

## WARNING INFORMATION

#### IMPORTANT: READ ALL INSTRUCTIONS BEFORE USE

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The instructions and warnings contained in this manual should be read and understood before using or operating this equipment. Do not allow anyone to use or operate this equipment until they have read this manual and have developed a thorough understanding of how this equipment works. Failure to observe any of the instructions contained in the manual could result in severe personal injury to the user or bystanders, or cause damage to the equipment and property. Keep this manual in a convenient and safe place for future reference.

Whilst every effort has been made to ensure accuracy of information contained in this manual, the TQB Brands Pty Ltd policy of continuous improvement determines the right to make modifications without prior warning.

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| Trusted by serious professionals              |    |

TQ Pro top quality Tools and Equipment are designed and manufactured for specialist professional use in a garage and workshop environment. TQ Pro products are strong, reliable, and well finished for the expert tool user who appreciates professional design, reliability, and attention to detail. Covered by our 12 month trade use warranty, our TQ Pro Tools & Equipment are made with pride to deliver the best combination of professional performance, presentation, and reliability.



### SAFETY INSTRUCTIONS

# **SAFETY OPERATING INSTRUCTIONS**

- DO NOT exceed the maximum lifting load capacity of 1,000kg.
- Only use this transmission lifter on a surface that is stable, level, smooth, dry and capable of sustaining the load. Keep the surface free from unrelated materials and ensure that there is adequate lighting.
- DO NOT use on tarmac, or any other soft surface as the transmission may sink or topple.
- Vehicle must be properly and adequately supported before commencing work with this transmission lifter.
- This transmission lifter is used as an aid in the removal and installation of a transmission or a differential as individual components. DO NOT use it for any other purpose than it is designed for.
- Always centre the load on the saddle of this transmission lifter and be sure the transmission is stable and secure before raising or lowering.
- DO NOT use the transmission lifter to lift or support a heavy load such as a differential with axle or a transmission with bell housing which is bulky and difficult to balance, and may cause the transmission lifter to tip over and lead to equipment damage and/or serious personal injury.
- Never move this transmission lifter with a load any higher off the ground than necessary and always move it slowly and carefully.
- Transfer the load immediately to appropriate support device for service or repair.
- DO NOT operate this transmission lifter when you are tired or under the influence of alcohol, drugs or any intoxicating medication.
- DO NOT allow untrained persons to operate this product and DO NOT make any modifications to this product.
- DO NOT tamper with the safety valve.
- DO NOT use brake fluid or any other improper fluid to refill or top up the hydraulic system of this transmission lifter. Only use good quality hydraulic jack oil.
- DO NOT expose the transmission jack to rain or any other kind of inclement weather.
- Use a qualified person to maintain the transmission lifter in good condition. Keep the transmission lifter clean for best and safest performance.
- Use approved personal protection safety equipment such as eye protection, non skid boots, full face impact shield and heavy duty work gloves. Keep proper footing and balance, do not overreach.

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#### **INTENDED USE:**

Designed for the removal, installation and transportation (in the lowered position) of 4WD and light commercial transmissions that are raised by an in-ground or above-ground lift. Not designed for supporting loads.

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# ASSEMBLY, OPERATION, PREVENTITIVE MAINTENANCE

#### 1. FEATURES

This **TQ Pro** 1,000kg Transmission Lifter is designed for transmission installation and removal. It features a universal mounting head that provides a wide fore and aft tilt range. The telescopic 2-stage design is ideal for reduced clearance lifts and the foot pedal operation keeps hands free during lowering. The manually operated hydraulic system includes a bypass system to prevent over extension and accidental overloading. The sturdy and stable design features four heavy duty castors for easy manoeuvrability around the workshop.

#### 2. ASSEMBLY

Unpack the product and check contents with the exploded drawing and the parts list. Should there be any damaged or missing parts, contact your place of purchase immediately.

- 1. Attach the two leg assemblies (48) to the hydraulic main body (36) using bolts (56), washers (55), lock washers (54).
- 2. Secure with adjustable rods (24,25,26)
- 3. Fit the 4 castors (49,53) to the legs using washers (50), lock washers (51) & nuts (52).
- 4. Screw the cradle kit (57) onto the top of the lift ram rod, then assemble the adaptor as per the exploded drawing.
- 5. Remove the legs from the packaging and attach one each of the braked and non-braked castor wheels supplied at each end of the leg using the mount holes provided.
- 6. Remove the lift ram from the packaging and place upright on a suitable block approximately 100mm in height, attach legs placing the braked castor at the pump side of the assembly, tighten leg bolts then back off 1/3 turn.
- 7. Using a spirit level placed vertically against the ram housing below the breather and manipulate the ram and leg assembly till level.
- 8. Attach the nonadjustable end of the rear struts to lift ram collar.
- 9. Adjust rear struts to line up with leg mounts and bolt up.
- 10. Check mount to mount distance of both rear struts for equal length, re-adjust if necessary.
- 11. Attach the nonadjustable end of the front struts to lift ram collar.
- 12. Adjust front struts to line up with leg mounts and bolt up.















- 13. Check mount to mount of both front struts for equal length and re-adjust, if necessary, then tighten the leg bolts.
- 14. Remove the headstock from the packaging and place on the spigot at the top of the lift ram, tighten the locking bolt and assemble and fit the load restraint chain set.

## 3. BEFORE USE

Prior to use conduct a visual inspection checking for abnormal conditions, such as cracked welds, leaks, and damaged, loose, or missing parts.

1. Following assembly and before first use, loosen the Air Vent Screw (33) then leave the Transmission Lifter for one hour to allow the hydraulic oil to settle before bleeding the system.

### **Bleeding Instructions**

- 2. Remove the Oil Filler Bung/Breather and if required, top up with \*32 Grade hydraulic oil until the oil is lapping the bottom of the Oil Filler Hole then replace the Oil Filler Bung/Breather.
- 3. Start with the Pump Pedal Assembly in the raised position.
- 4. Depress the Pump Pedal to full stroke and hold in that position. With a Hex key undo the Pump Bleed Screw 1 full turn counter-clockwise, aerated oil will begin to exit the Pump Bleed screw housing until a clear stream of oil with no air bubbles flows from the Pump Bleed Screw housing.
- Tighten the Pump Bleed Screw and raise the Pump Pedal to fully raised position, repeat instructions 1 to 4 until no air bubbles appear in the oil stream at the bleeder housing. At this stage, the Pedal Pump Assembly should be clear of air.

### In the next steps the Lift Ram assembly bleeding procedure is described

- 6. Start with the Pump Pedal Assembly in the raised position.
- 7. With an Allen key undo the Lift Ram Bleed Screw 1 full turn counter clockwise, aerated oil will begin to exit the Lift Ram Bleed Screw housing until a clear stream of oil with no air bubbles flows.
- 8. Tighten the Lift Ram Bleed Screw and raise the Pump Pedal to fully raised position.
- 9. Repeat instructions 6 to 8 until no air bubbles appear in the oil stream at the bleeder housing and tighten the Lift Ram Bleed Screw.
- 10. Recheck the oil level as described in step 1 and top up to correct oil level if required.

At this point both the Pump and Lift Ram should be free of air and the Lifter ready for operation

- 11. Test the hydraulic power unit without load by raising it to full height.
- 12. Lower the fully extended hydraulic ram by pushing the foot operated Release Pedal (34) down gently to control the rate of descent.
- 13. Your Hydraulic Transmission Lifter is ready for use.

\*The range of TQPro Transmission Lifters use 32 Grade Hydraulic Oil for the correct operation and compatibility with the seals used in their construction.















#### 4. OPERATION

#### To remove transmission from raised vehicle

- 1. Always loosen the Air Vent Screw (26) before use.
- 2. Roll the Transmission Lifter into position and lock the Castor Wheel (47) brakes.
- 3. Pump the foot operated Lift Pedal (38) until the Transmission Cradle (04) reaches the desired height.

**NOTE:** Follow the vehicle manufacturer's recommended procedures for removing the load as outlined in the vehicle service manual or repair guide.

4. Carefully centre the load on the cradle. Ensure the load's centre of gravity is centred on the cradle and the transmission is stable and secure. Use the chains to secure the load.

**NOTE:** Before lowering the load check to ensure all tools and personnel are clear and it is safe to lower the load.

5. SLOWLY and CAREFULLY push the foot operated Release Pedal (34) to lower the load to its lowest position.

**NOTE:** The speed of lowering is controlled by pressure on the release valve. The more the valve is opened the more rapidly the load descends. Always ensure the decent is slow and controlled.

- 6. Once the load is lowered, release the castor wheel brakes.
- 7. CAREFULLY and SLOWLY move the transmission lifter from under the vehicle.
- 8. Immediately transfer the load to a bench top or appropriate support device for service or repair.

#### To install transmission into raised vehicle

- 1. Always loosen the Air Vent Screw (26) before use.
- 2. Roll the Transmission Lifter into position and lock the Castor Wheel (47) brakes.
- 3. Transfer the load from the bench top or appropriate support device to the Transmission Lifter.
- 4. Carefully centre the load on the cradle. Ensure the load's centre of gravity is centred on the cradle and the transmission is stable and secure. Use the chains to secure the load.
- 5. Unlock the Castor Wheel brakes and carefully roll the transmission lifter into position beneath the vehicle and lock the castor wheel brakes.
- 6. Pump the foot operated Lift Pedal (38) until the Transmission reaches the desired height.

**NOTE:** Follow the vehicle manufacturer's recommended procedures for installing the load as outlined in the vehicle service manual or repair guide.

7. SLOWLY and CAREFULLY push the foot operated Release Pedal (34) to lower the load to its lowest position.

**NOTE:** The speed of lowering is controlled by pressure on the release valve. The more the valve is opened the more rapidly the load descends. Ensure the decent is slow and controlled.

- 8. Once the cradle is lowered, release the castor wheel brakes.
- 9. CAREFULLY move the transmission lifter from under the vehicle.
- 10. When work is complete, ensure the cradle is at its lowest position and tighten the air vent screw to store.

# 🔥 WARNING

Dangerous dynamic shock loads are created by quick opening and closing the release valve when the load is being lowered. The resulting overload may cause hydraulic system failure which could cause property damage and/or severe personal injury.

#### 5. INSPECTION

- Prior to each use conduct a visual inspection checking for abnormal conditions, such as cracked welds, leaks, and damaged, loose, or missing parts.
- The Transmission Lifter shall be maintained in accordance with the maintenance instructions. No alterations or modifications shall be made to the Transmission Lifter.
- Inspections shall be performed in accordance with this owner's manual.
- The Transmission Lifter must be inspected immediately if it is believed to have been subjected to abnormal load or shock.
- Owners and /or operators should be aware that repair of this product may require specialised equipment and knowledge (refer to maintenance section).

#### 6. STORAGE

This TQ Pro Transmission Lifter should always be stored in a dry location on a level surface with the cradle fully lowered and the Air Vent Screw closed.

#### 7. MAINTENANCE

Monthly maintenance is recommended. Lubrication is critical to Transmission Lifters as they support heavy loads. Any restriction due to dirt, rust, etc, can cause either slow movement or cause extremely rapid jerks damaging the internal components. The following steps are designed to keep the Transmission Lifter well maintained and operational.

Pivots and pins in all manual pump and release mechanisms [marked X] should be lubricated with a Light Bearing Grease or 30/40W Machine Oil to ensure long life and prevent premature wear.





Lubricate all Cradle Pins, Pivots and Threaded Adjustor Rods [marked X] should be lubricated with a Light Bearing Pivots Pins & Threaded Rods



Wheel axles and Castor ball races should be lubricated with a Light Bearing Grease or 30/40W Machine Oil to ensure long life and prevent premature wear.

Grease or 30/40W Machine Oil to ensure long life and prevent premature wear.

Periodically grease the ram shaft divider with a light bearing grease via the grease nipple provided.

Important: Dirt is the greatest single cause of failure in hydraulic units. Keep the transmission lifter clean and well lubricated to prevent foreign matter from entering the system. If the Transmission Lifter has been exposed to rain, snow, sand, or grit it must be cleaned before it is stored or used.

Important: Use only quality grade hydraulic jack oil. Avoid mixing different types of fluid and NEVER use brake fluid, turbine oil, transmission fluid, motor oil or glycerine. Improper fluid can cause premature failure of the Transmission Lifter and the potential for sudden and immediate loss of load. We recommend PENRITE HYDRAULIC JACK OIL or equivalent.

Periodically check the piston rod for signs of rust or corrosion. Clean exposed areas with a clean oiled cloth.

- A coating of light lubricating oil to pivot points and axles will help to prevent rust and ensure that castors, foot pedals and pump assemblies move freely. Periodically lubricate the pivot points and axles with a light lubricating oil as needed.
- When equipment efficiency drops, bleed air from hydraulic system. Bleed the hydraulic system to eliminate any air in the system by pushing down the release foot pedal (13) down and pumping the lift foot pedal (14) 15-20 times.
- With the Transmission Lifter in the lowest position remove the air vent screw (16) to check the hydraulic oil level. If it is not adequate, add high quality hydraulic jack oil as necessary. Insert and tighten the air vent screw. Then bleed away air from the hydraulic system.
- Leave the Transmission Lifter for 60mins to allow oil to settle before bleeding the hydraulic system.
- Follow the Bleeding Instructions (Section 3: Before Use) to bleed the hydraulic system and eliminate any air in the system.
- To ensure best performance and longer equipment life replace the complete hydraulic oil at least once a year.
- With the Transmission Lifter in its lowest position remove the Air Vent Screw, lay the Transmission Lifter on its side and drain the oil into a suitable container.
- Ensure that no dirt gets into the system.
- Set the Transmission Lifter in its level upright position, fill with approved hydraulic jack oil.
- Replace the Air Vent Screw and bleed away air from hydraulic system as described in Section 3: Before Use.

It is recommended that an annual inspection be conducted by a qualified technician.

#### WARNING: Never use sandpaper or abrasive material on these surfaces.

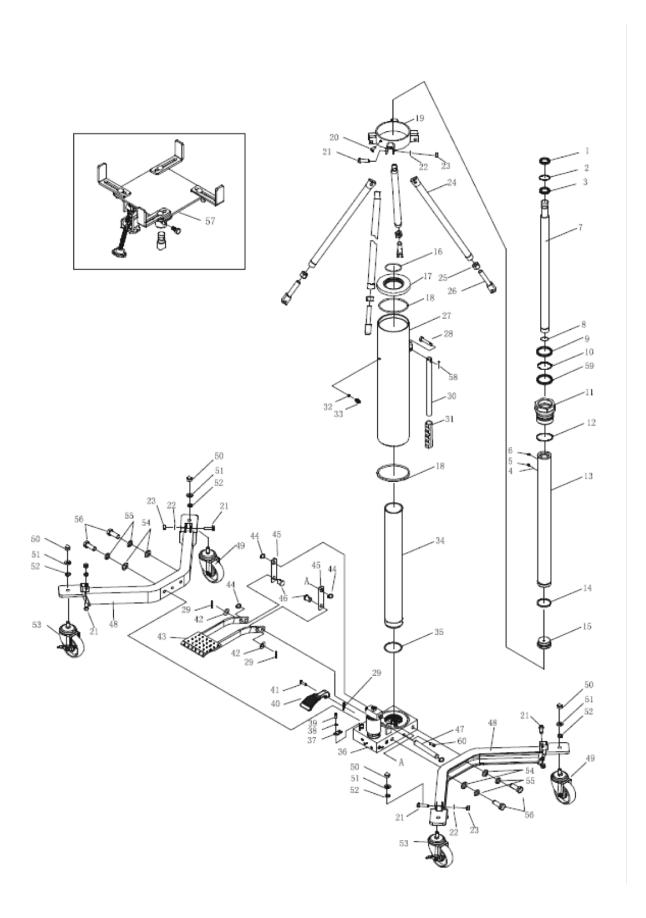
#### 8. SERVICE & REPAIR

Any Transmission Lifter found damaged in any way, or found to be worn or operates abnormally should be removed from service until repaired by an authorised service agent. Owners and / or operators should be aware that repair of this product may require specialised equipment and knowledge. Only authorised parts, labels, decals shall be used on this equipment. Annual inspection of the jack is recommended and can be made by an authorised repair facility to ensure that your equipment is in optimum condition and that the equipment has the correct decals and safety labels specified by the manufacturer.

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# PARTS DIAGRAM



# PARTS LIST

| Part# | Description                | QTY | Part# | Description         | QTY |               |  |
|-------|----------------------------|-----|-------|---------------------|-----|---------------|--|
| 1     | Dust Ring                  | 1   | 31    | Handle Sleeve       | 1   |               |  |
| 2     | O Ring                     | 1   | 32    | Seal Ring           | 1   |               |  |
| 3     | U Ring                     | 1   | 33    | Air Venting Screw 1 |     |               |  |
| 4     | Steel Ball                 | 1   | 34    | Cylinder 1          |     |               |  |
| 5     | Screw                      | 2   | 35    | Cylinder Pad 1      |     |               |  |
| 6     | Oil Cup                    | 1   | 36    | Pump 1              |     |               |  |
| 7     | 2 <sup>nd</sup> Piston Rod | 1   | 37    | U Limit2 1          |     |               |  |
| 8     | Retaining Ring             | 1   | 38    | Lock Washer         | 1   |               |  |
| 9     | Dust Ring                  | 1   | 39    | Screw               | 1   |               |  |
| 10    | O Ring                     | 1   | 40    | Release Foot Pedal  | 1   |               |  |
| 11    | 1 <sup>st</sup> Round Nut  | 1   | 41    | Pin B 1             |     |               |  |
| 12    | O Ring                     | 1   | 42    | Flat Washer         | 2   |               |  |
| 13    | 1 <sup>st</sup> Piston Rod | 1   | 43    | Lift Foot Pedal     | 1   |               |  |
| 14    | Retaining Ring             | 1   | 44    | Retaining Ring      | 4   |               |  |
| 15    | Seal Cap                   | 1   | 45    | Connection Bar 2    |     |               |  |
| 16    | O Ring                     | 1   | 46    | Pin                 |     |               |  |
| 17    | Round Nut Seat             | 1   | 47    | Pin 1               |     |               |  |
| 18    | Pad                        | 2   | 48    | Base Foot 2         |     |               |  |
| 19    | Support Ring               | 1   | 49    | Caster 2            |     |               |  |
| 20    | Bolt                       | 1   | 50    | Cap Nut             |     |               |  |
| 21    | Bolt                       | 8   | 51    | Lock Washer         |     |               |  |
| 22    | Lock Washer                | 8   | 52    | Flat Washer         | 4   |               |  |
| 23    | Bolt                       | 8   | 53    | Caster with Brake   | 2   |               |  |
| 24    | Adjustable Rod             | 4   | 54    | Flat Washer         | 4   |               |  |
| 25    | Nut                        | 4   | - 55  | Lock Washer 4       |     | Lock Washer 4 |  |
| 26    | Bolt                       | 4   | 56    | Bolt 4              |     |               |  |
| 27    | Oil Tank                   | 1   | 57    | Saddle 1            |     |               |  |
| 28    | Pin                        | 1   | 58    | Cotter Pin          | 1   |               |  |
| 29    | Cotter Pin                 | 3   | 59    | U Ring              | 1   |               |  |
| 30    | Handle                     | 1   | 60    | Screw               | 2   |               |  |

# TROUBLESHOOTING

| Problem                                     | Symptom   | Cause   | Conclusion  | Solution   |
|---|---|---|---|--|
| Lifter will not<br>lift using foot<br>pump  | Pump has no<br>resistance, lift ram<br>will not raise                   | Release pedal valve pin obstructed  | Dirt under release pin<br>retainer  | Hold pedal down and<br>clean out pin cavity<br>with an air duster                                  |
|   |   | Air in hydraulic system   | Air cavitation in pump<br>and/or lift ram   | Bleed system as per instructions   |
|   |   | Load weight exceeds<br>lift capacity  | Higher capacity lifter<br>required  | Select higher<br>capacity lifter   |
|   |   | Pump circuit<br>protection valve<br>actuated  | Pump circuit protection valve needs reset   | Depress release<br>pedal, valve will<br>reset  |
|   |   | Overload actuated   | Relief valve needs reset  | Contact qualified technician for repairs   |
| Lifter will not<br>hold load                | Load cannot be<br>sustained, lift ram<br>drops under load               | Release valve not<br>tightly closed   | Bypass through release valve  | Ensure release valve tightly closed  |
|   |   | Damaged main seal   | Replace main ram seals  |  |
|   | Pump pedal rises  | Main check valve<br>obstructed  | Replace main check valve ball and reseat valve seat   | Contact qualified technician for repairs   |
| Lifter will not<br>lower after<br>unloading | Lift ram rises after<br>retracting                                      | Reservoir overfilled<br>and breather closed   | Ram failure due to<br>reservoir pressurised<br>caused by excess<br>reservoir level and closed<br>breather valve | Fully retract ram and<br>drain excess oil and<br>bleed system as per<br>instructions               |
|   | Lift ram will not<br>retract  | Breather closed   | Breather closed causing hydraulic lock  | Open breather and<br>bleed system<br>Contact qualified<br>technician for repairs                   |
| Poor lift<br>performance                    | Pump has no<br>resistance, lift ram<br>will not raise to full<br>stroke | Fluid level low   | Fill fluid to correct level   | Fill fluid to correct<br>fluid level and bleed<br>system   |
|   |   | Air trapped in system<br>breather closed, pump<br>failure due to<br>cavitation caused by<br>air pressure build up<br>in reservoir | Lift ram raised for<br>extended period causing<br>air ingress to hydraulic<br>system                            | With ram fully<br>retracted, open the<br>breather to let<br>pressurised air<br>escape bleed system |
|   |   |   |   | Contact qualified technician for repairs   |

### **PRODUCT INFORMATION TIPS**



### WARRANTY

**TQ Pro** products have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship for a period of 12 months from the date of purchase except where tools are hired out when the guarantee period is ninety days from the date of purchase.

Should this piece of equipment develop any fault, please return the complete tool to your nearest authorised warranty repair agent or contact TQB Brands Pty Ltd Warranty team – <u>warranty@tqbbrands.com.au</u>.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accident, or repairs attempted or made by any personnel other than the authorised TQB Brands Pty Ltd repair agent.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your TQB Brands Pty Ltd guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the 12 month period.

#### **Consumer Guarantee**

Our goods come with a guarantee that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.



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