IDEAL®

stencil machine co.

P.O. Box 305 • 102 Iowa Ave.

Belleville, Ill. 62222 • 618-233-0162 • TWX 910 756 2088

2" STENCIL CUTTING MACHINE

OPERATING AND MAINTENANCE MANUAL
PARTS CATALOG

Dear Customer:

We thank you for your purchase of our Ideal Stencil Cutting Machine. We believe this machine is the most complete and versatile on the market.

Ideal machines are used in shipping rooms all over the world. Manufacturing of these machines began in 1911 and many of the first machines built are still working satisfactorily.

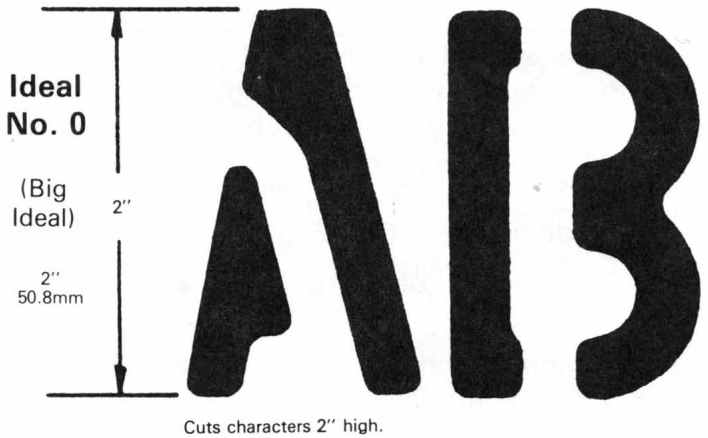
We are sure you will be fully satisfied with your Ideal Stencil Cutting Machine, and that you will appreciate the increased efficiency of your operations.

Sincerely,

IDEAL STENCIL MACHINE COMPANY

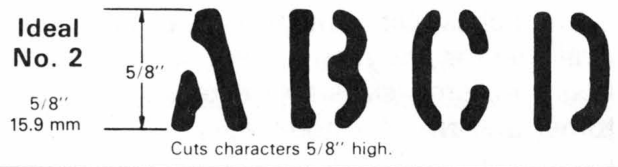
SIZES

Ideal Stencil Cutting Machines, normal and hardened, come in eight different sizes.



Cuts characters 2" high.

Cuts characters 1" high.

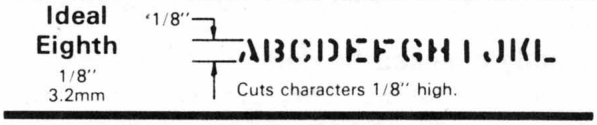


Cuts characters 5/8" high.

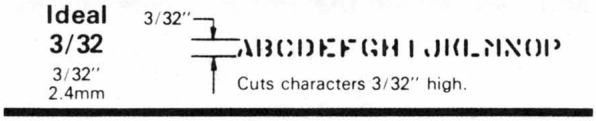
Cuts characters 7/16" high.

Cuts characters 1/4" high.

Cuts characters 3/16" high.



Cuts characters 1/8" high.



Cuts characters 3/32" high.

"IDE-TAG"® Embossing Machines come in six different sizes.

1/2"	7/16"	3/8"	1/4"	3/16"	5/32"
12.7mm	11.1mm	9.5mm	6.4mm	4.8mm	4mm

CAUTION

Do not cut metal with normal or hardened stencil cutting machines. In so doing the cutting edge of the punches will be dulled making the warranty void.

APPLICATIONS

NORMAL MACHINES (for oiled-board)*

Will easily cut clean, sharp stencils from oil board with a thickness range of 0.006 to 0.015 inches. Different sizes of oil boards are available for any requirement. Master stencil board in large sizes to be cut by the customer are available too.

All our oil boards are made by long fiber and high density paper, impregnated with a scientifically studied blend of different oils and exposed for long time to the air to obtain a perfect oxidation. Contrary to cheaper paper, they are free from grit to reduce wear on part and damage to your machine.

HARDENED PUNCHES AND DIES MACHINES (for mylar)

The hardened punches and dies can easily cut both oil board and mylar material. A strictly checked hardening process gives the punches and dies enough hardness to easily and clearly cut the mylar sheets up to 10 mils. An "H" before the serial number identifies the above feature.

"IDE-TAG® EMBOSSING MACHINES

The "IDE-TAG"® was especially designed to emboss letters and figures on aluminum and zinc plated steel tags, available with thickness of 0.005" to 0.012". Using the lowest thickness, you can emboss up to three tags at the same time. Our "IDE-TAG"® is equipped with a special punch and die set to make a hole into the tags. The correspondent position on the dial is the apostrophe, that on this machine is suppressed.

This machine is identified by the name "IDE-TAG"® engraved on the cam bar casing and by the letter U before the serial number.

SPECIAL FEATURES

On request Ideal Stencil Cutting Machine, normal and hardened, can be equipped with special sets of punches and dies, replacing other figures or letters. Logos, or special identification symbols, can be reproduced to allow you to personalize your stenciling.

In addition to the English, the Russian alphabet is available.

DUPLICATION OF DRAWINGS AND PATTERNS

With Ideal Stencil Cutting Machines it is also possible to cut special patterns and drawings.

Using the exclusive centering device it is possible to cut circular oil board for stenciling the top of drums or circular containers.

Number of Lines and Letters on the Machine #O (2").

Lines 4
Letters 21
Oil board size 32" x 10-3/8"

Changing the line spacer (part No. 92) it is possible to get different number of lines cut on same size stencil.

This is an exclusive feature of our Ideal Stencil Cutting Machines.

#1	4 lines (standard) 5 lines optional
#2	4 lines (standard) 5 lines optional
#3	5 lines (standard) 7 lines optional

MAINTENANCE:

All our Ideal Stencil Cutting and Embossing machines are sturdy and reliable and do not require any particular maintenance. Nevertheless, to prolong their life, the punches ought to be cleaned regularly. There is a cleaning hook for this purpose shipped with every new machine. The dies do not need to be cleaned as they will clear themselves each time a character is out.

A pocket mirror placed directly beneath each punch enables you to see if the punch has been cleaned properly.

During the final assembly and before shipment, all our machines are carefully lubricated with heavy duty oil and especially formulated silicone lubricating coat. To make use of the machine easier and to prolong the life of the mechanism, keep them well-lubricated with good quality motor oil. Once a month each one of the 42 punch shanks should be lubricated with a few drops of oil introduced through one of the three holes on top of the hood while slowly rotating the punch carrier. (Remove plastic plugs.)

Also introduce a few drops of oil into the appropriate openings as follows:

Top Cover vertical shaft (remove plug) and small hole
Dial vertical shaft (side hole)
Transmission vertical shaft (left side)
Front table (right of plunger)
Also oil table slides (part #109-110)

Once a year all the moving parts should be lubricated.

HOW TO ADJUST PUNCH DEPTH:

To adjust the depth of the punch penetration to the die, adjust the lowest screw at the bottom right of the front cam bar casing. Unlock the lock nut and, using an Allen wrench, turn clockwise to raise the punch counter clockwise to lower it.

Proper punch depth can be assured by using a single piece of Ideal .015 oiled stencil board. Select the letter "i". Place the edge of the stencil board on the die but not over the engraved letter. Depress the handle. The edge of the punch when fully depressed should snugly pinch the .015 board.

Do not forget to lock the lock nut when the desired punch position is attained.

HOW TO ADJUST SPACING:

Your machine should not need any spacing adjustment under normal condition. For this reason, before attempting any adjustment, please check the two following positions.

1. If your machine does not space at all, check and see if all the pins are in place "52 AD" (clevis pin). If they are, take the pin out of part "024 DA" vertical shaft lower section, and see if you can space it by turning part "024 DA" by hand. If you can, your trouble is in your cam bar casing and is probably part "051 AC" feed shaft rocker, or "51 AF" cam pin for oscillating rocker.

2. When you turn part "024 DA" and it does not space, then you need to lift the machine up and move part "024 DA" again by hand. You should be able to see the problem. Probably one of the pawls or screws came loose, or you broke a spring.

To adjust the spacing of the characters, if for some reason the machine would need it, proceed as follows:

1. Adjust the handle "045" all the way up to where you can turn the hand wheel "065" and you can't hear the punch shanks clattering.

2. Loosen locknuts "52 AC" on part "52 AD" and adjust the rod longer or shorter to get proper spacing. Wher finished, tighten lock nuts up again.

3. If for some reason you can't adjust rod "52 AA" enough, there is another rod under the machine, "022" which you can adjust the same way as in step two.

SPECIAL SPACING:

If you want to punch a letter in a designated position on a line of letters, it is possible to override the automatic spacing.

In order to get your special spacing you should lay it out first where you want the letters to fall. When you are going to need some special spacing, you will have to disconnect 52-AB from 051-A by just pulling a clip out and taking the pin out.

Just move the paper by hand to get what you want. When finished just hook it back up and you are back to normal spacing.

REPLACEMENT OF PUNCHES AND DIES:

Read these instructions carefully before attempting punch and die replacement. Punches and dies are not sold separately because they are precision mated together and must be replaced as a unit.

All dies have one cutting side only and they must be mounted on the die carrier with the cutting side toward the punch.

To avoid confusion, before prying the die apart from the punch, mark one side with a felt tip marker. Place machine on a bench with the two front feet close to the bench edge. Using an Allen wrench, unscrew the five bolts (No. 031) which fasten the cam bar casing to the hood of the machine. Pry the cam bar casing apart from the hood carefully and, using a screwdriver, slide the upper operating handle spring out of its pin. (NOTE: not all the machines are equipped with such a spring).

Place the complete cam bar casing assembly flat on a table, paying attention that the pins of the operating handle do not come out of their corresponding holes. Remove the stripper (No. 09AA). Turn the hand wheel and select on the dial the punch needing to be replaced.

Unscrewing the two screws which fasten the die to the die carrier underneath the machine, remove the die (No. 073).

1. Loosen screw in punch guide No. 077.

2. Push down on top of punch shank all the way through the die opening and remove from the bottom.

3. Replace the punch and lock it. Place the die on the die carrier without the screws. VERY GENTLY lower the punch and have it penetrate completely into the die. Keeping the punch and die matched, insert the die screws and lock them.

Using a screwdriver, pry apart the punch and die, KEEPING YOUR FINGERS OUT OF THE MACHINE because the punch will snap in the open position fast.

CAUTION: Never lock the punch guide with the punch outside of the die, otherwise, misalignment will occur, dulling or damaging the cutting edges very quickly.

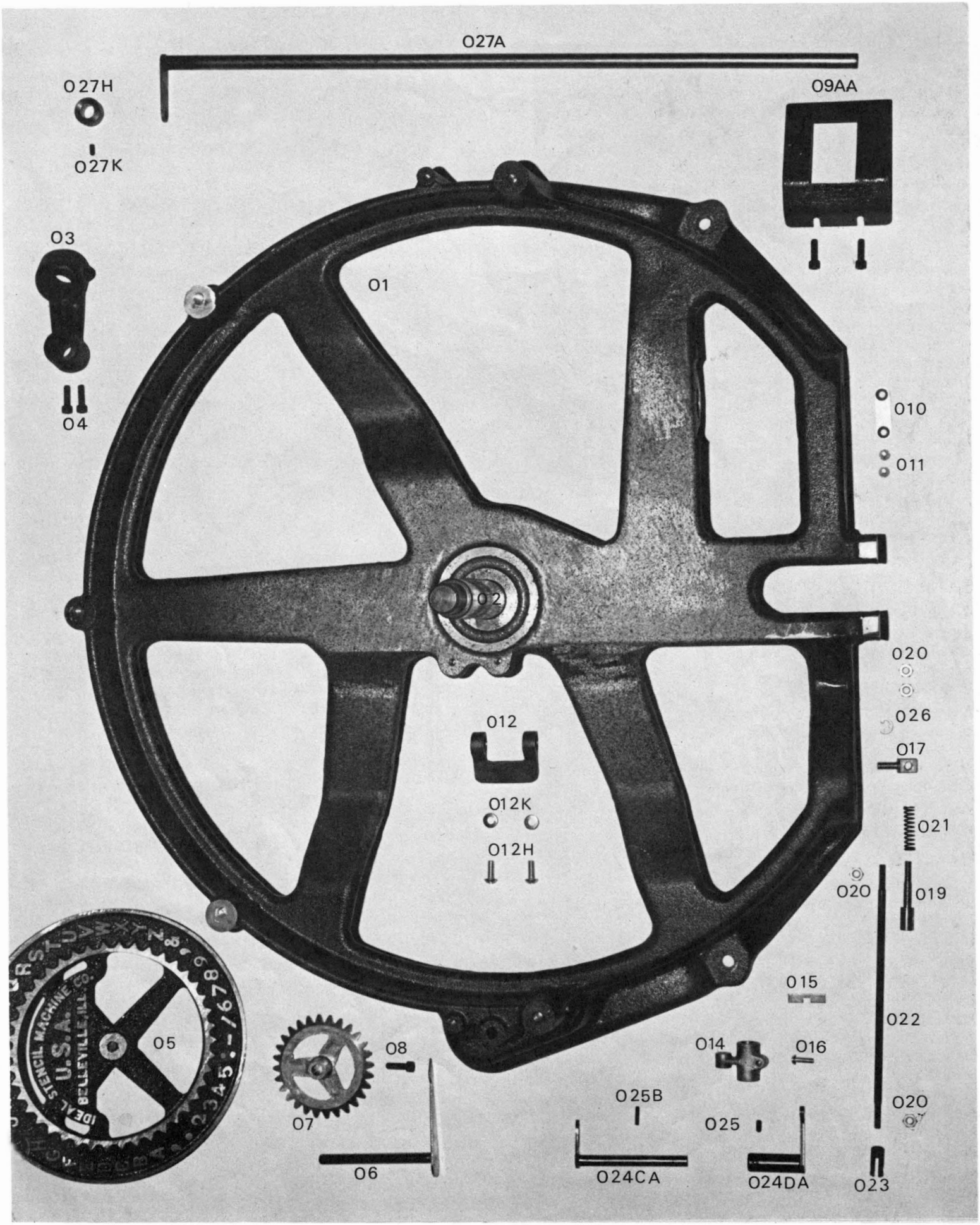
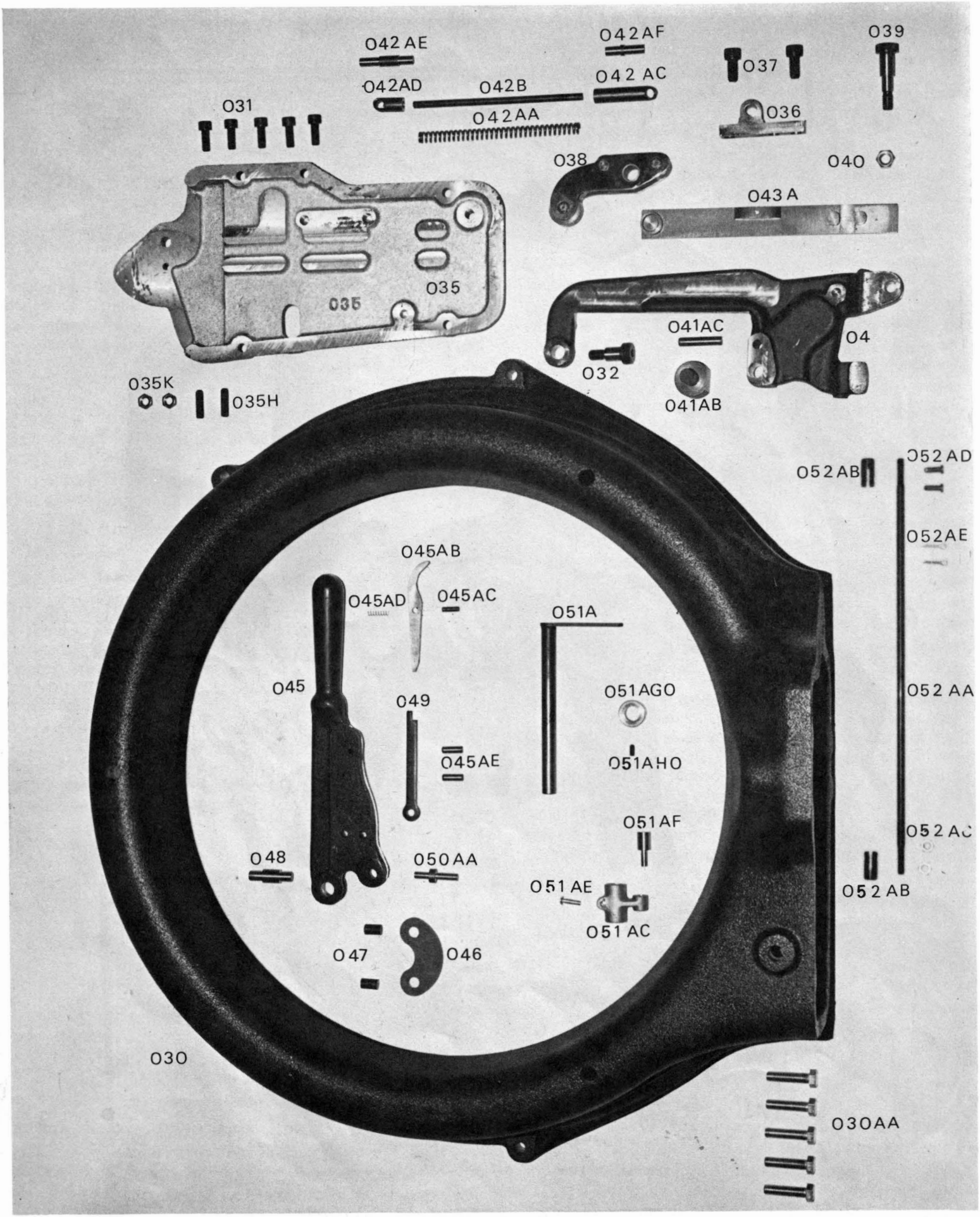


ILLUSTRATION NUMBER 1



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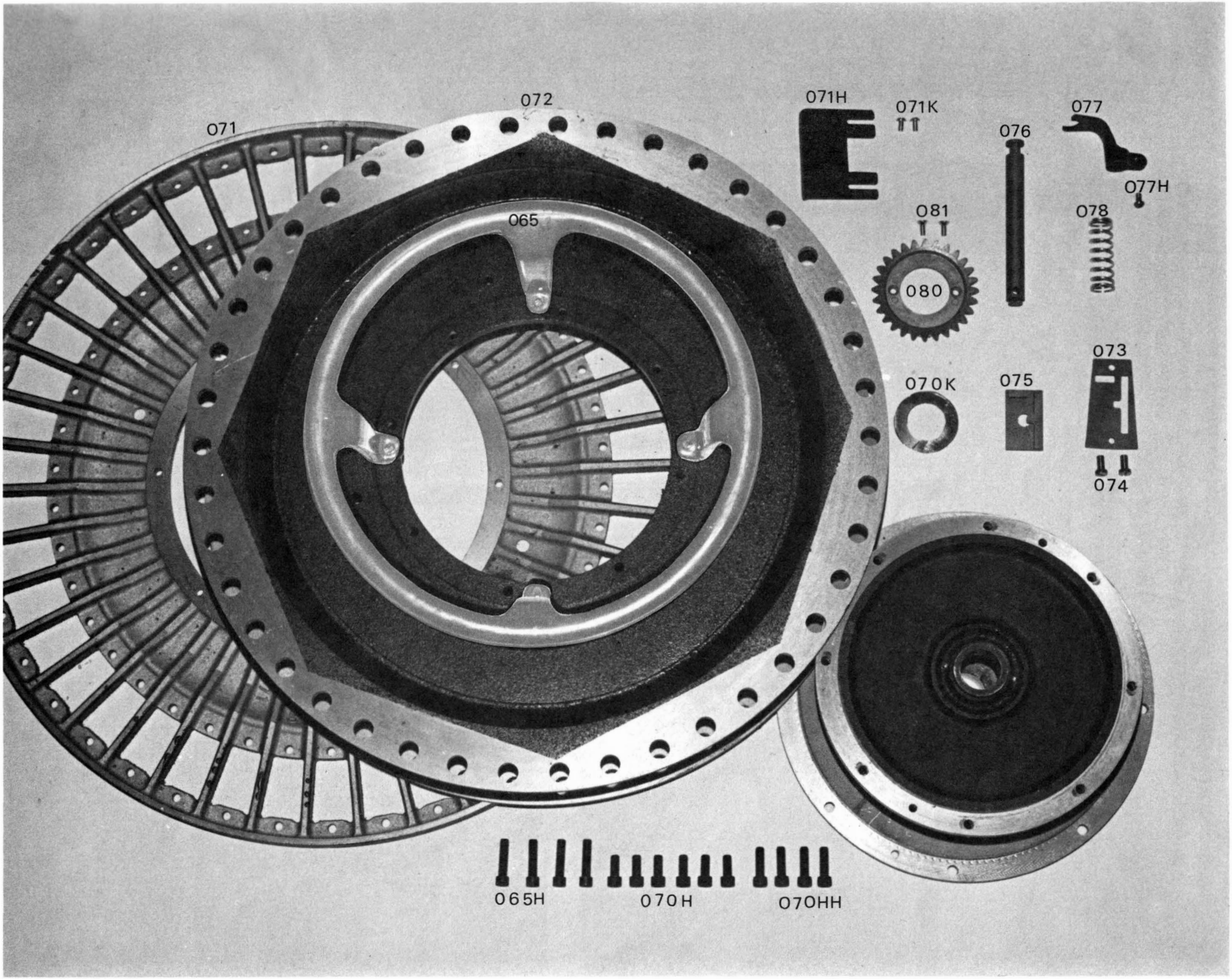

ILLUSTRATION NUMBER 3

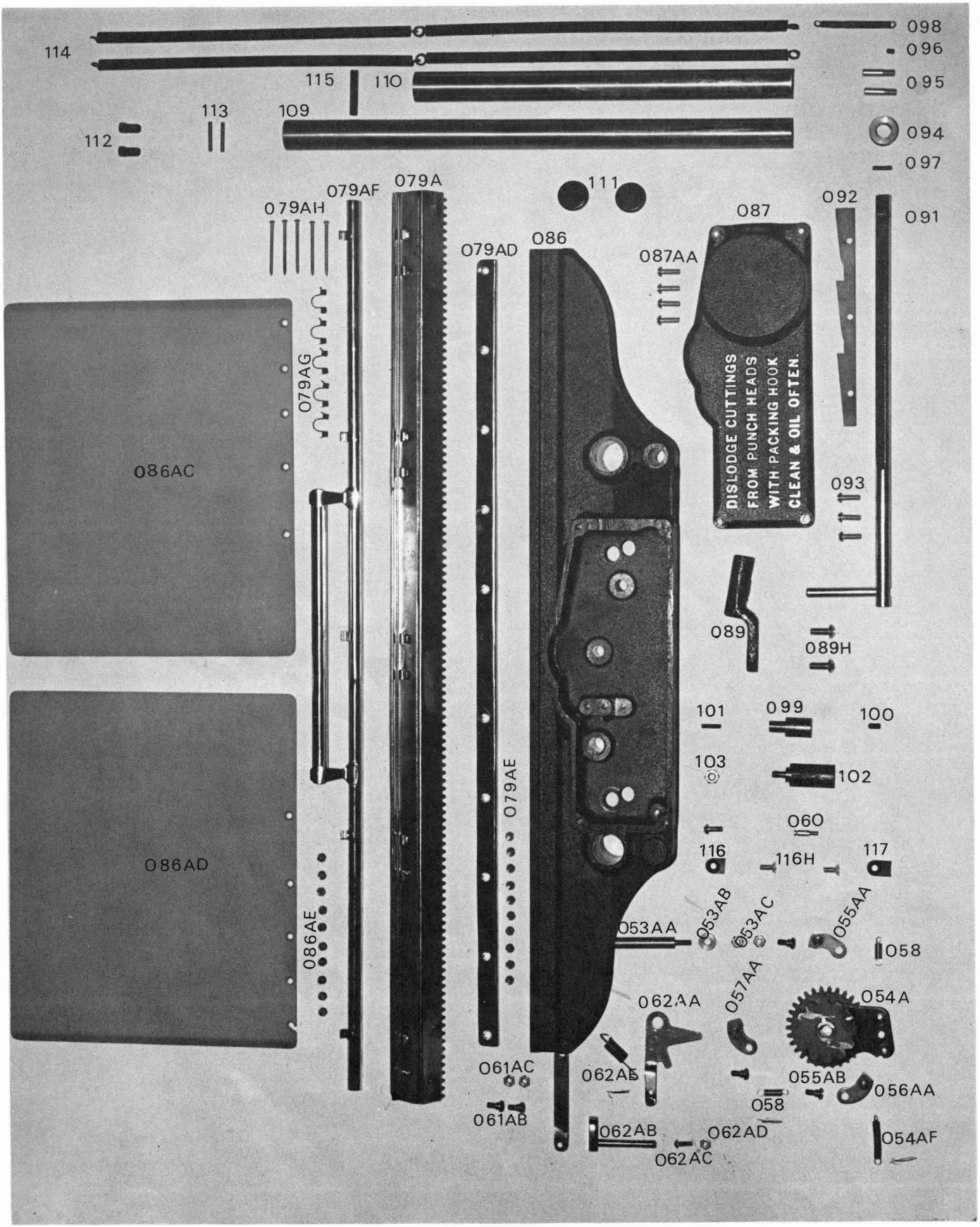

ILLUSTRATION NUMBER 4

BIG-O STENCIL MACHINE PARTS LIST

FEBRUARY 1980

NOTICE: Not all the parts of your Ideal Stencil Cutting Machine are listed in this catalog, as some of them are included in the assemblies indicated with the letter A. This for two reasons:

- Some parts are assembled in our plant using special tools and equipment or following particular assemblying procedures.
- For best results it is more convenient, in many cases, to replace the complete assembly instead of the single parts.

ILLUSTRATION NUMBER 1

NO.	NAME
01	Base
02	Spindle
03	Dial Bracket
04	Dial Bracket Set Screw
05	Dial
06	Pointer
07	Pointer Gear
08	Pointer Gear Set Screw
09AA	Stripper
09AB	Stripper Screw
010	Impact Plate
011	Impact Plate Screw
012	Bracket for Feed Shaft
012H	Screws for Feed Shaft
012K	Washers for Feed Shaft
014	Feed Shaft Rocker
015	Key for Rocker
016	Screw for Rocker
017	Crank Pin
019	Compensating Rod
020	Nut for #19 and #22
021	Compression Rod Spring
022	Connecting Rod
023	Connecting Rod End
024CA	Vertical Shaft Upper Section Assembly
024DA	Vertical Shaft Lower Section Assembly
025	Set Screw for #024CA
025B	Spring Pin for #024CA
026	Snap Ring for #17
027A	Feed Shaft Assembly
027H	Retaining Ring
027K	Set Screw for 027H

ILLUSTRATION NUMBER 2

NO.	NAME
030	Hood
030AA	Hood Hex Screw
031	Actuating Lever Casing Screw
032	Actuating Lever Pivot
035	Actuating Lever Casing
035H	Actuating Lever Limit Set Screw
035K	Nut for #035H
036	Lock Lever Bracket
037	Lock Lever Bracket Attachment Screw
038A	Lock Lever Assembly
039	Lock Lever Fulcrum Pin
040	Fulcrum Pin Nut
041	Actuating Lever
041AB	Plunger
041AC	Punch Return Pin
042AA	Actuating Spring
042AC	Swivel Chuck
042AD	Swivel Chuck
042AE	Pivot Pin
042AF	Pivot Pin
042B	Centering Rod
043A	Cam Bar Assembly
045	Operating Handle
045AD	Locking Pawl Spring
045AB	Locking Pawl (Trigger)
045AC	Locking Pawl Pivot Pin
045AE	Locking Bar Guide Pin
046	Handle Link
047	Handle Link Pin
048	Handle Pivot Pin
049	Locking Bar
050AA	Locking Bar Pivot Pin
051A	Vertical Feed Shaft Assembly
051AC	Feed Shaft Rocker
051AE	Screw for Oscillator Cam
051AF	Cam Pin for Oscillator Cam
051AG	Feed Shaft Ring
051AH	Feed Shaft Ring Set Screw
052AA	Connecting Rod
052AB	Connecting Rod End
052AC	Connecting Rod Jam Nuts
052AD	Clevis Pin
052AE	Cotter Pin

ILLUSTRATION NUMBER 3

NO.	NAME
065	Hand Wheel
065H	Screw for #065
070	Punch/Die Carrier Hub
070H	Screw for #070
070HH	Screw for #070
070K	Hub Washer
071	Die Carrier
071H	Die Carrier Retainer
071K	Screws for #071H
072	Punch Carrier
073	Die
074	Die Screw
075	Punch
076	Punch Shank
077	Punch Guide
077H	Screw for #077
078	Punch Spring
080	Die Carrier Gear
081	Screw for #80

ILLUSTRATION NUMBER 4

NO.	NAME
053AA	Master Gear Threaded Shaft
053AB	Collar for #053AA
053AC	Nut for #053AA
054A	Ratchet Wheel Assembly
054AF	Cam Plate Return Spring
055AA	Operating Pawl
055AB	Pawl Screw
055AD	Pawl Nut
056AA	Retaining Pawl
057AA	Locking Pawl
058	Pawl Spring
060	Spring Pin for #54AF
061AA	Feed Shaft Link to #54
061AB	Pivot Screw for #061AA
061AC	Pivot Nut for #061AA
062AA	Pawl Release Plate
062AB	Pawl Release Plunger Assembly
062AC	Pawl Release Screw
062AD	Pawl Release Nut
062AE	Pawl Release Plate Return Spring
079A	Paper Carriage Assembly
079AD	Paper Carriage Retainer
079AE	Paper Carriage Retainer Screw
079AF	Paper Gripper Bar
079AG	Springs for Paper Gripper
079AH	Pinion for Paper Gripper
079AK	Band Saw
086	Table
086AC	Wing, Right
086AD	Wing, Left
086AE	Screw for #086AC/D
087	Transmission Cover
087AA	Transmission Cover Screw
089	Bumper Bracket
089H	Bumper Bracket Screw
091	Line Spacing Shaft
092	Line Spacer Rack
093	Line Spacer Rack Screw
094	Line Spacer Shaft Collar
095	Stop Pin for #094
096	Set Screw for #094
097	Spring Pin for #094
098	Tension Spring for #094
099	Table Inward Movement Stopper (Right)
100	Set Screw for #099
101	Spring Pin for #099
102	Table Inward Movement Stopper (Left)
103	Nut for #102
113	Table Tension Spring Retaining Pin
114	Table Tension Spring
115	Table Outward Movement Limit Pin
116	Paper Carriage Stop
116H	Screw for #116/117
117	Paper Carriage Stop
109	Table Slide Long
110	Table Slide Short
111	Table Slide Plugs
112	Table Slide Set Screw

KNOW OUR LINE!

Ideal Stencil Machine Company makes available the most complete line of shipping room equipment:

IDEAL STENCIL CUTTING MACHINES

"IDE-TAG"® EMBOSSING MACHINES

MASTER AND CUT OIL BOARDS

ALUMINUM AND ZINC PLATED STEEL TAGS

ELECTRONIC GUMMED TAPE DISPENSERS

MANUAL GUMMED TAPE DISPENSERS (Single and Double Length)

FOUNTAIN ROLLERS AND BRUSHES FOR STENCIL APPLICATION

COMPLETE LINE OF INKS FOR ANY SHIPPING ROOM REQUIREMENT.
(available in cans, bottles, and aerosol cans)

SPRAY ADHESIVES AND LUBRICANTS

VALVE ACTION MARKERS IN DIFFERENT COLORS (REFILLABLE AND DISPOSABLE)

COMPLETE LINE OF PRESSURE SENSITIVE TAPES FOR BOX SEALING, BAG CLOSING AND STRAPPING, PLAIN AND PRINTED

PRESSURE SENSITIVE TAPE DISPENSERS

CASE SEALERS

OVERPRINTING MACHINES

CONVEYOR LINE CODERS

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