C L A I M S

1. Heave compensated crane mounted on a vessel, comprising a lower vertical beam (10) and an upper horizontal beam (12) which are mutually connected via an articulated piece (20), as the vertical beam is connected at the bottom to a base (14), which in turn comprises a slew ring for rotation of the crane about a vertical axis, and a strut (22) is arranged between the base (14) and the articulated piece (20), at a distance from the vertical beam (10) and largely in parallel with this in a normal position for the crane, and that the vertical beam (10) is driven by, at least, one cylinder (18), and the upper crane beam (12) in its movement in relation to the lower beam (10) is driven by an intermediate cylinder arrangement (16), c h a r a c t e r i s e d i n that

the cylinder arrangement (16) comprises at least one single working cylinder (30) and at least one double working cylinder (32), adapted for heave compensating of the crane due to vessel movement,

during heave compensated operation a connection between the double working cylinders (32) to an accumulator (34) is open, as a closing valve (40a) between the cylinder (32) and the accumulator (34) is open, and a closing valve (40a) between the double working cylinder (32) and a hydraulic control valve (50) is closed, while during normal operation the closing valve (40a) is closed, wherein all of the cylinder arrangement (16) is arranged for operation of the beam (12), and

during heave compensated operation a piston side of the single working cylinder (30) is pressurised, and a piston side of the double working cylinders (32) is passive while the rod side is active, while during normal operation the piston side of all cylinders (30,32) are pressurised.

AMENDED CLAIMS

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2. Crane according to claim 1,
c h a r a c t e r i s e d i n that during heave compensation the single working cylinder (30) is arranged to lift the crane beam (12) and the at least one double working cylinder (32) is arranged to lower the crane beam, (12) by activating the rod side (32b) of the double working cylinder.

3. Crane according to claim 1,
c h a r a c t e r i s e d i n that the cylinder arrangement (15) comprises a centrally placed single working cylinder (30) and two side mounted double working cylinders (32), where the double working cylinders are connected to a respective accumulator (34).

4. Crane according to claim 3,
c h a r a c t e r i s e d i n that said accumulators (34) and any associated gas reservoir (36) are integrated with respective cylinders (30, 32).

5. Crane according to claim 3,
c h a r a c t e r i s e d i n that during heave compensated operation the rod side of the double working cylinders (32) is connected via a pipe (46).

AMENDED CLAIMS

CLAIMS

1. Heave compensated crane mounted on a vessel, comprising a lower vertical beam (10) and an upper horizontal beam (12) which are mutually connected via an articulated piece (20), as the vertical beam is connected at the bottom to a base (14), which in turn comprises a slew ring for rotation of the crane about a vertical axis, and a strut (22) is arranged between the base (14) and the articulated piece (20), at a distance from the vertical beam (10) and largely in parallel with this in a normal position for the crane, and that the vertical beam (10) is driven by, at least, one cylinder (18), and the upper crane beam (12) in its movement in relation to the lower beam (10) is driven by an intermediate cylinder arrangement (16), c h a r a c t e r i s e d i n that

the cylinder arrangement (16) comprises at least one single working cylinder (30) and at least one double working cylinder (32), adapted for heave compensating of the crane due to vessel movement,

during heave compensated operation a connection between the double working cylinders (32) to an accumulator (34) is open, as a closing valve (40a) between the cylinder (32) and the accumulator (34) is open, and a closing valve (42a) between the double working cylinder 25 (32) and a hydraulic control valve (50) is closed, while during normal operation the closing valve (40a) is closed, wherein all of the cylinder arrangement (16) is arranged for operation of the beam (12), and

during heave compensated operation a piston side of 30 the single working cylinder (30) is pressurised, and a piston side of the double working cylinders (32) is passive while the rod side is active, while during normal operation the piston side of all cylinders (30,32) are pressurised,

and the cylinder arrangement further comprises a centrally placed single working cylinder (30) and two side mounted double working cylinders (32), where the double working cylinders are connected to a respective accumulator (34),

c h a r a c t e r i s e d i n that during heave compensated operation the rod side of the double working cylinders (32) is connected via a pipe (46).