

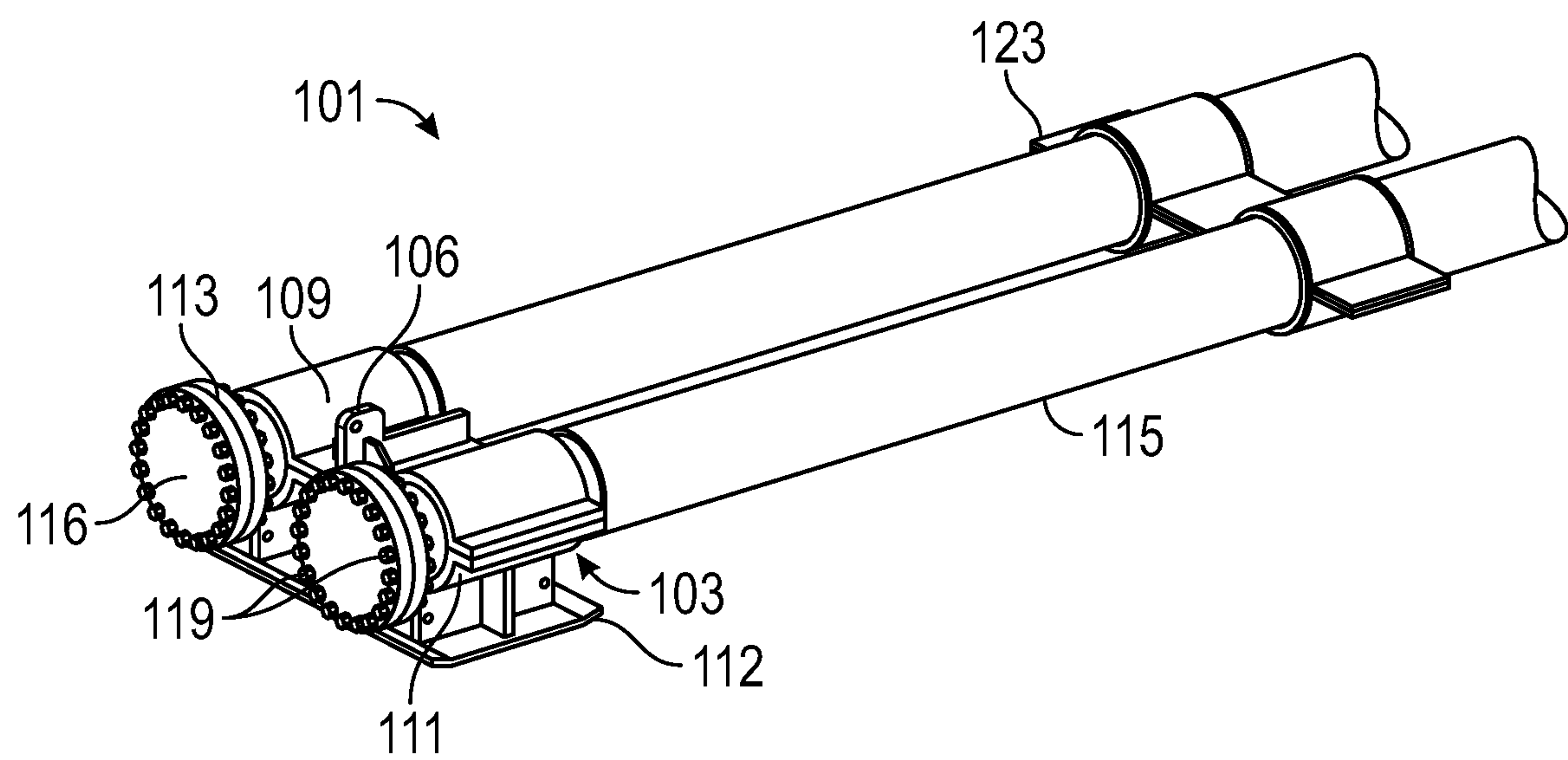


FIG. 1

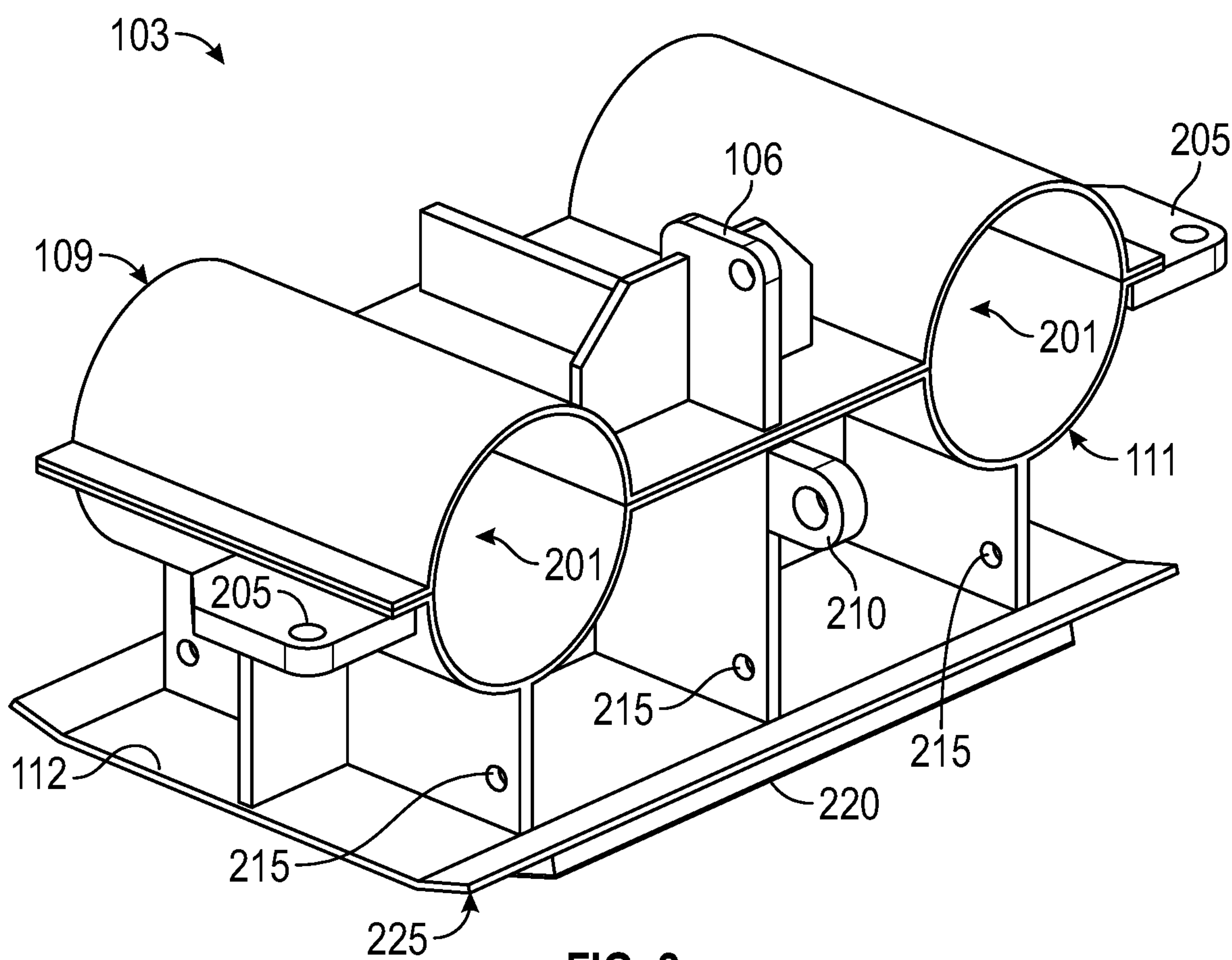


FIG. 2

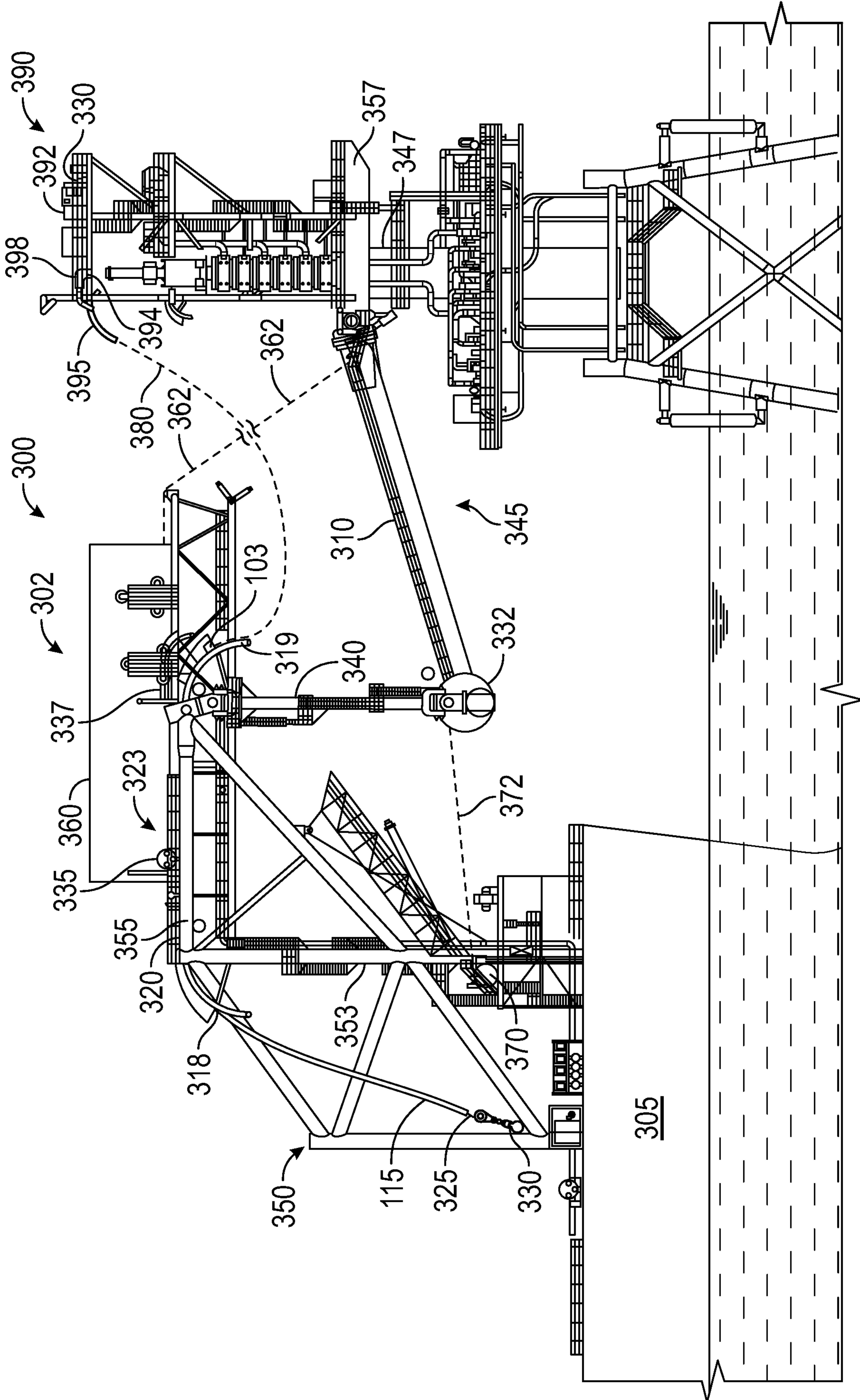


FIG. 3

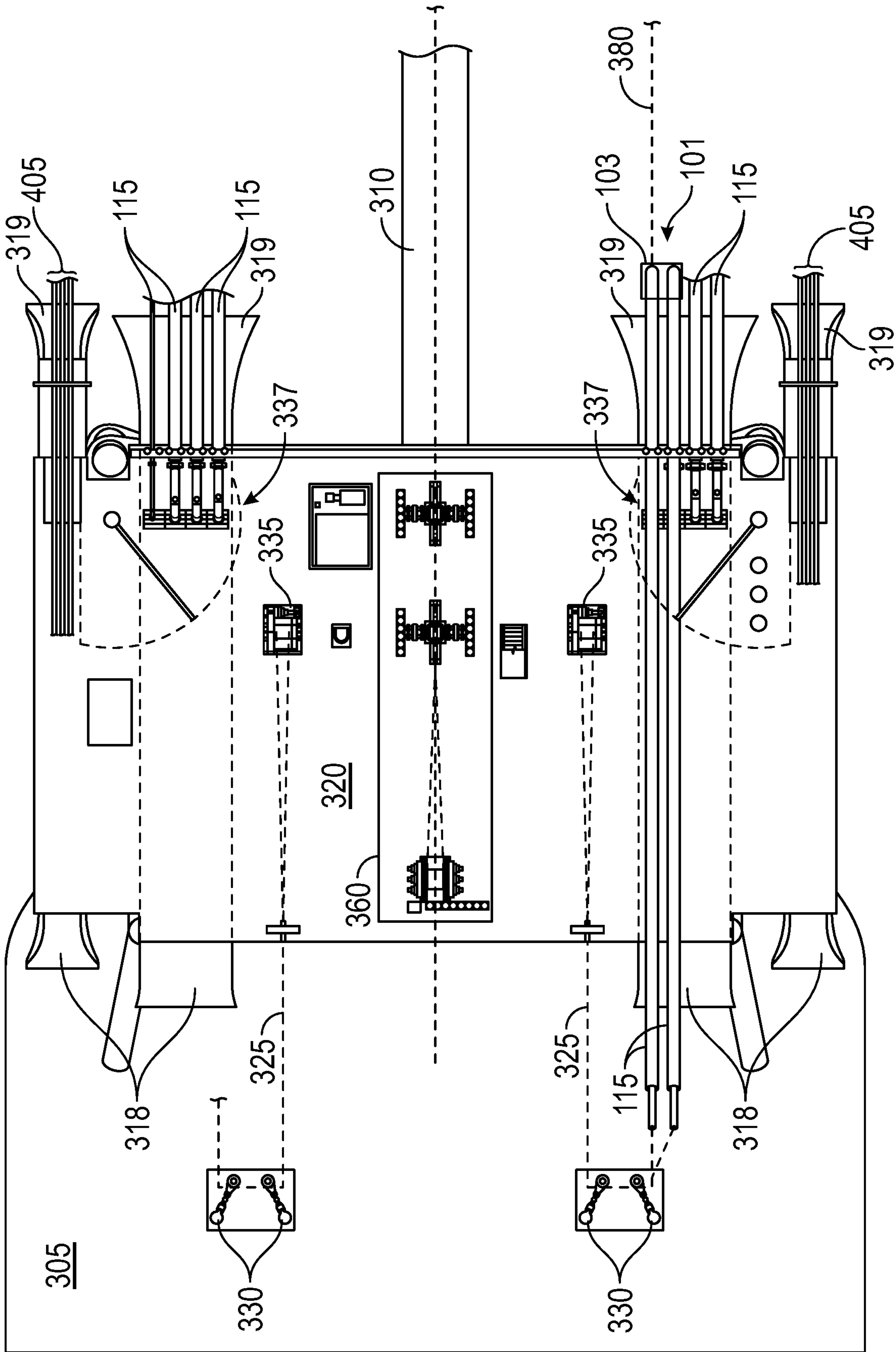


FIG. 4

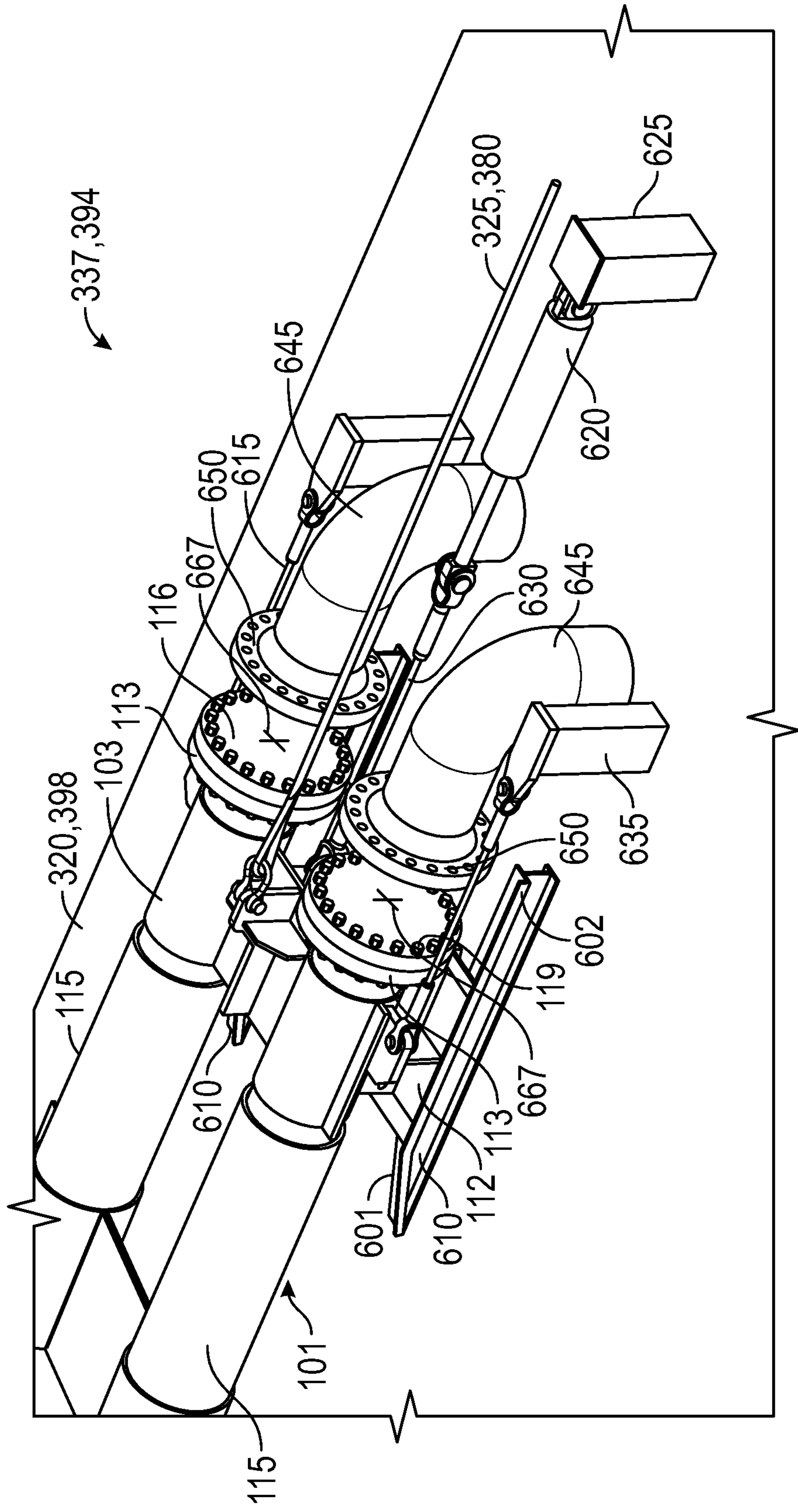


FIG. 6

6/11

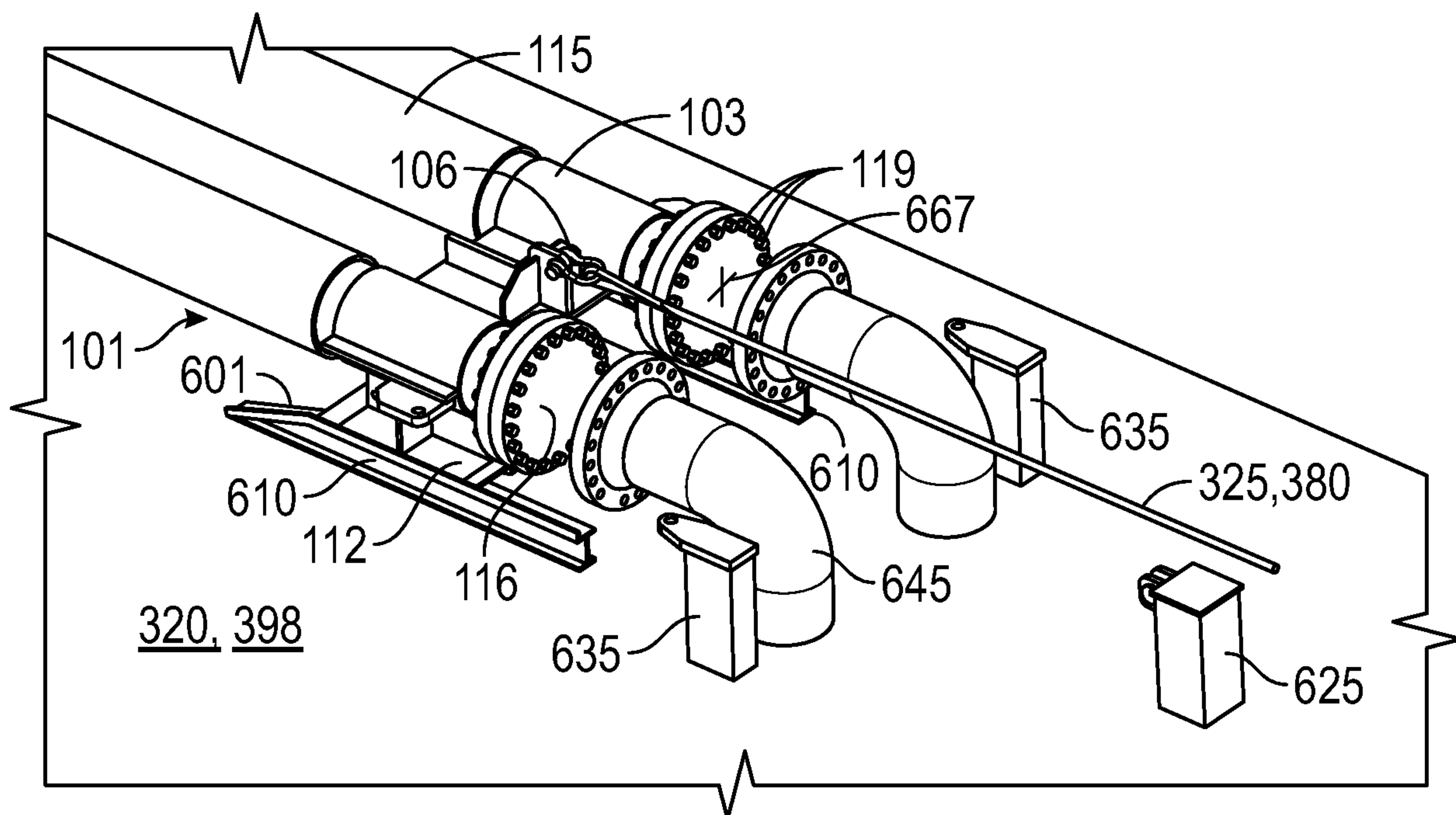


FIG. 7

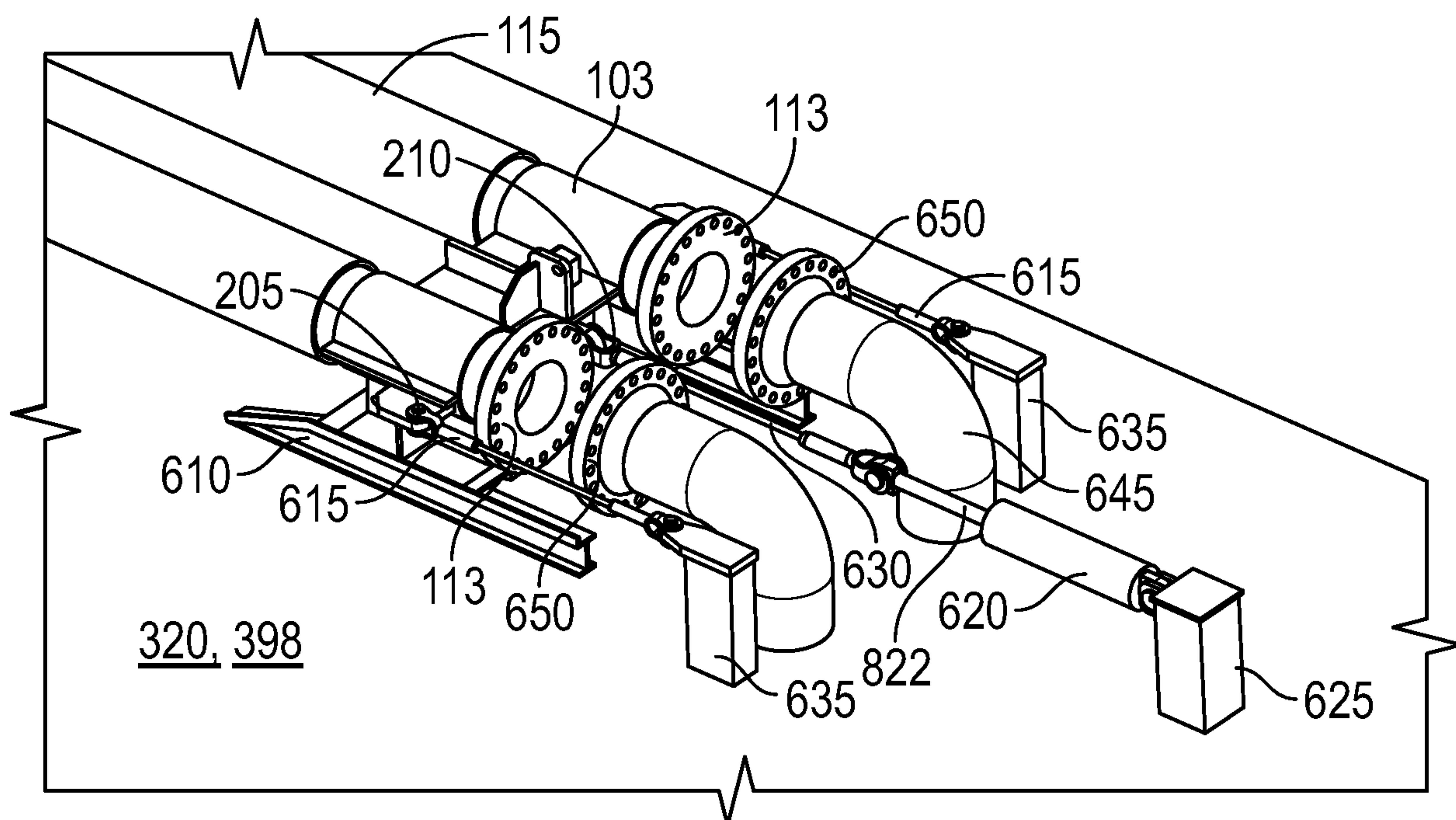


FIG. 8

7/11

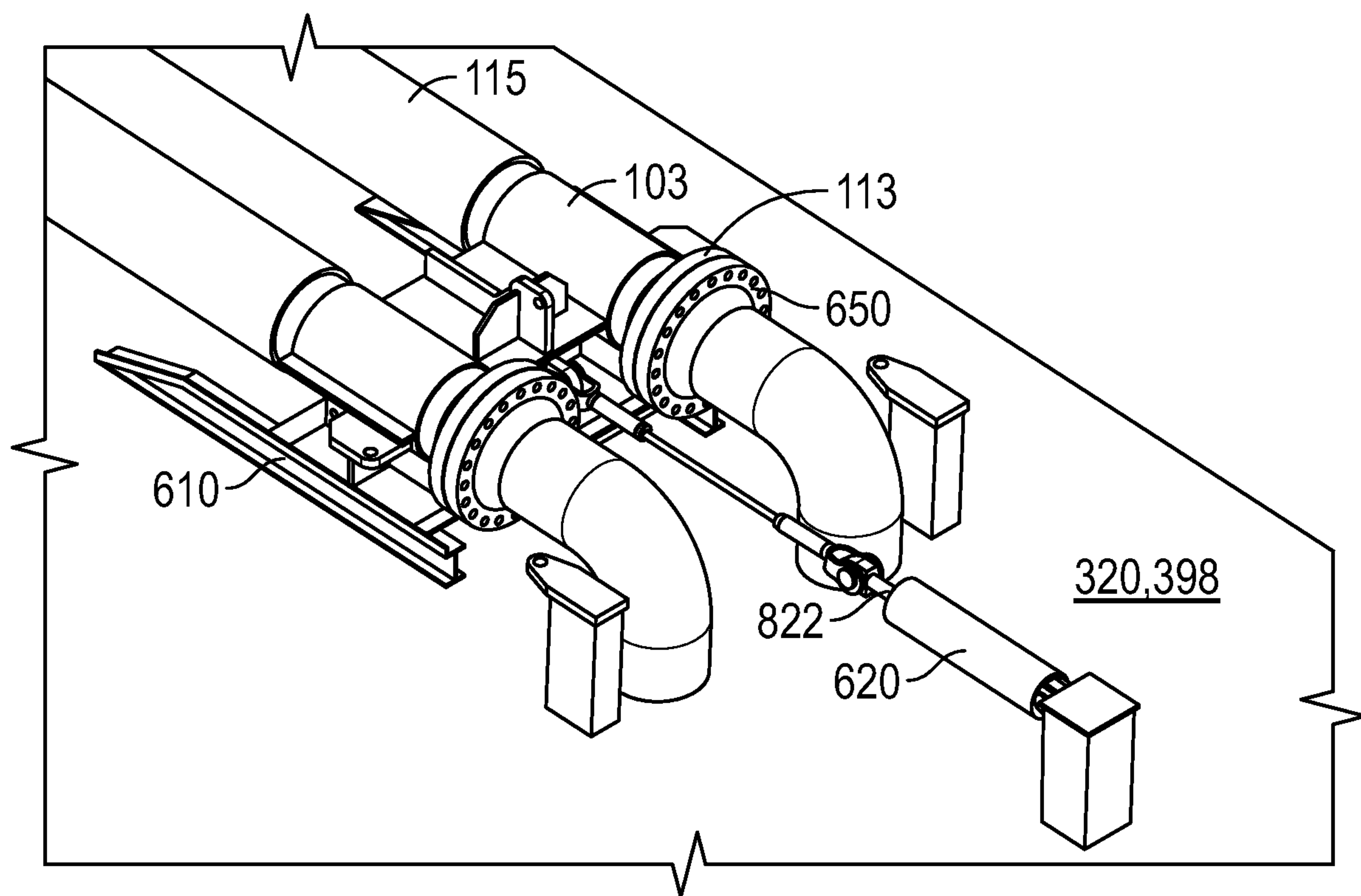


FIG. 9

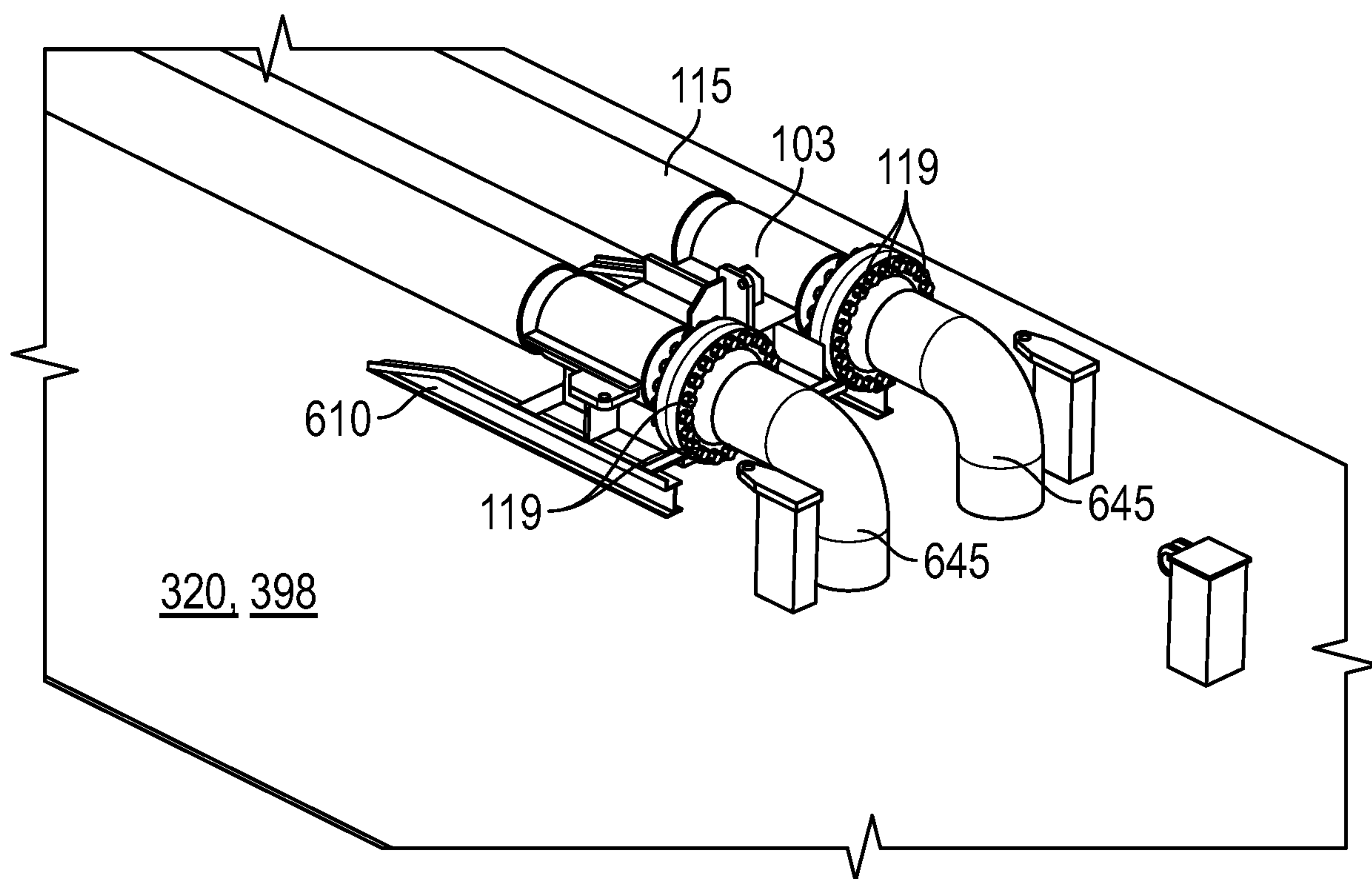


FIG. 10

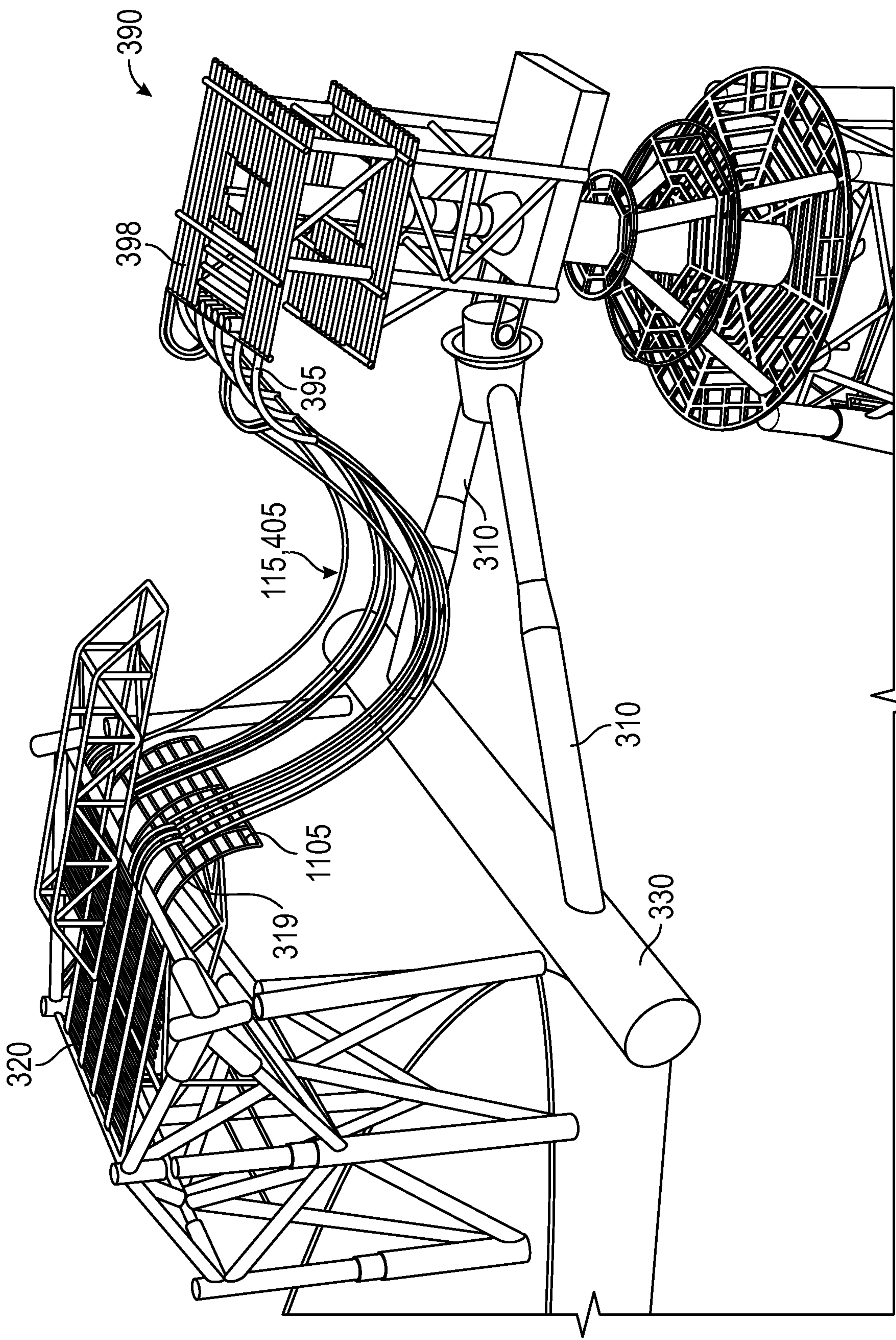


FIG. 11

9/11

Step 1210

Providing a first structure

Step 1220

Mechanically linking a first jumper winch to a first proximal end of a hose assembly, wherein the hose assembly includes one or more hoses and the first proximal end includes a hose pulling assembly

Optional step 1225

Mechanically linking a second jumper winch to an opposite end of the hose assembly

Step 1230

Pulling the hose assembly from the first structure onto a house deck disposed on a second structure

Step 1240

Aligning the one or more hoses with one or more corresponding pipes on the hose deck by pulling the first hose pulling assembly onto a guide rail

Step 1250

Mechanically linking the one or more hoses to the one or more corresponding pipes

FIG. 12

10/11

Step 1310

Providing a floating vessel, the floating vessel including:
a support structure mounted on an upper deck thereof; one or more extension arms suspended from the support structure; a ballast tank connected to the one or more extension arms, the ballast tank configured to move back and forth underneath the support structure; a yoke extending from and connected to the ballast tank at a first end thereof and a second end connected to the tower structure, the yoke comprising a tower connector disposed on the second end thereof; a first winch system located on the support structure, the first winch system connected to the yoke proximate the second end of the yoke via a first line or cable; and a second winch system connected to the ballast tank via a second line or cable

Step 1320

Mechanically linking a first jumper winch to a first end of a hose assembly, wherein the hose assembly comprises one or more hoses and a first hose pulling assembly disposed about a first end of the one or more hoses

Optional step 1325

Mechanically linking a second jumper winch to an opposite end of the hose assembly

Step 1330

Pulling the hose assembly between the vessel and the tower structure onto a hose deck

Step 1340

Aligning the one or more hoses with one or more corresponding pipes on the hose deck by pulling the hose pulling assembly onto a guide rail

Step 1350 Mechanically linking the one or more hoses to the one or more corresponding pipes

Optional Step 1355

Wherein mechanically linking the one or more hoses to the one or more corresponding pipes includes: mechanically linking a cylinder with a cylinder connection sling between a cylinder post formed on the hose deck and the first hose pulling assembly, actuating the cylinder to pull the two or more hoses to the corresponding pipes; and mechanically linking two or more flange bolts between the one or more hoses and one or more pipes to form a fluid tight connection between the hoses and the pipes

FIG. 13

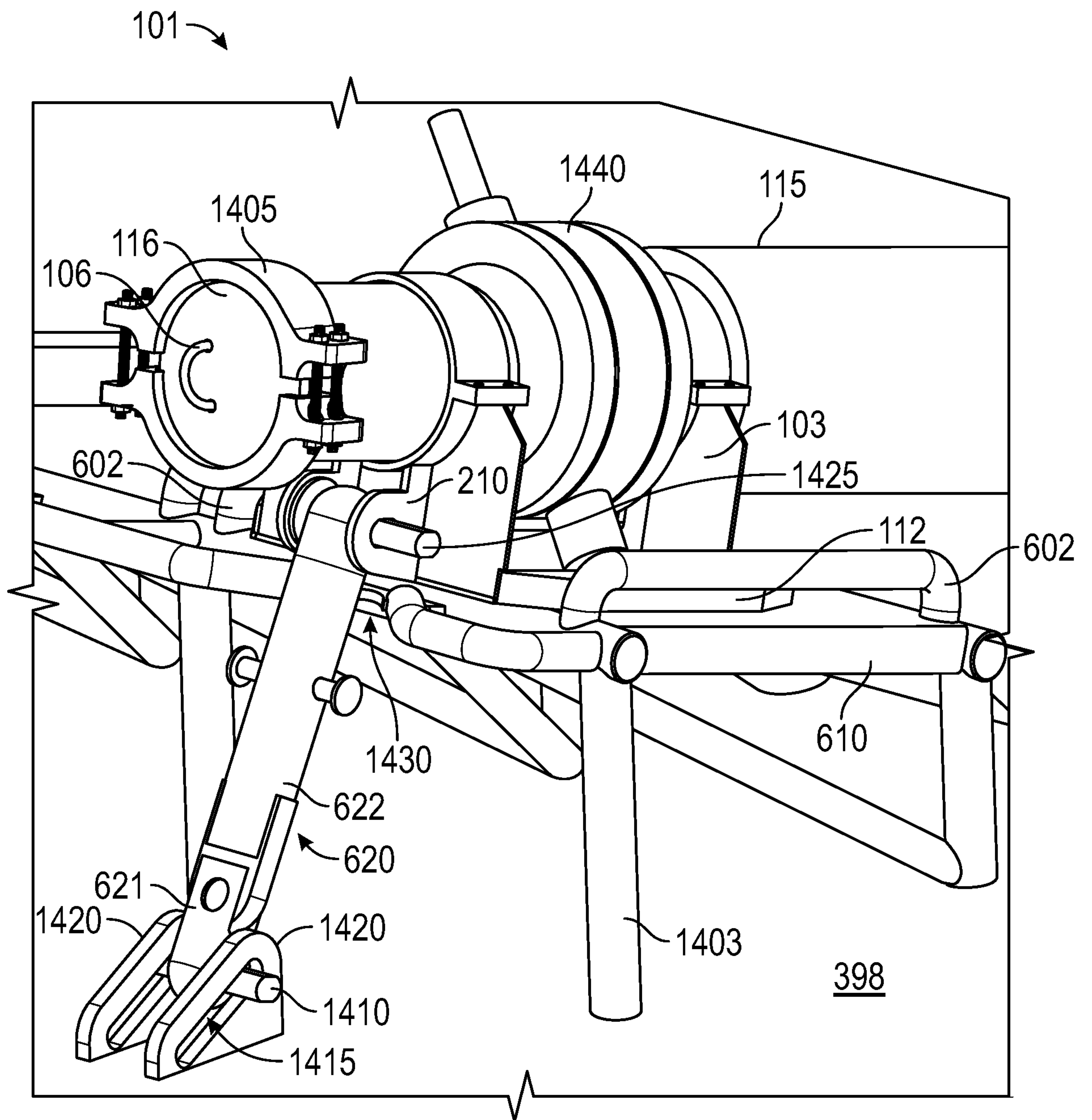


FIG. 14