

# OPERATION MANUAL

**PH300T** 

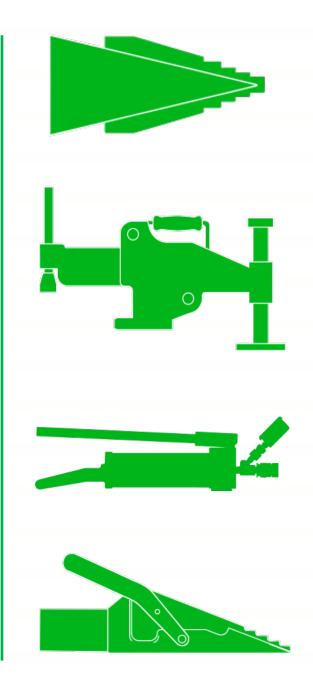
**PH580T** 

PH1100T

Single Acting Sealed

Twin Port Hydraulic

**Hand Pumps** 



Engineered Energy Equipment www.renquip.com





### **Contents**

1.	Introduction	Page 2
2.	Safety information	Page 3
3.	Specification	Page 4
4.	Operation	Page 5
5.	Maintenance	Page 8
6.	How to Refill Reservoir	Page 9
7.	PH****T Parts list	Page 10

# 1.0 Introduction

The RenQuip PH range of hand pumps are of 2 speed design to give fast operation with low handle effort. All pumps are rated for all 10,000psi / 700Bar equipment. The pumps are equipped with a flexible reservoir that contracts when oil is pumped from the reservoir into the system – this removes the requirement for an air vent and eliminates the possibility of accidental oil spillage from the reservoir.

The flexible reservoir enables the pump to be used in any orientation without the risk of air entering the hydraulic system. It also prevents contamination or debris entering the hydraulic system from the atmosphere making Renquip pumps ideal for use on site and in the workshop.

The PHT pumps are also equipped with two outlet ports with individual control valves, this enables the operator to control two hydraulic systems Independently or synchronized with out the need for an additional manifold and fittings.



### 2.0 Safety Information

# **User Safety**



- 1. The User must be competent in Operating High Pressure Hydraulic Equipment.
- 2. The User must read and understand the relevant Instruction Manual for the Equipment.
- 3. The User must wear the correct Personal Protective Equipment.
- 4. Do not lift or hold pressurised equipment

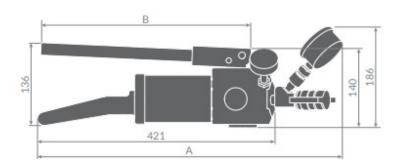
## **Equipment Safety**

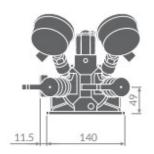


- 1. Inspect all equipment prior to use for any signs of damage or wear.
- 2. Ensure all components have a safe working pressure of 10,000psi (700Bar).
- 3. Do not pressurise equipment over its safe working pressure.
- 4. Ensure all couplers are fully connected before pressurising the system.
- 5. Ensure system is fully depressurised before disconnecting couplers.
- 6. Ensure the working area is free from hazards to the equipment such as sharp objects, heat sources, moving machinery or vehicles.
- 7. Carry / transport equipment by the handles / cases provided.
- 8. Store Equipment in a cool dry environment.
- 9. Ensure the correct oil is used in the hydraulic system and maintenance procedures are followed.



# 3.0 Technical Specification





Pump Type	Reservoir Capacity CC	Length A mm	Length B mm	Pump Weight Kg
PH300T	300	554	360	5.5
PH580T	580	643	490	6.0
PH1100T	1100	867	537	7.0

#### Kit Content: PH300T

- 1 x PH300T Sealed Hydraulic Hand Pump.
- 2 x Hydraulic Pressure Gauge.
- 2 x Hydraulic Gauge Adaptor.
- 2 x 3/8" Female half screw coupler
- 1 x Instruction Manual

Product ordering code: PH300T

#### Kit Content: PH580T

- 1 x PH580T Sealed Hydraulic Hand
- 2 x Hydraulic Pressure Gauge.
- 2 x Hydraulic Gauge Adaptor.
- 2 x 3/8" Female half screw coupler
- 1 x Instruction Manual

Product ordering code: PH580T

#### Kit Content: PH1100T

- 1 x PH1100T Sealed Hydraulic Hand
- 2 x Hydraulic Pressure Gauge.
- 2 x Hydraulic Gauge Adaptor.
- 2 x 3/8" Female half screw coupler
- 1x Instruction Manual

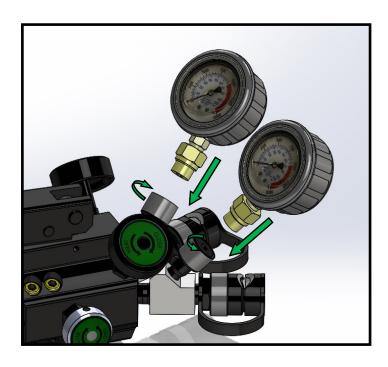
Product ordering code: PH1100T



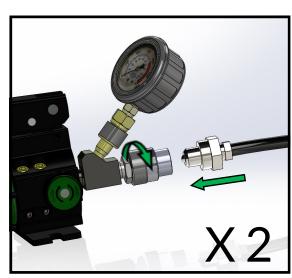


# 4.0 Operation of the PH\*\*\*\*T Pumps

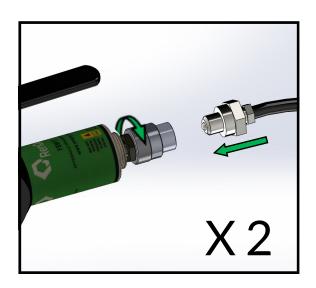
1. Connect the Gauges to the Pump.



2. Connect the Hoses to the Pump.

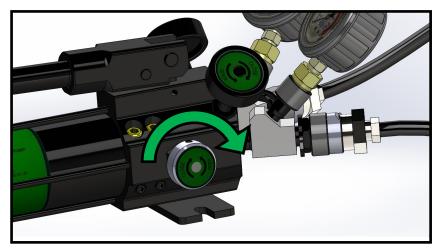


3. Connect the Hoses to the Tools.

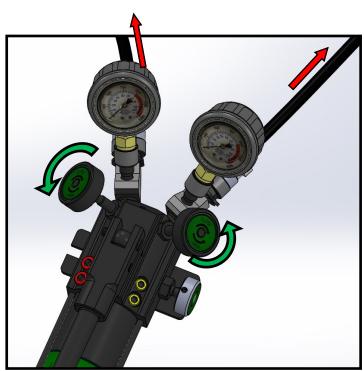




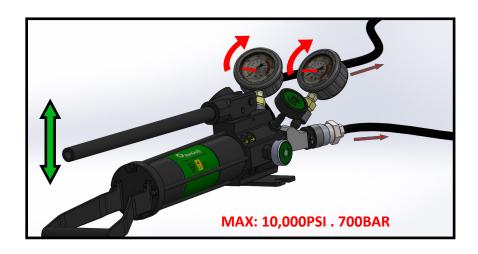
4. Close the Pressure Release Valve.



5. Open both control valves to apply equal hydraulic pressure to both tools.



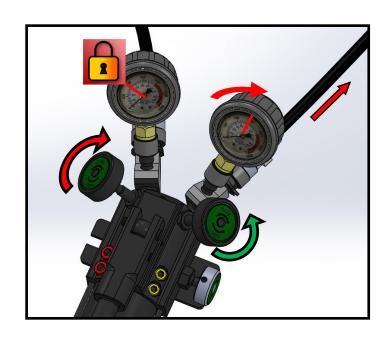
6. Operate the Pump handle to pressurise the system.

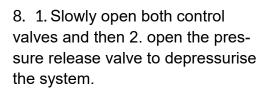


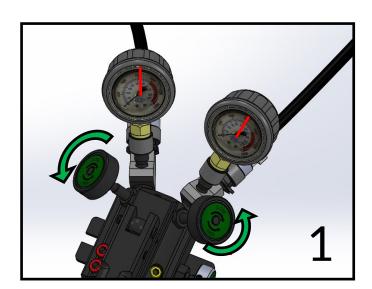


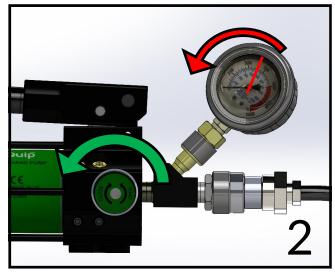
7. Close one control valve to lock the pressure on that tool.

Operation of the pump handle will then increase the pressure on the tool with the open control valve only.



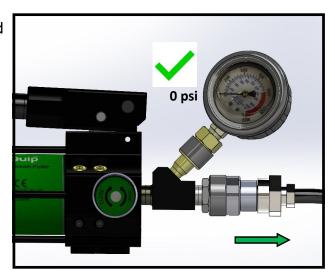








9. Ensure the system is fully depressurised before disconnecting couplers.



10. Clean equipment and package for storage.

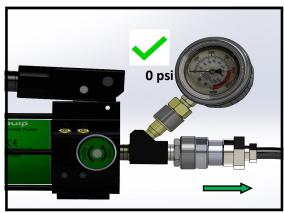
### 5.0 Maintenance

- Visually Inspect Pump, Gauges and couplers for any damage.
- Replace any worn or damaged parts.
- Clean and degrease surfaces, couplers and Gauges.
- Ensure protective caps are fitted to cleaned couplers.
- Lubricate all moving parts with light Oil.
- Top up hydraulic oil as required with a high quality 32cSt hydraulic oil.
- Store pumps in a cool, dry, and low humidity location.



# 6.0 How To Refill Oil Reservoir

1. Ensure the system is fully depressurised and disconnect coupler.

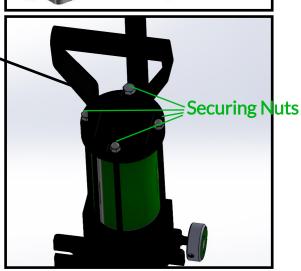


2. Grip the base plate of the pump in a vice ensuring that the reservoir is vertical



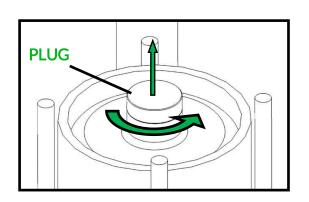
**MAIN HANDLE** 

3. Remove the 4 securing nuts and lift off the Main Handle



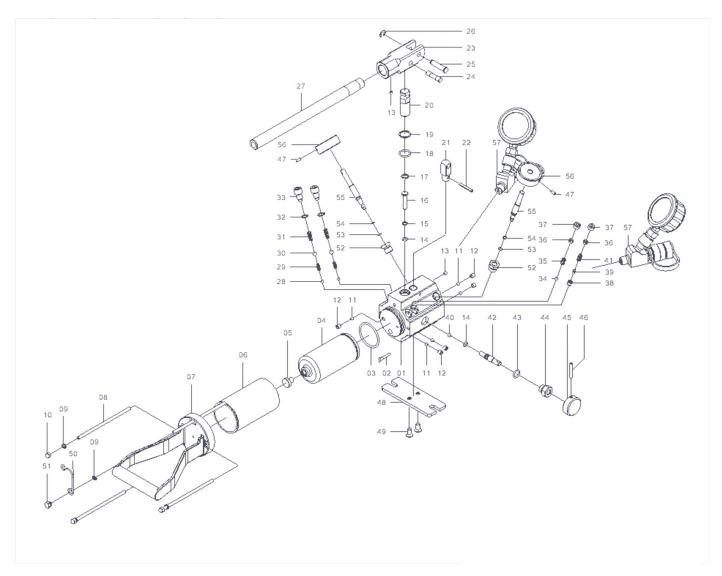
- 4. Twist and pull to remove the refill plug.
- 5. Top up with a high quality 32cSt hydraulic oil to just below the top of the reservoir.

Replace the plug and handle.



# 7.0 Parts list PH\*\*\*\*T Pumps



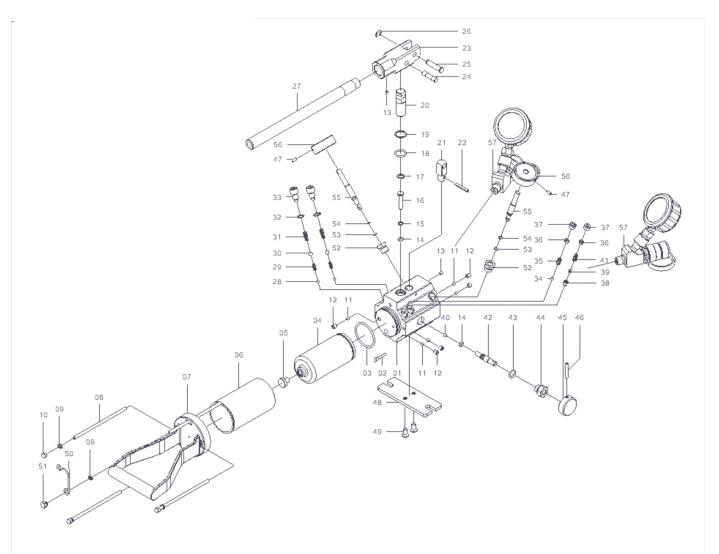


Item	Part No :	Description :
01	NA	PHT Housing Block
02	180100501	Oil filter
03	180110041	Reservoir Bladder O Ring
04	180110031	PH300 Reservoir Bladder
04	180210011	PH580 Reservoir Bladder
04	180310031	PH1100 Reservoir Bladder
05	180110051	Reservoir Bladder Plug
06	180110091	PH300 Reservoir
06	180210021	PH580 Reservoir
06	180310041	PH1100 Reservoir
07	180110101	PH Base Handle
08	180110111	PH300 Reservoir Screw
08	180210031	PH580 Reservoir Screw
08	180310051	PH1100 Reservoir Screw
09	100200201	M6 Spring Washer
10	100200211	M6 Dome nut
11	180100241	Check Ball
12	180100251	Check Screw
13	100200031	M5 x 6 screw

Item	Part No :	Description :
14	Kit 181100001	PH Piston Repair kit—high pressure seal
15	Kit 181100001	PH Piston Repair kit—high pressure back up ring
16	180100261	PH High Pressure Piston
17	Kit 181100001	PH Piston Repair kit—high pressure Circlip
18	Kit 181100001	PH Piston Repair kit– Low Pressure Seal
19	Kit 181100001	PH Piston Repair kit—Low Pressure Back up ring
20	180100291	PH Low Pressure Piston
21	180100051	PH Yoke Base
22	180100301	PH Yoke Spring Pin
23	180100311	PH Handle Yoke
24	180100061	PH Piston Drive Pin
25	180100071	PH Yoke Hinge Pin
26	180100321	PH Yoke Hinge Pin Circlip
27	180110101	PH Base Handle
28	Kit 181200001	PH Check Valve Repair kit– Small Check Ball
29	Kit 181200001	PH Check Valve Repair kit– Small Check Spring
30	Kit 181200001	PH Check Valve Repair kit– Large Check Ball
31	Kit 181200001	PH Check Valve Repair kit – Large Check Spring
32	Kit 181200001	PH Check Valve Repair kit – cover screw washer

# 7.0 Parts list PH\*\*\*\*T Pumps





Item	Part No :	Description :
33	Kit 181200001	PH Check Valve Repair kit– cover screw
34	180100371	PH Pressure Relief Ball
35	180100381	PH Pressure Relief Spring
36	180100391	PH Pressure Relief Screw
37	180100401	PH Pressure Relief Cover Screw
38	180100411	PH Cone Seat
39	180100421	PH Cone
40	Kit 181000001	PH Release Valve Repair Kit—Release Valve Ball
41	180100431	PH Pressure Relief Long Spring
42	Kit 181000001	PH Release Valve Repair Kit—Release Valve Spindle
43	Kit 181000001	PH Release Valve Repair Kit—Release Valve Packing Seal
44	Kit 181000001	PH Release Valve Repair Kit—Release Valve Nut
45	Kit 181000001	PH Release Valve Repair Kit—Release Knob

Item	Part No :	Description :
46	Kit 181000001	PH Release Valve Repair Kit—Release Knob Spring Pin
47	Kit 180900001	PH Control Valve Repair Kit - Control Knob Screw
48	180100441	PH Base Plate
49	180100451	PH Base Plate Screw
50	180100461	PH Handle Clip
51	180100471	PH Handle Clip Nut
52	Kit 180900001	PH Control Valve Repair Kit - Control Valve Nut
53	Kit 180900001	PH Control Valve Repair Kit - Control Valve Seal
54	Kit 180900001	PH Control Valve Repair Kit - Control Valve Back up Ring
55	Kit 180900001	PH Control Valve Repair Kit - Control Valve Spindle
56	Kit 180900001	PH Control Valve Repair Kit - Control Valve Knob
57		PH Hydraulic Pressure Gauge & Gauge Adaptor

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