



# INSTRUCTION MANUAL



**IMPORTANT!**

Upon receipt of your NailScrew® Driver,  
Read and follow all safety rules and  
Operating instructions.  
Retain this manual for future reference.



Contents:

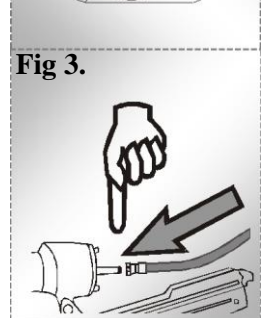
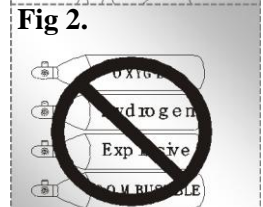
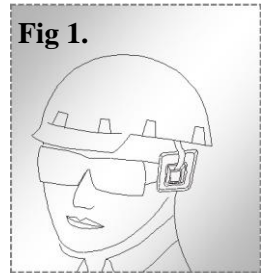
- Technical Data
- Important Safety Rules
- Operating Instructions
- Trex® Installation
- Maintenance
- Troubleshooting
- Parts List

## © Technical Data

Capacity .....	2x30, full round head 20°/21°strips
Nail length.....	50-90 mm (2 in. to 3 ½ in).
Fastener diameter.....	2.87-3.76 mm (.113 in. to .148 in.)
Operation pressure.....	70-120 PSI (5.0-7.5 bar)
Air inlet.....	1/4 in. N.P.T.
Dimension.....	142 x 356 x 560 mm
Weight.....	3.7 kgs (8.16 lbs.)

## © Important Safety Rules

- 1. KEEP CHILDREN AWAY.** All children should be kept away from the work area. Do not allow them to handle the tool.
- 2. USE SAFETY GLASSES AND EAR PROTECTION.** Air tool operators and others in the work area should always wear safety glasses to prevent injury from fasteners and flying debris during use and when loading and unloading this tool. Wear ear protection to safeguard against hearing loss. (See Fig 1.)
- 3. NEVER USE OXYGEN, COMBUSTIBLE FUELS OR ANY OTHER BOTTLED GAS** as a power source as it will cause explosion and serious personal injury. (See Fig 2.)
- 4. DO NOT CONNECT TOOL TO COMPRESSED AIR WITH PRESSURE EXCEEDING 120 PSI.**
- 5. DO NOT USE AN EXCESSIVELY LONG AIR HOSE** in the working area as it will create an operator tripping hazard. Secure all connections tightly.
- 6. CARRY TOOL ONLY BY THE HANDLE** and keep finger off the trigger pull. This will allow the safety yoke mechanism to prevent the unintentional firing of fasteners.
- 7. KEEP THE TOOL POINTED AWAY FROM YOURSELF AND OTHERS** at all times. Keep hands and all body parts away from the nose area and rear area of the tool to guard against possible injury.
- 8. DISCONNECT TOOL FROM AIR SUPPLY BEFORE LOADING FASTENERS** to prevent accidental fastener firing. (See Fig 3.)
- 9. DO NOT DEPRESS TRIGGER OR SAFETY YOKE MECHANISM DURING FASTENER LOADING** to prevent the unintentional firing of a fastener that can cause personal injury.
- 10. DISCONNECT TOOL FROM AIR SUPPLY HOSE** and disconnect from air compressor before performing maintenance, altering accessories, or while not in operation.
- 11. DO NOT OPERATE ON SCAFFOLDINGS OR LADDERS,** and do not work in airtight containers or vehicles.
- 12. DO NOT DRIVE FASTENERS CLOSE TO THE EDGE OF THE WORK PIECE.** The work piece could split, causing the fastener to fly free or ricochet, causing personal injury.
- 13. DO NOT DRIVE FASTENERS ON TOP OF OTHER NAILED FASTENERS** or the fasteners can ricochet causing personal injury.



14. **NEVER USE A TOOL THAT IS LEAKING AIR, HAS MISSING OR DAMAGED PARTS, OR IS IN NEED OF REPAIR.** Make sure that all screws are securely tightened.
15. **INSPECT DAILY FOR FREE MOVEMENT** of trigger, safety mechanism and spring to insure safe and proper operation of the tool.
16. **ONLY USE PARTS AND ACCESSORIES RECOMMENDED BY THE MANUFACTURER.**  
<http://elder-hayesinc.com> or call **1-800-769-0775**

## ⊙ **Operating Instructions**

### **Description**

Model **NSD9021** drives round head **NailScrews®** or nails from 2 in. (50 mm) to 3 ½ in. (90 mm) in length. The die cast aluminum body provides more power to easily drive **NailScrews®** into **Trex®** composites and other standard composite lumber, as well as wood. The comfort grip rubber handle provides improved control and comfort, even during extended use. It features a 360-degree exhaust port that can be adjusted to any direction. It has economical air consumption with a very low noise level making it ideal for installing **NailScrews®** for construction framing, pallet and crate assembly, composite or wood deck construction, roof decks, fencing, sub-floor, sidewall sheathing, etc. See “How to” videos by the **Deck Doctor™**, **Rich Steptoe**, as well as written installation instructions at [www.911-nails.com](http://www.911-nails.com) or call **1-888-377-0028**.

### ⊙ **Trex® Installation with the model NSD9021 NailScrew® Driver™**

Follow these recommendations for driving the **UFO™ Composite Ballistic NailScrews®** through **Trex®** composite decking material into a wood frame or light gauge metal frame:

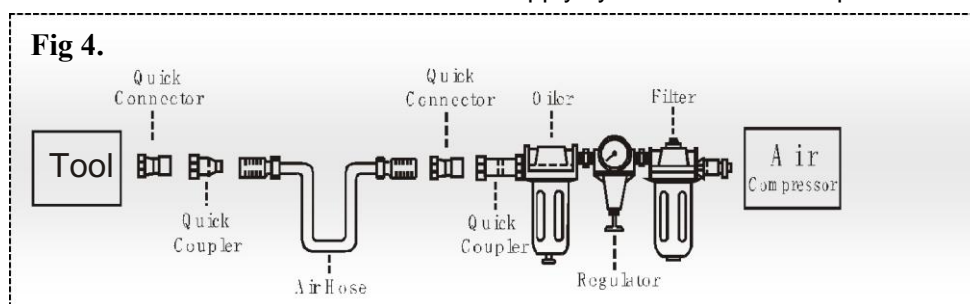
1. Sequential fire should be switched on to help avoid double firing the tool (located just above the trigger).
2. Add rubber no-mar tip to avoid scratching the decking material.
3. Use a dedicated air compressor with 120 lbs of consistent pressure at the tool. Adjust compressor’s pressure switch controls to keep the air fluctuation within a 10 lb range. Reduce the pressure only after you have adjusted the flush drive to its minimum depth. Then, and only then, reduce the pressure at the regulator as needed, depending upon temperatures, etc.
4. Use a 3/8” air hose, as short as possible; 25’ is best, 50’ maximum. Use a surge tank if possible.
5. Drive fasteners perpendicular to the decking surface and always wear eye protection.
6. Before starting the deck, do multiple test runs with scraps of the actual materials that you will use (nailing to a 6x6 works best). Hot and cold weather will affect this greatly.
7. Adjust the flush drive roller in front of the trigger;  
Adjust the roller until the desired depth and look is accomplished at 120psi.
8. Use the “Bump Fire” contact trip for production nailing or the adjustable switch to single fire for more precise placement of nails.



9. If you need to remove a NailScrew®, use a low RPM cordless impact driver. Always start slowly to avoid stripping the wood fibers.
10. In most cases the NailScrew® can be backed out part way and then re-driven with an impact driver or a hammer. Alternatively, remove the NailScrew® and manually install a new one. Special note; when driving into very hard composites like Trex® Brasilia® use a hammer to complete the set and to flatten any mushroom that may have occurred.
11. Before you start your job review the finished deck look of NailScrews® driven through composite decking materials with your customers/home owners. The NailScrews'® smaller heads will give your customer a very clean looking deck. See the "How to" video with the Deck Doctor™, Mr. Rich Steptoe at [www.howtonailscrew.com](http://www.howtonailscrew.com). This video contains many tricks of the trade. For best results have your crews or subcontractor watch this before they start using the UFO NailScrew Driver™ with UFO Ballistic NailScrews®

### Service advice:

1. Use clean, dry and regulated compressed air, 8 cfm at 5.0-7.5 bar (70-120 psi) and 100-120 psi at the tool.
2. Never exceed the maximum and minimum pressures. Too low or too high pressure will cause noise, increased wear or misfiring.
3. When connecting the air supply, always keep hands and body from the discharge area of the tool.
4. A filter-regulator-lubrication is required and should be located as close to the tool as possible (see Fig 4).
5. Keep the air filter clean. A dirty filter will reduce the air pressure to the tool, causing a reduction in power and efficiency.
6. For better performance, install a quick connector in your tool and quick coupler on the hose, if possible.
7. Make sure that all connections in the air supply system are sealed to prevent air loss.



## Loading Fasteners and Operation

### **WARNING:**

Always disconnect the tool from the compressed air source before loading.

When loading the tool always point the tool away from yourself and others. Make sure that you are not holding the tool with the trigger depressed while loading the tool.

1. Disconnect the tool from the air supply. Grasp the nailer firmly with one hand. Insert a strip of fasteners into the rear of the magazine. Keep the tool pointed down.
2. Pull the pusher back to lock behind the nail strips. The tool is now ready for use.
3. Connect the tool to the air supply. Make sure the air pressure is in the correct range denoted in the Technical Data.
4. Test the driving depth in a sample piece of wood before using. If the fasteners are being driven too far or not far enough, adjust the flush drive roller in front of the trigger to provide less air pressure or more air pressure as needed.

### **WARNING:**

Never operate tool unless safety nose is in contact with work-piece. Do not operate tool without fasteners or damage to the tool may result. **Never fire fasteners into air! Fasteners may injure the operator or others, and damage to the tool may result.**

## ⦿ Maintenance

### **WARNING:**

Disconnect the tool from the air compressor when not in use and before adjusting, clearing jams, servicing, or relocating.

- Regular lubrication. If your tool does not have an in-liner automatic oiler, place 2 to 6 drops of pneumatic tool oil into the air inlet before each work day or after 2 hours of continuous use, depending upon the characteristics of your work or type of fasteners.
- As needed, check and change all worn or damaged o-rings, seals, etc. Tighten all screws and caps to prevent personal injury.
- Inspect trigger and safety mechanisms to assure the safety system is complete and functional; guard against loose and missing parts, build-up, and binding or sticking parts.
- Keep magazine and the nose of the tool clean and free of dirt, lint or abrasive particles.

## ⦿ Troubleshooting

Following are common operating problems and solutions. Please read carefully for suggested solutions.

### **WARNING:**

If any of the following symptoms occur during tool operation, stop using the tool immediately or serious personal injury could result! Only a qualified person or an authorized service center can perform repairs or replacement of tool parts. Disconnect tool from air supply before attempting any repair or adjustment. When replacing O-rings or cylinder, lubricate with air tool oil before assembly.

<b>SYMPTOM</b>	<b>PROBLEM</b>	<b>SOLUTIONS</b>
Air leak near top of tool or in trigger area	<ol style="list-style-type: none"> <li>1. O-ring in trigger valve is damaged.</li> <li>2. Trigger valve head is damaged.</li> <li>3. Trigger valve stem, seal or O-ring is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check and replace O-ring.</li> <li>2. Check and replace.</li> <li>3. Check and replace trigger valve stem, seal or O-ring.</li> </ol>
Air leak near bottom of tool.	<ol style="list-style-type: none"> <li>1. Loose screws.</li> <li>2. Worn or damaged O-rings or bumper.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten screws.</li> <li>2. Check and replace O-rings or bumper.</li> </ol>
Air leak between body and cylinder cap.	<ol style="list-style-type: none"> <li>1. Loose screws.</li> <li>2. Worn or damaged O-rings or seals.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten screw.</li> <li>2. Check and replace O-rings or bumper.</li> </ol>
Blade driving fastener too deep.	<ol style="list-style-type: none"> <li>1. Worn bumper.</li> <li>2. Air pressure is too high.</li> <li>3. Need to adjust depth control.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace bumper.</li> <li>2. Adjust the air pressure.</li> <li>3. Adjust depth control (flush drive roller in front of trigger)</li> </ol>
Tool does not operate well: can not drive fastener or operates sluggishly.	<ol style="list-style-type: none"> <li>1. Inadequate air supply.</li> <li>2. Inadequate lubrication.</li> <li>3. Worn or damaged O-rings or seals.</li> <li>4. Exhaust port in cylinder head is blocked.</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify adequate air supply.</li> <li>2. Place 2 or 6 drops of oil into air inlet.</li> <li>3. Check and replace O-rings or seal.</li> <li>4. Replace damaged internal parts.</li> </ol>
Tool skips fasteners.	<ol style="list-style-type: none"> <li>1. Worn bumper or damaged spring.</li> <li>2. Dirt in front plate.</li> <li>3. Dirt or damage prevents fasteners from moving freely in magazine.</li> <li>4. Worn or dry O-ring on piston or lack of lubrication.</li> <li>5. Cylinder covers seal leaking.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace bumper or pusher spring.</li> <li>2. Clean drive channel on front plate.</li> <li>3. Magazine needs to be cleaned.</li> <li>4. O-ring needs to be replaced And lubricated.</li> <li>5. Replace Sealing washer.</li> </ol>
Tool jams.	<ol style="list-style-type: none"> <li>1. Incorrect or damaged fasteners.</li> <li>2. Damaged or worn driver guide.</li> <li>3. Magazine or nose screw loose.</li> <li>4. Magazine is dirty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Change and use correct fastener.</li> <li>2. Check and replace the driver.</li> <li>3. Tighten the magazine.</li> <li>4. Clean the magazine.</li> </ol>

Below is a picture and explanation of the lock out safety mechanism.



The Lock Out engages the safety and will not let the tool fire when the nails in the magazine get down to 4 or 5 nails to keep the user from dry firing the tool and leave tracks from the driver on the deck.

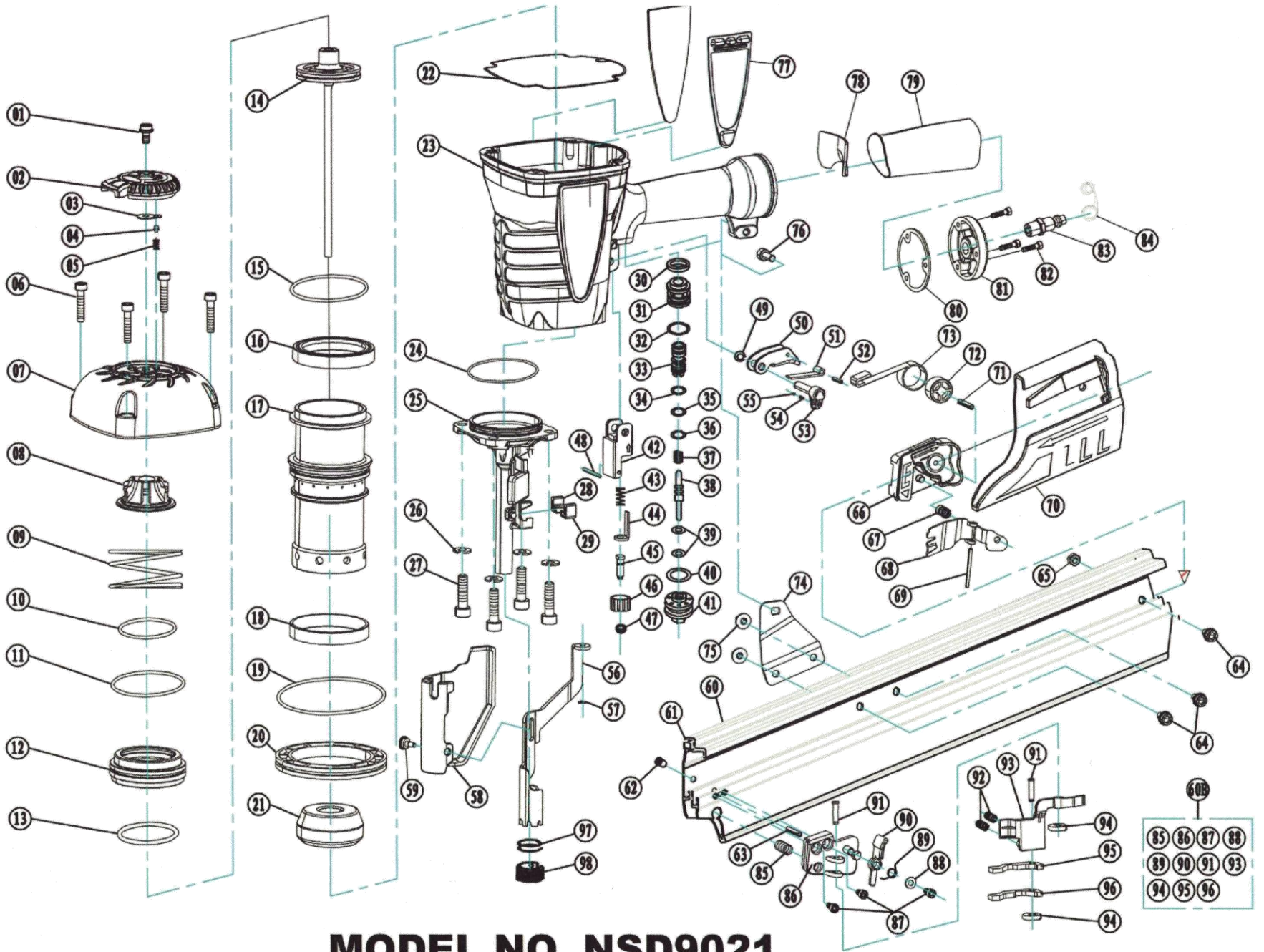
For Application Questions call John at **888-377-0028** or 800-352-0028

**PARTS LIST ON FOLLOWING PAGE:**

## NSD9021

No	Desc.	No	Desc.	No	Desc.	No	Desc.
1	Bolt	26	Lock Washer	51	Safety Plate	76	Bolt M6*14
2	Air Deflector	27	Bolt M8*25	52	Roll Pin 3*16	77	Rubber Cover
3	Deflector Piece	28	Left Orientation Rubber	53	Switch Groupware	78	Handle Protecting Cashion
4	Pin	29	Right Orientation Rubber	54	Spring	79	Handle Sleeve
5	Spring	30	Seal Washer	55	Steel Ball Dw=3	80	End Cap Washer
6	Bolt M6*30	31	Valve Seat	56	Safety Nose	81	End Cap
7	Cylinder Cover	32	O-ring 16*1.6	57	E-ring d=3	82	Bolt M4*16
8	Cylinder Cover Bumper	33	Valve Sleeve	58	Drive Guide	83	Air Inlet Plug
9	Compressed Spring	34	O-ring 6.1*1.8	59	Drive Bolt	84	Protecting Bushing
10	O-ring 48.7*2.65	35	O-ring 6.4*2	60	Magazine	85	Compressed Spring
11	O-ring 63*2.65	36	O-ring 9*1.8	61	Drive Nail Bar	86	Seat
12	Head Valve	37	Switch Spring	62	Hex Head Bolt	87	Bolt M4*8
13	O-ring 50*3.55	38	Switch Stem	63	Roll Pin	88	Seal Washer
14	Piston Driver	39	O-ring 2.5*1.5	64	Bolt M6*12	89	Spring
15	O-ring 67*2.65	40	O-ring 18*2.65	65	Nylock Nut	90	Rotated Plate
16	Seal Washer	41	Switch Seat	66	Pusher Seat	91	Roll Pin
17	Cylinder	42	Adjustment Seat	67	Spring	92	Compressed Spring
18	Seal Washer	43	Safety Yoke Spring	68	Pusher	93	Protrude Plate
19	O-ring 95*2.65	44	Trigger Pusher	69	Roll pin 3*35	94	Pin Sleeve
20	Collar	45	Adjustable Bolt	70	Magazine Protect Mantle	95	Adjustable Piece I
21	Bumper	46	Adjustable Nut	71	Roll Pin C4*8	96	Adjustable Piece II
22	Gasket	47	Seal Washer	72	Spring Core	97	Steel Spring
23	Gun Body	48	Roll Pin 3*30	73	Spring	98	No Mar Tip
24	O-ring 62*1.8	49	E-ring d=5	74	Fixed Seat		
25	Driver Guide Body	50	Trigger	75	Nut M6		

For Parts and Service: <http://elder-hayesinc.com> or call 1-800-769-0775



# MODEL NO. NSD9021

For Parts and Service: <http://elder-hayesinc.com> or call 1-800-769-0775