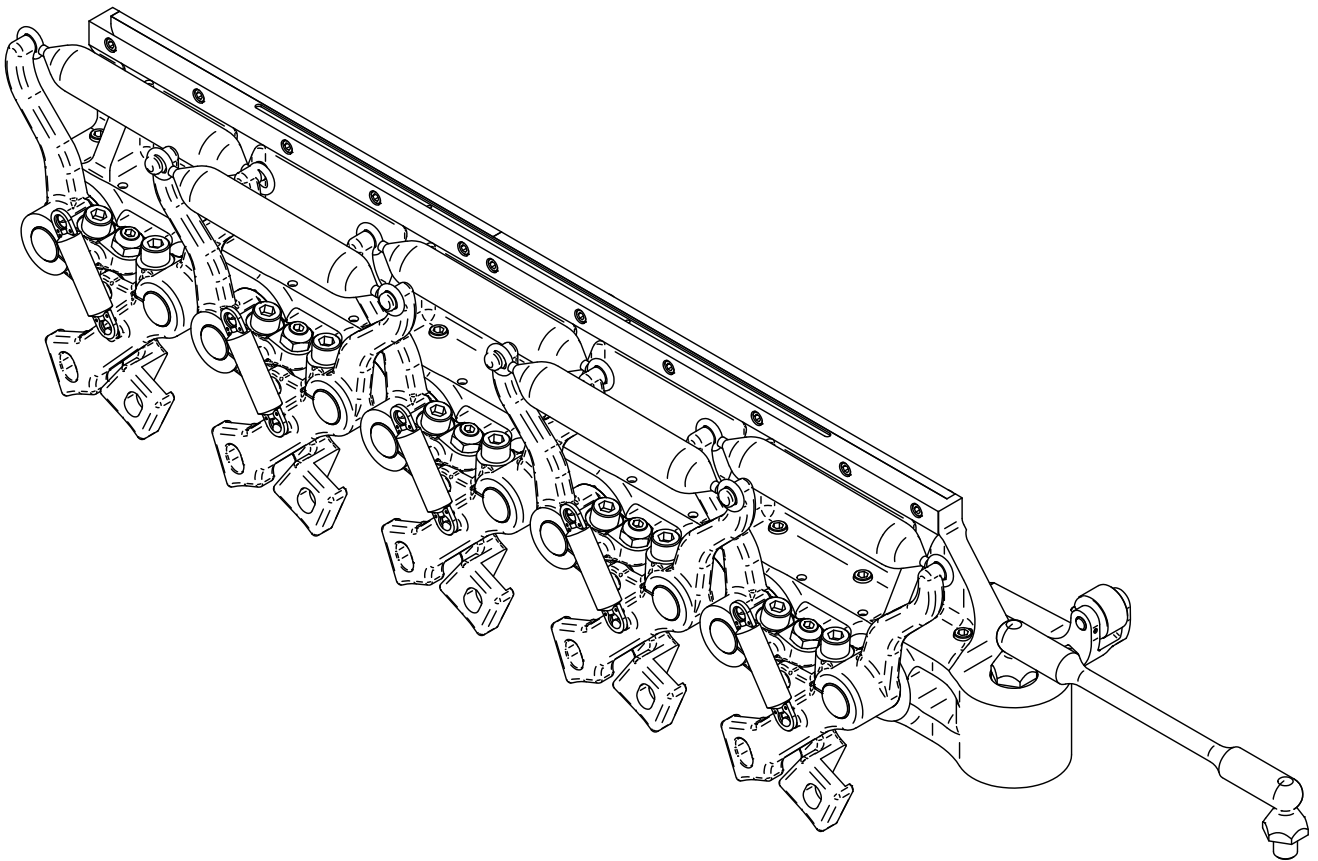




National Boltmaker



**When quoting or placing an order,
specify the following:**

- **Catalog & Page Number**
- **Serial Number**
- **Key Number**
- **Quantity**
- **Part Number (if available)**

**Please provide sample parts or prints
for items not found in this catalog.**

We at Star Metal Products look forward to serving you, and encourage you to review the following terms and conditions to ensure a mutually successful business transaction.

- Terms are net 30 days from shipment, F.O.B. Ourdock, Westlake, Ohio Freight Collect. All prices subject to change without notice.
- Our minimum billing is \$50.00
- Quotations are valid for 90 days unless otherwise specified.
- Star Metal Products Blanket Order Policy

Duration :

Blanket Orders will be held for a maximum time period of six months. Any line item open six months from the date of receipt of customer order will ship automatically. Duration of blanket order may extend up to one year, only if specific release quantities and release dates are supplied with customer order.

Releases :

Upon completion of job order, 25% of each line item (with a minimum of 1 piece) will be shipped to customer. The balance of each line item will be held for release by customer within the six month time frame.

- Cancellation will be subject to a charge for any applicable material used and labor employed for work in progress.
- Returns :
We regret that positively no tooling may be returned without factory authorization. Returns must be made within 60 days of receiving merchandise. We will not be responsible for shipping charges incurred by customers that deviate from this policy. We reserve the right to only repair tooling accepted under these conditions.

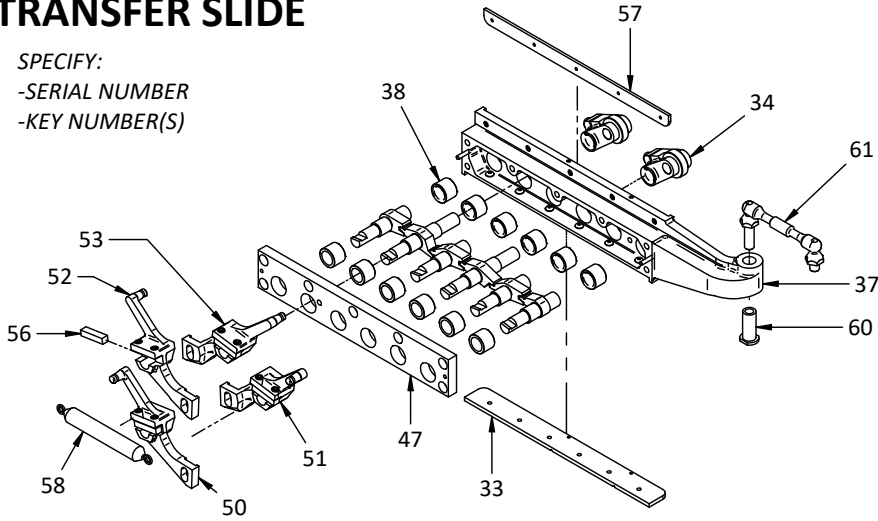
BOLTMAKERS

3/16	Pg 3
1/4	Pg 4
5/16	Pg 5
3/8	Pg 6
1/2 3D	Pg 7
1/2 4D	Pg 8
5/8	Pg 9 - 10
3/4	Pg 11 - 12
1000	Pg 12
M24	Pg 13
1" 3D	Pg 14
1" 4D & 5D	Pg 15
1012 & M20	Pg 16

NATIONAL 3/16 BOLTMAKER

TRANSFER SLIDE

SPECIFY:
 -SERIAL NUMBER
 -KEY NUMBER(S)

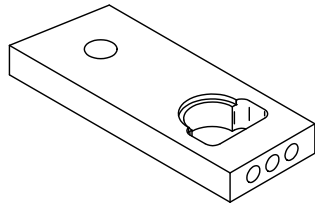


Key #	Description
33	BOTTOM WEAR PLATE
34	LEVER
37	SLIDE
38	BUSHING
47	PLATE
50	TRANSFER ARM #3 & 6
51	TRANSFER ARM #4 & 8
52	TRANSFER ARM #1 & 5
53	TRANSFER ARM #2 & 4
56	KEY
57	TOP WEAR PLATE
58	SPRING
60	BUSHING
61	LINK

GEARS

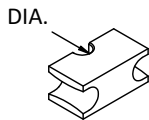
Pos 1	Pos 2	Pos 3	Pos 4 & 6	Pos 5	Pos 7	Pos 6 & 8	Pos 5 & 7
305C524	320C161	305C526	305C552	3411C6129A	3411C6135A	305C529	320C138

CUTTER STATION - SPECIFY DIA.



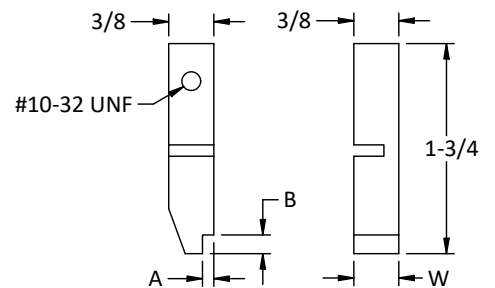
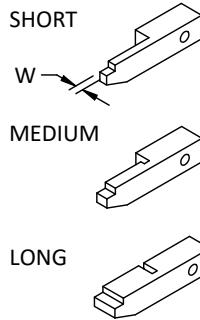
HALF CUTTER PLATE
 PART #: 1-1906A

HALF CUTTER
 PART #: 1-1906



CUTTER PLATE
 STOCK CLAMP
 PART #: 1-2000

FINGERS

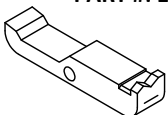


RIGHT HAND SHOWN

SPECIFY:
 - PART #
 - LEFT OR RIGHT HAND

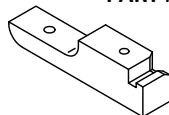
POINTER CHUCK JAWS

MOVABLE
 PART #: 1-3015M



SPECIFY:
 -BOLT SIZE

STATIONARY
 PART #: 1-3015S

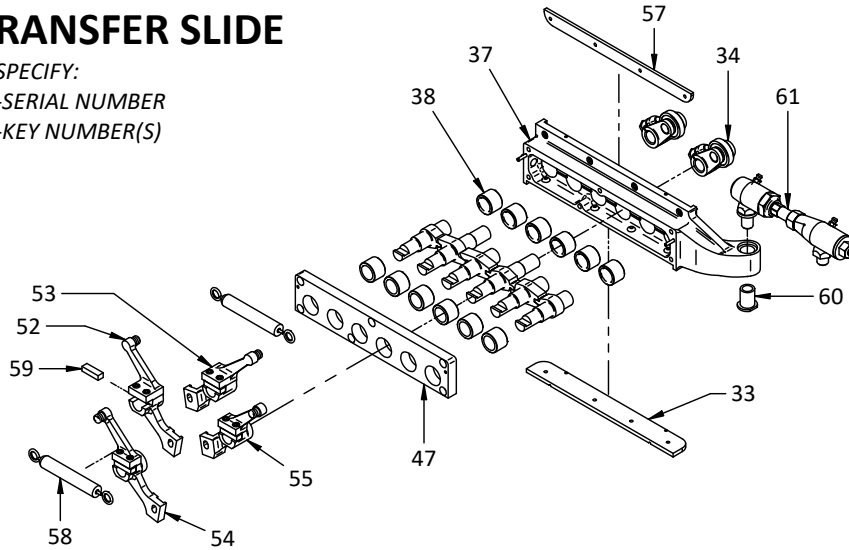


Bolt Length	A	B	W	Part #
SHORT	3/16	5/32	1/8	1-997
MEDIUM	3/16	5/32	5/16	1-998
LONG	3/16	5/32	3/8	1-999

NATIONAL 1/4 BOLTMAKER

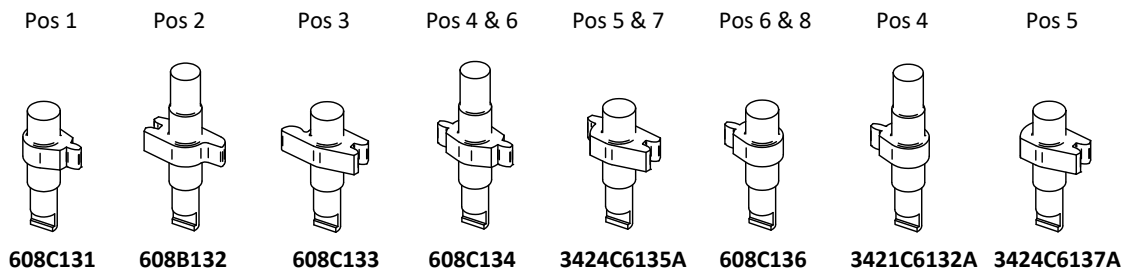
TRANSFER SLIDE

SPECIFY:
-SERIAL NUMBER
-KEY NUMBER(S)



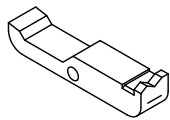
Key #	Description
33	BOTTOM WEAR PLATE
34	LEVER
37	SLIDE
38	BUSHING
47	PLATE
52	TRANSFER ARM #1 & 5
53	TRANSFER ARM #2 & 6
54	TRANSFER ARM #3 & 7
55	TRANSFER ARM #4 & 8
57	TOP WEAR PLATE
58	SPRING
59	KEY
60	BUSHING
61	LINK

GEARS

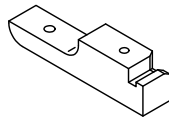


POINTER CHUCK JAWS

MOVABLE
PART #: 1-3016M

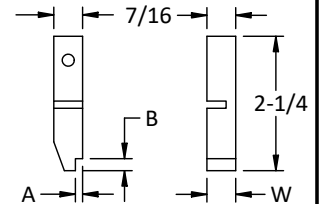
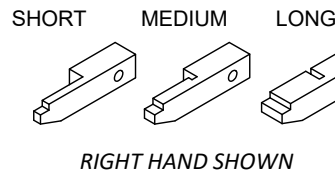


STATIONARY
PART #: 1-3016S



SPECIFY:
-BOLT SIZE

FINGERS

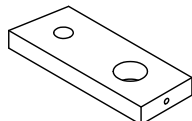


Bolt Size	A	B	W	Part #
3/16S	3/16	5/32	1/8	1-997
3/16M	3/16	5/32	5/16	1-998
3/16L	3/16	5/32	3/8	1-999
1/4S	5/32	3/16	1/8	1-1000
1/4M	5/32	3/16	1/4	1-1001
1/4L	5/32	3/16	7/16	1-1002

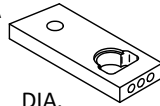
SPECIFY:
- PART #
- LEFT OR RIGHT
HAND

CUTTER STATION - SPECIFY DIA.

CUTTER PLATE
PART #: 1-1901A



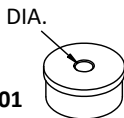
HALF CUTTER PLATE
PART #: 1-1907A



CUTTER PLATE
STOCK CLAMP
PART #: 1-2001



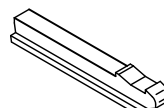
CUTTER
PART #: 1-1901



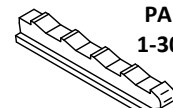
HALF CUTTER
PART #: 1-1907



BOLT STOP IN TRIM TOOL



PART #:
1-3000

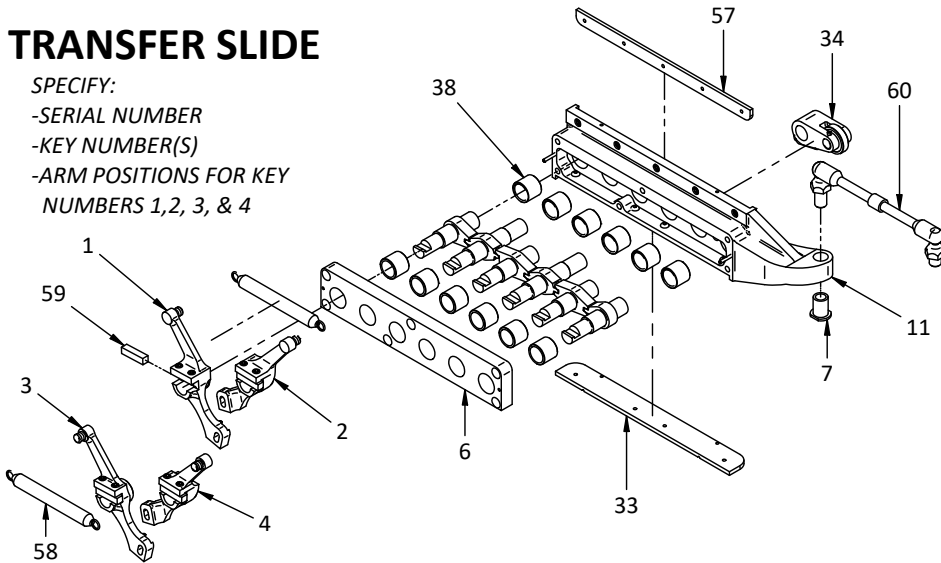


PART #:
1-3006

NATIONAL 5/16 BOLTMAKER

TRANSFER SLIDE

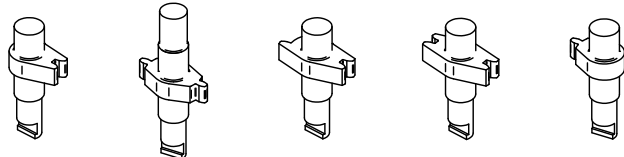
SPECIFY:
 -SERIAL NUMBER
 -KEY NUMBER(S)
 -ARM POSITIONS FOR KEY NUMBERS 1, 2, 3, & 4



Key #	Description
1	TRANSFER ARM
2	TRANSFER ARM
3	TRANSFER ARM
4	TRANSFER ARM
6	PLATE
7	BUSHING
11	SLIDE
33	BOTTOM WEAR PLATE
34	LEVER
38	BUSHING
57	TOP WEAR PLATE
58	SPRING
59	KEY
60	CONNECTION

GEARS

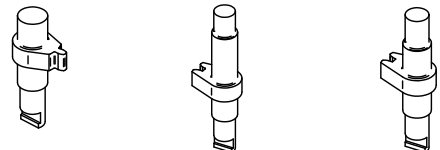
Pos 1 & 5 Pos 2, 4, 6 Pos 3 Pos 5 & 7 Pos 6 & 8



3431C6133A 294C58 3431C6131A 294C582 294C583

S2 & S3 ONLY

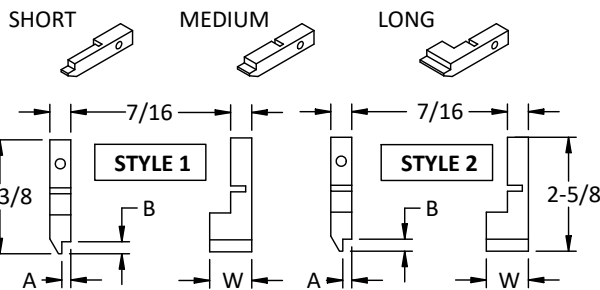
Pos 1,3,5,7 Pos 2 & 6 Pos 4 & 8



3431B6207A 3431B6208A 3431B6209A

FINGERS

RIGHT HAND SHOWN



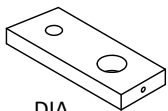
STYLE 1				
BOLT SIZE	A	B	W	PART #
3/16S	3/32	5/32	1/4	1-704
3/16M	3/32	5/32	7/16	1-705
3/16L	3/32	5/32	7/8	1-706
1/4S	5/32	3/16	1/4	1-804
1/4M	5/32	3/16	7/16	1-805
1/4L	5/32	3/16	7/8	1-806
5/16S	3/16	1/4	1/4	1-1004
5/16M	3/16	1/4	7/16	1-1005
5/16L	3/16	1/4	7/8	1-1006

SPECIFY:
 - PART #
 - LEFT OR RIGHT HAND

STYLE 2	
W	PART #
1/4	1-5-1004
7/16	1-5-1005
7/8	1-5-1006

CUTTER STATION - SPECIFY DIA.

CUTTER PLATE
PART #: 1-1902A

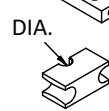


CUTTER
PART #: 1-1902

HALF CUTTER PLATE
PART #: 1-1908A



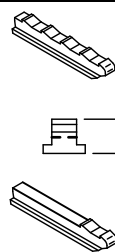
CUTTER PLATE STOCK CLAMP
PART #: 1-2002



HALF CUTTER
PART #: 1-1908



BOLT STOP IN TRIM TOOL



LONG BOLTS
PART #: 1-3007

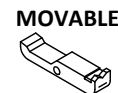
SHORT BOLTS	
PART #	W
1-3001	15/32
1-3002	17/32
1-3003	9/16

POINTER CHUCK JAWS

BRACKET



PART #: 1-4017B



PART #: 1-3017M

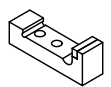
MOVABLE



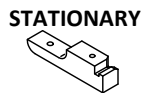
PART #: 1-4017M

SPECIFY:
-BOLT SIZE

STATIONARY



PART #: 1-4017S

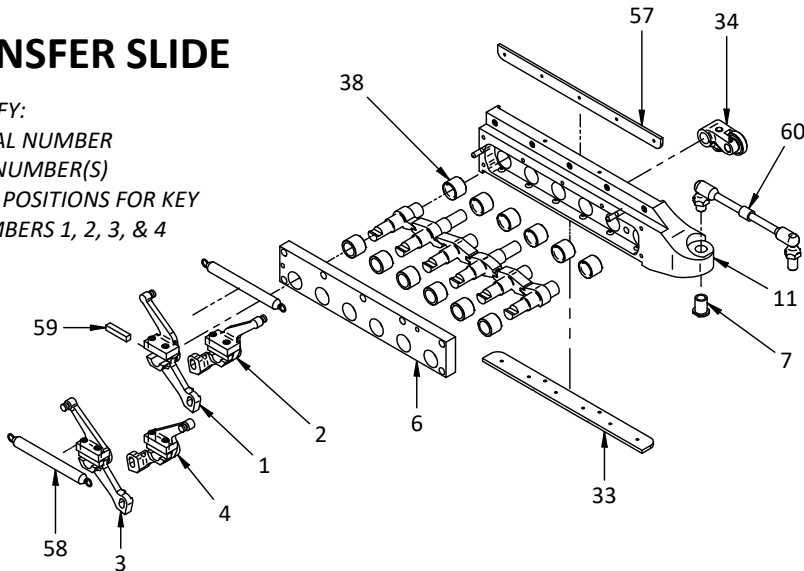


PART #: 1-3017S

NATIONAL 3/8 BOLTMAKER

TRANSFER SLIDE

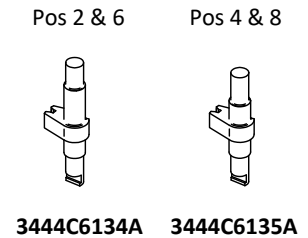
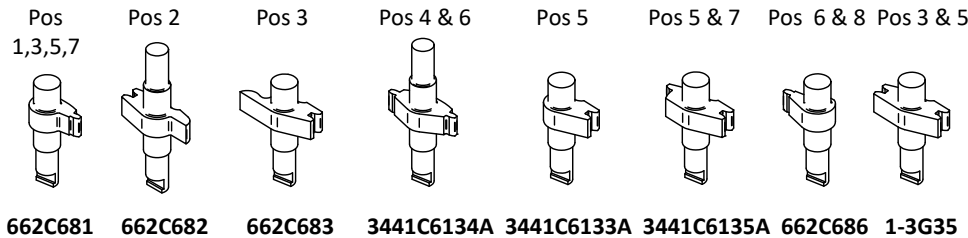
SPECIFY:
 -SERIAL NUMBER
 -KEY NUMBER(S)
 -ARM POSITIONS FOR KEY
 NUMBERS 1, 2, 3, & 4



Key #	Description
1	TRANSFER ARM
2	TRANSFER ARM
3	TRANSFER ARM
4	TRANSFER ARM
6	PLATE
7	BUSHING
11	SLIDE
33	BOTTOM WEAR PLATE
34	LEVER
38	BUSHING
57	TOP WEAR PLATE
58	SPRING
59	KEY
60	LINK

GEARS

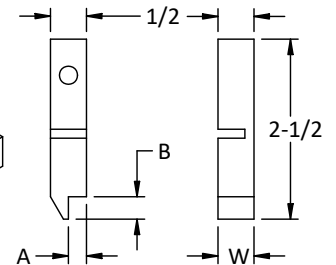
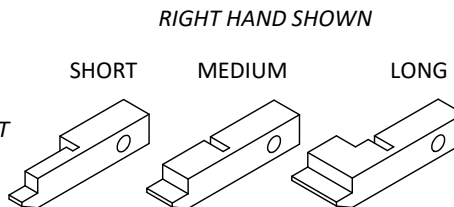
S2 & S3 ONLY



FINGERS

BOLT SIZE	A	B	W	PART #
1/4 S	5/32	3/16	1/4	1-807
1/4 M	5/32	3/16	1/2	1-808
1/4 L	5/32	3/16	7/8	1-809
5/16 S	3/16	1/4	1/4	1-907
5/16 M	3/16	1/4	1/2	1-908
5/16 L	3/16	1/4	7/8	1-909
3/8 S	1/4	5/16	1/4	1-1007
3/8 M	1/4	5/16	1/2	1-1008
3/8 L	1/4	5/16	7/8	1-1009

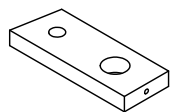
SPECIFY:
 - PART #
 - LEFT OR RIGHT
 HAND



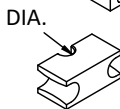
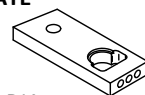
CUTTER STATION - SPECIFY DIA.

CUTTER PLATE
 PART #: 1-1903A

HALF CUTTER PLATE
 PART #: 1-1909A



CUTTER PLATE
 STOCK CLAMP
 PART #: 1-2003



DIA.

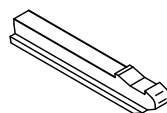
CUTTER
 PART #: 1-1903

HALF CUTTER
 PART #: 1-1909

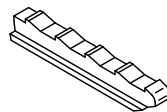


DIA.

BOLT STOP IN TRIM TOOL



PART #:
 1-3004



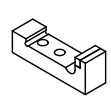
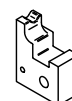
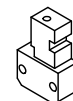
PART #:
 1-3008

POINTER CHUCK JAWS

BRACKET

MOVABLE

STATIONARY



PART #:
 1- 4017B

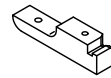
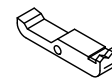
PART #:
 1- 4017M

PART #:
 1- 4017S

MOVABLE

SPECIFY:
 BOLT SIZE

STATIONARY



PART #: 1-3017M

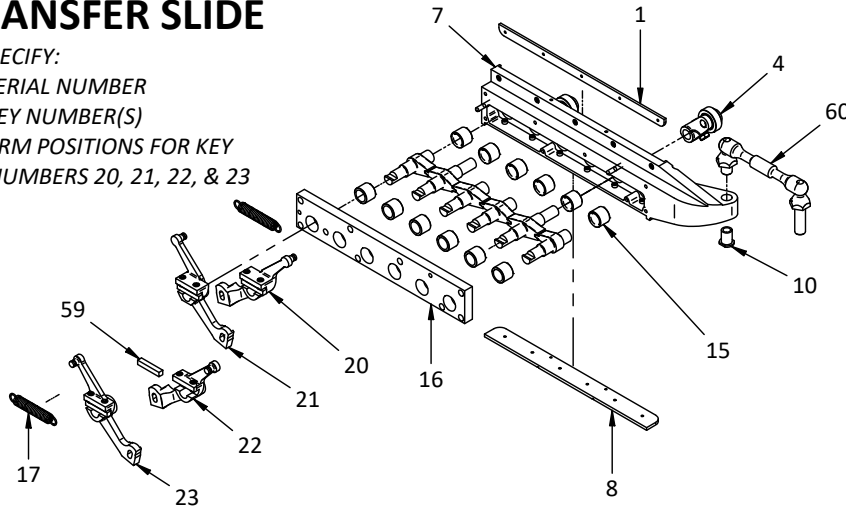
PART #: 1-3017S

NATIONAL 1/2 BOLTMAKER - 3 DIE

TRANSFER SLIDE

SPECIFY:

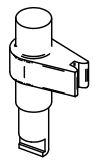
- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 20, 21, 22, & 23



Key #	Description
1	TOP WEAR PLATE
4	LEVER
7	SLIDE
8	BOTTOM WEAR PLATE
10	BUSHING
15	BUSHING
16	PLATE
17	SPRING
20	TRANSFER ARM
21	TRANSFER ARM
22	TRANSFER ARM
23	TRANSFER ARM
59	KEY
60	LINK

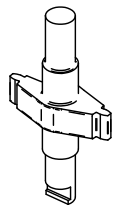
GEARS

Pos 1



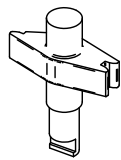
3451C6129B

Pos 2



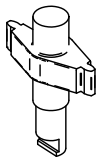
3451C6132A

Pos 3



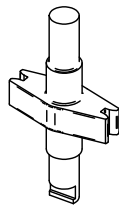
3451C6131B

Pos 4



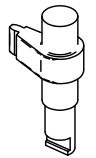
3451C6134A

Pos 5



3451C6135A

Pos 6



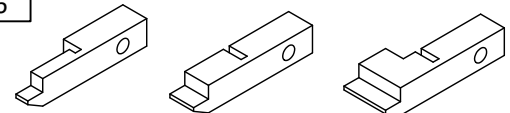
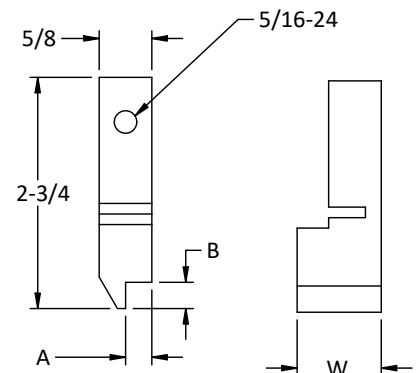
3451C6136A

FINGERS

RIGHT HAND SHOWN

- SPECIFY:
- BOLT SIZE
 - "W" (WIDTH)
 - LEFT OR RIGHT HAND

Bolt Size	A	B
3/16	3/32	3/32
1/4	1/8	3/16
5/16	3/16	1/4
3/8	1/4	5/16
7/16	5/16	5/16
1/2	3/8	3/8
5/8	7/16	7/16



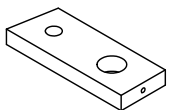
SHORT

MEDIUM

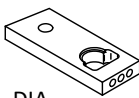
LONG

CUTTER STATION - SPECIFY DIA.

CUTTER PLATE
PART #: 1-1904A



HALF CUTTER PLATE
PART #: 1-1910A



CUTTER PLATE STOCK CLAMP
PART #: 1-2004



CUTTER
PART #: 1-1904

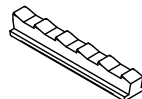


HALF CUTTER
PART #: 1-1910

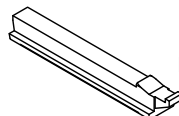


BOLT STOP IN TRIM TOOL

LONG BOLTS
PART #: 1-3009

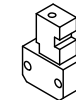


SHORT BOLTS
PART #: 1-3005



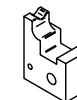
POINTER CHUCK JAWS

BRACKET



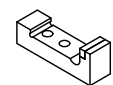
PART #: 1-4017B

MOVABLE



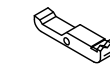
PART #: 1-4017M

STATIONARY



PART #: 1-4017S

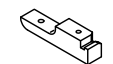
MOVABLE



PART #: 1-3017M

SPECIFY:
BOLT SIZE

STATIONARY



PART #: 1-3017S

PHONE: (440) 899-7000

FAX : (440) 899-7171

CATALOG: 0103

PAGE 7

2016 CATALOG

EMAIL : sales@starmetal.com

http://www.starmetal.com

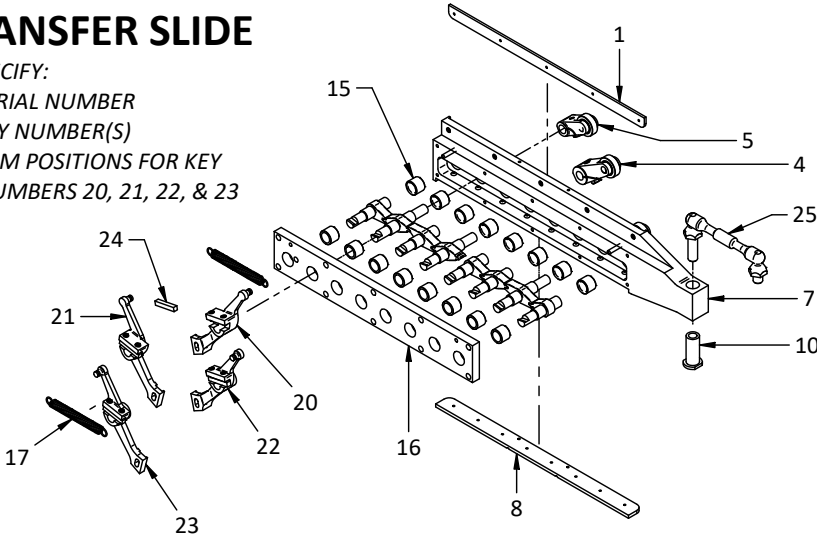
REV.230721

NATIONAL 1/2 BOLTMAKER - 4 DIE

TRANSFER SLIDE

SPECIFY:

- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 20, 21, 22, & 23



Key #	Description
1	TOP WEAR PLATE
4	LEVER
5	LEVER
7	SLIDE
8	BOTTOM WEAR PLATE
10	BUSHING
15	BUSHING
16	COVER PLATE
17	SPRING
20	TRANSFER ARM
21	TRANSFER ARM
22	TRANSFER ARM
23	TRANSFER ARM
24	KEY
25	LINK

GEARS

S2 & S3 ONLY

Pos 1 & 5

Pos 2 & 4

Pos 3

Pos 6

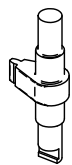
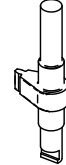
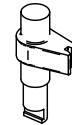
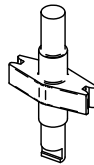
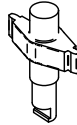
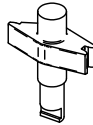
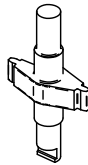
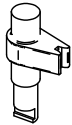
Pos 7

Pos 8

Pos 1,3,5,7

Pos 2 & 6

Pos 4 & 8

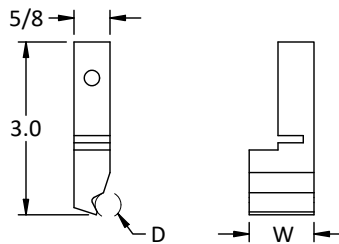


3451C6129B 3451C6132A 3451C6131B 3451C6134A 3451C6135A 3451C6136A

5022C1147A 3454C6818A 3454C6819A

FINGERS

W	Part #
5/8	1-1801
1	1-1802
1-1/8	1-1803
1-1/4	1-1804
1-3/8	1-1805
1-1/2	1-1806
1-3/4	1-1807



RIGHT HAND SHOWN

SPECIFY:

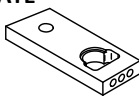
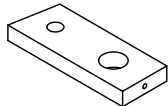
- PART NUMBER
- D
- LEFT OR RIGHT HAND

(FOR STANDARD FINGERS REFER TO PAGE 7)

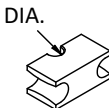
CUTTER STATION - SPECIFY DIA.

CUTTER PLATE
PART #: 1-1904A

HALF CUTTER PLATE
PART #: 1-1910A



CUTTER PLATE STOCK CLAMP
PART #: 1-2004



CUTTER
PART #: 1-1904

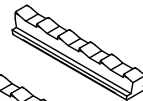


HALF CUTTER
PART #: 1-1910



BOLT STOP IN TRIM TOOL

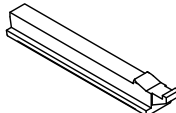
LONG BOLTS
PART #: 1-3009



1-3009LS



SHORT BOLTS
PART #: 1-3005

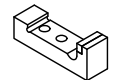


POINTER CHUCK JAWS

BRACKET

MOVABLE

STATIONARY



PART #: 1-4017B

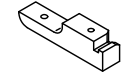
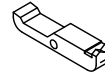
PART #: 1-4017M

PART #: 1-4017S

MOVABLE

SPECIFY:
BOLT SIZE

STATIONARY



PART #: 1-3017M

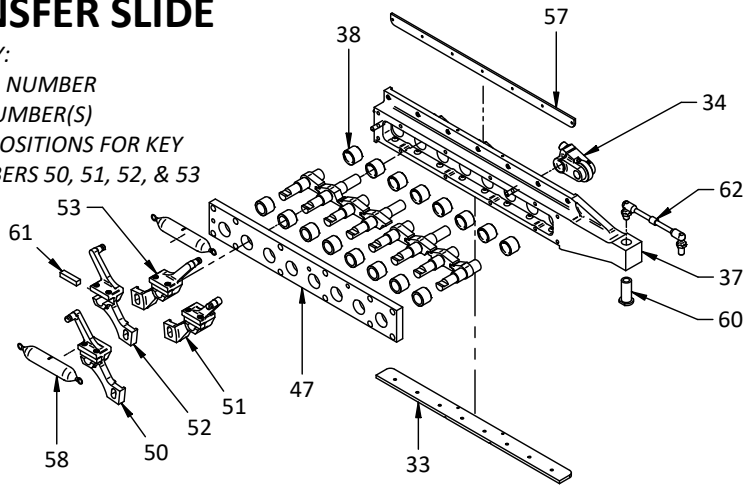
PART #: 1-3017S

NATIONAL 5/8 BOLTMAKER

TRANSFER SLIDE

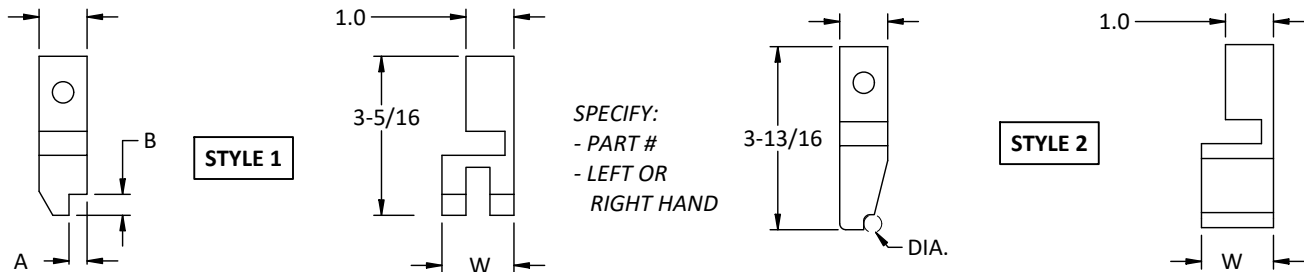
SPECIFY:

- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 50, 51, 52, & 53



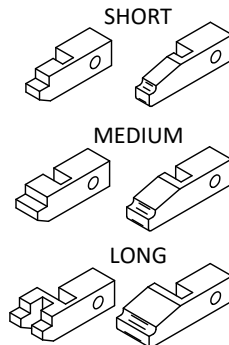
Key #	Description
33	BOTTOM WEAR PLATE
34	LEVER
37	SLIDE
38	BUSHING
47	PLATE
50	TRANSFER ARM
51	TRANSFER ARM
52	TRANSFER ARM
53	TRANSFER ARM
57	TOP WEAR PLATE
58	SPRING
60	BUSHING
61	KEY
62	LINK

FINGERS



STYLE 1				
DIA.	A	B	W	Part #
3/8S	1/4	5/16	5/8	1-816
3/8M	1/4	5/16	1	1-817
3/8L	1/4	5/16	1-1/2	1-818
1/2S	3/8	3/8	5/8	1-916
1/2M	3/8	3/8	1	1-917
1/2L	3/8	3/8	1-1/2	1-918
9/16S	3/8	7/16	5/8	1-1016
9/16M	3/8	7/16	1	1-1017
9/16L	3/8	7/16	1-1/2	1-1018
5/8S	7/16	7/16	5/8	1-1019
5/8M	7/16	7/16	1	1-1020
5/8L	7/16	7/16	1-1/2	1-1021
3/4S	11/16	9/16	5/8	1-1500
3/4M	11/16	9/16	1	1-1501
3/4L	11/16	9/16	1-1/2	1-1502

RIGHT HAND SHOWN

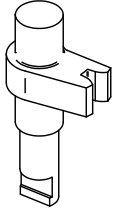


STYLE 2		
DIA.	W	Part #
3/8	5/8	1-5-1016-1
1/2	5/8	1-5-1016-2
9/16	5/8	1-5-1016-3
5/8	5/8	1-5-1016-4
3/4	5/8	1-5-1016-5
3/8	1	1-5-1017-1
1/2	1	1-5-1017-2
9/16	1	1-5-1017-3
5/8	1	1-5-1017-4
3/4	1	1-5-1017-5
3/8	1-1/2	1-5-1018-1
1/2	1-1/2	1-5-1018-2
9/16	1-1/2	1-5-1018-3
5/8	1-1/2	1-5-1018-4
3/4	1-1/2	1-5-1018-5
3/8	OVER 1-1/2	1-5-1019-1
1/2	OVER 1-1/2	1-5-1019-2
9/16	OVER 1-1/2	1-5-1019-3
5/8	OVER 1-1/2	1-5-1019-4
3/4	OVER 1-1/2	1-5-1019-5

NATIONAL 5/8 BOLTMAKER

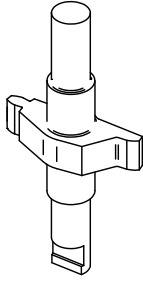
GEARS

Pos 1 & 5



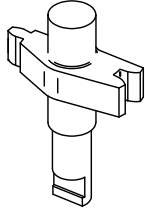
3461C6133A

Pos 2



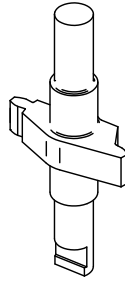
3461C6130A

Pos 3,5,7



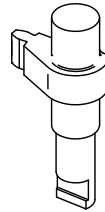
352C220

Pos 4 & 6



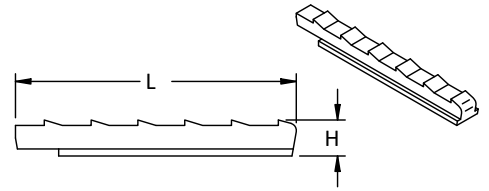
3461C6131A

Pos 6 & 8



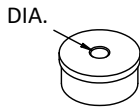
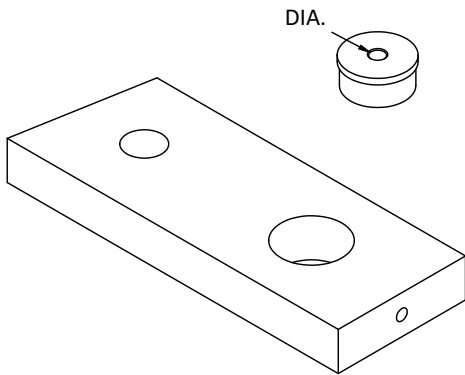
352C221

BOLT STOP IN TRIM TOOL



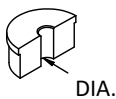
SPECIFY PART #		
Part #	H	L
1-3010	1/2	4-7/8
1-3010LS	5/8	8
1-3011	5/8	4-7/8
1-3012	3/4	4-7/8

CUTTER STATION - SPECIFY DIA.

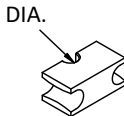


CUTTER
PART #: 1-1905

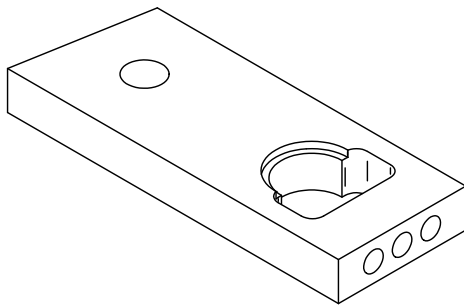
CUTTER PLATE
PART #: 1-1905A



HALF CUTTER
PART #: 1-1911



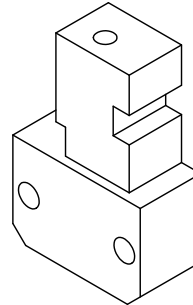
CUTTER PLATE
STOCK CLAMP
PART #: 1-2005



HALF CUTTER PLATE
PART #: 1-1911A

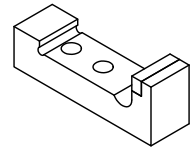
POINTER CHUCK JAWS

BRACKET



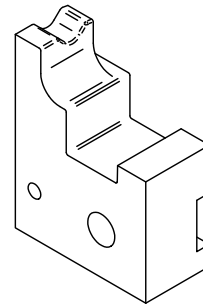
PART #: 1- 4018B

STATIONARY



PART #: 1- 4018S

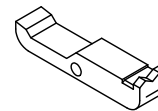
MOVABLE



PART #: 1- 4018M

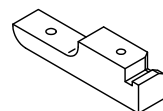
SPECIFY:
BOLT SIZE

MOVABLE



PART #: 1-3018M

STATIONARY



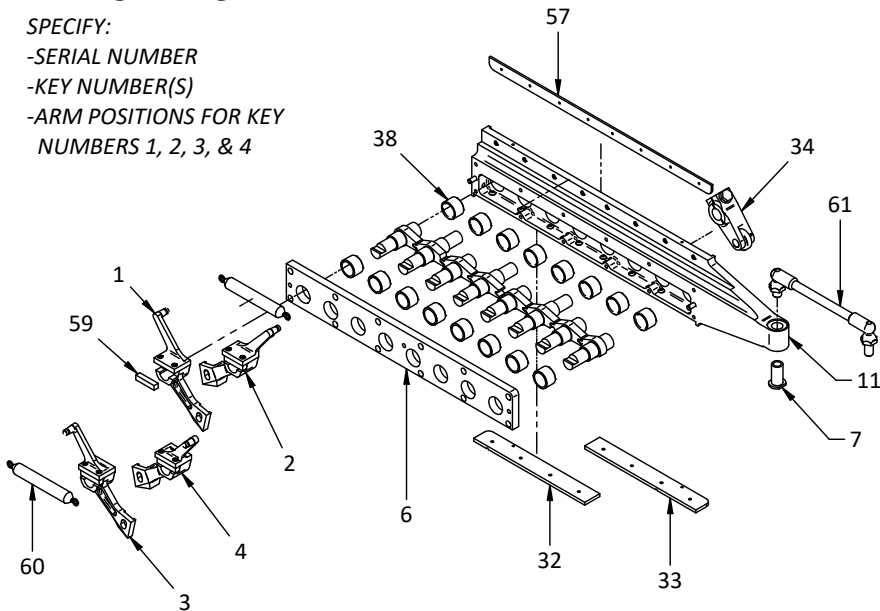
PART #: 1-3018S

NATIONAL 3/4 BOLTMAKER

TRANSFER SLIDE

SPECIFY:

- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 1, 2, 3, & 4

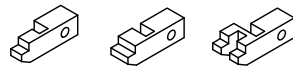


Key #	Description
1	TRANSFER ARM
2	TRANSFER ARM
3	TRANSFER ARM
4	TRANSFER ARM
6	PLATE
7	BUSHING
11	SLIDE
32	BOTTOM WEAR PLATE - LH
33	BOTTOM WEAR PLATE - RH
34	LEVER
38	BUSHING
57	TOP WEAR PLATE
59	KEY
60	SPRING
61	LINK

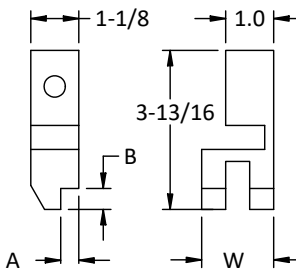
FINGERS

Bolt Size	A	B	W	Part #
5/8S	7/16	7/16	5/8	1-922
5/8M	7/16	7/16	1.0	1-923
5/8L	7/16	7/16	1-1/2	1-924
3/4S	11/16	9/16	5/8	1-1022
3/4M	11/16	9/16	1.0	1-1023
3/4L	11/16	9/16	1-1/2	1-1024
7/8S	3/4	5/8	5/8	1-1122
7/8M	3/4	5/8	1.0	1-1123
7/8L	3/4	5/8	1-1/2	1-1124
1S	13/16	21/32	5/8	1-1222
1M	13/16	21/32	1.0	1-1223
1L	13/16	21/32	1-1/2	1-1224

SHORT MEDIUM LONG



RIGHT HAND SHOWN



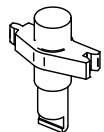
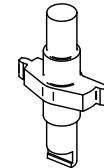
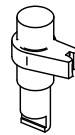
SPECIFY:
- PART #
- LEFT OR RIGHT HAND

GEARS

Pos 1 & 5

Pos 2

Pos 3,5,7



3471C6621A

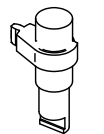
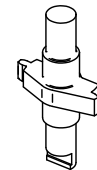
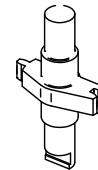
3471C6622A

308C365

Pos 4

Pos 4 & 6

Pos 6 & 8



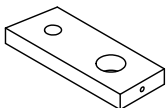
308C362

3274C6110A

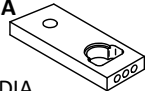
308C366

CUTTER STATION - SPECIFY DIA.

CUTTER PLATE
PART #: 1-1906A



HALF CUTTER PLATE
PART #: 1-1912A



CUTTER PLATE
STOCK CLAMP
PART #: 1-2006



CUTTER
PART #: 1-1906

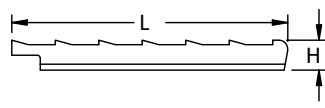


HALF CUTTER
PART #: 1-1912



BOLT STOP

IN TRIM TOOL



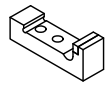
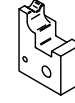
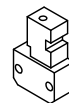
Part #	H	L
1-3013	5/8	5-3/4
1-3014	3/4	5-3/4
1-3015	3/4	7
1-3016	5/8	7

POINTER CHUCK JAWS

BRACKET

MOVABLE

STATIONARY



PART #:
1-4024B

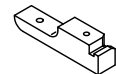
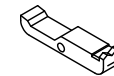
PART #:
1-4024M

PART #:
1-4024S

MOVABLE

SPECIFY:
BOLT SIZE

STATIONARY



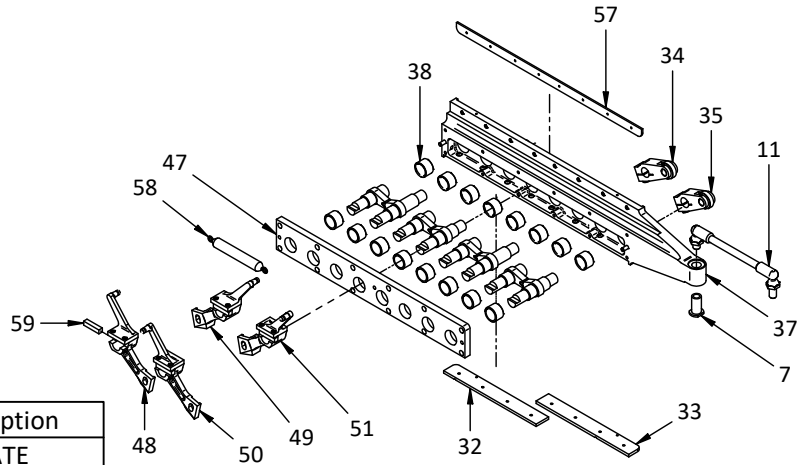
PART #: 1-3018M

PART #: 1-3018S

NATIONAL 3/4 & 1000 PROGRESSIVE BOLTMAKER

TRANSFER SLIDES

SPECIFY:
 -SERIAL NUMBER
 -KEY NUMBER(S)
 -ARM POSITIONS FOR KEY NUMBERS 1, 2, 3, & 4



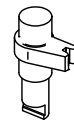
Key #	Description	Key #	Description
7	BUSHING	47	PLATE
11	LINK	48	TRANSFER ARM
32	BOTTOM WEAR PLATE - LH	49	TRANSFER ARM
33	BOTTOM WEAR PLATE - RH	50	TRANSFER ARM
		51	TRANSFER ARM
34	LEVER	57	TOP WEAR PLATE
35	LEVER	58	SPRING
37	SLIDE	59	KEY
38	BUSHING		

GEARS

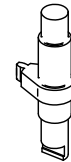
Pos 1,3,5,7,9

Pos 2,6,10

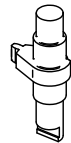
Pos 4 & 8



3471C6621A



3474C1100A



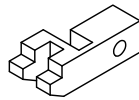
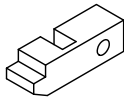
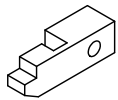
3474C1101A

FINGERS

SHORT

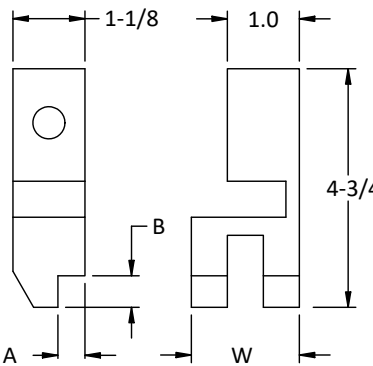
MEDIUM

LONG



RIGHT HAND SHOWN

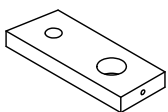
SPECIFY:
 - PART #
 - LEFT OR RIGHT HAND



Bolt Size	A	B	W	Part #
5/8S	7/16	7/16	5/8	1-5-922
5/8M	7/16	7/16	1.0	1-5-923
5/8L	7/16	7/16	1-1/2	1-5-924
3/4S	11/16	9/16	5/8	1-5-1022
3/4M	11/16	9/16	1.0	1-5-1023
3/4L	11/16	9/16	1-1/2	1-5-1124
7/8S	3/4	5/8	5/8	1-5-1122
7/8M	3/4	5/8	1.0	1-5-1123
7/8L	3/4	5/8	1-1/2	1-5-1124
1S	13/16	21/32	5/8	1-5-1222
1M	13/16	21/32	1.0	1-5-1223
1L	13/16	21/32	1-1/2	1-5-1224

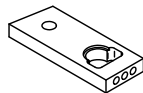
CUTTER STATION - SPECIFY DIA.

CUTTER PLATE
PART #: 1-1906A



CUTTER
PART #: 1-1906

HALF CUTTER PLATE
PART #: 1-1912A



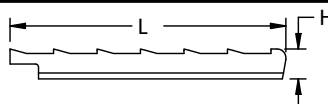
CUTTER PLATE STOCK CLAMP
PART #: 1-2006



HALF CUTTER
PART #: 1-1912



BOLT STOP IN TRIM TOOL



Part #	H	L
1-3013	5/8	5-3/4
1-3014	3/4	5-3/4
1-3015	3/4	7
1-3016	5/8	7

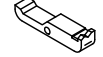
POINTER CHUCK JAWS

BRACKET



PART #:
1-4010B

MOVABLE



PART #: 1-3018M

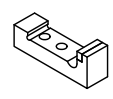
MOVABLE



PART #:
1-4010M

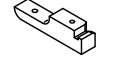
SPECIFY:
BOLT SIZE

STATIONARY



PART #:
1-4010S

STATIONARY



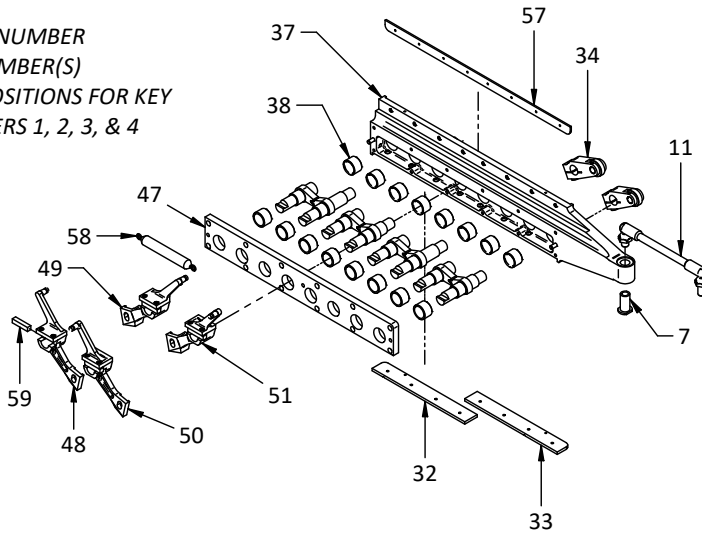
PART #: 1-3018S

NATIONAL M 24 BOLTMAKER

4 DIE STANDARD

SPECIFY:

- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 1, 2, 3, & 4



Key #	Description
7	BUSHING
11	LINK
32	BOTTOM WEAR PLATE - LH
33	BOTTOM WEAR PLATE - RH
34	LEVER
35	LEVER
37	SLIDE
38	BUSHING
47	PLATE
48	TRANSFER ARM
49	TRANSFER ARM
50	TRANSFER ARM
51	TRANSFER ARM
57	TOP WEAR PLATE
58	SPRING
59	KEY

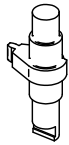
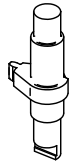
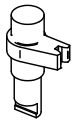
STANDARD

S1

Pos 1,3,5,7

Pos 2,6

Pos 4 & 8



3471C6621A

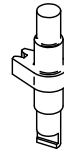
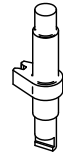
3474C1100A

3474C1101A

Pos 1,3,5,7

Pos 2,6

Pos 4 & 8

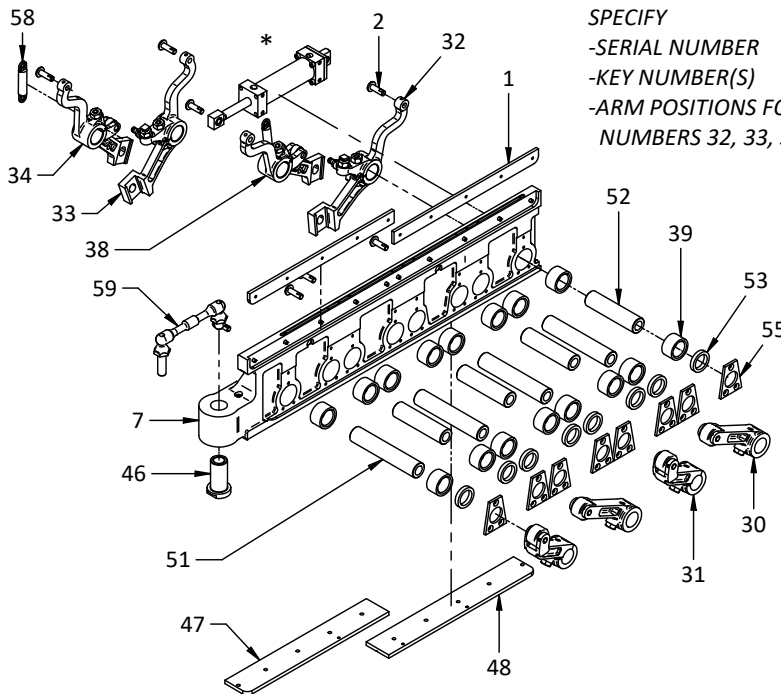


3474C3127A

3474C3126A

3474C3125A

4 DIE S1 LONG STROKE



SPECIFY

- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 32, 33, 34, & 38

Key #	Description
1	TOP WEAR PLATE
2	PIN
7	SLIDE BODY
30	LEVER
31	LEVER
32	TRANSFER ARM
33	TRANSFER ARM
34	TRANSFER ARM
38	TRANSFER ARM
39	BUSHING
46	BUSHING
47	BOTTOM WEAR PLATE - LH
48	BOTTOM WEAR PLATE - RH
51	LONG SHAFT
52	SHORT SHAFT
53	WASHER
55	RETAINER PLATE
58	SPRING
59	CONNECTION

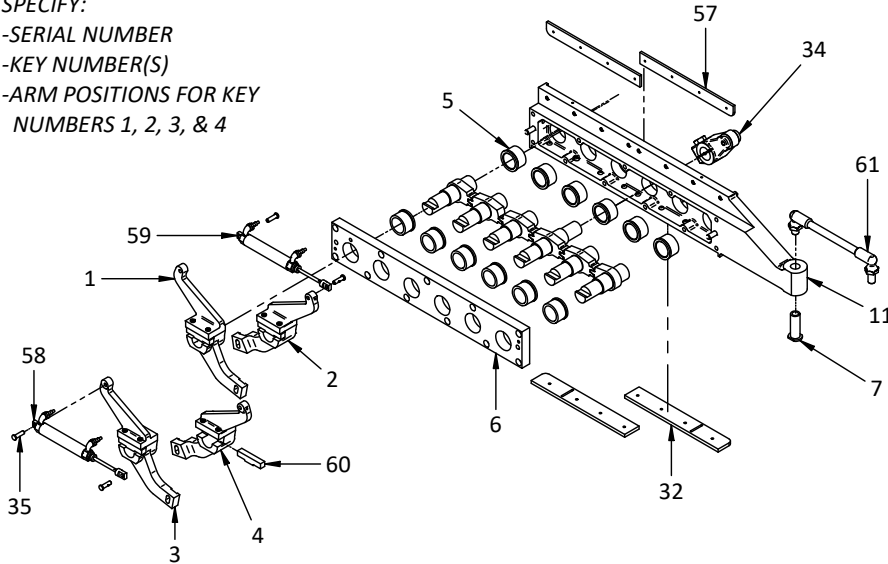
* PLEASE CALL FOR DETAILS ON AIR CYLINDER PARTS

NATIONAL 1" BOLTMAKER - 3 DIE

TRANSFER SLIDES

SPECIFY:

- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 1, 2, 3, & 4

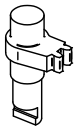


Key #	Description
1	TRANSFER ARM
2	TRANSFER ARM
3	TRANSFER ARM
4	TRANSFER ARM
5	BUSHING
6	COVER PLATE
7	BUSHING
11	SLIDE BODY
32	BOTTOM WEAR PLATE
34	LEVER
35	PIN
57	TOP WEAR PLATE
58	AIR CYLINDER
59	AIR CYLINDER
60	KEY
61	LINK

GEARS

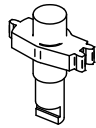
ARMS

Pos 1



3281C6129A

Pos 3 & 5



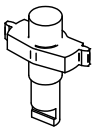
3281C6131A

Pos 6



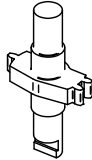
3281C6134A

Pos 2

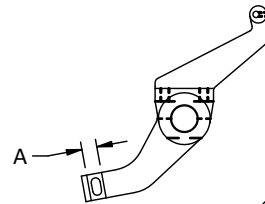


3281C6130A

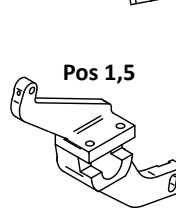
Pos 4



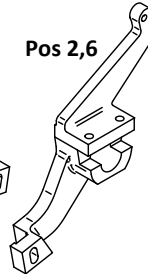
3281C6132A



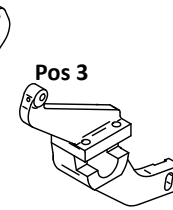
SPECIFY:
- ARM POSITION
- A



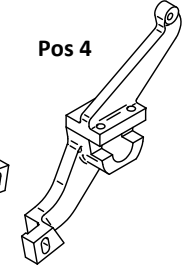
Pos 1,5



Pos 2,6



Pos 3



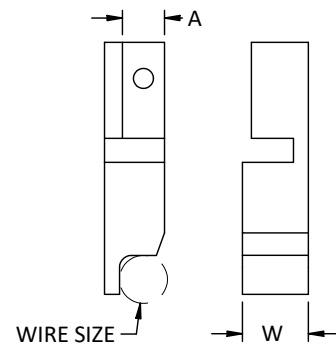
Pos 4

FINGERS

A	W	Part #
7/8	Under 3/4	1-1324-3
7/8	3/4 - 1	1-1325-3
7/8	1-1/4	1-1326-3
7/8	1-1/2	1-1327-3
7/8	1-3/4	1-1328-3
7/8	2	1-1329-3

RIGHT HAND SHOWN

SPECIFY:
- PART #
- LEFT OR RIGHT HAND
- WIRE SIZE
- W

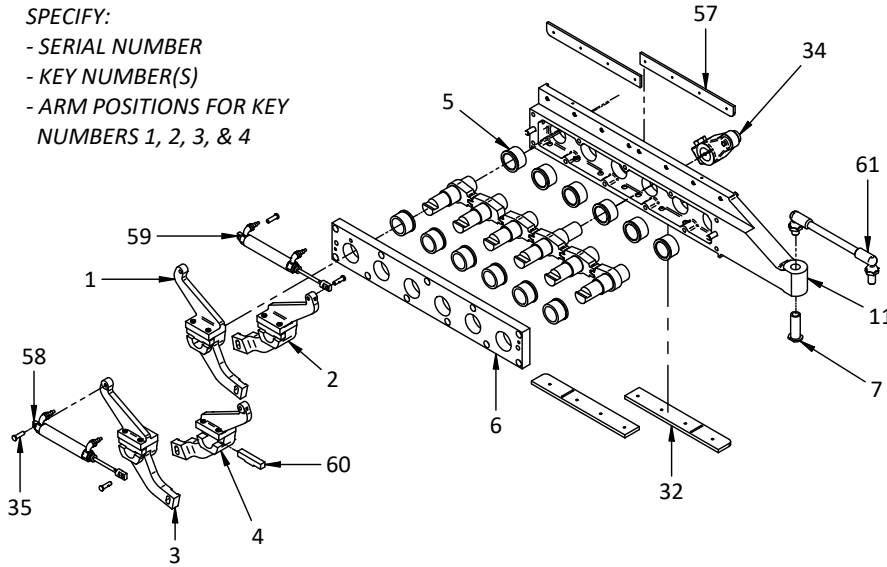


NATIONAL 1" BOLTMAKER - 4 & 5 DIE

TRANSFER SLIDES

SPECIFY:

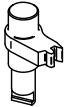
- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 1, 2, 3, & 4



Key #	Description
1	TRANSFER ARM
2	TRANSFER ARM
3	TRANSFER ARM
4	TRANSFER ARM
5	BUSHING
6	COVER PLATE
7	BUSHING
11	SLIDE BODY
32	BOTTOM WEAR PLATE
34	LEVER
35	PIN
57	TOP WEAR PLATE
58	AIR CYLINDER
59	AIR CYLINDER
60	KEY
61	LINK

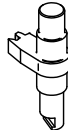
GEARS

Pos 1,3,5,7



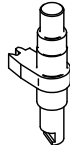
3481C6129A

Pos 2 & 6



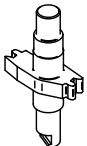
3481C6130A

Pos 4



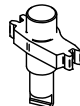
3481C6129A

Pos 8



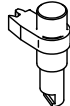
3481C6131B

Pos 9



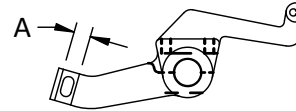
3481C6129B

Pos 10



3481C6130B

ARMS



SPECIFY:

- ARM POSITION
- A

Pos. 2, 6, 10

Pos. 4, 8

Pos. 1, 5, 9

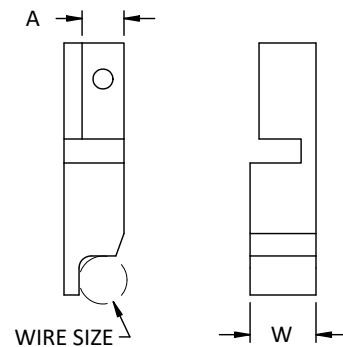
Pos. 3, 7

FINGERS

A	W	Part #
7/8	UNDER 3/4	1-1324-3
7/8	3/4 - 1	1-1325-3
7/8	1-1/4	1-1326-3
7/8	1-1/2	1-1327-3
7/8	1-3/4	1-1328-3
7/8	2	1-1329-3
1	UNDER 3/4	1-1324-4
1	3/4 - 1	1-1325-4
1	1-1/4	1-1326-4
1	1-1/2	1-1327-4
1	1-3/4	1-1328-4
1	2	1-1329-4

RIGHT HAND SHOWN

- SPECIFY:**
- PART #
 - LEFT OR RIGHT HAND
 - WIRE SIZE
 - W

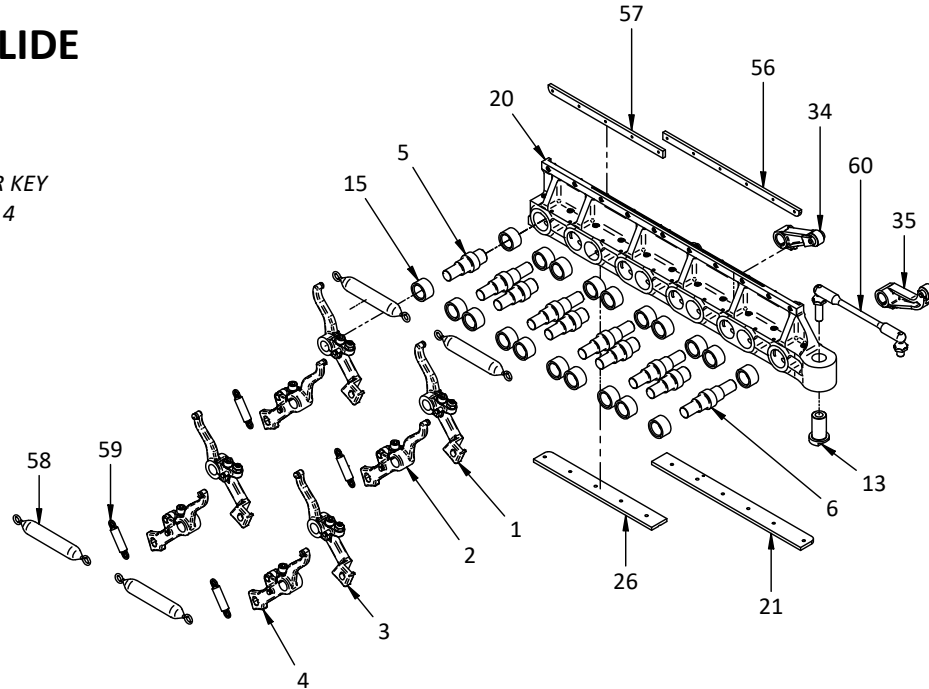


NATIONAL 1012 & M 20 BOLTMAKER

TRANSFER SLIDE

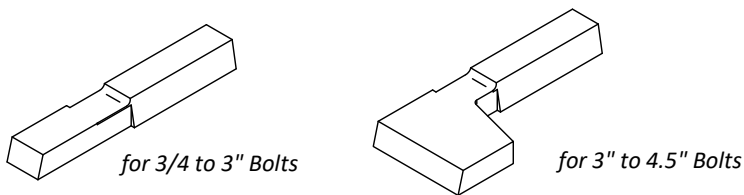
SPECIFY:

- SERIAL NUMBER
- KEY NUMBER(S)
- ARM POSITIONS FOR KEY NUMBERS 1, 2, 3, & 4



Key #	Description	Key #	Description	Key #	Description
1	TRANSFER ARM	13	LINK BUSHING	35	LEVER
2	TRANSFER ARM	15	BUSHING	56	TOP WEAR PLATE - LH
3	TRANSFER ARM	20	SLIDE	57	TOP WEAR PLATE - RH
4	TRANSFER ARM	21	BOTTOM WEAR PLATE - LH	58	SPRING
5	SHAFT - SHORT	26	BOTTOM WEAR PLATE - RH	59	BOTTOM SPRING
6	SHAFT - LONG	34	LEVER	60	LINK

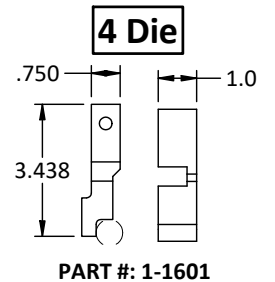
INJECTOR



FINGERS

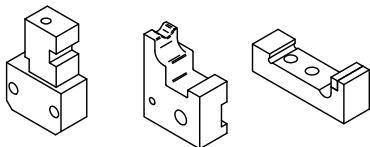
RIGHT HAND SHOWN

- SPECIFY:
- PART #
 - LEFT OR RIGHT HAND
 - WIRE SIZE
 - W



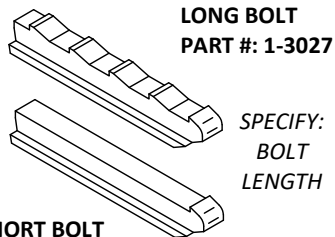
POINTER CHUCK JAWS

BRACKET MOVABLE STATIONARY



PART #: 1-4012B PART #: 1-4012M PART #: 1-4012S

BOLT STOP IN TRIM TOOL



SHORT BOLT
PART #: 1-3026

4 Die LS & 5 Die

