

Comparison Table for Port-a-power versus Simson Compact Jacks

	"Port-a-power" (pump, hose & cylinder)	Feedback from Users of "Port-a-Power"	Simson Compact Jacks
1	Hose Inspection	Every hose arrangement should / must be inspected before use, each and every time to avoid potential injury	No hose, no hose inspection
2	Heavy tool / load drop on hose	In a heavy workshop environment, mechanical damage due to heavy items falling on the hose, could lead to instant failure of the hose.	No hose - not possible
3	Pumping to an elevated cylinder	Pump must be horizontal or in "downhill" position. Pump will not work in a vertical or inclined position.	Pump will work in any position including straight up, upside down, even underwater. No restrictions.
4	Length of hose limitations	Cylinder position is limited by the length of hose to find a suitable second surface to position the pump to pump oil into cylinder.	Pump is attached to the cylinder. Do not need second surface and no restrictions due to hose length.
5	Fittings	Fittings get damaged or do not mate properly and creates an oil leak. Fittings can be changed to include the cheap quick coupling fittings, which increases improper performance, loss of productivity, increases maintenance costs, re-purchasing of new fittings or even purchasing of new system.	No fittings to connect or disconnect.
6	Hose damage	Hose can be damaged where the damage may not be visible. Can lead to failure of hose at 10,000 psi, leading to near miss or potential injury of personnel.	No hose, all extremely high quality metal components.
7	Dirt, coal dust, sand contamination	Oil contamination (due to disconnecting and re-connecting pumps, cylinders and hoses) leads to eventual failure of the cylinder. Needs to be serviced or buy a new set.	No fittings to introduce contamination. Typical life of Simson compact jack in a mine environment is around 5 years before the seals need to be replaced.
8	Seals	They will leak shortly after dirt gets into the oil system via the connecting and disconnecting of fittings. Especially on a work site, mine site or fab shop, where you have dust, you put the hose or equipment down and it is very difficult to keep it clean.	Closed oil circuit, no ingress of dirt. Furthermore, seals are made from teflon, which has a higher heat resistance than other seals, and low friction, providing much longer life.
9	Heat damage to seal	In a fabrication shop (or other heat source), many welders avoid having a cylinder near the weld area, as the oil seal will not withstand the nearby welding heat (along with leaks from the oil pump). One shipbuilder advised they have "moved to compressed air to eliminate hydraulic oil leaks" with the hose system. These would be very large cylinders to get the equivalent tonnage required.	Seals are made from teflon, which has a higher heat resistance than other seals, as well as low friction, providing much longer life. The compact jacks are used in huge quantities in the shipbuilding industry for this reason, reliably producing no oil leaks to contaminate the weld metal area.
10	Heat damage to hose	In a fabrication shop or other heat source, any heat damage to hose could lead to failure of the hose under pressure.	No hose - not possible
11	Oil leakage	Seals leak due to contamination of oil. Due to disconnection and reconnection of the cylinder or pump to the hose. Or damaged quick couplings do not seat properly, possible cross threading or ingress of dirt. Or if something heavy falls on the hose. Or if you drop a cylinder and damage the fittings.	No hose, no fittings, no oil contamination, no problem.
12	Pump can be low on oil	Pump unit was not checked for sufficient oil prior to departing. Return to workshop / site to exchange pump or fill up existing pump.	Closed oil circuit, no ingress of dirt, no leaks, always sufficient oil for full stroke.
13	Off Centre Load on piston	The other brand cylinders get "spit out" or the cylinder locks up if the load is not on centre of the piston/cylinder. Cylinder has a hardened cap. However, if the load is off centre this puts higher forces on the piston and cylinder which are not hardened to accept this load.	Off centre loads - is no problem for Simson Compact Jacks. Why?? Continued reliable performance because of three factors. Cylinder is a dropped forged, hardened steel with roller polish surface. Piston is a special roller bearing steel which is through hardened to 56 HRc. All Simson jacks come with a three year warranty as standard.
14	Hand Pump systems	In most cases, need one person to position cylinder and the second person to use the hand pump.	Compact unit requires only single person operation. After loading, then can use only one hand, if required.

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15	Working at height	Working at height can be tight for room. Operator needs a position to place the hand pump where a nearby flat surface is not always available (within reach of the operator and hose). Hose arrangement is in most cases a two man operation. This becomes a juggling act when working at height with a hose system and one person.	No stand area for the pump required. Pump unit fixed to the cylinder. Single person, one hand operation. Much safer operation when working at height.
16	Bending of the hose	When options for a 2nd flat surface (for pump location) is limited, the bending radius (or length of hose) can become a restriction.	No hose. Do not need a second surface. No problem.
17	Cylinder fails to retract under load	Dirt in the fittings/couplers will sometimes block the return flow. Therefore, cylinder will not retract and remains under load. To relieve pressure you need another cylinder and pump if you have the room. If no room, then you have to as told by one operator "very carefully relieve the pressure by unscrewing the hydraulic fittings" (operating pressure is 700 bar = 10,000psi).	No fittings significantly reduces contamination problem.
18	Pressure relief valves	If the lever on the pressure relief valve is accidentally knocked, the lever can release the pressure resulting in the piston retracting under load.	No external valves that can be accidentally relieved.
19	Wiper / Scraper	Some of the cheaper units do not have a wiper to stop dirt getting into the oil seals. Such cylinders leak very quickly, leading to further problems and other costs.	Scraper and piston precision machined to create very tight tolerance not permitting dirt to enter and damage the seals.
20	Lightweight	Weight in most cases is not a problem.	Half the weight of the equivalent hose and pump arrangement.
21	Expected Lifetime	6 to 18 months depending on the amount of usage.	User feedback is around 4 to 5 times the life expectancy compared to a hose system.
22	Track Record	They do the job, but do have their limitations.	Most Simson compact jacks will work trouble free for 5 years. Simson power tools have been in use in Europe's heavy industries for around 10 years and are proven to be highly reliable power tools.
23	Underwater usage	Once only use. Then you have to strip the pump, hose and cylinder. Separate oil and water and dispose of thoughtfully to protect the environment. Then put it back together and test it under load to ensure it will work satisfactory again.	Wash compact power tool with fresh water. Return the piston into its retracted position (Piston sits in oil when retracted).
24	Spare Parts	For any minor maintenance, you have to buy the whole spare parts kit.	Can buy each spare part individually.
25	Price	Price is OK.	Due to the higher quality features, the Simson compact jacks are not always the cheapest if you only compare purchase price. However, after reviewing the benefits above and with a proven track record, they offer excellent value for money. When including maintenance costs, productivity losses, number of back up units required and replacement costs, many customers will not buy another hose system, if they can use a compact jack instead.

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Simson Compact Jacks

Quality. Safety. Value. Reliability.