

SIGNET JEWELERS LTD

FORM 6-K (Report of Foreign Issuer)

Filed 02/23/07 for the Period Ending 02/23/07

Telephone 44-207-317-9700

CIK 0000832988

Symbol SIG

SIC Code 5944 - Jewelry Stores

Industry Retail (Specialty)

Sector Services

Fiscal Year 02/29



SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Special Report of Foreign Issuer

Pursuant to Rule 13a - 16 or 15d - 16 of The Securities and Exchange Act of 1934

For the date of February 23, 2007

SIGNET GROUP plc

(Translation of registrant's name into English)

15 Golden Square London W1F 9JG England

(Address of principal executive office)

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

Form 20-F X Form 40-F

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 Exchange Act of 1934.

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

Signet Group plc - Buyback of its own Shares

Signet Group plc ("Signet") announces that it has purchased the following number of its ordinary shares of 0.9 US cents each on the London Stock Exchange from JPMorgan Cazenove Limited.

Date of purchase: 23 February 2007

Number of ordinary shares purchased: 250,000

Average price paid per share: 118.95p

Following the cancellation of these shares, the remaining number of Ordinary Shares of Signet will be 1,709,763,825

Enquiries:

Tim Jackson +44 207 317 9700

END

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.

SIGNET GROUP plc

By: /s/ Walker Boyd

Name: Walker Boyd

Title: Group Finance Director

Date: February 23, 2007