

FEATURES OF THE ETC

- Highly time and labour saving
- Safe and simple
- Does the job on the spot
- Free hands for higher precision
- No damage to vehicle
- Easy to upgrade
- Powerful and versatile
- Wide variety of applications
- Lightweight and compact
- Capacity from 37 to 50 ton.



**HYDRAULIC PIN & BUSHING TOOL KIT
ETC-SERIES**

The ETC hydraulic tool kits are powerful and versatile tools. Easy to use and saves both time and labour.

■ **Information**



The ETC hydraulic tool kit is used for a wide variety of applications in car and truck workshops worldwide. In many cases the amount of strip-down preparation is reduced and the need to take the part to a workshop press eliminated. Instead you can work with the hydraulic tool kit directly on the vehicle.

■ **Functionality**



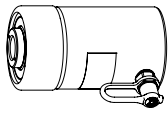

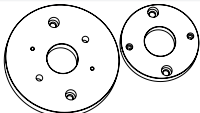



When the kit is assembled for a particular task it can be set in position with high precision by means of the air/hydraulic foot pump, which leaves you with two hands free at all times.

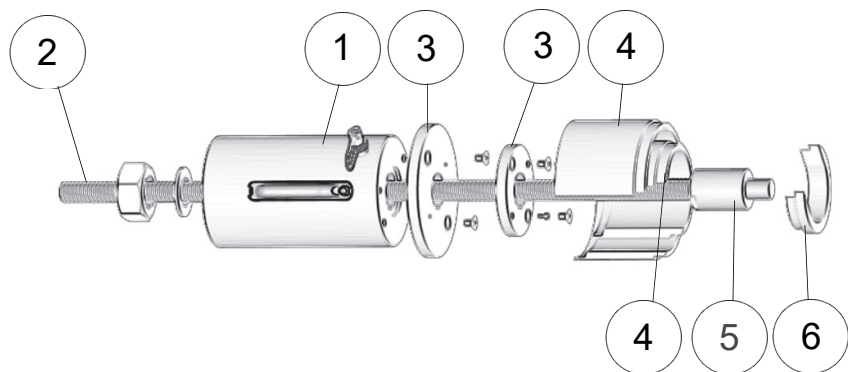
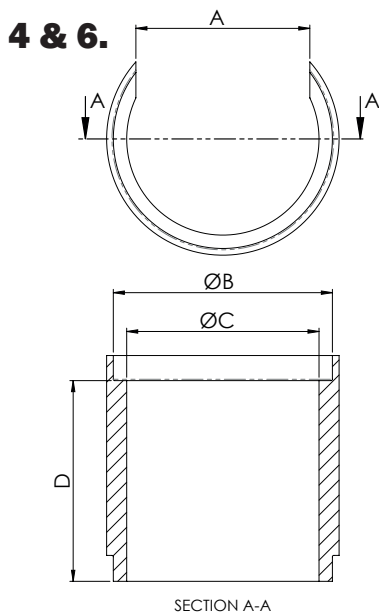
■ **Usability**



The traditional way of working using a slide-hammer or other lumbering tools can easily damage vehicle parts. This is in most cases avoided by using REHOBOT's ETC kit. Working with ETC to replace bushings, axles and bearings is easy and saves time. A 50% or more time saving is not unusual.

ETC - TABLE OF CONTENTS

Type	Name	ETC37	ETC50	Description	Technical data
1. Cylinder 	CHFA372	Yes	-	Hollow cylinder 37ton	Stroke 51 mm (2 in)
	CHFA504	-	Yes	Hollow cylinder 50ton	Stroke 104 mm (4.1 in)
2. Threaded rod 	TR36-1000	Yes	-	Threaded rod with washers/nuts	M36x1000 10.9
	TR48-1000	-	Yes	Threaded rod with washers/nuts	M48x1000 8.8
3. Push plates 	TP115A	Yes	Yes	Adapter for TC115A complete with screws	Dy Ø131 mm (5.2 in)
	TP175	-	Yes	Adapter for TC175 complete with screws	Dy Ø191 mm (7.5 in)
4. C-sleeve 	TC115A	Yes x2	Yes x2	C-sleeve	A: 104 mm (4.1 in) B: 131 mm (5.2 in) C: 115 mm (4.5 in) D: 135 mm (5.3 in)
	TC175	-	Yes x2	C-sleeve	A: 128 mm (5.0 in) B: 191 mm (7.5 in) C: 175 mm (6.9 in) D: 135 mm (5.3 in)
5. Adapter 	TAD24-36	Yes	-	Threaded adapter	internal M36 → external M24
	TAD30-36	Yes	-	Threaded adapter	internal M36 → external M30
	TAD30-48	-	Yes	Threaded adapter	internal M48 → external M30
6. Support sleeve 	TAS95	Yes	Yes	Support sleeve adapted to TC115A for extra protection	A: 95 mm (3.7 in) B: - mm (- in) C: 95 mm (3.7 in) D: 30 mm (1.2 in)



NOTE! All REHOBOT Data Sheets uses metric ton.
1 metric ton = 0.98 long ton = 1.10 short ton.

ETC - PERFORMANCE

Type	Capacity kN (ton)	Working pressure MPa (psi)	Stroke mm (in)	Hole diameter mm (in)	Stroke volume cm ³ (in ³)	Weight of cylinder kg (lbs)
ETC37 CHFA372	358 (36)	70 (10000)	51 (2)	39 (1.5)	261 (15.9)	6,9 (15.2)
ETC50 CHFA504	508 (52)	70 (10000)	104 (4.1)	51 (2)	756 (6.3)	14,7 (32.4)

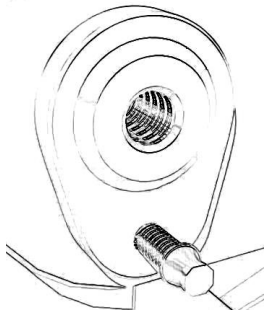
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ETC - SEQUENCE OF OPERATION

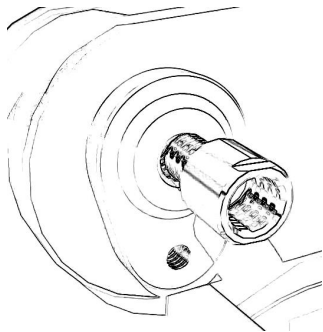
General

Make sure that all surfaces are cleaned and no visual damage can be found on any threaded surface. Apply grease on the threaded surface.

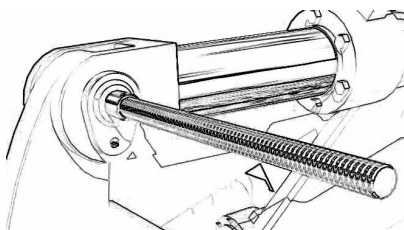
1. Remove any screws that lock the pivot pin in position



2. Insert appropriate adapter into the threaded hole of the pin.

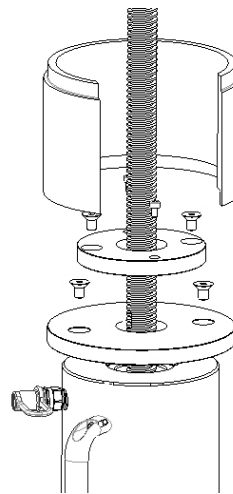


3. Insert appropriate threaded rod into the adapter and turn it until the rod reaches the bottom of the adapter. When NO adapter is needed, the threaded rod must be inserted until it reaches the bottom of the threaded hole of the pin.

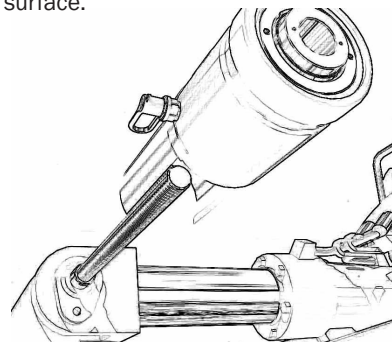


4. Place the appropriate pressure plate on the bottom of the cylinder using the supplied screws. Place a c-sleeve against the pressure plate; the sleeve will only fit its corresponding plate.

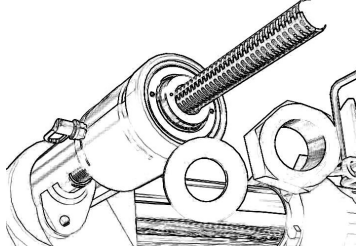
The smaller plate is attached on to the larger pressure plate by using the supplied screws. That is when using the TC115A with the CHFA504 cylinder.



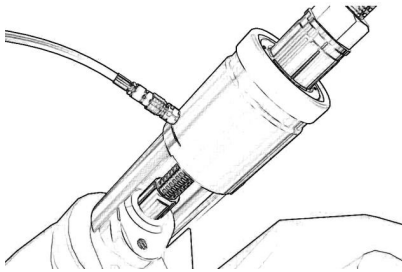
5. Place the cylinder and c-sleeve on the threaded rod and make sure the c-sleeve has clean and perpendicular contact surface.



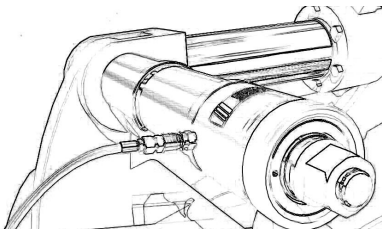
- 6.** When the c-sleeve and cylinder are properly aligned and the c-sleeve support surfaces are in contact, attach the washer and nut. Tighten the nut manually until all parts are secure.



- 7.** Connect a hose to the quick coupling on the cylinder. Start pumping to increase hydraulic pressure.

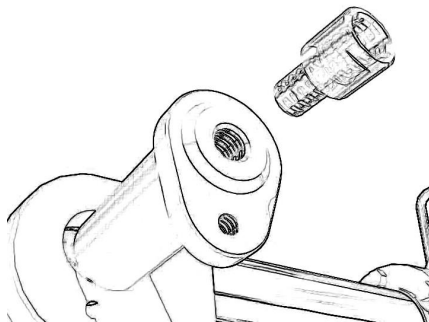


- 8.** When the pin has initially broken free, several sleeves can be stacked onto each other in order to pull the pin out completely.

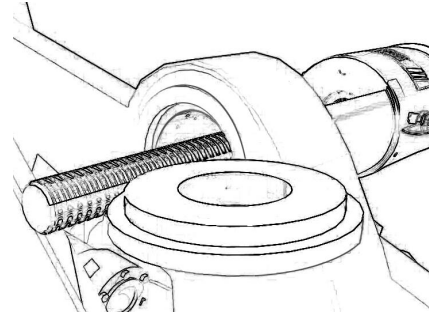


Only use 1 sleeve for break out. After break out it is possible to use more sleeves to pull out the pin.

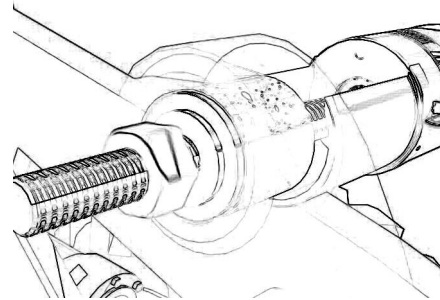
- 9.** Remove the tool in reverse order. Inspect all ingoing part to ensure that no damage has arisen due to use or disassembly.



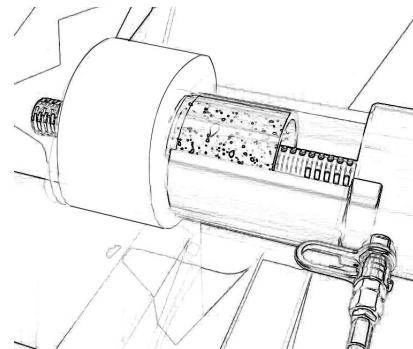
- 10.** Removal of bushing. Place the washer, used to remove the bushing, on the rod and make sure it has contact with the bushing. (The washer is not included in the tool kit).



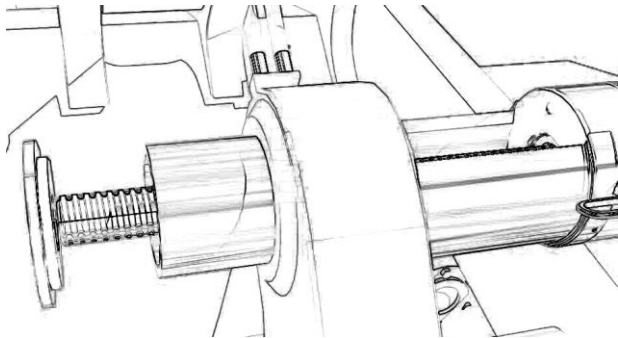
- 11.** There after place the washer and nut on the rod and tighten the nut by manual force until the system is secured.



- 12.** Remove the bushing from the hole, by applying force. Pump to increase hydraulic pressure. Remove the tool in reverse order from assembly.

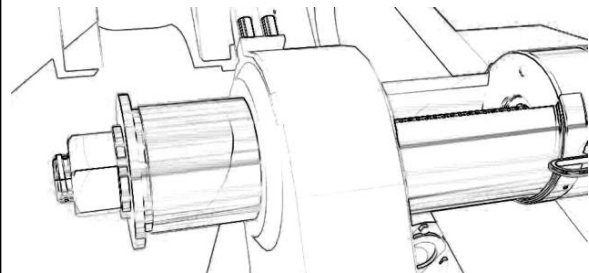


13. To insert the bushing, place the cylinder and c-sleeve according to image below. There after place a new bushing and the counter plate (Not included in the tool kit) on the opposite side of the sleeve, seen from the cylinder, according to image below.



14. Place a washer and nut after the counter plate and tighten by hand until the system is secure. Apply pressure using the pump until the bushing is in place.

Remove the tool in reverse order. Inspect all ingoing parts to ensure that no damage has arisen due to use or disassembly. Inspect the parts for defects and replace them with new parts. Apply grease on all threaded surfaces.



PUMP ALTERNATIVES

Air driven pump - for more comfort with compressed air 6-10 bar

2.



1. PP70B-1000 (without hose and quick couplings), part no: 49300
2. PP70B-1000/LS201 (2 m hose, female quick coupling and swivel), part no: 49306
3. PP70B-1000/LS250 (2.5 m high flex hose, quick coupling and swivel), part no: 49307

Hand pump - more portable

1.



1. PHS70-1000 (without hose and quick couplings), part no: 44400
2. PHS70-1000/LS201 (2 m hose, female quick coupling and swivel), part no: 44414
3. PHS70-1000/LS301 (3 m hose, female quick coupling and swivel), part no: 44417
4. PHS70-1000/LS250 (2.5 m high flex hose, quick coupling and swivel), part no: 44419

ORDER INFORMATION

Designation	ETC37 - complete kit	ETC50 - complete kit					
Part number	48072	48073					
Designation	CHFA372	CHFA504					
Part number	46661	47733					
Designation	TR36-1000 10.9 - complete with washers and nuts		TR48-1000 8.8 - complete with washers and nuts				
Part number	49345		49344				
Designation	TAS95 - Support sleeve	TC115A - C-sleeve	TC175 - C-Sleeve	TP115A - Adapter for TC115A	TP175 - Adapter for TC175		
Part number	47523	48041	48042	48070	48069		
Designation	TAD24-36 - Threaded adapter		TAD30-36 - Threaded adapter		TAD30-48 - Threaded adapter		
Part number	47349		47348		47559		
Designation	PP70B-1000	PP70B-1000/LS201	PP70B-1000/LS250	PHS70-1000	PHS70-1000/LS201	PHS70-1000/LS301	PHS70-1000/LS250
Part number	49300	49306	49307	44400	44414	44417	44419