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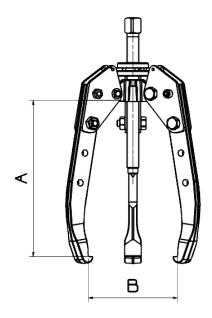
1. TECNHICAL FEATURES

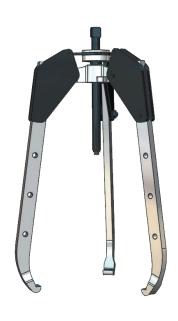
- 2 or 3 jaws selfcentering puller.
- Two different types of jaws: Long jaws (Leg with 3 holes) or EXTRA Long jaws (leg with 4 holes).
- External use.
- Forged jaws.
- Self-centering closing system, all the jaws move at the same time.
- The self-centering puller is very safe due to the maximum opening limit.
- Efficiency as all the jaws are perfectly placed even in difficult spaces.

2. PULLER DIMENSIONS

Reference with L long legs with X legs extra long.







Ref.	Α	В	2/3 Jaws	Weight	Ton
1301ALT	105	110	Si	1	1
1304ALT	185	175	Si	2,5	4
1307ALT	225	240	Si	6,5	7
1310ALT	410	350	Si	14,5	10
1310AXT	490	405	Si	16	10
1317ALT	500	480	No	31,5	17
1317AXT	615	540	No	34,5	17
1330ALT	600	650	No	55,5	30
1330AXT	640	720	No	61,5	30

Suffix:

L: Long Jaws

X: Extra Long Jaws

T: Three jaws

A: Selfcentering



3. GENERAL INSTRUCCIONS

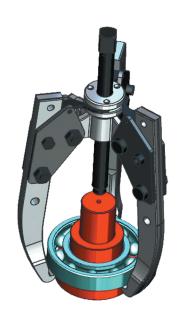


- 1. Make sure the spindle is cleaned and greased before using.
- 2. Make sure the axe has a centre hole. If not, use a point protector.
- 3. Make sure the jaws/extenders are properly centered.
- 4. Apply pulling force by turning the spindle. Never hit the spindle
- 5. Do not keep the spindle too sticking out from the puller's body.
- 6. Personal protective equipment must be worn at all times.
- 7.All the jaws move at the same time. Following advantages are presented thanks to the self-centering mechanism, improving the extraction:
 - A- The puller will always be perfectly centered.
- B- The self-centering puller limits the maximum spread avoiding the puller to be assembled oversized and consequently avoiding the releasing risk of the piece

DO NOT USE POWER TOOLS









4. ADEQUATE LEGS POSITION

It is convenient to place the jaws on the lowest possible hole. In this way, the legs will deform less while applying big strengths (figure 1).

Once bigger height is needed, the spindle will arise more over the body (figure 2). In cases of longer shafts and if the spindle shows up substantially (figure 3) it will be normal to twist the spindle while applying force with a wrench.

So in consecuence and when the spindle height over the body is high, it is better to change the position of the legs (figure 4)

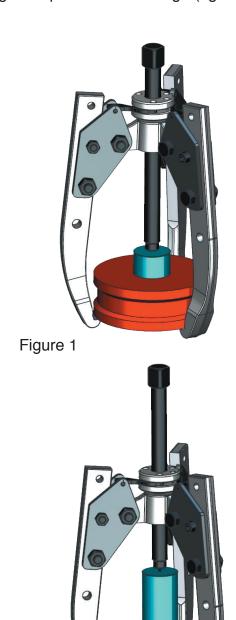
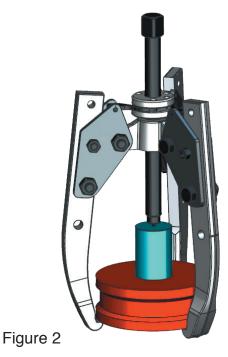
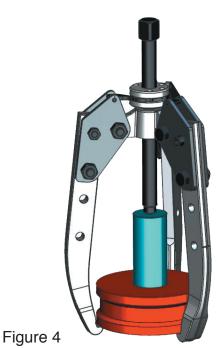


Figure 3







5. SPINDLE POINT

Spindles with Fix point

While using a fix point spindle (pullers from 13101ALT to 1307ALT), it is necessary to use a point protector if the axe has not a centre hole in order to protect the spindle





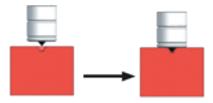


Concealed point Spindles

Normally, big size pullers (from 1310ALT onwwards) have a concealed point so it is not necessary to use a point protector. The concealed point works as follows.

a) Case 1

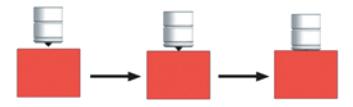
If the piece has a slot, the fix point spindle is placed easily over that slot.



Fix point. Piece with a slot.

a) Case 2

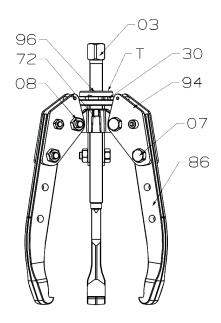
In cases the piece is completely flat (without a slot) the spring allows the point to be hiden in the spindle. In this way, the concealed point allows an easy extraction.



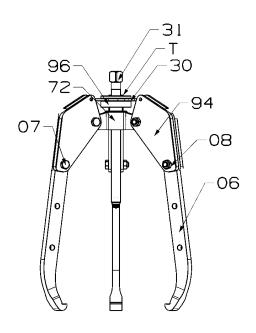
Concealed point. Flat pieces



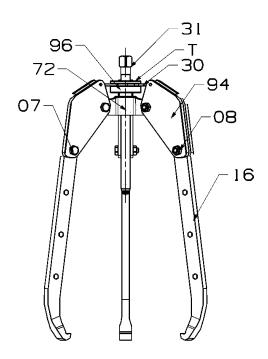
6. BREAKDOWN DRAWINGS



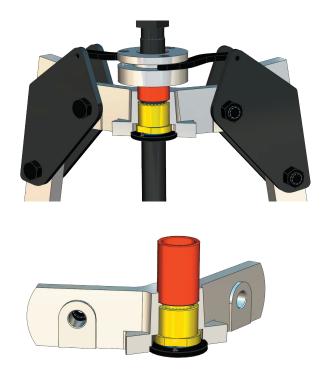
1301ALT-1304ALT-1307ALT



1310ALT-1317ALT-1330ALT



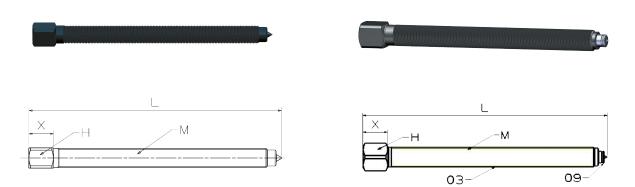
1310AXT-1317AXT-1330AXT



"T" bodies of big pullers can be acquired equipped with the bronze nut and the cover. The references are: 131770, 133070 and 13570. (See comments from page 10.).

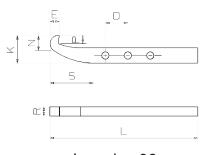


Spindle

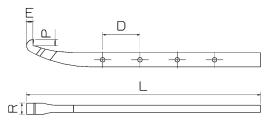


Reference	Thread	L	Х	Н	09 Point	Puller
130103	M10 x 1	124	14	12	Fix	1301ALT
130403	M14 x 1,5	177	20	16	Fix	1304ALT
130703	M18 x 1,5	235	24	19	Fix	1307ALT
131031	M20 x 1,5	321	25	22	Dummy	1310ALT
131731	M27 x 2	377	30	27	Dummy	1317ALT
133031	1 3/8" 12h.	510	38	35	Dummy	1330ALT

Legs



Long leg 06

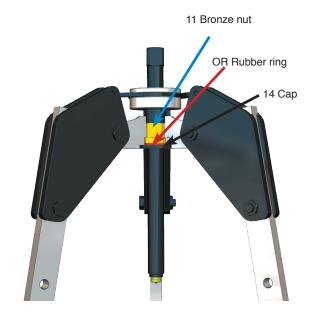


Extra long leg 16

Ref leg	Р	R	E	L	D	К	N	S
130186	7	7,5	8	127	19	23	13	39
130486	8	21	7,5	219	51	40	15	62
130786	8	25	10	264	44,5	53	19	100
131006	15	25	12,5	436	83	61	30	130
131016	15	25	12,5	516	83	61	30	130
131706	17,5	31	15,5	550	115	85	32	130
131716	17,5	31	15,5	665	115	85	32	130
133006	24	41	22	698	125	95	60	215
133016	24	41	22	823	125	95	60	215



Cuerpo



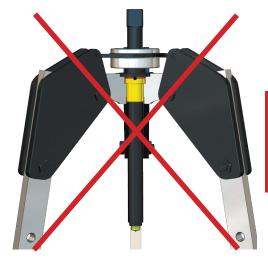
*For 1317ALT and 1317AXT pullers acquired after 01/07/2018, bronze nut reference is 131712.

The body of 1317ALT and 1330ALT pullers (jaws of all lenghts) have a bronze nut to improve the strength of the puller. In case of using a hammer to extract the parts, this nut is supported by a 0-ring, which absorbs the impact. All the assembly is closed with a cap and two screws.

3 Jaws bodies

The bodies of 1301ALT, 1304ALT, 1307ALT y 1310ALT pullers can be used with 2 and 3 jaws.







If the bod is mounted as opposed to its correct position the M5 screws will stand all the strain and will be broken.





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