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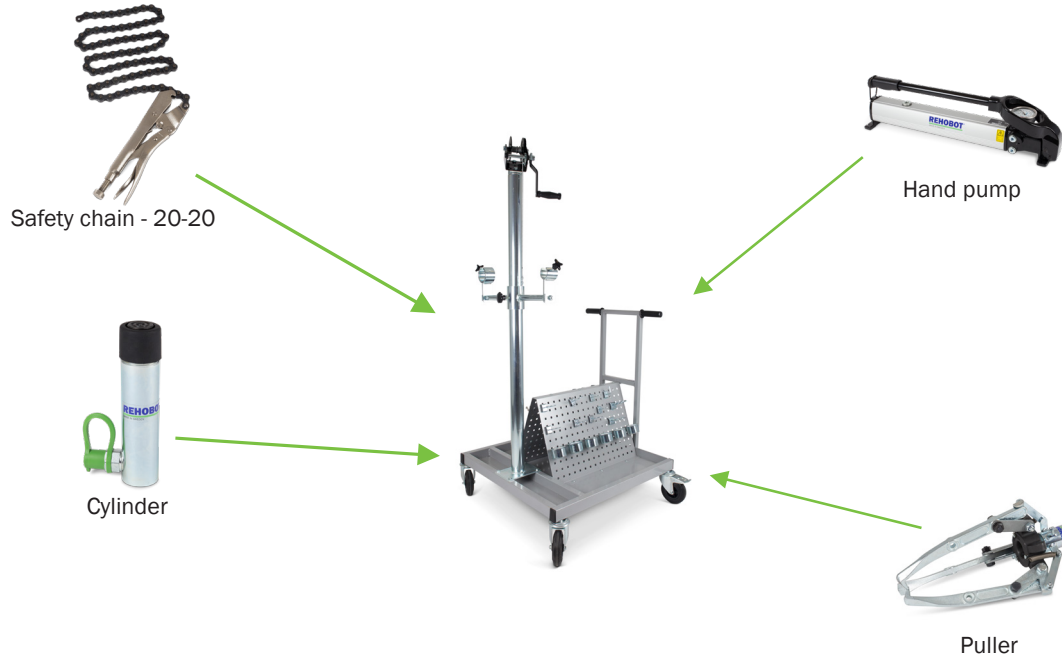
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■ Customize

Combine your own hydraulic pulling kit. Select the pieces and enjoy having a customized kit adapt for your every need.



■ Choose a complete set from our recommendations

Choose between basic, advanced or our professional alternative. Each set adapt with different accessories and complete with an air-driven pump as standard, all sets ready to be used instantly.



AHV50-110 BASIC

- Puller AH50
- Puller AH110
- EAT50-110, adapter kit
- 20-20, safety chain
- PP70B-1000/LS201, pump
- TV-50-110, puller buggy

OR



AHV50-110 ADVANCED

In addition to the Basic kit also...

- AMK802, gauge kit
- Puller arms 110-280
- Puller arms 110-490

+

OR



AHV50-110 PROFESSIONAL

In addition to the Advanced kit also...

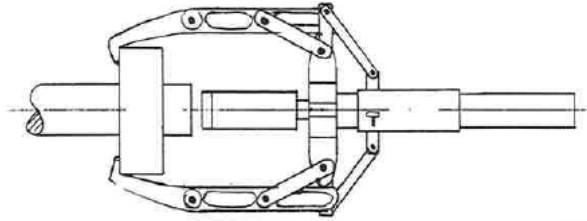
- PK50, Pin-knife puller kit
- PK110, Pin-knife puller kit
- Express puller add-on
- Counterhold, for bench pressing

+

APPLICATIONS

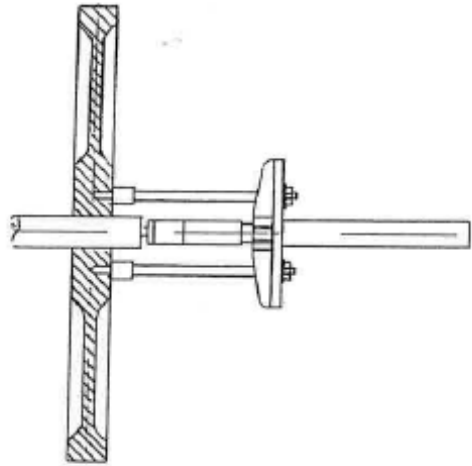
■ 3-arms/2-arms pulling

3-arms/2-arms pullers are generally used when the coupling or other parts that are to be pulled off are made of solid material. It is possible to use two arms when pulling, but we recommend always using three arms whenever possible. The figure shows a solid piece where armpulling is suitable. Always use the safety chain to lock the arms for a more secure pulling operation.



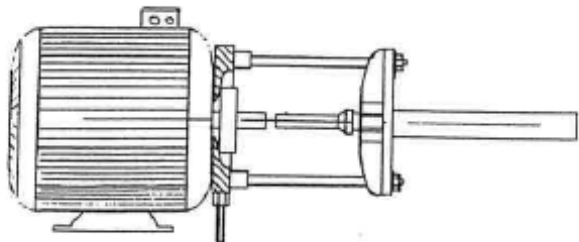
■ Pinpulling

The figure shows pinpulling on a weak object with large diameter. Always attach the pulling bolts as close as possible to the center and always use three pulling bolts whenever possible. Two pulling bolts can be used, but this method is generally not recommended.



■ Pulling with separator

The figure shows pulling with a separator which is used when the space is narrow and the arm puller cannot be fixed.



HYDRAULIC GRIP PULLER 5 TON (5.5 SH TN)

Information

- Long stroke 181-232 mm (7-9.1 in)
- Low weight: Max 6,4 kg (14.1 lbs)
- Wide opening range
- Rugged design
- Efficient
- Easy to use
- Equipped with 50-220 puller arms


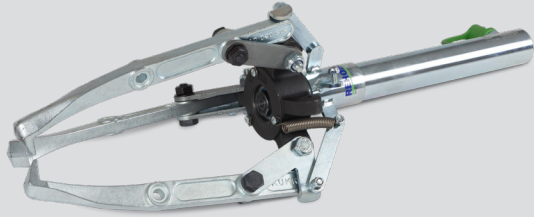
Functionality

- 2 or 3 arms
- Self straining
- Centering of arms
- Capacity: 4.9 ton (5.4 sh tn)
- Opening range: A max Ø220 mm (8.7 in)
- Thread: 1/2" -16 UN on yoke
- Depth: B max 200 mm (7.9 in)

Usability

- Universal, simple and safe
- Pulling gears, bearings, pulleys
- Remove parts from shafts
- Maintenance equipment
- Heavy duty equipment
- Can be used with 11 ton (12.2 sh tn) puller arms (self centering device can not be used with these arms)

HYDRAULIC GRIP PULLER 5 TON (5.5 SHORT TONS)

Puller tong - A50		Puller tong incl. cylinder - AH50		
Part no:	Weight kg (lbs)	Part no:	Stroke mm (in)	Weight kg (lbs)
37142	3,6 (7.9)	37143	232 (9)	5,7 (12.6)
				
<p>Select a suitable cylinder CFC57A - CFC59A with a stroke between: 181 mm - 232 mm on your own to get an adapt puller, fulfilling your every need. Please see accessory list.</p>		<p>Puller equipped with a CFC59A cylinder, ready for usage.</p>		



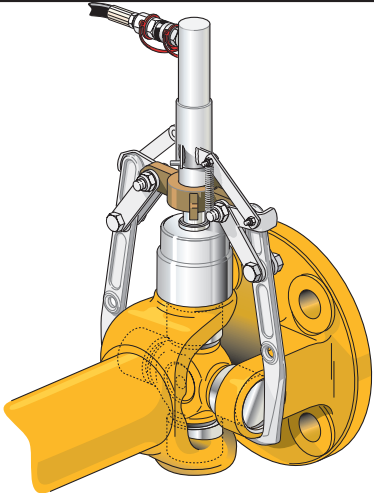
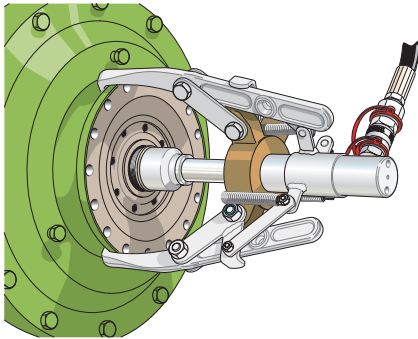
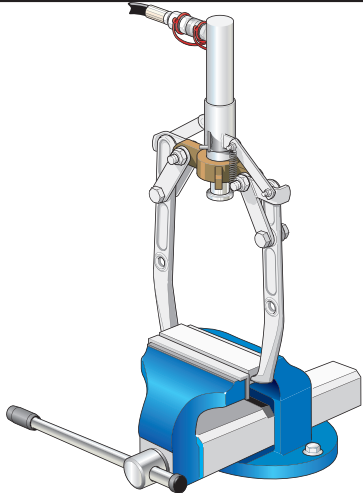
EXPRESS PULLER EP59 & EPP59 5 TON (5.5 SH TN)

Package of our recommendations: An Express puller with accessories, perfect in order to adapt the product to even more applications such as bench pressing, mounting and dismounting of a universal joint and as a standard puller.



A 5 ton (5.5 sh tn) puller together with the Express puller plugs add-on is suited for standard wrench sockets (not included).



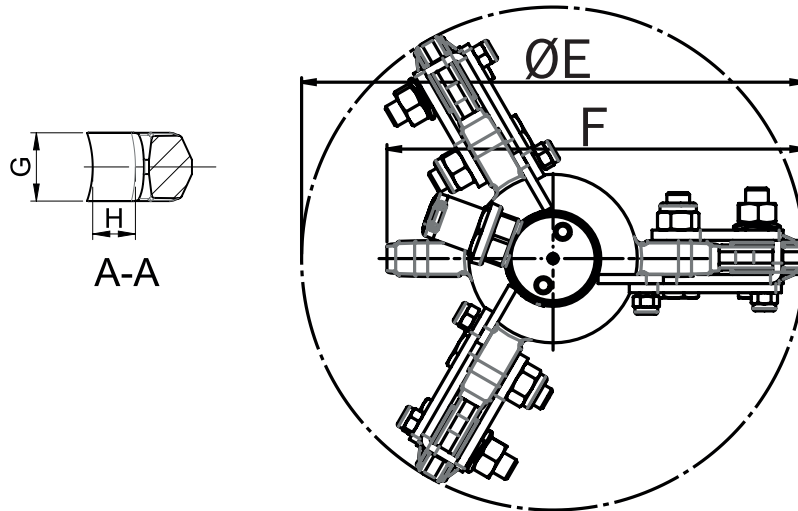
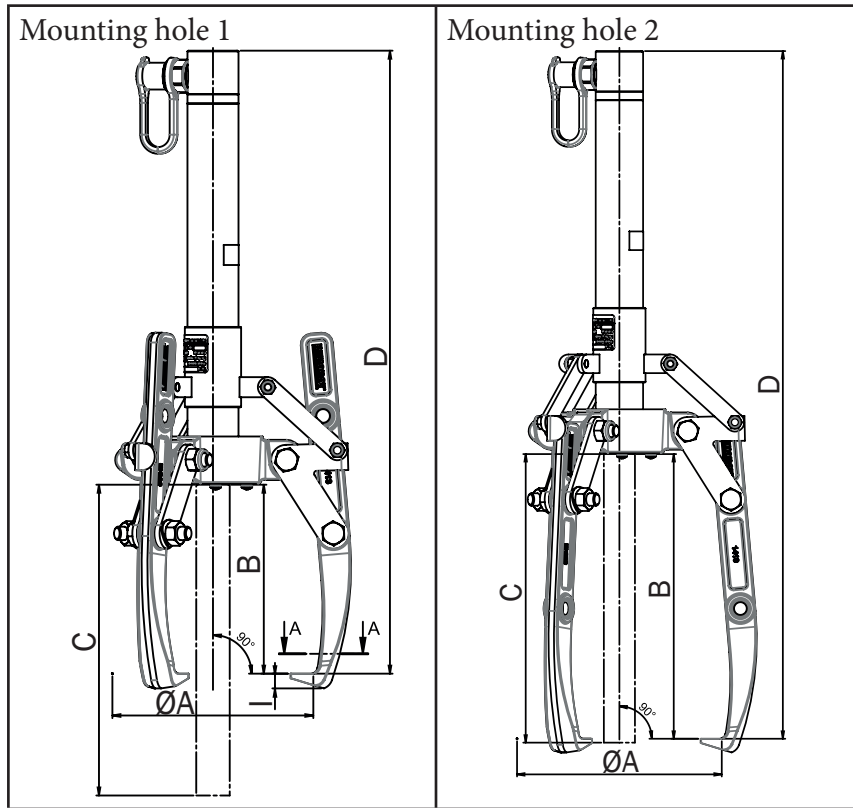
Express puller EP59*		
Part no. complete unit:	Weight kg (lbs)	Stroke mm (in)
42989	9 (19.8)	232 (9)
		
AH50	Plugs 1/2", 3/4" and 1"	Counterhold
Select a suitable pump for your tool. EP59 is equipped with a CFC59A cylinder.		
*Express Puller equipped with an PP70B-1000/LS250, and cylinder CFC59A ready for instant usage. Can be ordered at part no: 42990.		

		
Mounting and dismounting of a universal joint.	Used as a puller.	Used as a bench press with the counterhold.

PUMP ALTERNATIVES

Air driven pump - for more comfort with compressed air 6-10 bar	Hand pump - more portable
2. 	1. 
<ol style="list-style-type: none"> PP70B-1000 (without hose and quick couplings), part no: 49300 PP70B-1000/LS201 (2 m hose, female quick coupling and swivel), part no: 49306 PP70B-1000/LS250 (2.5 m high flex hose, quick coupling and swivel), part no: 49307 	<ol style="list-style-type: none"> PHS70-1000 (without hose and quick couplings), part no: 44400 PHS70-1000/LS201 (2 m hose, female quick coupling and swivel), part no: 44414 PHS70-1000/LS301 (3 m hose, female quick coupling and swivel), part no: 44417 PHS70-1000/LS250 (2.5 m high flex hose, quick coupling and swivel), part no: 44419

HYDRAULIC GRIP PULLER/EXPRESS PULLER 5 TON (5.5 SH TN) DIMENSIONS



ARM	Hole in arm	A (90°)		A (max)		B (max)		C*		D*		E**		F**		G		H		I		Weight	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
50-220	1	150	59	260	102	140	55	232	91	475	187	204	8	176	69	24	0.94	15	0.59	11	0.43	5,7	126
	2	170	67	350	138	229	9			564	222	220	87	184	72								

* With CFC59A

** @ A (90°)

PK50 - PIN-KNIFE PULLER KIT 5 TON (5.5 SH TN)

Information

- Long stroke 27-232 mm (1.1-9.1 in)
- Low weight
- Wide opening range
- Rugged design
- Efficient
- Easy to use



Functionality

- Slotted grooves for 2 or 3 grip
- Distance marked head from centre
- Capacity: 5 ton (5.5 sh tn)
- Opening range: 70 - 200 mm (2.7-7.9 in) on yoke
- Thread: 1/2" -16 UN on yoke
- Knife opening range: Ø 22-Ø115 mm (0.87- 4.5 in)



Usability

- Universal, simple and safe
- Remove bearings, inner races, roller bearings and other tight parts
- Can be used where space is limited



PK50 - HYDRAULIC PIN PULLER, PULLER WITH SEPERATOR

PK50	
Part no. complete unit:	Weight kg (lbs)
37146	10,5 (23.1)
	
Select a cylinder CFC51A - CFC59A in order to customize your stroke for the tool,	
Can be used as an accessory for AH50.	

215-2 - DIMENSIONS

Ref.No.			Weight
215-2			
Part no:	mm (in)	mm (in)	kg (lbs)
37195	22-115 (0.9-4.5)	115 (4.5)	2,9 (6.4)

PUMP ALTERNATIVES

Air driven pump - for more comfort with compressed air 6-10 bar	Hand pump - more portable
2. 	1. 
<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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

HYDRAULIC GRIP PULLER 11 TON (12.2 SH TN)

Information

- Long stroke 257 - 356 mm (10 - 14 in)
- Low weight: Max 15,9 kg (35 lbs)
- Wide opening range
- Rugged design
- Efficient
- Easy to use
- Equipped with 110-390 puller arms

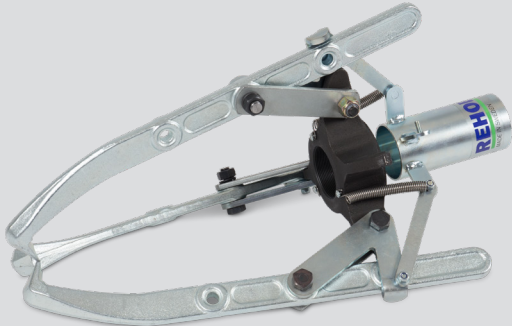
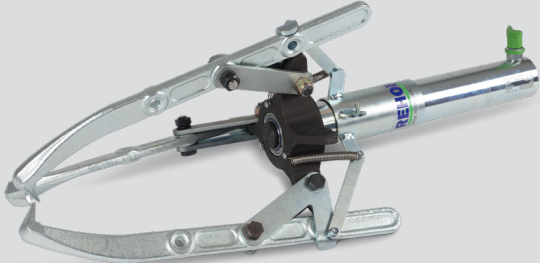
Functionality

- 2 or 3 arms
- Self straining
- Centering of arms
- Capacity: 11 ton (12.2 sh tn)
- Opening range: A max Ø400 mm (15.7 in)
- Thread: C 2 1/4" -14 UN
- Depth: B max 280 mm (11 in)



Usability

- Universal, simple and safe
- Pulling gears, bearings, pulleys
- Remove parts from shafts
- Maintenance equipment
- Heavy duty equipment

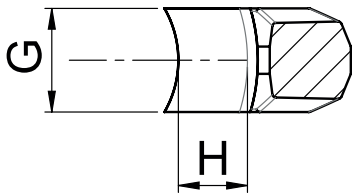
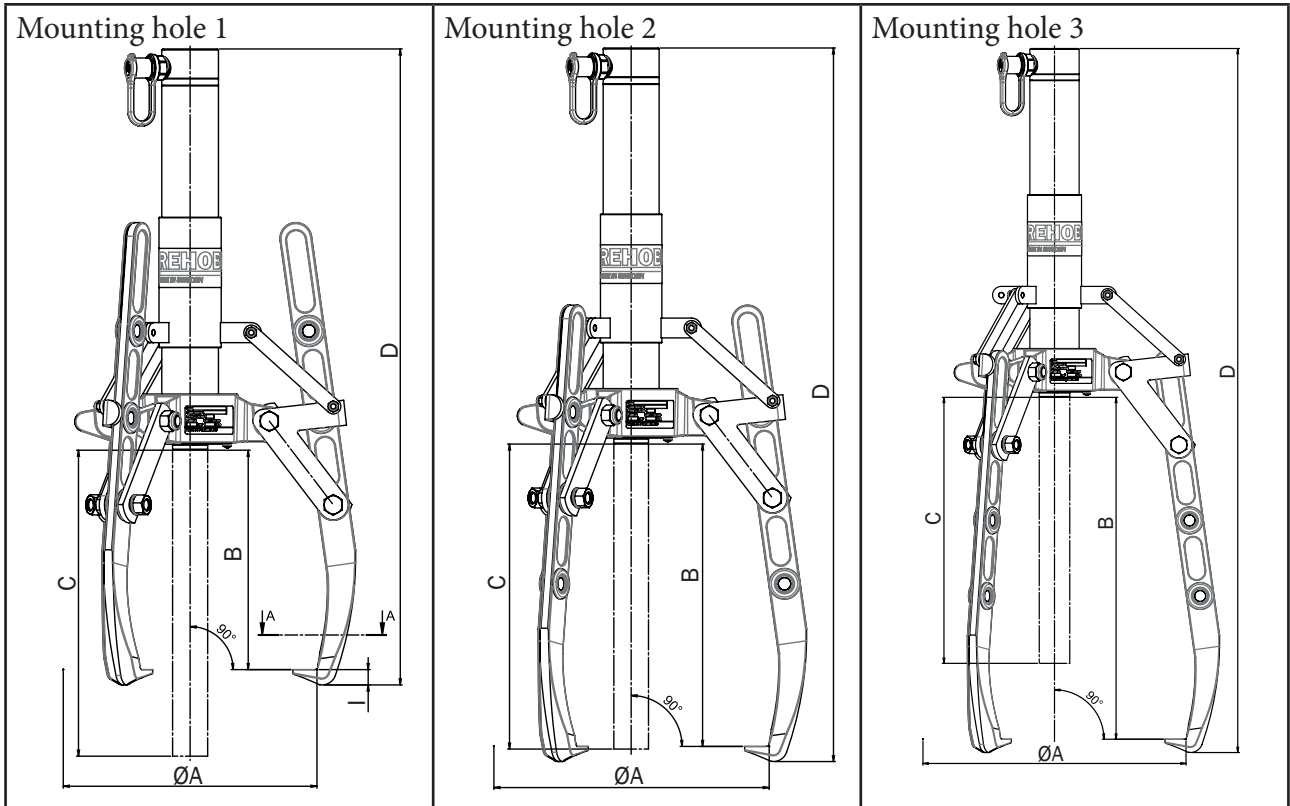
HYDRAULIC GRIP PULLER 11.2 TON (12.3 SHORT TONS)

Puller tong - A110		Puller tong incl. cylinder - AH110		
Part no.	Weight kg (lbs)	Part no.	Stroke mm (in)	Weight kg (lbs)
37150	9,1 (20)	37151	305 (12)	15,1 (33.3)
				
<p>Select a suitable cylinder CFC1010 - CFC1014 with a stroke between: 257 mm - 356 mm on your own to get an adapt puller, fulfilling your every need. Please see accessory list.</p>		<p>Puller equipped with a CFC1012 cylinder, ready for usage.</p>		

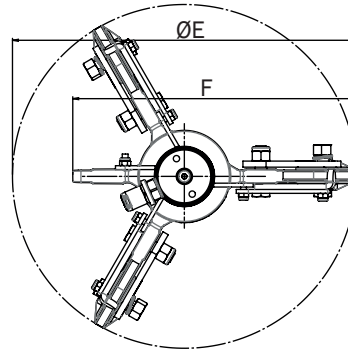
PUMP ALTERNATIVES

Air driven pump - for more comfort with compressed air 6-10 bar	Hand pump - more portable
<p>2. </p>	<p>1. </p>
<p>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</p>	<p>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</p>

HYDRAULIC GRIP PULLER 11 TON (12.2 SH TN) DIMENSIONS



A-A



ARM	Hole in arm	A (90°)		A (max)		B (max)		C*		D*		E**		F**		G		H		I		Weight	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
110-280	1	260	6.6	420	16.5	193	7.6	305	12	609	24	318	12.5	274	10.8	30	12	20	0.79	16	0.63	13.5	29.8
	2	270	6.9	500	19.7	280	11			696	27.4	335	13.2	283	11.1								
110-390	1	260	10.2	390	15.4	215	8.5			630	25	335	13.2	283	11.1								
	2	280	11	500	19.7	302	11.9			717	28.4	360	14.2	295	11.6								
110-490	3	300	11.8	600	23.6	390	15.4			805	31.8	380	15	305	12			17	0.67	15	0.59	17.3	38.1
	1	320	8.1	330	13	228	9			643	25.3	378	14.9	304	12								
	2	380	15	500	19.7	360	14.2	775	30.5	440	17.3	335	13.2										
	3	430	16.9	700	27.6	490	19.3	905	35.6	495	19.5	363	14.3										

* With CFC1012
** @ A (90°)

PK110 - PIN-KNIFE PULLER KIT 11 TON (12.2 SH TN)

Information

- Long stroke 25 - 356 mm (1 - 14 in)
- Wide opening range
- Rugged design
- Efficient
- Easy to use

Functionality

- Slotted grooves for 2 or 3 grip
- Distance marked head from centre
- Capacity: 11 ton (12.2 sh tn)
- Opening range: 100 - 270mm (3.9-10.6 in) on yoke
- Thread: 2 1/4" -14 UN on yoke
- Knife opening range: Ø 25-Ø155 mm (0.98- 6.1 in)

Usability

- Universal, simple and safe
- Remove bearings, inner races, roller bearings and other tight parts
- Can be used where space is limited

PK110 - HYDRAULIC PIN PULLER, PULLER WITH SEPERATOR

PK110



Part no. complete unit:	Weight kg (lbs)
37154	31,4 (69.2)



Select a cylinder CFC101 - CFC1014 in order to customize your stroke for the tool,

Can be used as an accessory for AH110.

PK215-3 - DIMENSIONS

Ref.No.			Weight
215-3			
Part no:	mm (in)	mm (in)	kg (lbs)
37210	25-155 (1-6.1)	155 (6.1)	5,2 (11.5)

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

HYDRAULIC GRIP PULLER 20 TON (22 SH TN)

Information

- Long stroke 24-362 mm (1-14 in)
- Low weight: Max 38,2 kg (84.2 lbs)
- Wide opening range
- Rugged design
- Efficient
- Easy to use
- Equipped with 200-400 puller arms



Functionality

- 2 or 3 arms
- Self straining
- Capacity: 20 ton (22 sh tn)
- Opening range: A max Ø500 mm (19.7 in)
- Thread: 3 5/16" -12 UN on yoke
- Depth: B max Ø390 mm (15.4 in)
- Adapted for hanging in a traverse

Usability

- Universal, simple and safe
- Pulling gears, bearings, pulleys
- Remove parts from shafts
- Can be directly mounted on a over-head crane
- Universal, simple and safe

HYDRAULIC GRIP PULLER 20 TON (22 SHORT TONS)

Puller tong - A200		Puller tong incl. cylinder - AH200		
Part no:	Weight kg (lbs)	Part no:	Stroke mm (in)	Weight kg (lbs)
37158	21 (46.3)	37159	311 (12)	36,2 (79.8)
				
<p>Select a suitable cylinder on your own to get an adapt puller, fulfilling your every need! Select an cylinder with a stroke between: 27 mm - 362 mm (1.1-14.3 in)</p>		<p>Puller equipped with cylinder CFC2512 and VS14-60, ready for usage.</p>		



Important for A200 and AH200!

- 2-puller arms: Max. 13,2 ton (14.5 sh. tn), Max 400 bar (5802 psi).
- 3-puller arms: Max. 20 ton (22 sh. tn), Max. 630 bar (9137 psi).

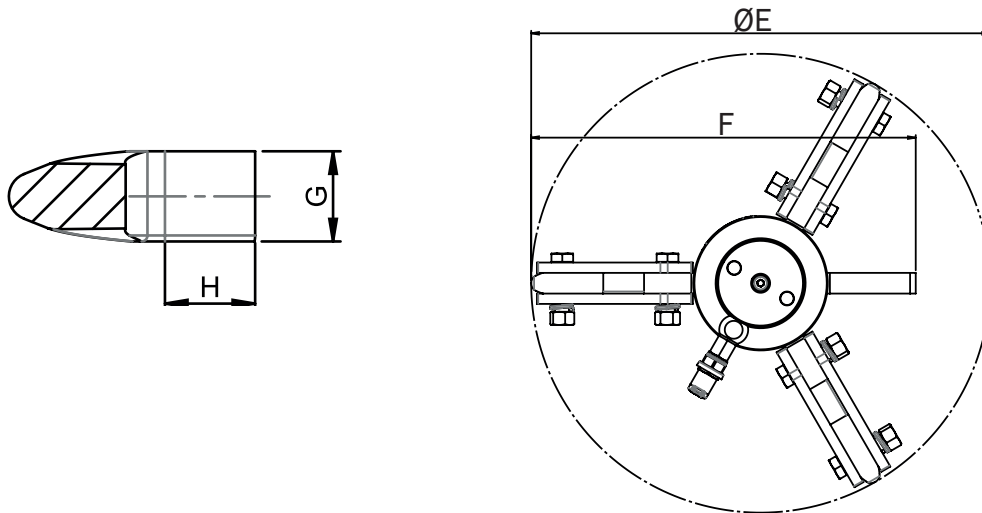
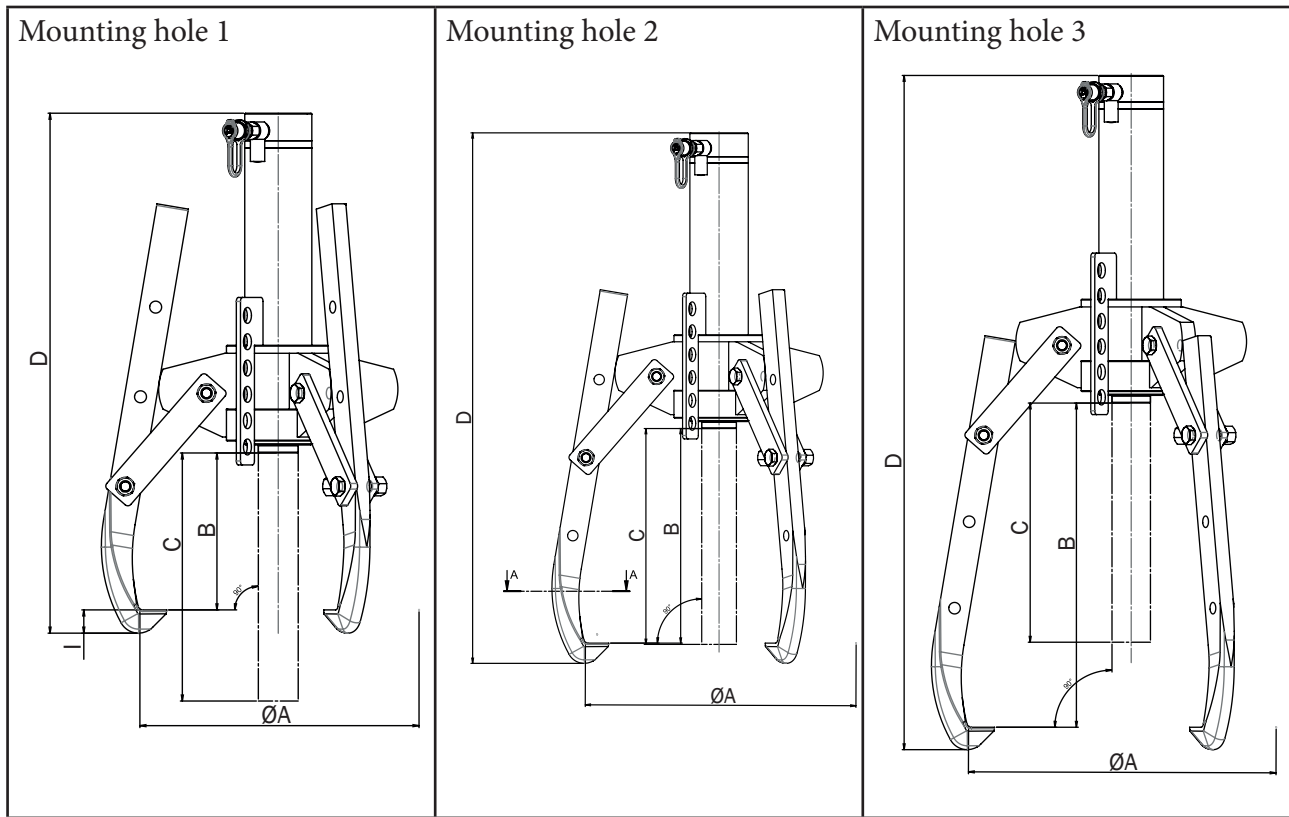
Important for A200!

- Cylinders needs to be equipped with a safety valve VS14-60 (sold separately, part no: 47600) or oil will leak from the valve at 630 bar.

PUMP ALTERNATIVES

Air driven pump - for more comfort with compressed air 6-10 bar	Hand pump - more portable
<p>1. </p>	<p>1. </p>
<p>1. PP70B-2500FP (without hose and quick couplings), part no: 5000</p> <p>2. PP70-2500FP/LS201 (2 m hose and female quick coupling), part no: 50012</p>	<p>1. PHS70-2400 (without hose and quick couplings), part no: 44405</p> <p>2. PHS70-2400/LS201 (2 m hose, female quick coupling and swivel), part no: 44413</p>

HYDRAULIC GRIP PULLER 20 TON (22 SH TN) DIMENSIONS



ARM	Hole in arm	A (90°)		A (max)		B (max)		C*		D*		E**		F**		G		H		I		Weight	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs
200-400	1	350	13.8	500	19.7	200	7.9	311	12.2	650	25.6	440	17.3	370	14.6	30	1.2	30	12	27	17	36.2	79.8
	2	390	15.4	700	27.6	310	12.2			760	29.9	480	18.9	390	15.4								
	3	400	15.7	750	29.5	420	16.5			880	34.6	500	19.7	400	15.7								

* With CFC2512

** @ A (90°)

RECOMMENDED COMPLETE PULLER BUGGY KITS

Information



- Easy to use
- Puller buggy serving as a work place
- The pullers does not need to be carried
- Perfect storage for all equipment
- Keep the work place neat and tidy

Functionality



- Vinsch for lowering or raising pullers
- Lockable wheels for a steady work place
- Easy to mount AH50- and AH110 pullers

Usability



- Universal, simple and safe
- Workshops for light and commercial vehicles

KIT 1 BASIC - AHV50-110 BASIC

PART NO: 51290

Quantity	Part no:	Content
1	37151	AH110 - Puller inc. cylinder
1	47755	EAT50-110 - Adapter kit
1	37143	AH50 - Puller inc. cylinder
1	47948	TV50-110 - Puller buggy
1	49306	PP70B-1000/LS201 - Air pump
1	37176	20-20 - Safety chain

KIT 2 ADVANCED - AHV50-110 ADVANCED

PART NO: 51291

Quantity	Part no:	Content
1	37151	AH110 - Puller inc. cylinder
1	47755	EAT50-110 - Adapter kit
1	47614	AMK802 - Gauge kit
1	37143	AH50 - Puller inc. cylinder
1	47948	TV50-110 - Puller buggy
1	49306	PP70B-1000/LS201 - Air pump
1	37176	20-20 - Safety chain
1	37172	110-490 - Puller arms
1	37170	110-280 - Puller arms



AHV50-110 Professional

KIT 3 PROFFESIONAL - AHV50-110 PROFESSIONAL

PART NO: 51292

Quantity	Part no:	Content
1	37151	AH110 - Puller inc. cylinder
1	47755	EAT50-110 - Adapter kit
1	47614	AMK802 - Gauge kit
1	37143	AH50 - Puller inc. cylinder
1	47948	TV50-110 - Puller buggy
1	49306	PP70B-1000/LS201 - Air pump
1	37176	20-20 - Safety chain
1	37146	PK50 - Pin- knife puller kit
1	37154	PK110 - Pin- knife puller kit
1	42982	Counterhold, for bench pressing
3 pcs	page 18	Express puller plugs add-on
1	37170	Puller arms 110-280
1	37172	Puller arms 110-490

ACCESSORIES - HYDRAULICS CYLINDERS



Ref.No.	Part no:	Capacity t (sh tn)	Stroke mm (in)	Max oil capacity cm ³ (in ³)	Min height mm (in)	Weight kg (lbs)	Suitable for:
CFC51A	40184	5 (5.5)	27 (1)	19 (1.2)	110 (4.3)	0,8 (1.8)	PK50
CFC53A	40186	5 (5.5)	77 (3)	55 (3.4)	165 (6.5)	1,2 (2.6)	PK50
CFC55A	40188	5 (5.5)	127 (5)	90 (5.5)	216 (8.5)	1,5 (3.3)	PK50
CFC57A	40190	5 (5.5)	181 (7)	128 (7.8)	273 (10.8)	1,9 (4.2)	PK50, A50
CFC59A	40192	5 (5.5)	232 (9)	165 (10.1)	324 (12.8)	2,2 (4.9)	PK50, A50
CFC101	40235	11 (12.2)	25 (1)	40 (2.4)	90 (3.5)	1,5 (3.3)	PK110
CFC102	40237	11 (12.2)	54 (2)	86 (5.3)	121 (4.8)	2 (4.4)	PK110
CFC104	40239	11 (12.2)	105 (4)	167 (10.2)	171 (6.7)	2,7 (6)	PK110
CFC106	39849	11 (12.2)	155 (6)	247 (15.1)	247 (9.7)	4 (8.8)	PK110
CFC108	39850	11 (12.2)	206 (8)	328 (20)	298 (11.7)	4,6 (10.1)	PK110
CFC1010	39851	11 (12.2)	257 (10)	409 (25)	349 (13.7)	5,3 (11.7)	PK110, A110
CFC1012	39852	11 (12.2)	305 (12)	485 (29.6)	400 (15.8)	6 (13.2)	PK110, A110
CFC1014	39853	11 (12.2)	356 (14)	566 (34.5)	451 (17.8)	6,8 (15)	PK110, A110
CFC251*	39940	24 (26.5)	24 (1)	83 (5.1)	140 (5.5)	5,1 (11.2)	A200
CFC252*	39941	24 (26.5)	51 (2)	169 (10.3)	165 (6.5)	5,9 (13)	A200
CFC254*	39942	24 (26.5)	101 (4)	335 (20.4)	216 (8.5)	7,7 (17)	A200
CFC256*	39943	24 (26.5)	159 (6)	528 (32.2)	273 (10.8)	9,7 (21.4)	A200
CFC258*	39944	24 (26.5)	209 (8)	694 (42.4)	324 (12.8)	11,5 (25.4)	A200
CFC2510*	39945	24 (26.5)	260 (10)	863 (52.7)	375 (14.8)	13,3 (29.3)	A200
CFC2512*	39946	24 (26.5)	311 (12)	1032 (63)	426 (16.8)	15 (33.1)	A200
CFC2514*	39947	24 (26.5)	362 (14)	1201 (73.3)	476 (18.7)	17 (37.5)	A200

*Needs to be equipped with a safety valve: VS14-60 (sold separately, part no: 47600) or oil will leak from the valve at 630 bar.

PUMPS



Ref.No.	Pressure bar (psi)	Eff. oil volume cm ³ (in ³)	Weight kg (lbs)	Recommended for:
PP70B-1000, part no: 49300	700 (10 153)	1000 (61)	5,9 (13)	AH50, AH110, PK50, PK110, EP59
PP70B-1000/LS201, part no: 49306 (2 m hose, female quick coupling and swivel)	700 (10 153)	1000 (61)	7 (15.4)	AH50, AH110, PK50, PK110, EP59
PP70B-1000/LS250, part no: 49307 (2,5 m high flex hose, female quick coupling and swivel)	700 (10 153)	1000 (61)	7 (15.4)	AH50, AH110, PK50, PK110, EP59
PP70B-2500FP, part no: 5000	700 (10 153)	2500 (152.6)	10,1 (22.3)	AH200, AH450
PP70-2500FP/LS201, part no: 50012 (2 m hose and female quick coupling)	700 (10 153)	2500 (152.6)	10,8 (23.8)	AH200, AH450
PHS70-1000, part no: 44400	700 (10 153)	1000 (61)	8,1 (17.9)	AH50, AH110, PK50, PK110, EP59
PHS70-1000/LS201, part no: 44414 (2 m hose, female quick coupling and swivel)	700 (10 153)	1000 (61)	9,5 (20.9)	AH50, AH110, PK50, PK110, EP59
PHS70-1000/LS251, part no: 44419 (2,5 m high flex hose, female quick coupling and swivel)	700 (10 153)	1000 (61)	9,5 (20.9)	AH50, AH110, PK50, PK110, EP59
PHS70-1000/LS301, part no: 44417 (3 m hose, female quick coupling and swivel)	700 (10 153)	1000 (61)	9,7 (21.4)	AH50, AH110, PK50, PK110, EP59
PHS70-2400, part no: 44405	700 (10 153)	2400 (146.5)	9,9 (21.8)	AH200, AH450
PHS70-2400/LS201, part no: 44413 (2 m hose, female quick coupling and swivel)	700 (10 153)	2400 (146.5)	11,4 (25.1)	AH200, AH450

ACCESSORIES - HYDRAULICS

HOSES



Ref.No.	Part no:	Length m (ft)
LS201ES	26778	2 (6.6)
LS250ES	21634	2,5 (8.2)
LS301LS	26780	3 (9.8)

Hoses have external thread, suitable for AQI7 & AQU8

QUICK COUPLINGS



Ref.No.	Part no:	Gender
AQI7*	46014	Female
AQU8**	45952	Male

* Addition of nipple AAU436 gives G1/4" external thread.
** Removal of nipple AAU436 gives G1/4" internal thread.

GAUGES



Ref.No.	Part no:	Measurement range	Scale division	Gauge diameter mm (in)	Suitable for:
AMP651	19312	- 40 kN - 100 kN - 200 kN - 70 MPa - 10 000 psi	2 kN 10 kN 10 kN 2 MPa 500 psi	100 (3.9)	5, 11 and 20 t (5.5, 12.2 and 22 sh tn)
AMP652	22390	- 400 kN - 600 kN - 1000 kN - 70 MPa - 10 000 psi	20 kN 50 kN 50 kN 2 MPa 500 psi	100 (3.9)	45 t (49.6 sh tn)

GAUGE KIT



Ref.No.	Part no:	Data
AMK802	47614	- Equipped with: - Gauge (Measuring range: 100 MPa, 15000 psi, Scale decisions: 5 MPa, 1000 psi Gauge diameter: 60 mm (2.4 in)) - Gauge adapter - Hose - AQI7 - AQU8 - Rubber gauge protection - May advantageously be connected directly onto system

GAUGE ADAPTER



Ref.No.	Part no:	Data
AVM202	20582	- Can be directly mounted on all cylinders - Adapted for AMP651 and AMP652

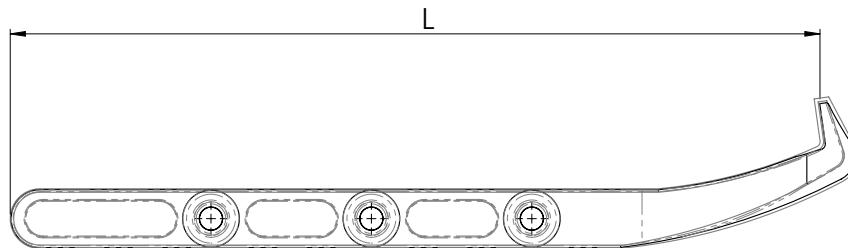


ACCESSORIES - PULLER EQUIPMENT

PULLER ARMS



Ref.No.	Part no:	Quantity	L mm (in)	Suitable for:
50-220	37169	3pcs/set	255 (10)	5 t (5.5 sh tn) Standard
110-280	37170	3pcs/set	340 (13)	11 t (12.2 sh tn), 5 t (5.5 sh tn)
110-390	37171	3pcs/set	450 (17.7)	11 t (12.2 sh tn) Standard, 5 t (5.5 sh tn)
110-490	37172	3pcs/set	600 (23.6)	11 t (12.2 sh tn), 5 t (5.5 sh tn)
200-400	37173	3pcs/set	500 (19.7)	24 t (26.5 sh tn) Standard

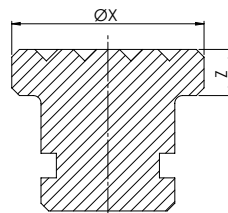


ADAPTER KIT EAT50-110 - FOR 5 AND 11 T (5.5 AND 12.2 SH TN) COMPLETE KIT EAT50-110, PART NO: 47755

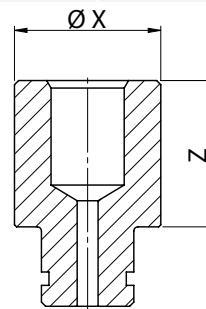


Part no:	Content	Type	Ø X mm (in)	Y mm (in)	Z mm (in)
51296	50-32/50	2	32 (1.3)	-	50 (2)
51297	110-35/35	2	35 (1.4)	-	35 (1.4)
51298	50-32/75	2	32 (1.3)	-	75 (3)
51299	50-18/90	3	18 (0.7)	76 (3)	90 (3.5)
51300	50-23/90	3	23 (0.9)	77 (3)	90 (3.5)
51301	50-23/140	3	23 (0.9)	127 (5)	140 (5.5)
51302	THR5	1	25 (1)	-	6 (0.2)

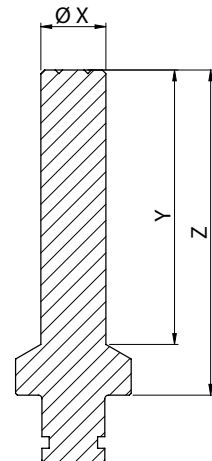
Please see assembly instructions on page 21-22.



1



2



3

SAFETY CHAIN



Ref.No.	Part no:	Data
20-20	37176	- Length of chain: 1,2 m (3.9 ft) - For fixing of puller arms. Prevents uncontrolled opening. - For safety reasons: Always use safety chain!

ACCESSORIES - PULLER EQUIPMENT

TV50-110 - PULLER BUGGY



Ref.No.	Part no:	Data
TV50-110	47948	<ul style="list-style-type: none"> - Puller buggy serving as work place - Can carry AH50, EP59, EPP59 and AH110 - Pullers does not need to be carried - Vinsch for raising pullers up- & down - Equipped with 4 swiveling wheels, two of them lockable - Equipped with mounting and brackets for accessories

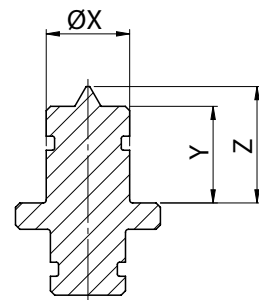
TV50-110 - DIMENSIONS

- Length: 755 mm (29.7 in)
- Width: 755 mm (29.7 in)
- Height: 1665 mm (65.6 in)
- Height adj: 350-1450 mm (13.8-57.1 in)
- Wheels: Ø100 mm (3.9 in), 4 swivelling of which 2 are lockable
- Weight: 45,0 kg (99 lbs)

EXPRESS PULLER PLUGS ADD-ON FOR 5 TON (5.5 SH TN)



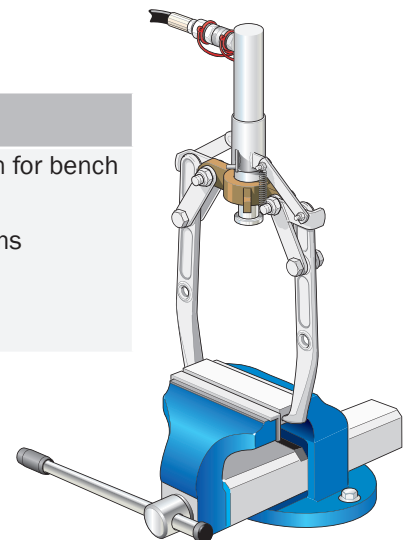
Part no:	Content	Ø X mm (in)	Y mm (in)	Z mm (in)
51293	3/4"	19 (0.8)	22 (0.9)	26,5 (1.1)
51294	1"	25,4 (1)	25 (1)	30 (1.2)
51295	1/2"	12,8 (0.5)	16 (0.6)	flat top



A 5 ton (5.5 sh tn) puller together with the Express puller plugs add-on is suited for standard wrench sockets (not included).



Ref.No.	Part no:	Data
Counterhold	42982	<ul style="list-style-type: none"> - Can be used as an add-on for bench pressing - Adapted for two puller arms - Adapted for vises



ACCESSORIES - PIN-KNIFE PULLER PK50 5 TON (5.5 SH TN) COMPLETE PK50, PART NO: 37146

PULL YOKE



Ref.No.	Part no:	Center thread	Opening range mm (in)
51-1	37182	1 1/2" -16 UN	70-200 (2.8-7.9)

PULLING BOLT



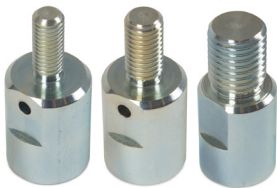
Ref.No.	Part no:	Quantity	L mm (in)	Outside thread
51-3-100	37183	3pcs/set	100 (3.9)	M12
51-3-200	37184	3pcs/set	200 (7.9)	M12
51-3-275	37185	3pcs/set	275 (10.8)	M12



ADAPTERS



Ref.No.	Part no:	Quantity	Inside thread	Outside thread	Suitable for:
51-8-5/8"-UNF	37190	2pcs/set	M12	5/8" - 18	215-2



Ref.No.	Part no:	Quantity	Inside thread	Outside thread
51-9-M8	37191	3pcs/set	M12	M8
51-9-M10	37192	3pcs/set	M12	M10
51-9-M16	37193	3pcs/set	M12	M16

EXTENSION ADAPTER



Ref.No.	Part no:	Quantity	Inside thread
51-10	37194	3pcs/set	M12



PULLER WITH SEPERATOR



Ref.No.	Part no:	Opening range mm (in)	Inside thread	Number of holes
215-2	37195	15-115 (0.6-4.5)	5/8"-18	2

NUT AND WASHER



Part no:	Description	Quantity	Inside thread
01014100	Nut	1pcs/set	M12
33290	Washer	1pcs/set	

ACCESSORIES - PIN-KNIFE PULLER PK110 11 TON (12.2 SH TN) COMPLETE PK110, PART NO: 37154

PULL YOKE



Ref.No.	Part no:	Center thread	Opening range mm (in)
11-1	37196	2 1/4" -14 UN	100-270 (3.9-10.6)

PULLING BOLT



Ref.No.	Part no:	Quantity	L mm (in)	Outside thread
11-3-150	37197	3pcs/set	150 (5.9)	M18
11-3-245	37198	3pcs/set	245 (9.6)	M18
11-3-410	37199	3pcs/set	410 (16.1)	M18



ADAPTERS



Ref.No.	Part no:	Quantity	Inside thread	Outside thread	Suitable for:
11-8-5/8"-UNF	37205	2pcs/set	M18	5/8"-18	215-3



Ref.No.	Part no:	Quantity	Inside thread	Outside thread
11-9-M10*	37206	3pcs/set	M18	M10
11-9-M12	37207	3pcs/set	M18	M12
11-9-M16	37208	3pcs/set	M18	M16

***IMPORTANT!** Max. 7,8 ton (8.6 sh. tn.), Max. 500 bar (7252 psi).



EXTENSION ADAPTER



Ref.No.	Part no:	Quantity	Inside thread
11-10	37209	3pcs/set	M18

PULLER WITH SEPERATOR



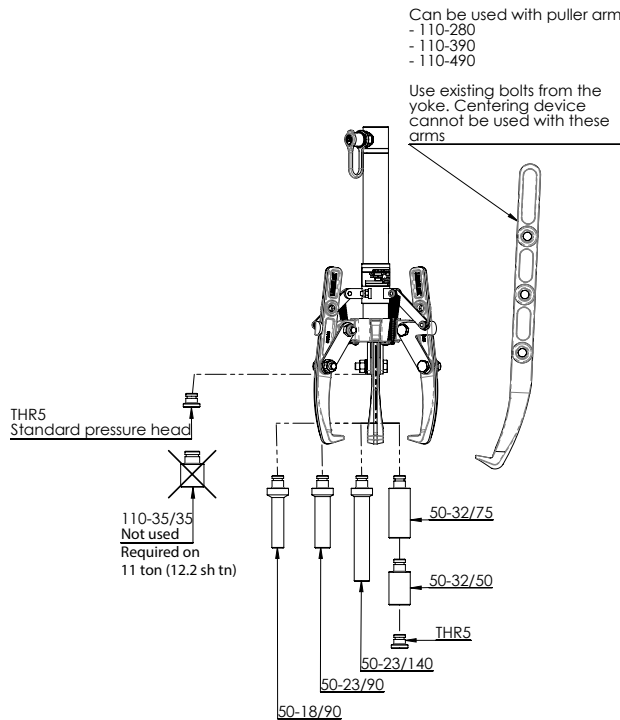
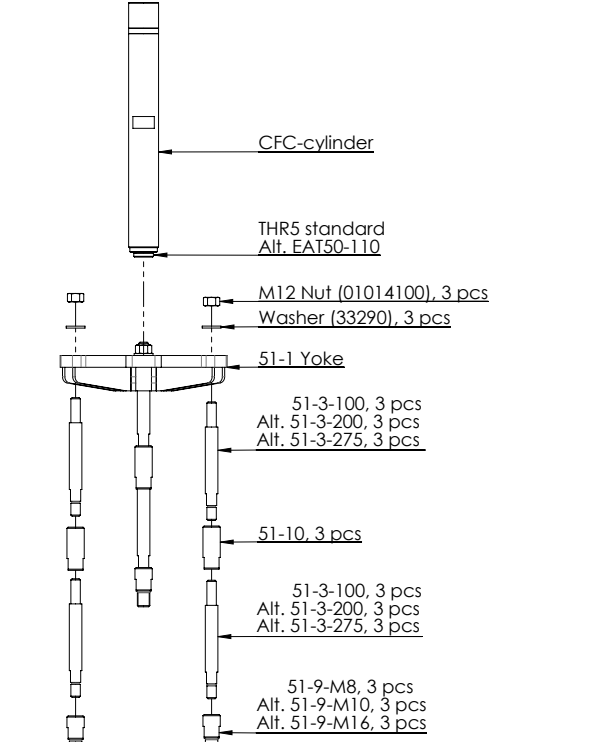

Ref.No.	Part no:	Opening range mm (in)	Inside thread	Number of holes
215-3	37210	25-155 (1-6.1)	5/8"-18	2

NUT AND WASHER

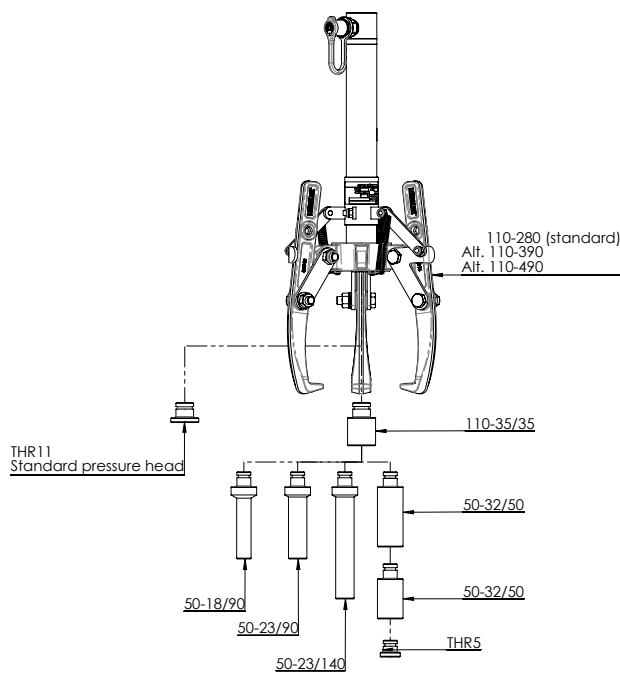
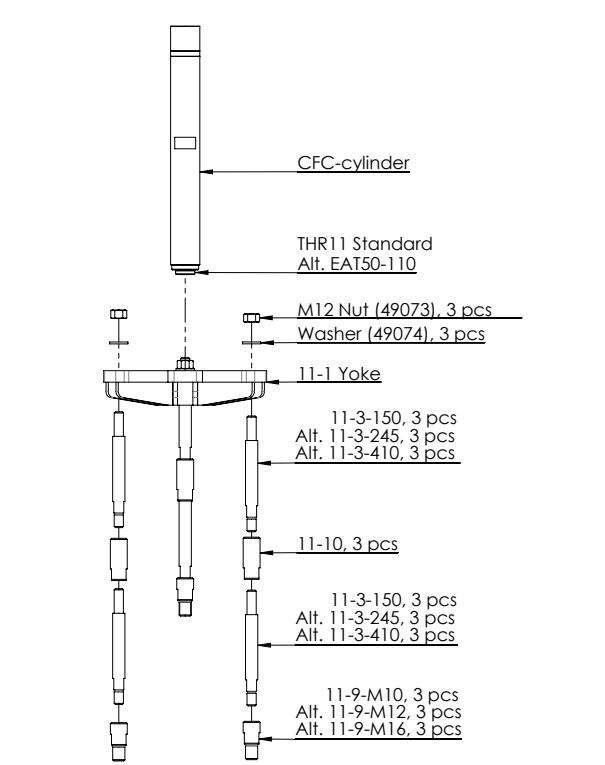
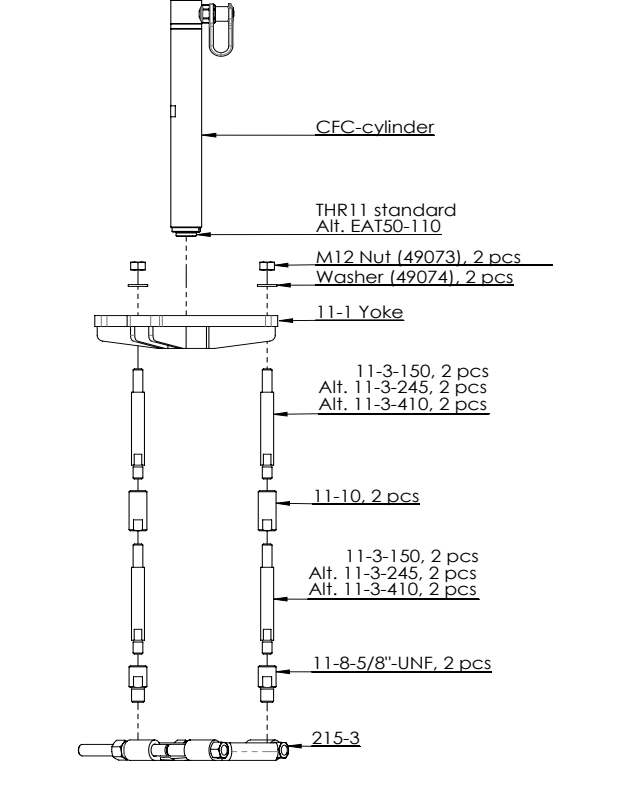



Part no:	Description	Quantity	Inside thread
49073	Nut	1pcs/set	M18
49074	Washer	1pcs/set	

ASSEMBLY INSTRUCTIONS 5 TON (5.5 SH TN)

GRIP PULLER	PIN PULLER
<p>Can be used with puller arms: - 110-280 - 110-390 - 110-490</p> <p>Use existing bolts from the yoke. Centering device cannot be used with these arms</p>  <p>THR5 Standard pressure head</p> <p>110-35/35 Not used Required on 11 ton (12.2 sh tn)</p> <p>50-32/75</p> <p>50-32/50</p> <p>THR5</p> <p>50-23/140</p> <p>50-23/90</p> <p>50-18/90</p> <p>Adapter kit EAT50-110 (accessory)</p>	 <p>CFC-cylinder</p> <p>THR5 standard Alt. EAT50-110</p> <p>M12 Nut (01014100), 3 pcs Washer (33290), 3 pcs</p> <p>51-1 Yoke</p> <p>51-3-100, 3 pcs Alt. 51-3-200, 3 pcs Alt. 51-3-275, 3 pcs</p> <p>51-10, 3 pcs</p> <p>51-3-100, 3 pcs Alt. 51-3-200, 3 pcs Alt. 51-3-275, 3 pcs</p> <p>51-9-M8, 3 pcs Alt. 51-9-M10, 3 pcs Alt. 51-9-M16, 3 pcs</p>
PULLER WITH SEPARATOR	

ASSEMBLY INSTRUCTIONS 11 TON (12.2 SH TN)

GRIP PULLER	PIN PULLER
 <p>110-280 (standard) Alt. 110-390 Alt. 110-490</p> <p>THR11 Standard pressure head</p> <p>110-35/35</p> <p>50-32/50</p> <p>50-18/90</p> <p>50-23/90</p> <p>50-23/140</p> <p>50-32/50</p> <p>THR5</p> <p>Adapter kit EAT50-110 (accessory)</p>	 <p>CFC-cylinder</p> <p>THR11 Standard Alt. EAT50-110</p> <p>M12 Nut (49073), 3 pcs Washer (49074), 3 pcs</p> <p>11-1 Yoke</p> <p>11-3-150, 3 pcs Alt. 11-3-245, 3 pcs Alt. 11-3-410, 3 pcs</p> <p>11-10, 3 pcs</p> <p>11-3-150, 3 pcs Alt. 11-3-245, 3 pcs Alt. 11-3-410, 3 pcs</p> <p>11-9-M10, 3 pcs Alt. 11-9-M12, 3 pcs Alt. 11-9-M16, 3 pcs</p>
PULLER WITH SEPARATOR	
 <p>CFC-cylinder</p> <p>THR11 standard Alt. EAT50-110</p> <p>M12 Nut (49073), 2 pcs Washer (49074), 2 pcs</p> <p>11-1 Yoke</p> <p>11-3-150, 2 pcs Alt. 11-3-245, 2 pcs Alt. 11-3-410, 2 pcs</p> <p>11-10, 2 pcs</p> <p>11-3-150, 2 pcs Alt. 11-3-245, 2 pcs Alt. 11-3-410, 2 pcs</p> <p>11-8-5/8"-UNF, 2 pcs</p> <p>215-3</p>	

GENERAL ADVICE FOR PULLING

3-arms/2-arms pullers generally used when the object to be pulled is made of solid material and does not have a large diameter.

Should the object have a large diameter and be of weak material, pinpulling should be used. The pulling bolts should then be attached as close as possible to the center to "lift off" the object.

When using a grip puller, if possible always use three arms and attach the safety chain 20-20 around the arms. When using the pin puller it is always best to use three pulling bolts.

■ Pulling

Attach the puller, apply the safety chain 20-20 if the grip puller is used and try to pull without heating. Figure 1 shows the importance of using three arms when pulling off bearings. When two arms are used only two of the balls in the bearing will be loaded giving the risk of breaking the outside ring.

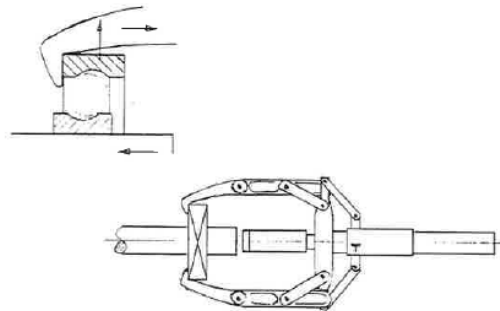


Figure 1

Figure 2 shows the incorrect use of 3-arms/2-arms puller. A weak object will bend and squeeze against the shaft. This will increase with the additional force put on the puller. It will apply unnecessary forces. We recommend instead to use a pinpuller.

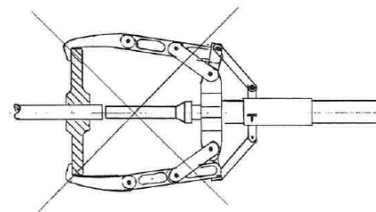


Figure 2

■ Pinpulling

Figure 3 shows pinpulling on a weak object with large diameter. Always attach the pulling bolts as close to the center and wherever possible use three pulling bolts. Two pulling bolts can be used, but this method is not recommended.

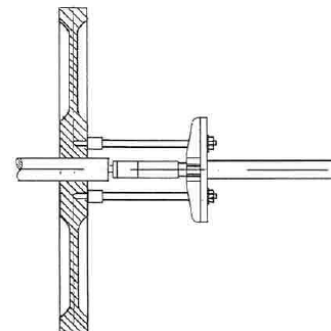


Figure 3

■ Pulling with separator

Figure 4 shows pulling with a separator which is used when the space is narrow and the arm puller cannot be fixed.

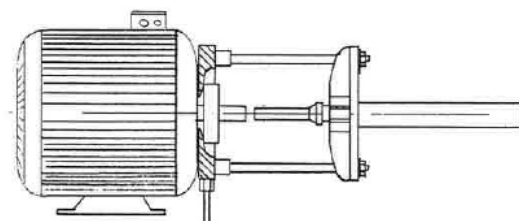


Figure 4

■ Adaptor kit

Figure 5 shows the correct use of adaptor kit EAT50-110 always use as large diameter as possible in proportion to the shaft.

Ex. Shaft Ø 19 mm, choose adapter Ø 18 mm

Shaft Ø 38 mm, choose adapter Ø 35 mm

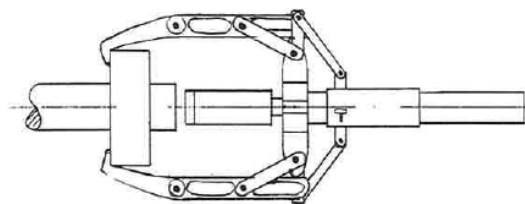


Figure 5

Figure 6 shows the incorrect use of adaptor kit EAT50-110 if you use to small diameter of the adaptor in proportion to the shaft you risk spool pressure in the shaft.

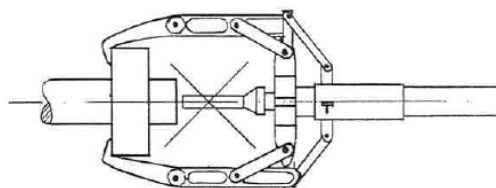


Figure 6

■ Steps to be taken when pulling

It is not always necessary to use big and heavy pullers. The industry of today is looking for high technology and light weight units. The following steps should be taken when an object will not loosen.

■ Vibrations

If, for example, a coupling has been fixed for a long period of time and rust has occurred. Corrosion is normally the most common reason for the coupling to be stuck. Figure 7 shows the best way with two steel hammers striking simultaneously and creating vibrations which often causes the rust to break and the coupling to loosen. Use the safety chain 20-20 around the arms so they do not lose the grip when striking.

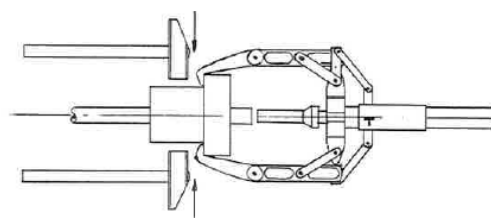


Figure 7

Figure 8 shows the incorrect use of a steel hammer. The risk in this operation is that you can easily damage the bearing in, for example, an electrical motor.

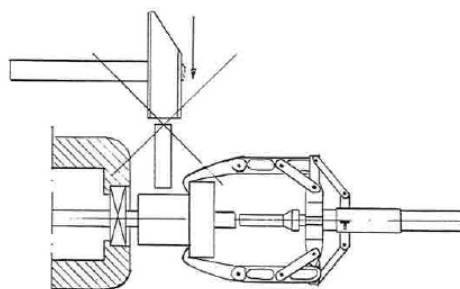


Figure 8

■ Heating

It can be useful to heat the coupling in order to increase the diameter of the hole. Figure 9 shows the best way to heat. Heating should be done in lines along the coupling at intervals of 120°. Heating in lines allows the hole in the coupling to increase in diameter and avoids the heat creeping to the shaft too quickly. You will also have more time for the pulling processes. The shrinking on cooling becomes less when you line heating as opposed to heating all around the coupling.

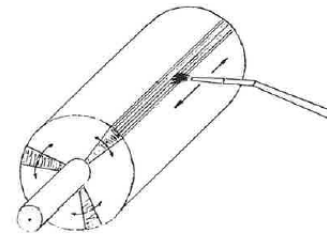


Figure 9

Figure 10 shows that when you have a wedge it can be sufficient to heat just over the wedge.

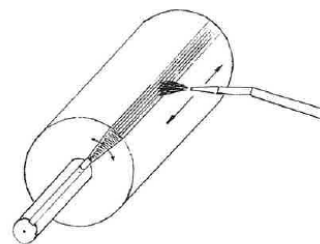


Figure 10

If lineheating in three lines is not successful you should not allow the coupling to cool and then try again. The coupling will shrink and will be even more difficult to release. It is recommended instead to heat intensively along one line and strike with a steel hammer on the line. The coupling can then be drawn out.

Note!

Check that the materials are suitable for heating.

■ Remember when heating

If the coupling is heated pressure on the puller must be lowered so the puller just stays in position. Commence heating in lines and when the heat has transferred into the coupling apply pressure on the puller again and the coupling should be pulled off.

Note!

Heating with the puller under pressure can be dangerous as the coupling can release quickly with the risk that the puller and coupling can blow off.

Note!

Never work behind the puller and ensure that nobody is behind.

Note!

All materials do not withstand spot heating. When pulling shrink joints, always heat before pulling. Cooling of the shaft can sometimes be necessary.

Occasionally cooling of the shaft can be beneficial.

Figure 11 shows heating of a spoked wheel. Note the importance of also heating the outside ring. If the outside of the ring is not heated the spoked wheel can break.

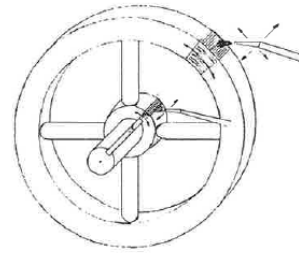


Figure 11

Figure 12 shows incorrect heating of only one spot. The shaft will bend in this instance when it is cooled off. In this example the coupling should be heated in three areas with 120° distance or on two areas opposite of each other.

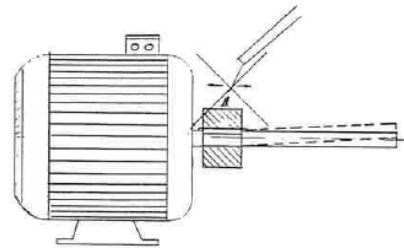


Figure 12

■ Injection of oil

If a coupling is large and solid it can be advisable to drill a small hole down to the shaft. Cut a thread BSP 1/8" or BSP 1/4" in the hole and fit a quick coupling AQU8. Connect with a quick coupling AQ17 the hose and a hand pump or a air driven pump and force the oil into the coupling with high pressure. When the oil leaks out along the shaft apply pressure to the puller. With this operation the diameter of the coupling is increased, the coupling and the shaft are lubricated and the risk of cutting between the materials is minimised. See figure 13.

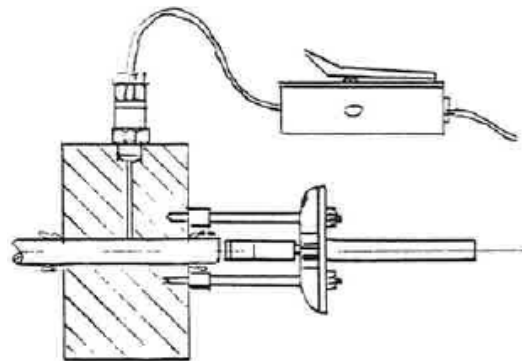


Figure 13

■ Conical shaft coupling

Figure 14 shows the pulling of a coupling on a conical shaft. This must be done carefully and the locking nut must only loosen a few threads. If the locking nut is unscrewed completely then the coupling may loosen quickly and the puller with the coupling will blow off with the consequent risk of damage.

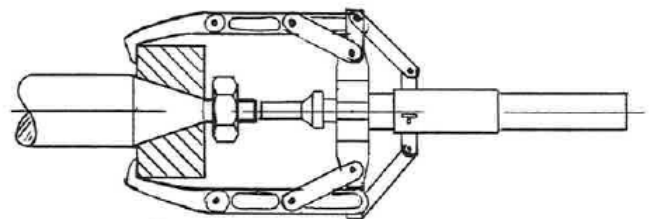


Figure 14

Important!

- Never work behind a puller and ensure that nobody is behind.
- Never leave the work place with the puller under maximum pressure.
- When using grip pullers, always use safety chain 20-20.

Remember!

Using a hydraulic puller is not a completely harmless operation.
Always work with great care.

We reserve the right to introduce changes to our product range and/or designs without prior notice.