



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : F16L 19/10	A1	(11) International Publication Number: WO 98/46925 (43) International Publication Date: 22 October 1998 (22.10.98)
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(21) International Application Number: PCT/US98/07202

(22) International Filing Date: 14 April 1998 (14.04.98)

(30) Priority Data:

08/834,255	15 April 1997 (15.04.97)	US
09/054,186	2 April 1998 (02.04.98)	US

(71) Applicant (for all designated States except US): SWAGELOK MARKETING CO. [US/US]; 31400 Aurora Road, Solon, OH 44139 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): WILLIAMS, Peter, C. [US/US]; 3495 Edison Road, Cleveland Heights, OH 44121 (US). KUHNS, Howard, C., B. [US/US]; 1194 Llyod Avenue, Aurora, OH 44202 (US). MCMILLAN, David, A. [US/US]; 6083 Stone Road, Streetsboro, OH 44241 (US).

(74) Agents: LEWIS, Leonard, L. et al.; Calfee, Halter & Griswold, LLP, 1400 McDonald Investment Center, 800 Superior Avenue, Cleveland, OH 44114-2688 (US).

(81) Designated States: AU, CA, CN, DE, GB, IL, JP, KR, MX, SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

With international search report.

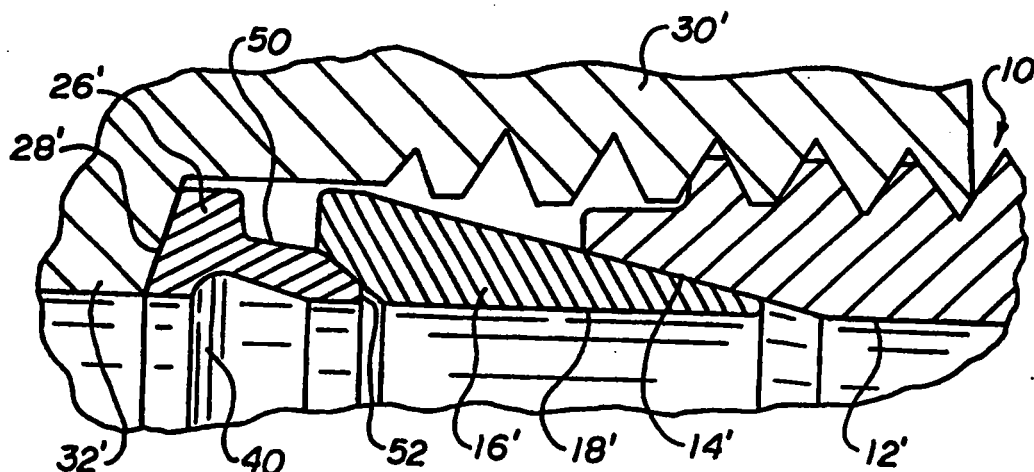


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(54) Title: FERRULE WITH RELIEF TO REDUCE GALLING



(57) Abstract

High localized loading, galling, and high torque forces have been generally eliminated or greatly reduced in a two ferrule tube fitting assembly through suitable modification of the rear ferrule so as to redirect the reaction forces acting between the front ferrule and the drive nut. The rear ferrule (22') has a cylindrical interior wall that closely surrounds the tube end and is provided on the interior cylindrical wall with a circumferentially continuous radial recess (40) that is located between the nose (52) and rear wall (28') of the rear ferrule. The rear ferrule also has a radially external wall (50) that is substantially conical and additionally shaped to extend radially outward toward the enlarged diameter portion or flange (26) of the rear ferrule. The rear ferrule further includes a contoured face on the rear driven surface of the ferrule that engages the drive surface of the drive nut.

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