





## TRANSMISSION LIFTER



#### **OPEN BREATHER VALVE BEFORE USE**

#### About the **TradeQuip** brand

The 'TradeQuip' brand of workshop equipment, is designed for use in a demanding workshop environment by professional users. With proven and trusted "Made for the Trade" reliability, 'TradeQuip' branded products offer the very best in performance for an affordable price. All backed by a 1year trade guarantee across 1,000+ distributors Australia wide.







#### **WARNING**

#### IMPORTANT: READ ALL INSTRUCTIONS BEFORE USE



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.

#### CONTENT

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## **USE THIS PRODUCT FOR ITS INTENDED PURPOSE ONLY**

#### **INTENDED USE**

Designed for the removal, installation, and transportation (in the lowered position) of passenger vehicle transmissions that are raised by an inground or above-ground lift.

#### OPEN BREATHER VALVE BEFORE USE

#### STANDARD OPERATING PROCEDURE

**DO NOT** use this machine unless you have been trained and assessed to a competent level in its sate use and operation, and have been given permission to use this



Safety glasses must be worn when operating this equipment



Long loose hair must be contained when operating this equipment



Safety footwear must be worn when operating this equipment



Close fitting/protective clothing must be worn when operating this equipment



Rings and jewellery must not be worn when operating this equipment

#### PRE-OPERATING SAFETY CHECKS

Save these instructions. For your safety, read, understand, and follow the information provided with and on this **500kg Telescopic Transmission Lifter** before using.

- DO NOT exceed the maximum lifting load capacity of 500kg.
- ALWAYS loosen the air vent screw on side of hydraulic ram body before use.
- 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 ISOVG32 hydraulic oil.
- DO NOT expose the transmission lifter 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.



#### WARNING:

Vehicle must be properly and adequately supported before commencing work with this Transmission Lifter.

#### **INTENDED USE:**

Designed for the removal, installation, and transportation (in the lowered position) of passenger vehicle transmissions that are raised by an in-ground or above-ground lift.

# PRODUCT INFORMATION

How to extend the life of your Transmission Lifter

## 8 Top Tips

to extend the life of your TQB BRANDS Transmission Lifter

- 1 Open the breather valve prior to use.
- Regularly lubricate the tilt adjust rods, pivot points and castors.
- 6 Balance and secure load on the platform.







6 Use correct model for intended applications.

	GVM LESS THAN 2000kg	GVM LESS THAN 2300kg	GVM LESS THAN 2500kg	GVM LESS THAN 3200kg	GVM LESS THAN 3500kg	2 Wheel Drive	All Wheel Drive	4x4
2049T/2059T	٧					V		
2002T	٧	٧				٧	٧	
2052	٧	٧	٧			٧	V	
PROTL500/A	٧	٧	٧			٧	٧	
2053T	٧	٧	٧	٧		٧	٧	٧
PROTL1000	٧	٧	٧	٧	٧	٧	٧	٧

- 3 Always store in the fully lowered position.
- 4 Never use trans lifter to support loads.
- Read the user's Manual thoroughly and keep a copy easily accessible.
- 8 Visit our webpage www.tqbbrands.com.au for instructional & pre-start video.





BORUM INDUSTRIAL WORKSHOP EQUIPMENT

#### ASSEMBLY, OPERATION, PREVENTITIVE MAINTENANCE

#### 1. FEATURES

This 2-Stage hydraulic TradeQuip "Made for the Trade" Telescopic Transmission Lifter offers a wide range of versatility designed to help increase workshop productivity. Rated to safely work with Transmissions from vehicles with a GVM of less than 2,000kgs, the universal mounting head provides a wide fore and aft tilt range. The foot operated manual hydraulic system has a smooth hydraulic lift and descent. The foot operated pump with a foot release valve lever provides a steady and mechanically controlled safe descending speed.

#### 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. This Telescopic Transmission Lifter is built by combining the hydraulic power unit, wheel stand units and cradle unit.
- 2. Connect the two wheel stands (4) with the base of the power unit (9) by inserting the bolts (1) and lock washer (2) washer (3) into the two holes on the power unit and tighten.
- 3. Assemble the four swivel castor wheels (8) together with the washer (7) lock washer (6) on each of the four ends of the wheel stands (4) and tighten the nuts (5).
- 4. Locate the two angle plates (74) and two plates (75) assemblies. Attach them to the cradle assembly (66), using bolt (76) and tighten securely.
- 5. Attach two shackles (68) and two chains (67) to the plates (75) using shackle bolts (69) and nuts (53).
- 6. Attach the cradle set (48) onto the top of the Ram2 (39) and slip it down, using bolt (59) and tighten it.



## OPEN BREATHER VALVE BEFORE USE

#### 3. BEFORE USE

Ensure Breather Valve is open before use.

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

#### **Bleed Hydraulic Transmission Lifter:**

- 1. Remove the Filler Bung/Breather and if required, refill with ISOVG32 hydraulic oil, until the oil is lapping the bottom of the filler hole then replace the Filler Bung/Breather and open the Breather air vent screw.
- 2. Pump the pedal to Lift Rams to full extension.
- 3. At full extension resistance will be felt at the pedal and the pedal travel will stall.
- 4. Whilst holding down the release/lowering pedal, continue to pump the pump/raise pedal approximately 10 times then open the release and allow the lift ram to completely retract.
- 5. This procedure will have circulated the oil through the release and pressure circuits simultaneously bleeding the pump mechanism.
- 6. If necessary, repeat the process steps 2 to 4.

At this point both the Pump and Lift Ram should be free of air and the Jack ready for operation If the pump still feels spongy or load is slow to raise, seek the services of a qualified Hydraulic repairer.

\*The TradeQuip range of transmission lifts use ISOVG32 Hydraulic Oil for the correct operation and compatibility with the seals used in their construction.

#### 4. OPERATION

#### Prior to use remove the Solid Plug and replace with the Air Vent Valve.

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

- 1. Move the Telescopic Transmission Lifter into position.
- 2. Move the foot pedal (33) up and down to raise the lifting platform assembly (35).
- 3. Adjust the lifting platform travel screw and the angle adjustment screw to align with the shape of the transmission.
- 4. Adjust the claws and the securing chain to secure the transmission on the table.
- 5. Remove the transmission from the vehicle.
- 6. Press the release pedal (20) fully to slowly lower the load.
- 7. Reverse this procedure when mounting the transmission.

NOTE: The speed of lowering is mechanically controlled by fully pressing down on the pedal (20). This ensures the decent is slow and controlled.

**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 this 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 transmission lifter should always be stored in a dry location on a level surface with the **cradle fully lowered and the air vent valve closed**.

#### 7. MAINTENANCE

Monthly maintenance is recommended. If this transmission lifter is in constant use. drain and refill with good quality hydraulic jack oil once a year. The level of oil should be maintained to minimum of 6mm below the air vent screw. Top up with quality hydraulic jack oil eg. ISOVG32 hydraulic oil. DO NOT use brake/trans fluid or engine oil. Lubricate the wheel axles and all pivot points with engine oil or similar lubricant every month.

The hydraulic cylinder assembly of this transmission jack contains hydraulic fluid that must be kept at approximately 90% full at all times for proper operation. To check the level and to fill:

- 1. Allow the lifting platform assembly to lower completely.
- 2. Remove the reservoir breather/bung.
- 3. Make a visual inspection inside the oil tank opening. The hydraulic fluid must be approximately 90% of the capacity of the hydraulic cylinder.
- 4. Fill oil tank with clean hydraulic fluid oil of a high quality.
- 5. Replace reservoir breather/bung and open the breather for operation.

**Important**: Use only quality ISOVG32 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 ISOVG32 or equivalent.

**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.

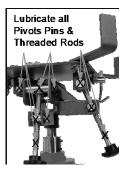
Pivots and pins in all manual pump and release mechanisms [marked X] should be lubricated with a Light Bearing Grease or 30/40W Machine Oil to ensure long life and prevent premature wear.



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.



Cradle Pins, Pivots and Threaded Adjustor Rods [marked X] should be lubricated with a Light Bearing Grease or 30/40W Machine Oil to ensure long life and prevent premature wear.



If the transmission lifter has been exposed to rain, snow, sand, or grit it must be cleaned before it is stored or used.

Periodically check the piston rod for signs of rust or corrosion. Clean exposed areas with a clean oiled cloth. **WARNING: Never use sandpaper or abrasive material on these surfaces.** 

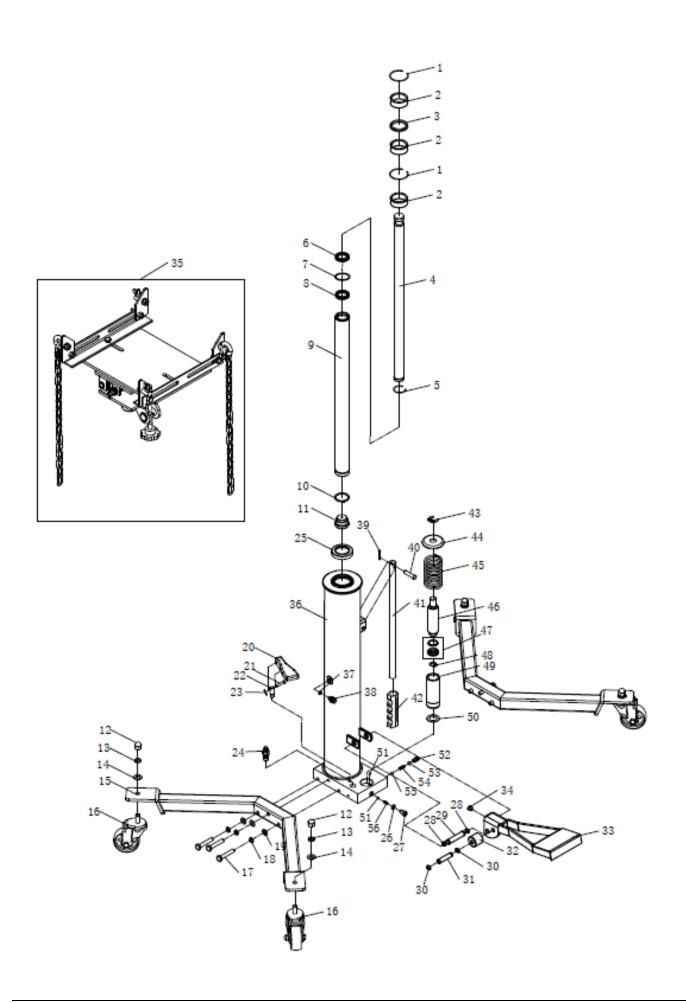
#### 8. SERVICE & REPAIR

Any Transmission Lifter found damaged in any way or found to be worn or operates abnormally it 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 transmission lifter 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.

### TROUBLESHOOTING

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

## PARTS LIST DIAGRAM



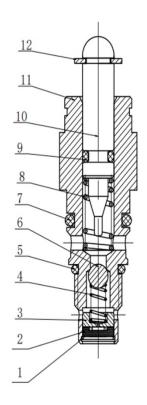
### PARTS LIST

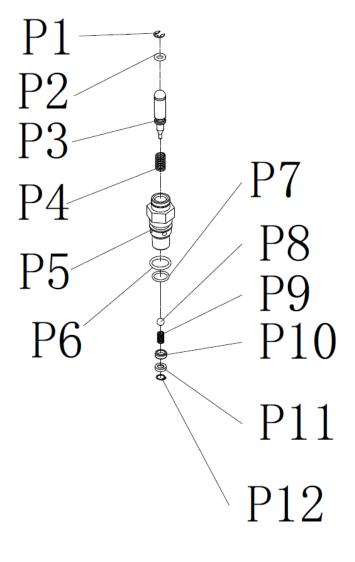
Part#	Description	QTY
1	Check Ring	2
2	Spacing Collar	3
3	U Ring	1
4	Secondary Piston Rod	1
5	Check Ring	1
6	Dust Ring	1
7	O Ring	1
8	U Ring	1
9	Primary Piston Rod	1
10	Check Ring	1
11	Сар	1
12	Nut	4
13	Lock Washer	4
14	Flat Washer	4
15	Leg	2
16	Caster	4
17	Bolt	6
18	Lock Washer	6
19	Flat Washer	6
20	Release Pedal	1
21	Pin	1
22	Link	1
23	Split Pin	1
24	Release Valve	1
25	Dust Ring	1
26	Copper Washer	1
27	Screw	1
28	Circlip	2

Part#	Description	QTY
29	Connection Shaft	1
30	Circlip	2
31	Connection Shaft	1
32	Roller Shaft	1
33	Lift Pedal	1
34	Oil Plug	1
35	Saddle	1
36	Pump Assembly	1
37	Seal Ring	1
38	Air Venting Screw	1
39	Split Pin	1
40	Shaft Pin	1
41	Carrying Handle	1
42	Handle Sleeve	1
43	Split Washer	1
44	Cover	1
45	Spring	1
46	Pump Core	1
47	U Ring	1
48	Circlip	1
49	Pump Core Seat	1
50	Copper Washer	1
51	Steel Ball	2
52	Pressure Regulating Screw	1
53	O Ring	1
54	Spring	1
55	Steel Ball	1
56	Spring	1

#### **PARTS LIST & DIAGRAM**

Part#	Description	QTY
P1	Split Circlip	1
P2	O Ring	1
Р3	Release Valve Core	1
P4	Spring for Release	1
P5	Valve Seat	1
P6	O Ring	1
P7	O Ring	1
P8	Steel Ball	1
P9	Spring for Damping Valve	1
P10	Damping Valve Core	1
P11	Copper Filter	1
P12	Circlip	1





#### **PRODUCT INFORMATION TIPS**

# PRODUCT INFORMATION

How to extend the life of your Transmission Lifter

## ID Top Tips

to extend the life of your TQB BRANDS Transmission Lifter

Open the breather valve prior to use.

Opening the breather prior to operation ensures the efficient hydraulic operation of the lift ram and pump preventing pump and ram cavitation resulting in poor operation and or possible hydraulic oil loss.



Regularly lubricate the tilt adjust rods, pivot points.

Lubrication of all pivots, pins, adjustors, and castor wheels ensures smooth operation during lifting and adjustment procedures while removing a transmission.



Regularly lubricate the castors axles & ball races to ensure smooth movement of the loaded jack.



4 Always store in the fully lowered position.

Storage in the lowered position ensures the lift ram assembly is sealed from exposure to weather fluctuations and keeps the hydraulic ram seals in a relaxed condition ready to work when required.

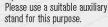


6 Never use trans lifter for supporting loads.

To ensure long life of the hydraulic lift ram seals, a load must not be supported above the fully lowered position.

Once a transmission is removed from a vehicle the loaded transmission lift must be fully lowered where the internal mechanical travel stops can current the load.

travel stops can support the load. Transmission lifts must not be used for suspension support during repairs.

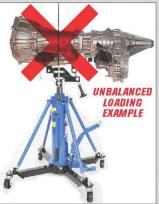




Centering the load on the platform.

Correct balance of the load is a critical factor where unbalanced loads can affect the smooth lowering and raising operation. Always consult your vehicle manufacturer specifications for the correct lift point when attaching transmission lifter to a transmission.





Use correct model for intended application.

The following chart explains model suitability based on GVM and Transmission type.

	GVM LESS THAN 2000KG	GVM LESS THAN 2300KG	GVM LESS THAN 2500KG	GVM LESS THAN 3200KG	GVM LESS THAN 3500KG	2 WHEEL DRIVE	ALL WHEEL DRIVE	4 X 4 & LIGHT COMMERCIAL
2049T/59T	Y					Υ		
2002T/22T	Y	Υ				γ	γ	
2052	Y	Y	Y.			Y	γ	
PROTL500	Y	Y	Y			Y	Y	
2053T/63T	Y	Y	Y	Y		Y	Y	Y
PROTL1000	Y	Y	Y	Y	Y	Y	Y	Y

Hazards and Obstructions.

All wheeled TQB Brands equipment must be used on smooth surface free of cracks, crevices and tripping hazards that can foul the wheels during operation or relocation.

Read the user Manual thoroughly and keep a copy easily accessible.

The user's manuals are important to the initial set up and ongoing maintenance and come with each transmission jack, they are also downloadable from our webpage at www.tqbbrands.com.au

Visit our webpage for instructional videos.

We have created instructional videos for our range of transmission jacks which include bleeding procedures and product comparisons. You'll find these at <a href="https://www.tqbbrands.com.au">www.tqbbrands.com.au</a>







#### **WARRANTY**

TradeQuip 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 – <a href="mailto:warranty@tqbbrands.com.au">warranty@tqbbrands.com.au</a>.

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.



All images and illustrations shown are for reference purposes only. All information, specifications and illustrations in this manual are based on the latest information available at the time of publication and are subject to change without notice. The information in this manual is periodically revised to ensure the latest information is included. Download the latest version of this manual and other related technical documentation from <a href="https://www.tgbbrands.com.au">www.tgbbrands.com.au</a>.