

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2022

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number: 1-6003



FEDERAL SIGNAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

36-1063330

(I.R.S. Employer Identification No.)

1415 West 22nd Street, Oak Brook, Illinois

(Address of principal executive offices)

60523

(Zip code)

(630) 954-2000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$1.00 per share	FSS	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of October 31, 2022, the number of shares outstanding of the registrant's common stock was 60,636,559.

FEDERAL SIGNAL CORPORATION
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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q (“Form 10-Q”) is being filed by Federal Signal Corporation and its subsidiaries (referred to collectively as the “Company,” “we,” “our” or “us” herein, unless the context otherwise indicates) with the United States (“U.S.”) Securities and Exchange Commission (the “SEC”), and includes comments made by management that may contain words such as “may,” “will,” “believe,” “expect,” “anticipate,” “intend,” “plan,” “project,” “estimate” and “objective” or similar terminology, or the negative thereof, concerning the Company’s future financial performance, business strategy, plans, goals and objectives. These expressions are intended to identify forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the Private Securities Litigation Reform Act of 1995. Forward-looking statements include information concerning the Company’s possible or assumed future performance or results of operations and are not guarantees. While these statements are based on assumptions and judgments that management has made in light of industry experience as well as perceptions of historical trends, current conditions, expected future developments and other factors believed to be appropriate under the circumstances, they are subject to risks, uncertainties and other factors that may cause the Company’s actual results, performance or achievements to be materially different.

These risks and uncertainties, some of which are beyond the Company’s control, include the risk factors described under Part I, Item 1A, *Risk Factors*, of the Company’s Annual Report on Form 10-K for the year ended December 31, 2021, which was filed with the SEC on March 1, 2022. These factors may not constitute all factors that could cause actual results to differ materially from those discussed in any forward-looking statement. The Company operates in a continually changing business environment and new factors emerge from time to time, including, for example, the ongoing coronavirus pandemic and the government response to the pandemic. The Company cannot predict such factors, nor can it assess the impact, if any, of such factors on its results of operations, financial condition or cash flow. Accordingly, forward-looking statements should not be relied upon as a predictor of actual results. The Company disclaims any responsibility to update any forward-looking statement provided in this Form 10-Q.

ADDITIONAL INFORMATION

The Company is subject to the reporting and information requirements of the Exchange Act and, as a result, is obligated to file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other reports and information with the SEC, as well as amendments to those reports. The Company makes these filings available free of charge through our website at www.federalsignal.com as soon as reasonably practicable after such materials are filed with, or furnished to, the SEC. Information on our website does not constitute part of this Form 10-Q. In addition, the SEC maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited).

**FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)**

(in millions, except per share data)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Net sales	\$ 346.4	\$ 298.3	\$ 1,043.3	\$ 911.8
Cost of sales	263.6	227.4	795.0	690.5
Gross profit	82.8	70.9	248.3	221.3
Selling, engineering, general and administrative expenses	39.8	33.4	125.5	111.6
Amortization expense	3.1	2.8	9.6	8.2
Acquisition and integration-related expenses (benefits)	0.4	0.4	(1.0)	0.9
Operating income	39.5	34.3	114.2	100.6
Interest expense	2.7	1.1	5.9	3.3
Other expense (income), net	0.1	(0.3)	(0.6)	(1.1)
Income before income taxes	36.7	33.5	108.9	98.4
Income tax expense	4.9	4.3	23.1	17.3
Net income	\$ 31.8	\$ 29.2	\$ 85.8	\$ 81.1
Earnings per share:				
Basic	\$ 0.53	\$ 0.48	\$ 1.42	\$ 1.33
Diluted	0.52	0.47	1.40	1.31
Weighted average common shares outstanding:				
Basic	60.4	60.9	60.5	60.8
Diluted	61.0	61.7	61.1	61.8

See notes to condensed consolidated financial statements.

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (Unaudited)

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Net income	\$ 31.8	\$ 29.2	\$ 85.8	\$ 81.1
Other comprehensive income (loss):				
Change in foreign currency translation adjustment	(11.9)	(4.2)	(22.1)	(3.4)
Change in unrecognized net actuarial loss and prior service cost related to pension benefit plans, net of income tax expense of \$0.3, \$0.2, \$0.8 and \$0.7, respectively	1.8	1.4	4.9	3.1
Change in unrealized gain or loss on interest rate swaps, net of income tax expense of \$0.4, \$0.0, \$1.2 and \$0.3, respectively	1.1	0.1	3.4	0.9
Total other comprehensive (loss) income	(9.0)	(2.7)	(13.8)	0.6
Comprehensive income	\$ 22.8	\$ 26.5	\$ 72.0	\$ 81.7

See notes to condensed consolidated financial statements.

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS

(in millions, except per share data)	September 30, 2022	December 31, 2021
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 35.5	\$ 40.5
Accounts receivable, net of allowances for doubtful accounts of \$2.1 and \$2.1, respectively	170.0	136.0
Inventories	287.5	229.1
Prepaid expenses and other current assets	17.8	25.4
Total current assets	510.8	431.0
Properties and equipment, net of accumulated depreciation of \$159.6 and \$151.6, respectively	170.8	141.9
Rental equipment, net of accumulated depreciation of \$44.1 and \$43.8, respectively	108.5	108.4
Operating lease right-of-use assets	25.3	29.8
Goodwill	430.8	432.2
Intangible assets, net of accumulated amortization of \$52.0 and \$42.7, respectively	197.6	205.7
Deferred tax assets	8.0	8.4
Other long-term assets	13.3	8.7
Total assets	<u>\$ 1,465.1</u>	<u>\$ 1,366.1</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term borrowings and finance lease obligations	\$ 0.7	\$ 0.6
Accounts payable	80.9	64.8
Customer deposits	23.1	21.9
Accrued liabilities:		
Compensation and withholding taxes	28.5	29.9
Current operating lease liabilities	6.8	8.8
Other current liabilities	41.4	44.4
Total current liabilities	181.4	170.4
Long-term borrowings and finance lease obligations	330.8	282.2
Long-term operating lease liabilities	19.1	22.1
Long-term pension and other postretirement benefit liabilities	35.5	40.4
Deferred tax liabilities	56.7	53.2
Other long-term liabilities	13.6	13.8
Total liabilities	637.1	582.1
Stockholders' equity:		
Common stock, \$1 par value per share, 90.0 shares authorized, 69.2 and 68.9 shares issued, respectively	69.2	68.9
Capital in excess of par value	265.1	256.7
Retained earnings	753.0	683.6
Treasury stock, at cost, 8.6 and 8.0 shares, respectively	(171.3)	(151.0)
Accumulated other comprehensive loss	(88.0)	(74.2)
Total stockholders' equity	828.0	784.0
Total liabilities and stockholders' equity	<u>\$ 1,465.1</u>	<u>\$ 1,366.1</u>

See notes to condensed consolidated financial statements.

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

(in millions)	Nine Months Ended September 30,	
	2022	2021
Operating activities:		
Net income	\$ 85.8	\$ 81.1
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	40.7	37.5
Stock-based compensation expense	7.5	5.5
Deferred income taxes	0.3	(8.0)
Changes in operating assets and liabilities	(101.9)	(61.0)
Net cash provided by operating activities	32.4	55.1
Investing activities:		
Purchases of properties and equipment	(45.6)	(12.5)
Payments for acquisition-related activity, net of cash acquired	(6.6)	(52.2)
Other, net	2.1	0.2
Net cash used for investing activities	(50.1)	(64.5)
Financing activities:		
Increase in revolving lines of credit, net	49.9	40.1
Purchases of treasury stock	(16.1)	(3.4)
Redemptions of common stock to satisfy withholding taxes related to stock-based compensation	(3.0)	(7.8)
Cash dividends paid to stockholders	(16.4)	(16.5)
Proceeds from stock-based compensation activity	0.1	4.1
Other, net	(0.1)	(0.1)
Net cash provided by financing activities	14.4	16.4
Effects of foreign exchange rate changes on cash and cash equivalents	(1.7)	(0.7)
(Decrease) increase in cash and cash equivalents	(5.0)	6.3
Cash and cash equivalents at beginning of year	40.5	81.7
Cash and cash equivalents at end of period	\$ 35.5	\$ 88.0

See notes to condensed consolidated financial statements.

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Unaudited)

Three Months Ended September 30, 2022						
(in millions)	Common Stock	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance at July 1, 2022	\$ 69.2	\$ 262.4	\$ 726.7	\$ (170.2)	\$ (79.0)	\$ 809.1
Net income			31.8			31.8
Total other comprehensive loss					(9.0)	(9.0)
Cash dividends declared (\$0.09 per share)			(5.5)			(5.5)
Stock-based payments:						
Stock-based compensation		2.1				2.1
Stock option exercises and other	—	0.6		(1.1)		(0.5)
Balance at September 30, 2022	<u>\$ 69.2</u>	<u>\$ 265.1</u>	<u>\$ 753.0</u>	<u>\$ (171.3)</u>	<u>\$ (88.0)</u>	<u>\$ 828.0</u>
Three Months Ended September 30, 2021						
(in millions)	Common Stock	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance at July 1, 2021	\$ 68.7	\$ 249.6	\$ 645.9	\$ (129.8)	\$ (88.4)	\$ 746.0
Net income			29.2			29.2
Total other comprehensive loss					(2.7)	(2.7)
Cash dividends declared (\$0.09 per share)			(5.5)			(5.5)
Stock-based payments:						
Stock-based compensation		1.7				1.7
Stock option exercises and other	—	0.6		(0.4)		0.2
Stock repurchase program				(3.2)		(3.2)
Balance at September 30, 2021	<u>\$ 68.7</u>	<u>\$ 251.9</u>	<u>\$ 669.6</u>	<u>\$ (133.4)</u>	<u>\$ (91.1)</u>	<u>\$ 765.7</u>
Nine Months Ended September 30, 2022						
(in millions)	Common Stock	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance at January 1, 2022	\$ 68.9	\$ 256.7	\$ 683.6	\$ (151.0)	\$ (74.2)	\$ 784.0
Net income			85.8			85.8
Total other comprehensive loss					(13.8)	(13.8)
Cash dividends declared (\$0.27 per share)			(16.4)			(16.4)
Stock-based payments:						
Stock-based compensation		6.8				6.8
Stock option exercises and other	0.2	1.7		(2.9)		(1.0)
Performance share unit transactions	0.1	(0.1)		(1.3)		(1.3)
Stock repurchase program				(16.1)		(16.1)
Balance at September 30, 2022	<u>\$ 69.2</u>	<u>\$ 265.1</u>	<u>\$ 753.0</u>	<u>\$ (171.3)</u>	<u>\$ (88.0)</u>	<u>\$ 828.0</u>

See notes to condensed consolidated financial statements.

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Unaudited)

(in millions)	Nine Months Ended September 30, 2021					
	Common Stock	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance at January 1, 2021	\$ 67.8	\$ 240.8	\$ 605.0	\$ (119.8)	\$ (91.7)	\$ 702.1
Net income			81.1			81.1
Total other comprehensive income					0.6	0.6
Cash dividends declared (\$0.27 per share).....			(16.5)			(16.5)
Stock-based payments:						
Stock-based compensation		4.9				4.9
Stock option exercises and other	0.7	6.4		(6.4)		0.7
Performance share unit transactions	0.2	(0.2)		(3.8)		(3.8)
Stock repurchase program				(3.4)		(3.4)
Balance at September 30, 2021	<u>\$ 68.7</u>	<u>\$ 251.9</u>	<u>\$ 669.6</u>	<u>\$ (133.4)</u>	<u>\$ (91.1)</u>	<u>\$ 765.7</u>

See notes to condensed consolidated financial statements.

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization and Description of the Business

Federal Signal Corporation was founded in 1901 and was reincorporated as a Delaware corporation in 1969. References herein to the “Company,” “we,” “our” or “us” refer collectively to Federal Signal Corporation and its subsidiaries.

Products manufactured and services rendered by the Company are divided into two reportable segments: Environmental Solutions Group and Safety and Security Systems Group. The individual operating businesses are organized as such because they share certain characteristics, including technology, marketing, distribution and product application, which create long-term synergies. These segments are discussed in Note 11 – Segment Information.

Basis of Presentation and Consolidation

The accompanying unaudited condensed consolidated financial statements represent the consolidation of Federal Signal Corporation and its subsidiaries included herein and have been prepared by the Company pursuant to the rules and regulations of the United States (“U.S.”) Securities and Exchange Commission (the “SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) have been condensed or omitted pursuant to such rules and regulations, although the Company believes that the disclosures presented herein are adequate to ensure the information presented is not misleading. Except as otherwise noted, these condensed consolidated financial statements have been prepared in accordance with the Company’s accounting policies described in the Company’s Annual Report on Form 10-K for the year ended December 31, 2021, and should be read in conjunction with those consolidated financial statements and the notes thereto.

These condensed consolidated financial statements include all normal and recurring adjustments that we considered necessary to present a fair statement of our results of operations, financial condition and cash flow. Intercompany balances and transactions have been eliminated in consolidation. During the current year, the Company is separately presenting Amortization expense on the Condensed Consolidated Statements of Operations. Accordingly, prior-year amounts have been reclassified from Selling, engineering, general and administrative (“SEG&A”) expenses to conform to current-year presentation.

The results reported in these condensed consolidated financial statements should not be regarded as necessarily indicative of results that may be expected for the entire year, which may differ materially due to, among other things, the risk factors described under Part I, Item 1A, *Risk Factors*, of the Company’s Annual Report on Form 10-K for the year ended December 31, 2021, which was filed with the SEC on March 1, 2022. While we label our quarterly information using a calendar convention whereby our first, second and third quarters are labeled as ending on March 31, June 30 and September 30, respectively, it is our longstanding practice to establish interim quarterly closing dates based on a 13-week period ending on a Saturday, with our fiscal year ending on December 31. The effects of this practice are not material and exist only within a reporting year.

Recent Accounting Pronouncements and Accounting Changes

In October 2021, the Financial Accounting Standards Board (the “FASB”) issued Accounting Standards Update (“ASU”) No. 2021-08, *Business Combinations (Topic 805), Accounting for Contract Assets and Liabilities from Contracts with Customers*, which requires an acquirer to recognize and measure contract assets and liabilities acquired in a business combination in accordance with *Revenue from Contracts with Customers (Topic 606)* rather than adjust them to fair value at the acquisition date. This ASU, which is applied on a prospective basis, is effective for fiscal years beginning after December 15, 2022, and early adoption is permitted. The Company early adopted this ASU effective January 1, 2022, and the guidance will be applied on a prospective basis to future business combinations, as applicable.

There are no new accounting pronouncements issued, but not yet adopted, that are expected to have a material impact on the Company’s results of operations, financial position or cash flow.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect (i) the reported amounts of assets and liabilities, (ii) the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and (iii) the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS — (CONTINUED)
(Unaudited)

Significant Accounting Policies

There have been no changes to the Company’s significant accounting policies as disclosed in the Company’s Annual Report on Form 10-K for the year ended December 31, 2021.

NOTE 2 – ACQUISITIONS

On October 4, 2021, the Company completed the acquisition of substantially all of the assets and operations of Ground Force Manufacturing LLC (“Ground Force”). Ground Force is a leading manufacturer of specialty material handling vehicles that support the extraction of metals. The Company expects that the Ground Force acquisition will further bolster its position as an industry leading diversified industrial manufacturer of specialized vehicles for maintenance and infrastructure markets with leading brands of premium, value-adding products, and a strong supporting aftermarket platform.

The cash consideration paid by the Company to acquire Ground Force was approximately \$43.1 million and was funded through existing cash and borrowings on the Company’s credit facility.

During the three months ended September 30, 2022, the Company finalized its purchase price allocation for the Ground Force acquisition. The measurement period adjustments, which primarily resulted from the completion of the third-party valuation of acquired intangible assets, did not have a material impact on the financial statements as of, and for the three and nine months ended, September 30, 2022. The following table summarizes the fair value of assets acquired and liabilities assumed as of the acquisition date:

(in millions)	
Purchase price, inclusive of closing adjustments	\$ 43.1
Total consideration	43.1
Accounts receivable	3.0
Inventories	4.0
Prepaid expenses and other current assets	0.2
Properties and equipment	1.3
Operating lease right-of-use assets	3.0
Customer relationships ^(a)	16.8
Trade names ^(b)	7.8
Operating lease liabilities	(3.0)
Accounts payable	(1.8)
Accrued liabilities	(0.7)
Customer deposits	(2.9)
Net assets acquired	27.7
Goodwill ^(c)	\$ 15.4

- (a) Represents the fair value assigned to customer relationships, which are considered to be definite-lived intangible assets, with an estimated useful life of 12 years.
- (b) Represents the fair value assigned to trade names, which are considered to be indefinite-lived intangible assets.
- (c) Goodwill, which is tax-deductible, has been allocated to the Environmental Solutions Group on the basis that the synergies identified will primarily benefit this segment.

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS — (CONTINUED)
(Unaudited)

NOTE 3 – REVENUE RECOGNITION

The following table presents the Company’s Net sales disaggregated by geographic region, based on the location of the end customer, and by major product line:

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Geographic Region:				
U.S.	\$ 275.9	\$ 233.3	\$ 840.1	\$ 692.5
Canada	44.9	44.9	131.2	151.6
Europe/Other	25.6	20.1	72.0	67.7
Total net sales	\$ 346.4	\$ 298.3	\$ 1,043.3	\$ 911.8
Major Product Line:				
<i>Environmental Solutions</i>				
Vehicles and equipment ^(a)	\$ 214.8	\$ 185.5	\$ 668.0	\$ 578.2
Parts	44.1	37.5	130.0	112.7
Rental income ^(b)	14.4	11.9	40.2	32.6
Other ^(c)	11.5	14.2	27.1	35.0
Total	284.8	249.1	865.3	758.5
<i>Safety and Security Systems</i>				
Public safety and security equipment	36.3	30.2	109.9	93.6
Industrial signaling equipment	16.7	12.2	46.0	39.9
Warning systems	8.6	6.8	22.1	19.8
Total	61.6	49.2	178.0	153.3
Total net sales	\$ 346.4	\$ 298.3	\$ 1,043.3	\$ 911.8

(a) Includes net sales from the sale of new and used vehicles and equipment, including sales of rental equipment.

(b) Represents income from vehicle and equipment lease arrangements with customers.

(c) Primarily includes revenues from services, such as maintenance and repair work, and the sale of extended warranty contracts.

Contract Balances

The Company recognizes contract liabilities when cash payments, such as customer deposits, are received in advance of the Company’s satisfaction of the related performance obligations. Contract liabilities are recognized as Net sales when the related performance obligations are satisfied, which generally occurs within three to six months of the cash receipt. Contract liability balances are not materially impacted by any other factors. The Company’s contract liabilities were \$26.6 million and \$25.3 million as of September 30, 2022 and December 31, 2021, respectively. Contract assets, such as unbilled receivables, were not material as of any of the periods presented herein.

NOTE 4 – INVENTORIES

The following table summarizes the components of Inventories:

(in millions)	September 30, 2022	December 31, 2021
Finished goods	\$ 97.3	\$ 87.9
Raw materials	152.8	116.4
Work in process	37.4	24.8
Total inventories	\$ 287.5	\$ 229.1

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS — (CONTINUED)
(Unaudited)

NOTE 5 – DEBT

The following table summarizes the components of Long-term borrowings and finance lease obligations:

(in millions)	September 30, 2022	December 31, 2021
2019 Credit Agreement ^(a)	\$ 329.5	\$ 280.7
Finance lease obligations	2.0	2.1
Total long-term borrowings and finance lease obligations, including current portion	331.5	282.8
Less: Current finance lease obligations	0.7	0.6
Total long-term borrowings and finance lease obligations	<u>\$ 330.8</u>	<u>\$ 282.2</u>

(a) Defined as the Second Amended and Restated Credit Agreement, dated July 30, 2019, as amended.

As more fully described within Note 12 – Fair Value Measurements, the Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. The fair value of long-term debt is based on interest rates that we believe are currently available to us for issuance of debt with similar terms and remaining maturities (Level 2 input).

The following table summarizes the carrying amounts and estimated fair values of the Company’s long-term borrowings:

(in millions)	September 30, 2022		December 31, 2021	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Long-term borrowings ^(a)	\$ 331.5	\$ 331.5	\$ 282.8	\$ 282.8

(a) Long-term borrowings includes current finance lease obligations of \$0.7 million and \$0.6 million as of September 30, 2022 and December 31, 2021, respectively.

Borrowings under the 2019 Credit Agreement bore interest, at the Company’s option, at a base rate or a Eurocurrency or Sterling Overnight Index Average (“SONIA”) daily rate (as each is defined in the 2019 Credit Agreement), plus, in each case, an applicable margin. The applicable margin ranged from zero to 0.75% for base rate borrowings and 1.00% to 1.75% for Eurocurrency or SONIA daily rate borrowings. The Company also paid a commitment fee to the lenders ranging between 0.10% to 0.25% per annum on the unused portion of the \$500 million revolving credit facility along with other standard fees. Letter of credit fees were payable on outstanding letters of credit in an amount equal to the applicable Eurocurrency or SONIA daily rate margin plus other customary fees.

The Company was subject to certain net leverage ratio and interest coverage ratio financial covenants under the 2019 Credit Agreement that were measured at each fiscal quarter-end. The Company was in compliance with all such covenants as of September 30, 2022.

As of September 30, 2022, there was \$329.5 million of cash drawn and \$10.3 million of undrawn letters of credit under the 2019 Credit Agreement, with \$160.2 million of net availability for borrowings. As of December 31, 2021, there was \$280.7 million cash drawn and \$10.1 million of undrawn letters of credit under the 2019 Credit Agreement, with \$209.2 million of net availability for borrowings.

The following table summarizes the gross borrowings and gross payments under the Company’s revolving credit facilities:

(in millions)	Nine Months Ended September 30,	
	2022	2021
Gross borrowings	\$ 85.7	\$ 161.0
Gross payments	35.8	120.9

On October 21, 2022, the Company entered into the Third Amended and Restated Credit Agreement (the “2022 Credit Agreement”), by and among the Company and certain of its foreign subsidiaries (collectively, the “Borrowers”), Wells Fargo Bank, National Association, as administrative agent, swingline lender and issuing lender, PNC Bank, National Association and Truist Bank as syndication agents, and the other lenders and parties signatory thereto. The 2022 Credit Agreement amends and restates the 2019 Credit Agreement. See Note 13 – Subsequent Events for additional information.

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Interest Rate Swap

On October 2, 2019, the Company entered into an interest rate swap (the “2019 Swap”) with a notional amount of \$75.0 million, as a means of fixing the floating interest rate component on \$75.0 million of its variable-rate debt. The 2019 Swap was previously designated as a cash flow hedge, with an original maturity date of July 30, 2024.

As a result of the application of hedge accounting treatment, all unrealized gains and losses related to the derivative instrument are recorded in Accumulated other comprehensive loss and are reclassified into operations in the same period in which the hedged transaction affects earnings. Hedge effectiveness is assessed quarterly. The Company does not use derivative instruments for trading or speculative purposes.

The fair value of the Company’s interest rate swaps is derived from a discounted cash flow analysis based on the terms of the contract and the interest rate curve (Level 2 inputs) and measured on a recurring basis in our Condensed Consolidated Balance Sheets.

At September 30, 2022, the fair value of the 2019 Swap was an asset of \$4.0 million, which was included in Other long-term assets on the Condensed Consolidated Balance Sheet. At December 31, 2021, the fair value of the Swap was a liability of \$0.7 million, which was included in Other long-term liabilities on the Condensed Consolidated Balance Sheet. During the three and nine months ended September 30, 2022, unrealized pre-tax gains of \$1.6 million and \$4.7 million, respectively, were recorded in Accumulated other comprehensive loss. During the three and nine months ended September 30, 2021, unrealized pre-tax gains of \$0.1 million and \$1.2 million, respectively, were recorded in Accumulated other comprehensive loss. No ineffectiveness was recorded in either period.

In connection with entering into the 2022 Credit Agreement in October 2022, the Company terminated the 2019 Swap and entered into a new interest rate swap. See Note 13 – Subsequent Events for additional information.

NOTE 6 – INCOME TAXES

The Company recognized income tax expense of \$4.9 million and \$4.3 million for the three months ended September 30, 2022 and 2021, respectively. During the three months ended September 30, 2022, the Company recognized a \$2.7 million tax benefit from the release of a valuation allowance that had previously been recorded against deferred tax assets associated with foreign tax credits in the U.S., which are now considered more-likely-than-not to be realized, primarily due to tax planning strategies. The Company also recognized a \$1.1 million tax benefit during the three months ended September 30, 2022 associated with the release of a valuation allowance in the U.K., as the associated deferred tax assets are now considered more-likely-than-not to be realized primarily due to increased projections of future taxable income. During the three months ended September 30, 2021, the Company recognized a \$3.4 million tax benefit associated with the release of state valuation allowances and a \$1.1 million tax benefit associated with the remeasurement of deferred taxes for changes in state tax apportionment, both of which resulted from a change in tax status during the quarter. Including these items, the Company’s effective tax rate for the three months ended September 30, 2022 was 13.4%, compared to 12.8% in the prior-year quarter.

For the nine months ended September 30, 2022 and 2021, the Company recognized income tax expense of \$23.1 million and \$17.3 million, respectively. The increase in tax expense in the current-year period was largely due to higher pre-tax income levels and a \$3.2 million reduction in the amount of excess tax benefits from stock compensation activity compared to the prior-year period. Including these items, the Company’s effective tax rate for the nine months ended September 30, 2022 was 21.2%, compared to 17.6% in the prior-year period.

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NOTE 7 – PENSIONS

The following table summarizes the components of Net periodic pension expense (benefit):

(in millions)	U.S. Benefit Plan				Non-U.S. Benefit Plan			
	Three Months Ended September 30,		Nine Months Ended September 30,		Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021	2022	2021	2022	2021
Service cost	\$ —	\$ —	\$ —	\$ —	\$ 0.1	\$ —	\$ 0.1	\$ 0.1
Interest cost	1.2	1.2	3.3	3.6	0.2	0.2	0.6	0.5
Amortization of actuarial loss	0.6	1.0	1.7	2.9	0.2	0.2	0.5	0.6
Amortization of prior service cost	—	—	—	—	—	0.1	0.1	0.2
Expected return on plan assets	(1.7)	(2.4)	(5.2)	(7.2)	(0.5)	(0.5)	(1.5)	(1.5)
Net periodic pension expense (benefit)	\$ 0.1	\$ (0.2)	\$ (0.2)	\$ (0.7)	\$ —	\$ —	\$ (0.2)	\$ (0.1)

The items that comprise Net periodic pension expense (benefit), other than service cost, are included as a component of Other expense (income), net on the Condensed Consolidated Statements of Operations.

NOTE 8 – COMMITMENTS AND CONTINGENCIES

Financial Commitments

The Company provides indemnifications and other guarantees in the ordinary course of business, the terms of which range in duration and often are not explicitly defined. Specifically, the Company is occasionally required to provide letters of credit and bid and performance bonds to various customers, principally to act as security for retention levels related to casualty insurance policies and to guarantee the performance of subsidiaries that engage in export and domestic transactions. At September 30, 2022, the Company had outstanding performance and financial standby letters of credit, as well as outstanding bid and performance bonds, aggregating to \$36.5 million. If any such letters of credit or bonds are called, the Company would be obligated to reimburse the issuer of the letter of credit or bond. The Company believes the likelihood of any currently outstanding letter of credit or bond being called is remote.

The Company has transactions involving the sale of equipment to certain of its customers which include (i) guarantees to repurchase the equipment for a fixed price at a future date and (ii) guarantees to repurchase the equipment from the third-party lender in the event of default by the customer. As of September 30, 2022, both the single year and maximum potential cash payments the Company could be required to make to repurchase equipment under these agreements amounted to \$2.3 million. The Company's risk under these repurchase arrangements would be partially mitigated by the value of the products repurchased as part of the transaction. Historical cash requirements and losses associated with these obligations have not been significant but could increase if customer defaults exceed current expectations.

The Company has certain lease agreements for facilities owned by affiliates which include provisions requiring the Company to guarantee any remaining lease payments in the event of default. As of September 30, 2022, the total amount of future payments guaranteed under these agreements was approximately \$1.3 million. The Company believes the likelihood of defaulting on these leases is remote.

Product Warranties

The Company issues product performance warranties to customers with the sale of its products. The specific terms and conditions of these warranties vary depending upon the product sold and country in which the Company does business, with warranty periods generally ranging from one to five years. The Company estimates the costs that may be incurred under its basic limited warranty and records a liability in the amount of such costs at the time the sale of the related product is recognized. Factors that affect the Company's warranty liability include (i) the number of units under warranty, (ii) historical and anticipated rates of warranty claims and (iii) costs per claim. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary.

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The following table summarizes the changes in the Company’s warranty liabilities during the nine months ended September 30, 2022 and 2021:

(in millions)	2022	2021
Balance at January 1	\$ 9.7	\$ 10.2
Provisions to expense	5.3	5.2
Acquisitions	—	0.2
Payments	(5.9)	(6.3)
Balance at September 30	<u>\$ 9.1</u>	<u>\$ 9.3</u>

Legal Proceedings

The Company is subject to various claims, including pending and possible legal actions for product liability and other damages, and other matters arising in the ordinary course of the Company’s business. On a quarterly basis, the Company reviews uninsured material legal claims against the Company and accrues for the costs of such claims as appropriate in the exercise of management’s best judgment and experience. However, due to a lack of factual information available to the Company about a claim, or the procedural stage of a claim, it may not be possible for the Company to reasonably assess either the probability of a favorable or unfavorable outcome of the claim or to reasonably estimate the amount of loss should there be an unfavorable outcome. Therefore, for many claims, the Company cannot reasonably estimate a range of loss.

The Company believes, based on current knowledge and after consultation with counsel, that the outcome of such claims and actions will not have a material adverse effect on the Company’s results of operations or financial condition. However, in the event of unexpected future developments, it is possible that the ultimate resolution of such matters, if unfavorable, could have a material adverse effect on the Company’s results of operations, financial condition or cash flow.

Hearing Loss Litigation

The Company has been sued for monetary damages by firefighters who claim that exposure to the Company’s sirens has impaired their hearing and that the sirens are therefore defective. There were 33 cases filed during the period of 1999 through 2004, involving a total of 2,443 plaintiffs, in the Circuit Court of Cook County, Illinois. These cases involved more than 1,800 firefighter plaintiffs from locations outside of Chicago. In 2009, six additional cases were filed in Cook County, involving 299 Pennsylvania firefighter plaintiffs. During 2013, another case was filed in Cook County involving 74 Pennsylvania firefighter plaintiffs.

The trial of the first 27 of these plaintiffs’ claims occurred in 2008, whereby a Cook County jury returned a unanimous verdict in favor of the Company.

An additional 40 Chicago firefighter plaintiffs were selected for trial in 2009. Plaintiffs’ counsel later moved to reduce the number of plaintiffs from 40 to nine. The trial for these nine plaintiffs concluded with a verdict against the Company and for the plaintiffs in varying amounts totaling \$0.4 million. The Company appealed this verdict. On September 13, 2012, the Illinois Appellate Court rejected this appeal. The Company thereafter filed a petition for rehearing with the Illinois Appellate Court, which was denied on February 7, 2013. The Company sought further review by filing a petition for leave to appeal with the Illinois Supreme Court on March 14, 2013. On May 29, 2013, the Illinois Supreme Court issued a summary order declining to accept review of this case. On July 1, 2013, the Company satisfied the judgments entered for these plaintiffs, which resulted in final dismissal of these cases.

A third consolidated trial involving eight Chicago firefighter plaintiffs occurred during November 2011. The jury returned a unanimous verdict in favor of the Company at the conclusion of this trial.

Following this trial, on March 12, 2012 the trial court entered an order certifying a class of the remaining Chicago Fire Department firefighter plaintiffs for trial on the sole issue of whether the Company’s sirens were defective and unreasonably dangerous. The Company petitioned the Illinois Appellate Court for interlocutory appeal of this ruling. On May 17, 2012, the Illinois Appellate Court accepted the Company’s petition. On June 8, 2012, plaintiffs moved to dismiss the appeal, agreeing with the Company that the trial court had erred in certifying a class action trial in this matter. Pursuant to plaintiffs’ motion, the Illinois Appellate Court reversed the trial court’s certification order.

Thereafter, the trial court scheduled a fourth consolidated trial involving three firefighter plaintiffs, which began in December

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2012. Prior to the start of this trial, the claims of two of the three firefighter plaintiffs were dismissed. On December 17, 2012, the jury entered a complete defense verdict for the Company.

Following this defense verdict, plaintiffs again moved to certify a class of Chicago Fire Department plaintiffs for trial on the sole issue of whether the Company's sirens were defective and unreasonably dangerous. Over the Company's objection, the trial court granted plaintiffs' motion for class certification on March 11, 2013 and scheduled a class action trial to begin on June 10, 2013. The Company filed a petition for review with the Illinois Appellate Court on March 29, 2013 seeking reversal of the class certification order.

On June 25, 2014, a unanimous three-judge panel of the First District Illinois Appellate Court issued its opinion reversing the class certification order of the trial court. Specifically, the Appellate Court determined that the trial court's ruling failed to satisfy the class-action requirements that the common issues of the firefighters' claims predominate over the individual issues and that there is an adequate representative for the class. During a status hearing on October 8, 2014, plaintiffs represented to the Court that they would again seek to certify a class of firefighters on the issue of whether the Company's sirens were defective and unreasonably dangerous. On January 12, 2015, plaintiffs filed motions to amend their complaints to add class action allegations with respect to Chicago firefighter plaintiffs, as well as the approximately 1,800 firefighter plaintiffs from locations outside of Chicago. On March 11, 2015, the trial court granted plaintiffs' motions to amend their complaints. On April 24, 2015, the cases were transferred to Cook County chancery court to decide the class certification issues. On March 23, 2018, plaintiffs filed a motion to certify as a class all firefighters from the Chicago Fire Department who have filed lawsuits in this matter. The Company objected to certification and the parties engaged in discovery and other matters related to this motion.

Thereafter, on December 20, 2021, the parties executed a settlement agreement to resolve claims of approximately 462 firefighters still involved in the Cook County litigation, as well as the DuPage County litigation discussed below. Under the terms of the settlement agreement, the Company agreed to pay a lump sum of \$0.2 million to resolve the claims of these firefighters. The estimated settlement amount was accrued by the Company. The Company agreed to pay this lump sum amount based upon its assessment of firefighters who meet minimal bilateral hearing loss standards, which is a subset of the larger group referenced above. The settlement agreement did not require the payment of any attorney fees by the Company. The settlement agreement also provided that plaintiffs' attorney would withdraw from representing firefighters who do not agree to the settlement. The Company had discretion to void the settlement agreement if less than 93% of these firefighters agreed to settle their claims; the settlement agreement would also be voided if less than 70% of eligible firefighters agreed to the settlement. The settlement agreement was subject to review and approval by the Court. In July 2022, the Company issued the \$0.2 million settlement payment for eligible plaintiffs who submitted a release. The claims of all other eligible plaintiffs were dismissed for want of prosecution on August 5, 2022. Those plaintiffs may refile their claims by August 5, 2023.

The Company also filed motions to dismiss cases involving firefighters who worked for fire departments located outside of the State of Illinois based on improper venue. On February 24, 2017, the Circuit Court of Cook County entered orders dismissing the cases of 1,770 such firefighter plaintiffs from the jurisdiction of the State of Illinois. Pursuant to these orders, these plaintiffs had six months thereafter to refile their cases in jurisdictions where these firefighters are located. Prior to this six-month deadline, attorneys representing some of these plaintiffs contacted the Company regarding possible settlement of their cases. During the year ended December 31, 2017, the Company entered into a global settlement agreement with two attorneys who represented approximately 1,090 of these plaintiffs. Under the terms of the settlement agreement, the Company offered \$700 per plaintiff to settle these cases and 717 plaintiffs accepted this offer as a final settlement. The settlement agreement did not require the payment of any attorney fees by the Company. The attorneys representing these plaintiffs agreed to withdraw from representing plaintiffs who did not respond to the settlement offer. It is the Company's position that the non-settling plaintiffs who failed to timely refile their cases following the February 2017 dismissal by the Circuit Court of Cook County are now barred from doing so by the statute of limitations. The Company filed a venue motion seeking to transfer to DuPage County cases involving 10 plaintiffs who reside and work in Illinois but outside of Cook County. The Court granted this motion on June 28, 2017.

The Company was also sued on this issue outside of the Cook County, Illinois venue. Between 2007 and 2009, a total of 71 lawsuits involving 71 plaintiffs were filed in the Court of Common Pleas, Philadelphia County, Pennsylvania. Three of these cases were dismissed pursuant to pretrial motions filed by the Company. Another case was voluntarily dismissed. Prior to trial in four cases, the Company paid nominal sums to obtain dismissals.

Three trials occurred in Philadelphia involving these cases filed in 2007 through 2009. The first trial involving one of these plaintiffs occurred in 2010, when the jury returned a verdict for the plaintiff. The jury found that the Company's siren was not defectively designed, but that the Company negligently constructed the siren. The jury awarded damages in the amount of less

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than \$0.1 million. The Company appealed this verdict. Another trial, involving nine Philadelphia firefighter plaintiffs, also occurred in 2010 when the jury returned a defense verdict for the Company as to all claims and all plaintiffs involved in that trial. The third trial, also involving nine Philadelphia firefighter plaintiffs, was completed during 2010 when the jury returned a defense verdict for the Company as to all claims and all plaintiffs involved in that trial.

Following defense verdicts in the last two Philadelphia trials, the Company negotiated settlements with respect to all remaining filed cases in Philadelphia at that time, as well as other firefighter claimants represented by the attorney who filed the Philadelphia cases. On January 4, 2011, the Company entered into a Global Settlement Agreement (the “Settlement Agreement”) with the law firm of the attorney representing the Philadelphia claimants, on behalf of 1,125 claimants the firm represented (the “Claimants”) and who had asserted product claims against the Company (the “Claims”). Three hundred eight of the Claimants had lawsuits pending against the Company in Cook County, Illinois.

The Settlement Agreement provided that the Company pay a total amount of \$3.8 million (the “Settlement Payment”) to settle the Claims (including the costs, fees and other expenses of the law firm in connection with its representation of the Claimants), subject to certain terms, conditions and procedures set forth in the Settlement Agreement. In order for the Company to be required to make the Settlement Payment: (i) each Claimant who agreed to settle his or her claims had to sign a release acceptable to the Company (a “Release”), (ii) each Claimant who agreed to the settlement and who was a plaintiff in a lawsuit, had to dismiss his or her lawsuit with prejudice, (iii) by April 29, 2011, at least 93% of the Claimants identified in the Settlement Agreement must have agreed to settle their claims and provide a signed Release to the Company and (iv) the law firm had to withdraw from representing any Claimants who did not agree to the settlement, including those who filed lawsuits. If the conditions to the settlement were met, but less than 100% of the Claimants agreed to settle their Claims and sign a Release, the Settlement Payment would be reduced by the percentage of Claimants who did not agree to the settlement.

On April 22, 2011, the Company confirmed that the terms and conditions of the Settlement Agreement had been met and made a payment of \$3.6 million to conclude the settlement. The amount was based upon the Company’s receipt of 1,069 signed releases provided by Claimants, which was 95% of all Claimants identified in the Settlement Agreement.

The Company generally denies the allegations made in the claims and lawsuits by the Claimants and denies that its products caused any injuries to the Claimants. Nonetheless, the Company entered into the Settlement Agreement for the purpose of minimizing its expenses, including legal fees, and avoiding the inconvenience, uncertainty and distraction of the claims and lawsuits.

During April through October 2012, 20 new cases were filed in the Court of Common Pleas, Philadelphia County, Pennsylvania. These cases were filed on behalf of 20 Philadelphia firefighters and involved various defendants in addition to the Company. Five of these cases were subsequently dismissed. The first trial involving these 2012 Philadelphia cases occurred during December 2014 and involved three firefighter plaintiffs. The jury returned a verdict in favor of the Company. Following this trial, all of the parties agreed to settle cases involving seven firefighter plaintiffs set for trial during January 2015 for nominal amounts per plaintiff.

In January 2015, plaintiffs’ attorneys filed two new complaints in the Court of Common Pleas, Philadelphia, Pennsylvania on behalf of approximately 70 additional firefighter plaintiffs. The vast majority of the firefighters identified in these complaints were located outside of Pennsylvania. One of the complaints in these cases, which involved 11 firefighter plaintiffs from the District of Columbia, was removed to federal court in the Eastern District of Pennsylvania. Plaintiffs voluntarily dismissed all claims in this case on May 31, 2016. The Company thereafter moved to recover various fees and costs in this case, asserting that plaintiffs’ counsel failed to properly investigate these claims prior to filing suit. The Court granted this motion on April 25, 2017, awarding \$0.1 million to the Company (the “Order”). After plaintiffs appealed this Order, the United States Court of Appeals for the Third Circuit affirmed the lower court decision awarding fees and costs to the Company.

With respect to claims of other out-of-state firefighters involved in these two cases, the Company moved to dismiss these claims as improperly filed in Pennsylvania. The Court granted this motion and dismissed these claims on November 5, 2015. During August through December 2015, another nine new cases were filed in the Court of Common Pleas, Philadelphia County, Pennsylvania. These cases involved a total of 193 firefighters, most of whom were located outside of Pennsylvania. The Company again moved to dismiss all claims filed by out-of-state firefighters in these cases as improperly filed in Pennsylvania. On May 24, 2016, the Court granted this motion and dismissed these claims. Plaintiffs appealed this decision and, on September 25, 2018, the appellate court reversed this dismissal. The Company then filed a petition with the appellate court requesting that the court reconsider its ruling. On December 7, 2018, the appellate court granted the Company’s petition

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and withdrew its prior decision. On June 25, 2020, the Court issued a decision affirming the trial court's dismissal of these cases with prejudice.

On May 13, 2016, four new cases were filed in Philadelphia state court, involving a total of 55 Philadelphia firefighters who live in Pennsylvania. During August 2016, the Company settled a case for nominal amounts involving four Philadelphia firefighters that had been set for trial in Philadelphia state court during September 2016. During 2017, plaintiffs filed additional cases in the Court of Common Pleas, Philadelphia County, involving over 100 Philadelphia firefighter plaintiffs. During January 2017, plaintiffs filed a motion to consolidate and bifurcate, similar to a motion filed in the Pittsburgh hearing loss cases, as described below. The Company filed an opposition to this motion. These cases were then transferred to the mass tort program in Philadelphia for pretrial purposes. Plaintiffs' counsel thereafter dismissed several plaintiffs. During November 2017, a trial involving one Philadelphia firefighter occurred. The jury returned a verdict in favor of the Company in this trial. Prior to a dismissal of these cases pursuant to the Tolling Agreement, discussed below, there was a total of 75 firefighters involved in cases pending in the Philadelphia mass tort program.

During March 2014, an action also was brought in the Court of Common Pleas of Erie County, Pennsylvania on behalf of 61 firefighters. This case likewise involves various defendants in addition to the Company. After the Company filed pretrial motions, 33 Erie County firefighter plaintiffs voluntarily dismissed their claims. Prior to a dismissal of these cases pursuant to the Tolling Agreement, discussed below, there was a total of 28 firefighters involved in cases filed in Erie County.

During August 2017, five cases involving 70 firefighter plaintiffs were filed in Lackawanna County, Pennsylvania. These cases involve firefighter plaintiffs who originally filed in Cook County several years ago and were dismissed pursuant to the Company's forum nonconveniens motion.

On September 17, 2014, 20 lawsuits, involving a total of 193 Buffalo Fire Department firefighters, were filed in the Supreme Court of the State of New York, Erie County. All of the cases filed in Erie County, New York were removed to federal court in the Western District of New York. Plaintiffs filed a motion to consolidate and bifurcate these cases, similar to the motion filed in the Pittsburgh hearing loss cases, as described below. The Company filed an opposition to the motion. During February 2015, a lawsuit involving one New York City firefighter plaintiff was filed in the Supreme Court of the State of New York, New York County. The plaintiff named the Company as well as several other parties as defendants. That case subsequently was transferred to federal court in the Northern District of New York and thereafter dismissed. During April 2015 through January 2016, 29 new cases involving a total of 235 firefighters were filed in various counties in the New York City area. During December 2016 through October 2017, additional cases were filed in these jurisdictions. On February 5, 2018, the Company was served with a complaint in an additional case filed in Kings County, New York. This case involved one plaintiff. Prior to a dismissal of these cases pursuant to the Tolling Agreement, discussed below, there was a total of 536 firefighters involved in cases filed in the State of New York.

During November 2015, the Company was served with a complaint filed in Union County, New Jersey state court, involving 34 New Jersey firefighters. This case was transferred to federal court in the District of New Jersey. During the period from January through May 2016, eight additional cases were filed in various New Jersey state courts. Most of the firefighters in these cases resided in New Jersey and worked at New Jersey fire departments. During December 2016, a case involving one New Jersey firefighter was filed in the United States District Court of New Jersey. On May 2, 2017, plaintiffs filed a motion to consolidate and bifurcate in the pending federal court case in New Jersey. This motion was similar to bifurcation motions filed by plaintiffs in Pittsburgh, Buffalo and Philadelphia. The Court denied the motion as premature. Pursuant to a petition filed by both parties, all New Jersey state court cases were consolidated for pretrial purposes. Prior to a dismissal of these cases pursuant to the Tolling Agreement, discussed below, there was a total of 61 firefighters involved in cases filed in New Jersey.

During May through October 2016, nine cases were filed in Suffolk County, Massachusetts state court, naming the Company as a defendant. These cases involved 194 firefighters who lived and worked in the Boston area. During August 2017, plaintiffs filed additional cases in Suffolk County court. The Company moved to transfer various cases filed in Suffolk County to other counties in Massachusetts where plaintiffs resided and worked. Prior to a dismissal of these cases pursuant to the Tolling Agreement, discussed below, there was a total of 218 firefighters involved in cases filed in Massachusetts.

During August and September 2017, plaintiffs' attorneys filed additional hearing loss cases in Florida. The Company was the only named defendant. These cases were filed in several different counties in Florida, including Tampa, Miami and Orlando municipalities. Prior to a dismissal of these cases pursuant to the Tolling Agreement, discussed below, there was a total of 166 firefighters involved in cases filed in Florida.

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During April through July 2013, additional cases were filed in Allegheny County, Pennsylvania on behalf of 247 plaintiff firefighters from Pittsburgh and against various defendants, including the Company. During May 2016, two additional cases were filed against the Company in Allegheny County involving 19 Pittsburgh firefighters. After the Company filed pretrial motions, the Court dismissed claims of 55 Pittsburgh firefighter plaintiffs. The Court scheduled trials for May, September and November 2016, for eight firefighters per trial. Prior to the first scheduled trial in Pittsburgh, the Court granted the Company's motion for summary judgment and dismissed all claims asserted by plaintiff firefighters involved in this trial. Following an appeal by the plaintiff firefighters, the appellate court affirmed this dismissal. The next trial for six Pittsburgh firefighters started on November 7, 2016. Shortly after this trial began, plaintiffs' counsel moved for a mistrial because a key witness suddenly became unavailable. The Court granted this motion and rescheduled this trial for March 6, 2017. During January 2017, plaintiffs also moved to consolidate and bifurcate trials involving Pittsburgh firefighters. In particular, plaintiffs sought one trial involving liability issues to apply to all Pittsburgh firefighters who filed suit against the Company. The Company filed an opposition to this motion. On April 18, 2017, the trial court granted plaintiffs' motion to bifurcate the next Pittsburgh trial. Pursuant to a motion for clarification filed by the Company, the Court ruled that the bifurcation order would only apply to six plaintiffs who were part of the next trial group in Pittsburgh. The Company thereafter sought an interlocutory appeal of the Court's bifurcation order. The appellate court declined to accept the appeal at that time. A bifurcated trial began on September 27, 2017 in Allegheny County, Pennsylvania. Prior to and during trial, two plaintiffs were dismissed, resulting in four plaintiffs remaining for trial. After approximately two weeks of trial, the jury found that the Company's siren product was not defective or unreasonably dangerous and rendered a verdict in favor of the Company.

A second trial involving Pittsburgh firefighters began during January 2018. At the outset of this trial, plaintiffs' attorneys, who represent all firefighters who have filed cases in Allegheny County, Philadelphia, Buffalo, New Jersey, Massachusetts, and Florida, as described above, requested that the Company consider settlement of various cases. This trial was continued to allow the parties to further discuss possible settlement. During March 2018, the parties agreed in principle on a framework (the "Settlement Framework") to resolve hearing loss claims and cases in all jurisdictions involved in the hearing loss litigation except in Cook County and Lackawanna County, and excluding one case involving one firefighter in New York City. The firefighters excluded from the Settlement Framework are represented by different attorneys. The Company settled the cases in Lackawanna County and settled the case involving one firefighter in New York City for nominal amounts. Pursuant to the Settlement Framework, the Company would pay \$700 to each firefighter who filed a lawsuit and is eligible to be part of the settlement. The Company would pay \$300 to each firefighter who has not yet filed a case and is eligible to be part of the settlement. The settlement agreement does not include the payment of any attorney fees by the Company. To be eligible for settlement, among other things, firefighters must provide proof that they have high frequency noise-induced hearing loss. There are approximately 3,700 firefighters whose claims may be considered as part of this settlement, including approximately 1,320 firefighters who have ongoing filed lawsuits. This Settlement Framework was finalized in a global settlement agreement executed on November 4, 2019. Pursuant to this global settlement agreement, the parties are now in the process of determining how many of the approximately 3,700 firefighters will be eligible to participate in the settlement. In order to minimize the parties' respective legal costs and expenses during this settlement process, on July 5, 2018, the parties entered into a tolling agreement (the "Tolling Agreement"). Pursuant to the Tolling Agreement, counsel for the settling firefighters agreed to dismiss the pending lawsuits in all jurisdictions except for the Allegheny County (Pittsburgh), Pennsylvania cases, and the Company agreed to a tolling of any statute of limitations applicable to the dismissed cases. The Tolling Agreement continued in place until the parties executed the global settlement agreement on November 4, 2019. After execution of the global settlement agreement, the Allegheny County (Pittsburgh) cases were dismissed. The global settlement agreement requires plaintiffs' attorneys to withdraw from representing firefighters who elect not to participate in this settlement.

As of September 30, 2022, the Company has recognized an estimated liability for the potential settlement amount under the Settlement Framework. While it is reasonably possible that the ultimate resolution of this matter may result in a loss in excess of the amount accrued, the incremental loss is not expected to be material.

From 2007 through 2009, firefighters also brought hearing loss claims against the Company in New Jersey, Missouri, Maryland and Kings County, New York. All of those cases, however, were dismissed prior to trial, including four cases in the Supreme Court of Kings County, New York that were dismissed upon the Company's motion in 2008. On appeal, the New York appellate court affirmed the trial court's dismissal of these cases.

NOTE 9 – EARNINGS PER SHARE

The Company computes earnings per share ("EPS") in accordance with Accounting Standards Codification ("ASC") 260, *Earnings per Share*, which requires that non-vested restricted stock containing non-forfeitable dividend rights should be treated

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as participating securities pursuant to the two-class method. Under the two-class method, net income is reduced by the amount of dividends declared in the period for common stock and participating securities. The remaining undistributed earnings are then allocated to common stock and participating securities as if all of the net income for the period had been distributed. The amounts of distributed and undistributed earnings allocated to participating securities for the three and nine months ended September 30, 2022 and 2021 were insignificant and did not materially impact the calculation of basic or diluted EPS.

Basic EPS is computed by dividing income available to common stockholders by the weighted average number of shares of common stock and non-vested restricted stock awards outstanding for the period.

Diluted EPS is computed using the weighted average number of shares of common stock and non-vested restricted stock awards outstanding for the year, plus the effect of dilutive potential common shares outstanding during the period. The dilutive effect of common stock equivalents is determined using the more dilutive of the two-class method or alternative methods. The Company uses the treasury stock method to determine the potentially dilutive impact of our employee stock options and restricted stock units, and the contingently issuable method for our performance-based restricted stock unit awards.

For both the three and nine months ended September 30, 2022, options to purchase 0.3 million shares of the Company’s common stock had an anti-dilutive effect on EPS, and accordingly, were excluded from the calculation of diluted EPS. For both the three and nine months ended September 30, 2021, options to purchase 0.2 million shares of the Company’s common stock had an anti-dilutive effect on EPS, and accordingly, were excluded from the calculation of diluted EPS.

The following table reconciles Net income to basic and diluted EPS:

(in millions, except per share data)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Net income	\$ 31.8	\$ 29.2	\$ 85.8	\$ 81.1
Weighted average shares outstanding – Basic	60.4	60.9	60.5	60.8
Dilutive effect of common stock equivalents	0.6	0.8	0.6	1.0
Weighted average shares outstanding – Diluted	61.0	61.7	61.1	61.8
Earnings per share:				
Basic	\$ 0.53	\$ 0.48	\$ 1.42	\$ 1.33
Diluted	0.52	0.47	1.40	1.31

NOTE 10 – STOCKHOLDERS’ EQUITY

Dividends

On February 18, 2022, the Company’s Board of Directors (the “Board”) declared a quarterly cash dividend of \$0.09 per common share. The dividend totaled \$5.5 million and was distributed on April 1, 2022 to stockholders of record at the close of business on March 18, 2022.

On April 26, 2022, the Board declared a quarterly cash dividend of \$0.09 per common share. The dividend totaled \$5.4 million and was distributed on June 3, 2022 to stockholders of record at the close of business on May 20, 2022.

On July 25, 2022, the Board declared a quarterly cash dividend of \$0.09 per common share. The dividend totaled \$5.5 million and was distributed on September 2, 2022 to stockholders of record at the close of business on August 19, 2022.

During the three and nine months ended September 30, 2021, dividends of \$5.5 million and \$16.5 million, respectively, were paid to stockholders.

On October 25, 2022, the Board declared a quarterly cash dividend of \$0.09 per common share payable on December 2, 2022 to stockholders of record at the close of business on November 18, 2022.

Stock Repurchase Program

In March 2020, the Board authorized a stock repurchase program of up to \$75.0 million of the Company’s common stock, with the remaining authorization under our previously described repurchase program adopted in 2014 being subject to the March 2020 program. The stock repurchase program is intended primarily to facilitate purchases of Company stock as a means to

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provide cash returns to stockholders, enhance stockholder returns and manage the Company’s capital structure. Under its stock repurchase program, the Company is authorized to repurchase, from time to time, shares of its outstanding common stock. Stock repurchases by the Company are subject to market conditions and other factors and may be commenced, suspended or discontinued at any time.

No shares were repurchased during the three months ended September 30, 2022. During the nine months ended September 30, 2022, the Company repurchased 472,381 shares for a total of \$16.1 million.

During the three and nine months ended September 30, 2021, the Company repurchased 82,754 and 87,754 shares for a total of \$3.2 million and \$3.4 million, respectively.

Accumulated Other Comprehensive Loss

The following tables summarize the changes in each component of Accumulated other comprehensive loss, net of tax in the three months ended September 30, 2022 and 2021:

(in millions) ^(a)	Actuarial Losses	Prior Service Costs	Foreign Currency Translation	Interest Rate Swaps	Total
Balance at July 1, 2022	\$ (65.1)	\$ (2.1)	\$ (13.6)	\$ 1.8	\$ (79.0)
Other comprehensive income (loss) before reclassifications	1.0	0.2	(11.9)	1.0	(9.7)
Amounts reclassified from accumulated other comprehensive loss	0.6	—	—	0.1	0.7
Net current-period other comprehensive income (loss) ..	1.6	0.2	(11.9)	1.1	(9.0)
Balance at September 30, 2022	<u>\$ (63.5)</u>	<u>\$ (1.9)</u>	<u>\$ (25.5)</u>	<u>\$ 2.9</u>	<u>\$ (88.0)</u>

(in millions) ^(a)	Actuarial Losses	Prior Service Costs	Foreign Currency Translation	Interest Rate Swaps	Total
Balance at July 1, 2021	\$ (86.6)	\$ (2.5)	\$ 2.1	\$ (1.4)	\$ (88.4)
Other comprehensive income (loss) before reclassifications	0.5	—	(4.2)	(0.1)	(3.8)
Amounts reclassified from accumulated other comprehensive loss	0.8	0.1	—	0.2	1.1
Net current-period other comprehensive income (loss) ..	1.3	0.1	(4.2)	0.1	(2.7)
Balance at September 30, 2021	<u>\$ (85.3)</u>	<u>\$ (2.4)</u>	<u>\$ (2.1)</u>	<u>\$ (1.3)</u>	<u>\$ (91.1)</u>

(a) Amounts in parentheses indicate losses.

The following tables summarize the changes in each component of Accumulated other comprehensive loss, net of tax in the nine months ended September 30, 2022 and 2021:

(in millions) ^(a)	Actuarial Losses	Prior Service Costs	Foreign Currency Translation	Interest Rate Swaps	Total
Balance at January 1, 2022	\$ (67.9)	\$ (2.4)	\$ (3.4)	\$ (0.5)	\$ (74.2)
Other comprehensive income (loss) before reclassifications	2.8	0.4	(22.1)	3.0	(15.9)
Amounts reclassified from accumulated other comprehensive loss	1.6	0.1	—	0.4	2.1
Net current-period other comprehensive income (loss) ..	4.4	0.5	(22.1)	3.4	(13.8)
Balance at September 30, 2022	<u>\$ (63.5)</u>	<u>\$ (1.9)</u>	<u>\$ (25.5)</u>	<u>\$ 2.9</u>	<u>\$ (88.0)</u>

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(in millions) ^(a)	Actuarial Losses	Prior Service Costs	Foreign Currency Translation	Interest Rate Swaps	Total
Balance at January 1, 2021	\$ (88.2)	\$ (2.6)	\$ 1.3	\$ (2.2)	\$ (91.7)
Other comprehensive income (loss) before reclassifications	0.4	—	(3.4)	0.3	(2.7)
Amounts reclassified from accumulated other comprehensive loss	2.5	0.2	—	0.6	3.3
Net current-period other comprehensive income (loss) ..	2.9	0.2	(3.4)	0.9	0.6
Balance at September 30, 2021	<u>\$ (85.3)</u>	<u>\$ (2.4)</u>	<u>\$ (2.1)</u>	<u>\$ (1.3)</u>	<u>\$ (91.1)</u>

(a) Amounts in parentheses indicate losses.

The following table summarizes the amounts reclassified from Accumulated other comprehensive loss, net of tax, in the three months ended September 30, 2022 and 2021 and the affected line item in the Condensed Consolidated Statements of Operations:

Details about Accumulated Other Comprehensive Loss Components	Amount Reclassified from Accumulated Other Comprehensive Loss		Affected Line Item in Condensed Consolidated Statements of Operations
	2022	2021	
(in millions) ^(a)			
Amortization of actuarial losses of defined benefit pension plans	\$ (0.8)	\$ (1.2)	Other expense (income), net
Amortization of prior service costs of defined benefit pension plans ..	—	(0.1)	Other expense (income), net
Interest rate swaps	(0.2)	(0.2)	Interest expense
Total before tax	(1.0)	(1.5)	
Income tax benefit	0.3	0.4	Income tax expense
Total reclassifications for the period, net of tax	<u>\$ (0.7)</u>	<u>\$ (1.1)</u>	

(a) Amounts in parentheses indicate losses.

The following table summarizes the amounts reclassified from Accumulated other comprehensive loss, net of tax, in the nine months ended September 30, 2022 and 2021 and the affected line item in the Condensed Consolidated Statements of Operations:

Details about Accumulated Other Comprehensive Loss Components	Amount Reclassified from Accumulated Other Comprehensive Loss		Affected Line Item in Condensed Consolidated Statements of Operations
	2022	2021	
(in millions) ^(a)			
Amortization of actuarial losses of defined benefit pension plans	\$ (2.2)	\$ (3.5)	Other expense (income), net
Amortization of prior service costs of defined benefit pension plans ..	(0.1)	(0.2)	Other expense (income), net
Interest rate swaps	(0.5)	(0.7)	Interest expense
Total before tax	(2.8)	(4.4)	
Income tax benefit	0.7	1.1	Income tax expense
Total reclassifications for the period, net of tax	<u>\$ (2.1)</u>	<u>\$ (3.3)</u>	

(a) Amounts in parentheses indicate losses.

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NOTE 11 – SEGMENT INFORMATION

The Company has two reportable segments: the Environmental Solutions Group and the Safety and Security Systems Group. Business units are organized under each reportable segment because they share certain characteristics, such as technology, marketing, distribution and product application, which create long-term synergies.

The following tables summarize the Company’s operations by segment, including Net sales, Operating income (loss), and Total assets:

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Net sales:				
Environmental Solutions	\$ 284.8	\$ 249.1	\$ 865.3	\$ 758.5
Safety and Security Systems	61.6	49.2	178.0	153.3
Total net sales	\$ 346.4	\$ 298.3	\$ 1,043.3	\$ 911.8
Operating income (loss):				
Environmental Solutions	\$ 33.9	\$ 30.8	\$ 99.8	\$ 96.4
Safety and Security Systems	10.5	7.6	28.7	22.6
Corporate and eliminations	(4.9)	(4.1)	(14.3)	(18.4)
Total operating income	39.5	34.3	114.2	100.6
Interest expense	2.7	1.1	5.9	3.3
Other expense (income), net	0.1	(0.3)	(0.6)	(1.1)
Income before income taxes	\$ 36.7	\$ 33.5	\$ 108.9	\$ 98.4
			September 30,	December 31,
			2022	2021
Total assets:				
Environmental Solutions			\$ 1,163.3	\$ 1,098.2
Safety and Security Systems			264.7	226.9
Corporate and eliminations			37.1	41.0
Total assets			\$ 1,465.1	\$ 1,366.1

NOTE 12 – FAIR VALUE MEASUREMENTS

The Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy maximizes the use of observable inputs and minimizes the use of unobservable inputs. Observable inputs are developed based on market data obtained from independent sources, while unobservable inputs reflect the Company’s assumptions about valuation based on the best information available in the circumstances. The three levels of inputs are classified as follows:

- Level 1 — quoted prices in active markets for identical assets or liabilities;
- Level 2 — observable inputs, other than quoted prices included in Level 1, such as quoted prices for markets that are not active, or other inputs that are observable or can be corroborated by observable market data; and
- Level 3 — unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities, including certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

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In determining fair value, the Company uses various valuation approaches within the fair value measurement framework. The valuation methodologies used for the Company’s assets and liabilities measured at fair value and their classification in the valuation hierarchy are summarized below.

Cash Equivalents

Cash equivalents primarily consist of time-based deposits and interest-bearing instruments with maturities of three months or less. The Company classified cash equivalents as Level 1 due to the short-term nature of these instruments and measured the fair value based on quoted prices in active markets for identical assets.

Interest Rate Swaps

As described in Note 5 – Debt, the Company may, from time to time, execute interest rate swaps as a means of fixing the floating interest rate component on a portion of its floating-rate debt. The Company classifies its interest rate swaps as Level 2 due to the use of a discounted cash flow model based on the terms of the contract and the interest rate curve (Level 2 inputs) to calculate the fair value of the swaps.

Contingent Consideration

The Company has contingent obligations to transfer up to \$15.5 million and \$7.5 million to the former owners of Mark Rite Lines Equipment Company, Inc. (“MRL”) and Deist Industries, Inc. and certain of its affiliates (collectively, “Deist”), respectively, if specified financial results are met over future reporting periods (i.e., an earn-out). The MRL and Deist acquisitions were completed on July 1, 2019 and December 30, 2021, respectively. The contingent earn-out payments, if earned, would be due to be paid following the third anniversary of the closing of the respective acquisitions. The MRL earn-out period ended on July 1, 2022 and the associated earn-out payment, if earned, is expected to be settled during the fourth quarter of 2022.

Liabilities for contingent consideration are measured at fair value each reporting period, with the acquisition-date fair value included as part of the consideration transferred. Subsequent changes in fair value are included as a component of Acquisition and integration-related expenses (benefits) on the Condensed Consolidated Statements of Operations.

The Company uses an income approach to value the contingent consideration obligation based on the present value of risk-adjusted future cash flows under either a scenario-based or option-pricing method, as appropriate. Due to the lack of relevant observable market data over fair value inputs, such as prospective financial information or probabilities of future events as of September 30, 2022, the Company has classified the contingent consideration liability within Level 3 of the fair value hierarchy outlined in ASC 820, *Fair Value Measurements*.

The following table summarizes the Company’s assets and liabilities that are measured at fair value on a recurring basis as of September 30, 2022:

(in millions)	Fair Value Measurement at Reporting Date Using			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	\$ 0.1	\$ —	\$ —	\$ 0.1
Interest rate swap	—	4.0	—	4.0
Liabilities:				
Contingent consideration	—	—	2.7	2.7

The following table provides a roll-forward of the fair value of recurring Level 3 fair value measurements in the three months ended September 30, 2022 and 2021:

(in millions)	2022	2021
Contingent consideration liability, at July 1	\$ 2.7	\$ 4.2
Total losses included in earnings	—	—
Contingent consideration liability, at September 30	<u>\$ 2.7</u>	<u>\$ 4.2</u>

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The following table provides a roll-forward of the fair value of recurring Level 3 fair value measurements in the nine months ended September 30, 2022 and 2021:

(in millions)	2022	2021
Contingent consideration liability, at January 1	\$ 2.7	\$ 4.2
Total losses included in earnings	—	—
Contingent consideration liability, at September 30	<u>\$ 2.7</u>	<u>\$ 4.2</u>

NOTE 13 – SUBSEQUENT EVENTS

Acquisition of TowHaul

On October 3, 2022, the Company completed the acquisition of substantially all the assets and operations of TowHaul Corporation (“TowHaul”) for an initial purchase price of \$43.3 million. The initial purchase price, which is subject to certain post-closing adjustments, was funded through existing cash and borrowings under the Company’s revolving credit facility.

TowHaul is a leading manufacturer of off-road towing and hauling equipment. The Company expects that the TowHaul acquisition will further bolster its position as an industry leading diversified industrial manufacturer of specialized vehicles for maintenance and infrastructure markets with leading brands of premium, value-adding products, and a strong supporting aftermarket platform.

The preliminary purchase price allocation has not been completed at this time due to the proximity of the date of acquisition to the date of issuance of the condensed consolidated financial statements. The post-acquisition operating results of TowHaul are expected to be included within the Environmental Solutions Group.

Debt Refinancing

On October 21, 2022, the Company entered into the 2022 Credit Agreement, which amends and restates the 2019 Credit Agreement.

The 2022 Credit Agreement is a senior secured credit facility which provides the Borrowers access to an aggregate principal amount of \$800 million, consisting of (i) a revolving credit facility in an amount up to \$675 million (the “Revolver”) and (ii) a term loan facility in an amount up to \$125 million. The Revolver provides for borrowings in the form of loans or letters of credit up to the aggregate availability under the facility, with a sub-limit of \$100 million for letters of credit. Borrowings can be made in denominations of U.S. Dollars, Canadian Dollars, Euros or British Pounds (with borrowings in non-U.S. currencies subject to a sublimit of \$300 million). In addition, the Company may expand its borrowing capacity under the 2022 Credit Agreement by up to the greater of (i) \$400 million and (ii) 100% of Consolidated EBITDA for the applicable four-quarter period preceding such expansion notice, subject to the approval of the applicable lenders providing such additional borrowings in the form of increases to their revolving facility commitment, or funding of incremental term loans. Borrowings under the 2022 Credit Agreement may be used for working capital and general corporate purposes, including acquisitions. The 2022 Credit Agreement matures on October 21, 2027.

The Company’s material domestic subsidiaries provide guarantees for all obligations of the Borrowers under the 2022 Credit Agreement, which is secured by a first priority security interest in (i) all existing or hereafter acquired domestic property and assets of the Company and material domestic subsidiaries, (ii) the stock or other equity interests in each of the material domestic subsidiaries and (iii) 65% of outstanding voting capital stock of certain first-tier foreign subsidiaries, subject to certain exclusions.

Borrowings under the 2022 Credit Agreement bear interest, at the Company’s option, at a base rate or an Adjusted Term Secured Overnight Financing Rate (“SOFR”), Adjusted Eurocurrency Rate or Adjusted Daily Simple SONIA Rate (as each is defined in the 2022 Credit Agreement), plus, in each case, an applicable margin. The applicable margin ranges from zero to 0.75% for base rate borrowings and 1.00% to 1.75% for Adjusted Term SOFR, Adjusted Eurocurrency Rate or Adjusted Daily Simple SONIA Rate borrowings. The Company must also pay a commitment fee to the lenders ranging between 0.10% to 0.25% per annum on the unused portion of the \$675 million Revolver along with other standard fees. Applicable margin, issuance fees and other customary expenses are payable on outstanding letters of credit.

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The Company is subject to certain net leverage ratio and interest coverage ratio financial covenants under the 2022 Credit Agreement that are to be measured at each fiscal quarter-end. The 2022 Credit Agreement also includes certain “covenant holiday” periods, which allow for the temporary increase of the minimum net leverage ratio following the completion of a permitted acquisition, or a series of acquisitions, when the aggregate consideration over a period of twelve months exceeds \$75 million. In addition, the 2022 Credit Agreement includes customary negative covenants, subject to certain exceptions, restricting or limiting the Company’s and its subsidiaries’ ability to, among other things: (i) make non-ordinary course dispositions of assets; (ii) make certain fundamental business changes, such as mergers, consolidations or any similar combination; (iii) make restricted payments, including dividends and stock repurchases; (iv) incur indebtedness; (v) make certain loans and investments; (vi) create liens; (vii) transact with affiliates; (viii) enter into certain sale/leaseback transactions; (ix) make negative pledges; and (x) modify subordinated debt documents.

Under the 2022 Credit Agreement, restricted payments, including dividends and stock repurchases, shall be permitted if (i) the Company’s leverage ratio is less than or equal to 3.25x; (ii) the Company is in compliance with all other financial covenants; and (iii) there are no existing defaults under the 2022 Credit Agreement. If its leverage ratio is more than 3.25x, the Company is still permitted to fund (1) up to \$35 million of dividend payments and stock repurchases annually; and (2) additional incremental other cash payments up to the greater of \$65 million or 5% of consolidated total assets for the term of the 2022 Credit Agreement.

The 2022 Credit Agreement contains customary events of default. If an event of default occurs and is continuing, the Borrowers may be required immediately to repay all amounts outstanding under the 2022 Credit Agreement and the commitments from the lenders may be terminated.

In connection with entering into the 2022 Credit Agreement in October 2022, the Company terminated the 2019 Swap, receiving proceeds of \$4.3 million. The Company also concurrently executed a new interest rate swap with a notional amount of \$75.0 million, as a means of fixing the floating interest rate component on \$75.0 million of its variable-rate debt.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”) is designed to provide information that is supplemental to, and should be read together with, the condensed consolidated financial statements and the accompanying notes contained in this Form 10-Q, as well as Federal Signal Corporation’s Annual Report on Form 10-K for the year ended December 31, 2021. References herein to the “Company,” “we,” “our,” or “us” refer collectively to Federal Signal Corporation and its subsidiaries. Information in MD&A is intended to assist the reader in obtaining an understanding of (i) the condensed consolidated financial statements, (ii) the Company’s business segments and how the results of those segments impact the Company’s results of operations and financial condition as a whole and (iii) how certain accounting principles affect the Company’s condensed consolidated financial statements. The Company’s results for interim periods should not be regarded as necessarily indicative of results that may be expected for the entire year, which may differ materially due to, among other things, the risk factors described under Part I, Item 1A, *Risk Factors*, of the Company’s Annual Report on Form 10-K for the year ended December 31, 2021, which was filed with the SEC on March 1, 2022.

Executive Summary

The Company is a leading global manufacturer and supplier of (i) vehicles and equipment for maintenance and infrastructure end-markets, including sewer cleaners, industrial vacuum loaders, vacuum- and hydro-excavation trucks (collectively, “safe-digging trucks”), street sweepers, road-marking and line-removal equipment, waterblasting equipment, dump truck bodies, trailers and metal extraction support equipment, and (ii) safety, security and communication equipment, such as lights, sirens and warning systems. In addition, we sell parts and provide service, repair, equipment rentals and training as part of a comprehensive aftermarket offering to our customer base. We operate 21 principal manufacturing facilities in five countries and provide products and integrated solutions to municipal, governmental, industrial and commercial customers in all regions of the world.

As described in Note 11 – Segment Information to the accompanying condensed consolidated financial statements, the Company’s business units are organized in two reportable segments: the Environmental Solutions Group and the Safety and Security Systems Group.

Coronavirus, Supply Chain and Market Update

Customer demand for our product and service offerings during the nine months ended September 30, 2022 has been at unprecedented levels, with the ongoing strength in orders contributing to a record backlog of \$824 million as of September 30, 2022.

However, as we had anticipated, the direct and indirect effects of the ongoing coronavirus pandemic continued to impact our ability to maximize production levels during the three and nine months ended September 30, 2022. Specifically, the increased demand for our products combined with ongoing global supply chain disruptions have affected our ability to obtain a sufficient quantity of raw materials and purchased components, including chassis, hydraulics and other parts, that are necessary to our production processes and to deliver products to our customers. With these supply chain challenges, we have also experienced increases in the cost of raw materials and have taken measures to mitigate the associated impacts, such as implementing price increases and surcharges. From a labor perspective, the Company experienced an escalated level of coronavirus-related absences at several locations early in the year, which improved as the year progressed. While we continue to work to mitigate these challenges as they arise, we cannot provide assurance that such efforts would continue to be successful in addressing a further significant deterioration in the global supply chain, if applicable, which could impact our ability to service our customers, effectively roll out and realize price increases to offset the effects of commodity inflation and sustain our profit margins.

We continue to closely monitor the impact of the coronavirus pandemic, including emerging variants, on our business, including how it is affecting our employees, customers, supply chain and distribution network. The overall magnitude of the direct and indirect impact of the pandemic on our operating and financial results remains uncertain and will largely depend on the duration of the pandemic and the measures implemented in response, as well as the effect on our customers and suppliers.

Operating Results

Net sales for the three months ended September 30, 2022 increased by \$48.1 million, or 16%, compared to the prior-year quarter, inclusive of the effects of acquisitions and pricing actions. Our Environmental Solutions Group reported a net sales increase of \$35.7 million, or 14%, primarily due to increases in sales of sewer cleaners, dump truck bodies, metal extraction support equipment and trailers of \$12.3 million, \$10.1 million, \$6.3 million, and \$5.4 million, respectively. In addition, aftermarket revenues improved by \$7.5 million. Partially offsetting these improvements were reductions in shipments of safe-digging trucks and refuse trucks of \$3.3 million and \$2.8 million, respectively, as well as a \$1.3 million unfavorable foreign

currency translation impact. Within our Safety and Security Systems Group, net sales increased by \$12.4 million, or 25%, primarily due to improvements in sales of public safety equipment, industrial signaling equipment and warning systems of \$7.5 million, \$5.0 million and \$1.8 million, respectively, partially offset by a \$1.9 million unfavorable foreign currency translation impact.

Net sales for the nine months ended September 30, 2022 increased by \$131.5 million, or 14%, compared to the prior-year period, inclusive of the effects of acquisitions and pricing actions. Our Environmental Solutions Group reported a net sales increase of \$106.8 million, or 14%, primarily due to a \$24.2 million improvement in aftermarket revenues and increases in sales of dump truck bodies, metal extraction support equipment, sewer cleaners, trailers, hoists and safe-digging trucks of \$27.3 million, \$21.1 million, \$17.4 million, \$11.1 million, \$9.3 million and \$6.6 million, respectively. Partially offsetting these improvements was a \$13.1 million reduction in shipments of refuse trucks and a \$3.1 million unfavorable foreign currency translation impact. Within our Safety and Security Systems Group, net sales increased by \$24.7 million, or 16%, primarily due to improvements in sales of public safety equipment, industrial signaling equipment and warning systems of \$19.8 million, \$6.9 million and \$2.5 million, respectively, partially offset by a \$4.5 million unfavorable foreign currency translation impact.

Operating income for the three months ended September 30, 2022 increased by \$5.2 million, or 15%, compared to the prior-year quarter, primarily driven by an \$11.9 million improvement in gross profit, partially offset by a \$6.4 million increase in Selling, Engineering, General and Administrative (“SEG&A”) expenses and a \$0.3 million increase in amortization expense. Consolidated operating margin for the three months ended September 30, 2022 was 11.4%, compared to 11.5% in the prior-year quarter.

Operating income for the nine months ended September 30, 2022 increased by \$13.6 million, or 14%, compared to the prior-year period, primarily driven by a \$27.0 million improvement in gross profit and a \$1.9 million increase in acquisition-related benefits, partially offset by a \$13.9 million increase in SEG&A expenses and a \$1.4 million increase in amortization expense. Consolidated operating margin for the nine months ended September 30, 2022 was 10.9%, compared to 11.0% in the prior-year period.

Income before income taxes for the three months ended September 30, 2022 increased by \$3.2 million, or 10%, compared to the prior-year quarter. The increase resulted from the higher operating income, partially offset by a \$1.6 million increase in interest expense and a \$0.4 million decrease in other income.

Income before income taxes for the nine months ended September 30, 2022 increased by \$10.5 million, or 11%, compared to the prior-year period. The increase resulted from the higher operating income, partially offset by a \$2.6 million increase in interest expense and a \$0.5 million decrease in other income.

Net income for the three months ended September 30, 2022 increased by \$2.6 million compared to the prior-year quarter, largely due to the aforementioned increase in income before taxes, partially offset by a \$0.6 million increase in income tax expense. The effective tax rate for the three months ended September 30, 2022 was 13.4%, compared to 12.8% in the prior-year quarter.

Net income for the nine months ended September 30, 2022 increased by \$4.7 million compared to the prior-year period, largely due to the aforementioned increase in income before taxes, partially offset by a \$5.8 million increase in income tax expense. The effective tax rate for the nine months ended September 30, 2022 was 21.2%, compared to 17.6% in the prior-year period. We currently expect our full-year effective tax rate to be approximately 22%.

Total orders for the three months ended September 30, 2022 were \$382 million, an increase of \$32 million, or 9%, as compared to the prior-year quarter. Our Environmental Solutions Group reported total orders of \$321 million in the three months ended September 30, 2022, an increase of \$29 million, or 10% in comparison to the prior-year quarter. Orders in the three months ended September 30, 2022 within our Safety and Security Systems Group were \$61 million, an increase of \$2 million, or 4%, compared to the prior-year quarter.

Total orders for the nine months ended September 30, 2022 were \$1,248.0 million, an increase of \$153.0 million, or 14%, as compared to the prior-year period. Our Environmental Solutions Group reported total orders of \$1,060.7 million in the nine months ended September 30, 2022, an increase of \$144.7 million, or 16% in comparison to the prior-year period. Orders in the nine months ended September 30, 2022 within our Safety and Security Systems Group were \$187.3 million, an increase of \$8.3 million, or 5%, compared to the prior-year period.

Our consolidated backlog at September 30, 2022 was \$824 million, an increase of \$337 million, or 69%, compared to the prior-year quarter.

Results of Operations

The following table summarizes our Condensed Consolidated Statements of Operations and illustrates the key financial indicators used to assess our consolidated financial results:

(\$ in millions, except per share data)	Three Months Ended September 30,			Nine Months Ended September 30,		
	2022	2021	Change	2022	2021	Change
Net sales	\$ 346.4	\$ 298.3	\$ 48.1	\$1,043.3	\$ 911.8	\$ 131.5
Cost of sales	263.6	227.4	36.2	795.0	690.5	104.5
Gross profit	82.8	70.9	11.9	248.3	221.3	27.0
Selling, engineering, general and administrative expenses	39.8	33.4	6.4	125.5	111.6	13.9
Amortization expense	3.1	2.8	0.3	9.6	8.2	1.4
Acquisition and integration-related expenses (benefits)	0.4	0.4	—	(1.0)	0.9	(1.9)
Operating income	39.5	34.3	5.2	114.2	100.6	13.6
Interest expense	2.7	1.1	1.6	5.9	3.3	2.6
Other expense (income), net	0.1	(0.3)	0.4	(0.6)	(1.1)	0.5
Income before income taxes	36.7	33.5	3.2	108.9	98.4	10.5
Income tax expense	4.9	4.3	0.6	23.1	17.3	5.8
Net income	\$ 31.8	\$ 29.2	\$ 2.6	\$ 85.8	\$ 81.1	\$ 4.7
Operating data:						
Operating margin	11.4 %	11.5 %	(0.1)%	10.9 %	11.0 %	(0.1)%
Diluted earnings per share	\$ 0.52	\$ 0.47	\$ 0.05	\$ 1.40	\$ 1.31	\$ 0.09
Total orders	382.1	350.4	31.7	1,248.0	1,095.0	153.0
Backlog	824.1	487.1	337.0	824.1	487.1	337.0
Depreciation and amortization	13.6	12.7	0.9	40.7	37.5	3.2

Net sales

Net sales for the three months ended September 30, 2022 increased by \$48.1 million, or 16%, compared to the prior-year quarter, inclusive of the effects of acquisitions and pricing actions. The Environmental Solutions Group reported a net sales increase of \$35.7 million, or 14%, primarily due to increases in sales of sewer cleaners, dump truck bodies, metal extraction support equipment and trailers of \$12.3 million, \$10.1 million, \$6.3 million, and \$5.4 million, respectively. In addition, aftermarket revenues improved by \$7.5 million. Partially offsetting these improvements were reductions in shipments of safe-digging trucks and refuse trucks of \$3.3 million and \$2.8 million, respectively, as well as a \$1.3 million unfavorable foreign currency translation impact. Within the Safety and Security Systems Group, net sales increased by \$12.4 million, or 25%, primarily due to improvements in sales of public safety equipment, industrial signaling equipment and warning systems of \$7.5 million, \$5.0 million and \$1.8 million, respectively, partially offset by a \$1.9 million unfavorable foreign currency translation impact.

Net sales for the nine months ended September 30, 2022 increased by \$131.5 million, or 14%, compared to the prior-year period, inclusive of the effects of acquisitions and pricing actions. The Environmental Solutions Group reported a net sales increase of \$106.8 million, or 14%, primarily due to a \$24.2 million improvement in aftermarket revenues and increases in sales of dump truck bodies, metal extraction support equipment, sewer cleaners, trailers, hoists and safe-digging trucks of \$27.3 million, \$21.1 million, \$17.4 million, \$11.1 million, \$9.3 million and \$6.6 million, respectively. Partially offsetting these improvements was a \$13.1 million reduction in shipments of refuse trucks and a \$3.1 million unfavorable foreign currency translation impact. Within the Safety and Security Systems Group, net sales increased by \$24.7 million, or 16%, primarily due to improvements in sales of public safety equipment, industrial signaling equipment and warning systems of \$19.8 million, \$6.9 million and \$2.5 million, respectively, partially offset by a \$4.5 million unfavorable foreign currency translation impact.

Cost of sales

Cost of sales increased by \$36.2 million, or 16%, for the three months ended September 30, 2022 compared to the prior-year quarter, largely due to an increase of \$28.6 million, or 15%, within the Environmental Solutions Group, primarily related to additional costs from prior-year acquisitions and higher material costs, partially offset by a \$1.3 million favorable foreign currency translation impact. Within the Safety and Security Systems Group, cost of sales increased by \$7.6 million, or 24%,

primarily related to higher sales volumes and increased material and freight costs, partially offset by a \$1.5 million favorable foreign currency translation impact

Cost of sales increased by \$104.5 million, or 15%, for the nine months ended September 30, 2022 compared to the prior-year period, largely due to an increase of \$89.6 million, or 15%, within the Environmental Solutions Group, primarily related to increased sales volumes, additional costs from prior-year acquisitions, higher material costs, and an \$0.8 million increase in depreciation expense, partially offset by a \$2.9 million favorable foreign currency translation impact. Within the Safety and Security Systems Group, cost of sales increased by \$14.9 million, or 15%, primarily related to higher sales volumes and increased material and freight costs, partially offset by a \$3.5 million favorable foreign currency translation impact.

Gross profit

Gross profit increased by \$11.9 million, or 17%, for the three months ended September 30, 2022 compared to the prior-year quarter, primarily due to a \$7.1 million improvement within the Environmental Solutions Group and a \$4.8 million increase within the Safety and Security Systems Group. Gross profit as a percentage of revenues (“gross profit margin”) for the three months ended September 30, 2022 was 23.9%, compared to 23.8% in the prior-year quarter, primarily due to a 50 basis point improvement within the Safety and Security Systems Group, partially offset by a 20 basis point reduction within the Environmental Solutions Group.

Gross profit increased by \$27.0 million, or 12%, for the nine months ended September 30, 2022 compared to the prior-year period, primarily due to a \$17.2 million improvement within the Environmental Solutions Group and a \$9.8 million increase within the Safety and Security Systems Group. Gross profit as a percentage of revenues (“gross profit margin”) for the nine months ended September 30, 2022 was 23.8%, compared to 24.3% in the prior-year period, primarily due to a 70 basis point reduction within the Environmental Solutions Group, partially offset by a 40 basis point improvement within the Safety and Security Systems Group.

SEG&A Expenses

SEG&A expenses for the three months ended September 30, 2022 increased by \$6.4 million, or 19%, compared to the prior-year quarter, primarily due to increases of \$3.7 million and \$1.9 million within the Environmental Solutions Group and the Safety and Security Systems Group, respectively, in addition to a \$0.8 million increase in Corporate SEG&A expenses. As a percentage of net sales, SEG&A expenses were 11.5% in the current-year quarter, compared to 11.2% in the prior-year quarter.

SEG&A expenses for the nine months ended September 30, 2022 increased by \$13.9 million, or 12%, compared to the prior-year period, primarily due to increases of \$12.5 million and \$3.7 million within the Environmental Solutions Group and the Safety and Security Systems Group, respectively, partially offset by a \$2.3 million reduction in Corporate SEG&A expenses. As a percentage of net sales, SEG&A expenses were 12.0% in the current-year quarter, down from 12.2% in the prior-year period.

Operating income

Operating income for the three months ended September 30, 2022 increased by \$5.2 million, or 15%, compared to the prior-year quarter, primarily driven by the \$11.9 million improvement in gross profit, partially offset by the \$6.4 million increase in SEG&A expenses and a \$0.3 million increase in amortization expense. Consolidated operating margin for the three months ended September 30, 2022 was 11.4%, compared to 11.5% in the prior-year quarter.

Operating income for the nine months ended September 30, 2022 increased by \$13.6 million, or 14%, compared to the prior-year period, primarily driven by the \$27.0 million improvement in gross profit and a \$1.9 million increase in acquisition-related benefits, partially offset by the \$13.9 million increase in SEG&A expenses and a \$1.4 million increase in amortization expense. Consolidated operating margin for the nine months ended September 30, 2022 was 10.9%, compared to 11.0% in the prior-year period.

Interest expense

Interest expense for the three and nine months ended September 30, 2022 increased by \$1.6 million and \$2.6 million, respectively, in comparison to the corresponding periods in the prior year, largely due to an increase in average debt levels and higher interest rates.

Other expense (income), net

Other income, net, for the three and nine months ended September 30, 2022 decreased by \$0.4 million and \$0.5 million, respectively, in comparison to the corresponding periods in the prior year, primarily due to the recognition of less net periodic pension benefit.

Income tax expense

The Company recognized income tax expense of \$4.9 million and \$4.3 million for the three months ended September 30, 2022 and 2021, respectively. During the three months ended September 30, 2022, the Company recognized a \$2.7 million tax benefit from the release of a valuation allowance that had previously been recorded against deferred tax assets associated with foreign tax credits in the U.S., which are now considered more-likely-than-not to be realized, primarily due to tax planning strategies. The Company also recognized a \$1.1 million tax benefit during the three months ended September 30, 2022 associated with the release of a valuation allowance in the U.K., as the associated deferred tax assets are now considered more-likely-than-not to be realized primarily due to increased projections of future taxable income. During the three months ended September 30, 2021, the Company recognized a \$3.4 million tax benefit associated with the release of state valuation allowances and a \$1.1 million tax benefit associated with the remeasurement of deferred taxes for changes in state tax apportionment, both of which resulted from a change in tax status during the quarter. Including these items, the Company’s effective tax rate for the three months ended September 30, 2022 was 13.4%, compared to 12.8% in the prior-year quarter.

For the nine months ended September 30, 2022 and 2021, the Company recognized income tax expense of \$23.1 million and \$17.3 million, respectively. The increase in tax expense in the current-year period was largely due to higher pre-tax income levels and a \$3.2 million reduction in the amount of excess tax benefits from stock compensation activity compared to the prior-year period. Including these items, the Company’s effective tax rate for the nine months ended September 30, 2022 was 21.2%, compared to 17.6% in the prior-year period.

Net income

Net income for the three months ended September 30, 2022 increased by \$2.6 million compared to the prior-year quarter, largely due to the aforementioned improvement in operating income, partially offset by the \$1.6 million increase in interest expense, a \$0.6 million increase in income tax expense and the \$0.4 million decrease in other income.

Net income for the nine months ended September 30, 2022 increased by \$4.7 million compared to the prior-year period, largely due to the aforementioned improvement in operating income, partially offset by a \$5.8 million increase in income tax expense, the \$2.6 million increase in interest expense and the \$0.5 million decrease in other income.

Environmental Solutions

The following table summarizes the Environmental Solutions Group’s operating results as of and for the three and nine months ended September 30, 2022 and 2021:

(\$ in millions)	Three Months Ended September 30,			Nine Months Ended September 30,		
	2022	2021	Change	2022	2021	Change
Net sales	\$ 284.8	\$ 249.1	\$ 35.7	\$ 865.3	\$ 758.5	\$ 106.8
Operating income	33.9	30.8	3.1	99.8	96.4	3.4
Operating data:						
Operating margin	11.9 %	12.4 %	(0.5)%	11.5 %	12.7 %	(1.2)%
Total orders	\$ 321.4	\$ 292.1	\$ 29.3	\$ 1,060.7	\$ 916.0	\$ 144.7
Backlog	764.6	440.8	323.8	764.6	440.8	323.8
Depreciation and amortization	12.5	11.8	0.7	37.5	34.7	2.8

Three months ended September 30, 2022 vs. Three months ended September 30, 2021

Total orders for the three months ended September 30, 2022 increased by \$29.3 million, or 10%, compared to the prior-year quarter. U.S. orders increased by \$25.5 million, primarily due to improvements in orders for street sweepers, safe-digging trucks, sewer cleaners, and refuse trucks of \$11.6 million, \$7.8 million, \$4.9 million and \$4.7 million, respectively. Additionally, aftermarket demand increased by \$10.2 million. Partially offsetting these improvements was a \$14.5 million reduction in orders for trailers. Non-U.S. orders increased by \$3.8 million, primarily due to improvements in orders for metal extraction support equipment and refuse trucks of \$8.9 million and \$5.9 million, respectively, partially offset by a \$12.2 million reduction in orders for safe-digging trucks.

Net sales for the three months ended September 30, 2022 increased by \$35.7 million, or 14%, compared to the prior-year quarter, inclusive of the effects of acquisitions and pricing actions. For the three months ended September 30, 2022, U.S. sales increased by \$31.9 million, largely due to increases in sales of sewer cleaners, dump truck bodies and trailers of \$12.1 million, \$8.8 million and \$5.4 million, respectively, and a \$7.0 million improvement in aftermarket revenues. Partially offsetting these improvements was a \$3.7 million reduction in shipments of safe-digging trucks. Non-U.S. sales increased by \$3.8 million, primarily due to increases in sales of metal extraction support equipment, street sweepers, dump truck bodies and waterblasting

equipment of \$4.2 million, \$3.4 million, \$1.3 million and \$0.6 million, respectively. Partially offsetting these improvements was a \$4.9 million reduction in shipments of refuse trucks, and a \$1.3 million unfavorable foreign currency translation impact.

Cost of sales for the three months ended September 30, 2022 increased by \$28.6 million, or 15%, compared to the prior-year quarter, primarily related to additional costs from prior-year acquisitions and higher material costs, partially offset by a \$1.3 million favorable foreign currency translation impact. Gross profit margin for the three months ended September 30, 2022 was 21.1%, compared to 21.3% in the prior-year quarter, with the impact of higher material costs and production inefficiencies associated with supply chain disruptions being partially offset by the impact of pricing actions and a more favorable sales mix, associated with the increase in aftermarket demand.

SEG&A expenses for the three months ended September 30, 2022 increased by \$3.7 million, or 19%, compared to the prior-year quarter, primarily due to additional costs from prior-year acquisitions, as well as increases in selling and marketing expenses. As a percentage of net sales, SEG&A expenses were 8.1% in the current-year quarter, compared to 7.7% in the prior-year quarter.

Operating income for the three months ended September 30, 2022 increased by \$3.1 million, or 10%, compared to the prior-year quarter, largely due to a \$7.1 million improvement in gross profit, partially offset by the \$3.7 million increase in SEG&A expenses and a \$0.3 million increase in amortization expense.

Nine months ended September 30, 2022 vs. Nine months ended September 30, 2021

Total orders for the nine months ended September 30, 2022 increased by \$144.7 million, or 16%, compared to the prior-year period. U.S. orders increased by \$141.7 million, primarily due to improvements in orders for street sweepers, safe-digging trucks, sewer cleaners, metal extraction support equipment, industrial vacuum loaders and refuse trucks of \$42.3 million, \$33.5 million, \$21.5 million, \$17.2 million, \$8.8 million and \$7.6 million, respectively. Additionally, aftermarket demand increased by \$29.0 million. Partially offsetting these improvements was an \$18.3 million reduction in orders for dump truck bodies. Non-U.S. orders increased by \$3.0 million, primarily due to improvements in orders for metal extraction support equipment, refuse trucks, street sweepers and snow removal equipment of \$8.9 million, \$8.8 million, \$6.0 million and \$2.9 million, respectively. Partially offsetting these improvements were reductions in orders for safe-digging trucks and industrial vacuum loaders of \$11.8 million and \$3.7 million, respectively, in addition to a \$3.7 million unfavorable currency translation impact and a \$5.0 million reduction in aftermarket demand.

Net sales for the nine months ended September 30, 2022 increased by \$106.8 million, or 14%, compared to the prior-year period, inclusive of the effects of acquisitions and pricing actions. For the nine months ended September 30, 2022, U.S. sales increased by \$129.2 million, largely due to a \$28.4 million improvement in aftermarket revenues and increases in sales of dump truck bodies, sewer cleaners, metal extraction support equipment, safe-digging trucks, trailers, and hoists of \$24.4 million, \$17.1 million, \$12.3 million, \$11.1 million, \$11.1 million, and \$9.3 million, respectively. Non-U.S. sales decreased by \$22.4 million, primarily due to reductions in shipments of refuse trucks and safe-digging trucks of \$15.8 million and \$4.5 million, respectively, as well as a \$3.1 million unfavorable foreign currency translation impact and a \$4.2 million reduction in aftermarket revenue. Partially offsetting these reductions were improvements in shipments of metal extraction support equipment and dump truck bodies of \$8.8 million and \$2.9 million, respectively.

Cost of sales for the nine months ended September 30, 2022 increased by \$89.6 million, or 15%, compared to the prior-year period, primarily due to increased sales volumes, additional costs from prior-year acquisitions, higher material costs, and an \$0.8 million increase in depreciation expense, partially offset by a \$2.9 million favorable foreign currency translation impact. Gross profit margin for the nine months ended September 30, 2022 was 21.1%, compared to 21.8% in the prior-year period, with the impact of higher material costs and production inefficiencies associated with labor and supply chain disruptions being partially offset by the impact of pricing actions and a more favorable sales mix, associated with the increase in aftermarket demand.

SEG&A expenses for the nine months ended September 30, 2022 increased by \$12.5 million, or 21%, compared to the prior-year period, primarily due to additional costs from prior-year acquisitions, as well as increases in selling and marketing expenses. As a percentage of net sales, SEG&A expenses were 8.4% in the current-year period, compared to 7.9% in the prior-year period.

Operating income for the nine months ended September 30, 2022 increased by \$3.4 million, or 4%, compared to the prior-year period, largely due to a \$17.2 million improvement in gross profit and a \$0.1 million favorable variance from acquisition-related activity, partially offset by the \$12.5 million increase in SEG&A expenses and a \$1.4 million increase in amortization expense.

Backlog was \$765 million at September 30, 2022, compared to \$441 million at September 30, 2021.

Safety and Security Systems

The following table summarizes the Safety and Security Systems Group's operating results as of and for the three and nine months ended September 30, 2022 and 2021:

(\$ in millions)	Three Months Ended September 30,			Nine Months Ended September 30,		
	2022	2021	Change	2022	2021	Change
Net sales	\$ 61.6	\$ 49.2	\$ 12.4	\$ 178.0	\$ 153.3	\$ 24.7
Operating income	10.5	7.6	2.9	28.7	22.6	6.1
Operating data:						
Operating margin	17.0 %	15.4 %	1.6 %	16.1 %	14.7 %	1.4 %
Total orders	\$ 60.7	\$ 58.3	\$ 2.4	\$ 187.3	\$ 179.0	\$ 8.3
Backlog	59.5	46.3	13.2	59.5	46.3	13.2
Depreciation and amortization	1.0	0.9	0.1	3.1	2.7	0.4

Three months ended September 30, 2022 vs. Three months ended September 30, 2021

Total orders for the three months ended September 30, 2022 increased by \$2.4 million, or 4%, compared with the prior-year quarter. U.S. orders increased by \$2.8 million, primarily due to improvements in orders for warnings systems and industrial signaling equipment of \$2.3 million and \$1.4 million, respectively, partially offset by a \$0.9 million reduction in orders for public safety equipment. Non-U.S. orders decreased by \$0.4 million, largely due to a \$2.2 million unfavorable foreign currency translation impact, partially offset by a \$2.0 million improvement in orders for industrial signaling equipment.

Net sales for the three months ended September 30, 2022 increased by \$12.4 million, or 25%, compared to the prior-year quarter, inclusive of the effects of higher sales volumes and pricing actions. U.S. sales increased by \$10.7 million, primarily driven by improvements in sales of public safety equipment, warning systems and industrial signaling equipment of \$5.5 million, \$2.7 million and \$2.5 million, respectively. Non-U.S. sales increased by \$1.7 million, largely due to improvements in sales of industrial signaling equipment and public safety equipment of \$2.5 million and \$2.0 million, respectively, partially offset by a \$1.9 million unfavorable foreign currency translation impact and a \$0.9 million reduction in sales of warning systems.

Cost of sales for the three months ended September 30, 2022 increased by \$7.6 million, or 24%, compared to the prior-year quarter, primarily related to higher sales volumes and increased material and freight costs, partially offset by a \$1.5 million favorable foreign currency translation impact. Gross profit margin for the three months ended September 30, 2022 was 36.9%, compared to 36.4% in the prior-year quarter, with the improvement primarily attributable to improved operating leverage from higher sales volumes and benefits from pricing actions, partially offset by higher material and freight costs.

SEG&A expenses for the three months ended September 30, 2022 increased by \$1.9 million, or 18%, compared to the prior-year quarter, primarily due to higher sales commissions. As a percentage of net sales, SEG&A expenses decreased from 20.9% in the prior-year quarter, to 19.8% in the current-year quarter.

Operating income for the three months ended September 30, 2022 increased by \$2.9 million, or 38%, compared to the prior-year quarter, primarily due to a \$4.8 million improvement in gross profit, partially offset by the \$1.9 million increase in SEG&A expenses.

Nine months ended September 30, 2022 vs. Nine months ended September 30, 2021

Total orders for the nine months ended September 30, 2022 increased by \$8.3 million, or 5%, compared with the prior-year period. U.S. orders increased by \$13.0 million, primarily due to improvements in orders for warning systems and public safety equipment of \$6.6 million and \$5.6 million, respectively. Non-U.S. orders decreased by \$4.7 million, largely due to a \$6.5 million reduction in orders for public safety equipment, as well as a \$4.4 million unfavorable foreign currency translation impact, partially offset by improvements in orders for industrial signaling equipment and warning systems of \$5.5 million and \$0.7 million, respectively.

Net sales for the nine months ended September 30, 2022 increased by \$24.7 million, or 16%, compared to the prior-year period, inclusive of the effects of higher sales volumes and pricing actions. U.S. sales increased by \$18.4 million, primarily driven by improvements in sales of public safety equipment, warning systems and industrial signaling equipment of \$13.0 million, \$3.5 million and \$1.9 million, respectively. Non-U.S. sales increased by \$6.3 million, largely due to improvements in sales of public safety equipment and industrial signaling equipment of \$6.8 million and \$5.0 million, respectively, partially offset by a \$4.5 million unfavorable foreign currency translation impact and a \$1.0 million reduction in sales of warning systems.

Cost of sales for the nine months ended September 30, 2022 increased by \$14.9 million, or 15%, compared to the prior-year period, primarily related to higher sales volumes and increased material and freight costs, partially offset by a \$3.5 million favorable foreign currency translation impact. Gross profit margin for the nine months ended September 30, 2022 was 37.1%, compared to 36.7% in the prior-year period, with the improvement primarily attributable to improved operating leverage from higher sales volumes and benefits from pricing actions, partially offset by higher material and freight costs.

SEG&A expenses for the nine months ended September 30, 2022 increased by \$3.7 million, or 11%, compared to the prior-year period, primarily due to higher sales commissions. As a percentage of net sales, SEG&A expenses decreased from 21.9% in the prior-year quarter, to 21.0% in the current-year quarter.

Operating income for the nine months ended September 30, 2022 increased by \$6.1 million, or 27%, compared to the prior-year period, primarily due to a \$9.8 million improvement in gross profit, partially offset by the \$3.7 million increase in SEG&A expenses.

Backlog was \$60 million at September 30, 2022, compared to \$46 million at September 30, 2021.

Corporate Expenses

Corporate operating expenses for the three months ended September 30, 2022 were \$4.9 million, compared to \$4.1 million in the prior-year quarter, with the increase primarily due to higher incentive-based compensation expense, partially offset by lower post-employment and legal expenses.

Corporate operating expenses for the nine months ended September 30, 2022 were \$14.3 million, compared to \$18.4 million in the prior-year period, with the reduction primarily due to lower post-employment and legal expenses, partially offset by higher incentive-based compensation expense. In addition, during the nine months ended September 30, 2022, the Company received a favorable settlement of \$1.9 million in a post-closing adjustment dispute associated with the 2021 acquisition of OSW Equipment & Repair, LLC (“OSW”). The related benefit has been included as a component of Acquisition and integration-related expenses (benefits) on the Condensed Consolidated Statements of Operations.

Seasonality of Company’s Business

Certain of the Company’s businesses are susceptible to the influences of seasonal factors, including buying patterns, delivery patterns and productivity influences from holiday periods and weather. In general, the Company tends to have lower equipment sales in the first calendar quarter of each year compared to other quarters as a result of these factors. In addition, rental income and parts sales are generally higher in the second and third quarters of the year, because many of the Company’s products are used for maintenance activities in North America, where usage is typically lower during periods of harsher weather conditions.

Financial Condition, Liquidity and Capital Resources

The Company uses its cash flow from operations to fund growth and to make capital investments that sustain its operations, reduce costs, or both. Beyond these uses, remaining cash is used to pay down debt, repurchase shares, fund dividend payments and make pension contributions. The Company may also choose to invest in the acquisition of businesses. In the absence of significant unanticipated cash demands, we believe that the Company's existing cash balances, cash flow from operations and borrowings available under the Company's credit facility will provide funds sufficient for these purposes. The net cash flows associated with the Company's rental equipment transactions are included in cash flow from operating activities.

The Company's cash and cash equivalents totaled \$35.5 million and \$40.5 million as of September 30, 2022 and December 31, 2021, respectively. As of September 30, 2022, \$14.4 million of cash and cash equivalents was held by foreign subsidiaries. Cash and cash equivalents held by subsidiaries outside the U.S. typically are held in the currency of the country in which it is located. The Company uses this cash to fund the operating activities of its foreign subsidiaries and for further investment in foreign operations. Generally, the Company has considered such cash to be permanently reinvested in its foreign operations and the Company's current plans do not demonstrate a need to repatriate such cash to fund U.S. operations. However, in the event that these funds are needed to fund U.S. operations or to satisfy U.S. obligations, they generally could be repatriated. The repatriation of these funds may cause the Company to incur additional U.S. income tax expense, dependent on income tax laws and other circumstances at the time any such amounts are repatriated.

Net cash of \$32.4 million was provided by operating activities in the nine months ended September 30, 2022, compared to \$55.1 million in the prior-year period, with the year-over-year change primarily due to the seasonal build up of working capital, including increases in accounts receivable, largely due to higher net sales, and strategic stocking of critical inventory components, such as chassis, to support demand levels and partially mitigate ongoing supply chain constraints. Partially offsetting these increases were reductions in income tax payments and pension contributions of \$15.6 million and \$2.1 million, respectively, and \$1.9 million received for the OSW post-closing adjustment settlement.

Net cash of \$50.1 million was used for investing activities in the nine months ended September 30, 2022, compared to \$64.5 million in the prior-year period. During the nine months ended September 30, 2022, the Company completed the purchase of its University Park, Illinois manufacturing facility for \$27.8 million and funded \$17.8 million of other capital expenditures. Capital expenditures in the prior-year period were \$12.5 million. During the nine months ended September 30, 2022, the Company paid \$4.3 million to acquire certain distribution rights from dealers and \$1.6 million to fund a post-closing adjustment related to the 2021 acquisition of substantially all of the assets and operations of Deist Industries, Inc. and certain of its affiliates. During the nine months ended September 30, 2021, the Company also paid initial consideration of \$53.5 million to acquire OSW.

Net cash of \$14.4 million was provided by financing activities in the nine months ended September 30, 2022, compared to \$16.4 million in the prior-year period. In the nine months ended September 30, 2022, the Company borrowed \$49.9 million against its revolving credit facility, funded cash dividends and share repurchases of \$16.4 million and \$16.1 million, respectively, and redeemed \$3.0 million of stock in order to remit funds to tax authorities to satisfy employees' tax withholdings following the vesting of stock-based compensation and the exercise of stock options. In the nine months ended September 30, 2021, the Company borrowed \$40.1 million against its revolving credit facility, received \$4.1 million from stock option exercises, funded cash dividends of \$16.5 million and redeemed \$7.8 million of stock in order to remit funds to tax authorities to satisfy employees' tax withholdings following the vesting of stock-based compensation and the exercise of stock options.

The Company was subject to certain net leverage ratio and interest coverage ratio financial covenants under the 2019 Credit Agreement that were to be measured at each fiscal quarter-end. The Company was in compliance with all such covenants as of September 30, 2022.

As of September 30, 2022, there was \$329.5 million of cash drawn and \$10.3 million of undrawn letters of credit under the 2019 Credit Agreement, with \$160.2 million of availability for borrowings.

On October 21, 2022, the Company entered into the Third Amended and Restated Credit Agreement (the "2022 Credit Agreement"), which amends and restates the 2019 Credit Agreement. The 2022 Credit Agreement increases the Company's revolving credit facility from \$500 million to \$675 million, and adds a \$125 million term loan facility. In addition, the Company may expand its borrowing capacity under the 2022 Credit Agreement by up to the greater of (i) \$400 million and (ii) 100% of Consolidated EBITDA for the most recently ended four-quarter period, subject to the approval of the applicable lenders providing such additional financing.

Excluding the University Park facility acquisition, the Company anticipates that capital expenditures for 2022 will be in the range of \$25 million to \$30 million.

On October 3, 2022, the Company completed the acquisition of TowHaul Corporation for an initial purchase price of \$43.3 million.

The Company believes that its financial resources and major sources of liquidity, including cash flow from operations and increased borrowing capacity, will be adequate to meet its operating needs, capital needs and financial commitments.

Contractual Obligations and Off-Balance Sheet Arrangements

During the nine months ended September 30, 2022, there have been no material changes in the Company's contractual obligations and off-balance sheet arrangements as described in Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*, of the Company's Annual Report on Form 10-K for the year ended December 31, 2021.

Item 3. *Quantitative and Qualitative Disclosures about Market Risk.*

See Item 7A, *Quantitative and Qualitative Disclosures about Market Risk*, of the Company's Annual Report on Form 10-K for the year ended December 31, 2021. During the nine months ended September 30, 2022, there have been no significant changes in our exposure to market risk.

Item 4. *Controls and Procedures.*

As required by Rule 13a-15 under the Exchange Act, the Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rule 13a-15(e) or Rule 15d-15(e) under the Exchange Act) as of September 30, 2022. Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of September 30, 2022.

As a matter of practice, the Company's management continues to review and document internal control and procedures for financial reporting. From time to time, the Company may make changes aimed at enhancing the effectiveness of the controls and ensuring that the systems evolve with the business.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

The information set forth under the heading “Legal Proceedings” in Note 8 – Commitments and Contingencies to the accompanying condensed consolidated financial statements as included in Part I of this Form 10-Q is incorporated herein by reference.

Item 1A. Risk Factors.

There have been no material changes in the Company’s risk factors as described in Item 1A, *Risk Factors*, of the Company’s Annual Report on Form 10-K for the year ended December 31, 2021.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

The following table provides a summary of the Company’s repurchase activity for its common stock during the three months ended September 30, 2022:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (a)
July 2022 (7/3/22 - 8/6/22)	—	\$ —	—	\$ 59,052,829
August 2022 (8/7/22 - 9/3/22)	—	—	—	59,052,829
September 2022 (9/4/22 - 10/1/22)	—	—	—	59,052,829

(a) In March 2020, the Board authorized a stock repurchase program of up to \$75.0 million of the Company’s common stock, with the remaining authorization under our previously described repurchase program adopted in 2014 being subject to the March 2020 program.

Item 3. Defaults upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

On November 3, 2022, the Company issued a press release announcing its financial results for the three and nine months ended September 30, 2022. The presentation slides for the third quarter 2022 earnings call were also posted on the Company’s website at that time. The full text of the third quarter financial results press release and earnings presentation are attached hereto as Exhibits 99.1 and 99.2, respectively, to this Form 10-Q.

Item 6. Exhibits.

- 3.1 [Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed April 30, 2010.](#)
- 3.2 [Amended and Restated By-laws of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed February 9, 2016.](#)
- 10.1* [Separation Agreement, effective September 12, 2022, by and between Daniel A. DuPré and Federal Signal Corporation. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed September 13, 2022.](#)
- 10.2 [Third Amended and Restated Credit Agreement as of October 21, 2022, by and among the Company and certain of its foreign subsidiaries, as Borrowers, the Lenders referred to therein, as Lenders, Wells Fargo Bank, National Association, as Administrative Agent, Swingline Lender and Issuing Lender, PNC Bank, National Association and Truist Bank as Syndication Agents, JPMorgan Chase Bank, N.A. and The Toronto Dominion Bank, New York Branch as Documentation Agents, and Wells Fargo Securities, LLC, PNC Capital Markets LLC and Truist Securities, Inc. as Joint Lead Arrangers and Joint Bookrunners.](#)
- 31.1 [CEO Certification under Section 302 of the Sarbanes-Oxley Act.](#)
- 31.2 [CFO Certification under Section 302 of the Sarbanes-Oxley Act.](#)
- 32.1 [CEO Certification of Periodic Report under Section 906 of the Sarbanes-Oxley Act.](#)
- 32.2 [CFO Certification of Periodic Report under Section 906 of the Sarbanes-Oxley Act.](#)
- 99.1 [Third Quarter Financial Results Press Release, Dated November 3, 2022.](#)
- 99.2 [Third Quarter Earnings Call Presentation Slides.](#)
- 101.INS XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document).
- 101.SCH Inline XBRL Taxonomy Extension Schema Document.
- 101.CAL Inline XBRL Taxonomy Calculation Linkbase Document.
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document.
- 101.LAB Inline XBRL Taxonomy Label Linkbase Document.
- 101.PRE Inline XBRL Taxonomy Presentation Linkbase Document.
- 104 Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(a)(3) of Form 10-K.

SIGNATURE

Pursuant to the requirements of Section 13 or 15 (d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Federal Signal Corporation

Date: November 3, 2022

/s/ Ian A. Hudson

Ian A. Hudson

*Senior Vice President and Chief Financial Officer
(Principal Financial Officer)*