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#### **Barnes**

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#### (54) METHOD FOR LOADING AND UNLOADING SUBSTRUCTURES FOR A MOBILE DRILLING RIG

(76) Inventor: **R. Michael Barnes**, 3303 FM 1960

West, Suite 230, Houston, TX (US)

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See application file for complete search history.

#### (56) References Cited

#### U.S. PATENT DOCUMENTS

2,767,870	Α	*	10/1956	Gove 414/435
3,019,927	Α	*	2/1962	Sheehan, Jr. et al 414/461
3,645,559	Α	*	2/1972	Stafford, Jr 280/418.1
3,922,825	Α	*	12/1975	Eddy et al 52/116
4,899,832	Α	*	2/1990	Bierscheid, Jr 173/187

6,821,066 B2	* 11/2004	Wehrli
6,860,337 B1	* 3/2005	Orr et al 173/28
6,994,171 B2	* 2/2006	Orr et al 173/28
7,112,029 B1	* 9/2006	Neatherlin 414/458
2004/0211598 A1	* 10/2004	Palidis 175/162
2005/0194189 A1	* 9/2005	Barnes 175/122

\* cited by examiner

Primary Examiner—Saul J. Rodriguez

Assistant Examiner—Charles N Greenhut

(74) Attorney Agent or Firm Pucken Lei

(74) Attorney, Agent, or Firm—Buskop Law Group, PC; Wendy Buskop

#### (57) ABSTRACT

A method for unloading a drilling rig substructure at a drilling site entails transporting the substructure to the drilling site using a truck and a dolly. The substructure is lowered onto the dolly rollers. The dolly is secured and the truck moves towards the dolly pushing the substructure along the rollers. The gooseneck is disconnected from the substructure and connected to the dolly. A first wireline is connected from a first winch to the substructure and a second wireline is connected from the second winch to the substructure through the sheave block. The second winch pulls the substructure along the rollers and is disconnected once the substructure contacts the site. The dolly is unsecured and the truck moves in an opposite direction from the rig, thereby allowing the substructure to move along rollers onto the site. A method for loading a drilling rig substructure onto a truck and a dolly is also described herein.

#### 24 Claims, 24 Drawing Sheets

