
FORM 6 - - K
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

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

For the month of February 2010

Commission File Number 001-33159

AERCAP HOLDINGS N.V.

(Translation of Registrant's Name into English)

Stationsplein 965, 1117 CE Schiphol Airport, The Netherlands, +31-20-655-9655
(Address of Principal Executive Office)

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

Form 20-F

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):

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

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):

Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Act of 1934.

Yes

No

If "Yes" is marked, indicated below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82 - N/A

Other Events

On February 18, 2010, AerCap Holdings N.V. ("AerCap") (NYSE: AER), Genesis Lease Limited ("Genesis") (NYSE: GLS) and AerCap International Bermuda Limited, a wholly-owned subsidiary of AerCap ("AerCap International"), entered into an amendment ("Amendment No. 2") to amend a previously announced Agreement and Plan of Amalgamation, dated as of September 17, 2009 (as amended, the "Amalgamation Agreement"), under which Genesis will amalgamate with AerCap International in a share-for-share transaction (the "Amalgamation"). The resulting amalgamated company will continue as a subsidiary of AerCap. Amendment No. 2 amends section 6.14 of the Amalgamation Agreement to provide for the initial voting on Genesis' nominees to AerCap's board of directors to take place at the 2010 annual general meeting rather than at an extraordinary general meeting.

The foregoing summary of Amendment No. 2 does not purport to be complete and is subject to, and qualified in its entirety by, the full text of Amendment No. 2 furnished herewith as Exhibit 99.1, which is incorporated herein by reference.

Exhibits

99.1 Amendment No. 2 to the Amalgamation Agreement, dated as of February 18, 2010

Additional Information

The proposed transaction between Genesis and AerCap will be submitted to the Genesis shareholders for their consideration. In connection with the proposed transaction, AerCap has filed with the SEC a Registration Statement on Form F-4 on February 2, 2010 that includes a definitive proxy statement of Genesis and a prospectus of AerCap. Genesis mailed the definitive proxy statement/prospectus to its shareholders on or about February 8, 2010, and filed with the SEC the definitive proxy statement/prospectus on Form 6-K on February 9, 2010. **Genesis investors are urged to read the definitive proxy statement/prospectus regarding the proposed transaction, as well as any of the relevant documents concerning the proposed transaction and the companies that AerCap or Genesis files with the SEC (including any amendments or supplements to those documents) because these will contain important information.** You may obtain copies of all documents filed with the SEC regarding this transaction, free of charge, at the SEC's website (<http://www.sec.gov>). These documents may also be obtained free of charge from AerCap's website (<http://www.aercap.com>) under the heading "Investor Relations" and then under the heading "SEC Filings" or by directing a request to AerCap's Investor Relations at +31 20 655 9658. Copies of Genesis' filings may be obtained free of charge from Genesis' website (<http://www.genesislease.com>) under the tab "Investor

Relations” and then under the heading “SEC Filings” or by directing a request to Genesis’ proxy solicitor, Innisfree M&A Incorporated, toll-free at 877-687-1871.

This filing does not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offering of securities shall be made except by means of a prospectus meeting the requirements of the U.S. Securities Act of 1933, as amended, or an exemption therefrom.

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SIGNATURE

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.

AERCAP HOLDINGS N.V.

By: /s/ KLAUS HEINEMANN

Name: Klaus Heinemann

Title: Authorized Signatory

Date: February 18, 2010

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EXHIBIT INDEX

99.1 Amendment No. 2 to the Amalgamation Agreement, dated as of February 18, 2010

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**AMENDMENT NO. 2 TO THE
AGREEMENT AND PLAN OF AMALGAMATION**

This Amendment No. 2 to the Agreement and Plan of Amalgamation (this "Amendment"), dated as of February 18, 2010, is entered into by and among GENESIS LEASE LIMITED, a Bermuda exempted company ("Genesis"), AERCAP HOLDINGS N.V., a Netherlands public limited liability company ("AerCap"), and AERCAP INTERNATIONAL BERMUDA LIMITED, a Bermuda exempted company and a wholly-owned subsidiary of AerCap ("Amalgamation Sub"). Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to such terms in the Amalgamation Agreement.

WHEREAS, Genesis, AerCap and Amalgamation Sub are parties to that certain Agreement and Plan of Amalgamation, dated as of September 17, 2009 (as amended, the "Amalgamation Agreement");

WHEREAS, on February 1, 2010, AerCap, Genesis and Amalgamation Sub amended the Amalgamation Agreement to extend the Outside Date from March 17, 2010 to March 31, 2010; and

WHEREAS, upon the terms and subject to the conditions of this Amendment, Genesis, AerCap and Amalgamation Sub wish to further amend the Amalgamation Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Amendment, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Amendment to Section 6.14(a) of the Amalgamation Agreement. Section 6.14(a) of the Amalgamation Agreement is hereby amended and restated in its entirety as follows:
 - (a) AerCap shall propose and recommend for election to the board of directors of AerCap for at least the four (4) year term referred to in, and subject to all the terms of, Article 15.3 of AerCap's articles of association (statuten), at the annual general meeting of AerCap's shareholders to be duly held in May 2010 (the "2010 AGM"), three (3) nominees proposed by Genesis (in addition to any other nominees proposed by the board of directors of AerCap or any AerCap shareholder) at least five (5) business days prior to the Closing Date, which nominees (such nominees, or any replacement nominees selected in accordance with this Section 6.14 from time to time, the "Genesis Nominees") shall be (i) members of the board of directors of Genesis as of such date and (ii) subject to the consent of AerCap (not to be unreasonably withheld).

2. Amendment to Section 6.14(b) of the Amalgamation Agreement. Section 6.14(b) of the Amalgamation Agreement is hereby amended and restated in its entirety as follows:
 - (b) If any Genesis Nominee shall not be elected to the board of directors of AerCap at the 2010 AGM, the Genesis Nominees shall designate a replacement for such person or

persons (which may include re-nomination of a Genesis Nominee who was previously proposed), subject to the consent of AerCap (not to be unreasonably withheld), and AerCap shall propose and recommend for election to the board of directors of AerCap such replacement Genesis Nominee or Nominees at an extraordinary general meeting of AerCap's shareholders to be duly called and held within ninety (90) days following the 2010 AGM (the "EGM"; and the term "Applicable Meeting" means the EGM or the 2010 AGM, as applicable).

3. Amendment to Section 6.14(c) of the Amalgamation Agreement. Section 6.14(c) of the Amalgamation Agreement is hereby amended and restated in its entirety as follows:
 - (c) If it shall be determined prior to the Closing Date that a Genesis Nominee shall be unable to serve as a director at the time of the 2010 AGM or fails to obtain the consent of AerCap, Genesis shall designate another Genesis Nominee, which Genesis Nominee shall be (i) a member of the board of directors of Genesis as of such date and (ii) subject to the consent of AerCap (not to be unreasonably withheld), to serve in such individual's place.

4. Amendment to Section 6.14(f) of the Amalgamation Agreement. Section 6.14(f) of the Amalgamation Agreement is hereby amended and restated in its entirety as follows:
 - (f) From and after the Effective Time and until (x) the date that three (3) Genesis Nominees are elected to the board of directors of AerCap or (y) in the event that three (3) Genesis Nominees are not elected to the board of directors of AerCap at or prior to the EGM, the date of the EGM, each Genesis Nominee who has not been elected to the AerCap board of directors shall have the right to (i) attend any meeting of the AerCap board of directors held following the Effective Time, strictly as an observer without any voting rights and (ii) receive any materials delivered to the board of directors of AerCap in connection therewith; provided that the aggregate of the number of Genesis Nominees with the rights described in clauses (i) and (ii) of this Section 6.14(f) and the number of Genesis Nominees who are directors of AerCap shall not exceed three (3) at any one time.

5. No Other Amendments. Except as expressly set forth herein, this Amendment shall not, by implication or otherwise, alter, modify, amend or in any way affect any of the terms, conditions, obligations or agreements contained in the Amalgamation Agreement, and the Amalgamation Agreement is hereby ratified and confirmed and shall remain in full force and effect in

accordance with its terms.

6. Effect of Amendment. This Amendment shall form part of the Amalgamation Agreement for all purposes, and each party thereto and hereto shall be bound hereby. This Amendment shall be deemed to be in full force and effect from and after the execution of this Amendment by the parties hereto.
7. Governing Law. This Amendment shall be governed in all respects, including as to validity, interpretation and effect, by the Laws of the State of New York, without giving effect to its principles or rules of conflict of laws, provided, however, that the Amalgamation shall also be governed by the applicable provisions of the Companies Act to the extent required thereby.

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8. Severability. Any term or provision of this Amendment which is invalid or unenforceable in any jurisdiction shall, as to that jurisdiction, be ineffective to the extent of such invalidity or unenforceability and, unless the effect of such invalidity or unenforceability would prevent the parties from realizing the major portion of the economic benefits of the Amalgamation that they currently anticipate obtaining therefrom, shall not render invalid or unenforceable the remaining terms and provisions of this Amendment or affect the validity or enforceability of any of the terms or provisions of this Amendment in any other jurisdiction. If any provision of this Amendment is so broad as to be unenforceable, the provision shall be interpreted to be only so broad as is enforceable.
9. Headings. The headings in this Amendment are for purposes of reference only and shall not limit or otherwise the meaning hereof.
10. Counterparts. This Amendment may be executed in separate counterparts, each of which shall be considered one and the same agreement and shall become effective when each of the parties has delivered a signed counterpart to the other parties, it being understood that all parties need not sign the same counterpart. Such counterpart executions may be transmitted to the parties by facsimile or electronic transmission, which shall have the full force and effect of an original signature.

[Signature page follows.]

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IN WITNESS WHEREOF, Genesis Lease Limited, AerCap Holdings N.V. and AerCap International Bermuda Limited have caused this Amendment to be signed by their respective officers thereunto duly authorized, all as of the date first set forth above.

GENESIS LEASE LIMITED

By: /s/ JOHN MCMAHON

Name: John McMahon

Title: Chairman, President and Chief Executive Officer

AERCAP HOLDINGS N.V.

By: /s/ KLAUS HEINEMANN

Name: Klaus Heinemann

Title: Chief Executive Officer

AERCAP INTERNATIONAL BERMUDA LIMITED

By: /s/ TOM KELLY

Name: Tom Kelly

Title: Director

Signature page to Amendment No. 2 to the Agreement and Plan of Amalgamation
