Claims

1. An apparatus (1) to support a tubular member such as pipes, in particular in the field of oil and gas production, comprises:

a carrying structure (6) that can be mechanically attached to a handling apparatus extends annularly around a central opening (18) along an axis (20) and has an inner circumferential surface (22) bounding that central opening (18), wherein said inner circumferential surface (22) tapers conically at a cone angel (α) relative to said axis (20),

a plurality of clamp elements (24, 26, 28, 30) that are arranged movably relative to that carrying structure (6) in said central opening (18), wherein each of that clamp elements (24, 26, 28, 30) has an inclined surface (50) on a radially outer side thereof, said inclined surface (50) is inclined at said cone angle (α) relative to said axis (20) and is configured and arranged to slide along said inner circumferential surface (22), and wherein each of that clamp elements (α) has a clamp surface (52) being parallel to said axis, and

a plurality of linear actuators (32, 34, 36, 38), wherein each of that linear actuators (32, 34, 36, 38) respectively has first and second actuator components (66, 68) that can be driven linearly relative to one another along an actuator axis (70) that is inclined at said cone angle (α) relative to that axis (20), wherein said first component (66) is attached to said carrying structure (6), and wherein the second component (68) is attached to a respective one of said clamp elements (24, 26, 28, 30), wherein both the first and the second components (66, 68) are positioned in a recess (40) of the inclined surface (50) the respective clamp element (24, 26, 28, 30).

Claims

1. An apparatus (1) to support a tubular member such as pipes, in particular in the field of oil and gas production, comprises:

a carrying structure (6) that can be mechanically attached to a handling apparatus extends annularly around a central opening (18) along an axis (20) and has an inner circumferential surface (22) bounding that central opening (18), wherein said inner circumferential surface (22) tapers conically at a cone angel (α) relative to said axis (20),

a plurality of clamp elements (24, 26, 28, 30) that are arranged movably relative to that carrying structure (6) in said central opening (18), wherein each of that clamp elements (24, 26, 28, 30) has an inclined surface (50) on a radially outer side thereof, said inclined surface (50) is inclined at said cone angle (α) relative to said axis (20) and is configured and arranged to slide along said inner circumferential surface (22), and wherein each of that clamp elements (α) has a clamp surface (52) being parallel to said axis, and

a plurality of linear actuators (32, 34, 36, 38), wherein each of that linear actuators (32, 34, 36, 38) respectively has first and second actuator components (66, 68) that can be driven linearly relative to one another along an actuator axis (70) that is inclined at said cone angle (α) relative to that axis (20), wherein said first component (66) is attached to said carrying structure (6), and wherein the second component (68) is attached to a respective one of said clamp elements (24, 26, 28, 30), wherein both the first and the second components (66, 68) are positioned in a recess (40) of the inclined surface (50) the respective clamp element (24, 26, 28, 30),

wherein the cylinder-piston-arrangements (32, 34, 36, 38) are connected in series such that the fluid pressed out of a first

pressure chamber (110) of one cylinder-piston arrangement (32, 34, 36, 38) is pressed into the second pressure chamber (112) of the subsequent cylinder-piston- arrangement (32, 34, 36, 38) and vice versa, and

wherein the pressure chambers (110, 112) of each cylinder-piston-arrangement (32, 34, 36, 38) are connected with each other by a bypass conduit (163, 164, 166, 168) having a constricted opening (170).