Form 5500

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Annual Return/Report of Employee Benefit Plan

This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

▶ **Complete all entries in accordance with the instructions to the Form 5500.**

OMB Nos. 1210-0110
1210-0089

2018

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A This return/report is for:
- [ ] a multiemployer plan
- [ ] a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
- [X] a single-employer plan
- [ ] a DFE (specify) ____

B This return/report is:
- [ ] the first return/report
- [ ] the final return/report
- [ ] an amended return/report
- [ ] a short plan year return/report (less than 12 months)

C If the plan is a collectively-bargained plan, check here. . . . . ▶ [X]

D Check box if filing under:
- [X] Form 5558
- [ ] automatic extension
- [ ] the DFVC program
- [ ] special extension (enter description)

Part II Basic Plan Information—enter all requested information

1a Name of plan
BOSCH BRAKING SYSTEMS PENSION PLAN FOR HOURLY EMPLOYEES

1b Three-digit plan number (PN) ▶ 006

1c Effective date of plan 04/01/1996

2a Plan sponsor's name (employer, if for a single-employer plan)
Mailing address (include room, apt., suite no. and street, or P.O. Box)
City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions)
ROBERT BOSCH LLC

38000 HILLS TECH DRIVE
FARMINGTON HILLS, MI 48331

2b Employer Identification Number (EIN)
36-2903176

2c Plan Sponsor's telephone number
248-553-9000

2d Business code (see instructions)
423100

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/15/2019	GARY GRABARCZYK
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

3a Plan administrator's name and address ☐ Same as Plan Sponsor

BOSCH BENEFIT PLANS COMMITTEE

38000 HILLS TECH DRIVE
FARMINGTON HILLS, MI 48331

3b Administrator's EIN: 36-2903176

3c Administrator's telephone number: 248-553-9000

4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report:
a Sponsor's name
c Plan Name

4b EIN

4d PN

5 Total number of participants at the beginning of the plan year	**5**	1878
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines **6a(1), 6a(2), 6b, 6c,** and **6d**).		
a(1) Total number of active participants at the beginning of the plan year	**6a(1)**	69
a(2) Total number of active participants at the end of the plan year	**6a(2)**	49
b Retired or separated participants receiving benefits	**6b**	1142
c Other retired or separated participants entitled to future benefits	**6c**	485
d Subtotal. Add lines **6a(2)**, **6b**, and **6c**	**6d**	1676
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	186
f Total. Add lines **6d** and **6e**.	**6f**	1862
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**6g**	
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**6h**	0
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	**7**	

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

1B 1I 3H

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply)

(1)	☐	Insurance
(2)	☐	Code section 412(e)(3) insurance contracts
(3)	☒	Trust
(4)	☐	General assets of the sponsor

9b Plan benefit arrangement (check all that apply)

(1)	☐	Insurance
(2)	☐	Code section 412(e)(3) insurance contracts
(3)	☒	Trust
(4)	☐	General assets of the sponsor

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

(1)	☒	**R** (Retirement Plan Information)
(2)	☐	**MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
(3)	☒	**SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

(1)	☒		**H** (Financial Information)
(2)	☐		**I** (Financial Information – Small Plan)
(3)	☐	0	**A** (Insurance Information)
(4)	☐		**C** (Service Provider Information)
(5)	☒		**D** (DFE/Participating Plan Information)
(6)	☐		**G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2018 Form M-1 annual report. If the plan was not required to file the 2018 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code_____

SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Single-Employer Defined Benefit Plan Actuarial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500 or 5500-SF.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of $1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan
BOSCH BRAKING SYSTEMS PENSION PLAN FOR HOURLY EMPLOYEES

B Three-digit plan number (PN) ▶ 006

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
ROBERT BOSCH LLC

D Employer Identification Number (EIN)
36-2903176

E Type of plan: [X] Single [ ] Multiple-A [ ] Multiple-B

F Prior year plan size: [ ] 100 or fewer [ ] 101-500 [X] More than 500

Part I Basic Information

1 Enter the valuation date: Month 01 Day 01 Year 2018

2 Assets:

a Market value	**2a**	191210045
b Actuarial value	**2b**	180209195

3 Funding target/participant count breakdown

	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment	1290	132804822	132804822
b For terminated vested participants	519	13734908	13734908
c For active participants	69	6884310	10791454
d Total	1878	153424040	157331184

4 If the plan is in at-risk status, check the box and complete lines (a) and (b) [ ]

a Funding target disregarding prescribed at-risk assumptions	**4a**	
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	**4b**	
5 Effective interest rate	**5**	5.62 %
6 Target normal cost	**6**	423425

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE

Signature of actuary — Date: 09/09/2019

KAREN A.HIRSCHHORN — Type or print name of actuary

17-04099 — Most recent enrollment number

AON CONSULTING, INC. — Firm name

847-295-5000 — Telephone number (including area code)

4 OVERLOOK POINT
LINCONSHIRE, IL 60069-4302

Address of the firm

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions [ ]

Part II Beginning of Year Carryover and Prefunding Balances

		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	0	0
10	Interest on line 9 using prior year's actual return of 13.57 %	0	0
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		0
	b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of 5.81%		0
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
	c Total available at beginning of current plan year to add to prefunding balance		0
	d Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14	Funding target attainment percentage	14	114.54%
15	Adjusted funding target attainment percentage	15	114.54%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	119.41%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
			Totals ► 18(b)	0	18(c) 0

19	Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
	a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
	b Contributions made to avoid restrictions adjusted to valuation date	19b	0
	c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	0

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☐ No

c If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
3.92%	5.52%	6.29%	☐ N/A, full yield curve used

b Applicable month (enter code) — **21b**: 4

22 Weighted average retirement age — **22**: 59

23 Mortality table(s) (see instructions)

Prior regulation: ☐ Prescribed - combined ☐ Prescribed - separate ☐ Substitute

Current regulation: ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. ☒ Yes ☐ No

25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No

26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. ☒ Yes ☐ No

27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment — **27**:

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	**28**	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	**29**	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	**30**	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):

a Target normal cost (line 6)	**31a**	423425
b Excess assets, if applicable, but not greater than line 31a	**31b**	423425

32 Amortization installments:

	Outstanding Balance	Installment
a Net shortfall amortization installment	0	0
b Waiver amortization installment	0	0

33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount — **33**:

34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33) — **34**: 0

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0

36 Additional cash requirement (line 34 minus line 35)	**36**	0
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	**37**	0

38 Present value of excess contributions for current year (see instructions)

a Total (excess, if any, of line 37 over line 36)	**38a**	0
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	**38b**	0
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	**39**	0
40 Unpaid minimum required contributions for all years	**40**	0

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:

a Schedule elected ☐ 2 plus 7 years ☐ 15 years

b Eligible plan year(s) for which the election in line 41a was made ☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011

SCHEDULE D (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

DFE/Participating Plan Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection.

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan
BOSCH BRAKING SYSTEMS PENSION PLAN FOR HOURLY EMPLOYEES

B Three-digit plan number (PN) ▶ 006

C Plan or DFE sponsor's name as shown on line 2a of Form 5500
ROBERT BOSCH LLC

D Employer Identification Number (EIN)
36-2903176

Part I Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs)

(Complete as many entries as needed to report all interests in DFEs)

a Name of MTIA, CCT, PSA, or 103-12 IE: ROBERT BOSCH LLC MSTR TRUST RET TR

b Name of sponsor of entity listed in (a): ROBERT BOSCH LLC

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
36-2903176-100	M	169647485

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

SCHEDULE H (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Financial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan
BOSCH BRAKING SYSTEMS PENSION PLAN FOR HOURLY EMPLOYEES

B Three-digit plan number (PN) ▶ 006

C Plan sponsor's name as shown on line 2a of Form 5500
ROBERT BOSCH LLC

D Employer Identification Number (EIN)
36-2903176

Part I Asset and Liability Statement

1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)		
(2) Participant contributions	1b(2)		
(3) Other	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)		
(9) Value of interest in common/collective trusts	1c(9)		
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)	191210045	169647485
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)		
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
(15) Other	1c(15)		

			(a) Beginning of Year	(b) End of Year
1d	Employer-related investments:			
	(1) Employer securities	1d(1)		
	(2) Employer real property	1d(2)		
e	Buildings and other property used in plan operation	1e		
f	Total assets (add all amounts in lines 1a through 1e)	1f	191210045	169647485
	Liabilities			
g	Benefit claims payable	1g		
h	Operating payables	1h	143109	140205
i	Acquisition indebtedness	1i		
j	Other liabilities	1j		
k	Total liabilities (add all amounts in lines 1g through1j)	1k	143109	140205
	Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	191066936	169507280

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

	Income		(a) Amount	(b) Total
a	**Contributions:**			
	(1) Received or receivable in cash from: **(A)** Employers	2a(1)(A)		
	(B) Participants	2a(1)(B)		
	(C) Others (including rollovers)	2a(1)(C)		
	(2) Noncash contributions	2a(2)		
	(3) Total contributions. Add lines **2a(1)(A), (B), (C),** and line **2a(2)**	2a(3)		0
b	**Earnings on investments:**			
	(1) Interest:			
	(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
	(B) U.S. Government securities	2b(1)(B)		
	(C) Corporate debt instruments	2b(1)(C)		
	(D) Loans (other than to participants)	2b(1)(D)		
	(E) Participant loans	2b(1)(E)		
	(F) Other	2b(1)(F)		
	(G) Total interest. Add lines **2b(1)(A)** through **(F)**	2b(1)(G)		0
	(2) Dividends: **(A)** Preferred stock	2b(2)(A)		
	(B) Common stock	2b(2)(B)		
	(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)		
	(D) Total dividends. Add lines **2b(2)(A)**, **(B)**, and **(C)**	2b(2)(D)		0
	(3) Rents	2b(3)		
	(4) Net gain (loss) on sale of assets: **(A)** Aggregate proceeds	2b(4)(A)		
	(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
	(C) Subtract line **2b(4)(B)** from line **2b(4)(A)** and enter result	2b(4)(C)		0
	(5) Unrealized appreciation (depreciation) of assets: **(A)** Real estate	2b(5)(A)		
	(B) Other	2b(5)(B)		
	(C) Total unrealized appreciation of assets. Add lines **2b(5)(A)** and **(B)**	2b(5)(C)		0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		-8441946
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		
c Other income	2c		
d Total income. Add all **income** amounts in column (b) and enter total	2d		-8441946
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	12349430	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines **2e(1)** through **(3)**	2e(4)		12349430
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions)	2g		
h Interest expense	2h		
i Administrative expenses: (1) Professional fees	2i(1)		
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)		
(4) Other	2i(4)	768280	
(5) Total administrative expenses. Add lines **2i(1)** through **(4)**	2i(5)		768280
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		13117710
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		-21559656
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) [ ] Unqualified **(2)** [ ] Qualified **(3)** [X] Disclaimer **(4)** [ ] Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)? [X] Yes [ ] No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: PRICEWATERHOUSECOOPERS, LLP **(2)** EIN: 13-4008324

d The opinion of an independent qualified public accountant is **not attached** because:

(1) [ ] This form is filed for a CCT, PSA, or MTIA. **(2)** [ ] It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

		Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)	4a		X	
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)	4b		X	

			Yes	No	Amount
c	Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	4c		X	
d	Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	4d		X	
e	Was this plan covered by a fidelity bond?	4e	X		15000000
f	Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g	Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h	Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i	Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i		X	
j	Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)	4j		X	
k	Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l	Has the plan failed to provide any benefit when due under the plan?	4l		X	
m	If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m			
n	If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.	4n			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	**5b(2)** EIN(s)	**5b(3)** PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ..... ☒ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 4149381. (See instructions.)

SCHEDULE R (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Retirement Plan Information

This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection.

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan
BOSCH BRAKING SYSTEMS PENSION PLAN FOR HOURLY EMPLOYEES

B Three-digit plan number (PN) ▶ 006

C Plan sponsor's name as shown on line 2a of Form 5500
ROBERT BOSCH LLC

D Employer Identification Number (EIN)
36-2903176

Part I Distributions

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions **1** 0

2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits):

EIN(s): 36-3046063

Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.

3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year **3** 0

Part II Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ..... ☐ **Yes** ☒ **No** ☐ **N/A**

If the plan is a defined benefit plan, go to line 8.

5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. **Date:** Month _____ Day _____ Year _____

If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.

6 **a** Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived) **6a**

b Enter the amount contributed by the employer to the plan for this plan year **6b**

c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount) **6c**

If you completed line 6c, skip lines 8 and 9.

7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ..... ☐ **Yes** ☐ **No** ☐ **N/A**

8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ..... ☐ **Yes** ☐ **No** ☒ **N/A**

Part III Amendments

9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box. ..... ☐ **Increase** ☐ **Decrease** ☐ **Both** ☒ **No**

Part IV ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan? ..... ☐ **Yes** ☐ **No**

11 **a** Does the ESOP hold any preferred stock? ..... ☐ **Yes** ☐ **No**

b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ..... ☐ **Yes** ☐ **No**

12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ..... ☐ **Yes** ☐ **No**

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify):

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14 Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:

a The current year	**14a**	
b The plan year immediately preceding the current plan year	**14b**	
c The second preceding plan year	**14c**	

15 Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	**15a**	
b The corresponding number for the second preceding plan year	**15b**	

16 Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	**16a**	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	**16b**	

17 If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

18 If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

19 If the total number of participants is 1,000 or more, complete lines (a) through (c)

a Enter the percentage of plan assets held as:
Stock: 45.0 % Investment-Grade Debt: 55.0 % High-Yield Debt: 0.0 % Real Estate: 0.0 % Other: 0.0 %

b Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☒ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more

c What duration measure was used to calculate line 19(b)?
☒ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify):

Bosch Braking Systems Pension Plan for Hourly Employees

(Provisions Applicable to Employees Represented under the UAW Master Agreement and Provisions Applicable to Hourly Employees of Certain Former Plants of The Budd Company)

Financial Statements

December 31, 2018 and 2017

Bosch Braking Systems Pension Plan for Hourly Employees

(Provisions Applicable to Employees Represented under the UAW Master Agreement and Provisions Applicable to Hourly Employees of Certain Former Plants of The Budd Company)

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Note: Supplemental schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have not been included herein as they are not applicable.

Report of Independent Auditors

To the Administrator of the Bosch Braking Systems Pension Plan for Hourly Employees (Provisions Applicable to Employees Represented under the UAW Master Agreement and Provisions Applicable to Hourly Employees of Certain Former Plants of The Budd Company)

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of the Bosch Braking Systems Pension Plan for Hourly Employees (Provisions Applicable to Employees Represented under the UAW Master Agreement and Provisions Applicable to Hourly Employees of Certain Former Plants of The Budd Company) (the "Plan"), which comprise the statements of net assets available for benefits as of December 31, 2018 and 2017, and the related statements of changes in net assets available for benefits for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the financial statements based on conducting the audit in accordance with auditing standards generally accepted in the United States of America. Because of the matter described in the *Basis for Disclaimer of Opinion* paragraph, however, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion.

Basis for Disclaimer of Opinion

As permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, the plan administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Note 4, which was certified by The Northern Trust Company, the trustee of the Plan, except for comparing such information with the related information included in the financial statements. We have been informed by the plan administrator that the trustee holds the Plan's investment assets and executes investment transactions. The plan administrator has obtained certifications from the trustee as of December 31, 2018 and 2017 and for the years then ended, that the information provided to the plan administrator by the trustee is complete and accurate.

Disclaimer of Opinion

Because of the significance of the matter described in the *Basis for Disclaimer of Opinion* paragraph, we have not been able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion. Accordingly, we do not express an opinion on the financial statements.

Report on Form and Content in Compliance with DOL Rules and Regulations

The form and content of the information included in the financial statements, other than that derived from the information certified by the trustee, have been audited by us in accordance with auditing standards generally accepted in the United States of America and, in our opinion, are presented in compliance with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974.

October 15, 2019

Bosch Braking Systems Pension Plan for Hourly Employees

(Provisions Applicable to Employees Represented under the UAW Master Agreement and Provisions Applicable to Hourly Employees of Certain Former Plants of The Budd Company)

Statements of Net Assets Available for Benefits

December 31, 2018 and 2017

	2018	2017
Assets		
Plan interest in Robert Bosch LLC Master Retirement Trust, at fair value	$ 169,647,485	$ 191,210,045
Liabilities		
Accrued expenses	140,205	143,109
Net assets available for benefits	$ 169,507,280	$ 191,066,936

The accompanying notes are an integral part of these financial statements.

Bosch Braking Systems Pension Plan for Hourly Employees

(Provisions Applicable to Employees Represented under the UAW Master Agreement and Provisions Applicable to Hourly Employees of Certain Former Plants of The Budd Company)

Statements of Changes in Net Assets Available for Benefits

Years Ended December 31, 2018 and 2017

	2018	2017
Additions		
Plan interest in net investment (loss) income of Robert Bosch LLC Master Retirement Trust	$ (8,441,946)	$ 23,989,854
Deductions		
Benefit payments	12,349,430	12,358,583
Administrative expenses	768,280	746,185
Total deductions	13,117,710	13,104,768
Net (decrease) increase	(21,559,656)	10,885,086
Net assets available for benefits		
Beginning of year	191,066,936	180,181,850
End of year	$ 169,507,280	$ 191,066,936

The accompanying notes are an integral part of these financial statements.

1. Description of the Plan

The following brief description of the Bosch Braking Systems Pension Plan for Hourly Employees (Provisions Applicable to Employees Represented under the UAW Master Agreement and Provisions Applicable to Hourly Employees of Certain Former Plants of The Budd Company) (the "Plan") is provided for general information purposes only. Participants should refer to the Plan document for a more complete description.

The assets of the Plan are invested in the Robert Bosch LLC Master Retirement Trust ("Master Trust").

General

The Plan, established April 1, 1996, is a noncontributory, defined-benefit pension plan that is administered by a Benefit Plans Committee composed of representatives of Robert Bosch LLC (the "Company" or "Plan Sponsor") and participating subsidiaries and affiliates. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA").

The Plan covers certain employees who were employed by Allied Signal at the St. Joseph, Michigan plant as of April 1, 1996, and who were covered by the United Automobile, Aerospace and Agricultural Implement Workers of America ("UAW Union") Master Agreement, as well as certain former employees of The Budd Company who were represented by the UAW Union. All participants that transferred into the Plan as of April 1, 1996, were eligible to continue participation in the Plan. All other employees were eligible to participate in the Plan upon completion of one year of service, as defined in the Plan document.

Effective September 1, 2012, participation in the Plan was frozen to newly hired, rehired or transferred employees into the union. Current plan participants continued to receive vesting service and credited service under the terms of the Plan document after September 1, 2012 through December 31, 2017. Effective January 1, 2018, no participant will be credited with additional credited service, which is used for determining the amount of benefits under the Plan. Participants will continue to receive vesting service, which is used for determining eligibility for benefits. This change is included in, but did not materially affect, the actuarial present value of accumulated plan benefits presented in Note 3.

Contributions

The Company has agreed to voluntarily contribute such amounts as are necessary to provide assets sufficient to meet the funding requirements of ERISA. There were no contributions required for 2018 or 2017.

Benefit Payments

A participant is eligible for normal retirement benefits on or after the attainment of age 65 and, except for those fully vested under the partial plan termination, completion of five years of vesting service. For normal retirement, a monthly pension is payable for the life of the participant equal to the benefit rate in effect at the time of the participant's retirement multiplied by the number of years of credited service, as defined in the Plan document.

A participant is eligible for early retirement benefits, subject to certain restrictions as defined in the Plan document. Pension benefits will be reduced by a set percentage per year based upon age, as defined in the Plan document, for each year a participant receives benefits before his or her 62nd year.

Certain supplemental benefits are provided for the duration of the union contract for St. Joseph employees retired prior to June 1, 2003, and The Budd Company employees retired prior to December 1, 2002, as defined in the Plan document.

Until March 31, 2018, a participant was eligible for disability benefits after being totally and permanently disabled for at least 5 months prior to attaining age 65 and on or after the completion of ten years of service, as defined in the Plan document. Effective March 31, 2018, the Plan was amended, eliminating disability benefits for any participant who becomes disabled on or after April 1, 2018. This change is included in, but did not materially affect, the actuarial present value of accumulated plan benefits presented in Note 3.

If terminated, a participant with five years of eligibility service will be vested and therefore entitled to begin receiving retirement benefits as early as attaining the age of 55, as specified in the Plan document.

Optional forms of payment are available if elected by the participant as described in the Plan document. A participant that is married at the date of retirement shall receive a reduced monthly benefit during their lifetime. Following their death, participants' beneficiaries are entitled to a monthly survivors' benefit, as defined in the Plan document, unless spousal consent is obtained for an alternate benefit payment.

Plan Termination

Although it has not expressed any intent to do so, the Company has the right to terminate the Plan subject to the provisions of ERISA and as described in the Plan document. Should the Plan terminate at some future time, its net assets will generally not be available on a pro rata basis to provide participants' benefits. Whether a particular participant's accumulated plan benefits will be paid depends on the priority of those benefits, the financial condition of the Company, and the level of benefits guaranteed by the Pension Benefit Guaranty Corporation ("PBGC") at that time. Some benefits may be fully or partially provided for by the then-existing assets and the PBGC guarantee, while other benefits may not be provided for at all.

Administrative Expenses

Substantially all administrative expenses allowable under ERISA are paid by the Plan; all other expenses are paid by the Company.

2. Significant Accounting Policies

New Accounting Pronouncement

In February 2017, the Financial Accounting Standards Board issued ASU 2017-06 *Employee Benefit Plan Master Trust Reporting* to improve the usefulness of information reported to users of employee benefit plan financial statements by clarifying presentation requirements for a plan's interest in a master trust and requiring more detailed disclosures of the plan's interest in the master trust. The new guidance requires that a plan's interest in a master trust and changes in that interest be reported in separate line items in the statement of net assets available for benefits and statement of changes in net assets available for benefits, respectively. The new guidance also removes the requirement to disclose the percentage interest for plans with a divided interest in a master trust, requires all plans to disclose the dollar amount of their interest in each general investment type of the master trust, and requires plans to disclose the master trust's other asset and liability balances and the dollar amount of the plan's interest in each of those balances. This guidance is effective for the plan year ending December 31, 2019, with retrospective application required. Early adoption is permitted. The Plan's management is currently reviewing the impact of this guidance on the Plan's financial statements and the accompanying notes to the financial statements.

Basis of Accounting

The financial statements of the Plan have been prepared on the accrual basis of accounting and in conformity with accounting principles generally accepted in the United States of America ("GAAP").

Benefit Payments

Benefits are recorded when paid.

Investment Valuation and Income Recognition

The Master Trust's investments are stated at fair value. The fair value of the participation units in the common collective trusts is based on the net asset value ("NAV") of units held on the last business day of the Plan year. The NAV as provided by the trustee is used as a practical expedient to estimate fair value. Securities such as common stock, preferred stock, and real estate investment trusts traded on a national securities exchange are valued at the last reported sales price or official closing price on the last business day of the Plan year; investments traded in the over-the-counter market and listed securities for which no sale was reported on that date are valued at the average of the last reported bid and ask prices. Fixed income securities such as corporate debt instruments and U.S. government securities are valued based on yields currently available on comparable securities of issuers with similar credit ratings. When quoted prices are not available, the bond is valued using matrix pricing or models from reputable pricing vendors. Certificates of deposit are valued at amortized cost.

Investment transactions of the Master Trust are recorded on the trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

Actuarial Present Value of Accumulated Plan Benefits

Accumulated plan benefits (Note 3) are those estimated future periodic payments, including lump-sum distributions, which are attributable under the Plan's provisions to services rendered by

the employees to the valuation date. Accumulated plan benefits include benefits expected to be paid to: (a) retired or terminated employees or their beneficiaries; and (b) present employees or their beneficiaries. Benefits payable under all circumstances - retirement, death, disability, and termination of employment - are included to the extent they are deemed attributable to employee service rendered to the valuation date.

Use of Estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires the plan administrator to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein, disclosure of contingent assets and liabilities, and the actuarial present value of accumulated plan benefits at the date of the financial statements. Actual results could differ from those estimates.

Administrative Expenses

Administrative expense includes both identified fees specific to the Plan as well as periodic fees allocated from the Master Trust. Periodic fees allocated from the Master Trust were $424,559 and $430,417 for 2018 and 2017, respectively.

3. Accumulated Plan Benefits

The Plan uses an independent actuary to calculate the actuarial present value of accumulated plan benefits, which is the amount that results from applying actuarial assumptions to adjust the accumulated plan benefits earned by the participants to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawal, or retirement) between the valuation date and the expected date of payment.

The actuarial present value of accumulated plan benefits as of December 31, 2017 was as follows:

Vested benefits	
Participants currently receiving benefits	$ 135,581,594
Other participants	22,974,902
Total vested benefits	158,556,496
Nonvested benefits	4,083,584
Total actuarial present value of accumulated plan benefits	$ 162,640,080

The following summarizes the significant components of the change in the actuarial present value of accumulated plan benefits from December 31, 2016 to 2017:

Actuarial present value of accumulated plan benefits at December 31, 2016	$ 165,653,444
Increase (decrease) during the year attributable to	
Interest accumulation	7,977,476
Benefits paid	(12,358,583)
Plan Amendments	(218,645)
Assumption changes	547,641
Benefits accumulated and actuarial experience gain/loss	1,038,747
Actuarial present value of accumulated plan benefits at December 31,2017	$ 162,640,080

Significant assumptions underlying the actuarial computations are as follows:

	December 31, 2017	December 31, 2016
Interest Rate	5.00%	5.00%
Retirement Rate		
Term Vested	Age 60	Age 60
Active		
Less than 30 years		
By Age 55	10%	10%
By Age 60	40%	40%
By Age 61	10%	10%
By Age 62	25%	25%
By Age 65	50%	50%
By Age 70	100%	100%
30 years of service or more		
By Age 45	50%	25%
By Age 55	50%	25%
By Age 65	50%	50%
By Age 70	100%	100%
Mortality	RP-2006 with Scale MP-2018	RP-2006 with Scale MP-2017

Additional assumption changes include a change in the retirement and termination rates to better reflect plan experience, a change in the spouse age difference from males being three years older to males being two years older, and a change in optional form of payment from 40% electing single life annuity and 60% electing joint and survivor annuity to 55% and 45%, respectively.

These actuarial assumptions are based on the presumption that the Plan will continue. Were the Plan to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated plan benefits.

4. Certification of Investment Information

All investment information disclosed in the accompanying financial statements, including plan interest in Robert Bosch LLC Master Retirement Trust at December 31, 2018 and 2017, plan interest in net investment (loss) income of Robert Bosch LLC Master Retirement Trust for the years then ended, and the investments and investment (loss) income information of the Master Trust presented in Note 5, was obtained or derived from information supplied to the plan administrator and certified as complete and accurate by The Northern Trust Company ("Trustee").

5. Investment in Master Trust

The Plan's investments are in the Master Trust, which was established for the investment of assets of the Plan, and several other Company-sponsored retirement plans. Each participating retirement plan has an undivided interest in the Master Trust. At December 31, 2018 and 2017, the Plan's interest in the net assets of the Master Trust was approximately 9.9% and 10.5%, respectively. The value of the Plan's interest is determined on the basis of cumulative funds specifically contributed on behalf of the Plan, net of funds withdrawn for benefit payments and expenses specific to the Plan and adjusted for an allocation of investment income and investment expenses. Investment income and expenses are allocated monthly to the Plan based upon its pro rata share in the net assets of the Master Trust.

The following table presents the net assets of the Master Trust at December 31:

	2018	2017
Investments, at fair value		
Common collective trusts	$ 961,820,051	$ 1,026,182,672
Common stock	383,984,527	458,378,245
Preferred stock	1,644,070	1,924,989
Corporate debt instruments - Other	204,159,905	197,646,927
Corporate debt instruments - Preferred	13,629,067	18,017,808
U.S. government securities	117,107,092	100,660,987
Real estate investment trusts	7,507,621	5,985,894
Interest bearing cash and certificates of deposit	11,996,559	13,795,053
Other	1,725,009	2,142,360
Total investments	1,703,573,901	1,824,734,935
Accrued interest and dividend income	4,615,953	3,750,691
Pending trade sales	291,770	71,484
Total assets	1,708,481,624	1,828,557,110
Liabilities		
Pending trade purchases	1,090,096	845,696
Accrued expenses	945,771	982,810
Total liabilities	2,035,867	1,828,506
Net assets	$ 1,706,445,757	$ 1,826,728,604

The following table presents the changes in net assets of the Master Trust for the years ended December 31:

	2018	2017
Interest and dividend income	$ 22,313,727	$ 19,744,683
Net (depreciation) appreciation in fair value of investments	(108,371,000)	207,021,298
Investment expenses	(4,277,215)	(4,097,623)
Net investment (loss) income	(90,334,488)	222,668,358
Net transfers	(26,496,896)	(23,149,444)
Administrative expenses	(3,451,463)	(3,257,651)
(Decrease) increase in net assets	(120,282,847)	196,261,263
Net assets		
Beginning of year	1,826,728,604	1,630,467,341
End of year	$ 1,706,445,757	$ 1,826,728,604

6. Fair Value Measurements

The FASB established a framework to increase consistency and comparability in fair value measurements. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described as follows:

Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Master Trust has the ability to access.

Level 2 Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

For a description of the valuation methodologies used for assets measured at fair value see Investment Valuation and Income Recognition under Note 2. There have been no changes in the methodologies used at December 31, 2018 and 2017`. In determining the reasonableness of the methodology, the Plan's Investment Committee evaluates a variety of factors including review of existing contracts, economic conditions, industry and market developments, and overall credit ratings. These methods may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Master Trust believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

For the years ended December 31, 2018 and 2017, there were no significant transfers in or out of Levels 1, 2 or 3.

The following tables set forth by level within the fair value hierarchy the Master Trust's investment assets at fair value as of December 31, 2018 and 2017:

	Investment Assets at Fair Value as of December 31, 2018			
	Level 1	**Level 2**	**Level 3**	**Total**
Common stock	$ 383,984,527	$ -	$ -	$ 383,984,527
Corporate debt instruments				
Corporate debt instruments - preferred	-	13,629,067	-	13,629,067
Corporate debt instruments - other	-	204,159,905	-	204,159,905
Preferred stock	1,644,070	-	-	1,644,070
U.S. government securities	-	117,107,092	-	117,107,092
Real estate investment trusts	7,507,621	-	-	7,507,621
Interest bearing cash and certificates of deposit	5,892,433	6,104,126	-	11,996,559
Other	398,191	1,326,818	-	1,725,009
Total Assets in the Fair Value Hierarchy	399,426,842	342,327,008	-	741,753,850
Common collective trusts (a)				961,820,051
Total Master Trust Investment at Fair Value	$ 399,426,842	$ 342,327,008	$ -	$ 1,703,573,901

	Investment Assets at Fair Value as of December 31, 2017			
	Level 1	**Level 2**	**Level 3**	**Total**
Common stock	$ 458,378,245	$ -	$ -	$ 458,378,245
Corporate debt instruments				
Corporate debt instruments - preferred	-	18,017,808	-	18,017,808
Corporate debt instruments - other	-	197,646,927	-	197,646,927
Preferred stock	1,924,989	-	-	1,924,989
U.S. government securities	-	100,660,987	-	100,660,987
Real estate investment trusts	5,985,894	-	-	5,985,894
Interest bearing cash and certificates of deposit	3,444,608	10,350,445	-	13,795,053
Other	532,430	1,609,930	-	2,142,360
Total Assets in the Fair Value Hierarchy	470,266,166	328,286,097	-	798,552,263
Common collective trusts (a)				1,026,182,672
Total Master Trust Investment at Fair Value	$ 470,266,166	$ 328,286,097	$ -	$ 1,824,734,935

(a) In accordance with Subtopic 820-10, certain investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the Master Trust's statements of net assets.

Common collective trusts consist of pools of investments used by institutional investors to obtain equity and fixed income market exposures by investing in funds which are intended to mirror market indices. They are valued on the basis of the relative interest of each participating investor in the fair value of the underlying assets of each of the respective common collective trusts. The funds are valued using NAV as provided by the investment account manager as a practical expedient. As of December 31, 2018 and 2017, the Master Trust is not holding any unfunded commitments. Common collective trusts included in the Master Trust are:

December 31, 2018	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Coltv Short Term Investment Fund	$ 29,293,180	n/a	Daily	None
FEBT Emerging Market Fund	$ 47,174,580	n/a	Daily	15 Days
MFB NT Collective Russell 1000 Growth Index Fund - Non Lending	$ 218,997,075	n/a	Daily	60 Days
Northern Trust Collective Short Term Government Bond Index Fund - Non-Lending	$ 164,864,240	n/a	Daily	60 Days
MFB NT Collective Long Term Credit Bond Index Fund - Non Lending	$ 296,259,802	n/a	Daily	60 Days
MFB NTGI-QM Coltv Daily 1-5 Yr Cr Bd Index Fd - Non Lending	$ 153,606,907	n/a	Daily	60 Days
MFB NT Collective EAFE Index Fund - Non Lending	$ 22,446,157	n/a	Daily	60 Days
NT Collective Developed International Small Cap Index Fund - Non Lending	$ 29,178,110	n/a	Daily	60 Days
Total	$ 961,820,051			

December 31, 2017	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Coltv Short Term Investment Fund	$ 33,433,424	n/a	Daily	None
FEBT Emerging Market Fund	$ 53,464,438	n/a	Daily	15 Days
MFB NT Collective Russell 1000 Growth Index Fund - Non Lending	$ 246,097,000	n/a	Daily	60 Days
Northern Trust Collective Short Term Government Bond Index Fund - Non-Lending	$ 162,423,876	n/a	Daily	60 Days
MFB NT Collective Long Term Credit Bond Index Fund - Non Lending	$ 317,402,969	n/a	Daily	60 Days
MFB NTGI-QM Coltv Daily 1-5 Yr Cr Bd Index Fd - Non Lending	$ 152,037,488	n/a	Daily	60 Days
MFB NT Collective EAFE Index Fund - Non Lending	$ 25,877,983	n/a	Daily	60 Days
NT Collective Developed International Small Cap Index Fund - Non Lending	$ 35,445,494	n/a	Daily	60 Days
Total	$ 1,026,182,672			

7. Risks and Uncertainties

The Master Trust invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statement of net assets available for benefits.

Plan contributions are made and the actuarial present value of accumulated plan benefits is reported based on certain assumptions pertaining to interest rates, inflation rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations

and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

8. Tax Status

The Internal Revenue Service ("IRS") has determined and informed the Company in a letter dated May 10, 2018, that the Plan and related trust are designed in accordance with applicable sections of the Code. Although the Plan has been amended since receiving the determination letter, the plan administrator and the Plan's ERISA counsel believe that the Plan is designed and is currently being operated in compliance with the applicable requirements of the Code and therefore believe that the Plan is qualified and the related trust is tax-exempt.

Accounting principles generally accepted in the United States of America require plan management to evaluate tax positions taken by the Plan and recognize a tax asset or liability if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2018 and 2017, there are no uncertain positions taken or expected to be taken that would require recognition of an asset or liability or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The plan administrator believes the Plan is no longer subject to income tax examinations for years beginning prior to January 1, 2015.

9. Party-in-Interest Transactions

The Master Trust invests in a corporate bond issued by and common collective trusts managed by the Trustee or its affiliates. These transactions qualify as exempt party-in-interest transactions. Fees paid to the Trustee by the Master Trust for 2018 and 2017 were $1,460,115 and $1,359,327, respectively.

10. Subsequent Events

The Plan has evaluated the events and transactions that have occurred through October 15, 2019, the date the financial statements were available to be issued, and noted no items requiring adjustment to the financial statements or additional disclosure.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, line 26—Schedule of Active Participant Data as of January 1, 2018

Number of Participants

Attained Age	Years of Credited Service									
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+
<25										
25-29										
30-34										
35-39										
40-44						1				
45-49						7	7			
50-54					1	5	20			
55-59		1			3	8	10	4		
60-64						1	1			
65-69										
70+										

N-69

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, Part V—Statement of Actuarial Assumptions/Methods

Interest Rates for Minimum Funding Purposes	Based on segment rates with a four-month lookback (as of September 2017), each adjusted as needed to fall within the 25-year average interest rate stabilization corridor
1st Segment Rate	3.92%
2nd Segment Rate	5.52%
3rd Segment Rate	6.29%
Interest Rates for Maximum Tax Purposes	Based on segment rates with a four-month lookback (as of September 2017), without regard to interest rate stabilization
1st Segment Rate	1.75%
2nd Segment Rate	3.76%
3rd Segment Rate	4.66%
Optional Payment Form Election Percentage	55% life annuity 45% joint and 60% survivor annuity with popup
Optional Payment Form Conversion Interest Rate	Factor of 0.95
Optional Payment Form Conversion Mortality	None
Retirement Age	
Active Participants	See Table 1
Terminated Vested Participants	Age 60
Mortality Rates	
Healthy and Disabled	2018 static mortality table for annuitants and non-annuitants per §1.430(h)(3)-1(e) (without deferral of the adoption of the mortality update).
Withdrawal Rates	See Table 2
Disability Rates	See Table 3
Decrement Timing	Middle of year decrements (except that retirement is assumed to occur at the beginning of the year for ages where the assumed retirement rate is 100%)
Surviving Spouse Benefit	It is assumed that 80% of males and 80% of females have an eligible spouse, and that males are two years older than their spouses.

Benefit Limits	Projected benefits are limited by the current IRC section 415 maximum benefit of $220,000.
Valuation of Plan Assets	Smoothed fair market value of assets over the current and prior two years, adjusted for contributions, benefit payments, administrative expenses, and expected earnings. The average value of assets calculated in this manner is further limited to not less than 90% nor more than 110% of fair market value. A characteristic of this method is that the expected distribution of the value of plan assets is skewed toward understatement relative to the corresponding market values for expected long-term rates of return in excess of the third segment rate under IRC section 430(h)(2)(C)(iii).
Expected Return on Assets	
2016 Plan Year	5.00%
2017 Plan Year	5.00%
Trust Expenses Included in Target Normal Cost	Actual trust expenses limited to 5% of Fair Value of Assets. The prior year's actual administrative expenses, adjusted for anticipated significant changes are used as a proxy for actual current year's expenses.
Actuarial Method	Standard unit credit cost method
Valuation Date	January 1, 2018

Table 1

Retirement Rates

	Years of Service	
Age	**0-29**	**30+**
45	0.00%	50.00%
46	0.00%	50.00%
47	0.00%	50.00%
48	0.00%	50.00%
49	0.00%	50.00%
50	0.00%	50.00%
51	0.00%	50.00%
52	0.00%	50.00%
53	0.00%	50.00%
54	0.00%	50.00%
55	10.00%	50.00%
56	10.00%	50.00%
57	10.00%	50.00%
58	10.00%	50.00%
59	10.00%	50.00%
60	40.00%	50.00%
61	10.00%	50.00%
62	25.00%	50.00%
63	25.00%	50.00%
64	25.00%	50.00%
65	50.00%	50.00%
66	50.00%	50.00%
67	50.00%	50.00%
68	50.00%	50.00%
69	50.00%	50.00%
70+	100.00%	100.00%

Table 2

Withdrawal Rates

Age	Rate	Age	Rate
15	35.50%	35	13.90%
16	35.50%	36	12.80%
17	35.50%	37	11.80%
18	35.50%	38	10.80%
19	35.50%	39	9.90%
20	35.50%	40	9.00%
21	35.50%	41	8.20%
22	33.50%	42	7.50%
23	31.70%	43	6.80%
24	29.90%	44	6.20%
25	28.10%	45	5.60%
26	26.40%	46	5.10%
27	24.80%	47	4.70%
28	23.20%	48	4.30%
29	21.70%	49	4.00%
30	20.30%	50	4.00%
31	18.90%	51	4.00%
32	17.50%	52	4.00%
33	16.30%	53	4.00%
34	15.10%	54	4.00%
		55+	4.00%

Table 3

Disability Rates

Age	Male	Female	Age	Male	Female
15	0.03%	0.03%	40	0.08%	0.13%
16	0.03%	0.03%	41	0.09%	0.15%
17	0.03%	0.03%	42	0.10%	0.17%
18	0.03%	0.03%	43	0.12%	0.19%
19	0.03%	0.03%	44	0.14%	0.22%
20	0.03%	0.03%	45	0.16%	0.24%
21	0.03%	0.03%	46	0.18%	0.27%
22	0.03%	0.03%	47	0.21%	0.30%
23	0.03%	0.03%	48	0.25%	0.33%
24	0.03%	0.03%	49	0.28%	0.36%
25	0.03%	0.03%	50	0.33%	0.40%
26	0.03%	0.03%	51	0.39%	0.44%
27	0.03%	0.03%	52	0.46%	0.49%
28	0.03%	0.04%	53	0.53%	0.54%
29	0.03%	0.04%	54	0.61%	0.59%
30	0.03%	0.04%	55	0.69%	0.64%
31	0.03%	0.05%	56	0.77%	0.69%
32	0.03%	0.05%	57	0.86%	0.74%
33	0.03%	0.06%	58	0.95%	0.80%
34	0.03%	0.06%	59	1.05%	0.85%
35	0.04%	0.07%	60	1.15%	0.90%
36	0.04%	0.08%	61	1.26%	0.96%
37	0.05%	0.09%	62	1.38%	1.01%
38	0.06%	0.10%	63	1.51%	1.05%
39	0.07%	0.12%	64	1.64%	1.09%
			65+	0.00%	0.00%

SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Single-Employer Defined Benefit Plan Actuarial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).

▶ File as an attachment to Form 5500 or 5500-SF.

OMB No. 1210-0110

2018

This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of $1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan
BOSCH BRAKING SYSTEMS PENSION PLAN FOR HOURLY EMPLOYEES

B Three-digit plan number (PN) ▶ 006

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
ROBERT BOSCH LLC

D Employer Identification Number (EIN)
36-2903176

E Type of plan: [X] Single [ ] Multiple-A [ ] Multiple-B

F Prior year plan size: [ ] 100 or fewer [ ] 101-500 [X] More than 500

Part I Basic Information

1	Enter the valuation date: Month 01 Day 01 Year 2018			
2	Assets:			
	a Market value	2a		191,210,045
	b Actuarial value	2b		180,209,195
3	Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
	a For retired participants and beneficiaries receiving payment	1,290	132,804,822	132,804,822
	b For terminated vested participants	519	13,734,908	13,734,908
	c For active participants	69	6,884,310	10,791,454
	d Total	1,878	153,424,040	157,331,184
4	If the plan is in at-risk status, check the box and complete lines (a) and (b) [ ]			
	a Funding target disregarding prescribed at-risk assumptions	4a		
	b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b		
5	Effective interest rate	5		5.62%
6	Target normal cost	6		423,425

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE

KAREN A. HIRSCHHORN (KAH)
Signature of actuary

09/09/2019
Date

KAREN A.HIRSCHHORN
Type or print name of actuary

1704099
Most recent enrollment number

AON CONSULTING, INC.
Firm name

847-295-5000
Telephone number (including area code)

4 OVERLOOK POINT
LINCONSHIRE IL 60069-4302
Address of the firm

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions [ ]

Part II Beginning of Year Carryover and Prefunding Balances

		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	0	0
10	Interest on line 9 using prior year's actual return of 13.57%	0	0
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		0
	b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of 5.81%		0
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
	c Total available at beginning of current plan year to add to prefunding balance		0
	d Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14	Funding target attainment percentage	14	114.54%
15	Adjusted funding target attainment percentage	15	114.54%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	119.41%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
			Totals ► 18(b)	0	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
b Contributions made to avoid restrictions adjusted to valuation date	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	0

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☐ No

c If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
3.92 %	5.52 %	6.29%	☐ N/A, full yield curve used

b Applicable month (enter code)	**21b**	4
22 Weighted average retirement age	**22**	59

23 Mortality table(s) (see instructions)

Prior regulation: ☐ Prescribed - combined ☐ Prescribed - separate ☐ Substitute

Current regulation: ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment	☒ Yes	☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment	☐ Yes	☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment	☒ Yes	☐ No

27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	**27**	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	**28**	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	**29**	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	**30**	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):

a Target normal cost (line 6)	**31a**	423,425
b Excess assets, if applicable, but not greater than line 31a	**31b**	423,425

32 Amortization installments:	Outstanding Balance	Installment
a Net shortfall amortization installment	0	0
b Waiver amortization installment	0	0

33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	**33**	
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	**34**	0

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0

36 Additional cash requirement (line 34 minus line 35)	**36**	0
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	**37**	0
38 Present value of excess contributions for current year (see instructions)		
a Total (excess, if any, of line 37 over line 36)	**38a**	0
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	**38b**	0
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	**39**	0
40 Unpaid minimum required contributions for all years	**40**	0

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:

a Schedule elected ☐ 2 plus 7 years ☐ 15 years

b Eligible plan year(s) for which the election in line 41a was made ☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, line 22—Description of Weighted Average Retirement Age

The average retirement age shown in line 22 has been calculated by assuming the following retirement rates and no decrements other than retirement for this calculation. All retirements are assumed to occur at mid-year, except for the 100% retirement age.

0-29 Years of Service

(a) Age	(b) Rate	(c) Weight	(d) Product (a) × (b) × (c)
55.5	10.00%	1.0000	5.55
56.5	10.00%	0.9000	5.09
57.5	10.00%	0.8100	4.66
58.5	10.00%	0.7290	4.26
59.5	10.00%	0.6561	3.90
60.5	40.00%	0.5905	14.29
61.5	10.00%	0.3543	2.18
62.5	25.00%	0.3189	4.98
63.5	25.00%	0.2391	3.80
64.5	25.00%	0.1794	2.89
65.5	50.00%	0.1345	4.41
66.5	50.00%	0.0673	2.24
67.5	50.00%	0.0336	1.14
68.5	50.00%	0.0168	0.58
69.5	50.00%	0.0084	0.29
70	100.00%	0.0042	0.29
		Weighted Average	60.55
		Percentage of Actives	86.96%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

30+ Years of Service

(a) Age	(b) Rate	(c) Weight	(d) Product (a) × (b) × (c)
45.5	50.00%	1.0000	22.75
46.5	50.00%	0.5000	11.63
47.5	50.00%	0.2500	5.94
48.5	50.00%	0.1250	3.03
49.5	50.00%	0.0625	1.55
50.5	50.00%	0.0313	0.79
51.5	50.00%	0.0156	0.40
52.5	50.00%	0.0078	0.21
53.5	50.00%	0.0039	0.10
54.5	50.00%	0.0020	0.05
55.5	50.00%	0.0010	0.03
56.5	50.00%	0.0005	0.01
57.5	50.00%	0.0002	0.01
58.5	50.00%	0.0001	0.00
59.5	50.00%	0.0001	0.00
60.5	50.00%	0.0000	0.00
61.5	50.00%	0.0000	0.00
62.5	50.00%	0.0000	0.00
63.5	50.00%	0.0000	0.00
64.5	50.00%	0.0000	0.00
65.5	50.00%	0.0000	0.00
66.5	50.00%	0.0000	0.00
67.5	50.00%	0.0000	0.00
68.5	50.00%	0.0000	0.00
69.5	50.00%	0.0000	0.00
70	100.00%	0.0000	0.00
		Weighted Average	46.50
		Percentage of Actives	13.04%

Total Weighted Retirement Age = (60.55) * 86.96% + (46.50) * 13.04% = 58.72

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, Part V—Statement of Actuarial Assumptions/Methods

Interest Rates for Minimum Funding Purposes	Based on segment rates with a four-month lookback (as of September 2017), each adjusted as needed to fall within the 25-year average interest rate stabilization corridor
1st Segment Rate	3.92%
2nd Segment Rate	5.52%
3rd Segment Rate	6.29%
Interest Rates for Maximum Tax Purposes	Based on segment rates with a four-month lookback (as of September 2017), without regard to interest rate stabilization
1st Segment Rate	1.75%
2nd Segment Rate	3.76%
3rd Segment Rate	4.66%
Optional Payment Form Election Percentage	55% life annuity 45% joint and 60% survivor annuity with popup
Optional Payment Form Conversion Interest Rate	Factor of 0.95
Optional Payment Form Conversion Mortality	None
Retirement Age	
Active Participants	See Table 1
Terminated Vested Participants	Age 60
Mortality Rates	
Healthy and Disabled	2018 static mortality table for annuitants and non-annuitants per §1.430(h)(3)-1(e) (without deferral of the adoption of the mortality update).
Withdrawal Rates	See Table 2
Disability Rates	See Table 3
Decrement Timing	Middle of year decrements (except that retirement is assumed to occur at the beginning of the year for ages where the assumed retirement rate is 100%)
Surviving Spouse Benefit	It is assumed that 80% of males and 80% of females have an eligible spouse, and that males are two years older than their spouses.

Benefit Limits	Projected benefits are limited by the current IRC section 415 maximum benefit of $220,000.
Valuation of Plan Assets	Smoothed fair market value of assets over the current and prior two years, adjusted for contributions, benefit payments, administrative expenses, and expected earnings. The average value of assets calculated in this manner is further limited to not less than 90% nor more than 110% of fair market value. A characteristic of this method is that the expected distribution of the value of plan assets is skewed toward understatement relative to the corresponding market values for expected long-term rates of return in excess of the third segment rate under IRC section 430(h)(2)(C)(iii).
Expected Return on Assets	
2016 Plan Year	5.00%
2017 Plan Year	5.00%
Trust Expenses Included in Target Normal Cost	Actual trust expenses limited to 5% of Fair Value of Assets. The prior year's actual administrative expenses, adjusted for anticipated significant changes are used as a proxy for actual current year's expenses.
Actuarial Method	Standard unit credit cost method
Valuation Date	January 1, 2018

Table 1

Retirement Rates

	Years of Service	
Age	**0-29**	**30+**
45	0.00%	50.00%
46	0.00%	50.00%
47	0.00%	50.00%
48	0.00%	50.00%
49	0.00%	50.00%
50	0.00%	50.00%
51	0.00%	50.00%
52	0.00%	50.00%
53	0.00%	50.00%
54	0.00%	50.00%
55	10.00%	50.00%
56	10.00%	50.00%
57	10.00%	50.00%
58	10.00%	50.00%
59	10.00%	50.00%
60	40.00%	50.00%
61	10.00%	50.00%
62	25.00%	50.00%
63	25.00%	50.00%
64	25.00%	50.00%
65	50.00%	50.00%
66	50.00%	50.00%
67	50.00%	50.00%
68	50.00%	50.00%
69	50.00%	50.00%
70+	100.00%	100.00%

Table 2

Withdrawal Rates

Age	Rate	Age	Rate
15	35.50%	35	13.90%
16	35.50%	36	12.80%
17	35.50%	37	11.80%
18	35.50%	38	10.80%
19	35.50%	39	9.90%
20	35.50%	40	9.00%
21	35.50%	41	8.20%
22	33.50%	42	7.50%
23	31.70%	43	6.80%
24	29.90%	44	6.20%
25	28.10%	45	5.60%
26	26.40%	46	5.10%
27	24.80%	47	4.70%
28	23.20%	48	4.30%
29	21.70%	49	4.00%
30	20.30%	50	4.00%
31	18.90%	51	4.00%
32	17.50%	52	4.00%
33	16.30%	53	4.00%
34	15.10%	54	4.00%
		55+	4.00%

Table 3

Disability Rates

Age	Male	Female	Age	Male	Female
15	0.03%	0.03%	40	0.08%	0.13%
16	0.03%	0.03%	41	0.09%	0.15%
17	0.03%	0.03%	42	0.10%	0.17%
18	0.03%	0.03%	43	0.12%	0.19%
19	0.03%	0.03%	44	0.14%	0.22%
20	0.03%	0.03%	45	0.16%	0.24%
21	0.03%	0.03%	46	0.18%	0.27%
22	0.03%	0.03%	47	0.21%	0.30%
23	0.03%	0.03%	48	0.25%	0.33%
24	0.03%	0.03%	49	0.28%	0.36%
25	0.03%	0.03%	50	0.33%	0.40%
26	0.03%	0.03%	51	0.39%	0.44%
27	0.03%	0.03%	52	0.46%	0.49%
28	0.03%	0.04%	53	0.53%	0.54%
29	0.03%	0.04%	54	0.61%	0.59%
30	0.03%	0.04%	55	0.69%	0.64%
31	0.03%	0.05%	56	0.77%	0.69%
32	0.03%	0.05%	57	0.86%	0.74%
33	0.03%	0.06%	58	0.95%	0.80%
34	0.03%	0.06%	59	1.05%	0.85%
35	0.04%	0.07%	60	1.15%	0.90%
36	0.04%	0.08%	61	1.26%	0.96%
37	0.05%	0.09%	62	1.38%	1.01%
38	0.06%	0.10%	63	1.51%	1.05%
39	0.07%	0.12%	64	1.64%	1.09%
			65+	0.00%	0.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, Part V—Summary of Plan Provisions

Effective Date

April 1, 1996 Budd and Master amended and restated effective January 1, 2012. The latest amendment dated October 1, 2016.

Eligibility for Participation

Budd

Union employees covered by UAW Local No. 1886 (Frankfort Plant—closed effective January 31, 1998), 1910 (Ashland Plant, Production and Maintenance Unit and Clerical Unit—closed effective July 1, 2002), and 2155 (Johnson City Plant—closed effective August 15, 2010).

Master

Union employees at St. Joseph Plant who are covered by the UAW Master Agreement. (St. Joseph's Plan closed to new entrants effective September 1, 2012.)

Normal Retirement

Eligibility

Budd

Age 65 and eight years of credit service.

Master

Later of age 65 or five years of eligibility service.

Benefit

Budd

A monthly amount equal to (1) minus (2):

(1) Years of credited service multiplied by an amount determined in connection with the date of termination of employment as follows:

Termination Date	Amount
Prior to 12/01/1999	$30.00
12/01/1999–12/31/2002	$32.25
01/01/2003–12/31/2003	$33.50
01/01/2004–12/31/2004	$34.75
01/01/2005–12/31/2008	$36.00
01/01/2009 and after	$37.00

(2) Prior Budd plan benefits.

Master

A monthly amount calculated as years of credited service (with such service frozen effective January 1, 2018) multiplied by an amount determined in connection with the date of termination of employment as follows:

Termination Date	Amount
Prior to 06/01/2003	$37.00
06/01/2003–05/31/2004	$38.50
06/01/2004–05/31/2005	$40.00
06/01/2005–05/31/2006	$41.50
06/01/2006 and after	$43.00

For participants who retire during the current contract period, benefits will be recalculated each June 1 using the current benefit level. There would be no such recalculation after 2006.

Early Retirement

Eligibility

Budd

(1) Age 60 and 10 years of credited service; or

(2) Age 55 and 25 years of credited service; or

(3) 30 years of credited service.

Master

(1) Age 60 and 10 years of eligibility service; or

(2) Age 55 and 85 points based on eligibility service; or

(3) 30 years of credited service.

Benefit

Normal retirement benefit multiplied by the percentage in the table below:

Commencement Age	Percent of Normal Retirement Benefit
62+	100.0%
61	93.3%
60	86.7%
59	80.8%
58	75.2%
57	69.4%
56	63.5%
55	57.9%
54	53.2%
53	48.9%
52	45.0%
51	41.5%
50	38.3%
49	35.4%
48	32.8%
47	30.4%

If the participant elects to commence benefits before age 62 and either (1) or (2) below applies (for Budd) or (1) below applies (for Master), then the benefit payable after age 62 will increase to the regular normal retirement benefit. For Budd, if the participant elects the joint and survivor option, the calculation of the joint and survivor benefit is based on the unreduced regular normal retirement benefit even if the commencement age is before age 62.

(1) At least 30 years of credit service at early retirement date; or

(2) Age plus total credited service at early retirement date is at least 85.

In addition, a monthly supplement allowance shall be paid until age 62, determined as follows:

(1) At least 30 years of credited service: The early retirement supplement is equal to the minimum monthly benefit minus regular early retirement benefit:

Commencement Date	Minimum
Budd	
Prior to 12/01/2002	$2,160
12/01/2002–12/31/2008	$2,300
01/01/2009 and after	$2,400
Master	
Prior to 06/01/2003	$2,160
06/01/2003–05/31/2004	$2,210
06/01/2004–05/31/2005	$2,260
06/01/2005–05/31/2006	$2,310
06/01/2006 and after	$2,360

(2) Less than 30 years of credited service: The interim supplement is calculated as years of credited service multiplied by an amount determined in connection with the attained age at retirement as follows:

Attained Age at Retirement	Monthly Interim Supplement Rate
Budd	
55	$16.40
56	$19.32
57	$23.16
58	$26.99
59	$30.65
60–61	$35.50
Master	
55	$14.55
56	$17.15
57	$20.55
58	$23.95
59	$27.20
60–61	$31.50

Credit service for calculation of the interim supplement is not frozen.

Mutual Consent Early Retirement

Eligibility

Age 55 but not yet 65, 10 years of credited service (for Budd) or eligibility service (for Master), and mutual consent between the participant and the company.

Benefit

Unreduced normal retirement benefit.

In addition, a monthly special temporary benefit is paid until age 62 and one month, calculated as years of credited service (maximum of 30 years) multiplied by an amount determined in connection with the commencement date as follows:

Commencement Date	Amount
Budd	
Prior to 01/01/2003	$35.00
01/01/2003–12/31/2003	$36.00
01/01/2004–12/31/2004	$37.00
01/01/2005 and after	$38.00
Master	
After 05/04/1992	$35.00

Furthermore, a monthly early retirement supplement shall be paid until age 62 and one month (30 years of credited service is required for Budd), determined as the minimum monthly benefit minus regular early retirement benefit (including the special temporary benefit):

Commencement Date	Minimum
Budd	
Prior to 12/01/2002	$2,160
12/01/2002–12/31/2008	$2,300
01/01/2009 and after	$2,400
Master	
Prior to 06/01/2003	$2,160
06/01/2003–05/31/2004	$2,210
06/01/2004–05/31/2005	$2,260
06/01/2005–05/31/2006	$2,310
06/01/2006 and after	$2,360

Vested Termination

Eligibility — Five years of vesting service (for Budd) or eligibility service (for Master).

Benefit — The accrued benefit at the date of termination.

Budd — Reduced payments may begin any time after age 60, or any time after 55 if having at least 25 years of credited service. The factors are:

Commencement Age	Percent of Normal Retirement Benefit
65	100.0%
64	91.5%
63	84.0%
62	77.3%
61	71.3%
60	66.0%
59	61.2%
58	56.9%
57	53.0%
56	49.5%
55	46.3%

Master

Reduced payments may begin any time after age 60, or any time after 55 if having at least 85 points (based on credited service). Reduction is 5/9 of 1% for each of the first 60 months the commencement precedes age 65, and 5/18 of 1% thereafter.

Disability

Eligibility

Ten years of credited service (for Budd) or eligibility service (for Master).

Benefit

The accrued benefit based on credited service (with such service frozen effective January 1, 2018) and multiplier level at the date of disability, payable beginning five months after disability occurs or after the cessation of weekly accident and sickness benefits if later. The accrued benefit is unreduced.

In addition, a monthly special temporary benefit shall be paid until age 62 and one month, calculated as years of credited service (maximum of 30 years, with such service frozen effective January 1, 2018) multiplied by $35.

Furthermore, a monthly early retirement supplement shall be paid until age 62 and one month (30 years of credited service is required for Budd), determined as the minimum monthly benefit below minus regular disability retirement benefit (including the special temporary benefit).

Disability benefits at St. Joseph location is eliminated for disabilities that occur after March 31, 2018.

Commencement Date	Minimum
Budd	
Prior to 12/01/2002	$2,160
12/01/2002–12/31/2008	$2,300
01/01/2009 and after	$2,400
Master	
Prior to 06/01/2003	$2,160
06/01/2003–05/31/2004	$2,210
06/01/2004–05/31/2005	$2,260
06/01/2005–05/31/2006	$2,310
06/01/2006 and after	$2,360

Surviving Spouse

Eligibility

Five years of vesting service (for Budd) or eligibility service (for Master).

Benefit

A monthly benefit payable to the surviving spouse beginning at the employee's earliest commencement age equal to 60% of the amount payable as if the participant had commenced with a 60% joint and survivor benefit.

Special Age 65 Benefit

Eligibility

Retirees or their surviving spouses who enroll in the voluntary Medicare coverage (excluding deferred vested participants or their surviving spouses).

Benefit

A monthly benefit payable starting at age 65 for the life of retiree or surviving spouse:

Date Benefit is Payable	Amount
Budd	
04/01/1996–12/31/1996	$42.00
01/01/1997–12/31/1997	$44.00
01/01/1998–12/31/1998	$46.00
01/01/1999–12/31/2002	$52.00
01/01/2003–12/31/2008	$65.00
01/01/2009 and after	$96.40
Master	
02/01/1996–01/31/1997	$42.00
02/01/1997–01/31/1998	$44.00
02/01/1998–01/31/1999	$46.00
02/01/1999–05/31/2003	$52.00
06/01/1999–12/31/2008	$70.00
01/01/2009–12/31/2009	$96.40
01/01/2010–10/01/2010	$110.50

Effective October 1, 2010, except for a group of former Honeywell participants (whose special age 65 benefits are capped at $70.00 per month), the special age 65 benefits for participants under Master are no longer paid from the pension trust. This applies to both current retirees and future retirees.

Normal Form of Annuity	
Without Spouse	Single life annuity.
With Spouse	60% joint and survivor annuity with pop-up. Participant's pension is reduced to 95% (and increased or decreased 0.5% for each year by which the participant is more than five years younger or older, respectively, than the spouse). Participant receives reduced lifetime benefit and, in event of participant's death, 60% of reduced benefit continues to surviving spouse. Reduction is restored if the spouse pre-decease the participant or divorce the participant. Participants who terminated employment prior to January 1, 2016 with a deferred vested benefit were offered a one-time lump sum during 2016. Forms of payments were lump sum or immediate annuity.
Optional Forms of Annuity	75% joint and survivor annuity with pop-up.
Actuarial Equivalence	Applicable mortality table per section 417(e)(3) of Internal Revenue Code and 6% interest rate.
Plan Year	January 1 to December 31.
Credited Service	
Budd	Lesser of (1) total continuous service, or (2) total hours worked divided by 1,700. Round to nearest quarter.
Master	One year of benefit service is earned if the participant works 1,700 or more hours in one plan year (prorated to the nearest one-twelfth if less than 1,700 hours).
Vesting Service	
Budd	One year of vesting service is earned if the participant works 1,000 or more hours in one plan year.
Eligibility Service	
Master	One year of vesting service is earned if the participant works 1,000 or more hours in one plan year.

Plan Changes Since the Prior Year

The funding valuation reflects the following plan changes:

- Benefit service is frozen at St. Joseph location effective January 1, 2018.
- Disability benefits at St. Joseph location is eliminated for disabilities that occur after March 31, 2018.

Other Information to Fully and Fairly Disclose the Actuarial Position of the Plan

Due to software limitations with the electronic filing process, information filed electronically cannot be controlled by the Enrolled Actuary. The values on the signed Schedule SB will govern to the extent there are any differences in the entries filed electronically and the actual data contained on the signed Schedule SB.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, line 24—Change in Actuarial Assumptions

The funding valuation reflects the following assumption changes:

- A change optional form of payment from 40% electing single life annuity and 60% electing joint and survivor annuity to 55% electing single life annuity and 45% electing joint and survivor annuity.
- A change in the retirement rates to better reflect plan experience.
- A change in the termination rates to better reflect plan experience.
- A change in the spouse age difference from males being three years older than females to males being two years older than females.

These changes were made to better reflect the anticipated plan experience. None of these assumption changes reduced the funding shortfall; as such, approval of the Commissioner is not required.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, line 26—Schedule of Active Participant Data as of January 1, 2018

Number of Participants

Attained Age	Years of Credited Service									
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+
<25										
25-29										
30-34										
35-39										
40-44						1				
45-49						7	7			
50-54					1	5	20			
55-59		1			3	8	10	4		
60-64						1	1			
65-69										
70+										

N-69

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, line 22—Description of Weighted Average Retirement Age

The average retirement age shown in line 22 has been calculated by assuming the following retirement rates and no decrements other than retirement for this calculation. All retirements are assumed to occur at mid-year, except for the 100% retirement age.

0-29 Years of Service

(a) Age	(b) Rate	(c) Weight	(d) Product (a) × (b) × (c)
55.5	10.00%	1.0000	5.55
56.5	10.00%	0.9000	5.09
57.5	10.00%	0.8100	4.66
58.5	10.00%	0.7290	4.26
59.5	10.00%	0.6561	3.90
60.5	40.00%	0.5905	14.29
61.5	10.00%	0.3543	2.18
62.5	25.00%	0.3189	4.98
63.5	25.00%	0.2391	3.80
64.5	25.00%	0.1794	2.89
65.5	50.00%	0.1345	4.41
66.5	50.00%	0.0673	2.24
67.5	50.00%	0.0336	1.14
68.5	50.00%	0.0168	0.58
69.5	50.00%	0.0084	0.29
70	100.00%	0.0042	0.29
		Weighted Average	60.55
		Percentage of Actives	86.96%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

30+ Years of Service

(a) Age	(b) Rate	(c) Weight	(d) Product (a) × (b) × (c)
45.5	50.00%	1.0000	22.75
46.5	50.00%	0.5000	11.63
47.5	50.00%	0.2500	5.94
48.5	50.00%	0.1250	3.03
49.5	50.00%	0.0625	1.55
50.5	50.00%	0.0313	0.79
51.5	50.00%	0.0156	0.40
52.5	50.00%	0.0078	0.21
53.5	50.00%	0.0039	0.10
54.5	50.00%	0.0020	0.05
55.5	50.00%	0.0010	0.03
56.5	50.00%	0.0005	0.01
57.5	50.00%	0.0002	0.01
58.5	50.00%	0.0001	0.00
59.5	50.00%	0.0001	0.00
60.5	50.00%	0.0000	0.00
61.5	50.00%	0.0000	0.00
62.5	50.00%	0.0000	0.00
63.5	50.00%	0.0000	0.00
64.5	50.00%	0.0000	0.00
65.5	50.00%	0.0000	0.00
66.5	50.00%	0.0000	0.00
67.5	50.00%	0.0000	0.00
68.5	50.00%	0.0000	0.00
69.5	50.00%	0.0000	0.00
70	100.00%	0.0000	0.00
		Weighted Average	46.50
		Percentage of Actives	13.04%

Total Weighted Retirement Age = (60.55) * 86.96% + (46.50) * 13.04% = 58.72

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, Part V—Summary of Plan Provisions

Effective Date

April 1, 1996 Budd and Master amended and restated effective January 1, 2012. The latest amendment dated October 1, 2016.

Eligibility for Participation

Budd

Union employees covered by UAW Local No. 1886 (Frankfort Plant—closed effective January 31, 1998), 1910 (Ashland Plant, Production and Maintenance Unit and Clerical Unit—closed effective July 1, 2002), and 2155 (Johnson City Plant—closed effective August 15, 2010).

Master

Union employees at St. Joseph Plant who are covered by the UAW Master Agreement. (St. Joseph's Plan closed to new entrants effective September 1, 2012.)

Normal Retirement

Eligibility

Budd

Age 65 and eight years of credit service.

Master

Later of age 65 or five years of eligibility service.

Benefit

Budd

A monthly amount equal to (1) minus (2):

(1) Years of credited service multiplied by an amount determined in connection with the date of termination of employment as follows:

Termination Date	Amount
Prior to 12/01/1999	$30.00
12/01/1999–12/31/2002	$32.25
01/01/2003–12/31/2003	$33.50
01/01/2004–12/31/2004	$34.75
01/01/2005–12/31/2008	$36.00
01/01/2009 and after	$37.00

(2) Prior Budd plan benefits.

Master

A monthly amount calculated as years of credited service (with such service frozen effective January 1, 2018) multiplied by an amount determined in connection with the date of termination of employment as follows:

Termination Date	Amount
Prior to 06/01/2003	$37.00
06/01/2003–05/31/2004	$38.50
06/01/2004–05/31/2005	$40.00
06/01/2005–05/31/2006	$41.50
06/01/2006 and after	$43.00

For participants who retire during the current contract period, benefits will be recalculated each June 1 using the current benefit level. There would be no such recalculation after 2006.

Early Retirement

Eligibility

Budd

(1) Age 60 and 10 years of credited service; or

(2) Age 55 and 25 years of credited service; or

(3) 30 years of credited service.

Master

(1) Age 60 and 10 years of eligibility service; or

(2) Age 55 and 85 points based on eligibility service; or

(3) 30 years of credited service.

Benefit

Normal retirement benefit multiplied by the percentage in the table below:

Commencement Age	Percent of Normal Retirement Benefit
62+	100.0%
61	93.3%
60	86.7%
59	80.8%
58	75.2%
57	69.4%
56	63.5%
55	57.9%
54	53.2%
53	48.9%
52	45.0%
51	41.5%
50	38.3%
49	35.4%
48	32.8%
47	30.4%

If the participant elects to commence benefits before age 62 and either (1) or (2) below applies (for Budd) or (1) below applies (for Master), then the benefit payable after age 62 will increase to the regular normal retirement benefit. For Budd, if the participant elects the joint and survivor option, the calculation of the joint and survivor benefit is based on the unreduced regular normal retirement benefit even if the commencement age is before age 62.

(1) At least 30 years of credit service at early retirement date; or

(2) Age plus total credited service at early retirement date is at least 85.

In addition, a monthly supplement allowance shall be paid until age 62, determined as follows:

(1) At least 30 years of credited service: The early retirement supplement is equal to the minimum monthly benefit minus regular early retirement benefit:

Commencement Date	Minimum
Budd	
Prior to 12/01/2002	$2,160
12/01/2002–12/31/2008	$2,300
01/01/2009 and after	$2,400
Master	
Prior to 06/01/2003	$2,160
06/01/2003–05/31/2004	$2,210
06/01/2004–05/31/2005	$2,260
06/01/2005–05/31/2006	$2,310
06/01/2006 and after	$2,360

(2) Less than 30 years of credited service: The interim supplement is calculated as years of credited service multiplied by an amount determined in connection with the attained age at retirement as follows:

Attained Age at Retirement	Monthly Interim Supplement Rate
Budd	
55	$16.40
56	$19.32
57	$23.16
58	$26.99
59	$30.65
60–61	$35.50
Master	
55	$14.55
56	$17.15
57	$20.55
58	$23.95
59	$27.20
60–61	$31.50

Credit service for calculation of the interim supplement is not frozen.

Mutual Consent Early Retirement

Eligibility

Age 55 but not yet 65, 10 years of credited service (for Budd) or eligibility service (for Master), and mutual consent between the participant and the company.

Benefit

Unreduced normal retirement benefit.

In addition, a monthly special temporary benefit is paid until age 62 and one month, calculated as years of credited service (maximum of 30 years) multiplied by an amount determined in connection with the commencement date as follows:

Commencement Date	Amount
Budd	
Prior to 01/01/2003	$35.00
01/01/2003–12/31/2003	$36.00
01/01/2004–12/31/2004	$37.00
01/01/2005 and after	$38.00
Master	
After 05/04/1992	$35.00

Furthermore, a monthly early retirement supplement shall be paid until age 62 and one month (30 years of credited service is required for Budd), determined as the minimum monthly benefit minus regular early retirement benefit (including the special temporary benefit):

Commencement Date	Minimum
Budd	
Prior to 12/01/2002	$2,160
12/01/2002–12/31/2008	$2,300
01/01/2009 and after	$2,400
Master	
Prior to 06/01/2003	$2,160
06/01/2003–05/31/2004	$2,210
06/01/2004–05/31/2005	$2,260
06/01/2005–05/31/2006	$2,310
06/01/2006 and after	$2,360

Vested Termination

Eligibility — Five years of vesting service (for Budd) or eligibility service (for Master).

Benefit — The accrued benefit at the date of termination.

Budd — Reduced payments may begin any time after age 60, or any time after 55 if having at least 25 years of credited service. The factors are:

Commencement Age	Percent of Normal Retirement Benefit
65	100.0%
64	91.5%
63	84.0%
62	77.3%
61	71.3%
60	66.0%
59	61.2%
58	56.9%
57	53.0%
56	49.5%
55	46.3%

Master

Reduced payments may begin any time after age 60, or any time after 55 if having at least 85 points (based on credited service). Reduction is 5/9 of 1% for each of the first 60 months the commencement precedes age 65, and 5/18 of 1% thereafter.

Disability

Eligibility

Ten years of credited service (for Budd) or eligibility service (for Master).

Benefit

The accrued benefit based on credited service (with such service frozen effective January 1, 2018) and multiplier level at the date of disability, payable beginning five months after disability occurs or after the cessation of weekly accident and sickness benefits if later. The accrued benefit is unreduced.

In addition, a monthly special temporary benefit shall be paid until age 62 and one month, calculated as years of credited service (maximum of 30 years, with such service frozen effective January 1, 2018) multiplied by $35.

Furthermore, a monthly early retirement supplement shall be paid until age 62 and one month (30 years of credited service is required for Budd), determined as the minimum monthly benefit below minus regular disability retirement benefit (including the special temporary benefit).

Disability benefits at St. Joseph location is eliminated for disabilities that occur after March 31, 2018.

Commencement Date	Minimum
Budd	
Prior to 12/01/2002	$2,160
12/01/2002–12/31/2008	$2,300
01/01/2009 and after	$2,400
Master	
Prior to 06/01/2003	$2,160
06/01/2003–05/31/2004	$2,210
06/01/2004–05/31/2005	$2,260
06/01/2005–05/31/2006	$2,310
06/01/2006 and after	$2,360

Surviving Spouse

Eligibility

Five years of vesting service (for Budd) or eligibility service (for Master).

Benefit

A monthly benefit payable to the surviving spouse beginning at the employee's earliest commencement age equal to 60% of the amount payable as if the participant had commenced with a 60% joint and survivor benefit.

Special Age 65 Benefit

Eligibility

Retirees or their surviving spouses who enroll in the voluntary Medicare coverage (excluding deferred vested participants or their surviving spouses).

Benefit

A monthly benefit payable starting at age 65 for the life of retiree or surviving spouse:

Date Benefit is Payable	Amount
Budd	
04/01/1996–12/31/1996	$42.00
01/01/1997–12/31/1997	$44.00
01/01/1998–12/31/1998	$46.00
01/01/1999–12/31/2002	$52.00
01/01/2003–12/31/2008	$65.00
01/01/2009 and after	$96.40
Master	
02/01/1996–01/31/1997	$42.00
02/01/1997–01/31/1998	$44.00
02/01/1998–01/31/1999	$46.00
02/01/1999–05/31/2003	$52.00
06/01/1999–12/31/2008	$70.00
01/01/2009–12/31/2009	$96.40
01/01/2010–10/01/2010	$110.50

Effective October 1, 2010, except for a group of former Honeywell participants (whose special age 65 benefits are capped at $70.00 per month), the special age 65 benefits for participants under Master are no longer paid from the pension trust. This applies to both current retirees and future retirees.

Normal Form of Annuity	
Without Spouse	Single life annuity.
With Spouse	60% joint and survivor annuity with pop-up. Participant's pension is reduced to 95% (and increased or decreased 0.5% for each year by which the participant is more than five years younger or older, respectively, than the spouse). Participant receives reduced lifetime benefit and, in event of participant's death, 60% of reduced benefit continues to surviving spouse. Reduction is restored if the spouse pre-decease the participant or divorce the participant. Participants who terminated employment prior to January 1, 2016 with a deferred vested benefit were offered a one-time lump sum during 2016. Forms of payments were lump sum or immediate annuity.
Optional Forms of Annuity	75% joint and survivor annuity with pop-up.
Actuarial Equivalence	Applicable mortality table per section 417(e)(3) of Internal Revenue Code and 6% interest rate.
Plan Year	January 1 to December 31.
Credited Service	
Budd	Lesser of (1) total continuous service, or (2) total hours worked divided by 1,700. Round to nearest quarter.
Master	One year of benefit service is earned if the participant works 1,700 or more hours in one plan year (prorated to the nearest one-twelfth if less than 1,700 hours).
Vesting Service	
Budd	One year of vesting service is earned if the participant works 1,000 or more hours in one plan year.
Eligibility Service	
Master	One year of vesting service is earned if the participant works 1,000 or more hours in one plan year.

Plan Changes Since the Prior Year

The funding valuation reflects the following plan changes:

- Benefit service is frozen at St. Joseph location effective January 1, 2018.
- Disability benefits at St. Joseph location is eliminated for disabilities that occur after March 31, 2018.

Other Information to Fully and Fairly Disclose the Actuarial Position of the Plan

Due to software limitations with the electronic filing process, information filed electronically cannot be controlled by the Enrolled Actuary. The values on the signed Schedule SB will govern to the extent there are any differences in the entries filed electronically and the actual data contained on the signed Schedule SB.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Bosch Braking Systems Corporation Pension Plan for Hourly Employees
EIN: 36-2903176 PN: 006

Schedule SB, line 24—Change in Actuarial Assumptions

The funding valuation reflects the following assumption changes:

- A change optional form of payment from 40% electing single life annuity and 60% electing joint and survivor annuity to 55% electing single life annuity and 45% electing joint and survivor annuity.
- A change in the retirement rates to better reflect plan experience.
- A change in the termination rates to better reflect plan experience.
- A change in the spouse age difference from males being three years older than females to males being two years older than females.

These changes were made to better reflect the anticipated plan experience. None of these assumption changes reduced the funding shortfall; as such, approval of the Commissioner is not required.