million yen (+3%)	×		
	$\odot$ Amount of secondary materials per sales unit: 5% reduction from FY2005 by the end of FY2010	4.23 million yen/million yen (-5%)	4.30 million yen/million yen (-3%)	×		
Promote logistics streamlining	• CO2 emissions in logistics: FY1990 level (15,865t - CO2) or lower by the end of FY2010	17,000 t-CO2	14,779 t-CO2	0		
	<ul> <li>CO2 emissions per sales unit in logistics: 40% reduction from FY1990 by the end of FY2010 [improvement in long-distance transportation]</li> </ul>	2.51 t/billion yen (-31%)	2.51 t/billion yen (-31%)	0	45	

### [2] Develop and design environmentally friendly products

Action items	Details	Results	Assessment	Related pages
Promote efforts in the development and design stage	• Reduce environmental load	-Development of column type electric power steering system with motorized tilt & telescopic functions -Development of lightweight, low-torque hub unit wheel bearings for mini-vehicles -Development of low-torque thrust needle roller bearings -Improvement of durability of intelligent torque controlled couplings (ITCC) for 4WD vehicles -Reduction of environmental load of small-scale machining center series	0	40~43
Strengthen cooperation with suppliers	<ul> <li>Further promote green purchasing</li> <li>Formulate environmentally friendly purchasing guidelines to share with suppliers</li> </ul>	Expanded Green Purchasing Guidelines	0	22

### [3] Strengthen environmental management system suitable for consolidated management

Action items	Details	Results		<b>Related</b> pages
Develop structures and improve activities	• Share basic policy and conduct guidelines	Continuing activities with group companies in Japan and overseas	0	34,38,40

### [4] Actively participate in social activities as a corporate citizen

Action items	Details	Results	Assessment	Related pages
Promote social contribution activities	• Participate in environmental conservation activities	Implemented clean-up activities around the plant	0	30
Maintain close communications with local communities	Cooperate with and support local community groups     With local residents regarding environmental issues		0	29
Promote public relations activities and information disclosure	is activities and Improve and continue to issue our environmental reports Issued CSR report 2008		0	

## Environmental impact of business activities

JTEKT strives to quantitatively grasp resource and energy amounts used (input) and amounts discharged to the environment (output) and reduce environmental load in all business activity stages.

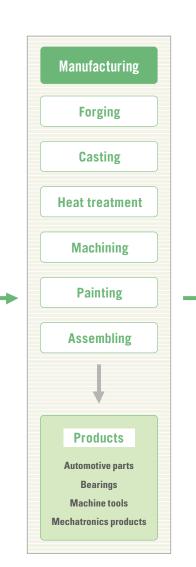
### Resource and energy input amounts and environmentally burdensome substance output amounts I Figure - 01

Figure 01 shows the resource and energy input amounts and environmentally burdensome substance output amounts for FY2008. In order to minimize the contribution of business activities to global warming, JTEKT strives to reduce energy usage in all production processes such as forging, casting, heat treatment and machining and to switch to more-efficient energy sources such electricity and natural gas. At present, 95.6% of JTEKT's energy consumption is electricity and natural gas by thermal conversion.

### → Figure – 01

Resource and energy input amounts and environmentally burdensome substance output amounts

INPUT				
Resource/en	ergy input amounts			
Raw materia Total: 231,00	Is (metals, nonferrous metals) 00 t (–20%)			
Energy <sub>Total:</sub> 5,957,	<b>260</b> gj (-14%)			
Electricity				
Natural gas	14,700,000 Nm <sup>3</sup> (-16%)			
LPG	2,753 t (-12%)			
	646 k (-26%)			
Heavy oil A	2,562 k (-34%)			
Water <sub>Total:</sub> 2,627,	000 m³ (-8%)			
Service water	511,000 m <sup>3</sup> (+3%)			
Industrial water				
Groundwater				
Chemical substances (amounts of substances subject to PRTR) Total: 82 t (-38%)				
Logistics				
Packaging and packing materia	ıls 5,237 t (+3%)			



### Notes regarding

"Resource and energy input amounts and environmentally burdensome substance output amounts" charts

#### CO<sub>2</sub> conversion coefficients to calculate CO<sub>2</sub> emissions volume

Electricity	0.3817 kg-CO2/kWh
Heavy oil A	2.7000 kg-CO2/l
Kerosene	2.5308 kg-CO₂/ℓ
Propane gas	3.0094 kg-CO2/kg
Natural gas	2.3576 kg-CO2/m <sup>3</sup>

The CO<sub>2</sub> conversion coefficients in the above table were used both in Japan and overseas. Regarding the conversions in this report, to enable assessment of JTEKT improvement results, we fixed the electrical conversion coefficients, and for cogeneration CO<sub>2</sub> reduction results, we converted by thermal energy average and indicated the result of that as output amount.

Heavy oil A: Among the three classes (A, B, C) of heavy oil, heavy oil A is the closest to kerosene and is used as fuel for boilers or heating.

GJ: Giga-joule (unit of heat quantity), G=10<sup>9</sup>

PRTR regulation: Pollutant Release and Transfer Register is a system to collect and disseminate information on environmental releases and transfer of toxic chemicals from industrial and other facilities.

COD: Chemical Oxygen Demand (measure of water quality)

OUTPUT		
Environmentally burdensome substance output amounts		
Emissions into the atmosphere		
CO2 239,665 t-CO2 (-15%)		
Discharged amounts of substances subject to PRTR 56 t (–20%)		
Discharged to waterways		
Wastewater amounts 895,000 m <sup>3</sup> (–13%)		
COD 7.8 t (+13%)		
Nitrogen 7.9 t (-5%)		
Phosphorus 0.08 t (-20%)		
Substances subject to PRTR 0.1 t (±0%)		
Waste leaving the company		
Waste 695 t (-42%)		
Recycling 11,915 t (-14%)		
Recycling for profit 39,005 t (–19%)		
Substances subject to PRTR 12 t (-31%)		
Logistics		
CO2 emissions in logistics 14,779 t-CO2 (–16%)		

\* Percentages in parentheses are comparisons with the previous fiscal year.

## Reduction of local community environmental risks

JTEKT strives to minimize environmental risk to local communities such as the risk of environmental accidents or environmental law violation by formulating preventive measures. We review cases that had the potential to lead to an accident or violation, identify causes, implement countermeasures, and communicate these throughout the company so that no such accident or violation will actually occur. We also carry out training for responding to environmental emergencies once a year.

### Situation regarding legal compliance with environmental laws and regulations

In FY2008, JTEKT did not receive any fines or penalties and was not the subject of any lawsuits related to environmental matters.

### **Environmental complaints and accidents**

JTEKT has established internal standards (\*1) regarding amounts of plant wastewater discharge and substances released into the atmosphere that are stricter than regulatory amounts and strives to prevent environmental accidents and complaints. While JTEKT had no accidents and received no complaints regarding environmental matters in FY2008, there were four cases in which plant wastewater discharge COD (Tadomisaki Plant) and nitrogen content (Hanazono Plant) exceeded internal standards and that potentially could have resulted in problems. We thoroughly investigated the causes and took corrective measures for each of these cases, and expanded these measures to all of our plants. We will continue to promote preventive activities on a continual basis.

### Response to REACH regulation (new European chemicals legislation)

In response to the new REACH European chemical regulation (\*2), which went into effect in June 2007, JTEKT conducted many internal meetings with the participation of all concerned departments. Participants listed all items (substances and compounds) requiring pre-registration under REACH that were being used by JTEKT's European affiliates and completed pre-registration by the deadline of December 1, 2008. JTEKT will continue efforts to complete normal registration by the deadline based on the chemical substance usage amount and control substances of high concern.

### Soil and groundwater measures (continued report)

→ Figure –01

Regarding the groundwater contamination the Kariya and Okazaki plants had previously caused by the trichloroethylene they used as cleaning agents, etc., in 1998 they implemented a pumping and aeration system (\*3) as a sewage leakage-prevention and purification measure. Furthermore, in FY2004 the Okazaki Plant adopted a microbial purification system (\*4) that utilizes microbes stimulated by nutrients. As a result, the soil and groundwater quality of these plants has significantly improved and now satisfies the regulatory standards in most designated places. Measurement results were reported to the local government agency and to local residents at community discussions.

### Environmental audits

ightarrow Related article in page 29

JTEKT receives a once-a-year internal audit as well as external audits to ensure that its management system is properly maintained and satisfies ISO 14001 requirements. Audit results are reported to JTEKT's top management through the Global Environmental Conservation Committee, which oversees companywide environmental conservation activities.

### **Internal audits**

Although the 2008 internal audit revealed that certain log content was insufficient and the action plan was partly unclear, no deficiencies were recorded. Also, workshops were held for employees qualified to carry out internal environment audits in order to confirm their auditing capability and raise their skills. Based on such activities, we will continue efforts to improve our pool of employees capable of conducting these audits.

\*1 Internal standards

JTEKT has set its internal standards at 80% of the regulatory requirements.

### \*2 REACH regulation

REACH stands for Registration, Evaluation, Authorization and Restriction of Chemicals. This regulation is intended to minimize potential harm to human health. Manufacturers handling chemical substances in the European region in quantities of one ton or more per year are required to assess safe use thereof, submit a registration to the European Chemicals Agency, and disclose information to the public in order to clarify their responsibility as manufacturers and ensure problem prevention.

### → Figure – 01 Trichloroethylene measurement values

Dianta	Maximum measurement values in groundwater		
Plants	ts FY2007 FY200		
Kariya	0.710 mg /ℓ	0.472 mg/l	
Okazaki	0.137 mg /ℓ	0.040 mg/l	

\*Environmental standard:0.03mg/l \*For plants other than the above, no trichloroethylene was detected in measurements taken in wells around the plant horders

### \*3 Pumping and aeration system

Groundwater is pumped up and spraved and air is blown on it from below to aerate and separate organic solvents, which are made to adhere to activated carbon for removal

### \*4 Microbial purification system

This is a method of restoring contaminated environments by utilizing microbial function. The purification capability of microbes living in the environment is raised by injection of nutrients, etc

### **External audits**

In March 2009, in order to renew its ISO 14001 certification as required every three years, JTEKT received an audit to assess its environmental management system and activities from FY2006 to FY2008. In this audit, JTEKT received five suggestions for improving the management system, but no deficiencies were recorded. The auditors commended JTEKT for companywide activities such as the "Mottainai Activity" (\*1) being carried out with the participation of all employees under the leadership of the Person Responsible for Environmental Management based on a company slogan of "a manufacturing company friendly to the environment." They confirmed that JTEKT's management system was being continuously maintained and improved and renewed our certification.

# Environmental management system certification in the JTEKT Group

→ Figure – 01

In FY2008, two group business sites in China acquired ISO 14001 certification.

### Environmental accounting

JTEKT utilizes environmental accounting in order to quantitatively grasp the costs and benefits of environmental conservation activities and to effectively and efficiently promote continuous improvements. At the same time, it discloses this environmental accounting information to stakeholders to help them understand JTEKT's environmental conservation activities.

### **Environmental conservation costs**

Environmental conservation costs (Millions of			
Туре	Details	Investments	Costs
Business on-site costs     Pollution     prevention costs	<ul> <li>Maintenance of drainage</li> <li>Maintenance and repair of wastewater treatment facilities</li> <li>Maintenance and repair of dust collectors, etc.</li> </ul>	126	291
2 Environmental conservation costs	<ul> <li>Measures for energy conservation</li> </ul>	203	58
③ Resource recycling costs	<ul> <li>Investment and management related to waste reduction, etc.</li> <li>Waste disposal and recycling</li> </ul>	118	609
Upstream and downstream costs	<ul> <li>Green purchasing</li> <li>Amount paid to industrial organizations</li> </ul>	_	657
3 Management activity costs	<ul> <li>Training activities</li> <li>Maintenance of ISO 14001 certification</li> <li>Environmental monitoring, measurements, etc.</li> </ul>	_	163
4 R&D costs	<ul> <li>R&amp;D for eco-friendly products</li> </ul>	798	1,719
Social activities costs	<ul> <li>Disclosure of environmental information</li> <li>Tree-planting, etc.</li> </ul>	_	61
6 Environmental damage costs	<ul> <li>Local tax on pollutant amounts (Tokyo and Tokushima)</li> <li>Soil and groundwater restoration</li> </ul>		4
Total	Total		
Grand total	Grand total		

### Economic benefit of environmental conservation measures (\*2)

		(Millions of yen)
	Details of benefits	Benefit amount
Income	Business income from recycling waste generated by main business activities, used products, etc.	1,538
	Energy-cost reduction from promoting energy conservation	430
Expenditure reduction	Reduction of waste treatment costs resulting from resource conservation and recycling	52
Total		2,020



External audit

### \*1 Mottainai Activity

Employees are instructed in environmental awareness workshops to have "mottainai" ("wastefulness") awareness and not use energy wastefully or throw away items wastefully and to turn off lights and equipment not in use, etc.

# ➢ Figure – 01 Group companies acquiring

<b>SO</b> <sup>•</sup>	14001	certification	in FY2008	(overseas)
------------------------	-------	---------------	-----------	------------

Affiliate	Certification
JSSX (China)	September 2008
KWA (China)	December 2008

#### \*2 Economic benefit of environmental conservation measures

Items such as contribution to products' added-value, environmental risk avoidance, and corporate image improvement are not included in the calculation. The scope is limited to items regarding which economic benefit can be quantitatively calculated. Depreciation costs are not included. Expenditures with multiple outlay purposes are calculated pro-rata.

#### Company covered:

JTEKT Corporation (nonconsolidated) (head offices, branch offices, logistics centers, R&D departments, and all plants)

Period covered:

FY2008 (April 2008 to March 2009)

### **Environmental accounting results for FY2008**

→ Figure – 01

The total environmental conservation cost for FY2008 was 4.81 billion yen, comprising 1.25 billion yen in investments and 3.56 billion yen in expenditures. This marked a decrease of 0.56 billion yen, or 10.4%, from the previous fiscal year. Most of the investments were made at the Tadomisaki and Hanazono plants for ozone treatment equipment installed to reduce waste and at the Kokubu Plant for conversion to gas as a measure against global warming. The economic benefit of environmental conservation measures was 2.02 billion yen, an increase of 0.12 billion yen, or 6%, from the previous year.

## Environmental education and training

### **Environmental education**

JTEKT carries out various types of environmental education such as environmental awareness education and internal environmental auditor education in order to raise the environmental awareness and skills of employees. Also, in the companywide education curriculum including classes for new employees, new managers, management-track employees, and production staff, content is taught on environmental conservation.

### 01 | Environmental awareness education

JTEKT carries out environmental awareness education for employees as part of its "Environment Month" every June. The slogan for the FY2008 awareness education was "Let's each think of activities we can do to conserve energy and prevent environmental problems!" Meetings were held at each workplace to discuss and decide environmental conservation activities in areas such as reduction of CO<sub>2</sub> emissions and elimination of environmental complaints and abnormalities.

### 02 | Internal auditor education

JTEKT carries out education on internal auditing skills for employees of JTEKT and affiliated companies once a year. In FY2008, 40 persons attended this course and were newly registered as internal environmental auditors. In addition, we carry out skill-improvement education for registered internal environmental auditors to promote a better understanding of auditing methods, relevant laws and regulations, and JTEKT's environmental management system.

#### Number of employees obtaining main environmental qualifications in FY2008

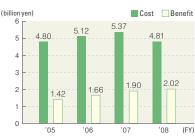
		Air	25
Pollution con	Dellution control monocore	Water	30
	Pollution control manager	Noise	23
		Vibration	18
	Energy manager		26
	Energy management staff		6
	Internal environmental auditor		287

Specially controlled industrial waste manager	34
Hazardous material handler (first-class)	3
Hazardous materials handler (second-class)	352
Hazardous materials handler (third-class)	39
Chief electrical technician (first-class)	1
Chief electrical technician (second-class)	12
Chief electrical technician (third-class)	22

### **Environmental emergency response training**

At each worksite, JTEKT has control manuals for handling emergencies such as sudden accidents and natural disasters causing leakage of oil or chemical substances. Once a year, environmental emergency response training is carried out to confirm that actions are carried out according to the manuals.

### Figure -01 Environmental conservation costs and economic benefits





Environmental awareness education (attended by 591 employees)

### VOICE

Environment Control Dept. Satoru Yamamoto



### We hope to cultivate environmental "key people" through auditor education

In internal environmental auditor education, we teach on interpretation of ISO 14001 standards and about environmental laws and regulations, and we also carry out simulated audits using case studies. We aim through this education not only to improve auditing skills but also to develop environmental "key people."



Environmental emergency response training (Kagawa Plant)

# Activities in the development and design stage

JTEKT has positioned the development and design of environmentally friendly products as an important environmental management theme.

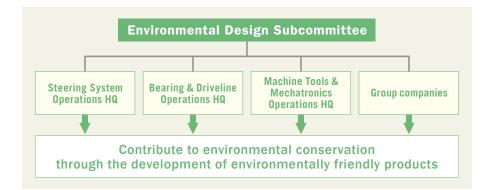
Through technical innovation in the development and design stages,

we strive to create products contributing to environmental conservation on a global basis.

### Promotion structure

### Management by the Environmental Design Subcommittee

Under the direction of the Environmental Conservation Committee, which oversees JTEKT's environmental conservation activities, the Environmental Design Subcommittee, including members from group companies, works to promote the creation of products that are compact, lightweight, efficient, low in environmental load, etc. for the entire group.



# Targets of JTEKT product divisions and group companies

Based on the themes determined by the Environmental Design Subcommittee, each JTEKT product division and group company set targets for FY2008 and pursued actions to achieve these targets.

Steering System Operations HQ	Achieve both high performance and environmental friendliness, improve driving pleasure and safety
Bearing & Driveline Operations HQ	Create efficient, lightweight bearings and compact, lightweight driveline components; reduce energy consumption
Machine Tools & Mechatronics Operations HQ	Reduce environmental load throughout the product life cycle
Group companies	Promote activities at each company based on a unified group environmental policy

# Assessment method

→ Figure – 01

JTEKT has established an original environmental efficiency basic equation to serve as an index in quantitatively assessing environmental load reduction benefit. The larger the value, the greater the environmental load reduction benefit is. Each year JTEKT sets higher environmental efficiency targets and works to reach them while monitoring progress.

### ⇒ Figure – 01

Environmental efficiency basic equation Environmental efficiency is a value calculated based on degree of lightness, compactness, energy-savings, etc.



W: Mass, T: Loss, E: Energy

# Calculation of environmental load reduction benefit

Environmental load is the reciprocal of environmental efficiency. Environmental load reduction benefit is obtained from the environmental efficiency value by the following formula:



In this case,

Environmental _	Environmental efficiency of assessed product	= 1.25
efficiency value —	Environmental efficiency of standard product	- 1.20

In the above case, the product's environmental load reduction benefit is 20%.

## Activities and results by product division

Introduced below are JTEKT's FY2008 main activities and results for its three product divisions: steering systems, bearing and driveline components, and machine tools & mechatronics.

### **Steering System Operations HQ**

JTEKT aims to provide steering systems, which play the crucial role of turning the vehicle, excelling in both performance and environmental friendliness as the world's No.1 supplier (\*1) of steering systems in terms of environmental contribution. JTEKT seeks to develop the optimal steering system for each vehicle application and purpose that excels not only in environmental friendliness but also in driving pleasure and safety from the driver's viewpoint.

### **O** Reduction of product transport mileage (\*2)

JTEKT's steering division promotes local purchasing and production with the goal of reducing CO<sub>2</sub> emissions created during product transport.

### O Improvement of fuel efficiency by environmentally friendly designs

Efforts to achieve environmental designs were focused on such themes as reducing steering system size, weight and torque loss, which resulted in the reduction of mass, torque loss and energy consumption of more steering systems than in FY2007. This contributed to the creation of systems with improved environmental efficiency and fuel efficiency.

#### \*1 World's No.1 in environmental contribution

JTEKT holds the top market share in electric power steering systems (EPS), which are superior to other steering types in contribution to fuel efficiency and environmental conservation.

### \*2 Product transport mileage

The concept of reducing CO<sub>2</sub> emissions by reducing the resources and energy consumed by product transport. The figure obtained by multiplying product transport quantities by transport distance is assessed.

	Systems	Development points	R	esults	Environmental efficiency
	No.	tilt & telescopic mechanisms (lightweight, compact)	Mass	30% reduction	
			Torque loss	22% reduction	1.63
10	Column assist type		Energy consumption	83% reduction	
Electric power steering		Housing design optimization (lightweight)     Torque I	Mass	25% reduction	
OW BL			Torque loss	27% reduction	1.64
tric p	Pinion assist type		Energy consumption	83% reduction	
Elec	4	• E-VGR integration (compact, lightweight)	Mass	26% reduction	
			Torque loss	40% reduction	1.79
	Rack assist type		Energy consumption	83% reduction	
c c ring	J.	Pump efficiency	Mass	20% reduction	
Electric- hydraulic power steering	. 5	improvement (torque loss reduction)	Torque loss	12% reduction	1.40
hy powe			Energy consumption	67% reduction	
ic rring	<b>A</b> (	(lightweight)	Mass	13% reduction	
Hydraulic power steering			Torque loss	20% reduction	1.20
Hypowe		(torque loss reduction)	Energy consumption	17% reduction	

### Steering types and applicable vehicles

0						
	Applicable vehicles					
	Pas	Passenger cars			cles	Installed
	Mini	Small	Medium	Large	Heavy vehicles	location
Electric power steering (EPS)						
-Column assist type (C-EPS)	0	0	0			Passenger compartment
-Pinion assist type (P-EPS)		0	0			Engine room
-Rack assist type (R-EPS)			0	0		Engine room
Electric-hydraulic power steering (H-EPS)		0	0	0		Engine room
Hydraulic power steering (HPS)	0	0	0	0	0	Engine room

### TOPICS

Development result for FY2008

> Development of world's first column type EPS with motorized tilt & telescopic functions

Electric power steering systems are superior to hydraulic and electric-hydraulic systems in fuel efficiency and compactness. Demands are increasing for EPS systems for all vehicle types, and JTEKT, together with Aisin Seiki Co., Ltd., has become the world's first to succeed in integrating a motorized tilt & telescopic mechanism with a column type electric power steering (C-EPS) system, enabling C-EPS to be adopted on full-sized and high-end vehicles. Through achieving high output, JTEKT not only contributes to the environment but also has improved collision safety.



\*E-VGR, C-EPS, P-EPS, R-EPS and H-EPS are registered trademarks of JTEKT Corporation.

### **Bearing & Driveline Operations HQ**

Bearings support the rotating parts of all types of machinery, and driveline components support the movement function of vehicles. In the development of these products, JTEKT strives to respond to needs for superior function while also achieving compactness, light weight, low energy loss, etc.

### **O** Torque loss reduction

JTEKT strives to achieve optimal configurations with the main aims of achieving high efficiency and light weight. It has reduced torque loss caused by friction and improved fuel efficiency.

#### Development result for FY2008 Lightweight, low-torque hub unit bearings for mini-vehicles

While maintaining fatigue strength and reliability,

JTEKT reduced weight 20% by improving the

bearing flange shape and internal design. Building

the ABS sensor into the hub unit resulted in size

reduction. By using drum brakes, which are more resistant to water than disk brakes, and improving

the dust seal shape, torque loss was reduced 30%

with no reduction in waterproof capability.

Mass20% reductionTorque loss30% reductionEnvironmental<br/>efficiency1.19

→ Figure – 01

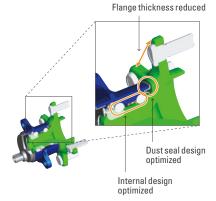
→ Figure -02

20~30% reduction

60% reduction

1.35

### Figure -01 Lightweight, low-torque hub unit bearings

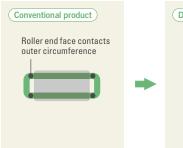


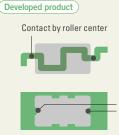
# Development result for FY2008

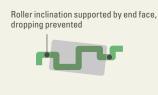
# Low-torque thrust needle roller bearing (short rollers)

A newly developed retainer consisting of a single toroidal metal sheet is 20%~30% lighter than the conventional type, which is made of two parts. By preventing roller dropping and reducing the contact surface, torque loss during rotation is reduced 60%.

### **Structures and features**







Mass

Torque loss

Environmental efficiency

Protrusion added to pocket ends to cause roller center contact and reduce sliding resistance

### **O** Durability improvement

JTEKT promotes the development of materials and machining technology with the main aims of reducing the size, weight and energy consumption of driveline components. It has raised ease of installation on the vehicle and improved fuel efficiency and durability.

#### Development result for FY2008

By developing a special oil and improving clutch durability, JTEKT has improved load capacity 2.1 times (\*2), achieving sufficient durability for use under large-vehicle severe operating conditions. Through ITCC application on 4WDs, a 15% driveline weight reduction is achieved.

Load capacity	2.1 times
4WD driveline products	Mass: 15% reduction
Environmental efficiency	1.23

→ Figure -03

### Figure – 02 Low-torque thrust needle roller bearings

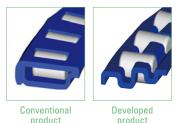


Figure -03 Intelligent torque controlled couplings (ITCC) for 4WD vehicles



\*1

ITCC (Intelligent Torque Controlled Coupling) is a registered trademark of JTEKT Corporation.

\*2

Compared with JTEKT conventional product



### Machine Tools & Mechatronics Operations HQ

In the machine tools division, emphasis is placed on reducing the consumption of resources and electricity, which serves to prevent global warming. JTEKT conducts product assessments to grasp environmental impact in all product lifecycle stages from manufacture to disposal in order to create products with minimal environmental impact.

### O Reduction of downtime and defects

Because improving manufacturing-line machine operating efficiency ("bekido") and first-pass-good ("chokko") rates contributes to reduced energy consumption, JTEKT aims to create energy-efficient machine tools with low rates of downtime and machining defects.

# Development result for FY2008

### Small-scale machining center series FH400J

By adopting a variable switch type pre-load mechanism that features low-heat generation and long life, the FH400J helps reduce cycle time, coolant flow volume, downtime, and defects. Although this series has the largest machining range in its class, the machine size is so compact that one truck can transport it, which contributes to reduced transport energy.

### O Close cooperation with group companies

The Machine Tools & Mechatronics Operations HQ works in close cooperation with group companies to develop and design environmental products. JTEKT published a brochure entitled "Eco-Challenge of the JTEKT Group" outlining the efforts of each company and promoting the further sharing within the group of activities and results. Also, the group has adopted the "JTEKT Eco-Scale" as a uniform index. JTEKT will continue promoting groupwide activities that all stakeholders can understand and appreciate.



→ Figure – 01

→ Figure – 02

### → Figure - 01 (A) Small-scale machining center series FH400J



→ Figure -01 (B) JTEKT Eco-Scale (\*)



Conventional FH400J series

### \*JTEKT Eco-Scale

JTEKT expresses environmental load reduction ratios using 2002 products as a standard based on the environmental load reduction benefit calculation (page 40).

JTEKT Eco-Scale mark

### → Figure - 02 **Eco-Challenge of the JTEKT Group**



### T O P I C S JTEKT received the 2008 Technology Award from the Japan Society for Precision Engineering for grinding process technology enabling low-volume coolant supply (EcoLoG Grinding TYPE II)

Because grinding generates more heat than cutting and must achieve high precision and quality, large quantities of coolant are required. Reducing coolant usage is important from the viewpoints of both environmental protection and energy conservation. In view of these needs, JTEKT strove to develop technology to reduce the volume of coolant supply and succeeded in

creating the EcoLoG Grinding TYPE  ${\rm I\!I}$  , which reduces coolant flow and grinding wheel power loss due to the coolant by about half while maintaining conventional grinding performance. It received this award because of its new environmentally friendly grinding technology contributing to energy conservation.





Conventional grinding

EcoLoG Grinding TYPE I

# **Activities related to production and logistics**

JTEKT is reviewing its production processes and transport methods in order to reduce CO<sub>2</sub> emissions as a means of preventing global warming. We also are working to utilize materials effectively, reduce waste, and control and reduce the use of chemical substances in order to achieve production and transport activities that don't place a burden on the environment.

## **CO2 emissions reduction**

**Reducing CO<sub>2</sub> emissions in production** 

→ Figure – 01

### Figure -01 Transition of total and per-sales-unit CO<sub>2</sub> emissions



### 01 | Main activities

energy conservation.

(1) Improve heat-treatment processes
(2) Improve production machinery and ancillary equipment
(3) Pursue energy savings by combining low-load lines
(4) Achieve high-efficiency operation of in-house power generators
(5) Pursue energy switching and CO <sub>2</sub> emissions reduction
(6) Promote energy-saving activities at all workplaces

JTEKT promotes energy conservation and reduction of CO<sub>2</sub> emissions at production

sites by working to raise the energy efficiency of current equipment, switching to more

efficient devices, etc. In FY2008, although the target for per-sales-unit CO2 emissions

was not reached, we reduced overall CO<sub>2</sub> emissions about 10% more than the target of

266,800t-CO<sub>2</sub>, in part thanks to reduced production volumes, and have already reached

the FY2010 target of 241,400t-CO2. We have set higher "challenge" targets and are

pursuing activities on a companywide basis to reduce CO2 emissions and promote

### 02 | Status of main activities

### Nara Plant | Electric heat-pump type heating /cooling system installed

The Nara Plant changed from A-type heavy oil direct-flame heaters to an electric heat-pump system. It also installed centralized control to carry out blow-temperature control and demand control. Conversion from A-type heavy oil to electricity resulted in an annual reduction of about 30t-CO<sub>2</sub>. The Nara Plant now uses very little A-type heavy oil and is working to abolish it in the future.

### **Reduction of global CO2 emissions**

→ Figure – 02

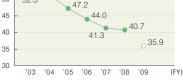
Aiming to minimize the contribution of its global production operations to global warming, JTEKT is working to reduce CO<sub>2</sub> emissions not only within JTEKT but also at its group companies in Japan and overseas. JTEKT set a target of reducing CO<sub>2</sub> per-sales-unit emissions by 30% by FY2010 in comparison with FY2003 levels at all group production sites in Japan and overseas and is pursuing activities to achieve this target. Thanks in part to sharply declined production, CO<sub>2</sub> emissions were about the same as in FY2003 level, although per-sales-unit emissions were about the same as in FY2007. We will continue promoting improvements on a groupwide basis in order to raise production efficiency and reach the targets for FY2010.

### 50 - 52.3

Per-sales-unit CO2 emissions

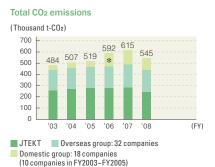
[CO<sub>2</sub> emissions (t-CO<sub>2</sub>) / sales (100 million yen)]

55

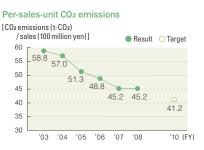


Result OTarget

### ➡ Figure - 02 Global CO<sub>2</sub> emissions



\*Currently reviewing scope of domestic group coverage.



### **Reducing CO<sub>2</sub> emissions in logistics**

→ Figure – 01

JTEKT had set a target of lowering CO<sub>2</sub> emissions to the 1990 level by FY2010, but it reached this target in FY2008 and therefore has set a more challenging target and is working to reach this.

### 01 | Main efforts

(1) Expand long-distance transport improvements to other routes
(2) Switch to trailer-type trucks
(3) Reduce transport frequency to cope with sudden cargo decrease

### 02 | Status of main activities

### Expansion of logistics improvements to the Kyushu area

In FY2007, we improved our packaging and transport methods for long-distance transport to the lwate region in northern Japan, and in FY2008 we applied these improvements to shipments to the Kyushu region in western Japan as well. Specifically, JTEKT ships products from each of its domestic plants packaged in small forms that can be loaded without wasted space to a location nearby the customers in Kyushu, where the packaging form is changed to that desired by the customer. This greatly improves the loading efficiency of long-distance transport. Further, we changed the transport means from boat to railways and also began shipping products directly from the Shikoku area directly to Kyushu. These improvements resulted in an annual reduction in CO<sub>2</sub> emissions of 229 tons.

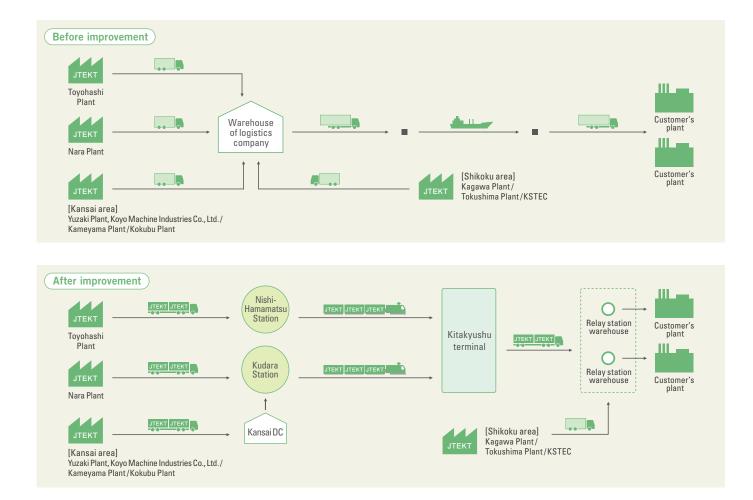
# Figure - 01 CO2 emissions in logistics



### Per-sales-unit CO2 emissions



<sup>(</sup>See page 36 for CO<sub>2</sub> conversion coefficients used in calculating CO<sub>2</sub> emissions.)



## Reduction of materials usage

JTEKT, mainly through its Energy Saving Subcommittee, one of several specialized environmental committees, strives to reduce the amounts of primary materials such as raw materials and secondary materials such as cutting tools and grinding wheels that it uses. By improving material types, machining methods, etc., we have steadily reduced usage amounts.

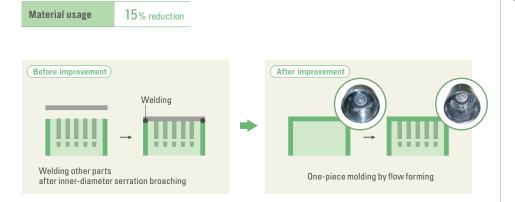
### **Reduction of primary material usage amounts**

→ Figure – 01

We have reduced material usage amounts by changing product designs, changing manufacturing methods, and improving yield. We also are striving to reuse product waste, for example by using product parts removed during die cutting for use in smaller products.

### Yield increased by flow forming

Regarding the front housings of ITCC couplings, previously we broached the inner diameter serrations and then welded other parts. We changed this to a flow forming method of one-piece molding that shortens the process and raises material yield.



**Reduction of secondary material usage amounts** 

→ Figure – 02

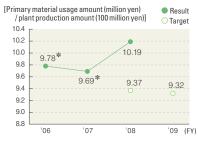
We succeeded in reducing usage amounts by revising the size, hardness and other specs of grinding wheels, cutting tools, dies, etc. in order to prolong their service life. Also, we strove to promote recycling by reusing oil, grinding wheels, cutting tools and jigs.

### Reduction of cutting tool usage by one-shot drilling

Previously, after drilling an initial hole with a super-hard drill, the drilling process was completed using a reamer. By switching to a new carbide drill capable of drilling the entire hole in a single shot, the reaming process was eliminated, and furthermore the life of this drill was improved. These improvements resulted in reduced cutting tool usage.

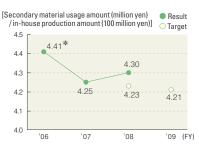


# Figure -01 Primary materials usage per sales unit



\* FY2008 results worsened from FY2007 because of increased prices of oil, etc., but if we exclude such factors, the target was reached.

Figure - 02 Secondary materials usage per sales unit



\* FY2008 results worsened from FY2007 because of increased prices of oil, etc., but if we exclude such factors, the target was reached.

\* Three figures in the above two graphs differ from those in the CSR Report 2008. This is because the figures were revised. The figures in the above graphs are correct.

## Waste reduction

### → Figure – 01

JTEKT, in order to utilize resources effectively and in view of limited landfill space, has set reduction targets for waste, including waste disposed of for free and for a charge, and carries out activities to reach these targets. In FY2008, we gained confidence that we could completely change landfill waste to recycled waste. Regarding incineration waste, we already reached the FY2010 target, being helped by the drop in production, and have set a more challenging target. We will continue efforts to reduce overall waste leaving our plants, including activities to sell certain waste for profit.



### Main efforts

# Ozone treatment technology adopted to reduce waste fluid handling by subcontractor

Previously, we had disposed of coolants, cleaning solvents, etc. in-house by an evaporation and condensation method, but because of insufficient capacity, we had outsourced a part of this work to subcontractors. However, we introduced ozone treatment equipment at our Tadomisaki and Hanazono plants, eliminating the need for handling by subcontractors, and were able to reduce amounts of secondary waste created in the previous disposal process. In addition, CO<sub>2</sub> emissions during equipment operation are lower with this new method.



Ozone generator

Subcontracted volume reduction	28 t/month
Secondary waste reduction	8 t/month
CO <sub>2</sub> emissions reduction	20 t/month

# Control and reduction of chemical substances

→ Figure – 02

JTEKT has established a Chemical Substance Control Standard regarding the control of chemical substances. Also, in regard to the output of substances subject to PRTR (\*), JTEKT had been working to achieve levels by FY2010 that are 60% less than the 1998 levels, but it reached these levels in FY2008. We have set more challenging targets for FY2009 and are continuing efforts to reduce the use of chemical substances.



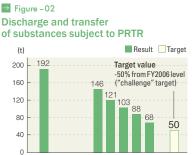
### Wastes per sales unit

'04 '05 '06 '07 '08

C

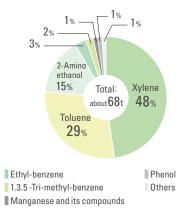


10 (FY)





# Discharge and transfer breakdown of substances subject to PRTR for FY2008



### \*PRTR regulation

Pollutant Release and Transfer Register is a system to collect and disseminate information on environmental releases and transfer of toxic chemicals from industrial and other facilities.

# Third-party opinion on JTEKT CSR Report 2009

Representative of the Workers Club for Eco-harmonic Renewable Society (NPO)

Tamio Yamaguchi

### Profile

After 25 years at a newspaper company, worked in a venture company's public relations section, edited a publishing company's magazine, and then freelanced. Now a part-time instructor in Kanto Gakuin University's College of Economics. Interested in the global environment and related corporate activities since 1989. Workers Club for Eco-harmonic Renewable Society A citizen's organization that studies the role of a recycling-based in passing along ecosystems to future generations. It aims to research and support the establishment of a recycling-based society by citizens, companies and government agencies.

http://www.nord-ise.com/junkan

The opinions I express herein regarding the JTEKT CSR Report 2009 are based on two meetings held with JTEKT to exchange views. In these meetings, I had very frank talks with those responsible for preparing the report and also had the chance to speak with Managing Officer Noriya Murase. We had the same type of meetings last year, but at that time certain issues remained unresolved. This year, however, the JTEKT staff was very well prepared and presented lists of when items would be addressed, such as in the 2009 report, in the 2010 report, or at a later date. Listening to the views of third parties and taking appropriate actions in various areas is an essential component of CSR, and I hope that JTEKT will take such views into account not only in connection with report preparation.

In FY2008, the financial crisis stemming from the U.S. subprime loan problem had a significant impact on the economy, which caused the business environment surrounding JTEKT to be very severe. But hard times such as these reveal how serious a company is about CSR. It is commendable, then, that in this difficult situation JTEKT redefined its CSR concept, established a CSR Promotion Committee, and issued a CSR Policy. President Yokoyama states in his message to begin this report, "I believe it is important for all employees, as members of a global business group, to be thinking deeply about how they can contribute to the creation of a sustainable, abundant society, having discussions on this topic, and putting ideas into practice." We can say the preparation of a framework for promoting CSR and the President's clear stance demonstrate that JTEKT takes CSR very seriously.

These advances within JTEKT are clearly explained in this report, the overall tone of which conveys JTEKT's passion to "raise CSR to a new level." A good example is the roundtable discussion by members of the various working groups under the CSR Promotion Committee. The participants' remarks are highly specific and demonstrate an understanding of CSR's importance, and certainly they will impact other employees. As a next step, I urge JTEKT to create and implement a CSR activities roadmap so that general employees will be able to participate in thinking about, discussing, and carrying out CSR. If that process is reflected in the CSR report, it will reflect the true face of the company and demonstrate the dynamism of activities.

Along with advances in information disclosure, the content has also been improved in this year's report. Regarding statistics, I was impressed with the specificity regarding the number of persons utilizing the business ethics consultation service, having lost-day absences due to mental disorders and receiving interviews regarding long work hours, the transition of CO2 emissions and per-product unit amounts, etc. Also, employment became a social issue in 2008, and I consider it commendable that the report describes efforts to maintain the employment of fixed-term workers and to reallocate workers flexibly in order to avoid layoffs. However, the "transition of numbers of employees" disclosed in the 2008 report has been omitted this time. The consistent disclosure of information is very important from an evaluative standpoint, and I urge JTEKT to give close attention to this in the future.

Only about 48% of JTEKT employees are in Japan. Global statistics for CO<sub>2</sub> emissions were included in this report, but in the future I hope JTEKT, based on strong awareness of its being a global company, works to gather and present not only environmental information but also social information as a "global company."

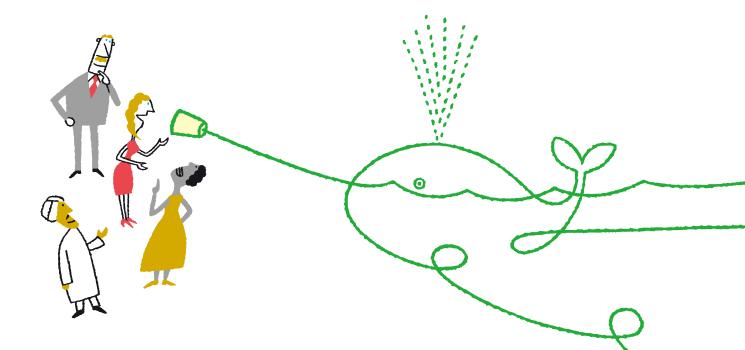
### General Administration Department, JTEKT Corporation

As noted above, JTEKT pursued CSR activities in FY2008 despite a very harsh business environment. Just as last year, we invited Mr. Yamaguchi to participate in meetings this year to exchange views with JTEKT and provide us with a third-party opinion.

**Response to third-party opinion** 

Last year, Mr. Yamaguchi presented us with the two main challenges of clarifying "JTEKT CSR" and enhancing our social report. In regard to the first, in February 2009 we started a CSR Promotion Committee, issued a CSR Policy, and began working to identify problems and pursue improvements through the activities of specialized working groups in areas such as compliance, confidential information control, disaster preparedness, and social contribution. Regarding the second, we worked to disclose statistical data for a number of new items and improve ease of understanding. We believe these improvements led to certain aspects of our report being commended and our proactive stance toward CSR being clearly conveyed.

At the same time, Mr. Yamaguchi presented us with new challenges for future reports such as pursuing activities and preparing a report that will reflect the true face of the company and the dynamism of activities and to disclose information as a truly global company. We will consider these comments seriously and have many discussions about how to proceed toward next year utilizing the PDCA cycle. We hope to gain the further trust of society by actively promoting CSR activities.



### To readers

# We welcome your opinions and comments regarding this report.

Thank you for reading our CSR Report 2009. JTEKT has just begun a variety of new CSR activities, and we found many new issues requiring attention in compiling this report. But we hope this report conveys JTEKT's desire to continue pursuing change in its quest to achieve the ideal situation. We aim to further improve our CSR activities and report preparation and would welcome any feedback from readers.

### CSR Report 2009

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# JTEKT CORPORATION

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