Maintenance and operating Instructions
Model RH140E Pneumatic Rivet-Nut Setting Tool

Capable of setting Rivet-Nuts in sizes 4-40 through 10-32 thread in Aluminum, Steel, and Stainless Steel. ¼-20 thread in Aluminum/Steel
-Metric conversion Kits available

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Fasteners / Hardware / Pneumatic Tools

Instructions

Model RH140E Pneumatic Rivet-Nut Setting Tool

A) Mandrel
B) Anvil
C) Anvil Lock Nut
D) Rocker Trigger
Position 1: Collapse Rivet-Nut
Position 2: Reverse
E) Mandrel adapter release
F) Balancer Connection

G) Stroke Adjustment Ring
H) Pneumatic Motor
I) Fluid Plug
J) Compressed Air connection

Technical Data:
Working pressure 80-95 P.S.I
Weight: 4.9 pounds

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Air Feed: The air feed must be free from humidity and contaminants in order to protect the tool from premature wear. We recommend the use of a filter, lubricator, and regulator assembly for compressed air.

Maintenance:

Adding Hydraulic Fluid: Place tool in a horizontal position. Using the 5 mm Hex key (provided), remove fluid plug. Add Fluid using special container provided until fluid level reaches edge of fill hole.

Important: Slowly poor Viscosity 32 into bellows container provided which shall be screwed to seat on the plug. While keeping the riveting tool in a horizontal position and start air feeding, press the trigger (position 1) for the tool to carry out some cycles until air bubbles in bellows no longer come out. At this point, keep tool in horizontal position, unscrew bellows and screw 5mm hex plug back in to tool. Torque plug to minimum of 5Nm not to exceed 8Nm.

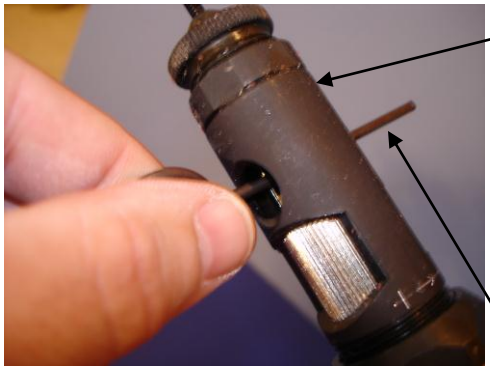
To remove all the oil from the tool, remove oil fill plug (I) and place tool in a plastic bag. Hook air to tool and turn adjusting ring to max stroke (turn in positive direction until it will not turn anymore). Depress trigger 5 or 6 times, oil will blow out of tool in to the plastic bag. To fill tool, thread oil fill tube (23) and depress trigger until no air bubbles are present.

Disconnect Air Feed when performing these operations

Changing Mandrel Sizes:

Removing Anvil: Locate (C) Anvil Lock Nut and turn counter-clockwise until loose using 22mm wrench.

Removing Mandrel: Insert Mandrel adapter pin through the Mandrel to release mandrel from frame head. Pull back on pin (Pull towards rear of tool). To remove mandrel, unthread mandrel by turning counter-clockwise.



Replacing Mandrel: Using the same Mandrel adapter as above, pull adapter back toward rear of tool and thread new mandrel completely into mandrel housing until you hear a "Click". Thread Anvil and anvil lock nut back against frame head. Thread fastener onto mandrel, leaving .050 mandrel protruding. Unscrew anvil from frame upwards to touch the head of fastener. Tighten lock nut to frame head.

Setting Tool Stroke:

Turn Proper Stroke length using the spanner wrench included clockwise until adjustment ring stops.

+ Symbol is for thinner material (increase stroke)
─ Symbol is for thicker material (decrease stroke)

Never install rivet-nut in your material and pull the trigger until you have the correct stroke set on the tool

Enfasco Pull Up factor Chart

Fastener Thread Size	Traditional Round and Thin Head Rib	AEL, AEK, AEO, AEH, and most Thin-wall	Traditional HEX
6-32	.065	.065	
8-32	.065	.065	
10-24, 10-32	.08	.050	.060
1/4-20, 1/4-28	.095	.055	.075
3mm	.055	.065	
4mm	.075	.065	
5mm	.095	.050	.065
6mm	.115	.055	.070

BEFORE INSTALLING ANY RIVET-NUT IN YOUR MATERIAL WITH A PNEUMATIC TOOL

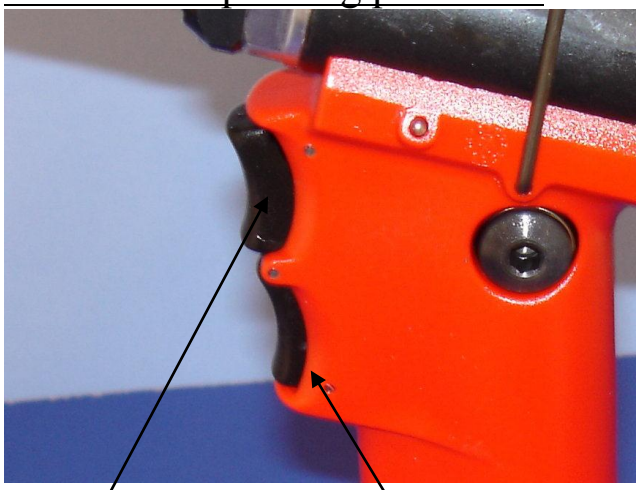
a) Measure overall thickness of material fastener will be installed. For Dimpled or countersunk holes, measure from top surface of metal to underside of dimpled hole.
b) Determine Maximum grip of fastener (stamped on box, refer to manual, or last number in part number)
c) Subtract material thickness (a) from Maximum grip (b)

d) Add difference to applicable pull-up factor. This sum is a close approximation of the pull-up required to attain a proper bulge.

e) Measure Overall length of uninstalled Rivet-Nut. In the air and not in your material, thread rivet-nut on to spin-pull pneumatic rivet nut tool and pull trigger collapsing rivet-nut and measure collapsed length of uninstalled Rivet-Nut. Step (e) will tell you the current stroke (pull-up) on your tool.

f) Adjust stroke of tool accordingly by increasing stroke or decreasing stroke based on (d) and your current tool stroke. Proper tool stroke adjustment procedures should be followed by referencing tool manual.

Basic Tool operating procedure



Pos 1 (collapse rivet-nut)

Pos 2 (reverse tool from Work)

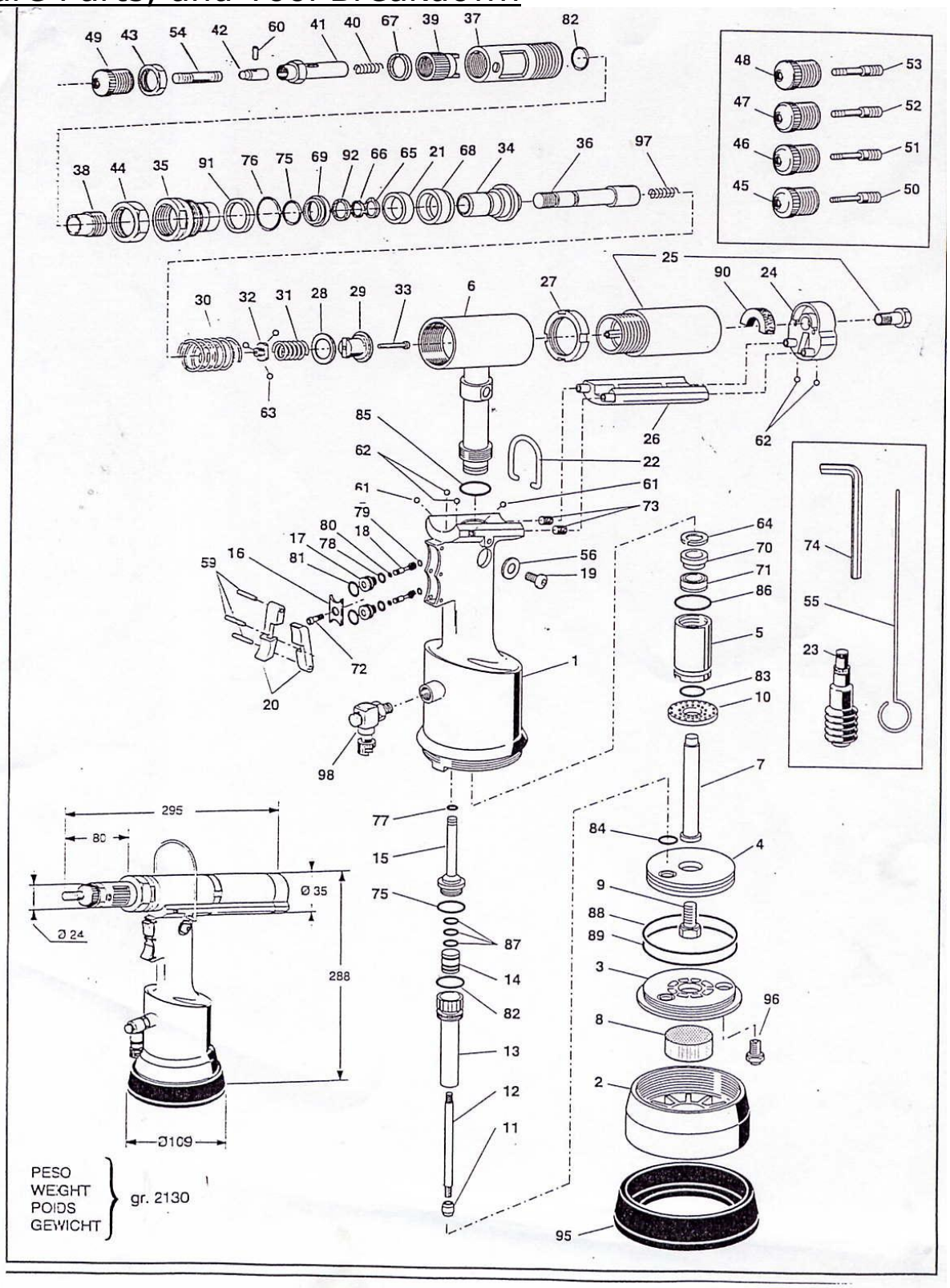
Placing fastener on to Mandrel:

Thread 1st thread of rivet-nut onto Mandrel. Apply a light pressure and the fastener will thread onto the mandrel or thread by hand completely.

Tool Disassembly

Step 1: Remove protective cover (95)
Step 2: Use standard spanner wrench, remove body cover (2)
Step 3: Using a flat head screw driver, remove cylinder bottom (3)
Step 4: item 4 & 7 are one piece, clamp on to item 9 to remove item 4&7
Step 5: Use tool 770010(on item#5) to separate item #1 and item#6
Step 6: Use tool 770013 (on item#36) to remove item#41

Spare Parts, and Tool Breakdown



Dwg. No.	Part #	Description	Dwg. No.	Part #	Description
1	88601	Tool Body	48	88703	#10 Nosepiece
2	88602	Body cover	49	88704	1/4 Nosepiece
3	88603	Cylinder Bottom	50	88708	6-32 mandrel
4	88604	Pneumatic Piston	51	88709	8-32 mandrel
5	88605	Connector	52	88710	10-24 mandrel
6	88606	Oleodynamic Cylinder	53	88711	10-32 mandrel
7	88607	Stem	54	88712	1/4-20 mandrel
8	88608	Silencer	55	88219	Mandrel Adapter
9	88609	Screw M7 x 1	56	88034	Plug Washer
10	88610	Dampener	59	88659	Pin 2 X 20 UNI 1707
11	88611	Lower Coil	60	88660	Spring Pin 4 X 12
12	88612	Threaded Sleeve	61	88661	Ball o 3.5
13	88613	Valve Body	62	88662	Ball o 4
14	88614	Upper Coil	63	88663	Ball o 2.5
15	88615	Upper Valve Body	64	88664	Seeger Ring I18
16	88616	Plate	65	88665	Seeger Ring E16
17	88617	Valve Body	66	88666	Seeger Ring SW11 x 1
18	88618	Valve Piston	67	88667	Seeger Ring JV 20 x 1
19	88035	Fluid Plug	68	88668	O'ring B-110078/B/NEO
20	88620	Push Button	69	88669	O'ring B-094063/B/NEI
21	88621	Spacer	70	88670	O'ring B-070039/1
22	88065	Balancer Connection	71	88671	Gasket TS-10-18-5.8/L
23	88084	Oil Container	72	88672	Screw VSP-4x8 UNI 5933
24	88624	Motor cover	73	88673	Inox Filter o 6 X 4
25	88625	Motor SP 237	74	88220-76	Allen Key
26	88626	Motor Protection Sector	75	88675	O'ring 2-16 P
27	88627	Ring Nut for Motor	76	88676	O'ring 2-119(N552790) P
28	88628	Stop Ring	77	88220-36	O'ring 2-8 P
29	88629	Clutch	78	88158	O'ring 2-9 P
30	88630	Piston Return Spring	79	88047	O'ring 2-5 P
31	88631	Ball Locking Spring	80	88043	O'ring 2-4 P
32	88632	Ball Bushing	81	88681	O'ring 5-052 P
33	88633	Rod	82	88682	O'ring 2-17 P
34	88634	Oleodynamic Piston	83	88321	O'ring 2-12 P
35	88635	Front Connector	84	88684	O'ring 5-614 P
36	88636	Shaft	85	88685	O'ring 2-18(N552790) P
37	88637	Milled Sleeve	86	88686	O'ring 2-118 P
38	88638	Stroke Adjusting Nut	87	88021	O'ring 5-612 P
39	88639	Stroke Adjusting Knob	88	88688	O'ring 2-232 P
40	88640	Mandrel Spring Disengagement	89	88689	O'ring 2-40 P
41	88641	Mandrel Carrying Head	90	88690	Silencer
42	88642	Mandrel Clutch	91	88691	Parbak 8.119
43	88643	Head Ring Nut	92	88692	Seeger Ring JV24
44	88644	Ring Nut	95	88695	Bottom Protector
45	88701	#6 Nosepiece	96	88696	Safety Valve Assembly
46	88702	#8 Nosepiece	97	88697	Rod Locking Spring
47	88703	#10 Nosepiece	98	88698	Rotating Connector

Recommended Spare Parts

Item 55 pin 88219
Item 47 anvil 88703
Item 53 10-32 mandrel 88711
Item 23 oil container 88084
Item 43 anvil jam nut 88643
Item 42 Mandrel Clutch 88142
Item 60 spring Pin 88660
Item 37 Milled Sleeve 88637
Tool 770010
Tool 770013