



- (51) International Patent Classification: *A63B 37/14* (2006.01)
- (21) International Application Number: PCT/US2012/046904
- (22) International Filing Date: 16 July 2012 (16.07.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

13/184,254	15 July 2011 (15.07.2011)	US
13/484,919	31 May 2012 (31.05.2012)	US
13/484,930	31 May 2012 (31.05.2012)	US
13/484,938	31 May 2012 (31.05.2012)	US
13/484,940	31 May 2012 (31.05.2012)	US
13/484,949	31 May 2012 (31.05.2012)	US
13/484,952	31 May 2012 (31.05.2012)	US
13/484,958	31 May 2012 (31.05.2012)	US
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **ANDERL, Johannes** [AT/AT]; Gentzgasse 14-20/18/6, A-1180 Vienna (AT). **YONTZ, Nicholas** [US/US]; c/o Nike, Inc., One Bowerman Drive, Beaverton, Oregon 97005 (US). **FITCHETT, Derek A.** [US/US]; c/o Nike, Inc., One Bowerman Drive, Beaverton, Oregon 97005 (US).
- (74) Agent: **DISANTO, Louis**; Banner & Witcoff, Ltd., 1100 13th Street, N.W., Suite 1200, Washington, District of Columbia 20005 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (71) Applicant (for all designated States except US): **NIKE INTERNATIONAL LTD.** [GB/US]; One Bowerman Drive, Beaverton, Oregon 97005 (US).

[Continued on next page]

(54) Title: GOLF BALL HAVING AN AERODYNAMIC COATING INCLUDING MICRO SURFACE ROUGHNESS

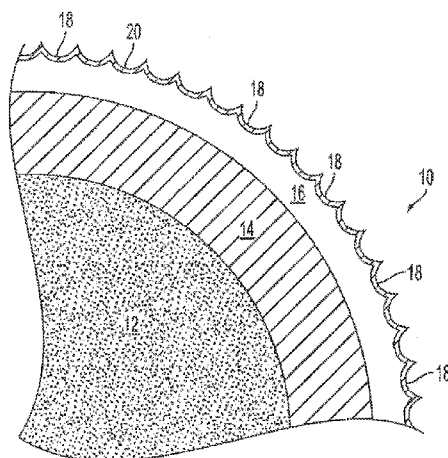


FIG. 2A

(57) Abstract: Golf balls include: (a) a golf ball having a first set of construction specifications; (b) a coating of the golf ball having an exterior surface and (c) the exterior surface having an enhanced micro surface roughness. The enhanced micro surface roughening affects the aerodynamic properties of the ball as compared to golf balls having the same set of construction specifications but without enhanced micro surface roughness.



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

(88) Date of publication of the international search report:

10 May 2013

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/046904

A. CLASSIFICATION OF SUBJECT MATTER
INV. A63B37/14
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 2 314 359 A1 (NIKE INTERNATIONAL LTD [US]) 27 April 2011 (2011-04-27) the whole document	1-20, 81-140
X	US 2011/136590 A1 (KIM HYOUNGCHOL [JP] ET AL) 9 June 2011 (2011-06-09) paragraph [0058]; figures	41-44, 55-58, 61-63, 67,75-80
X	US 2002/173384 A1 (HOGGE MATTHEW F [US] ET AL) 21 November 2002 (2002-11-21) claims	1,12,17, 81,87, 92,101, 109,115, 121,129, 135

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search 21 September 2012	Date of mailing of the international search report 28/01/2013
--	--

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Lundblad, Hampus
--	--

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/046904

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-20, 41-140

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/046904

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/213143 A1 (CHINN JEFFREY D [US] ET AL) 13 September 2007 (2007-09-13) paragraph [0027] - paragraph [0050] -----	1,12,17, 81,87, 92,101, 109,115, 121,129, 135
A	WO 98/43711 A1 (LISCO INC [US]) 8 October 1998 (1998-10-08) figures -----	21-80

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2012/046904

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
EP 2314359	A1	27-04-2011	CN 102029052 A	27-04-2011
			EP 2314359 A1	27-04-2011
			JP 5071994 B2	14-11-2012
			JP 2011072776 A	14-04-2011
			JP 2011251135 A	15-12-2011
			US 2011077106 A1	31-03-2011

US 2011136590	A1	09-06-2011	CN 102085417 A	08-06-2011
			JP 2011120612 A	23-06-2011
			US 2011136590 A1	09-06-2011

US 2002173384	A1	21-11-2002	NONE	

US 2007213143	A1	13-09-2007	NONE	

WO 9843711	A1	08-10-1998	AU 6784398 A	22-10-1998
			CA 2291053 A1	08-10-1998
			GB 2337936 A	08-12-1999
			WO 9843711 A1	08-10-1998

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-20, 41-140

The claims are directed to a golf ball having a coating wherein the exterior surface of the coating having a certain distribution of micro roughnesses.

2. claims: 21-40

The claims are directed to a system and a kit for after sales adjustment the micro roughness on a golf ball.
