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Thomas et al.

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(54) **MULTI-LANCE REEL FOR INTERNAL CLEANING AND INSPECTION OF TUBULARS**

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(57) **ABSTRACT**

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A multi-lance reel assembly comprising a plurality of reel assemblies received onto and disposed to rotate about an axle. Each reel assembly rotates independently of the others. Each reel assembly further comprises a plurality of spokes separating a rim from a hub. Each hub provides a hub groove on each internal hub surface, and a hub aperture connecting each external hub surface with the hub groove. When the reel assemblies are received onto the axle, axle grooves on the axle align with the hub grooves to form a continuous ring aperture for each reel assembly. Separate axle apertures connect either one of the end faces of the axle with each axle groove, providing a separate passageway from each external hub surface to an axle end face. Hoses, electrical conduits, conductors or other similar carrier hardware deployed within hollow lances spooled on each reel assembly may connect to the hub apertures.

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(52) **U.S. Cl.**

CPC **B08B 9/043** (2013.01); **F28G 15/04** (2013.01); **B08B 9/023** (2013.01)

(58) **Field of Classification Search**

CPC F28G 15/04; F28G 1/163; B08B 9/023; B08B 9/043

See application file for complete search history.

20 Claims, 21 Drawing Sheets

