

A COMBINED DOCKING AND CARGO HANDLING SYSTEM FOR A LIGHTER-THAN-AIR VEHICLE

ABSTRACT

The invention is a combination docking and cargo handling system for a lighter-than-air vehicle (62). In detail, the invention includes a cargo carrying structure (66) mounted to the bottom of the vehicle extending along at least a portion of the longitudinal (63A) having a plurality of open ended passageways (100A-F) aligned with the lateral axis (63C) of the vehicle (62) and extending completely through the structure (66). The passageways (100A-F) are adapted to simultaneously off-load cargo containers (54) from one end of the passageway and to on-load cargo containers from the opposite end. A platform (12), is included, having a longitudinal axis, and is rotatable about an axis of rotation (14). The platform (12) includes: a center section (16) for receiving the vehicle when docked; a first side portion (20) extending along the longitudinal axis of the platform for receiving cargo containers off-loaded from the vehicle; a second side portion (18) extending along the longitudinal axis (63A) of the platform (12) for storing cargo containers (54) to be simultaneously on-loaded; a first system (34) to rotate the platform about the axis of rotation; and a second system (22) to secure the vehicle (62) to the platform. A transportation system (40, 42) is provided for receiving cargo containers (54) from the first side portion (20) of the platform (12) and for positioning cargo containers for transfer onto the second side portion (18) of the platform and transporting the cargo containers to and from remote locations (43A, 43B).

FIGURE 7 AND FIGURE 8