

HART JOHN H
 Form 4
 September 23, 2010

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 *
 HART JOHN H

2. Issuer Name and Ticker or Trading Symbol
 COHERENT INC [COHR]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction (Month/Day/Year)
 09/21/2010

____ Director
 ____ Officer (give title below)
 ____ 10% Owner
 ____ Other (specify below)
 Former Director

P. O. BOX 54980

(Street)

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

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

SANTA CLARA, CA 95056-0980

(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)	
				(A) or (D)	Price			
				Code	V	Amount		
Common Stock	09/21/2010		M		16,500	A	\$ 19.06 23,000	D
Common Stock	09/21/2010		S		16,500	D	\$ 39.802 (1) 6,500	D
Common Stock	09/22/2010		M		6,000	A	\$ 15.21 12,500	D
Common Stock	09/22/2010		S		6,000	D	\$ 39.3088 (2) 6,500	D
Common Stock	09/23/2010		S		4,500	D	\$ 39.1766 2,000	D

(3)

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

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(9-02)

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)	Amount or Number of Shares	
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	
Non Qualified Stock Option (right to buy)	\$ 19.06	09/21/2010		M	16,500	03/27/2006 04/01/2012	Common stock	16,500	
Non Qualified Stock Option (right to buy)	\$ 15.21	09/22/2010		M	6,000	03/31/2010 04/01/2012	Common Stock	6,000	

Reporting Owners

Reporting Owner Name / Address

Relationships

Director 10% Owner Officer Other

HART JOHN H
P. O. BOX 54980
SANTA CLARA, CA 95056-0980

Former Director

Signatures

/s/ Bret DiMarco, Pursuant to Power of Attorney

09/23/2010

**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) Represents the weighted average sales price for the shares. The range of prices for such sales was \$39.664187 to \$39.91.

(2) Represents the weighted average sales price for the shares. The range of prices for such sales was \$39.10 to \$39.7006.

(3) Represents the weighted average sales price for the shares. The range of prices for such sales was \$39.15 to \$39.25.

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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