



SUSTAINABILITY ACCOUNTING STANDARD
RESOURCE TRANSFORMATION SECTOR

INDUSTRIAL MACHINERY & GOODS

Sustainability Accounting Standard

Sustainable Industry Classification System™ (SICS™) #RT0203
Prepared by the
Sustainability Accounting Standards Board®

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Provisional Standard

INDUSTRIAL MACHINERY & GOODS

Sustainability Accounting Standard

About SASB

The Sustainability Accounting Standards Board (SASB) provides sustainability accounting standards for use by publicly listed corporations in the U.S. in disclosing material sustainability information for the benefit of investors and the public. SASB standards are designed for disclosure in mandatory filings to the Securities and Exchange Commission (SEC), such as the Form 10-K and 20-F. SASB is an independent 501(c)3 non-profit organization. Through 2016, SASB is developing standards for more than 80 industries in 10 sectors.

SUSTAINABILITY ACCOUNTING STANDARDS BOARD

75 Broadway, Suite 202
San Francisco, CA 94111
415.830.9220
info@sasb.org

www.sasb.org

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INTRODUCTION

Purpose & Structure

This document contains the SASB Sustainability Accounting Standard (SASB Standard) for the Industrial Machinery & Goods industry.

SASB Sustainability Accounting Standards are comprised of **(1) disclosure guidance and (2) accounting standards on sustainability topics** for use by U.S. and foreign public companies in their annual filings (Form 10-K or 20-F) with the U.S. Securities and Exchange Commission (SEC). To the extent relevant, SASB Standards may also be applicable to other periodic mandatory filings with the SEC, such as the Form 10-Q, Form S-1, and Form 8-K.

SASB Standards identify sustainability topics at an industry level, which may constitute material information—depending on a company’s specific operating context— for a company within that industry. SASB Standards are intended to provide guidance to company management, which is ultimately responsible for determining which information is material and should therefore be included in its Form 10-K or 20-F and other periodic SEC filings.

SASB Standards provide companies with standardized sustainability metrics designed to communicate performance on industry level sustainability topics. When making disclosure on sustainability topics, companies can use SASB Standards to help ensure that disclosure is standardized and therefore decision-useful, relevant, comparable, and complete.

SASB Standards are intended to constitute “suitable criteria” as defined by AT 101.23 -. 32¹ and referenced in AT 701², as having the following attributes:

- *Objectivity*—Criteria should be free from bias.
- *Measurability*—Criteria should permit reasonably consistent measurements, qualitative or quantitative, of subject matter.
- *Completeness*—Criteria should be sufficiently complete so that those relevant factors that would alter a conclusion about subject matter are not omitted.
- *Relevance*—Criteria should be relevant to the subject matter.

Industry Description

The Industrial Machinery & Goods industry manufactures essential equipment for a variety of sectors including construction, agriculture, energy, utility, mining, manufacturing, automotive and transportation. Products include diesel engines, earth-moving equipment, trucks, tractors, ships, industrial pumps, locomotives, and turbines. Machinery manufacturers utilize large amounts of raw materials for production, including primarily steel, cast iron, plastics, rubber, paints, and glass. Manufacturers may also perform the machining and casting of parts before final assembly. The continued expansion of industrialized economies and population will support rising demand for industrial machinery and goods. At the same time, regulatory standards and customer demand will likely drive continued pressure to limit environmental and social externalities in the lifecycle of products.

¹ http://pcaobus.org/Standards/Attestation/Pages/AT101.aspx#at_101_fn7

² <http://pcaobus.org/Standards/Attestation/Pages/AT701.aspx>

Guidance for Disclosure of Material Sustainability Topics in SEC Filings

1. Industry-Level Sustainability Disclosure Topics

For the Industrial Machinery & Goods industry, SASB has identified the following sustainability disclosure topics:

- Energy Management
- Employee Health & Safety
- Fuel Economy & Emissions in Use-phase
- Remanufacturing Design & Services
- Materials Sourcing

2. Company-Level Determination and Disclosure of Material Sustainability Topics

Sustainability disclosures are governed by the same laws and regulations that govern disclosures by securities issuers generally. According to the U.S. Supreme Court, a fact is material if, in the event such fact is omitted from a particular disclosure, there is “a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of the information made available.”^{3, 4}

SASB has attempted to identify those sustainability topics that are reasonably likely to have a material effect on the financial condition or operating performance of companies within each SICs industry. SASB recognizes, however, that each company is ultimately responsible for determining what information should be disclosed within the context of Regulation S-K and other guidance.

Regulation S-K, which sets forth certain disclosure requirements associated with Form 10-K and other SEC filings, requires companies, among other things, to describe in the Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) section of Form 10-K “any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations. If the registrant knows of events that will cause a material change in the relationship between costs and revenues (such as known future increases in costs of labor or materials or price increases or inventory adjustments), the change in the relationship shall be disclosed.”

Furthermore, Instructions to Item 303 state that the MD&A “shall focus specifically on material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition.”²

The SEC has provided guidance for companies to use in determining whether a trend or uncertainty should be disclosed. The two-part assessment –prescribed by the SEC, based on probability and magnitude, can be applied to the topics included within this standard:

- First, a company is not required to make disclosure about a known trend or uncertainty if its management determines that such trend or uncertainty is not reasonably likely to occur.

³ TSC Industries v. Northway, Inc., 426 U.S. 438 (1976).

⁴ C.F.R. 229.303(item 303)(a)(3)(ii).

- Second, if a company’s management cannot make a reasonable determination of the likelihood of an event or uncertainty, then disclosure is required unless management determines that a material effect on the registrant’s financial condition or results of operation is not reasonably likely to occur.

3. Sustainability Accounting Standard Disclosures in Form 10-K

a. Management’s Discussion and Analysis

For purposes of comparability and usability, that companies should consider making disclosure on sustainability topics in the MD&A, in a sub-section titled “**Sustainability Accounting Standards Disclosures**.”⁵

b. Other Relevant Sections of Form 10-K

In addition to the MD&A section, it may be relevant for companies to disclose sustainability information in other sections of Form 10-K, including, but not limited to:

- **Description of business**—Item 101 of Regulation S-K requires a company to provide a description of its business and its subsidiaries. Item 101(c)(1)(xii) expressly requires disclosure regarding certain costs of complying with environmental laws:

Appropriate disclosure also shall be made as to the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries.

- **Legal proceedings**—Item 103 of Regulation S-K requires companies to describe briefly any material pending or contemplated legal proceedings. Instructions to Item 103 provide specific disclosure requirements for administrative or judicial proceedings arising from laws and regulations that target discharge of materials into the environment or that are primarily for the purpose of protecting the environment.
- **Risk factors**—Item 503(c) of Regulation S-K requires filing companies to provide a discussion of the most significant factors that make an investment in the registrant speculative or risky, clearly stating the risk and specifying how a particular risk affects the particular filing company.

c. Rule 12b-20

Securities Act Rule 408 and Exchange Act Rule 12b-20 require a registrant to disclose, in addition to the information expressly required by law or regulation, “such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading.”

More detailed guidance on disclosure of material sustainability topics can be found in the **SASB Conceptual Framework**, available for download via <http://www.sasb.org/approach/conceptual-framework/>.

⁵ [SEC \[Release Nos. 33-8056; 34-45321; FR-61\] Commission Statement about Management’s Discussion and Analysis of Financial Condition and Results of Operations](#): “We also want to remind registrants that disclosure must be both useful and understandable. That is, management should provide the most relevant information and provide it using language and formats that investors can be expected to understand. Registrants should be aware also that investors will often find information relating to a particular matter more meaningful if it is disclosed in a single location, rather than presented in a fragmented manner throughout the filing.”

Guidance on Accounting for Material Sustainability Topics

For each sustainability topic included in the Industrial Machinery & Goods industry Sustainability Accounting Standard, SASB identifies accounting metrics.

SASB recommends that each company consider using these sustainability accounting metrics when preparing disclosures on the sustainability topics identified herein;

As appropriate—and consistent with Rule 12b-20⁶—when disclosing a sustainability topic identified by this Standard, companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported. Where not addressed by the specific accounting metrics, but relevant, the registrant should discuss the following, related to the topic:

- The registrant's **strategic approach** to managing performance on material sustainability issues;
- The registrant's **relative performance** with respect to its peers;
- The **degree of control** the registrant has;
- Any **measures the registrant has undertaken** or **plans to undertake** to improve performance; and
- Data for the registrant's **last three completed fiscal years** (when available).

SASB recommends that registrants use SASB Standards specific to their primary industry as identified in the [Sustainable Industry Classification System \(SICSTM\)](#). If a registrant generates significant revenue from multiple industries, SASB recommends that it also consider sustainability topics that SASB has identified for those industries and disclose the associated SASB accounting metrics.

In disclosing to SASB Standards, it is expected that registrants disclose with the same level of rigor, accuracy, and responsibility as they apply to all other information contained in their SEC filings.

Users of the SASB Standards

The SASB Standards are intended to provide guidance for companies that engage in public offerings of securities registered under the Securities Act of 1933 (the Securities Act) and those that issue securities registered under the Securities Exchange Act of 1934 (the Exchange Act),⁷ for use in SEC filings, including, without limitation, annual reports on Form 10-K (Form 20-F for foreign issuers), quarterly reports on Form 10-Q, current reports on Form 8-K, and registration statements on Forms S-1 and S-3. Disclosure with respect to the SASB Standards is not required or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

⁶ SEC Rule 12b-20: "In addition to the information expressly required to be included in a statement or report, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading."

⁷ Registration under the Securities Exchange Act of 1934 is required (1) for securities to be listed on a national securities exchange such as the New York Stock Exchange, the NYSE Amex, and the NASDAQ Stock Market or (2) if (A) the securities are equity securities and are held by more than 2,000 persons (or 500 persons who are not accredited investors) and (B) the company has more than \$10 million in assets.

Scope of Disclosure

Unless otherwise specified, SASB recommends:

- That a registrant disclose on sustainability issues and metrics for itself and for entities that are consolidated for financial reporting purposes as defined by accounting principles generally accepted in the United States for consistency with other accompanying information within SEC filings⁸
- That for consolidated entities, disclosures be made, and accounting metrics calculated, for the whole entity, regardless of the size of the minority interest; and
- That information from unconsolidated entities not be included in the computation of SASB accounting metrics. A registrant should disclose, however, information about unconsolidated entities to the extent that the registrant considers the information necessary for investors to understand the effect of sustainability topics on the company's financial condition or operating performance (typically, this disclosure would be limited to risks and opportunities associated with these entities).

Reporting Format

Use of Financial Data

In instances where accounting metrics, activity metrics, and technical protocols in this standard incorporate financial data (e.g., revenues, cost of sales, expenses recorded and disclosed for fines, etc.), such financial data shall be prepared in accordance with the accounting principles generally accepted in the United States of America ("US GAAP") and be consistent with the corresponding financial data reported within the registrant's SEC filings. Should accounting metrics, activity metrics and technical protocols in this standard incorporate disclosure of financial data that is not prepared in accordance with US GAAP, the registrant shall disclose such information in accordance with the SEC Regulation G.

Activity Metrics and Normalization

SASB recognizes that normalizing accounting metrics is important for the analysis of SASB disclosures.

SASB recommends that a registrant disclose any basic business data that may assist in the accurate evaluation and comparability of disclosure, to the extent that they are not already disclosed in the Form 10-K (e.g., revenue, EBITDA, etc.).

Such data—termed "activity metrics"—may include high-level business data such as total number of employees, quantity of products produced or services provided, number of facilities, or number of customers. It may also include industry-specific data such as plant capacity utilization (e.g., for specialty chemical companies), number of transactions (e.g., for Internet media and services companies), hospital bed days (e.g., for health care delivery companies), or proven and probable reserves (e.g., for oil and gas exploration and production companies).

⁸ See US GAAP consolidation rules (Section 810).

Activity metrics disclosed should:

- Convey contextual information that would not otherwise be apparent from SASB accounting metrics.
- Be deemed generally useful for an investor relying on SASB accounting metrics in performing their own calculations and creating their own ratios.
- Be explained and consistently disclosed from period to period to the extent they continue to be relevant. However, a decision to make a voluntary disclosure in one period does not obligate a continuation of that disclosure if it is no longer relevant or if a better metric becomes available.⁹

Where relevant, SASB recommends specific activity metrics that—at a minimum—should accompany SASB accounting metric disclosures.

| ACTIVITY METRIC | CATEGORY | UNIT OF MEASURE | CODE |
|--|--------------|------------------------|----------|
| Number of units produced by product category ¹⁰ | Quantitative | Number | RT0203-A |
| Number of employees | Quantitative | Number, Percentage (%) | RT0203-B |

Units of Measure

Unless specified, disclosures should be reported in International System of Units (SI units).

Uncertainty

SASB recognizes that there may be inherent uncertainty when disclosing certain sustainability data and information. This may be related to variables such as the reliance on data from third-party reporting systems and technologies, or the unpredictable nature of climate events. Where uncertainty around a particular disclosure exists, SASB recommends that the registrant should consider discussing its nature and likelihood.

Estimates

SASB recognizes that scientifically-based estimates, such as the reliance on certain conversion factors or the exclusion of *de minimis* values, may occur for certain quantitative disclosures. Where appropriate, SASB does not discourage the use of such estimates. When using an estimate for a particular disclosure, SASB expects that the registrant discuss its nature and substantiate its basis.

⁹ Improving Business Reporting: Insights into Enhancing Voluntary Disclosures, FASB Business Reporting Research Project, January 29, 2001.

¹⁰ Note to RT0203-A – At a minimum, the registrant should indicate the number of units produced for the following product categories: (1) vehicles and agricultural and construction equipment, (2) engines and power generation equipment, and (3) parts and components.

Timing

Unless otherwise specified, disclosure shall be for the registrant's fiscal year.

Limitations

There is no guarantee that SASB Standards address all sustainability impacts or opportunities associated with a sector, industry, or company, and therefore, a company must determine for itself the topics—sustainability-related or otherwise—that warrant discussion in its SEC filings.

Disclosure under SASB Standards is voluntary. It is not intended to replace any legal or regulatory requirements that may be applicable to user operations. Where such laws or regulations address legal or regulatory topics, disclosure under SASB Standards is not meant to supersede those requirements. Disclosure according to SASB Standards shall not be construed as demonstration of compliance with any law, regulation, or other requirement.

SASB Standards are intended to be aligned with the principles of materiality enforced by the SEC. However, SASB is not affiliated with or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

Forward-looking Statements

Disclosures on sustainability topics can involve discussion of future trends and uncertainties related to the registrant's operations and financial condition, including those influenced by external variables (e.g., environmental, social, regulatory, and political). Companies making such disclosures should familiarize themselves with the safe harbor provisions of Section 27A of the Securities Act and Section 21E of the Exchange Act, which preclude civil liability for material misstatements or omissions in such statements if the registrant takes certain steps, including, among other things, identifying the disclosure as "forward-looking" and accompanying such disclosure with "meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statements."

The following sections contain the disclosure guidance associated with each accounting metric such as guidance on definitions, scope, accounting, compilation, and presentation.

The term "shall" is used throughout this document to indicate those elements that reflect requirements of the Standard. The terms "should" and "may" are used to indicate guidance, which, although not required, provides a recommended means of disclosure.

Table 1. Sustainability Disclosure Topics & Accounting Metrics

| TOPIC | ACCOUNTING METRIC | CATEGORY | UNIT OF MEASURE | CODE |
|--|---|-------------------------|---------------------------------|-----------|
| Energy Management | Total energy consumed, percentage grid electricity, percentage renewable | Quantitative | Gigajoules (GJ), Percentage (%) | RT0203-01 |
| Employee Health & Safety | (1) Total Recordable Injury Rate (TRIR), (2) Fatality Rate, and (3) Near Miss Frequency Rate | Quantitative | Rate | RT0203-02 |
| Fuel Economy & Emissions in Use-phase | Sales-weighted fleet fuel efficiency for medium- and heavy-duty vehicles | Quantitative | Gallons per 1,000 Ton-miles | RT0203-03 |
| | Sales-weighted fuel efficiency for non-road equipment | Quantitative | Gallons per hour | RT0203-04 |
| | Sales-weighted fuel efficiency for stationary generators | Quantitative | Watt/gallon | RT0203-05 |
| | Sales-weighted emissions of (a) NO _x and (b) PM for: (1) marine diesel engines, (2) locomotive diesel engines, and (3) other non-road diesel engines | Quantitative | Grams per kilowatt-hour | RT0203-06 |
| Remanufacturing Design & Services | Revenue from remanufactured products and remanufacturing services ¹¹ | Quantitative | U.S. Dollars (\$) | RT0203-07 |
| Materials Sourcing | Percentage of materials costs for products containing critical materials | Quantitative | Percentage (%) | RT0203-08 |
| | Percentage of tungsten, tin, tantalum, and gold smelters within the supply chain that are verified conflict-free | Quantitative | Percentage (%) | RT0203-09 |
| | Discussion of the management of risks associated with the use of critical materials and conflict minerals | Discussion and Analysis | n/a | RT0203-10 |

¹¹ Note to **RT0203-07**—Disclosure shall include a discussion of efforts to obtain end-of-life products and parts for remanufacture.

Energy Management

Description

Energy is a critical input in industrial machinery production. Purchased electricity represents the largest share of energy expenditures in the industry, followed by purchased fuels. Fossil fuel and electrical energy consumption contribute to environmental impacts, including climate change and pollution. As electricity consumption indirectly contributes to climate change and air pollution, the cost of grid electricity may increase as utilities face more stringent regulations and higher production costs. A company's energy mix, including the use of electricity generated onsite rather than grid-sourced electricity and the use of alternative energy, can play an important role in influencing both the cost and reliability of energy supply. The manner in which a company manages its overall energy efficiency and intensity, its reliance on different energy types, and its ability to access alternative sources of energy can influence its profitability and risk profile.

Accounting Metrics

RT0203-01. Total energy consumed, percentage grid electricity, percentage renewable

- .01 The registrant shall disclose total energy consumption from all sources as an aggregate figure in gigajoules or their multiples.
 - The scope includes energy purchased from sources external to the organization or produced by the organization itself (self-generated).
 - The scope includes only energy consumed by entities owned or controlled by the organization.
 - The scope includes energy from all sources, including direct fuel usage, purchased electricity, and heating, cooling, and steam energy.
- .02 In calculating energy consumption from fuels and biofuels, the registrant shall use higher heating values (HHV), also known as gross calorific values (GCV), which are directly measured or taken from the Intergovernmental Panel on Climate Change (IPCC), the U.S. Department of Energy (DOE), or the U.S. Energy Information Administration (EIA).
- .03 The registrant shall disclose purchased grid electricity consumption as a percentage of its total energy consumption.
- .04 The registrant shall disclose renewable energy consumption as a percentage of its total energy consumption.
- .05 The scope of renewable energy includes renewable fuel the registrant consumes and renewable energy the registrant directly produces, purchases through a renewable power purchase agreement (PPA) that explicitly includes renewable energy certificates (RECs), or for which Green-e Energy Certified RECs are paired with grid electricity.
 - For any renewable electricity generated on-site, any RECs must be retained (i.e., not sold) and retired on behalf of the registrant in order for the registrant to claim them as renewable energy.

- For renewable PPAs, the agreement must explicitly include and convey that RECs be retained and retired on behalf of the registrant in order for the registrant to claim them as renewable energy.
- The renewable portion of the electricity grid mix that is outside of the control or influence of the registrant is excluded from disclosure.¹²
- Renewable energy is defined as energy from sources that are capable of being replenished in a short time through ecological cycles, such as geothermal, wind, solar, hydro, and biomass.

.06 For the purposes of this disclosure, the scope of renewable energy from hydro and biomass sources is limited to the following:

- Energy from hydro sources that are certified by the Low Impact Hydropower Institute or that are eligible for a state Renewable Portfolio Standard.
- Energy from biomass sources is limited to materials certified to a third-party standard (e.g., Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification, or American Tree Farm System), materials considered “eligible renewables” according to the Green-e Energy National Standard Version 2.5 (2014), and materials that are eligible for a state Renewable Portfolio Standard.

.07 The registrant shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel usage (including biofuels) and conversion of kWh to gigajoules (for energy data including electricity from solar or wind energy).

¹² SASB recognizes that RECs reflect the environmental attributes of renewable energy that have been introduced to the grid, and that a premium has been paid by the purchaser of the REC to enable generation of renewable energy beyond any renewable energy already in the grid mix, absent the market for RECs.

Employee Health & Safety

Description

Employees working in industrial machinery manufacturing facilities face health and safety risks from exposure to machinery, heavy, moving equipment, and electrical hazards. Creating a safety culture is critical to proactively mitigate the, which can result in. By maintaining a safe work environment and promoting a culture of safety, companies can minimize the risk of injuries or fatalities among employees, potentially improving productivity, and can minimize safety-related expenses. On the down side, injuries and fatalities can result in significant financial consequences, including healthcare costs, contingent liabilities, litigation, and work disruption.

Accounting Metrics

RT0203-02. (1) Total Recordable Injury Rate (TRIR), (2) Fatality Rate, and (3) Near Miss Frequency Rate

- .08 For registrants whose workforce is entirely U.S.-based, the registrant shall disclose its Total Recordable Injury Rate (TRIR) and fatality rate, as calculated and reported in the Occupational Health and Safety Administration (OSHA) Form 300.
- OSHA guidelines provide details on determination of whether an event is a recordable occupational incident, and definitions for exemptions for incidents that occur in the work environment but are not occupational.
 - The scope of disclosure includes all employees on the registrant's payroll, whether they are labor, executive, hourly, salary, part-time, seasonal, or migrant workers, as well as employees who are not on the registrant's payroll, but who are supervised by the registrant on a day-to-day basis, consistent with the recordable injuries and illnesses to be disclosed on the OSHA 300 Log.
- .09 For registrants whose workforce includes non-U.S.-based employees, the registrant shall calculate its TRIR according to the U.S. Bureau of Labor Statistics [guidance](#) and/or using the U.S. Bureau of Labor Statistics [calculator](#).
- .10 The registrant shall disclose its Near Miss Frequency Rate (NMFR), where a near miss is defined as an incident in which no property or environmental damage or personal injury occurred, but where damage or personal injury easily could have occurred but for a slight circumstantial shift.
- The registrant should refer to organizations such as the National Safety Council (NSC) for guidance on implementing near miss reporting.
 - The registrant should disclose its process for classifying, identifying, and reporting near miss incidents.
- .11 The scope includes all employees, domestic and foreign.
- .12 Rates shall be calculated as: $(\text{statistic count} / \text{total hours worked}) * 200,000$.

Fuel Economy & Emissions in Use-phase

Description

Consumer and regulatory concern over climate change and other environmental impacts is increasing demand for machinery products that operate with minimal environmental and human health externalities at the use-phase. Many of the industry's products release greenhouse gases (GHGs) and other air emissions during use, and consume water and other materials. Emissions regulations are driving mandatory fuel-efficiency improvements, while customers also seek greater efficiency to reduce fuel costs. Companies in the industry are adapting to this trend by offering products with improved fuel efficiency, lower particulate matter and GHG emissions, and better material efficiency. Fuel economy and use-phase emissions of products will increasingly drive market share in this industry as regulations around fuel economy and emissions continue to strengthen.

Accounting Metrics

RT0203-03. Sales-weighted fleet fuel efficiency for medium- and heavy-duty vehicles

.13 The registrant shall disclose its sales-weighted average fleet fuel efficiency for medium- and heavy-duty vehicles, where:

- Fleet fuel efficiency is defined as the average fuel economy of its medium- and heavy-duty commercial vehicles, weighted by the number of each sold during the fiscal year and measured in gallons per 1,000 ton-miles.
- The scope of disclosure includes vehicles in the fleet that weigh 8,500 pounds or more, and which are covered under the Heavy Duty (HD) National Program, including combination tractors (commonly known as semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles.
- Where fleet averages are calculated by model year for regulatory purposes, the registrant shall use these performance data.
- In the absence of regulatory guidance on calculating a fleet average, the registrant shall calculate performance based on the fuel economy of vehicles sold during the fiscal year, weighted by sales volume.

.14 The registrant shall disclose the sales-weighted fuel efficiency requirement for its medium- and heavy-duty vehicles, pursuant to HD National Program Fuel Consumption Standards, as issued and regulated by the National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (EPA).

RT0203-04. Sales-weighted fuel efficiency for non-road equipment

.15 The registrant shall disclose its sales-weighted average fuel efficiency for its non-road equipment and vehicles, where:

- Fuel efficiency is defined as the average fuel economy of its non-road equipment, weighted by the number of each sold during the fiscal year and measured in gallons of fuel consumed per hour of operation (gallons per hour).

- In calculating gallons per hour the registrant shall use the model-rated fuel efficiency value for each piece of equipment, where available.
- Where model-rated fuel efficiency values are not available, the registrant shall calculate a gallons-per-hour operational efficiency for the equipment assuming normal, reasonable operating conditions (e.g., for load factor, speed, and environmental conditions).
- Non-road equipment includes, but is not limited to, excavators and other construction equipment, farm tractors and other agricultural equipment, heavy forklifts, airport ground service equipment, and utility equipment such as generators, pumps, and compressors.

RT0203-05. Sales-weighted fuel efficiency for stationary generators

.16 The registrant shall disclose the sales-weighted average fuel efficiency of its stationary generators, where:

- Sales-weighted fuel efficiency is the average fuel efficiency of stationary generators sold during the fiscal year, measured in watts per gallon.

.17 Sales-weighted fuel efficiency is calculated as the harmonic mean of design fuel efficiency in watts per gallon, where:

- The harmonic mean is the reciprocal of the average of the reciprocal values. The harmonic mean captures the average amount of fuel needed by each generator to produce a given amount of power.

RT0203-06. Sales-weighted emissions of (a) NO_x and (b) PM for: (1) marine diesel engines, (2) locomotive diesel engines, and (3) other non-road diesel engines

.18 The registrant shall disclose the sales-weighted average emissions of nitrogen oxides (NO_x) and particulate matter (PM) for each of the following product categories: (1) marine diesel engines, (2) locomotive diesel engines, and (3) other non-road diesel engines, where:

- Emissions are calculated as the average emissions of (a) NO_x and (b) PM for engines, weighted by the number of each sold during the fiscal year and measured in grams per kilowatt-hour.
- Marine diesel engines are defined as those that are addressed within the scope of 40 CFR Part 1042, 40 CFR Part 94, or 40 CFR Part 89.
- Locomotive diesel engines are defined as those that are addressed within the scope of 40 CFR Part 1033.
- Other non-road diesel engines are defined as those that are addressed within the scope of 40 CFR Part 1039 and typically include excavators and other construction equipment, farm tractors and other agricultural equipment, heavy forklifts, airport ground service equipment, and utility equipment such as generators, pumps, and compressors.
- Emissions shall be calculated according to the test method described in 40 CFR Part 1065.

- .19 The registrant should disclose if any products do not meet current emission standards established in 40 CFR Part 1042, 40 CFR Part 94, and 40 CFR Part 89 for marine diesel engines; 40 CFR Part 1033 for locomotive diesel engines; and 40 CFR Part 1039 for other non-road diesel engines.
- .20 The registrant should discuss its progress toward, and readiness for, future EPA emissions standards.

Remanufacturing Design & Services

Description

Industrial machinery and goods manufacturing uses large quantities of steel, iron, aluminum, glass, plastics, and other materials. The extraction and production of these raw materials and the manufacturing process for finished products and goods can create significant environmental and social impact, and lead to financial and operations risks for companies. Remanufacturing of industrial machinery systems (called cores) is an opportunity for industrial machinery companies to limit the amount of raw materials needed to produce new machinery, as well as the time and resources to produce finished goods. Remanufactured products can also create value from products otherwise destined for disposal or recycling. Industrial machinery companies can achieve cost savings by reusing end-of-life parts to build remanufactured machines. Thus, remanufacturing in process and design can reduce demand for raw materials, reduce manufacturing costs, and create new sales channels.

Accounting Metrics

RT0203-07. Revenue from remanufactured products and remanufacturing services

- .21 The registrant shall disclose the amount of revenue (in U.S. dollars) from products that are remanufactured and services associated with remanufacturing goods, where:
- A remanufactured product is defined as an end-of-life product or component (i.e., one that was previously sold, worn, or non-functional) that has undergone an industrial process to be returned to original working condition (i.e., is considered “like new”).
 - Remanufacturing services are defined as providing the service of repairing, restoring, and/or remanufacturing end-of-life goods to original working condition.
- .22 The scope of disclosure excludes servicing of products that are in-warranty and have been collected for repairs.

Note to RT0203-07

- .23 The registrant shall discuss its initiatives employed to obtain end-of-life products and parts for remanufacturing, including product take-back programs.
- .24 Relevant disclosures include customer and supplier engagement efforts, equipment servicing or exchange programs, and other incentives to encourage end-of-life parts remanufacturing, such as dealer deposits that are refunded when used parts or products (also referred to as “cores”) are returned to the manufacturer within the specified timeframe.

Materials Sourcing

Description

Industrial machinery companies are exposed to supply chain risks as rare earth or “conflict” minerals and critical materials are used in electrical components of their products. Sourcing risks associated with these metals are due to a low substitution ratio, concentration of deposits in only a few countries, and geopolitical considerations. The industry also faces competition from increasing global demand for these minerals from other sectors that can result in significant price increases and further supply chain risks. Companies that are able to limit the use of critical and conflict materials and secure their supply can minimize the environmental and social impact related to extraction while protecting themselves against supply disruptions and volatile input prices.

Accounting Metrics

RT0203-08. Percentage of materials costs for products containing critical materials

.25 The registrant shall calculate the percentage as: the cost of raw materials that contain critical materials divided by total cost of raw materials.

- The scope of disclosure includes materials costs for parts, components, commodities, associated freight, and storage, and excludes those for overhead, labor, recalls, warranties, or other costs of goods sold.

.26 A critical material is defined, consistent with the National Research Council’s “Minerals, Critical Minerals, and the U.S. Economy”, as one that is both essential in use and subject to the risk of supply restriction

.27 At a minimum, the scope of critical materials includes the following minerals and metals:

- Antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum, and tungsten;
- Platinum group metals (platinum, palladium, iridium, rhodium, ruthenium and osmium); and
- Rare earth elements, which include yttrium, scandium, lanthanum and the lanthanides (cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium).

RT0203-09. Percentage of tungsten, tin, tantalum, and gold smelters within the supply chain that are verified conflict-free

.28 The registrant shall calculate the percentage as: the number of tungsten, tin, tantalum, and gold smelters and/or refineries within its supply chain that are verified to be conflict-free, divided by the total number of tungsten, tin, tantalum, and gold smelters and/or refineries within its supply chain.

.29 A smelter or refiner is considered to be conflict-free if it can demonstrate compliance with:

- The Electronic Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiatives (GeSI) Conflict-Free Smelter Program (CFSP) assessment protocols.

- The Responsible Jewellery Council’s (RJC) Chain-of-Custody (CoC) Standard.

.30 A smelter or refinery is considered to be within the registrant’s supply chain if it supplies, or is approved to supply, tungsten, tin, tantalum, or gold that is contained in any product the registrant manufactures or contracts to be manufactured.

.31 The scope includes smelters or refineries that supply material directly to the registrant, as well as those that supply material to any of its suppliers of raw materials, components, or subassemblies.

RT0203-10. Discussion of the management of risks associated with the use of critical materials and conflict minerals

.32 The registrant shall discuss its strategic approach to managing its risks associated with usage of critical materials and conflict minerals in its products, including physical limits on availability, access, price, and reputational risks, where:

- A critical material is defined, consistent with the National Research Council’s “Minerals, Critical Minerals, and the U.S. Economy”, as one that is both essential in use and subject to the risk of supply restriction. At a minimum, the scope of critical materials includes the following minerals and metals defined by the National Research Council:
 - Antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum, and tungsten;
 - Platinum group metals (platinum, palladium, iridium, rhodium, ruthenium, and osmium); and
 - Rare earth elements, which include yttrium, scandium, lanthanum, and the lanthanides (cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium).
- Conflict minerals are defined as tungsten, tin, tantalum, and gold.

.33 The registrant should identify which materials and minerals present a risk to its operations, which type of risk they represent, and the strategies the registrant uses to mitigate the risk.

.34 For critical materials, relevant strategies to discuss include diversification of suppliers, stockpiling of materials, expenditures in R&D for alternative and substitute materials, and investments in recycling technology for critical materials.

.35 For conflict minerals, relevant strategies to discuss include due diligence practices, supply chain auditing, supply chain engagement, and partnerships with industry groups or nongovernmental development organizations.

SUSTAINABILITY ACCOUNTING STANDARDS BOARD®

75 Broadway, Suite 202
San Francisco, CA 94111
415.830.9220
info@sasb.org

www.sasb.org