



PORTX[®] WINCH

FULL SERVICE

The following document is an officially created REID Lifting guide. It demonstrates the best practice and procedure for the following services:

- › Inspection of the unit and it's parts
- › Full disassembly, service and reassembly
- › Post-service test procedure

This service must only be carried out by a trained and certified REID Service provider.



**See the video
guide here**



**Download the
service checklist**

Contents

- 3 PPE & Tools List
- 4 Disassembly & Inspection
- 7 Assembly
- Final Tests**
- 11 Test Setup
- 12 Light Load test
- 13 Service load test

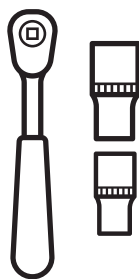
The following PPE Is required to carry out this procedure.:



The following tools are required for this procedure:

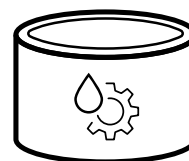


4mm hex key

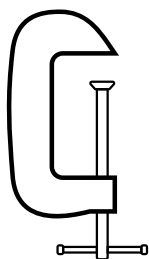


Ratchet handle with 10mm
and 13mm sockets

(Or combination spanners)



High quality grease



Clamp

Disassembly & Inspection

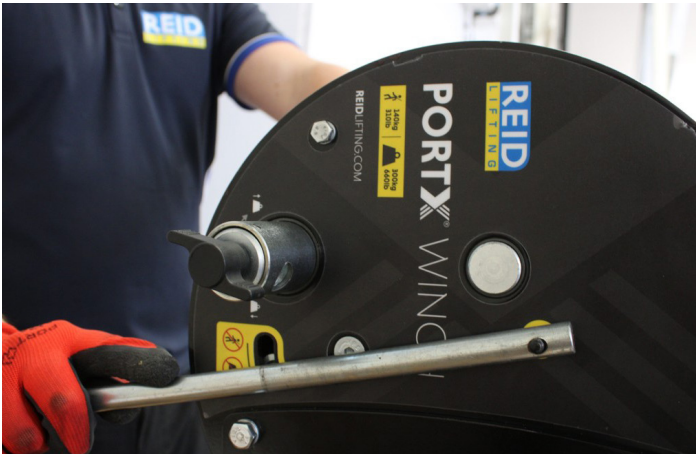


NOTE: Before beginning the service the bracket and bracket attachments should be removed completely.



1

Inspect the body of the winch. Look for any signs of damage, corrosion, or wear on the frame and housing. Ensure that all identification and instructional decals are present and clearly legible



2

Remove the wire rope from the winch. To do this efficiently, activate the free spool mechanism. Pull the rope off the drum, exposing the cable clamp.



3

Using a 4mm hex key, undo the exposed fixing on the cable clamp. Once released, feed some wire rope through the clamp, releasing the tension on the drum. Once the wire rope is slack you can access the second fixing. The safety windings on the drum can be unwound and the wire rope can be removed.



4

Using a 13mm spanner remove the 4 fixings connecting the winch to the base plate. With all the fixings removed, the winch body can now be lifted away from the base plate and placed on a bench ready to be disassembled.



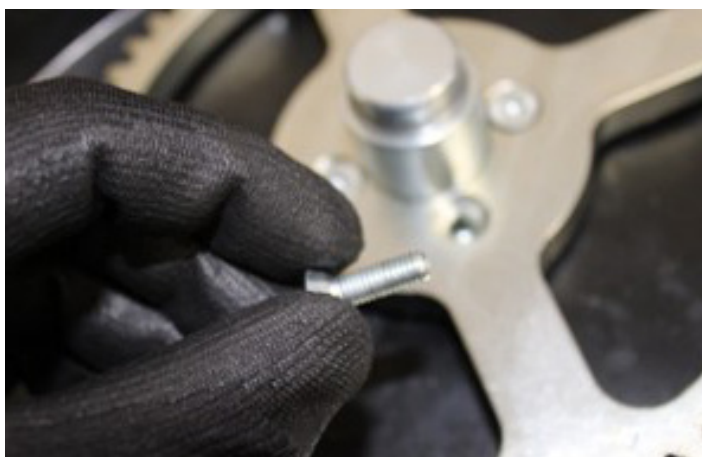
5

Remove the winged screw from the handle assembly.



6

Use a 10mm socket to undo the fixings holding the side plate to the frame. The side plate can now be removed, exposing the spur gear mechanism. Take care when lifting the side plate as the pawl springs may become detached. You can now remove the drive shaft.



7

Undo the 4 fixings holding the spur gear to the drum assembly with a 4mm hex key. Lift the gear out of the protective cover.



8

Remove the protective cover and separate the drum assembly components by removing the spacers, drum flange and drum.



9

Inspect the flange bearings in the side plate for wear and deterioration, replacing if required (Part No. PTXW-SP-0028, PTXW-SP-0017). Apply a high-quality multi-purpose grease evenly to both bearings.

Assembly



1

Ensure the fixings holding the remaining drum flange to the drum body are secure using a 4mm hex key.



2

Inspect the drum and drum flange for damage or corrosion. Reposition the drum back into the side plate.



3

When building the drum assembly, inspect each part for damage and corrosion. Start with the separated drum flange followed by the spacers. Clean any old grease from the protective cover before repositioning onto the drum assembly.



4

Inspect the spur gear for any signs of wear, damage or corrosion, paying particular attention to the condition of the teeth. Clean any dirt and old grease then apply a new even layer of high-quality multi- purpose grease, taking care to avoid clumping. The spur gear can now be fixed back in place using the four countersunk screws with a 4mm hex key.



5

Inspect the drive shaft. Test the brake mechanism by twisting the shaft and rotating the ratchet wheel, ensuring it releases from the brake. Inspect the shaft for any damage or corrosion. We can now reapply new grease to the drive shaft ratchet wheel, taking care to avoid clumping. The drive shaft can now be positioned back in the winch.



6

Inspect the pawl and springs for excessive wear, paying particular attention to the pawl tip, replacing the part if necessary.(part No. PTXW-SP-0011)



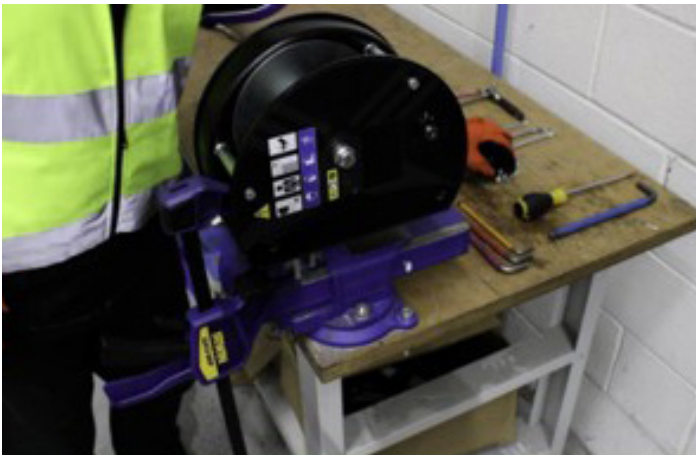
7

Compress the pawl mechanism and temporarily fix in place using a hex key. The pawl spring mechanism needs to be compressed to allow the side plate to be attached correctly.



8

Carefully return the side plate and remove the hex key. Resecure the side plate to the winch using the 10mm socket or spanner.



9

Mount the winch back on the base plate. Pull back the retention arm and fix in place using a G-clamp. Place the winch back on the base plate. Replace the fixings using a 13mm socket or spanner to fix the winch to the base plate.



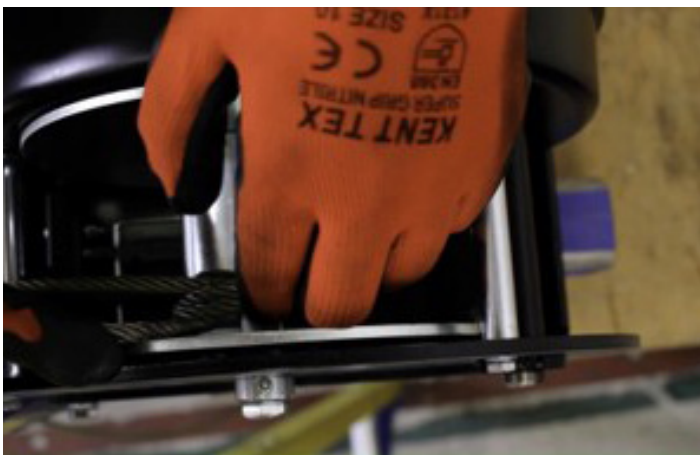
10

Attach the handle using the winged screw.



11

To install the wire rope, route it beneath the clamp and guide it around the drum. Feed the wire rope through the clamp until sufficient length is available to complete 4 full windings. Securely wind the wire rope around the drum, ensuring all wraps are properly seated.



12

Now take the fused and tapered end of the wire rope and feed it under the cable clamp along the designated channel. Make sure the wire rope is clamped at a point where it's at full thickness. DO NOT clamp on the fused and tapered section.



13

Pull the wire rope tight around the drum, ensuring the wraps stay flat and do not overlap. Once tightened and correctly positioned, you can tighten the second fixing on the cable clamp.



14

The G-clamp can now be removed, and the wire rope can be wound back onto the drum, ensuring it lays evenly and tightly. Proper rope lay is essential for safe and efficient operation.

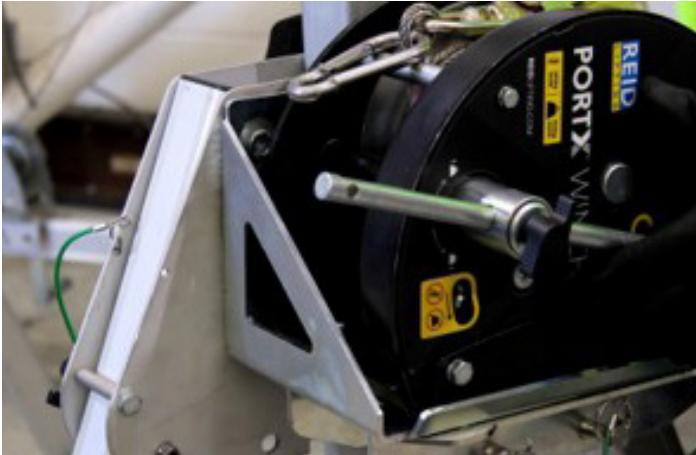


15

Inspect the retention arm, ensuring it seats tightly against the wire rope, make sure the retention base and arm are secure, and the torsion spring is free from corrosion.

Final Tests | Test Setup

NOTE: We recommend using a REID Porta Gantry Rapide. For other REID products, please refer to the relevant Operations & Assembly guide for correct setup procedure and skip to step 4.



1

Begin by attaching the PortX Winch to a PGR using the universal bracket



2

Pull the wire rope through the cheek plates and attach the corner sheave. The easiest way to release rope whilst no load is attached is using the free spool system.



3

Pull the wire rope across the Porta Gantry Rapide as and attach the sheave carrier



4 (All systems)

Attach a carabiner through the hard eye of the rope. We do this to prevent the fall indicator activating during the load tests, as the wire rope must be replaced if the indicator gets activated.

Final Tests | Light Load Test



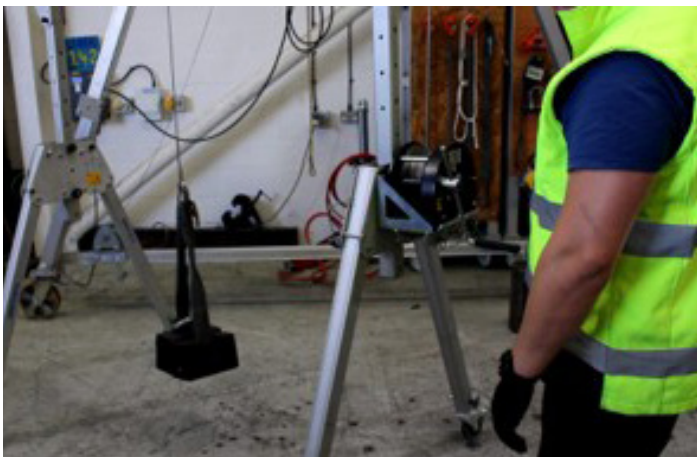
1

A light load should be carried out. To do this attach 15% of the WLL of the winch to the carabiner you added, for the PortX Winch that's 45kg.



2

Lift the load approximately 300mm off the ground.



3

Once the load has been lifted let go of the handle ensure there is no slippage of the brake.



4

Lower the load after confirming there is no brake slippage.

Final Tests | Service load Test



1

The service load test should be 100% of the WLL of the winch. For the PortX winch this should be 300kg.



2

Attach the weight to the carabiner you added and lift the load approximately 300mm off the floor.



3

Once the load has been lifted let go of the handle ensure there is no slippage of the brake.



4

Lower the load after confirming there is no brake slippage.

**Office, UK**

Unit 1 Wyeview
Newhouse Farm Industrial Estate
Chepstow
Monmouthshire
NP16 6UD
United Kingdom

- › +44 (0)1291 620 796
- › enquiries@reidlifting.com
- › reidlifting.com

REID Lifting Inc, USA

7900 International Drive,
Suite 300,
Bloomington,
MN 55425
USA

- › +1-(888)-721-6411
- › info@reidlifting.com
- › us.reidlifting.com

