

BARNES GROUP INC  
Form 10-Q  
July 29, 2016

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2016

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 1-4801

BARNES GROUP INC.

(Exact name of registrant as specified in its charter)

Delaware

06-0247840

(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

123 Main Street, Bristol, Connecticut

06010

(Address of Principal Executive Offices)

(Zip Code)

(860) 583-7070

Registrant's telephone number, including area code

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer ☒ Accelerated filer ☐

Non-accelerated filer ☐ Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes ☐ No ☒

The registrant had outstanding 53,846,392 shares of common stock as of July 20, 2016.

Barnes Group Inc.  
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For the Quarterly Period Ended June 30, 2016

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This Quarterly Report on Form 10-Q contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. See “FORWARD-LOOKING STATEMENTS” under Part I - Item 2 “Management's Discussion and Analysis of Financial Condition and Results of Operations” of this Quarterly Report on Form 10-Q.

## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements

## BARNES GROUP INC.

## CONSOLIDATED STATEMENTS OF INCOME

(Dollars in thousands, except per share data)

(Unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Net sales	\$306,693	\$ 314,941	\$595,025	\$ 615,515
Cost of sales	197,173	204,121	383,428	402,477
Selling and administrative expenses	62,060	60,171	122,610	118,494
	259,233	264,292	506,038	520,971
Operating income	47,460	50,649	88,987	94,544
Interest expense	2,815	2,586	5,806	5,306
Other (income) expense, net	(824)	) 237	(597)	) 318
Income before income taxes	45,469	47,826	83,778	88,920
Income taxes	12,257	13,599	21,718	25,617
Net income	\$33,212	\$ 34,227	\$62,060	\$ 63,303
Per common share:				
Basic	\$0.61	\$ 0.62	\$ 1.14	\$ 1.15
Diluted	0.61	0.61	1.14	1.14
Dividends	0.13	0.12	0.25	0.24
Weighted average common shares outstanding:				
Basic	54,168,562	55,134,890	54,207,145	55,111,019
Diluted	54,642,071	55,695,258	54,662,389	55,677,166

See accompanying notes.

## BARNES GROUP INC.

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Dollars in thousands)

(Unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Net income	\$33,212	\$34,227	\$62,060	\$63,303
Other comprehensive (loss) income, net of tax				
Unrealized (loss) gain on hedging activities, net of tax (1)	(282 )	189	(430 )	301
Foreign currency translation adjustments, net of tax (2)	(19,603 )	23,632	1,110	(16,125 )
Defined benefit pension and other postretirement benefits, net of tax (3)	2,378	1,790	3,697	5,451
Total other comprehensive (loss) income, net of tax	(17,507 )	25,611	4,377	(10,373 )
Total comprehensive income	\$15,705	\$59,838	\$66,437	\$52,930

(1) Net of tax of \$(79) and \$73 for the three months ended June 30, 2016 and 2015, respectively, and \$(141) and \$32 for the six months ended June 30, 2016 and 2015, respectively.

(2) Net of tax of \$(83) and \$830 for the three months ended June 30, 2016 and 2015, respectively, and \$74 and \$(1,381) for the six months ended June 30, 2016 and 2015, respectively.

(3) Net of tax of \$1,018 and \$1,421 for the three months ended June 30, 2016 and 2015, respectively, and \$1,953 and \$2,767 for the six months ended June 30, 2016 and 2015, respectively.

See accompanying notes.

BARNES GROUP INC.  
CONSOLIDATED BALANCE SHEETS  
(Dollars in thousands, except per share data)  
(Unaudited)

	June 30, 2016	December 31, 2015
Assets		
Current assets		
Cash and cash equivalents	\$101,326	\$83,926
Accounts receivable, less allowances (2016 - \$4,089; 2015 - \$4,085)	271,809	261,757
Inventories	204,918	208,611
Deferred income taxes	—	24,825
Prepaid expenses and other current assets	34,353	32,469
Total current assets	612,406	611,588
Deferred income taxes	22,726	1,139
Property, plant and equipment	735,370	714,807
Less accumulated depreciation	(422,470 )	(405,951 )
	312,900	308,856
Goodwill	589,194	587,992
Other intangible assets, net	512,170	528,322
Other assets	25,627	23,969
Total assets	\$2,075,023	\$2,061,866
Liabilities and Stockholders' Equity		
Current liabilities		
Notes and overdrafts payable	\$20,219	\$22,680
Accounts payable	104,882	97,035
Accrued liabilities	136,192	131,320
Long-term debt - current	1,573	1,515
Total current liabilities	262,866	252,550
Long-term debt	457,310	485,711
Accrued retirement benefits	94,246	112,888
Deferred income taxes	62,363	62,364
Other liabilities	19,935	20,600
Commitments and contingencies (Note 12)		
Stockholders' equity		
Common stock - par value \$0.01 per share		
Authorized: 150,000,000 shares	622	621
Issued: at par value (2016 - 62,177,886 shares; 2015 - 62,071,144 shares)		
Additional paid-in capital	433,816	427,558
Treasury stock, at cost (2016 - 8,453,319 shares; 2015 - 8,206,683 shares)	(234,887 )	(226,421 )
Retained earnings	1,117,627	1,069,247
Accumulated other non-owner changes to equity	(138,875 )	(143,252 )
Total stockholders' equity	1,178,303	1,127,753

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Total liabilities and stockholders' equity	\$2,075,023	\$2,061,866
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See accompanying notes.

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BARNES GROUP INC.  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(Dollars in thousands)  
(Unaudited)

	Six months ended June 30, 2016		2015
Operating activities:			
Net income	\$ 62,060		\$ 63,303
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	38,639		39,642
Gain on disposition of property, plant and equipment	(286)	)	(1,302)
Stock compensation expense	5,947		4,890
Withholding taxes paid on stock issuances	(465)	)	(746)
Changes in assets and liabilities:			
Accounts receivable	(11,036)	)	(8,902)
Inventories	4,755		(2,768)
Prepaid expenses and other current assets	(2,378)	)	(10,448)
Accounts payable	8,014		14,742
Accrued liabilities	8,453		(14,202)
Deferred income taxes	(536)	)	629
Long-term retirement benefits	(16,199)	)	(745)
Other	(459)	)	1,818
Net cash provided by operating activities	96,509		85,911
Investing activities:			
Proceeds from disposition of property, plant and equipment	439		2,058
Capital expenditures	(22,987)	)	(22,376)
Business acquisitions	(1,546)	)	—
Component Repair Program payments	(900)	)	(19,000)
Other	—		(651)



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Net cash used by investing activities	(24,994)	)	(39,969)	)
Financing activities:				
Net change in other borrowings	(2,349)	)	13,738	
Payments on long-term debt	(127,484)	)	(85,821)	)
Proceeds from the issuance of long-term debt	99,022		68,722	
Proceeds from the issuance of common stock	311		9,691	
Common stock repurchases	(8,000)	)	(11,465)	)
Dividends paid	(13,450)	)	(13,126)	)
Excess tax benefit on stock awards	59		1,574	
Other	(2,876)	)	8,487	
Net cash used by financing activities	(54,767)	)	(8,200)	)
Effect of exchange rate changes on cash flows	652		(1,814)	)
Increase in cash and cash equivalents	17,400		35,928	
Cash and cash equivalents at beginning of period	83,926		46,039	
Cash and cash equivalents at end of period	\$ 101,326		\$ 81,967	

See accompanying notes.

BARNES GROUP INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(All dollar amounts included in the notes are stated in thousands except per share data)

(Unaudited)

1. Summary of Significant Accounting Policies

The accompanying unaudited consolidated balance sheet and the related unaudited consolidated statements of income, comprehensive income and cash flows have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. The consolidated financial statements do not include all information and notes required by accounting principles generally accepted in the United States of America for complete financial statements. The balance sheet as of December 31, 2015 has been derived from the 2015 financial statements of Barnes Group Inc. (the "Company"). For additional information, please refer to the consolidated financial statements and notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2015. In the opinion of management, all adjustments, including normal recurring accruals considered necessary for a fair statement of the results, have been included. Operating results for the six-month period ended June 30, 2016 are not necessarily indicative of the results that may be expected for the year ending December 31, 2016.

2. Net Income Per Common Share

For the purpose of computing diluted net income per common share, the weighted-average number of common shares outstanding is increased for the potential dilutive effects of stock-based incentive plans. For the purpose of computing diluted net income per common share, the weighted-average number of common shares outstanding was increased by 473,509 and 560,368 for the three-month periods ended June 30, 2016 and 2015, respectively, and by 455,244 and 566,147 for the six-month periods ended June 30, 2016 and 2015, respectively, to account for the potential dilutive effect of stock-based incentive plans. There were no adjustments to net income for the purposes of computing income available to common stockholders for the periods.

The calculation of weighted-average diluted shares outstanding excludes all shares that would have been anti-dilutive. During the three-month periods ended June 30, 2016 and 2015, the Company excluded 358,207 and 199,950 stock options, respectively, from the calculation of weighted-average diluted shares outstanding as the stock options would have been anti-dilutive. During the six-month periods ended June 30, 2016 and 2015, the Company excluded 368,207 and 199,950 stock options, respectively, from the calculation of weighted-average diluted shares outstanding as the stock options would have been anti-dilutive. The Company also excluded 9,048 and 46,542 performance share awards from the calculation of weighted-average diluted shares outstanding during the three- and six- month periods ended June 30, 2016, respectively, as such awards also would have been anti-dilutive.

The Company granted 142,000 stock options, 119,814 restricted stock unit awards and 108,400 performance share awards ("PSAs") in February 2016 as part of its annual grant awards. All of the stock options and the restricted stock unit awards vest upon meeting certain service conditions. The restricted stock unit awards are included in basic weighted-average common shares outstanding as they contain nonforfeitable rights to dividend payments. The performance share awards are part of the long-term Performance Share Award Program (the "Awards Program") and are based on performance goals that are driven by a combination of independently measured metrics (depending on the grant year) with each metric being weighted equally. The metrics for awards granted in 2015 include the Company's total shareholder return ("TSR"), return on invested capital ("ROIC") and operating income before depreciation and amortization growth. The metrics for the awards granted in 2016 include TSR and ROIC. The TSR and operating income before depreciation and amortization growth metrics are designed to assess the long-term Company performance relative to the performance of companies included in the Russell 2000 Index over a three-year

performance period. The ROIC metric is measured based on pre-established Company targets over the same period. The participants can earn from zero to 250% of the target award and the award includes a forfeitable right to dividend equivalents, which are not included in the aggregate target award numbers. The fair value of the TSR portion of the PSA was determined using a Monte Carlo valuation method as the award contains a market condition.

## 3. Inventories

The components of inventories consisted of:

	June 30, 2016	December 31, 2015
Finished goods	\$70,284	\$ 76,836
Work-in-process	80,774	77,061
Raw material and supplies	53,860	54,714
	\$204,918	\$ 208,611

## 4. Goodwill and Other Intangible Assets

## Goodwill:

The following table sets forth the change in the carrying amount of goodwill for each reportable segment and for the Company as of and for the period ended June 30, 2016:

	Industrial	Aerospace	Total Company
January 1, 2016	\$557,206	\$ 30,786	\$ 587,992
Foreign currency translation	1,202	—	1,202
June 30, 2016	\$558,408	\$ 30,786	\$ 589,194

In the second quarter of 2016, management performed its annual impairment testing of goodwill. Based on this assessment, there was no goodwill impairment recognized as of June 30, 2016.

## Other Intangible Assets:

Other intangible assets consisted of:

		June 30, 2016		December 31, 2015	
	Range of Life -Years	Gross Amount	Accumulated Amortization	Gross Amount	Accumulated Amortization
Amortized intangible assets:					
Revenue sharing programs (RSPs)	Up to 30	\$293,700	\$ (90,354 )	\$293,700	\$ (84,629 )
Component repair programs (CRPs)	Up to 30	111,839	(8,044 )	111,839	(6,054 )
Customer lists/relationships	10-16	194,566	(47,501 )	194,566	(41,786 )
Patents and technology	6-14	69,352	(33,413 )	69,352	(29,551 )
Trademarks/trade names	10-30	11,950	(9,776 )	11,950	(9,412 )
Other	Up to 15	20,551	(15,838 )	20,551	(15,413 )
		701,958	(204,926 )	701,958	(186,845 )
Unamortized intangible assets:					
Trade names		38,370	—	38,370	—
Foreign currency translation		(23,232 )	—	(25,161 )	—
Other intangible assets		\$717,096	\$ (204,926 )	\$715,167	\$ (186,845 )

Estimated amortization of intangible assets for future periods is as follows: 2016 - \$36,000; 2017 - \$39,000; 2018 - \$40,000; 2019 - \$39,000 and 2020 - \$37,000.

In the second quarter of 2016 management performed its annual impairment testing of its trade names, indefinite-lived intangible assets. Based on this assessment, there was no impairment recognized as of June 30, 2016.

The Company entered into Component Repair Programs ("CRPs") with General Electric ("GE") during the fourth quarter of 2013 ("CRP 1"), the second quarter of 2014 ("CRP 2") and the fourth quarter of 2015 ("CRP 3"). The CRPs

provide for, among other items, the right to sell certain aftermarket component repair services for CFM56, CF6, CF34 and LM engines directly to

other customers as one of a few GE licensed suppliers. In addition, the CRPs extend certain existing contracts under which the Company currently provides these services directly to GE.

The Company agreed to pay \$26,639 as consideration for the rights related to CRP 1. Of this balance, the Company paid \$16,639 in the fourth quarter of 2013, \$9,100 in the fourth quarter of 2014, and \$900 in the first quarter of 2016. The Company agreed to pay \$80,000 as consideration for the rights related to CRP 2. The Company paid \$41,000 in the second quarter of 2014, \$20,000 in the fourth quarter of 2014 and \$19,000 in the second quarter of 2015. The Company agreed to pay \$5,200 as consideration for the rights related to CRP 3. Of this balance, the Company paid \$2,000 in the fourth quarter of 2015 and the remaining payment of \$3,200 is due by December 31, 2016 and has been included within accrued liabilities. The Company recorded the CRP payments as an intangible asset which is recognized as a reduction of sales over the remaining useful life of these engine programs.

## 5. Debt

The Company's debt agreements contain financial covenants that require the maintenance of interest coverage and leverage ratios. The Company is in compliance with its financial covenants as of June 30, 2016, and continues to monitor its future compliance based on current and anticipated future economic conditions.

Long-term debt and notes and overdrafts payable at June 30, 2016 and December 31, 2015 consisted of:

	June 30, 2016		December 31, 2015	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Revolving credit agreement	\$352,000	\$351,347	\$379,700	\$375,188
3.97% Senior Notes	100,000	108,546	100,000	102,484
Borrowings under lines of credit and overdrafts	20,219	20,219	22,680	22,680
Capital leases	6,485	7,105	7,105	7,503
Other foreign bank borrowings	398	413	421	410
	479,102	487,630	509,906	508,265
Less current maturities	(21,792 )		(24,195 )	
Long-term debt	\$457,310		\$485,711	

In September 2013, the Company entered into a second amendment to its fifth amended and restated revolving credit agreement (the "Amended Credit Agreement") and retained Bank of America, N.A. as the administrative agent for the lenders. The \$750,000 Amended Credit Agreement matures in September 2018. The Amended Credit Agreement added a new foreign subsidiary borrower in Germany, Barnes Group Acquisition GmbH, and included an accordion feature to increase the borrowing availability of the Company to \$1,000,000. The Company may exercise the accordion feature upon request to the Administrative Agent as long as an event of default has not occurred or is continuing. The borrowing availability of \$750,000, pursuant to the terms of the Amended Credit Agreement, allows for Euro-denominated borrowings equivalent to \$500,000. Borrowings under the Amended Credit Agreement bear interest at LIBOR plus a spread ranging from 1.10% to 1.70% depending on the Company's leverage ratio at prior quarter end.

Borrowings and availability under the Amended Credit Agreement were \$352,000 and \$398,000, respectively, at June 30, 2016 and \$379,700 and \$370,300, respectively, at December 31, 2015. The average interest rate on these borrowings was 1.56% and 1.50% on June 30, 2016 and December 31, 2015, respectively. There were no Euro-denominated borrowings at June 30, 2016 or December 31, 2015. The fair value of the borrowings is based on observable Level 2 inputs. The borrowings were valued using discounted cash flows based upon the Company's estimated interest costs for similar types of borrowings.

In October 2014, the Company entered into a Note Purchase Agreement (“Note Purchase Agreement”), among the Company and New York Life Insurance Company, New York Life Insurance and Annuity Corporation and New York Life Insurance and Annuity Corporation Institutionally Owned Life Insurance Separate Account (BOLI 30C), as purchasers, for the issuance of \$100,000 aggregate principal amount of 3.97% Senior Notes due October 17, 2024 (the “3.97% Senior Notes”). The Company completed funding of the transaction and issued the 3.97% Senior Notes on October 17, 2014.

The 3.97% Senior Notes are senior unsecured obligations of the Company and the Company pays interest semi-annually on April 17 and October 17 of each year at an annual rate of 3.97%. The 3.97% Senior Notes will mature on October 17, 2024 unless earlier prepaid in accordance with their terms. Subject to certain conditions, the Company may, at its option, prepay all

or any part of the 3.97% Senior Notes in an amount equal to 100% of the principal amount of the 3.97% Senior Notes so prepaid, plus any accrued and unpaid interest to the date of prepayment, plus the Make-Whole Amount, as defined in the Note Purchase Agreement, with respect to such principal amount being prepaid. The fair value of the 3.97% Senior Notes was determined using the US Treasury yield and a long-term credit spread for similar types of borrowings, that represent Level 2 observable inputs.

The Company's borrowing capacity may be limited by various debt covenants in the Amended Credit Agreement and the Note Purchase Agreement (the "Agreements"). The Agreements contain customary affirmative and negative covenants, including, among others, limitations on indebtedness, liens, investments, restricted payments, dispositions and business activities. The Agreements require the Company to maintain a ratio of Consolidated Senior Debt, as defined, to Consolidated EBITDA, as defined, of not more than 3.25 times at the end of each fiscal quarter, provided that such ratio may increase to 3.50 times following the consummation of certain acquisitions. In addition, the Agreements require the Company to maintain (i) a ratio of Consolidated Total Debt, as defined, to Consolidated EBITDA of not more than 4.00 times at the end of each fiscal quarter, provided that such ratio may increase to 4.25 times following the consummation of certain acquisitions, and (ii) a ratio of Consolidated EBITDA to Consolidated Cash Interest Expense, as defined, of not less than 4.25 times at the end of any fiscal quarter.

In addition, the Company has available approximately \$56,000 in uncommitted short-term bank credit lines ("Credit Lines") and overdraft facilities. Under the Credit Lines, \$20,200 was borrowed at June 30, 2016 at an interest rate of 1.30% and \$22,500 was borrowed at December 31, 2015 at an average interest rate of 1.56%. The Company had also borrowed \$19 and \$180 under the overdraft facilities at June 30, 2016 and December 31, 2015, respectively. Repayments under the Credit Lines are due within one month after being borrowed. Repayments of the overdrafts are generally due within two days after being borrowed. The carrying amounts of the Credit Lines and overdrafts approximate fair value due to the short maturities of these financial instruments.

The Company has capital leases at the Thermoplay and Männer businesses. The fair value of the capital leases is based on observable Level 2 inputs. These instruments are valued using discounted cash flows based upon the Company's estimated interest costs for similar types of borrowings.

The Company also has other foreign bank borrowings. The fair value of the other foreign bank borrowings is based on observable Level 2 inputs. These instruments are valued using discounted cash flows based upon the Company's estimated interest costs for similar types of borrowings.

## 6. Derivatives

The Company has manufacturing and sales facilities around the world and thus makes investments and conducts business transactions denominated in various currencies. The Company is also exposed to fluctuations in interest rates and commodity price changes. These financial exposures are monitored and managed by the Company as an integral part of its risk management program.

Financial instruments have been used by the Company to hedge its exposure to fluctuations in interest rates. In 2012, the Company entered into five-year interest rate swap agreements transacted with three banks which together convert the interest on the first \$100,000 of the Company's one-month LIBOR-based borrowings from a variable rate plus the borrowing spread to a fixed rate of 1.03% plus the borrowing spread. These interest rate swap agreements were accounted for as cash flow hedges.

The Company also uses financial instruments to hedge its exposures to fluctuations in foreign currency exchange rates. The Company has various contracts outstanding which primarily hedge recognized assets or liabilities, and anticipated transactions in various currencies including the Euro, British pound sterling, U.S. dollar, Canadian dollar, Japanese yen, Singapore dollar, Korean won, Swedish kroner, Chinese renminbi, Mexican peso and Swiss franc.



Certain foreign currency derivative instruments are treated as cash flow hedges of forecasted transactions. All foreign exchange contracts are due within two years.

The Company does not use derivatives for speculative or trading purposes or to manage commodity exposures. Changes in the fair market value of derivatives that qualify as fair value hedges or cash flow hedges are recorded directly to earnings or accumulated other non-owner changes to equity, depending on the designation. Amounts recorded to accumulated other non-owner changes to equity are reclassified to earnings in a manner that matches the earnings impact of the hedged transaction. Any ineffective portion, or amounts related to contracts that are not designated as hedges, are recorded directly to earnings.

The Company's policy for classifying cash flows from derivatives is to report the cash flows consistent with the underlying hedged item. Other financing cash flows during the first half of 2016, as presented on the consolidated statements of cash flows, include \$2,780 of net cash losses from the settlement of foreign currency hedges related to intercompany financing.

The following table sets forth the fair value amounts of derivative instruments held by the Company.

	June 30, 2016	December 31, 2015
	Asset Liability	Asset Liability
	Derivatives	Derivatives
Derivatives designated as hedging instruments:		
Interest rate contracts	\$— \$ (456 )	\$— \$ (357 )
Foreign exchange contracts	12 —	484 —
Derivatives not designated as hedging instruments:		
Foreign exchange contracts	51 (871 )	215 (101 )
Total derivatives	\$63 \$ (1,327 )	\$699 \$ (458 )

Asset derivatives are recorded in prepaid expenses and other current assets in the accompanying consolidated balance sheets. Liability derivatives related to interest rate contracts and foreign exchange contracts are recorded in other liabilities and accrued liabilities, respectively, in the accompanying consolidated balance sheets.

The following table sets forth the (loss) gain, net of tax, recorded in accumulated other comprehensive income (loss), net of tax, for the three- and six-month periods ended June 30, 2016 and 2015 for derivatives held by the Company and designated as hedging instruments.

	Three months ended June 30, 2016	Three months ended June 30, 2015	Six months ended June 30, 2016	Six months ended June 30, 2015
Cash flow hedges:				
Interest rate contracts	\$3	\$63	\$(62 )	\$(169)
Foreign exchange contracts	(285 )	126	(368 )	470
	\$(282)	\$189	\$(430)	\$301

Amounts related to the interest rate swaps included within accumulated other comprehensive income (loss) that were reclassified to expense during the first half of 2016 and 2015 resulted in a fixed rate of interest of 1.03% plus the borrowing spread for the first \$100,000 of one-month LIBOR borrowings. Additionally, there were no amounts recognized in income for hedge ineffectiveness during the three- and six-month periods ended June 30, 2016 and 2015.

The following table sets forth the net (loss) gain recorded in other (income) expense, net in the consolidated statements of income for the three- and six-month periods ended June 30, 2016 and 2015 for non-designated derivatives held by the Company. Such amounts were substantially offset by the net (gain) loss recorded on the underlying hedged asset or liability, also recorded in other (income) expense, net.

	Three months ended June 30, 2016	Three months ended June 30, 2015	Six months ended June 30, 2016	Six months ended June 30, 2015
Foreign exchange contracts	\$(39)	\$(1,671)	\$(3,751)	\$6,945

## 7. Fair Value Measurements

The provisions of the accounting standard for fair value define fair value 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. This standard classifies the inputs used to measure fair value into the following hierarchy:

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities

Level 2 Unadjusted quoted prices in active markets for similar assets or liabilities, or unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable for the asset or liability

Level 3 Unobservable inputs for the asset or liability

The following table provides the financial assets and financial liabilities reported at fair value and measured on a recurring basis:

Description	Total	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
June 30, 2016				
Asset derivatives	\$63	\$—	\$ 63	\$ —
Liability derivatives	(1,327 )	—	(1,327 )	—
Bank acceptances	11,523	—	11,523	—
Rabbi trust assets	2,181	2,181	—	—
	\$12,440	\$2,181	\$ 10,259	\$ —
December 31, 2015				
Asset derivatives	\$699	\$—	\$ 699	\$ —
Liability derivatives	(458 )	—	(458 )	—
Bank acceptances	10,823	—	10,823	—
Rabbi trust assets	2,159	2,159	—	—
	\$13,223	\$2,159	\$ 11,064	\$ —

The derivative contracts are valued using observable current market information as of the reporting date such as the prevailing LIBOR-based interest rates and foreign currency spot and forward rates. Bank acceptances represent financial instruments accepted from certain Chinese customers in lieu of cash paid on receivables, generally range from three to six months in maturity and are guaranteed by banks. The carrying amounts of the bank acceptances, which are included within prepaid expenses and other current assets, approximate fair value due to their short maturities. The fair values of rabbi trust assets are based on quoted market prices from various financial exchanges.

#### 8. Pension and Other Postretirement Benefits

Pension and other postretirement benefits expenses consisted of the following:

	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Pensions				
Service cost	\$1,318	\$1,299	\$2,702	\$2,752
Interest cost	4,945	5,297	9,781	9,992
Expected return on plan assets	(7,667 )	(8,589 )	(15,210 )	(16,159 )

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Amortization of prior service cost	55	77	105	155
Amortization of actuarial losses	2,856	4,056	5,412	7,485
Net periodic benefit cost	\$1,507	\$2,140	\$2,790	\$4,225

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	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Other Postretirement Benefits				
Service cost	\$27	\$36	\$61	\$73
Interest cost	431	425	884	918
Amortization of prior service credit	(94 )	(141 )	(187 )	(282 )
Amortization of actuarial losses	91	244	267	505
Net periodic benefit cost	\$455	\$564	\$1,025	\$1,214

As planned, the Company made a \$15,000 discretionary contribution to the U.S. qualified pension plans in March 2016.

## 9. Income Taxes

The Company's effective tax rate for the first half of 2016 was 25.9% compared with 28.8% in the first half of 2015 and 23.2% for the full year 2015. The increase in the first half of 2016 effective tax rate from the full year 2015 rate is primarily due to the expiration of certain tax holidays, the absence of the 2015 refund of withholding taxes and the projected change in the mix of earnings attributable to higher-taxing jurisdictions, partially offset by a decrease in planned repatriation of a portion of current year foreign earnings to the U.S.

The Aerospace and Industrial segments were previously awarded international tax holidays. All significant tax holidays for which the Company currently receives benefit are expected to expire in 2016 and 2017.

## 10. Changes in Accumulated Other Comprehensive Income (Loss) by Component

The following table sets forth the changes in accumulated other comprehensive income (loss), net of tax, by component for the six month periods ended June 30, 2016 and 2015:

	Gains and Losses on Cash Flow Hedges	Pension and Other Postretirement Benefit Items	Foreign Currency Items	Total
January 1, 2016	\$115	\$ (105,703 )	\$ (37,664 )	\$ (143,252 )
Other comprehensive (loss) income before reclassifications to consolidated statements of income	(571 )	53	1,110	592
Amounts reclassified from accumulated other comprehensive income to the consolidated statements of income	141	3,644	—	3,785
Net current-period other comprehensive (loss) income	(430 )	3,697	1,110	4,377
June 30, 2016	\$ (315 )	\$ (102,006 )	\$ (36,554 )	\$ (138,875 )
	Gains and Losses on Cash Flow Hedges	Pension and Other Postretirement Benefit Items	Foreign Currency Items	Total
January 1, 2015	\$ (732 )	\$ (115,289 )	\$ 16,568	\$ (99,453 )

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Other comprehensive (loss) income before reclassifications to consolidated statements of income	(249 )	355	(16,125 )	(16,019 )
Amounts reclassified from accumulated other comprehensive income to the consolidated statements of income	550	5,096	—	5,646
Net current-period other comprehensive income (loss)	301	5,451	(16,125 )	(10,373 )
June 30, 2015	\$ (431 )	\$ (109,838 )	\$ 443	\$ (109,826)

The following table sets forth the reclassifications out of accumulated other comprehensive income (loss) by component for the three- and six- month periods ended June 30, 2016 and 2015:

Details about Accumulated Other Comprehensive Income (Loss) Components	Amount Reclassified from Accumulated Other Comprehensive Income (Loss) Three months ended June 30, 2016	Three months ended June 30, 2015	Affected Line Item in the Consolidated Statements of Income
Gains and losses on cash flow hedges			
Interest rate contracts	\$(149 )	\$(214 )	Interest expense
Foreign exchange contracts	55	(116 )	Net sales
	(94 )	(330 )	Total before tax
	43	106	Tax benefit
	(51 )	(224 )	Net of tax
Pension and other postretirement benefit items			
Amortization of prior-service credits, net	\$39	\$64	(A)
Amortization of actuarial losses	(2,947 )	(4,300 )	(A)
	(2,908 )	(4,236 )	Total before tax
	1,018	1,421	Tax benefit
	(1,890 )	(2,815 )	Net of tax
Total reclassifications in the period	\$(1,941)	\$(3,039)	

(A) These accumulated other comprehensive income (loss) components are included within the computation of net periodic pension cost. See Note 8.

Details about Accumulated Other Comprehensive Income (Loss) Components	Amount Reclassified from Accumulated Other Comprehensive Income (Loss) Six months ended June 30, 2016	Six months ended June 30, 2015	Affected Line Item in the Consolidated Statements of Income
Gains and losses on cash flow hedges			
Interest rate contracts	\$(300 )	\$(429 )	Interest expense
Foreign exchange contracts	60	(360 )	Net sales
	(240 )	(789 )	Total before tax
	99	239	Tax benefit
	(141 )	(550 )	Net of tax
Pension and other postretirement benefit items			
Amortization of prior-service credits, net	\$82	\$127	(A)
Amortization of actuarial losses	(5,679 )	(7,990 )	(A)



(5,597 )	(7,863 )	Total before tax
1,953	2,767	Tax benefit
(3,644 )	(5,096 )	Net of tax

Total reclassifications in the period	\$(3,785)	\$(5,646)
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(A) These accumulated other comprehensive income (loss) components are included within the computation of net periodic pension cost. See Note 8.

#### 11. Information on Business Segments

The Company is organized based upon the nature of its products and services and reports under two global business segments: Industrial and Aerospace. Segment information is consistent with how management reviews the businesses, makes investing and resource allocation decisions and assesses operating performance. The Company has not aggregated operating segments for purposes of identifying these two reportable segments.

The Industrial segment is a global manufacturer of highly-engineered, high-quality precision components, products and systems for critical applications serving a diverse customer base in end-markets such as transportation, industrial equipment, consumer products, packaging, electronics, medical devices, and energy. Focused on innovative custom solutions, Industrial participates in the design phase of components and assemblies whereby customers receive the benefits of application and systems engineering, new product development, testing and evaluation, and the manufacturing of final products. Products are sold primarily through its direct sales force and global distribution channels. Industrial consists of three strategic business units that include Molding Solutions, Nitrogen Gas Products and Engineered Components. Industrial's Molding Solutions businesses design and manufacture customized hot runner systems, advanced mold cavity sensors and process control systems, and precision high cavitation mold assemblies - collectively, the enabling technologies for many complex injection molding applications. Industrial's Nitrogen Gas Products business manufactures nitrogen gas springs for the tool and die industry and manifold systems used to precisely control stamping presses. It also specializes in gas hydraulic suspension systems for heavy duty off road vehicles. Industrial's Engineered Components businesses manufacture and supply precision mechanical products used in transportation and industrial applications, including mechanical springs, high-precision punched and fine-blanked components, and retention rings.

The Aerospace segment is a global provider of fabricated and precision-machined components and assemblies for original equipment manufacturer ("OEM") turbine engine, airframe and industrial gas turbine builders, and the military. The Aerospace Aftermarket provides jet engine component maintenance overhaul and repair ("MRO") services, including our Component Repair Programs ("CRP's"), for many of the world's major turbine engine manufacturers, commercial airlines and the military. The Aerospace Aftermarket activities also include the manufacture and delivery of aerospace aftermarket spare parts, including the revenue sharing programs ("RSPs") under which the Company receives an exclusive right to supply designated aftermarket parts over the life of the related aircraft engine program.

The following tables set forth information about the Company's operations by its two reportable segments:

	Three months ended June 30,		Six months ended June 30,	
	2016	2015	2016	2015
Net sales				
Industrial	\$204,540	\$202,589	\$399,786	\$402,938
Aerospace	102,153	112,356	195,240	212,581
Intersegment sales	—	(4 )	(1 )	(4 )
Total net sales	\$306,693	\$314,941	\$595,025	\$615,515
Operating profit				
Industrial	\$34,843	\$29,979	\$64,487	\$60,958
Aerospace	12,617	20,670	24,500	33,586
Total operating profit	47,460	50,649	88,987	94,544
Interest expense	2,815	2,586	5,806	5,306
Other (income) expense, net	(824 )	237	(597 )	318
Income before income taxes	\$45,469	\$47,826	\$83,778	\$88,920

	June 30, 2016	December 31, 2015
Assets		
Industrial	\$1,253,637	\$1,241,206
Aerospace	646,021	654,147
Other <sup>(A)</sup>	175,365	166,513

Total assets \$2,075,023 \$2,061,866

(A) "Other" assets include corporate-controlled assets, the majority of which are cash and deferred tax assets.

## 12. Commitments and Contingencies

### Product Warranties

The Company provides product warranties in connection with the sale of certain products. From time to time, the Company is subject to customer claims with respect to product warranties. Product warranty liabilities were not material as of June 30, 2016 or December 31, 2015.

### Contract Matters

During the third quarter of 2015 the Company recorded a \$2,788 charge related to a contract termination dispute following the decision of a customer, Triumph Actuation Systems - Yakima, LLC ("Triumph"), to in-source work. The Company has approximately \$8,000 of net assets, in connection with this dispute, recorded on the Consolidated Balance Sheet as of June 30, 2016. The Company has assessed recoverability of costs and damages provided by the relevant contracts and, during the fourth quarter of 2015, filed an arbitration demand before the American Arbitration Association for recovery of these costs and damages for approximately \$15,000. Also during the fourth quarter, Triumph responded with a counterclaim of a similar amount, alleging various breaches and seeking damages, which the Company views as unsubstantiated. During 2016, Triumph adjusted the amount of its counterclaim to approximately \$23,000, and the Company adjusted its claim to seek approximately \$12,000.

As scheduled in May 2016, the parties arbitrated the matter and the Company continues to view the Triumph counterclaim as unsubstantiated. The Company and Triumph are scheduled to prepare and submit post-hearing filings in July and August prior to the issuance of the arbitrator's written ruling. While it is currently not possible to determine the ultimate outcome of this matter, the Company intends to vigorously defend its position and believes that the ultimate resolution will not have a material adverse effect on the Company's consolidated financial position or liquidity, but could be material to the consolidated results of operations of any one period.

## 13. Accounting Changes

In November 2015, the FASB amended its guidance related to the balance sheet classification of deferred income taxes.

The amended guidance removes the requirement to separate and classify deferred income tax liabilities and assets into current

and non-current amounts and requires an entity to now classify all deferred tax liabilities and assets as non-current.

The amended guidance can be adopted either on a prospective or retrospective basis and is effective for interim and annual periods

beginning after December 15, 2016. Early adoption is permitted. The provisions of the amended guidance were adopted on a prospective basis during the first quarter of 2016. The provisions resulted in the classification of \$25,341 and \$1,418 of current deferred income tax assets and liabilities, respectively, into non-current deferred income tax assets and liabilities, respectively, on the Consolidated Balance Sheet as of June 30, 2016.

In April 2015, the FASB amended its guidance related to the presentation of debt issuance costs. The amended guidance specifies that debt issuance costs related to notes shall be reported in the balance sheet as a direct deduction from the face amount of that note and that amortization of debt issuance costs shall be reported as interest expense. The amended guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015 and should be applied retrospectively. The Company adopted the guidance during the first quarter of 2016 and it did not have a material impact on its Consolidated Financial Statements.

14. Subsequent Event

On July 11, 2016, the Company, itself and through three of its subsidiaries (collectively, the “Purchaser”), entered into a Share Purchase Agreement (the “SPA”) with Adval Tech Holding AG and Adval Tech Holdings (Asia) Pte. Ltd. (collectively, the “Sellers”) for the acquisition (the “Acquisition”) of the Sellers’ molds business (the “FOBOHA business”). The FOBOHA business is headquartered in Haslach, Germany and operates out of three manufacturing facilities located in Germany, Switzerland and China. The FOBOHA business specializes in the development and manufacture of complex plastic injection molds for packaging, medical, consumer and automotive applications. The purchase price for the Acquisition under the terms of the SPA is CHF 133,000 in cash, subject to certain closing adjustments. The closing of the Acquisition is subject to the satisfaction of certain closing conditions, and is currently expected to occur in the third quarter of 2016. The Company expects to finance the transaction with cash on hand and borrowings under the Company’s revolving credit facility. Following the closing, the FOBOHA business will operate within the Molding Solutions business unit of the Industrial segment.

With respect to the unaudited consolidated financial information of Barnes Group Inc. for the three- and six- month periods ended June 30, 2016 and 2015, PricewaterhouseCoopers LLP reported that they have applied limited procedures in accordance with professional standards for a review of such information. However, their separate report dated July 29, 2016 appearing herein, states that they did not audit and they do not express an opinion on that unaudited consolidated financial information. Accordingly, the degree of reliance on their report should be restricted in light of the limited nature of the review procedures applied. PricewaterhouseCoopers LLP is not subject to the liability provisions of Section 11 of the Securities Act of 1933, as amended, for their report on the unaudited consolidated financial information because that report is not a “report” or a “part” of the registration statement prepared or certified by PricewaterhouseCoopers LLP within the meaning of Sections 7 and 11 of the Securities Act of 1933, as amended.

Report of Independent Registered Public Accounting Firm  
To the Board of Directors and Stockholders of  
Barnes Group Inc.

We have reviewed the accompanying consolidated balance sheet of Barnes Group Inc. and its subsidiaries as of June 30, 2016, and the related consolidated statements of income and comprehensive income for the three- and six-month periods ended June 30, 2016 and June 30, 2015 and the consolidated statement of cash flows for the six month periods ended June 30, 2016 and June 30, 2015. This interim financial information is the responsibility of the Company's management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated interim financial information for it to be in conformity with accounting principles generally accepted in the United States of America.

We previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet as of December 31, 2015, and the related consolidated statements of income and comprehensive income, of changes in stockholders' equity and of cash flows for the year then ended (not presented herein), and in our report dated February 24, 2016, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet as of December 31, 2015, is fairly stated in all material respects in relation to the consolidated balance sheet from which it has been derived.

/s/ PricewaterhouseCoopers LLP  
PricewaterhouseCoopers LLP  
Hartford, Connecticut  
July 29, 2016

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

## OVERVIEW

Please refer to the Overview in the Management's Discussion and Analysis of Financial Condition and Results of Operations in the Company's Annual Report on Form 10-K for the year ended December 31, 2015. The Annual Report on Form 10-K and other documents related to the Company are located on the Company's website: [www.bginc.com](http://www.bginc.com).

## Second Quarter 2016 Highlights

In the second quarter of 2016, sales decreased by \$8.2 million, or 2.6% from the second quarter of 2015, to \$306.7 million. Acquisitions during the second half of 2015 contributed sales of \$11.4 million during the second quarter of 2016 whereas organic sales (net sales excluding both foreign currency and acquisition impacts) decreased by \$17.3 million, or 5.5%, with declines of 3.5% within the Industrial segment and 9.1% within the Aerospace segment. Sales declines within Industrial resulted primarily from softer general industrial end-markets, whereas declines within Aerospace resulted from lower OEM and spare parts volumes. Sales in the Industrial segment were impacted by changes in foreign currency which decreased sales by approximately \$2.3 million as the U.S. dollar strengthened against foreign currencies.

Operating income in the second quarter of 2016 decreased 6.3% to \$47.5 million from the second quarter of 2015 and operating margin decreased from 16.1% to 15.5%. Operating income was largely impacted by decreased organic sales in both the Industrial and Aerospace segments, partially offset by the profit contributions of the acquired Thermoplay and Priamus businesses and productivity improvements within Industrial.

## RESULTS OF OPERATIONS

## Net Sales

	Three months ended June 30,			Six months ended June 30,		
(in millions)	2016	2015	Change	2016	2015	Change
Industrial	\$204.5	\$202.6	\$2.0 1.0 %	\$399.8	\$402.9	\$(3.2 ) (0.8)%
Aerospace	102.2	112.4	(10.2 ) (9.1)%	195.2	212.6	(17.3 ) (8.2)%
Total	\$306.7	\$314.9	\$(8.2 ) (2.6)%	\$595.0	\$615.5	\$(20.5 ) (3.3)%

The Company reported net sales of \$306.7 million in the second quarter of 2016, a decrease of \$8.2 million or 2.6%, from the second quarter of 2015. In Industrial, the acquisitions of Thermoplay in August 2015 and Priamus in October 2015 provided sales of \$11.4 million, in aggregate, during the 2016 period. Organic sales decreased by \$17.3 million, which included decreases of \$7.1 million and \$10.2 million at Industrial and Aerospace, respectively. The strengthening of the U.S. dollar against foreign currencies decreased net sales within the Industrial segment by approximately \$2.3 million.

The Company reported net sales of \$595.0 million in the first half of 2016, a decrease of \$20.5 million or 3.3%, from the first half of 2015. In Industrial, the acquisitions of Thermoplay in August 2015 and Priamus in October 2015 provided sales of \$23.5 million, in aggregate, during the first half of 2016. Organic sales decreased by \$38.8 million, which included decreases of \$21.5 million and \$17.3 million at Industrial and Aerospace, respectively. The strengthening of the U.S. dollar against foreign currencies decreased net sales within the Industrial segment by approximately \$5.2 million.





# Expenses and Operating Income

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Cost of sales	\$197.2	\$204.1	\$(6.9) (3.4)%	\$383.4	\$402.5	\$(19.0) (4.7)%
% sales	64.3 %	64.8 %		64.4 %	65.4 %	
Gross profit <sup>(1)</sup>	\$109.5	\$110.8	\$(1.3) (1.2)%	\$211.6	\$213.0	\$(1.4 ) (0.7)%
% sales	35.7 %	35.2 %		35.6 %	34.6 %	
Selling and administrative expenses	\$62.1	\$60.2	\$1.9 3.1 %	\$122.6	\$118.5	\$4.1 3.5 %
% sales	20.2 %	19.1 %		20.6 %	19.3 %	
Operating income	\$47.5	\$50.6	\$(3.2) (6.3)%	\$89.0	\$94.5	\$(5.6 ) (5.9)%
% sales	15.5 %	16.1 %		15.0 %	15.4 %	

(1) Sales less cost of sales.

Cost of sales in the second quarter of 2016 decreased 3.4% from the 2015 period, while gross profit margin increased from 35.2% in the 2015 period to 35.7% in the 2016 period. Gross margins improved at Industrial and declined at Aerospace. The recent acquisitions of Thermoplay and Priamus resulted in a higher percentage of sales being driven by Industrial, our higher margin segment, during the second quarter of 2016. At Industrial, gross profit increased during the second quarter of 2016 primarily as a result of favorable productivity, partially offset by the impact of lower volumes, due in part to softness in general industrial end-markets. Gross profit during the second quarter of 2015 was negatively impacted by \$0.3 million of short-term purchase accounting adjustments related to the acquisition of the Männer business. Within Aerospace, a decline in gross profit relates primarily to lower volumes within the highly profitable spare parts business. Selling and administrative expenses in the second quarter of 2016 increased 3.1% from the 2015 period, due in part to \$1.6 million of costs related to the customer termination dispute, partially offset by a reduction in short-term purchase accounting adjustments related to the acquisition of the Männer business, which were \$0.3 million during the second quarter of 2015. As a percentage of sales, selling and administrative costs increased from 19.1% in the second quarter of 2015 to 20.2% in the 2016 period. Operating income in the second quarter of 2016 decreased 6.3% to \$47.5 million from the second quarter of 2015 and operating income margin decreased from 16.1% to 15.5%.

Cost of sales in the first half of 2016 decreased 4.7% from the 2015 period, while gross profit margin increased from 34.6% in the 2015 period to 35.6% in the 2016 period. Gross margins improved at Industrial and declined at Aerospace. The recent acquisitions of Thermoplay and Priamus resulted in a higher percentage of sales being driven by Industrial, our higher margin segment, during the first half of 2016. At Industrial, gross profit increased during the first half of 2016 primarily as a result of favorable productivity, partially offset by the impact of lower volumes, due in part to softness in general industrial end-markets. Gross profit during the first half of 2015 was negatively impacted by \$0.9 million of short-term purchase accounting adjustments related to the acquisition of the Männer business. Within Aerospace, a decline in gross profit relates primarily to lower volumes within the highly profitable spare parts business. Selling and administrative expenses in the first half of 2016 increased 3.5% from the 2015 period, due in part to \$2.4 million of costs related to the customer termination dispute within the Aerospace segment, partially offset by a reduction in short-term purchase accounting adjustments related to the acquisition of the Männer business, which were \$0.6 million during the first half of 2015. As a percentage of sales, selling and administrative costs increased from 19.3% in the first half of 2015 to 20.6% in the 2016 period. Operating income in the first half of 2016 decreased 5.9% to \$89.0 million from the first half of 2015 and operating income margin decreased from 15.4% to 15.0%.

## Interest expense

Interest expense increased by \$0.2 million in the second quarter of 2016, as compared with the prior year period, primarily as a result of higher interest rates. Interest expense increased by \$0.5 million in the first half of 2016, as compared with the prior year period, primarily as a result of higher interest rates.

Other (income) expense, net

Other (income) expense, net in the second quarter of 2016 was \$(0.8) million compared to \$0.2 million in the second quarter of 2015. Foreign currency gains of \$0.7 million in the second quarter of 2016 compared with foreign currency losses of \$0.2 million in the second quarter of 2015. Other (income) expense, net in the first half of 2016 was \$(0.6) million compared to \$0.3 million in the first half of 2015. Foreign currency gains of \$0.6 million in the first half of 2016 compared with foreign currency losses of \$0.1 million in the first half of 2015.

## Income Taxes

The Company's effective tax rate for the first half of 2016 was 25.9% compared with 28.8% in the first half of 2015 and 23.2% for the full year 2015. The increase in the first half of 2016 effective tax rate from the full year 2015 rate is primarily due to the expiration of certain tax holidays, the absence of the 2015 refund of withholding taxes and the projected change in the mix of earnings attributable to higher-taxing jurisdictions, partially offset by a decrease in planned repatriation of a portion of current year foreign earnings to the U.S.

The Aerospace and Industrial segments were previously awarded international tax holidays. All significant tax holidays for which the Company currently receives benefit are expected to expire in 2016 and 2017.

## Income and Income per Share

(in millions, except per share)	Three months ended June 30,				Six months ended June 30,			
	2016	2015	Change		2016	2015	Change	
Net income	\$33.2	\$34.2	\$(1.0)	(3.0)%	\$62.1	\$63.3	\$(1.2)	(2.0)%
Net income per common share:								
Basic	\$0.61	\$0.62	\$(0.01)	(1.6)%	\$1.14	\$1.15	\$(0.01)	(0.9)%
Diluted	0.61	0.61	—	— %	1.14	1.14	\$—	— %
Weighted average common shares outstanding:								
Basic	54.2	55.1	(1.0)	(1.8)%	54.2	55.1	(0.9)	(1.6)%
Diluted	54.6	55.7	(1.1)	(1.9)%	54.7	55.7	(1.0)	(1.8)%

Basic net income per common share decreased slightly for the three- and six- month periods as compared to 2015 while diluted net income per common share was flat. Basic and diluted weighted average common shares outstanding decreased due to the repurchase of 1,352,596 and 232,457 shares during 2015 and the first half of 2016, respectively, as part of the Company's repurchase program. The impact of the repurchased shares was partially offset by the issuance of additional shares for employee stock plans.

## Financial Performance by Business Segment

## Industrial

(in millions)	Three months ended June 30,				Six months ended June 30,			
	2016	2015	Change		2016	2015	Change	
Sales	\$204.5	\$202.6	\$2.0	1.0 %	\$399.8	\$402.9	\$(3.2)	(0.8)%
Operating profit	34.8	30.0	4.9	16.2 %	64.5	61.0	3.5	5.8 %
Operating margin	17.0 %	14.8 %			16.1 %	15.1 %		

Sales at Industrial were \$204.5 million in the second quarter of 2016, a \$2.0 million increase from the second quarter of 2015. The acquisitions of Thermoplay in August 2015 and Priamus in October 2015 provided sales of \$11.4 million, in aggregate, during the 2016 period. Organic sales decreased by \$7.1 million, or 3.5%, during the 2016 period. Softness in North American general industrial end-markets unfavorably impacted organic sales at Industrial. Tool and die end-markets in Asia also continued to pressure sales. The impact of foreign currency decreased sales by approximately \$2.3 million as the U.S. dollar strengthened against foreign currencies. During the first half of 2016, this segment reported sales of \$399.8 million, a 0.8% decrease from the first half of 2015. Organic sales decreased by \$21.5 million, or 5.3%, during the 2016 period, primarily a result softer North American general industrial and Asian tool and die end-markets. The acquisitions of Thermoplay and Priamus provided sales of \$23.5 million, in aggregate, during the 2016 period. The impact of foreign currency decreased sales by approximately \$5.2 million as the U.S. dollar strengthened against foreign currencies.

Operating profit in the second quarter of 2016 at Industrial was \$34.8 million, an increase of \$4.9 million from the second quarter of 2015. The increase was driven by favorable productivity as the Company continued its focus on manufacturing efficiencies and improved supply chain management across multiple units. The benefits of favorable productivity were partially offset by lower sales volumes, largely a result of softer global general industrial end-markets. The acquisition of the Thermoplay and Priamus businesses also contributed to improved operating profit within the segment. The second quarter of 2015 included \$0.6 million of short-term purchase accounting adjustments related to the acquisition of the Männer business.

Operating margin increased from 14.8% in the 2015 period to 17.0% in the 2016 period primarily as a result of these items. Operating profit in the first half of 2016 at Industrial was \$64.5 million, an increase of \$3.5 million from the first half of 2015. As noted above, operating profit benefited from favorable productivity, partially offset by the impact of lower sales volumes, largely a result of softer general industrial end-markets. The profit contributions of the acquired Thermoplay and Priamus businesses also benefited the segment. The first half of 2015 included \$1.5 million of short-term purchase accounting adjustments related to the acquisition of the Manner business. Operating margin increased from 15.1% in the 2015 period to 16.1% in the 2016 period primarily as a result of these items.

Outlook: In the Industrial manufacturing businesses, management is focused on generating organic sales growth through the introduction of new products and by leveraging the benefits of the diversified products and industrial end-markets in which its businesses have a global presence. Our ability to generate sales growth is subject to economic conditions in the global markets served by all of our businesses. For general industrial end-markets, manufacturing Purchasing Managers Indexes ("PMIs") above 50 in North America and Europe are positive signs. China, although relatively stable since December 31, 2015, has demonstrated some softness during the second quarter. While China manufacturing PMI has declined during the second quarter, we have seen a strengthening in orders during the latter half of the second quarter given strengthening transportation markets. Forecasted production for light vehicles remains favorable for 2016, with growth expected in North America, Europe, and China. One area of automotive weakness is Brazil, and that is having an impact on our spring business within Engineered Components. As noted above, our sales were negatively impacted by fluctuations in foreign currencies during the second quarter of 2016 of \$2.3 million. A significant portion of businesses within the Industrial segment are domiciled in Europe. To the extent that the U.S. dollar remains strong as compared with the other foreign currencies, our sales may continue to be unfavorably impacted by foreign currency relative to the prior year periods. The relative impact on operating profit is not expected to be as significant as the impact on sales as most of our businesses have expenses primarily denominated in local currencies, where their revenues reside. The Company also remains focused on sales growth through acquisition and expanding geographic reach. Strategic investments in new technologies, manufacturing processes and product development are expected to provide incremental benefits over the long term. In April 2016, active unionized employees at the Bristol, CT and Corry, PA facilities of the Associated Spring business unit ratified a new collective bargaining agreement.

Operating profit is largely dependent on the sales volumes and mix of the businesses in the segment. Management continues to focus on improving profitability and expanding margins through leveraging organic sales growth, acquisitions, pricing initiatives, global sourcing and productivity and process improvements. The Company continues to actively manage costs during these periods of market softening. Workforce reductions and facility consolidations, combined with other productivity initiatives, are expected to contribute favorably throughout the remainder of 2016. We continue to evaluate market conditions and remain pro-active in managing costs if markets further soften. Costs associated with new product and process introductions, plant consolidations, strategic investments and the integration of acquisitions may negatively impact operating profit.

#### Aerospace

(in millions)	Three months ended June 30,			Six months ended June 30,		
	2016	2015	Change	2016	2015	Change
Sales	\$102.2	\$112.4	\$(10.2) (9.1 )%	\$195.2	\$212.6	\$(17.3) (8.2 )%
Operating profit	12.6	20.7	(8.1 ) (39.0)%	24.5	33.6	(9.1 ) (27.1)%
Operating margin	12.4 %	18.4 %		12.5 %	15.8 %	

The Aerospace segment reported sales of \$102.2 million in the second quarter of 2016, a 9.1% decrease from the second quarter of 2015. The original equipment manufacturing ("OEM") business experienced lower sales versus the prior year period in part due to a contract termination dispute with a customer following its decision to in-source work in the second half of 2015. See Note 12 of the Consolidated Financial Statements. Lower volumes on the GE90 engine

platform, as well as on other more mature engine platforms, also contributed to the sales decline within OEM. The segment continued to transition from the manufacture of components on legacy engine platforms to newer, more technologically advanced platforms during the second quarter. Sales growth in the spare parts business also declined, largely a result of a strong comparable period of customer restocking of inventory that occurred during the second quarter of 2015. The aftermarket repair and overhaul ("MRO") business declined slightly as it continues to be impacted by deferred maintenance on certain platforms as airlines continue to closely manage their costs and as engine performance and quality has improved. Aerospace was not impacted by changes in foreign currency as sales within the segment are largely denominated in U.S. dollars. During the first half of 2016, this segment reported sales of \$195.2 million, an 8.2% decrease from the first half of 2015, primarily as a result of decreased sales within the OEM and spare parts businesses.

Operating profit at Aerospace in the second quarter of 2016 decreased 39.0% from the second quarter of 2015 to \$12.6 million. The operating profit decrease resulted primarily from the profit impact of lower sales within the OEM business and the highly profitable spare parts business. In addition, unfavorable productivity, additional costs of \$1.6 million related to the contract termination dispute, and unfavorable pricing weighed on operating profit. Lower productivity was largely a result of the Company's transition from declining mature engine programs to ramping newer programs. Operating margin decreased from 18.4% in the 2015 period to 12.4% in the 2016 period primarily as a result of these items. Operating profit in the first half of 2016 decreased 27.1% from the first half of 2015 to \$24.5 million, also driven by lower sales volumes, unfavorable productivity and \$2.4 million of costs related to the contract termination dispute.

Outlook: Sales in the Aerospace OEM business are based on the general state of the aerospace market driven by the worldwide economy and are supported by its order backlog through participation in certain strategic commercial and military engine and airframe programs. Over the next several years, the Company expects continued strength in demand for new engines, driven by increased commercial aircraft production levels. The Company sees 2016 as a transition year for the Aerospace OEM business as it moves from declining production on some of its legacy engine programs onto the ramping of several new engine programs. Indicative of this transition, OEM orders increased significantly since December 31, 2015. Backlog at OEM was \$646.2 million at June 30, 2016, an increase of 14.6% since December 31, 2015, at which time backlog was \$563.9 million. Approximately 47% of OEM backlog is expected to ship in the next 12 months (as of June 30, 2016), a percentage that is lower than our historical average, as orders for new engine programs have been placed over a longer time horizon. The Aerospace OEM business may be impacted by changes in the content levels on certain platforms, changes in customer sourcing decisions, adjustments to customer inventory levels, commodity availability and pricing, changes in production schedules of specific engine and airframe programs, redesign of parts, quantity of parts per engine, cost schedules agreed to under contract with the engine manufacturers, as well as the pursuit and duration of new programs. Sales levels in the Aerospace aftermarket business may be impacted by fluctuations in end-market demand, inventory management and changes in customer sourcing, deferred or limited maintenance activity during engine shop visits and the use of surplus (used) material during the engine repair and overhaul process. End markets are expected to grow based on the long term underlying fundamentals of the aerospace industry. Management continues to believe its Aerospace aftermarket business is competitively positioned based on well-established long-term customer relationships, including maintenance and repair contracts in the MRO business and long-term Revenue Sharing Programs ("RSPs") and Component Repair Programs ("CRPs"), expanded capabilities and current capacity levels. Fluctuations in fuel costs and their impact on airline profitability and behaviors within the aerospace industry could impact levels and frequency of aircraft maintenance and overhaul activities, and airlines' decisions on maintaining, deferring or canceling new aircraft purchases, in part based on the value associated with new fuel efficient technologies. The Company does not expect that fluctuations in fuel costs will have a significant impact in the near term on the OEM business, however they may impact the MRO business.

Management is focused on growing operating profit at Aerospace primarily through leveraging organic sales growth, strategic investments, productivity initiatives, new product and process introductions and continued cost management. Operating profit is expected to be affected by the impact of changes in sales volume, mix and pricing, particularly as they relate to the highly profitable aftermarket RSP spare parts business, and investments made in each of its businesses. During 2015, the Company responded to the challenging economic environment affecting certain of our Aerospace businesses. Workforce reductions and restructure charges were recorded following reduced aftermarket volumes and the impact of the OEM customer's in-sourcing decision. Taking these actions supported our productivity initiatives and have begun to favorably impact segment results during the first half of 2016. The Company expects additional benefits to result from these actions during the remainder of 2016, through operational effectiveness and productivity improvements, however such actions may negatively impact operating profit in the short-term. We continue to evaluate market conditions and remain pro-active in managing costs if markets further soften. Costs associated with new product and process introductions, the initial physical transfer of work to lower cost



manufacturing regions and additional restructuring activities may also negatively impact operating profit.

## LIQUIDITY AND CAPITAL RESOURCES

Management assesses the Company's liquidity in terms of its overall ability to generate cash to fund its operating and investing activities. Of particular importance in the management of liquidity are cash flows generated from operating activities, capital expenditure levels, dividends, capital stock transactions, effective utilization of surplus cash positions overseas and adequate lines of credit.

The Company believes that its ability to generate cash from operations in excess of its internal operating needs is one of its financial strengths. Management continues to focus on cash flow and working capital management, and anticipates that operating activities in 2016 will generate sufficient cash to fund operations. The Company closely monitors its cash generation, usage and preservation including the management of working capital to generate cash.

On October 15, 2014, the Company entered into a Note Purchase Agreement ("Note Purchase Agreement"), among the Company and New York Life Insurance Company, New York Life Insurance and Annuity Corporation and New York Life Insurance and Annuity Corporation Institutionally Owned Life Insurance Separate Account (BOLI 30C), as purchasers, for the issuance of \$100.0 million aggregate principal amount of 3.97% senior notes due October 17, 2024 (the "3.97% Senior Notes"). The Company completed funding of the transaction and issued the 3.97% Senior Notes on October 17, 2014. The 3.97% Senior Notes are senior unsecured obligations of the Company and the Company pays interest semi-annually on April 17 and October 17 of each year at an annual rate of 3.97%. The 3.97% Senior Notes will mature on October 17, 2024 unless earlier prepaid in accordance with their terms. Subject to certain conditions, the Company may, at its option, prepay all or any part of the 3.97% Senior Notes in an amount equal to 100% of the principal amount of the 3.97% Senior Notes so prepaid, plus any accrued and unpaid interest to the date of prepayment, plus the Make-Whole Amount, as defined in the Note Purchase Agreement, with respect to such principal amount being prepaid. The Note Purchase Agreement contains customary affirmative and negative covenants that are similar to the covenants required under the Amended Credit Agreement, as discussed below. At June 30, 2016, the Company was in compliance with all covenants under the Note Purchase Agreement.

In September 2013, the Company entered into a second amendment to its fifth amended and restated revolving credit agreement (the "Amended Credit Agreement") and retained Bank of America, N.A. as the administrative agent for the lenders. The \$750.0 million Amended Credit Agreement matures in September 2018. The Amended Credit Agreement adds a new foreign subsidiary borrower in Germany, Barnes Group Acquisition GmbH, and includes an accordion feature to increase the borrowing availability of the Company to \$1,000.0 million. The Company may exercise the accordion feature upon request to the Administrative Agent as long as an event of default has not occurred or is continuing. The borrowing availability of \$750.0 million, pursuant to the terms of the Amended Credit Agreement, allows for Euro-denominated borrowings equivalent to \$500.0 million. Borrowings under the Amended Credit Agreement bear interest at LIBOR plus a spread ranging from 1.10% to 1.70% depending on the Company's leverage ratio at prior quarter end.

The Company's borrowing capacity may be limited by various debt covenants in the Amended Credit Agreement and the Note Purchase Agreement (the "Agreements"). The Agreements require the Company to maintain a ratio of Consolidated Senior Debt, as defined in the Agreements, to Consolidated EBITDA, as defined, of not more than 3.25 times at the end of each fiscal quarter ("Senior Debt Ratio"), a ratio of Consolidated Total Debt, as defined, to Consolidated EBITDA of not more than 4.00 times at the end of each fiscal quarter, and a ratio of Consolidated EBITDA to Consolidated Cash Interest Expense, as defined, of not less than 4.25 times at the end of each fiscal quarter. The Agreements also provide that in connection with certain permitted acquisitions with aggregate consideration in excess of \$150.0 million, the Consolidated Senior Debt to EBITDA ratio and the Consolidated Total Debt to EBITDA ratio are permitted to increase to 3.50 times and 4.25 times, respectively, for a period of the four fiscal quarters ending after the closing of the acquisition. At June 30, 2016, the Company was in compliance with all covenants under the Agreements. The Company's most restrictive financial covenant is the Senior Debt Ratio which requires the Company to maintain a ratio of Consolidated Senior Debt to Consolidated EBITDA of not more than 3.25 times at June 30, 2016. The actual ratio at June 30, 2016 was 1.78 times.

During the first half of 2016, the Company repurchased 0.2 million shares of the Company's stock at a cost of \$8.0 million.

Operating cash flow may be supplemented with external borrowings to meet near-term business expansion needs and the Company's current financial commitments. The Company has assessed its credit facilities in conjunction with the Amended Credit Facility and currently expects that its bank syndicate, comprised of 17 banks, will continue to support its Amended Credit Agreement which matures in September 2018. At June 30, 2016, the Company had \$398.0 million unused and available for borrowings under its \$750.0 million Amended Credit Facility, subject to covenants in the Company's debt agreements. At June 30, 2016, additional borrowings of \$594.8 million of Total Debt and \$393.4

million of Senior Debt would have been allowed under the financial covenants. The Company intends to use borrowings under its Amended Credit Facility to support the Company's ongoing growth initiatives. The Company believes its credit facilities and access to capital markets, coupled with cash generated from operations, are adequate for its anticipated future requirements.

The Company had \$20.2 million in borrowings under short-term bank credit lines at June 30, 2016.

In 2012, the Company entered into five-year interest rate swap agreements transacted with three banks which together convert the interest on the first \$100.0 million of borrowings under the Company's Credit Agreement from a variable rate plus the borrowing spread to a fixed rate of 1.03% plus the borrowing spread for the purpose of mitigating its exposure to variable interest rates. At June 30, 2016, the Company's total borrowings were comprised of approximately 43% fixed rate debt and 57% variable rate debt. At December 31, 2015, the Company's total borrowings were comprised of approximately 41% fixed rate debt and 59% variable rate debt.

The Company expects to contribute approximately \$19.4 million to its various international and domestic defined benefit pension plans in 2016, including \$15.0 million of discretionary contributions to the U.S. Qualified pension plans that were made in March 2016.

At June 30, 2016, the Company held \$101.3 million in cash and cash equivalents, the majority of which was held by foreign subsidiaries. These amounts have no material regulatory or contractual restrictions and are expected to primarily fund international investments.

On July 11, 2016, the Company, itself and through three of its subsidiaries (collectively, the "Purchaser"), entered into a Share Purchase Agreement (the "SPA") with Adval Tech Holding AG and Adval Tech Holdings (Asia) Pte. Ltd. (collectively, the "Sellers") for the acquisition (the "Acquisition") of the Sellers' molds business. See Note 13 of the Consolidated Financial Statements. The purchase price for the Acquisition under the terms of the SPA is CHF 133,000 in cash, subject to certain closing adjustments. The closing of the Acquisition is subject to the satisfaction of certain closing conditions, and is currently expected to occur in the third quarter of 2016. The Company expects to finance the transaction with cash on hand and borrowings under our revolving credit facility. Also in July 2016, the Company entered into forward contract agreements (CHF 133,000 in aggregate) to reduce the exposure to foreign currency exchange rates on the purchase price.

We may from time to time seek to retire or repurchase our outstanding debt through cash purchases and/or exchanges for equity securities, in open market purchases, under a Rule 10b5-1 trading plan, privately negotiated transactions or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors.

#### Cash Flow

	Six months ended June 30,		
(in millions)	2016	2015	Change
Operating activities	\$96.5	\$85.9	\$10.6
Investing activities	(25.0 )	(40.0 )	15.0
Financing activities	(54.8 )	(8.2 )	(46.6 )
Exchange rate effect	0.7	(1.8 )	2.5
Increase in cash	\$17.4	\$35.9	\$(18.5)

Operating activities provided \$96.5 million in the first six months of 2016 compared to \$85.9 million in the first six months of 2015. Operating cash flows in the 2016 period were positively impacted by a reduction in outflows of accrued liabilities, including employee incentive compensation payments. Cash inflows in the 2016 period were partially offset by an outflow of \$15.0 million related to discretionary contributions to the U.S. Qualified pension plans.

Investing activities used \$25.0 million and \$40.0 million in the first six months of 2016 and 2015, respectively. Investing activities in the 2016 period primarily consisted of cash outflows related to capital expenditures of \$23.0 million compared to \$22.4 million in the 2015 period. The Company expects capital spending in 2016 to be approximately \$50 million, in line with 2015 spending of \$46.0 million. Investing activities in the first six months of 2016 included a payment of \$1.5 million related to the post-acquisition closing adjustment of Thermoplay and a payment related to the Component Repair Programs ("CRPs") of \$0.9 million, compared with a CRP payment of \$19.0 million in the first six months of 2015. See Note 4 of the Consolidated Financial Statements.

Financing activities in the first six months of 2016 included a net decrease in borrowings of \$30.8 million compared to a net decrease of \$3.4 million in the comparable 2015 period. Proceeds from the issuance of common stock were \$0.3

million and \$9.7 million in the 2016 and 2015 periods, respectively. During the first six months of 2016, the Company repurchased 0.2 million shares of the Company's stock at a cost of \$8.0 million, compared with the purchase of 0.3 million shares at a cost of \$11.5 million during the first six months of 2015. Total cash used to pay dividends increased slightly to \$13.5 million in the 2016 period compared to \$13.1 million in the 2015 period. Other financing cash flows during the first six months of 2016 include \$2.8 million of net cash payments resulting from the settlement of foreign currency hedges related to inter-company financing, whereas the first six months of 2015 included \$8.7 million of net cash proceeds from settlements.

The Company maintains borrowing facilities with banks to supplement internal cash generation. At June 30, 2016, \$352.0 million was borrowed at an average interest rate of 1.56% under the Company's \$750.0 million Amended Credit Facility which matures in September 2018. In addition, as of June 30, 2016, the Company had \$20.2 million in borrowings under short-term

bank credit lines. At June 30, 2016, the Company's total borrowings were comprised of 43% fixed rate debt and 57% variable rate debt. The interest payments on \$100.0 million of the variable rate interest debt have been converted into payment of fixed interest plus the borrowing spread under the terms of the respective interest rate swaps that were executed in April 2012.

## Debt Covenants

Borrowing capacity is limited by various debt covenants in the Company's debt agreements. As of June 30, 2016, the most restrictive financial covenant is included within the Amended Credit Agreement and the Note Purchase Agreement and requires the Company to maintain a maximum ratio of Consolidated Senior Debt, as defined, to Consolidated EBITDA, as defined, of not more than 3.25 times for the four fiscal quarters then ending. The Agreements also contain other financial covenants that require the maintenance of a certain other debt ratio, Consolidated Total Debt, as defined, to Consolidated EBITDA of not more than 4.00 times and a certain interest coverage ratio, Consolidated EBITDA to Consolidated Cash Interest Expense, as defined, of at least 4.25 times, at June 30, 2016. The Agreements also provide that in connection with certain permitted acquisitions with aggregate consideration in excess of \$150.0 million, the Consolidated Senior Debt to EBITDA ratio and the Consolidated Total Debt to EBITDA ratio are permitted to increase to 3.50 times and 4.25 times, respectively, for a period of the four fiscal quarters ending after the closing of the acquisition. Following is a reconciliation of Consolidated EBITDA to the Company's net income (in millions):

	Four fiscal quarters ended June 30, 2016
Net income	\$ 120.1
Add back:	
Interest expense	11.2
Income taxes	32.7
Depreciation and amortization	77.2
Adjustment for non-cash stock based compensation	10.3
Workforce reduction and restructuring charges	4.0
Pension lump-sum settlement charge	9.9
Other adjustments	3.1
Consolidated EBITDA, as defined	\$ 268.5
Consolidated Senior Debt, as defined, as of June 30, 2016	\$ 479.1
Ratio of Consolidated Senior Debt to Consolidated EBITDA	1.78
Maximum	3.25
Consolidated Total Debt, as defined, as of June 30, 2016	\$ 479.1
Ratio of Consolidated Total Debt to Consolidated EBITDA	1.78
Maximum	4.00
Consolidated Cash Interest Expense, as defined, as of June 30, 2016	\$ 11.3
Ratio of Consolidated EBITDA to Consolidated Cash Interest Expense	23.75
Minimum	4.25

The Amended Credit Agreement allows for certain adjustments within the calculation of the financial covenants. The pension lump-sum settlement charge that was recorded during the fourth quarter of 2015 represents the accelerated

amortization of actuarial pension losses. Other adjustments consist of net gains on the sale of assets, the amortization of the Thermoplay acquisition inventory step-up, due diligence and transaction expenses as permitted under the Amended Credit Agreement and an adjustment for acquired businesses which reflects the unaudited pre-acquisition operations of Thermoplay and Priamus for the periods from July 1, 2015 through August 6, 2015 and from July 1, 2015 through September 30, 2015, respectively. The Company's financial covenants are measured as of the end of each fiscal quarter. At June 30, 2016, additional borrowings of \$594.8 million of Total Debt and \$393.4 million of Senior Debt would have been allowed under the covenants. Senior Debt includes primarily the borrowings under the Amended Credit Facility, the 3.97% Senior Notes and the borrowings under the lines of credit. The Company's unused committed credit facilities at June 30, 2016 were \$398.0 million.

## OTHER MATTERS

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant accounting policies are disclosed in Note 1 of the Consolidated Financial Statements in the Company's Annual Report on Form 10-K for the year ended December 31, 2015. The most significant areas involving management judgments and estimates are described in Management's Discussion and Analysis of Financial Condition and Results of Operations in the Company's Annual Report on Form 10-K for the year ended December 31, 2015. There have been no material changes to such judgments and estimates. Actual results could differ from those estimates.

### Critical Accounting Policies

**Goodwill and Indefinite-Lived Intangible Assets:** Goodwill and indefinite-lived intangible assets are subject to impairment testing annually or earlier if an event or change in circumstances indicates that the fair value of a reporting unit has been reduced below its carrying value. Management completes their annual impairment assessments during the second quarter of each year on April 1. The Company utilizes the option to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test in accordance with the applicable accounting standards. Under the qualitative assessment, management considers relevant events and circumstances including but not limited to macroeconomic conditions, industry and market considerations, overall unit performance and events directly affecting a unit. If the Company determines that the two-step quantitative impairment test is required, management estimates the fair value of the reporting unit primarily using the income approach, which reflects management's cash flow projections, and also evaluates the fair value using the market approach. Inherent in management's development of cash flow projections are assumptions and estimates, including those related to future earnings and growth and the weighted average cost of capital. Based on our second quarter assessment the estimated fair value of all reporting units significantly exceeded their carrying values and there was no goodwill impairment at any reporting units through April 1, 2016. Many of the factors used in assessing fair value are outside the control of management, and these assumptions and estimates can change in future periods as a result of both Company-specific and overall economic conditions. Management's quantitative assessment includes a review of the potential impacts of current and projected market conditions from a market participant's perspective on reporting units' projected cash flows, growth rates and cost of capital to assess the likelihood of whether the fair value would be less than the carrying value. If the fair values were to fall below the carrying values, a non-cash impairment charge to income from operations could result. The Company also completed its annual impairment testing of its trade names, indefinite-lived intangible assets, in the second quarter of 2016 and determined that there were no impairments through April 1, 2016.

### Recent Accounting Changes

In May 2014, the Financial Accounting Standards Board ("FASB") amended its guidance related to revenue recognition. The amended guidance establishes a single comprehensive model for companies to use in accounting for revenue arising from contracts with customers and will supersede most of the existing revenue recognition guidance, including industry-specific guidance. The amended guidance clarifies that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In applying the amended guidance, an entity will (1) identify the contract(s) with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the contract's performance obligations; and (5) recognize revenue when (or as) the entity satisfies a performance obligation. The amended guidance applies to all contracts with customers except those that are within the scope of other topics in the FASB Accounting Standards Codification. The amended guidance was initially effective for annual reporting periods (including interim periods within those periods) beginning after December 15, 2016 for public companies. Early adoption was not permitted. On July 9, 2015, the



FASB approved a deferral of the effective date by one year to December 15, 2017 for annual reporting periods beginning after that date. The FASB also proposed permitting early adoption of the standard, but not before the original effective date of December 15, 2016. Entities have the option of using either a full retrospective or modified approach to the amended guidance. The Company is evaluating this guidance and has not determined the impact that it may have on its financial statements nor decided upon the method of adoption.

In July 2015, the FASB amended its guidance related to the measurement of inventory. The amended guidance requires inventory to be measured at the lower of cost and net realizable value and thereby simplifies the current guidance of measuring inventory at the lower of cost or market. The amended guidance is effective prospectively for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted. The Company is currently evaluating the guidance and does not anticipate a material impact on its Consolidated Financial Statements.

In February 2016, the FASB amended its guidance related to lease accounting. The amended guidance requires lessees to recognize a majority of its leases on the balance sheet as a right-to-use asset. Lessees are permitted to make an accounting policy election to not recognize an asset and liability for leases with a term of twelve months or less. Lease expense will be recorded in a manner similar to current accounting. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The Company is currently evaluating the guidance to determine the impact it will have on its Consolidated Financial Statements.

In March 2016, the FASB amended its guidance related to the accounting for certain aspects of share-based payments to employees. The amended guidance requires that all tax effects related to share-based payments are recorded at settlement (or expiration) through the income statement, rather than through equity. The amended guidance allows for an employer to repurchase additional employee shares for tax withholding purposes without requiring a liability be recorded. Lastly, the guidance allows for a policy election to account for forfeitures as they occur, rather than accounting for them on an estimated basis. The amended guidance is effective prospectively to all excess tax benefits and tax deficiencies resulting from settlements after the date of adoption. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted. The Company is currently evaluating the guidance to determine the impact it will have on its Consolidated Financial Statements.

## EBITDA

EBITDA for the first half of 2016 was \$128.2 million compared to \$133.9 million in the first half of 2015. EBITDA is a measurement not in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The Company defines EBITDA as net income plus interest expense, income taxes and depreciation and amortization which the Company incurs in the normal course of business. The Company does not intend EBITDA to represent cash flows from operations as defined by GAAP, and the reader should not consider it as an alternative to net income, net cash provided by operating activities or any other items calculated in accordance with GAAP, or as an indicator of the Company's operating performance. The Company's definition of EBITDA may not be comparable with EBITDA as defined by other companies. Accordingly, the measurement has limitations depending on its use. The Company believes EBITDA is commonly used by financial analysts and others in the industries in which the Company operates and, thus, provides useful information to investors.

Following is a reconciliation of EBITDA to the Company's net income (in millions):

	Six months ended June 30,	
	2016	2015
Net income	\$62.1	\$63.3
Add back:		
Interest expense	5.8	5.3
Income taxes	21.7	25.6
Depreciation and amortization	38.6	39.6
EBITDA	\$128.2	\$133.9

## FORWARD-LOOKING STATEMENTS

Certain of the statements in this quarterly report contain forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements often address our expected future operating and financial performance and financial condition, and often contain words such as "anticipate," "believe," "expect," "plan," "estimate," "project," and similar terms. Among others, our sales outlook, backlog, aircraft utilization,

demographics, exchange rate assumptions, sales per aircraft and guidance are all forward-looking statements. These forward-looking statements do not constitute guarantees of future performance and are subject to a variety of risks and uncertainties that may cause actual results to differ materially from those expressed in the forward-looking statements. These include, among others: difficulty maintaining relationships with employees, including unionized employees, customers, distributors, suppliers, business partners or governmental entities; failure to successfully negotiate collective bargaining agreements or potential strikes, work stoppages or other similar events; changes in market demand for our products and services; rapid technological and market change; the ability to protect intellectual property rights; introduction or development of new products or transfer of work; higher risks in international operations and markets; the impact of intense competition; acts of terrorism, cybersecurity attacks or intrusions that could adversely impact our businesses; uncertainties relating to conditions in financial markets; currency fluctuations and foreign currency exposure; future financial performance of the industries or customers that we serve; our dependence upon

revenues and earnings from a small number of significant customers; a major loss of customers; inability to realize expected sales or profits from existing backlog or consistent with projected sales per aircraft due to a range of factors, including changes in customer sourcing decisions, materials, material costs, part design, quantity of parts per engine, percentage of work directed to us, engine spares, cost schedules, production schedules and volumes of specific programs; the impact of government budget and funding decisions; changes in raw material or product prices and availability; integration of acquired businesses; restructuring costs or savings; the continuing impact of prior acquisitions and divestitures, and any other future strategic actions, including acquisitions, divestitures, restructurings, or strategic business realignments, including the planned acquisition of the FOBOHA business, and our ability to achieve the financial and operational targets set in connection with any such actions; the outcome of pending and future legal, governmental, or regulatory proceedings and contingencies and uninsured claims, including the arbitration proceedings involving Triumph Actuation Systems - Yakima, LLC; future repurchases of common stock; future levels of indebtedness; and numerous other matters of a global, regional or national scale, including those of a political, economic, business, competitive, environmental, regulatory and public health nature; and other risks and uncertainties described in documents filed with or furnished to the Securities and Exchange Commission ("SEC") by the Company, including, among others, those in the Management's Discussion and Analysis of Financial Condition and Results of Operations and Risk Factors sections of the Company's filings. The Company assumes no obligation to update its forward-looking statements.

### Item 3. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

### Item 4. Controls and Procedures

Management, including the Company's President and Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based upon, and as of the date of, our evaluation, the President and Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective, in all material respects and designed to provide reasonable assurance that information required to be disclosed in the reports the Company files and submits under the Securities Exchange Act of 1934, as amended, is (i) recorded, processed, summarized and reported as and when required and (ii) is accumulated and communicated to the Company's management, including our President and Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

### Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during the Company's second fiscal quarter of 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

## Item 1. Legal Proceedings

See Note 12 of the Consolidated Financial Statements for discussion regarding material legal proceedings, which is incorporated herein by reference.

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

## (c) Issuer Purchases of Equity Securities

Period	(a) Total Number of Shares (or Units) Purchased	(b) Average Price Paid Per Share (or Unit)	(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs <sup>(2)</sup>
April 1-30, 2016	834	\$ 34.10	—	4,767,543
May 1-31, 2016	1,331	\$ 33.24	—	4,767,543
June 1-30, 2016	702	\$ 33.47	—	4,767,543
Total	2,867	<sup>(1)</sup> \$ 33.55	—	

(1) All acquisitions of equity securities during the second quarter of 2016 were the result of the operation of the terms of the Company's stockholder-approved equity compensation plans and the terms of the equity rights granted pursuant to those plans to pay for the related income tax upon issuance of shares. The purchase price of a share of stock used for tax withholding is the market price on the date of issuance.

(2) The program was publicly announced on October 20, 2011 (the "2011 Program") authorizing repurchase of up to 5.0 million shares of common stock. At December 31, 2015, 1.1 million shares of common stock had not been purchased under the 2011 Program. On February 10, 2016, the Board of Directors of the Company increased the number of shares authorized for repurchase under the 2011 Program by 3.9 million shares of common stock (5.0 million authorized, in total). The 2011 Program permits open market purchases, purchases under a Rule 10b5-1 trading plan and privately negotiated transactions.

Item 6. Exhibits

(a) Exhibits

Exhibit 3.1	Amended and Restated By-Laws of Barnes Group Inc. (as of July 28, 2016).
Exhibit 15	Letter regarding unaudited interim financial information.
Exhibit 31.1	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
Exhibit 31.2	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
Exhibit 32	Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
Exhibit 101.INS	XBRL Instance Document.
Exhibit 101.SCH	XBRL Taxonomy Extension Schema Document.
Exhibit 101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
Exhibit 101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
Exhibit 101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
Exhibit 101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Barnes Group Inc.  
(Registrant)

Date: July 29, 2016 /s/ CHRISTOPHER J. STEPHENS, JR.

Christopher J. Stephens, Jr.  
Senior Vice President, Finance  
Chief Financial Officer  
(Principal Financial Officer)

Date: July 29, 2016 /s/ MARIAN ACKER

Marian Acker  
Vice President, Controller  
(Principal Accounting Officer)

EXHIBIT INDEX

Barnes Group Inc.

Quarterly Report on Form 10-Q

For the Quarter ended June 30, 2016

Exhibit No.	Description	Reference
3.1	Amended and Restated By-Laws of Barnes Group Inc. (as of July 28, 2016).	Incorporated by reference to Exhibit 3.1 to Form 8-K filed by the Company on July 29, 2016.
15	Letter regarding unaudited interim financial information.	Filed with this report.
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed with this report.
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed with this report.
32	Certification pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished with this report.
Exhibit 101.INS	XBRL Instance Document.	Filed with this report.
Exhibit 101.SCH	XBRL Taxonomy Extension Schema Document.	Filed with this report.
Exhibit 101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	Filed with this report.
Exhibit 101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.	Filed with this report.
Exhibit 101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	Filed with this report.
Exhibit 101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	Filed with this report.