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#20 STYLE TOOLING

PARTS MANUAL

**The tooling in this manual is
for our current PF45 and
50 Ton Ironworkers.**

**For older machines, please
call the factory for assistance.
1-800-843-8844**



www.scotchman.com

#20 STYLE TOOLING PARTS MANUAL

PRINTED DECEMBER 2023

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1.0 INTRODUCTION

This manual contains all of the optional tools available for all Scotchman model Ironworkers that use the #20 style tooling in the punch area of the machine.

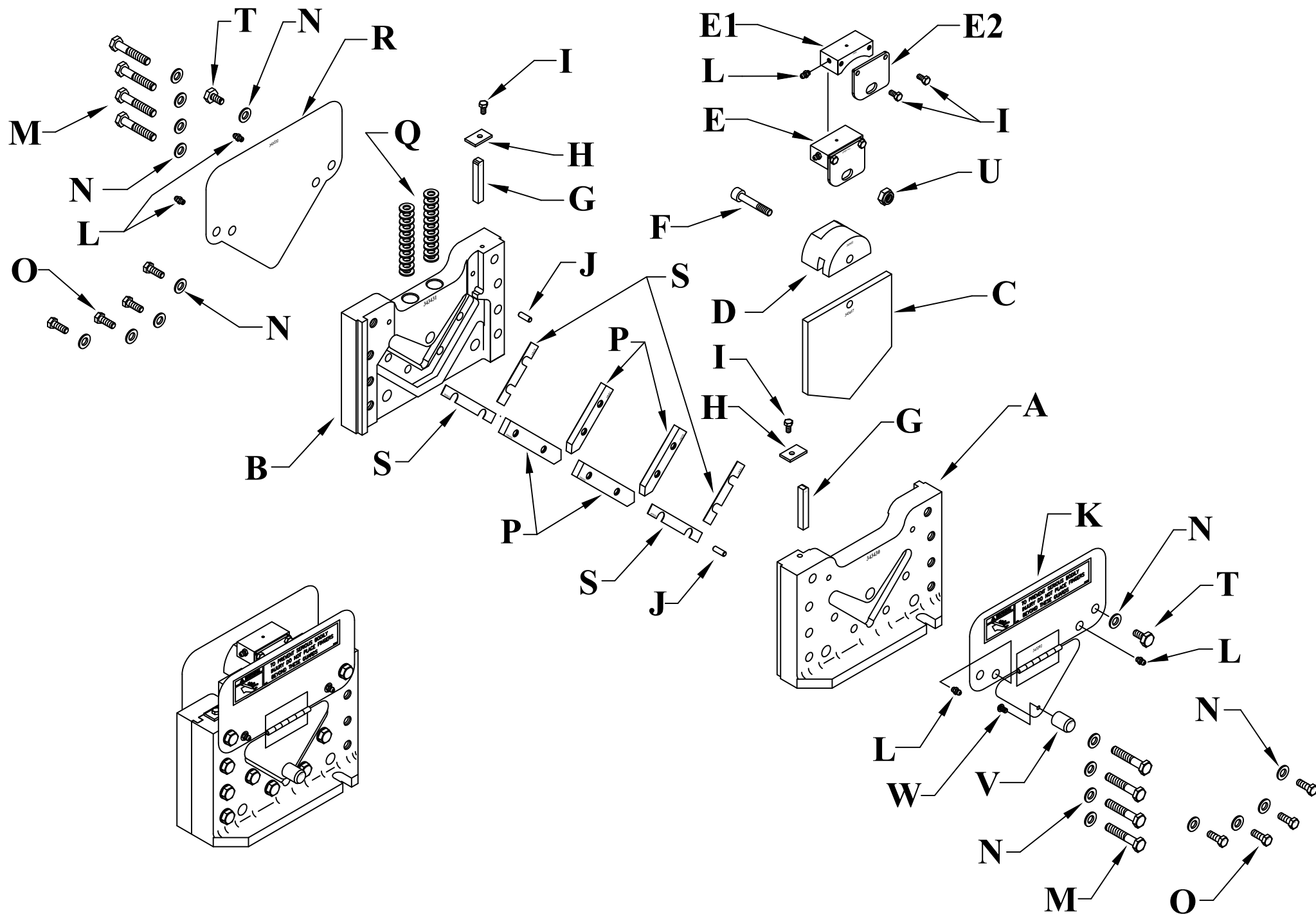
 **PLEASE NOTE THAT THERE MAY BE PARTS PICTURED THAT DO NOT PERTAIN TO THE PARTICULAR MODEL THAT YOU OWN. PLEASE PAY ATTENTION TO SPECIFIC MODELS WHEN ORDERING PARTS.**

This manual is for parts ordering information, only. All operating and set-up instructions are contained in the operator's manual that you received with your machine or the instructions that came with the tool.

2.0 TOOLING PARTS

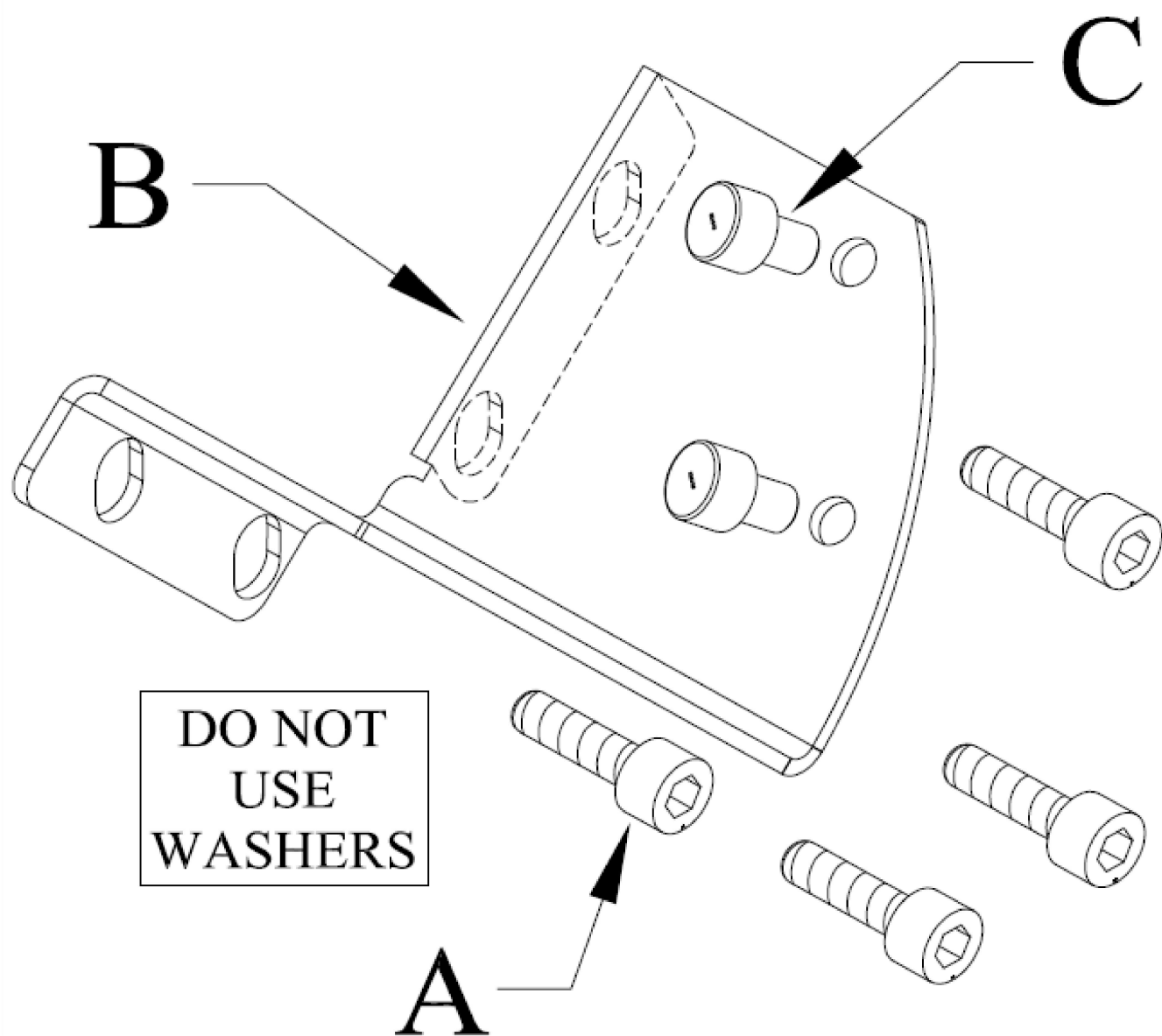
2.1 4 X 4 ANGLE SHEAR (Started on 5014-TM in February 2003)

ITEM	QTY	PART #	DESCRIPTION
A	1	343430	Front Side Plate
B	1	343431	Rear Side Plate
C	1	343417	Top Angle Blade 4 x 4
D	1	343432	Blade & Spring Cap
E	1	430281	Rocker Cap Assembly A.S. (Includes E1 & E2)
E1	1	430381	Pressure Block A.S.
E2	1	430241	Rocker Plate
F	1	221227	M-10 x 55 SHCS
G	2	343420	Wear Strip
H	2	026746	Retainer, Wear Strip
I	2	201110	M-6 x 12 HHCS
J	2	343002	1/4 x 3/4 Dowel Pin
K	1	343202	4' A.S. Front Guard Assembly
L	4	243101	M-6 x 13.5 OAL Gold Zerk
M	8	204222	M-10 x 55 HHCS
N	18	214012	M-10 Regular Washer
O	8	203212	M-10 x 30 HHCS
P	4	343412	Lower Blade 4 x 4 A.S.
Q	2	016127	3/4 x 4 Die Spring
R	1	343232	4" A.S. Rear Guard
S	2	343423	Shim Lower Blade
T	2	201210	M-10 x 20 HHCS
U	1	215012	M-10 Greer Nut
V	1	330251	Knob A.S. Guard
W	1	220014	M-6 x 10 BHCS
X		343425	Complete 4 x 4 Angle Shear



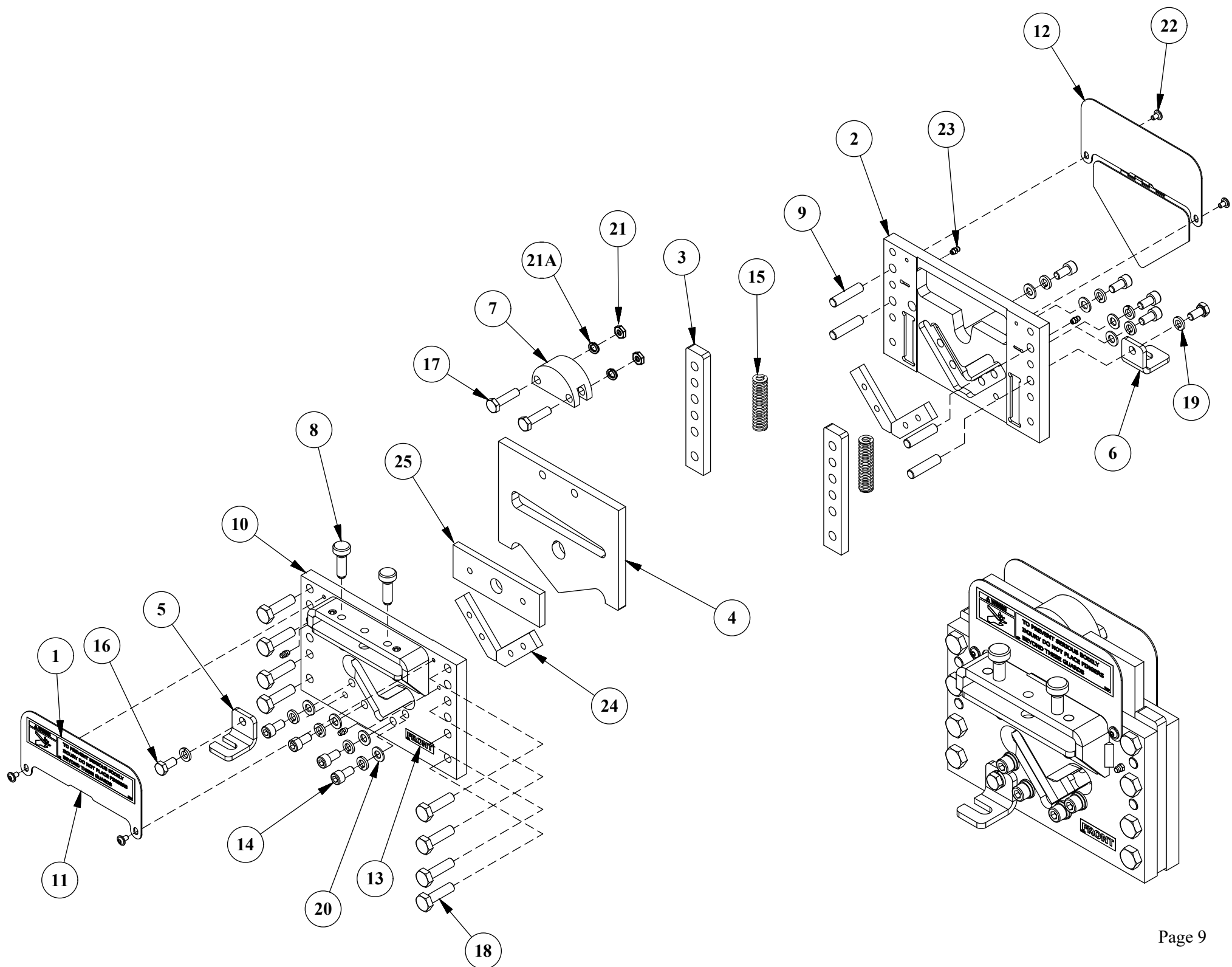
2.2 MITER GUIDE

ITEM	PART	DESCRIPTION
A	221212	M-10 x 30MM SHCS Bolt
B	343440	Angle Shear Miter Attachment
C	026698	Rest Button
	343442	Complete Assembly



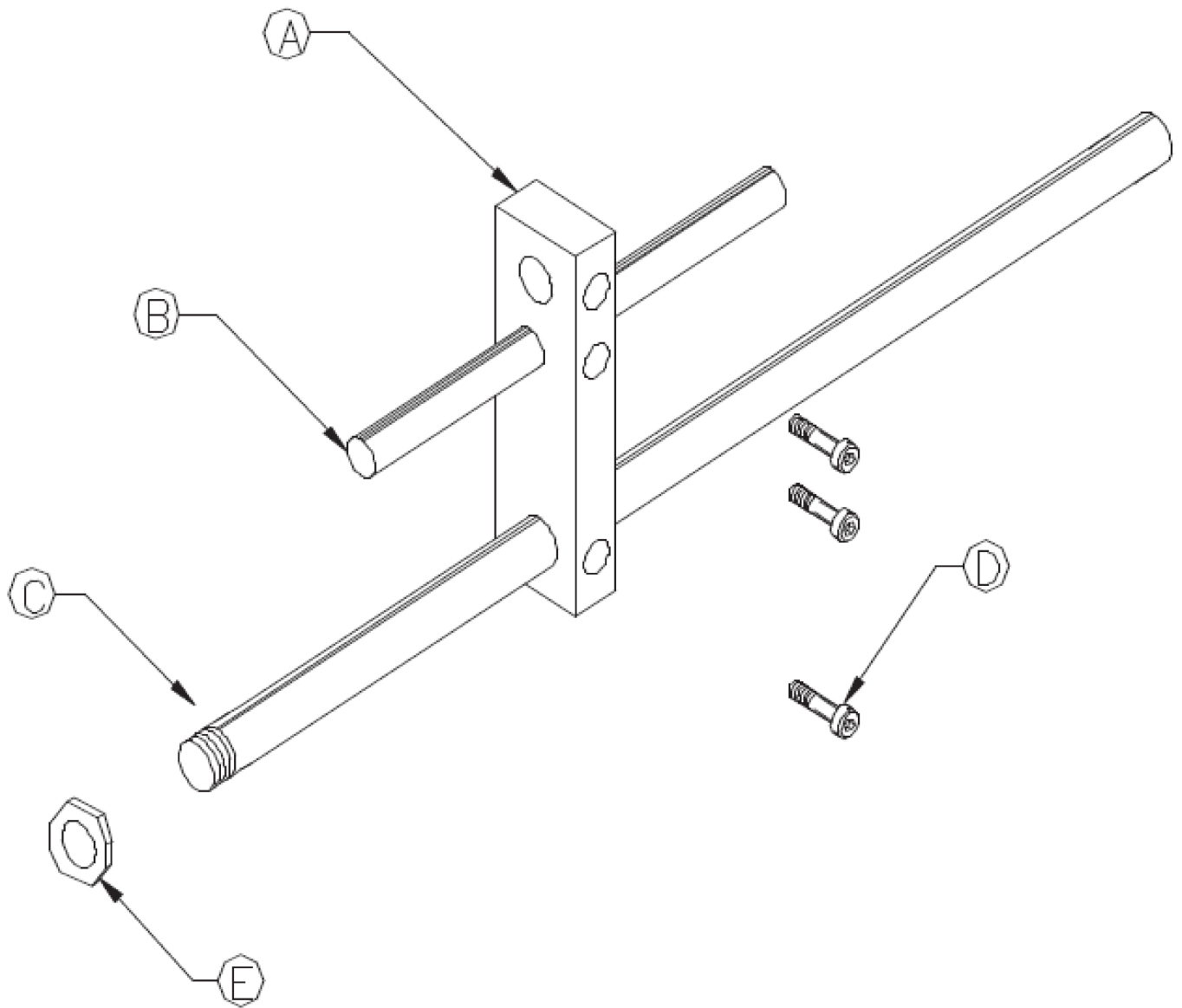
2.3 3 IN 1 COMBINATION TOOL

PARTS LIST			
ITEM	QTY	PART #	DESCRIPTION
1	1	003105	FINGERS BEYOND BAR GUARD
2	1	012353	REAR PLATE MULTI
3	2	012354	GUIDE MULTI TOOL
4	1	012355	UPPER BLADE MULTI TOOL
5	1	012357	FRONT MOUNT MULTI TOOL (BLACK)
6	1	012358	REAR MOUNT MULTI TOOL (BLACK)
7	1	012359	CAP MULTI TOOL
8	2	012366	THUMB SCREWS
9	4	012367	M12 X 50 DIN 6325H DOWEL
10	1	012370	FRONT PLATE ASS'Y MULTI TOOL
11	1	012393	FRONT GUARD PAINTED
12	1	012394	REAR GUARD PAINTED
13	1	016328	ANGLE SHEAR FRONT DECAL
14	8	073626	M10 X 20MM DIN912 SHCS
15	2	160045	3/4 X 3 DIE SPRING
16	2	201210	M10 X 20MM DIN933 HHCS
17	2	201215	M10 X 40MM DIN931 HHCS
18	8	201417	M12 X 45MM DIN931 HHCS
19	10	212012	M10 DIN127 LOCK WASHER
20	8	214012	M10 DIN125 REGULAR WASHER
21	2	210012	M10 DIN439 JAM NUT
21A	2	212012	M10 DIN127 LOCK WASHER
22	4	220016	M6 X 10MM DIN WN11252 BF
23	4	243101	M6 X 13.5 OAL GOLD ZERK
24	4	403412	LOWER A.S. BLADE NEW STY
25	1	012356	BAR BLADE MULTI TOOL



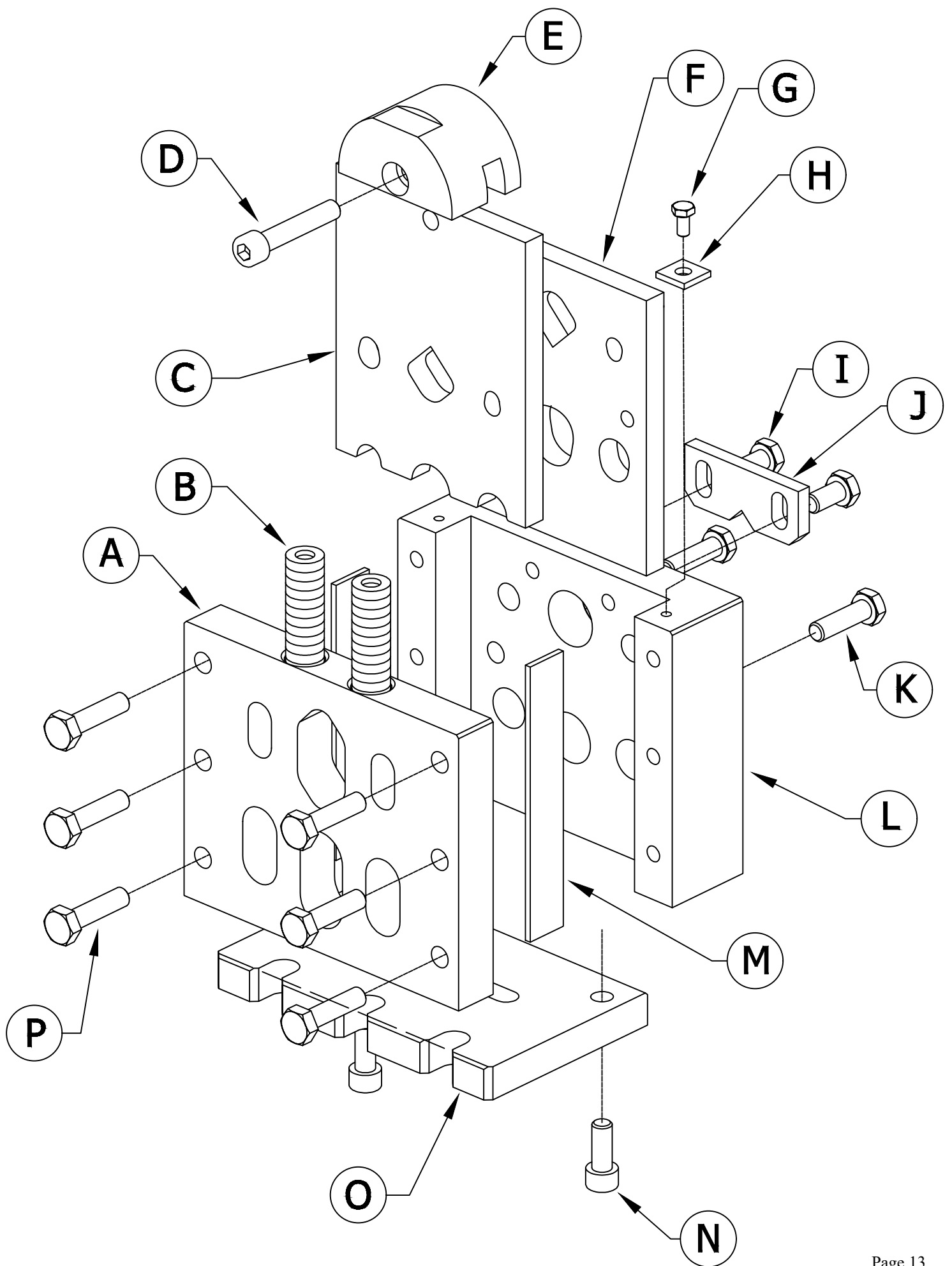
2.3A MATERIAL STOP - 30" - For Three-In-One Tool

ITEM	PART #	DESCRIPTION
A	677436	Stop Clamp
B	060315	Stop Shaft
C	060310	Shaft
D	073460	M-10 x 16 SHCS
E	210016	M-16 Jam Nut



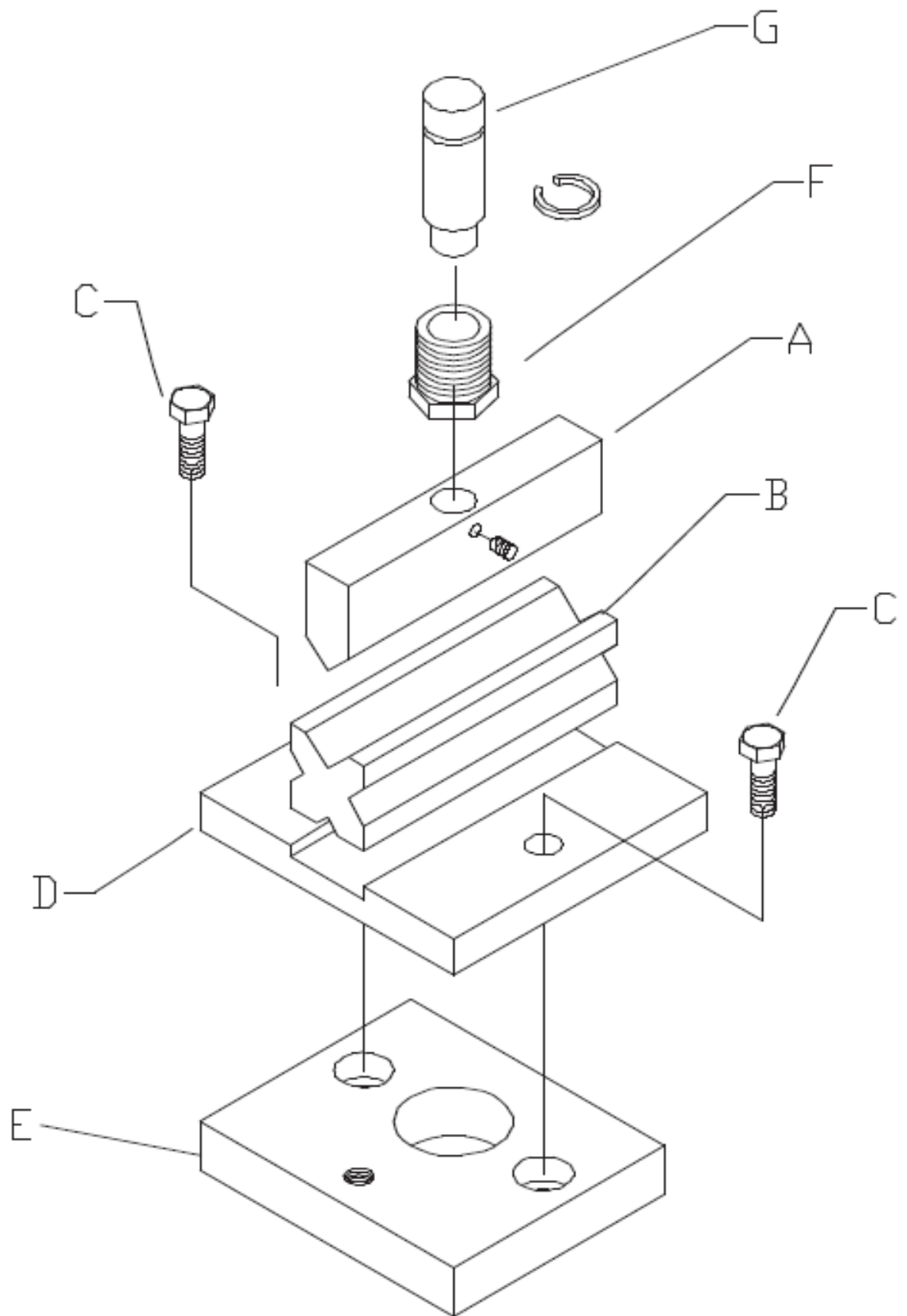
2.4 ROD SHEAR

ITEM	PART #	DESCRIPTION
A	017405	Rear Housing
B	160045	Springs
C	017402	Moving Blade
D	221220	M-10 x 40 SHCS
E	017409	Cap
F	017401	Fixed Blade
G	201110	M-6 x 12 HHCS
H	026746	Retainer
I	201212	M-10 x 35 HHCS
J	017410	Guide
K	201210	M-10 x 20 HHCS
L	017403	Front Housing
M	017411	Wear Strip
N	221210	M-10 x 25 SHCS
O	017407	Base
P	201215	M-10 x 40 HHCS
Q	017400	Complete Tool



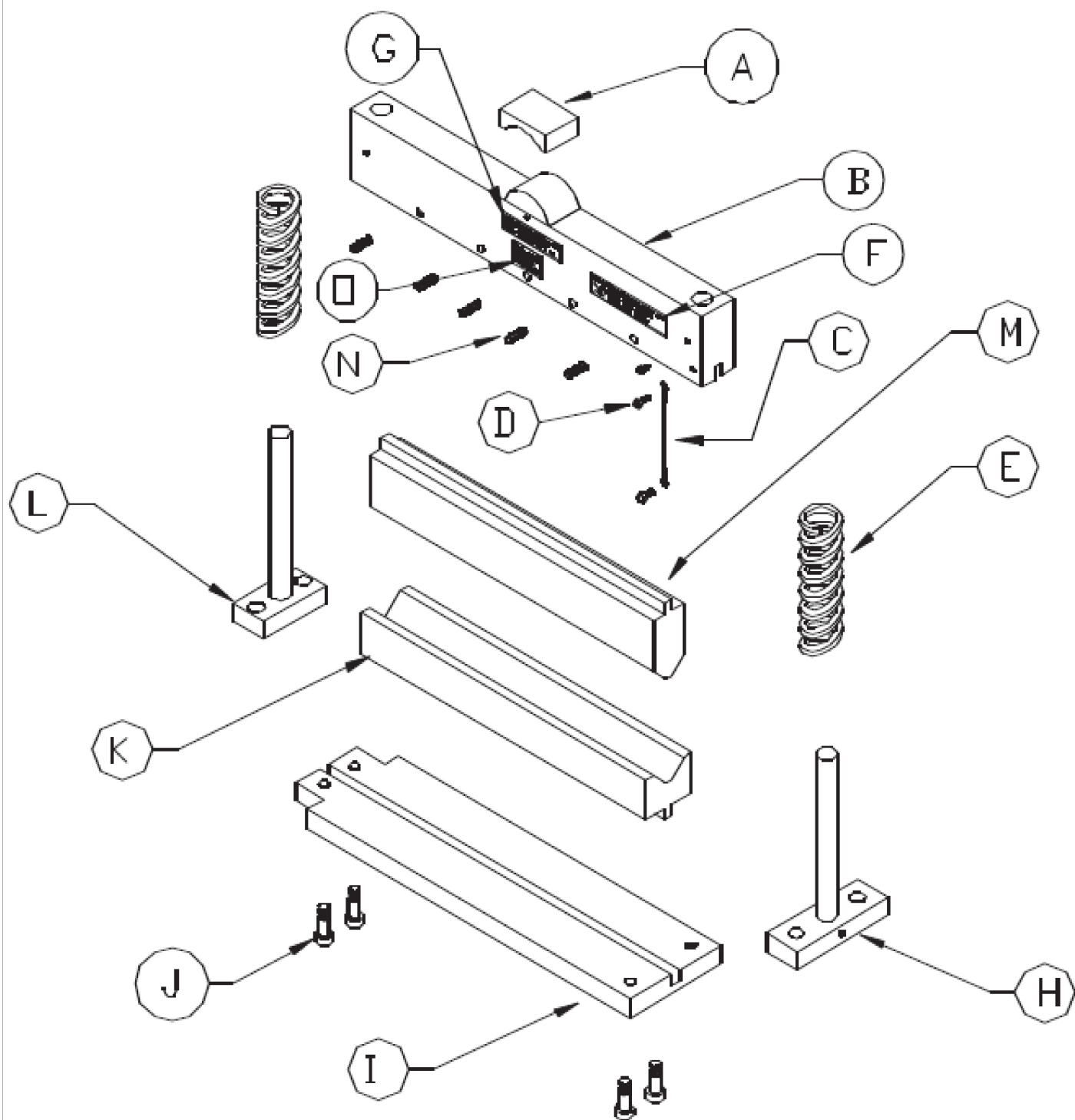
2.5 SIX INCH BRAKE

ITEM	COMMON PART #'S	DESCRIPTION		
		PORTAFAB	5014-CM	
		4014-CM	50514-CM	
		4014-TM		
		5014-TM		
A	001179			Upper Die (Inc. A, F, G & H)
B	001188			Lower Die
C		N/A	205425	M-12 x 65 HHCS
D	001191			Base
E		N/A	500100	Riser (5014-CM Only)
F	000624			Punch Retaining Nut
G	001185			Brake Stem
H	118022			Set Screw
I		001176	540076	Complete Brake



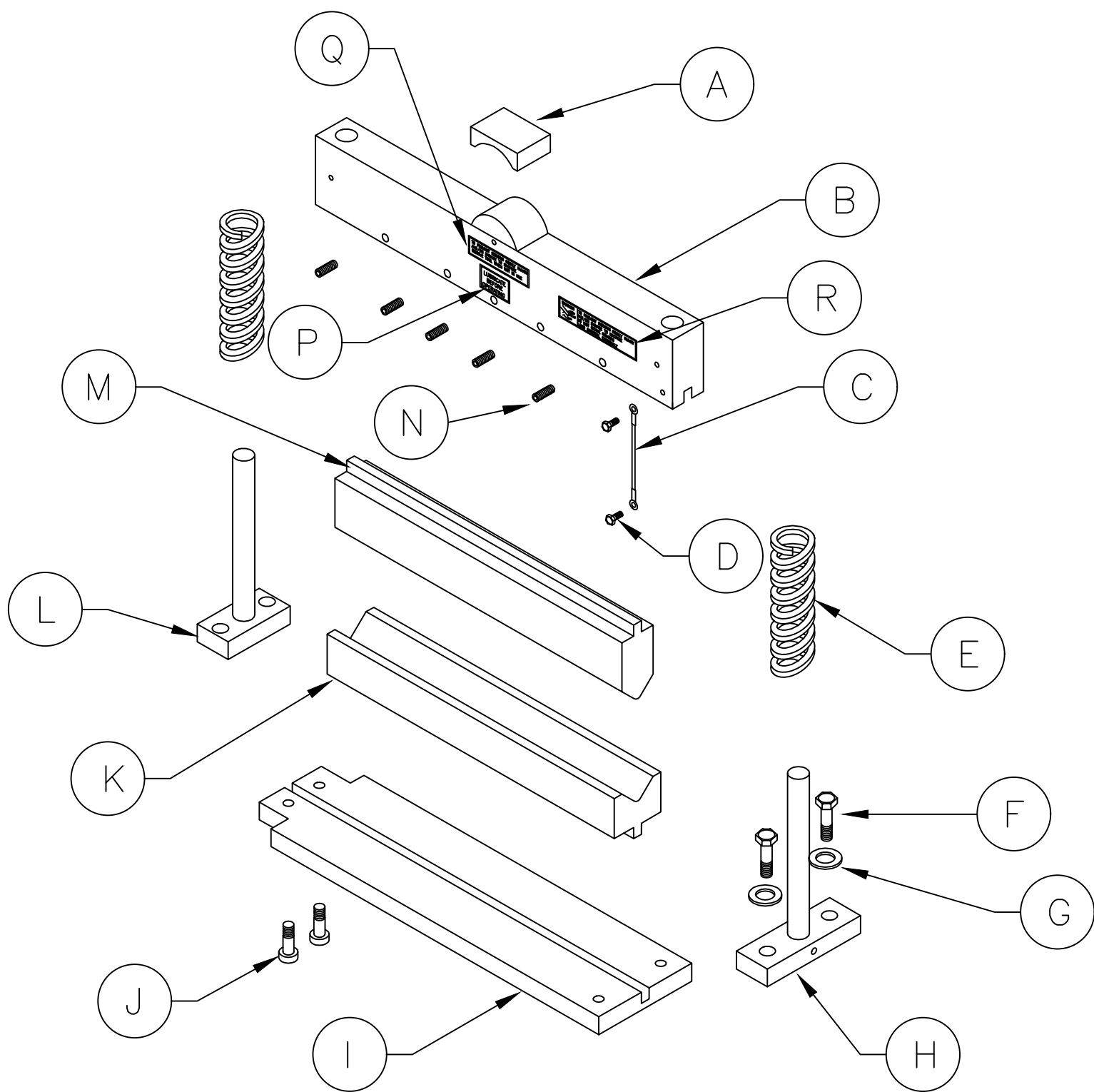
2.6 EIGHT INCH BRAKE

ITEM	PART #	DESCRIPTION
A	433151	Rocker Cap
B	433022	Brake Top
C	016320	Brake Cable
D	221005	M-6 x 16 SHCS
E	016123	Spring
F	221310	M-12 HHCS
G	212014	M-12 Lock Washer
H	433121	Post Assembly
I	433092	Base
J	221310	M-12 SHCS
K	333101	Lower Die
L	433121	Post Assembly
M	333111	Upper Die
N	218048	M-10 Set Screw
Q	003150	Brake Warning
R	003145	Remove Tool
S	433003	Complete Assembly
S1	433103	Brake (Less Dies)



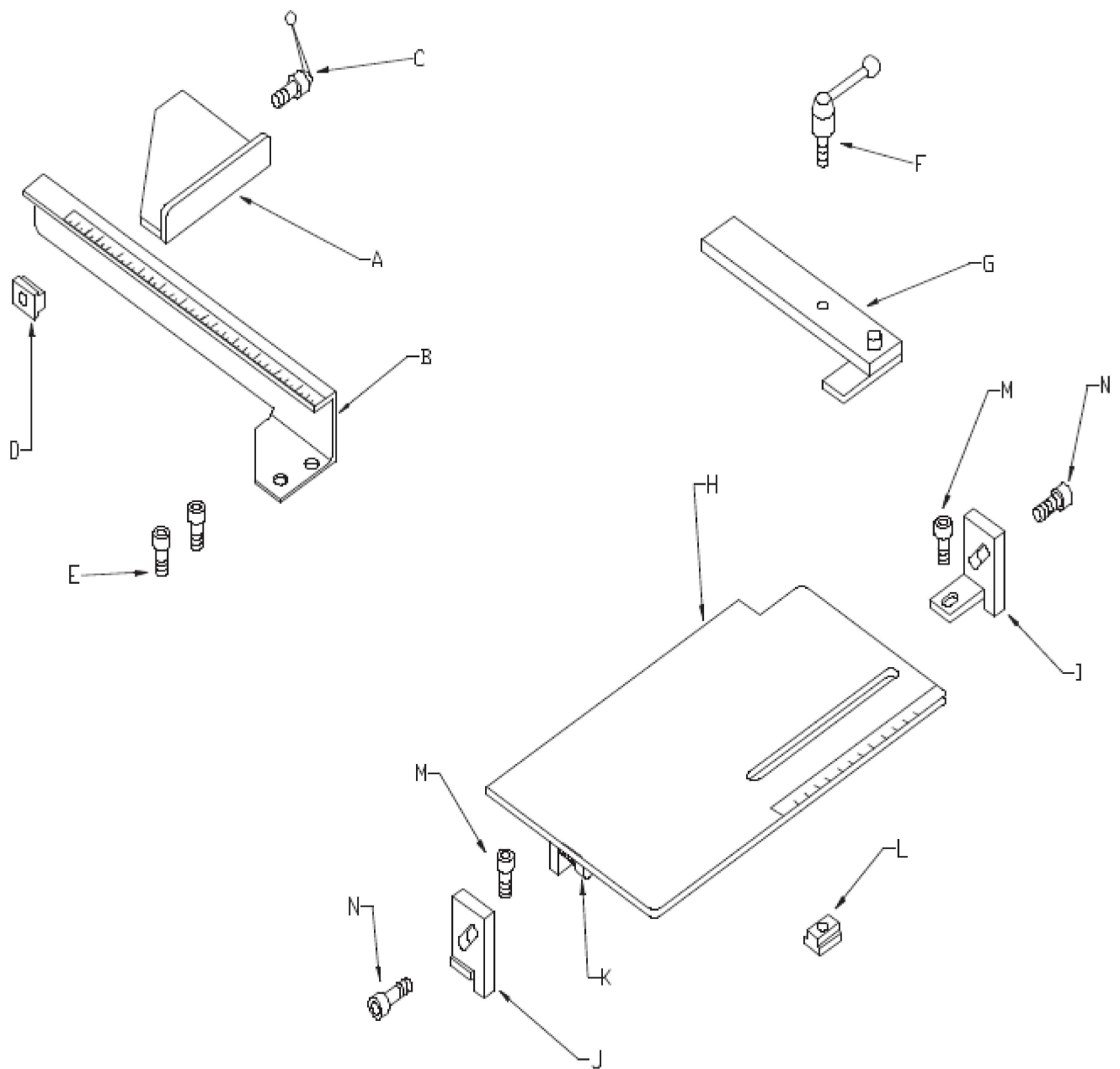
2.7 TWELVE INCH BRAKE

ITEM	PART #	DESCRIPTION
A	433151	Rocker Cap
B	433032	Housing Assembly
C	016320	Brake Cable
D	220016	M-6 x 10 BHCS
E	016123	Spring
F	201412	M-12 HHCS
G	212014	M-12 Lock Washer
H	333061	Post Assembly (Long)
I	433082	Base
J	221310	M-12 SHCS
K	016331	Lower Die
L	433121	Post Assembly (Short)
M	016335	Upper Die
N	218048	M-10 Set Screw
P	019103	Lubrication Decal
Q	003150	Brake Warning
R	003145	Remove Tool Label
S	433000	Complete Assembly
S1	433100	Brake (Less Die)



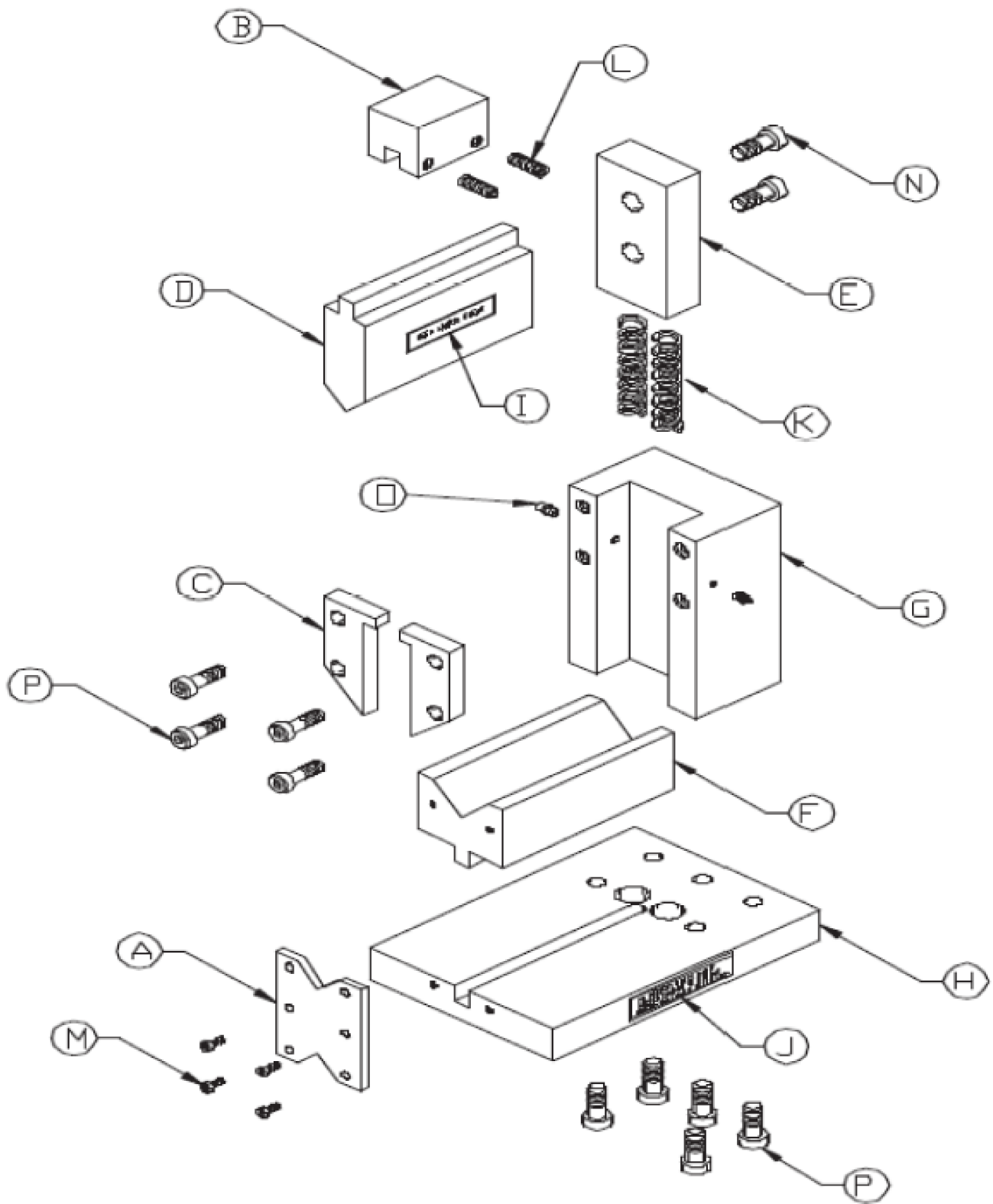
2.8 BRAKE GAUGING TABLES

ITEM	PART #	DESCRIPTION
A	026815	Stop Assembly
B	026818	Rail
C	080061	Handle
D	026618	Tee Nut
E	203210	Mounting Bracket
F	080061	Handle
G	026860	Squaring Arm
H	026839	Table
I	026836	Mounting Bracket
J	026848	Mounting Bracket
K	219060	M-10 SHCS
L	026618	Tee Nut
M	203210	Mounting Bracket
N	221210	M-10 x 25 HHCS
O	019350	Scale
	026800	Complete Stop Assembly
	026865	Complete Table Assembly



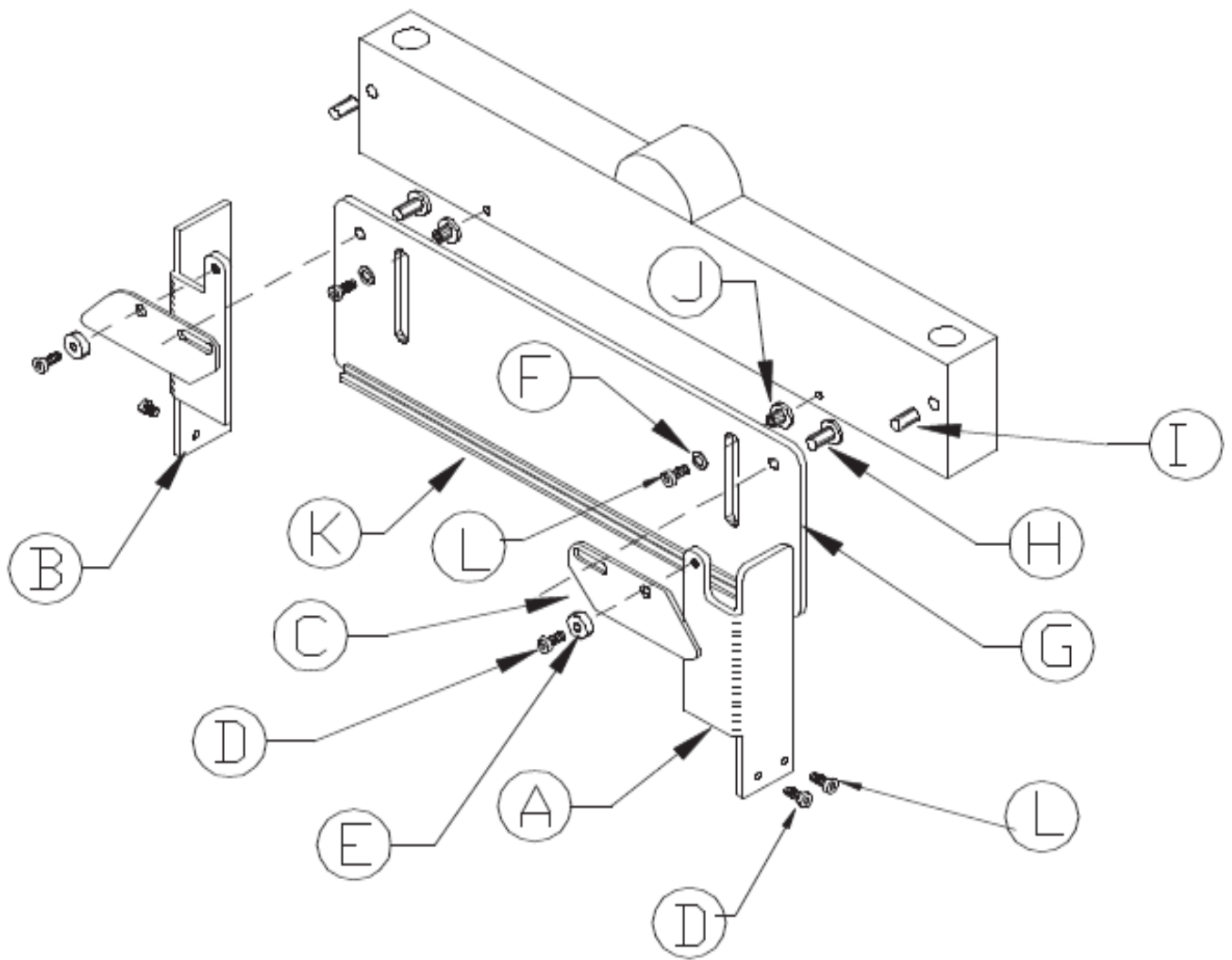
2.9 ANGLE IRON BRAKE

ITEM	COMMON PART #	DESCRIPTION
A	001362	Gauge Brake
B	001365	Pressure Cap Assembly
C	001367	Retainer
D	001369	Upper Die
E	001371	Ram
F	001374	Lower Die
G	001377	Post
H	001380	Base
J	003150	Label (Rounds)
K	016127	Springs
M	221010	M-6 x 16 SHCS
N	221417	M-16 x 45 SHCS
O	243101	M-6 Grease Nipple
P	221312	M-12 x 30 SHCS
	001360	Complete Tool



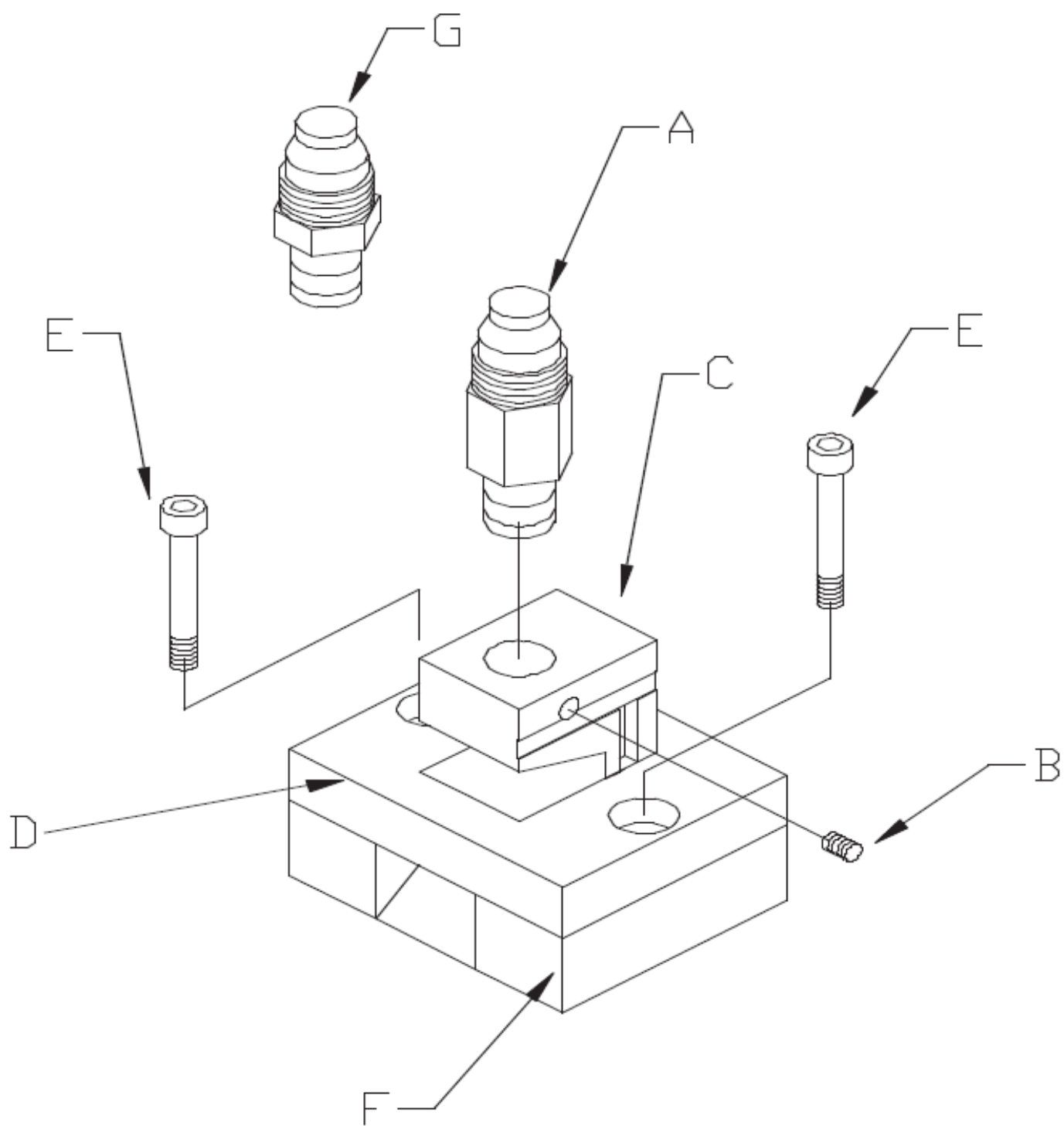
2.10 BRAKE GUARDS

ITEM	PART #	DESCRIPTION
A	029313	Right Bracket
B	029310	Left Bracket
C	029355	Lifter
D	073619	M6 x 20 SHCS
E	016301	Lever Boss
F	213007	M-6 Washer
G	016321	8" Shield
	016326	12" Shield
H	016342	Shield Peg
I	077100	Dowel Pin
J	016360	Shield Boss
K	016346	Alum Stiffner - 8" & 12" Brakes
	016350	8" Brake Guard Assembly
	016352	12" Brake Guard Assembly
L	073619	M6 x 20 SHCS



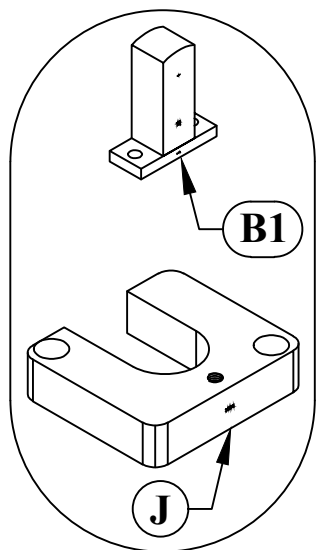
2.11 RECTANGLE NOTCHER

ITEM	COMMON PART#	PORTAFAB	5014-CM	DESCRIPTION
		4014-CM		
		4014-TM		
		5014-TM		
A			500101	Stem (5014-CM Only)
B	219047			M-10 Set Screw
C	440013			Ram
D	340003			Die
E	221327			M-12 SHCS
F	340032			Riser
G		340031		Stem
H		440000	540000	Complete Tool
I		000624		Jam Nut (Not Pictured)

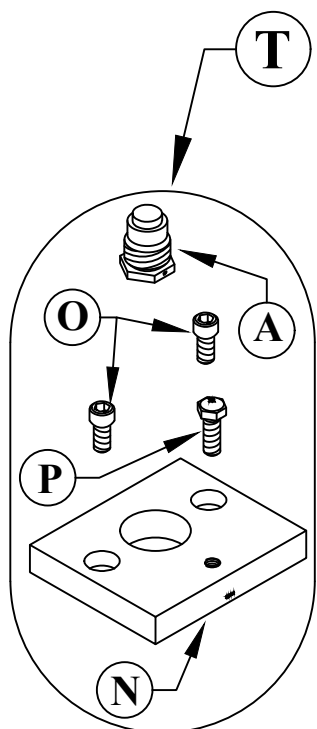


2.12 PIPE NOTCHER

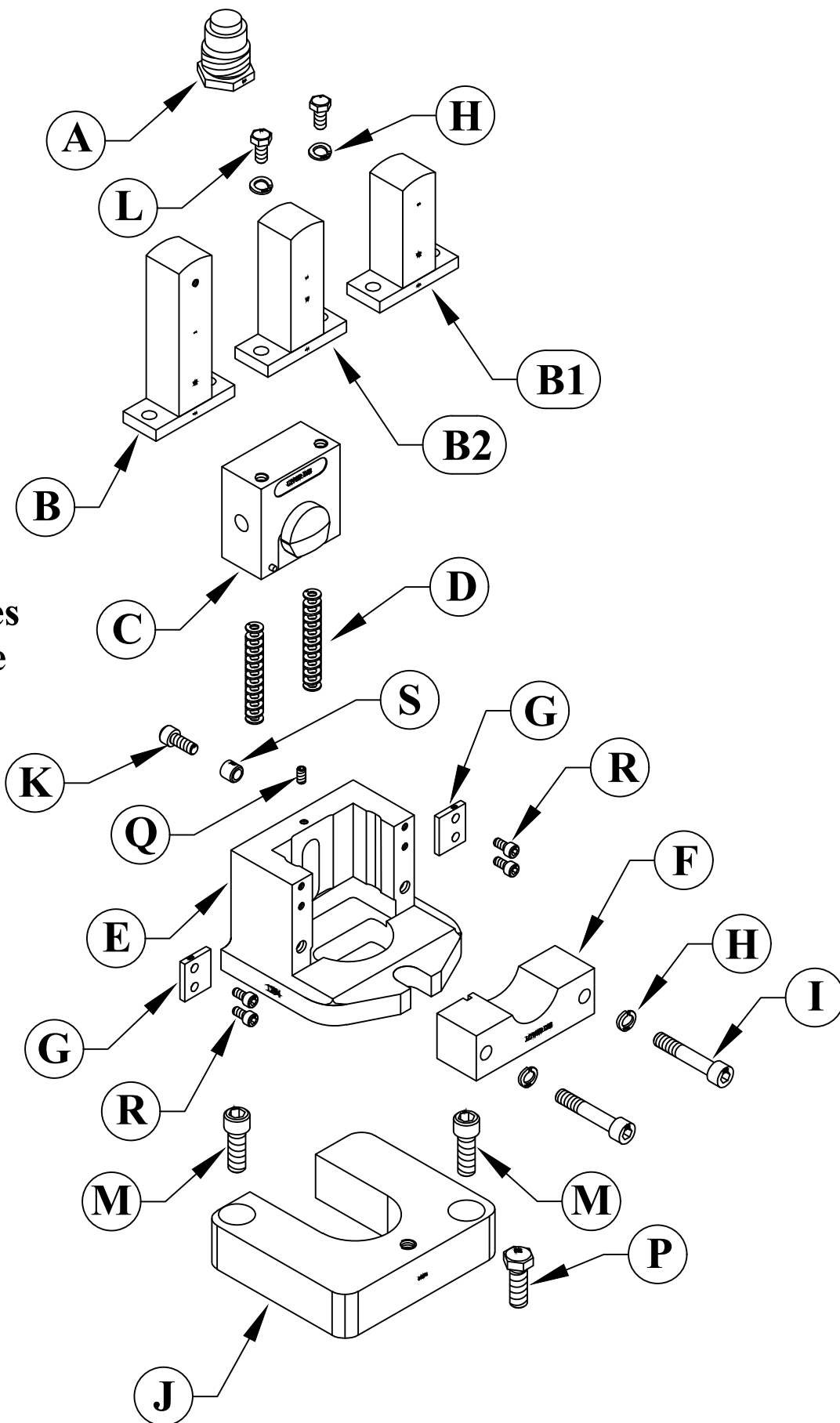
ITEM	QTY	COMMON PART #	4014-CM 4014-TM	PORTAFAB 5014-TM	5014-CM 50514-CM	DESCRIPTION
A	1	001194				Punch Pusher - Pipe Notcher
B	1		340081			Tool Table Pusher - Pipe Notcher (Inc. L & H)
B1	1		340081			Short Pusher - Pipe Notcher (Inc. L & H) (4014 C & T w/2" dies, Tool Table)
B2	1			012450	012450	Tool Table Pusher - Pipe Notcher (Inc. L, H & P")
C & F	Set	001220				3/4" Upper & Lower Dies
		001222				1" Upper & Lower Dies
		001224				1-1/4" Upper & Lower Dies
		001226				1-1/2" Upper & Lower Dies
		001228				2" Upper & Lower Dies
D	2	001208				Pipe Notcher Spring
E	1	001294				Pipe Notcher Housing
G	2	001209				Keeper Plate
H	4	212012				M-10 Lock Washer
I	2	221227				M-10 x 55 SHCS
J	1		340071			Riser 40 Pipe Notcher (4014C&T - 2" Dies, Tool Table)
K	1	221115				M-8 x 20 SHCS
L	2	203210				M-10 x 25 HHCS
M	2	221314				M-12 x 35 SHCS
N	1				500100	Tool Riser 50 (50514-CM & 5014-CM)
O	2				221310	M-12 x 25 SHCS
P	1		203415		203415	M-12 x 35 HHCS
Q	1	218023				M-6 x 12 Set Screw
R	4	221005				M-6 x 12 SHCS
S	1	001213				Sleeve
T	1				540100	Pusher/Riser 50C (Inc. A, N, O & P)



**Above Needed for
4014C & T if 2" Dies
Used on Tool Table**



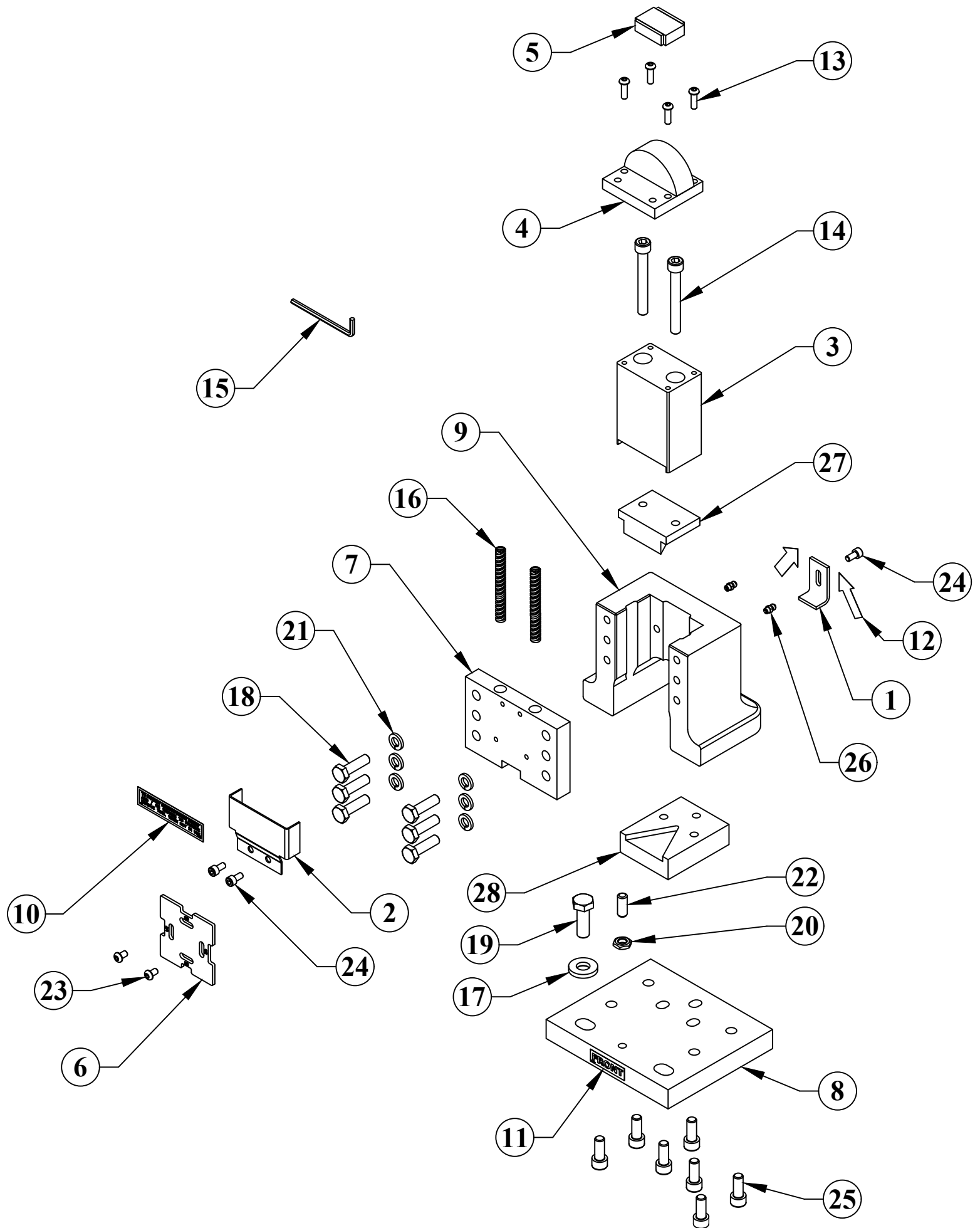
**Above Needed for
Punch Station
5014 & 505C**



2.13 PICKET FENCE TOOL (WITH CAST HOUSING)

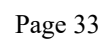
ITEM	PART #	DESCRIPTION
1	001165	Tube Stop
2	001166	Spring Guard
3	001167	Ram
4	001172	Welded Cap
5	001175	Rocker Cap
6	001178	Tube Guide
7	001272	Spring Plate
8	001275	Base
9	001280	Housing
10	003145	Label (Remove Tool)
11	016328	Label (Front)
12	019105	Label (Grease Point)
13	073615	M6 x 20 BHCS (ISO 7380)
14	073634	M10 x 80 SHCS (DIN 912)
15	080193	M8 Hex Key
16	160050	1/2 x 3-1/2 Die Spring
17	162005	1-1/8 OD x 17/32 x 3/16 ID Washer
18	201212	M10 x 35 HHCS (DIN 933)
19	203415	M12 x 35 HHCS (DIN 933)
20	210012	M10 Jam Nut (DIN 439)
21	212012	M10 Lock Washer (DIN 127)
22	219050	M10 x 25 Set Screw (DIN 913)
23	220014	M6 x 10 BHCS (DIN BN19)
24	221005	M6 x 12 SHCS (DIN 912)
25	221210	M10 x 25 SHCS (DIN 912)
26	243101	M6 x 13.5 OAL Grease Zerk)
	001293	Complete Housing Assembly

STANDARD DIES		
27	001150	1/2" Upper Die
28	001249	1/2" Lower Die
27	001190	3/4" Upper Die
28	001292	3/4" Lower Die
27	001162	1" Upper Die
28	001264	1" Lower Die



2.14 6 X 6 NINETY DEGREE NOTCHER

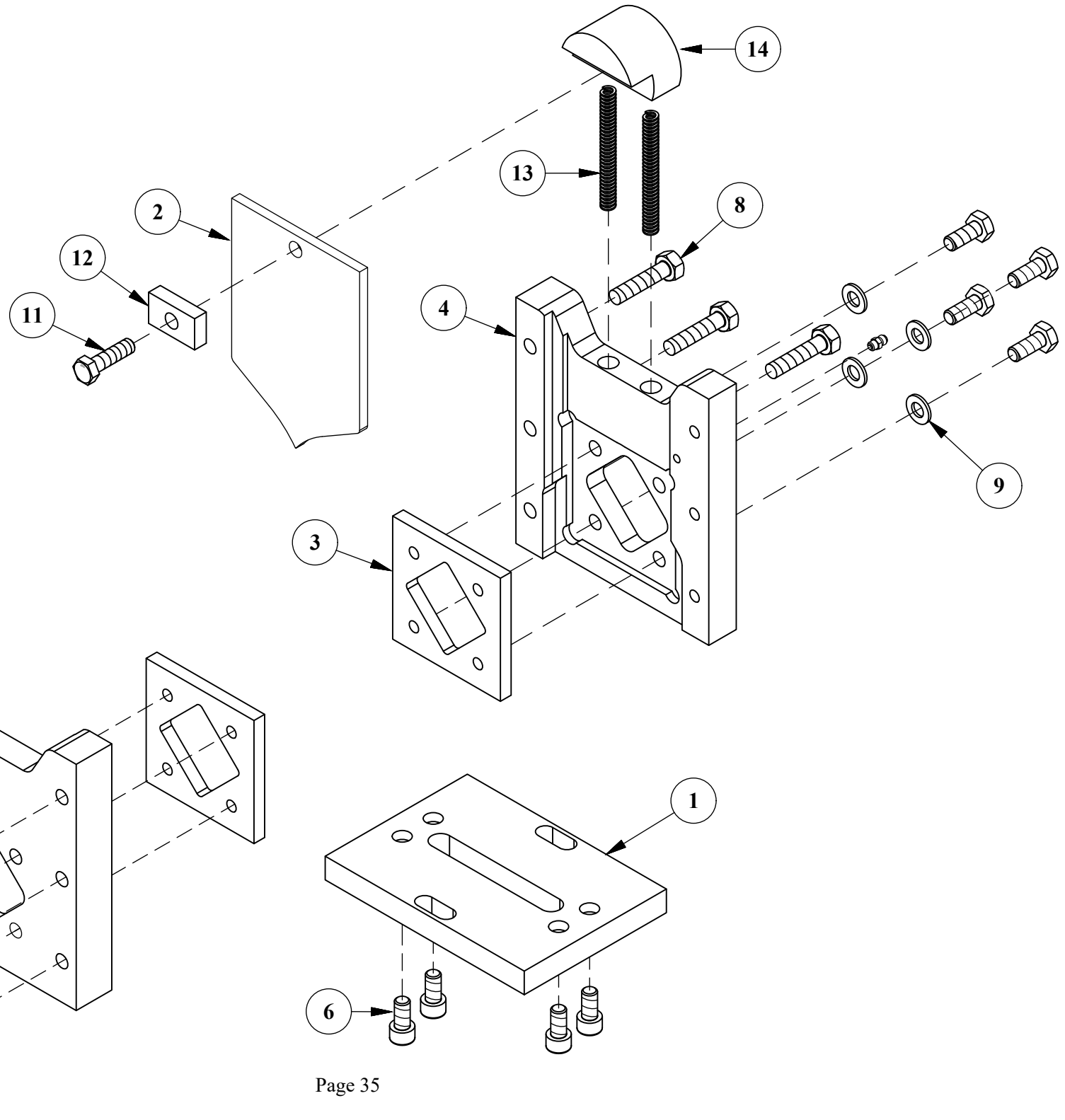
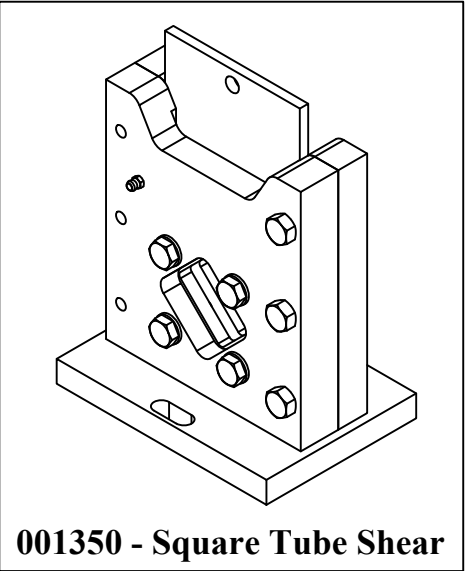
ITEM	PART #	DESCRIPTION
A	205422	M-12 HHCS
B	N/A	M-12 Lock Washer
C	162005	M-12 Washer
D	426160	Top Casting
E	026166	Upper Blade
F	026164	Lower Blade - Short
G	026165	Lower Blade - Long
H	160047	1 x 3 Die Spring
I	026169	M-24 Jam Nut
J	214012	M-10 Washer
K	201215	M-10 HHCS
L	212012	M-10 Lock Washer
M	026163	Lower Casting
N	201420	M-12 HHCS
O	214014	M-12 Washer
P	201420	M-12 HHCS
Q	016162	Rubber Slug Return
R	026167	Pivot Pin
S	243101	M-6 Grease Nipple
T	446160	Pressure Block
U	221120	M-8 SHCS
V	220014	M-6 BHCS
W	446170	Pressure Cap
W1	500102	Pressure Cap (5014-CM Only)
X	218048	M-10 Set Screw
AA	N/A	Label
BB	003155	Label
CC	003145	Label



2.15 SQUARE TUBE SHEAR

ITEM	QTY	PART #	DESCRIPTION
1	1	001306	BASE TUBE SHEAR
2	1	001310	UPPER BLADE TUBE SHEAR
3	2	001311	SQ TUBE SHEAR BLADE
4	1	001312	REAR PLATE TUBE SHEAR
5	1	001313	FRONT PLATE TUBE SHEAR
6	4	073626	M10 X 20MM DIN912 SHCS
7	8	203210	M10 X 25MM DIN933 HHCS
8	6	203217	M10 X 45MM DIN931 HHCS
9	8	214012	M10 DIN125 REGULAR WASHER
10	2	243101	M6 X 13.5 OAL GOLD ZERK
11	1	203212	M10 X 30MM DIN933 HHCS
12	1	001309	SQ. WASHER
13	2	001308	1/2 X 4-1/2 DIE SPRING
14	1	001307	BLADE CAP-40T TUBE SHEAR
15	1	001350	SQUARE TUBE SHEAR -Tool Only - (1 thru 10)
16	1	016540	40 TUBE SHEAR MOUNT PACK (11 thru 14)

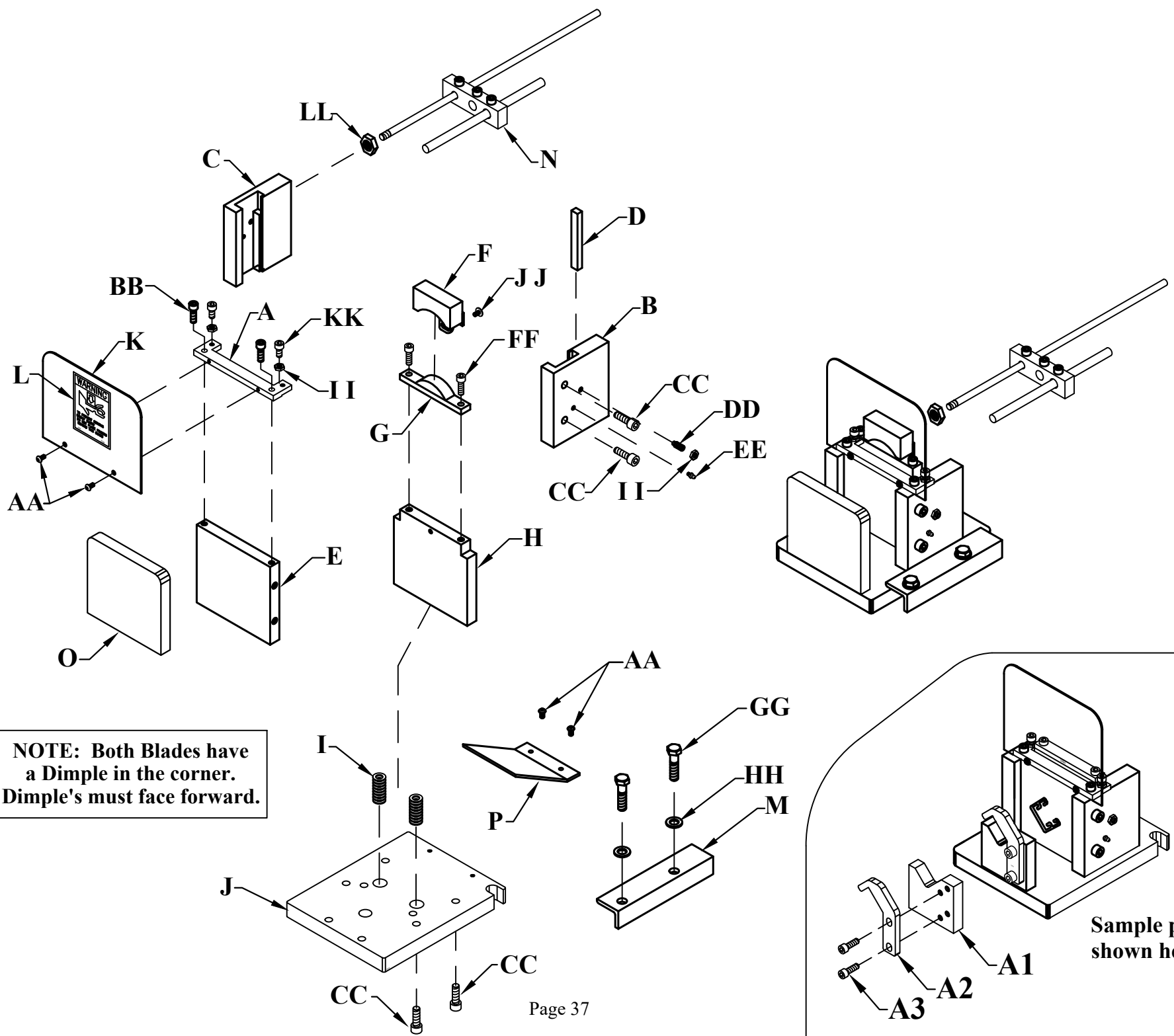
NOTE: ITEMS 15 and 16 are both needed to operate this tool.



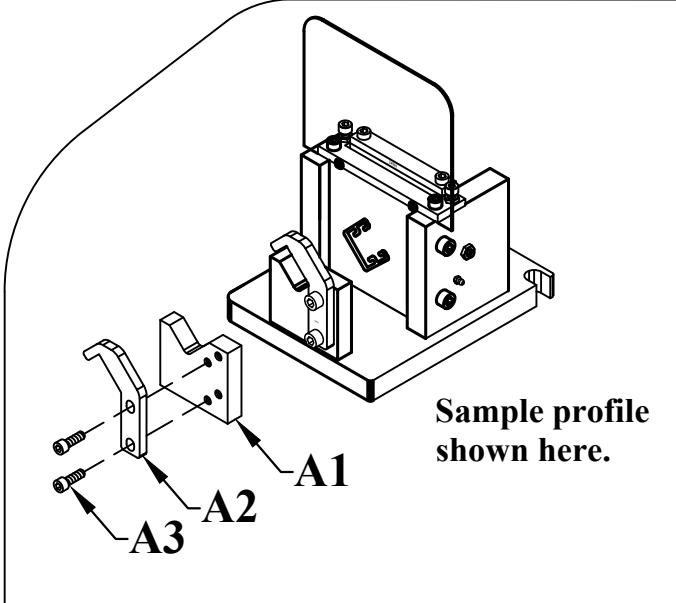
2.16 STRUT CHANNEL SHEAR

Item	Qty.	Part #	Description	<u>F A S T E N E R S</u>			
A	1	024541	Positive Stop	AA	4	220014	M6 X 10MM Din BN19 BHCS
B	1	024512	Right Brace	BB	2	221120	M8 X 25MM Din 912 SHCS
C	1	024511	Left Brace	CC	12	221212	M10 X 30MM Din 912 SHCS
D	2	026243	Wear Strip 6" AS	DD	2	218032	M8 X 20MM Din 915 Set Screw
E	1			EE	2	243101	M6 X 13.5 OAL Gold Zerk
F	1	446170	Pressure Cap Assy	FF	2	221210	M10 X 25MM Din 912 SHCS
G	1	024516	Pusher Assy	GG	2	201420	M12 X 50MM Din 931 HHCS
H	1		Moving (see bottom of page)	HH	2	214014	M12 Din 125 Regular Washer
I	2	500034	3/4 X 2 Die Spring	II	4	210010	M8 Jam Nut
J	1	024510	Multi Shear Base	JJ	1	220016	M6 x 10 BF Screw
K	1	024560	Guard Multi Shear	KK	2	073420	M8 X 16 DIN912 SHCS
L	1	003140	Warning Label	LL	1	210016	M16 JAM NUT
M	1	024513	Multi Shear Holddown	<u>OPTIONAL HOLD-DOWN FOR 1-5/8 WIDE STRUT PROFILE</u>			
N	1	076930	Material Stop	A1	1	024563	Strut Guide Base
O	1		Guide (see bottom of page)	A2	1	024562	1 5/8" Strut Holddown Clamp
P	1	024535	Slug Chute	A3	2	221210	M10 X 25MM DIN912 SHCS

E, H, & O - To purchase Blades and Guide, sample material is required in order to machine the correct profile. Call factory for assistance. 1-800-843-8844



NOTE: Both Blades have a Dimple in the corner. Dimple's must face forward.

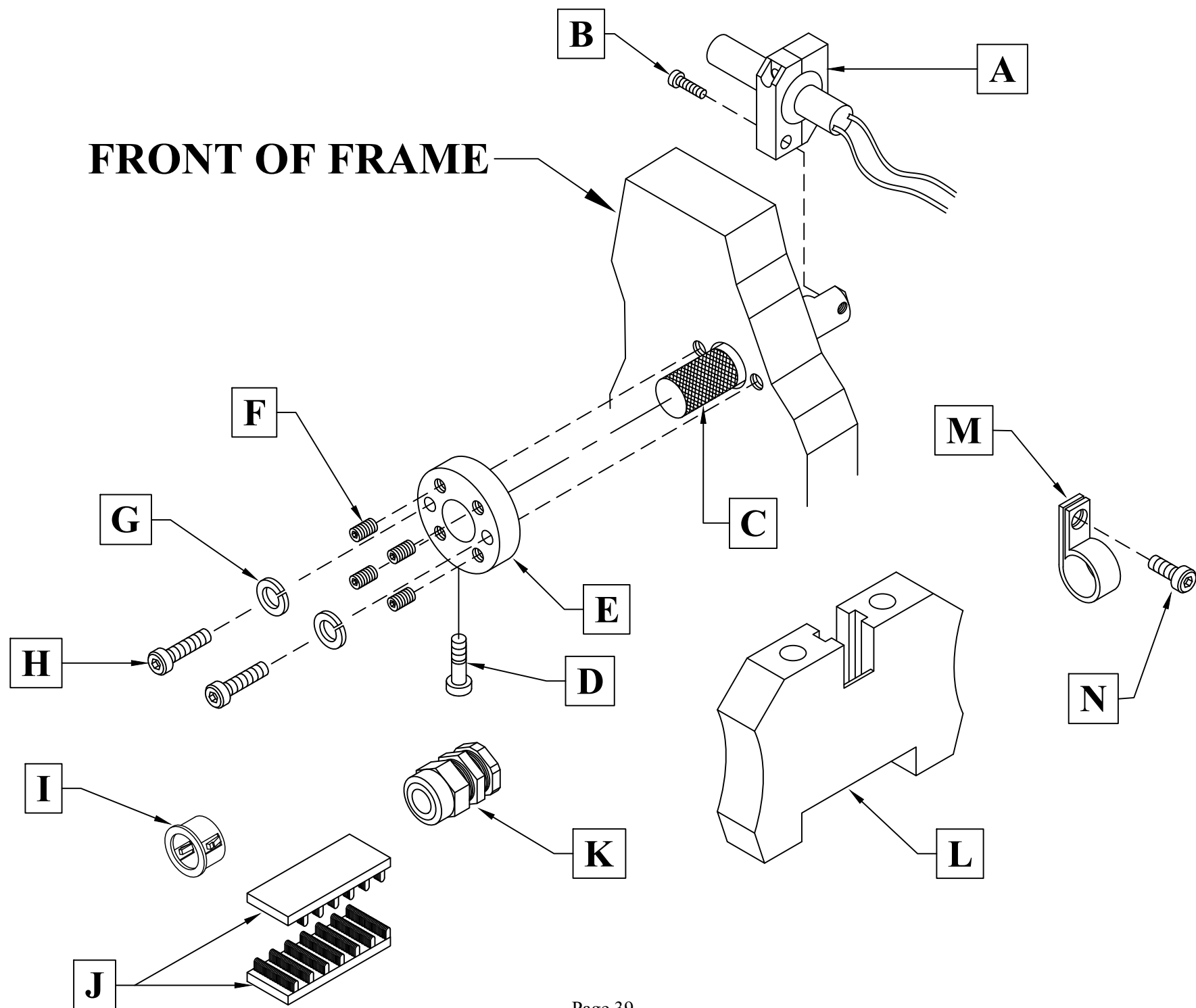


Sample profile shown here.

2.17 LASER LIGHT

ITEM	PART #	DESCRIPTION	ITEM	PART #	DESCRIPTION
A	033261	Laser w/Mounting Bracket	H	073621	M-6 x 30 SHCS
B	073619	M-6 x 20 SHCS	I	158003	Hole Plug
C	033258	Laser Rod	J	013167	Velcro 5"
D	221120	M-8 x 25 SHCS	K	077183	Cord Grip
E	033255	Laser Rod Holder	L	033228	WDU Terminal Block
F	218030	M-8 x 12 SS	M	562040	Wire Clamp
G	073106	M-6 Lock Washer	N	221005	M-6 x 12 SHCS

FRONT OF FRAME

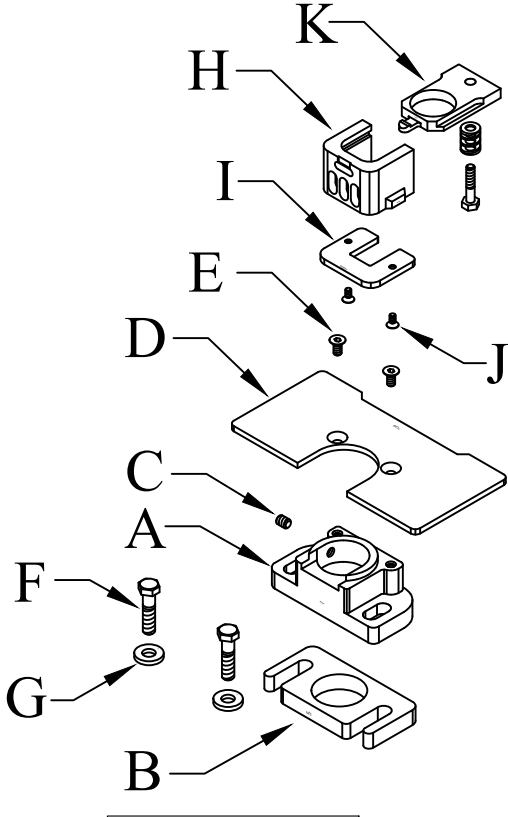
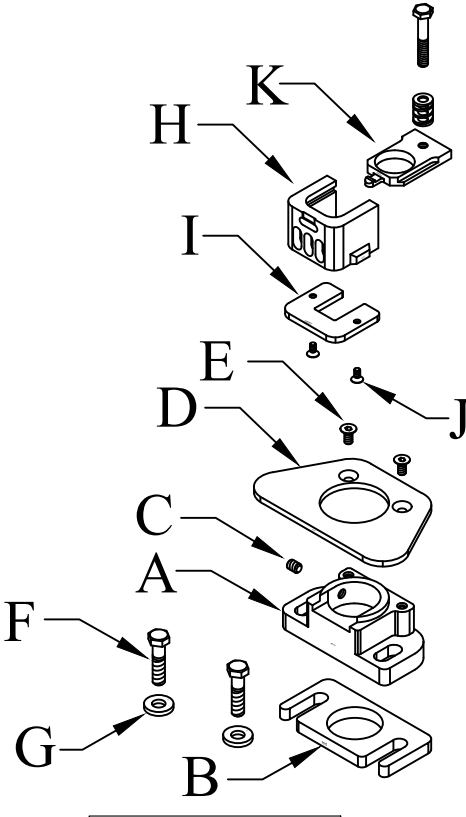
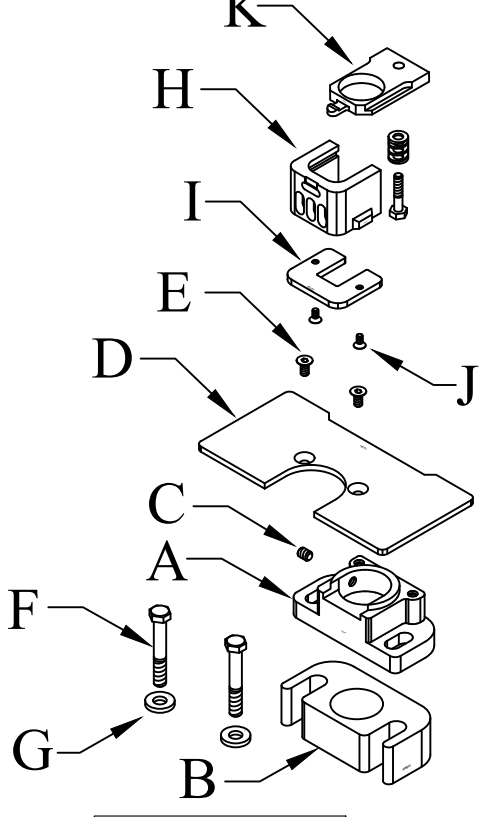
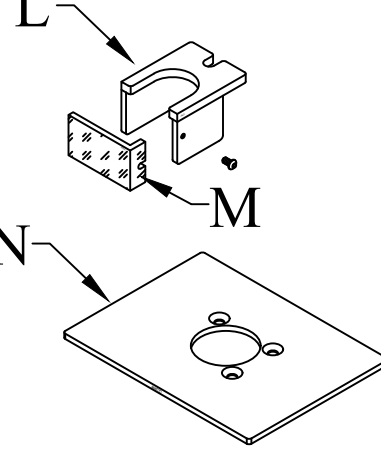
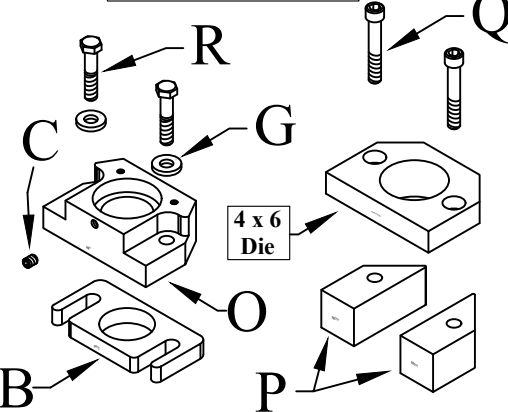
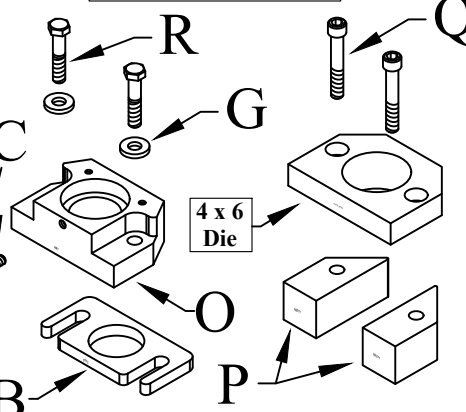
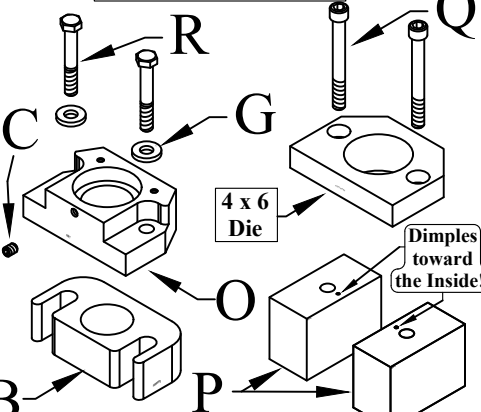


2.18 DIE HOLDERS AND STRIPPERS

ITEM	COMMON	4014CM	4014TM	5014CM	DESCRIPTION
	PART #	Porta-Fab	5014TM		
A	401470				Die Holder
B		001472	001572	500091	Die Holder Spacer
C	219047				M-10 x 12MM FP Set Screw
D		400726	001570	400726	Punch Plate
E	230107				M-8 x 16 FSHCS 10.9
F		201420	201420	205435	M-12 HHCS
G	162005				1-1/8 OD x 17/32 ID Washer
H	401490				Stripper
I	401492				Stripper Plate
J	230005				M-6 x 12 FSHCS
K		401479	401579	401479	Stripper Clip
H-I-J-K		001580	001575	001580	Complete Stripper w/Bolt & Spring

BELOW ARE OVERSIZE PARTS - 2-5/8 DIES & THE 4X6 DIES

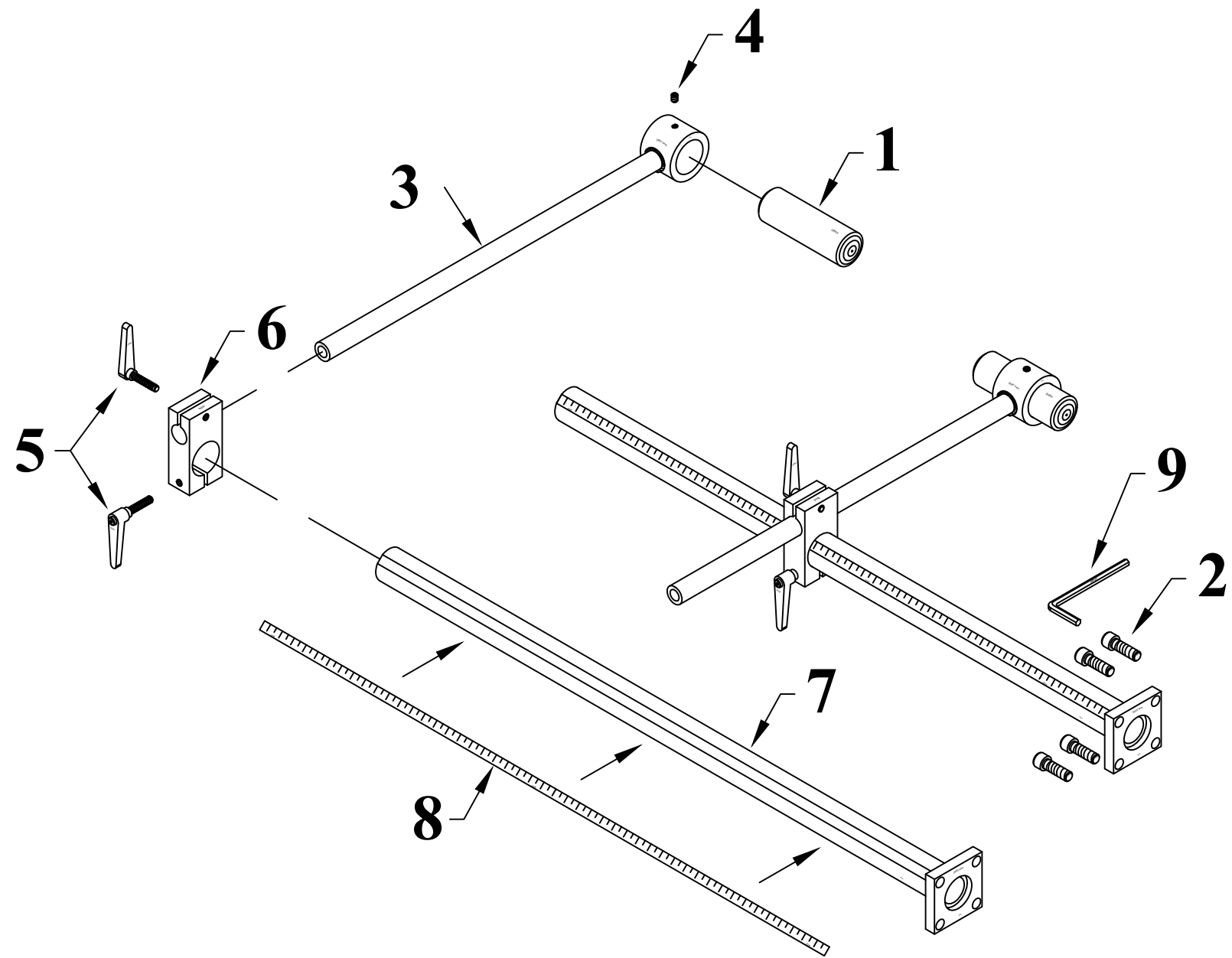
L	000691	N/A			Oversize Stripper w/Guard
M	000692	N/A			Lexan Guard
N		400727	N/A	400727	Punch Plate 2-5/8 Die (Oversize)
O	000687				2-5/8 Die Holder (Oversize)
P		018277	018277	500105	4 x 6 Die Spacer (2 pcs.)
Q		221328	221328	221350	SHCS Bolts for 4 x 6 Die
R		203427	203427	205435	HHCS Bolts for 2-5/8 Die

Porta-Fab & 4014CM	4014TM 5014TM 5014ET	5014CM 50514CM 50514EC	OVERSIZE
			 NOTE: Std. Stripper will work with punches up to 1-3/4" & the Oversize Stripper with punches up to 2-1/2". It is not necessary to use the Oversize Punch Plate with the Oversize Die Holder unless needed for a particular application.
OVERSIZE BELOW 	OVERSIZE BELOW 	OVERSIZE BELOW 	

2.19 48 INCH BACK GAUGE ASSEMBLY

PARTS LIST			
ITEM #	QTY	PART #	DESCRIPTION
1	1	025324	Length Stop
2	4	221420	M16 x 50 SHCS
3	1	025317	Length Stop Assembly
4	2	219047	M10 x 12 Set Screw
5	2	025361	M12 x 50 Adj. Handle
6	1	025320	Slide Block Length Stop
7	1	025312	Stop Bar Assembly
8	1	029220	LH Tape 1/2" x12' R/L
9	1	080189	14mm Allen Wrench
10	1	025603	Deluxe Back Gauge 48"

025603 - Deluxe Back Gauge 48"



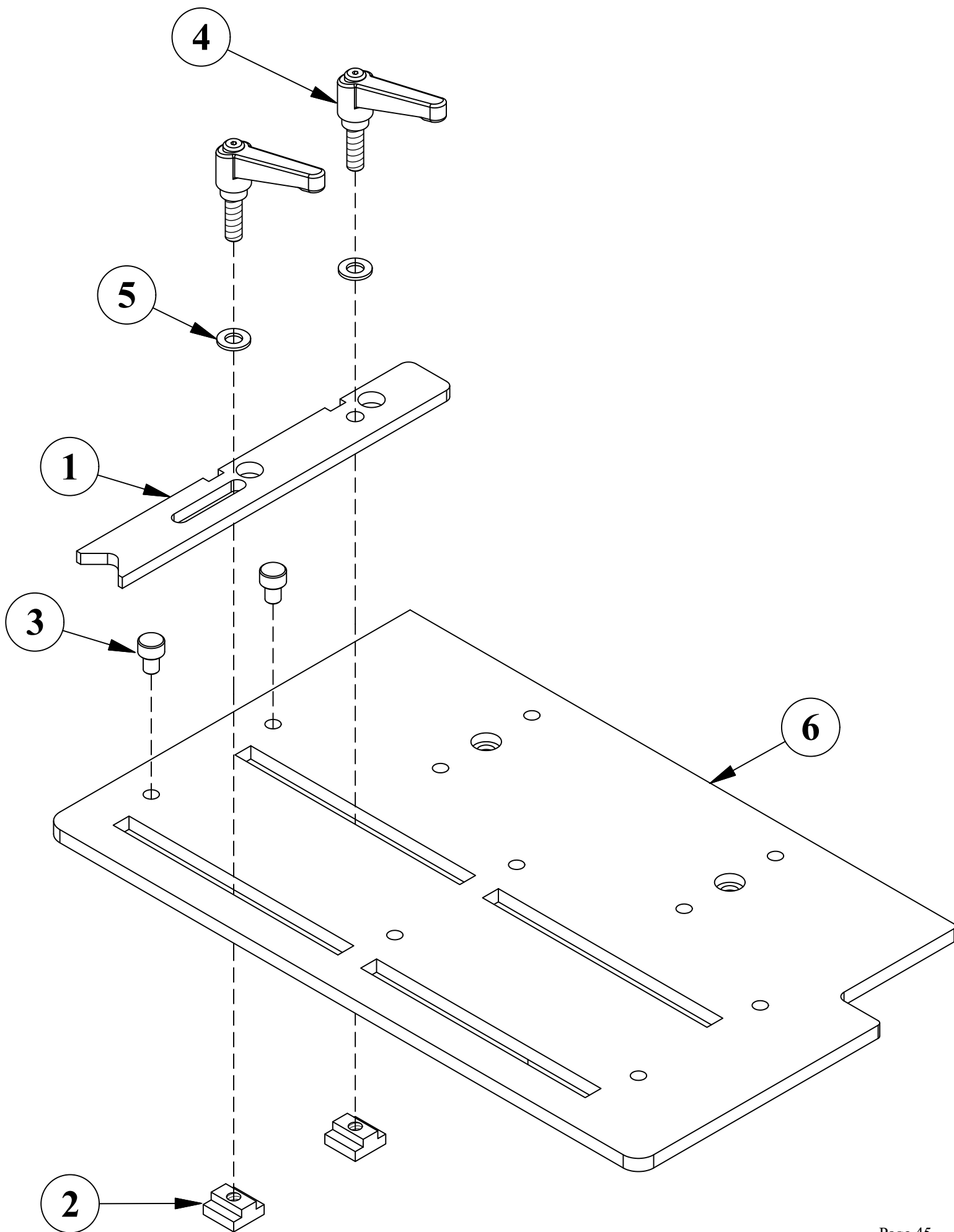
2.20 GAUGING TABLE - BAR SHEAR

(See Sect. 4.12 for the old style table with Table Supports)

ITEM	QTY	PART #	DESCRIPTION
1	1	025705	Guide Finished
2	2	026618	Tee Nut (M10)
3	2	026698	Rest Button
4	2	080063	RS/Jig Handle
5	2	214012	M10 Regular Washer DIN125
6	1	510046	Large Shear Table Mach

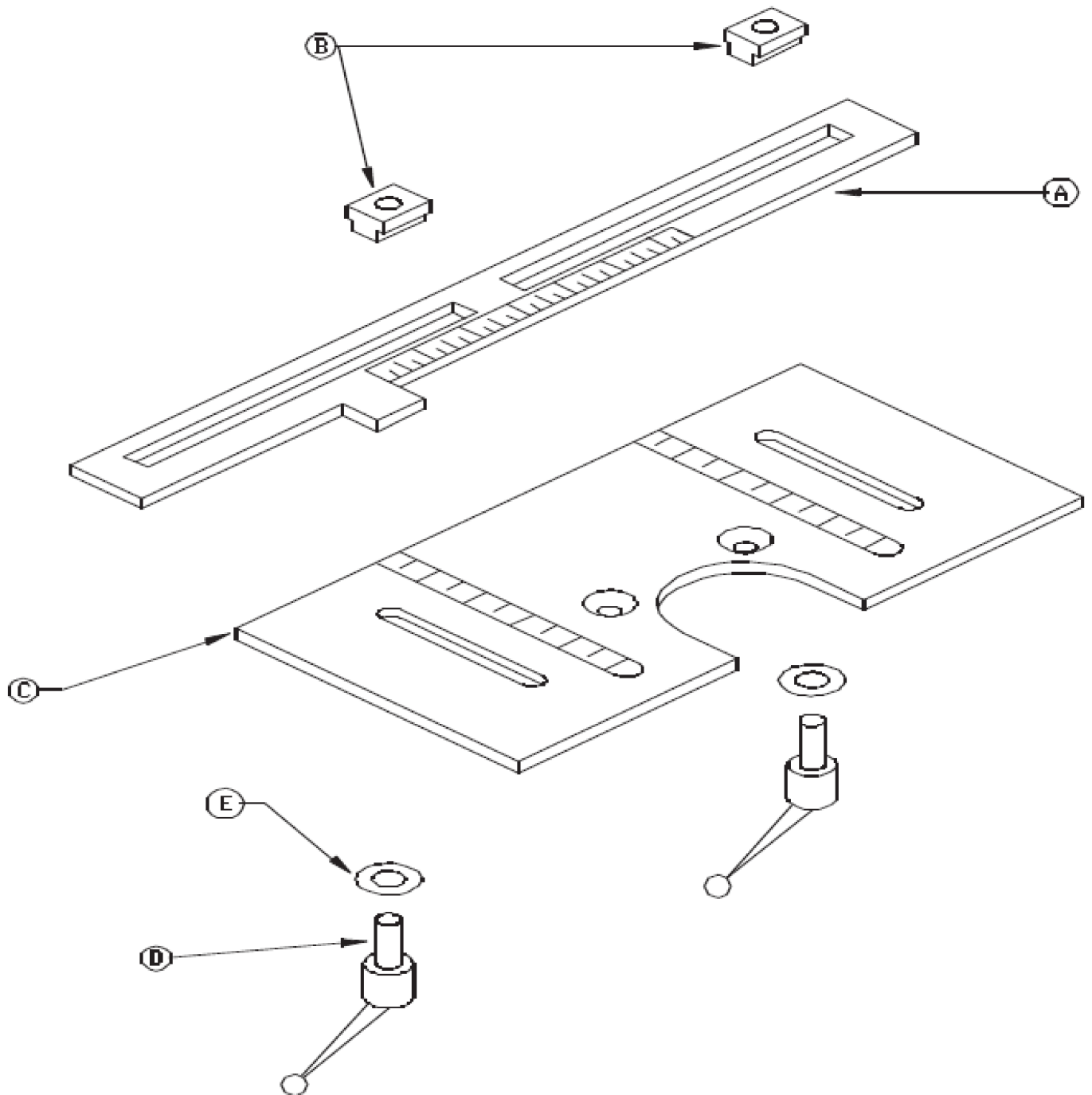
FITS 5014-CM SER #'S 1511 & UP, 5014-TM SER #'S 1526 & UP.

FITS ALL 50514-CM'S



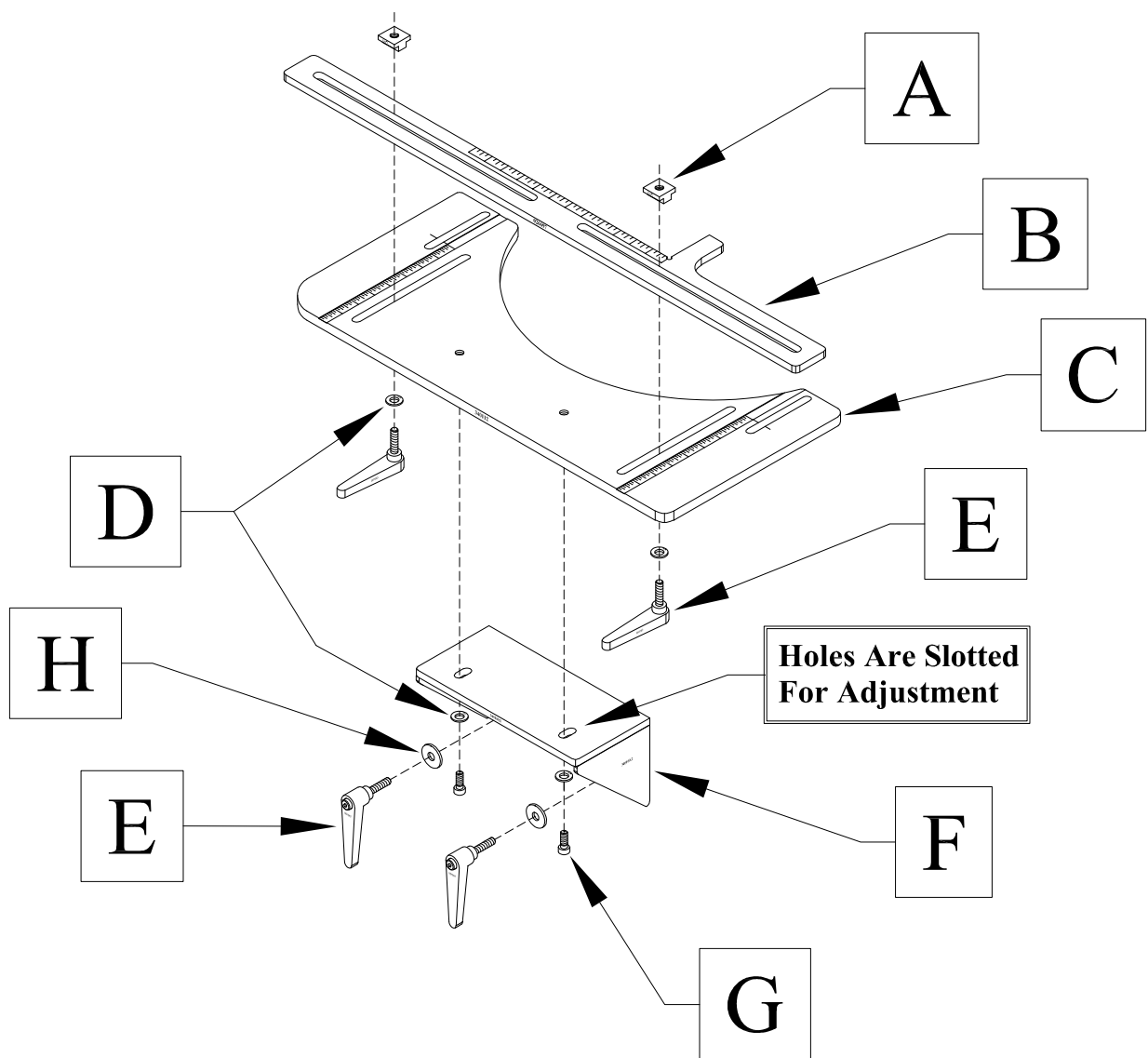
2.21 PUNCH TABLE

ITEM	PART #	DESCRIPTION
A	400734	Guide
B	026618	Tee Nuts
C	400730	Table (Complete)
D	080061	Handles
E		N/A
F	019300	Scales



2.21A PUNCH TABLE EXTENSION (5014TM)

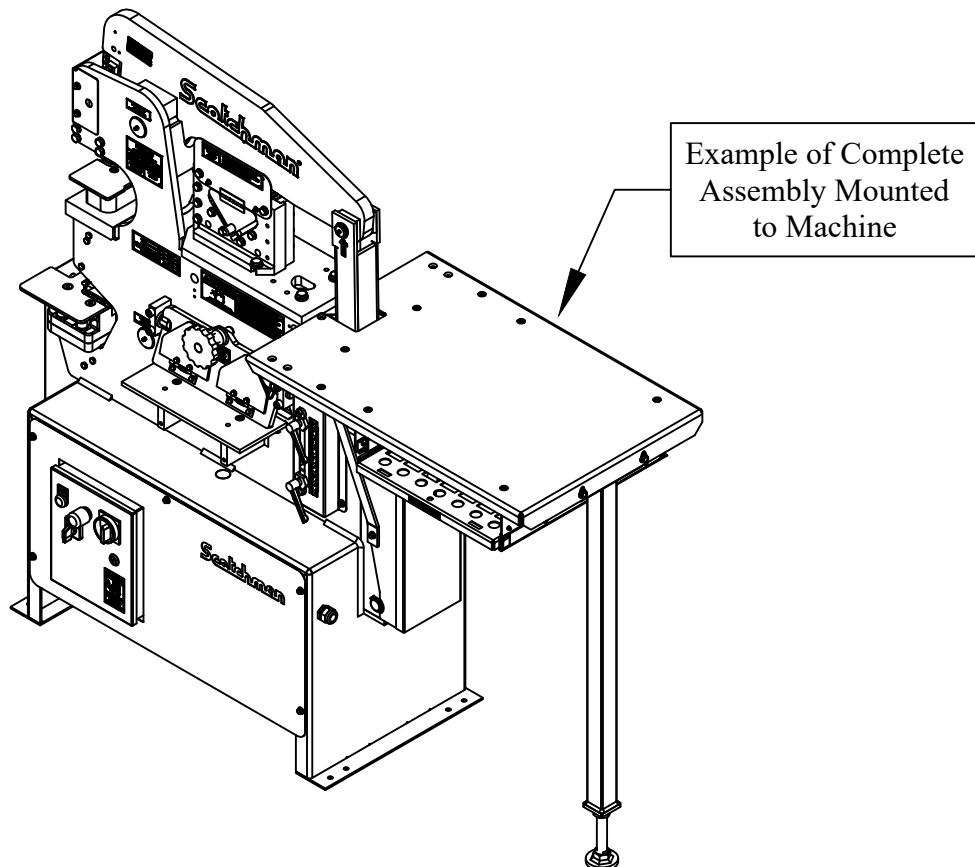
ITEM QTY PART #			DESCRIPTION
A	2	026618	M-10 Tee Nut
B	1	026697	Guide Finished
C	1	340112	Turret Table Ext. W/Scale
D	4	214012	M-10 Flat Washer
E	4	080063	RS/Jig Handle
F	1	340100	Turret Punch Table Mount
G	2	060250	M-10 x 20 SHCS
H	2	213012	M-10 Black Washer



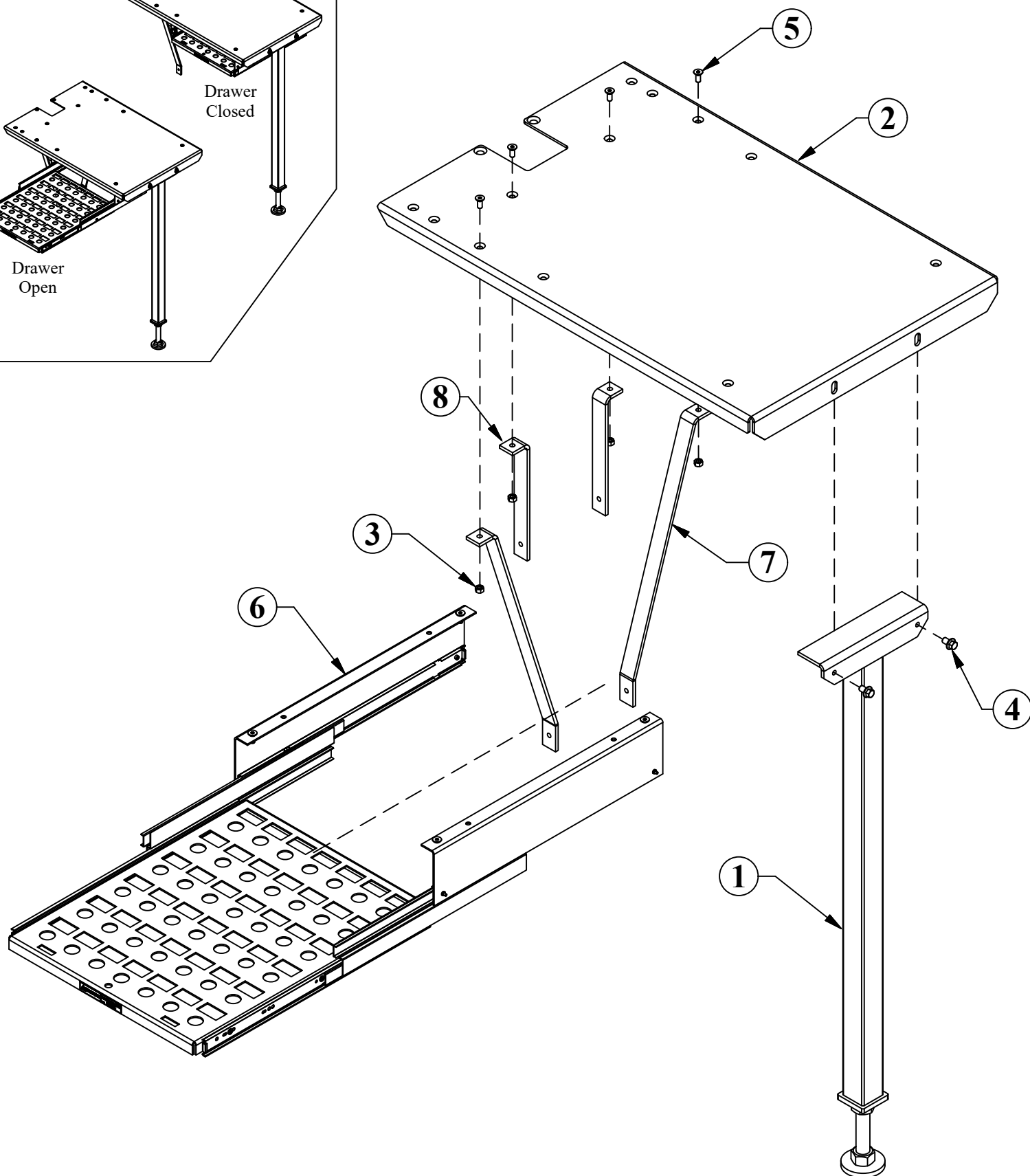
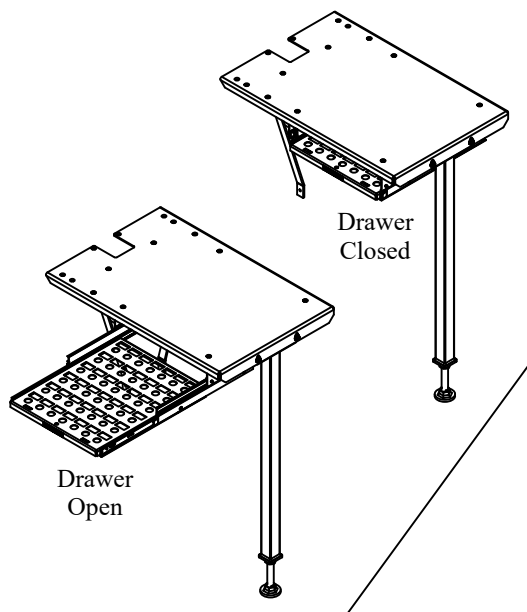
2.22 TOOL TABLE EXTENSION

PARTS LIST			
ITEM	QTY	PART #	DESCRIPTION
1	1	033208	LEG ASS'Y TOOL STAND
2	1	033214	50 TON TOOL TABLE EXT.
3	4	208010	M8 HEX NUT DIN934
4	2	224205	M10 X 16MM DIN-BN73 WLCS
5	4	230110	M8 X 20 DIN7991 FSHCS
6	1	533210	#20 P & D STORAGE DRAWER ASSY
7	2	533215	LOWER BRACKET
8	2	533217	UPPER BRACKET
9	1	533200	#20 TOOL TABLE EXT. W/ DRAWER (Complete Assembly)

NOTE: Full instructions are provided for assembly and mounting.

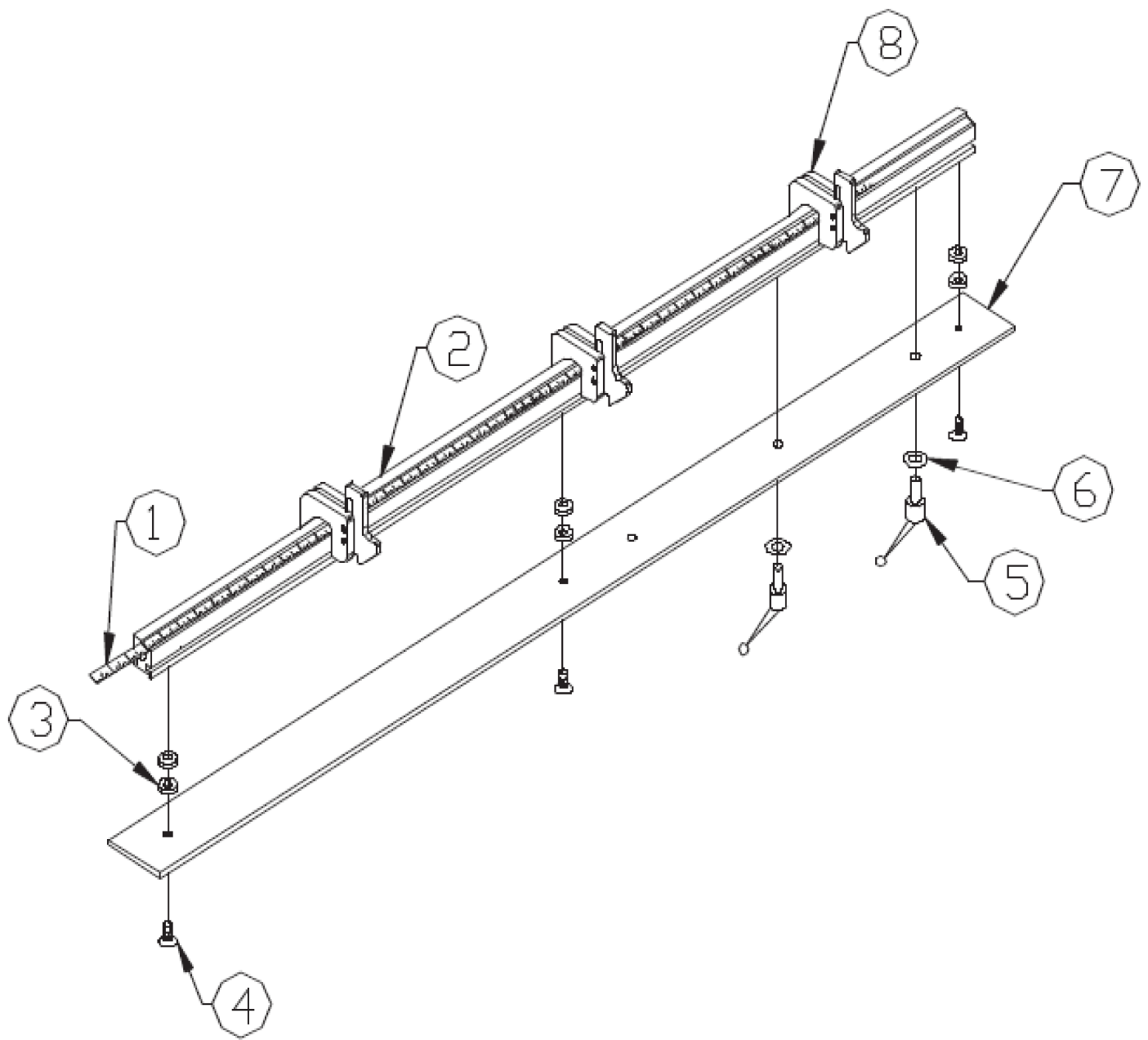


ASSEMBLED VIEWS



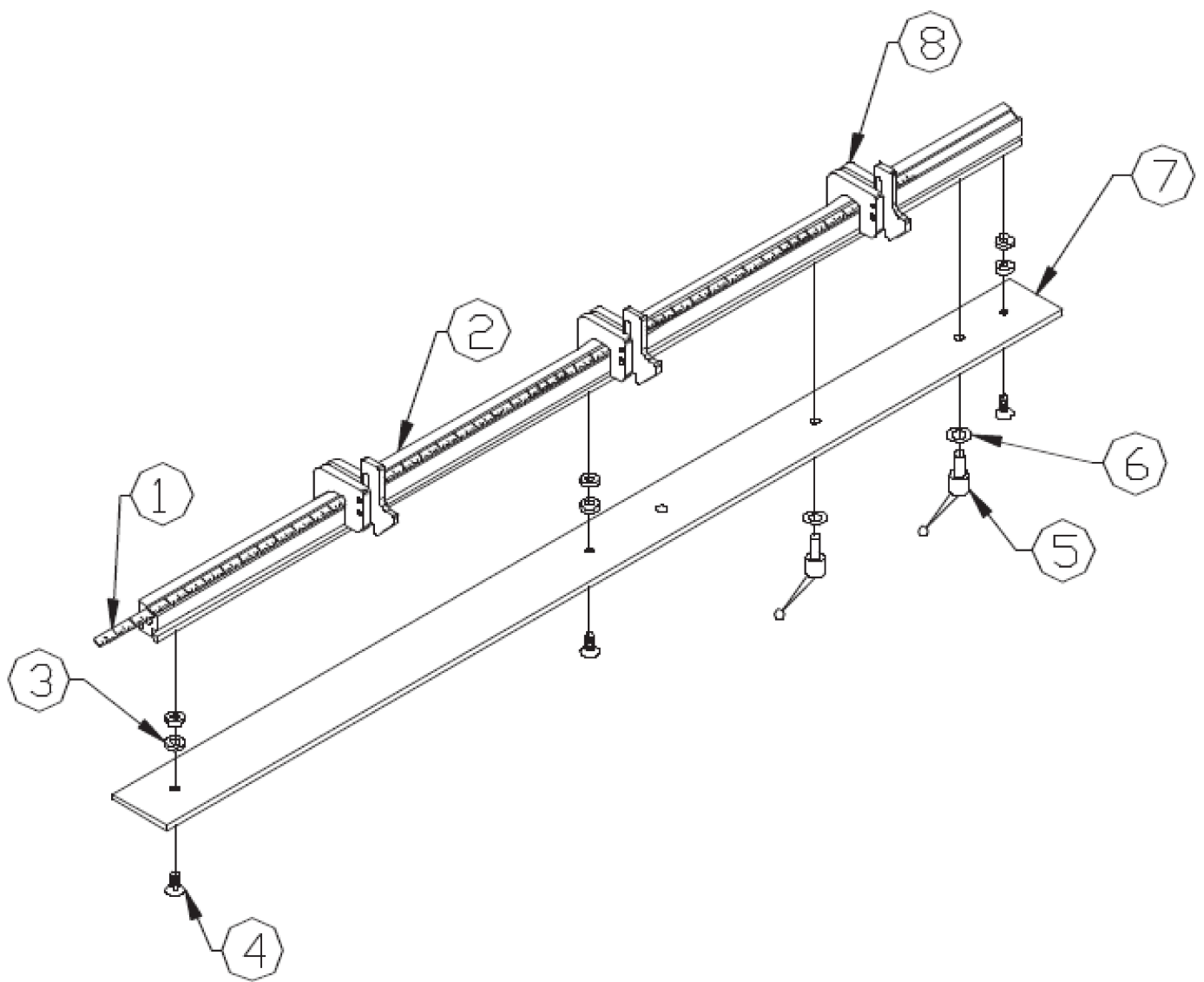
2.23 36" PUNCH GAUGING SYSTEM

ITEM	LEFT HAND	RIGHT HAND	DESCRIPTION
1	029220	029226	Scale
2	029200	029200	4' Rail
3	029294	029294	1/8 Washer
4	130107	130107	5/16 x 18 FSHCS
5	080061	080061	Handles
6	214012	214012	10mm Washer
7	029295	029295	Mounting Plate
8	029144	029146	Slider Assembly
9	029289	029291	Complete Assembly



2.24 85" PUNCH GAUGING SYSTEM

ITEM	LEFT HAND	RIGHT HAND	DESCRIPTION
1	029220	029226	Scale
2	029204	029204	8' Rail
3	029294	029294	1/8 Washer
4	130107	130107	5/16 x 18 FSHCS
5	080061	080061	Handles
6	214012	214012	10mm Washer
7	029296	029296	Mounting Plate
8	029144	029146	Slider Assembly
9	029292	029293	Complete Assembly

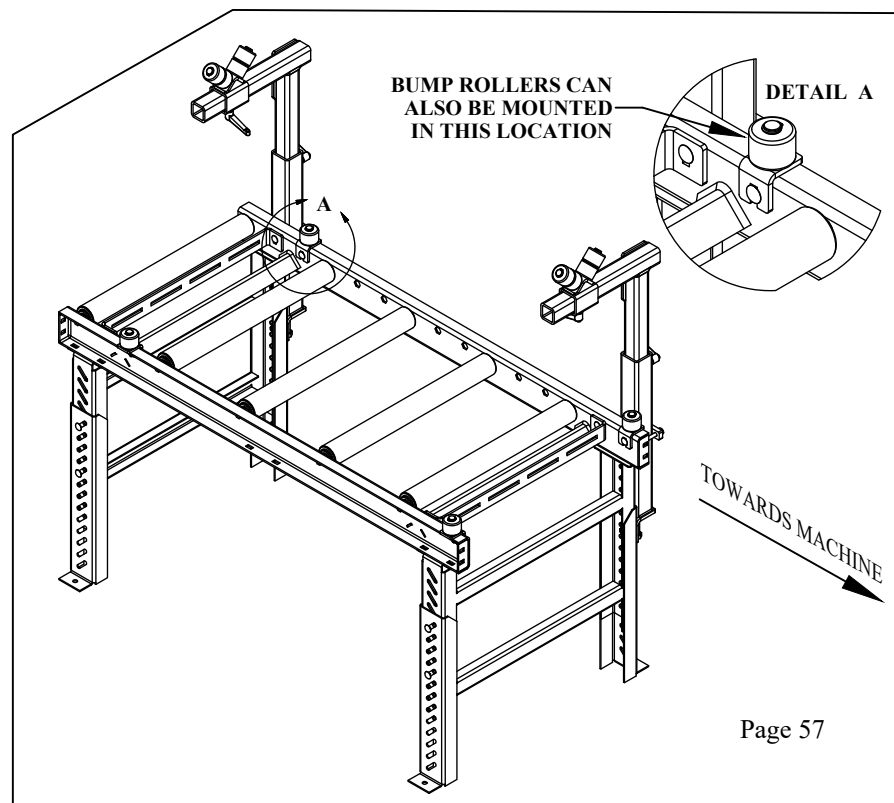
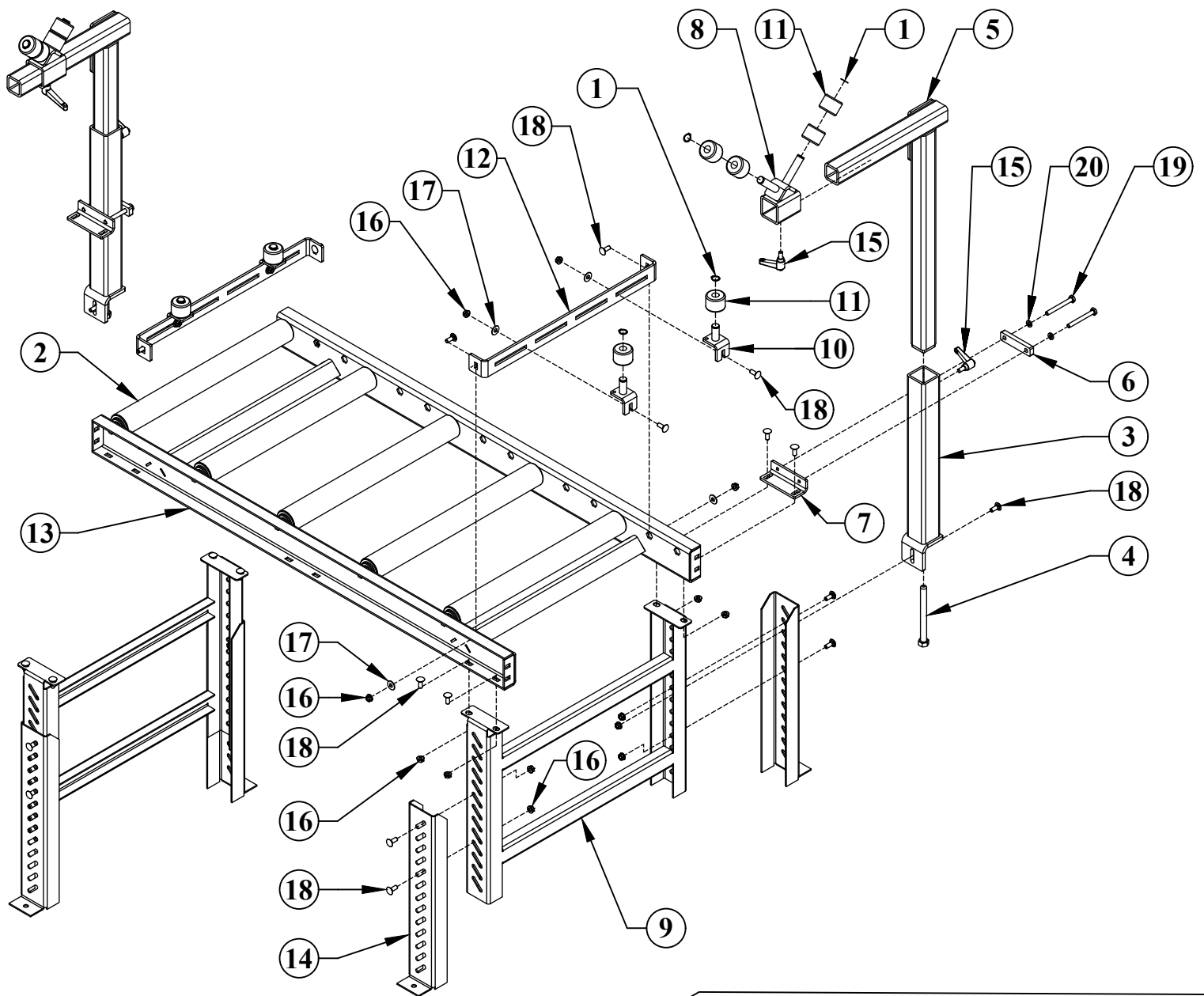


2.25 P/N 026980 INFEED CONVEYOR (24" X 5')

(TOOL TABLE ANGLE SHEAR)

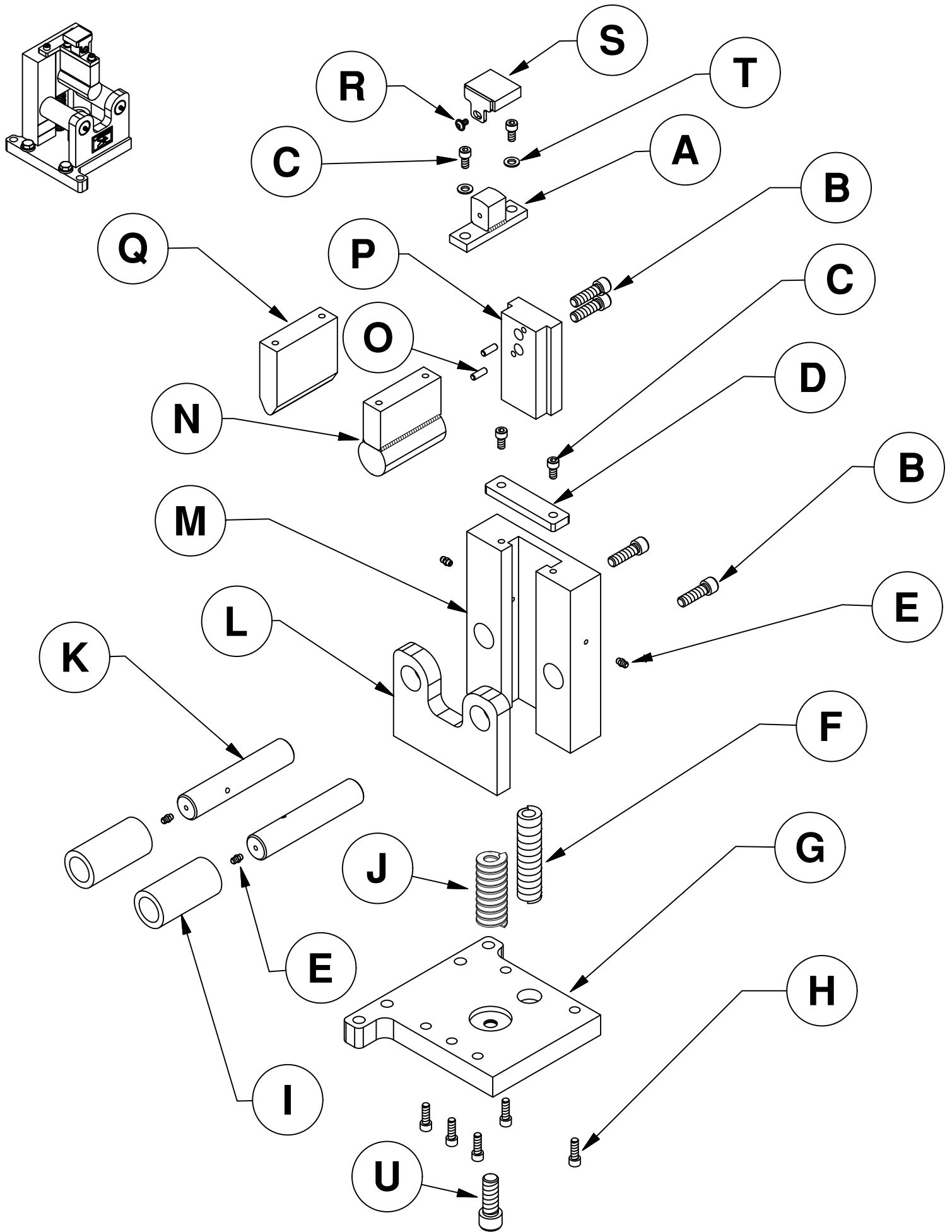
PARTS LIST		
ITEM	PART #	DESCRIPTION
1	016402	3/4 OD SNAP RING
2	026905	25" REPLACEMENT ROLLER
3	026911	SLEEVE ASS'Y
4	026920	ADJ. SCREW ASS'Y
5	026930	BRACKET ASS'Y
6	026939	SLEEVE BRACE
7	026940	MOUNTING BRACKET
8	026941	GUIDE ASS'Y
9	026945.2	UPPER LEG 25"
10	026955	BUMP ROLLER MOUNT ASSEMBLY
11	026962	BUMP ROLLER
12	026965	MOUNT BUMP ROLLER-PAINTED
13	026988	25" CONVEYOR WELD
14	029244.1	LOWER LEG
15	080061	STROKE ADJUSTMENT HANDLE
16	111000	3/8-16 SERRATED FLANGE LOCKNUT
17	114012	3/8 USS FLAT WASHER
18	130210	3/8-16 X 1 CARRIAGE BOLT
19	203235	M10 X 90MM DIN 931 HHCS
20	212012	M10 DIN 127 LOCK WASHER

SALES ASSEMBLIES		
PART #	INCLUDES	DESCRIPTION
026945	9, 14, 16, 18	LEGS FOR 25" CONVEYOR
026951	1, 8, 11	V-GUIDE ASSEMBLY
026960	1, 10, 11	BUMP ROLLER SALES
026970	2, 13	25" CONVEYOR 5' LONG



2.26 WELD QUALITY COUPON BENDER

ITEM	QTY	PART#	DESCRIPTION
A	1	024720	Weld Test Pusher PF/C/T Sales
B	4	221315	M12 x 40 SHCS
C	4	073420	M8 X 16 SHCS
D	1	024716	Ram Stop
E	4	243101	Grease Zerk
F	1	024714	Spring
G	1	024702	Base
H	5	221210	M10 x 25MM SHCS
I	2	024705	Roller
J	1	024703	Weld Test 1-1/2 X 4 Die Spring
K	2	024704	Pin
L	1	024701	Pin Support
M	1	024708	Back Support
N	1	024713	U-Die Assembly
O	2	343002	1/4 x 3/4 Dowel Pin
P	1	024709	Ram
Q	1	024715	V-Die
R	1	220016	M6 X 10MM BF
S	1	433151	Rocker Cap Assy-8" Brake
T	2	214011	M8 Regular Washer
U	1	221417	M16 X 45 SHCS

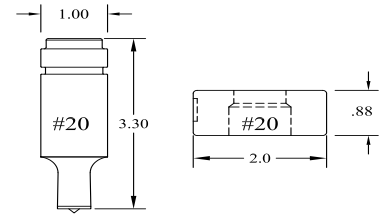


3.0 PUNCHES AND DIES

#20 ROUND PUNCHES & DIES

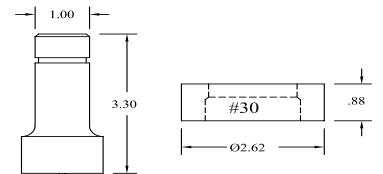
1/8, 5/32, 3/16, 7/32, 1/4, 9/32,
5/16, 11/32, 3/8, 13/32, 7/16, 15/32, 1/2,
17/32, 9/16, 19/32, 5/8, 21/32, 11/16,
23/32, 3/4, 25/32, 13/16, 27/32,
7/8, 29/32, 15/16, 31/32,
1, 1-1/32, 1-1/16, 1-1/8, 1-3/16, 1-1/4

5mm, 6mm, 7mm, 8mm, 9mm, 10mm, 11mm, 12mm
13mm, 14mm, 15mm, 16mm, 17mm, 18mm, 19mm
20mm, 21mm, 22mm, 23mm, 24mm, 25mm
26mm, 27mm, 28mm, 29mm, 30mm, 31mm, 32mm



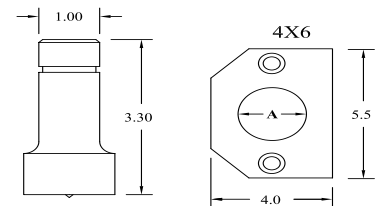
#20 ROUND OVERSIZED PUNCHES & DIES (USE 2-5/8" DIE HOLDER)

1-9/32" UP TO 2"



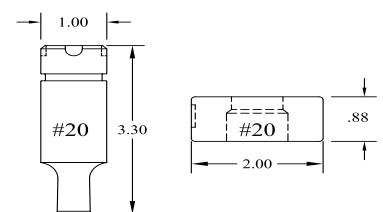
#20 ROUND OVERSIZED PUNCHES & DIES (USE 4 x 6 DIE)

2-1/32" UP TO 2-1/4"



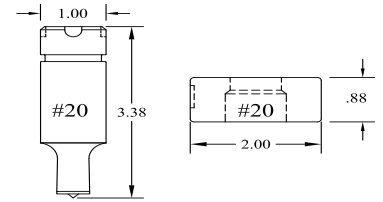
#20 SQUARE PUNCHES & DIES

9/32, 3/8, 13/32, 7/16, 15/32, 1/2,
17/32, 9/16, 5/8, 21/32, 11/16, 3/4,
25/32, 13/16, 7/8, 1



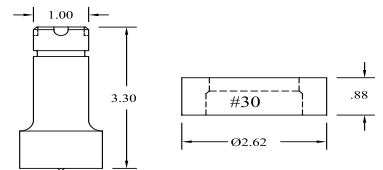
#20 OVAL SLOT PUNCHES & DIES

$1/4 \times 1/2$, $9/32 \times 1/2$, $1/4 \times 3/4$, $9/32 \times 3/4$,
 $5/16 \times 3/4$, $11/32 \times 3/4$, $3/8 \times 3/4$,
 $13/32 \times 3/4$, $7/16 \times 3/4$, $15/32 \times 3/4$, $1/2 \times 3/4$,
 $17/32 \times 3/4$, $9/16 \times 3/4$,
 $1/4 \times 1$, $9/32 \times 1$, $5/16 \times 1$, $11/32 \times 1$, $3/8 \times 1$,
 $13/32 \times 1$, $7/16 \times 1$, $15/32 \times 1$,
 $1/2 \times 1$, $17/32 \times 1$, $9/16 \times 1$, $5/8 \times 1$, $21/32 \times 1$,
 $11/16 \times 1$, $3/4 \times 1$, $25/32 \times 1$, $13/16 \times 1$,
 $1/4 \times 1-1/4$, $5/16 \times 1-1/4$, $3/8 \times 1-1/4$, $13/32 \times 1-1/4$,
 $7/16 \times 1-1/4$, $15/32 \times 1-1/4$,
 $1/2 \times 1-1/4$, $9/16 \times 1-1/4$, $5/8 \times 1-1/4$, $21/32 \times 1-1/4$,
 $11/16 \times 1-1/4$, $3/4 \times 1-1/4$,
 $25/32 \times 1-1/4$, $13/16 \times 1-1/4$



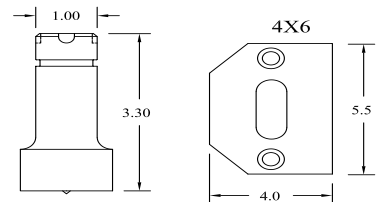
#20 OVAL SLOT OVERSIZED PUNCHES & DIES (USE 2-5/8" DIE HOLDER)

1-9/32" UP TO 2"



#20 OVAL SLOT OVERSIZED PUNCHES & DIES (USE 4 x 6 DIE)

2-1/32" UP TO 2-1/4"

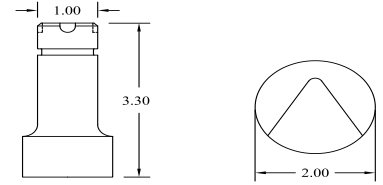


#20 PICKET PUNCHES & DIES

5/8 SQUARE TUBING MAX. ON 314-C6

& 4014-TM

3/4 SQUARE TUBING MAX. ON 4014-CM

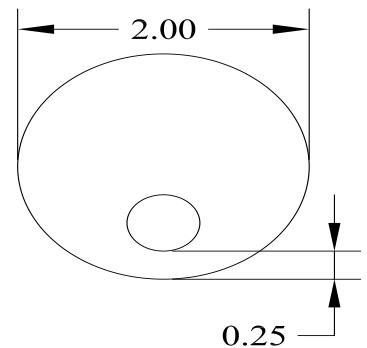


#82 ECCENTRIC DIES FOR PUNCHING

NEXT TO WEB OF ANGLE IRON

NOTE: ALL #82 ECCENTRIC DIES ARE 1/32" LARGER THAN PUNCH SIZE. WHEN ORDERING, MUST SPECIFY PUNCH SIZE. EXAMPLE: #20 1/2" PUNCH WILL NEED #82 17/32" ECCENTRIC DIE.

9/32, 5/16, 11/32, 3/8, 13/32, 7/16, 15/32, 1/2, 17/32, 9/16, 19/32, 5/8, 21/32, 11/16, 23/32, 3/4, 25/32, 13/16, 27/32, 7/8, 29/32

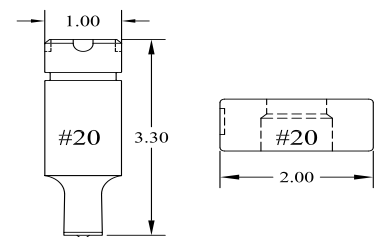


#20 HEXAGON PUNCHES & DIES

(USE STANDARD 2" DIE HOLDER)

1/4" UP TO 1-1/16"

ALL SIZES ARE SPECIALS

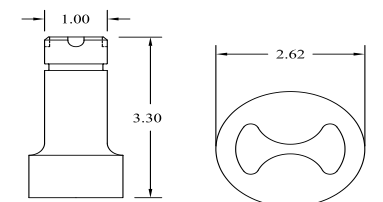


#20 TRIMMING & CUTOFF PUNCHES & DIES

1" SIZE IN STOCK ONLY

DIE IS 2-5/8" O.D.

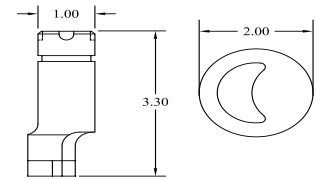
(OVERSIZED DIE HOLDER IS REQUIRED)



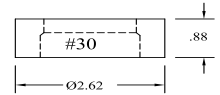
#20 CORNER TURNING PUNCHES & DIES

AVAILABLE IN THE FOLLOWING SIZES ONLY:

1/2"

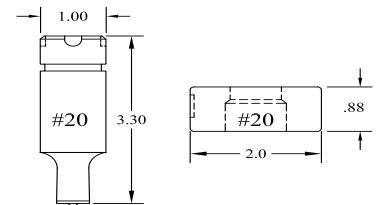


3/4" (MUST USE 2-5/8" DIE HOLDER)



#20 RECTANGLE PUNCHES & DIES AVAILABLE

CALL FOR PRICES AND DELIVERY



INFORMATION ON ORDERING PUNCHES & DIES

**THE PUNCH & DIE SIZES LISTED ARE STANDARD SIZES
KEPT IN STOCK FOR YOUR CONVENIENCE.**

**FOR SPECIAL SIZES, INCLUDING METRIC, PLEASE CALL OR FAX
FOR QUOTATIONS AND DELIVERY.**

#20 PUNCH & DIE SETS HAVE A 1/32" DIE CLEARANCE.

WHEN ORDERING DIES, PLEASE SPECIFY PUNCH SIZE BEING USED.

**ALSO, PLEASE SPECIFY THICKNESS AND TYPE OF MATERIAL,
TO ASSURE PROPER DIE CLEARANCE.**

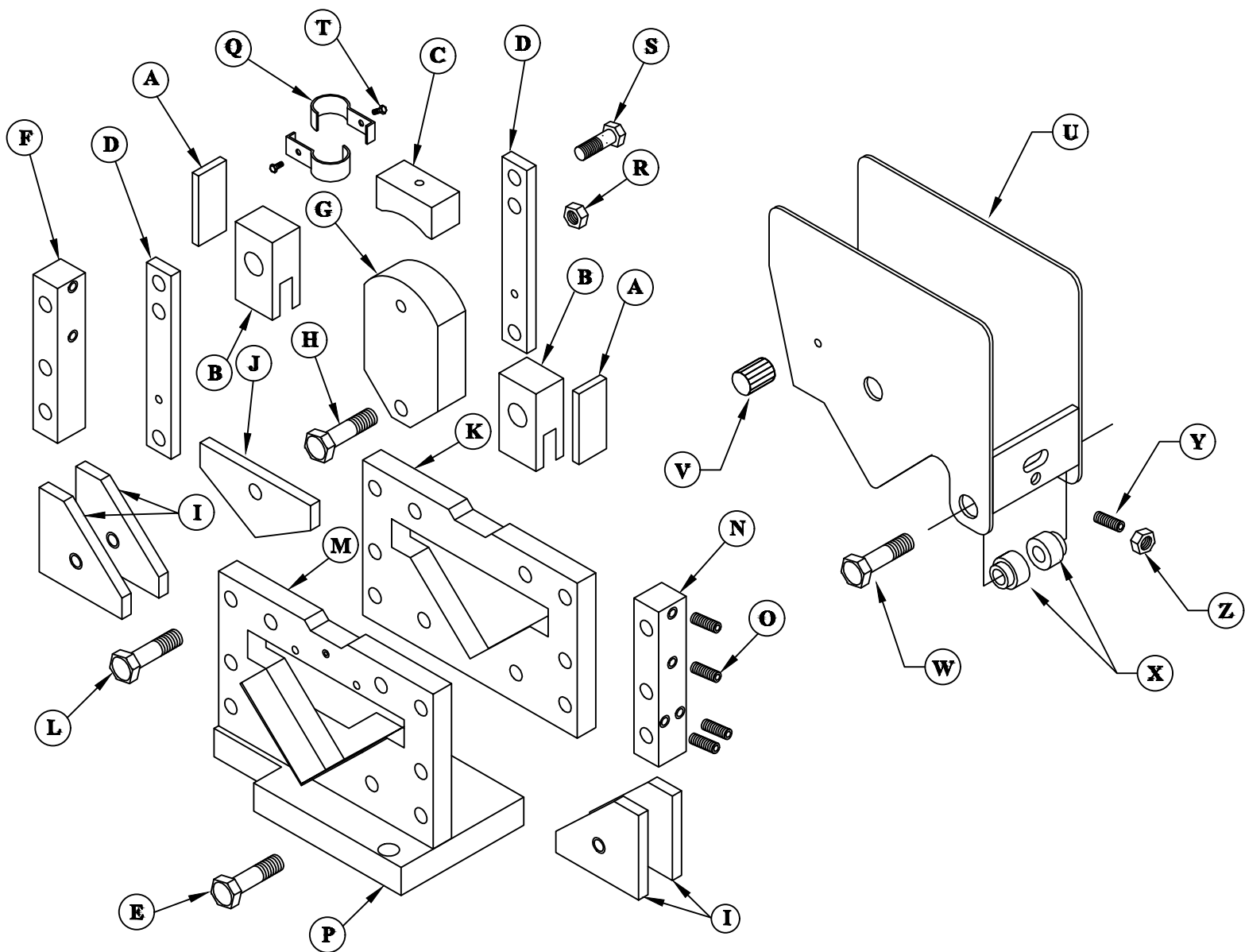
**IN ADDITION TO THE SHAPES LISTED, WE MANUFACTURE TEARDROP,
KEYHOLE, KNOCK-OUT AND OTHER SPECIALTY PUNCHES & DIES.**

PLEASE WRITE, CALL OR FAX FOR PRICES AND DELIVERY.

4.0 SUPPLEMENT FOR OLDER TOOLING

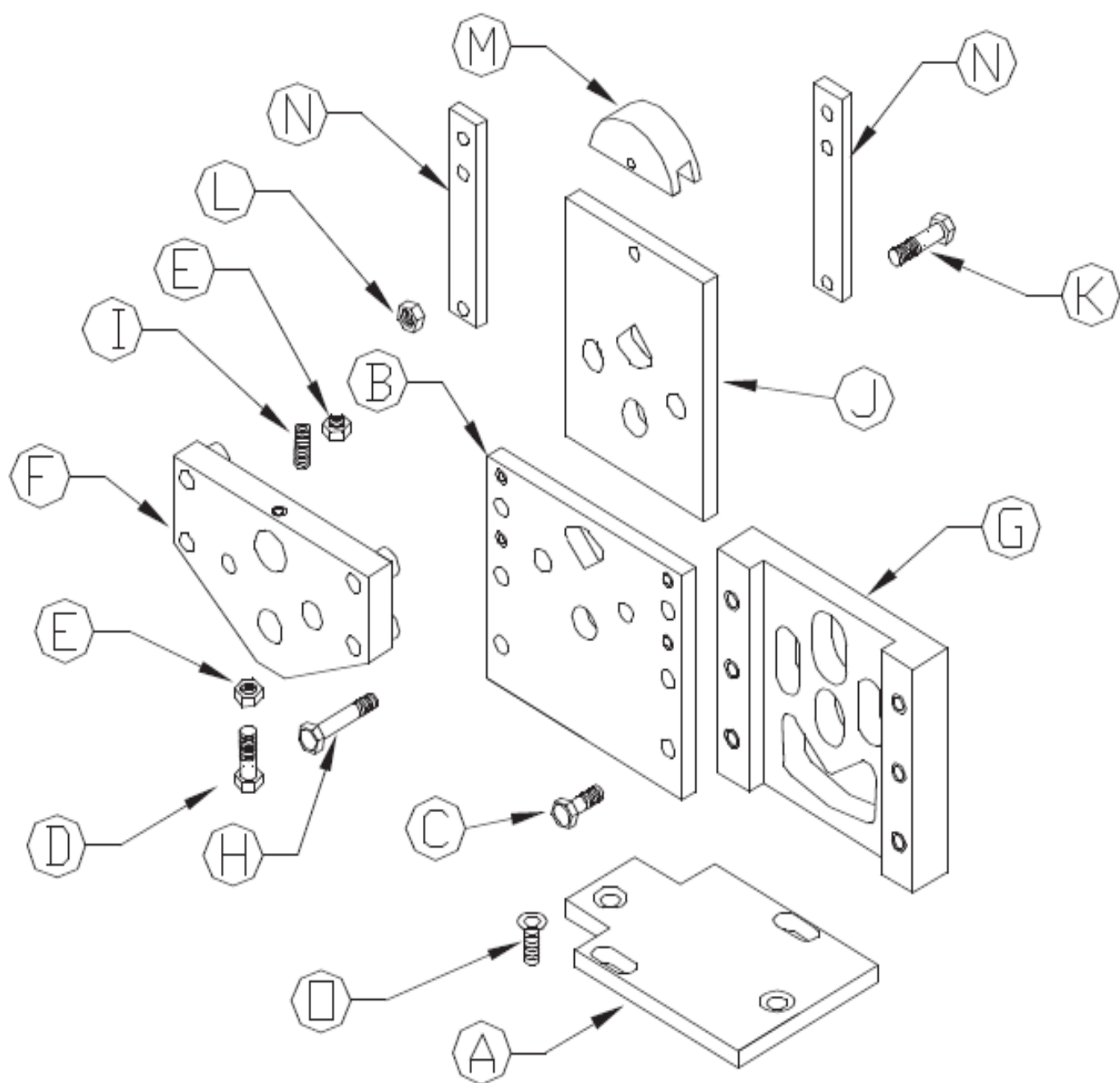
4.1 ANGLE SHEAR (Used prior to August/1995)

ITEM	PART #		DESCRIPTION
	STANDARD	METRIC	
A	000421	000421	Spacer
B	000423	000423	Guide Block
BA	000419	000419	Spacer Assembly (Includes 2 Pieces-A & B)
C	430081	430081	Pressure Block
D	430091	430091	Drag Link
E	201420	201420	M-12 HHS
F	400426	400426	Post-Left
G	400418	400418	Blade Holder
H	000518	000517	7/16 HHS
I	400412	400412	Bottom Blade
J	000417	000417	Top Blade
K	400431	400431	Rear Plate
L	101325	201425	M-12 HHS
M	400430	400430	Front Plate
N	400428	400428	Post-Right
O	000427	219050	Set Screw
P	330062	330062	Base
Q	330094	330094	Spring Clip
R	116012	215012	M-10 Greer Nut
S	104225	204225	M-10 HHCS
T	124005	220014	M-6 BHCS
U	330210	330210	Guard Angle Shear
V	330251	330251	Knob
W	205435	205435	M-12 x 90 HHCS
X	330241	330241	Spacers
Y	210050	219050	M-10 Set Screw
Z	210012	210012	M-10 Jam Nut
AA	430028	430028	Complete Assembly
BB	003140	003140	Warning Label (Not Pictured)



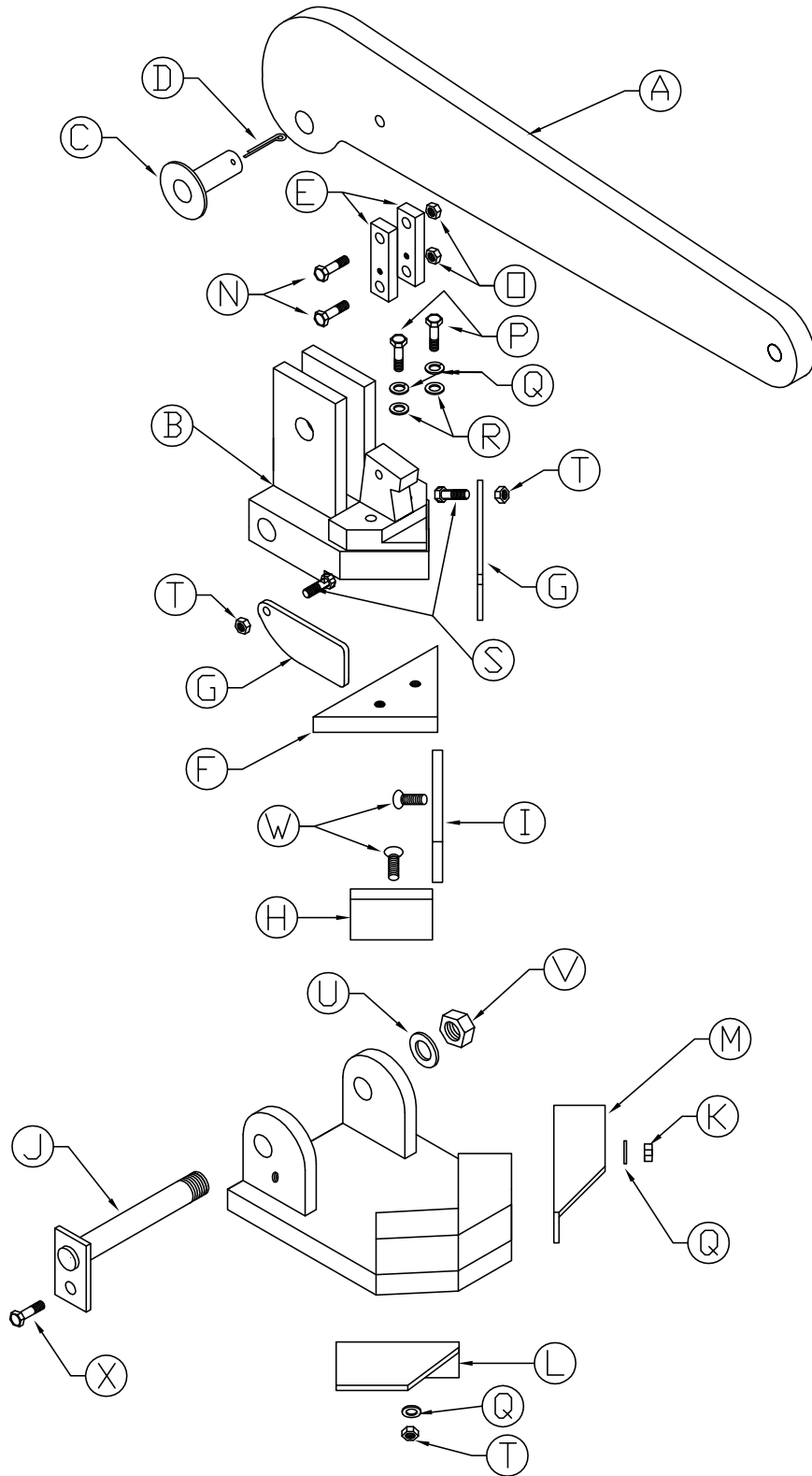
4.2 ROD SHEAR

ITEM	PART #	DESCRIPTION
A	331082	Base
B	431033	Stationary Blade
C	201410	M-12 HHCS
D	203210	M-10 HHCS
E	210012	M-10 Jam Nut
F	431113	Hold Down
G	431063	Body
H	203217	M-10 HHSC
I	219050	M-10 Set Screw
J	431043	Moving Blade
K	204222	M-10 HHCS
L	215012	M-10 Greer Nut
M	331071	Cap
N	431091	Drag Link
O	230407	M-12 x 20 FSHCS
P	431028	Complete Assembly
Q	003125	Label-Not Pictured



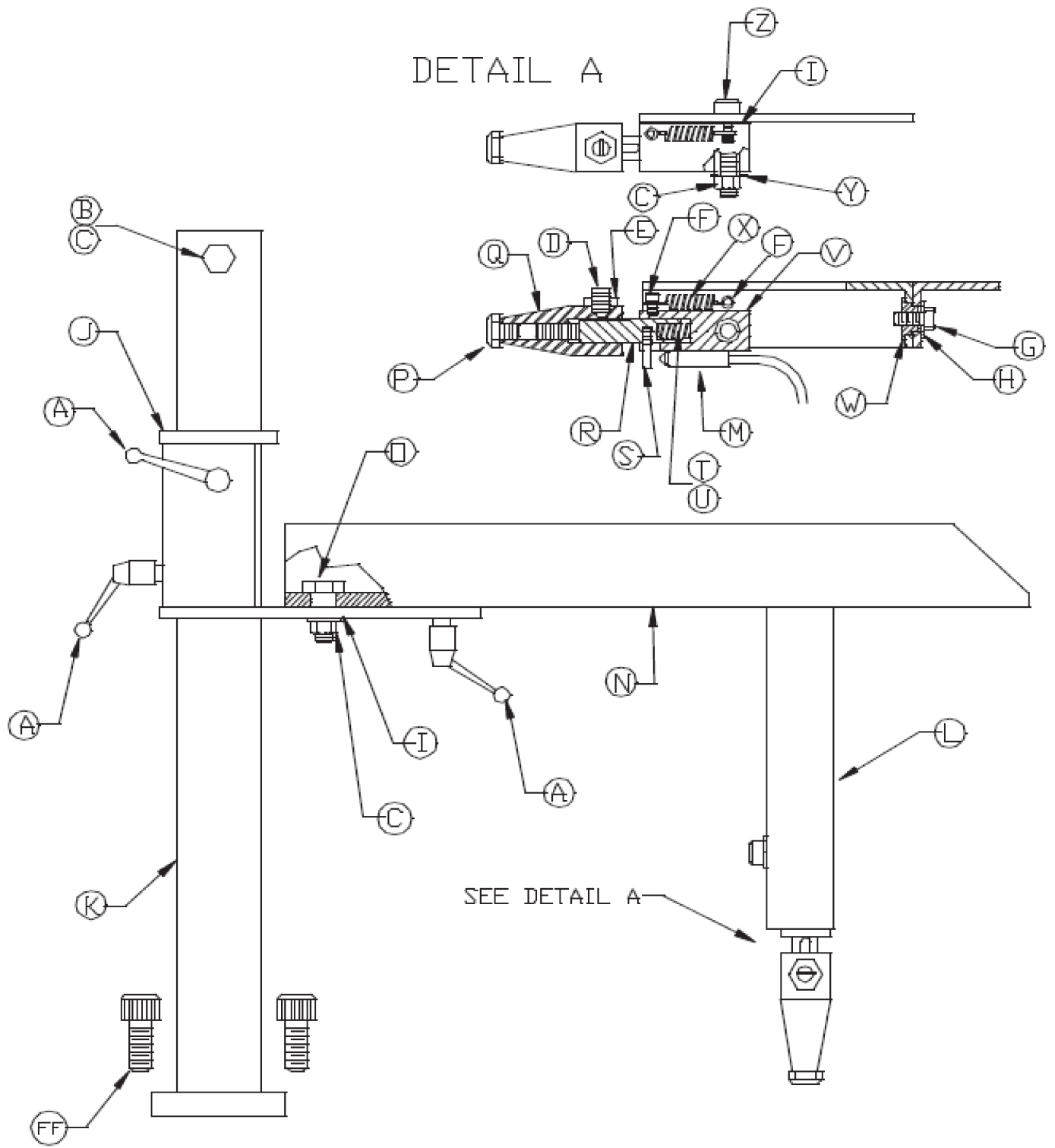
4.3 3 x 3 NINETY DEGREE NOTCHER-COPER

ITEM	PART #	DESCRIPTION
A	N/A	Main Beam
B	243101	M-6 Grease Nipple
C	N/A	Notcher Beam Pin
D	123320	Cotter Pin
E	002290	Drag Links
F	002963	Top Blade
G	002978	Blade Guard
H	002954	Lower Blade (Short)
I	002945	Lower Blade (Long)
J	N/A	Pivot Pin
K	108013	7/16 Hex Nut
L	N/A	Shear Table (Front)
M	N/A	Shear Table (Rear)
N	104222	3/8 HHCS
O	116012	3/8 Greer Nut
P	201235	M-10 HHCS
Q	212012	M-10 Lock Washer
R	214012	M-10 Washer
S	103212	3/8 HHCS
T	117012	3/8 Lock Nut
U	113019	1" SAE Washer
V	210022	M-22 Jam Nut
W	130325	7/16 SHCS
X	124207	3/8 WLCS
Y	N/A	Complete Tool



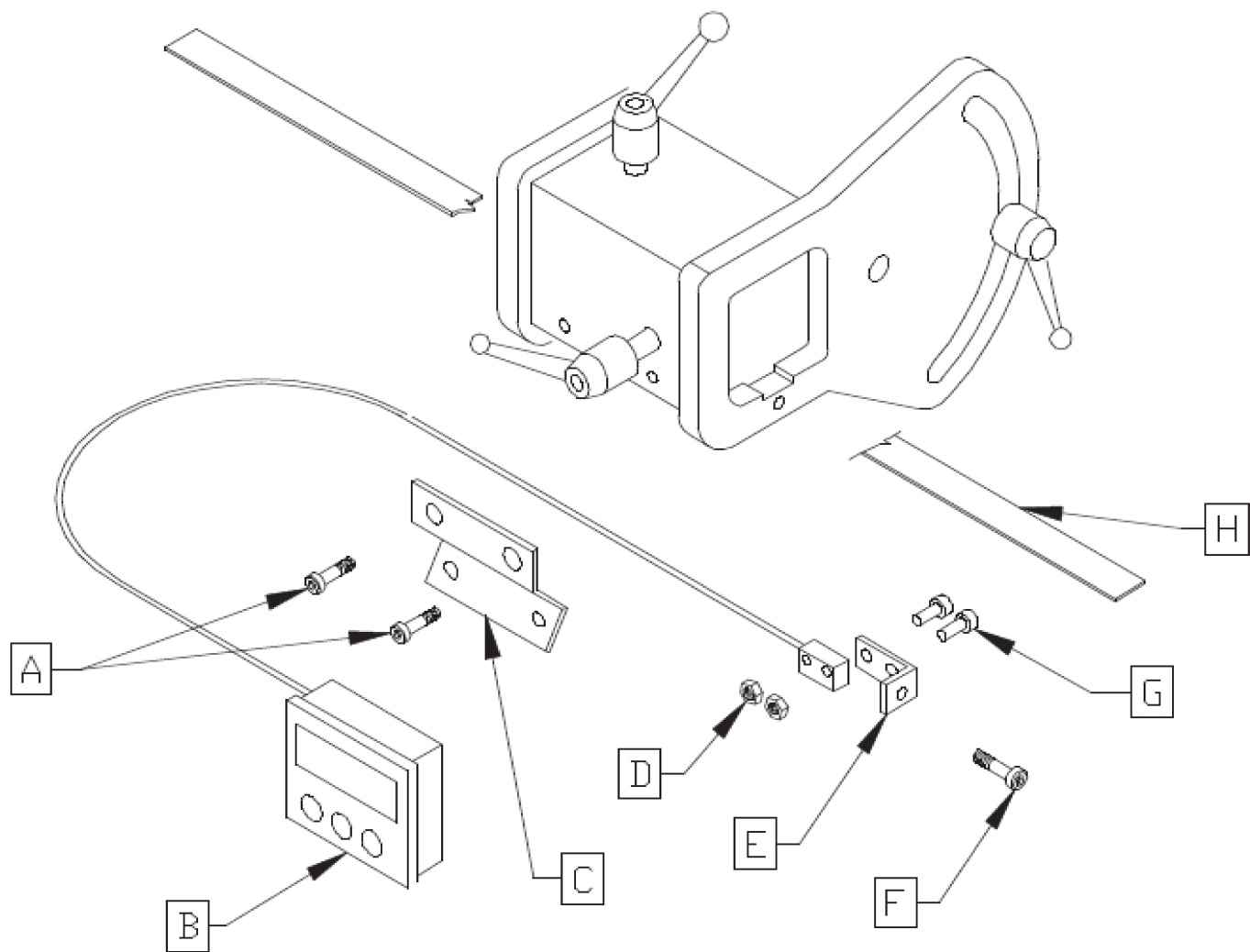
4.4 54 INCH BACK GAUGE ASSEMBLY

ITEM	PART #	DESCRIPTION
A	080061	Handle
B	201410	M-12 x 25 HHCS
C	210014	M-12 Hex Nut
D	001541	Ball Spring Screw
E	110014	1/2 x 13 Jam Nut
F	221005	M-6 x 12 SHCS
G	203210	M-10 x 25 HCS
H	213014	M-12 Flat Washer
I	550015	Probe Support
J	550012	Slide
K	550020	Support Tube
L	550015	Probe Support
M	550067	Optional Limit Switch
N	550013	Swing Arm
O	550027	Pivot Bolt
P	550034	Probe Cap
Q	550033	Boss
R	550031	Probe Rod
S	N/A	Contact Pin
T	550035	Plug (For Manual Back Gauge)
U	550036	Spring (For Electric Back Gauge)
V	550030	Probe Body
W	550028	Tee Nut
X	550037	Spring
Y	550038	Bushing
Z	221005	M-6 x 12 SHCS
AA	208014	M-12 Hex Nut
BB	213014	M-12 Flat Washer
CC	550023	Punch Mounting Bracket (Not Pictured)
DD	550018	Stop Assembly (Includes all of Detail A)
	550000	Complete Back Gauge



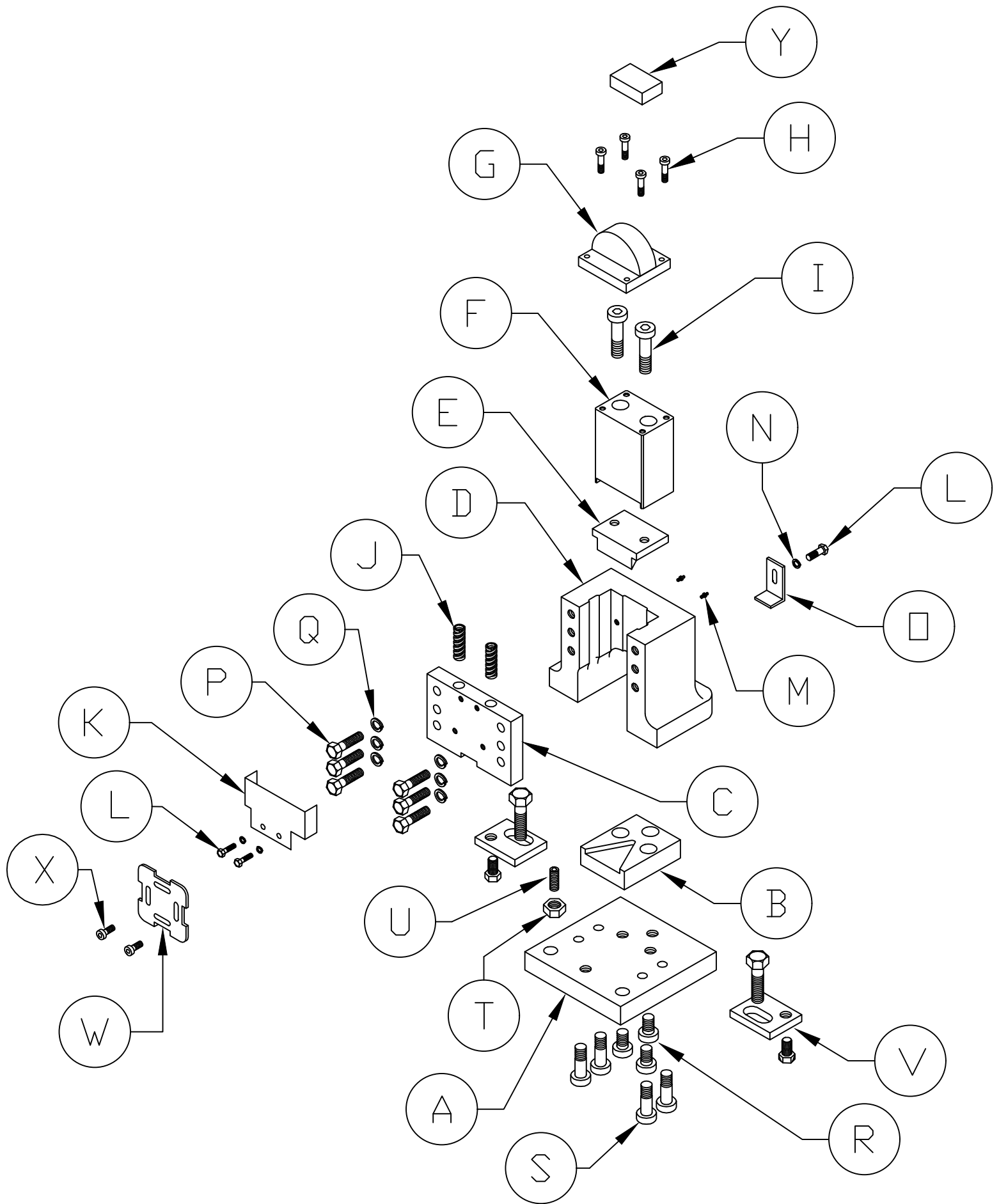
4.5 OPTIONAL DIGITAL READOUT

ITEM	PART #	DESCRIPTION
A	221002	M-4 x 12 SHCS
B	550050	Digital Readout
C	550052	Mounting Bracket
D	215000	M-4 Lock Nut
E	550040	Reader Mount
F	077864	M-5 x 12 SHCS
G	073415	M-4 x 25 SHCS
H	550055	Scale



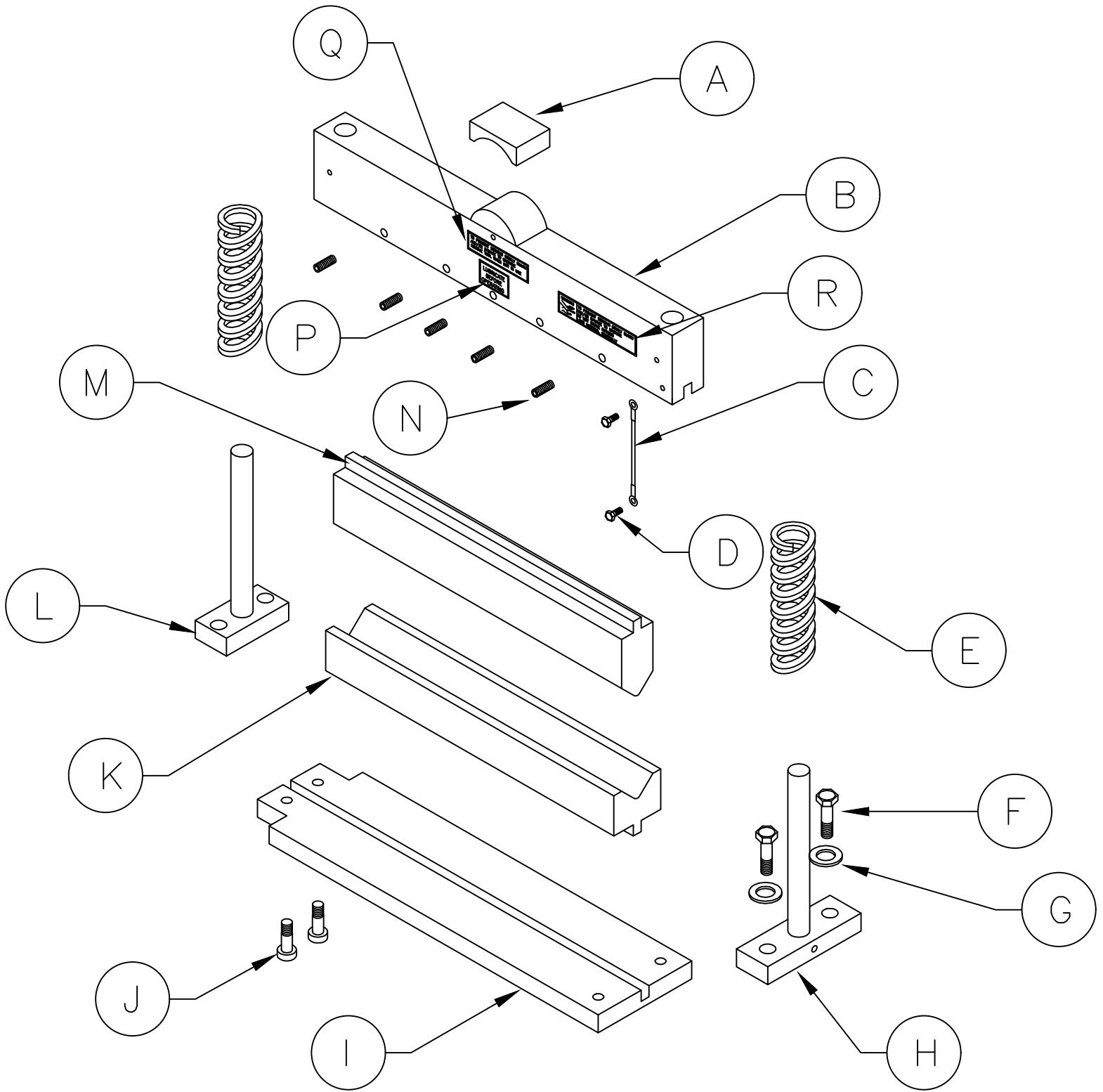
4.6 PICKET FENCE TOOL (STEEL HOUSING)

ITEM	PART #	DESCRIPTION
A	001271	Base
B	001264	1" Lower Die
	001292	3/4" Lower Die
	001249	1/2" Lower Die
C	001170	Front Plate
D	001168	Side Frame
E	001162	1" Upper Die
	001190	3/4" Upper Die
	001150	1/2" Upper Die
F	001167	Ram
G	001172	Pressure Cap
H	073615	M-6 x 20 SHCS
I	073634	M-10 x 80 BHCS
J	160050	1/2 x 3-1/2 Die Spring
K	001166	Spring Guard
L	221005	M-6 x 12 SHCS
M	243101	M-6 Grease Nipple
N	073097	M-6 Washer
O	001165	Tube Stop
P	201232	M-10 x 80 HHCS
Q	212012	M-10 Lock Washer
R	221210	M-10 x 25 SHCS
S	221212	M-10 x 30 SHCS
T	210012	M-10 Jam Nut
U	219050	M-10 x 25 Set Screw
V	001216	Finger Clamps
W	001178	Tube Guide
X	221005	M-6 Bolt
Y	001175	Cap
Z	001293	Complete Picket Tool



4.7 EIGHT INCH BRAKE

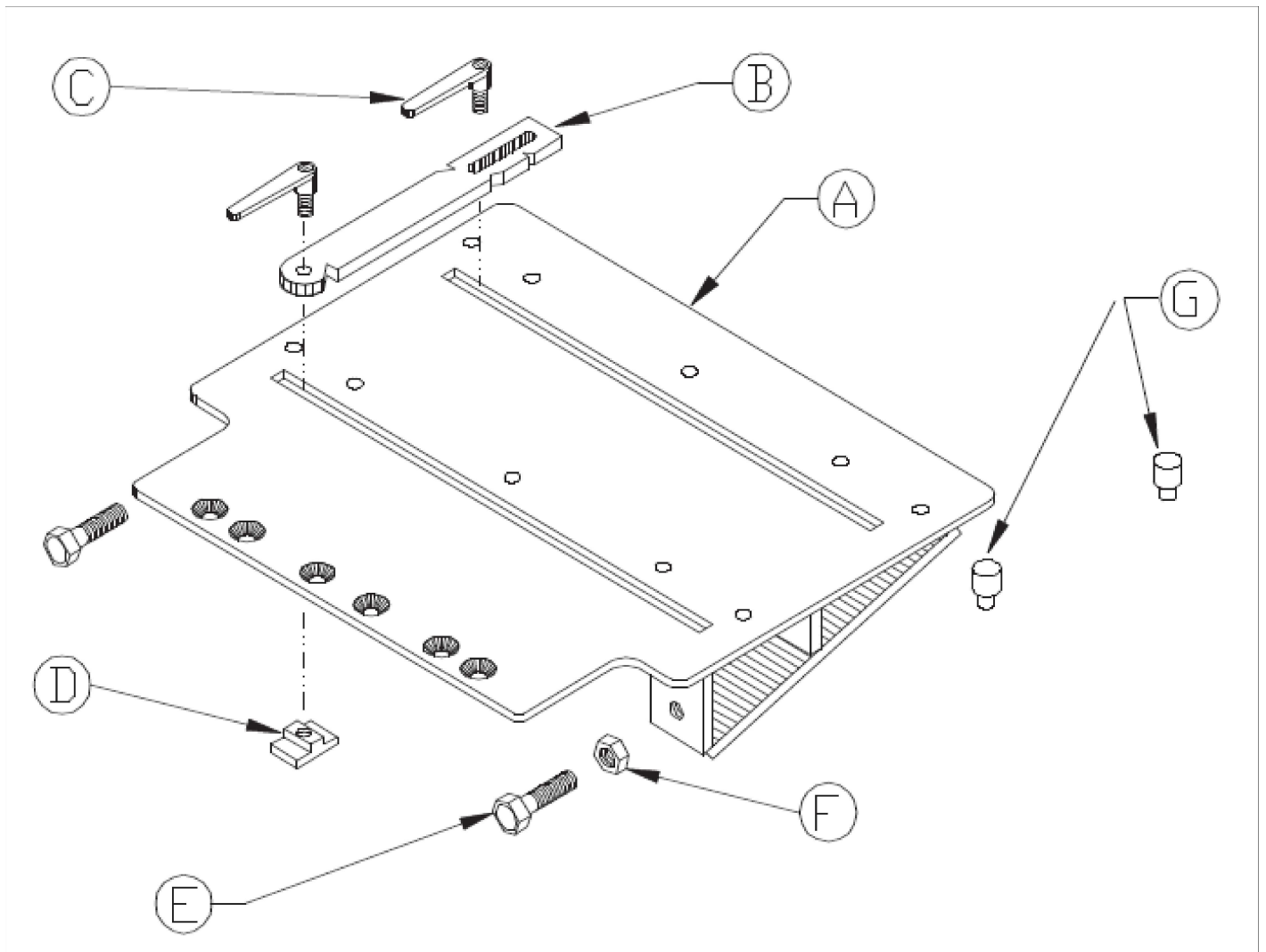
ITEM	PART #	DESCRIPTION
A	433151	Rocker Cap
B	433022	Brake Top
C	016320	Brake Cable
D	221010	M-6 x 16 SHCS
E	016123	Spring
F	221310	M-12 HHCS
G	212014	M-12 Lock Washer
H	433121	Post Assembly
I	433092	Base
J	221310	M-12 SHCS
K	333101	Lower Die
L	433121	Post Assembly
M	333111	Upper Die
N	218048	M-10 Set Screw
P	019103	Lubrication Decal
Q	003150	Brake Warning
R	003145	Remove Tool
S	433003	Complete Assembly



4.8 GAUGING TABLE - BAR SHEAR

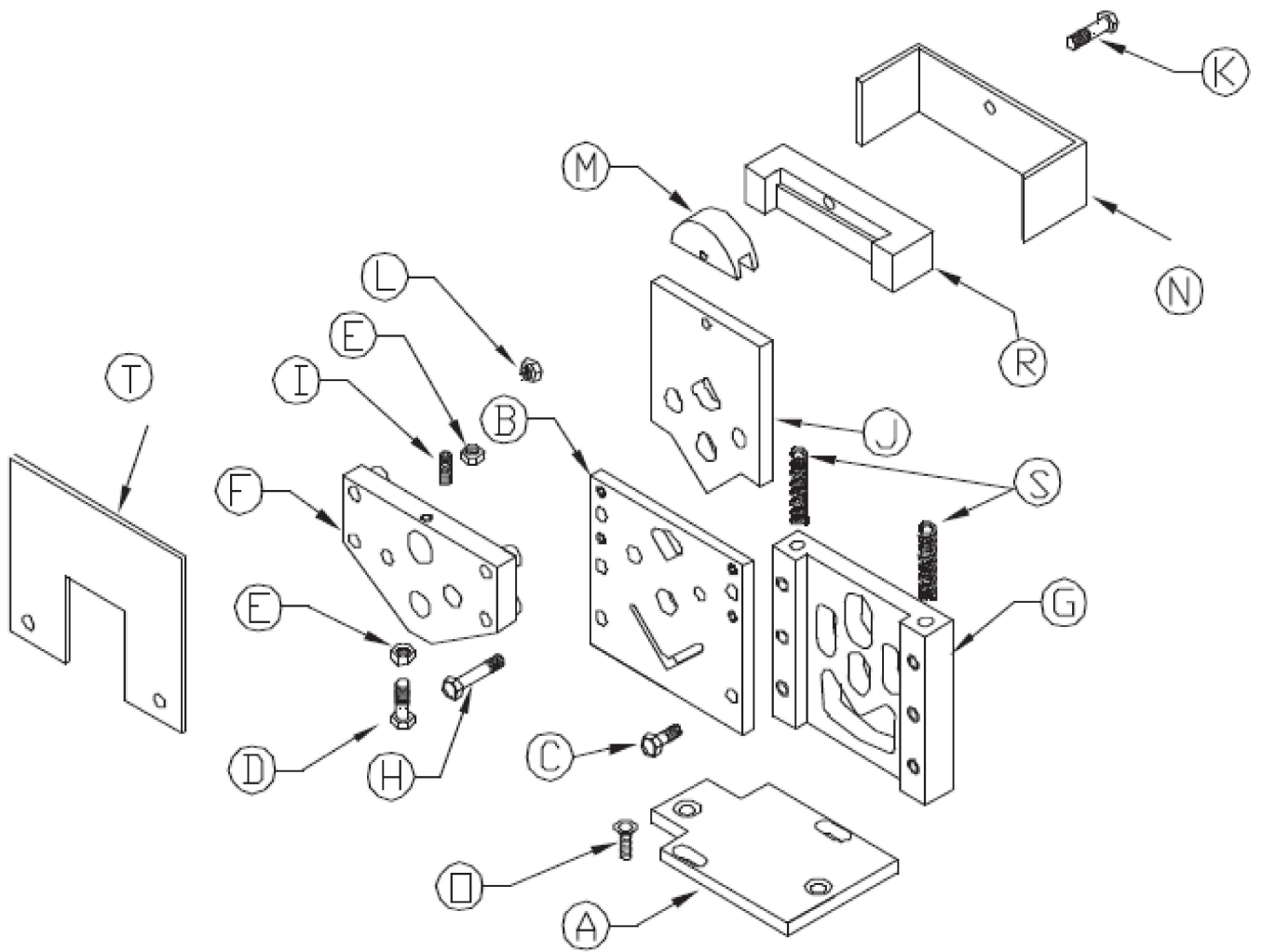
ITEM	COMMON PART #	5014-TM	DESCRIPTION
A	026591		Table Assembly
B	026692		Guide
C	080061		Handle
D	026618		Tee Nut
E	201435	218112	M-12 HHCS
F	210014		M-12 Jam Nut
G	026698		Stop Pins
H	026580	026585	Complete Table

**FITS ALL 4014-CM & 4014-TM,
5014-CM SER #'S 1510 & PRIOR,
5014-TM SER #'S 1525 & PRIOR.**



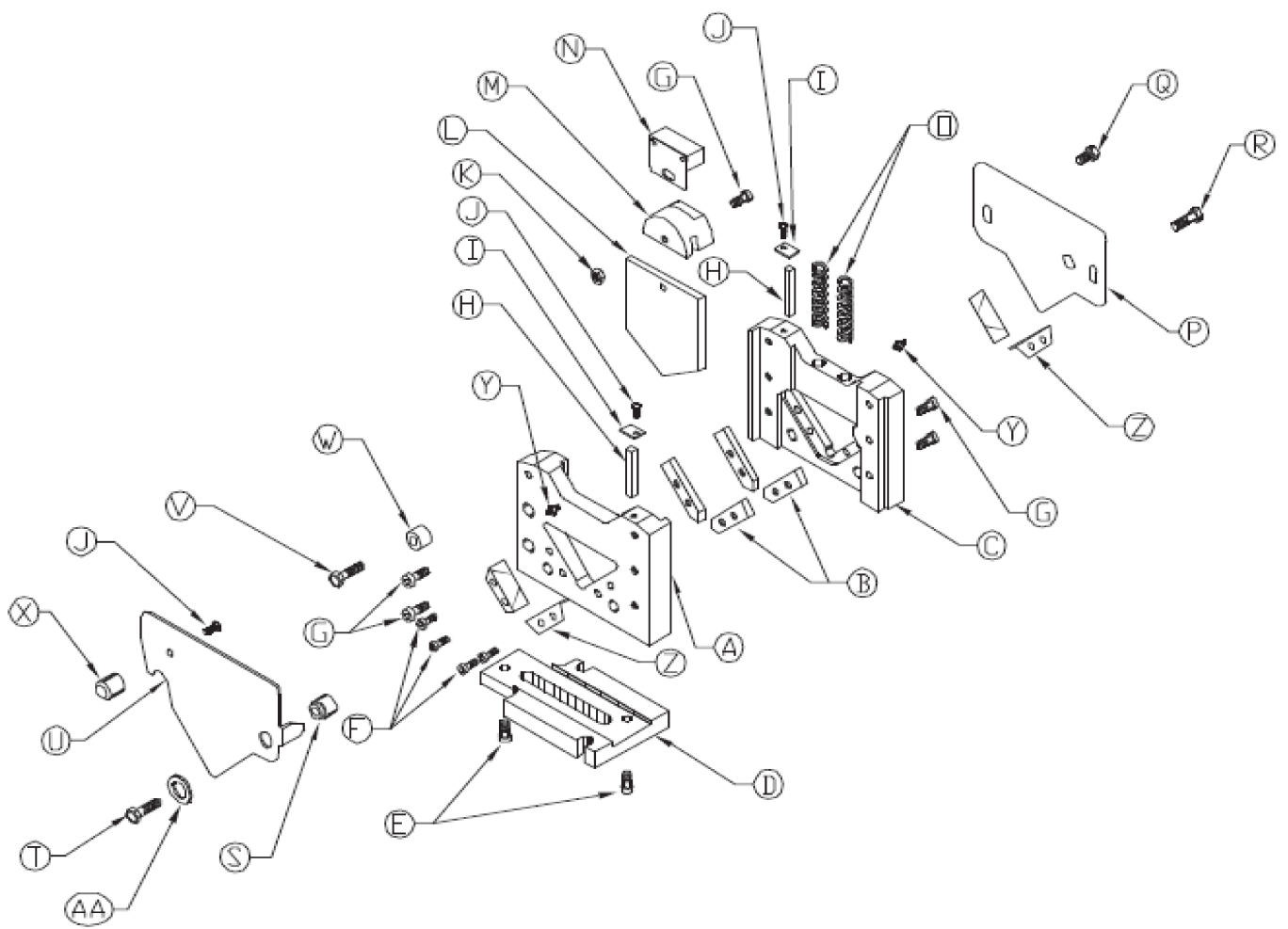
4.9 ROD SHEAR (WITH 2 X 2 ANGLE SHEAR)

ITEM	PART #	DESCRIPTION
A	331082	Base
B	431033	Stationary Blade
C	201410	M-12 x 25 HHCS
D	203210	M-10 x 25 HHCS
E	210012	M-10 Nut
F	431113	Hold Down
G	431063	Side Plate
H	203217	M-10 x 45 HHSC
HA	212012	M-10 Lock Washer
I	219050	M-10 x 25 Set Screw
J	431043	Moving Blade
K	204222	M-10 x 55 HHCS
L	215012	M-10 Greer Nut
M	331071	Cap
N	333015	Spring Guard
O	230407	M-12 x 20 FSHCS
R	433030	Lifting Block
S	016117	Spring
T	333025	Front Guard
	431028	Complete Tool



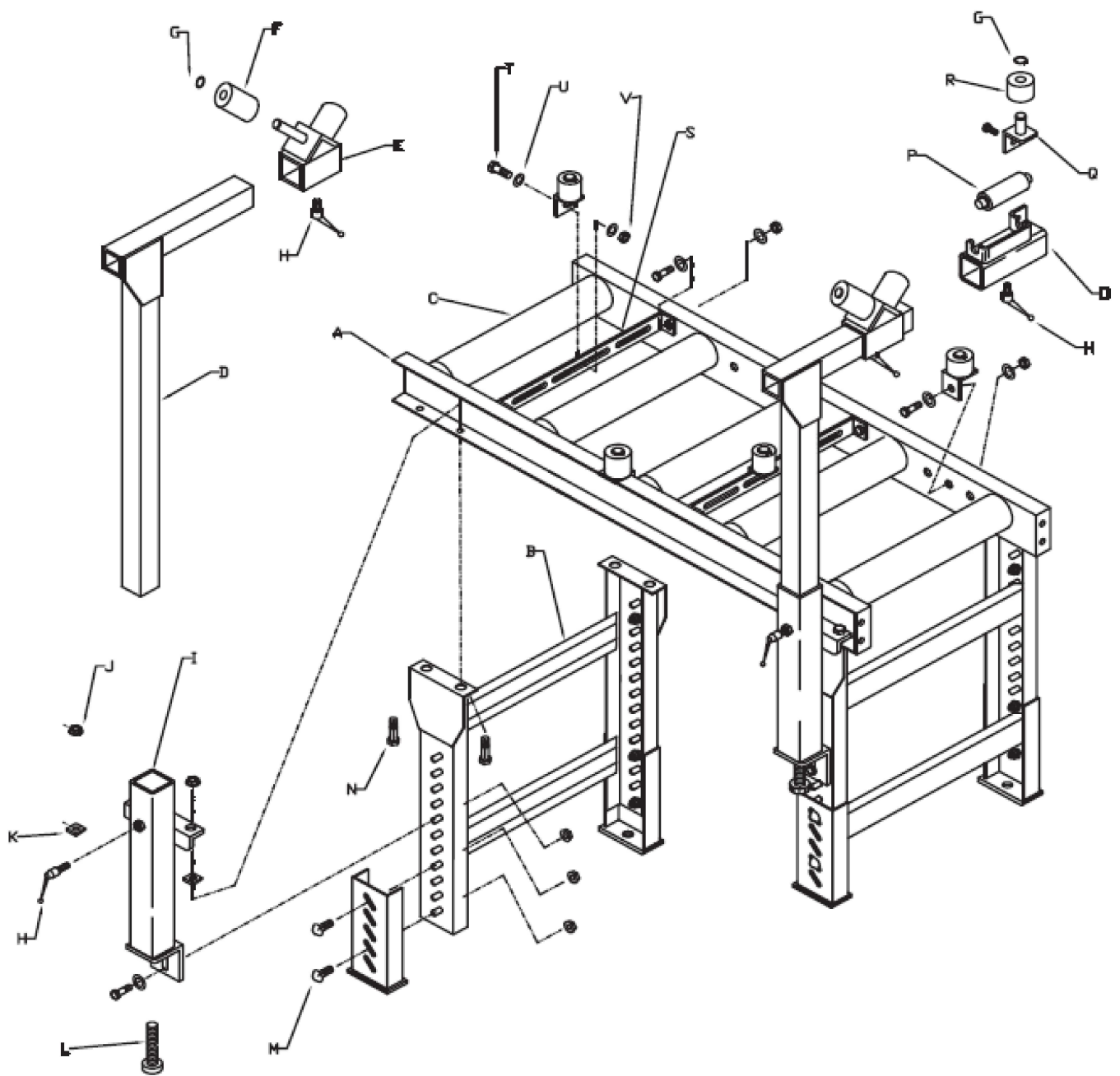
4.10 3 X 3 ANGLE SHEAR (Started in August 1995)

ITEM	PART #	DESCRIPTION
A	403430	Front Housing
B	403412	Lower Blades
C	403431	Rear Housing
D	430062	Base
E	221210	M-10 x 25 SHCS
F	221212	M-10 x 30 SHCS
G	221227	M-10 x 55 SHCS
H	400423	Wear Strip
I	026746	Strip Retainer
J	201110	M-6 x 12 HHCS
K	215012	M-10 Lock Nut
L	400417	Upper Blade
M	403418	Blade Cap
N	430281	Rocker Cap
O	016121	Return Springs
P	430232	Rear Guard
Q	201210	M-10 x 20 HHCS
R	201220	M-10 x 50 HHCS
S	430221	Guard Bearing
T	203210	M-10 x 25 HHCS
U	430202	Front Guard
V	203225	M-10 x 65 HHCS
W	430211	Guard Rest
X	330251	Knob
Y	243101	Grease Zerk
Z	403444	Miter Guides
AA	214012	M-10 Washer
BB	003140	Label (Not Pictured)
	430025	Complete Angle Shear



4.11 MATERIAL CONVEYOR (Used until June 2015)

ITEM	PART #	DESCRIPTION
A	026975	Track Assembly
B	N/A	
C	026902	Roller
D	026937	Upper Bracket Assembly
E	026941	V Guide Bracket
E1	026951	Complete V Guide Assembly
F	026952	V Rollers
G	016402	3/4 Snap Ring
H	080061	Handle
I	026911	Sleeve
J	216015	M-10 Flange Nut
K	N/A	
L	026920	Adjustment Bolt
M	228310	M-10 Carriage Bolt
N	203212	M-10 x 30 SHCS
O	026915	Bracket Assembly
P	026919	Steel Roller
Q	026955	Bump Roller Mount
R	026962	Bump Roller
R1	026960	Bump Roller Assembly
S	026969	Bump Roller Nut
T	203212	M-10 x 30 SHCS
U	213012	M-10 Washer
V	208012	M-10 Hex Nut
W	026985	Complete Conveyor



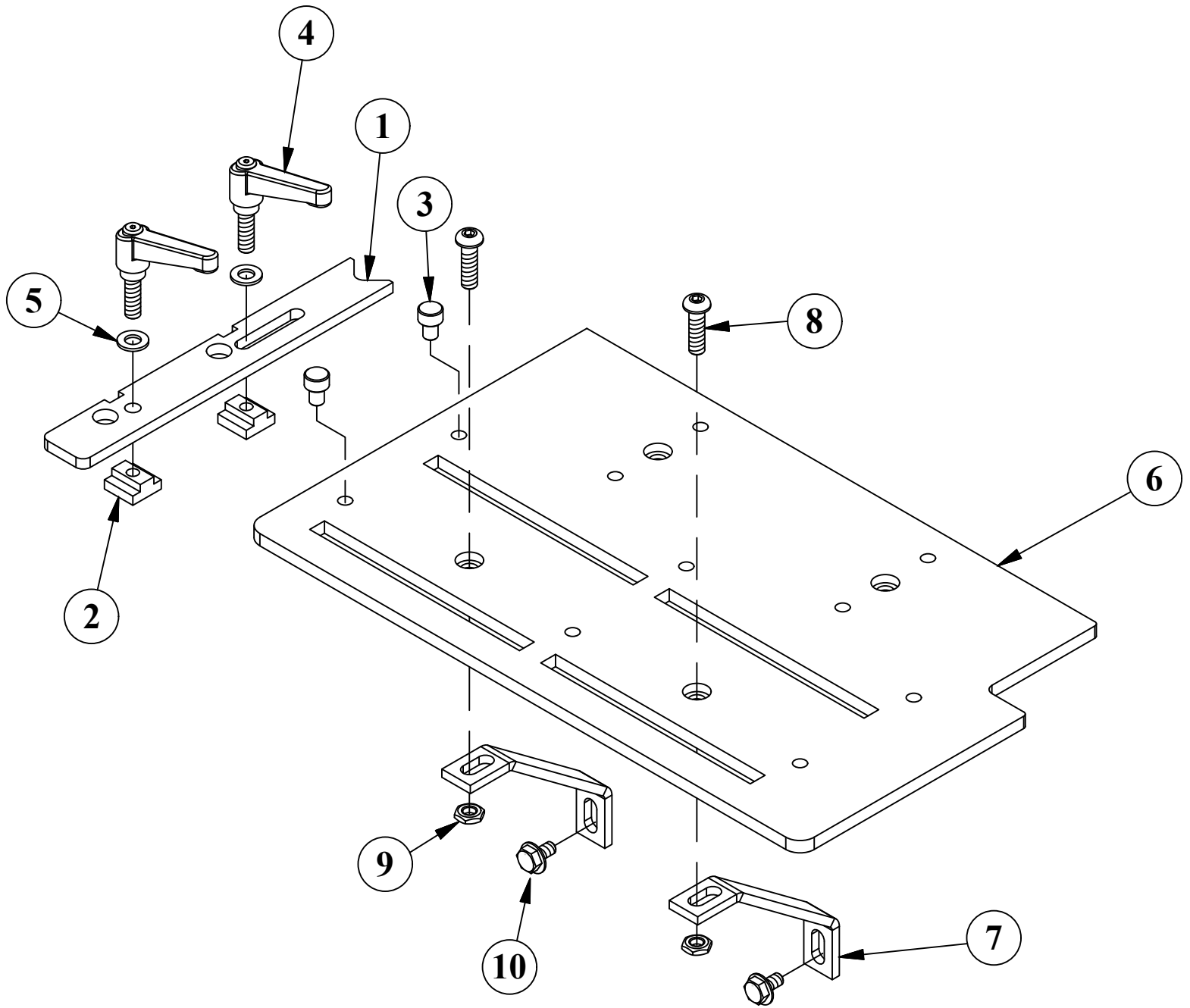
4.12 GAUGING TABLE - BAR SHEAR

(Old Style - With Table Supports - Items 7 - 10)

ITEM	QTY	PART #	DESCRIPTION
1	1	025705	Guide Finished
2	2	026618	Tee Nut (M10)
3	2	026698	Rest Button
4	2	080063	RS/Jig Handle
5	2	214012	M10 Regular Washer DIN125
6*	1	510046	Large Shear Table Mach
7	2	510048	Table Support
8	2	220029	M10 X 35 BHCS ISO 7380
9	2	210012	M10 Jam Nut DIN439
10	2	224205	M10 X 16MM WLCS DIN-BN73

NOTE: If Item 6* (Shear Table) is ordered, Items 7-10 are not needed with the new style table and can not be used. The mounting holes in the table have been eliminated.

**FITS 5014-CM SER #'S 1511 & UP, 5014-TM SER #'S 1526 & UP.
FITS ALL 50514-CM'S**



4.13 CONVEYOR SYSTEM (June 2015 to June 2022)

ITEM	PART #'S	DESCRIPTION
A	026972	Track Assembly
B	N/A	Leg Assembly
C	026905	Rollers
D	026937	Upper Bracket Assembly
E	026941	V Guide Bracket
E1	026951	Complete V Guide Assembly
F	026952	V Rollers
G	016402	3/4 Snap Ring
H	080061	Handle
I	026911	Sleeve
J	216015	M-10 Flange Nut
K	N/A	Wedge Washer
L	026920	Adjustment Bolt
M	228210	M-10 Carriage Bolt
N	203212	M-10 x 30 SHCS
O	026915	Bracket Assembly
O1	026923	Roller Assembly
P	026919	Steel Roller
Q	026955	Bump Roller Mount
R	026962	Bump Roller
R1	026960	Bump Roller Assembly
S	026969	Bump Roller Mount
T	203210	M-10 x 20 SHCS
U	213012	M-10 Flat Washer
V	208012	M-10 Hex Nut Leg Extensions (Not Pictured)
W	026939	Sleeve Brace
X	026940	Mounting Bracket
Y	203235	M-10 x 90 HHCS
	026980	Complete Conveyor

