

STAR ★ PARTS  
COMPANY



AUTO SETTER  
®

*...the modern method of setting type from tape!*

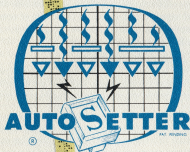


WHEN A 25-LINE MACHINE IS BUILT



THE AUTOSETTER WILL OPERATE IT

## STAR AUTOSETTER—FIRST IN ELECTRONIC TAPE CONTROL



The Star AutoSetter is a new and extremely efficient concept in the tape control of linecasting machines. Instead of mechanical components, the AutoSetter uses solid-state electronics, with a bare minimum of moving parts. The use of electronics opens new horizons in planning tape-handling systems and increased production. Smoother copy flow results from AutoSetter tape control. In the future, computer use can be closely coordinated with AutoSetter circuitry for simultaneous, multi-machine tape operation.

The AutoSetter reads regular six-hole tape and operates any standard keyboard Linotype or Intertype at its maximum capacity. It fits 50-year old machines and the latest high-speed linecasting equipment with equal efficiency. The AutoSetter's maximum speed of 25 lines a minute is far in excess of any Linotype or Intertype now manufactured.

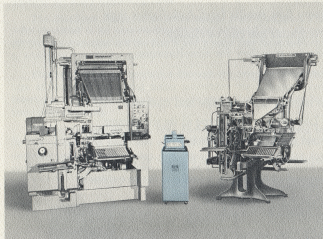
## NEW ADVANTAGES IN AUTOSETTER-TAPE SYSTEMS

The Star AutoSetter brings new advantages to the established system of setting type from tape. The use of the AutoSetter utilizes the full productive capacity of 14 and 15-line slug-casting machines, since the AutoSetter operates them at three times their normal manual output.

Tape may be perforated locally or received from a wire news service, hours or days in advance of casting, and held until required. This permits advanced scheduling to relieve "peak load" hours in the composing and perforating departments.

### IMPROVES TAPE TRANSMISSION

Transmission of news across the country, or from one in-plant point to another, has been accelerated through the use of tape.



The same basic AutoSetter automates the production of any machine in good operating condition. No change of keyboard or other machine equipment is made when applying the AutoSetter. When an older machine is replaced, the AutoSetter can be applied to the new unit.

Microwaves, outer space satellites, radio and commercial wires have all been used to transmit tape signals instantly from the point of origin to the point where they are used to set type.

When tape is used, neither the perforator operator nor the line-casting machine is limited by the output of the other. Since tape punching and AutoSetter-controlled slug-casting are separate operations, each is performed at optimum speed. When one is faster than the other, additional units may be added to "balance" production.

The use of very high speed computers for the justification and hyphenation of unjustified tape is another link in the chain of accelerated tape processing. An entire column of news composition can be computer-justified in a few moments, from tape.

### SILENT, MOTIONLESS MACHINE CONTROL

The electronic AutoSetter is silent. The constant "chatter" normally associated with tape operation is gone and the only noticeable difference in composing room sound is the accelerated tempo of greater production.

The use of solid-state, or motionless, electronics eliminates all moving parts, except a small driving motor and a solenoid for each magazine channel. Since there are no parts requiring regular service, the full capacity of the linecasting machine is utilized.

### AUTOSETTER ELIMINATES EXTRA EQUIPMENT

The Star AutoSetter is flexible and improves on the transmission of tape from one point to another. The reader can be placed in the perforator or computer room to read and instantaneously transmit signals to the composing room. The conventional transmitter and re-perforated tape no longer are required.

### ACCESSIBILITY AIDS MAINTENANCE

The complete AutoSetter system consists of six assemblies, each linked to the other, and all synchronized to millisecond coordination. Each unit in the AutoSetter "team" of components is immediately accessible for routine check. Special electronic knowledge is not required for maintenance.

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### **TAPE FLOWS THROUGH VARIABLE SPEED READER**

The Tape Reader is the input device of the AutoSetter system. Small variable-speed rollers move the tape over photo-electric cells. As different signal combinations move under a constant light source, the light passes through the code holes and energizes the cells below. Since nothing passes through the tape except light, the tape "flows" through the reader in a continuous motion, rather than intermittently. There is no danger of tearing the tape and it may be used repeatedly, if required.

Speed of reading is adjusted by the knob on the right, to the optimum speed of linecasting machine. Input can be instantly varied from one line per minute—during routine machine maintenance—up to the maximum productive speed of the Linotype or Intertype.

The Star Tape Miser may be added as an optional extra. It automatically accelerates tape feed to the rate of 25 to 30 lines per minute whenever rubouts appear in the tape, and instantly returns tape speed to normal when the next keyboard signal is read.

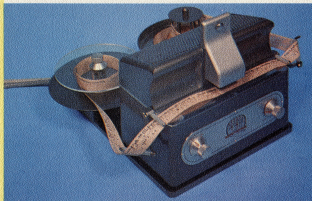
### **SILENT, ELECTRONIC BRAIN DECODES SIGNALS**

The Console is the electronic brain of the AutoSetter. Here the impulses from the reader are recognized and assigned to the release of matrices or the performance of other operating functions.

The Console is programmed to recognize double characters, such as the "ee" in "feed", and to add millisecond delays between the two characters, thereby permitting smooth escape from the magazine. Similar delays are added after spacebands and at the end of each line, to improve operation.

Tiny, motionless crystals handle thousands of operations per minute. These are the solid-state electronic components of the space age and have unlimited life under normal operating conditions.

Tough, fiber-glass boards hold these electronic components and the etched circuitry necessary to operate them. Each board is a unit in itself and may be unplugged and replaced instantly should the need arise. Safe, low-voltage current is used throughout the Auto-Setter and there is no electrical danger during maintenance.



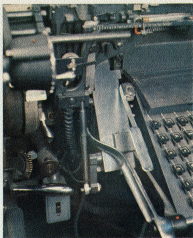
Because there is no sprocket feed in the reader, unevenly perforated tape can be used without difficulty. Mechanical readers require 10 signals per inch, but the AutoSetter system will accept wide variations from the former exact tape standards.



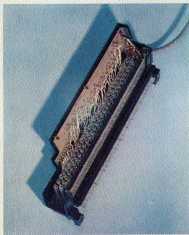
The console cabinet is on rollers, and may be placed in any convenient position. If necessary it may be rolled behind the machine to save floor space. Pull drawers contain all circuitry, and when extended, make routine examination easy for the maintenance men.

**...THE AUTOSETTER WILL OPERATE IT**

There is no complicated, outboard linkage in the assembling elevator raising mechanism. A simple arm, with an overthrow feature, raises the elevator on tape command. Manual raising of the elevator is unchanged since no extra weight is lifted.



Etched circuit boards simplify wiring and make snap on connections immediately available. Removal of two bolts releases the unit for bench inspection if required. An individually actuated solenoid for each keyboard character assures trouble-free assembly.



### HARMONIC MOTION TRANSFERS LINES SMOOTHLY

The Elevator Raising Mechanism is unobtrusive, without intricate linkage between the assembling elevator and the raising device. The elevator is raised on command from a tape signal and returns to assembling position in about one second. This speed remains constant, regardless of the speed of tape input.

The engineering principle of harmonic motion is employed to insure smooth, easy raising and transfer. In harmonic motion, the speed of a circular drive is translated into straight-line motion. The velocity of elevator rise is least at the starting and stopping positions and greatest midway between. No special buffers or braking devices are needed to prevent matrix squabble.

A special duplex rail is also tape controlled and allows matrices to assemble alternately at high speeds in upper and lower positions.

Should any interference prevent the full rise of the assembling elevator, no wear will occur in the lifting mechanism, since its clutch is electro-magnetic. The depression of the control button releases the clutch and allows the elevator to return to its normal position.

### COMPACT OPERATING UNIT FITS ALL KEYBOARDS

The compact, self-contained Operating Unit of the AutoSetter attaches to any standard Linotype or Intertype keyboard in a few minutes. No modification or replacement of regular machine parts or castings is involved.

Because it attaches to the rear of the keyboard, there is no obtrusive mechanism at the front to interfere with operator comfort or machine maintenance. Since operating contact between the Auto-Setter unit and the machine itself occurs only when under tape control, the "feel" of the keyboard remains unchanged.

Electrical impulses from the AutoSetter console actuate dust-sealed solenoids which raise the keyweights to release matrices. Should replacement be necessary, individual solenoids are slipped out by removing a small spring-washer. No soldering is required.

If the machine keyboard layout is changed in the future, snap-on connections are switched to fit the new requirements. The operating unit may be adapted to the new arrangement in minutes.

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### PUSH-BUTTON CENTER CONTROLS TAPE FUNCTIONS

The AutoSetter Push-Button Control Center is attached to the machine keyboard. Each button lights, when depressed, as an aid to the machine monitor.

The bottom button is the "Stop" and, when depressed, immediately stops tape feed and matrix assembly. When released, regular tape operation resumes automatically. The top button causes the tape to reverse at high speed and to stop at the beginning of the line. This button reduces downtime by 85% when clearing a squabbled line, since the machine monitor need not remove, read and reposition the tape when re-setting the line. The reverse tape feature returns the machine to full production about one second after the button has been depressed.

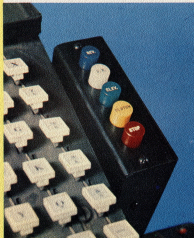
The yellow, or "clutch", button has two functions. When depressed during assembly, it allows the completion of the line, but prevents elevating, so the monitor may check assembling functions. Touching the button a second time raises the line and normal composition resumes. Also this button releases the magnetic drive in case of interference during the raising of the assembling elevator.

### SAFETY SCREEN INDICATES MACHINE TROUBLE SPOTS

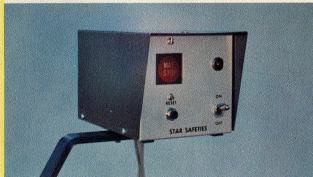
The AutoSetter Indicating Safety Box is a unique, time-saving device which not only indicates that a machine malfunction has occurred, but shows the monitor the exact source of the trouble. The monitor wastes no time looking for the cause of stoppage, but rather returns the machine to full production immediately.

In addition, the Star Safety immediately stops tape feed and matrix assembly. For instance, in the case of a squabbled line, the indicator panel tells the monitor to check the assembler by flashing ASS'R STOP. Similarly, a distributor stop shows DIST. and a loose line NO CAST. A full galley or a low pig are also indicated on the panel. Provision is made for the addition of other safety equipment, including mat detecting, as illustrated.

The Indicating Safety Panel is particularly useful when a monitor services more than one machine. He may have stoppages on two machines simultaneously and the Safety Panel directs him to the source of both troubles without delay.



These five buttons control all tape operations. From here the tape may be stopped, started or reversed. For manual operation, there are also buttons for raising the elevator, and for shifting to upper or lower rail positions.



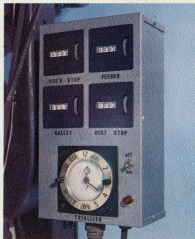
In addition to the safety indicating panel box, this optional equipment embodies the safeties themselves. When machine trouble occurs, these safeties not only stop the linecasting machine, but also stop the tape. The kit may be applied to other tape-operating units.

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When the line-repeat button is pushed, the tape is returned to the beginning of the line at the rate of 1300 signals per minute. A single column line will be ready for resetting in about one and one half seconds. This is a fraction of the time usually required.



The totalizer operates in conjunction with the indicating safety box. It shows the number of stoppages at four different linecasting machine locations, and records the total elapsed time the machine was out of operation. It may be remotely positioned if desired.

#### **"REPEAT" BUTTON CONTROLS REMOTE TAPE READER**

The "Reverse Tape" button is an optional extra on the push button control panel. It not only eliminates tape reading and handling while the monitor clears a squabbled line, but makes possible an unusual placement of AutoSetter components to transmit signals from perforator department to composing room. Since the monitor can remotely control the AutoSetter reader, the reader may be removed from the console and placed at the tape transmitting point in another department or on another floor. This eliminates the tape transmitter and re-perforator that is normally required for this type of operation—with correspondingly less equipment to purchase, maintain and operate.

When so arranged, tape is not used in the composing room, but is fed from a wire service re-perforator or a computer into the reader, which is located in another department. From there, electrical impulses are transmitted by cable to the AutoSetter console beside the machine. At all times, composing room personnel may start, stop or reverse the tape reader even though it is remotely located.

#### **ELECTRONIC AUTOSSETTER DESIGNED FOR THE FUTURE**

Flexibility of design and use are purposeful parts of the AutoSetter. For instance, although the reader can scan only the usual six tape channels, seven or eight hole tape can pass through a slightly modified reader, the channels in excess of six being "blind."

When required for stock market or other specialized composition, an extra circuit board will add delays for channels 87, 88, 89 and 90. These adjustable millisecond delays allow greater assembly speeds with less danger of matrix transposition.

As the use and sophistication of computers develop, future AutoSetter installations can be adapted to operate as integral parts of computer systems. In this type of application, unjustified tape will be fed into several AutoSetter readers simultaneously. They will transmit electrical information to a justifying, hyphenating and allotting computer. The computer will not produce a justified tape, but rather will feed completed electronic information to multiple AutoSetter consoles in the composing room, each capable of operating a linecasting machine at its maximum speed.

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## AUTOSETTER FLEXIBILITY ACCELERATES COPY FLOW

In its simplest application, the AutoSetter is located beside the linecasting machine, where it accepts tape and operates the machine at its maximum casting speed. However, for plants requiring the transmission of tape from one point to another, the AutoSetter has built-in

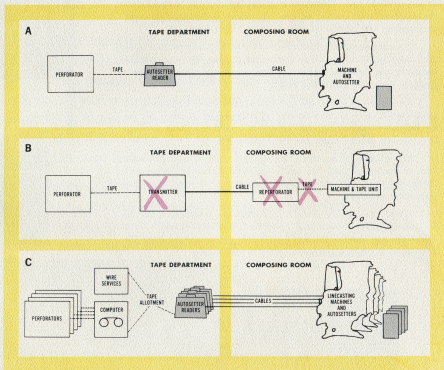
transmission capability, in addition to its prime function of machine automation. The flexibility of electronic design allows the tape reader to be removed from the machine to a remote point and used as a wire-transmitting device. (Diagram A)

### AUTOSETTER TRANSMITS FROM PERFORATOR TO COMPOSING ROOM

As a part of normal AutoSetter operation, electrical impulses are sent by cable from the tape reader to the decoder console. Simply by extending the connecting cable, the reader may be placed in the perforation department, yet remain under the immediate control of the machine monitor in the composing room. (Diagram A) The transmitter and re-perforator usually required are eliminated. (Diagram B)

This simple design feature permits radical new systems planning, since tape no longer must enter the composing room for linecasting machine operation. Tape punched by manual perforation, justified by computer, or received from the wire services can now be fed into several remote AutoSetter readers for instantaneous use in the composing room.

Tape allotment may be performed in the tape department as shown in Diagram C and production schedules controlled from that point.



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## The **STAR** line of automated equipment and improved parts

In its ultra-modern headquarters, Star Parts Company designs, engineers and manufactures all Star products, including the Auto-Setter. An inventory of millions of parts is maintained to provide same-day service on 97% of all parts orders.

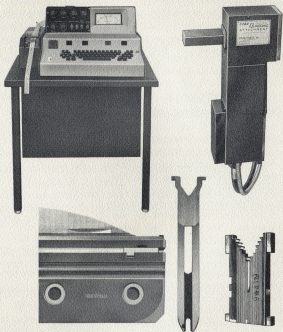
Star produces AutoPerf models for punching either justified or unjustified tape. The counting AutoPerf brings programmed "intelligence" to tape perforation. It automatically justifies most text matter, and eliminates both tight and loose lines.

Three models of the hydraulically-operated Star Quadder meet all "white space" needs. From Selectro-Matic tape and push-button versatility to the simplicity of the Economy model, there is a Star Quadder for every composing room.

The StarNews family of matrices ranges from a compact 5½ point classified to an easy-reading 10 point editorial size. All are cut for tape operation and the four 8 and 9 point text faces conform to wire news service standards.

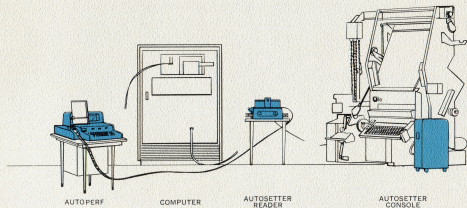
Star established its reputation through the precision manufacture of improved parts and major assemblies for Linotypes and Intertypes. Over 3000 different parts are always in stock, ready for immediate shipment.

During the past 40 years, Star Parts has continually added to its line of improved parts and equipment. New developments, both electronic and mechanical, are now being engineered by Star for profitable use in the composing room of the future.





*IMPROVED LINECASTING AUTOMATION*



*FROM STAR PARTS PRACTICAL RESEARCH*

**STAR ★ PARTS**  
C O M P A N Y  
SOUTH HACKENSACK, N. J.



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