

Thatcher Robert J
Form 4
August 20, 2012

FORM 4

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

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
Thatcher Robert J

2. Issuer Name and Ticker or Trading Symbol
Cardiovascular Systems Inc [CSII]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction (Month/Day/Year)
08/16/2012

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
Executive VP

651 CAMPUS DRIVE

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
____ Form filed by More than One Reporting Person

ST. PAUL, MN 55112

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|---|
| Common Stock | 08/16/2012 | | S ⁽¹⁾ | 1,197 D | \$ 8.7296 (2) | 131,761 | D |
| Common Stock | 08/17/2012 | | S ⁽¹⁾ | 1,392 D | \$ 8.7507 (3) | 130,369 | D |
| Common Stock | 08/20/2012 | | S ⁽¹⁾ | 1,346 D | \$ 8.971 (4) | 129,023 | D |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

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Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Price or Value of Underlying Securities (Instr. 3 and 4) | |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|---|----------------------------|
| | | | | Code | V (A) (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares |
| Stock Option (right to buy) | \$ 12.37 | | | | | (5) 10/16/2015 | | Common Stock | 64,700 |
| Stock Option (right to buy) | \$ 8.83 | | | | | (5) 12/18/2016 | | Common Stock | 7,764 |
| Stock Option (right to buy) | \$ 8.83 | | | | | (5) 04/17/2017 | | Common Stock | 29,762 |
| Stock Option (right to buy) | \$ 7.9 | | | | | (5) 08/06/2017 | | Common Stock | 22,645 |
| Stock Option (right to buy) | \$ 12.15 | | | | | (5) 12/11/2017 | | Common Stock | 32,350 |
| Stock Option (right to buy) | \$ 8.75 | | | | | (5) 03/01/2019 | | Common Stock | 11,646 |
| Warrant | \$ 8.83 | | | | | 02/25/2009 02/24/2014 | | Common Stock | 3,045 |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|--------------|-------|
| | Director | 10% Owner | Officer | Other |
| Thatcher Robert J 651 CAMPUS DRIVE ST. PAUL, MN 55112 | | | Executive VP | |

Signatures

/s/ Scott J. Dorfman as Attorney-in-Fact for Robert J. Thatcher pursuant to Power of Attorney previously filed.

08/20/2012

__Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) In connection with the vesting and delivery of restricted stock, and pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on August 23, 2011, shares sold on each date, as well as the shares previously reported as sold on August 15, 2012, were sold and the net proceeds were used to pay required withholding taxes.

(2) The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$8.60 to \$8.83 inclusive. The reporting person undertakes to provide Cardiovascular Systems, Inc., any security holder of Cardiovascular Systems, Inc. or the staff of the Securities and Exchange Commission upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.

(3) The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$8.62 to \$8.90 inclusive. The reporting person undertakes to provide Cardiovascular Systems, Inc., any security holder of Cardiovascular Systems, Inc. or the staff of the Securities and Exchange Commission upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.

(4) The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$8.79 to \$9.06 inclusive. The reporting person undertakes to provide Cardiovascular Systems, Inc., any security holder of Cardiovascular Systems, Inc. or the staff of the Securities and Exchange Commission upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.

(5) Fully exercisable.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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