TPA1A

Instructions Manual

Air supply

NEVER use oxygen or other bottled gases, Explosion may occur

This tool is designed to operate on clean, dry, regulated compressed air, between 75 and 100 psi. It is preferable to include an air filter, pressure regulator, and automatic oiler within 5 meter of the tool.
An air filter is needed to remove contaminants and moisture that are contained in compressed air. Filtering will significantly prolong the life of the tool. Do not install a quick coupler directly into the tool. Higher pressure drastically reduces tool life.

The tool must always be connected to the air supply with a coupling that removes all pressure when it is disconnected.

NOTE: All components used with this tool (air hose, connectors, regulators, filter, etc) must be rated a 120 psi, or 120% of the maximum compressor potential, whichever is higher.
Do not connect this tool to a system with maximum potential air pressure greater than 200 psi.

Adjusting air pressure

Do not exceed 120 psi. Adjust the air pressure at the recommended operating pressure of 75 to 100 psi. The pressure can be adjusted by the set screw at the bottom of the tool.

Turn the set screw clockwise to increase the pressure, turn the set screw counter-clockwise to reduce the pressure. When reducing the pressure, always operate the trigger to let the pressure release. The set pressure can be read from the pressure indicator.

For adjusting the pressure belonging to the threaded insert:

First adjust to the minimum pressure and then slowly increase.
Next place the threaded insert on the mandrel
Operate the trigger and increase the pressure by turning the set screw clockwise until the threaded insert deforms.

Figure 1

If problems should occur with the setting of the pressure, disconnect the tool from the compressed air supply to release the tool from the pressure.

Checking the pressure setting in a field test is recommended. Install a number of threaded insert into the original material or a test plate for this purpose. This test plate must have the same thickness and hole diameter as the original material, also ensure that the test plate is made of the same material as the final application.

Threaded mandrel, nosepiece, drive shaft driver replacement

1 - Disconnect the tool from the compressed air supply.
2 - Unscrew the head (4) from the connecting base (11) with a spanner size 26mm
3 - Using two key 17mm, separating the outer cylinder (4) and the sleeve (9).
4 -Take off the inner cylinder (5), the bush (6), the mandrel (1) and the drive shaft (7)
5 - Replace the drive shaft (7) and the bush (6), according to the selected mandrel. Please note : No need to set the bush (6) when M12 or ½ mandrel is use.
6 - Put the selected mandrel and bush into the inner cylinder (5). Then install the mandrel to the drive shaft and screw the inner cylinder onto the socket (9) clockwise.
7 – Screw the head

Mode of operation

Fit the correct threaded mandrel and nosepiece to the tool. Set the nosepiece. Note : the nosepiece is correctly set if the mandrel protrudes by one thread from the back of the threaded insert.

Connect the tool to the compressed air supply using the quick-action coupling. Ensure that the filter / regulator unit is set at an operating pressure between 75-100 psi. Set the correct pressure. The pressure can be adjusted by the set screw at the bottom of the tool (Figure 1).

The tool is provided with a fully automatic air motor for screwing threaded insert on an off. First screw the threaded insert one turn on the mandrel. By pushing the threaded insert straight against the mandrel, the mandrel will start to rotate in clockwise direction to screw the threaded insert on. Ensure that the head of the threaded insert is facing towards the nosepiece. The rotation stops automatically when the threaded insert hits the nosepiece, place the threaded insert in the material.

Be sure to use the correct hole size. The threaded insert is installed by operating the trigger. The mandrel automatically rotates counter-clockwise and comes off the threaded insert when the trigger is released. The time of counter-clockwise rotation can be set by turning the adjustement screw. By turning the screw clockwise , the time of rotation is enlarged. By pushing the push button, extra counter-clockwise rotation is possible.

Maintenance

It is important that the tool be properly lubricated. There may be insufficient oil if the stroke of the tool is too small for proper installation of threaded insert. Without proper lubrication the tool will not work properly and parts will wear prematurely.

Description of the pressure regulation system

The following can be found at the bottom of your TPA1A tool

Pressure relief valve (A) acting as safety valve to prevent overloading of the tool. The valve opens if the compressed air pressure exceeds 101 psi (7 bar).

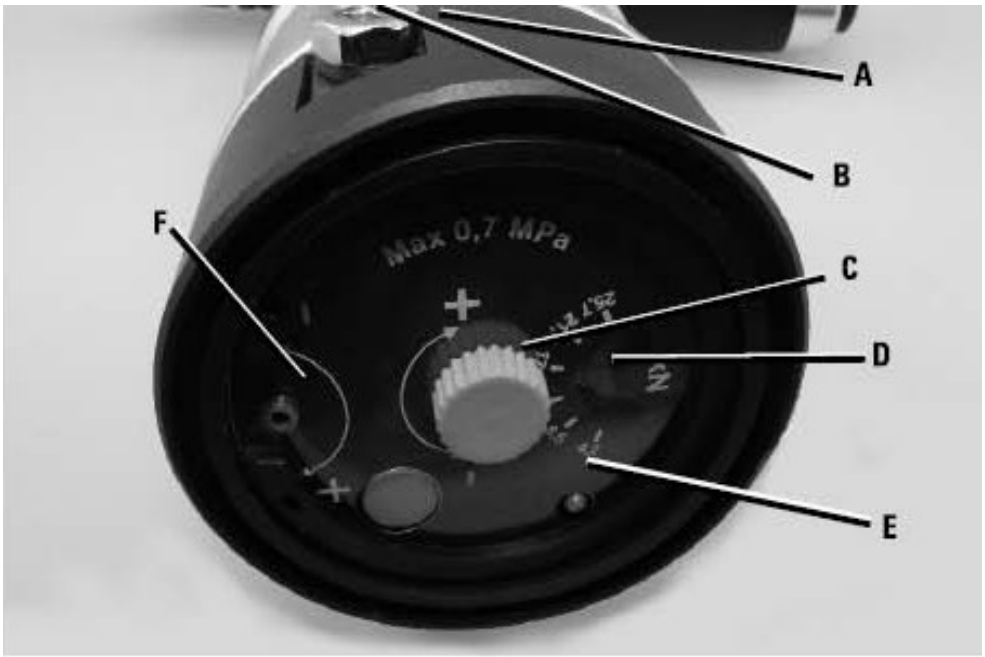
Green indicator shows air pressure (B).
It is possible to fit the supply hose to the other side (at the location of the pressure relief valve). The pressure relief valve is then relocated to the supply hose connection.

Set screw for pressure adjustment (C)

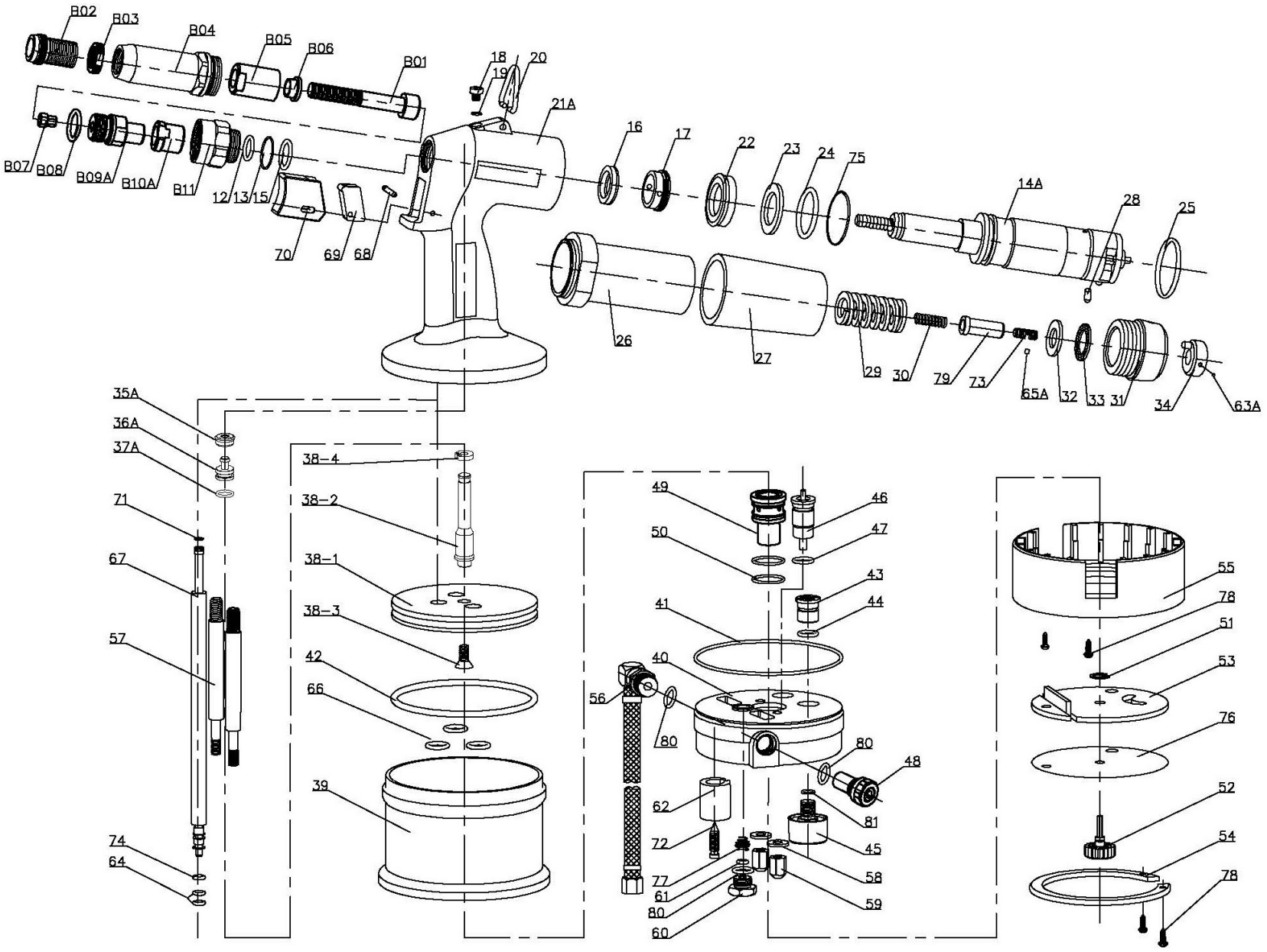
Pressure indicator (D)

Oil level indicator (E)

Needle valve for time of return (F)



Warranty : 6 months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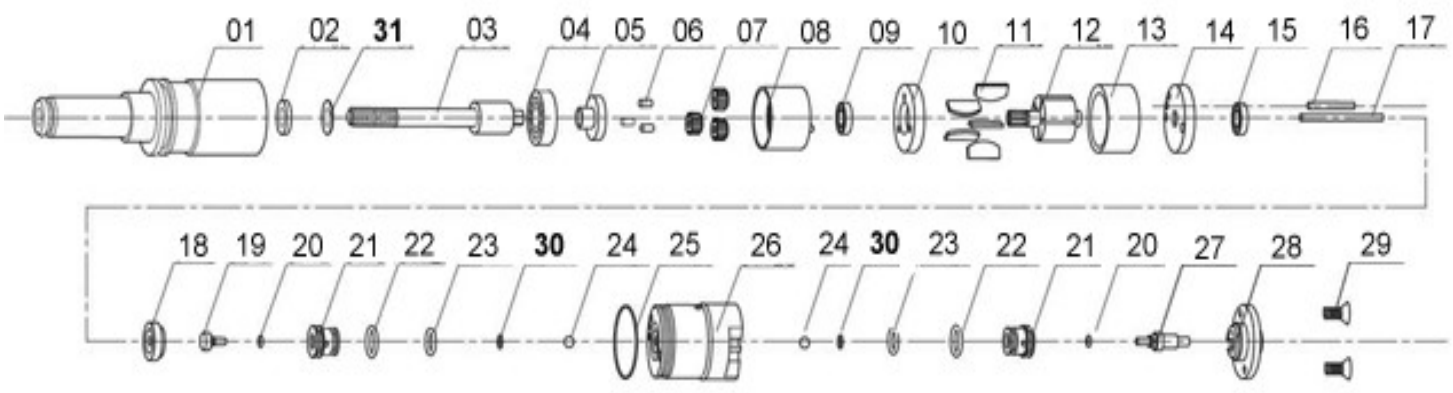
#	CODE	DESCRIPTION FRANCAISE	ENGLISH DESCRIPTION
1	CS8322	MANDRIN FILETE 8-32 X 2" INCLUS AVEC TPA1KITA	8-32 x 2" MANDREL INCLUDED WITH TPA1KITA
1	CS1024212	MANDRIN FILETE 10-24 X 2 1/2" INCLUS AVEC TPA1KITA	10-24 x 2 1/2" MANDREL INCLUDED WITH TPA1KITA
1	CS1032212	MANDRIN FILETE 10-32 X 2 1/2" INCLUS AVEC TPA1KITA	10-32 x 2 1/2" MANDREL INCLUDED WITH TPA1KITA
1	CS1420214	MANDRIN FILETE 1/4-20 X 2 1/4" INCLUS AVEC TPA1KITA	1/4-20 x 2 1/4" MANDREL INCLUDED WITH TPA1KITA
1	CS14203	MANDRIN FILETE 1/4-20 X 3"	1/4-20 x 3" MANDREL
1	CS51618212	MANDRIN FILETE 5/16-18 X 2 1/2" INCLUS AVEC TPA1KITA	5/16-18 x 2 1/2" MANDREL INCLUDED WITH TPA1KITA
1	CS516183	MANDRIN FILETE 5/16-18 X 3"	5/16-18 x 3" MANDREL
1	CS3816212	MANDRIN FILETE 3/8-16 X 2 1/2" INCLUS AVEC TPA1KITA	3/8-16 x 2 1/2" MANDREL INCLUDED WITH TPA1KITA
1	CSR1213212	MANDRIN FILETE 1/2-13 X 2 1/2" DIAM. TETE: .642 INCLUS AVEC TPA1KITA	1/2-13 x 2 1/2" MANDREL HEAD DIAM: .642 INCLUDED WITH TPA1KITA
1	CS47060	MANDRIN FILETE M4 x .07 X 60MM INCLUS AVEC TPA1KITM	M4 x .07 X 60MM MANDREL INCLUDED WITH TPA1KITM
1	CS58060	MANDRIN FILETE M5 x .08 X 60MM INCLUS AVEC TPA1KITM	M5 x .08 X 60MM MANDREL INCLUDED WITH TPA1KITM
1	CS61060	MANDRIN FILETE M6 x 1,0 X 60MM INCLUS AVEC TPA1KITM	M6 x 1.0 X 60MM MANDREL INCLUDED WITH TPA1KITM
1	CS61070	MANDRIN FILETE M6 x 1,0 X 70MM	M6 x 1.0 X 70MM MANDREL
1	CS812565	MANDRIN FILETE M8 x 1,25 X 65MM INCLUS AVEC TPA1KITM	M8 x 1.25 X 65MM MANDREL INCLUDED WITH TPA1KITM
1	CS101565	MANDRIN FILETE M10 x 1,5 X 65MM INCLUS AVEC TPA1KITM	M10 x 1.5 X 65MM MANDREL INCLUDED WITH TPA1KITM
1	CSR1217565	MANDRIN FILETE M12 x 1,75 X 65MM DIAM.TETE: 16MM INCLUS AVEC TPA1KITM	M12 x 1.75 X 65MM HEAD DIAM: 16MM MANDREL INCLUDED WITH TPA1KITM
2	TPA1E8	ENCLUME #8	#8 NOSEPIECE
2	TPA1E10	ENCLUME # 10 ET M5	#10 AND M5 NOSEPIECE
2	TPA1E14	ENCLUME 1/4	1/4 NOSEPIECE
2	TPA1E516	ENCLUME 5/16 ET M8	5/16 AND M8 NOSEPIECE
2	TPA1E38	ENCLUME 3/8 ET M10	3/8 AND M10 NOSEPIECE
2	TPA1E12	ENCLUME 1/2 ET M12	1/2 AMD M12 NOSEPIECE
2	TPA1E4MM	ENCLUME M4	M4 NOSEPIECE
2	TPA1E10	ENCLUME M5 ET # 10	M5 AND # 10 NOSEPIECE
2	TPA1E6MM	ENCLUME M6	M6 NOSEPIECE
2	TPA1E516	ENCLUME M8 ET 5/16	M8 AND 5/16 NOSEPIECE
2	TPA1E38	ENCLUME M10 ET 3/8	M10 AND 3/8 NOSEPIECE
2	TPA1E12	ENCLUME M12 ET 1/2	M12 AND 1/2 NOSEPIECE
3	TPA103	ECROU D'AJUSTEMENT POUR L'ENCLUME	NOSEPIECE SET NUT
4	TPA104	TÊTE	HEAD
5	TPA105	CYLINDRE INTERIEUR	INNER CYLINDER
5	TPA10512	CYLINDRE INTERIEUR POUR 1/2"	INNER CYLINDER FOR 1/2"
6	TPA1B8	BAGUE # 8	# 8 BUSHING
6	TPA1B10	BAGUE # 10 ET M5	#10 AND M5 BUSHING
6	TPA1B14	BAGUE 1/4	1/4 BUSHING
6	TPA1B516	BAGUE 5/16 ET M8	5/16 AND M8 BUSHING
6	TPA1B38	BAGUE 3/8 ET M10	3/8 AND M10 BUSHING
6	TPA1B4MM	BAGUE 4MM	4MM BUSHING
6	TPA1B10	BAGUE M5 ET # 10	M5 AND # 10 BUSHING
6	TPA1B6MM	BAGUE M6	M6 BUSHING
6	TPA1B516	BAGUE M8 ET 5/16	M8 AND 5/16 BUSHING
6	TPA1B38	BAGUE M10 ET 3/8	M10 AND 3/8 BUSHING
7	TPA1H8	PRISE HEXAGONALE # 8	# 8 DRAW BOLT DRIVER
7	TPA1H10	PRISE HEXAGONALE # 10	# 10 DRAW BOLT DRIVER
7	TPA1H14	PRISE HEXAGONALE 1/4	1/4 DRAW BOLT DRIVER
7	TPA1H516	PRISE HEXAGONALE 5/16	5/16 DRAW BOLT DRIVER
7	TPA1H38	PRISE HEXAGONALE 3/8 ET M10	3/8 AND M10 DRAW BOLT DRIVER

#	CODE	DESCRIPTION FRANCAISE	ENGLISH DESCRIPTION
7	TPA1H12	PRISE HEXAGONALE 1/2	1/2 DRAW BOLT DRIVER
7	TPA1H4MM	PRISE HEXAGONALE M4	M4 DRAW BOLT DRIVER
7	TPA1H5MM	PRISE HEXAGONALE M5	M5 DRAW BOLT DRIVER
7	TPA1H6MM	PRISE HEXAGONALE M6	M6 DRAW BOLT DRIVER
7	TPA1H8MM	PRISE HEXAGONALE M8	M8 DRAW BOLT DRIVER
7	TPA1H38	PRISE HEXAGONALE M10 ET 3/8	M10 AND 3/8 DRAW BOLT DRIVER
7	TPA1H12MM	PRISE HEXAGONALE M12	M12 DRAW BOLT DRIVER
8	TPA108	BAGUE DE BOCAGE	LOCKING RING
9	TPA109	DOUILLE	SOCKET
10	TPA110	COUVERCLE	COVER
11	TPA111	SOCLE DE RACCORDEMENT	CONNECTING BASE
12	TPA112	JOINT TORIQUE	'O'-RING
13	TPA113	JOINT TORIQUE	'O'- RING
14	TPA114	PLONGEUR HYDRAULIQUE COMPLET	HYDRAULIC PLUNGER COMPLETE
15	TPA115	JOINT TORIQUE	'O' - RING
16	TPA116	JOINT ETANCHE	SEALING WASHER
17	TPA117	BAGUE AMORTISSEUR	BUFFER RING
18	TPA118	VIS DU RESERVOIR D'HUILE	OIL-REFILL SCREW
19	TPA119	JOINT TORIQUE	'O'- RING
20	TPA120	CROCHET	SUSPENSION HOOK
21	TPA121A	POIGNEE HYDRAULIQUE	HYDRAULIC SECTION
22	TPA122	JOINT ETANCHE	SEALING WASHER
23	TPA123	BAGUE GUIDE	GUIDE RING
24	TPA124	JOINT TORIQUE	'O'- RING
25	TPA125	JOINT TORIQUE	'O'- RING
26	TPA126	MANCHON	SLEEVE
27	TPA127	MACHON DE PROTECTION	PROTECTIVE SLEEVE
28	TPA128	GOUPILLE CYLINDRIQUE	CYLINDRICAL PIN
29	TPA129	RESSORT DE COMPRESSION	COMPRESSION SPRING
30	TPA130	RESSORT DE COMPRESSION	COMPRESSION SPRING
31	TPA131	BOUCHON	SCREW PLUG
32	TPA132	RONDELLE	WASHER
33	TPA133	SILENCIEUX	MUFFLER
34	TPA134	BOUTON	BUTTON
35	TPA135A	JOINT ETANCHE	SEALING WASHER
36	TPA136A	JOINT TORIQUE	'O' - RING
37	TPA137A	RONDELLE	WASHER
38-1	TPA1381	CYLINDRE DU PISTON À L'AIR (VIENT ASSEMBLÉ AVEC TPA1382 ET TPA1383)	AIR CYLINDER PISTON (COMES ASSEMBLED WITH TPA1382 & TPA1383)
38-2	TPA1382	TIGE DU PISTON (VIENT AVEC TPA1381, NON VENDU SÉPARÉMENT)	PISTON ROD (COMES WITH TPA1381, NOT SOLD SEPARATELY)
38-3	TPA1383	VIS DU PISTON	CAP SCREW
38-4	TPA1384	SEGMENT DU PISTON	PISTON RING
39	TPA139	CYLINDRE DU PLONGEUR A L'AIR	AIR CYLINDER BODY
40	TPA140	COUVERCLE DE LA BASE	COVER BASE
41	TPA141	JOINT TORIQUE	'O' - RING
42	TPA142	JOINT TORIQUE	'O' - RING
43	TPA143	RACCORD POUR LE MANOMETRE	COUPLING FOR PRESSURE GAUGE
44	TPA144	JOINT TORIQUE	'O' - RING

#	CODE	DESCRIPTION FRANCAISE	ENGLISH DESCRIPTION
45	TPA145	MANOMETRE	PRESSURE GAUGE
46	TPA146	INDICATEUR DE NIVEAU D'HUILE	OIL LEVEL INDICATOR
47	TPA147	JOINT TORIQUE	'O' - RING
48	TPA148	REGULATEUR DE PRESSION	PRESSURE REGULATING VALVE
49	TPA149	REGULATEUR DE PRESSION	PRESSURE REGULATING VALVE
50	TPA150	JOINT TORIQUE	'O' - RING
51	TPA151	BAGUE DE RETENUE	RETAINING RING
52	TPA152	VIS REGULATEUR DE PRESSION	PRESSURE REGULATOR SCREW
53	TPA153	COUVERT	COVER
54	TPA154	BAGUE DE RETENUE	RETAINING RING
55	TPA155	BASE	BASE
56	TPA156	RACCORD	COUPLING
57	TPA157	BOULON	BOLT
58	TPA158	RONDELLE EN CUIVRE	COPPER WASHER
59	TPA159	ECROU	NUT
60	TPA160	BOULON	BOLT
61	TPA161	JOINT TORIQUE	'O' - RING
62	TPA162	MANCHON POUR POINTEAU	SLEEVE FOR NEEDLE VALVE
63	TPA163	VIS	SCREW
64	TPA164	JOINT TORIQUE	'O' - RING
66	TPA166	JOINT ETANCHE	SEALING WASHER
67	TPA167	TIGE DE LA VALVE	VALVE PIN
68	TPA168	GOUPILLE CYLINDRIQUE	PIN CYLINDRICAL
69	TPA169	GACHETTE EXCENTRIQUE	ECCENTRIC TRIGGER
70	TPA170	GACHETTE	TRIGGER
71	TPA171	JOINT TORIQUE	'O' - RING
72	TPA172	AIGUILLE POUR LE TEMPS DE RETOUR	NEEDLE VALVE FOR TIME RETURN
73	TPA173	VIS	SCREW
74	TPA174	JOINT TORIQUE	'O' - RING
75	TPA175	JOINT TORIQUE	'O' - RING
76	TPA176	PLAQUE DE PLASTIQUE	PLASTIC PLATE
77	TPA177	RESSORT DE COMPRESSION	COMPRESSION SPRING
78	TPA178	VIS	SCREW
79	TPA179	POUSSOIR	PUSHER
80	TPA180	JOINT TORIQUE POUR TPA148, TPA156, TPA160	'O' – RING FOR TPA148, TPA156, TPA160
81	TPA181	JOINT TORIQUE	'O' - RING

TPA1-14



#	CODE	DESCRIPTION FRANCAISE	ENGLISH DESCRIPTION
14-01	TPA11401	COUVERT DE METAL DU MOTEUR	METAL MOTOR HOUSING
14-02	TPA11402	RONDELLE	WASHER
14-03	TPA11403	TIGE DE TRACTION	TRACTION ROD
14-04	TPA11404	ROULEMENT A BILLE	BEARING
14-05	TPA11405	CREMAILLERE	GEAR RACK
14-06	TPA11406	GOUPILLE	PIN
14-07	TPA11407	ENGRENAGE	GEAR
14-08	TPA11408	MOYEU	GEAR HUB
14-09	TPA11409	ROULEMENT A BILLE	BEARING
14-10	TPA11410	PLAQUE DE L'ENSEMBLE D"ENGRENAGE	GEAR BRACKET
14-11	TPA11411	AILETTE DU ROTOR	ROTOR BLADE
14-12	TPA11412	ROTOR	ROTOR
14-13	TPA11413	CYLINDRE	CYLINDER
14-14	TPA11414	PLAQUE ARRIERE	END PLATE
14-15	TPA11415	ROULEMENT A BILLE	BEARING
14-16	TPA11416	TIGE	'PIN
14-17	TPA11417	POUSSOIR	PUSH ROD
14-18	TPA11418	SIEGE DU POUSSOIR	PUSH ROD SEAT
14-19	TPA11419	POUSSOIR	PUSHER
14-20	TPA11420	JOINT TORIQUE	"O" - RING
14-21	TPA11421	SIEGE DU POUSSOIR	PUSHER SEAT
14-22	TPA11422	JOINT TORIQUE	"O" - RING
14-23	TPA11423	JOINT TORIQUE	"O" - RING
14-24	TPA11424	BILLE	BALL
14-25	TPA11425	JOINT TORIQUE	"O" - RING
14-26	TPA11426	CHANBRE DE LA VALVE	VALVE HOUSING
14-27	TPA11427	POUSSOIR	PUSH ROD
14-28	TPA11428	COUVERCLE	COVER
14-29	TPA11429	VIS	SCREW
14-30	TPA11430	JOINT TORIQUE	"O" - RING
14-31	TPA11431	RONDELLE	WASHER