

OWNER'S MANUAL PRODUCT CODE: RL4TTP

AUTO BODY REPAIR KIT 4,000KG



### Specifications

- Safe Working Capacity: 4,000kg
- 10 Piece Kit containing Pump, Hose and Fittings
- Ram Length retracted: 150mm
- Ram Length fully extended: 367mm
- Contained in sturdy Plastic Carry Case
- Weight: 18kg
- Carton: 600 x 355 x 168mm

# WARNING INFORMATION

#### 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 Red Label policy of continuous improvement determines the right to make modifications without prior warning.

## CONTENT

WARNING INFORMATION	2
CONTENT	2
SAFETY INSTRUCTIONS	3
ASSEMBLY, OPERATION & PREVENTATIVE MAINTENANCE	4
TROUBLESHOOTING	8
PARTS LIST	10
PARTS DIAGRAM	11
WARRANTY	12

# SAFETY INSTRUCTIONS

# SAFETY OPERATING INSTRUCTIONS

- Safety related decals must be maintained and replaced if they become hard to read.
- Wear eye protection that meets approved standards.
- This equipment is designed for vehicle body / frame applications. Using this equipment in an application for which it is not designed could result in overloading, reduced load capacity, reduced stability and /or system failure.
- Do not overload the hydraulic system; creating pressure beyond the rated capacity of the pump and ram may result in personal injury.
   Overloading is indicated by bowing extension tubes or slipping attachments.
- Some components in this set do not match the maximum pressure rating of the pump and ram. USE A PRESSURE GAUGE IN THE SYSTEM TO MONITOR HYDRAULIC PRESSURE (not included). Refer to the instructions in this document for typical applications and load capacity.
- Do not over extend the hydraulic arm, over extending the spreader ram may force the plunger out of the ram, causing damage.
- Before working on a vehicle always set the parking brake and chock the wheels.
- Attachments and extension tubes must be aligned and fully engaged so ram force is straight, avoiding an off centre load condition.
- When servicing, use only Red Label identical replacement parts. Use of any other parts will void the warranty.
- Use the right product for the job. There are certain applications for which the hydraulic body repair kit was designed. Do not modify
  the hydraulic body repair kit and do not use the Hydraulic body repair kit for a purpose for which it was not intended.

#### INTENDED USE

For occasion collision repair and light duty applications where the convenience of hydraulic power can be utilised for spreading, clamping, pushing and lifting.

#### **Ram Safety Instructions:**

- 1. Ram must be on a stable base which is able to support the load while pushing or lifting. Use shims, friction material or constraints to prevent slippage of the base or load. Ensure ram is fully engaged into/onto adapters & extension accessories.
- 2. Centre load on ram. Distribute load evenly across the entire saddle surface. Do not allow off-centre loads on a ram as this may cause the load to tip or the ram to kick out.
- 3. Completely retract the ram before opening the filler screw on the pump to add hydraulic fluid. An overfill can cause personal injury due to excess reservoir pressure created when rams are retracted.

#### Hose Safety Instructions:

- 1. Before operating the pump, tighten all hose connections using the correct tools. Do not over tighten; connections need only be secure and leak free. Over tightening can cause premature thread failure or high pressure fittings to split at pressures lower than their rated capacity.
- 2. Should a hydraulic hose ever rupture, burst, or need to be disconnected, immediately shut the pump OFF, and open the control valve to release all pressure. Never grasp a leaking, pressurised hose with your hands; the force of escaping hydraulic fluid could cause serious injury.
- 3. Do not subject the hose to any potential hazard such as fire, extreme cold or heat, sharp surfaces, or heavy impact. Do not allow the hose to kink, twist, curl, or bend so tightly that the fluid flow within the hose is blocked or reduced. Do not use the hose to move attached equipment. Periodically inspect the hose for wear, because any of these conditions can damage the hose and result in personal injury.
- 4. Hose material and coupler seals must be compatible with the hydraulic fluid used. Hoses must not come in contact with corrosive materials.

#### **Coupler Valves**

1. KEEP COUPLER VALVES PROTECTED WHEN NOT IN USE. Dust caps are included for all Coupler Valves and should be screwed in when not in use to keep equipment clean. Keep couplers and valves debris, dirt and dust free

Op

# ASSEMBLY, OPERATION & PREVENTATIVE MAINTENANCE

#### 1. FEATURES

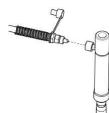
The Red Label 4,000kg Hydraulic Auto Body Repair Kit is an auto body repair kit that features extension tubes with a snap lock design for quick and easy assembly.

The flex head features a permanently moulded rubber pad, interlocked to prevent separation. The complete kit included a variety of auto body, frame repair and construction components for lifting, pushing, bending and spreading.

### 2. ASSEMBLY

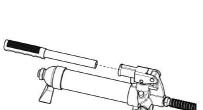
6.

1. Unscrew and save the end plugs located on the ends of the hose and hydraulic ram.

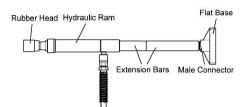


2. Securely screw the hose into the hydraulic ram.

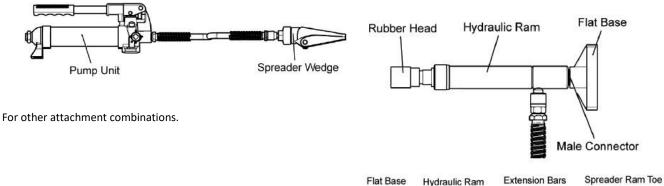
3. Insert the pump handle into the receptacle located at the top of the pump unit.

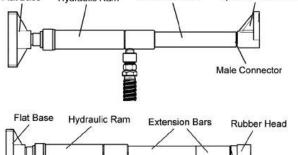


4. To attach the head, the extension bars, the male connector, and the flat base to the hydraulic ram.



5. To attach the spreader wedge to the pump unit.





Male Connector

#### 3. BEFORE USE

Conduct a thorough visual inspection checking for leaks and any abnormal conditions, such as cracked welds, and damaged, loose, or missing parts.

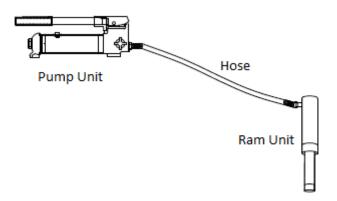
#### Bleeding Air from the System

Air can accumulate in the hydraulic system during the initial setup or after prolonged use, which can cause the hydraulic ram to respond slowly or operate in an unstable manner or even leak hydraulic fluid.

To remove the air;

- 1. Position the hydraulic ram so that it is at a lower level than the hydraulic pump unit, with the piston end pointing down (see illustration below).
- The objective is to "float the air bubbles up the ram, then up the hose and back into the hydraulic pump.
- 2. Close the release valve and pump the handle on the hydraulic pump unit rapidly.
- 3. Without putting load on the hydraulic system this should quickly extend the ram.
- 4. When fully extended, open the release valve fully to allow the ram piston to retract. *Air bubbles will then be carried back up to the pump reservoir.*
- 5. Repeat this process 3-4 times.
- 6. Then with the ram fully retracted, ensure the hydraulic pump unit is positioned horizontally level.
- 7. Remove the hydraulic pump units filler screw to release trapped air from the hydraulic pump unit.
- 8. Check oil level. If necessary top up the hydraulic pump reservoir with good quality hydraulic jack oil until the fluid level is within 13mm of the filler screw hole.

**Important:** Repeated changing of hoses may result in loss of hydraulic oil and/or air bubbles entering the hydraulic ram unit. This will adversely affect the rams performance and can cause hydraulic ram fluid leakage as the seals may not be under sufficient pressure to operate effectively. In this circumstance always "Bleed Air from System" and "Check Hydraulic Oil Level" to restore normal operation.

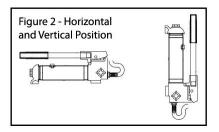


#### 4. OPERATION

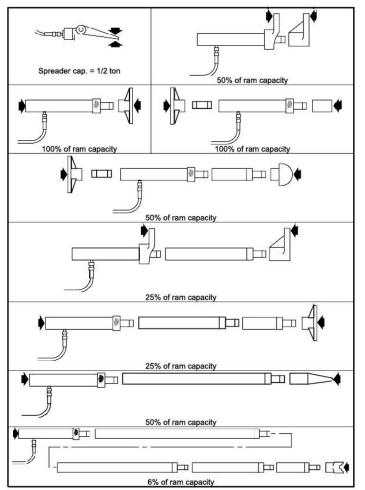
Prior to each use always conduct a visual inspection checking for leaks and any abnormal conditions, such as cracked welds, and damaged, loose, or missing parts.

The hydraulic pump may be operated in a horizontal position, or in a vertical position with the head pointing down as shown.

- 1. Assemble the hose between the pump and ram.
- 2. Determine the appropriate attachment for your application; assemble the attachment to the ram piston.
- 3. Turn the pump unit release valve clockwise to a closed position.
- 4. Work the pump handle up and down to send oil through the hose to the ram, causing the piston to extend from the ram to the work piece.
- 5. The pump is equipped with an overload valve that will bypass oil back into the pump reservoir in an overload situation (when the system meets maximum pressure). In this case, continued pumping will have no effort on the system. If an overload situation commonly occurs, a higher capacity set is needed.
- 6. To release pressure, slowly turn the release valve counter clockwise. The release speed is controlled by how far the valve is opened.



When offset attachments are used, the rated capacity of the hydraulic system is reduced by 50%. For each extension tube used in the setup, the rated capacity is reduced another 50%. When using two or more extension tubes together, always position the shortest tube farthest away from the ram.



### 5. MAINTENANCE

Inspection: Inspect the product for damage, wear, broken or missing parts and that all components function before each use.

- 1. Tighten connections as needed. Use pipe thread sealing compound when servicing connections.
- Only use a high quality hydraulic jack oil. Do not mix different liquids and NEVER USE brake fluid, turbine oil, transmission fluid, motor oil or glycerine. Improper fluid can cause premature failure of the ram and the potential for sudden and immediate loss of load. This will also void warranty.
- 3. Check the oil level by placing the pump in a level upright position.

**Cleaning:** Periodically check the pump piston and ram for signs of rust or corrosion. Clean as needed and wipe with an oily cloth. **Note**: Never use sandpaper or abrasive material on these surfaces.

Lubrication: Application of a coating of light lubricating oil to pivot points and hinges will help to prevent rust and assure that pump assemblies move freely.

#### Adding Oil:

- 1. With ram fully retracted, set pump unit in its normal, level position. Locate and remove oil filler screw.
- 2. Fill until oil is within 13mm of the oil filler screw hole opening, re-install oil filler screw.
- 3. Do not overfill. Overfill can cause personal injury due to excess reservoir pressure created when ram is fully retracted.

#### **Changing Oil:**

For best performance and increased system life, replace the complete fluid supply at least once per year

- 1. With ram fully lowered, remove oil filler screw from the pump reservoir as above.
- 2. Lay the pump on its side and drain the fluid into a suitable container.
- 3. Set pump in its level upright position.
- 4. Fill with good quality jack oil to within 13mm of the oil filler screw hole opening. Re-install oil filler screw.

#### 6. STORAGE

This Hydraulic Auto Body Repair Kit should always be stored in a dry location with the pump piston and ram fully retracted on a level surface. Coupler valves should always be screwed in when not in use to keep equipment clean. Always keep couplers and valves debris, dirt and dust free.

### 7. SERVICE & REPAIR

Any Hydraulic Auto Body Repair Kit 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 Hydraulic Auto Body Repair Kit 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

10/20

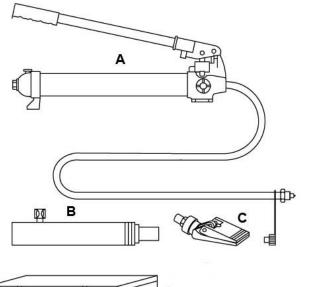
PROBLEM	SYMPTOM	CAUSE	CONCLUSION	SOLUTION
Ram will not lift	Pump has resistance but no lift	Release valve not tightly closed	Bypass through release valve	Ensure Release tightly closed
	Pump has no resistance, lift ram will not raise	Air in Hydraulic system	Air cavitation in pump and or lift ram	Bleed system
	Pump has no resistance, lift ram will not raise	Overload actuated	Relief valve needs reset	Contact Qualified Technician for repairs
	Pump has no resistance, lift ram will not raise	Load weight exceeds Lift Capacity Overload actuated	Higher capacity porta power set required Relief valve needs reset	Select Higher Capacity Ram Contact Qualified Technician for repairs
Ram will not load	Load cannot be sustained, lift ram drops under load	Release valve not tightly closed	Bypass through release valve	Contact Qualified Technician for repairs
	Load cannot be sustained, lift ram drops under load	Damaged Main Seal	Replace main ram seals	Contact Qualified Technician for repairs
	Load cannot be sustained, lift ram drops under load Pump handle rises	Main check valve obstructed	Replace Main check valve ball and reseat valve seat	Contact Qualified Technician for repairs
Ram will not lower after unloading	Ram rises after retracting	Reservoir overfilled	Pump failure due to cavitation caused by excess reservoir level	Bleed system
	Release valve pin siezed	Linkages binding	Dry release valve pin	Lubricate release valve 32gr Hydraulic oil
Poor lift performance *larger capacity ram used	Pump has no resistance, lift ram will not raise to full stroke	Fluid level low	Drain fluid to correct level	Fill fluid to correct level the Bleed system
	Pump has no resistance, lift ram will not raise to full stroke	Air trapped in system	Lift ram raised for extended period causing air ingress to hydraulic system	With ram fully retracted, remove oil filler plug to let pressurised air escape reinstall oil filler plug, Bleed system
	*Pump has no resistance, lift ram will not raise to full stroke	*Ram raises to partial extension only	*Ram oil capacity larger than reservoir capacity	*Select higher capacity mated pump and ram set

PROBLEM	SYMPTOM	CAUSE	CONCLUSION	SOLUTION
Will not lift to full extension	Lift ram has limited stroke, pump loses resistance	Fluid level low	Lift ram raised for extended period causing air ingress to hydraulic system	Fill fluid to correct level the Bleed system
Ram will not retract, hose and ram under pressure	Ram will not retract when release is opened	Coupler not tightened to fully engaged position	Coupler loose causing one way flow only	Tighten coupling using 2 adjustable wrenches till couplers are fully engaged to reopen two way flow
				Coupler threads partially engaged.

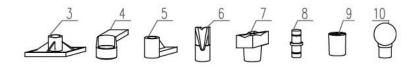
# PARTS LIST

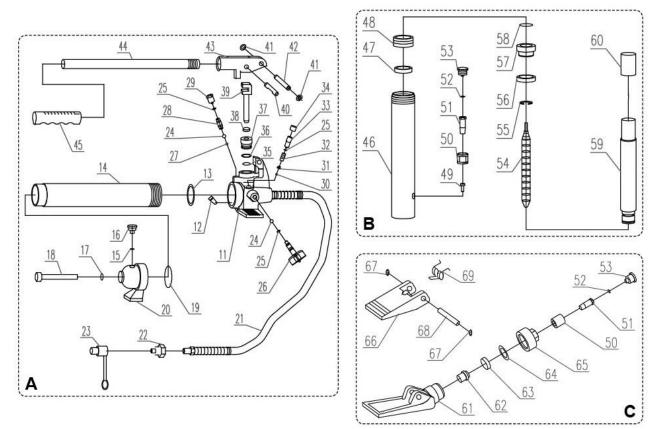
Part #	Description	QTY	Part #	Description	QTY
1	Moulded Case	1	36	Nylon Sealing Ring	1
2	Extension Tube	1	37	Screw	1
3	Flat Base	1	38	O-Ring Seal	1
4	Angled Toe	1	39	Piston	1
5	Plate Head	1	40	Hinge Pin	1
6	Wedge Head	1	41	Circlip	1
7	Square V-Hand	1	42	Pivot Pin	1
8	Male Connector	1	43	Handle Socket	1
9	Serrated Cap	1	44	Operating Handle	1
10	Rubber Head	1	45	Handle Grip	1
11	Valve Body	1	46	Ram Cylinder	1
12	Oil Filter	1	47	Ram Cylinder	1
13	O-Ring	1	48	Screw Cover	1
14	Oil Reservoir	1	49	Screw M6	1
15	Seal Ring	1	50	Connecting Nut	1
16	Thumb Nut	1	51	Cylinder Screw	1
17	Sealing Ring	1	52	O-Ring	1
18	Tie Rod	1	53	Dust Cover	1
19	O-Ring	1	54	Tension Spring	1
20	Pump Foot	1	55	Circlip	1
21	Hydraulic Hose	1	56	Nylon Sealing Ring	1
22	Coupling	1	57	Bushing	1
23	Dust Seal	1	58	O-Ring	1
24	Steel Ball	1	59	Piston Rod	1
25	O-Ring	1	60	Piston End Cover	1
26	Hand Release Valve	1	61	Fixed Jaw	1
27	Sealing Ball	1	62	Small Piston	1
28	Spring	1	63	Piston Ring	1
29	Screw	1	64	O-Ring	1
30	Steel Ball	1	65	Screw Cover	1
31	Ball Cup	1	66	Moving Jaw	1
32	Spring	1	67	Circlip	1
33	Screw	1	68	Hinge Pin	1
34	Screw Protector	1	69	Spring	1
35	O-Ring	1			

# PARTS DIAGRAM









## WARRANTY

Red Label 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 used for commercial purposes when the guarantee period is ninety days from the date of purchase.

Should the 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.



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 www.tgbbrands.com.au.