

OPERATION MANUAL – SPARE PARTS LIST

SP3100

PNEUMATIC TENSIONER FOR STEEL STRAPPING



BUTTON OPERATING VERSION



CHOKE COLLAR OPERATING VERSION

CE

POLYCHEM

READ ALL INSTRUCTIONS BEFORE OPERATING THE TOOL

Ed. 09/11

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1) SAFETY INSTRUCTIONS



READ THE OPERATING INSTRUCTIONS CAREFULLY



WHEN OPERATING THE TOOL, WEAR EYE, FACE AND HAND SAFETY PROTECTION



GENERAL SAFETY INSTRUCTIONS :

The tool must be used by properly trained people. Failure to follow the operating instructions or improper use could cause strap breakage, injuries, or package damages.

Check tool daily, do not use tool with worn or damaged parts. Use original spare parts for replacement. Never modify any tool part.

Do not put fingers, hands or other body parts between the strap and package during the cycle.

It is your responsibility to check the seal joints made by your tool. Training about the weld time adjustment will be useful to check the seal quality in order to avoid severe injury. Never move goods with bad quality seals. Only use specific strap dispenser to dispense the strap. Keep your working area clean and always use the tool in good balance and safety conditions. Never use straps as a means of pulling or lifting goods.

Always use a proper safety strap cutter and keep other people and yourself at a safe distance from strap, always stand to side of strap, away from direction of strap trajectory once cut. Hold the upper strap portion and pay attention that the lower strap will snap forward away from you.

Improper operation, excessive tensioning, use of non recommended strap, or sharp corners on the package could cause a loss of strap tension and/or strap breakage that could lead to packaging failure or injury. The following is recommended; use edge protectors if package has sharp corners, place the strap correctly around a properly positioned package, stand in safety position (on one side of strap) during strapping cycle, and use the correct strap quality, width, thickness, and break strength as recommended in this manual.

Please save this manual, as it is a part of the tool. This tool is manufactured without any substances which could be dangerous to health. National instructions must be observed for disposal of all the parts.



GENERAL SAFETY INSTRUCTIONS FOR COMPRESSED AIR:

Never operate this tool using bottled air or other gas source. Do not exceed the air pressure range as shown in this operation manual. For all adjustments, repairs or cleaning of the tool, always disconnect air supply. Always use dry, clean and lubricated compressed air.

1) TECHNICAL DATA

DESCRIPTION OF THE TOOL: The tool model SP3100 is designed to tension steel strap. The strap is fed around the package manually and inserted in the tool and tensioned as shown in the instructions.

TOOL SIZE			
	Length:		340mm – 13.4"
	Width:		115mm – 4.5"
	Height:		90mm – 3.5"
	Weight:		4kg – 8.8lbs (4.3Kg-9.5 lbs with choke collar)

AIR REQUIREMENT			
	Pressure Range:		78-99 psi
	Air Consumption:		25 cuft/min

PERFORMANCES			
	Max.Tension force:		15000N
	Tensioning speed:		6mt/m

CHART OF TYPES

ITEM	MODEL	STRAP	THICKNESS
T449941 Button	SP3100-3/4" – 1 ¼"	R 850 - 1100N/mm2	0.024" – 0.043"
T449942 Choke collar			

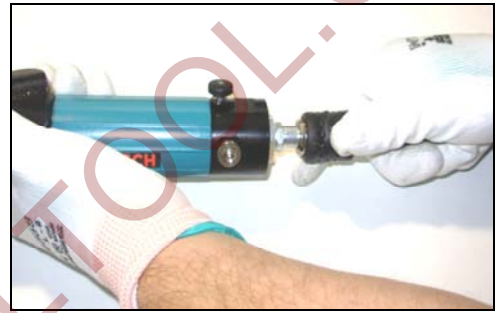
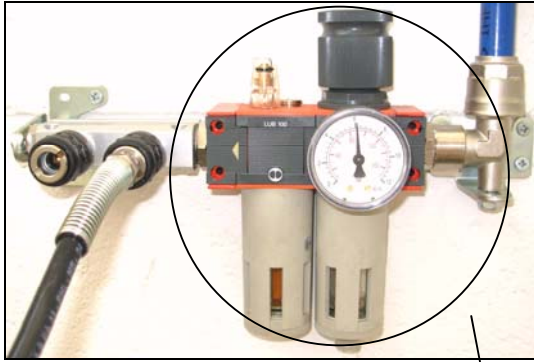
2) WARRANTY CONDITIONS AND LIABILITY

POLYCHEM warrants all its tools during a period of 4 months from the shipping date document. Warranty includes free replacement of faulty parts ex works. The warranty is not valid in case of improper use, lack of maintenance, tampering, arbitrary modifications and reparations, use of non original parts, disregard of instructions of the operation manual, and missing serial number. The warranty excludes the wearing parts shown on spare parts list.

No compensation can be claimed for production shutdowns and for damages to people and objects due to tools defects. POLYCHEM Corporation reserves the right to modify the tools and documentation without any obligation to update previous ones.

3) INSTALLATION

It is recommended to always use a dryer unit near the compressor and a filter-regulator-lubricator unit with pressure gauge (Polychem part # 200-0025) close to the tool air connection to avoid water and dirt in the valves or in the pneumatic motors. Connect the tool to air with quick connector 1/4" and use minimum 8mm or 3/8" internal diameter pipe; max length for flexible pipe 10 m between tool and regulator group. Check that your compressor / air distribution plant is able to supply the right air quantity as shown in the operation manual without losing pressure.



200-0025

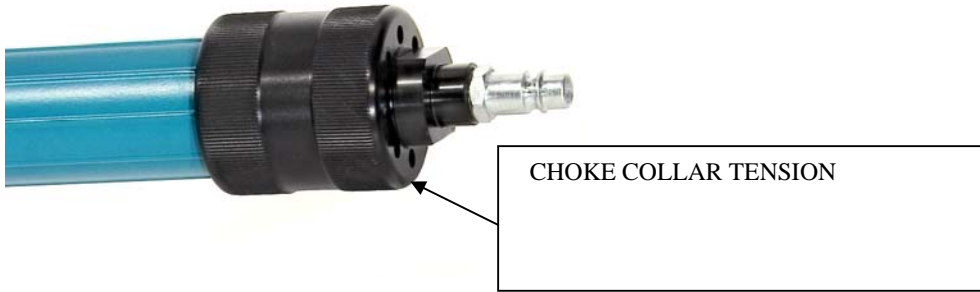
5) OPERATING ELEMENTS AND ADJUSTMENTS

OPENING LEVER

TENSIONING BUTTON

TENSION MOTOR





Adjusting Strap Tension

The maximum strap tension can be adjusted with a screwdriver by turning the screw as shown in pic.A, on pneumatic motor. Turning clockwise the tension will be decreased; turning counter clockwise the tension will be increased.

(A)



Feed Wheel Gap Adjustment

(B1)



(B2)



It is possible to adjust the gap of the feed-wheel in order to change the feed wheel pressure on the strap; First unscrew the locking screw (**pic.B1**) then turn the regulation screw so that the standard feed-wheel gap is 0.1-0.2mm (0.0039"-0.0078"). Turning the screw clockwise will decrease the gap, and turning the screw counter clockwise will increase the gap (**pic.B2**), after adjusting the gap tighten the locking screw (**pic.B1**).

6) OPERATION

Make the strap slip into the seal and wrap it up around the package; then make strap bottom pass a second time into the seal and bend it (**pic.C1**); push opening lever to open the tool and then insert top strap (**pic.C2**), press tensioning button (for choke collar model turn it in clockwise) to tighten strap and hold it until tension is done (**pic.C3**); When tension is complete use the SP6100 series tool to seal the strap (**pic.C4**); after the strap is sealed move the tool up and down until the strap is cut off (**pic.C5**). Then check to make sure the seal is sufficient (**fig. C6**).

(C1)



(C2)



(C3)



(C4)



(C5)



(C6)



(7)SERVICING - CLEANING

DISCONNECT THE TOOL FROM THE AIR LINE BEFORE PERFORMING ANY SERVICE: Clean with compressed air under the wheel and tension foot as shown in the picture.



7) TROUBLESHOOTING

PROBLEM
REMEDY
Not enough strap tension
Check the air pressure (min.78 psi) Check if the filter / lubricator group is damaged or dirty. Check if the pneumatic motor is damaged or dirty (contact the after sale service). Check the tension adjusting screw on the pneumatic motor
The feed wheel slides and mills the strap
Check if the feed wheel is dirty or damaged Adjust the gap between feed wheel and bottom plate (around 0,2mm—0.008")
The seal is damaged during the tension cycle
Too much tension force—adjust the motor power. Check on foot if the seal support points are damaged or worn out. Check if the strap characteristics are right for the strapping tool and application
The tensioned strap is sideways and bent
Adjust the motor power—too much tension force. Check if the strap characteristics are right for the strapping tool
Air leaking
Check the air connection. Gaskets may need replaced. (contact the after sale service)
The strap is not cut
Check if the strap characteristics are right for the strapping tool. Check if the front movable foot edge is damaged or worn out

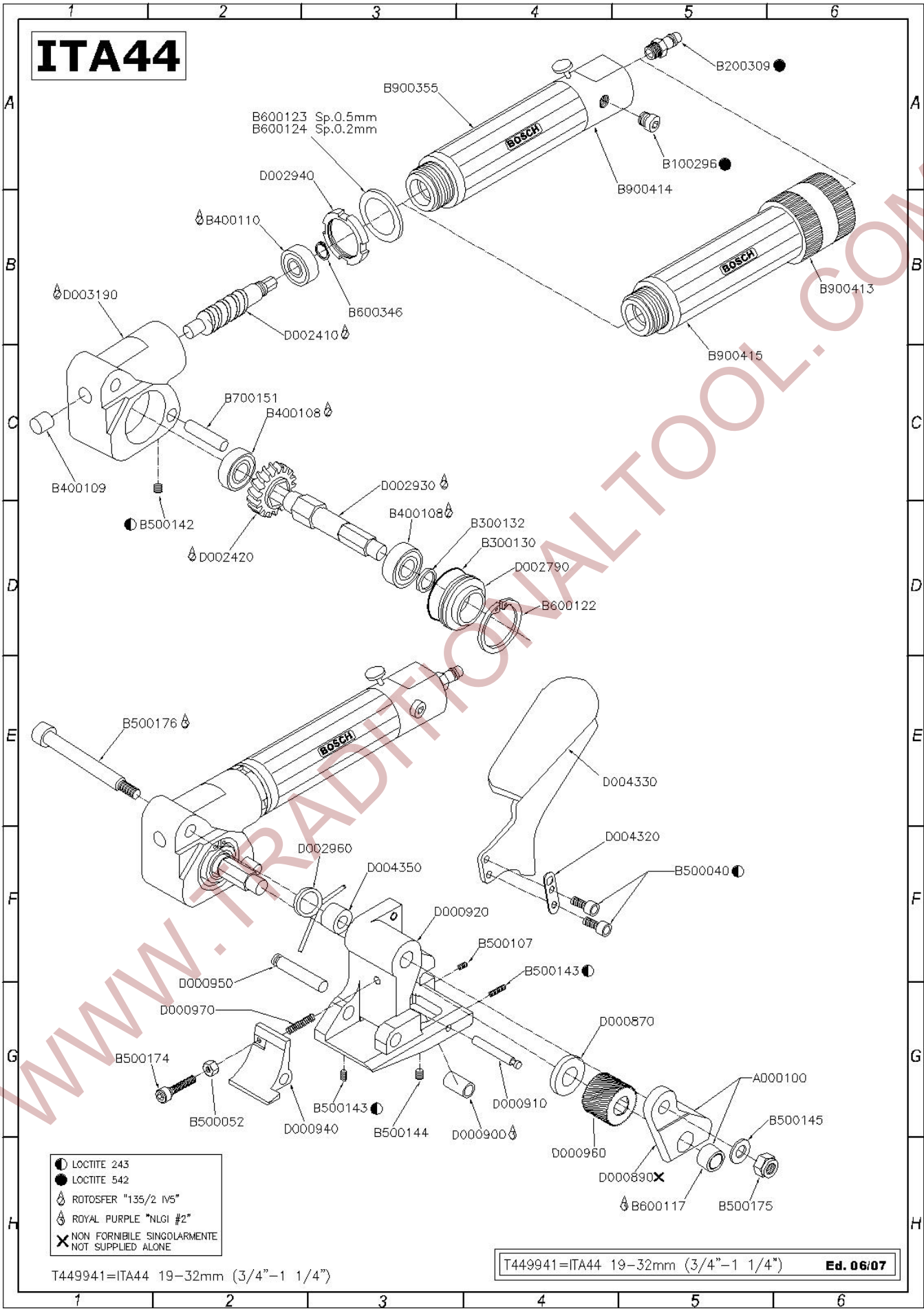
9) LAYOUT-SPARE PARTS LIST

Ed. 09/11

POLYCHEM PART NUMBER	ITEM	DESCRIPTION	QNTY.		
401-0283	A000100	SHAFT SUPPORT ASSEMBLED	1		
400-0021	B100296	PLUG 1/4" S2610 CAMOZZI	1		
400-0004	B200309	GLUTCH MALE 1/4"	1		
401-0284	B300130	O-RING OR3162 (D41)	1		
401-0285	B300132	STOP OIL G 17X23X3	1		
401-0286	B400108	BEARING 6003/C3	2		
401-0287	B400109	ROLL BEARING BK1012	1		
401-0288	B400110	BEARING 7202	1		
400-0044	B500040	SCREW M6x16 UNI5931	2		
400-0176	B500052	NUT M6 UNI5588	1		
401-0289	B500107	SCREW M5x6 UNI5927	1		
401-0290	B500142	SCREW M8x1x10 UNI5923	1		
401-0273	B500143	SCREW M6x6 UNI5927	2		
401-0291	B500144	SCREW M8x1x14 UNI5923	1		
401-0292	B500145	WASHER M10 UNI6592	1		
401-0177	B500174	SCREW M6x16 ISO7380	1		
401-0293	B500175	AUTO LOCKNUT M10 DIN985	1		
401-0294	B500176	SCREW Ø12 M10x12x90 ISO7379	1		
401-0051	B600117	BUSHING BMC 141615	1		
401-0295	B600122	INT. SEEGER J47 U.7437 R150	1		
401-0296	B600123	WASHER PS 35X25X0.5	1		
401-0297	B600124	WASHER PS 35X25X0.2	1		
401-2045	B600346	CIRCLIP D15 UNI 7435	1		
401-0298	B700151	CYL. PIN TMP 10X60 DIN6325	1		
401-0075	B900355	PNEUM. MOT. BOSCH 448 BUTTON VERS.	1		
401-0299	B900413	CHOKE COLLAR FOR BOSCH MOT.B900415	1		
401-0097	B900414	BUTTON GROUP FOR BOSCH MOT.B900355	1		
401-0300	B900415	PNEUM. MOT. BOSCH 448 CHOKE COLLAR	1		
401-0301	D000870	SPACER	1		
401-2113	D000900	ROLLER	1	§	
401-0214	D000910	ROLLER PIN	1		
401-0302	D000920	FOOT	1		
401-0303	D000940	SEAL STOP	1		
401-0304	D000950	MOVABLE PIN FOOT	1		
401-2114	D000960	FEEDWHEEL	1	§	*
401-0132	D000970	SPRING 0,7x25	1		
401-0305	D002410	WORM GEAR	1		
401-0306	D002420	WORM WHEEL	1		
401-0307	D002790	BEARING SUPPORT	1		
401-0049	D002930	TENSIONING SHAFT	1		
401-0060	D002940	BUSH	1		
401-0204	D002960	RE-CALL SPRING	1		*
401-0059	D003190	FEEDWHEEL BODY	1		
401-0308	D004320	SUPPORT PLATE	1		
401-0309	D004330	OPENING LEVER	1		
401-0310	D004350	SPACER	1		

	§	WEARING PART	
	*	PART THAT SHOULD BE STOCKED	

ITA44

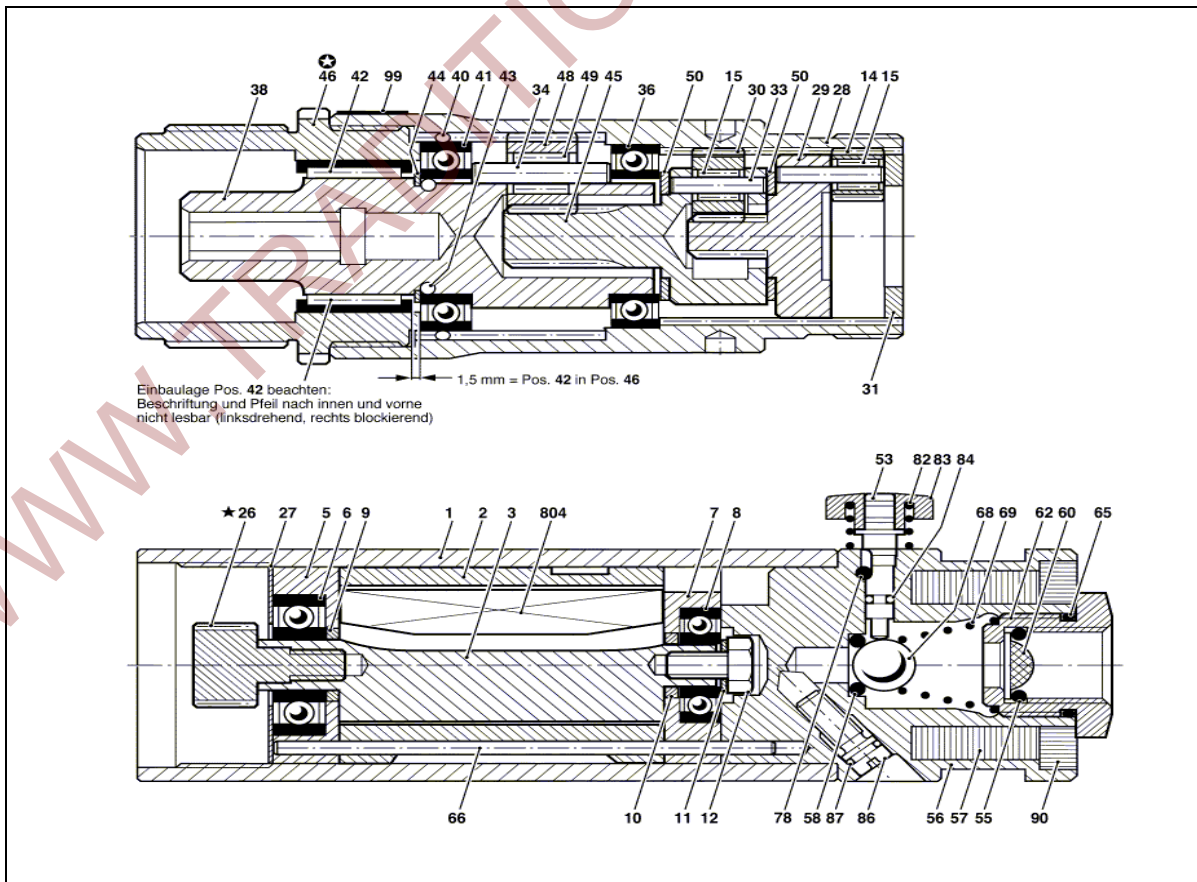
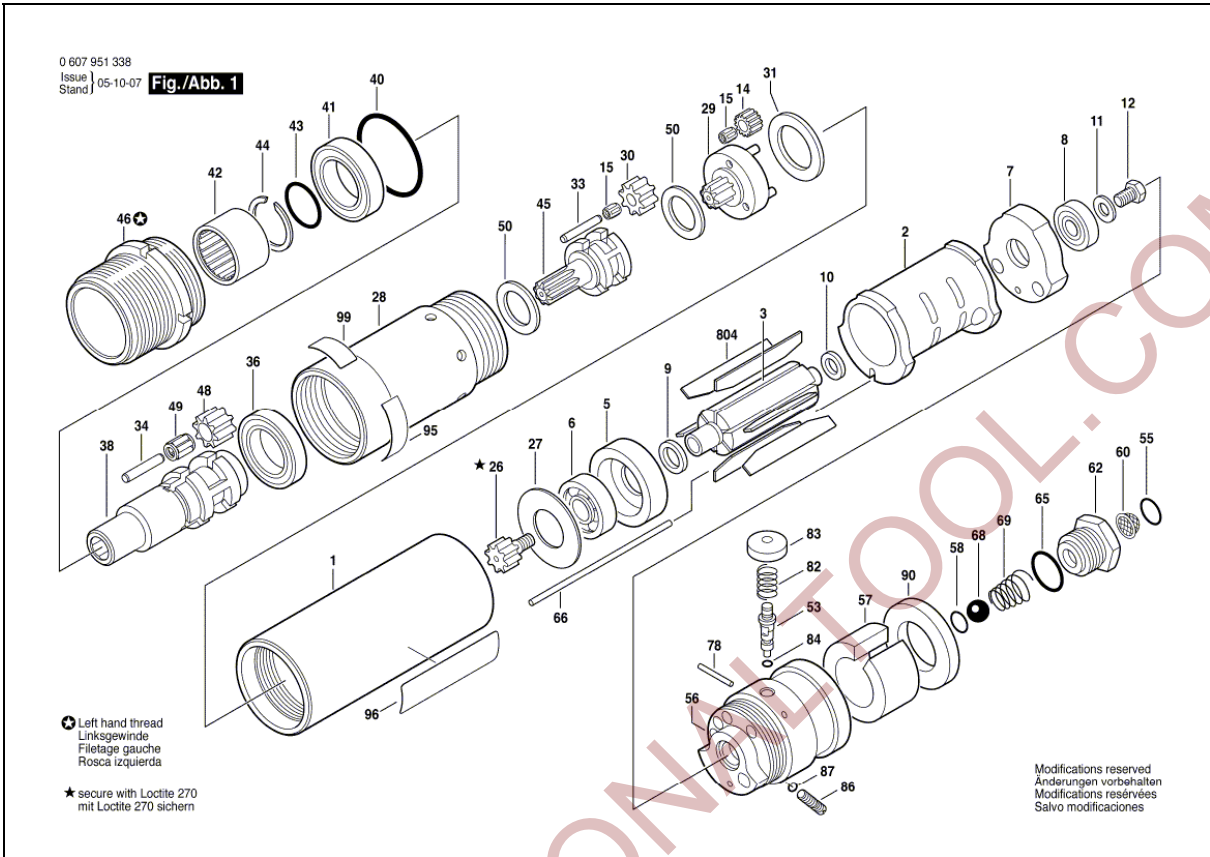


- LOCTITE 243
- LOCTITE 542
- ⚡ ROTOSFER "135/2 IV5"
- ⚡ ROYAL PURPLE "NLGI #2"
- ✗ NON FORNIBILE SINGOLARMENTE
NOT SUPPLIED ALONE

T449941=ITA44 19-32mm (3/4"-1 1/4")

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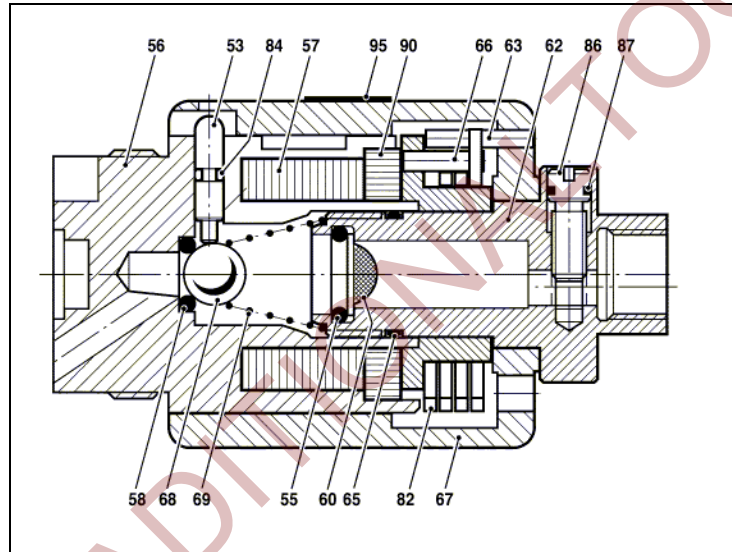
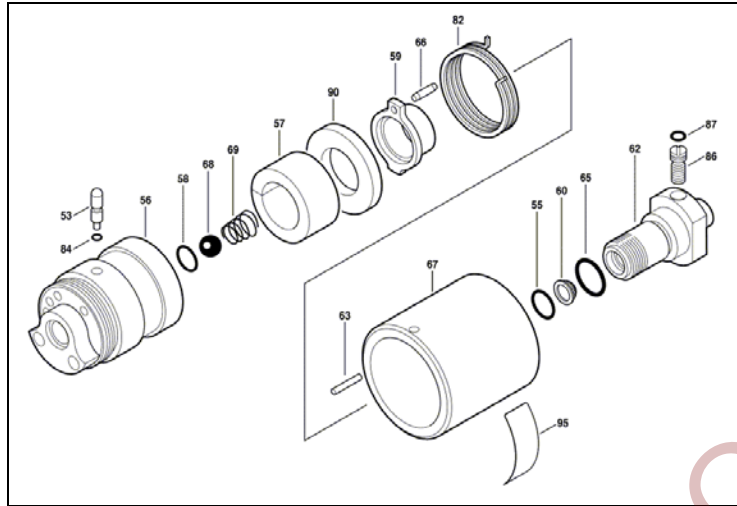
**BOSCH 0 607 951 448 – 401-0075
TENSION MOTOR WITH BUTTON**



SPARE PARTS LIST 401-0075

Nr.	ITEM	Q.TY	DESCRIPTION
1	3 600 760 114	1	MOTOR HOUSING / BLUE
2	3 604 090 062	1	STATOR / 370W
3	3 604 220 025	1	ROTOR
5	3 605 700 005	1	BEARING FLANGE
6	3 600 905 039	1	DEEP-GROOVE BALL BEARING / 9x24x7MM
7	3 605 700 006	1	BEARING FLANGE
8	3 600 905 148	1	DEEP-GROOVE BALL BEARING / DIN 625-7x19x6
9	2 600 202 013	1	SPACER RING
10	2 600 202 014	1	SPACER RING
11	2 916 011 012	1	PLAIN WASHER / DIN 125-A5,3-ST
12	2 911 061 150	1	HEX SCREW / DIN 933-M5x8-8.8
14	3 606 316 000	3	CYLINDRICAL GEAR / Z=12
15	3 600 913 000	6	NEEDLE-ROLLER ASSEMBLY / INA K3x5x7
26	3 606 300 002	1	PINION / Z=23
27	3 600 101 001	1	STOP DISC
28	3 606 334 091	1	RING GEAR
29	3 606 337 071	1	PLANETARY-GEAR CARRIER
30	3 606 316 001	3	CYLINDRICAL GEAR / Z=16
31	3 600 113 010	1	FRICTION WASHER
33	3 603 201 000	3	NEEDLE ROLLER
34	3 603 201 044	2	NEEDLE ROLLER
36	3 600 900 016	1	DEEP-GROOVE BALL BEARING
38	3 606 337 208	1	PLANETARY-GEAR CARRIER
40	2 600 210 024	1	O-RING / 32x2 MM
41	3 600 905 145	1	DEEP-GROOVE BALL BEARING
42	3 600 910 018	1	FREEWHEELING
43	1 900 210 113	1	O-RING / 15x2,5 MM
44	2 916 650 011	1	SPRING RETAINING RING / DIN 471 20x1,2
45	3 606 337 105	1	PLANETARY-GEAR CARRIER
46	3 603 344 055	1	THREADED RING
48	3 606 316 053	3	CYLINDRICAL GEAR / Z=14
49	3 600 903 001	3	NEEDLE-ROLLER ASSEMBLY
50	3 600 101 024	2	FRICTION WASHER
53	3 604 710 070	1	BOLT
55	1 900 210 306	1	O-RING / 10x2 MM
56	3 605 190 192	1	VALVE HOUSING
57	3 601 010 002	1	SILENCER
58	3 600 210 126	1	O-RING / 6x2,5 MM
60	3 600 002 000	1	STRAINER
62	3 603 458 018	1	FITTING
65	3 600 210 036	1	O-RING / 16x1,25 MM
66	3 604 710 051	1	STRAIGHT PIN
68	1 903 230 528	1	BALL / DIN 5401-9,5MM-III-ST
69	3 604 616 018	1	COMPRESSION SPRING
78	2 917 700 040	1	GROOVED PIN / DIN 1475-2x18-ST
82	3 604 643 011	1	COMPRESSION SPRING
83	1 603 231 013	1	PUSH-BUTTON
84	3 600 210 105	1	O-RING / 1,8x1,2 MM
86	3 603 435 032	1	ADJUSTING SCREW
87	3 600 210 015	1	O-RING / 4x1 MM
90	3 600 105 002	1	SILENCER
95	3 601 106 047	1	NAMEPLATE
99	3 601 110 331	1	MANUFACTURER'S NAMEPLATE
804	3 607 030 249	1	ASSEMBLY OF SERVICE PARTS

**BOSCH 0 607 951 448 – 401-0299
TENSION MOTOR WITH CHOKE COLLAR**



SPARE PARTS LIST 401-0299

Nr.	ITEM	Q.TY	DESCRIPTION
53	3 604 710 071	1	BOLT
55	1 900 210 306	1	O-RING / 10x2 MM
56	3 605 190 194	1	VALVE HOUSING
57	3 601 010 002	1	SILENCER
58	3 600 210 126	1	O-RING / 6x2,5 MM
59	3 605 700 172	1	FLANGE
60	3 600 002 000	1	STRAINER
62	3 603 458 020	1	FITTING
63	3 603 201 068	1	NEEDLE ROLLER
65	3 600 210 036	1	O-RING / 16x1,25 MM
66	3 603 201 000	1	NEEDLE ROLLER
67	3 600 409 009	1	SLEEVE
68	1 903 230 528	1	BALL / DIN 5401-9,5MM-III-ST
69	3 604 616 008	1	COMPRESSION SPRING
82	3 604 651 018	1	EXTENSION SPRING
84	3 600 210 105	1	O-RING / 1,8x1,2 MM
86	3 603 435 032	1	ADJUSTING SCREW
87	3 600 210 015	1	O-RING / 4x1 MM
90	3 600 105 002	1	SILENCER
95	3 601 106 047	1	NAMEPLATE

CE DECLARATION OF CONFORMITY

Polychem Corporation declares under own responsibility that the under mentioned machinery, to which this declarations refers, is in conformity with **2006/42/CE** Directive and successive modifications, as well as with standards **EN12100-1 / EN12100-2**

MODEL:
Series SP3100



MACHINE TYPE

PNEUMATIC TENSIONER TOOL FOR STEEL STRAP