

Environmental and Social Activity Report

2017















Top Message

We will contribute to the realization of a sustainable society by promoting vigorous activity of human resources and by innovation in skilled manufacturing.

Yasusuke Nakajima

Representative Director and President Executive Officer **KYB** Corporation

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Introduction

KYB has grown globally since its foundation in 1935 as a leading manufacturer based on its core vibration/power control technology with the generous understanding and support of all stakeholders. Today, KYB products support people in every corner of the world and, thereby, provide safety, security, and comfort. Fiscal year 2017 is the first fiscal year of the 2017 medium-term plan. Subsequently, KYB continues to serve as a reliable brand contributing to the creation of an affluent society, through monozukuri (development/manufacturing) for human happiness and will take a strong step towards dramatic improvement in the next three years with a sense of mission and joy. We look forward to your continued support as we pursue our mission.

Looking back at fiscal year 2016

Looking back at the KYB Group's performance in fiscal year 2016, we see that because of business environment changes, such as the economic slowdown in China and economic downturn in emerging countries, a variety of different measures were implemented, including management integration or other dramatic structural reforms in China and the Nagano region and the reduction of fixed overheads. Meanwhile a global sales expansion policy was promoted through aggressive marketing activities. Accordingly, the Group's consolidated performance started to recover in the second half of fiscal year 2016, in conjunction with the effects of structural reforms and signs of the bottoming out of the construction machinery market in China. In fiscal year 2017, we will vigorously seek and provide definitive solutions to any problems not solved by the previous medium-term plan, and in our efforts to create a management system and earnings foundation that can flexibly respond to abrupt changes in the business environment, we will further accelerate and promote our drastic structural reforms in all aspects, including organization, production, and bases.

KYB Group initiatives for society/environment

The KYB Group returns to the basics of skilled manufacturing by giving priority to the sites in the 2017 medium-term plan and strives for quality improvement, productivity improvement, response to customers, cooperation with suppliers, business contributions, and fair trade (legal compliance) in the collaborative activities of the production, sales, and technical departments. Depending on reforms from giving priority to the sites, we intend to be a corporate group that continues to contribute to the sustainable growth of society by providing the highest level of technology, quality, and credibility to our customers and society. The KYB Action Guidelines specifically provide that every employee should be aware and act as a good



corporate citizen who contributes to the healthy growth of society by acknowledging that society is the basis of the company's continuing existence, always valuing the sense of community, and working to actively absorb different cultures and information outside the company. We intend to cooperate with the community by hosting and supporting community events in which many of our employees participate every year.

For the purposes of the protection of the natural environment, the KYB Group develops a number of domestic and international activities for global environmental protection during business development. The company's attitudes towards learning about nature and respecting the environment are reflected in our product manufacturing that contributes to environmental protection or reduces the environmental load.

I will be very pleased if KYB Group initiatives for society and the environment become better understood through this report so that we can continue receiving support from increasing numbers of stakeholders. I also look forward to receiving your comments on this report, and hope that you will express your frank opinions regarding the KYB Group.

Contents

- 2 Top Message / Contents
- 4 What KYB Aims to Be
- 6 Outline of KYB Group
- KYB Here and There

10 2016 Action Highlights

Environmental Report

14 **Environmental Management**

Basic environmental policy Environmental conservation objectives Chemical substance management

16 Initiatives to Reduce Environmental Burden

Activities at plants

Social Report

Side by side with the customer 18

Activities for customer satisfaction improvement

With Business Partners 20

Establishment of partnership

21 For the Community

Social Support Activities

24 With Employees

> Human resource utilization and work environment improvement in cooperation

Human resource development and technical capability improvement

Employee communications

Creation of Safe and Comfortable Workplaces 27

Occupational safety and health

Management Report

28 Corporate Management

Corporate governance

- 29 Internal control / Compliance
- 30 **Environmental data compilation**
- **Editorial Policy** 30

The content of this report has been posted on our website, so please take

http://www.kyb.co.jp/company/csr.html

Our Precision, Your Advantage

The KYB Group aims to satisfy its stakeholders at a time of increasing focus on corporate social responsibility. Based on KYB's management philosophy, each employee will maintain an awareness of our responsibility as a business, and manifest that awareness through actions that will always comply with the law. We will moreover work to enhance our corporate value so that our company continues to be a trusted.

Management principles

The KYB Group contributes to society providing technologies and products make life safe and comfortable.

- 1. Challenge higher objectives and construct livelier corporate cultural climate.
- 2. Maintain grace and good faith, and pay attention to nature and the environment.
- Always seek creative ideas and contribute to the progress of customers, shareholders, suppliers and society.

Management Vision

Human Resources Development

To cultivate the talent to achieve the objectives with a thorough understanding of the principles and the strategy.

Technology and Product Development

To provide products that are impressive, comfortable and reliable to customers throughout the world.

Monozukuri (Japanese manufacturing expertise)

To make our plants enjoyable, dynamic places to work, and at the same time full of discipline based on the field priority doctrine, in order to produce products satisfactory to the customer.

Management

Always keep social responsibilities of the corporation in mind and provide efficient group management.

Society Contribute to the community Coexistence with suppliers and local communities

Relationship between

Provide useful technologies and products

Customers

Quality, customer satisfaction and new product and technology development

KYB Group

Global environment Coexist with the global environment

Environmental management, environmental and social report, energy-saving plant

Shareholders Provide healthy returns on business activities

Economic contribution and internal control

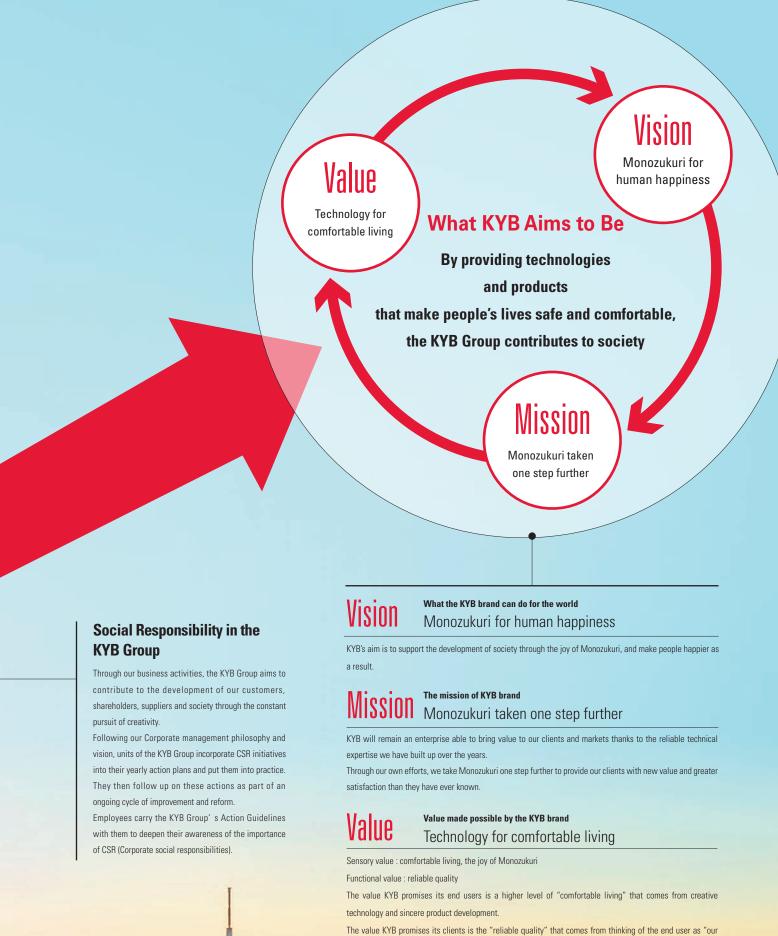
Achieve
a healthy workplace
environment

Human rights, worker safety and health, human asset development

Guiding Principles

- (1) Establishment and its practice of the corporate ethics
- (2) Thorough implementation of slogan of "Customers First"
- (3) Pursuit of product safety
- (4) Appropriate accounting and account
- (5) Disclosure of corporate information
- (6) Compliance with laws and order
- (7) Dealing with our customers

- (8) Dealing with our suppliers
- (9) Prompt dealing with customers'complains
- (10) Participation in activities of industry circles and other related organization.
- (11) Breaking connection with anti-social power or groups
- (12) Prohibition of insider trading
- (13) Protection of intellectual property rights
- (14) Retention of trade secret
- (15) Protection of personal information
- (16) Protection of other company property
- (17) Coexistence with local communities
- (18) Preservation of natural environment
- (19) Labor management cooperation
- (20) Safety and health
- (21) Education and Training and career development
- (22) Prohibition of discriminatory actions
- (23) Prohibition of harassment actions
- (24) Prohibition of child labor and forced
- (25) Maintenance and improvement of good and healthy workplace environment



changing the world.

The value KYB promises each employee is "the joy of Monozukuri" that comes from knowing he or she is

Outline of KYB Group

Company overview

Company NameKYB CorporationFoundedKayaba Research Center, November 19, 1919EstablishedKayaba Manufacturing Co., Ltd. March 10, 1935IncorporatedNovember 25, 1948 (KYB Corporation)

Head Office World Trade Center Bldg., 2-4-1,

Hamamatsu-cho, Minato-ku, Tokyo 105-6111, Japan

Chief Representative Representative Director, President Yasusuke Nakajima

Capital 27,647,600,000 yen (As of the end of March 2017)

Plants Kumagaya, Sagami, Gifu North, Gifu South, Gifu East

Laboratories Basic Technology R&D Center,

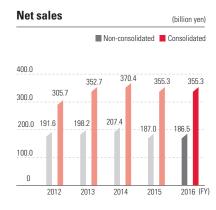
Production Technology R&D Center Developmental Experiment Center

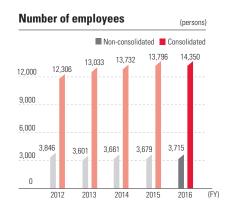
Machine Tools Center

Electronics Technology Center

Number of Employees 14,350 persons (As of the end of March 2017, consolidated)

3,715 persons (As of the end of March 2017, non-consolidated)





Major Products

AC (automotive components) operations

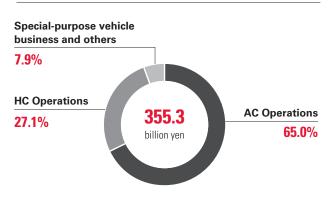
Shock absorbers, suspension systems, power steering systems, vane pumps, front forks, oil-cushion units, stay dampers, free locks

HC (hydraulic components) operations

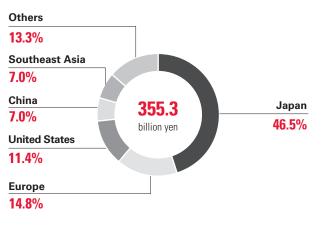
Cylinders, valves, oil dampers for railroad, collision bumpers, pumps, motors

Special-purpose vehicles, Aircraft components, system products and electronic equipment Concrete mixer trucks, granule carriers, special-purpose vehicles,, aircraft landing systems, aircraft pilot systems, aircraft control systems, aircraft emergency systemsmotion, simulators, hydraulic systems, auditorium and stage control systems, naval ship equipment, tunnel boring machines, environmental devices, earthquake-resistant and vibration insulation dampers, seismic isolation systems and vibration control dampers, electronic applications

Net sales by business segment in fiscal 2016 (Consolidated)



Net Sales by geographic region in fiscal 2016 (Consolidated)



^{*} For details on sales figures and applicable range, please refer to our financial reports. Major Products

Affiliate companies in Japan

Kayaba System Machinery Co., Ltd. KYB Trondule Co., Ltd. KYB-YS Co., Ltd. KYB Kanayama Co., Ltd. KYB Motorcycle Suspension Co., Ltd. Takako Industries, Inc.



KYB Group production bases



History

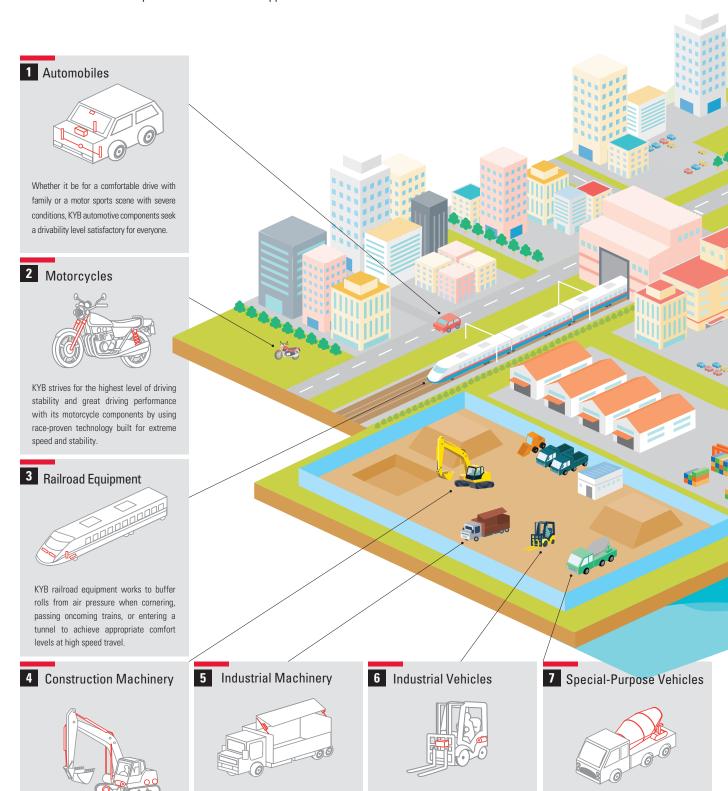
1919	Founded Kayaba Research Center	1999	Formulated the Corporate Guiding Principles
1927	Established Kayaba Seisakusho	2001	All KYB plants acquired ISO 14001 certification
1935	Established Kayaba Manufacturing Co., Ltd.	2005	Formulated new management principals and management vision
1948	Incorporated Kayaba Industry Co., Ltd. Kayaba Seisakusho around the time of its founding		Adopted "KYB" as a shared corporate name
1959	Company stock listed on the Tokyo Stock Exchange	2008	Held company's first robot contest ✓ Interior of anechoic chamber
1981	Unifi ed production system under KPS name		at the Electronics Technology Center
1985	Changed trade name to Kayaba Industry Co.,Ltd.		Test course on the grounds
1992	Set up the Environment and Safety Committee		of the Developmental Experiment Center ►
1993	Held fi rst company-wide sports and culture interactive event	2011	Established Developmental Experiment Center, started operating test course
1998	All KYB plants acquired ISO 9001 certification	2015	Changed trade name to KYB Corporation

KYB Here and There

KYB products support different types of monozukuri.

They help with the everyday life of the people and provide safety and comfort.

Listed below are the KYB products used in various applications.



KYB demonstrates its hydraulic technology

on forklifts and other industrial vehicles to

provide the powerful support for improved

operational efficiency.

KYB special-purpose vehicles offer support

for comfort in all living environments. KYB

concrete mixer trucks hold the highest

market share in Japan.

KYB industrial machinery components,

including opening/closing devices for trucks,

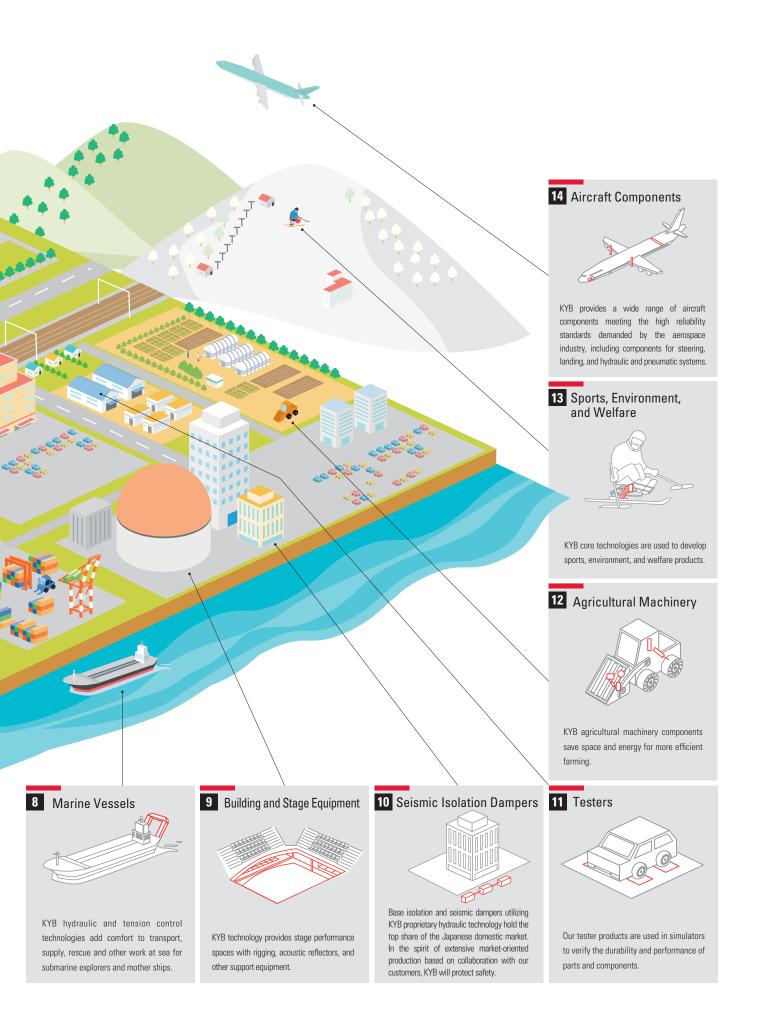
are used to improve the environments of the

plant, office, and home.

sites under severe conditions.

KYB components are widely used in

construction machinery at the construction



2016 Action Highlights

We combine our core competence in vibration control technology and power control technology with systems technology and electronic technology to respond to our customers' wide-ranging needs in a variety of different fields. The highlights in this edition will introduce products developed with consideration for safety and the environment, programs for global human resource development, and more.







Adjustable damping with a solenoid valve on Lexus LC

Our adjustable damping shock absorber with a proportional solenoid has been adopted for Toyota's Lexus LC, the company's new-generation platform for FR vehicles, followed by Prius, which first introduced the TNGA (Toyota New Global Architecture) platform. For this shock absorber, a new proportional solenoid valve has been adopted for use in the main mechanism where damping force is adjustable, which makes it possible to change the damping force using electric signals emitted from the ECU (engine control unit, a microcomputer that controls total operation of engine) installed in the vehicle. Shock absorbers are mounted

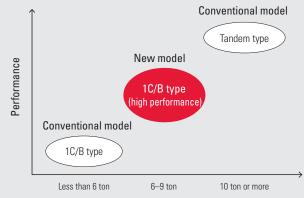
to absorb vibrations from the frame and largely contribute to improving the basic characteristics of comfort and steering stability. Compared with current adjustable damping shock absorbers, this product achieves much greater responsiveness when changing the damping force and is capable of controlling damping force characteristics from softer to harder modes in a continuous, smooth manner. Moreover, this shock absorber instantly generates the required damping force in response to input from the road surface, thus providing comfort and high steering stability in any situation. We will continue to develop products that provide comfort with the joy of driving to meet customer expectations.



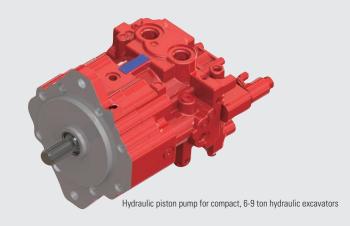
Hydraulic piston pump for small excavators

We developed a new hydraulic piston pump for compact, 6-9 ton hydraulic excavators. With an additional tandem pump for the 1 C/B* as the basic pump structure, the pump length has been shortened for this high-performance piston pump intended for compact hydraulic excavators. Equipped with a load-sensing control function to provide flow control, this product allows for flow control irrespective of the workload. In addition, the variable gain function added to load-sensing control makes it possible to maintain work speed even when the operator is saving energy by reducing engine speed, thus realizing energy savings and superior usability at the same time. We developed a special rotary part to improve the energy efficiency of the pump by about 4% compared to conventional models, which improves the workability of the excavators while saving energy.

*C/B: cylinder block



excavators class





T-S oil damper

After the Great East Japan Earthquake, the conventional expectations of the areas that would be affected by huge earthquakes in the Nankai Trough off the Pacific coast has been reviewed; now, the predictions are that the ground motion generated by such earthquakes would be much longer than previously expected for the conventional building design processes. Once such earthquakes occur, they can cause excessive deformation of the base-isolated floor,* which may lead to collisions with surrounding retaining walls* or damage to the seismic isolator. A solution to this problem is to suppress the deformation of the base-isolated floor by increasing the resistance of the damper. However, this method is problematic in that it blocks movement of the base-isolated floor during moderate earthquakes, which are the most typical type of earthquake, and degrades the seismic isolation effect. To address this issue, we developed a damper that satisfies the following two conditions in collaboration with Taisei Corporation.

- 1) Demonstrating high seismic-isolation performance with appropriate damping force in the event of moderate and small earthquakes.
- 2) Increasing the damping force in a huge earthquake or earthquake with unexpectedly long-period ground motion to suppress deformation of the



Installation of damper in building

base-isolated floor.

This prevents the collision of retaining walls, thus ensuring the safety of people and property in the building.

- *Base-isolated floor: Support members, such as seismic isolation rubber, and damping members, such as oil dampers, are installed in this floor. This floor is mainly located on the first floor of the basement.
- *Retaining walls: The side walls in the base-isolated floor. When viewed from the sides, the base-isolated floor has a concave shape, which is formed by these side walls.



Development of a large concrete mixer truck for India **MR8040X**



MR8040X

In response to the growing demand for large drums in the Indian market, KCPL developed a concrete mixer truck (hereafter mixer truck) with an 8 m³ load capacity. The mixer truck can load and transport a larger volume of Ready-Mixed concrete compared to the mixer truck with a 6 m³ load capacity, which had already been released since October 2013. While the conventional mixer truck with a 6 m³ load capacity uses a sub-engine mounted on the equipment side to drive the mixer, in addition to the engine installed on the chassis side to drive the drum, the newly developed MR8040X introduced a new

method where the power is directly transferred to the drum via the P.T.O (power takeoff, a device that takes power from the engine) instead of the sub-engine drive method. This eliminated the need for the sub-engine and reduced the product weight by about 500 kg. With the increased drum size and reduced weight, this mixer truck reduces the transfer frequency, transport period, and fuel cost. We will continue to develop products and environmentally friendly mixer trucks to meet customer needs.







Highlight 05 | Human resource development

Enhancing opportunities for women



As part of our efforts as a company where human resources can achieve their full potential to continuously create new value and competitiveness, we promote active participation by women in order to create a more comfortable work environment.

Four pillars to achieve this objective are as follows:

- Capacity development and training to change awareness
- Development of work environments more comfortable for everyone
- 3 Support for employees who take childcare leave
- 4 Support for various ways of working



*Childcare exchange meeting: This is an event to address the concerns of employees during childcare leave through communication with senior In fiscal 2016, we sponsored career training for women to change the awareness of women employees we also sponsored training for managers of women employees to change the awareness of managers.



We convened the childcare exchange meeting* to reflect the voices of more women employees, and we asked each of the KYB's business sites and domestic group companies to choose a woman representative. The representatives chosen from each site formed a committee to discuss ways to enhance opportunities for women (Harmony Project) and to implement various measures to achieve the goals. We will continue to encourage diversity through the introduction of a work-at-home system, promotion of work-life balance, and an awareness survey for improvement of the work environment.



The first meeting of the Committee for enhancement of opportunities for women



Voices from the participants



"Instead of just taking superficial measures, I would like to think about what is needed to foster enthusiasm among employees."

Miho Shimada

CAE Promotion Sagami Branch Manager



"I would like to reflect the opinions of many employees in our projects to make our workplace more comfortable."

Hiromi Sanpei

Human Resources (Sagami resident)

Environmental Management

Basic environmental policy



Slogan

Protect the Green Earth and Create Products Gentle to the Environment



Basic Environmental Policies

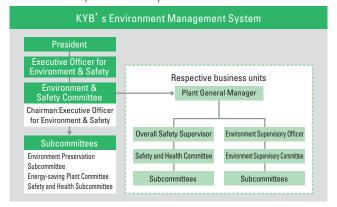
The KYB Group creates products gentle to both people and the earth. We are dedicated to the promotion of environmental activities as an important tool for evaluating management.

- 1. Coordinates and builds up productive and corporate activities based on the recycling to reduce impacts on the environment.
- 2. Strive to ensure long-term and sustainable operations throughout the entire KYB Group.
- 3. Work to promote harmony with society and contribute to the global community as a good corporate citizen.
- 4. Clarify every employee's role so that all employees can participate

Environment & Safety Management system

"Environment & Safety Committee" was organized with directors responsible for environment & safety as leaders to harmonize our intentions regarding environment and safety related approaches.

KYB has implemented the system shown below.







Mid-term policy

Mid-term policy regarding the environment and safety

We have been formulating Phase 2 of our mid-term policy since fiscal

We have started safety activities.

Environmental/Safety Mid-term Policy (2014 to 2016) Abstract below

1. Creation of factories aiming to minimize the energy consumption and waste

Reduce energy consumption per unit by 1% per year relative to 2013 levels, and reduce amounts of industrial waste per unit by 3% per year relative to

2. Creation and expansion of industrial accident free production bases The employees' awareness about the safety will be improved and critical hazards eliminated.

As of fiscal year 2017, the mid-term policy phase 3 will be developed, and we have started environment and safety activities based on the new mid-term policy formulated under the keywords: compliance with the rules, speed, and challenge.

Summary of the Environmental/Safety Mid-term Policy (2017 to 2019)

1. Creation of plants aiming to minimize energy consumption and

Environment development for partial supply of energy Promotion of measures through energy visualization Promotion of waste volume reduction and recycling

2. Creation and expansion of industrial and fire accident-free production bases

Risk assessment and promotion of measures for industrial accidents Fire accident-free

Message from Director in Charge

Aiming to be a corporation that can contribute to achieving a sustainable society

We detected residual contamination caused by a previous leak on the site of our plant at a level that exceeded environment quality standards. We sincerely apologize to our customers, neighbors, and concerned parties for any concern and inconvenience caused by this incident. As a result of our investigation, we found no discharge off the site of the plant. However, any delay in reporting to the local government is a problem of great significance, and we intend to ensure compliance with the agreements and environmental laws and regulations and will continue to clean up and monitor contaminants. Our goals were not achieved for energy reduction and industrial waste reduction through the activities in connection with monozukuri. In fiscal year 2017, we will enhance energy visualization and waste volume reduction and recycling based on the reflection in fiscal year 2016 and will promote further loss elicitation and corrective actions.

In conclusion, I would like to express my gratitude to you for your interest in this report. We are committed to further expanding and improving the content, and hope to receive your continuing support and guidance in our efforts.



Kazuhiro Ogata Managing Executive Officer

Environmental conservation objectives

An Environment Management Activities Plan was made at each production site according to corporate environmental policies for different activities aiming to achieve the goals, but we failed to achieve the goals compared to the benchmarks of fiscal year 2013 because of the start of operations of the Developmental Experiment Center, contaminant discharge, and other factors. We will promote further reductions in energy consumption, productivity improvement, and recycling in fiscal year 2017.

Activity results of 2016

○: Goal attained ×: Goal not attained

Theme		Target values	Results of 2016	Evaluation	Publication page
Prevention of global warming	CO ₂ emission volume	90,823 t-CO ₂ or less	96,546 t-CO ₂	×	
Energy saving	Energy usage volume basic unit	0.64 kl/million yen or less	0.71 kl/million yen	×	
Improvement of re-	Recycle rate	90.6% or higher	90.1%	×	
source recovery and recycling rate	Zero emission	3.5% or less	4.7%	×	
	General waste	519 t or less	504 t	0	P31
	General waste per unit	2.95 kg/million yen or less	2.09 kg/million yen	0	
Dadwatian aforests	Metal scraps	18,356 t or less	18,356 t or less 17,931 t	0	
Reduction of waste	Metal waste per unit	243.08 kg/million yen or less	251.8 kg/million yen	×	
	Industrial waste	3,393 t or less	3,469 t	×	
	Industrial waste per unit	28.36 kg/million yen or less	28.5 kg/million yen	×	

Overview of major approaches

Global warming prevention

Replacement to LED, LVD, or other high-efficiency lighting and reductions in air consumption in plants and the air conditioning load.

Waste material reduction

Paint gas volume reduction through biological treatment, introduction of waste treatment systems, and turning sludge and white gasoline into valuable products

(Note) Basic units are calculated on the basis of marginal profit.

For energy, crude oil equivalent is calculated for electricity and fuel and the total value is displayed as total energy consumption

 CO_2 emissions and energy consumption are calculated using methods determined by KYB

Chemical substance management

Support for environmental controls on products

For protection of the environment, the REACH Regulations, other ELV and RoHS directives, and various laws and regulations are established under which stricter regulations are implemented. In order to address the stricter REACH and other regulations, we built a database of chemical substances subject to the regulations after conducting an investigation of the chemical substances contained in our products to accumulate the data. We can use this database to provide a rapid response to whether or not prohibited and restricted substances are used at the request of our customers and to respond to inquiries about highly concerned substances additionally registered to prohibited and restricted substances since the implementation of the REACH Regulations.

We will continue with activities that enable us to provide products that conform to the needs of our customers and of the market.

Risk assessment of chemical substances

In fiscal year 2015, we assessed the health risks of chemical substances at all of the production sites in Japan. In fiscal year 2016, we assessed the explosion and fire risk from chemical substances at the Gifu South Plant and Gifu East Plant. For the assessment, we submitted an explanation to all departments that handle chemical substances about the three elements for combustion (i.e., combustibles, oxygen, and ignition sources), flashpoint, and ignition temperature, which are the basic factors in explosion and fire phenomena. Chemical substances handled by the plants include invisible gaseous substances and those with a flashpoint below room temperature. We strive to provide useful information to those who handle chemical substances so that they understand through risk assessments the importance of eliminating ignition sources to prevent explosions and fires caused by chemical substances.

Response to PCB disposal

Transformers and other electrical equipment containing PCBs are stored securely at each business establishment. We concluded a disposal contract with a company specializing in detoxification processes and started disposal since fiscal year 2012. So far, we have completed the disposal of transformers stored at KYB-YS Co., Ltd., its Casting Center, and the KSM Mie Plant. We will proceed with disposal under the

plan for each fiscal year.



PCB waste removed from KSM

Initiatives to Reduce Environmental Burden

Activities at plants

Alteration of the reduction neutralization treatment to an aboveground and automated process

At the Gifu North Plant, the reduction neutralization treatment* is conducted for the hexavalent chromium in the waste fluid from the aged plating fluid regeneration unit and the plating water washing unit in the wastewater treatment facility. The old reduction neutralization treatment required manual batch processing in the underground pit. Recently, the equipment has been



Installed Treatment Unit

changed to an aboveground unit and automated after installation of a new reduction neutralization unit. As well as providing a preventive measure for underground contamination, the new unit reduced consumption of chemical agents by 12% and reduced man-hours by 65% for the reduction neutralization process.

*Reduction neutralization process for hexavalent chromium: Detoxifying treatment of hexavalent chromium including

Energy Saving Exhibition (joint event with Chubu Electric Power Co., Inc.)

At the Gifu South Plant on September 7, 2016, the Energy Saving Exhibition, a joint event with Chubu Electric Power Co., Inc., was held with the goal of enhancing the awareness of energy saving by the worksites. Chubu Electric Power is deploying a



Beginning Briefing

solution service that provides advice to companies in the region. Chubu Electric Power advises on energy saving activities based on the energy technologies cultivated through power supplying businesses. The exhibition was one of those services in which a demonstration machine (comparison of power consumption between LED lights and mercury lamps, air demonstration units, etc.) owned by the Solution Laboratory (SOLAB) of Chubu Electric Power was brought to the Gifu South Plant demonstrated. Furthermore, as the opening to the Energy Saving Exhibition, an explanation was made by Chubu Electric



A view of the Energy Saving Exhibition



A view of the Energy Saving Exhibition

Power regarding the significance of saving energy and the exhibited unit. In addition, the presentation of an energy saving activity report was given by the energy saving subcommittee of KYB Gifu South Area, and about 100 employees recognized the importance of energy-saving activities.

Reduction of CO₂ Emissions Achieved by the Heat Shield Coating on the Roof of Building No. 1

The Kumagaya Plant installed a heat shield coating on the roof of building No. 1 in July 2016. The reduction of CO₂ emissions is mandatory in Saitama Prefecture, which operates a carbon emission trading program for emitted CO2 gas. In addition, the number of extremely hot days in summer averages 26 days in the most recent five years in Kumagaya City of Saitama Prefecture, which has a negative influence on the working environment in the plant. After installation of the heat shield coating, the air-conditioning load was decreased and resulted in approximately a 7% per year reduction in CO₂ emissions. In addition, the indoor temperature was decreased by 2 degrees C from the average per year. Actually, the employees felt the decrease in the indoor

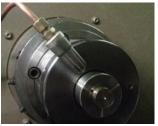
temperature. Because the Kumagaya Plant had concerns about roof leaks because of the decrepit state of the buildings, the heat shield coating is expected to prevent leaks as well.



Roof after Implementation of Heat Shield Coating

Plant Air and Noise Abatement Measures TAC (USA)

As one of the work environment improvement activities, an investigation of the noise levels was conducted at 26 points in the plant, and noise control measures were implemented for cutting equipment and the material barrel polisher, which exceeded the criteria. Low noise air blow nozzles were installed for the cutting equipment, and soundproof sheets were attached to the material barrel polisher. These improvements reduced noise by 14% to 23%, and adoption of low noise air blow nozzles reduced air consumption by a maximum of 80% per nozzle. A lateral spread will be continuously promoted to other processing areas for improvement of the work environment.



Low Noise Air Nozzles



Material Barrel Polisher with Soundproof Sheets

Reuse of Waste White Gasoline

For the trend requiring reduced emissions of waste fluid, industrial waste, the recycling of an average of 4.3 tons per month of waste white gasoline is promoted as valuable that had been treated as industrial waste. Industrial waste and treatment costs have been reduced by the acceptance of thermal recycling as fuel for boilers by Joumyaku Sangyo Co., Ltd.



Primary Storage of White Gasoline

Replacement to Gas Burning Absorption Type Water Heater/Cooler for Air Conditioner

There are three office buildings—Bldg. A, Bldg. B, and Bldg. C—at the Gifu North Plant. An absorption type water heater and cooler with a "burning heavy oil" heat source had been being used in "Bldg. A" for air conditioning from the time of construction in 1991, but the frequent stoppage and degraded air conditioning efficiency became noticeable with the aging of the equipment. Using the replacement of the equipment as an opportunity, the heat source was changed from "heavy oil burning" to "gas burning" to save energy. The stability of air conditioner operation is advantageous to improve the work environment.



Gifu North Plant Bldg. A: Gas Burning Absorption Type Water Heater and Cooler for

Introduction of Amorphous Transformer

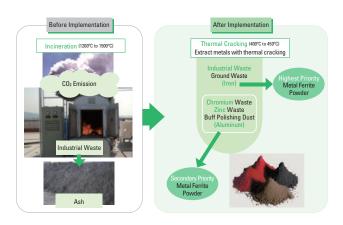
The transformers work 24/7 without a shutdown and continuously lose electricity little by little. Even a tiny loss accumulates and results in an enormous loss of energy. This loss is classified as load loss caused by the loading of the transformer while electricity is used; no-load loss (standby energy) occurs regardless of whether a load is present or absent. The "no-load loss" has been reduced by approximately 40% by the introduction of amorphous transformers at the Gifu North Plant.



Amorphous Transformers

Improvement of Environment by Reduced Industrial Wastes KMSB (Malaysia)

A large part of industrial waste by KMSB was generated from grinding, coating, and plating. The burning treatment emitted substantial amounts of CO2. For improvement of the environment, ground sludge was dewatered to cut down waste emissions. Furthermore, treatment was changed from incineration to thermal cracking, and the metal powders of ground sludge as buffing waste could be reused. This achieved a reduction of 40% in CO₂ emissions required for industrial waste treatment. The environment friendly activities will continue in a proactive manner in the future.



Side by side with the customer

Activities for customer satisfaction improvement



Basic quality policy

At KYB, we believe that good quality is our company's life, and we therefore make every effort to provide skilled manufacturing and services of the quality that will satisfy our customers and society. We do this by a variety of activities for quality improvement, including actively promoting the sharing of quality information and faster information delivery within the group.



Quality Assurance System

We have built a quality assurance system that complies with the ISO 9001 standard, which places emphasis on the quality of work processes as well as quality of products and quality of services, and we have this system in operation. We also strive on an everyday basis to make improvements in those aspects of quality.

Quality at the development design stage, which includes the development of manufacturing methods and processes for producing our products, are determining factors in the market quality of our products. Furthermore, the degree of completeness of production shop fl oor work procedures and other such rules, together with the level of perfection in operation, will contribute to a reduction in process defects and other such quality losses that occur in skilled manufacturing.

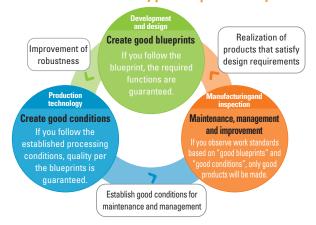
At KYB, we implement what is called a three-step evaluation process for methods of developing and mass producing products, technologies, manufacturing methods, and so on. We make every effort for higher quality throughout the product life cycle, from the product planning stage to improvement of defects and change management after mass production and shipment. At our production bases, we take a variety of quality improvement measures under the leadership of the base managers and plant managers, and we are working to promote the unerring operation of our three-step evaluation system.

Development of products and technology through a 3-step evaluation process and the Declaration of Quality and Safety

Step	Goal of the 3 steps	Quality assurance steps	
Prior/Model development	Proof of possibility (Description/evaluation of developed quality)	Development quality	
DR0 evaluation meeting	(Decomplicity of an autoroped quality)		
Order development	Proof of mass production (Actual proof/evaluation of developed quality)	Start quality	
DR1 evaluation meeting		Mass production quality	
Mass production development/ Production preparations	Proof and serialization of applicability (Actual proof/evaluation of start evaluation)		
DR2 evaluation meeting			
Mass production	Declaration of Quality and Safety There will be confirmation before the start of regular production that the mass product quality has been built into the design.		



What KYB Aims to Be: Quality problem prevention cycle





Kickoff of Quality Innovation

For the promotion of manufacturing in favor of the customer, quality innovation activities have started. In the beginning, a kickoff ceremony was held with the attendance of plant managers and hub directors of the KYB Group to ensure achievement of the global goal on total defect loss. The secure achievement of the quality goals was considered difficult with conventional efforts. Conse-

quently, the promotion of full participation by everyone and concentrated action for improvement under strong leadership was affirmed to recover unachieved goals.



Explanation of Objectives by Vice President Komiya



The Activities of Full-Time Improvement Team

After identifying the four worst overseas hubs for defective quality, support for improvement to reduce defective quality problems and education of personnel in improvement methods for an independent hub were implemented. The fundamental process is to prevent the outflow of defects to the customer and the intensification of quality checks (lineup of inspection tools and instruction of inspection methods). As part of the series of training sessions for an independent hub, an investigation of the true causes, verification of permanent measures and effects, and the dissemination of measures for similar processes are issued as instructions on

the production lines. Furthermore, the verification of improvement levels of each hub is implemented through an evaluation of improvement skills.



Study meeting at KAC

Supplier Award List

Hub	Award Description		Customer	
KMS	Global Contribution Award	Contributed to supply in India	Yamaha Motor Co., Ltd.	
KYB	Excellent Supplier Award	Sales expansion and reduced costs were commended	Hitachi Construction Machinery Co., Ltd.	
KMSB	Supplier Award	Acquired full scores for quality and delivery	Isuzu Motors Limited	
KIMZ	MZ Best Performance Achievement of no problems for quality and delivery		Jatco Guangzhou Ltd.	
KYB	Global Development Award	Contributed to the development of high efficiency vane pumps	Jatco Ltd.	
KIR	Global Quality Award	Zero complaints for 12 months		
KYB Kanayama	Supplier Quality Award	Achievement of goals for quality and delivery	General Motors	
KYB	Supplier Authorization	Excellence in quality, cost, delivery, and development was acclaimed	Mitsubishi Fuso Truck and Bus Corporation	
KMSB	Environmental Convention	Reduction of CO ₂ and industrial waste emissions	UMW Toyota Motor Corporation	
KMSB	Excellent Supplier Award	Contributed to quality, delivery and cooperation for cost	Hong Leong Yamaha Motor Sdn. Bhd.	

KST (Thailand): Winning of Supplier Award for Continuous 3 Years

Awarded the honorary award from Isuzu Motors Ltd. for continuous full scores in quality and delivery for the three fiscal years of 2013-2015. KST delivers pumps for power steering in SUVs and pickup trucks to Isuzu Motors Ltd. The work environment has improved after implementation of the 5S and safety activities. The diligent, continued efforts to reduce in-process defects, improve the skills of workers through cross-sectional team activities, such as Asa-Ichi-Kai*, and reduce contamination have successfully led to this award.



Awarding Ceremony

Information supply to customers

We think that exhibitions are precious opportunities to directly hear customers' opinions. We will continue to positively participate in exhibitions.

Participated Exhibitions (partial)

Exhibition	Major Presentation	
The 41st Japan Meat Industry Fair 2016	Piston pumps, motors, etc., for hydraulic meat processing machinery	
Automotive Engineering Exposition 2016 Yokohama	Drive recorders, communication terminals for mobile body, etc.	
Inno Trans 2016	Actuators, semi-active devices, etc.	
FOOMA JAPAN 2016 (2016 International Food Machinery and Technology Exhibition)	Piston pumps, motors, etc., for water pressure driven meat processing machinery	
Automechanika Moscow	Shock absorbers	
China Auto Salon	Shock absorbers	
Automechanika Frankfurt 2016	Shock absorbers	
International Aerospace Exhibition 2016	Wheels/brakes, power brakes, etc.	
China International Agricultural Machinery Exhibition	HTS, various power steering, hydraulic motors, etc.	
Manila Auto Salon	Shock absorbers	
bauma China 2016	Hydraulic products for compact shovels, etc.	
Automechanika Shanghai 2016	Shock absorbers	
bauma CONEXPO INDIA 2016	Concrete mixers, concrete pumps, etc.	
Tokyo Auto Salon 2017	Shock absorbers	
The 8th Vibration Technology Exhibition	Seismic isolation/vibration suppression oil dampers, etc.	

Plant Tour for Individual Shareholders

In March 2017, a plant tour for individual shareholders was held at the Sagami Plant. First, an introduction to our company was provided to shareholders, along with an overview of the Sagami Plant. Then, the shareholders went on a plant tour in two groups to both the factory and the KYB museum. In the factory tour, the shareholders observed the coating process during production, and in the museum, the visitors were shown the history of our company and its products. After the tour, we received valuable opinions through conversations with the shareholders. We will continuously hold plant tours and will make an effort for deeper understanding of our company.



Explanation of the Production Processes

^{*}Asa-Ichi-Kai: A short meeting held by concerned people at the start of work regarding production, quality, and safety where reports are made on the statuses up to yesterday and mutually confirmed.

With Business Partners

Establishment of partnership



Basic policy for procurement

KYB is making an effort to take the corporate social responsibility (CSR) and continue to be a company relied upon by the society. Suppliers are important partners for us to continuously develop through craftsmanship and help realize a wealthy society. Our basic policy for procurement is described below: For detail, see our website

http://www.kyb.co.jp/company/csr.html

Activity results of 2015

- 1 Procurement activities aiming at the coexistence and mutual prosperity of KYB and our suppliers
- Legal compliance
- Quality First
- 4 Safety and health, human rights and labor
- 6 Continuous cost reduction activities
- 6 Timely delivery
- Protection of natural environment
- 8 Construction of global procurement system
- Risk management
- Classified information management
- 1 Prevention of corrosion

Fiscal Year 2016 Procurement Policy Briefing

In fiscal year 2015, we again held a KYB Procurement Policy Briefing in order to strengthen the collaboration between KYB and our suppliers. (Shinagawa Intercity Hall: Minato-Ku, Tokyo) On the day of the meeting, we welcomed suppliers from 214 companies, 4 more companies than in the previous fiscal year, to whom we presented explanations of company policy, procurement policy, and quality policy.

We also presented commendations to outstanding suppliers who had achieved results from their who have achieved an effect in QCD.

After that, we also held a social reception for the suppliers as an occasion for friendly exchange.



Action against conflict minerals

Four kinds of minerals (tantalum, tungsten, tin and gold) produced in conflict areas, including the Democratic Republic of Congo and its neighboring counties in Africa, are defined as conflict minerals. We have been required to confirm that purchasing or using the minerals extracted there will not fund armed conflicts or contribute to the infringement of human rights in the conflict area.

The KYB group companies is well aware of the CSR perspective and of the import of financial regulatory reforms (the Dodd-Frank Act) in the United States. We are acting on that basis to create our own corporate guidelines, and we are collaborating with our customers and suppliers on measures to prevent the use of conflict minerals that have been extracted illegally.

Survey of status of business continuity plan (BCP) activities

In preparation for three interlocked earthquakes (Tokai-Tonankai-Nankai) and because of the growing concern over such natural disasters, an explanation was provided for BCP action during the procurement policy briefing. Furthermore, a seven category (1) Actions for anticipated risks, (2) Securing the personal safety and emergency evacuation, (3) Disaster task force, (4) Safety confirmation, (5) Property damage confirmation, (6) Instruction for returning home and people who have difficulty returning home, and (7) Re-establishment task force]] 100-item questionnaire was implemented and a self-assessment was conducted in consideration of the value of understanding the BCP activity statuses of our suppliers. We received reports from 411 companies, which made it possible to grasp the status of the suppliers. We asked for scheduled future activities for those items that had not been implemented and asked for grasping the action status of each company.

Activation of Improvement Activities by Holding a Supplier QC Circle Convention

With the goal of activating improvement activities by suppliers, a convention of supplier QC circles is held every year. Fiscal year 2016 was the 46th convention. Among the 200 persons from 132 suppliers in attendance, six companies gave presentations on excellent improvements among the 33 applicant companies. Hekikai Kouki Co., Ltd., received the highest award (Gold Award) for the third consecutive year.

VOICE

On winning the Gold Award in the Supplier QC Circle Convention < Hekikai Kouki Co., Ltd. >

The theme of the circle where we gave our presentation was "Increased productivity targeting the stability of the casting worksite." The best aspect for us after this activity was that all of our members cooperated in analyzing the current situation and offered ideas in responding to the need for improvement despite the busy production schedule of our company. Through verification of effects, we experienced a feeling of accomplishment in achieving zero overtime by significantly reducing the time required for manual operations, and simultaneously secured the safety of



operators. Our members understood that a task that once seemed impossible eventually could be solved by brainstorming ideas, which enhanced our daily motivation for improvement. Encouraged by the Gold Award, we will further increase customer satisfaction through quick and vibrant activities by everyone at the workshop.

For the Community

Social Support Activities



KMSI (India): Support for a Local Elementary School

A support for a local elementary school was provided by the neighborhood companies and KMSI.

In addition to donations of fluorescent lights, wall clocks, and sporting equipment, company support included commemorative tree planting and medical diagnoses. The children performed songs and dances that they had practiced for this day, and a plaque of gratitude was awarded

the elementary school. As a company, we are responsible for contributing to the peaceful education of local children in school. We will continue our contributions to local societies



The Ceremony





Appreciative Dance

Medical Diagnosing

Joint Comprehensive Disaster Drill with Neighborhood **Medical Organizations**

The Gifu South Plant holds a joint comprehensive disaster drill with the nearby Japan Community Health care Organization (JCHO) Kani Tono Hospital every year. This drill is implemented by the Kani Tono Hospital to simulate a large-scale earthquake and then conduct an emergency response in cooperation with employees, area residents, and local businesses.

In 2016, the company promoted an increased awareness of disaster prevention and confirmed again the cooperative structure in place for a large-scale earthquake through the implementation of a program to observe emergency status reporting with the participation of firefighting teams from Gifu South Plant Headquarters, an emergency evacuation drill using an EVAC+CHAIR (stairway evacuation carrier for injured persons), and a water-discharge exercise.







Water-Discharge Exercise

For a Bright Future

As part of a series of social contribution activities, KYB cooperates with various organizations every year. In fiscal year 2016, donations were made to the "Japan Committee for UNICEF", "Keidanren Committee of Nature Conservation", and the "Children's Future Backing up Foundation. Furthermore, a donation was made for the Kumamoto earthquake reconstruction efforts, and an exhibition and sales event provided support for the second time for the Great East Japan Earthquake reconstruction efforts in the domestic devastated areas. We will continue activities to expand the network of support for a bright future.





Certificate of Appreciation from the Cabinet Office

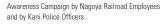
Exhibition and Sale Event for Supporting the Reconstruction of the Great Fast Japan Farthquake



Campaign for Prevention of Railroad Crossing Accidents

The Gifu South Plant is next to Kanigawa Station of the Nagoya Railroad (Meitetsu) Hiromi Line, and a railway crossing is located in front of the main gate. Many employees travel over this railway crossing, which also serves as a commuting path for the children of the local Dota Elementary School. the Campaign to Prevent Railway Crossing Accidents was implemented with the slogan "Let's Eliminate Railway Crossing Accidents" as an early morning greeting campaign of the Gifu South Plant with the cooperation of Nagoya Railroad and the local police on April 7 when the entrance and opening ceremonies of the elementary school were held. The range of contributions was to ensure the safety of KYB employees and the schoolchildren and residents in the region.







Awareness on Cautions and Greeting Campaign for

Environmental Conservation Organization of Sagamihara

The Environmental Conservation Organization of Sagamihara monitors changes in the environment during all four seasons of every year in order to prevent pollution, protect the richness of nature, and create a comfortable environment. As a member of the organization, KYB participates in environmental conservation activities. In FY 2016, we participated in a survey of river conditions and riverine biota, observations of the endangered Aster kantoensis and other riverbed plants, and made contributions to the maintenance of the riverbed.



Survey of riverine biota



Observation of the endangered Aster kantoensis and other riverbed plants

Set up an exhibit booth at the Industrial Fair in Kani 2016

The Industrial Fair in Kani 2016 was held in October 2016. This fair is a comprehensive exhibition by member companies of the Kani Chamber of Commerce and Industry with the goal of contributing to the revitalization of the area. The Fair this year was the tenth anniversary and was attended by 17,220 participants, the highest so far. We exhibited items for automobiles, motorcycles, and hydraulic excavator. As a company located in Kani City, we will continue to cherish the exchange with local people in the future.



A view of the exhibit booth I





A view of the exhibit booth III

Distribute seedlings on World Environment Day KCPL (India)

KCPL independently sponsors the Plant-a-thon on World Environment Day on June 5 of every year. Through this event, we build an awareness of the need to protect the environment. On this day, KCPL set up distribution booths at major locations in Vadodara City, distributed seedlings to citizens free of charge, and provided information on how to grow the seedlings as well. We also conduct afforestation activities. In 2016, we distributed over 10,000 of Neem and Royal Poinciana seedlings.

Utilize recycled compost to flowerbed

The leftover food discharged from the cafeteria at the Gifu South Plant and the Gifu East Plant was reduced by garbage disposal machines and then mixed with weeds and plant trimmings from the plant campus and recycled at the plant as good quality fertilizer. This recycled compost is used in flowerbeds to produce beautiful flowers for 200 meters along the street on the eastern side of the Gifu East Plant. The recycled compost

reduces the use of chemical fertilizer and decreases general waste emissions by up to approximately 4 tons per year.



Flowerbed in front of the plant

VOICE

Persimmon growing up in recycled compost

I would like to introduce another example of the application of recycled compost. Are you familiar with the very delicious Diospyros kaki Fuyu (Japanese persimmon) originating in Gifu Prefecture? In the green area of the Gifu East Plant, we utilize recycled compost to grow Diospyros kaki Fuyu. The persimmon trees have produced abundant fruit on the branches in the fourth year after seedlings were planted upon completion of the plant, belying the

truth to the following the proverb "Peach and chestnut seeds take three years to bear fruit, persimmons take eight." I don't think it is inferior to its kind in terms of size and luster even if when displayed in the shop, and the sweetness is outstanding. We look forward to delivering delicious Diospyros kaki Fuyu to customers visiting KYB and the neighborhood.



Yoshitake Sakai General Affairs Division (resident personnel at Gifu East Plant)

Continue to support the Para-alpine ski national team

As a sponsor and supplier of the Para-alpine ski team of the Japan Para-Ski Federation (Specified Nonprofit Organization), the KYB Group develops products and provides technical support for the shock absorbers on the chair-skis for the Japanese team. In the sixth round of the World Cup in Switzerland in December 2016, Takeshi Suzuki, a member of KYB, won the championship, and other players had great performances. The KYB Group will work together with the athletes to improve the product to win the gold medal at the Pyeongchang Paralympic Games in 2018, and we will continue to contribute to sports as part of our social contributions in the future.





Suzuki in competition

Won the championship in the sixth round at the World Cup

Mexican Football sponsorship

KYB signed a sponsorship agreement with Club Leon of the Mexican Football League, first division. Although the team competed hard in the first half of the league tournament game, they played even more aggressively to defeat the opponent without losing a point in the second half. The team advanced to the finals of the tournament and managed to enter the Best 4. In addition, during the league season, we held a PR event sponsored by KYB, which led to improvement in the awareness of KYB in Mexico. We will continue to support Club Leon's activities at the local level.





Press conference

Opening game

Running class opened by KYB track club

Our running class has its thirteenth anniversary this year, and we have many participants from pupils in grade 5 of the Kani Municipal Hiromi Elementary School. First, members of the club showed how to run and then taught basic knowledge of running, such as the position of the head, the gaze, the way to swing the arms, and breathing method. As a result, the children succeeded in running faster and more easily and enjoyed the experience of running. The running class also won favorable comments from the teachers at the elementary school. Our members had a valuable experience by teaching and feel that their efforts were worth their time.





Running training on a slope

Practice running basics



Join the blood donation supporters

The Kumagaya Plant is registered as a blood donation supporter*, and blood is donated twice a year at the plant. On the day of the blood donation, blood donors actively gathered at the venue early to wait in long lines to donate blood. According to the blood donation center, the Kumagaya Plant always achieves the desired blood volume even though the overall number of blood donors is declining each year. When asked why they donate blood, the employees say "I just want to do what I can to help people" or "I want to do something for others." In FY 2016, we received a Certificate of Commendation from the Japanese Red Cross Society for continuous donations for the past 30 years. For those who need blood transfusions, we will continue to cooperate by donating blood in the future

*Blood donation supporter: This refers to companies and organizations that actively cooperate in stable blood donations in order to secure blood necessary for medi-



The Certificate of Commendation received

With Employees

Human resource utilization and work environment improvement in cooperation

Basic concept

We are engaged in priority initiatives for the development of global human resources, construction of a global platform, and promotion of diversity. These are steps we are taking in order to utilize our diverse human resources to best advantage and to maximize Group capabilities.

Specifically, we are pursuing investigation of themes such as the development of professional human resources, sharing values across the whole Group, strengthening the development of human resources for skilled manufacturing, promoting work-life balance, and managing psychological and physical health. These are to further the creation of a workplace environment that is easy to work in.

Hold a life-saving training session

When people become injured or sick, if the bystander gives first aid promptly, the lifesaving rate will improve. Each of the Gifu North Plant, South Plant, and East Plant sponsors a lifesaving training session so that we can save as many lives as possible in an emergency. Training dolls and Automated External Defibrillator (AED) trainers are employed to practice chest compressions, cardiopulmonary resuscitation, and the actual use of the AED. We also confirm the rules of emergency responses at each plant, method of guiding ambulances, and the locations of AED installations. Currently, 23 AEDs are installed in the Gifu area, and

everyone can use it when necessary. We will continue to conduct the training sessions so that many people can perform cardiopulmonary resuscitation and use AED with confidence.



Lifesaving training session (South Plant)

Collaboration Agreement with Companies to Make Kani City a Comfortable Place to Live in

Kani City is working on the Athrill Working in Kani City Project by registering enterprises tackling the review of working styles and realization of a work-life balance. The city is also concluding an agreement with outstanding companies that serve as models for other enterprises in this respect and carrying out PR activities inside and outside the city to ensure that the city, residents, and enterprises develop together. As a company actively working to realize a work-life balance,

we have concluded the above Collaboration Agreement with Kani City.



Signing ceremony of the Collaboration Agreement Gifu Kita Plant manager Hatakeyama

Human resource development and technical capability improvement

Global engineer training

We have been conducting global engineer training with the aim of upgrading skilled manufacturing capabilities at our production bases in other countries since 2006. This training is based on lectures in dialogue form, experiential exercises, and study tours of advanced plants, and is conducted on-site with actual equipment and materials for periods of two weeks to one month. After acquiring basic to applied techniques, trainees create proposals for improvements to their own bases and are assigned the implementation of those improvements on return to their countries.

In FY 2016, we had 41 staff members from 14 bases in eleven countries participating in the measurement and material inspection course, centerless grinding course and KPS course.

We intend to continue conducting these training sessions in the future, and will promote strengthening of skilled manufacturing capabilities at our production bases in other countries.





Study tour of the Plant by grinding course

Visit Gifu Castle on off day

KYB Global Production and Quality Meeting

The KYB Global Production and Quality Meeting for FY 2016 was held over a three-day period from November 9 to 11. There were 42 participants from 19 overseas bases, and case presentations were followed by enthusiastic question-and-answer sessions. On the first day, a KYB global improvement presentation session was held, and 14 topics related to improvements in production and quality were presented by 13 bases. KST won the top prize with its presentation Gold Finding Activity (Contamination Reduction Activity). We are working to share information and issues related to safety, the environment, quality, and production in each production base; improve the respective functional levels; and contribute to future development.



Group photograph of participants (at Gifu North Plant)

Commendation of Excellent Enterprises and Businesses Engaged in QC Circle Activities (small group improvement activities)

In the Gifu area, we were commended for being an Excellent Enterprise in the QC circle activities (Small Group Improvement Activity). This award is granted to companies that have contributed significantly to regional revitalization for many years. We were elected as one of eleven companies from nine branches nationwide. On the date of the commendation ceremony, the Gifu North Plant manager, Hatakeyama, director in charge of public relations in the Gifu area, received the Certificate of Commendation and a commemorative plaque from the Union of Japanese Scientists and Engineers as the representative of the company.



Participate in the National Skill Competition

The Skill Competition brings together youth up to 23 years old to compete for the title of the Most Skilled in Japan. At its 54th anniversary this year, 1318 contestants from 41 professions participated in the competition. A second preliminary round was set up in the lathe category, which KYB participated in because it is the most popular one at the competition. A high degree of accuracy is required because the tolerances of the five parts to be machined are set at \pm 0.02 mm uniformly.

The Human Resource Training Center places two contestants in the competition each year to develop the skills of young technicians and upgrade the level of ma-



Sample parts for challenge task





Kagiya in competition

chine work in the company. Yoshimasa Kagiya and Koki Ishihara made it to the final competition in FY 2016.

In addition, the two staff members are currently engaged in training, aiming for participation in FY 2017.

Abolishment of regular cleaning of sludge

We improved the sludge cleaning work of the grinding process, which has been an issue for a long time.

We machine to a mirror finish for the sliding surface (outer diameter) of the piston rod of the shock absorber with grindstones. The sludge generated during the machining process accumulates in the receiving jig and results in scratches and defective products; therefore, after the weekend production, we get dirty cleaning sludge. It was hard and exhausting work that took time. After repeated trial and error, we developed a special cleaning tool (a tool with a brush attached). The tool turned out to be excellent in removing the accumulated sludge during machining. Thus, the regular cleaning of sludge came to an end. This is an example of an improvement where all personnel pooled their knowledge to solve a problem under the slogan: Fight to the end and never give up.

> Suspension Manufacturing Department, Gifu North Plant Kenya Iwai

Abolishment of regular cleaning of sludge



VOICE

Impressions of contestants

I learned from the National Skills Competition that it is important to develop my own way of doing work. It does not concern superiority or inferiority of a person but only to do what I can to the utmost in work. From now on, I will dedicate myself to the company by taking advantage of my character.



Yoshimasa Kagiya Human Resources Training Center

It was my first time to participate in the National Skills Competition. I made it through the second preliminary round and managed to participate in the national competition. It was a very valuable experience leading up to the next competition. The result of the final competition was not satisfactory, so I am practicing for the championship in the 2017 National Skills Competition.



Koki Ishihara Human Resources Training Center

The 15th KYB Corporate Sports and Cultural Exchange interactive event

The 15th Sports and Cultural Exchange event was held in Mie Prefecture where the KSM plant is located. A total of 992 contestants competed in 11 categories. All the contestants gathered at the site vigorous, enthusiastic, and exciting battles in all competitions. Overseas employees were leaders in futsal, and the Spanish team achieved victory over the Vietnam team. Participants enjoyed strolling in Koga City, Shiga Prefecture, where the Takako plant is located. Unique regional competitions, such as the Shigaraki ware experience, were also enjoyed by the participants.

Through sports competition and cultural exchanges, employees of the KYB Group can deepen their understanding and strengthen ties with colleagues. The competition has become a valuable annual event.



A view of the competition (after the futsal game)



A view of the opening ceremony (Kagami biraki)

- Date: September 24 (Saturday) to September 25 (Sunday)
- Venues: Mie Prefecture/Shiga Prefecture (KSM, Takako)
- Games: Softball, beach volleyball, futsal, bowling, hard tennis, sea fishing, table tennis, golf, dodgeball, strolling, Hyakunin Isshu (the Hundred Poems)

The 9th KYB Robot Contest

The 9th Robot Contest was held at the Gifu North Plant on November 12, 2016. The competition task this time was the ball-toss game. At the signal to start, the robot takes a bucket containing balls and throws the balls at the target on the opponent's court competing for total points. As in 2016, a total of 24 teams competed with 17 teams from Japan (including group companies) and 7 from overseas. Spectators and participants together totaled around 600 persons, making it a great success this year. KAC (USA) won the championship and recaptured the throne for the first time in three years. The overseas teams monopolized all of

the top three awards, the President's Special Award, the Technical Award, the Idea Award, and the Maximum Score Award. Robot Contest 2017 will be held at the Sagami Plant.



Members of KAC, the winning team



Participants and Spectators

VOICE

Recapture the throne for the first time in three years at the Robot Contest

Our Robot Contest Team practiced on our own course with a simple concept and strategy for victory. The final game with the Indonesian team was an incredible fight. In 2016, four teams competed at the same time, and the audience and the players were very excited. We won three times over five years. I definitely want to defend the title in the 2017 contest.





Occupational safety and health

Industrial health and safety



Aiming for zero industrial accidents

With "Safety Takes Priority Over Everything" as our slogan, all the KYB companies have been working as one on safety activities since fiscal year 2012. An Environment and Safety Committee has been established as the KYB group organization chaired by the Executive Officer for Environment and Safety, and this is a focus for specific activities carried on at each KYB business establishment by its Safety and Health Committee.

In FY 2016 for the various overseas production bases, we expanded the measures of risk assessment; stop, call, wait; repeated safety education; and the safety gate as implemented in Japan the previous fiscal year. As a result, in FY 2016, we were able to reduce the number of occupational injuries by about 12% compared to FY 2015.

We still have much to do before we reach the target of zero, and we are committed to continuing these activities in order to move toward zero industrial accidents in the future.





Safety gate installed at Vietnam Plant (KMV)

Repeated safety education in KMV



Carry out repeated safety education

In the past, we carried out safety education for new employees and virtual safety education at each plant. However, because each plant provided safety education independently, there was a problem that the contents and methods were inconsistent. Therefore, we gathered the safety officers from throughout the corporation, summarized management methods and the basic concepts about safety and risk assessment, and then created the KYB Safety Basics textbook. By adopting this textbook throughout the KYB group, we were able to start systematic safety education at the same level. The target attendants of the training session are employees whose work experience is considered to be the most dangerous span for occupational accidents. We will expand the scope of the target attendants in the future.



Cover of the KYB Safety Basics textbook



A view of the training session

Participate in the Asia Safety and Health SAKURA Project KST (Thailand)

We participated in the Asia Safety and Health Sakura Project organized by the Japan Industrial Safety and Health Association for five days from November 7–11, 2016. Experts explained KYT, Risk Assessment, and OSHMS, which were very easy to understand. The project included workshops and study tours of plants, which helped us understand the lectures better. Also, on February 15, we arranged for experts to visit the plant and received specific advice from them. Through this training, we were able to clarify the good points of the activities that we have been working on and points that need improvement. We will try to improve the level of activities and expand the activities to the entire plant, thus making a better social contribution in the future.

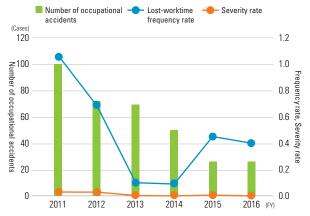




Participants from each company
(Patto san from KST is in the middle of the second row)

A view of the training session

Number of occupational accidents, Frequency rate, Severity rate



Number of occupational accidents

Lost-worktime frequency rate = (Number of employees of lost-worktime/Total Working Hours) x 1,000,000

Lost-worktime severity rate= (Workdays lost/Total Working Hours) x 1,000

Corporate Management

Corporate governance



Principles

Our corporation is committed to fulfilling our corporate social responsibility as to contribution to society as well as to meeting shareholders' expectations by realizing sustainable and stable growth and increasing corporate value, and to that end we pursue a quick and efficient management structure, a highly fair and transparent management supervisory function, and continuous effort to strengthen and enhance our corporate governance by our corporate philosophy and the basic policies given below.



Basic Policies

- 1. Our corporation shall respect the rights of shareholders, and ensure the equal and fair treatment of all shareholders.
- 2. Our corporation shall take the benefits of shareholders and other stakeholders into consideration and endeavor to appropriately cooperate with those stakeholders
- 3. Our corporation shall not only engage in information disclosure that is in compliance with the relevant laws and regulations, but shall also actively provide important or useful information to stakeholders for their well-informed decision making.
- 4. The Board of Directors shall be cognizant of its fiduciary responsibility and accountability to shareholders, and shall appropriately fulfill its roles and responsibilities in order to promote sustainable and stable corporate growth and increase corporate value, profitability, and capital efficiency.
- 5. Our corporation shall engage in constructive dialogue with shareholders, and make efforts to obtain shareholders' support regarding the Company's Business Policies while also incorporating shareholders' opinions and concerns in our efforts to improve management.





Corporate governance system

Our corporation is a corporation with a board of auditors in terms of institutional design as specified by the Companies Act.

Board of Directors

The board of directors consists of seven members, including two outside directors, and makes decisions on critical matters concerning management and supervises the execution of the duties of directors in compliance with laws, regulations, the Articles of Incorporation, the rules of the board of directors, and other internal regulations. The general meetings of the board of directors are held once a month, in principle.

Board of Executive Officers

The board of executive officers discusses important matters concerning corporate management from a company-wide viewpoint as a preliminary deliberative body for projects submitted to the board of directors.

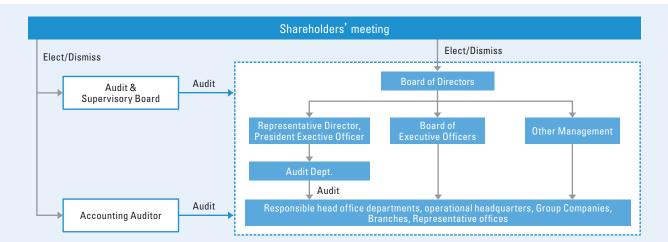
Other Management Committees

The Domestic Affiliated Company Management Committee and the Global Strategy Committee oversee the management practices of the domestic and overseas affiliated companies on a regular basis. There are other committees to enhance the monitoring system for KYB Group management, such as the Operations Review with the President where the president of the corporation visits plant worksites and follows important issues related to manufacturing.

Audit and Supervisory Board

The audit and supervisory board consists of four regular auditors, two of whom are outside auditors. Through audits by outside auditors, we expect effective management supervision and conclude that an effective governance system is in place. In addition, one of the outside auditors is registered as an independent director.

Corporate governance structure



Internal control

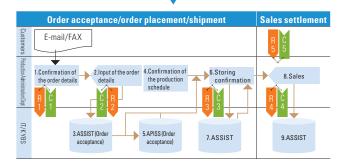
Corporate governance functions effectively on the premise of ensuring the reliability of financial reports, increase of work efficiency and compliance. In order to promote them, we consider that it is absolutely essential to focus on the development of an internal control system and the enhancement of internal control capability. For example, we have resolved the fundamental policy of internal control system at the board of directors in accordance with the Companies Act, and are promoting several measures such as the development of risk control system, group management system, internal compliance system, etc. Also under the Financial Instruments and Exchange Act, we operate the development and the management assessment of "Internal Control Over Financial Reporting" by following the procedure specified in the act to secure the reliability of the financial reports, as well as ensuring appropriate information disclosure.

Self-managing by "visualization"

KYB has applied Internal Control Over Financial Reporting pursuant to the Financial Instruments and Exchange Act since April 2008, whereby we promote the schematic expression and evaluation of operations that affect our financial statements. Our business procedures and rules are defined in the company regulations and instructions, and by representing the flow of business operations in more schematic form, we enable their visualization so that operations that were only understood by the people in charge of them could be made understandable to others. This visualization also makes apparent where business risks exist, and we have incorporated this as a scheme for self-management to determine how well the checking function that is supposed to reduce risk is operating.

Flow chart of work operation (example)

Operation				
No.	Title	Description		
1	Confirmation of the order details	The person in charge checks up if there is any error with item number, delivery time and quantity.		
2	Input of the order details	Input the order details according to its contents already confirmed		
3	Order acceptance system	Handle using the sales management system		
4	Confirmation of the production schedule	The person in charge confirms the production schedule required by customers		
5	Production control system	Handle using the production information control system		
6	Storing confirmation	Confirm the storing contents after the part arrives from supplier		
7	Shipping system	Receive the shipment data		
8	Sales	The person in charge accesses the system and records the sales		
9	Sales system	Tally the sales results		



Compliance

We regard "the compliance" not only as "the adherence to laws, orders and rules", but also as to "company contracts, company rules and agreements, etc", associated with our business activities, furthermore, to "the corporate ethics" for the promotion of healthy business activities.

- As the rule for the execution of business activities by directors and employees, we have developed Corporate Guiding Principle and are focusing on the establishment of legal compliance and corporate ethics.
- 2. We are implementing the compliance education through training sessions by job titles and sections, including directors.
- 3. We have prepared the whistle-blowing system (Instant Report and suggestion box) covering all companies of the KYB Group. Besides, we have exclusive contact points to accept whistleblowing and consultation in accordance with the WhistleBlower Protection Act.
- 4. We have set the policy of protection of personal information and data the company rules, developed the company rules and established the internal committee. We also have the contact desk to respond inquiries from outside of the company.
- 5. There has been a high demand for company's initiatives for elimination of anti-social power or groups. The KYB Group is working on this matter by confirming in writing that our suppliers have no relationship with anti-social power or groups, in case we need to terminate a contract as we know they do.

TOPICS

Compliance education by e-learning

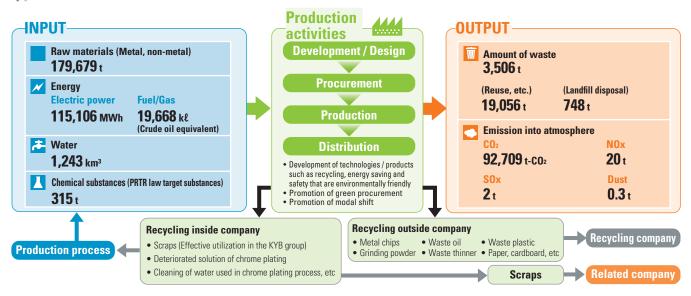
In light of globalization, we are implementing education (e-learning) on antimonopoly law for employees of the KYB Group working in Japan and other countries. We are implementing this program globally in nine languages, and our purpose is to have our employees deepen their basic understanding of antimonopoly law in Japan, the United States, Canada, the EU countries, China, and so on, and to realize anew the importance of compliance with antimonopoly law.

Environmental data compilation

Influence on environment associated with business activities

KYB uses energy, water, chemicals, and other such diverse resources. In order to make efficient use of limited resources in production, we take steps to reduce waste, CO₂, and other emissions.

INPUT / OUTPUT



State of ISO14001 certification acquisition

In order to develop our actions for environment preservation systematically, we are carrying out the introduction and the promotion of ISO14001 environmental management system. We will shift to the 2015 edition sequentially in the renewal examination.

Japan

111.00	
KYB	Certification registered year
Gifu South Plant (Including Gifu East plant, Production	2000.2
Technology R&D Center, Machining Tool Center, KMS)	2000.2
Sagami plant (Including the Basic Technology R&D Center,	2000.12
the Electronic Engineering Center)	2000.12
Kumagaya Plant	2000.12
Gifu North Plant (Including KYB Kanayama)	2001.12
Affiliated companies in Japan	Certification registered year
KSM Mie Plant	2000.12
Takako Industries, Inc. (Shiga Plant)	2003.2
KYB-YS	2004.4
KYB Trondule Co., Ltd.	2008.11

Overseas

Company name	Certification registered year
KMT (Taiwan)	2001.6
KSS (Spain)	2001.6
KYBSE (Spain)	2001.12
KAC (United States)	2002.5
KYBT (Thailand)	2003.7
KST (Thailand)	2003.8
PT.KYBI (Indonesia)	2004.11
KMSB (Malaysia)	2005.5
KSMSB (Malaysia)	2005.5

Company name	Certification registered year	
TVC (Vietnam)	2007.1	
KMB (Brazil)	2007.3	
KIMZ (China)	2009.4	
KMCZ (Czech Republic)	2009.8	
KLRC (China)	2010.1	
KWT (China)	2013.11	
TAC (United States)	2013.2	
KMV (Vietnam)	2013.5	
KAMS (Spain)	2015.6	

Editorial Policy

We compile this report with reference to environmental reporting guidelines so that information regarding our business operations as relating to the environment and society can be conveyed to our stakeholders in readily understandable form

In the 2017 edition of the report, we introduce numerous specific cases of new environment-friendly technologies and energy-saving programs, utilization of human resources, and collaboration with local communities.

We will try to edit our reports to make them easier to understand. Therefore, our stakeholders' candid opinions will be much appreciated. The content of this report has been posted on our website, so please take a look.

http://www.kyb.co.jp/company/csr.html

Environment-related Data

CO₂ emissions



Energy consumption



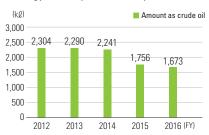
Waste emissions volume



Water usage/ Wastewater



Energy consumption for transportation



Environmental preservation cost

The amounts of investment and cost were separately calculated with reference to the Environmental Accounting Guidelines, 2005, presented by the Ministry of Environment.

Unit: million ven

Cost type		Major contents	Invested amount	Cost
(4) (2) (3) (1)	(1)-1 Pollution prevention cost	Atmospheric pollution and water pollution prevention activities Maintenance and inspection of pollution prevention facilities Analysis and measurement of atmosphere and water quality	73.6	118.4
(1) Cost within business area	(1)-2 Earth's environment preservation cost	Energy conversion Energy saving activities	41.0	15.9
	(1)-3 Resource circulation cost	Recycling of plant wastes Reduction of industrial wastes	85.9	202.2
(2) Upstream/downstream	cost		0	0
(3) Management activity cost		Maintenance and periodic/ renewal screening of ISO14001 Surveillance of impacts on environment	1.1	71.3
(4) R&D cost		Environment-friendly product development Light-weight products and products containing less hazardous chemical substances	60.0	94.0
(5) Social activity cost		Support of non-profit environmental protection Afforestation and maintenance of scenery surrounding plant	0.2	11.4
(6) Environmental remediation cost			0.0	0.0
(7) Other cost		Internal environmental conservation Welfare conservation	1,143.6	20.0
	Total			533.2
		Grand total	1,93	8.6

Categories and definitions of environmental preservation costs

[Invested amount] Expense for the purpose of environmental preservation during the target period with effect that continues for a number of terms and cost running for those periods. (Amount acquired during the current term of the depreciable asset) [Cost] Cost or loss generated from expenditure of finance/service for the purpose of environmental preservation.

Period covered

From April 2016 to March 2017

(A part of our activities and reports outside of the period are also posted.)

Scope

KYB Corporation and the affiliated companies inside and outside of Japan are included. Regarding environmental data, that of KYB Corporation (Sagami plant, Kumagaya Plant, Gifu North plant, Gifu South plant and Gifu East plant) is shown unless otherwise annotated.

Time of publication

June 2017 (The next report is scheduled to be published in June 2018, with the previous one published in June 2016.)

Referenced guidelines

This report was drafted and edited using the Ministry of the Environment "Environmental Reporting Guidelines 2012"

Notes related to future prospects

This report includes our plans and prospects as of the issued date, and future prospects based on our business plans and business policies. We evaluate these future prospects based on information obtained when the report is drafted and thus the prospects may differ depending on changes in various conditions. We appreciate your understanding of the statement above.



Contact

KYB Corporation

Environment & Safety Control Dept.

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Considerations made for paper use



Forest Neighborhood Association Paper used for this printing is

Paper used for this printing is useful for the effective use of thinning and timber from forest thinning that revive forests.



Use of FSC certified paper $^{\circledR}$

We used paper made of timber from adequately managed

Considerations made for printing



Green Printing
Environmentally friendly printing materials and printing methods were used to produce this report.



Use of Non-VOC ink
We used environmentally friendly
100% vegetable oil ink free from VOC
(volatile organic compound).



Waterless printing
We adopted waterless printing with
organic materials that generate less