

RED JACK IN GARAGE

# SERVICE INSTRUCTIONS FOR TI BRADBURY JACKETTE

## INSTRUCTIONS FOR USE

### TO OPERATE THE JACK

To raise, turn handle to centre position and pump in the orthodox manner so as to lift the load. To lower the Jack, turn the handle in a clockwise direction when the release mechanism will come into operation. Return the handle to the mid position before pulling Jack out from under vehicle.

### CAUTION

The Jack should be used in such a way that it is either parallel with the vehicle to be lifted or at right-angles to

**Trolley Jacks should only be used for raising the load. Axle Stands should be employed whilst working on or under the vehicle.**

the load. In both cases the Jack must be free to move towards the load as it is being lifted, or the vehicle free to move towards the Jack. Because of the arc of movement, a Jack used in any other way is liable to excessive strain and difficulties may occur.

The Jackette is not designed for manoeuvring vehicles. If a vehicle when raised on the Jack is pushed in a direction different from that in which the Jack wheels are aligned, serious damage will inevitably occur for which no responsibility can be accepted.

## INSTRUCTIONS FOR SERVICE MODELS 673 AND 673C (CASTOR MODEL)

A. *Lubrication* at monthly intervals. Apply light machine oil to the points shown in large circles overleaf. Keep link mechanism clean and in particular the inside of pulling link No. 58.

B. *To Detach Hydraulic Units.* Bring the Crutch approximately half way up and remove the two Set Screws securing the Retaining Plates No. 59, and withdraw Pin 55 and Beam 56. Remove the four Set Screws from the side of the Frame. Disengage the Ball Socket Part No. 58 from the Piston Rod when the Unit can be withdrawn from the Frame. Reverse procedure to reassemble.

C. *To Overcome Hydraulic troubles.* If the Hydraulic mechanism does not work due to sticky or dirty valves, lift the rear of the Jack about 6 ins from the ground and allow to drop so as to disperse any foreign matter. A further method of clearing valves is to manually lift the Jack head with the release valve closed.

D. *To Check Fluid Level in Hydraulic Unit.* Endeavour to pump Jack to full height. If it will not, add sufficient oil through filler plug hole (100). N.B. It is important not to overfill the unit and to avoid this it is recommended that the jack be let down to its lowest position with the filler plug loose, allowing any excess oil to escape.

E. *To fill an empty 673 Unit (Type without filler plug).* Remove cover plate and delivery valve plug No. 27. Remove both delivery valve ball No. 14 and suction valve ball No. 15. (This should preferably be done with a magnet but of course the Jack can be turned upside down.) Raise Jack head manually to its full height, pour oil into the delivery valve plug hole and at the same time gradually lower the Jack head. This sucks oil into the unit. Replace balls and plugs. If on test the lifting head does not raise to its full height, the above can be repeated, but it will not be necessary to raise the head so far on the second occasion. N.B. It is important not to overfill the unit and to avoid this it is recommended that the Jack be let down to its lowest position with the delivery valve plug loose so that any excess oil will be let out.

F. *To Replace Cup Washer No. 10.* Remove the Unit as described in paragraph 'B'. With a C Spanner remove Cylinder End Part No. 4 (right hand thread). Withdraw Piston Rod Assembly Part No. 3; examination will make method of replacement quite obvious. It, however, requires a little care to ensure that the new Washer sits perfectly upon its seating when tightening the Set Screw No. 13. Take care on reassembling to see that the leading edge of the Washer No. 10 is not damaged.

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G. To replace Pump Plunger Seals. Remove unit from frame as described in paragraph 'B'. Withdraw Pump Plunger Part No. 89 and replace seals 19 and 90 (on earlier models). On current models, replace Fluid Seal 104.

H. To Replace Piston Cord Ring and Tank End Washers. Remove Unit from Frame as described in paragraph 'B'.

With a C Spanner remove Cylinder End Part No. 4 (right-hand thread). Slide Cylinder End No. 4 from Piston Rod No. 3 and pick out cord ring No. 6. Insert new Cord Ring No. 6 ensuring that this is correctly placed in its groove. Reassemble in reverse procedure, replacing with new Washer No. 7.

### SERVICE FACILITIES IN THE UNITED KINGDOM

We operate a Hydraulic Unit Exchange Service. Full details will be supplied on request.

## TROUBLE SHOOTING CHART

FAULT	CAUSE	REMEDY
Head will not raise when using Jack under load	1 Lack of oil 2 Dirty or sticky valves 3 Piston Cup Washer worn out	1 Check oil level See 'D' 2 See 'C' 3 Replace cup washer See 'F'
Crutch goes up and down when pumping	Dirty or sticky valves	See 'C'
Handle creeps to upright position under load	Dirty or sticky valves	See 'C'
Handle misses part of stroke	Oil too heavy	Replace with correct oil after flushing unit See 'E'
Crutch creeps down under load	Lack of oil	Check oil level See 'E'
Leakage of oil on floor	Dirty or sticky valves Faulty Cup Washers Worn-out packings	See 'C' Replace Cup Washer See 'F' Leak at handle end See 'G' Leak at crutch end See 'H'

All Bradbury Jacks are covered by British Patent No. 582183 and by numerous foreign patents.

We reserve the right to alter the design or construction of equipment at any time without notice.

### GUARANTEE

All Bradbury Jacks are guaranteed to comply with B.S. AU154. The normal load is clearly marked on every Jack. We guarantee that all trolley jacks made by us will without permanent deflection under test conditions lift throughout the entire arc of movement, starting from

normal axle height, a load of the capacity shown on the Jack plus an overload of 25% expressed in English tons of 2,240 lb.

The use of any other oil than those recommended invalidates our guarantee.

For further information apply to the manufacturers and patentees:—

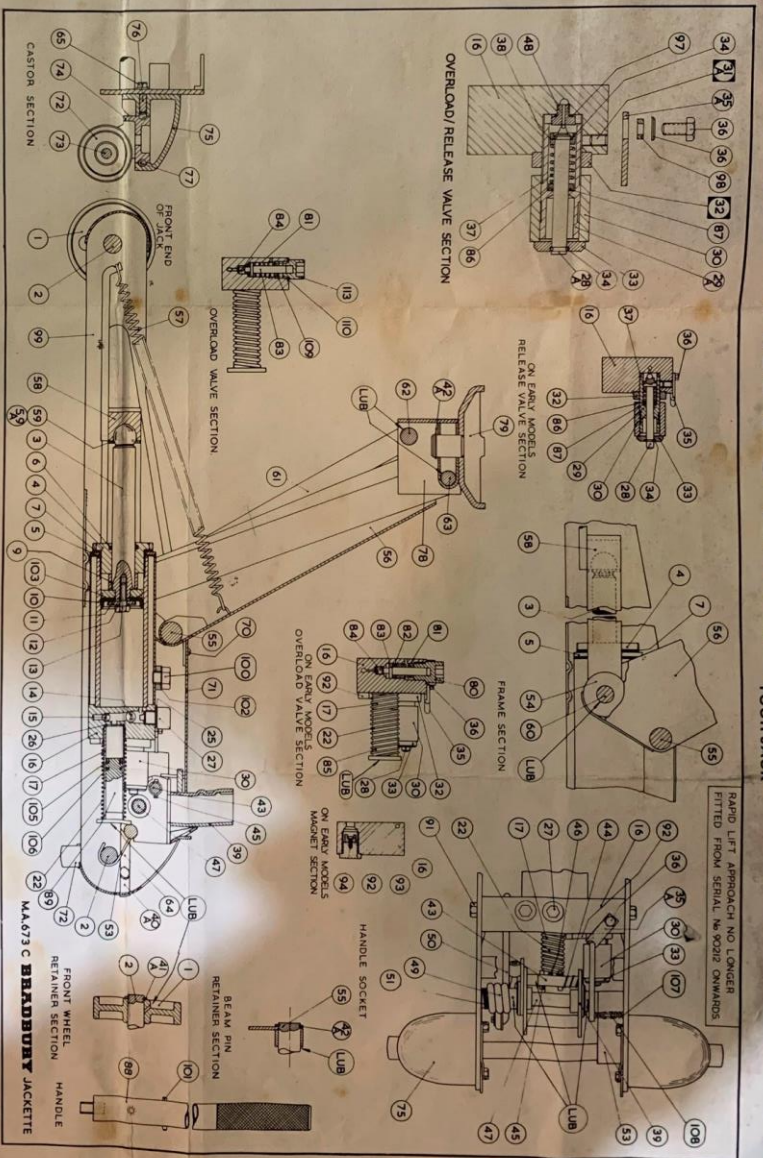
TI Bradbury Ltd  
Springwood Industrial Estate, Rayne Road  
Braintree Essex CM7 7ET England  
Tel Braintree 20623 (STD Code 0376) Telex 98361

**Recommended Fluids**  
Bradbury Hydraulic Fluid  
Esso Nuto H5  
Duckhams Zircon 1  
Shell Carnea 13  
B.P. Energol EM35  
Castrol Magna R.S.



# SPARE PARTS LIST

PLEASE STATE THE PART NO. WHEN ORDERING AND QUOTE THE SERIAL NO. IN ANY CORRESPONDENCE REGARDING YOUR JACK



Item No.	Part No.	No. Off per Jack	Description or Part Name
1	673-3	2	Front Wheel
2	2737	4	Front Wheel (Composition Rubber)
2a	673-17M	1	Wheel Axle
3	673-102M	1	Wheel Axle (for use with composition wheels)
4	673-2	1	Piston Rod c/w Piston
5	673-67	1	Cylinder End
6	2117	1	Tank End (for early models)
7	673-P7	1	Cord Ring 1/2" I.D. x 3/8" O.D. Section
8	673-63	1	Tank Clamp Washer
9	2101	1	Run Out Stop Collar
10	2101	1	2" dia. Cup Washer
11	673-57M	1	Piston Cup Washer
12	4163	1	1/2" dia. Spring Washer
13	3017	1	Piston Cup Clamp Screw
14	2612	1	Delivery Valve Ball 1/2" dia.
15	2609	1	Suction Valve Ball 1/2" dia.
16	673-WA5	1	Valve Box
17	673-59	1	Pump Barrel
22	673-P11M	1	Compression Spring
25	2128	1	Bonded Seal
26	2128G	1	Bonded Seal (ground on O/dia.)
27	677-26	1	Delivery Valve Plug
28	673-70M	1	Release Valve Rod on early models
28a	673-146	1	Release Valve Rod on later models
29	673-68M	1	Release Valve Rod Housing on early models
29a	673-68M	1	Release Valve Rod Housing on later models
30	673-WA10	1	Release Valve Sleeve
30a	3304	1	Socket Set Screw
31a	673-69	1	Release Valve Rod Housing Nut
33	673-71	1	Release Valve Rod Washer
34	673-P10	2	Release Valve Rod Ring
35	673-76M	1	Release Valve Lever Wedge on early models
35a	673-130	1	Release Valve Cam on later models
36	4003	1	Bright Set Screw and Washer
37	586A-107	1	Compression Spring
38	673-101	1	Release Valve Rod Collar
39	673-WA8M	1	Handle Socket (welding assembly)
39a	673-SA4	1	Handle Socket c/w all fittings
40a	673-125	2	Cover Plate Retainer
41a	4246	2	Retainer Ref. 5100/75
42a	4248	3	Retainer Ref. 5100/100
43	673-39	1	Handle Socket Bolt
44	673-P4	1	Handle Socket Bolt Spring
45	673-40A	1	Handle Socket Bolt Staple
46	673-32	1	Handle Socket Bolt Staple Screw
48	673-SA13	1	Handle Pylon Pin
49	673-SA10	1	Rapid Lift Operating Spring
50	673-SA10	1	Rapid Lift Rod
51	673-P2	1	Rapid Lift Retaining Spring
52	673-P12	1	Release Valve Lever Compression Spring on early models
53	673-51	1	Handle Socket Spacer
53a	673-122	1	Handle Socket Spacer (for 1/2" thick frame)
54	673-15	4	Pulling Link Washer
55	673-20M	1	Lifting Beam Pin
56	673-WA1	1	Lifting Beam
56a	673-SA1	1	Lifting Beam Assy c/w 54, 58, 60, 61, 62, 63, 78, 79
57	673-P5	1	Lowering Spring
58	673-WA2	1	Pulling Link Assy
59	673-58	2	Piston Rod Retaining Plates
59a	4003	2	Piston Rod Retaining Clamp Screw (not shown on diag.)
60	673-25	2	Pulling Link Pin
61	673-27	2	Parallel Link
62	673-31	1	Parallel Link Pin
63	673-30	1	Lifting Head Pin
64	724-41	2	Castor Set Screw Retainer
65	3011	4	Castor Assembly Retaining Screws
70	3473	2	Cover Plate Retaining Screws
71	673-83M	1	Cover Plate
72	673-89	2	Castor Wheel
72a	2736	2	Castor Wheel (composition rubber)
73	673-90	2	Castor Wheel Axle
74	673-88	2	Castor Fork
75	673-87	2	Castor Bracket

Item No.	Part No.	No. Off per Jack	Description or Part Name
76	673-91	2	Castor Bracket Plug
77	2608	40	Steel Balls 3/8" dia. 20 off per castor
78	673-SAS	2	Castor Assembly Complete
79	673-WA19M	1	Lifting Head Assembly
80	656-33	1	Overload Valve Plug on early models
81	586A-107	1	Overload Valve Spring on early models
82	586A-106	1	Overload Valve Rod on early models
83	656-34	1	Overload Valve Rod on early models
84	2607	1	Pump Barrel Seave
85	673-98	1	Release Valve Rod Spring Washer
86	673-97	1	Cord Ring 1/2" dia.
87	2104	1	Handle Complete
88	673-SA3	1	Pump Plunger c/w Fluid Seal
89	673-SA7M	4	Unit Retaining Screws
90	3012	4	Unit Retaining Screws
91	586B-20	1	Magnet on early models
92	3676	1	Magnet on early models
93	3535	1	Magnet on early models
94	3535	1	Magnet on early models
97	673-131M	1	Bonded Seal
98	673-WA16	1	Release Valve Cam Spacer
99	3022	1	Frame Welding Assembly
100	3022	1	Filler Plug
101	4224	1	Spring Tension Pin 1/2" dia. x 1 1/4" L

Item No.	Part No.	No. Off per Jack	Description or Part Name
102	673-155	1	No. 7 Aluminum Washer
103	2120	1	2" dia. Wear Ring
105	2144	1	U-Packing
106	2110	1	Cord Ring 3/8" x 3/8" x 1/2"
107	673-P15	1	Release Valve Lever Compression Spring
108	4225-52	1	Spring Tension Pin 1/2" dia. x 1 1/4" L
109	673-152	1	Overload Valve Plug
110	673-153	1	Overload Valve Plug Washer
113	673-151	1	Overload Valve Plug

### PRICE LISTS AVAILABLE ON APPLICATION

**\*IMPORTANT**  
ALL JACKS UP TO AND INCLUDING SERIAL NO. 673-61677 REQUIRING A HANDLE OR HANDLE SOCKET WILL NEED BOTH, I.E. ITEM NOS. 88 & 39a.

**REPLACEMENT WASHER KITS**  
CONTENTS—1 each Part Nos. 6, 7, 10, 19, 87, 90, 105, 106—packed in carton (19" O' Ring, 90 Square Sect. Ring, Ref. pump plunger on earlier models)  
**BRADBURY HYDRO FLUID—PER QUART TIN**