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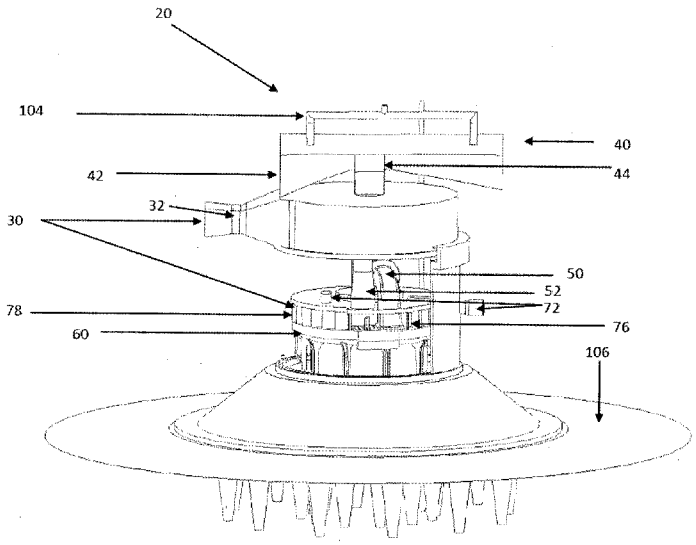

Figure 1

(57) Abstract: A fluid driven prime mover system (20) comprising, a pressure element (30) that combines a first suction element (40) which includes a convergent divergent nozzle system with a convergent divergent nozzle (42), that creates a lower pressure zone (44) which is communicated to a first desired point, with a first head element that includes at least a diffuser nozzle system (32) which converts fluid flow energy into a high pressure head such that said high pressure head is directed towards a second desired point. A first channel element (50) communicates the first desired point to an outlet (62) of a positive displacement fluid motor (60) and a second channel element (52) directs the second desired point to an inlet (64) of the positive displacement fluid motor (60) such that said positive displacement fluid motor (60) is motored by a fluid flow throughput caused by a pressure differential at said inlet (64) and said outlet (62) that results in the positive displacement fluid motor (60) working as a drive unit with power or torque take off.

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AMENDED CLAIMS

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1. A fluid driven prime mover system (20) comprising:

a pressure element (30) that combines a first suction element (40) which includes a convergent divergent nozzle system, with at least a convergent divergent nozzle (42), that creates a lower pressure zone (44) which is communicated to a first connecting point; a first head element that includes at least a diffuser nozzle system (32) which converts fluid flow energy into a high pressure head such that said high pressure head is communicated to a second connecting point; and at least a first channel element (50) and at least a second channel element (52) wherein said first channel element (50) communicates the first connecting point to an outlet (62) of a positive displacement fluid motor (60) and said second channel element (52) directs the second connecting point to an inlet (64) of said positive displacement fluid motor (60) such that said positive displacement fluid motor (60) is motored by a fluid flow throughput caused by a pressure differential at said inlet (64) and said outlet (62) that results in said positive displacement fluid motor (60) working as a drive unit with power or torque take off.

2. The fluid driven prime mover system (20) as claimed in claim 1, wherein a first self aligning element (34) that allows said convergent divergent nozzle (42) system to align with fluid flow direction, thence improving efficacy of said convergent divergent nozzle (42) system to create optimum lower pressure in varying fluid flow direction conditions.

3. The fluid driven prime mover system (20) as claimed in claim 1, wherein a second self aligning element (35) that allows said diffuser nozzle system (32) to align with fluid flow direction, thence improving efficacy of said diffuser nozzle system (32) to create optimum high pressure head in varying fluid flow direction conditions.

4. The fluid driven prime mover system (20) as claimed in claim 1 wherein a control element system (72) that controls at least any one of said pressure differential, fluid flow throughput and protects said fluid driven prime mover system (20) from damage from at least any one from excessive fluid pressures and excessive fluid flow.

5. The fluid driven prime mover system (20) as claimed in claim 1 wherein a second suction element has at least any one of said first suction element (40) and a first structural element that generates said lower pressure zone (44) by fluid flowing past the second suction element.

6. The fluid driven prime mover system (20) as claimed in claim 1 wherein a second head element includes a flow stagnation system that induces fluid flow stagnation at said second connecting point with at least one of, a fluid flow direction manipulating fins (78), a first accumulator (36) to store and direct stagnant fluid, a second accumulator (90) to trap fluid head and a second structural element (76) that compliments said high pressure head in varying fluid flow directions.

7. The fluid driven prime mover system (20) as claimed in any of the preceding claims, wherein said pressure element (30) has at least any one of said first suction element (40), said second suction element, said first head element, said second head element, said first channel element (50), said second channel element (52), said first self aligning element (34), said second self aligning element (35) and said control element system (72) is used for creating said differential pressure at said inlet (64) and said outlet (62), by communicating said first connecting point and said second connecting point to said input and said output, resulting in said positive displacement fluid motor (60) working as said drive unit.

8. The fluid driven prime mover system (20) as claimed in claim 7, wherein a fluid driven prime mover grid system constituting of at least one of said positive displacement fluid motor (60) are driven by plurality of said pressure element (30), which is used to induce said fluid flow throughput and is controlled by said control element system (72) that controls fluid flow.

9. The fluid driven prime mover system (20) as claimed in claim 1 wherein said inlet (64) and said outlet (62) of said positive displacement fluid motor (60) is interchangeable, thereby enabling reversal of direction of torque take off from said positive displacement fluid motor (60).

10. The fluid driven prime mover system (20) as claimed in claim 6, wherein said first channel element (50) and said second channel element (52) is of extendable length, thence capable to capture the optimum fluid flow parameters existing at various levels in the fluid.

11. The fluid driven prime mover system (20) as claimed in claims 6, 8 and 10, wherein said second accumulator (90) comprises of a fluid head trapping element (92) that allows storing of fluid head at availability for facilitating said throughput when a head differential exists at said input and said output.

12. The fluid driven prime mover system (20) as claimed in claim 11, wherein said second accumulator (90) has a buoyant element that keeps said second accumulator (90) afloat when used in fluids such as water, wherein said second accumulator (90) is placed on extendable said second channel element (52) such that said buoyant element lifts and capture fluid head as the fluid level rises and isolate it from surrounding fluid as the surrounding fluid level falls, thence causing said head differential caused by drop of the surrounding fluid head which is communicated to said outlet (62) and facilitating said throughput.

13. The fluid driven prime mover system (20) as claimed in claim 8, wherein a shut off control system constituting of a sealing element (102) and a seal actuator (103), such that said sealing element (102) isolates a fluid space that lay within said fluid driven prime mover system (20) by means of said seal actuator (103) to isolate said fluid space from spaces outside said fluid driven prime mover system (20).

14. The fluid driven prime mover system (20) as claimed in claim 13 wherein said fluid driven prime mover system (20) is mounted on a hollow buoyant foundation (106) with a second fluid space and has a buoyancy control system (104) such that said shut off control system isolates said fluid driven prime mover system (20) and said hollow buoyant foundation (106) wherein said buoyancy control system (104) displaces fluid inside said fluid space and said second fluid space, by a lighter fluid to retrieve said fluid driven prime mover system (20) along with said hollow buoyant foundation (106) by floatation.

15. The fluid driven prime mover system (20) as claimed in claim 14, wherein by use of said shut off control system and said buoyancy control system (104), displaces fluid from said fluid spaces by said lighter fluid such that any one of said pressure element (30) and said fluid driven prime mover system (20) is made buoyant and is retrieved to surface by floatation.

16. The fluid driven prime mover system (20) as claimed in claim 8, wherein said positive displacement fluid motor (60) is a multiple vane type rotary apparatus.