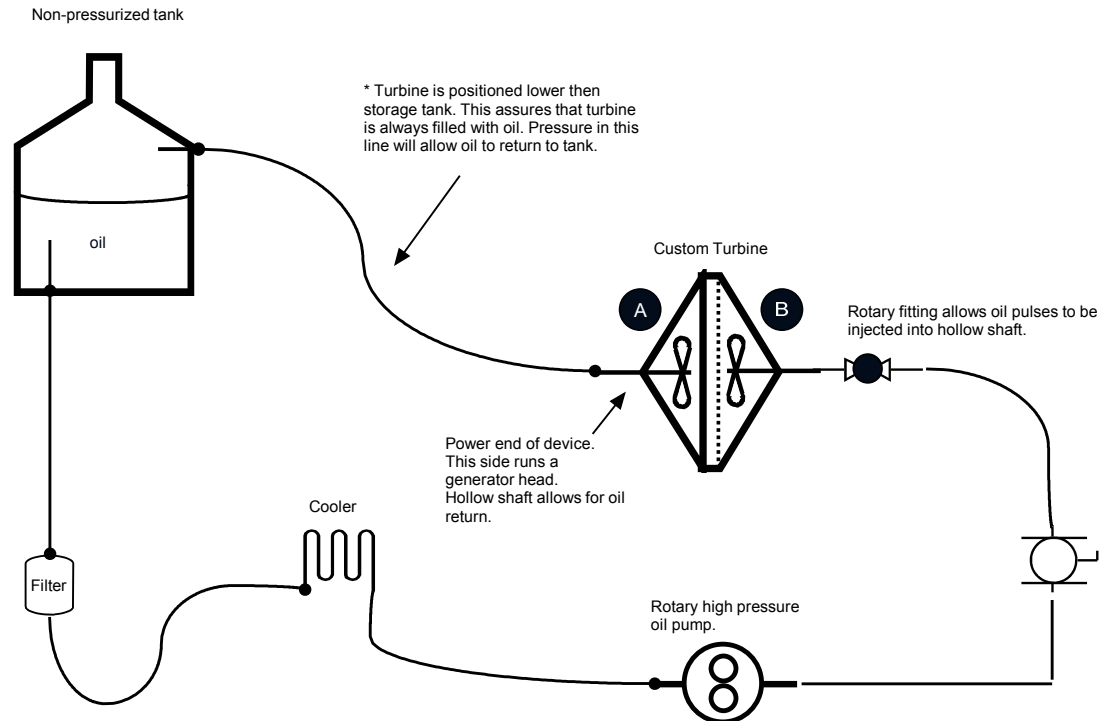


Hydrodynamics

(preliminary concept only)



General concept:

- Transmission fluid oil is used as a coupling fluid.
- Oil storage tank is positioned above custom turbine and rotary oil pump. This assures that system is completely fluid filled. (no air)
- 'B' side of turbine has a flywheel for start-up via a 12 volt car starter.
- 'A' side of turbine has pulleys/gears/chains that drive load and oil pump.
- Rotary oil pump delivers high pressure oil to vanes on side 'B'. This oil flow is periodically interrupted by 'thrust' valve.
- Thrust valve can be as simple as a ball valve with its handle removed and a gear attached to the stem allowing it to rotate freely, driven by a small DC motor, providing pulses.
- Oil pulses are injected into hollow shaft via a custom made rotary fitting.
- Vortex fluid movement forces side 'A' of turbine to spin. The fluid naturally dampens the 'pulses' injected into side 'A'. Side 'A' operates at a smooth RPM.
- Oil, due to vortex action, is forced from the top of 'A' turbine blades to low pressure area at center of shaft.
- Shaft 'A' also has a hollow shaft that allows oil to return to storage tank.
- Storage tank gravity feeds a filter and oil cooler (if needed) and oil pump to re-start system.

Title: Richard Clem Hydro Drive system	
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