

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

FORM 6-K

**Report of Foreign Private Issuer Pursuant to Rule 13a-16 or 15d-16
under the Securities Exchange Act of 1934**

For the Month of September 2015

1-15240
(Commission File Number)

JAMES HARDIE INDUSTRIES plc
(Translation of registrant's name into English)

Europa House, Second Floor
Harcourt Centre
Harcourt Street, Dublin 2, Ireland
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F..X.... Form 40-F.....

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): Not Applicable

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): Not Applicable

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Forward-Looking Statements

This Form 6-K contains forward-looking statements. James Hardie Industries plc (the "company") may from time to time make forward-looking statements in its periodic reports filed with or furnished to the Securities and Exchange Commission, on Forms 20-F and 6-K, in its annual reports to shareholders, in offering circulars, invitation memoranda and prospectuses, in media releases and other written materials and in oral statements made by the company's officers, directors or employees to analysts, institutional investors, existing and potential lenders, representatives of the media and others. Statements that are not historical facts are forward-looking statements and such forward-looking statements are statements made pursuant to the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995.

Examples of forward-looking statements include:

- statements about the company's future performance;
- projections of the company's results of operations or financial condition;
- statements regarding the company's plans, objectives or goals, including those relating to strategies, initiatives, competition, acquisitions, dispositions and/or its products;
- expectations concerning the costs associated with the suspension or closure of operations at any of the company's plants and future plans with respect to any such plants;
- expectations concerning the costs associated with the significant capital expenditure projects at any of the company's plants and future plans with respect to any such projects;
- expectations regarding the extension or renewal of the company's credit facilities including changes to terms, covenants or ratios;
- expectations concerning dividend payments and share buy-backs;
- statements concerning the company's corporate and tax domiciles and structures and potential changes to them, including potential tax charges;
- statements regarding tax liabilities and related audits, reviews and proceedings;
- expectations about the timing and amount of contributions to Asbestos Injuries Compensation Fund (AICF), a special purpose fund for the compensation of proven Australian asbestos-related personal injury and death claims;
- expectations concerning indemnification obligations;
- expectations concerning the adequacy of the company's warranty provisions and estimates for future warranty-related costs;
- statements regarding the company's ability to manage legal and regulatory matters (including but not limited to product liability, environmental, intellectual property and competition law matters) and to resolve any such pending legal and regulatory matters within current estimates and in anticipation of certain third-party recoveries; and
- statements about economic conditions, such as changes in the US economic or housing recovery or changes in the market conditions in the Asia Pacific region, the levels of new home construction and home renovations, unemployment levels, changes in consumer income, changes or stability in housing values, the availability of mortgages and other financing, mortgage and other interest rates, housing affordability and supply, the levels of foreclosures and home resales, currency exchange rates, and builder and consumer confidence.

Words such as "believe," "anticipate," "plan," "expect," "intend," "target," "estimate," "project," "predict," "forecast," "guideline," "aim," "will," "should," "likely," "continue," "may," "objective," "outlook" and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements. Readers are cautioned not to place undue reliance on these forward-looking statements and all such forward-looking statements are qualified in their entirety by reference to the following cautionary statements.

Forward-looking statements are based on the company's current expectations, estimates and assumptions and because forward-looking statements address future results, events and conditions, they, by their very nature, involve inherent risks and uncertainties, many of which are unforeseeable and beyond the company's control. Such known and unknown risks, uncertainties and other factors may cause actual results, performance or other achievements to differ materially from the anticipated results, performance or achievements expressed, projected or implied by these forward-looking statements. These factors, some of which are discussed under "Risk Factors" in Section 3 of the Form 20-F filed with the Securities and Exchange Commission on 21 May 2015, include, but are not limited to: all matters relating to or arising out of the prior manufacture of products that contained asbestos by current and former company subsidiaries; required contributions to AICF, any shortfall in AICF and the effect of currency exchange rate movements on the amount recorded in the company's financial statements as an asbestos liability; governmental loan facility to AICF; compliance with and changes in tax laws and treatments; competition and product pricing in the markets in which the company operates; the consequences of product failures or defects; exposure to environmental, asbestos, putative consumer class action or other legal proceedings; general economic and market conditions; the supply and cost of raw materials; possible increases in competition and the potential that competitors could copy the company's products; reliance on a small number of customers; a customer's inability to pay; compliance with and changes in environmental and health and safety laws; risks of conducting business internationally; compliance with and changes in laws and regulations; the effect of the transfer of the company's corporate domicile from the Netherlands to Ireland, including changes in corporate governance and any potential tax benefits related thereto; currency exchange risks; dependence on customer preference and the concentration of the company's customer base on large format retail customers, distributors and dealers; dependence on residential and commercial construction markets; the effect of adverse changes in climate or weather patterns; possible inability to renew credit facilities on terms favorable to the company, or at all; acquisition or sale of businesses and

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business segments; changes in the company's key management personnel; inherent limitations on internal controls; use of accounting estimates; and all other risks identified in the company's reports filed with Australian, Irish and US securities agencies and exchanges (as appropriate). The company cautions you that the foregoing list of factors is not exhaustive and that other risks and uncertainties may cause actual results to differ materially from those referenced in the company's forward-looking statements. Forward-looking statements speak only as of the date they are made and are statements of the company's current expectations concerning future results, events and conditions. The company assumes no obligation to update any forward-looking statements or information except as required by law.

EXHIBIT INDEX

| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|-----------------------------------|
| 99.1 | Appendix 3B ASX 17 September 2015 |

SIGNATURES

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

Date: 21 September 2015

James Hardie Industries plc

By: /s/ Natasha Mercer

Natasha Mercer

Company Secretary

EXHIBIT INDEX

| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|-----------------------------------|
| 99.1 | Appendix 3B ASX 17 September 2015 |

Appendix 3B

New issue announcement, application for quotation of additional securities and agreement

Information or documents not available now must be given to ASX as soon as available. Information and documents given to ASX become ASX's property and may be made public.

Introduced 01/07/96 Origin: Appendix 5 Amended 01/07/98, 01/09/99, 01/07/00, 30/09/01, 11/03/02, 01/01/03, 24/10/05, 01/08/12, 04/03/13

Name of entity

James Hardie Industries plc

ABN

097 829 895 Incorporated in Ireland. The liability of members is limited.

We (the entity) give ASX the following information.

Part 1 - All issues

You must complete the relevant sections (attach sheets if there is not enough space).

1 +Class of +securities issued or to be issued

Two separate issuances:

- A) Ordinary shares/CUFS issued on vesting of Restricted Stock Units (**RSUs**); and
- B) RSUs granted:
 - Returned on Capital Employed (**ROCE**) RSUs are contractual entitlements to be issued ordinary shares/CUFS upon satisfaction of certain conditions; and
 - Relative Total Shareholder Return (**TSR**) RSUs are contractual entitlements to be issued ordinary shares/CUFS upon satisfaction of certain conditions.

+ See chapter 19 for defined terms.

Appendix 3B
New issue announcement

| | |
|---|---|
| 2 | <p>Number of +securities issued or to be issued (if known) or maximum number which may be issued</p> <p>Total of 1,436,716 securities, broken down as follows:</p> <p>A) RSUs vesting: 353,511 ordinary shares/CUFS; and</p> <p>B) RSUs granted on 16 September 2015 (US time): 1,083,205.</p> |
| 3 | <p>Principal terms of the +securities (e.g. if options, exercise price and expiry date; if partly paid +securities, the amount outstanding and due dates for payment; if +convertible securities, the conversion price and dates for conversion)</p> <p>A) RSUs vesting: 353,511 ordinary shares/CUFS issued on vesting of RSUs; and</p> <p>B) Two separate tranches of RSUs granted:</p> <ul style="list-style-type: none">· 503,943 ROCE RSUs, a proportion of which will vest on 16 June 2018 depending on JHlplc's ROCE performance and negative discretion applied by the Remuneration Committee; and· 579,262 Relative TSR RSUs, which will vest between 3 and 4.5 years from the date of grant depending on JHlplc's TSR performance relative to its peer group. <p>Upon vesting, the holder of an RSU will be entitled to be issued one ordinary share/CUFS for each RSU held.</p> |
| 4 | <p>Do the +securities rank equally in all respects from the +issue date with an existing +class of quoted +securities?</p> <p>If the additional +securities do not rank equally, please state:</p> <ul style="list-style-type: none">· the date from which they do· the extent to which they participate for the next dividend, (in the case of a trust, distribution) or interest payment· the extent to which they do not rank equally, other than in relation to the next dividend, distribution or interest payment <p>A) Yes, ordinary shares/CUFS issued on vesting of RSUs rank equally with issued ordinary shares/CUFS; and</p> <p>B) RSUs granted: Not applicable.</p> |

+ See chapter 19 for defined terms.

| | | |
|----|---|---|
| 5 | Issue price or consideration | <p>A) 353,511 RSUs vesting: No amount payable; and</p> <p>B) RSUs granted: No cash consideration was paid.</p> |
| 6 | Purpose of the issue (If issued as consideration for the acquisition of assets, clearly identify those assets) | <p>A) Vesting of RSUs; and</p> <p>B) RSUs granted:</p> <ul style="list-style-type: none"> · Grant of ROCE RSUs, under the 2006 LTI Plan as part of the LTI received by senior executives for FY16; and · Grant of Relative TSR RSUs, under the 2006 LTI Plan as part of the LTI received by senior executives for FY16. |
| 6a | Is the entity an *eligible entity that has obtained security holder approval under rule 7.1A? If Yes, complete sections 6b – 6h <i>in relation to the *securities the subject of this Appendix 3B</i> , and comply with section 6i | No |
| 6b | The date the security holder resolution under rule 7.1A was passed | Not applicable |
| 6c | Number of *securities issued without security holder approval under rule 7.1 | Not applicable |
| 6d | Number of *securities issued with security holder approval under rule 7.1A | Not applicable |
| 6e | Number of *securities issued with security holder approval under rule 7.3, or another specific security holder approval (specify date of meeting) | Not applicable |
| 6f | Number of *securities issued under an exception in rule 7.2 | <p>A) Vesting of RSUs: 353,511; and</p> <p>B) RSUs granted: 1,083,205.</p> |

+ See chapter 19 for defined terms.

Appendix 3B
New issue announcement

| 6g | If +securities issued under rule 7.1A, was issue price at least 75% of 15 day VWAP as calculated under rule 7.1A.3? Include the +issue date and both values. Include the source of the VWAP calculation. | Not applicable | | | | | | | | | |
|---|--|---|--------|--------|-------------|----------------------|-----------|------------------------|---|--|--|
| 6h | If +securities were issued under rule 7.1A for non-cash consideration, state date on which valuation of consideration was released to ASX Market Announcements | Not applicable | | | | | | | | | |
| 6i | Calculate the entity's remaining issue capacity under rule 7.1 and rule 7.1A – complete Annexure 1 and release to ASX Market Announcements | Not applicable | | | | | | | | | |
| 7 | <p>+Issue dates</p> <p>Note: The issue date may be prescribed by ASX (refer to the definition of issue date in rule 19.12). For example, the issue date for a pro rata entitlement issue must comply with the applicable timetable in Appendix 7A.</p> <p>Cross reference: item 33 of Appendix 3B.</p> | 17 September 2015 | | | | | | | | | |
| 8 | Number and +class of all +securities quoted on ASX (<i>including</i> the +securities in section 2 if applicable) | <table border="1"> <thead> <tr> <th>Number</th> <th>+Class</th> </tr> </thead> <tbody> <tr> <td>446,852,607</td> <td>Ordinary shares/CUFS</td> </tr> </tbody> </table> | Number | +Class | 446,852,607 | Ordinary shares/CUFS | | | | | |
| Number | +Class | | | | | | | | | | |
| 446,852,607 | Ordinary shares/CUFS | | | | | | | | | | |
| 9 | Number and +class of all +securities not quoted on ASX (<i>including</i> the +securities in section 2 if applicable) | <table border="1"> <thead> <tr> <th>Number</th> <th>+Class</th> </tr> </thead> <tbody> <tr> <td>332,213</td> <td>Options</td> </tr> <tr> <td>4,003,886</td> <td>Restricted Stock Units</td> </tr> <tr> <td colspan="2">No Stock Options or RSUs have been cancelled.</td> </tr> </tbody> </table> | Number | +Class | 332,213 | Options | 4,003,886 | Restricted Stock Units | No Stock Options or RSUs have been cancelled. | | |
| Number | +Class | | | | | | | | | | |
| 332,213 | Options | | | | | | | | | | |
| 4,003,886 | Restricted Stock Units | | | | | | | | | | |
| No Stock Options or RSUs have been cancelled. | | | | | | | | | | | |
| 10 | Dividend policy (in the case of a trust, distribution policy) on the increased capital (interests) | <p>A) RSUs vested: Ordinary shares/CUFS issued on vesting of RSUs rank for dividends equally with issued ordinary shares/CUFS; and</p> <p>B) RSUs granted: Do not rank for dividends.</p> | | | | | | | | | |

+ See chapter 19 for defined terms.

Part 2 - Pro rata issue

| | | |
|----|--|----------------|
| 11 | Is security holder approval required? | Not applicable |
| 12 | Is the issue renounceable or non-renounceable? | Not applicable |
| 13 | Ratio in which the +securities will be offered | Not applicable |
| 14 | +Class of +securities to which the offer relates | Not applicable |
| 15 | +Record date to determine entitlements | Not applicable |
| 16 | Will holdings on different registers (or subregisters) be aggregated for calculating entitlements? | Not applicable |
| 17 | Policy for deciding entitlements in relation to fractions | Not applicable |
| 18 | Names of countries in which the entity has security holders who will not be sent new offer documents <small>Note: Security holders must be told how their entitlements are to be dealt with. Cross reference: rule 7.7.</small> | Not applicable |
| 19 | Closing date for receipt of acceptances or renunciations | Not applicable |
| 20 | Names of any underwriters | Not applicable |
| 21 | Amount of any underwriting fee or commission | Not applicable |
| 22 | Names of any brokers to the issue | Not applicable |
| 23 | Fee or commission payable to the broker to the issue | Not applicable |

+ See chapter 19 for defined terms.

Appendix 3B
New issue announcement

| | | |
|----|---|----------------|
| 24 | Amount of any handling fee payable to brokers who lodge acceptances or renunciations on behalf of security holders | Not applicable |
| 25 | If the issue is contingent on security holders' approval, the date of the meeting | Not applicable |
| 26 | Date entitlement and acceptance form and offer documents will be sent to persons entitled | Not applicable |
| 27 | If the entity has issued options, and the terms entitle option holders to participate on exercise, the date on which notices will be sent to option holders | Not applicable |
| 28 | Date rights trading will begin (if applicable) | Not applicable |
| 29 | Date rights trading will end (if applicable) | Not applicable |
| 30 | How do security holders sell their entitlements <i>in full</i> through a broker? | Not applicable |
| 31 | How do security holders sell <i>part</i> of their entitlements through a broker and accept for the balance? | Not applicable |
| 32 | How do security holders dispose of their entitlements (except by sale through a broker)? | Not applicable |
| 33 | +Issue date | Not applicable |

Part 3 - Quotation of securities

You need only complete this section if you are applying for quotation of securities

- 34 Type of +securities
(tick one)
- (a) +Securities described in Part 1

+ See chapter 19 for defined terms.

(b) All other +securities

Example: restricted securities at the end of the escrowed period, partly paid securities that become fully paid, employee incentive share securities when restriction ends, securities issued on expiry or conversion of convertible securities

Entities that have ticked box 34(a)

Additional securities forming a new class of securities

Tick to indicate you are providing the information or documents

35 If the +securities are +equity securities, the names of the 20 largest holders of the additional +securities, and the number and percentage of additional +securities held by those holders

36 If the +securities are +equity securities, a distribution schedule of the additional +securities setting out the number of holders in the categories
1 - 1,000
1,001 - 5,000
5,001 - 10,000
10,001 - 100,000
100,001 and over

37 A copy of any trust deed for the additional +securities

Entities that have ticked box 34(b)

38 Number of +securities for which +quotation is sought

Not applicable

39 +Class of +securities for which quotation is sought

Not applicable

+ See chapter 19 for defined terms.

Appendix 3B
New issue announcement

40 Do the +securities rank equally in all respects from the +issue date with an existing +class of quoted +securities?

If the additional +securities do not rank equally, please state:

- the date from which they do
- the extent to which they participate for the next dividend, (in the case of a trust, distribution) or interest payment
- the extent to which they do not rank equally, other than in relation to the next dividend, distribution or interest payment

Not applicable

41 Reason for request for quotation now

Example: In the case of restricted securities, end of restriction period

(if issued upon conversion of another +security, clearly identify that other +security)

Not applicable

42 Number and +class of all +securities quoted on ASX (including the +securities in clause 38)

| Number | +Class |
|----------------|----------------|
| Not applicable | Not applicable |

+ See chapter 19 for defined terms.

Quotation agreement

- 1 +Quotation of our additional +securities is in ASX's absolute discretion. ASX may quote the +securities on any conditions it decides.

- 2 We warrant the following to ASX.
 - The issue of the +securities to be quoted complies with the law and is not for an illegal purpose.
 - There is no reason why those +securities should not be granted +quotation.
 - An offer of the +securities for sale within 12 months after their issue will not require disclosure under section 707(3) or section 1012C(6) of the Corporations Act.
Note: An entity may need to obtain appropriate warranties from subscribers for the securities in order to be able to give this warranty
 - Section 724 or section 1016E of the Corporations Act does not apply to any applications received by us in relation to any +securities to be quoted and that no-one has any right to return any +securities to be quoted under sections 737, 738 or 1016F of the Corporations Act at the time that we request that the +securities be quoted.
 - If we are a trust, we warrant that no person has the right to return the +securities to be quoted under section 1019B of the Corporations Act at the time that we request that the +securities be quoted.

- 3 We will indemnify ASX to the fullest extent permitted by law in respect of any claim, action or expense arising from or connected with any breach of the warranties in this agreement.

- 4 We give ASX the information and documents required by this form. If any information or document is not available now, we will give it to ASX before +quotation of the +securities begins. We acknowledge that ASX is relying on the information and documents. We warrant that they are (will be) true and complete.

Sign here: /s/ Natasha Mercer
 Company Secretary

Date: 17 September 2015

Print name: Natasha Mercer

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+ See chapter 19 for defined terms.