SUMMARY

[0004a] According to an aspect, the present disclosure refers to a pipe coil skid, comprising; a plurality of beams affixably connected together to form a rectangular shaped base; a platform disposed within the base, the platform having a concave upward shape on its upward facing side when the skid sits on a horizontal surface, such that a coil of pipe positioned upon the platform contacts the platform within the base; and a first side rail coupled to at least one of the plurality of beams, wherein the first side rail is configured to block movement of the coil of pipe beyond a boundary of the rectangular shaped base.

[0004b] According to another aspect, the present disclosure refers to a method for using a pipe coil skid comprising: securing a coil of pipe to the pipe coil skid, the skid comprising: a plurality of beams affixably connected together to form a rectangular shaped base; and a platform disposed within the base, the platform having a concave upward shape on its upward facing side when the skid sits on a horizontal surface, such that the coil of pipe positioned upon the platform contacts the platform within the base; and a first side rail coupled to at least one of the plurality of beams; and blocking movement of the coil of pipe beyond a boundary of the rectangular shaped base via the first side rail.

[0004c] According to another aspect, the present disclosure refers to a side rail, comprising: a first vertical leg comprising a first end configured to be inserted into a first slot of a pipe coil skid and a second end coupled near a first end of a horizontal restraint beam, wherein the first vertical leg comprises a first leg height greater than approximately 25 percent of a diameter of a coil of pipe positioned upon the pipe coil skid; a second vertical leg comprising a first end configured to be inserted into a second slot of the pipe coil skid and a second end coupled near a second end of the horizontal restraint beam, wherein the second vertical leg comprises a second leg height greater than approximately 25 percent of the diameter of the coil of pipe, and wherein the horizontal restraint beam comprises a restraint beam length that is greater than the diameter of the coil of pipe; and a horizontal support beam comprising a first end coupled near the second end of the first vertical leg and a second end coupled near the second end of the second vertical leg, wherein the horizontal support beam comprises a support beam length approximately equal to a base length of the rectangular shaped base.

[0005] Various nonlimiting examples provide methods and apparatuses for

moving coils of flexible pipe using a pipe coil skid with side rails. A pipe coil skid includes a plurality of beams affixably connected together to form a rectangular shaped base with a platform disposed within the base, the platform having a concave upward shape on its upward facing side when the skid sits on a horizontal surface such that the coil of pipe positioned upon the platform contacts the platform within the base. In other examples, the pipe coil skid has an upward facing side generally corresponding to the outer circumferential shape of a coil of pipe. The beams and the platform may be formed of a steel material. The platform may be coated with a non-stick material or a rubberized material. The pipe coil skid may have a plurality of tie-down points for securing the coil of pipe. The pipe coil skid may have stackable corners disposed on the skids to enable stacking of pipe coil skids. The pipe coil skid may include a first side rail coupled to at least one of the plurality of beams. The side rails may be configured to block movement of the coil of pipe beyond a boundary of the rectangular shaped base.

[0006] In other nonlimiting examples, a method for using a pipe coil skid with side rails includes: securing a coil of pipe to a pipe coil skid, the skid comprising a plurality of beams affixably connected together to form a rectangular shaped base, and a platform disposed within the base, the platform having a concave upward shape on its upward facing side when the skid sits on a horizontal surface, such that the coil of pipe positioned upon the platform contacts the platform within the base. The coil may be lifted using a pipe coil lifting device disposed on a forklift, a pipe coil lifting device secured by cable to a crane, an installation trailer for coiled pipe, or an expandable drum assembly for deploying coiled pipe. The skid may have an upward facing side generally corresponding to the outer circumferential shape of a coil of pipe. The

beams and the platform are formed of a steel material and the platform may be coated with a non-stick material or a rubberized material. The pipe coil is secured to the skid using straps. The coil and skid may be secured to a rail car. The skids may be stacked. The pipe coil skid may include a first side rail coupled to at least one of the plurality of beams. The method may include blocking movement of the coil of pipe beyond a boundary of the rectangular shaped base via the first side rail.

[0007] In other nonlimiting examples, a side rail includes a first vertical leg that includes a first end configured to be inserted into a first slot of a pipe coil skid and a second end coupled near a first end of a horizontal restraint beam. The first vertical leg includes a first leg height greater than approximately 25 percent of a diameter of a coil of pipe positioned upon the pipe coil skid. The side rail also includes a second vertical leg that includes a first end configured to be inserted into a second slot of the pipe coil skid and a second end coupled near a second end of the horizontal restraint beam. The second vertical leg includes a second leg height greater than approximately 25 percent of the diameter of the coil of pipe, and the horizontal restraint beam includes a restraint beam length that is greater than the diameter of the coil of pipe. The side rail also includes a horizontal support beam that includes a first end coupled near the second end of the first vertical leg and a second end coupled near the second end of the second vertical leg. The horizontal support beam includes a support beam length approximately equal to a base length of the rectangular shaped base.