CLAIMS

1. A clamp for mounting around a tubular member such as a pipe, riser, umbilical, shaft or mandrel, said clamp comprising one or more segments adapted to surround the tubular member, each segment incorporating a creep resistant material comprising a core layer of rigid polyurethane with a first tensile reinforcement layer applied on one surface and a second tensile reinforcement layer applied on the other opposed surface of the core layer, the entire respective first and second tensile reinforcement layers being in contact with the respective first and second surface of the core layer of the material.

2. A clamp according to claim 1, wherein the first and second tensile reinforcement layers are in contact with the entire respective first and second surfaces of the core layer of the material.

3. A clamp according to claim 1 or 2, wherein the polymer core further comprises nylon.

4. A clamp according to any of the preceding claims, wherein the tensile reinforcement layers have a higher tensile modulus and a higher tensile strength than the core layer of the material.

5. A clamp according to any of the preceding claims, wherein the tensile reinforcement layers comprise a fibre-reinforced composite material or a corrosion resistant metal sheet.

6. A clamp according to claim 4, wherein the tensile reinforcement layers include woven or non-woven mat material.

7. A clamp according to claim 5, wherein the mat material is a triaxial, biaxial or axial matting.

8. A clamp according to any of the preceding claims, wherein each tensile reinforcement layer comprises two or more layers of material laminated together and/or onto the core.

9. A clamp according to any of the preceding claims, wherein the reinforcement layers are bonded to the core of the material.

10. A clamp according to any of the preceding claims, wherein the tensile reinforcement layers are 3-20 mm thick.

11. A clamp according to claim 10, wherein the tensile reinforcement layers are around 5mm thick.

12. A clamp according to any of the preceding claims wherein the core of the material comprises a rigid polyurethane with a hardness of greater than 60 shore D.

13. A clamp according to any of claims 1-12, wherein the clamp segments comprise first and second arcuate sections which are spaced from one by one or more spars.

14. A clamp according to claim 13, wherein the one or more spars are provided at the ends of the arcuate sections.

15. A clamp according to any of claims 13 or 14, wherein the creep resistant material extends between the arcuate sections of the clamp segments.

16. A clamp according to any of claims 13-15, wherein the arcuate sections of the clamp comprise polyurethane.

17. A clamp according to any of the preceding claims, wherein the clamp comprises three segments which together surround the tubular member.

18. A clamp according to any of the preceding claims, further comprising fixing means provided on the clamp segments to enable connection between adjacent clamp segments.

19. A clamp according to any of the preceding claims, wherein each clamp segment comprises a region of enlarged thickness at each end of the segment.

20. A clamp according to claim 19, wherein the regions of enlarged thickness form a shoulder at the ends of the segments.

21. A clamp according to claim 20 wherein the fixing means connect the regions of enlarged thickness of adjacent clamp segments.

22. A clamp according to any of the preceding claims, wherein the clamp further comprises one or more clamping elements mounted on an internal surface of each clamp segment.

23. A clamp according to claim 22, wherein the clamping elements are mounted to the reinforcement layer of the clamp segments.

24. A clamp according to claim 22 or claim 23, wherein the clamping elements comprise a resilient material.

25. A clamp according to claim 24, wherein the clamping elements comprise rubber**.**

26. A method of forming components of a clamp according to any of the preceding claims comprising the steps of providing a trough mould shaped to form multiple segments of clamps, partly filling the mould with a polyurethane and allowing the polyurethane to cure in the mould, removing the cured rigid polyurethane material from the mould and cutting through the individual segments to separate segments and applying a first tensile reinforcement layer to one each side of the polyurethane segments and applying a second tensile reinforcement layer to the other opposed side of the polyurethane segments.

27. A method of forming components of a clamp according to claim 26, wherein the reinforcement material is draped over or pumped into the mould to coat the inner surfaces of the mould before the polyurethane is added to the mould.

28. A method of forming components of a clamp according to claim 27, wherein the polyurethane is pumped into the mould onto the reinforcement covered inner surface of the mould.

29. A method of forming components of a clamp according to any of claims 26-28, further comprising the step of separating the individual moulded segments of the clamp by machine cutting through the moulded component at spaced intervals.