

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q

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

For the quarter ended June 30, 2022

or

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

Commission File No. 1-15579



MSA SAFETY INCORPORATED

(Exact name of registrant as specified in its charter)

Pennsylvania
(State or other jurisdiction of
incorporation or organization)

46-4914539
(IRS Employer
Identification No.)

1000 Cranberry Woods Drive
Cranberry Township, Pennsylvania
(Address of principal executive offices)

16066-5207
(Zip Code)

Registrant's telephone number, including area code: (724) 776-8600

Former name or former address, if changed since last report: N/A

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 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 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, 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

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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

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

Title of each class
Common Stock, no par value

Trading Symbol(s)
MSA

Name of each exchange on which is registered
New York Stock Exchange

As of July 22, 2022, 39,125,719 shares of common stock, of the registrant were outstanding.

PART I. FINANCIAL INFORMATION**Item 1. Financial Statements**

MSA SAFETY INCORPORATED
CONDENSED CONSOLIDATED STATEMENTS OF INCOME

Unaudited

| (In thousands, except per share amounts) | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|-----------------------------|------------------|---------------------------|------------------|
| | 2022 | 2021 | 2022 | 2021 |
| Net sales | \$ 372,313 | \$ 341,289 | \$ 703,005 | \$ 649,717 |
| Cost of products sold | 207,913 | 188,289 | 395,821 | 361,934 |
| Gross profit | 164,400 | 153,000 | 307,184 | 287,783 |
| Selling, general and administrative | 86,076 | 83,426 | 164,625 | 158,889 |
| Research and development | 15,268 | 13,970 | 28,601 | 27,204 |
| Restructuring charges (Note 3) | 57 | 7,078 | 2,247 | 8,385 |
| Currency exchange (gains) losses, net | (1,463) | 1,640 | 1,809 | (459) |
| Product liability expense (Note 18) | 2,926 | 11,751 | 5,698 | 14,547 |
| Operating income | 61,536 | 35,135 | 104,204 | 79,217 |
| Interest expense | 4,578 | 2,172 | 8,196 | 4,082 |
| Other income, net | (6,419) | (2,293) | (12,762) | (6,506) |
| Total other income, net | (1,841) | (121) | (4,566) | (2,424) |
| Income before income taxes | 63,377 | 35,256 | 108,770 | 81,641 |
| Provision for income taxes (Note 10) | 15,684 | 9,808 | 25,535 | 19,557 |
| Net income | 47,693 | 25,448 | 83,235 | 62,084 |
| Net income attributable to noncontrolling interests | — | (262) | — | (448) |
| Net income attributable to MSA Safety Incorporated | <u>\$ 47,693</u> | <u>\$ 25,186</u> | <u>\$ 83,235</u> | <u>\$ 61,636</u> |
| Earnings per share attributable to MSA Safety Incorporated common shareholders (Note 9): | | | | |
| Basic | \$ 1.21 | \$ 0.64 | \$ 2.12 | \$ 1.57 |
| Diluted | \$ 1.21 | \$ 0.64 | \$ 2.11 | \$ 1.56 |
| Dividends per common share | \$ 0.46 | \$ 0.44 | \$ 0.90 | \$ 0.87 |

*Prior periods have been adjusted to reflect the change in inventory accounting method, as described in the Company's fiscal 2021 Annual Report on Form 10-K.

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

MSA SAFETY INCORPORATED
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Unaudited

| (In thousands) | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|-----------------------------|-----------|---------------------------|-----------|
| | 2022 | 2021 | 2022 | 2021 |
| Net income | \$ 47,693 | \$ 25,448 | \$ 83,235 | \$ 62,084 |
| Other comprehensive income (loss), net of tax: | | | | |
| Foreign currency translation adjustments (Note 6) | (31,606) | 6,018 | (25,714) | (4,205) |
| Pension and post-retirement plan actuarial gains, net of tax (Note 6) | 2,330 | 3,657 | 4,594 | 7,369 |
| Unrealized (losses) gains on available-for-sale securities (Note 6) | (9) | 1 | (18) | (4) |
| Total other comprehensive (loss) income, net of tax | (29,285) | 9,676 | (21,138) | 3,160 |
| Comprehensive income | 18,408 | 35,124 | 62,097 | 65,244 |
| Less: Comprehensive income attributable to noncontrolling interests | — | (135) | — | (356) |
| Comprehensive income attributable to MSA Safety Incorporated | \$ 18,408 | \$ 34,989 | \$ 62,097 | \$ 64,888 |

*Prior periods have been adjusted to reflect the change in inventory accounting method, as described in the Company's fiscal 2021 Annual Report on Form 10-K.

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

MSA SAFETY INCORPORATED
CONDENSED CONSOLIDATED BALANCE SHEETS

Unaudited

| (In thousands) | June 30, 2022 | December 31, 2021 |
|--|---------------------|---------------------|
| Assets | | |
| Cash and cash equivalents | \$ 134,047 | \$ 140,895 |
| Trade receivables, less allowance for credit loss of \$6,051 and \$5,789 | 265,290 | 254,187 |
| Inventories (Note 4) | 341,544 | 280,617 |
| Investments, short-term (Note 17) | 34,857 | 48,974 |
| Prepaid income taxes | 26,789 | 21,235 |
| Notes receivable, insurance companies (Note 18) | 3,972 | 3,914 |
| Prepaid expenses and other current assets | 37,980 | 42,982 |
| Total current assets | 844,479 | 792,804 |
| Property, plant and equipment, net (Note 5) | 203,036 | 207,793 |
| Operating lease right-of-use assets, net | 46,641 | 50,178 |
| Prepaid pension cost (Note 15) | 176,373 | 163,283 |
| Deferred tax assets (Note 10) | 33,724 | 35,257 |
| Goodwill (Note 13) | 619,449 | 636,858 |
| Intangible assets, net (Note 13) | 290,221 | 306,948 |
| Notes receivable, insurance companies, noncurrent (Note 18) | 45,161 | 44,626 |
| Insurance receivables (Note 18) and other noncurrent assets | 149,363 | 158,649 |
| Total assets | \$ 2,408,447 | \$ 2,396,396 |
| Liabilities | | |
| Notes payable and current portion of long-term debt (Note 12) | \$ 7,433 | \$ — |
| Accounts payable | 111,861 | 106,780 |
| Employees' compensation | 38,197 | 49,884 |
| Insurance and product liability (Note 18) | 58,661 | 55,125 |
| Income taxes payable (Note 10) | 19,058 | 5,366 |
| Accrued restructuring and other current liabilities | 101,048 | 113,451 |
| Total current liabilities | 336,258 | 330,606 |
| Long-term debt, net (Note 12) | 615,778 | 597,651 |
| Pensions (Note 15) and other employee benefits | 181,958 | 189,973 |
| Noncurrent operating lease liabilities | 37,626 | 40,706 |
| Deferred tax liabilities (Note 10) | 31,342 | 33,337 |
| Product liability (Note 18) and other noncurrent liabilities | 367,415 | 369,735 |
| Total liabilities | \$ 1,570,377 | \$ 1,562,008 |
| Equity | | |
| Preferred stock, 4.5% cumulative, \$50 par value (Note 7) | \$ 3,569 | \$ 3,569 |
| Common stock, no par value (Note 7) | 267,645 | 260,121 |
| Treasury shares, at cost (Note 7) | (360,914) | (330,376) |
| Accumulated other comprehensive loss (Note 6) | (170,278) | (149,140) |
| Retained earnings | 1,098,048 | 1,050,214 |
| Total shareholders' equity | 838,070 | 834,388 |
| Total liabilities and shareholders' equity | \$ 2,408,447 | \$ 2,396,396 |

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

MSA SAFETY INCORPORATED
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

Unaudited

| (In thousands) | Six Months Ended June 30, | |
|--|---------------------------|-------------------|
| | 2022 | 2021 |
| Operating Activities | | |
| Net income | \$ 83,235 | \$ 62,084 |
| Depreciation and amortization | 28,087 | 22,088 |
| Stock-based compensation (Note 11) | 8,358 | 10,695 |
| Pension (income) expense (Note 15) | (5,304) | 919 |
| Deferred income tax benefit (Note 10) | (1,526) | (3,415) |
| Loss on asset dispositions, net | 124 | 48 |
| Pension contributions (Note 15) | (3,829) | (3,845) |
| Currency exchange losses (gains), net | 1,809 | (459) |
| Product liability expense (Note 18) | 5,698 | 14,547 |
| Collections on insurance receivables and notes receivable, insurance companies (Note 18) | 3,906 | 6,069 |
| Product liability payments (Note 18) | (3,653) | (22,574) |
| Changes in: | | |
| Trade receivables | (12,505) | 27,248 |
| Inventories (Note 4) | (69,726) | (21,561) |
| Accounts payable | 7,106 | (1,563) |
| Other current assets and liabilities | (3,590) | (6,503) |
| Other noncurrent assets and liabilities | 1,786 | 136 |
| Cash Flow From Operating Activities | 39,976 | 83,914 |
| Investing Activities | | |
| Capital expenditures | (19,805) | (20,288) |
| Acquisition, net of cash acquired (Note 14) | — | (62,992) |
| Purchase of short-term investments (Note 17) | (54,793) | (74,955) |
| Proceeds from maturities of short-term investments (Note 17) | 69,000 | 100,000 |
| Property disposals and other investing | — | 60 |
| Cash Flow Used in Investing Activities | (5,598) | (58,175) |
| Financing Activities | | |
| Proceeds from long-term debt (Note 12) | 572,000 | 605,733 |
| Payments on long-term debt (Note 12) | (535,000) | (578,729) |
| Debt issuance costs | — | (1,494) |
| Cash dividends paid | (35,401) | (34,067) |
| Company stock purchases (Note 7) | (32,156) | (5,511) |
| Exercise of stock options (Note 7) | 298 | 2,161 |
| Employee stock purchase plan (Note 7) | 486 | 452 |
| Cash Flow Used In Financing Activities | (29,773) | (11,455) |
| Effect of exchange rate changes on cash, cash equivalents and restricted cash | (10,474) | (907) |
| (Decrease) Increase in cash, cash equivalents and restricted cash | (5,869) | 13,377 |
| Beginning cash, cash equivalents and restricted cash | 141,438 | 161,034 |
| Ending cash, cash equivalents and restricted cash | \$ 135,569 | \$ 174,411 |
| Supplemental cash flow information: | | |
| Cash and cash equivalents | \$ 134,047 | \$ 174,078 |
| Restricted cash included in prepaid expenses and other current assets | 1,522 | 333 |
| Total cash, cash equivalents and restricted cash | \$ 135,569 | \$ 174,411 |

*Prior period has been adjusted to reflect the change in inventory accounting method, as described in the Company's fiscal 2021 Annual Report on Form 10-K.

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

MSA SAFETY INCORPORATED

**CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN RETAINED EARNINGS,
ACCUMULATED OTHER COMPREHENSIVE LOSS AND NONCONTROLLING INTERESTS**

Unaudited

| (In thousands, except per share amounts) | Retained Earnings | Accumulated Other Comprehensive (Loss) | Noncontrolling Interests |
|---|----------------------|---|-----------------------------|
| Balances March 31, 2021 | \$ 1,122,722 | \$ (188,948) | \$ 8,214 |
| Net income | 25,448 | — | — |
| Foreign currency translation adjustments | — | 6,018 | — |
| Pension and post-retirement plan adjustments, net of tax of \$1,139 | — | 3,657 | — |
| Unrealized net gains on available-for-sale securities (Note 17) | — | 1 | — |
| Income attributable to noncontrolling interests | (262) | 127 | 135 |
| Common dividends (\$0.44 per share) | (17,237) | — | — |
| Preferred dividends (\$0.5625 per share) | (10) | — | — |
| Balances June 30, 2021 | \$ 1,130,661 | \$ (179,145) | \$ 8,349 |
| Balances March 31, 2022 | \$ 1,068,464 | \$ (140,993) | \$ — |
| Net income | 47,693 | — | — |
| Foreign currency translation adjustments | — | (31,606) | — |
| Pension and post-retirement plan adjustments, net of tax of \$950 | — | 2,330 | — |
| Unrealized net losses on available-for-sale securities (Note 17) | — | (9) | — |
| Common dividends (\$0.46 per share) | (18,099) | — | — |
| Preferred dividends (\$0.5625 per share) | (10) | — | — |
| Balances June 30, 2022 | \$ 1,098,048 | \$ (170,278) | \$ — |
| Balances December 31, 2020 | \$ 1,103,092 | \$ (182,397) | \$ 7,993 |
| Net income | 62,084 | — | — |
| Foreign currency translation adjustments | — | (4,205) | — |
| Pension and post-retirement plan adjustments, net of tax of \$2,223 | — | 7,369 | — |
| Unrecognized net losses on available-for-sale securities (Note 17) | — | (4) | — |
| Income attributable to noncontrolling interests | (448) | 92 | 356 |
| Common dividends (\$0.87 per share) | (34,047) | — | — |
| Preferred dividends (\$0.5625 per share) | (20) | — | — |
| Balances June 30, 2021 | \$ 1,130,661 | \$ (179,145) | \$ 8,349 |
| Balances December 31, 2021 | \$ 1,050,214 | \$ (149,140) | \$ — |
| Net income | 83,235 | — | — |
| Foreign currency translation adjustments | — | (25,714) | — |
| Pension and post-retirement plan adjustments, net of tax of \$1,966 | — | 4,594 | — |
| Unrecognized net losses on available-for-sale securities (Note 17) | — | (18) | — |
| Common dividends (\$0.90 per share) | (35,381) | — | — |
| Preferred dividends (\$0.5625 per share) | (20) | — | — |
| Balances June 30, 2022 | \$ 1,098,048 | \$ (170,278) | \$ — |

*Prior periods have been adjusted to reflect the change in inventory accounting method, as described in the Company's fiscal 2021 Annual Report on Form 10-K.

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

MSA SAFETY INCORPORATED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Unaudited

Note 1—Basis of Presentation

The condensed consolidated financial statements of MSA Safety Incorporated and its subsidiaries ("MSA" or "the Company") are unaudited. These unaudited condensed consolidated financial statements include all adjustments, consisting of normal recurring adjustments, considered necessary by management to fairly state the Company's results. Intercompany accounts and transactions have been eliminated. The results reported in these unaudited condensed consolidated financial statements are not necessarily indicative of the results that may be expected for the entire year. The December 31, 2021, Balance Sheet data was derived from the audited Consolidated Balance Sheet, but does not include all disclosures required by accounting principles generally accepted in the United States of America ("U.S. GAAP"). This Form 10-Q report should be read in conjunction with MSA's Form 10-K for the year ended December 31, 2021, which includes all disclosures required by U.S. GAAP.

During the fourth quarter of 2021, the Company changed its method of accounting for certain inventory in the United States from the last-in, first-out ("LIFO") method to the first-in, first-out ("FIFO") method. The FIFO method of accounting for inventory is preferable because it conforms the Company's entire inventory to a single method of accounting and improves comparability with the Company's peers. The effects of the change in accounting method from LIFO to FIFO have been retrospectively applied to all periods presented in all sections of this Quarterly Report. Refer to Note 4—Inventory of the consolidated financial statements in Part II Item 8 of our 2021 Form 10-K for further information related to the change in accounting principle.

Note 2—Cash and Cash Equivalents

Several of the Company's affiliates participate in a notional cash pooling arrangement to manage global liquidity requirements. As part of a master netting arrangement, the participants combine their cash balances in pooling accounts at the same financial institution with the ability to offset bank overdrafts of one participant against positive cash account balances held by another participant. Under the terms of the master netting arrangement, the financial institution has the right, ability and intent to offset a positive balance in one account against an overdrawn amount in another account. Amounts in each of the accounts are unencumbered and unrestricted with respect to use. As such, the net cash balance related to this pooling arrangement is included in Cash and cash equivalents in the unaudited Condensed Consolidated Balance Sheets.

The Company's net cash pool position consisted of the following:

| (In thousands) | June 30, 2022 |
|----------------------------|----------------------|
| Gross cash pool position | \$ 62,496 |
| Less: cash pool borrowings | (60,062) |
| Net cash pool position | \$ 2,434 |

Note 3—Restructuring Charges

During the three and six months ended June 30, 2022, we recorded restructuring charges of \$0.1 million and \$2.2 million, respectively. International segment restructuring charges of \$2.1 million during the six months ended June 30, 2022, were primarily related to the implementation of our new European Shared Service Center in Warsaw, Poland. Americas segment restructuring charges of \$0.3 million during the six months ended June 30, 2022, were primarily related to initiatives to optimize our manufacturing footprint.

During the three and six months ended June 30, 2021, we recorded restructuring charges of \$7.1 million and \$8.4 million, respectively. International segment restructuring charges of \$7.6 million during the six months ended June 30, 2021, were primarily related to our ongoing initiatives to drive profitable growth and rightsize our operations. Americas segment restructuring charges of \$0.8 million during the six months ended June 30, 2021, were primarily related to costs associated with our global Fixed Gas & Flame Detection manufacturing footprint optimization as well as programs to adjust our operations in response to current business conditions.

Activity and reserve balances for restructuring charges by segment were as follows:

| (In millions) | Americas | International | Corporate | Total |
|--|----------|---------------|-----------|---------|
| Reserve balances at December 31, 2020 | \$ 2.8 | \$ 19.3 | \$ 0.4 | \$ 22.5 |
| Restructuring charges | 4.6 | 11.2 | 0.6 | 16.4 |
| Currency translation | (0.1) | (0.2) | — | (0.3) |
| Cash payments / utilization | (4.0) | (12.9) | (0.7) | (17.6) |
| Reserve balances at December 31, 2021 | \$ 3.3 | \$ 17.4 | \$ 0.3 | \$ 21.0 |
| Restructuring charges (releases) | 0.3 | 2.1 | (0.2) | 2.2 |
| Currency translation and other adjustments | 0.1 | (1.4) | — | (1.3) |
| Cash payments | (2.2) | (3.8) | — | (6.0) |
| Reserve balances at June 30, 2022 | \$ 1.5 | \$ 14.3 | \$ 0.1 | \$ 15.9 |

Restructuring reserves are included in Accrued restructuring and other current liabilities in the accompanying unaudited Condensed Consolidated Balance Sheets.

Note 4—Inventories

The following table sets forth the components of inventory:

| (In thousands) | June 30, 2022 | December 31, 2021 |
|----------------------------|---------------|-------------------|
| Finished products | \$ 92,068 | \$ 87,657 |
| Work in process | 18,579 | 6,534 |
| Raw materials and supplies | 230,897 | 186,426 |
| Total inventories | \$ 341,544 | \$ 280,617 |

Note 5—Property, Plant and Equipment

The following table sets forth the components of property, plant and equipment, net:

| (In thousands) | June 30, 2022 | December 31, 2021 |
|------------------------------------|---------------|-------------------|
| Land | \$ 4,888 | \$ 5,131 |
| Buildings | 137,924 | 136,272 |
| Machinery and equipment | 448,686 | 435,652 |
| Construction in progress | 25,662 | 36,552 |
| Total | 617,160 | 613,607 |
| Less: accumulated depreciation | (414,124) | (405,814) |
| Property, plant and equipment, net | \$ 203,036 | \$ 207,793 |

Note 6—Reclassifications Out of Accumulated Other Comprehensive Loss

Changes in accumulated other comprehensive loss were as follows:

| (In thousands) | MSA Safety Incorporated | | Noncontrolling Interests | |
|--|--------------------------------|--------------|--------------------------------|------|
| | Three Months Ended June 30, | | Three Months Ended June 30, | |
| | 2022 | 2021 | 2022 | 2021 |
| Pension and other post-retirement benefits ^(a) | | | | |
| Balance at beginning of period | \$ (55,032) | \$ (111,840) | \$ — | \$ — |
| Amounts reclassified from accumulated other comprehensive loss into net income: | | | | |
| Amortization of prior service credit (Note 15) | (48) | (24) | — | — |
| Recognized net actuarial losses (Note 15) | 3,328 | 4,820 | — | — |
| Tax benefit | (950) | (1,139) | — | — |
| Total amount reclassified from accumulated other comprehensive loss, net of tax, into net income | 2,330 | 3,657 | — | — |
| Balance at end of period | \$ (52,702) | \$ (108,183) | \$ — | \$ — |
| Available-for-sale securities | | | | |
| Balance at beginning of period | \$ (14) | \$ (6) | \$ — | \$ — |
| Unrealized net (losses) gains on available-for-sale securities (Note 17) | (9) | 1 | — | — |
| Balance at end of period | \$ (23) | \$ (5) | \$ — | \$ — |
| Foreign currency translation | | | | |
| Balance at beginning of period | \$ (85,947) | \$ (77,102) | \$ — | \$ — |
| Foreign currency translation adjustments | (31,606) | 6,145 | — | — |
| Balance at end of period | \$ (117,553) | \$ (70,957) | \$ — | \$ — |

^(a) Reclassifications out of accumulated other comprehensive loss and into net income are included in the computation of net periodic pension and other post-retirement benefit costs (refer to Note 15—Pensions and Other Post-retirement Benefits).

| (In thousands) | MSA Safety Incorporated | | Noncontrolling Interests | |
|--|----------------------------------|--------------|----------------------------------|--------|
| | Six Months Ended June 30, | | Six Months Ended June 30, | |
| | 2022 | 2021 | 2022 | 2021 |
| Pension and other post-retirement benefits ^(a) | | | | |
| Balance at beginning of period | \$ (57,296) | \$ (115,552) | \$ — | \$ — |
| Amounts reclassified from accumulated other comprehensive loss into net income: | | | | |
| Amortization of prior service credit (Note 15) | (96) | (48) | — | — |
| Recognized net actuarial losses (Note 15) | 6,656 | 9,640 | — | — |
| Tax benefit | (1,966) | (2,223) | — | — |
| Total amount reclassified from accumulated other comprehensive loss, net of tax, into net income | 4,594 | 7,369 | — | — |
| Balance at end of period | \$ (52,702) | \$ (108,183) | \$ — | \$ — |
| Available-for-sale securities | | | | |
| Balance at beginning of period | \$ (5) | \$ (1) | \$ — | \$ — |
| Unrealized net losses on available-for-sale securities (Note 17) | (18) | (4) | — | — |
| Balance at end of period | \$ (23) | \$ (5) | \$ — | \$ — |
| Foreign currency translation | | | | |
| Balance at beginning of period | \$ (91,839) | \$ (66,844) | \$ — | \$ 582 |
| Foreign currency translation adjustments | (25,714) | (4,113) | — | (92) |
| Balance at end of period | \$ (117,553) | \$ (70,957) | \$ — | \$ 490 |

^(a) Reclassifications out of accumulated other comprehensive loss and into net income are included in the computation of net periodic pension and other post-retirement benefit costs (refer to Note 15—Pensions and Other Post-retirement Benefits).

Note 7—Capital Stock

Preferred Stock - The Company has authorized 100,000 shares of \$50 par value 4.5% cumulative preferred nonvoting stock which is callable at \$52.50. There are 71,340 shares issued and 52,998 shares held in treasury at June 30, 2022. The Treasury shares at cost line in the unaudited Condensed Consolidated Balance Sheets includes \$1.8 million related to preferred stock. There were no treasury purchases of preferred stock shares during both the six months ended June 30, 2022 and 2021. The Company has also authorized 1,000,000 shares of \$10 par value second cumulative preferred voting stock. No shares have been issued as of June 30, 2022.

Common Stock - The Company has authorized 180,000,000 shares of no par value common stock. There were 62,081,391 shares issued as of December 31, 2021. No new shares were issued during the six months ended June 30, 2022, or 2021. There were 39,124,837 and 39,276,518 shares outstanding at June 30, 2022 and December 31, 2021, respectively.

Treasury Shares - The Company's share repurchase program authorizes up to \$100.0 million to repurchase MSA common stock in the open market and in private transactions. The share repurchase program has no expiration date. The maximum number of shares that may be repurchased is calculated based on the dollars remaining under the program and the respective month-end closing share price. During the six months ended June 30, 2022, 231,835 shares were repurchased under this program. During the six months ended June 30, 2021, no shares were repurchased under this program. There were 22,956,554 and 22,804,873 Treasury Shares at June 30, 2022 and December 31, 2021, respectively.

The Company issues Treasury Shares for all stock-based compensation plans. Shares are issued from Treasury at the average Treasury Share cost on the date of the transaction. There were 110,696 and 33,625 Treasury Shares issued for these purposes during the six months ended June 30, 2022 and 2021, respectively.

Common stock activity is summarized as follows:

| (In thousands) | Three Months Ended June 30, 2022 | | Three Months Ended June 30, 2021 | |
|---|----------------------------------|---------------|----------------------------------|---------------|
| | Common Stock | Treasury Cost | Common Stock | Treasury Cost |
| Balance at beginning of period | \$ 262,627 | \$ (331,160) | \$ 245,887 | \$ (329,6 |
| Stock compensation expense | 4,629 | — | 7,403 | |
| Restricted and performance stock awards | (201) | 201 | (170) | 1 |
| Stock options exercised | 166 | 80 | 244 | 1 |
| Treasury shares purchased for stock compensation programs | — | (272) | — | (1 |
| Employee stock purchase program | 424 | 62 | 409 | |
| Share repurchase program | — | (28,225) | — | |
| Balance at end of period | \$ 267,645 | \$ (359,314) | \$ 253,773 | \$ (329,4 |

| (In thousands) | Six Months Ended June 30, 2022 | | Six Months Ended June 30, 2021 | |
|---|--------------------------------|---------------|--------------------------------|---------------|
| | Common Stock | Treasury Cost | Common Stock | Treasury Cost |
| Balance at beginning of period | \$ 260,121 | \$ (328,776) | \$ 242,693 | \$ (326,1 |
| Stock compensation expense | 8,358 | — | 10,695 | |
| Restricted and performance stock awards | (1,461) | 1,461 | (1,502) | 1,5 |
| Stock options exercised | 203 | 95 | 1,478 | 6 |
| Treasury shares purchased for stock compensation programs | — | (3,931) | — | (5,5 |
| Employee stock purchase program | 424 | 62 | 409 | |
| Share repurchase program | — | (28,225) | — | |
| Balance at end of period | \$ 267,645 | \$ (359,314) | \$ 253,773 | \$ (329,4 |

Note 8—Segment Information

We are organized into four geographical operating segments that are based on management responsibilities: Northern North America, Latin America, Europe, Middle East & Africa, and Asia Pacific. The operating segments have been aggregated (based on economic similarities, the nature of their products, end-user markets and methods of distribution) into three reportable segments: Americas, International, and Corporate.

The Americas segment is comprised of our operations in Northern North American and Latin American geographies. The International segment is comprised of our operations of all geographies outside of the Americas. Certain global expenses are allocated to each segment in a manner consistent with where the benefits from the expenses are derived.

The Company's sales are allocated to each country based primarily on the destination of the end-customer.

Adjusted operating income (loss), adjusted operating margin, adjusted earnings before interest, taxes, depreciation and amortization (EBITDA) and adjusted EBITDA margin are the measures used by the chief operating decision maker to evaluate segment performance and allocate resources. Adjusted operating income (loss) is defined as operating income excluding restructuring charges, currency exchange gains (losses), product liability expense, acquisition related costs, including acquisition related amortization and adjusted operating margin is defined as adjusted operating income (loss) divided by segment sales to external customers. Adjusted EBITDA is defined as adjusted operating income (loss) plus depreciation and amortization and adjusted EBITDA margin is defined as adjusted EBITDA divided by segment sales to external customers. Adjusted operating income (loss), adjusted operating margin, adjusted EBITDA and adjusted EBITDA margin are not recognized terms under U.S. GAAP, and therefore, do not purport to be alternatives to operating income or operating margin as a measure of operating performance. Further, the Company's measure of adjusted operating income (loss), adjusted operating margin, adjusted EBITDA and adjusted EBITDA margin may not be comparable to similarly titled measures of other companies. Adjusted operating income (loss) and adjusted EBITDA on a consolidated basis is presented in the following table to reconcile the segment operating performance measures to the most directly comparable GAAP measure, operating income, as presented on the unaudited Condensed Consolidated Statements of Income.

The accounting principles applied at the operating segment level in determining operating income (loss) are generally the same as those applied at the unaudited condensed consolidated financial statements level. Sales and transfers between operating segments are accounted for at market-based transaction prices and are eliminated in consolidation.

Reportable segment information is presented in the following table:

| (In thousands, except percentage amounts) | Americas | International | Corporate | Consolidated Totals |
|--|------------|---------------|-----------|---------------------|
| Three Months Ended June 30, 2022 | | | | |
| Sales to external customers | \$ 252,386 | \$ 119,927 | \$ — | \$ 372,313 |
| Operating income | | | | 61,536 |
| Restructuring charges (Note 3) | | | | 57 |
| Currency exchange gains, net | | | | (1,463) |
| Product liability expense (Note 18) | | | | 2,926 |
| Acquisition related costs ^(a) | | | | 2,557 |
| Adjusted operating income (loss) | 57,141 | 17,207 | (8,735) | 65,613 |
| Adjusted operating margin % | 22.6 % | 14.3 % | | |
| Depreciation and amortization ^(a) | | | | 11,604 |
| Adjusted EBITDA | 65,461 | 20,370 | (8,614) | 77,217 |
| Adjusted EBITDA margin % | 25.9 % | 17.0 % | | |
| Six Months Ended June 30, 2022 | | | | |
| Sales to external customers | \$ 478,034 | \$ 224,971 | \$ — | \$ 703,005 |
| Operating income | | | | 104,204 |
| Restructuring charges (Note 3) | | | | 2,247 |
| Currency exchange losses, net | | | | 1,809 |
| Product liability expense (Note 18) | | | | 5,698 |
| Acquisition related costs ^(a) | | | | 5,499 |
| Adjusted operating income (loss) | 109,577 | 26,196 | (16,316) | 119,457 |
| Adjusted operating margin % | 22.9 % | 11.6 % | | |
| Depreciation and amortization ^(a) | | | | 23,420 |
| Adjusted EBITDA | 126,256 | 32,698 | (16,077) | 142,877 |
| Adjusted EBITDA margin % | 26.4 % | 14.5 % | | |

^(a)Acquisition related costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during due diligence and integration. These costs are included in Selling, general and administrative expense in the unaudited Condensed Consolidated Statements of Income. Acquisition related costs also include the acquisition related amortization, which is included in Cost of products sold in the unaudited Condensed Consolidated Statements of Income.

| (In thousands, except percentage amounts) | Americas | International | Corporate | Consolidated Totals |
|---|------------|---------------|-----------|------------------------|
| Three Months Ended June 30, 2021 | | | | |
| Sales to external customers | \$ 217,707 | \$ 123,582 | \$ — | \$ 341,289 |
| Operating income | | | | 35,135 |
| Restructuring charges (Note 3) | | | | 7,078 |
| Currency exchange losses, net | | | | 1,640 |
| Product liability expense (Note 18) | | | | 11,751 |
| Acquisition related costs ^(a) | | | | 3,168 |
| Adjusted operating income (loss) | 49,319 | 20,444 | (10,991) | 58,772 |
| Adjusted operating margin % | 22.7 % | 16.5 % | | |
| Depreciation and amortization | | | | 11,584 |
| Adjusted EBITDA | 57,218 | 24,024 | (10,886) | 70,356 |
| Adjusted EBITDA margin % | 26.3 % | 19.4 % | | |
| Six Months Ended June 30, 2021 | | | | |
| Sales to external customers | \$ 426,046 | \$ 223,671 | \$ — | \$ 649,717 |
| Operating income | | | | 79,217 |
| Restructuring charges (Note 3) | | | | 8,385 |
| Currency exchange gains, net | | | | (459) |
| Product liability expense (Note 18) | | | | 14,547 |
| Acquisition related costs ^(a) | | | | 4,541 |
| Adjusted operating income (loss) | 94,512 | 29,201 | (17,482) | 106,231 |
| Adjusted operating margin % | 22.2 % | 13.1 % | | |
| Depreciation and amortization | | | | 22,088 |
| Adjusted EBITDA | 109,444 | 36,154 | (17,279) | 128,319 |
| Adjusted EBITDA margin % | 25.7 % | 16.2 % | | |

*Prior periods have been adjusted to reflect the change in inventory accounting method, as described in the Company's fiscal 2021 Annual Report on Form 10-K. Adjustments were made to Americas and International.

^(a)Acquisition related costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during due diligence and integration. These costs are included in Selling, general and administrative expense in the unaudited Condensed Consolidated Statements of Income. Acquisition-related costs also include the acquisition related amortization, which is included in Cost of products sold in the Condensed Consolidated Statements of Income.

Total sales by product group was as follows:

Three Months Ended June 30, 2022

(In thousands, except percentages)

| | Consolidated | | Americas | | International | |
|--|--------------|---------|------------|---------|---------------|---------|
| | Dollars | Percent | Dollars | Percent | Dollars | Percent |
| Breathing Apparatus | \$ 91,950 | 25% | \$ 64,610 | 26% | 27,340 | 23% |
| Fixed Gas & Flame Detection ^(a) | 80,498 | 22% | 50,514 | 20% | 29,984 | 25% |
| Firefighter Helmets & Protective Apparel | 47,899 | 13% | 35,037 | 14% | 12,862 | 11% |
| Portable Gas Detection | 44,892 | 12% | 31,665 | 13% | 13,227 | 11% |
| Industrial Head Protection | 43,724 | 12% | 34,023 | 13% | 9,701 | 8% |
| Fall Protection | 26,614 | 7% | 17,005 | 7% | 9,609 | 8% |
| Other ^(b) | 36,736 | 9% | 19,532 | 7% | 17,204 | 14% |
| Total | \$ 372,313 | 100% | \$ 252,386 | 100% | \$ 119,927 | 100% |

Six Months Ended June 30, 2022

(In thousands, except percentages)

| | Consolidated | | Americas | | International | |
|--|--------------|---------|------------|---------|---------------|---------|
| | Dollars | Percent | Dollars | Percent | Dollars | Percent |
| Breathing Apparatus | \$ 162,901 | 23% | \$ 115,008 | 24% | \$ 47,893 | 21% |
| Fixed Gas & Flame Detection ^(a) | 163,575 | 23% | 105,135 | 22% | 58,440 | 26% |
| Firefighter Helmets & Protective Apparel | 96,360 | 14% | 68,513 | 14% | 27,847 | 12% |
| Portable Gas Detection | 81,635 | 12% | 57,456 | 12% | 24,179 | 11% |
| Industrial Head Protection | 79,881 | 11% | 62,188 | 13% | 17,693 | 8% |
| Fall Protection | 51,275 | 7% | 33,282 | 7% | 17,993 | 8% |
| Other ^(b) | 67,378 | 10% | 36,452 | 8% | 30,926 | 14% |
| Total | \$ 703,005 | 100% | \$ 478,034 | 100% | \$ 224,971 | 100% |

Three Months Ended June 30, 2021

(In thousands, except percentages)

| | Consolidated | | Americas | | International | |
|--|--------------|---------|------------|---------|---------------|---------|
| | Dollars | Percent | Dollars | Percent | Dollars | Percent |
| Breathing Apparatus | \$ 76,659 | 22% | \$ 51,436 | 24% | \$ 25,223 | 20% |
| Fixed Gas & Flame Detection | 64,920 | 19% | 36,950 | 17% | 27,970 | 23% |
| Firefighter Helmets & Protective Apparel | 53,121 | 16% | 36,424 | 17% | 16,697 | 14% |
| Portable Gas Detection | 38,820 | 11% | 25,393 | 12% | 13,427 | 11% |
| Industrial Head Protection | 38,155 | 11% | 28,820 | 13% | 9,335 | 8% |
| Fall Protection | 30,809 | 9% | 17,677 | 8% | 13,132 | 11% |
| Other ^(b) | 38,805 | 12% | 21,007 | 9% | 17,798 | 13% |
| Total | \$ 341,289 | 100% | \$ 217,707 | 100% | \$ 123,582 | 100% |

Six Months Ended June 30, 2021

(In thousands, except percentages)

| | Consolidated | | Americas | | International | |
|--|--------------|---------|------------|---------|---------------|---------|
| | Dollars | Percent | Dollars | Percent | Dollars | Percent |
| Breathing Apparatus | \$ 146,304 | 23% | \$ 100,234 | 24% | \$ 46,069 | 21% |
| Fixed Gas & Flame Detection | 125,039 | 19% | 73,227 | 17% | 51,811 | 23% |
| Firefighter Helmets & Protective Apparel | 99,131 | 15% | 71,413 | 17% | 27,719 | 12% |
| Portable Gas Detection | 76,249 | 12% | 51,095 | 12% | 25,154 | 11% |
| Industrial Head Protection | 70,851 | 11% | 53,931 | 13% | 16,920 | 8% |
| Fall Protection | 56,876 | 9% | 33,349 | 8% | 23,526 | 11% |
| Other ^(b) | 75,267 | 11% | 42,797 | 9% | 32,472 | 14% |
| Total | \$ 649,717 | 100% | \$ 426,046 | 100% | \$ 223,671 | 100% |

^(a)Fixed Gas & Flame Detection includes sales from the Bacharach, Inc. and its affiliated companies ("Bacharach") acquisition for periods following July 1, 2021 (Americas and International).

^(b)Other products include sales of Air Purifying Respirators.

Note 9—Earnings per Share

Basic earnings per share attributable to MSA Safety Incorporated common shareholders is computed by dividing net income, after the deduction of preferred stock dividends and undistributed earnings allocated to participating securities, by the weighted average number of common shares outstanding during the period. Diluted earnings per share attributable to MSA Safety Incorporated common shareholders assumes the issuance of common stock for all potentially dilutive share equivalents outstanding not classified as participating securities. Participating securities are defined as unvested stock-based compensation awards that contain nonforfeitable rights to dividends.

Amounts attributable to MSA Safety Incorporated common shareholders:

(In thousands, except per share amounts)

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|--|-----------------------------|-----------|---------------------------|-----------|
| | 2022 | 2021 | 2022 | 2021 |
| Net income | \$ 47,693 | \$ 25,186 | \$ 83,235 | \$ 61,636 |
| Preferred stock dividends | (10) | (10) | (20) | (20) |
| Net income available to common equity | 47,683 | 25,176 | 83,215 | 61,616 |
| Dividends and undistributed earnings allocated to participating securities | (8) | (8) | (13) | (22) |
| Net income available to common shareholders | 47,675 | 25,168 | 83,202 | 61,594 |
| Basic weighted-average shares outstanding | 39,266 | 39,167 | 39,279 | 39,131 |
| Stock-based compensation awards | 155 | 253 | 193 | 290 |
| Diluted weighted-average shares outstanding | 39,421 | 39,420 | 39,472 | 39,421 |
| Antidilutive stock options | — | — | — | — |
| Earnings per share: | | | | |
| Basic | \$ 1.21 | \$ 0.64 | \$ 2.12 | \$ 1.57 |
| Diluted | \$ 1.21 | \$ 0.64 | \$ 2.11 | \$ 1.56 |

*Prior periods have been adjusted to reflect the change in inventory accounting method, as described in the Company's fiscal 2021 Annual Report on Form 10-K.

Note 10—Income Taxes

The Company's effective tax rate for the second quarter of 2022 was 24.7%, which differs from the United States of America ("U.S.") federal statutory rate of 21% primarily due to state income taxes and increased profitability in higher tax jurisdictions. The Company's effective tax rate for the second quarter of 2021 was 27.8%, which differs from the U.S. federal statutory rate of 21% primarily due to statutory rate increases in foreign jurisdictions and nondeductible executive compensation, partially offset by tax benefits on certain share-based payments.

On June 10, 2021 the United Kingdom ("U.K.") Parliament announced royal assent for Bill No. 12, on the Finance Act of 2021. This bill will increase the statutory rate from 19% to 25% in April 2023. The Company recorded this impact on its deferred tax balances in the second quarter of 2021.

The Company's effective tax rate for the six months ended June 30, 2022, was 23.5% which differs from the U.S. federal statutory rate of 21% primarily due to state income taxes. The Company's effective tax rate for the six months ended June 30, 2021, was 24.0%, which differs from the U.S. federal statutory rate of 21% primarily due to statutory rate increases in foreign jurisdictions and nondeductible executive compensation, partially offset by tax benefits on certain share-based payments.

At June 30, 2022, the Company had a gross liability for unrecognized tax benefits of \$4.8 million. The Company has recognized tax benefits associated with these liabilities of \$2.3 million at June 30, 2022. The gross liability includes amounts associated with foreign tax exposure in prior periods.

The Company recognizes interest related to unrecognized tax benefits in interest expense and penalties in operating expenses. The Company's liability for accrued interest related to uncertain tax positions was \$0.9 million at June 30, 2022.

We are subject to regular review and audit by both foreign and domestic tax authorities. While we believe our tax positions will be sustained, the final outcome of tax audits and related litigation may differ materially from the tax amounts recorded in our unaudited condensed consolidated financial statements.

Note 11—Stock Plans

The 2016 Management Equity Incentive Plan provides for various forms of stock-based compensation for eligible key employees through May 2026. Management stock-based compensation includes stock options, restricted stock awards, restricted stock units and performance stock units. The 2017 Non-Employee Directors' Equity Incentive Plan provides for grants of stock options and restricted stock to non-employee directors through May 2027. We issue treasury shares for stock option exercises and grants of restricted stock and performance stock. Please refer to Note 7—Capital Stock for further information regarding stock compensation share issuance.

Stock compensation expense is as follows:

| (In thousands) | Three Months Ended June 30, | | Six Months Ended June 30, | |
|--|-----------------------------|----------|---------------------------|-----------|
| | 2022 | 2021 | 2022 | 2021 |
| Stock compensation expense | \$ 4,629 | \$ 7,403 | \$ 8,358 | \$ 10,695 |
| Income tax benefit | 1,134 | 1,784 | 2,048 | 2,577 |
| Stock compensation expense, net of tax | \$ 3,495 | \$ 5,619 | \$ 6,310 | \$ 8,118 |

A summary of stock option activity for the six months ended June 30, 2022, follows:

| | Shares | Weighted Average Exercise Price |
|--------------------------------|---------|---------------------------------|
| Outstanding at January 1, 2022 | 161,701 | \$ 45.47 |
| Exercised | (6,439) | 46.29 |
| Outstanding at June 30, 2022 | 155,262 | 45.44 |
| Exercisable at June 30, 2022 | 155,217 | \$ 45.44 |

Restricted stock awards and restricted stock units are valued at the market value of the stock on the grant date. A summary of restricted stock activity for the six months ended June 30, 2022, follows:

| | Shares | Weighted Average Grant Date Fair Value |
|-----------------------------|----------|--|
| Unvested at January 1, 2022 | 118,343 | \$ 132.62 |
| Granted | 63,321 | 133.71 |
| Vested | (43,382) | 114.09 |
| Forfeited | (3,308) | 134.80 |
| Unvested at June 30, 2022 | 134,974 | \$ 139.03 |

Performance stock units that have a market condition modifier are valued at an estimated fair value using a Monte Carlo model. The final number of shares to be issued for performance stock units granted in 2022 may range from 0% to 200% of the target award based on achieving the specified performance targets over the performance period plus an additional modifier based on total shareholder return ("TSR") over the performance period. The following weighted average assumptions were used in estimating the fair value of the performance stock units granted during the six months ended June 30, 2022.

| | |
|-------------------------|----------|
| Fair value per unit | \$143.60 |
| Risk-free interest rate | 1.72% |
| Expected dividend yield | 1.14% |
| Expected volatility | 34.4% |
| MSA stock beta | 0.890 |

The risk-free interest rate is based on the U.S. Treasury Constant Maturity rates as of the grant date converted into an implied spot rate yield curve. Expected dividend yield is based on the most recent annualized dividend divided by the one year average closing share price. Expected volatility is based on the three year historical volatility preceding the grant date using daily stock prices. Expected life is based on historical stock option exercise data.

A summary of performance stock unit activity for the six months ended June 30, 2022, follows:

| | Shares | Weighted Average Grant Date Fair Value |
|-----------------------------|----------|---|
| Unvested at January 1, 2022 | 193,335 | \$ 129.86 |
| Granted | 81,504 | 142.38 |
| Performance adjustments | (22,147) | 99.84 |
| Vested | (55,447) | 101.38 |
| Forfeited | (2,582) | 147.20 |
| Unvested at June 30, 2022 | 194,663 | \$ 146.40 |

The performance adjustments above relate primarily to the final number of shares issued for the 2019 performance unit awards which vested in the first quarter of 2022 at 64.2% of the target award based on both cumulative performance against the EBITDA margin and revenue growth targets and MSA's TSR during the three-year performance period.

Note 12—Long-Term Debt

| (In thousands) | June 30, 2022 | December 31, 2021 |
|---|---------------|-------------------|
| 2016 Senior Notes payable through 2031, 3.40%, net of debt issuance costs | \$ 66,779 | \$ 74,203 |
| 2021 Senior Notes payable through 2036, 2.69%, net of debt issuance costs | 99,700 | 99,694 |
| 2021 Senior Notes payable through 2036, 2.69%, net of debt issuance costs | 99,700 | 99,694 |
| Senior revolving credit facility maturing in 2026, net of debt issuance costs | 357,032 | 324,060 |
| Total | 623,211 | 597,651 |
| Amounts due within one year | 7,433 | — |
| Long-term debt, net of debt issuance costs | \$ 615,778 | \$ 597,651 |

On May 24, 2021, the Company entered into a Fourth Amended and Restated Credit Agreement (the "Revolving Credit Facility" or "Facility") that extended its term through May 24, 2026 and increased the capacity to \$900.0 million. Under the amended agreement, the Company may elect either a Base rate of interest ("BASE") or an interest rate based on the London Interbank Offered Rate ("LIBOR"). The BASE is a daily fluctuating per annum rate equal to the highest of (i) 0.00%, (ii) the Prime Rate, (iii) the Federal Funds Open Rate plus one half of one percent (0.5%), (iv) the Overnight Bank Funding Rate, plus one half of one percent (0.5%), or (v) the Daily LIBOR Rate plus one percent (1.00%). The Company pays a credit spread of 0 to 175 basis points based on the Company's net EBITDA leverage ratio and elected rate (BASE or LIBOR). The Company has a weighted average revolver interest rate of 2.27% as of June 30, 2022. At June 30, 2022, \$539.6 million of the existing \$900.0 million Revolving Credit Facility was unused, including letters of credit issued under the Facility. The Facility also provides an accordion feature that allows the Company to access an additional \$400.0 million of capacity pending approval by MSA's board of directors and from the bank group.

On July 1, 2021 the Company entered into a Third Amended and Restated Multi-Currency Note Purchase and Private Shelf Agreement (the "Prudential Note Agreement") with PGIM, Inc. ("Prudential"). The Prudential Note Agreement provided for (i) the issuance of \$100.0 million of 2.69% Series C Senior Notes due July 1, 2036 and (ii) the establishment of an uncommitted note issuance facility whereby the Company may request, subject to Prudential's acceptance in its sole discretion, the issuance of up to \$335.0 million aggregate principal amount of senior unsecured notes. As of June 30, 2022, the Company had issued £54.9 million (approximately \$66.9 million at June 30, 2022) of 3.4% Series B Senior Notes due January 22, 2031. Maturities of this note are £6.1 million (approximately \$7.4 million at June 30, 2022) due January 22, 2023 with annual maturities of £6.1 million through January 2031.

On July 1, 2021, the Company entered into a Second Amended and Restated Master Note Facility (the "NYL Note Facility") with NYL Investors. The NYL Note Facility provided for (i) the issuance of \$100.0 million of 2.69% Series A Senior Notes due July 1, 2036 and (ii) the establishment of an uncommitted note issuance facility whereby the Company may request, subject to NYL Investors' acceptance in its sole discretion, the issuance of up to \$200.0 million aggregate principal amount of senior unsecured notes.

The Revolving Credit Facility, Prudential Note Agreement and NYL Note Facility require the Company to comply with specified financial covenants, including a requirement to maintain a minimum fixed charges coverage ratio of not less than 1.50 to 1.00 and a consolidated leverage ratio not to exceed 3.50 to 1.00; except during an acquisition period, defined as four consecutive fiscal quarters beginning with the quarter of acquisition, in which case the consolidated net leverage ratio shall not exceed 4.00 to 1.00; in each case calculated on the basis of the trailing four fiscal quarters. In addition, the agreements contain negative covenants limiting the ability of the Company and its subsidiaries to incur additional indebtedness or issue guarantees, create or incur liens, make loans and investments, make acquisitions, transfer or sell assets, enter into transactions with affiliated parties, make changes in its organizational documents that are materially adverse to lenders or modify the nature of the Company's or its subsidiaries' business. All credit facilities exclude the subsidiary, Mine Safety Appliances Company, LLC.

On July 1, 2021, the Company acquired Bacharach in a transaction valued at \$329.4 million, net of cash acquired. The acquisition was partially financed by \$200.0 million of 2.69% Senior Notes from the Prudential Note Agreement and NYL Note Facility. The remaining purchase price was financed under the Revolving Credit Facility.

During August 2021, the Company amended its Revolving Credit Facility to transition from Sterling LIBOR reference rates to Sterling Overnight Interbank Average Rate ("SONIA") reference rates. The Company will apply the optional expedients in ASC 848, *Reference Rate Reform*, to this modification and potential future modifications driven by reference rate reform, accounting for the modifications as a continuation of the existing contracts. Therefore, these modifications will not require remeasurement at the modification date or a reassessment of previous accounting determinations. As such, the Company does not anticipate the change in reference rates will have an impact on the Company's unaudited condensed consolidated financial statements. Management continues to evaluate the Company's other outstanding U.S. LIBOR based contracts to determine whether reference rate modifications are necessary.

As of June 30, 2022, the Company was in full compliance with the restrictive covenants under its various credit agreements.

The Company had outstanding bank guarantees and standby letters of credit with banks as of June 30, 2022, totaling \$9.8 million, of which \$1.5 million relate to the Revolving Credit Facility. The letters of credit serve to cover customer requirements in connection with certain sales orders and insurance companies. The Company is also required to provide cash collateral in connection with certain arrangements. At June 30, 2022, the Company has \$1.5 million of restricted cash in support of these arrangements.

Note 13—Goodwill and Intangible Assets

Changes in goodwill during the six months ended June 30, 2022 were as follows:

| (In thousands) | Goodwill | |
|-------------------------------|----------|----------|
| Balance at January 1, 2022 | \$ | 636,858 |
| Measurement Period Adjustment | | (1,041) |
| Currency translation | | (16,368) |
| Balance at June 30, 2022 | \$ | 619,449 |

At June 30, 2022, goodwill of \$447.6 million and \$171.8 million related to the Americas and International reportable segments, respectively.

Changes in intangible assets, net of accumulated amortization, during the six months ended June 30, 2022, were as follows:

| (In thousands) | Intangible Assets | |
|--------------------------------|-------------------|----------|
| Net balance at January 1, 2022 | \$ | 306,948 |
| Amortization expense | | (10,473) |
| Currency translation | | (6,254) |
| Net balance at June 30, 2022 | \$ | 290,221 |

At June 30, 2022, the above intangible assets balance includes a trade name related to the Globe acquisition with an indefinite life totaling \$60.0 million.

Note 14—Acquisitions

Acquisition of Bacharach

On July 1, 2021, we acquired 100% of the common stock of Bacharach. Bacharach, which is headquartered in New Kensington, PA, is a leader in gas detection technologies used in the heating, ventilation, air conditioning, and refrigeration ("HVAC-R") markets. This acquisition expanded MSA's gas detection portfolio and leverages MSA's product and manufacturing expertise into new markets.

The Company finalized the purchase price allocation during the second quarter of 2022. The following table summarizes the fair values of the Bacharach assets acquired and liabilities assumed at the date of the acquisition:

| (In millions) | July 1, 2021 |
|---|--------------|
| Current assets (including cash of \$11.7 million) | \$ 32.1 |
| Property, plant and equipment and other noncurrent assets | 4.3 |
| Customer relationships | 123.0 |
| Developed technology | 20.5 |
| Trade name | 15.0 |
| Goodwill | 193.5 |
| Total assets acquired | 388.4 |
| Total liabilities assumed | (47.3) |
| Net assets acquired | \$ 341.1 |

Acquisition of Bristol Uniforms and Bell Apparel ("Bristol")

On January 25, 2021, we acquired 100% of the common stock of B T Q Limited, including Bristol. Bristol, which is headquartered in the U.K., is a leading innovator and provider of protective apparel to the fire, rescue services, and utility sectors.

The Company finalized the purchase price allocation during the first quarter of 2022. The following table summarizes the fair values of the Bristol assets acquired and liabilities assumed at the date of the acquisition:

| (In millions) | January 25, 2021 |
|---|------------------|
| Current assets (including cash of \$13.3 million) | \$ 37.1 |
| Net investment in sales-type leases, noncurrent | 29.0 |
| Property, plant and equipment and other noncurrent assets | 12.0 |
| Customer relationships | 4.5 |
| Trade name and other intangible assets | 1.4 |
| Goodwill | 4.9 |
| Total assets acquired | 88.9 |
| Total liabilities assumed | (12.6) |
| Net assets acquired | \$ 76.3 |

Note 15—Pensions and Other Post-retirement Benefits

Components of net periodic benefit cost consisted of the following:

| (In thousands) | Pension Benefits | | Other Benefits | |
|---|------------------|----------|----------------|----------|
| | 2022 | 2021 | 2022 | 2021 |
| Three Months Ended June 30, | | | | |
| Service cost | \$ 3,099 | \$ 3,242 | \$ 82 | \$ 99 |
| Interest cost | 3,613 | 2,817 | 148 | 116 |
| Expected return on plan assets | (12,418) | (9,147) | — | — |
| Amortization of prior service cost (credit) | 36 | 66 | (84) | (90) |
| Recognized net actuarial losses | 3,018 | 4,421 | 310 | 399 |
| Net periodic benefit (income) cost ^(a) | \$ (2,652) | \$ 1,399 | \$ 456 | \$ 524 |
| Six Months Ended June 30, | | | | |
| Service cost | \$ 6,198 | \$ 6,484 | \$ 164 | \$ 198 |
| Interest cost | 7,226 | 5,634 | 296 | 232 |
| Expected return on plan assets | (24,836) | (18,294) | — | — |
| Amortization of prior service cost (credit) | 72 | 132 | (168) | (180) |
| Recognized net actuarial losses | 6,036 | 8,842 | 620 | 798 |
| Settlements | — | (1,879) | — | — |
| Net periodic benefit (income) cost ^(a) | \$ (5,304) | \$ 919 | \$ 912 | \$ 1,048 |

^(a) Components of net periodic benefit cost other than service cost are included in the line item Other income, net, and service costs are included in the line items Cost of products sold and Selling, general and administrative in the unaudited Condensed Consolidated Statements of Income.

We made contributions of \$3.8 million to our pension plans during both the six months ended June 30, 2022 and 2021, respectively. We expect to make total contributions of \$7.7 million to our pension plans in 2022, which are primarily associated with statutorily required plans in the International reporting segment.

Note 16—Derivative Financial Instruments

As part of our currency exchange rate risk management strategy, we enter into certain derivative foreign currency forward contracts that do not meet the U.S. GAAP criteria for hedge accounting but have the impact of partially offsetting certain foreign currency exposures. We account for these forward contracts at fair value and report the related gains or losses in currency exchange losses (gains), net, in the unaudited Condensed Consolidated Statements of Income. The notional amount of open forward contracts was \$102.5 million and \$99.0 million at June 30, 2022, and December 31, 2021, respectively.

The following table presents the unaudited Condensed Consolidated Balance Sheets location and fair value of assets and liabilities associated with derivative financial instruments:

| (In thousands) | June 30, 2022 | December 31, 2021 |
|---|---------------|-------------------|
| Derivatives not designated as hedging instruments: | | |
| Foreign exchange contracts: other current liabilities | \$ 861 | \$ 128 |
| Foreign exchange contracts: prepaid expenses and other current assets | 33 | 619 |

The following table presents the unaudited Condensed Consolidated Statements of Income and unaudited Condensed Consolidated Statements of Cash Flows location and impact of derivative financial instruments:

| (In thousands) | Loss Recognized in Income | |
|---|---------------------------|----------|
| | Six Months Ended June 30, | |
| | 2022 | 2021 |
| Derivatives not designated as hedging instruments: | | |
| Foreign exchange contracts: currency exchange (gains) losses, net | \$ 8,449 | \$ 1,474 |

Note 17—Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are:

- Level 1—Observable inputs that reflect unadjusted quoted prices for identical assets or liabilities in active markets.
- Level 2—Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3—Unobservable inputs for the asset or liability.

The valuation methodologies we used to measure financial assets and liabilities include the derivative financial instruments described in Note 16—Derivative Financial Instruments. We estimate the fair value of the derivative financial instruments, consisting of foreign currency forward contracts, based upon valuation models with inputs that generally can be verified by observable market conditions and do not involve significant management judgment. Accordingly, the fair values of the derivative financial instruments are classified within Level 2 of the fair value hierarchy. With the exception of our investments in marketable securities and fixed rate long-term debt, we believe that the reported carrying amounts of our financial assets and liabilities approximate their fair values.

We value our investments in available-for-sale marketable securities, primarily fixed income, at fair value using quoted market prices for similar securities or pricing models. Accordingly, the fair values of the investments are classified within Level 2 of the fair value hierarchy. The amortized cost basis of our investments was \$34.9 million and \$49.0 million as of June 30, 2022 and December 31, 2021, respectively. The fair value was \$34.9 million and \$49.0 million as of June 30, 2022 and December 31, 2021, respectively, which was reported in Investments, short-term in the accompanying unaudited Condensed Consolidated Balance Sheets. The change in fair value is recorded in Other comprehensive income, net of tax. The Company does not intend to sell, nor is it more likely than not that we will be required to sell, these securities prior to recovery of their cost. As such, management believes that any unrealized gains or losses are temporary and to the extent that unrealized losses are present, management has not identified such losses to be other than temporary in nature. Accordingly, no impairment losses relating to these securities have been recognized. All investments in marketable securities have maturities of one year or less and are currently in an unrealized gain position as of June 30, 2022.

The reported carrying amount of our fixed rate long-term debt was \$266.9 million and \$274.3 million at June 30, 2022, and December 31, 2021, respectively. The fair value of this debt was \$228.1 million and \$279.8 million at June 30, 2022, and December 31, 2021, respectively. The fair value of this debt was determined using Level 2 inputs by evaluating similarly rated companies with publicly traded bonds where available or current borrowing rates available for financings with similar terms and maturities.

Note 18—Contingencies

Product liability

The Company and its subsidiaries face an inherent business risk of exposure to product liability claims arising from the alleged failure of our products to prevent the types of personal injury or death against which they are designed to protect. Product liability claims are categorized as either single incident or cumulative trauma.

Single incident product liability claims. Single incident product liability claims involve incidents of short duration that are typically known when they occur and involve observable injuries, which provide an objective basis for quantifying damages. Management has established reserves for the single incident product liability claims of its various subsidiaries, including, asserted single incident product liability claims and incurred but not reported ("IBNR") single incident claims. To determine the reserves, Management makes reasonable estimates of losses for single incident claims based on the number and characteristics of asserted claims, historical experience, sales volumes, expected settlement costs, and other relevant information. The reserve for single incident product liability claims was \$1.5 million and \$1.4 million at June 30, 2022 and December 31, 2021, respectively. Single incident product liability expense was \$0.1 million during both the six months ended June 30, 2022 and 2021. Single incident product liability exposures are evaluated on an annual basis, or more frequently if changing circumstances warrant. Adjustments are made to the reserve as appropriate. The reserve has not been discounted to present value and does not include future amounts which will be spent to defend the claims.

Cumulative trauma product liability claims. Cumulative trauma product liability claims involve alleged exposures to harmful substances (e.g., silica, asbestos and coal dust) that occurred years ago and may have developed over long periods of time into diseases such as silicosis, asbestosis, mesothelioma, or coal worker's pneumoconiosis. One of the Company's affiliates, Mine Safety Appliances Company, LLC ("MSA LLC"), was named as a defendant in 1,690 lawsuits comprised of 4,660 claims as of June 30, 2022. These lawsuits mainly involve respiratory protection products allegedly manufactured and sold by MSA LLC or its predecessors. The product models alleged were manufactured many years ago by MSA LLC and are no longer sold.

A summary of cumulative trauma product liability lawsuits and asserted cumulative trauma product liability claims activity is as follows:

| | Six Months Ended June 30, 2022 | Year Ended December 31, 2021 |
|--------------------------------------|-----------------------------------|---------------------------------|
| Open lawsuits, beginning of period | 1,675 | 1,622 |
| New lawsuits | 125 | 432 |
| Settled and dismissed lawsuits | (110) | (379) |
| Open lawsuits, end of period | 1,690 | 1,675 |
| | Six Months Ended June 30, 2022 | Year Ended December 31, 2021 |
| Asserted claims, beginning of period | 4,554 | 2,878 |
| New claims | 259 | 2,134 |
| Settled and dismissed claims | (153) | (458) |
| Asserted claims, end of period | 4,660 | 4,554 |

The increases in the number of claims in 2021 were largely driven by an increase in claims alleging injuries from exposure to coal dust, including claims brought by plaintiffs' counsel with which MSA LLC does not have substantial prior experience.

Management has established a reserve for MSA LLC's potential exposure to cumulative trauma product liability claims. MSA LLC's total cumulative trauma product liability reserve was \$411.8 million, including \$5.0 million for claims settled but not yet paid and related defense costs, as of June 30, 2022 and \$409.8 million, including \$2.5 million for claims settled but not yet paid and related defense costs, December 31, 2021. The reserve includes estimated amounts related to asserted and IBNR asbestos, silica, and coal dust claims expected to be resolved through the year 2074. The reserve has not been discounted to present value and does not include future amounts which will be spent to defend the claims. Defense costs are recognized in the unaudited Condensed Consolidated Statements of Income as incurred.

At June 30, 2022, \$49.3 million of the total reserve for cumulative trauma product liability claims is recorded in the Insurance and product liability line within other current liabilities in the unaudited Condensed Consolidated Balance Sheets and the remainder, \$362.5 million, is recorded in the Product liability and other noncurrent liabilities line. At December 31, 2021, \$46.7 million of the total reserve for cumulative trauma product liability claims is recorded in the Insurance and product liability line within other current liabilities in the unaudited Condensed Consolidated Balance Sheets and the remainder, \$363.1 million, is recorded in the Product liability and other noncurrent liabilities line.

During the quarter ended June 30, 2022, MSA LLC finalized a process that could result in settlements to resolve and dismiss several hundred claims for up to \$26.3 million with payments potentially spread across the third quarter of 2022 through the first quarter of 2023. Amounts to resolve these claims have already been accrued as part of the product liability reserve.

Total cumulative trauma liability losses were \$2.9 million and \$5.7 million for the three and six months ended June 30, 2022 and primarily related to the defense of cumulative trauma product liability claims. Total cumulative trauma liability losses were \$24.5 million and \$27.5 million for the three and six months ended June 30, 2021 and related to an update to our asserted cumulative trauma product liability reserve as well as the defense of cumulative trauma product liability claims. Uninsured cumulative trauma product liability losses, which were included in Product liability expense on the unaudited Condensed Consolidated Statements of Income, were \$2.9 million and \$5.7 million for the three and six months ended June 30, 2022 and \$11.8 million and \$14.5 million for the three and six months ended June 30, 2021, respectively, and represent the total cumulative trauma liability losses net of any estimated insurance receivables as discussed below.

MSA LLC's cumulative trauma product liability reserve is based upon a reasonable estimate of MSA LLC's current and potential future liability for cumulative trauma product liability claims, in accordance with applicable accounting principles. To develop a reasonable estimate of MSA LLC's potential exposure to cumulative trauma product liability claims, management performs an annual comprehensive review of MSA LLC's cumulative trauma product liability claims in consultation with an outside valuation consultant and outside legal counsel. The review process takes into account MSA LLC's historical claims experience, developments in MSA LLC's claims experience over the past year, developments in the tort system generally, and any other relevant information. Quarterly, management and outside legal counsel review whether significant new developments have occurred which could materially impact recorded amounts, and if warranted, management reviews changes with an outside valuation consultant. Numerous additional factors, data points, and developments are analyzed during the annual review process.

The estimate of MSA LLC's potential liability for cumulative trauma product liability claims, and the corresponding reserve, are based upon numerous assumptions derived from MSA LLC's historical experience. Those assumptions include the incidence of applicable diseases in the general population, the number of claims that may be asserted against MSA LLC in the future, the years in which such claims may be asserted, the counsel asserting those claims, the percentage of claims resolved through settlement, the types and severity of illnesses alleged by claimants to give rise to their claims, the venues in which the claims are asserted, and numerous other factors, which influence how many claims may be brought against MSA LLC, whether those claims ultimately are resolved for payment, and at what values.

Cumulative trauma product liability litigation is inherently unpredictable and MSA LLC's expense with respect to cumulative trauma product liability claims could vary significantly in future periods. It is difficult to reasonably estimate how many claims will be newly asserted against MSA LLC in any given period or over the lifetime of MSA LLC's claims experience. Case solicitation and filing activity, in our experience, is unique to each plaintiffs' counsel and also influenced by external factors. Once asserted it is unclear at the time of filing whether a claim will be actively litigated, or the extent of ultimate loss, if any, in the absence of discovery at initial case stages. Even when a case is actively litigated, it is often difficult to determine if the lawsuit will be dismissed without payment or settled, because of sufficiency of product identification, statute of limitations challenges, or other defenses. This difficulty is increased when claims are asserted by plaintiffs' counsel with which MSA LLC does not have substantial prior experience, as claims experience can vary significantly among different plaintiffs' counsel. As a result of all of these factors, it is typically unclear until late into litigation the extent of loss that will be experienced on account of any particular claim, or inventories of claims. Actual loss amounts for settled claims are highly variable and turn on a case-by-case analysis of the relevant facts. As more information is learned about asserted claims and potential future trends, adjustments may be made to the cumulative trauma product liability reserve as appropriate.

As a result of such uncertainties, MSA LLC's actual claims experience may differ in one or more respects from the assumptions used in establishing the reserve, and there can be no assurance that the actuarial models employed will accurately predict future experience. MSA LLC's experience in future periods may vary from the reserve currently established, and MSA LLC may ultimately incur losses in excess of presently recorded liabilities. Any adjustments as a result of this experience could materially impact our consolidated financial statements in future periods.

Insurance Receivable and Notes Receivable, Insurance Companies

Many years ago, MSA LLC purchased insurance policies from various insurance carriers that, subject to common contract exclusions, provided coverage for cumulative trauma product liability losses (the "Occurrence-Based Policies"). While we continue to pursue reimbursement under certain remaining Occurrence-Based Policies, the vast majority of these policies have been exhausted, settled or converted into either (1) negotiated settlement agreements with scheduled payment streams (recorded as notes receivables), or (2) negotiated Coverage-in-Place Agreements (recorded as insurance receivables). As a result, MSA LLC is largely self-insured for cumulative trauma product liability claims, and additional amounts recorded as insurance receivables or notes receivables will be limited.

When adjustments are made to amounts recorded in the cumulative trauma product liability reserve, we calculate amounts due to be reimbursed pursuant to the terms of the negotiated Coverage-In-Place Agreements, including cumulative trauma product liability losses and related defense costs, and we record the amounts probable of reimbursement as insurance receivables. These amounts are not subject to current coverage litigation.

Insurance receivables at June 30, 2022 totaled \$126.4 million of which, \$8.6 million is reported in Prepaid expenses and other current assets in the unaudited Condensed Consolidated Balance Sheets and \$117.8 million is reported in Insurance receivable and other noncurrent assets. Insurance receivables at December 31, 2021 totaled \$130.2 million, of which \$8.6 million was reported in Prepaid expenses and other current assets in the unaudited Condensed Consolidated Balance Sheets and \$121.6 million was reported in Insurance receivable and other noncurrent assets. The vast majority of the \$126.4 million insurance receivables balance at June 30, 2022 is attributable to reimbursement believed to be due under the terms of signed Coverage-In-Place Agreements and a portion of this amount represents the estimated recovery of IBNR amounts not yet incurred.

A summary of insurance receivables balance and activity related to cumulative trauma product liability losses is as follows:

| (In millions) | Six Months Ended June 30, 2022 | | Year Ended December 31, 2021 | |
|-----------------------------------|-----------------------------------|-------|---------------------------------|--------|
| Balance beginning of period | \$ | 130.2 | \$ | 97.0 |
| Additions | | 0.1 | | 43.5 |
| Collections and other adjustments | | (3.9) | | (10.3) |
| Balance end of period | \$ | 126.4 | \$ | 130.2 |

We record formal notes receivable due from scheduled payment streams according to negotiated settlement agreements with insurers. These amounts are not subject to current coverage litigation.

Notes receivable from insurance companies at June 30, 2022, totaled \$49.1 million, of which \$4.0 million is reported in Notes receivable, insurance companies, current in the unaudited Condensed Consolidated Balance Sheets and \$45.1 million is reported in Notes receivable, insurance companies, noncurrent. Notes receivable from insurance companies at December 31, 2021 totaled \$48.5 million of which \$3.9 million was reported in Notes receivable, insurance companies, current in the unaudited Condensed Consolidated Balance Sheets and \$44.6 million was reported in Notes receivable, insurance companies, noncurrent.

A summary of notes receivables from insurance companies balance is as follows:

| (In millions) | Six Months Ended June 30, 2022 | Year Ended December 31, 2021 |
|-----------------------------|-----------------------------------|---------------------------------|
| Balance beginning of period | \$ 48.5 | \$ 52.3 |
| Additions | 0.6 | 1.3 |
| Collections | — | (5.1) |
| Balance end of period | \$ 49.1 | \$ 48.5 |

The vast majority of the insurance receivables balance at June 30, 2022, is attributable to reimbursement under the terms of signed agreements with insurers and is not currently subject to litigation. The collectibility of MSA LLC's insurance receivables and notes receivables is regularly evaluated and we believe that the amounts recorded are probable of collection. The determination that the recorded insurance receivables are probable of collection is based on the terms of the settlement agreements reached with the insurers, our history of collection, and the advice of MSA LLC's outside legal counsel and consultants. Various factors could affect the timing and amount of recovery of the insurance and notes receivables, including assumptions regarding various aspects of the composition and characteristics of future claims (which are relevant to calculating reimbursement under the terms of certain Coverage-In-Place Agreements) and the extent to which the issuing insurers may become insolvent in the future.

Other Litigation

Two subsidiaries of the Company, Globe Manufacturing Company, LLC ("Globe") and MSA LLC, are defending a small number of lawsuits in which plaintiffs assert that certain of those entities' products allegedly containing per- and polyfluoroalkyl substances ("PFAS") have caused injury, health issues, or environmental issues. PFAS are a large class of substances that are widely used in everyday products. Specifically, Globe builds turnout gear from technical fabrics sourced from a small pool of specialty textile manufacturers. These protective fabrics have been tested and certified to meet industry standards, and some of them contain PFAS to achieve water, oil, or chemical resistance. At this time, no manufacturer of firefighter protective clothing is able to meet current National Fire Protection Association safety standards while offering coats or pants that are completely PFAS free.

Globe and MSA LLC believe they have valid defenses to these lawsuits. These matters are at a very early stage with numerous factual and legal issues to be resolved. Defense costs relating to these lawsuits are recognized in the unaudited Condensed Consolidated Statements of Income as incurred. Globe and MSA LLC are also pursuing insurance coverage and indemnification related to the lawsuits.

Product Warranty

The Company provides warranties on certain product sales. Product warranty reserves are established in the same period that revenue from the sale of the related products is recognized, or in the period that a specific issue arises as to the functionality of the Company's product. The determination of such reserves requires the Company to make estimates of product return rates and expected costs to repair or to replace the products under warranty.

The amounts of the reserves are based on established terms and the Company's best estimate of the amounts necessary to settle future and existing claims on products sold as of the balance sheet date. If actual return rates and/or repair and replacement costs differ significantly from estimates, adjustments to recognize additional cost of sales may be required in future periods.

The following table reconciles the changes in the Company's accrued warranty reserve:

| (In thousands) | Six Months Ended June 30, 2022 | Year Ended December 31, 2021 |
|--|-----------------------------------|---------------------------------|
| Beginning warranty reserve | \$ 12,423 | \$ 11,428 |
| Warranty payments | (4,431) | (8,987) |
| Warranty claims | 5,835 | 10,225 |
| Provision for product warranties and other adjustments | (989) | (243) |
| Ending warranty reserve | \$ 12,838 | \$ 12,423 |

Warranty expense was \$4.8 million and \$4.1 million for the six months ended June 30, 2022 and 2021, respectively, and is included in Costs of products sold on the unaudited Condensed Consolidated Statements of Income.

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

The following discussion and analysis should be read in conjunction with the historical financial statements and other financial information included elsewhere in this quarterly report on Form 10-Q. This discussion may contain forward-looking statements that involve risks and uncertainties. The forward-looking statements are not historical facts, but rather are based on current expectations, estimates, assumptions and projections about our industry, business and future financial results. Our actual results could differ materially from the results contemplated by these forward-looking statements due to a number of factors, including those discussed in the sections of our annual report entitled “Forward-Looking Statements” and “Risk Factors,” and those discussed in our Form 10-Q quarterly reports filed after such annual report (such as in Part II, Item 1A, “Risk Factors.”)

BUSINESS OVERVIEW

MSA is a global leader in the development, manufacture and supply of safety products that protect people and facility infrastructures. Recognized for their market leading innovation, many MSA products integrate a combination of electronics, mechanical systems and advanced materials to protect users against hazardous or life-threatening situations. The Company's comprehensive product line, which is governed by rigorous safety standards across highly regulated industries, is used by workers around the world in a broad range of markets, including fire service, oil, gas and petrochemical industry, construction, industrial manufacturing applications, utilities, mining and the military. MSA's core products include breathing apparatus, fixed gas and flame detection systems, portable gas detection instruments, industrial head protection products, firefighter helmets and protective apparel, and fall protection devices. We are committed to providing our customers with service unmatched in the safety industry and, in the process, enhancing our ability to provide a growing line of safety solutions for customers in key global markets.

We tailor our product offerings and distribution strategy to satisfy distinct customer preferences that vary across geographic regions. To best serve these customer preferences, we have organized our business into four geographical operating segments that are aggregated into three reportable geographic segments: Americas, International and Corporate.

Americas. Our largest manufacturing and research and development facilities are located in the U.S. We serve our markets across the Americas with manufacturing facilities in the U.S., Mexico and Brazil. Operations in the other countries within the Americas segment focus primarily on sales and distribution in their respective home country markets.

International. Our International segment includes companies in Europe, the Middle East and Africa and the Asia Pacific region. In our largest International subsidiaries (in Germany, France, U.K., Ireland and China), we develop, manufacture and sell a wide variety of products. In China, the products manufactured are sold primarily in China as well as in regional markets. Operations in other International segment countries focus primarily on sales and distribution in their respective home country markets. Although some of these companies may perform limited production, most of their sales are of products manufactured in our plants in Germany, France, the U.S., U.K., Ireland and China or are purchased from third-party vendors.

Within the International segment, during the first quarter of 2022, due to military conflict in Ukraine, we suspended product shipments into Russia and Belarus. The suspension is indefinite. Customers in Russia, Belarus and Ukraine generated approximately \$6 million of sales during the year ended December 31, 2021.

Corporate. The Corporate segment primarily consists of general and administrative expenses incurred in our corporate headquarters, costs associated with corporate development initiatives, legal expense, interest expense, foreign exchange gains or losses and other centrally-managed costs. Corporate general and administrative costs comprise the majority of the expense in the Corporate segment.

During the fourth quarter of 2021, the Company changed its method of accounting for certain inventory in the U.S. from the LIFO method to the FIFO method. The FIFO method of accounting for inventory is preferable because it conforms the Company's entire inventory to a single method of accounting and improves comparability with the Company's peers. The effects of the change in accounting method from LIFO to FIFO have been retrospectively applied to all periods presented in all sections of this Quarterly Report, including Management's Discussion and Analysis. Refer to Note 4—Inventory of the consolidated financial statements in Part II Item 8 of our Annual Report on Form 10-K for the year ended December 31, 2021, for further information related to the change in accounting principle.

PRINCIPAL PRODUCTS

The following is a brief description of each of our principal product categories:

MSA's corporate strategy includes a focus on driving sales of core products where we have leading market positions and a distinct competitive advantage. Core products, as mentioned above, include breathing apparatus in which SCBA is the principal product, fixed gas and flame detection systems, portable gas detection instruments, industrial head protection products, firefighter helmets and protective apparel, and fall protection devices. Core products comprised approximately 90% and 89% of sales for the six months ended June 30, 2022 and 2021, respectively. MSA also maintains a portfolio of non-core products. Non-core products reinforce and extend the core offerings, drawing upon our customer relationships, distribution channels, geographical presence and technical experience. These products are complementary to the core offerings and often reflect more episodic or contract-driven growth patterns. Key non-core products include air-purifying respirators ("APR"), eye and face protection, ballistic helmets and gas masks.

MSA maintains a diversified portfolio of safety products that protect workers and facility infrastructure across a broad array of end markets. While the company sells its products through distribution, which can limit end-user visibility, the Company provides estimated ranges of end market exposure to facilitate understanding of its growth drivers. The Company estimates that approximately 35%-40% of its overall revenue is derived from the fire service market and 25%-30% of its revenue is derived from the energy market. The remaining 30%-40% is split among construction, utilities, general industrial applications, military and mining.

A detailed listing of our significant product offerings in the aforementioned product groups above is included in MSA's Annual Report on Form 10-K for the year ended December 31, 2021.

RESULTS OF OPERATIONS

Three Months Ended June 30, 2022, Compared to Three Months Ended June 30, 2021

Net Sales. Net sales for the three months ended June 30, 2022, were \$372.3 million, an increase of \$31.0 million, or 9.1%, compared to \$341.3 million in the same period last year, driven by acquisitions and the combination of volume growth and price realization. We saw healthy growth across most core products. Please refer to the Net Sales table for a reconciliation of the quarter over quarter sales change.

| Net Sales (In millions) | Three Months Ended June 30, | | Dollar Increase (Decrease) | Percent Increase (Decrease) |
|----------------------------|-----------------------------|----------------|-------------------------------|--------------------------------|
| | 2022 | 2021 | | |
| Consolidated | \$372.3 | \$341.3 | \$31.0 | 9.1% |
| Americas | 252.4 | 217.7 | 34.7 | 15.9% |
| International | 119.9 | 123.6 | (3.7) | (3.0)% |

| Net Sales (Percent Change) | Three Months Ended June 30, 2022 versus June 30, 2021 | | |
|-----------------------------------|--|---------------|--------------|
| | Americas | International | Consolidated |
| GAAP reported sales change | 15.9% | (3.0)% | 9.1% |
| Currency translation effects | 0.3% | 8.3% | 3.2% |
| Constant currency sales change | 16.2% | 5.3% | 12.3% |
| Less: Acquisitions ^(a) | (5.8)% | (2.9)% | (4.7)% |
| Organic constant currency change | 10.4% | 2.4% | 7.6% |

^(a) Includes Bacharach, Inc. and its affiliated companies ("Bacharach"), which was acquired on July 1, 2021.

Note: Organic constant currency sales change is a non-GAAP financial measure provided by the Company to give a better understanding of the Company's underlying business performance. Organic constant currency sales change is calculated by deducting the percentage impact from acquisitions and currency translation effects from the overall percentage change in net sales.

Net sales for the Americas segment were \$252.4 million in the second quarter of 2022, an increase of \$34.7 million, or 15.9%, compared to \$217.7 million in the second quarter of 2021. Constant currency sales in the Americas segment increased 16.2% compared to the prior year period with organic constant currency growth of 10.4%. The inclusion of Bacharach drove the acquisition related sales. Organic growth was driven by growth across most core products, partially offset by weakness in fall protection and firefighter helmets and protective apparel.

Net sales for the International segment were \$119.9 million in the second quarter of 2022, a decrease of \$3.7 million, or 3.0%, compared to \$123.6 million for the second quarter of 2021. The euro and British pound drove negative currency translation effects. Constant currency sales in the International segment increased 5.3% during the quarter with organic constant currency growth of 2.4%. The inclusion of Bacharach drove acquisition related sales. Organic growth was driven by strength across a number of core products, partially offset by weakness in fall protection and firefighter helmets and protective apparel.

We continued to see strong order growth in the quarter and into July. Our backlog increased to record levels across substantially all core products as a result of an uptick in order pace and ongoing supply chain and labor constraints.

Looking ahead, we continue to operate in a very dynamic environment. There are a number of other evolving factors that will continue to influence our revenue and earnings outlook. These factors include, among other things, supply chain constraints, raw material or semiconductor availability, the risk of additional COVID lockdowns, industrial employment rates, military conflict, currency exchange volatility, the pace of economic recovery, as well as geopolitical risk, particularly as it relates to energy uncertainty which could affect operations and suppliers based in Germany and broader Europe. While we expect sequential improvement in revenue and earnings in the second half of 2022, which could drive high single-digit to double-digit sequential revenue growth, these or other conditions could impact our future results and growth expectations.

Refer to Note 8—Segment Information to the unaudited condensed consolidated financial statements in Part I Item 1 of this Form 10-Q, for information regarding sales by product group.

Gross profit. Gross profit for the second quarter of 2022 was \$164.4 million, an increase of \$11.4 million or 7.5%, compared to \$153.0 million for the second quarter of 2021. The ratio of gross profit to net sales was 44.2% in the second quarter of 2022 compared to 44.8% in the same quarter last year. Intangible asset amortization related to acquisitions reduced gross profit by \$2.3 million or 60 basis points in 2022, while inflationary pressures and product warranty charges also negatively impacted gross profit.

We have implemented multiple price increases in response to the inflation we are seeing in electronic components and nearly all inputs. We will continue to evaluate additional pricing opportunities as we continue to navigate inflationary pressures.

Selling, general and administrative expenses. Selling, general and administrative ("SG&A") expenses were \$86.1 million during the second quarter of 2022, an increase of \$2.7 million or 3.2%, compared to \$83.4 million for the same period a year ago. Overall, SG&A expenses were 23.1% of net sales during the second quarter of 2022, compared to 24.4% of net sales during the same period in 2021. Organic constant currency SG&A increased \$4 million or 5.0%, demonstrating strong leverage on the revenue growth. This increase was driven by annual merit increases and increased costs to support higher business activity, which was partially offset by the absence of the 2021 acquisition related costs. 2021 acquisition related costs included higher stock compensation costs and transaction costs. Current period results also benefited from lower costs resulting from prior restructuring initiatives in our International segment.

Please refer to the Selling, general and administrative expenses table for a reconciliation of the quarter over quarter expense change.

| Selling, general, and administrative expenses (Percent Change) | Three Months Ended June 30, 2022 versus June 30, 2021 |
|---|--|
| | Consolidated |
| GAAP reported change | 3.2% |
| Currency translation effects | 2.7% |
| Constant currency change | 5.9% |
| Less: Acquisitions and related strategic transaction costs | (0.9)% |
| Organic constant currency change | 5.0% |

Research and development expense. Research and development expense was \$15.3 million during the second quarter of 2022, an increase of \$1.3 million, compared to \$14.0 million during the second quarter of 2021. Research and development expense was 4.1% of net sales in both periods. We continue to develop new products for global safety markets, including the Altair io 4 and V-Gard C1. During the second quarter of 2022, we capitalized \$2.1 million of software development costs.

Restructuring charges. Restructuring charges during the second quarter of 2022 were not significant. This compared to restructuring charges of \$7.1 million during the second quarter of 2021, primarily related to our ongoing initiatives to drive profitable growth and rightsize our operations. While we saw a reduction in charges in the quarter, we remain focused on identifying and executing programs to optimize our cost structure.

Currency exchange. Currency exchange gains were \$1.5 million in the second quarter of 2022 compared to losses of \$1.6 million in the second quarter of 2021. Currency exchange in both periods related to foreign currency exposure on unsettled inter-company balances, primarily associated with the euro and British pound. Refer to Note 16—Derivative Financial Instruments to the unaudited condensed consolidated financial statements in Part I Item 1 of this Form 10-Q, for information regarding our currency exchange rate risk management strategy.

Product liability expense. Product liability expense for three months ended June 30, 2022 was \$2.9 million compared to \$11.8 million in the same period last year. Product liability expense for the current period related primarily to defense costs incurred for cumulative trauma product liability claims. The expense during the second quarter 2021 related to an increase in the number of asserted claims pending against MSA LLC and a corresponding adjustment to the reserve.

GAAP operating income. Consolidated operating income for the second quarter of 2022 was \$61.5 million compared to \$35.1 million in the same period last year. The increase in operating income was primarily driven by an increase in sales associated with acquisitions, volume growth, price realization, lower product liability expense and restructuring expense, partially offset by higher SG&A expenses to support higher business activity.

Adjusted operating income. Americas adjusted operating income for the second quarter of 2022 was \$57.1 million, an increase of \$7.8 million or 15.9% compared to \$49.3 million from the prior year quarter. The increase in adjusted operating income is primarily attributable to higher sales volumes driven by both acquisitions and organic business activity, partially offset by higher SG&A to support business growth.

International adjusted operating income for the second quarter of 2022 was \$17.2 million, a decrease of \$3.2 million, or 15.8%, compared to \$20.4 million in the prior year quarter. The decrease in adjusted operating income is primarily attributable to lower revenue and gross margins, as a result of unfavorable currency translation and inflationary pressures, partially offset by lower SG&A expenses.

Corporate segment adjusted operating loss for the second quarter of 2022 was \$8.7 million, a decrease of \$2.3 million compared to an adjusted operating loss of \$11.0 million in the second quarter of 2021, due to lower acquisition related costs related to the July 1, 2021 acquisition of Bacharach.

The following tables represent a reconciliation from GAAP operating income to adjusted operating income (loss) and adjusted EBITDA. Adjusted operating margin % is calculated as adjusted operating income (loss) divided by net sales and adjusted EBITDA margin % is calculated as adjusted EBITDA divided by net sales.

| Adjusted operating income (loss) (In thousands) | Three Months Ended June 30, 2022 | | | |
|--|----------------------------------|---------------|-----------|--------------|
| | Americas | International | Corporate | Consolidated |
| Net sales | \$ 252,386 | \$ 119,927 | \$ — | \$ 372,313 |
| GAAP operating income | | | | 61,536 |
| Restructuring charges (Note 3) | | | | 57 |
| Currency exchange gains, net | | | | (1,463) |
| Product liability expense (Note 18) | | | | 2,926 |
| Acquisition related costs ^(a) | | | | 2,557 |
| Adjusted operating income (loss) | 57,141 | 17,207 | (8,735) | 65,613 |
| Adjusted operating margin % | 22.6 % | 14.3 % | | |
| Depreciation and amortization ^(a) | | | | 11,604 |
| Adjusted EBITDA | 65,461 | 20,370 | (8,614) | 77,217 |
| Adjusted EBITDA margin % | 25.9 % | 17.0 % | | |

| Adjusted operating income (loss) (In thousands) | Three Months Ended June 30, 2021 | | | |
|--|----------------------------------|---------------|-----------|--------------|
| | Americas | International | Corporate | Consolidated |
| Net sales | \$ 217,707 | \$ 123,582 | \$ — | \$ 341,289 |
| GAAP operating income | | | | 35,135 |
| Restructuring charges (Note 3) | | | | 7,078 |
| Currency exchange losses, net | | | | 1,640 |
| Product liability expense (Note 18) | | | | 11,751 |
| Acquisition related costs ^(a) | | | | 3,168 |
| Adjusted operating income (loss) | 49,319 | 20,444 | (10,991) | 58,772 |
| Adjusted operating margin % | 22.7 % | 16.5 % | | |
| Depreciation and amortization | | | | 11,584 |
| Adjusted EBITDA | 57,218 | 24,024 | (10,886) | 70,356 |
| Adjusted EBITDA margin % | 26.3 % | 19.4 % | | |

^(a) Acquisition related costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during due diligence and integration. These costs are included in SG&A expense in the unaudited Condensed Consolidated Statements of Income. Acquisition-related costs also include the acquisition related amortization, which is included in Cost of products sold in the unaudited Condensed Consolidated Statements of Income.

Note: Adjusted operating income (loss) and adjusted EBITDA are non-GAAP financial measures used by the chief operating decision maker to evaluate segment performance and allocate resources. Adjusted operating income (loss) is reconciled above to the nearest GAAP financial measure, Operating income (loss), and excludes restructuring, currency exchange, product liability expense and acquisition related costs. Adjusted EBITDA is reconciled above to the nearest GAAP financial measure, Operating income (loss) and excludes depreciation and amortization expense.

Total other income, net. Total other income, net, for the second quarter of 2022 was \$1.8 million, compared to \$0.1 million for the same period in 2021 driven primarily by higher pension income from a higher expected rate of return, partially offset by higher interest expense related to a higher interest rate environment.

Income taxes. The reported effective tax rate for the second quarter of 2022 was 24.7% compared to 27.8% for the second quarter of 2021. This decrease from the prior year is attributable to expense related to the United Kingdom statutory rate change recognized in the second quarter of 2021 and losses in jurisdictions where we cannot take tax benefits, partially offset by a decrease in benefits related to certain share based payments and nondeductible executive compensation.

We are subject to regular review and audit by both foreign and domestic tax authorities. While we believe our tax positions will be sustained, the final outcome of tax audits and related litigation may differ materially from the tax amounts recorded in our unaudited condensed consolidated financial statements.

Net income attributable to MSA Safety Incorporated. Net income was \$47.7 million for the second quarter of 2022, or \$1.21 per diluted share compared to net income of \$25.2 million, or \$0.64 per diluted share, for the same period last year.

Six Months Ended June 30, 2022, Compared to Six Months Ended June 30, 2021

Net Sales. Net sales for the six months ended June 30, 2022, were \$703.0 million, an increase of \$53.3 million, or 8.2%, compared to \$649.7 million in the same period last year, driven by acquisitions and the combination of volume growth and price realization. We saw healthy growth across most of our core products and across both reporting segments. Please refer to the Net Sales table for a reconciliation of the period over period sales change.

| Net Sales (In millions) | Six Months Ended June 30, | | Dollar Increase | Percent Increase |
|----------------------------|---------------------------|----------------|--------------------|---------------------|
| | 2022 | 2021 | | |
| Consolidated | \$703.0 | \$649.7 | \$53.3 | 8.2% |
| Americas | 478.0 | 426.0 | 52.0 | 12.2% |
| International | 225.0 | 223.7 | 1.3 | 0.6% |

| Net Sales (Percent Change) | Six Months Ended June 30, 2022 versus June 30, 2021 | | |
|-----------------------------------|--|---------------|--------------|
| | Americas | International | Consolidated |
| GAAP reported sales change | 12.2% | 0.6% | 8.2% |
| Currency translation effects | 0.3% | 6.8% | 2.6% |
| Constant currency sales change | 12.5% | 7.4% | 10.8% |
| Less: Acquisitions | (5.8)% | (3.6)% | (5.1)% |
| Organic constant currency change | 6.7% | 3.8% | 5.7% |

Note: Organic constant currency sales change is a non-GAAP financial measure provided by the Company to give a better understanding of the Company's underlying business performance. Organic constant currency sales change is calculated by deducting the percentage impact from acquisitions and currency translation effects from the overall percentage change in net sales.

Net sales for the Americas segment were \$478.0 million in the six months ended June 30, 2022, an increase of \$52.0 million, or 12.2%, compared to \$426.0 million in the same period last year. Constant currency sales in the Americas segment increased 12.5% compared to the prior year period with organic constant currency growth of 6.7%. The inclusion of Bacharach drove the acquisition related sales. Organic growth was driven by growth across most core products, partially offset by weakness in fall protection and firefighter helmets and protective apparel.

Net sales for the International segment were \$225.0 million in the six months ended June 30, 2022, an increase of \$1.3 million, or 0.6%, compared to \$223.7 million in the same period last year. Constant currency sales in the International segment increased 7.4% during the period with organic constant currency growth of 3.8%. The inclusion of Bacharach drove acquisition related sales. Organic growth was driven by across a number of core products, partially offset by weakness in fall protection.

Refer to Note 8—Segment Information to the unaudited condensed consolidated financial statements in Part I Item 1 of this Form 10-Q, for information regarding sales by product group.

Gross profit. Gross profit for the six months ended June 30, 2022, was \$307.2 million, an increase of \$19.4 million or 6.7%, compared to \$287.8 million during the same period last year. The ratio of gross profit to net sales was 43.7% during the six months ended June 30, 2022 compared to 44.3% during the same period last year. Intangible asset amortization related to acquisitions reduced gross profit by \$4.6 million or 65 basis points in 2022, while inflationary pressures and product warranty charges also negatively impacted gross profit.

Selling, general and administrative expenses. SG&A expenses were \$164.6 million during the six months ended June 30, 2022, an increase of \$5.7 million or 3.6%, compared to \$158.9 million during the same period last year. Overall, SG&A expenses were 23.4% of net sales during the six months ended June 30, 2022, compared to 24.5% of net sales during the same period in 2021. Organic constant currency SG&A increased \$5 million or 3.0%, demonstrating strong leverage on revenue growth. This increase was driven by annual merit increases and increased costs to support higher business activity, which was partially offset by the absence of the 2021 acquisition related costs. 2021 acquisition related costs included higher stock compensation costs and transaction costs. We also benefited from restructuring savings in our International segment.

Please refer to the selling, general, and administrative expenses table for a reconciliation of the period over period expense change.

| Selling, general, and administrative expenses (Percent Change) | Six Months Ended |
|---|------------------------------------|
| | June 30, 2022 versus June 30, 2021 |
| | Consolidated |
| GAAP reported change | 3.6% |
| Currency translation effects | 2.2% |
| Constant currency change | 5.8% |
| Less: Acquisitions and related strategic transaction costs | (2.8)% |
| Organic constant currency change | 3.0% |

Research and development expense. Research and development expense was \$28.6 million during the six months ended June 30, 2022, an increase of \$1.4 million, compared to \$27.2 million during the same period last year. Research and development expense was 4.1% of net sales in the first six months ended June 30, 2022 and 4.2% in the same period of 2021. During the six months ended June 30, 2022, we capitalized \$4.3 million of software development costs.

Restructuring charges. Restructuring charges during the six months ended June 30, 2022, were \$2.2 million, primarily related to our ongoing initiatives to drive profitable growth and rightsize our operations. This compared to restructuring charges of \$8.4 million during the same period in 2021, primarily related to our ongoing initiatives to drive profitable growth and right size our operations. We remain focused on executing programs to optimize our cost structure.

Currency exchange. Currency exchange losses were \$1.8 million during the six months ended June 30, 2022, compared to gains of \$0.5 million in the same period of 2021. Currency exchange in both periods related to foreign currency exposure on unsettled inter-company balances, primarily associated with the euro and British pound.

Refer to Note 16—Derivative Financial Instruments to the unaudited condensed consolidated financial statements in Part I Item 1 of this Form 10-Q, for information regarding our currency exchange rate risk management strategy.

Product liability expense. Product liability expense for the six months ended June 30, 2022 was \$5.7 million compared to \$14.5 million in the same period last year. Product liability expense for the current period related primarily to defense costs incurred for cumulative trauma product liability claims. The expense during 2021 related to an increase in the number of asserted claims pending against MSA LLC and a corresponding adjustment to the reserve.

GAAP operating income. Consolidated operating income for the six months ended June 30, 2022, was \$104.2 million compared to \$79.2 million in the same period last year. The increase in operating income was primarily driven by an increase in sales associated with acquisitions and organic business activity, lower product liability expense, and lower restructuring expense, partially offset by higher SG&A expenses to support higher business activity.

Adjusted operating income. Americas adjusted operating income for the six months ended June 30, 2022 was \$109.6 million, an increase of \$15.1 million, or 15.9%, compared to \$94.5 million in the prior year. The increase in adjusted operating income is primarily attributable to higher sales volumes driven by both acquisitions and organic business activity, partially offset by higher SG&A expenses to support business growth.

International adjusted operating income for the six months ended June 30, 2022, was \$26.2 million, a decrease of \$3.0 million, or 10.3%, compared to \$29.2 million in the prior year. The decrease in adjusted operating income is primarily attributable to lower revenue and gross margins as a result of unfavorable currency translation and inflationary pressures, partially offset by lower SG&A expenses.

Corporate segment adjusted operating loss for the six months ended June 30, 2022, was \$16.3 million, a decrease of \$1.2 million compared to an adjusted operating loss of \$17.5 million in the same period of 2021 due to lower SG&A expense.

The following tables represent a reconciliation from GAAP operating income to adjusted operating income (loss) and adjusted EBITDA. Adjusted operating margin % is calculated as adjusted operating income (loss) divided by net sales and adjusted EBITDA margin % is calculated as adjusted EBITDA divided by net sales.

| Adjusted operating income (loss) (In thousands) | Six Months Ended June 30, 2022 | | | |
|--|--------------------------------|---------------|-------------|--------------|
| | Americas | International | Corporate | Consolidated |
| Net sales | \$ 478,034 | \$ 224,971 | \$ — | \$ 703,005 |
| GAAP operating income | | | | 104,204 |
| Restructuring charges (Note 3) | | | | 2,247 |
| Currency exchange losses, net | | | | 1,809 |
| Product liability expense (Note 18) | | | | 5,698 |
| Acquisition related costs ^(a) | | | | 5,499 |
| Adjusted operating income (loss) | 109,577 | 26,196 | (16,316) | 119,457 |
| Adjusted operating margin % | 22.9 % | 11.6 % | | |
| Depreciation and amortization ^(a) | | | | \$ 23,420 |
| Adjusted EBITDA | \$ 126,256 | \$ 32,698 | \$ (16,077) | \$ 142,877 |
| Adjusted EBITDA margin % | 26.4 % | 14.5 % | | |

| Adjusted operating income (loss) (In thousands) | Six Months Ended June 30, 2021 | | | |
|--|--------------------------------|---------------|-----------|--------------|
| | Americas | International | Corporate | Consolidated |
| Net sales | \$ 426,046 | \$ 223,671 | \$ — | \$ 649,717 |
| GAAP operating income | | | | 79,217 |
| Restructuring charges (Note 3) | | | | 8,385 |
| Currency exchange gains, net | | | | (459) |
| Product liability expense (Note 18) | | | | 14,547 |
| Acquisition related costs ^(a) | | | | 4,541 |
| Adjusted operating income (loss) | 94,512 | 29,201 | (17,482) | 106,231 |
| Adjusted operating margin % | 22.2 % | 13.1 % | | |
| Depreciation and amortization | | | | 22,088 |
| Adjusted EBITDA | 109,444 | 36,154 | (17,279) | 128,319 |
| Adjusted EBITDA margin % | 25.7 % | 16.2 % | | |

^(a) Acquisition related costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during due diligence and integration. These costs are included in SG&A expense in the unaudited Condensed Consolidated Statements of Income. Acquisition-related costs also include the acquisition related amortization, which is included in Cost of products sold in the Condensed Consolidated Statements of Income.

Note: Adjusted operating income (loss) and adjusted EBITDA are a non-GAAP financial measures used by the chief operating decision maker to evaluate segment performance and allocate resources. Adjusted operating income (loss) is reconciled above to the nearest GAAP financial measure, Operating income (loss), and excludes restructuring, currency exchange, product liability expense, and acquisition related costs. Adjusted EBITDA is reconciled above to the nearest GAAP financial measure, Operating income (loss) and excludes depreciation and amortization expense.

Total other income, net. Total other income, net, for the six months ended June 30, 2022 was \$4.6 million, compared to \$2.4 million for the same period in 2021 driven primarily by higher pension income driven by a higher expected rate of return, partially offset by higher interest expense related to a higher interest rate environment.

Income taxes. The reported effective tax rate for the six months ended June 30, 2022, was 23.5% compared to 24.0% for the same period in 2021. This decrease from the prior year is attributable to expense related to the United Kingdom statutory rate change recognized in the second quarter of 2021 and decrease in nondeductible executive compensation, partially offset by a decrease in benefits related to certain share based payments.

We are subject to regular review and audit by both foreign and domestic tax authorities. While we believe our tax positions will be sustained, the final outcome of tax audits and related litigation may differ materially from the tax amounts recorded in our unaudited condensed consolidated financial statements.

Net income attributable to MSA Safety Incorporated. Net income was \$83.2 million for the six months ended June 30, 2022, or \$2.11 per diluted share compared to income of \$61.6 million, or \$1.56 per diluted share, for the same period last year.

Non-GAAP Financial Information

We may provide information regarding financial measures such as organic constant currency changes, financial measures excluding the impact of acquisitions and related acquisition related costs (including acquisition related amortization), adjusted operating income, adjusted operating margin percentage, adjusted EBITDA and adjusted EBITDA margin percentage, which are not recognized terms under U.S. GAAP and do not purport to be alternatives to net sales, selling, general and administrative expense, operating income or net income as a measure of operating performance. We believe that the use of these non-GAAP financial measures provide investors with additional useful information and provide a more complete understanding of the underlying results. Because not all companies use identical calculations, these presentations may not be comparable to similarly titled measures from other companies. For more information about these non-GAAP measures and a reconciliation to the nearest U.S. GAAP measure, please refer to the reconciliations referenced above in Management's Discussion & Analysis section and in Note 8—Segment Information to the unaudited condensed consolidated financial statements in Part I Item 1 of this Form 10-Q.

We may also provide financial information on a constant currency basis, which is a non-GAAP financial measure. These references to a constant currency basis do not include operational impacts that could result from fluctuations in foreign currency rates, which are outside of management's control. To provide information on a constant currency basis, the applicable financial results are adjusted by translating current and prior period results in local currency to a fixed foreign exchange rate. This approach is used for countries where the functional currency is the local country currency. This information is provided so that certain financial results can be viewed without the impact of fluctuations in foreign currency rates, thereby facilitating period-to-period comparisons of business performance. Constant currency information is not recognized under U.S. GAAP and it is not intended as an alternative to U.S. GAAP measures.

LIQUIDITY AND CAPITAL RESOURCES

Our main source of liquidity is operating cash flows, supplemented by borrowings. Our principal liquidity requirements are for working capital, capital expenditures, principal and interest payments on debt, declared dividend payments and acquisitions. At June 30, 2022, approximately 43% of our long-term debt is at fixed interest rates with repayment schedules through 2036. The remainder of our long-term debt is at variable rates on an unsecured revolving credit facility that is due in 2026. At June 30, 2022, approximately 83% of our borrowings are denominated in U.S. dollars, which limits our exposure to currency exchange rate fluctuations.

At June 30, 2022, the Company had cash and cash equivalents totaling \$134.0 million and access to sufficient capital, providing ample liquidity and flexibility to continue to maintain our balanced capital allocation strategy that prioritizes growth investments, funding our dividends and servicing debt obligations. Cash, cash equivalents and restricted cash decreased \$5.9 million during the six months ended June 30, 2022, compared to increasing \$13.4 million during the same period in 2021. We believe MSA's healthy balance sheet and access to significant capital at June 30, 2022, positions us well to navigate through challenging business conditions and supply chain constraints.

Operating activities. Operating activities provided cash of \$40.0 million during the six months ended June 30, 2022, compared to providing \$83.9 million during the same period in 2021. The decreased operating cash flow as compared to the same period in 2021 was primarily related to working capital requirements, notably increased inventory related to increased backlog.

Collections from insurance companies exceeded payments for subsidiary MSA LLC's product liability claims by \$0.3 million in the six months ended June 30, 2022, compared to product liability claim payments of \$16.5 million, net of collections from insurance companies, in the same period of 2021. MSA LLC funds its operating expenses and legal liabilities from its own operating cash flow and other investments, as well as limited amounts of insurance reimbursements and intercompany notes. MSA LLC is not party to the Company's credit facility. Now that MSA LLC is largely self-insured for its historical cumulative trauma product liability claims, associated insurance reimbursements received in any given period are limited, and generally do not fully offset cash outlay in that same period. In recent years, MSA LLC's contingent liabilities have been funded without a material impact on the Company's consolidated capital allocation priorities.

Investing activities. Investing activities used cash of \$5.6 million during the six months ended June 30, 2022, compared to using \$58.2 million during the same period in 2021. Capital expenditures, partially offset by maturities of short-term investments, net of purchases, drove cash outflows from investing activities during the six months ended June 30, 2022, while the acquisition of Bristol and capital expenditures, partially offset by maturities of short-term investments, net of purchases, drove cash outflows from investing activities during the same period in 2021. During the six months ended June 30, 2022, we invested in capital expenditures of \$19.8 million, including \$4.3 million associated with software development, compared to capital expenditures of \$20.3 million, including \$4.1 million associated with software development, in the same period in 2021. We also remain active in evaluating additional acquisition opportunities that will allow us to continue to grow in key end markets and geographies.

Financing activities. Financing activities used cash of \$29.8 million during the six months ended June 30, 2022, compared to using cash of \$11.5 million during the same period in 2021. During the six months ended June 30, 2022, we had net proceeds from long-term debt of \$37.0 million as compared to net proceeds from long-term debt of \$27.0 million to fund the acquisition of Bristol during the same period in 2021. We paid cash dividends of \$35.4 million during the six months ended June 30, 2022, compared to \$34.1 million in the same period in 2021. We also used cash of \$32.2 million during the six months ended June 30, 2022 to repurchase shares, of which \$28.2 million related to our share repurchase program, compared to using \$5.5 million during the same period in 2021.

CUMULATIVE TRANSLATION ADJUSTMENTS

The position of the U.S. dollar relative to international currencies at June 30, 2022, resulted in a translation loss of \$25.7 million being recorded to the cumulative translation adjustments shareholders' equity account during the six months ended June 30, 2022, compared to a \$4.1 million translation loss being recorded to the cumulative translation adjustments account during the same period in 2021.

COMMITMENTS AND CONTINGENCIES

We made contributions of \$3.8 million to our pension plans during the six months ended June 30, 2022. We expect to make total contributions of approximately \$7.7 million to our pension plans in 2022 primarily associated with statutorily required plans in the International segment.

The Company had outstanding bank guarantees and standby letters of credit with banks as of June 30, 2022, totaling \$9.8 million, of which \$1.5 million related to the senior revolving credit facility. These letters of credit serve to cover customer requirements in connection with certain sales orders and insurance companies. The Company is also required to provide cash collateral in connection with certain arrangements. At June 30, 2022, the Company has \$1.5 million of restricted cash in support of these arrangements.

We have purchase commitments for materials, supplies, services, and property, plant and equipment as part of our ordinary conduct of business.

Please refer to Note 18—Contingencies to the unaudited condensed consolidated financial statements in Part I Item 1 of this Form 10-Q for further discussion on the Company's single incident and cumulative trauma product liabilities.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

We prepare our unaudited condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The preparation of these unaudited condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and the related disclosures. We evaluate these estimates and judgments on an on-going basis based on historical experience and various assumptions that we believe to be reasonable under the circumstances. However, different amounts could be reported if we had used different assumptions and in light of different facts and circumstances. Actual amounts could differ from the estimates and judgments reflected in our unaudited condensed consolidated financial statements.

The more critical judgments and estimates used in the preparation of our unaudited condensed consolidated financial statements are discussed in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for the year ended December 31, 2021.

RECENTLY ADOPTED AND RECENTLY ISSUED ACCOUNTING STANDARDS

None

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Market risk represents the risk of adverse changes in the value of a financial instrument caused by changes in currency exchange rates, interest rates and equity prices. We are exposed to market risks related to currency exchange rates and interest rates.

Currency exchange rate sensitivity. We are subject to the effects of fluctuations in currency exchange rates on various transactions and on the translation of the reported financial position and operating results of our non-U.S. companies from local currencies to U.S. dollars. A hypothetical 10% strengthening or weakening of the U.S. dollar would decrease or increase our reported sales and net income by approximately \$15.8 million or 4.2% and \$1.3 million or 2.6%, respectively, for the three months ended June 30, 2022.

When appropriate, we may attempt to limit our transactional exposure to changes in currency exchange rates through forward contracts or other actions intended to reduce existing exposures by creating offsetting currency exposures. At June 30, 2022, we had open foreign currency forward contracts with a U.S. dollar notional value of \$102.5 million. A hypothetical 10% strengthening or weakening of the U.S. dollar would result in a \$10.3 million increase or decrease in the fair value of these contracts at June 30, 2022.

Interest rates. We are exposed to changes in interest rates primarily as a result of borrowing and investing activities used to maintain liquidity and fund business operations.

At June 30, 2022, we had \$266.9 million of fixed rate debt which matures at various dates through 2036. The incremental increase in the fair value of fixed rate long-term debt resulting from a hypothetical 10% decrease in interest rates would be approximately \$9.0 million. However, our sensitivity to interest rate declines and the corresponding increase in the fair value of our debt portfolio would unfavorably affect earnings and cash flows only to the extent that we elected to repurchase or retire all or a portion of our fixed rate debt portfolio at prices above carrying values.

At June 30, 2022, we had \$358.9 million of variable rate borrowings under our revolving credit facility. A 100 basis point increase or decrease in interest rates would have a \$3.9 million impact on future annual earnings under our current capital structure.

Item 4. Controls and Procedures

- (a) *Evaluation of disclosure controls and procedures.* Based on their evaluation as of the end of the period covered by this Form 10-Q, the Company's principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act")) are effective to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and (ii) accumulated and communicated to our management, including the principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.
- (b) *Changes in internal control.* There were no changes in the Company's internal control over financial reporting that occurred during the most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1A. Risk Factors

Claims of injuries or potential safety issues related to alleged product defects, or quality concerns against our various subsidiaries could have a material adverse effect on our business, operating results, financial condition and liquidity.

Our mission, reputation and business success rely on our ability to design and provide safe, high quality and reliable products that earn and maintain customer trust. Our products are often used in high-risk and unpredictable environments, and MSA and its subsidiaries face an inherent business risk of exposure to product liability claims. In the event the parties using our products are injured or any of our products prove to be defective, we could be subject to claims. In addition, we may be required to or may voluntarily recall or redesign certain products or components due to concern about product safety, quality, or reliability. Any significant claims, recalls or field actions that result in significant expense or negative publicity against us could have a material adverse effect on our business, operating results, financial condition and liquidity, including any successful claim brought against us in excess or outside of available insurance coverage.

Our subsidiaries, including Mine Safety Appliances Company, LLC, may experience losses from product liability claims. Losses from product liability claims could have a material adverse effect on our business, operating results, financial condition and liquidity, which could introduce volatility from period-to-period in our financial results.

From time to time, product liability claims are made against our various subsidiaries. In most instances the products at issue were manufactured many years ago and are not currently offered for sale, but in some instances, product liability claims may relate to current products.

Our subsidiary, Mine Safety Appliances Company, LLC (“MSA LLC”) was named as a defendant in 1,690 cumulative trauma lawsuits comprised of 4,660 claims at June 30, 2022. Cumulative trauma product liability claims involve exposures to harmful substances (e.g., silica, asbestos and coal dust) that occurred years ago and may have developed over long periods of time into diseases such as silicosis, asbestosis, mesothelioma or coal worker’s pneumoconiosis. A reserve has been established with respect to estimated amounts for cumulative trauma product liability claims currently asserted, as well as, incurred but not reported (“IBNR”) cumulative trauma product liability claims. Because our cumulative trauma product liability risk is subject to inherent uncertainties, and since MSA LLC is largely self-insured, there can be no certainty that MSA LLC may not ultimately incur losses in excess of presently recorded liabilities. Many factors affecting cumulative trauma product liability claims may change over time or as a result of sudden unfavorable events within a single reporting period. Associated losses could have a material adverse effect on our business, operating results, financial condition and liquidity, or could result in volatility from period to period.

We will adjust the reserve from time to time based on developments in MSA LLC’s actual claims experience, the claims environment or other significant changes in the factors underlying the assumptions used in establishing the reserve. Each of these factors may increase or decrease significantly within an individual period depending on, among other things, the timing of claims filings, settlements, or litigation outcomes during a particular period that are especially favorable or unfavorable to MSA LLC. We accordingly consider MSA LLC’s claims experience over multiple periods or whether there are changes in MSA LLC’s claims experience and trends that are likely to continue for a significant time into the future in determining whether to make an adjustment to the reserve, rather than evaluating such factors solely in the short term. Any future adjustments to the reserve may be material and could materially impact future periods in which the reserve is adjusted.

In the normal course of business, MSA LLC makes payments to settle these types of cumulative trauma product liability claims and for related defense costs, and records receivables for the amounts believed to be recoverable under insurance. MSA LLC has recorded insurance receivables totaling \$126.4 million and notes receivables of \$49.1 million at June 30, 2022. Since MSA LLC is now largely self-insured for cumulative trauma claims, additional amounts recorded as insurance receivables will be limited. Amounts recorded as insurance receivables are based on the amount of future losses presently recorded in the cumulative trauma product liability reserve. These projected future losses are used to calculate contingent reimbursements deemed probably of collection under negotiated Coverage-in-Place Agreements. Reimbursements are calculated based on modeled assumptions, including claims composition, claims characteristics, and timing (each of which are relevant to calculating reimbursement under the terms of Coverage-In-Place Agreements). These factors, and the potential for future insurer insolvencies, could affect the timing and amount of receivables actually collected in any given period or in total.

We have significant international operations and are subject to the risks of doing business in foreign countries and global supply chains.

We have business operations in approximately 40 foreign countries. In 2021, approximately half of our net sales were made by operations located outside the United States. We also rely on global supply chains or otherwise source critical components and raw materials from suppliers based in foreign countries, which at times are used in manufacturing operations across our global footprint. In certain cases, components could be sole sourced or otherwise not easily substituted due to the highly regulated nature of our products. Therefore, our operations and sourcing strategies are subject to supply shortages, sourcing delays, or disruption due to various geopolitical, economic, disasters, and other risks and uncertainties, which could have a material adverse effect on our business. These risks include the following:

- Scarcity of parts and components necessary to manufacture our products;
- unexpected changes in regulatory requirements;
- changes in trade policy or tariff regulations;
- changes in tax laws and regulations;
- unintended consequences due to changes to the Company's legal structure;
- additional valuation allowances on deferred tax assets due to an inability to generate sufficient profit in certain foreign jurisdictions;
- intellectual property protection difficulties or intellectual property theft;
- difficulty in collecting accounts receivable;
- complications in complying with a variety of foreign laws and regulations, some of which may conflict with U.S. laws;
- foreign privacy laws and regulations;
- trade protection measures and price controls;
- trade sanctions and embargoes;
- nationalization and expropriation;
- increased international instability, potential instability of foreign governments or impacts from geopolitical conflict such as supplier or transportation disruptions;
- effectiveness of worldwide compliance with MSA's anti-bribery policy, the U.S. Foreign Corrupt Practices Act, and similar local laws;
- difficulty in hiring and retaining qualified employees;
- the ability to effectively negotiate with labor unions in foreign countries;
- the need to take extra security precautions for our international operations;
- costs and difficulties in managing culturally and geographically diverse international operations;
- pandemics, severe weather events, or other disasters; and
- risks associated with the United Kingdom's decision to exit the European Union, including disruptions to trade and free movement of goods, services and people to and from the United Kingdom; increased foreign exchange volatility with respect to the British pound; and additional legal and economic uncertainty.

Any one or more of these risks could have a negative impact on the success of our international operations and, thereby, have a material adverse effect our business, consolidated results of operations and financial condition.

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

(c) Issuer Purchases of Equity Securities

| 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 Number of Shares That May Yet Be Purchased Under the Plans or Programs |
|------------|----------------------------------|------------------------------|--|--|
| April 2022 | 931 | \$ 122.31 | — | 477,710 |
| May 2022 | 124,320 | 122.70 | 123,530 | 333,367 |
| June 2022 | 108,760 | 120.71 | 108,305 | 243,080 |

The share repurchase program authorizes up to \$100.0 million in repurchases of MSA common stock in the open market and in private transactions. The share repurchase program has no expiration date. The maximum number of shares that may be purchased is calculated based on the dollars remaining under the program and the respective month-end closing share price. We repurchased 231,835 shares during the quarter ended June 30, 2022, under this program.

The above shares purchased during the quarter not related to shares purchased as part of publicly announced plans or programs are related to stock-based compensation transactions.

We do not have any other share repurchase programs.

Item 6. Exhibits

(a) Exhibits

- 31.1 [Certification of Chief Executive Officer pursuant to Rule 13a-14\(a\)](#)
- 31.2 [Certification of Chief Financial Officer pursuant to Rule 13a-14\(a\)](#)
- 32 [Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. \(S\)1350](#)
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

SIGNATURE

Pursuant to the requirements 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.

MSA SAFETY INCORPORATED

July 28, 2022

/s/ Kenneth D. Krause

Kenneth D. Krause

Sr. Vice President, Chief Financial Officer and Treasurer

/s/ Jonathan D. Buck

Jonathan D. Buck

Chief Accounting Officer and Controller (Principal Accounting Officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO RULE 13a-14(a)

I, Nishan J. Vartanian, certify that:

1. I have reviewed this quarterly report on Form 10-Q of MSA Safety Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

July 28, 2022

/s/ Nishan J. Vartanian

Nishan J. Vartanian

President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO RULE 13a-14(a)

I, Kenneth D. Krause certify that:

1. I have reviewed this quarterly report on Form 10-Q of MSA Safety Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

July 28, 2022

/s/ Kenneth D. Krause

Kenneth D. Krause

Sr. Vice President, Chief Financial Officer and Treasurer

CERTIFICATION

Pursuant to 18 U.S.C. (S) 1350, the undersigned officers of MSA Safety Incorporated (the "Company"), hereby certify, to the best of their knowledge, that the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 (the "Report") fully complies with the requirements of Section 13 (a) or 15 (d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

July 28, 2022

/s/ Nishan J. Vartanian

Nishan J. Vartanian

President and Chief Executive Officer

/s/ Kenneth D. Krause

Kenneth D. Krause

Sr. Vice President, Chief Financial Officer and Treasurer