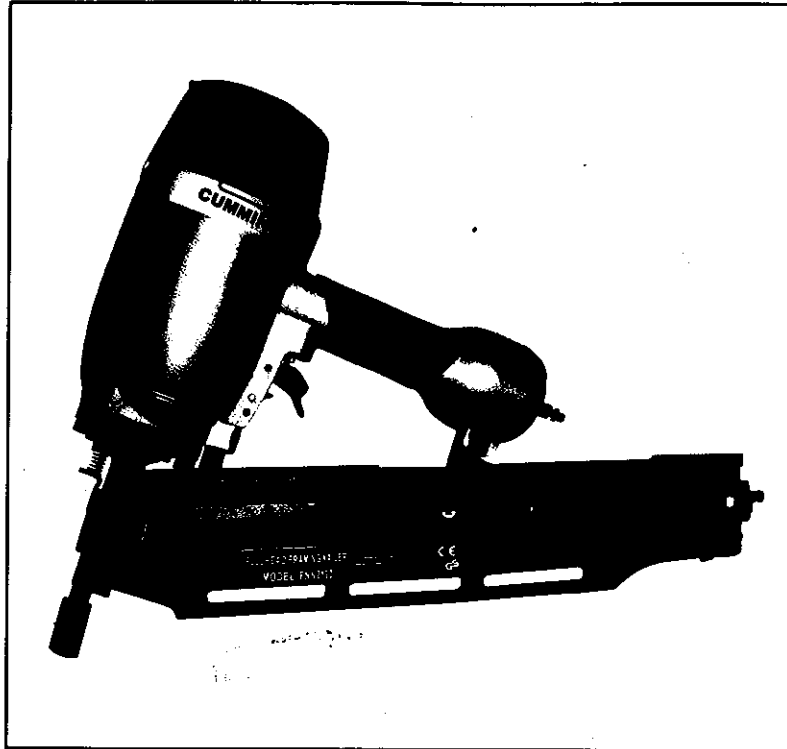




Assembly & Instruction Manual **ITEM 2300**



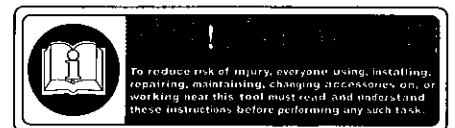
21 DEGREE AIR FRAMING NAILER

THANK YOU FOR BUYING CUMMINS INDUSTRIAL TOOLS
You can purchase additional items at
www.cumminstools.com

SAVE THIS MANUAL FOR FUTURE REFERENCE



Customer Service Postal Address:
1290 35 Road
Minden, NE 68959
Voice: 1-(308) 832-2070
Fax: 1-(308) 832-2069



Your new 21 Degree Air Framing Nailer has been engineered and manufactured to Cummins Industrial Tools high standards for dependability, ease of operation, and operator safety. Pay close attention to the Rules for Safe Operation, Warnings, and Cautions. If you use your machine properly and only for what it is intended, you will enjoy years of safe, reliable service.





SAFETY WARNINGS AND PRECAUTIONS

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment. Read all instructions before using the tool!

- **Work area conditions.** Cluttered areas invite injuries.
- **Additional work area conditions.** Do not use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted.
- **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools or extension cords.
- **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
- **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
- **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
- **Use eye protection.** Always wear ANSI approved impact safety glasses underneath a full face shield during use. Also, wear heavy duty work gloves.
- **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.
- **Maintain tools with care.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. The handles must be kept clean, dry, and free from oil and grease at all times.
- **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before starting work.
- **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
- **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Any part that is damaged should be replaced.
- **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Cummins Industrial Tools.
- **Do not operate tools if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.

WARNING: The warnings, cautions, and instructions discussed in this instruction manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which can not be built into this product, but must be supplied by the operator.

TECHNICAL SPECIFICATIONS

18. Do not load fasteners with trigger or safety depressed, to prevent unintentional firing of a fastener. Fig.12. 
19. Do not overreach. Keep proper footing and balance at all times when using or handling the tool. 
20. Fire fasteners into work surface only: never into materials too hard to penetrate. Do not drive fasteners on top of other fasteners, or with the tool at too steep an angle: the fasteners can ricochet causing personal injury. Fig.13. 
21. Do not drive fasteners close to the edge of the work-piece. The work-piece is likely to split allowing the fasteners to fly free or ricochet causing personal injury. Fig.14. 

Noise Level

A — Weighted Sound Impulse : Power level 97.7 dBA

P — Emission Sound Pressure: Pressure level.....91.3 dBA

Typical Mean Effective Acceleration ... 5.17m/s²

TOOL SPECIFICATION TABLE

Tool Type	1790	2190	2890	3490
Working Pressure Range	0.5 ~ 0.8 MPa (75 ~ 120 PSI)			
Collation / Angle	Plastic / 17°	Plastic / 21°	Paper / 28°	Paper / 34°
Fastener Range	50mm ~ 90mm (2" ~ 3½")			
Fastener Head Diameter	Full Head 3mm ~ 7.6mm (0.118"~0.298")		Clipped Head 3mm ~ 7.6mm (0.118"~0.298")	
Fastener Shank Diameter	2.8mm ~ 3.6mm (0.110" ~ 0.142")			
Magazine Capacity	75 nails	75 nails	100 nails	100 nails
Tool Length	510mm (20.079")			
Tool Width	130mm(5.118")	145mm(5.709")	175mm(6.890")	200mm(7.874")
Tool Height	380mm (14.961")			
Net Weight	3.8kgs (8.379lbs)			

FUNCTIONAL DESCRIPTION

FOREWORD

This tool series are heavy-duty pneumatic framing nailers. They are designed to install $\varnothing 2.8 \sim 3.6$ mm (0.110" to 0.142") diameter, plastic or paper collated round head (orclipped head), framing nails of various lengths from 2" to 3½" with collation angles 17° for FNN1790, 21°for FNN2190, 28° for FNN2890, 34° for FNN3490.

NOTE For recognizing the tool type correctly, please refer to the individual satellite manual and the label on the magazine.

WARNING Use the right and quality fasteners only!

POWER SOURCE

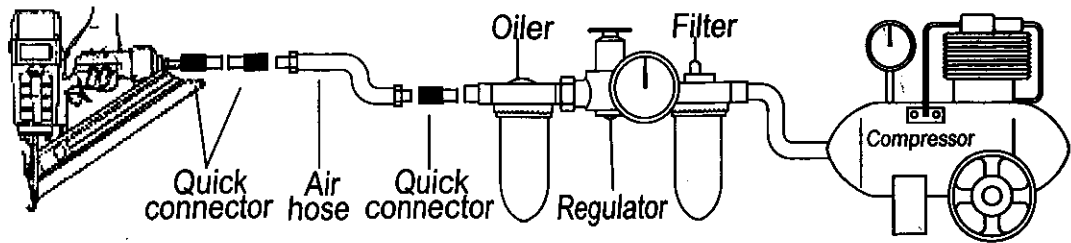
The preferred air supply system would include a filter, a pressure regulator, and an automatic oiler located as close to the tool as possible, within 15 ft (4.6m) is ideal.

An air line filter will remove most of these contaminates and significantly prolong the life of the tool. If an in-line oiler is not available: place five or six drops of Air Tool Oil into the tool's air inlet at the beginning of each workday.

PREPARING THE TOOL

The following illustration shows the correct mode of connection to the air supply system.

OPERATING INSTRUCTION



1. After reading and understanding this entire manual, connect tool to air supply (Fig.15.)
 - Always connect tool to air supply before loading fasteners (Fig.15).
 - Do not load fasteners with trigger or safety depressed.
 - Only use the right and quality fasteners.
 - Operator and others in work area **MUST** wear safety glasses with side shields.
 - Never use a tool that is leaking air, has missing or damaged parts, or requires repair.
2. Pull follower all the way to the rear, until it latches (see Fig.16.).
3. Orient a strip of nails with points down (see Fig.17), and drop into the magazine. Slide fasteners forwards to the front of the magazine. The magazine will hold two full strips of fastener.
4. Pull back on the follower release lever (A) Fig.18, and allow the follower to slide forward against nails.
5. Adjust directional exhaust deflector (A) Fig.19, so that the exhaust air blast will be directed away from the operator: loosen deflector retaining screw (B) Fig. 19, rotate deflector to desired position for the current application and tighten retaining screw.



Fig.15



Fig.16



Fig.17



Fig.18



Fig.19

Keep fingers **AWAY** from trigger when not driving fasteners to avoid accidental firing.

⚠WARNING⚠ Disconnect tool from air supply before performing maintenance, clearing a jammed fastener, leaving work area, moving tool to another location, or handling the tool to another person.

⚠WARNING⚠ Clean and inspect tool daily. Carefully check for proper operation of trigger and safety mechanism. **Do Not** use the tool unless both the trigger and the safety mechanism are functional, or if the tool is leaking air or needs any other repair.

The depth to which a fastener is driven is controlled by the depth adjustment (A) Fig.20. The depth of drive is factory adjusted to a maximum setting. Test fire a fastener A and check depth. If a change is desired: loosen locking screw (B) Fig.20, slide adjustment to desired position and retighten locking screw (sliding the two members closer together increases the depth of drive, sliding the two members farther apart decreases the depth of drive). Test fire another fastener and check depth. Repeat as necessary to achieve desired results. The amount of air pressure required will vary depending on the size of the fastener and the material being fastened. Experiment with the air pressure setting to determine the lowest setting that will consistently perform the job at hand. Air pressure in excess of that required can cause premature wear and/or damage to the tool.

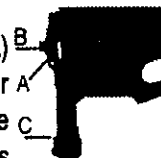


Fig.20

A rubber no-mar tip (C) Fig.20, is provided to reduce marring of the work surface. The rubber cushion can be pulled off to provide increased depth-of-drive for toenailing applications. Disconnect tool from air supply before removing or reinstalling rubber cushion.

CLEARING A JAMMED FASTENER

⚠WARNING⚠ Disconnect tool from air supply!

1. Remove any remaining fasteners from the nailer.
 - A. Pull pusher follower all the way to the rear, until it latches (see Fig.22)
 - B. Slide fasteners to the rear, and remove from magazine (see Fig.23)
2. Use a pair of needle nose pliers and/or a flat screwdriver to free bent fastener from back of nosepiece (see Fig. 24). If fastener cannot be removed as described, it may be necessary to remove the magazine as follows:
 - a) Remove two screws (one on each side of tool) (A) Fig.25.
 - b) Remove two nuts (B) Fig.25.
 - c) Slide magazine back, off of nosepiece.
 - d) After clearing bent fastener, reverse above to reassemble. .



Fig. 22

Fig. 23



Fig. 24

Fig. 25

MAINTENANCE & REPAIR

CLEAN AND INSPECT DAILY

⚠WARNING⚠ Disconnect tool from before cleaning and inspection. Correct all problems before placing the tool back in use. Wipe tool clean and inspect for wear or damage. Use non flammable cleaning solutions to wipe exterior of tool only if necessary. **DO NOT SOAK** tool with cleaning solutions. Such solutions can damage internal parts.

Inspect trigger and safety mechanism to assure system is complete and functional: no loose or missing parts, no binding or sticking parts.

Keep all screws tight. Loose screws can cause personal injury or damage tool.

If tool is used without an in-line oiler: place 5 or 6 drops of tool oil into the air inlet of the tool at the beginning of each workday.

SERVICE AND REPAIRS

All quality tools will eventually require servicing or replacement of parts due to wear from normal use. These operations **ONLY** be performed by should a licensed professional technician. Never try to repair the tool by yourself.

TROUBLESHOOTING

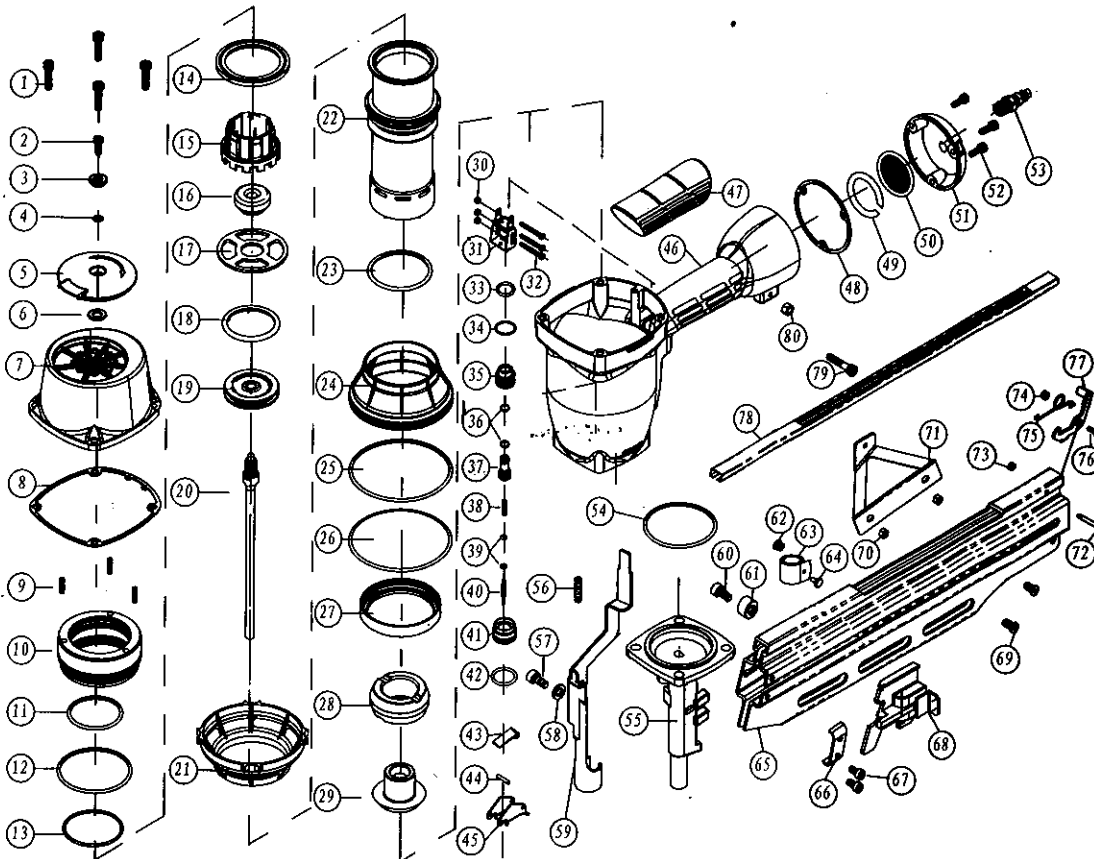
⚠WARNING⚠ Disconnect tool from air supply before performing any Service Procedure!

No.	SYMPTOM	PROBLEMS	SOLUTIONS
1.	Air leak near top of tool or in trigger area.	Loose screws. Worn or damaged o-rings or seals.	Tighten screws. Install Overhaul Kit
2.	Tool does nothing or operates sluggishly.	Inadequate air supply. Inadequate lubrication. Worn or damaged O-rings or seals.	Verify screws. Install Overhaul Kit
3.	Air leak near bottom of tool.	Loose screws. Worn or damaged O-rings or bumper.	Tighten screws. Install Overhaul Kit
4.	Tool jams frequently.	Incorrect fasteners. Damaged fasteners. Magazine or nose screw loose. Magazine is dirty. Driver is worn or damaged.	Verify fasteners of correct size. Replace w/undamaged fasteners. Tighten screws. Clean screws. Install "DRIVER" Maintenance Kit.
5.	Other		Contact your local dealer for service.

FULL HEAD FRAMING NAILER

HEAVY DUTY

- Replacement Parts List
- Manual de Ptes de Rechange
- Lista de Repuestos



⚠ NOTICE ⚠

The parts listed here in this manual are reference only for service assembly. It does not mean in any way that all the parts can be supplied. Changes might be made without notification.

⚠ WARNING ⚠

might waive your right for product guarantee.

When the tool needs repairing or servicing, it is strongly recommended that you contact your local distributor. Do not disassemble the tool yourself, which

PARTS LIST FOR HEAD CLIPPED ANGLE FRAMING NAILER

No.	Description	Qty
1	Hex Bolt	4
2	Hex Bolt	1
3	Bushing	1
4	O-Ring	1
5	Exhaust Deflector	1
6	Plain washer	1
7	Cylinder Cap	1
8	Cylinder Cap Gasket	1
9	Compression Spring	3
10	Head Valve Piston	1
11	O-Ring	1
12	O-Ring	1
13	O-Ring	1
14	Lining Ring	1
15	Piston Stopper	1
16	Top Bumper	1
17	Top Bumper Seat	1
18	O-Ring	1
19	Piston	1
20	Driver Blade	1
21	Support Collar Upper	1
22	Cylinder	1
23	O-Ring	1
24	Support Collar Lower	1
25	O-Ring	1
26	Plain Washer Ring	1
27	Seal	1
28	Bumper Upper	1
29	Bumper Lower	1
30	O-Ring	3
31	Safety Guide Frame	1
32	Step Pin	3
33	O-Ring	1
34	O-Ring	1
35	Trigger Valve Cage	1
36	O-Ring	2
37	Trigger Valve Head	1
38	Compression Spring	1
39	O-Ring	2
40	Trigger Valve Stem	1

No.	Description	Qty
41	Trigger Valve Body	1
42	O-Ring	1
43	Trigger Plate	1
44	Step Pin	1
45	Trigger Body	1
46	Body	1
47	Rubber Grip	1
48	End Cap Seal	1
49	Loop Retainer	1
50	Filler Net	1
51	End Cap	1
52	Hex Bolt	3
53	Air Plug	1
54	O-Ring	1
55	Driver Guide	1
56	Safety Spring	1
57	Hex Bolt	1
58	Plain Washer	1
59	Safety	1
60	Hex Bolt	1
61	Protect Sleeve	1
62	Roller	1
63	Coil Spring	1
64	Pin	1
65	Magazine Unit	1
66	Retaining Bracket	1
67	Hex Bolt	2
68	Pusher Unit	1
69	Hex Bolt	2
70	Nut	2
71	Magazine Supporter	1
72	Step Pin	1
73	O-Ring	1
74	Hex Nut	1
75	Latch Spring	1
76	Hex Bolt	1
77	Magazine Latch	1
78	Nail Guide Groove	1
79	Hex Bolt	1
80	Hex Nut	1