23. The method according to claim 19 wherein:

said bend restraining member is a fin affixed to said pressure vessel over said butt weld, said bend restraining member affixed on an outside of a bend of said pressure vessel.

24. The method according to claim ~~13~~ wherein said fin defines a cutout for accommodating said butt weld.

25. A method of minimizing axial tensile bending strain for a butt weld and adjacent area of a pipe shaped pressure vessel subjected to bending comprising the steps of:

affixing a bend restraining member to an outside surface of the pressure vessel over the butt weld in the pressure vessel, wherein said bend restraining member has an inside segment and an outside segment having an inside surface radius equal to a radius of said outside surface of said pressure vessel;

affixing said outside segment to said outside surface of the pressure vessel over the butt weld in the pressure vessel;

applying compressive stress to the pressure vessel with said inside segment and said outside segment to prevent the butt weld from being subjected to axial tensile strain due to bending.

wherein said second lengthwise surface of said inside clamp segment and said second lengthwise surface of said second outside clamp segment define a second lengthwise gap therebetween.

19. A method of extending fatigue life of a butt weld of a pipe shaped pressure vessel subjected to bending comprising the steps of:

affixing an inside clamp member and an outside clamp member to form a bend restraining member to an outside surface of the pressure vessel over a butt weld in the pressure vessel;

bending the pressure vessel while affixed to said bend restraining member;

removing said bend restraining member.

20. The method according to claim 19 wherein said bend restraining member defines a channel or radial groove for accommodating said butt weld.

21. The method according to claim 19 further comprising the step of:

subjecting said pressure vessel and said butt weld to repeated tensile stretching stresses associated with multiple pressurization cycles of said pressure vessel.

22. The method according to claim 19 wherein:

said pressure vessel is coiled around a hub or around previous coils of said pipe shaped pressure vessel.

23. The method according to claim 19 wherein:

said bend restraining member is a fin affixed to said pressure vessel over said butt weld, said bend restraining member affixed on an outside of a bend of said pressure vessel.

24. The method according to claim 23 wherein said fin defines a cutout for accommodating said butt weld.

25. A method of minimizing axial tensile bending strain for a butt weld and adjacent area of a pipe shaped pressure vessel subjected to bending comprising the steps of:

affixing a bend restraining member to an outside surface of the pressure vessel over the butt weld in the pressure vessel, wherein said bend restraining member has an inside segment and an outside segment having an inside surface radius equal to a radius of said outside surface of said pressure vessel;

affixing said outside segment to said outside surface of the pressure vessel over the butt weld in the pressure vessel;

applying compressive stress to the pressure vessel with said inside segment and said outside segment to prevent the butt weld from being subjected to axial tensile strain due to bending.