Ingersoll-Rand plc
Form SC 13D/A
August 13, 2012

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

SCHEDULE 13D
Under the Securities Exchange Act of 1934

(Amendment No. 3)*

INGERSOLL-RAND PLC
(Name of Issuer)

Ordinary Shares, $1.00 par value
(Title of Class of Securities)

G47791101
(CUSIP Number)

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Trian Fund Management, L.P.
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California State Teachers' Retirement System
100 Waterfront Place, MS 04
West Sacramento, CA 95605
Tel. No.: (916) 414-7551

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

August 10, 2012
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box ¨.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The Information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Nelson Peltz		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS AF		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0	
	8	SHARED VOTING POWER 21,072,305	
	9	SOLE DISPOSITIVE POWER 0	
	10	SHARED DISPOSITIVE POWER 21,072,305	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 21,072,305		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[x]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.84%*		
14	TYPE OF REPORTING PERSON IN		

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*Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 (the "Form 10-Q").

1	NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Peter W. May		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS AF		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0	
	8	SHARED VOTING POWER 21,072,305	
	9	SOLE DISPOSITIVE POWER 0	
	10	SHARED DISPOSITIVE POWER 21,072,305	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 21,072,305		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[x]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.84%*		
14	TYPE OF REPORTING PERSON IN		

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* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

1	NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Edward P. Garden		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS AF		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0	
	8	SHARED VOTING POWER 21,072,305	
	9	SOLE DISPOSITIVE POWER 0	
	10	SHARED DISPOSITIVE POWER 21,072,305	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 21,072,305		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[x]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.84%*		
14	TYPE OF REPORTING PERSON IN		

*Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

1	NAME OF REPORTING PERSON Trian Fund Management, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 20-3454182		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS AF		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0
		8	SHARED VOTING POWER 21,072,305
		9	SOLE DISPOSITIVE POWER 0
		10	SHARED DISPOSITIVE POWER 21,072,305
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 21,072,305		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[x]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.84%*		
14	TYPE OF REPORTING PERSON PN		

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

1	NAME OF REPORTING PERSON Trian Fund Management GP, LLC S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 20-3454087		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS AF		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0
		8	SHARED VOTING POWER 21,072,305
		9	SOLE DISPOSITIVE POWER 0
		10	SHARED DISPOSITIVE POWER 21,072,305
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 21,072,305		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[x]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.84%*		
14	TYPE OF REPORTING PERSON OO		

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

1	NAME OF REPORTING PERSON Trian Partners Master Fund (ERISA), L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 98-0682467			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) [ ] (b) [_]
3	SEC USE ONLY			
4	SOURCE OF FUNDS WC			
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)			[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands			
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0	
		8	SHARED VOTING POWER 199,908#	
		9	SOLE DISPOSITIVE POWER 0	
		10	SHARED DISPOSITIVE POWER 199,908#	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 199,908#			
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.06%*			
14	TYPE OF REPORTING PERSON PN			

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* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

All 199,908 shares have been contributed to Trian IR Holdco Ltd., pursuant to a Contribution Agreement dated June 15, 2012, as described in Item 5 herein.

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1	NAME OF REPORTING PERSON Trian Partners, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 20-3453988			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) [ ] (b) [_]
3	SEC USE ONLY			
4	SOURCE OF FUNDS WC			
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)			[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware			
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0	
		8	SHARED VOTING POWER 2,298,601#	
		9	SOLE DISPOSITIVE POWER 0	
		10	SHARED DISPOSITIVE POWER 2,298,601#	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,298,601#			
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.75%*			
14	TYPE OF REPORTING PERSON PN			

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

1,750,352 of these shares have been contributed to Trian IR Holdco Ltd., pursuant to a Contribution Agreement dated June 15, 2012, as described in Item 5 herein.

1	NAME OF REPORTING PERSON Trian Partners Master Fund, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 98-0468601		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS WC		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0
		8	SHARED VOTING POWER 6,670,589#
		9	SOLE DISPOSITIVE POWER 0
		10	SHARED DISPOSITIVE POWER 6,670,589#
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 6,670,589#		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 2.16%*		
14	TYPE OF REPORTING PERSON PN		

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* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

756,182 of these shares have been contributed to Trian IR Holdco Ltd., pursuant to a Contribution Agreement dated June 15, 2012, as described in Item 5 herein.

1	NAME OF REPORTING PERSON Trian Partners Parallel Fund I, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 20-3694154		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS WC		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0	
	8	SHARED VOTING POWER 335,832#	
	9	SOLE DISPOSITIVE POWER 0	
	10	SHARED DISPOSITIVE POWER 335,832#	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 335,832#		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.11%*		
14	TYPE OF REPORTING PERSON PN		

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* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

All 335,832 shares have been contributed to Trian IR Holdco Ltd., pursuant to a Contribution Agreement dated June 15, 2012, as described in Item 5 herein.

1	NAME OF REPORTING PERSON Trian Partners Strategic Investment Fund-A, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 27-4180625			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) [ ] (b) [_]
3	SEC USE ONLY			
4	SOURCE OF FUNDS WC			
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)			[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware			
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0	
		8	SHARED VOTING POWER 1,268,711	
		9	SOLE DISPOSITIVE POWER 0	
		10	SHARED DISPOSITIVE POWER 1,268,711	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,268,711			
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.41%*			
14	TYPE OF REPORTING PERSON PN			

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

1	NAME OF REPORTING PERSON Trian Partners Strategic Co-Investment Fund-A, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 36-4728074			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) [ ] (b) [_]
3	SEC USE ONLY			
4	SOURCE OF FUNDS WC			
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)			[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware			
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0	
		8	SHARED VOTING POWER 1,178,550	
		9	SOLE DISPOSITIVE POWER 0	
		10	SHARED DISPOSITIVE POWER 1,178,550	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,178,550			
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.38%*			
14	TYPE OF REPORTING PERSON PN			

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

1	NAME OF REPORTING PERSON Trian Partners Strategic Investment Fund, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 37-1593120		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS WC		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0	
	8	SHARED VOTING POWER 2,958,664#	
	9	SOLE DISPOSITIVE POWER 0	
	10	SHARED DISPOSITIVE POWER 2,958,664#	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,958,664#		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.96%*		
14	TYPE OF REPORTING PERSON PN		

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* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

1,819,683 of these shares have been contributed to Trian IR Holdco Ltd., pursuant to a Contribution Agreement dated June 15, 2012, as described in Item 5 herein.

1	NAME OF REPORTING PERSON Trian SPV (SUB) VI, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 98-0644507			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) [ ] (b) [_]
3	SEC USE ONLY			
4	SOURCE OF FUNDS WC			
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)			[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands			
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0	
		8	SHARED VOTING POWER 1,460,000#	
		9	SOLE DISPOSITIVE POWER 0	
		10	SHARED DISPOSITIVE POWER 1,460,000#	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,460,000#			
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.47%*			
14	TYPE OF REPORTING PERSON PN			

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

All 1,460,000 shares have been contributed to Trian IR Holdco Ltd., pursuant to a Contribution Agreement dated June 15, 2012, as described in Item 5 herein.

1	NAME OF REPORTING PERSON Trian SPV (SUB) VI-A, L.P. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 98-1047700		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP		(a) [ ] (b) [_]
3	SEC USE ONLY		
4	SOURCE OF FUNDS WC		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0
		8	SHARED VOTING POWER 4,701,450#
		9	SOLE DISPOSITIVE POWER 0
		10	SHARED DISPOSITIVE POWER 4,701,450#
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,701,450#		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 1.53%*		
14	TYPE OF REPORTING PERSON PN		

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

All 4,701,450 shares have been contributed to Trian IR Holdco Ltd., pursuant to a Contribution Agreement dated June 15, 2012, as described in Item 5 herein.

1	NAME OF REPORTING PERSON Trian IR Holdco Ltd. S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 98-1057630			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) [ ] (b) [_]
3	SEC USE ONLY			
4	SOURCE OF FUNDS OO			
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)			[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands			
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 0	
		8	SHARED VOTING POWER 11,023,407#	
		9	SOLE DISPOSITIVE POWER 0	
		10	SHARED DISPOSITIVE POWER 11,023,407#	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 11,023,407#			
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 3.58%*			
14	TYPE OF REPORTING PERSON OO			

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

These shares were received from other Reporting Persons pursuant to a Contribution Agreement dated June 15, 2012, as described in Item 5 herein.

1	NAME OF REPORTING PERSON California State Teachers' Retirement System S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON 94-6291617			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) [ ] (b) [_]
3	SEC USE ONLY			
4	SOURCE OF FUNDS WC			
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)			[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION California Government Pension Plan			
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7	SOLE VOTING POWER 744,963	
		8	SHARED VOTING POWER 0	
		9	SOLE DISPOSITIVE POWER 537,409	
		10	SHARED DISPOSITIVE POWER 207,554	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 744,963			
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			[X]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.24%*			
14	TYPE OF REPORTING PERSON EP			

* Calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Form 10-Q.

This Amendment No. 3 relates to the Schedule 13D filed with the Securities and Exchange Commission on May 9, 2012, as amended by Amendment No. 1 ("Amendment No. 1") filed on June 20, 2012 and Amendment No. 2 filed on August 6, 2012 (as so amended, the "Schedule 13D") relating to the Ordinary Shares, $1.00 par value per share (the "Shares"), Ingersoll-Rand PLC, an Irish public limited company (the "Issuer"). The address of the principal executive office of the Issuer is 170/175 Lakeview Dr., Airside Business Park, Swords, Co. Dublin, Ireland.

Items 3, 4 and 5 of the Schedule 13D are hereby amended and supplemented as follows:

Item 3. Source and Amount of Funds or Other Consideration

Item 3 is amended by deleting Item 3 of the Schedule 13D and replacing it with the following:

As of 4:00 p.m., New York City time, on August 10, 2012, the aggregate purchase price of the 14,215,631 Shares (not including those Shares underlying any Options) purchased by the Reporting Persons collectively was $583,366,517.26 (including commissions). In addition, as of such time and date, Trian Onshore, Trian Offshore and TPSIF beneficially owned, in the aggregate, an additional 7,601,637 Shares, which were acquired through a series of privately negotiated back-to-back call and put transactions with certain financial institutions (the "Options") and as a result of which Trian Onshore, Trian Offshore and TPSIF are each subject to the same economic gain or loss as if they had purchased the underlying Shares. As of August 10, 2012, these Options have an aggregate strike price of $307,837,841.34 (See Schedule A hereto for additional detail on the Options). As set forth in Item 5, none of the other Reporting Persons directly own any Shares or Options. The source of funding for the purchase of the Shares was, and the source of funding for the purchase of any additional Shares and Options, the exercise of the Options or the purchase and/or exercise of any additional Options or other derivative securities related to the market price of the Shares acquired in the future is currently expected to be, the respective general working capital of the purchasers.

Item 4. Purpose of Transaction

Item 4 of the Schedule 13D is hereby amended and supplemented by adding the following:

On August 10, 2012, the Issuer expanded its Board from 11 to 12 Directors with the appointment of Nelson Peltz to its Board of Directors. Mr. Peltz will join the Corporate Governance and Nominating Committee and the Finance Committee of the Issuer's Board of Directors.

Item 5. Interest in Securities of the Issuer

Item 5 is amended by deleting Item 5 of the Schedule 13D and replacing it with the following:

(a) As of 4:00 pm, New York City time, on August 10, 2012, the Reporting Persons beneficially owned, in the aggregate, 21,817,268 Shares, representing approximately 7.08% of the Issuer's outstanding Shares (calculated based on 308,252,270 ordinary shares outstanding as of July 13, 2012, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 (the "Form 10-Q")). Such Shares include an aggregate of 14,215,631 Shares beneficially owned by the Reporting Persons through direct ownership of the Shares representing approximately 4.61% of the Issuer's outstanding Shares, and an additional 7,601,637 Shares underlying the Options that are held by Trian Onshore, Trian Offshore and TPSIF representing approximately 2.47% of the Issuer's outstanding Shares.

(b) Pursuant to a Contribution Agreement dated June 15, 2012 (the "Contribution Agreement"), Trian Onshore, Trian Offshore, Parallel Fund I, Trian ERISA, TPSIF, SPV VI and SPV VI-A contributed 1,750,352; 756,182; 335,832; 199,908; 1,819,683; 1,460,000 and 4,701,450 Shares, respectively, that they beneficially and directly owned to Holdco in exchange for their proportionate share of equity securities in Holdco. As such, Holdco may be deemed to have shared voting power and dispositive power with regard to, and therefore may be deemed to beneficially own (as that term is defined in Rule 13d-3), the Shares that Trian Onshore, Trian Offshore, Parallel Fund I, Trian ERISA, TPSIF, SPV VI and SPV VI-A contributed to it pursuant to the Contribution Agreement. Strategic Fund-A and Coinvest Fund-A continue to beneficially and directly own and have sole voting power and sole dispositive power of 1,268,711 and 1,178,550 Shares, respectively, and each of Trian Onshore, Trian Offshore and TPSIF continue to directly and beneficially own 548,249, 5,914,407 and 1,138,981 Shares, respectively, underlying the Options held by each such entity. To the extent that other Reporting Persons may be deemed to have shared voting power and shared dispositive power with regard to any of these Shares, such information is set forth below.

Each of Trian Management, Trian Management GP, Nelson Peltz, Peter W. May and Edward P. Garden, by virtue of their relationships to Trian Onshore, Trian Offshore, Parallel Fund I, Trian ERISA, TPSIF, Strategic Fund-A, Coinvest Fund-A, SPV VI, SPV VI-A and Holdco (discussed in Item 2), may be deemed to have shared voting power and shared dispositive power with regard to, and therefore may be deemed to beneficially own (as that term is defined in Rule 13d-3), the Shares (including Shares underlying the Options) that Trian Onshore, Trian Offshore, Parallel Fund I, Trian ERISA, TPSIF, Strategic Fund-A, Coinvest Fund-A, SPV VI, SPV VI-A and Holdco directly and beneficially own. Each of Trian Management, Trian Management GP, Nelson Peltz, Peter W. May and Edward P. Garden disclaims beneficial ownership of such Shares for all other purposes.

CalSTRS has the sole power to vote or direct the vote of 744,963 Shares (the “CalSTRS Shares”) and the sole power to dispose of or direct the disposition of 537,409 of the CalSTRS Shares. With respect to the other 207,554 CalSTRS Shares, the power to dispose or to direct the disposition of such Shares is shared with certain of its external managers, as follows: (i) 100,346 CalSTRS Shares with BlackRock Institutional Trust Company, N.A, (ii) 83,508 CalSTRS Shares with State Street Bank and Trust Company, (iii) 700 CalSTRS Shares with OakBrook Investments, LLC and (iv) 23,000 CalSTRS Shares with Chicago Equity Partners, LLC.

CalSTRS has been informed by BlackRock Institutional Trust Company, N.A. ("BlackRock") that its principal business is to provide diversified investment management and securities lending services to institutional clients, intermediary and individual investors through various investment vehicles and that its business address is 400 Howard Street, San Francisco, CA 94105. In addition, BlackRock has further informed CalSTRS that on January 20, 2012, BlackRock entered into an Offer of Settlement (the "Agreement") with the CFTC and consented to the entry of an Order, which makes findings and imposes remedial sanctions against BlackRock. Without admitting or denying wrongdoing, BlackRock agreed to the imposition of a $250,000 penalty and the entry of the Order to resolve allegations by the CFTC that two trades by BlackRock violated Section 4c(a)(1) of the Commodity Exchange Act and CFTC Regulation 1.38(a). Blackrock also agreed to refrain from any further violations of the above-mentioned statutory provisions. The CFTC did not allege, nor find, that any clients of BlackRock or any related affiliate were harmed in any way. Other than the Agreement, during the last five years, BlackRock has not been (i) convicted in a criminal proceeding (excluding traffic violations and similar misdemeanors) or (ii) a party to any other civil proceeding of a judicial or administrative body of competent jurisdiction, and as a result of such proceeding, was or is the subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

CalSTRS has been informed by State Street Bank and Trust Company (State Street) that its principal business is to provide a broad range of financial products and services to institutional investors worldwide, including its transition management services. Its principal business address is 1 Lincoln Street, Boston, MA 02111. CalSTRS has been further informed by State Street that on February 4, 2010, the U.S. Securities and Exchange Commission issued an administrative order in which it ordered State Street to cease and desist from committing or causing any violations, and any future violations of Section 17(a)(2) and Section 17(a)(3) of the Securities Act of 1933. In connection with the same matter, the Massachusetts Secretary of State issued a consent order in which it ordered State Street to cease and desist from violations of the Massachusetts Uniform Securities Act. The orders were entered in connection with the resolution of an investigation into losses incurred by and disclosures made around certain active fixed-income strategies managed by State Street Global Advisors (SSgA), a division of State Street, during 2007 and earlier periods. In addition, in conjunction with a February 2012 settlement of an investigation of SSgA’s role as collateral manager for Carina CDO, Ltd., the Massachusetts Secretary of State issued a consent order finding that SSgA had failed to disclose certain material information to investors in the CDO in violation of MGL c. 110A, Sec. 101(2) and 101(3). SSgA neither admitted nor denied the findings. In connection with the settlement SSgA paid a civil fine. SSgA was ordered to cease and desist from violations of the Massachusetts Uniform Securities Act. In reaching these settlements, State Street neither admitted nor denied the allegations made by the SEC or the Massachusetts Secretary of State. Other than the foregoing, during the last five years, State Street has not been (i) convicted in a criminal proceeding (excluding traffic violations and similar misdemeanors) or (ii) a party to any other civil proceeding of a judicial or administrative body of competent jurisdiction, and as a result of such proceeding, was or is

the subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

CalSTRS has been informed by OakBrook Investments, LLC ("OakBrook") that its principal business is institutional investment management and that its business address is 2300 Cabot Dr., Suite 300, Lisle, IL 60532. During the last five years, OakBrook has not been (i) convicted in a criminal proceeding (excluding traffic violations and similar misdemeanors) or (ii) a party to any other civil proceeding of a judicial or administrative body of competent jurisdiction, and as a result of such proceeding, was or is the subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

CalSTRS has been informed by Chicago Equity Partners, LLC, that its principal business is investment management and that its business address is 180 N. LaSalle Street, Suite 3800, Chicago, IL 60601. During the last five years, Chicago Equity Partners, LLC has not been (i) convicted in a criminal proceeding (excluding traffic violations and similar misdemeanors) or (ii) a party to any other civil proceeding of a judicial or administrative body of competent jurisdiction, and as a result of such proceeding, was or is the subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

The Trian Group does not have the right to vote or dispose of any of the CalSTRS Shares, nor is any member of the Trian Group a party to any contracts, arrangements or understandings with respect to such Shares. As a result, each member of the Trian Group disclaims beneficial ownership of the CalSTRS Shares for all purposes.

(c) Schedule A hereto (which is incorporated by reference in this Item 5 as if restated in full herein) sets forth all transactions with respect to the Shares effected since the close of business on August 3, 2012 by any Reporting Persons, inclusive of the transactions effected through 4:00 pm, New York City time, on August 10, 2012.

(d) No person other than the Trian Group is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Shares beneficially owned by the Trian Group. Except with respect to the 207,554 CalSTRS Shares it beneficially owned in accounts managed by external managers as disclosed in (b) above, no other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Shares covered by this statement beneficially owned by CalSTRS.

SIGNATURE

After reasonable inquiry and to the best of each of the undersigned knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: August 13, 2012

TRIAN FUND MANAGEMENT, L.P.
By: Trian Fund Management GP, LLC, its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN FUND MANAGEMENT GP, LLC

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN PARTNERS, L.P.
By: Trian Partners GP, L.P., its general partner
By: Trian Partners General Partner, LLC, its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN PARTNERS MASTER FUND, L.P.
By: Trian Partners GP, L.P., its general partner
By: Trian Partners General Partner, LLC, its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN PARTNERS MASTER FUND (ERISA) L.P.
By: Trian Partners (ERISA) GP, L.P., its general partner

By: Trian Partners (ERISA) General Partner,
LLC, its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN PARTNERS PARALLEL FUND I, L.P.
By: Trian Partners Parallel Fund I
General Partner, LLC, its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN SPV (SUB) VI, L.P.
By: Trian Partners SPV VI GP, L.P., its general
partner
By: Trian Partners SPV VI General Partner,
LLC, its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN SPV (SUB) VI-A, L.P.
By: Trian Partners SPV VI-A GP, L.P., its general partner
By: Trian Partners SPV VI-A General Partner,
LLC, its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN PARTNERS STRATEGIC INVESTMENT FUND-A, L.P.
By: Trian Partners Strategic Investment Fund-A
GP, L.P., its general partner
By: Trian Partners Strategic Investment Fund-A
General Partner LLC., its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN PARTNERS STRATEGIC CO-INVESTMENT FUND–A, L.P.
By: Trian Partners Strategic Co-Investment Fund-A GP, L.P. its general partner
By: Trian Partners Strategic Co-Investment Fund-A General Partner, LLC., its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN PARTNERS STRATEGIC INVESTMENT FUND, L.P.
By: Trian Partners Strategic Investment Fund GP, L.P., its general partner
By: Trian Partners Strategic Investment Fund General Partner, LLC,
its general partner

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

TRIAN IR HOLDCO LTD.

By: /s/ EDWARD P.GARDEN
Name: Edward P. Garden
Title: Member

/s/ NELSON PELTZ
NELSON PELTZ

/s/ PETER W. MAY
PETER W. MAY

/s/ EDWARD P. GARDEN
EDWARD P. GARDEN

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

By: /s/DEBRA SMITH
Name: Debra M. Smith
Title: Director of Investment Operations

Schedule A

The following table sets forth all transactions with respect to the Shares affected since the close of business on August 3, 2012, by any of the Reporting Persons, inclusive of any transactions effected through 4:00 p.m., New York City time, on August 10, 2012. Except as otherwise noted, all such transactions in the table were effected in the open market, and the table includes commissions paid in per share prices.

Name	Date	Shares	Price	Type
CALSTRS	8/03/2012	200	42.61	Purchase
CALSTRS	8/08/2012	7800	44.14	Purchase
CALSTRS	8/08/2012	500	44.22	Purchase
CALSTRS	8/09/2012	15200	44.34	Purchase
CALSTRS	8/09/2012	400	44.74	Purchase