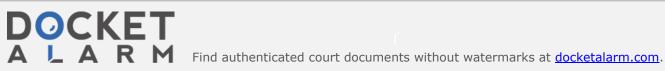
'162 Independent Claims					
[1.1] An end fitting for a sucker rod comprising:	[11.1]A sucker rod comprising a fiber composite rod having a first end and a second end; and end fittings on each end of the fiber composite rod for coupling together a plurality of fiber composite rods, the end fitting comprising:	[20.1] A sucker rod comprising: a fiber composite rod having a first end and a second end; and end fittings on each end of the fiber composite rod for coupling together a plurality of fiber composite rods, the end fitting comprising:	[31.1] A method for manufacturing a sucker rod comprising the steps of: constructing an end fitting comprising		
[1.2] an exterior surface, a closed end, an open end, and an interior surface,	[11.2] an exterior surface, a closed end, an open end, and an interior surface,	[20.2] an exterior surface, a closed end, an open end, and an interior surface,	[31.2] an exterior surface, a closed end, an open end, and an interior surface,		
[1.3] the interior surface comprising a wedge system defining a cavity, wherein the wedge system comprises three wedge shaped portions having an apex, a leading edge and a trailing edge, each apex forming a perimeter of equal dimension within the cavity that is the narrowest part of the cavity associated with each wedge shaped portion such that	[11.3] the interior surface comprising a wedge system defining a cavity, wherein the wedge system comprises three wedge shaped portions having an apex, a leading edge and a trailing edge, each apex forming a perimeter of equal dimension within the cavity that is a narrowest part of the cavity associated with each wedge shaped portion, such that the leading edge is longer than the trailing edge with the leading edge facing the open and	[20.3] wherein the interior surface comprises a wedge system defining a cavity wherein the wedge system comprises an interior wedge shaped portion, at least one intermediate wedge shaped portion and an exterior wedge shaped portion having an apex, a leading edge and a trailing edge, each apex forming a perimeter of equal dimension within the cavity that is a narrowest part of	[31.3] the interior surface comprising a wedge system defining a cavity wherein the wedge system comprises an interior wedge shaped portion, at least one intermediate wedge shaped portion and an exterior wedge shaped portion, wherein each wedge shaped portion comprises an apex, a leading edge and a trailing edge, wherein each apex forms a perimeter of equal dimension within the cavity that is a		
the leading edge is longer than the trailing edge with the leading edge facing the open end and the trailing edge facing the	facing the open end and the trailing edge facing the closed end with respect to each wedge shaped portion,	is a narrowest part of the cavity associated with each wedge shaped portion, such that the leading edge is longer than the trailing edge with the leading	cavity that is a narrowest part of the cavity associated with each wedge shaped portion such that the leading edge is longer than the trailing edge		



closed end with respect to each wedge shaped portion,		edge facing the open end and the trailing edge facing the closed end with respect to each wedge shaped portion,	with the leading edge facing the open end and the trailing edge facing the closed end with respect to each wedge shaped portion;
[1.4] wherein the leading edge is shorter at the closed end and increases progressively from the closed end to the open end thereby compensating for a compression of the sucker rod in the end fitting,	[11.4] wherein the leading edge is shorter at the closed end and increases progressively from the closed end to the open end thereby compensating for a compression of the sucker rod in the end fitting,	[20.4] wherein each leading edge is shorter at the closed end and increases progressively from the closed end to the open end thereby compensating for a compression of the sucker rod in the end fitting,	[31.4] engaging an end of a fiber composite rod into the cavity of the end fitting for creating a symmetrical void between the fiber composite rod and the wedge shaped portions of the end fitting, whereby the symmetrical void has symmetry along the longitudinal axis of the fiber composite rod;
[1.5] the trailing edge is shorter at the closed end and increases progressively from the closed end to the open end thereby compensating for a back pressure associated with the sucker rod in the end fitting,	[11.5] the trailing edge is shorter at the closed end and increases progressively from the closed end to the open end thereby compensating for a back pressure associated with the sucker rod in the end fitting,	[20.5] each trailing edge is shorter at the closed end and increases progressively from the closed end to the open end thereby compensating for a back pressure associated with the sucker rod in the end fitting,	[31.5] injecting an epoxy into the symmetrical void to bond with the fiber composite rod and to fixedly engage the wedge shaped portions of the wedge system of the end fitting for securing the end fitting to the fiber composite rod such that as the epoxy is uniform in thickness between the wedge shaped portions and the fiber composite rod, and whereby the maximum thickness is substantially constant and the minimum thickness is



substantially constant, [1.6] wherein the [11.6] wherein the first [20.6] wherein the [31.6] wherein the first wedge shaped wedge shaped portion interior wedge shaped interior wedge shaped is proximate to the portion is proximate to portion is proximate portion is proximate to the closed end and the closed end and to the closed end and closed end and receives compressive receives compressive receives compressive receives forces that are greater forces that are greater forces that are greater than the compressive than the compressive than the compressive compressive forces forces which the that are greater forces which the forces which the than the second wedge shaped intermediate wedge intermediate wedge portion receives, and compressive forces shaped portion shaped portion which the second wherein the second receives, and wherein receives, and wherein wedge shaped wedge shaped portion the intermediate the intermediate portion receives, receives compressive wedge shaped portion wedge shaped portion and wherein the forces that are greater receives compressive receives compressive second wedge than the compressive forces that are greater forces that are greater shaped portion forces which the third than the compressive than the compressive receives wedge shaped portion forces for which the forces which the compressive forces receives, such that the exterior wedge shaped exterior wedge that are greater compressive forces portion receives, such shaped portion than the create a force that the compressive receives, such that the compressive forces differential along the forces create a force compressive forces which the third wedge system greater create a force differential along the at the closed end of the wedge shaped wedge system greater differential along the portion receives, fitting and decreasing at the closed end of wedge system greater toward the open end of the fitting and at the closed end of such that the compressive forces the fitting. decreasing toward the the fitting and create a force open end of the fitting. decreasing toward the open end of the differential along the wedge system fitting. greater at the closed end of the fitting and decreasing toward the open end of the fitting.



	Dependent Cla	ims 2, 12, 21, and 32			
2. The end fitting of claim 1, wherein the wedge system creates different compressive forces on each respective wedge shaped portion thereof, with the compressive force being inversely proportional to a length of each edge.	12. The sucker rod of claim 11, wherein the wedge system creates different compressive forces on each respective wedge shaped portion thereof with the compressive force being inversely proportional to a length of each edge.	21. The sucker rod of claim 20, wherein the wedge system creates different compressive forces on each respective wedge shaped portion thereof with the compressive force being inversely proportional to a length of each edge.	32. The method for manufacturing a sucker rod of claim 31, further comprising the step of creating different compressive forces on each respective surface of the wedge shaped portions with the compressive force being proportional to the length of each edge.		
Dependent Claims 3, 13, 22, 34, 35, and 38					
3. The end fitting of claim 2, wherein the compressive force on each edge is inversely proportional to the length of each edge.	13. The sucker rod of claim 12, wherein the compressive force on each edge is inversely proportional to the length of each edge.	22. The sucker rod of claim 21, wherein the compressive force on each edge is inversely proportional to the length of each edge.	34. The method for manufacturing a sucker rod of claim 31, wherein the compressive force on each leading edge is inversely proportional to the length of each leading edge. 35. The method for manufacturing a sucker rod of claim 31, wherein the compressive force on each trailing edge is inversely proportional to the length of each		
			trailing edge. 38. The method for manufacturing a sucker rod of claim 31, wherein each wedge shaped portion has a length inversely proportional to the compressive force applied to the wedge shaped portion.		



4. The end fitting of claim 1, wherein the wedge shaped portions are determined by an angle associated with the apex between the leading edge and the trailing edge. 14. The sucker rod of claim 20, wherein the wedge shaped portions are determined by an angle associated with the apex between the leading edge and the trailing edge. 23. The sucker rod of claim 20, wherein the wedge shaped portions are determined by an angle associated with the apex between the leading edge and the trailing edge.	erein				
of claim 1, wherein the wedge shaped portions are determined by an angle associated with the apex between the between the leading edge and the rod of claim 31, wherein the wedge shaped portions are determined by an angle associated with the apex between the leading edge and the leading edge. claim 20, wherein the wedge shaped portions are determined by an angle associated with the apex between the leading edge and the trailing edge. claim 20, wherein the wedge shaped portions are determined by an angle associated with the apex between the leading edge and the trailing edge.	erein				
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between the leading edge and the leading edge and the leading edge and the trailing edge. leading edge and the trailing edge. leading edge and the surface and a sec surface of each conca	_				
leading edge and trailing edge. trailing edge. surface of each conca	econd				
the trailing edge.	aved				
Dependent Claims 5, 15, 24, and 37					
5. The end fitting 15. The sucker rod of 24. The sucker rod of 37. The method for					
of claim 4, wherein claim 14, wherein claim 23, wherein manufacturing a suck	ker				
the angle between the angle between the angle between rod of claim 36, wher	erein				
the leading edge the leading edge and the leading edge and the angle between the	ıe				
and the trailing dege of the trailing edge of first surface and the					
edge of each each concaved each concaved second surface of each	.ch				
concaved surface is surface is obtuse. surface is obtuse. concaved surface is					
obtuse. obtuse.					
Dependent Claims 6, 16, and 25					
6. The end fitting 16. The sucker rod of 25. The sucker rod of					
of claim 1, further claim 11, further claim 20, further					
comprising a fiber comprising the fiber comprising the fiber					
composite rod composite rod					
having an end having each end having each end					
engaged centrally engaged centrally engaged centrally within the end within the end					
fitting. fitting. fitting.					
Dependent Claims 8, 17, and 26					
8. The end fitting 17. The sucker rod of 26. The sucker rod of claim 6 further claim 16 further claim 25 further					
of claim 6, further claim 16, further comprising an epoxy comprising an epoxy					
comprising an comprising an epoxy comprising an epoxy placed in the placed in the cavity placed in the cavity					
cavity for bonding for bonding with the for bonding with the					
with the fiber fiber composite rod fiber composite rod					
composite rod in in the cavity for in the cavity for					
the cavity for fixedly securing the fixedly securing the					
fixedly securing end fitting with the end fitting with the					
the end fitting with fiber composite rod. fiber composite rod.					
the fiber composite					
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