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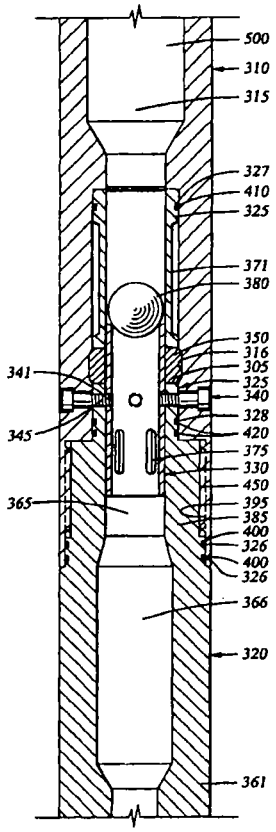
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(54) Title: RECIRCULATABLE BALL-DROP RELEASE DEVICE FOR LATERAL OILWELL DRILLING APPLICATIONS



(57) Abstract: Method for disconnecting tubular members and apparatus comprising upper (310) and lower housings (320) and a ball sleeve (330). The apparatus connects between tubing (150) and a drilling assembly (210). A splined connection is formed between a grooved recess (395) in the upper housing and a splined extension (450) of the lower housing. Shear screws (340) hold the ball sleeve (330) internally of the housings. To release, a ball (380) with a density equal to the density of the drilling fluid is pumped to seat on the sleeve (330) regardless of wellbore orientation. Pressure builds behind the sleeve (330), shearing the shear screws (340) so the sleeve (330) moves into the lower housing (320), thereby making the housings separable. Fluid continues flowing through recirculation ports (375) in the sleeve (330) before the housings are separated. After separation, a fishing tool grapples the extension to retrieve the lower housing (320) and drilling assembly (210). When the fishing tool attaches, flow can resume through the recirculation ports (375) to aid retrieval.

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ACTION

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