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(71) Applicant: **LANDMARK GRAPHICS CORPORATION** [US/US]; 2107 CityWest Blvd., Bldg. 2, Houston, Texas 77042 (US).

(72) Inventors: **SAMUEL, Robello**; 11306 Dawnheath Dr., Cypress, Texas 77433 (US). **ZHANG, Yuan**; 4511 Edenderry Ct, Missouri City, Texas 77459 (US). **ANIK-ET**; 3003 Seagler Road Apt # 2209, Houston, Texas 77042 (US).

(74) Agents: **MADDEN, Robert B.** et al.; P.O. Box 2938, Minneapolis, Minnesota 55402 (US).

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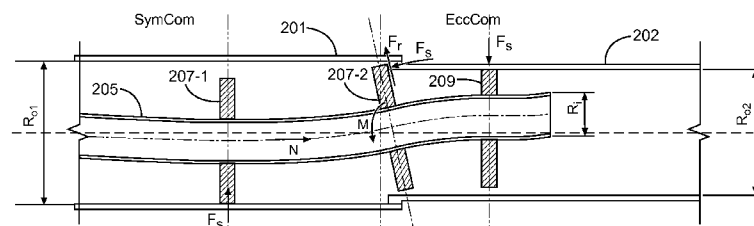


Fig. 2A

(57) Abstract: Various embodiments include apparatus and methods to perform a load analysis for multi-off-center tools. Off-center components of a completion string experience additional downhole side and drag forces due to contact with casing and liner walls which may lead to excessive loading and stresses leading to failures. Systems and techniques are provided to analyze such situations. Additional apparatus, systems, and methods are disclosed.