Superior quality since 1984

Owners Manual

130kg CLUTCH JACK

BORUM

INDUSTRIAL WORKSHOP EQUIPMENT

INDUSTRIAL QUALITY

Specifications:

- Safe Working Capacity: 130kg
- Minimum Height: 288mm
- Maximum Height: 980mm
- Chassis Dimension: 1041x609 mm
- Nett Weight: 60kg
- Carton Dimensions: 1070x710x220 mm
- 1x 2” Alignment Tool (10 tooth)
- 1x 1-3/4” Alignment Tool (10 tooth)

About the Borum brand

Our ***“heavy duty commercial”*** range of **Borum Industrial** equipment has been manufactured to exacting standards for the past **34 years**. We specify industrial quality components and design to ensure a long and durable working life in **commercial transport, mining, earthmoving and railway** environments. Our **Borum Industrial** range of equipment is focused on achieving superior professional standards, reliability, quality, and are covered by a ***12 month trade use warranty.***

WARNING INFORMATION


IMPORTANT: READ ALL INSTRUCTIONS BEFORE USE

WARNING

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.

The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

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

CONTENTS

STANDARD OPERATING PROCEDURE

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

Safety glasses must be worn when operating this equipment

Safety footwear must be worn when operating this equipment

Long loose hair must be contained when operating this equipment

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

PRE-OPERATIONAL SAFETY CHECKS

1. DO NOT exceed this rated capacity.
2. Study, understand, and follow all instructions before operating this device.
3. Retain these instructions for future reference.
4. The equipment described in this manual could be potentially dangerous if improperly or carelessly operated. For the protection of all persons and equipment, only competently trained operators who are critically aware of the proper operating procedures, potential dangers, and specific application of this equipment should be allowed to use this equipment at any time.
5. Because of potential hazards associated with this type of equipment, no alterations shall be made to this product.
6. Failure to heed all warnings contained in this manual may result in personal injury and/or property damage.
7. All warranties applicable to this equipment are contingent on strict adherence to the operation and maintenance procedures in this manual.

OPERATIONAL SAFETY CHECKS

1. DO NOT exceed the maximum lifting load capacity of 130kg.
2. Only use this Clutch Jack 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.
3. DO NOT use on tarmac, or any other soft surface as the Clutch Jack may sink or topple.
4. Vehicle must be properly and adequately supported before commencing work with this Clutch Jack.
5. This Clutch Jack is used as an aid in the removal and installation of a clutches as individual components. DO NOT use it for any other purpose than it is designed for.
6. Ensure the clutch assembly is entirely supported by the alignment tool and be sure the clutch assembly is stable and secure before raising or lowering.
7. DO NOT use the Clutch Jack to lift or support a heavy load such as a differential or axle as this may cause the Clutch Jack to tip over and lead to equipment damage and/or serious personal injury.
8. Never move this Clutch Jack with a load any higher off the ground than necessary and always move it slowly and carefully.
9. Transfer the load immediately to appropriate support device for inspection, service or repair.
10. DO NOT operate this Clutch Jack when you are tired or under the influence of alcohol, drugs or any intoxicating medication.
11. DO NOT allow untrained persons to operate this product and DO NOT make any modifications to this product.
12. DO NOT tamper with the safety valve.
13. DO NOT expose the Clutch Jack to rain or any other kind of inclement weather.
14. When servicing, use only Borum identical replacement parts. Use of any other parts will void the warranty.
15. Use the right product for the job. There are certain applications for which this Clutch Jack was designed. Do not modify the Clutch Jack and do not use the Clutch Jack for a purpose for which it was not intended.

ASSEMBLY, OPERATION, PREVENTITIVE MAINTENANCE

1. ASSEMBLY

PLEASE REFER TO THE EXPLODED VIEW DRAWING IN THIS MANUAL IN ORDER TO IDENTIFY PARTS

1. This Clutch Jack is designed to remove, install and transport (in the lowered position) 14" and 15-1/2" double disc clutches and/or flywheel assemblies.

2. Determine the clutch size to be worked on. Install the (#17) 1-3/4" diameter spline shaft in the (#1) shaft receiver if working on a 14" clutch and the (#2) 2" diameter spline shaft for a 15-1/2" clutch. Secure the spline shaft to the (#1) shaft receiver with the (#32) clip pin.

3. Install the (#25) handle in the (#26) handle receiver and turn the handle clockwise until it stops.

4. It may be necessary to bleed air out of the jack's hydraulic system if pumping feels spongy or the jack will not pump to maximum height without a load. Follow these steps to remove air from the hydraulic system:

a. Turn the jack's release knob in a clockwise rotation until tight. Now turn the knob counterclockwise two full revolutions.
b. Pump the handle 15 full incremental pump strokes without a load.
c. Turn the jack's release knob clockwise until tight and pump the jack to maximum height without a load.
d. Repeat steps a. through c. until all air is purged from the system.

2. BEFORE USE

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

Purge the hydraulic system to eliminate any air in the system.

Bleeding Instructions:

1. Remove the Filler Bung and if required, refill with ISO 32 Grade Hydraulic until the oil is approximately 6mm below the filler hole then replace the Filler Bung.

2. Leaving the Pump Handle in the lowered position, open the release knob one eighth turn anticlockwise.

3. With one foot on the front axle assembly, slowly raise the lift arm by hand to three quarter height and release, the lift arm will slowly fall back to lowered position.

4. Remove the oil filler bung from the top of the hydraulic ram and turn the release valve anticlockwise to open.

5. Replace the filler bung and pump the handle up and down quickly several times to bleed air from the pump system.

6. Recheck the hydraulic oil level and refill to 6mm below the fill port if required before replacing the filler bung.

7. If necessary, repeat the process steps 2 to 6

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 the load is slow to raise, seek the services of a qualified Hydraulic repairer.

3. OPERATION

Warning:
Vehicle must be properly and adequately supported before commencing work with this Clutch Jack.

Assess the Work Area:
Evaluate the task and determine the required clearance under the vehicle to roll the jack and clutch assembly into position. Lift the vehicle to the desired work height following the vehicle manufacturer's recommended procedure. Once lifted, immediately secure the vehicle using a matched pair of jack stands with an appropriate capacity rating. Ensure the setup is stable and secure. Identify the correct spline shaft for the job and install it in the shaft receiver.

Position the Jack:
Adjust the tilting saddle so the spline shaft is vertical to the floor. Roll the jack under the vehicle, aligning it with the clutch assembly. If clearance is insufficient, raise the vehicle's front end higher and readjust the jack stands accordingly.

Align the Spline Shaft:
Once the jack is positioned beneath the clutch, rotate the tilting saddle so the spline shaft is parallel to the floor. Close the release valve by turning it clockwise until fully tightened. Slowly pump the jack to align the spline shaft with the clutch splines. Adjust the angle of the spline shaft using the saddle adjustment screw to match the clutch assembly's angle.

Engage the Clutch Assembly:
Position the free end of the spline shaft at the clutch assembly opening. Use the jack to align the splines by pumping and maneuvering the jack. Rotate the spline shaft as needed to ensure proper engagement with the clutch splines. Adjust the spline angle to allow the clutch assembly to slide smoothly onto the spline shaft. Unbolt the clutch from the flywheel and slide it fully onto the jack's spline shaft.

Remove the Clutch Assembly:
Carefully pull the jack and clutch assembly away from the flywheel. Slowly open the jack's release valve by turning the knob counterclockwise to lower the clutch assembly completely. Reposition the jack so the spline shaft is vertical to the floor. The jack and clutch assembly should now have a low enough profile to be rolled out from beneath the vehicle.

Install the New Clutch Assembly:
Follow the vehicle manufacturer's recommended clutch installation procedure in conjunction with these operating instructions. Perform all steps in the correct order to ensure proper installation.

4. STORAGE

This Clutch Jack should always be stored in a dry location on a level surface with the lifting arm in the fully lowered position.

5. MAINTENANCE

Replace or repair damaged parts. Use recommended parts only. Non authorised parts may be dangerous and will invalidate the warranty.

Changing the Hydraulic Oil

1. Change the hydraulic oil at least once a year.
2. Fully lower the Clutch Jack, remove the oil fill plug on the side of the hydraulic ram.
3. Tip the Clutch Jack to allow the old hydraulic oil to drain out of the housing completely, dispose of the old hydraulic oil in accordance with local regulations.
4. With the Clutch Jack upright, completely fill the hydraulic ram with a high quality hydraulic oil (not included) until the oil just begins to run out of the oil fill hole.
5. Open the release valve and pump the handle to bleed air from the system.
6. Reinstall the oil filler plug.
7. Clean with a clean cloth.
8. Always store the Clutch Jack in a safe, dry location.

Lubrication Instructions

1. All lower lift arm pivots and pins in all linkages should be lubricated with a Light Bearing Grease or 30/40W Machine Oil to ensure long life and prevent premature wear.
2. Wheels and Castor axles and bearing races should be lubricated with a Light Bearing Grease or 30/40W Machine Oil to ensure long life and prevent premature wear.
3. 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.
4. Pivoting Pump Handle Type Mechanisms should be lubricated with a light bearing grease or 30W/40W Machine Oil.

Storage Recommendations:
Always store the jack in a well-protected area to avoid exposure to inclement weather, corrosive vapors, abrasive dust, or other harmful elements. Before use, ensure the jack is free of water, snow, sand, grit, oil, grease, or any other foreign matter.

Lubrication:
Periodically lubricate the jack to prevent premature wear of parts. Apply general-purpose grease to the threads of the extension screw. Do not lubricate the lift saddle, and ensure the saddle is completely free from grease, any type of lubricant, or debris before using the jack. Note that jacks with worn parts due to insufficient lubrication are not eligible for warranty claims.

Hydraulic Fluid Maintenance:
It is generally unnecessary to refill or top off the hydraulic reservoir unless there is an external leak, which requires immediate repair. Repairs should be performed in a dirt-free environment by qualified hydraulic repair personnel, preferably at an Authorized Service Center.
IMPORTANT: To prevent seal damage and jack failure, do not use alcohol, hydraulic brake fluid, or transmission oil in the jack. Use only ISO 32 hydraulic jack oil.

Label Maintenance:
It is the owner's responsibility to keep the jack label clean and legible. Clean the external surfaces of the jack using a mild soap solution, avoiding any moving hydraulic components.

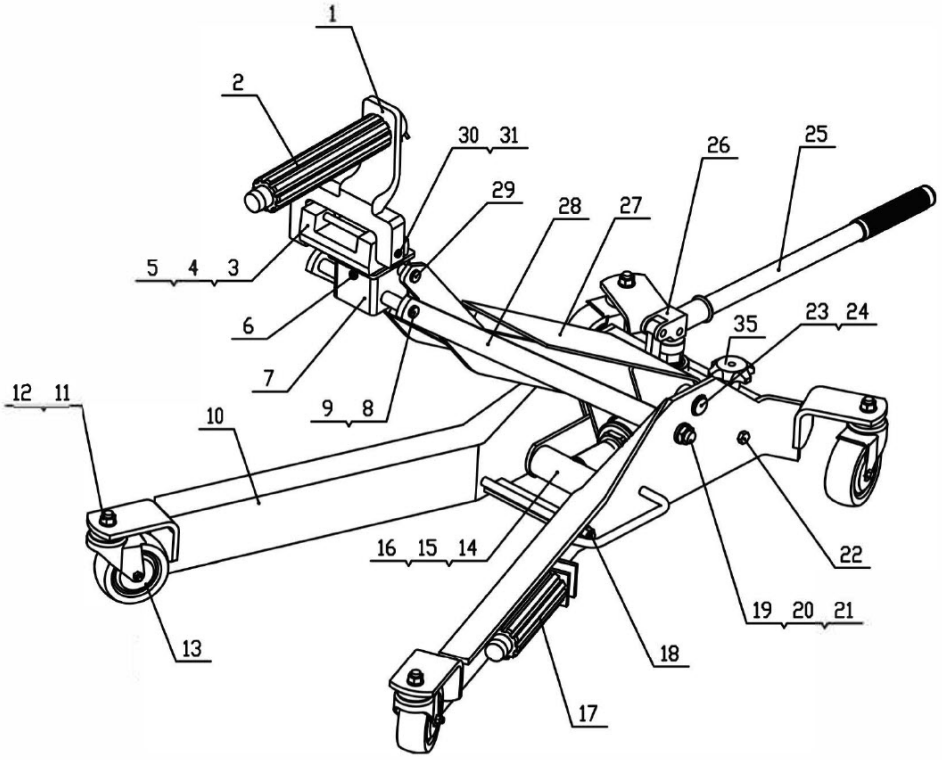
6. SERVICE & REPAIR

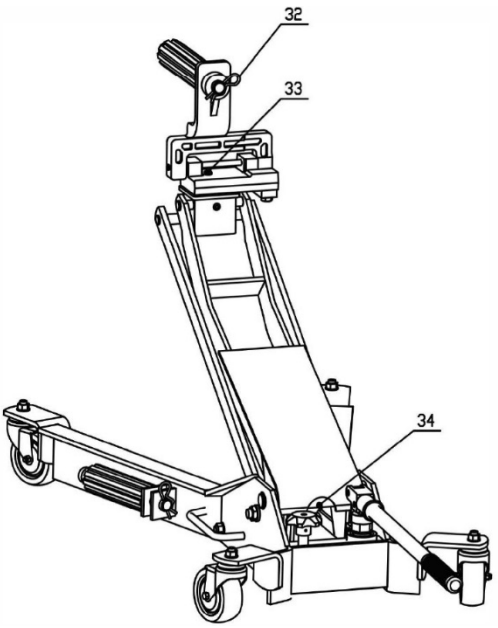
Any Clutch Jack found damaged in any way, or found to be worn or operates abnormally should be removed from service until repaired by an authorised service agent. Owners and / or operators should be aware that repair of this product may require specialised equipment and knowledge. Only authorised parts, labels, decals shall be used on this equipment. Annual inspection of the Clutch 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.

PARTS LIST & DIAGRAM

PART	DESCRIPTION	QTY
1	Shaft Receiver 2"	1
2	Spline Shaft	1
3	Saddle Assembly (incl 1,2,3,4,5,67,8 &9)	1
4	Spring	1
5	Steel Ball (8)	1
6	Screw (M6x18)	2
7	Saddle Base	1
8	Guide Arm Bar	1
9	Snap Ring	2
10	Frame	1
11	Nut	6
12	Washer	6
13	Swivel Caster Assembly (incl 11,12 &13)	4
14	Trunion	1
15	Snap Ring	2
16	Trunion Arm	2
17	1-3/4" Spline Shaft	1
18	Spacer Pin	1

PART	DESCRIPTION	QTY
19	Guide Arm Bolt	2
20	Nut	2
21	Washer	2
22	Screw (M12x40)	2
23	Lift Arm Pivot Pin	1
24	Snap Ring	2
25	Handle	1
26	Handle Receiver	1
27	Lift Arm	1
28	Guide Arm	2
29	Shaft	1
30	Shaft	1
31	Snap Ring	2
32	Clip Pin	2
33	Screw (M8x20)	1
34	Grease Zerk Fitting	1
35	Release Knob Assembly	1





TROUBLESHOOTING

Problem	Symptom	Cause	Conclusion	Solution
Jack will not lift using manual pump	Manual pump has no resistance, lift arm will not raise	Release handle valve pin obstructed	Valve seat/check ball failure	Re-adjust release handle position
		Load weight exceeds lift capacity & overload actuated	Higher capacity jack required	Select higher capacity Jack
			Relief valve needs reset	Contact qualified technician for repairs
	Manual pump has resistance, lift ram raises and falls with up and down pump strokes	Main check ball fails to seal	Obstruction in main check valve	Bleed pump and ram as per owners manual instructions
Jack will not hold load	Load cannot be sustained, lift ram drops under load	Release valve closed but failure to raise lift arm	Valve check ball off centre not contacting valve seat correctly	Contact qualified technician for repairs
		Damaged main seal external leak at lift ram	Replace main ram seals	Contact qualified technician for repairs
	Pump handle rises	Main check valve obstructed	Replace main check valve ball and reseat valve seat	Contact qualified technician for repairs
Poor lift performance	Pump has no resistance, lift ram will not raise to full stroke	Low oil level	Fill fluid to correct level	Fill fluid to correct level then bleed system
		Air trapped in system due to cavitation caused by air pressure build up in reservoir	Lift ram raised for extended period causing air ingress to hydraulic system	With ram fully retracted, open the breather to let pressurised air escape then bleed system
				Contact qualified technician for repairs

WARRANTY

BORUM Industrial 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 – warranty@tqbbrands.com.au.

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 12month 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.

TQB Brands Pty Ltd

TRADEQUIP the trusted brand in equipment

BORUM INDUSTRIAL WORKSHOP EQUIPMENT

TQ PRO EAGLE PRO RED LABEL

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