

UD Trucks Corporation

CSR Report 2018

Editorial policy

UD Trucks publishes its CSR reports for our stakeholders to understand our approaches and efforts regarding the company's corporate social responsibilities that we believe we should fulfill to realize a sustainable society. This 2018 issue includes feature pages on the all-new Quon truck and our after-sales service, and in the report section, we present our activities in the five prioritized themes at UD Trucks.

Scope of the report content

This publication is prepared to report on UD Trucks Corporation, but it also encompasses certain activities conducted by the Volvo Group for UD Trucks as one of its business areas.

Coverage period

This report covers fiscal year (FY) 2017 (from January 1 to December 31, 2017). It also partially contains contextual information and data from previous periods, reports on some activities conducted in FY2018, and future action plans.

Published in November 2018

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We will provide products and solutions that support the future of logistics and contribute to realizing a fulfilling society.

Since its foundation in 1935, UD Trucks has continued to pursue the creation of new products, services, and solutions, based on the cornerstone of our founder's vision: "To make the trucks the world needs today."

To realize this vision, it is vital that we listen to the many voices of customers and other stakeholders, resolve the various business and social issues, connect such activities to business growth, and approach business with a "creating shared value" (CSV) mindset, which values sharing of profits.

With these thoughts in mind, UD Trucks developed its corporate social responsibility (CSR) strategy in 2017 based on its business strategies and brand traits, while retaining consistency with the CSR policy of the Volvo Group, which was being practiced earlier. Under this strategy, in addition to strengthening the building blocks of CSR activities, such as corporate governance, compliance, and risk management, we will pursue CSV, which focuses on the logistics dimensions of "environment," "safety," "people," and "community needs."

As part of these efforts, Touch & Ride events were held nationwide for the new heavy-duty truck Quon in 2017, where customers experienced high levels of drivability, fuel efficiency and environmental care, and safety. When suggesting products that contribute to resolving customers' business challenges and environmental issues through such activities, we focused on renewing workshops and improving after-sales service so that our strengths regarding productivity and uptime are sufficiently implemented at customers' locations.

Since we are a community-based company, we also engage in activities such as traffic safety seminars for children in local areas where our business offices are located as well as Internet training courses for the elderly.

ESG, which indicates engagement in environmental, social, and governance-related activities, is currently receiving increasing attention on a global scale as a new metric in business management. Furthermore, to drive such efforts, the United Nations developed the Sustainable Development Goals (SDGs) and issued the Paris Agreement, an international framework for environmental issues. Responses to such requirements by the international community and participation in the development of a sustainable society are responsibilities of global companies, and they can lead to a sense of pride toward everyday work and provide motivation for the future.

By sharing such aspirations with all employees, we seek to realize our CSR vision: "Enhancing sustainable logistics and contributing to the welfare of people by resolving social issues."

酒卷孝光

Takamitsu Sakamaki President and Representative Director UD Trucks Corporation



A truck manufacturer that supports logistics

UD Trucks was founded in 1935. Since its foundation 83 years ago as a commercial automobile manufacturer, we have been pursuing the manufacturing of better products while being discerning with regard to changes in the society, utilizing advanced technologies, and listening to the voice of customers.

Today, UD Trucks faces new challenges, such as the once-in-a-100-years transformation of the automobile industry and shortage of truck drivers. In an age when further efficiency is required in logistics, it is important that we understand the meaning of our existence and continue to contribute to forming a sustainable society.

UD Trucks will contribute to the realization of a sustainable society and logistics and strive for long-term business growth by having our colleagues share and assertively participate in both our mission as a company and our values, that guide us in achieving the mission.



Company profile

Company name	UD Trucks Corporation
Date of foundation	-
Head office	1-1, Ageo-shi, Saitama 362-8523, Japan
Capital	77.5 billion yen
Number of	6,210 employees including contract and temporary employees
employees	(as of the end of December 2017).
Main business	Japanese business
	Development, manufacture, export, and sales of heavy-duty trucks;
	sales of medium- and light-duty trucks; manufacture and sales of
	vehicle components; maintenance and sales of service parts for
	trucks and buses; import and sales of the Volvo brand products.
	Businesses outside of Japan
	Outside of Japan, the following businesses are carried out as the
	Volvo Group.
	Development, manufacture, and sales of heavy-, medium-, and light-duty
	trucks for growth markets; development, manufacture, and sales of
	buses for growth markets; manufacture and sales of vehicle components;
	maintenance and sales of service parts for trucks and buses.
Domestic group companies	VFS Japan Co., Ltd., New-Mech Co., Ltd.
Main locations outside of Japan	Singapore Office, Thailand Plant, Parts Distribution Centers (Singapore, Dubai, South Africa, U.S.A.)

(as of October 1, 2018, except for the number of employees)

Officers Executive Chairman and Representative Director Joachim Rosenberg



Director (part-time) Kerstin Renard



President and Representative Director Takamitsu Sakamaki



Auditor Noriaki Fujii





History of UD Trucks

	History of the company	History of the products
1935	Nihon Diesel Industries, Ltd. is established in Saitama, Japan, aimed at producing diesel engines.	
1938		Completion of the first diesel engine.
1939		Completion of the first diesel truck, which undertook a total of 3,000 km legendary test run.
1942	The company is renamed as Kanega-Fuchi Diesel Co., Ltd.	
1946	The company is renamed as Minsei Sangyo Co., Ltd.	
1950	The company is renamed as Minsei Diesel Industries, Ltd.	
1955		Birth of the original UD engines.
1958		Birth of Japan's first truck with a more than 10-ton payload 6TW model, which is leveraged in the construction of the Shinkansen network.
1960	The company is renamed as Nissan Diesel Motor Co., Ltd.	
1962	Ageo Plant commences its operation.	
1975		Launch of the medium-duty truck Condor.
1990		Launch of the Big Thumb with improved low emissions, comfort, and safety.
2004		Birth of Quon, UD Trucks' flagship heavy-duty truck
2006	AB Volvo becomes a major shareholder in the company.	
2010	The company is renamed as UD Trucks Corporation.	
2013		Birth of Quester, a brand new heavy-duty truck developed for global growth markets.
2014	Merger is completed with the sales company UD Trucks Japan Corporation.	Launch of the light-duty truck Kazet.
2015	The company's 80th anniversary is celebrated.	
2017		Launch of the all-new Quon, as well as birth of the medium-duty truck Croner and light-duty truck Kuzer for global growth markets.

Changes in global sales volume



Sales volume by market

(number of vehicles shipped from the plants in FY2017)

Latin America	168
Asia	16,494
Japan	10,979
Southeast Asia	4,398
South Asia	178
Middle East	939
Oceania	1,202
Africa	2,354
Total	20,218

Brands and products sold by UD Trucks Corporation



UD Trucks

Heavy-duty truck Quon, medium-duty truck Condor, light-duty truck Kazet, and heavy-duty truck Quester, medium-duty truck Croner, light-duty truck Kuzer for the growth markets.



Volvo Trucks

Import and sales of Volvo brand's heavy-duty trucks. The main products in Japan include Volvo FH 4×2 and 6×4 tractors.



Volvo Penta

Import and sales of Volvo Penta brand's marine and industrial engines. The main products in Japan include inboards, IPS marine engines, and generator engines.



Volvo Construction Equipment Import and sales of Volvo brand's construction equipment. The main products in Japan include wheel

loaders and articulated dump trucks.

We pursue activities designed to create shared value with stakeholders.

CSR Strategy

UD Trucks developed an original CSR strategy to specify the direction of CSR activities it should engage in and to deploy activities in an aligned manner.

In this CSR strategy, the goals of our CSR are embodied in our CSR vision. Additionally, we focus on generating value for both stakeholders and our company by engaging in resolving social issues and CSV (Creating Shared Value), which aims toward sustainability.

In promoting CSV, we seek to contribute to society by deploying our resources, such as knowledge, expertise, personnel, and facilities, by focusing on "logistics" and the "community," which are closely related to our business. Furthermore, within "logistics," we identify the three focus areas—"environment," "safety," and "people"—that lead to further specific and effective activities. At the same time, all business activities that CSR must carry out are defined as "fundamental CSR," and efforts based on the reinforcement of corporate governance, compliance, Volvo Group's Code of Conduct and main policies, and ISO compliance is promoted.

The CSR strategy is consistent with the Volvo Group's CSR policies, reflects our company's business strategy and brand characteristics, and contributes to generating synergy effects by reinforcing individual brands the Group aims for. UD Trucks will fulfill its CSR while encouraging participation by employees and contribute to realizing a sustainable society.



Code of Conduct

In the Volvo Group, we specify basic principles and behavior that all employees globally should comply with in our "Code of Conduct," in order to carry out a business that is ethical and compliant with laws. The entire code was renewed in 2017 to strengthen compliance much more than before, specify its relevance to employee behaviors, and promote application by each and every employee. Additionally, to ensure internal penetration, a new e-learning program was developed and implemented.





E-learning (above) The Volvo Group Code of Conduct cover page (left)

CSR management system

The persons in charge of CSR/Environment Management are the central figures in promoting CSR. In addition to aggregating information on CSR activities carried out in various internal divisions and coordinating them, a core team is developed in cooperation with the persons in charge of Communications and Brand Management. Companywide CSR frameworks, including CSR strategy planning and raising awareness both internally and externally are contemplated.

Moreover, to ensure the deployment of activities that align with group-wide directions, each division, including overseas operations, appoints designated CSR staff, who have regular meetings to share information organization-wide and to plan and discuss specific activities. They also report the progress of these activities to the executive team in meetings and receive instructions, decisions, and approvals from management.

UD Trucks executive team CSR core team (CSR/Environment Management/Communications/Brand Management) Domestic Sales and Aftermarket Division Overseas Sales and Aftermarket Division Product Development Division Manufacturing Division Corporate Governance Division Overseas operations

Compliance

We seek business activities that comply with the five important general rules, namely, "We respect one another," "We earn business fairly and lawfully," "We separate personal interests from business activities," "We safeguard company information and assets," and "We communicate transparently and responsibly," which are specified in the Volvo Group's Code of Conduct.

In these general rules, it is clarified that business activities should strive to comply with Competition Law,

Risk management

In December 2017, a Security and Safety Department was established to reinforce risk management.

The division's main responsibilities are diverse, including retaining safety in the workplace for employees and visitors, protecting confidential information and assets of the business, attending to emergencies, for employees, including management, is being carried out continuously through classroom programs, e-learning, and other necessary platforms. We also implement whistleblower and auditing systems to allow suspected cases of non-compliance to be reported for timely and appropriate corrective action.

labor-related laws, domestic and international laws, and

relevant Volvo Group regulations. Compliance education

Anti-corruption Law, Labor Standards Law, other

managing crises, planning for business continuity, and supporting disaster recovery.

By foreseeing any possible risks and preventing them in advance, further safety and assurance in the business environment are enabled.

Information security

Efforts toward information security are carried out based on the Volvo Group's "Security Policy." Information on security governance is being established in a manner that reflects this policy.

To be more specific, we manage and operate electronic information at two places, namely, our headquarters and a highly earthquake-resistant data center, to prevent our systems from ceasing due to disasters. We also have enhanced countermeasures against electronic information leaks due to external attacks. Moreover, we conduct regular educational programs for our dealers across Japan to strengthen information security.

In addition to these actions, UD Trucks follows the Volvo Group's "Privacy Policy" to ensure the proper management and protection of personal information.



Launch of the New Heavy-duty Truck

So Customers can Select the Most Optimum Truck for their Businesses

Quon

Held Touch & Ride events to introduce features of the all-new Quon.

In April 2017, UD Trucks launched the all-new heavy-duty Quon truck. In the same month, Touch & Ride events were started at nationwide circuits so that customers could confirm the performance of the new product at an early stage and make use of it as a business solution.

In holding the Touch & Ride events, our staff confirmed the characteristic traits of the courses and important points in driving the courses in advance to offer a driving environment that was in line with the actual needs of drivers. Customers were able to experience various types of performance, drivability, and maneuverability, including the various functions, as well as the feeling of the newly-employed disc brakes when driving in the fuel-saving mode, the downhill auxiliary braking performance, hill start on steep slopes, and slow-speed reverse driving in a setting where vehicles are drawn to warehouse pits, all at location points suited to experience each situation. Additionally, five booths that introduced the five elements of, "drivability," "fuel efficiency and environmental care," "safety," "productivity," and "uptime," respectively, were set up in the venue, and employees from the Product Development and Aftermarket Divisions responded on the spot to enquiries regarding the technology or maintenance.

A lot of positive feedback was received from participating customers, such as "The engines are powerful, and you can drive the truck on uphill slopes without worrying about the load"* and "Gear changes are very smooth, and the disc brake feeling is very good." In the questionnaire survey conducted after the Touch & Ride event, the average score for the 11 criteria was high at 4.3 points or more (out of a maximum 5 points).

In 2017, we were able to have more than 10,000 customers experience the all-new Quon through the Touch & Ride events at circuits nationwide and at region-respective Touch & Ride events with demo vehicles and exhibitions.

Similar efforts will be continued, and we hope to offer as many customers as possible an opportunity to experience the all-new Quon and find their best single vehicle.

*Both trailer and cargo test driving vehicles were loaded with dummy weights.



Fuji Speedway (Shizuoka Prefecture)
 Held in April. Leveraged the characteristics of one of the best circuits in Japan, and prepared eight experiential moments. Customers from many regions, from Hokkaido to Kyushu, participated.



Okayama International Circuit (Okayama Prefecture) Held in May. Customers from Chugoku, Shikoku, and Kinki regions participated.



Sportsland SUGO (Miyagi Prefecture) Held in June and July. Customers from mainly Kanto and Tohoku regions participated.

Launch of the evolved all-new Quon

UD Trucks' all-new, heavy-duty truck Quon, launched in April 2017, comes with the highest fuel efficiency and environmental care in its class and is compliant with the latest Japanese exhaust gas regulations (2016 regulations). It employs various cutting-edge technologies, including the electronically controlled automated manual transmission "ESCOT-VI" and the Traffic Eye Brake system (collision mitigation braking), to improve drivability and safety.

At the same time, the overall weight has been reduced by refining every component, and the payload of Perfect Quon has increased up to 200 kg.

Furthermore, a semi-tractor* version of the all-new Quon was added in October, and the full line up was completed with heavy-, medium-, and light-duty trucks. Thus, we offer a full selection of trucks to customers in the truck transportation industry.

*Types of trucks that are connected to and pull trailers.

Advanced technologies of Quon that "go the extra mile"

Under the concept of "innovation that puts people first," the all-new Quon has significantly evolved by "going the extra mile" in all five dimensions of trucks—drivability, fuel efficiency and environmental care, safety, productivity, and uptime. UD Trucks has assertively offered opportunities to introduce these features of Quon, and by promoting them, the company contributes to realizing sustainability within the truck transportation industry.

Features of Quon



The truck offers driving environments where drivers can concentrate from the cockpit on driving comfortably. It has also pursued usability through the electronically controlled automated manual transmission "ESCOT-VI," which has evolved in terms of maneuverability, and disc brakes installed throughout the body.



and environmental care triving by combining many advanced systems such as

The "GH11 engine," which enables fuel efficiency, power, and clean driving, has good torque over a wide rev range from low rev torque. Also installed are advanced fuel-saving driving support functions such as Foretrack anticipatory solutions that use GPS to look ahead or the Fuel Coach that advises on fuel-efficient driving.



The truck also supports safe driving by combining many advanced systems such as the Traffic Eye Brake system (collision mitigation braking) and Driver Alert Support (device that alerts drivers when irregularities in driving are detected).



Every component has been refined to realize an overall lighter vehicles. In addition, ease of loading and bodybuilding efficiency are improved. Dry wing-body variations are available in the Perfect Quon range along with a refrigeration wing-body.



We also pursued maintenance aspects, such as reduction in regular replacement parts and longer service intervals with genuine parts, in addition to further improving reliability and durability of the vehicle. Moreover, comprehensive after-sales service, which includes maintenance, service agreements, and latest telematics services, keeps customers' vehicles in the best possible condition.

Development of trucks that respond to customer needs on a global level In 2017, UD Trucks completed a full line-up of heavy-, medium-, and light-duty trucks both inside and outside of Japan. In Japan, the heavy-duty truck Quon, medium-duty truck Condor, and light-duty truck Kazet were introduced. In Thailand, Indonesia, Middle East, and other growth markets, the heavy-duty truck Quester, medium-duty truck Croner, and light-duty truck Kuzer were introduced. The line-up meets various logistics needs according to the characteristics of infrastructure and cargo in each market.



Voice

Customer feedback

The impression of Quon was enhanced by the performance of the disc brakes.

The former Quon is still fully used at our company, but the most striking feature of the all-new Quon is definitely the disc brakes, which were newly installed this time. I tried pressing on the brakes hard right before the first corner when the truck started speeding, but it did not cause any of that



Shuhei Shiiya President and Representative Director MARUSHU TRANSPORT

awkwardness that you usually get with drum brakes. This on its own makes the image of Quon even better. Also, I look forward to ESCOT-VI for improved driving on snowy roads.

You don't feel the weight of the trailer even on uphill slopes.

We have already had two deliveries of single Quon. Since we use prime movers to transport containers, I was looking forward to test driving this time. What stands out the most is that you can't feel the weight of the trailers even on uphill slopes, and this makes driving stress-free. I felt that



Masashi Ishida Representative Director Daimaru Unyu Co., Ltd.

this had a lot to do with the ESCOT-VI and the powerful GH11. The performance and feeling of the disc brakes were good, and I look forward to them contributing to safe and secure driving.

Feedback from employees



Senior Manager **Hidetoshi Okabe** (right) **Yuko Saito** (left) Promotion & Sales Japan Vehicle Sales Division

We are in charge of planning and executing events for customers and issuing newsletters as a support function of Vehicle Sales at headquarters.

What we considered well in planning the Touch & Ride events was ensuring that customers understand how the all-new Quon can meet their challenges and needs. To do this, we ensured the participation of sales promotion staff from each region from the planning stages, and we coordinated with and collected information from

each area and field and reviewed the program for improvements each time, so that it aligned with the regional characteristics of participating customers.

At the same time, we were attentive to staff education. It is up to the operational staff to ensure safety in the venues, create a good atmosphere, and thus satisfy the customers. The phrase "putting people first" is included in the concept of the all-new Quon. By asking the staff to "put customers first and let us fulfill our roles," we tried to make sure that all the staff would attend all Touch & Ride events with the same motivation.

Heavy-duty trucks had never been driven on the main course at Fuji Speedway, and it was the biggest challenge for us. We started out by confirming if Quon could actually run on the Fuji Speedway, and there were many unknown factors during the preparation, even on the day of the event. However, we were able to feel a big sense of achievement when we saw customers enjoying the circuit run as a special opportunity and voicing how they were satisfied with the event.

We will keep holding such events in the future as one of our main activities. We would be very pleased if the event becomes an opportunity for customers to not only confirm the vehicles for themselves by actually experiencing them but also learn about UD Trucks.

All the staff are united and offered an opportunity to experience Quon.

Feature **2**

Improvement of Quality in the Field

"Going the Extra Mile" in not only Products but also Services

P

Improvement of service quality at workshops

UD Trucks seeks to not only improve the performance and quality of products but also enhance after-sales service so that customers can continue using products after purchase in optimum conditions. The Aftermarket Division and Sales Division coordinate to enhance operations at the workshops, called Customer Centers and to drive renewals of facilities.

Whether or not the next purchase will be made is dependent on the quality of the after-sales service. Based on this understanding, UD Trucks strives to provide after-sales service that "goes the extra mile" and thus aims to improve customer satisfaction.

" Promotion of the "Star Program

UD Trucks deploys the "Star Program," which provides after-sales service at three levels (* one star, ** two stars, and ★★★ three stars) at Customer Centers nationwide to strategically promote operational improvement and provide better service to customers. In one-star activities, which center around the establishment of basic operational standards, daily operations are based on 50 or more assessment criteria set for a total of 18 main activities, including accurate and precise time recording by mechanics in their operations, quotations, and customer agreements; minimizing the number of days for issuance of invoices; and executing customer satisfaction surveys. Additionally, the certification of one star is carried out by designated staff who conduct final audits to confirm and evaluate whether each activity meets the standards. Furthermore, maintenance audits are conducted even after certification to maintain guality levels. Currently, almost all Customer Centers have acquired one star and are striving for two stars.

We have begun deployment of this program to not only the maintain locations of our own direct dealers but also the locations of independent sales companies. Establishing clear standards and visualizing progress have helped to enhance motivation levels among mechanics and all other after-sales service staff in their operations.



Final audit (interviews)



Renewal of Customer Centers

As part of efforts to improve customer satisfaction, we have been renewing Customer Centers since 2014. We have completed renewals for 14 locations as of April 2018 under the following concepts: 1. Provision of comfort for customers and communication of a unified brand image; 2. Improvement in the productivity of workshop buildings; and 3. Improvement in employees' work environment.



Workshop buildings

We improved their operational efficiency through LED lighting, which is about four times brighter than former lighting, as well as through daylighting roofs, floor lifts, caterpillar lifts, and oil provision through reels. We also gave consideration to mitigation of the load on the environment and mechanics.



Customer waiting room

Air conditioning is provided in a relaxing room, and customers can wait with comfort during maintenance of their vehicles. Waiting rooms for women only are also prepared. Some Customer Centers have shower rooms installed.



Facilities for employees

Clean and bright break rooms are used for meals, meetings, and other opportunities for communication among employees. Locker rooms and large baths are provided as well.

Promotion of operational improvements in Customer Centers based on the results of customer satisfaction surveys In the Aftermarket Division, as part of the activities of the Star Program, surveys are conducted with customers who own UD Trucks' vehicles to assess Customer Centers and investigate what customers prioritize when selecting a workshop. The results are reflected in the action plans to improve operations at Customer Centers.

Overview of the 2017 survey

- Respondents: Customers who own UD Trucks' vehicles and have transactions regarding maintenance or parts.
- Area: Throughout Japan
- Survey method: Online survey
- Response period: January to December 2017
- Number of valid responses: 1,988



Voice



Fully utilize new facilities to improve satisfaction of customers and employees.

Issues surfacing at the facilities while the number of stored vehicles are increasing

The area where the Atsugi Customer Center is located is an important point for transport, as this is where the Tomei Expressway, Metropolitan Inter-city Expressway, and Odawara-Atsugi Road pass through. In addition, with the extension of the Metropolitan Inter-city Expressway and the new Tomei Expressway, many distribution-related facilities are being constructed. While many of our customers' business locations are within about a one-hour driving distance from the Customer Center, many other customers from outside the prefecture passing through the expressways visit us, and the number of stored vehicles are on the rise from the current 40 to 50 vehicles per day.

The history of the Atsugi Customer Center, which was opened in 1965, is quite long. Since vehicles are larger today than when the center first opened, this center has a limited area of about 6,600m², while other newly-built Customer Centers are about 9,900m². Additionally, since it has been more than 50 years since the facility opened, there were various issues such as lack of energy-saving or eco-friendly facilities and dim lighting due to low ceilings in the workshop building. Thus, we had been developing a renewal plan for about three years to improve such circumstances.

Renewal into a facility that is comfortable for both customers and employees

In renewing the facility, discussions were held with approximately 40 employees working at the Customer Center on "what to do in order to realize a facility that is comfortable for both customers and employees." We visited Customer Centers in Tohoku to Kyushu regions that were already renewed, and we conducted research on the facilities implemented, their layout, and their user flow. Hence, basic concepts were developed from the perspectives of "plant facilities," "work environment," and "corporate image," and they were discussed at length with relevant divisions at headquarters. The center was eventually renewed in June 2017.

The biggest outcome of the renewal at this time was that operational efficiency was improved and the

Customer Center could accommodate more customers. In addition to implementing and renewing lifts, cranes, wheel dollies, and oil provision and drainage systems, new layouts were devised so that the limited space was utilized efficiently to create a space where employees could move about easily. Furthermore, along with the renewal, operation plans of each employee and availability of the operation area were visualized in detail. By matching the information appropriately with the number of vehicles receiving service, we were able to shorten times for operations or waiting. Renewal of the reception and waiting rooms was also evaluated highly, and the number of stored vehicles increased by 115%, or 130% at peak hours, compared with before the renewal.

Moreover, the attitude of employees toward work changed greatly. Changes such as proactive revision of one's own working style and positive engagement with the five slogans (organizing, tidying up, cleaning, cleanliness, and discipline) were observed. In the attitude survey conducted on the employees, indicators measuring motivation levels were 10 points higher after renewal.

Currently, our Customer Center is aiming for two stars in the Star Program. We will be striving for further satisfaction among customers and employees by pursuing better service levels, operational efficiency, and improvements in operational environments.



Nobuyuki Ohtsubo Head of Atsugi Customer Center

Improving Customer Satisfaction



For continuous improvement of customer satisfaction, UD Trucks strives to capture the latent needs of customers and the society, reflect them in its products and services, and help resolve customers' challenges through various activities.

Basic approach to our customers

Offering products and services that respond to the needs of customers and the society

At UD Trucks, we consider our founder Kenzo Adachi's words, "To make the trucks the world needs today," as the cornerstone of our business.

Accordingly, we seek to not only understand current needs of customers and the society but also foresee those needs in the future; thus, we continue offering products and services that always meet these needs. Moreover, we aim to improve customer satisfaction by launching high-quality products that excel in durability and reliability, adopting advanced safety technologies that respond to requirements of the society, and supporting customers who use our products.

Securing and improving quality

Quality management policy

Pursuing "better quality" in all business activities

Continuously offering high levels of satisfaction for customers through products and services with first-class quality is one of the social responsibilities of manufacturers. Under the Volvo Group's quality policies, which are based on the value of "customer focus," UD Trucks ensures and improves quality in all business activities from R&D, production, and sales, to aftermarket services.

Quality management system

Acquiring the ISO9001 certification

UD Trucks has attained the ISO9001 certification, a framework of international standards on quality management systems. Our Manufacturing Division and Product Development Division acquired the ISO9001 certification in FY2002 and FY2016, respectively.

Through a plan, do, check, and act (PDCA) cycle, we will continually advance improvements for the further enhancement of quality.

Major activities

Cross-function

Establish a new organization to promptly attend to quality issues

To minimize the impact on customers when issues in quality occur, a cross-functional "Quality Action Group" was established in 2017 to take charge of the processes from identification of issues to execution of measures in a prompt and accurate manner.

This organization comprises the respective divisions for R&D, production, and aftermarket, and it divides roles between a number of teams: a team that confirms quality information and devises measures on a daily basis at headquarters, a specialized technical team that visits Customer Centers and customers, and a team that stays within regions and directly attends to incidents at local sites. The teams collaborate so that issues are resolved in a functional and seamless way. By executing activities that were formerly carried out by respective divisions in a cross-functional way, relevant parties are able to share quality information in a timely manner, leverage it to attend to incidents efficiently, and thus improve customer satisfaction.

Product Development Division

Quality management using a group-wide common process

In the Product Development Division, to secure high quality in products that are developed in cross-functional projects within the Volvo Group, we incorporate a process that is consistent throughout the Volvo Group while adding UD Trucks' original assessment standards. We also set checkpoints at each stage of development, where we confirm achievement levels for each quality criterion, such as performance, functionality, durability, and reliability. By implementing this process, the quality was improved while the time used for the development was shortened.

Manufacturing Division

Quality improvement through UD Trucks' original quality management methods

In the Manufacturing Division, UD Trucks adopted an original control method, and in accordance with the defined process, production or quality nonconformance that occurs during deliveries of parts or production processes is checked daily in an effort to secure the intended quality levels. UD Trucks' quality management method, which pursues further levels of improvement, is incorporated in other plants of the Volvo Group.

In addition, to increase awareness of quality among employees, November of every year is designated as the "Quality Month," during which, every department reconfirms processes and status of measures implemented for past defects, as well as makes effort to elevate technology levels.

Aftermarket Division

Diverse initiatives for the improvement of aftermarket service quality

For our customers' peace of mind in driving our vehicles, UD Trucks strives to ensure and improve aftermarket service quality, mainly by polishing the skills of our service mechanics.

Efforts for maintenance improvement in respective regions

We are improving the quality of maintenance services through training programs for the staff of the Aftermarket Division and international events to improve technical skills. Such efforts were reinforced in 2017. Moreover, to ensure that further attentive services can be provided in light of regional differences in the traits and needs of customers, various technical skill contests were held for mechanics of respective regions.

In the Tohoku region, a service contest was held for all mechanics in Customer Centers of the region with the aim to enhance overall technical skills. Representatives who passed the initial examinations participated in the final matches held in November in the region as well as completed examinations for national mechanic certification and vehicle knowledge and practical tests for the diagnosis of vehicle issues and single unit maintenance.

Moreover, in the Kyushu region, a freshman contest was held for young mechanics who were under the age of 30 and had spent less than three years at the company, with the aim of developing younger employees.

Such efforts not only enhance mechanics' individual skills but also their motivation toward work and teamwork.

Training program to improve customers' uptime

The Aftermarket Division has been hosting a training program every year since 2013 to share the latest product quality and technical support cases, thus strengthen the knowledge of our mechanics. From 2016, the program's name was changed to "Uptime Conference," and it now focuses on the improvement of uptime in customers' vehicles.

The 2017 conference was held in December in Tokyo, and about 350 mechanics and service parts engineers from 166 dealers nationwide (at the time) participated. At the conference, lectures on service technical skills relating to engines and vehicles, sessions on improvement in road support, workshops for prompt parts provision, and visits to vehicle production lines at Ageo Plant were held. Furthermore, active discussions on roles that should be fulfilled by mechanics and service parts engineers who interact with customers in the field were held, providing an opportunity to confirm company objectives—to improve customers' uptime and enhance knowledge.



Aftermarket competition events on a global level

A total of 338 participants in 93 teams from Japan joined one of the world's largest technical competition events, "Volvo International Service Training Award (VISTA) Championship 2017–2018," which aims at improving technical skills among employees involved in the aftermarket for Volvo Trucks and Buses.

In the competition, teams of two to four people competed against one another, and 40 teams that passed initial examinations and regional semi-finals advanced to the world finals held in 2018 in Curitiba, Brazil. By engaging in various topics with team members for several months, the competition provides an opportunity to not only mutually enhance knowledge and technical skills but also strengthen teamwork and team spirit, which is challenging. UD Trucks has also been holding the technical skills contest "UD Gemba Challenge" since 2014. In the 2016 competition, 289 teams from various countries participated, and 11 teams joined the final matches held at UD Trucks' headquarters. The Indonesian team won the championship. From Japan, four teams advanced to the finals, and the top team performed well in second place.



Disclosure of information on product quality Pursuit of prompt information disclosure

In an event of defects that may impact customer safety or the environment, UD Trucks exercises prompt information disclosure in accordance with the guidelines provided by the Ministry of Land, Infrastructure, Transport and Tourism of Japan.

Number of cases notified in Japan (each year during the January–December period)

	2015		2016		2017	
	UD Trucks	Volvo Trucks	UD Trucks	Volvo Trucks	UD Trucks	Volvo Trucks
Recall	Recall 4 2		4	3	6	1
Improvement campaigns	0	1	0	2	0	1
Service Campaigns	1	1	4	6	5	3

Improvement of product safety

Safety management policy

Striving to be a leading company in safe transport solutions

Under the Volvo Group's Safety Policy, which calls to eliminate any accidents caused by our products, UD Trucks engages in continued efforts for improvement of safety. We focus on furthering our knowledge on how our customers use our trucks and evaluating potential safety issues systematically throughout the development of products and services. We also strive to provide products and services equipped with safety features that cater to customer and market needs as well as requirements of the given transport infrastructure.

Main safety features of the all-new Quon

Active Safety—Predicting risks for driver safety

• Traffic Eye Brake (brake to reduce collision damage)

Dual monitoring with a millimeter-wave radar and camera dramatically improves detection of the vehicle ahead. If the possibility of collision is detected, the driver is quickly warned. If the vehicle reaches a distance where collision is possible, brakes are applied automatically at the same time to avoid collision or reduce any damage due to collision. This was adopted ahead of the scheduled reinforcement of braking requirements for collision damage reduction (AEBS01 series) in November 2019.



LDWS (Lane Departure Warning System)

The camera monitors the traffic lanes on both sides, and if the driver unintentionally deviates from the lane when at the speed of 60 km/h or above, it activates warning indicators and buzzers.

Basic Safety—Ensuring safe driving by reducing driver fatigue

Disc Brakes

These brakes provide reliable braking performance while hauling cargo even on long descents or on wet pavement.

• EBS (Electronic Brake System)

It stabilizes braking performance through the combination of disc brakes, ABS (Anti-lock Brake System), and ASR (Anti-slip Regulation).

Passive Safety—Minimizing damage

SAFES CABIN

The highly rigid cab loaded with safety features improves collision safety for the driver. The vehicle is equipped with FUPD/RUPD (Front and Rear Underrun Protection Device) that helps reduce damage to other vehicles and their drivers.

Major activities

Development and use of safety technologies Implementation of advanced safety technologies

In response to the increasing societal and customer needs for safety, we engage in the development and permeation of advanced safety technologies.

In the heavy-duty truck Quon, which was launched in April 2017, several advanced safety features delivered enhancements on both active and passive safety. In addition to supporting safe driving for our customers, UD Trucks aims to secure safety for other surrounding road users at the same time.

Safe-driving seminar

Providing practical programs that suit customer needs

We host "Safe-driving seminars" to further encourage safe driving of our trucks.

In response to requests from customers, we offer programs on selected topics such as "safety management in transportation," "hazards of drunk-driving," "blind spots of trucks," "traffic accident case studies and preventive measures," "risk avoidance," and "human error," and we combine lectures and hands-on exercises so that the acquired knowledge can be applied quickly.

To maximize effectiveness of the seminars, we creatively use tools such as images taken from drive recorders mounted on vehicles involved in actual accidents and visually recreate the accidents so our customers can virtually experience them and own the safety issues.

In 2017, a total of 3,668 people participated in 137 sessions (3,415 people through 127 sessions in 2016).

We conducted a survey after the program and asked participants for their feedback on the content, materials provided, lecturers, and time allocation in order to refine the program and materials.

Customer support

Basic approach to customer support

Contributing to customers' businesses through support that resolves issues

For UD Trucks to be chosen by customers as business partners, we not only provide products and services but also seek to resolve challenges that customers face and engage in activities that contribute to customers' profits and business operations.

Major activities

Touch & Ride events for female drivers. Supporting the "Truck Girl Promotion Project"

Since the shortage of truck drivers is becoming a social issue, the Ministry of Land, Infrastructure and Transport in Japan is developing the "Truck Girl Promotion Project," which promotes women who aspire to become truck drivers.

As part of this effort, UD Trucks invited eight female drivers to the UD Experience Center located in the headquarters premises in September 2017 and held a Touch & Ride event for the all-new Quon as well as a discussion event. While we received a lot of positive feedback on the drivability of the all-new Quon, we also received suggestions such as, "The distance between the steps should be shortened" and "I would like more space for storage." Also, in the discussions, the women actively exchanged ideas and information on work environments that are friendly to women, issues in realizing such environments, and female-specific moments of surprises or important points in safe driving, based on their own individual experiences.



This activity provided a precious opportunity for the female drivers to mingle, and the participants voiced anticipation for the coming second round. We will continue our customer-orientated activities to help resolve the various issues of the logistics industry going forward.

Eco-driving seminar

Support for fuel efficiency and CO₂ emission reduction

"Eco-driving seminars" have been held for drivers since 2007. The seminar aims to provide useful knowledge and practical skills for green driving by using in-operation trucks to learn maneuvers and speed-reduction techniques. The seminar, which utilizes the UD Information Service (UDIS)*, was especially popular as it helped to objectively understand the tendencies of drivers since it evaluated driving according to criteria such as gear change and speed, thus contributing to the development of effective measures.

In 2017, we held sessions in 85 locations nationwide for 1,213 participants (97 locations for 1,303 participants in 2016). The seminar was backed by survey data, which indicated a 14.9% improvement in fuel efficiency after the program. Thus, the seminar supports our customers in improving fuel efficiency and cutting CO₂ emissions.

*An original service by UD Trucks in which the installed multi-purpose screens collect real-time information on each vehicle regarding location, fuel-efficiency, and engine or other conditions of the vehicle (oil pressure, fluid temperature, etc.). The information is analyzed and provided as reports on fuel-efficiency and operation rates.

UD Extra Mile Challenge

Contribution to improvement of truck drivers' driving skills

For our customers to fully utilize UD Trucks' products and services, we host a driving skill competition called "UD Extra Mile Challenge" for truck drivers in worldwide markets in which we operate our business.

In 2017, the global finals of the "UD Extra Mile Challenge 2017" were held at UD Trucks' headquarters in November. A total of 180 drivers who passed the initial regional matches as well as supporters participated.

The 2017 competition was the first time that both the heavy-duty truck Quon for mature markets and the heavy-duty truck Quester for growth markets were used. The Singaporean team won in the Quon category, while the South African team won in the Quester category.

We received feedback from the winning teams that "UD Extra Mile Challenge program was not only a competition but also included elements of training and was thus meaningful."

UD Trucks aims to support the acquisition of knowledge and technical skills by drivers and, furthermore, to provide solutions for business operations and operational management of logistics companies through this competition.



Customer contact point

Reflection of customer feedback in product improvement and business activities

We provide our customers with a toll-free customer contact point, where we respond to calls regarding inquiries, opinions, and requests from our customers. We have developed manuals for each possible question to facilitate prompt and smooth responses. In May 2016, we reviewed our internal processes to provide further prompt and appropriate support for inquiries regarding vehicle troubles.

Moreover, at UD Trucks, customer feedback collected at the customer contact point is shared with relevant departments and is reflected in product improvement and other business activities. The total number of calls we received were 5,930 and 4,691 in 2016 and 2017, respectively.

CSR activity report 2

Better Collaborative Relationships with Business Partners



Suppliers and private dealers are invaluable partners indispensable for our business. We strive to develop and enhance our relationships with them, respecting the Volvo Group's policies and customer satisfaction.

Basic approach to our suppliers

Purchasing as part of the CSR execution process

By providing not only raw materials and facilities but also services and consumables necessary in daily work, our suppliers play an important role in UD Trucks' business activities. To develop appropriate relationships with suppliers worldwide, we carry out purchasing activities in a manner that is compliant with the Volvo Group's purchasing policies.

Recognizing purchasing activities as part of our CSR processes, the Volvo Group engages in "responsible purchasing" through improvement of ethical awareness in the supply chain and in the management of risks, and aims to contribute to realizing a sustainable society. Therefore, we ask our suppliers to comply with the laws of the respective countries and the "Volvo Group Code of Conduct" to respect international agreements such as the UN Global Compact and acquire ISO14001 or other certifications by other equivalent third parties to ensure reduction of the environmental load.

In addition, the Volvo Group requests all Tier 1 suppliers to engage in equivalent practices and promulgate the purchasing policy to Tier 2 and Tier 3 suppliers through them.

Major activities

Development/deployment of training programs for suppliers

Reinforcement of sustainability by the entire industry

The Volvo Group developed a training program in 2017 to promote the understanding of sustainability among suppliers along with 10 global automobile manufacturers who participate in "Drive Sustainability," which is facilitated by CSR Europe*.

The purpose of this collaboration is to advance common efforts in the automobile industry and to reinforce sustainability in the industry's overall supply chain by integrating elements of sustainability throughout the procurement process. We have thus far deployed the training program to suppliers in China, Hungary, India, Italy, Mexico, Spain, and Thailand.

*An association of top companies engaging in the promotion and education of the CSR concept. Headquarters in Brussels.

Measures for high-risk countries Promotion of efforts through the "Sustainable Purchasing Program"

The Volvo Group renewed the "Sustainable Purchasing Program" in 2017. This program comprises various tools to evaluate risks regarding sustainability and to develop dialogues, transparency, and trust with suppliers. It promotes focused efforts in areas with high risk of significant harm to human rights and the environment, for example, conflict minerals.

As part of the activities to understand the impact and potential of the supply chain in high-risk countries, the Group's representatives, including the leader responsible for sustainability in the Purchasing Division, visited the Marikana mine in South Africa in August. Progress on labor conditions, which was an issue during the previous visit, was confirmed with the primary producer of platinum, while furthering the understanding of South African politics, economy, and social circumstances.

Basic approach to private dealers

Partners that seek improvement in customer satisfaction

UD Trucks supplies products and services to our customers through our own dealers as well as private dealers, including six companies with a total of 32 distribution sites. While respecting locally rooted business activities, we share the common goal of improving customer satisfaction. We support the acquirement of higher skills and latest knowledge by offering them the same opportunities in training or other events that we provide to our own dealers.

Major activities

Technical training Offering opportunities to improve technical skills

We proactively support aftermarket staff members in improving their technical skills. Forty people from independent dealers participated in the skill seminar, "Uptime Conference 2017," while 9 teams of 36 people joined UD Trucks' previous international training event "UD Gemba Challenge 2016."

CSR activity report 3

Allowing Employees to Perform to their Full Potential



To recruit, develop, and appropriately allocate competent talent that can lead the business with a global mind-set, we design and operate a human resources system that leverages diverse individual capabilities and promotes efforts to support flexible working styles.

Basic approach to human resource management

Fostering "global and high-performing talent"

To pursue a business that does not limit its vision only to Japan but rather embraces the global arena, UD Trucks regards employees who are "globally minded and high performing" as ideal talent. We seek to hire highly talented people and focus on developing well-structured training systems and fair evaluation systems.

In designing and operating these systems, we place emphasis on the values of "respect for the individual," "proactiveness," "diversity and cross-functionality," "teamwork," "passion and accountability," and "open dialogue." At the same time, in light of the employee awareness survey results, we ensure that our initiatives develop a corporate culture appropriate for UD Trucks and provide work environments where all employees can fully exert their capabilities.

Major activities

Diversity and inclusion (D&I) management Promotion of understanding for and penetration of D&I

UD Trucks respects differences among employees, based on the philosophy that diversity is essential for raising corporate performance. We also seek sustainable growth by developing an environment where the diversity of personnel is enhanced and all individuals can exert their capabilities to the fullest potential. In an employee attitude survey, we evaluate diversity^{*1} mainly in terms of the parameters of gender, nationality, and age, while the penetration of inclusion^{*2} is measured through questions such as whether individuals feel needed as part of their teams.

In 2017, on the "International Women's Day," we took the opportunity to interview female employees in various positions and distributed articles on the intranet to promote the understanding and penetration of "gender diversity." We introduced the voices of employees, such as managers, mechanics, managers of foreign nationalities, and those who returned from childcare leave, in a series of articles.

In January, we invited the former CEO of H&M in Japan Christine Edman to present her experiences to male and female employees who want to become leaders.

Furthermore, "D&I Week," which was started in 2014 in an effort to educate employees on D&I, has been

continued as an established activity, and employees have participated in events with various themes such as "Materializing Innovation through Promotion of D&I."



D&I Week

- *1: Diversity refers to the state of a group of people who have different backgrounds and perspectives, such as gender, nationality, racial background, age, sexuality, religion, political orientation, socioeconomic status, and physical abilities.
- *2: Inclusion refers to ensuring that people feel respected, recognized, and supported by others as well as feel a sense of involvement.

Recruitment and appointments Promotion of recruitment based on personal merits and business strategies and contributions from female employees

We conduct our recruitment activities while bearing in mind individual interest, preferences, and abilities as well as the company's mid-/long-term strategies. In FY2017, we recruited 103 new graduates and 147 mid-career talents.

We also focus on driving the advancement of female employees, and there are currently 49 female managers in various departments. Furthermore, to offer equal opportunities to employees, as a general rule, new personnel for all open positions are selected from candidates who applied through our job posting system.

Number of employees (as of end of December 2017)

Gender	Number of employees	Ratio
Female	422	7.3%
Male	5,367	92.7%
Total	5,789	100.0%

Number of nationalities (2017): 26 countries

Australia, Belgium, Brazil, Canada, China, France, Germany, India, Indonesia, Ireland, Japan, Korea, Malaysia, Mexico, Nepal, Peru, South Africa, Sri Lanka, Sweden, Switzerland, Thailand, the Philippines, Turkey, Uruguay, USA, Vietnam

Talent development

Focus on building environments that support capability development

In addition to improving capabilities necessary for the current work, we also focus on developing knowledge and capabilities which will become critical in the future. Additionally, a "Talent Development Promotion Committee" was established in 2017, and specific measures are being contemplated.

As part of these efforts, a new training program management system was implemented in October. This system aggregates various training programs offered by the company, and employees can easily search and apply for these programs as well as obtain confirmed records of their participation.

Furthermore, training facilities are being improved, and a training center near the headquarters was opened in December. In addition to rooms for lectures, two areas for vehicle training and two rooms for unit training are provided to enable new product training for dealers and technical training for mechanics.

Evaluation and compensation Semi-annual evaluations for 12-month objectives

All employees set their annual objectives every year and evaluate their progress with their supervisors semi-annually. We also run a remuneration system based on personal performance on the set objectives, while considering the team/company performance.

Employee attitude survey Improve the scores through dialogues

We conduct an employee attitude survey every two years with the intention of promoting better communication with employees and fostering active awareness for business management. In order to improve the score, we are engaged in vitalizing communication throughout the year, such as town hall meetings, holding "Fika*," and timely information sharing on the intranet.

*A casual gathering practiced in Sweden, where people enjoy casual dialogues over tea breaks.

Work-life balance Striving toward practical systems

To ensure our employees can efficiently manage both their work and personal lives, we have developed various systems and policies and support a fulfilling work-life balance.

Major systems and policies to support work-life balance

- Childcare leave system
- Nursing care leave system
- Work-from-home system (work-at-home opportunities used as needed or with limitations on duration)
- Flex-time system without core hours
- Policies on respect for individuals in the workplace (prevention of harassment)
- Activities to encourage leaving work at defined hours

Health and safety at work Focus on developing safe workplace environments and enhancing employee health

To realize a workplace where employees can work in a healthy and safe manner, we continuously engage in improvements.

Safety improvement by separating spaces for people and vehicles

To retain safety for employees and children attending schools, rules for driving within the properties or around the main gates were established in 2017 at our headquarters and plant, with separate lanes for people and vehicles.

Internal fitness room opened

As part of efforts to encourage employee health, a fitness room was opened at our headquarters. In addition to various machines, lockers and shower rooms were installed, and employees can casually use the

facility during lunch breaks or before and after work.

Moreover, programs to relieve stiff shoulders or back pain, yoga classes, and other such events are being held and promoted.



Fitness room

Conducting stress check tests

To prevent mental health issues, we conduct stress check tests on employees. Depending on the results, in addition to encouraging meetings with physicians and counselors, we review employees' assigned duties, based on advice from physicians.

As a Member of Society



UD Trucks' business is supported by not only customers and business partners but also many other people in society. We work on our society engagement activities to fulfill our responsibility as a corporate citizen to develop a relationship of trust with society.

Basic approach to society engagement activities

We make our business resources available to society

UD Trucks harnesses its expertise, talent, facilities and equipment, functions, and other business resources as it works on its society engagement activities. We take a close look at diverse needs and challenges that our stakeholders (e.g., local communities where our offices are located and automobile-related industries) are pressed to address, and through activities designed to create shared value, we aim to build good relationships with them to help pave the way to a sustainable society.

Major activities

Offering traffic safety seminars for elementary school students

Providing opportunities to learn about safety with heavy-duty trucks

Saitama Prefecture, where UD Trucks' headquarters is located, has continuously ranked among the worst prefectures* as regards the number of fatal road accidents caused by commercial trucks. In aiming to contribute to the prevention of traffic accidents, which is one of the social responsibilities of a truck manufacturer, we have conducted traffic safety seminars for elementary school children in Ageo City since 2016. This program helps participants learn about safe behavior while experiencing blind spots and the difference between tracks followed by the front and rear wheels when turning with actual heavy-duty trucks. In 2016 and 2017, about 790 children participated in the program, and a total of about 90 employees were involved.

As the employees received cards of gratitude from the elementary school children and high evaluations from chaperoning teachers afterward, these events became very rewarding for our employees. We plan to expand the scale of such events in the future, for example, by increasing their frequency.

Also, we hold traffic safety seminars for children in the

community at Customer Centers nationwide.

*Source: Statistical data from the Japan Trucking Association. Light-duty vehicles are not included.



Internet training course Contributing to expansion of access to information for the elderly

While the society is increasingly aging, the volume of information on the Internet is expanding. To improve the quality of life of senior generations who are not used to IT tools, we have been conducting Internet training courses for the elderly using meeting rooms at the headquarters since 2016.

Each time, lectures and practical training are offered to 20 participants aged 60 and above who live in Ageo City and are new to personal computers, on various topics from basic knowledge on computers to transportation route searches and other such practical usages in everyday life.

This program is run mainly by employees from the IT Division, and we strive to operate in a manner that is easy to understand, using original textbooks and holding rehearsals. Additionally, one employee is available for every two to three participants to support them while observing how far the content is being understood. We have received feedback from participants saying,

"It was taught in a way that was very easy to understand," "The one-on-one instructions were very good," and "It was a relief that I was able to ask questions on the spot."



Reinforcement of collaboration with schools Supporting the development of talent for the future automobile industry

Automobile mechanics engaged in maintaining automobiles play an important role in maintaining a safe automobile society as well as stable operation of distribution. However, the workforce has been decreasing in recent years due to declining birthrates and the younger generation showing less interest in cars, resulting in an issue for not only the automobile industry but also the society. UD Trucks supports the development of competent personnel by collaborating with specialized schools for automobile mechanics and technical high schools nationwide.

Donation of an engine

Graduates from Saitama Institute of Automotive Technology, which trains automobile mechanics, have joined UD Trucks and are working at our branches and Customer Centers. The school has recently been emphasizing a curriculum on large automobiles and enhancing facilities and vehicles for practical training. We have donated an engine installed in standard trucks (load capacity class of 8 tons) to the school in October 2017 for use in training with large vehicles.

Technical training

UD Trucks supports the acquisition of further practical knowledge by youths who aspire to become automobile mechanics while communicating the appeal of trucks.

Since 2011, the Tohoku region has been conducting training programs for students and teachers from specialized schools for automobile mechanics to learn about new truck technologies and arranging visits to truck workshops. In May 2017, for four days, we invited teachers and 289 students from Kadan Automotive School to visit the Sendai Customer Center, where was renewed the year before. They visited the new workshop building equipped with the latest facilities for the maintenance/shipment of parts and participated in a training program on the structure of the heavy-duty truck "Quon."

The curriculum at the school centers around passenger vehicles, and this was the first time many students experienced trucks and their components. While they were surprised at the trucks' size, students' image of trucks and truck maintenance seemed to have changed on learning about the high productivity of workshops sustained by the structure of electronically controlled engines and transmissions for heavy-duty trucks, the clutter-free work environment, and latest facilities such as automatic forklifts. We received feedback from students on how they were "surprised that the workshop was clutter-free and bright" and how they felt that "large vehicle workshop was completely different from what was imagined."

We offer on-site classes to specialized schools for automobile mechanics in other regions as well as internships to technical high school students to provide

them opportunities to learn about truck maintenance. These activities are carried out nationwide, and we will assertively engage in them going forward as well.



Industry-academia collaboration program with Sophia University

Our contributions to foster global talent

The Volvo Group globally offers students a wide range of learning opportunities as part of its efforts to foster talent

with global competence that are capable of working in international settings. One such opportunity is the Academic Partner Program organized in collaboration with 11 universities in five countries: China, France, Japan, Sweden, and USA.

In Japan, we entered into a three-year partnership with Sophia University in 2014, and we have offered four-week internships, scholarship support for research projects generated by students, and "Global Business" seminars in which UD Trucks' employees lecture on their areas of expertise.

Our seminar was chosen as one of the top four among 252 classes by the university's Good Practice Selection Committee, based on student survey results in 2017 on common classes offered to all students. Additionally, our efforts were evaluated highly, and the partnership was renewed for another three years in April 2017.

Ageo City Marathon/Half Marathon UD Trucks supports the success of marathons as a local company

The Annual Ageo City Marathon and Half Marathon held in fall is the city's major event that has been supported by residents for many years; more than 8,000 runners participate in the event each year.

As a company based in Ageo, UD Trucks has sponsored the event since 2013 to support its success. During the 30th anniversary event in November 2017, in addition to the 1,600 original neck warmers gifted to children every year, toys shaped like the heavy-duty truck "Quon" and original candies were distributed. Approximately 100 UD Trucks' employees participated as runners as well.



Our Environmental Management

Based on our environmental programs in line with the Volvo Group's policy and medium-/long-term plans for environmental management/conservation, UD Trucks is dedicated to contributing toward a sustainable society through improvement of the products' environmental performance and reduction of environmental load from our business activities.

Environmental management policy

Four programs as our contributions to a sustainable society

The Volvo Group has taken environmental measures over many years in accordance with its Environmental Policy.

UD Trucks also follows the policy to ensure a "holistic view," "continual improvement," "development of technologies," and "resource efficiency" as components of our environmental program, paving the way toward a sustainable society.

Environmental program

Holistic View

Practices to reduce the impact on the environment from our products, business activities, and services with a comprehensive view of the product life cycle

Continual Improvement

Initiatives pursued by employees in their work in a dedicated, continued effort

Technical Development

Proactive and innovative research and development to meet and surpass expectations of the customers and society

Resource Efficiency

Practices leading to economizing the use of natural resources and reducing waste generation

Environmental management system organization

Committed to company-wide environmental plans through "structural environmental management"

UD Trucks operates an "environmental management organization" with members that include the representative of the executive team as the environmental CEO and environmental chief managers appointed from all divisions. This organization is responsible for formulating companywide medium-/long-term plans regarding environmental management and conservation and for deliberating and approving important agendas.

Each chief manager is supported by environmental officers and a management/execution team and pursues various activities in accordance with ISO14001, an international standard for environmental management systems, as well as the company's environmental plans.





Progress in obtaining ISO14001 certification

Operating the environmental management system by the company as a whole

UD Trucks is certified with ISO14001. Starting with certification of the Ageo Plant in FY1998, respective plants and affiliated companies were subsequently certified by FY2017.

Currently, we aim to achieve the objectives and targets specified in the environmental action plans by operating the environmental management system by the company as a whole.



Internal/external audits on the environmental management system

Regular evaluation of operational statuses and effectiveness

To ensure appropriate operation of the environmental management system, we conduct an annual internal audit based on company regulations. The internal audits are conducted by a team of qualified audit committee members who investigate and assess the operational state of the environmental management system as well as its compliance with the internal standards and relevant environmental laws and regulations.

Furthermore, an audit by external institutions is conducted every year. In May 2018, an audit to transition to the ISO14001:2015 revision was conducted, and the transition was completed by the end of August.

Impact of business activities on the environment

Pursuing the effective use of resources and minimizing the environmental load at all stages of the product life cycle

UD Trucks analyzes environmental loads at all stages of the product life cycle, beginning from R&D and design to waste disposal and recycling, thereby offering environmentally conscious products and pursuing the effective use of resources and minimizing environmental loads.

Improvement in product environmental performance Striving to develop technologies that enhance environmental performance

UD Trucks is dedicated to comprehensive environmental protection through the development of technologies to reduce fuel consumption and filter exhaust gases, as well as by controlling environmentally hazardous materials.



Material flow

The environmental impact from trucks throughout their lifecycle is mostly attributed to the emissions of CO₂ and exhaust gases (PM and NOx) during their use.

Saving energy and preventing global warming Developing technologies to enhance fuel efficiency

Trucks' fuel consumption is both a significant burden on business management costs and a major cause of CO_2 emissions.

For this reason, UD Trucks considers fuel efficiency to be the top agenda in its environmental activities and has been delivering improvements over many years. In Japan, the Heavy-Duty Vehicle Fuel Efficiency Standards 2015 were implemented, which prescribed the targets of fuel efficiency by vehicle load category. During FY2017, more than 98% of the entire units sold met the target fuel efficiency, and we have been achieving our company targets on the average fuel efficiency score since 2012.

In addition to efforts in improving the fuel efficiency of our vehicles, we continue the nationwide initiative of "Eco-driving Seminars," wherein we provide truck drivers with lectures and practices on green driving.

Technologies enhancing fuel efficiency

We have achieved 105% or more success in about 90% of the main models of our heavy-duty truck Quon against the target set by the Heavy-Duty Vehicle Fuel Efficiency Standards 2015. This was made possible by actively introducing various advanced technologies to enhance fuel efficiency, such as improvements in drive system functions in engines and transmissions and granular control of running conditions.

Major technologies applied in heavy-duty trucks

Vehicle	 Fuel Coach (as a guide for energy-efficient driving) Foretrack (a function to memorize where slopes are for anticipatory control) Reduced air resistance (e.g., an air dam integrated with the front bumper and a newly designed wind deflector)
Engine	 Changed fuel injection system Changed piston combustion chamber shape Changed shape of the induction system Variable speed water pump
Power train system	 ESCOT Roll (for controlled slowing down during coasting) Acceleration limiter (for controlling sudden acceleration) Soft cruise (for controlling speed)

UD Trucks' improvement on fuel efficiency



*Figures are a weighted harmonic mean of net sales by units for medium-/heavy-duty trucks against the 2015 figure as 100%.

Control of chemical substances Thorough control of chemicals used in products

In compliance with laws and regulations, as well as with self-regulated industrial standards about manufacture, import, management, environmentally aware design, and recycling of chemical substances, we strive to manage the chemicals we use in our products based on the Global Automotive Declarable Substance List (GADSL).

Controlling chemical substances

Development/design phase

- Verify the use of chemical substances in each process, including at suppliers.
- Register data with the International Material Data System (IMDS*¹) as necessary.

Production phase

- Conduct annual registration and create reports based on the Pollutant Release and Transfer Register (PRTR) system^{*2}.
- Implement internal standards and promote substitution of hazardous substances.
- Properly adapt to legal changes.
- *1 Materials database jointly managed by automobile manufacturers across the world for environmental conservation.
- *2 A law for managing and controlling the emissions of specially designated chemical substances into the environment.

Reducing environmental load in business activities Dedicated to energy conservation, global warming prevention, and waste reduction

UD Trucks is proactively driving effort, such as reducing CO₂ emissions through the discovery of energy-saving items, horizontally developing effective activities, reducing waste disposal together with dealers, expanding green areas in headquarters and the Ageo Plant, and reducing environmental risks.

Energy saving and prevention of global warming Company-wide initiative to reduce CO₂ emissions

The Volvo Group is the first automotive manufacturer who joined the WWF Climate Savers Program^{*} in 2011. The Group set its own target to reduce CO_2 emissions from the Group factories by 12% from the 2008 figure by 2014. In 2013, the Group had already exceeded the emissions-reduction target (20%).

Continuing on this result, a new target was set in 2015 to reduce a further 8% from the 2013 emissions by 2020, and we are still boosting our activities. In an effort to align with this reduction target, UD Trucks also arranges specific action items and plans through discussions at our Energy Saving Promotion Council, which is membered by representatives of each division.

Our 2013 target was to reduce CO_2 emissions by 39% from 1990, and we achieved the target by a large margin by achieving 60.7% reduction. We will continue our diligent efforts in such reduction to achieve the goal in 2020, while accounting for emissions caused by the future growth in production.

*A program for reducing greenhouse gas emissions through the initiative of the WWF in partnership with world businesses.



Reduction of waste materials Reducing the environmental load during waste disposal

In a product's life cycle, waste disposal occurs mostly during the product's disposal at the dealer's location. For this, UD Trucks has developed its own waste-management system and introduced internal disposal standards for waste sorting management for all dealers since 2014. Each dealer has installed dedicated facilities according to these standards and sorts waste material at a granular level. Moreover, we promote reuse at each dealer's location, such as through returnable packaging material of service parts delivered to them.

At the R&D stage, we design our products while keeping in mind the efficient use of resources and easy disassembling, for example, the three-way split bumpers or easily disassembled headlamps for which lenses and LED units can be easily exchanged in single units, and fenders made from recycled material.

At the production stage, we work on reducing and recycling waste in order to minimize the final volume of waste disposal. In FY2017, we reduced the final volume of waste by 99.7% compared with FY1990. We also keep our recycling rate at over 99% (zero emission) across the company.

UD Trucks entered into a consulting agreement with a company specialized in waste disposal processing from April 2015 to enhance its waste management system. We ensure compliance with waste management by selecting highly reliable companies for waste disposal, submitting required notifications to the government, managing business forms (manifestos), aggregating the volume of waste disposal, and other efforts.

Expansion of green areas Green zone reclaimed at the site of the old headquarters building

At our headquarters/Ageo Plant, the maintenance of the building that began in 2016 has been completed, and green areas have been expanded. When construction of the headquarters building was completed in 2015, the old buildings were demolished to convert the area into a green zone.

Benches were installed in certain new grassy areas, which are used as spaces for breaks and communication by employees.



Environmental Data

Energy/CO2-related data (Ageo Plant, Hanyu Plant, and Gunma Parts Distribution Center)



CO2 emissions by energy source



Heat budget of large-scale natural gas cogeneration





Final waste disposal volume (landfill)/recycling rate



*The target figures underwent a review from 2004 based on the initiatives implemented by the Japan Automobile Manufacturers Association's Recycling and Waste Reduction Subcommittee.

PRTR data

Ageo Plant (FY2017)

Emissions Mileage Ordinance Volume Removal Consumption Chemical substance Class Recycled number handled treatment (products) Atmosphere Water Soil Waste 53 Ethylbenzene 20.462 9,027 0 0 0 2.260 9.072 103 80 Xylene 37,147 12,967 0 0 0 2,462 21,167 551 Class 1 designated 0 296 1,2,4-Trimethylbenzene 2,526 1,241 0 0 589 0 696 chemical substances 297 1,3,5-Trimethylbenzene 4,545 515 0 0 0 3,864 131 36 300 Toluene 7,843 5,354 0 0 0 1,456 119 914

Water consumption/basic unit



Unit: kg/year

Environmental measurement data of environmental facilities in FY2017

(Environment data measurement period: April 2017 to March 2018)

Ageo Plant

Water quality	Measured item		Unit	Regulation value	Max.	Min.	Average
	Discharged volume		m³/day	—	9,532	0	1,015
	pН		—	5.8–8.6	7.8	6.7	7.3
POD: Dischamical aware domand	BOD		mg/L	25 (20)	4.1	1.2	2.2
BOD: Biochemical oxygen demand COD: Chemical oxygen demand	COD		mg/L	160 (120)	9.0	3.3	6.9
SS: Suspended substance	SS		mg/L	60 (50)	ND	ND	ND
ND: Not detected	N-Hex (mineral oil)		mg/L	5	ND	ND	ND
Figures within parentheses () show the average per day	Phosphorus		mg/L	8	0.5	ND	0.2
() show the average per day	Nitrogen		mg/L	60	6.3	1.5	3.0
	Zinc		mg/L	2	ND	ND	ND
	Fluorine and compound		mg/L	8	ND	ND	ND
	1						
Atmosphere	Facility	Measured item	Unit	Regulation value	Max.	Min.	Average
	Water boiler	NOx	ppm	150	58	51	55
NOx: Nitrogen oxide		Dust	g/m³N	0.1	ND	ND	ND
	Cogeneration (gas engine)	NOx	ppm	200	140	89	115
	Dry furnace 1	NOx	ppm	230	19	6	6
		Dust	g/m³N	0.2	0.002	ND	0.001

Hanyu Plant

Water quality	Measured item	Unit	Regulation value	Max.	Min.	Average
	Discharged volume	m³/day	—	65	0	8
	рН	—	5.8–8.6	7.3	7.1	7.1
BOD: Biochemical oxygen demand COD: Chemical oxygen demand	BOD	mg/L	25(20)	3.9	1.5	2.9
SS: Suspended substance	COD	mg/L	160(120)	2.1	1.2	1.5
ND: Not detected Figures within parentheses () show the average per day	SS	mg/L	60(50)	ND	ND	ND
	N-Hex (mineral oil)	mg/L	5	ND	ND	ND
	Nitrogen	mg/L	60	20.0	3.5	12.9
	Zinc	mg/L	2	0.10	ND	ND

Atmosphere	Facility	Measured item	Unit	Regulation value	Max.	Min.	Average
	Boiler heavy oil (1.2 tons)	NOx	ppm	180	76	68	72
NOx: Nitrogen oxide SOx: Sulfur oxide		SOx	m³N/h	0.493	ND	ND	ND
		Dust	g/m³N	0.3	0.007	0.006	0.007
	Water cooler/heater	NOx	ppm	180	74	74	74
		SOx	m³N/h	0.531	0.002	0.002	0.002
		Dust	g/m³N	0.3	0.007	0.007	0.007

Gunma Parts Distribution Center

Water quality	Measured item	Unit	Regulation value	Max.	Min.	Average
	Discharged volume	m³/day	—	11	0	7
BOD: Biochemical oxygen demand SS: Suspended substance ND: Not detected	рН	—	5.8–8.6	7.5	6.4	6.7
	BOD	mg/L	80	7.7	1.2	3.6
	SS	mg/L	20	8.0	1.0	3.2
	N-Hex (mineral oil)	mg/L	1	ND	ND	ND

Atmosphere	Facility	Measured item	Unit	Regulation value	Max.	Min.	Average
NOx: Nitrogen oxide	Boiler heavy oil Nos.1, 2 and 3	NOx	ppm	180	74	62	68
		Dust	g/m³N	0.2	0.002	0.001	0.002

ISO14001 certification status

FY1998	Ageo Plant
FY2004	Kounosu Plant *Transferred to Global Component Technologies Corporation in January 2015
FY2004	Hanyu Plant *Transferred to UniCarriers Corporation in March 2016
FY2005	DRD Co., Ltd. *Transferred to Tempstaff Co., Ltd. in June 2013
FY2005	Techsus Co., Ltd. *Acquired by UD Trucks Corporation in July 2013
FY2006	N-Tech Co., Ltd. *Transferred to Kihara Manufacturing Co., Ltd. in March 2015
FY2008	Japan Vehicle Co., Ltd. *Acquired by UD Trucks Corporation in July 2011
FY2009	Volvo Logistics Corporation Japan Co., Ltd. *Acquired by UD Trucks Corporation in April 2014

PCB storage status (FY2017)

	Ageo Plant
Reactor	902 kg
Discharge coil	58 kg
Capacitor	8,628 kg
Ballast	20,286 kg
Transformer	74 kg
Breaker	102 kg
Contaminated materials (waste clothes, etc.)	1,115 kg
Total	31,165 kg

*"Transformer" includes the weight of the transformer main body.

The Volvo Group

UD Trucks is a member of the Volvo Group, which is a global company based in Gotherburg, Sweden, offering various solutions ranging from the manufacturing of trucks, buses, and construction equipment, to that of marine and industrial engines. The Group also provides solutions for financial services. With production facilities in 18 countries worldwide, the Volvo Group employs about 100,000 people and sells its products in more than 190 markets.

What we do



The Volvo Group's products help to ensure that people have food on the table, can travel to their destinations, and have roads to drive on. Its products deliver goods to keep production plants running.



The Group's products are a part of daily life. They take people to work, distribute goods, and collect rubbish. The Group develops the public transport solutions of tomorrow with an increased focus on electrification.

30.3

23.3 20.8



Engines, machines, and vehicles from the Volvo Group can be found at construction sites, in mines, and in the middle of forests.



The Group's products and services are present, regardless of whether someone is at work on a ship, on holiday in a pleasure boat, or in need of urgent help from sea rescue services.



Key performance 2017





Corporate strategy

In 2016, the Volvo Group announced the Group's new "mission," the "vision" to fulfill the mission, "aspirations" that underpin efforts toward the vision, and "values" to foster corporate culture. By sharing these with all employees to indicate the direction the Volvo Group is aiming toward and reflecting them in all business activities, we strive to further our business and realize a sustainable society.

In 2017, the Code of Conduct was renewed, which specifies general rules and behaviors that all employees should comply with, and it also clarifies the ethics and compliance required in all business activities.



Strong brands

The Volvo Group operates multiple brands, including Volvo (trucks, construction equipment, and buses), Volvo Penta, UD Trucks, Terex Trucks, Renault Trucks, Prevost, Nova Bus, and Mack Trucks. It also has partnerships with SDLG, Eicher, and Dongfeng Commercial Vehicles for joint ventures.

By offering diverse products and services from these brands, the Volvo Group meets different needs of customers in both mature and growth markets.





UD Trucks Corporation

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