

Service Manual

Original Instruction



Hydro-Pneumatic
Blind Rivet Nut Tool

ProSert™ XTN20 Blind Rivet Nut Tool – 74202

Hydro-Pneumatic Power Tool

Fig. 1

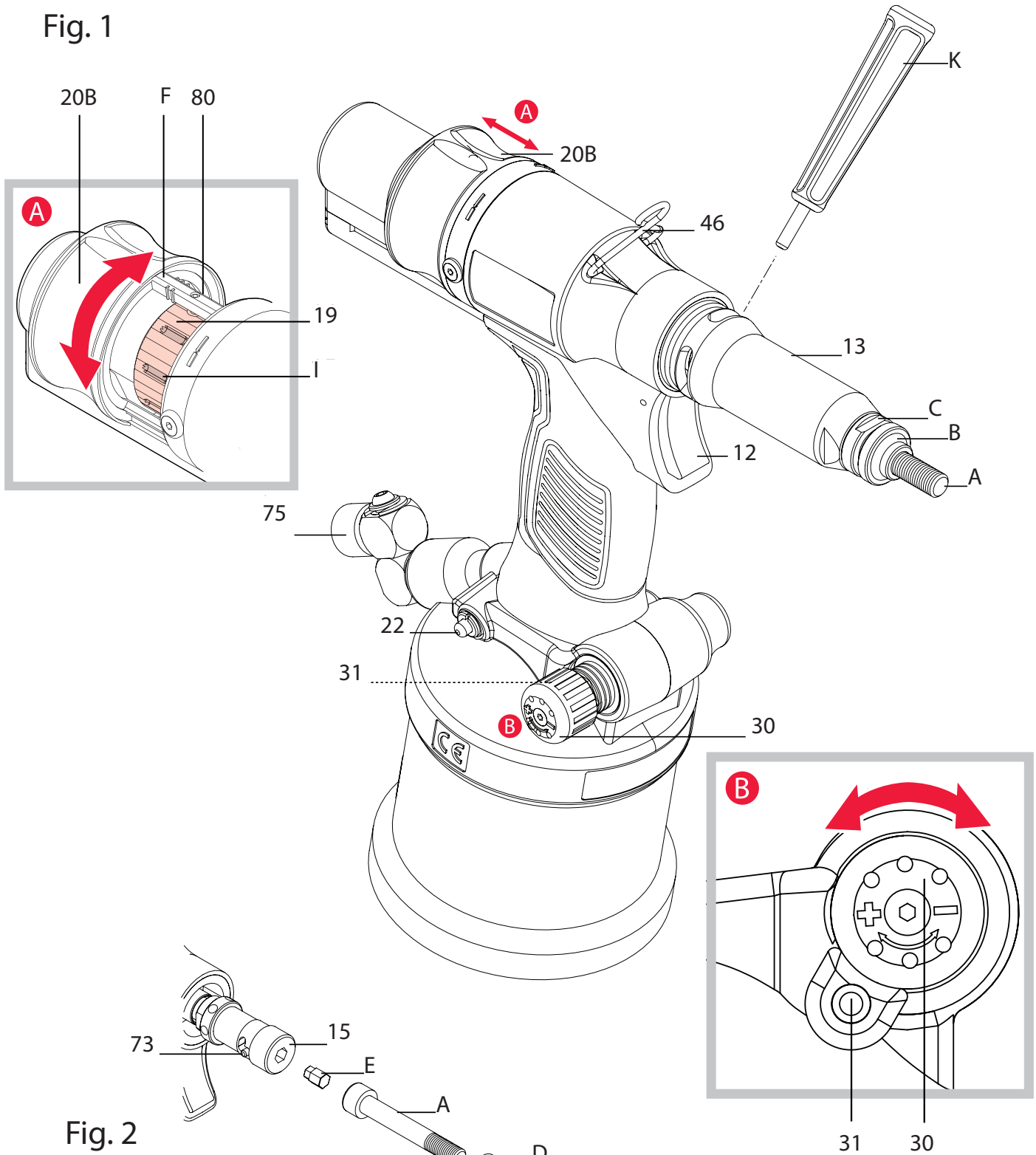


Fig. 2

Fig. 3

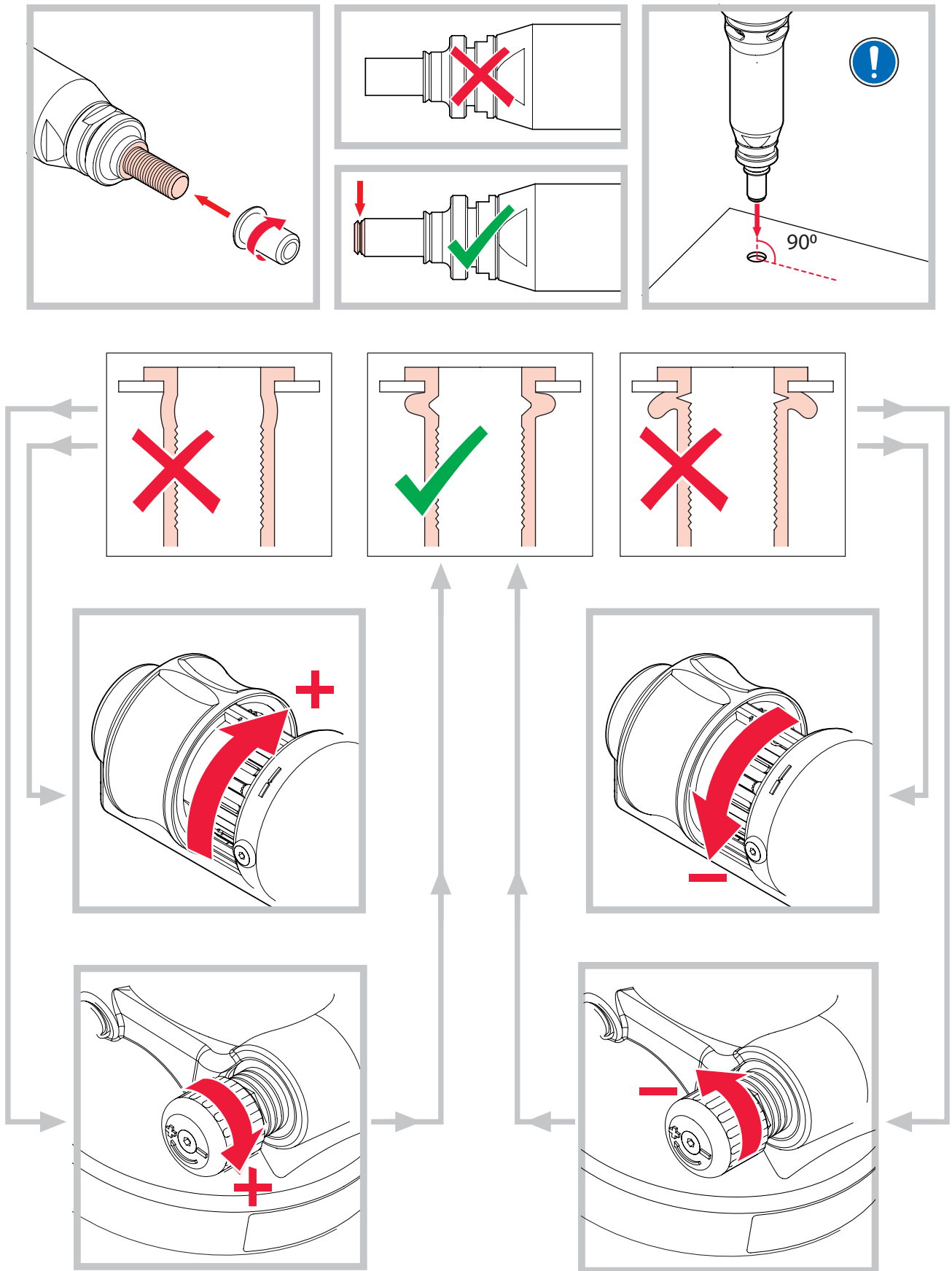


Fig. 4

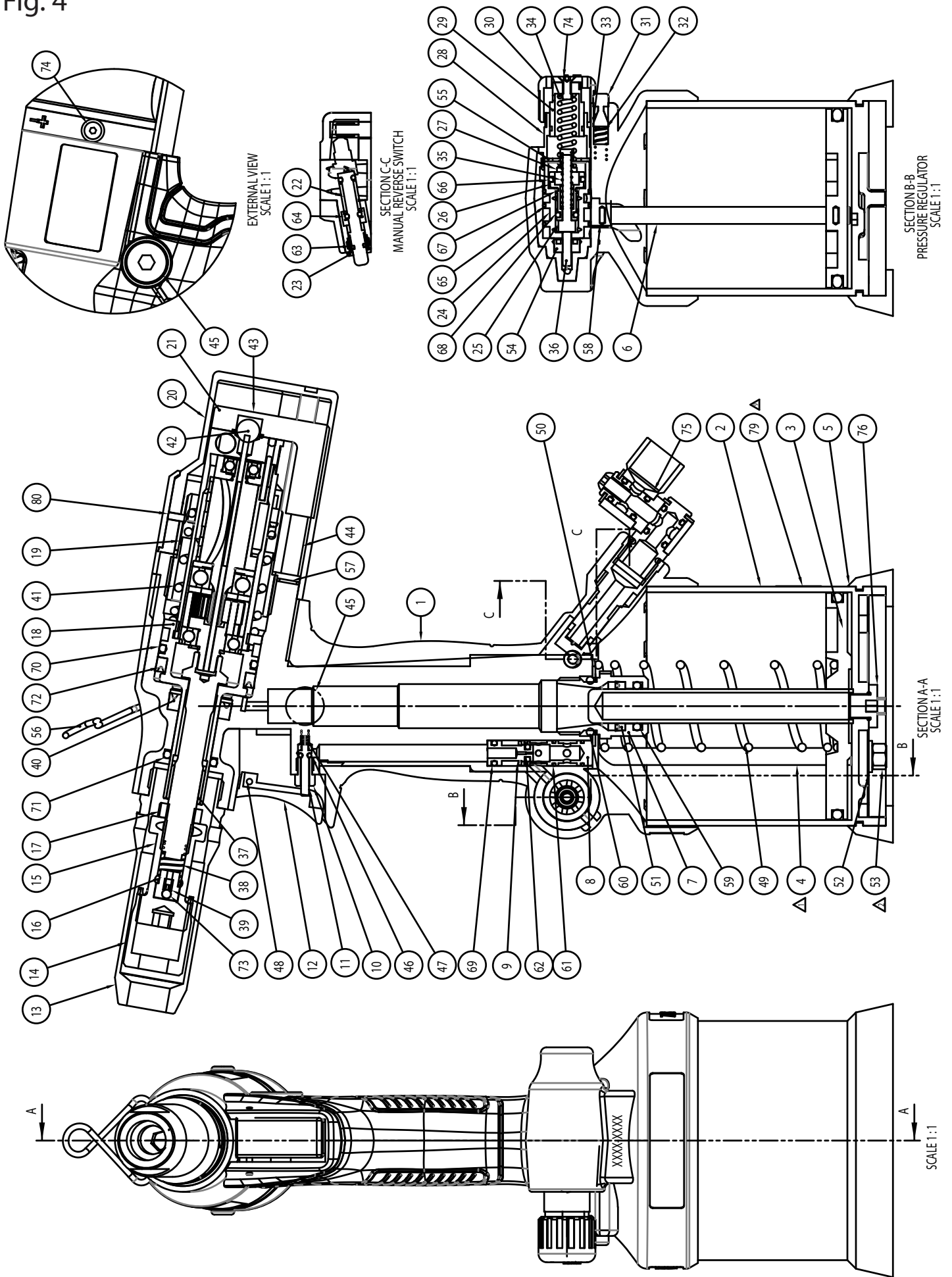
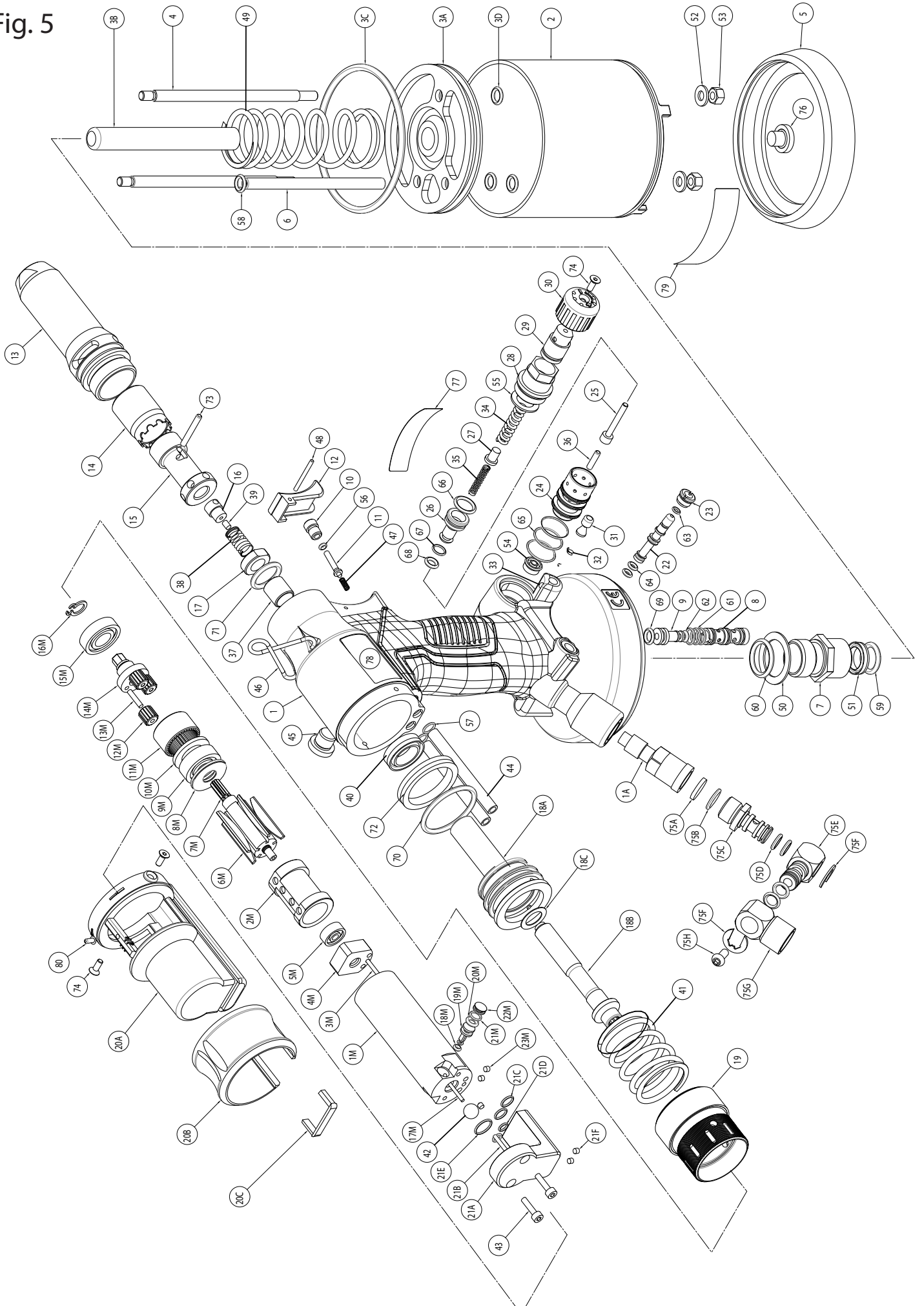


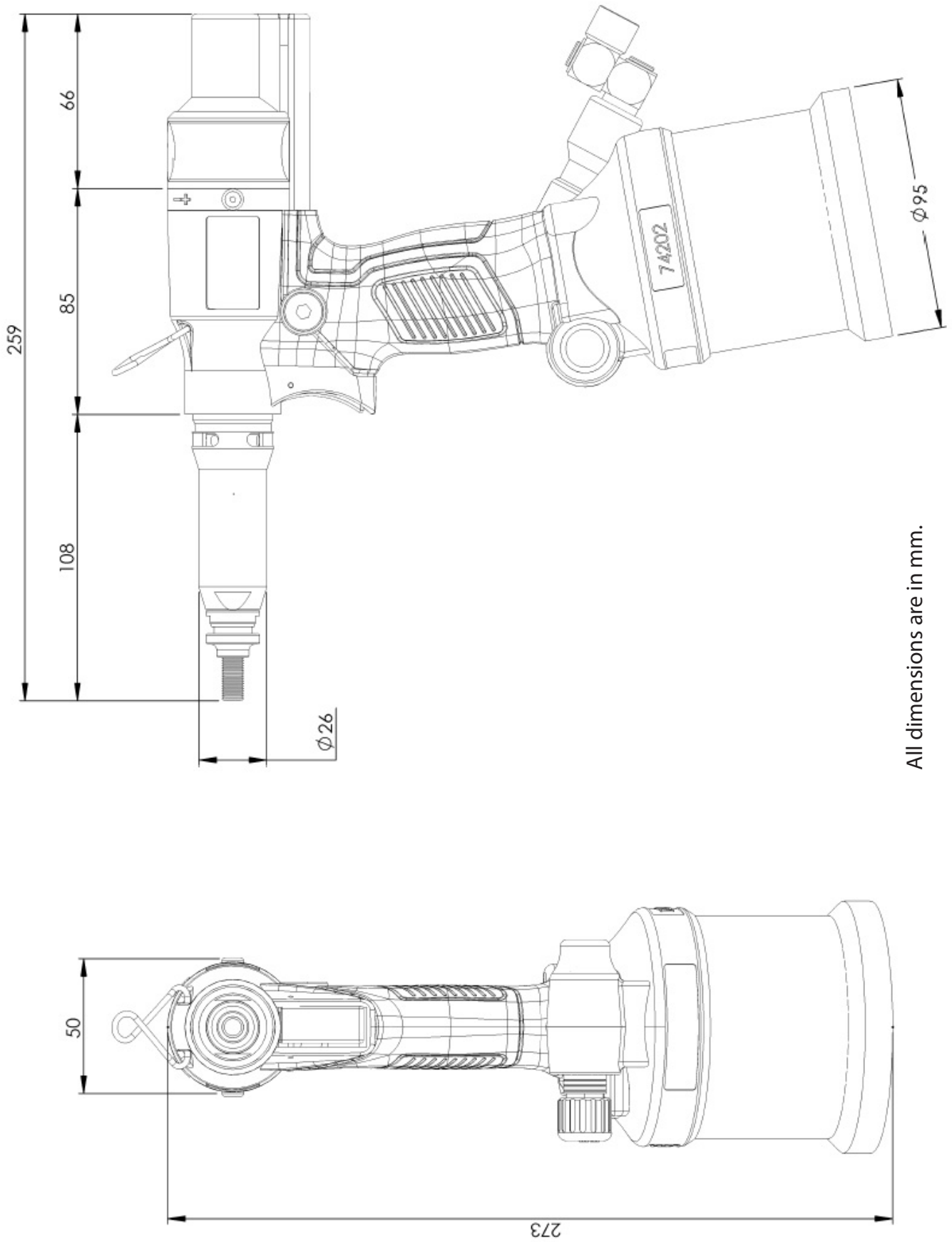
Fig. 5



ITEM	PARNT NO	DESCRIPTION	QT Y	REC SPARES	ITEM	PARNT NO	DESCRIPTION	QTY	REC SPARES
1	74202-02101	HANDLE ASSEMBLY	1	-	41	74202-02048	HEAD SPRING	1	1
2	74202-02004	AIR CYLINDER	1		42	74200-12079	BALL (RUBBER)	1	2
3	74202-02106	AIR PISTON ASSEMBLY	1		43	74202-02065	SCREW M3 X 12	2	2
4	74202-02005	TIE ROD	2		44	74202-02044	AIR TUBE	2	2
5	74202-02002	RUBBER BOOT	1		45	74202-02045	OIL PLUG	1	1
6	74202-02017	AIR TUBE	1		46	74202-02012	SUSPENSION RING	1	
7	74202-02007	ROD GUIDE	1		47	74202-02051	TRIGGER SPRING	1	1
8	74202-02018	VALVE SLEEVE	1		48	74202-02067	TRIGGER PIN	1	
9	74202-02019	VALVE SLIDER	1		49	74202-02052	AIR SPRING	1	1
10	74202-02014	BEZEL SWITCH	1		50	74202-02071	WASHER	1	
11	74202-02013	TRIGGER VALVE	1		51	74202-02072	LIP SEAL	1	1
12	74202-02020	TRIGGER	1		52	74202-02076	WASHER	2	2
13	74202-02021	NOSE CASING	1		53	74202-02077	TIE ROD NUT	2	2
14	74202-02022	CHUCK NUT	1		54	74201-12081	LIP SEAL	1	1
15	74202-02023	MANDREL ADAPTOR	1		55	74202-02086	WASHER	1	
16	74202-02024	T JOINT	1		56	74202-02060	O RING	1	1
17	74202-02025	LOCKING NUT	1		57	74202-02066	O RING	2	
18	74202-02102	DYNAMIC PISTON ASSY	1		58	07003-00029	O RING	1	
19	74202-02010	STROKE ADJUSTER	1		59	07003-00134	O RING	1	1
20	74202-02107	END CAP ASSEMBLY	1		60	74202-02070	O RING	1	1
21	74202-02105	DISTRIBUTOR ASSEMBLY	1		61	74202-02074	O RING	3	
22	74202-02030	MANUAL REVERSE SWITCH	1		62	74202-02075	O RING	1	1
23	74202-02031	MANUAL REVERSE SCREW	1		63	74202-02078	O RING	1	1
24	74202-02009	SPOOL VALVE	1		64	74202-02079	O RING	2	2
25	74202-02032	PRESSURE ROD	1		65	74202-02082	O RING	3	3
26	74202-02033	PRESSURE ROD SLEEVE	1		66	07003-00026	O RING	1	1
27	74201-12089	SPRING GUIDE	1		67	74201-12084	O RING	1	1
28	74202-02035	PRESSURE CATCH	1		68	07003-00046	O RING	1	1
29	74202-02036	REGULATOR	1		69	07003-00027	O RING	1	1
30	74202-02037	REGULATOR COVER	1		70	74200-12121	O RING	1	1
31	74202-02038	REGULATOR LOCK	1	1	71	07003-00028	O RING	1	1
32	74202-02056	SPRING	1	1	72	74202-02058	LIP SEAL	1	1
33	74202-02055	LOCKING BEARING	1	1	73	74202-02039	NOSE ROD	1	
34	74202-02054	PRESSURE SPRING	1		74	74202-02087	SCREW M3 X 8	3	3
35	74201-12087	REGULATOR SPRING	1		75	74202-02103	AIR INLET ASSEMBLY	1	
36	74202-02080	OIL ROD	1		76	74202-02089	BASE CAP	1	
37	74202-02041	SLEEVE	1		77	74202-02090	FRONT LABEL	1	
38	74202-02047	NOSE SPRING	1	1	78	74202-02091	SIDE LABEL	2	
39	74202-02040	CONNECTOR	1		79	73200-02022	SAFETY LABEL	1	
40	07265-02004	LIP SEAL	1	1	80	74202-02095	LOCKING PIN	1	1

Items in **bold** represent sub-assemblies which can be found on page 19.

Fig. 6



All dimensions are in mm.

Original Instruction

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This instruction manual must be read by any person installing or operating this tool with particular attention to the following safety rules.

1. Safety Definitions

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

- ▲ DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 - ▲ WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 - ▲ CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
- CAUTION:** Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Improper operation or maintenance of this product could result in serious injury and property damage. Read and understand all warnings and operating instructions before using this equipment. When using power tools, basic safety precautions must always be followed to reduce the risk of personal injury.

SAVE THESE INSTRUCTIONS.

WARNING:

1. Do not use outside the design intent of Placing STANLEY Engineered Fastening Blind Rivet Nuts.
2. Use only parts, fasteners, and accessories recommended by the manufacturer.
3. Do not modify the tool in any way. Any modification to the tool is undertaken by the customer and will be the customer's entire responsibility and void any applicable warranties.
4. Prior to use, check for misalignment or binding of moving parts, breakage of parts, and any other condition that affects the tool's operation. If damaged, have the tool serviced before using. Remove any adjusting key or wrench before use.
5. The tool must be maintained in a safe working condition at all times and examined at regular intervals for damage and function by trained personnel. Any dismantling procedure will be undertaken only by trained personnel. Do not dismantle this tool without prior reference to the maintenance instructions.
6. The operating supply air must not exceed 7 bar (100 PSI).



7. Operators and others in work area must wear ANSI Z87.1 CAN/CSA Z94.3 approved safety glasses with side shields. Always wear safety glasses and ear protection during operation.
8. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
9. Do not operate a tool/machine that is directed towards any person(s).

10. *DO NOT operate tool with the nose housing removed.*
11. *Adopt a firm footing or a stable position before operating the tool.*
12. *Prior to use, inspect airlines for damage, all connections must be secure. Do not drop heavy objects on hoses. A sharp impact may cause internal damage and lead to premature hose failure.*
13. *Do not lift the placing tool by the hose. Always use the placing tool handle.*
14. *Vent holes must not become blocked or covered.*
15. *Disconnect the air hose from the tool before performing any maintenance, attempting to adjust, fit or remove a nose assembly.*
16. *Keep tool handles dry, clean, and free from oil and grease.*
17. *When carrying the tool from place to place keep hands away from the trigger to avoid inadvertent activation.*
18. *Never leave operating tool unattended. Disconnect air hose when tool is not in use.*
19. *Adequate clearance is required for the tool operators hands before proceeding.*
20. *Do not abuse the tool by dropping or using it as a hammer.*
21. *Keep dirt and foreign matter out of the hydraulic system of the tool as this will cause the tool to malfunction.*

**STANLEY Engineered Fastening policy
is one of continuous product development and improvement
and we reserve the right to change the specification
of any product without prior notice.**

2. Specification

The ProSert XTN20 hydro-pneumatic tool is designed for placing STANLEY Engineered Fastening Blind Rivet Nuts through adjustment of the force and/or the stroke.

The ProSert XTN20 Tool is used to place Blind Rivet Nuts from a range of M3 to M10 when coupled with the relevant nose equipment. Imperial nose equipment is also available to place UNC and UNF inch thread size Blind Rivet Nuts

The safety instructions must be followed at all times.

2.1. Placing Tool Specification

Pull Force:	Pull @ stated pull pressure 5.0 bar	17.65 kN	3968 lbf
Air Supply Pressure:	Min/Max	5-7 bar	72.5-101.5 lbf/in ²
Oil Pressure:	Pull (max)	230 bar	3336 lbf/in ²
Stroke:	Piston stroke	3-7 mm	0.118-0.275 in
Weight:	Including nose equipment	1.59 kg	3.50 lb
Noise Level:	Uncertainty noise : K=3dB(A)	<75 dB(A)	<75 dB(A)
Vibration:	Uncertainty vibration K=0.1 m/s ²	<2.5 m/s ²	<8 ft/s ²
Motor Speed:	Forward & Reverse	2000rpm	2000rpm
Material:	-	Aluminium	Steel Stainless Steel
Avdel® Product Range:	Eurosert®	-	M3-M10 M4-M5
	Thin Sheet Nutsert®	M3-M10	M3-M10 M3-M10
	DK/DL		M4-M10 -
	Euro Hexsert®/Hexsert®	-	M3-M8 M6
	High Strength Hexsert®	-	M6-M8 -
	Squaresert®	-	M5-M8 -
POP Nut® Product Range:	Standard Nut*	M3-M10	M3-M8 M4-M6
	Knurled Nut*	M4-M8	M4-M6 -
	Closed End Nut*	M3-M10	M3-M8 M4-M6
	Hexagonal Nut*	M4-M8	M4-M8 M4-M6
	Tetra Nut*	M4-M8	M4-M8 -
	HB Bolt*	M6-M8	M6-M8 -
	Pipe Nut*	M6	M6 -
Additional Features:	Pull-to-Force operating mode	Yes	
	Pull-to-Stroke operating mode	Yes	
	Auto Spin On/Spin Off	Yes	
	Tool Free Mandrel fittings	Yes	
	Manual Reverse override	Yes	
	Hydraulic Lip Seals & O-rings	Yes	

Items with a * may require a mandrel adaptor kit (74202-02200 found in Accessories Manual 07900-01073). A complete ProSert XTN20 (74202) tool is made up of the base tool (part number 74202-02000) and the appropriate nose assembly for the insert.

2.3. Main components list

ref fig. 1 & 2

		Re-order Spare part numbers		Qty
A	Mandrel	M4	07555-09004	1
		M5	07555-09005	1
		M6	07555-09006	1
		M8	07555-09008	1
B	Nose Tip	M4	07555-00904	1
		M5	07555-00905	1
		M6	07555-00906	1
		M8	07555-00908	1
C	Lock Nut	-	07555-00901	1
13	Nose Casing	-	74202-02021	1
14	Chuck Nut	-	74202-02022	1
D	Reducing Sleeve	M4	07555-09104	1
		M5	07555-09105	1
		M6	07555-09106	1
		M8	07555-09108	1
E	Drive Shaft	M4	07555-01004	1
		M5	07555-01005	1
		M6	07555-01006	1
		M8	07555-01008	1
15	Mandrel Adaptor	-	74202-02023	1
73	Nose Rod	-	74202-02039	1
46	Suspension Ring	-	74202-02012	1
20B	Stroke Slider	-	74202-02092	1
F	Stroke Indication Markings	-	-	-
80	Stroke Locking Pin	-	74202-02095	1
19	Stroke Setter	-	74202-02010	1
I	Stroke Setter Recess	-	-	-
75	Air Inlet Assembly	-	74202-02103	1
22	Manual Reverse Trigger	-	74202-02030	1
31	Regulator Lock	-	74202-02038	1
30	Pressure Regulator	-	74202-02037	1
12	Trigger	-	74202-02020	1
K	Pin Punch	-	07900-00624	1

Complete nose assembly	M4	07555-09884
	M5	07555-09885
	M6	07555-09886
	M8	07555-09888

All sizes are supplied with Lock Nut (c) 07555-00901.

For additional sizes please visit www.StanleyEngineeredFastening.com

3. Tool Setup

⚠ IMPORTANT - READ THE SAFETY RULES ON PAGE 9 & 10 CAREFULLY BEFORE PUTTING INTO SERVICE.

Before Use

- Select relevant size nose equipment and install.
- Connect the placing tool to the air supply. Test pull and return cycles by depressing and releasing the trigger **12**.
- Set the tool for desired stroke/pressure.

⚠ CAUTION - correct supply pressure is important for proper function of the installation tool. Personal injury or damage to equipment may occur without correct pressures. The supply pressure must not exceed that listed in the placing tool specification.

4. Operating Instructions

⚠ IMPORTANT - READ THE SAFETY RULES ON PAGE 9 & 10 CAREFULLY BEFORE PUTTING INTO SERVICE.

⚠ IMPORTANT - THE AIR SUPPLY MUST BE TURNED OFF OR DISCONNECTED BEFORE FITTING OR REMOVING THE NOSE ASSEMBLY.

4.1 Nose Equipment (see Fig.2).

Fitting Instructions

Item numbers in bold refer to nose assembly components in fig 1.

- Air supply must be disconnected.
- If still fitted, remove the Nose Casing **13** and the Chuck Nut **14** while pulling back the spring loaded Nose Rod **73**.
- Insert Drive Shaft **E** into Mandrel Adaptor **15**.
- Fit Mandrel **A** onto Drive Shaft **E**.
- Insert Reducing Sleeve **D** (if specified) into the Chuck Nut **14**.
- Screw the Chuck Nut **14** onto the Mandrel Adaptor **15** while pulling back the spring loaded Nose Rod **73**. Tighten the Chuck Nut **14** clockwise.
- While holding the Tool, screw on the Nose Casing **13** and Nose Tip **B** with the nose tip Lock Nut **C**.
- The reverse operation is carried out for equipment removal.

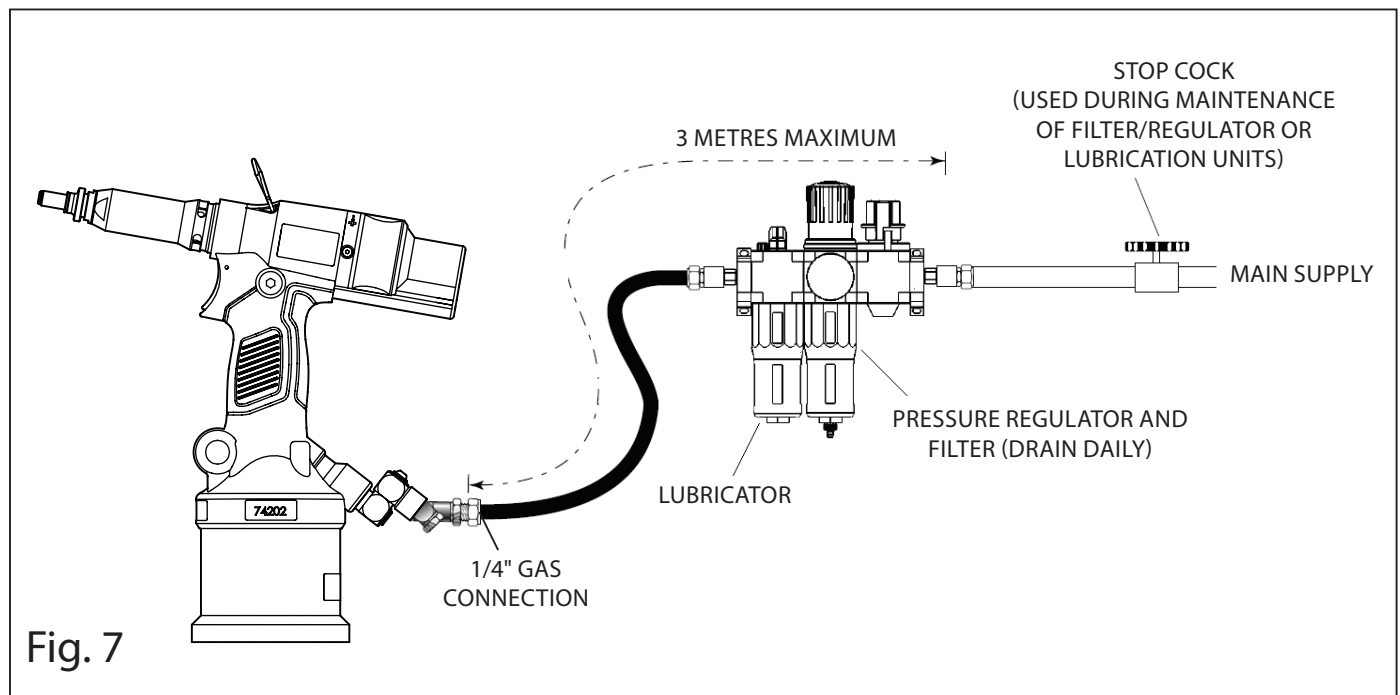
With the tool still disconnected from the air supply, screw a Blind Rivet Nut onto the Mandrel manually.

- Position Nose Tip **B** on the Nose Casing and lock it with Lock Nut **C** so that the Mandrel **A** protrudes slightly beyond the insert.
- Lock the Lock Nut **C** by turning clockwise with a spanner*. Remove the Blind Rivet Nut from Mandrel.

*Refer to items included in the Maintenance Kit 07900-09301 page 16.

4.2 Air Supply

- All tools are operated with compressed air at an minimum pressure of 5.0 bar.
- Pressure regulators and automatic oiling/filtering systems to be used on the main air supply within 3 metres of the tool (see fig. 7).
- Air supply hoses will have a minimum working effective pressure rating of 150% of the maximum pressure produced in the system or 10 bar, whichever is the highest.
- Air hoses must be oil resistant, have an abrasion resistant exterior and be armoured where operating conditions may result in hoses being damaged.
- All air hoses MUST have a minimum bore diameter of 6.4 millimetres.



If above system is not available you can use the following alternative:

- Before use or when first putting the tool into service, pour a few drops of clean, light lubricating oil into the air inlet of the tool if no lubricator is fitted on air supply. If the tool is in continuous use, the air hose should be disconnected from the main air supply and the tool lubricated every two to three hours.
- Check for air leaks. If damaged, hoses and couplings must be replaced by new items.
- If there is no filter on the pressure regulator, bleed the air line to clear it of accumulated dirt or water before connecting air hose to the tool.

4.3 Setting Instructions

- The stroke adjustment feature is mainly used for smaller insert sizes M3-M4.
- If you are setting the tool for optimum stroke the Stroke Setter should be wound in to minimum stroke (3mm) and the Pressure Regulator **30** be wound in to maximum setting.
- If you are setting the tool for optimum pressure the Stroke Setter should be wound out to maximum stroke (7mm) and the Pressure Regulator **30** be wound out to minimum setting.

When dealing with different grip thicknesses, it is always recommended that the tool is set for optimum pressure rather than optimum stroke. Use the maximum grip condition to set optimum pressure.

4.3.1. Stroke Adjustment (see Fig. 1A & 3).

To use this tool in stroke set operation, screw the Pressure Regulator **30** fully in to achieve full pressure then adjust Stroke Setter to the desired stroke length:

- Open Stroke Slider **20B**
- The Stroke Locking Pin **80** will be released.
- Directional arrows indicate stroke direction.
- Increase the stroke from the minimum until optimum deformation is obtained.
- The scale gives an indication of the current stroke length.
- Increments **F** shown are 3, 5 and 7mm on one side and 4 and 6mm on the opposite.
- Line the rear of the Stroke Setter **19** up with these marks to achieve desired stroke length.
- Each Recess **I** on the Stroke Setter **19** is equal to ± 0.1 mm of stroke.
- Close the Stroke Slider **20B** before using in the application environment.
- The Stroke Lock will activate when the Stroke Slider **20B** is closed when the tool is in the upright position
- The tool is now ready to operate.

4.3.2. Pressure Adjustment (see Fig. 1B & 3).

To use this tool in pressure set operation, wind the Stroke Setter **19** to 7mm, then screw the Pressure Regulator **30** fully out to achieve minimum pressure then adjust to the desired pressure:

- Initially the Blind Rivet Nut will not deform and the tool will spin off.
- Screw in the Pressure Regulator **30** by 1 groove on the regulator body and test.
- Repeat the operation with the Pressure Regulator **30** until optimum deformation is obtained.
- 1 notch on the Pressure Regulator **30** is equivalent to approximately 20N of pulling force.
- After a successful Blind Rivet Nut deformation, check the Blind Rivet Nut and increase the force if necessary.
- Increase by 1-2 notches extra to allow for variation in the Blind Rivet Nuts.
- The tool is now ready to operate.

5. Operating Procedure

Installing a Blind Rivet Nut (see Fig. 3).

To install a Blind Rivet Nut.

- Check that the correct Blind Rivet Nut has been selected.
- Push Blind Rivet Nut into the application.
- Check Nose Assembly is at right angle (90°) to the work.
- Push onto the Blind Rivet Nut with the tool to spin on.
- Once fully and correctly inserted, depress tool Trigger **12** switch to start installation cycle.
- Hold the Trigger **12** until the Blind Rivet Nut is completely set and the tool has disengaged completely.

In the event a Blind Rivet Nut becomes jammed in an application press the Manual Reverse Trigger **22** to reverse the Mandrel **A** and spin off the Blind Rivet Nut. Alternately disconnect from the air supply and use the 4mm Pin Punch **K** supplied in the Maintenance Kit to wind off the Mandrel through the Nose Casing **13** shown in the figure 1.

⚠ CAUTION - do not attempt to force the installation of an insert as this will cause damage to the tool and/or application.

6. Servicing the Tool

Regular servicing must be carried out by trained personnel and a comprehensive inspection performed annually or every 500,000 cycles, whichever is sooner.

Cleaning and Maintenance

⚠ DISCONNECT AIR SUPPLY

Nose assemblies should be serviced at weekly intervals or every 5,000 cycles

⚠ CAUTION - Blow dirt and dust out of the main housing with dry air as often as dirt is seen collecting in and around the air vents where the Pneumatic Cylinder connects to the plastic Handle Assembly. Wear approved eye protection and approved dust mask when performing this procedure.

⚠ CAUTION - Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the materials used in these parts.

- Disconnect the air supply
- Remove the complete nose assembly using the reverse procedure to the Fitting Instructions page 13(4.1).
- Any worn or damaged part must be replaced by a new part.
- Particularly check wear on Mandrel.
- Assemble according to fitting instructions.

6.1 Daily Servicing

- Check for air leaks. If damaged, hoses and couplings must be replaced by new items.
- Check that the Nose Assembly is correct and fitted properly.
- Check if the stroke of the tool is adequate to place selected Blind Rivet Nut. See Stroke Adjustment page 15 (4.3.1.).
- Inspect the Mandrel **A** in the nose assembly for wear or damage. If any, replace.

6.2 Weekly Servicing

Maintenance Kit 07900-09301		
Part Number	Description	Qty
07900-00624	4mm Pin Punch	1
07900-00632	17mm/19mm Spanner	1
07900-00225	5mm Hexagonal Wrench	1

- Check for oil leaks and air leaks on air supply hose, fittings and tool.
- Check oil level by laing the tool horizontally, open Oil Plug **45**. If low, re-prime according to instruction 6.3 on page 17.

For servicing the following standard tools are needed (not supplied with Service Kit).

- 2mm Hexagonal Wrench
- 2.5mm Hexagonal Wrench
- 3mm Hexagonal Wrench
- 8mm Spanner
- 22mm Spanner or Socket
- 10mm Socket
- 14mm Spanner
- Pliers
- 10mm PTFE Tape

Spanners and Wrenches are specified across flats unless otherwise stated.

6.3 Priming

Priming is necessary after the tool has been dismantled and prior to operating. It may also be necessary to restore the full stroke after considerable use, if the stroke has been reduced and fasteners are not now being fully placed by one operation of the trigger.

Oil Details

The recommended oil for priming is Hyspin® VG32 available in 0.5l (part number 07992-00002) or one gallon containers (part number 07992-00006).

Priming Procedure

All operations must be carried out on a clean bench, with clean hands in a clean area.

Ensure that the oil is perfectly clean and free from air bubbles.

Care **MUST** be taken at all times, to ensure that no foreign matter enters the tool, or serious damage may result.

The tool must remain on its side throughout the priming sequence

- Disconnect the air supply.
- Place tool on its side, Oil Plug **45** side up.
- With a 5mm hexagonal wrench, unscrew Oil Plug **45** and remove with Oil Seal Washer.
- Fill tool with priming oil rocking gently to expel air.
- Replace Oil Plug **45** with Oil Seal Washer and tighten.
- Reconnect the air supply.
- Depress the Trigger.
- Disconnect the air supply.
- Using a hexagonal wrench remove Oil Plug **45** and Oil Seal Washer.
- Top-up with priming oil to reset level. Replace Oil Seal Washer and Oil Plug **45** and fully tighten.

It is necessary to fit the appropriate nose equipment and adjust the tool stroke prior to operating the tool.

7. Maintenance

I M P O R T A N T

**SAFETY INSTRUCTIONS APPEAR ON PAGE 9 & 10.
THE EMPLOYER IS RESPONSIBLE FOR ENSURING THAT TOOL
MAINTENANCE INSTRUCTIONS ARE GIVEN TO THE APPROPRIATE
PERSONNEL. THE OPERATOR SHOULD NOT BE INVOLVED IN
MAINTENANCE OR REPAIR OF THE TOOL UNLESS PROPERLY TRAINED.**

Every 500,000 cycles the tool must be completely dismantled and inspected Components must be replaced where worn or damaged. All 'O' rings and seals should be replaced with new ones and lubricated with Molykote 55M grease before assembling.

⚠ WARNING - The airhose must be disconnected before any servicing or dismantling is attempted unless specifically instructed otherwise.

- Dismantling operation be carried out in clean conditions.
- Before proceeding with dismantling, empty the oil from the tool. Remove oil plug **45**, from the handle assembly and drain the oil into a suitable container.
- Prior to dismantling the tool it is necessary to remove the nose assembly. For simple removal instructions see page 13 (4.1)

For complete tool servicing we advise that you proceed with dismantling of sub-assemblies in the order shown below. **See Fig. 5 (page 5)**

For complete tool strip down two additional tools a required.

Part Number	Description	QTY
07900-01074	Assembly Bullet	1
07900-01075	Seal Guide	1

Pneumatic Cylinder

- Remove Rubber Boot **5**.
- Place tool with the base facing upwards in a vice fitted with soft jaws.
- Using a 8mm spanner remove the Tie Rod Nut **53** and Washer **52** the Air Cylinder **2** should move upward under spring pressure.
- Remove Base Cap **76** with 3mm Hexagonal Wrench.
- Withdraw Air Piston Assembly **3** separate Assembly by holding Piston Rod in soft jaws and unscrewing the Piston.
- Remove the spring **49**

Rod Guide

- Unscrew the Rod Guide **7** using a 22mm socket and T bar.
- Withdraw the Rod Guide **7** and Washer **50**. Remove the lip seal **51** and O ring **59**.

Trigger

- Remove Trigger Pin **48**.
- Remove Trigger **12**.
- Unscrew Bezel Switch **10** using a 10mm Socket.
- Withdraw Bezel Switch **10**, Trigger Valve **11** and Spring **47**

Regulator

- Unwind Pressure Switch **30** to its full extent.
Using a 2mm Hexagonal Wrench unscrew Screw **74** remove Pressure Switch **30** Regulator Lock **31**, Spring **32** and Locking Bearing **33**.
- Using a 14mm Spanner unscrew the Pressure Catch **28** the Regulator **29** should then be unscrewed from the Pressure Catch **28** once withdrawn.
- Remove Spring **34** and Spring Guide **27**.
- Using Pliers gently clamp onto the Pressure Rod **25** and Pull this will remove the Pressure Rod **25** and Pressure Rod Sleeve **26** remove O Ring **66, 68**.
- Remove Spool Valve **24**, remove O Ring **65**.
- Remove Lip Seal **54**, to re-insert this seal use Seal Guide

Nose Equipment

- Using a 19mm Spanner unscrew Nose Casing **13**.
- Retract the Nose Rod **73** and remove the Chuck Nut **14** by hand.
Using a 14mm Spanner and the 4mm Push Pin undo the Mandrel Adaptor **15** from the Locking Nut **17** and remove both items.

Head Assembly

- Using a 2mm Hexagonal Wrench unscrew Screws **74** and remove End Cap Assembly **20**.
- Using a 2.5mm Hexagonal Wrench unscrew Screws **43** and remove Distributor Assembly **21**, Ball **42** and Air Tubes **44**
- Fully unscrew Stroke Adjuster **19** and withdraw Spring **41**.
- Remove Dynamic Piston Assembly **18** remove Lip Seal **72** and O Ring **70**.
- Some residual oil may be expelled when the Dynamic Piston Assembly **18** is removed.
- Remove Static Lip Seal **40**.
- To reassemble, use Assembly Bullet to mask Piston Rod **18B** thread.

Manual Reverse Switch

- Remove Manual Reverse Screw 23.
- Withdraw Manual Reverse Switch 22, remove O-ring 64, 63.

Sub-Assemblies contained in Base Tool 74202-shown in exploded view

DYNAMIC PISTON ASSEMBLY 74202-02102				
POSITION	PART NUMBER	DESCRIPTION	QTY	SPARES
18M	74202-02006	HYDRAULIC PISTON	1	-
18B	74202-02026	DRIVE PIN	1	-
18C	74200-12055	WASHER	1	2
-	74202-02104	AIR MOTOR ASSEMBLY	1	-

AIR INLET ASSEMBLY 74202-02103				
POSITION	PART NUMBER	DESCRIPTION	QTY	SPARES
74A	74202-02100	AIR FILTER	1	-
75B	07003-00026	O RING	1	-
75C	74202-02096	1/4 CONNECTION	1	-
75D	07003-00029	O RING	4	-
75E	74202-02097	MALE CONNECTION	1	-
75F	74202-02099	CIRCLIP	1	-
75G	74202-02098	FEMALE CONNECTION	1	-

DISTRIBUTOR ASSEMBLY 74202-02105				
POSITION	PART NUMBER	DESCRIPTION	QTY	SPARES
21A	74202-02011	DISTRIBUTOR	1	-
21B	74202-02093	PIN	1	-
21C	74202-02066	O RING	2	-
21D	74202-02064	O RING	2	-
21E	74202-02063	O RING	1	-
21F	07001-0047	M4 GRUB SCREW	2	-

AIR PISTON ASSEMBLY 74202-02106				
POSITION	PART NUMBER	DESCRIPTION	QTY	SPARES
3A	74202-02003	AIR PISTON	1	-
3B	74202-02015	PISTON ROD	1	-
3C	74202-02069	O RING	1	1
3D	07003-00029	O RING	3	3

END CAP ASSEMBLY 74202-02107				
POSITION	PART NUMBER	DESCRIPTION	QTY	SPARES
20A	74202-02008	END CAP	1	-
20B	74202-02027	SLIDER	1	-
20C	74202-02092	END CAP STOPPER	1	-

AIR MOTOR ASSEMBLY 74202-02104				
POSITION	PART NUMBER	DESCRIPTION	QTY	SPARES
1M	74202-02028	MOTOR CASE	1	-
2M	74202-02110	HOUSING	1	-
3M	07555-09216	PIN	1	-
4M	74202-02111	HOUSING BLOCK	1	-
5M	07555-09215	BEARING	1	-
6M	74202-02112	MOTOR VANE	5	5
7M	74202-02113	MOTOR SPINDLE	1	-
8M	74202-02114	WASHER	1	-
9M	07555-09206	BEARING	1	-
19M	74202-02115	WASHER	1	-
11M	74202-02116	RING GEAR	1	3
12M	74202-02117	PLANET GEAR	3	-
13M	74202-02118	ROD	3	-
14M	74202-02119	SUN GEAR	1	-
15M	74202-02120	BEARING	1	-
16M	74202-02121	CIRCLIP	1	1
17M	74202-02043	MOTOR ROD	1	1
18M	74202-02060	O RING	1	-
19M	74202-02029	O RING	1	-
20M	07003-00315	O RING	1	-
21M	74202-02122	O RING	1	-
22M	74202-02123	PLUG	1	-
23M	07001-00479	M4 GRUB SCREW	3	-

8. Troubleshooting guide

Symptom	Possible Cause	Remedy	Page Ref.
Pneumatic motor runs slowly.	Air leak from motor.	Check for worn seals. Replace.	18
	Low air pressure.	Increase air pressure.	14
	Air way blockage.	Clear restriction.	18
	Motor Vanes 6M jamming	Clean and lubricate.	18
Mandrel turns independent of motor.	Worn or damaged Drive Shaft E .	Replace.	13
	Worn or damaged Mandrel A .	Replace.	13
	Chuck Nut 14 is loose.	Tighten Chuck Nut 14 .	13
Insert will not place onto Mandrel.	Incorrect Blind Rivet Nut thread size.	Change to correct size Blind Rivet Nut.	13
	Incorrect Mandrel A fitted.	Change to correct size Mandrel.	13
	Worn or damaged Mandrel A .	Replace.	13
	Nose equipment incorrectly assembled.	Re-fit nose equipment.	13
Tool/Blind Rivet Nut is jammed.	Excessive stroke.	Reduce stroke.	3
	Excessive pressure.	Reduce pressure.	3
	Defective Blind Rivet Nut or Mandrel A .	Press Manual Reverse 22 . Alternately use Pin Punch K to manually remove the Blind Rivet Nut.	15
Mandrel Breakage.	Excessive stroke.	Reduce stroke.	14
	Excessive pressure.	Reduce Pressure.	14
	Side load on Mandrel .	Hold tool square to application.	3
Tools does not spin On.	Chuck Nut 14 is loose.	Tighten Chuck Nut 14 .	13
	No air supply.	Connect air supply.	14
	Insufficient gap between Locking Nut 17 and Piston 18A .	Adjust gap to 1.5mm/2mm.	4
	Motor Rod 17M too short.	Replace Motor Rod.	5
	Air Motor jammed.	Lubricate tool at air inlet. If insufficient, dismantle and clean thoroughly.	18
Trigger 12 inoperative.	Static friction.	Depress and hold Trigger 12 a few times.	
	Low air pressure.	Increase air pressure.	14
	Valve Slider 9 remains stuck.	Depress Trigger 12 several times. Lubricate tool through air inlet. If unsuccessful, dismantle, clean and lubricate trigger components.	4 & 18
Tool does not spin off.	Chuck Nut 14 is loose.	Tighten Chuck Nut 14 .	13
	Trigger 12 released prematurely.	Press and hold for entire cycle of tool.	
	Tool not reaching pressure or stroke.	Reduce pressure or stroke setting.	14
	Distributor 21A is stuck.	Lubricate.	4
	Air Motor jammed.	Lubricate tool at air inlet. If insufficient, dismantle and clean thoroughly.	18

Item numbers in bold refer to assembly drawings and parts list Pages 2,4,5, and 6.

Other symptoms or failures should be reported to your local, authorised distributor or repair centre.

9. Hydraulic Oil General Safety Data

FIRST AID

SKIN:

Unlikely to cause harm to the skin on brief or occasional contact but prolonged or exposure may lead to dermatitis. Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin.

Laundry contaminated clothing.

ORAL:

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhea.

If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion of large amounts of product is unlikely. If it should occur, do not induce vomiting; obtain medical advice.

Take person to nearest medical centre.

EYES:

Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Wash eyes thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.

DISPOSAL:

Remove all spills with inert absorbent material. Ventilate spill area. Place contaminated materials in a disposable container and dispose in a manner consistent with local regulations.

PROTECTING THE ENVIRONMENT:

Separate collection. This product must not be disposed of with normal waste. Should you find one day that your product needs replacement, or if it is of no further use to you, do not dispose of it with regular waste. Make this product available for separate collection. Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials. Local regulations may provide for separate collection of electrical products, at municipal waste sites or by the retailer when you purchase a new product. You can check the location of your nearest authorised repair agent by contacting your local STANLEY Engineered Fastening office at the address indicated in this manual. Alternatively, a list of authorised repair agents and full details of our after-sales service and contacts are available on the Internet at:

www.StanleyEngineeredFastening.com

C.O.S.H.H. data for all hydraulic oils and lubricants is available on request from your tool supplier.

FIRE:

FLASH POINT: 200°C.

Extinguish with dry, chemical, foam or carbon dioxide. Do not enter confined space without self contained breathing apparatus.

HANDLING:

Use barrier cream or oil resistant gloves.

STORAGE:

Undercover and consistent with local regulations for inflammable material.