

Title (en)
Methods of prestressing tubular apparatus.

Title (de)
Verfahren zum Vorspannen von Rohrleitungen.

Title (fr)
Procédé pour précontraindre des conduits tubulaires.

Publication
EP 0104789 A1 19840404 (EN)

Application
EP 83305014 A 19830831

Priority
US 41329082 A 19820831

Abstract (en)
A tubular apparatus is assembled from inner and outer tubes or tubulars (14,12) which are connected at spaced locations (16,18) along their length. After heat treatment and other processing steps, either the inner or outer tube (14,12) is heated to reduce its yield strength and then stretched beyond its yield point but not beyond the yield point of the other tubular. The heat source is removed so that the stretched state is maintained. The tubular apparatus is thus prestressed with the inner tubular (14) under compressive prestressing when the inner tubular (14) has been heated and stretched, and the inner tubular (14) under tensile prestressing when the outer tubular (12) has been heated and stretched.

IPC 1-7
B21C 37/15; F16L 9/18; E21B 36/00

IPC 8 full level
F16L 59/06 (2006.01); **B21C 37/15** (2006.01); **C21D 1/00** (2006.01); **E21B 17/00** (2006.01); **E21B 36/00** (2006.01); **F16L 9/18** (2006.01)

CPC (source: EP KR)
B21C 37/154 (2013.01 - EP); **B21C 37/20** (2013.01 - KR); **B21D 41/00** (2013.01 - KR); **C21D 1/00** (2013.01 - EP); **E21B 17/00** (2013.01 - EP); **E21B 36/00** (2013.01 - EP); **E21B 36/003** (2013.01 - EP)

Citation (search report)
• [A] US 3511282 A 19700512 - WILLHITE GLEN PAUL, et al
• [A] US 3693665 A 19720926 - VEERLING COENRAAD W N, et al
• [A] US 4130301 A 19781219 - DUNHAM HARRY J, et al
• [A] US 4340245 A 19820720 - STALDER JOHN L
• [AD] US 3397745 A 19680820 - OWENS CARL W, et al
• [AD] US 3574357 A 19710413 - ALEXANDRU CASSIUS, et al

Cited by
EP0192785A1; RU2707768C1; EP0245589A3

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)
EP 0104789 A1 19840404; EP 0104789 B1 19861112; AT E23461 T1 19861115; BR 8304591 A 19840403; CA 1202578 A 19860401;
DE 3367539 D1 19870102; IN 162701 B 19880702; JP S5986791 A 19840519; JP S6018877 B2 19850513; KR 840005678 A 19841116;
PH 20499 A 19870121; TR 21779 A 19850708

DOCDB simple family (application)
EP 83305014 A 19830831; AT 83305014 T 19830831; BR 8304591 A 19830825; CA 435504 A 19830826; DE 3367539 T 19830831;
IN 1046CA1983 A 19830829; JP 15425983 A 19830825; KR 830004062 A 19830830; PH 29463 A 19830829; TR 2177983 A 19830831