



## **Operation, Parts and Maintenance Manual Model 16-18 Notcher**



Proudly Made in the USA

Distributed by: **Trick-Tools.com**

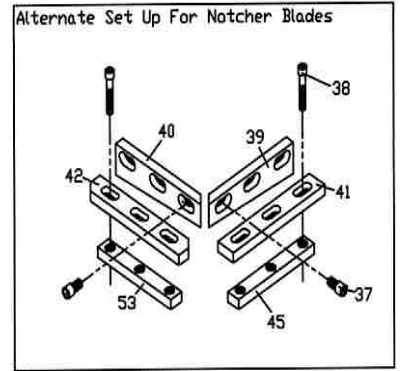
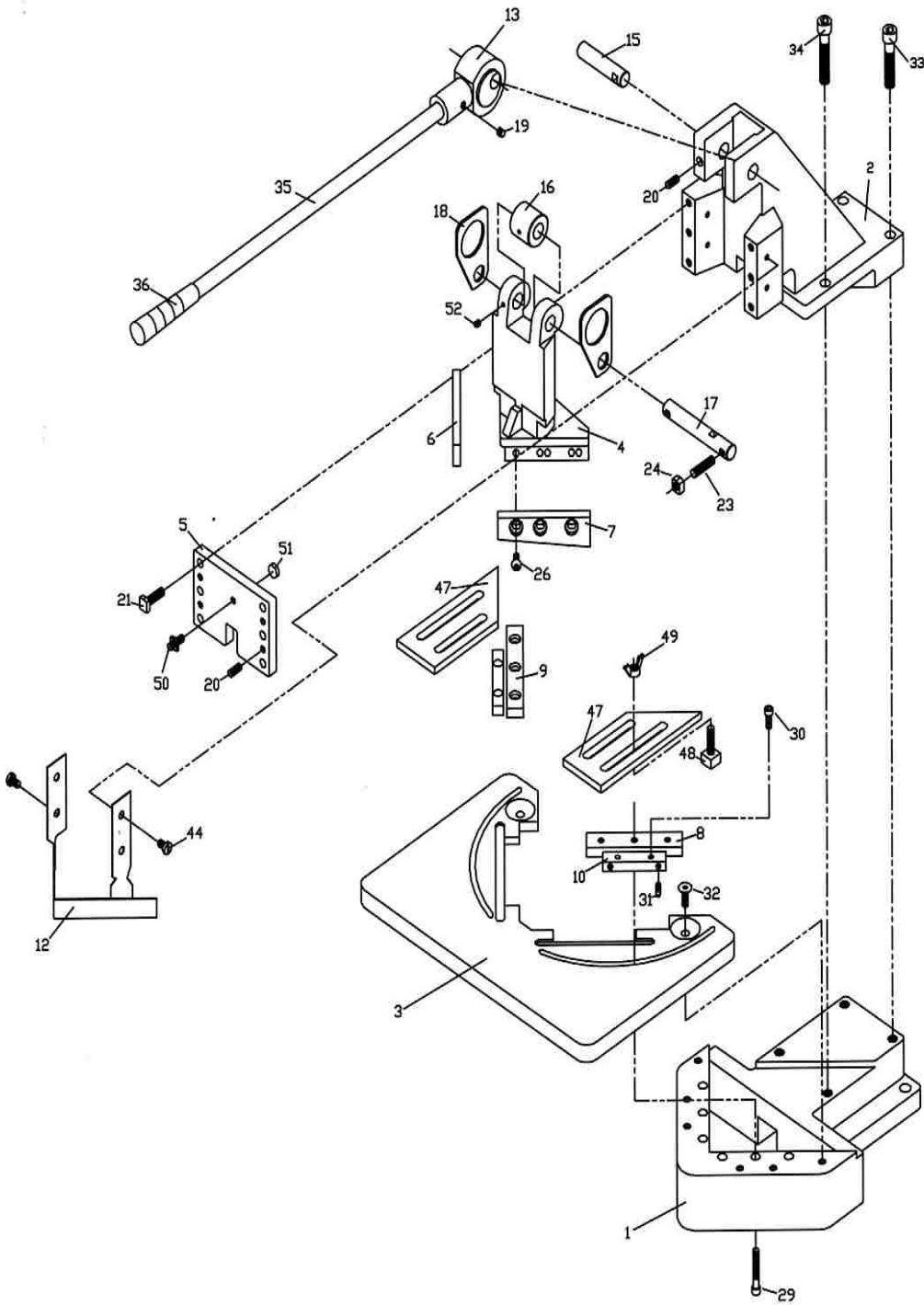
Trick-Tools  
80 Truman Road  
Pella, IA 50219

Phone:1-877-VAN-SANT  
E-mail: [sales@trick-tools.com](mailto:sales@trick-tools.com)



Here at Trick Tools we believe that our customers deserve the best value in their tool and equipment purchases. We are constantly at work searching out a variety of high quality, high performance tools to offer at the best prices possible. Our commitment to you is that we will not offer “cheap junk” anywhere on our website. You, the customer, help us to evaluate our products constantly and as soon as an ongoing quality issue is uncovered we will correct it or discontinue that product immediately. We hope to earn your continued trust.

# 16-18 Gauge Notcher Parts View



## 16-18 Gauge Notcher / Parts List

<b>Part #</b>	<b>Description</b>	<b>Qty.</b>
N-1	Base	1
N-2	Head	1
N-3	Table	1
N-4	Ram	1
N-5	Plate, Ram Adj.	1
N-6	Knife, Upper Left Hand	1
N-7	Knife, Upper Right Hand	1
N-8	Knife, Lower Right Hand	1
N-9	Knife, Lower Left Hand	1
N-10	Adj. Brkt. Lower Knife	2
N-12	Safety Guard	1
N-13	Cam Assembly	1
N-15	Pin, Cam	1
N-16	Roller	1
N-17	Pin, Roller	1
N-18	Linkage, Ram Raising	2
N-19	Screw, Lever Lock	1
N-20	Screw, Cam Pin Lock	1
N-21	Screw, Adj. Plate	6
N-22	Set Screw, Adj. Plate	4
N-23	Screw, Ram Adj.	1
N-24	Nut, Ram Adj. Screw	1
N-25	Screw, Upper Knife	4
N-26	Screw, Upper Knife Front	2
N-27	Washer, Lower Knife	6
N-28	Nut, Lower Knife	6
N-29	Screw, Lower Knife	6
N-30	Screw Adj. Brkt., Lower Knife	4
N-31	Adj. Screw, Brkt., Lower Knife	4
N-32	Screw, Table	2
N-33	Screw, Head	3
N-34	Screw, Head	1
N-35	Handle	1
N-36	Handle, Grip	1
N-43	Guard, Knife	1
N-44	Screw, Guard	4
N-46	Floor Stand (Optional)	1
N-47	Protractor	2
N-48	Tee Stand	2
N-49	Wing Nut	1
N-50	Adj. Screw, Ram	1
N-51	Brass Shim	1
<b>For Optional Box Flange (Tab Blades) Notcher</b>		<b>Qty</b>
N-37	Screw, Upper Tab Knife	6
N-38	Screw, Lower Tab Knife	6
N-39	Knife, Upper R.H. Tab (optional)	1
N-40	Knife, Upper L.H. Tab (optional)	1
N-41	Knife, Lower R.H. Tab (optional)	1
N-42	Knife, Lower L.H. Tab (optional)	1
N-45	Brkt., Lower Tab Knife Mtg.	2

## **SAFETY INSTRUCTIONS**

1. Know the safety and operating instructions contained in this manual prior to operation of this notcher. Become familiar with and understand the hazards and limitations of this notcher. Always practice safety.
2. Wear approved eye safety protection, such as safety glasses or goggles, etc., when operating the notcher to protect your eyes.
3. Protective type footwear should be worn, and jewelry such as rings, watches, necklaces, etc., should be removed prior to operation of this notcher.
4. Do not remove the front safety guard (Index # 12). This is a protective device. If the hold-down is inoperable, immediately disconnect the handle (index #35) to the machine, and contact Tennsmith or your authorized distributor for a replacement part.
5. Keep the safety guard (Index #12) at the minimum gap required to feed the material into the notcher. The gap should never be higher than 3/16" from the table. If you have questions regarding the safety guard, please consult the factory.
6. Always keep hands clear of the blade.
7. Do not misuse the notcher by using it for other than its intended purpose.
8. Never exceed the rated capacity of this machine.
9. Keep the work area clear and clean to avoid tripping or slipping.
10. Any malfunction or abnormality pertaining to this machine should be reported to the maintenance supervisor immediately.



# **Model 16-18 Operating Instructions**

## **Installation**

Remove machine from shipping crate. Position the notcher with material drop-out overhanging the edge of work bench. Level and bolt in place. Lubricate moving parts prior to use.

## **Blade Adjustments**

1. Remove table (#3).
2. Position the ram (#4) at the bottom of stroke.
3. Loosen the lower blade bolts (#29) and lightly tighten the bolts.
4. Use the adjustment screw (#31) mounted on the side of the adjustment bracket (#10) to bring the blade gap to approximately .002" between the blades. A general rule for required clearance is 6% of material thickness.
5. Securely fasten blade bolts (#29).
6. Reinstall table.

## **Standard Blades**

The upper standard blades (#6) (#7) are factory set for "splay" cutting. This method provides that the cutting begins at the outside edge of the material. The unit's capacity at this setting is 16 gauge. The notcher is also capable of piercing. To accomplish this, interchange blades (#6) and (#7) end for end so that the cut begins at the apex or corner of inside cut. Align blades flush at the point and tighten blades securely. Coping with the unit is performed with the blades installed in this configuration. In the Piercing mode, the notcher's capacity is reduced to 18 gauge mild steel.

## **Box Flange "Tab" Blades (Optional)**

1. To install box flange blades, remove table (#3) and the four standard blades (#6, 7, 8, 9).
2. Mount top right-hand blade, which will be the longer blade (#39), and the top left-hand blade (#40) using the 3/8 socket head cap screws (#37) provided. Tighten screws lightly to position blades.
3. Slide top right blade until it extends past the edge of the left blade to the desired length of the notch. With factory installation, this dimension is approximately 1/8". Tighten all bolts securely.
4. Mount the bottom blades clear of the top blades and bring the ram to the bottom of its stroke.
5. Set the bottom left blade's beveled edge so that it just contacts the bottom right blade.
6. Set normal blade clearance of .002" at all points along the cutting edge and tighten bolts.
7. Check for proper clearance before use.

## **Depth of Cut**

The ram (#4) stroke is determined by the adjustment of the two set screws (#23) located on the roller pin (#17). Adjust the screws to the desired depth of cut and lock in place with lock nuts (#24). This variable stroke capability is most useful when performing coping or knock-out operations with the blades set in the piercing configuration.

## **Ram Brake**

The adjusting screw and locking nut (#50) is intended to act as a drag on the ram to prevent the free fall of the handle and blades.

## **CAUTION**

This adjustment should be periodically checked and maintained to insure safe operation.

## **Opening Throat**

The notcher's throat can be opened by removal of the head bolt (#34). This will permit squaring or cut-off shearing of any length up to 6-Inches wide.

## **Slitting**

Strips up to 6-Inches can be slit from sheets of any width. To attain this, remove the upper left blade and mount the upper right blade in the "splay" cutting position. Open the throat and set gauge accordingly.

## **CAUTION**

To prevent machine damage always replace head bolt (#34) when performing notching operations.

## **Ram Adjustments**

After a period of time, it may become necessary to compensate for normal wear. To accomplish this, back off the four adjusting plate set screws (#22) and evenly tighten the cap screws (#21) until the ram is held relatively snug. Then, tighten the set screws (#22) alternating from side to side until the ram has proper fit. Lubricate ways.

## **Maintenance**

Monthly lubrication of the ram ways and pivot points will insure years of service from the machine.

## **3-YEAR LIMITED WARRANTY**

TENNSMITH machinery and component parts are carefully inspected at various stages of production and are tested and inspected prior to shipment. We agree that for a period of twelve (12) months from the date of delivery from our authorized distributor to replace, at our option, any machine (or component part thereof) proving defective within the above period. Additionally, we agree that for a period of thirty-six (36) months from date of delivery to replace component parts proving defective within the stated period. All warranty claims are made F.O.B. our plant, providing such machine (or component part) is returned freight prepaid to our plant, or a designated service center of the undersigned, for our examination. This warranty does not include repair or replacement required because of misuse, abuse, or because of normal wear and tear; or electrical components which are warranty by their manufacturer. Further, we cannot be responsible for the cost of repairs made or attempted outside our factory or designated service center without our authorization. No claims for defects will be honored if the name and data plate has been removed. This warranty is made expressly in place of all other warranties or guarantees express or implied, with respect to fitness, merchantability, quality or operative ness. This warranty becomes effective only when the accompanying warranty card is fully and properly filled out returned to the factory within ten (10) days from date of delivery.



**TENNSMITH**  USA

### **Model 16-18 Notcher Specification**

<b>Model</b>	<b>16-18</b>
Capacity, mild steel	16ga / 1,6mm
Capacity piercing, mild steel	18ga / 1,25mm
Notch	6 x 6 in x 90 238 x 257x 381 mm
Maximum lift of beam	1-7/8in / 47mm
Weight	170 lbs / 77 kg