

WYSONG[®] POWER SQUARING SHEARS

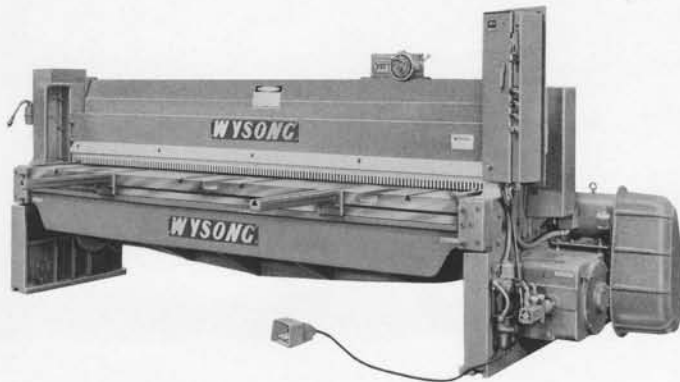


One machine backed by people



CATALOG NO. PS 779

Precision and performance



Neither is compromised for the other in a Wysong power squaring shear. Construction is rugged and rigid. And sound design results in unsurpassed accuracy and operating ease.

On all Wysong mechanical power shears the knife bar descends on $\frac{1}{2}^\circ$ incline. This reduces the shear load, allows the use of square blades which are more easily sharpened, and provides clearance for the back gauge. With $\frac{1}{2}^\circ$ incline, forging of the edge of material and excessive beveling is reduced to a minimum.

Precision back gauges are ruggedly built and securely mounted to assure maximum accuracy. Split-type bronze drive nuts running on precision acme ground drive screws are adjustable to compensate for back lash and eventual wear. Each turn of the back gauge handwheel equals $\frac{1}{4}''$ travel of gauge bar. Front and rear hand operated gauges are adjustable to .001 of an inch, and may be friction locked in position.

Accurately machined non-metallic gib surfaces guide knife bar travel. The gibs are adjustable front to back to compensate for eventual wear.

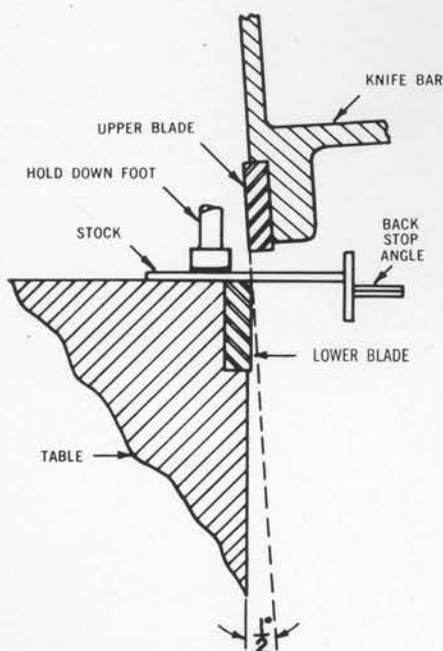
Non-metallic gibs permit closer setting of blades for greater accuracy.

Accessible bed bolts and blade bolts make it easy to set or turn blades. All Wysong power shears are equipped with solid 4-edge blades.

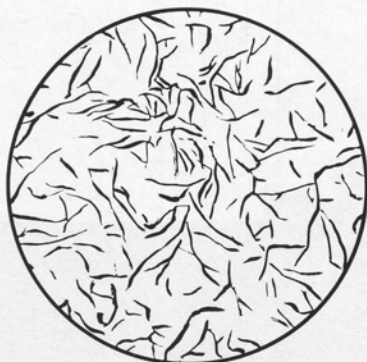
Each edge is a cutting edge.

All Wysong mechanical power shears are equipped with spring compensating holddowns and self leveling holddown feet. This mechanical method enables you to shear irregular and various thickness materials without adjustments.

There is ample pressure to hold capacity materials securely during the cutting cycle. Cam operated holddowns are used on larger models. The cam followers are mounted on roller bearings and run in oil. The holddown feet are available with rubber inserts for shearing polished materials. Holddown feet are widely flanged to distribute the pressure over an exceptionally large area.

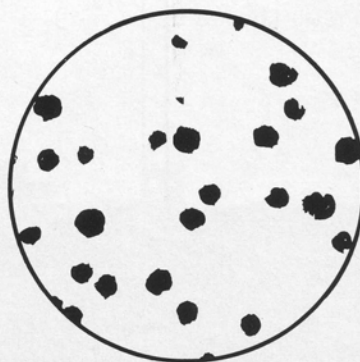


The Nodular Iron Story



GRAY IRON

Magnified, shows random graphite flakes typical of gray iron.



NODULAR IRON

Magnified, shows how random graphite of nodular iron forms in spheres to produce strength and ductility.

The ideal material for the construction of shears is tough, rigid and wear-resistant. Nodular iron provides all of these properties in addition to its ability to dampen or absorb shocks. That is why Wysong shears have less deflection and less vibration than other shears. That is why they maintain alignment for unsurpassed accuracy in capacity shearing of large volume production.

Type 80-60-03 nodular iron, minimum tensile strength of 80,000 PSI, is used for those parts subject to heavy shock, possible deflection

and excessive vibration found in some shears built with other types of material. This assures the strength and rigidity necessary to maintain alignment and provide unsurpassed accuracy.

Wysong shears have earned an industry-wide reputation for long-lived performance because they're built by the people who won't settle for second best. In design, production, distribution and service Wysong is your assurance of a quality shear before the sale, and a dependable shear after the sale.

Table Comparison of Mechanical Properties of Nodular Iron With Other Materials

	Specification	Tensile Strength	Yield Strength	Elongation	Modulus of Elasticity Million Psi
Cast Iron	Class 40	40,000/45,000	(No true yield)	Nil	15-17
Malleable Iron	Grade 32510	50,000/53,000	32,500/34,000	10/13%	25
Cast Steel	Grade 60-30	60,000/70,000	30,000/35,000	24/28%	30
Nodular Iron	Type 80-60-03	80,000/100,000	60,000/75,000	3/10%	24

Wysong & Miles Company reserves the right to discontinue or change specifications, design or material at any time without prior notice or obligation. For detailed specifications and dimensions contact factory.

**ALL WYSONG POWER SHEARS
SHOWN HEREIN ARE DESIGNED
AND MANUFACTURED TO COMPLY WITH
ANSI-B11.4 SAFETY STANDARDS.**

Double end frame machines

10 and 12 foot cutting lengths.



1/4" MILD STEEL SERIES



3/8" MILD STEEL SERIES



1/2" MILD STEEL SERIES

Standard features

- Precision ball bearing
- 2-speed power operated 36" range back gauge
- Fully automatic metered lubrication
- Built-in non-repeat unit
- Cam operated power holddown
 - Metal finger guard
- Non-Metallic gibbing system
 - Remote control
 - Barrier guard
- Pinch-point guards
- JIC-EGP controls

Rugged Guards _____

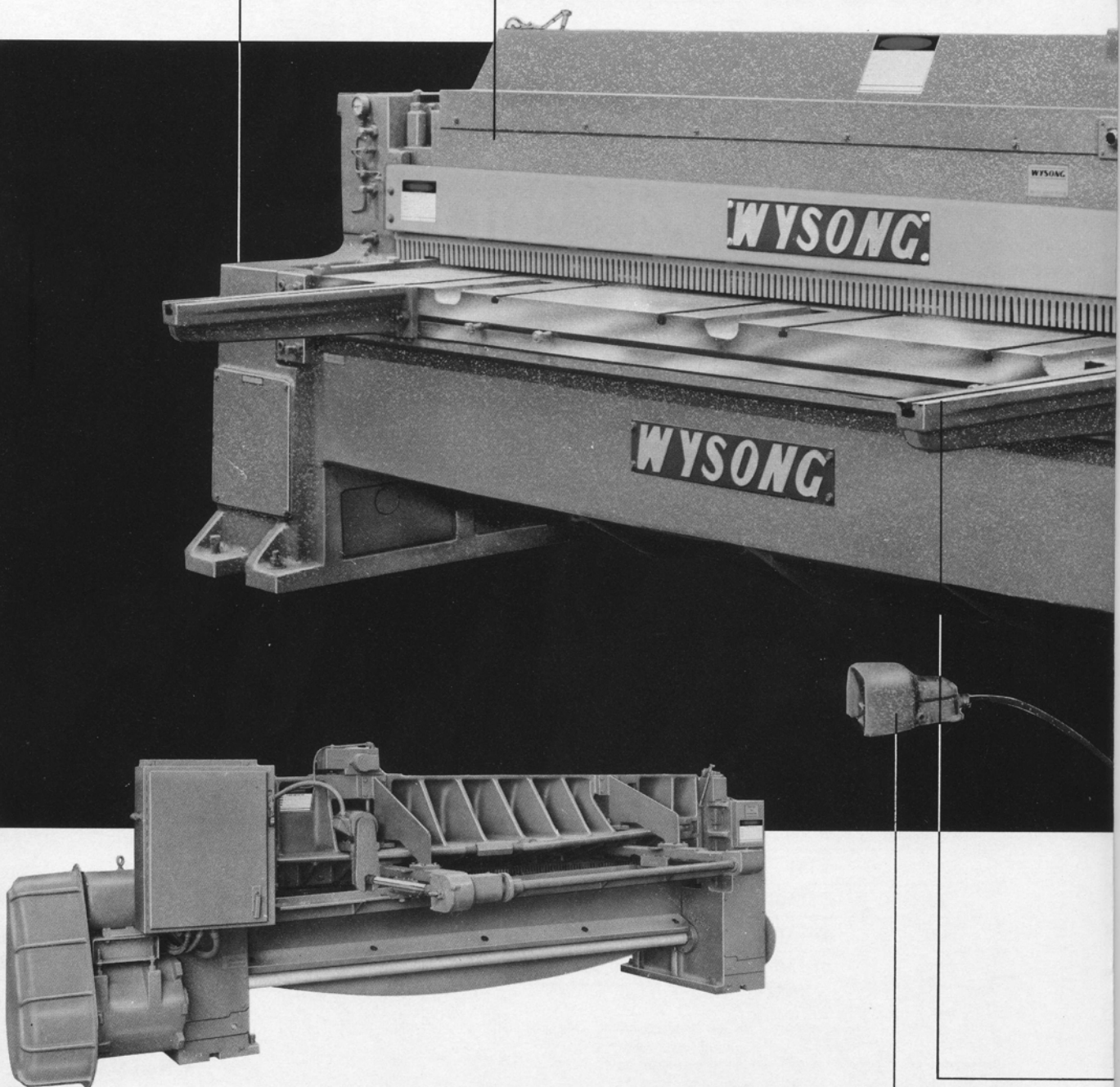
JIC-EGP Controls _____

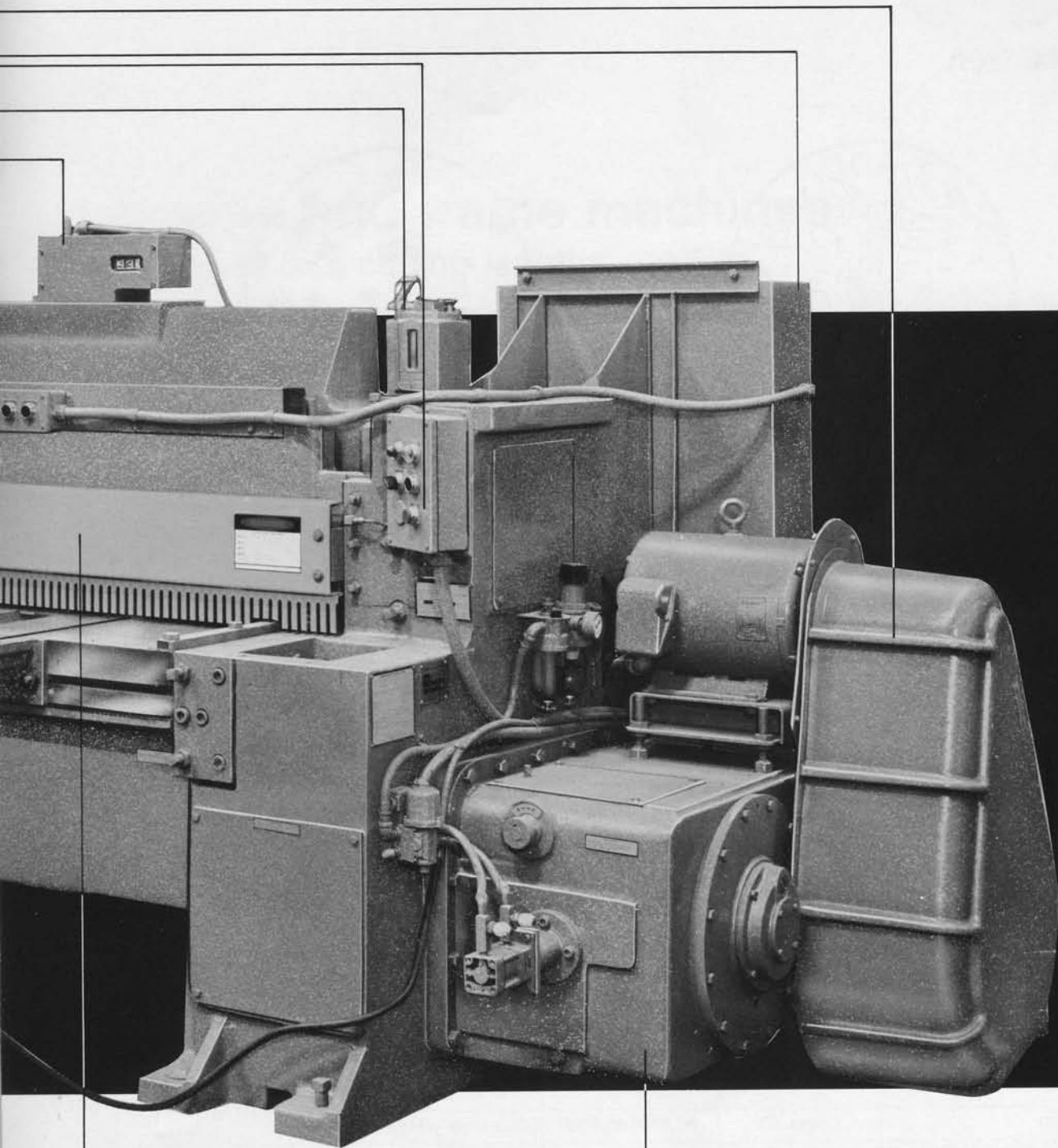
Automatic Lubrication _____

2-Speed Power Operated Back Gauge _____

Power Hold Down _____

Double End Frame _____





— Totally Enclosed Gear Box

— Barrier Guard

— Front Extension Arms (2)

— Remote Control

WYSONG POWER SQUARING SHEARS

Mild Steel Capacity	1/4"		3/8"		1/2"	
Stainless Capacity	7 gauge		9/32"		3/8"	
Model	1025	1225	1038	1238	1050	1250
Cutting Length	120"	144"	120"	144"	120"	144"
Rake of Upper Blade	3/8"	3/8"	3/8"	5/16"	13/32"	13/32"
No. Holddown Feet	16	18	18	21	18	21
No. Ball Transfers			10	14	10	14
Front Gauge Range	41"	41"	48"	48"	48"	48"
Back Gauge Range	36"	36"	36"	36"	36"	36"
Motor, 1800 RPM - HP:	15	15	20	20	20	20
Strokes per Min.	55	55	50	45	40	40
Floor Space – In. (Without Gauges)	60X195	64X220	78X216	78X240	79X216	79X238
Floor Space – In. (With Gauges)	104X195	104X220	127X216	127X240	133X216	133X238
Overall Height	61"	66"	68"	68"	72"	76"
Shipping Weight	19,700	25,700	34,500	37,000	36,500	41,000

Optional features

- Reversible squaring arms
- Five alternate gauge systems
- Hinged back gauge
- Rear conveyor and stacker
- Rubber inserts for holddown feet
- Increased back gauge range

Single end frame machines

52 inch through 120 inch lengths



14 GAUGE MILD STEEL SERIES



12 GAUGE MILD STEEL SERIES



10 GAUGE MILD STEEL SERIES

Standard features

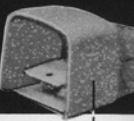
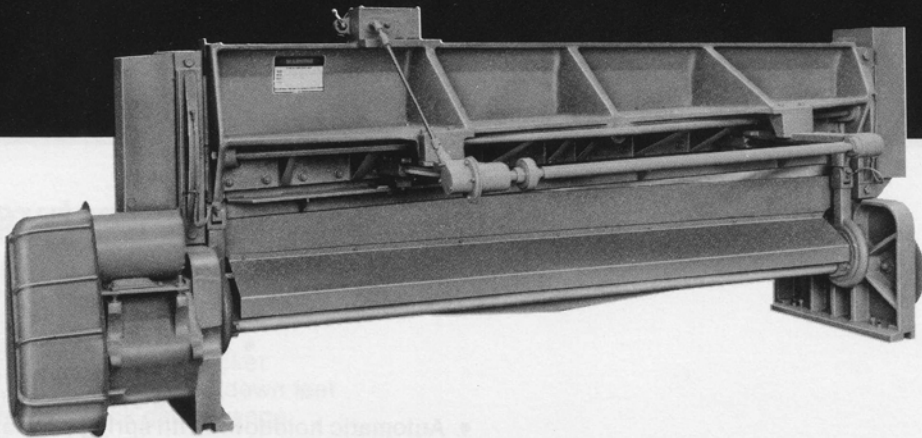
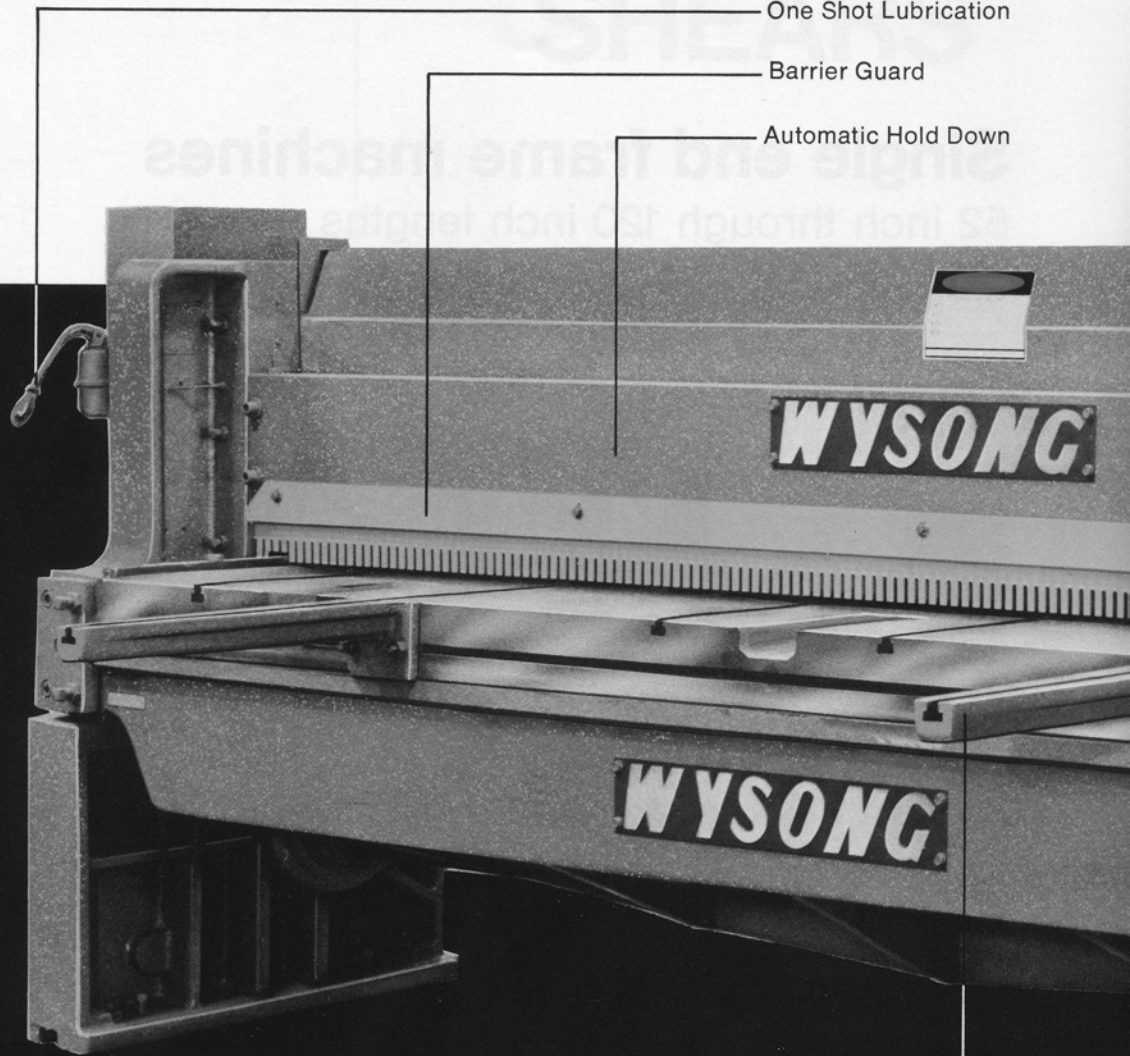
- Rear operated precision back gauge on all models except the 1010 which is front operated, graduated in increments of .001.
 - Built-in non-repeat unit
 - Metal finger guard
 - One-shot lubrication
- Automatic holddown with spring-activated compensating feet
 - Non-metallic gibbing system
- Front skirt and rear ramp plate
 - Remote control
 - Barrier guard
- Pinch-point guards
- JIC-EGP controls

POWER SQUARING SHEAR

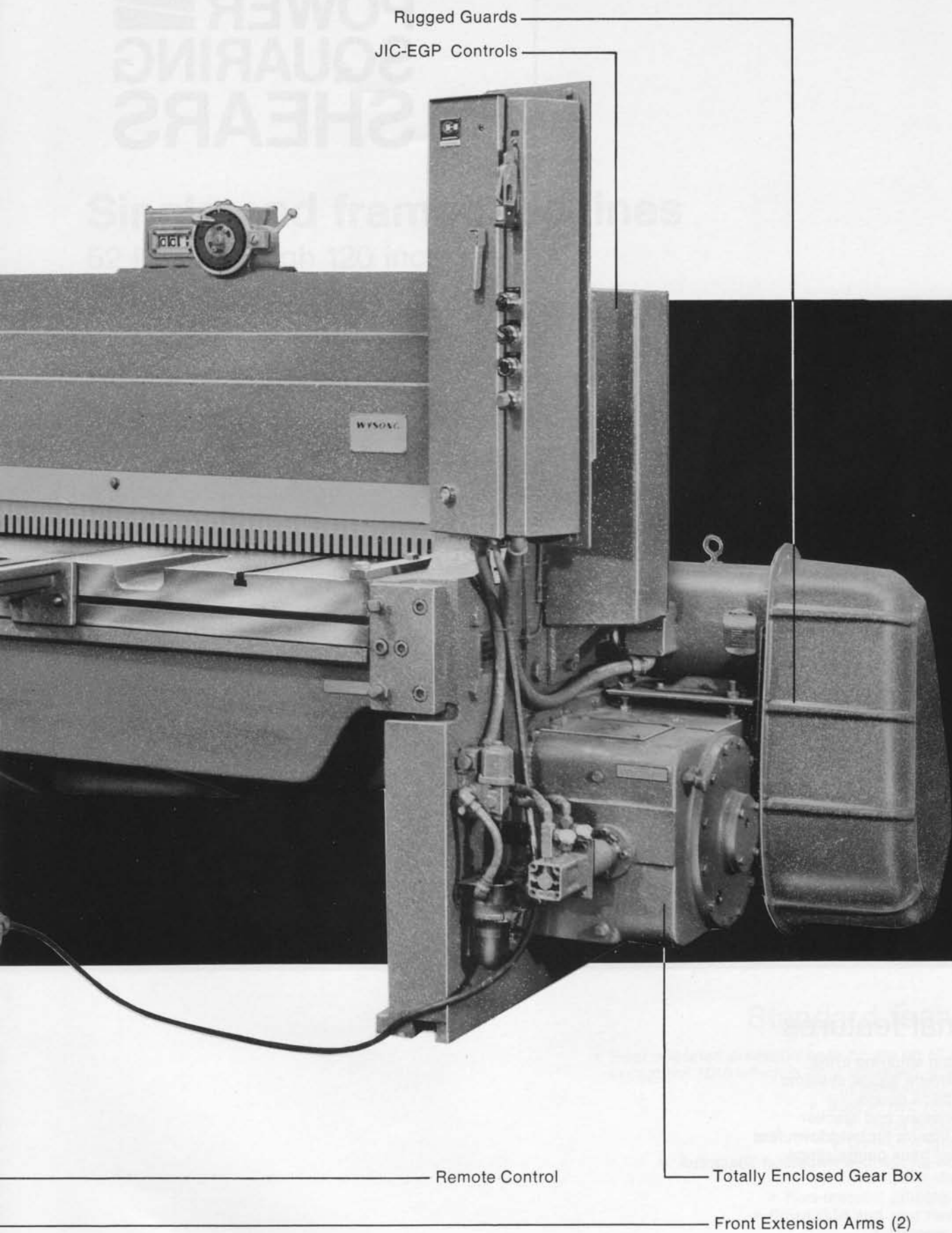
One Shot Lubrication

Barrier Guard

Automatic Hold Down



- 110-ECF controls
- Pinch-point guards
- Barrier guard
- Remote control
- Front and rear ramp gate
- Non-metallic tipping system
- Compensating foot
- Automatic hold-down



WYSONG POWER SQUARING SHEARS

Mild Steel Capacity	14 gauge		12 gauge		10 gauge		
Stainless Capacity	16 gauge		14 gauge		12 gauge		
Model	1452	1472	1252	1272	1052	1072	1010
Cutting Length	52"	72"	52"	72"	52"	72"	120"
Rake of Upper Blade	5/16"	3/8"	5/16"	3/8"	3/8"	3/8"	3/8"
No. Holddown Feet	8	12	8	12	9	11	16
Front Gauge Range	36"	36"	36"	36"	36"	41"	41"
Back Gauge Range	24"	24"	24"	24"	24"	24"	24"
Tee Slot Across Bed Front	YES	YES	YES	YES	YES	YES	YES
Motor, 1800 RPH-HP:	3	3	3	3	5	5	7½
Strokes Per Min.	60	60	60	60	60	60	60
Floor Space – In. (Without Gauges)	48X93	48X113	48X93	48X113	50X99	50X118	55X168
Floor Space – In. (With Gauges)	85X93	86X113	85X93	86X113	85X99	85X118	90X168
Overall Height	52"	52"	52"	52"	52"	52"	53"
Shipping Weight	4,200	4,600	4,200	5,470	5,700	7,710	12,450

Optional features

- Reversible squaring arms
- Five alternate gauge systems
- Rear conveyor and stacker
- Rubber inserts for holddown feet
- Increased back gauge range

Standard Equipment on all Wysong Power Squaring Shears

- Ball bearing, precision back gauge. Back gauge range on all $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " models is 36". Back gauge range on all smaller models is 24". Power operated back gauge (2-speed) standard on $\frac{1}{4}$ ", $\frac{3}{8}$ ", and $\frac{1}{2}$ " models. All manually operated back gauges adjustable to .001 of an inch.
- Ball transfers standard on $\frac{3}{8}$ " and $\frac{1}{2}$ " Shears only.
- Solid, 4-edge, high carbon, high chrome blades standard on 10, 12 and 14 gauge and $\frac{1}{4}$ " model Shears. Shock-resistant blades standard on $\frac{3}{8}$ " and $\frac{1}{2}$ " Shears only. Each edge is a cutting edge.
- Automatic holddown with spring activated compensating feet. Cam operated power holddown on $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " models.
- Snap-on holddown feet.
- Non-metallic gibbing system.
- Side gauges.
- Disappearing stops for front gauging.
- Accurately machined tee slots across the bed front of all models.
- Adjustable stainless steel scales embedded in table give accurate measurement from cutting line. Machines 8 ft. and under equipped with 2 of these scales; 10 ft. machines — 3; and 12 ft. and over — 5.
- Front extension arms. All machines are equipped with 2 extension arms.
- Tee slots from front to rear of bed. Machines 8 ft. and under equipped with 2 slots; 1010 and 1025 equipped with 4 slots; 1038, 1050 and all 12 ft. models have 6.
- Friction clutch in fly wheel ($\frac{3}{8}$ " and $\frac{1}{2}$ " models) to reduce danger of possible damage to drive train when accidentally overloaded.

For greater capacity

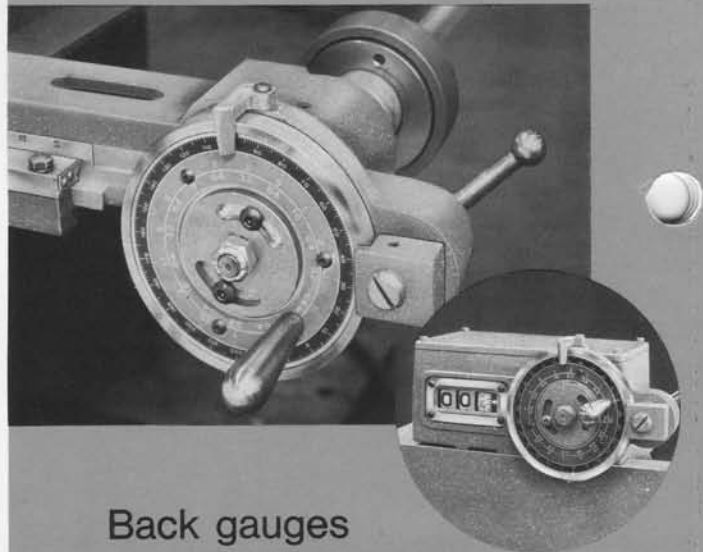
- Motor with sufficient power for capacity shearing at a rate of up to 20 cuts per minute.
- 9-jaw clutch made from highest grade alloy forgings is scientifically heat-treated and accurately machined for trouble-free service.
- Knife bar counterbalanced on all models except 1452, 1472, 1252, 1272 and 1052.

For safety

- Safety friction flywheel standard on $\frac{3}{8}$ " and $\frac{1}{2}$ " models only.
- Built-in non-repeat unit. Conveniently located and is simple and easy to set for single stroke or multiple stroke operation.
- Pinch point guarding.
- Metal barrier guard on all models.
- Holddown barrier guard.
- Steel plate covers for cored pockets on all models.
- JIC-EGP Controls.
- Flywheel and brake fully enclosed with guards.
- Electro-pneumatic remote control.

For longer life

- Straddle mounted gears on all models assure proper meshing and eliminate deflection. Constant oil bath assures long life. Spherical roller bearings are used on drive and intermediate gears.
- Self-energizing brake. Cam operation activates brake at top of stroke only. Eliminates drag during cutting cycle.
- Fully automatic metered lubrication on $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " models.
- One-shot lubrication on 1010 and smaller models.



Back gauges

Ball bearing precision back gauges (hand operated) are standard on all Wysong Power Shears except $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " models. (These models are equipped with two-speed power back gauge.)

Front operated back gauge standard on 1010, adjustable to .001 of an inch.

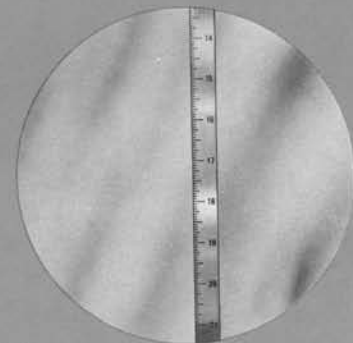
Rear operated back gauge standard on all other 10, 12 and 14 gauge models, adjustable to .001 of an inch.



Disappearing stops

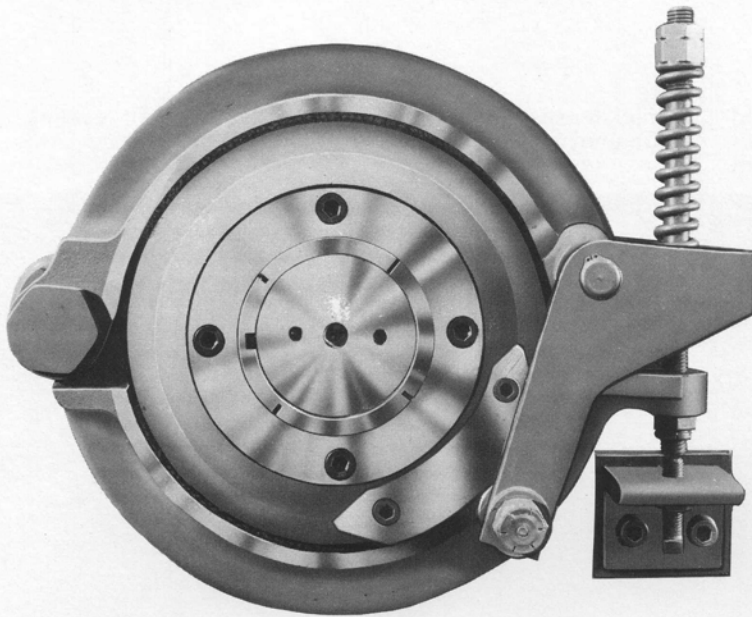
Disappearing stops for front gauging. These stops fit snugly in accurately machined tee-slots.

As material slides over bed, stops depress and then reappear to provide convenient and accurate gauging.



Accurate stainless steel scales

These scales are embedded in tables of all power shears. This feature aids in measuring accurately from cutting line.



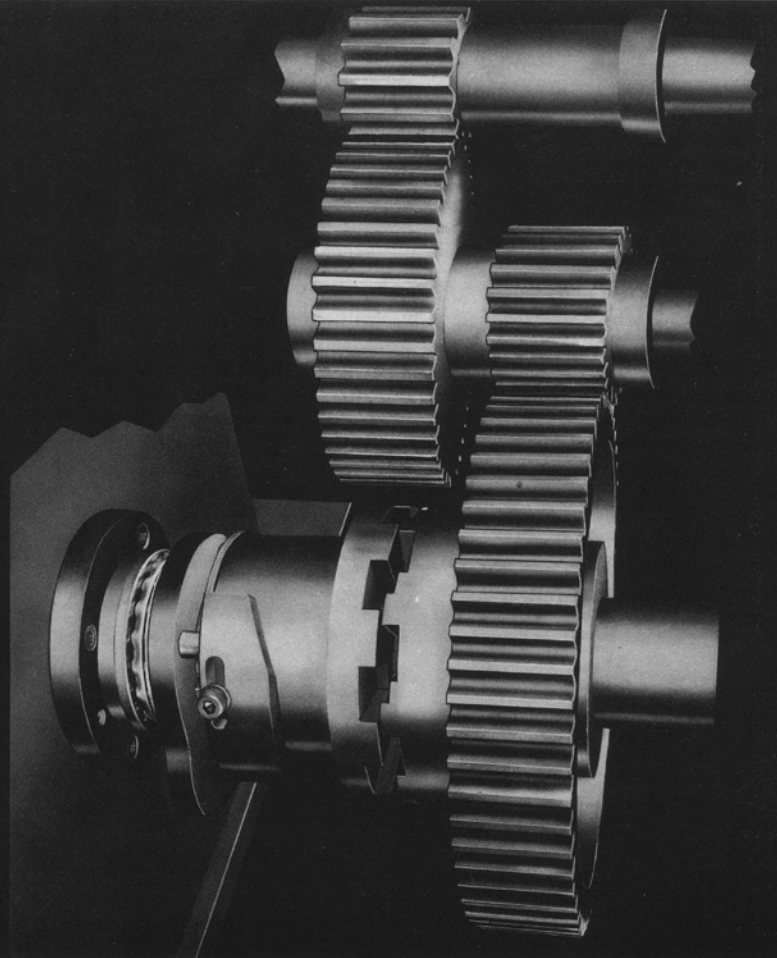
Cam brake assembly

Standard on all Wysong Power Shears is a highly effective cam operated brake. Cam operation activates brake at top of stroke only. Eliminates drag during cutting cycle. This brake assures you of years of trouble-free operation.

Rugged 9-Jaw Clutch and Drive Unit

Wysong clutch built of highest grade forged alloy steel, scientifically heat treated and accurately machined. Load distributed evenly against the large area of each jaw. This time-proven, trouble-free clutch is standard on all Wysong power shears.

High speed gears, accurately machined, are straddle mounted on all models. This insures proper meshing and eliminates deflection. Long life spherical roller bearings are used on intermediate and drive gear mountings.



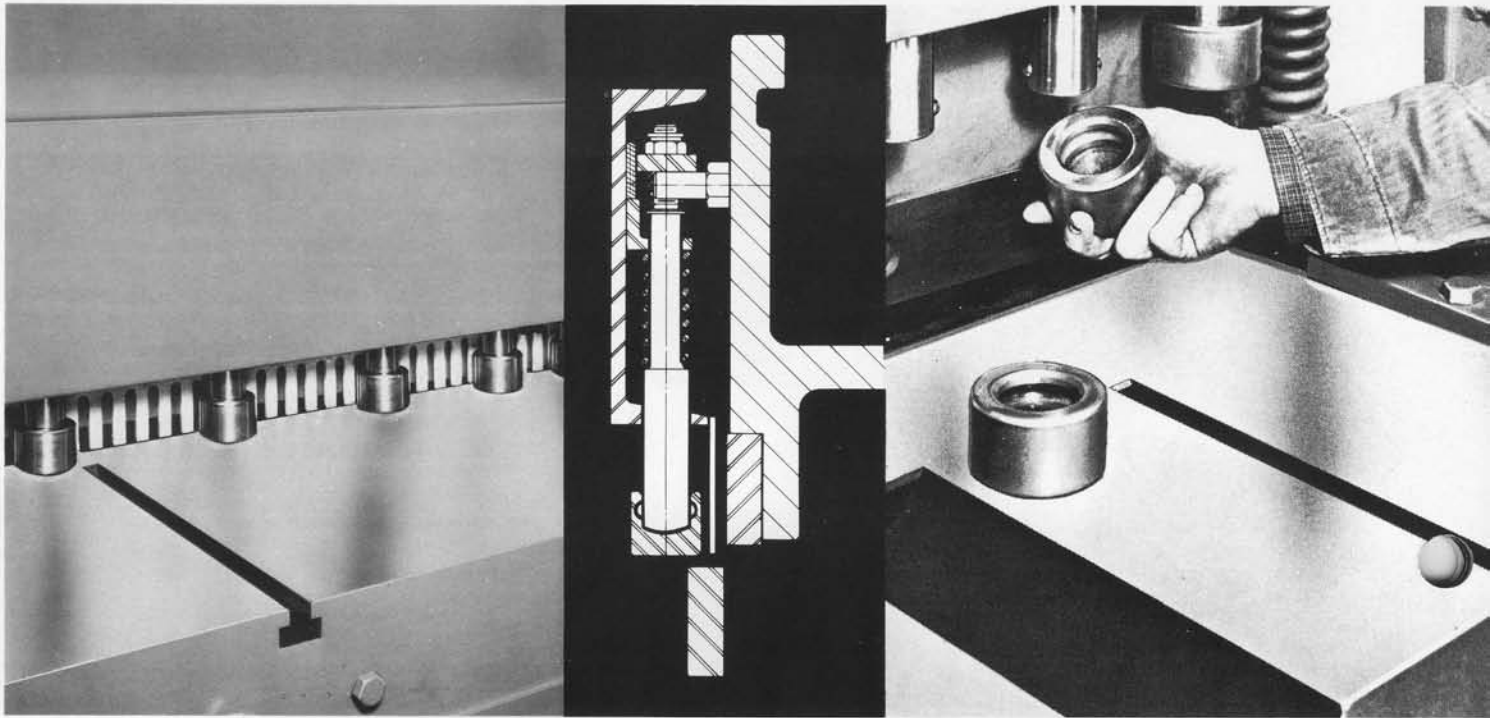
Holddowns

Spring activated holddown

SHOWN WITH BARRIER GUARD REMOVED

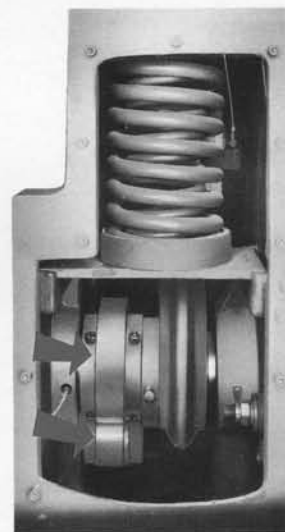
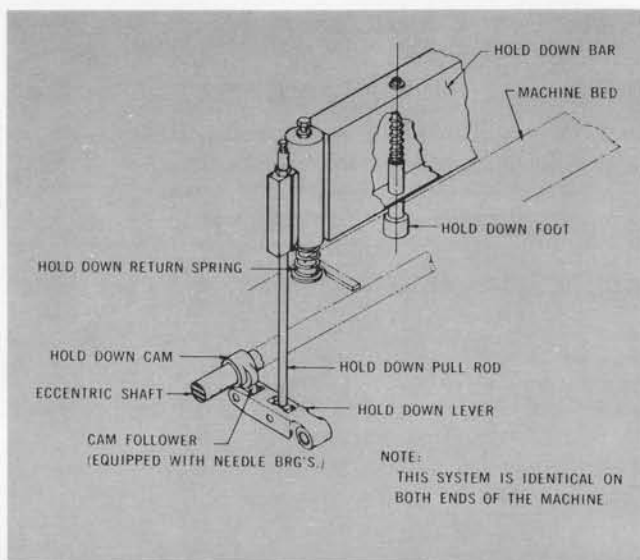
A powerful automatic holddown with spring activated feet is standard on all Wysong single end frame power shears. Compression springs self-adjusting for different

thicknesses of material. Holddown feet are self-leveling for uneven stock.



Cam operated power holddown

Powerful, automatic holddown is pictured below. Quieter, with no oil leakage, no valves to adjust, less cost of maintenance. A simple bolt adjustment is all that's needed to regulate holddown pressure best suited for the job. Holddown feet may be equipped with rubber inserts to prevent marring of polished materials. This holddown system standard on $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " models.

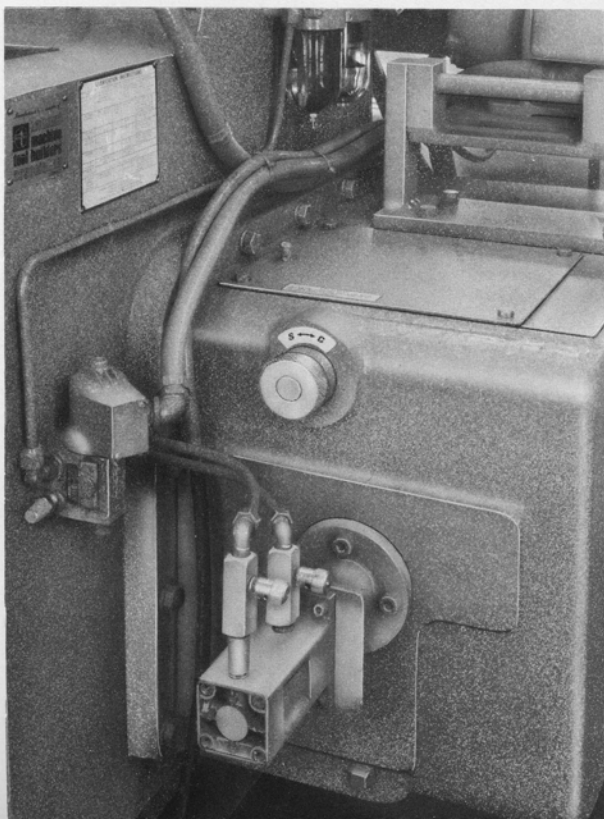


Wysong power holddowns are activated by split-type, heat treated cams located on the main drive shaft. Roller and cam lubricated each stroke from oil in reservoir. Roller and cam (see arrows) mechanically operate the holddown on larger models.

Safety features

Barrier guard

Stationary barrier guard prohibits fingers from reaching holddown feet and cutting line.



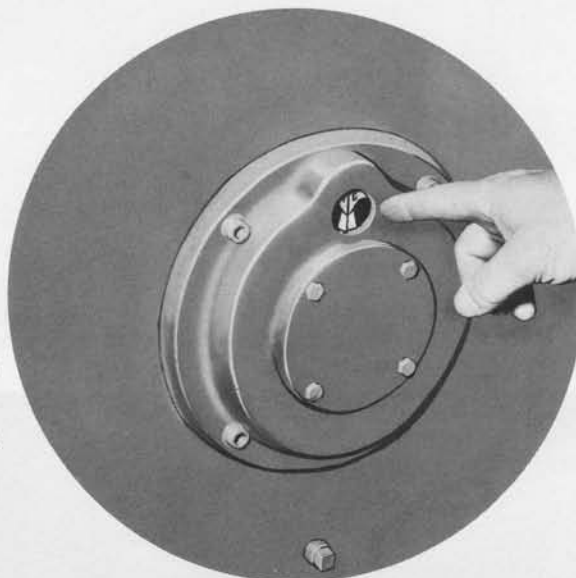
Non-repeat unit

Permits selection of single or multiple stroke operation. Prevents possibility of a repeat stroke when not desired.

Other features

Top center indicator

Shows at a glance,
position in which knife bar
is stopping.
Indicates clearly when
adjustments are needed.

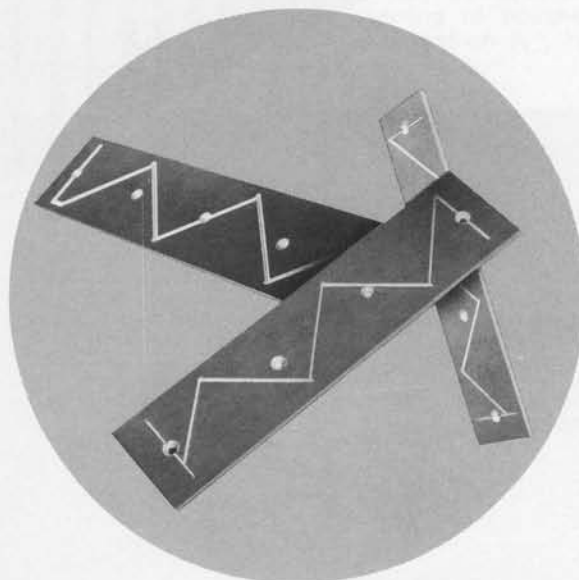
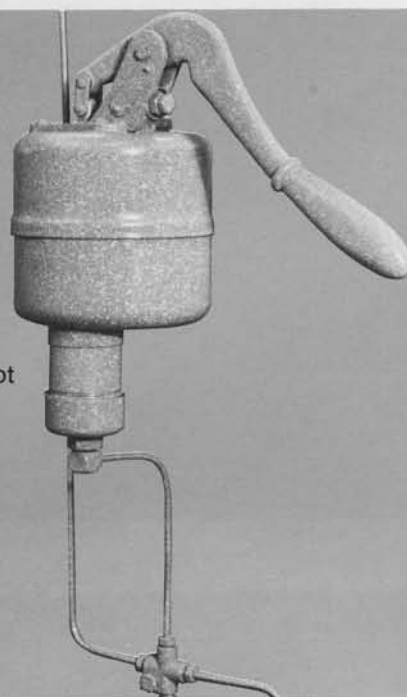


Lubrication

Fully automatic lubrication
is standard on Wysong $\frac{1}{4}$ ", $\frac{3}{8}$ " and
 $\frac{1}{2}$ " models. The ram supplies
power to pump oil automatically
to all points which
require lubrication.

Wysong shear 1010 and smaller
models are equipped with a one-shot
lubrication system.
Simple hand pump sends metered
lubrication to all bearing surfaces.

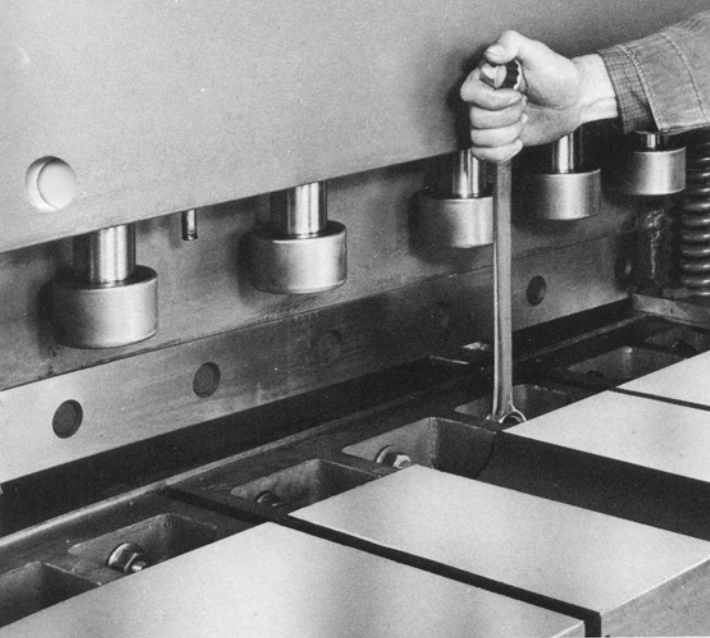
On all models the clutch and gears
run in a constant bath of oil.



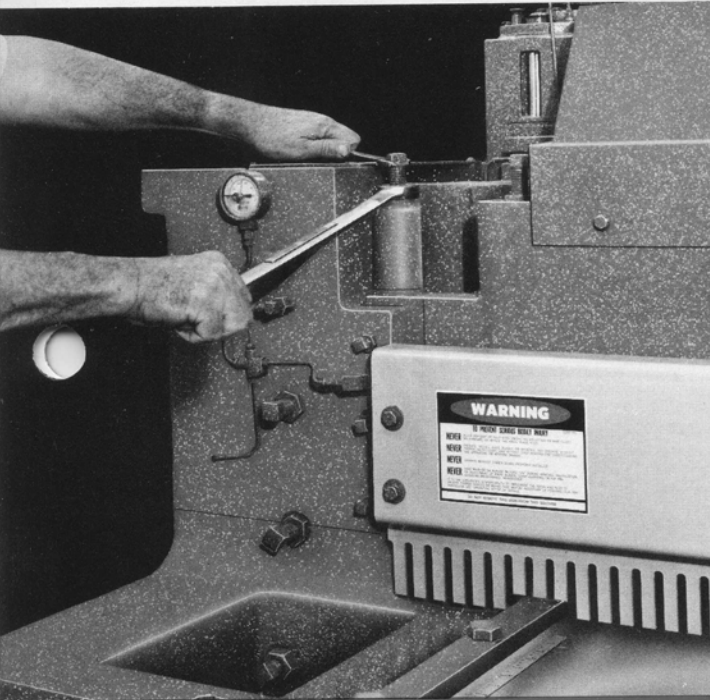
Non-metallic gibbing system

Permits closer running clearance
which insures accurate cut every time.
Eliminates metal to metal contact,
no chance of scoring
the ways.

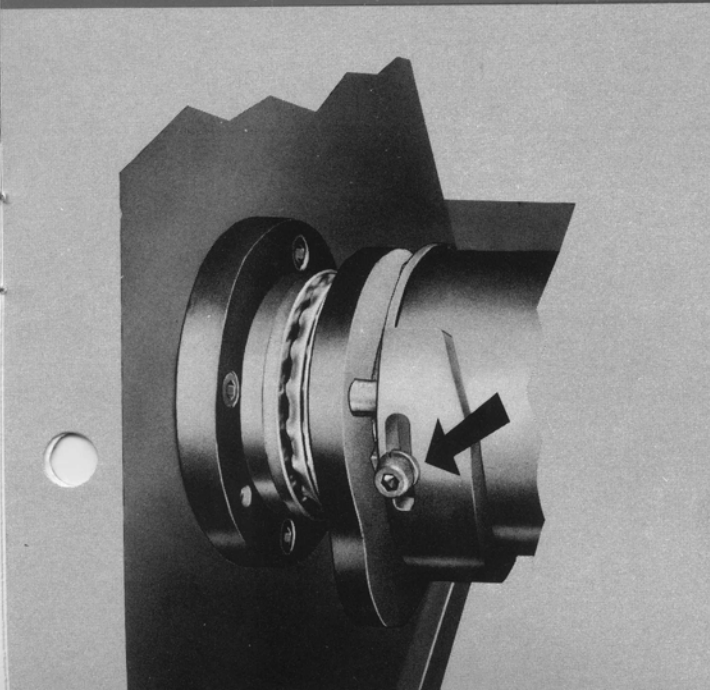
Ease of adjustments



Accessible blade bolts make it easy to turn blades. Illustration shows tightening of blade bolts. Changing or turning blades is a simple operation.



Holddown pressure regulated by a simple adjustment.



Clutch release cam may be adjusted, if necessary, without removing any gears. The clutch becomes accessible by removing cover on top of gear case.

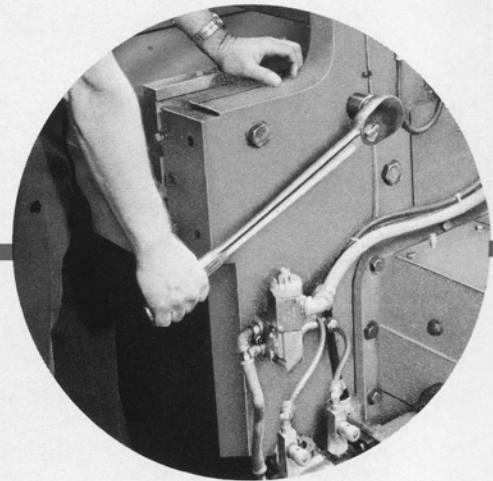
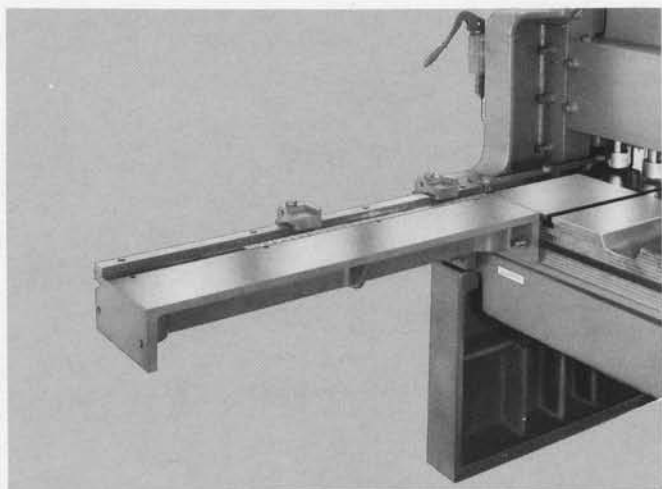


Illustration shows readily accessible bolts which secure the table to the end frames.

Optional equipment

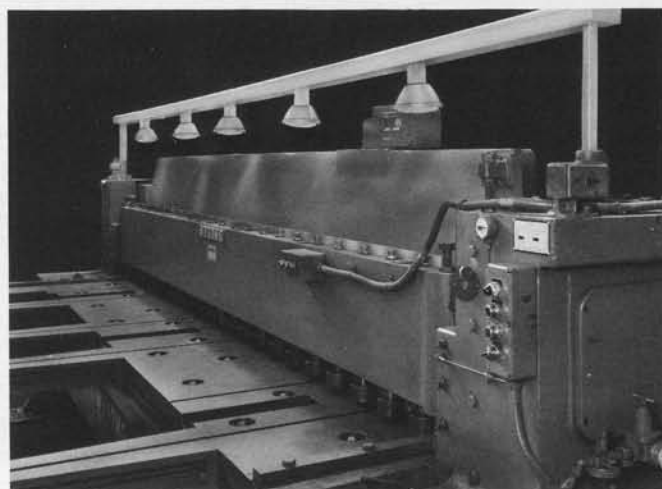
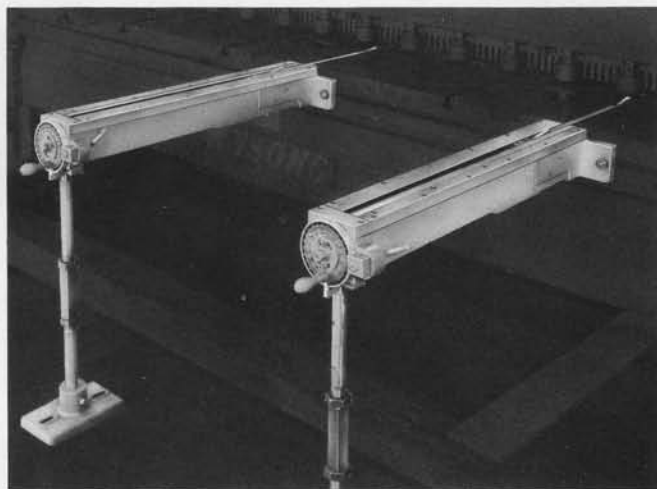
Squaring arms

Available in ranges of 4 through 12 feet from cutting edge, for use on either right or left-hand side of machine, as specified. Adjustable stainless steel scale for accurate measurement. Two swing stops with each arm.



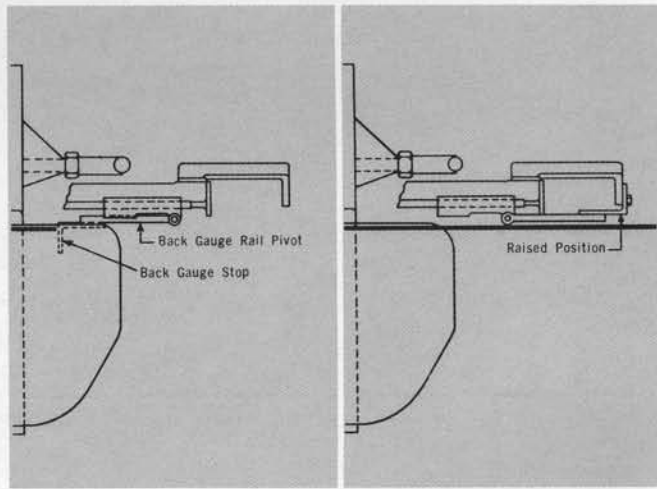
Precision front gauge

The ball bearing precision front gauge is individually adjustable to .001" and has a range of 48" on double end frame machines and 36" range on single end frame models. Equipment includes two disappearing stops 20" apart, with one extending into the bed T-slot. Thus, with an adjustment of 28", a maximum of 48" range can be achieved. Also adjustable left to right.



Light beam gauge

The Wysong light beam gauge is most valuable where shearing to a scribed line is required. Furnished with deflector bar for accurately aligning beam to cutting line.



Hinged back gauge

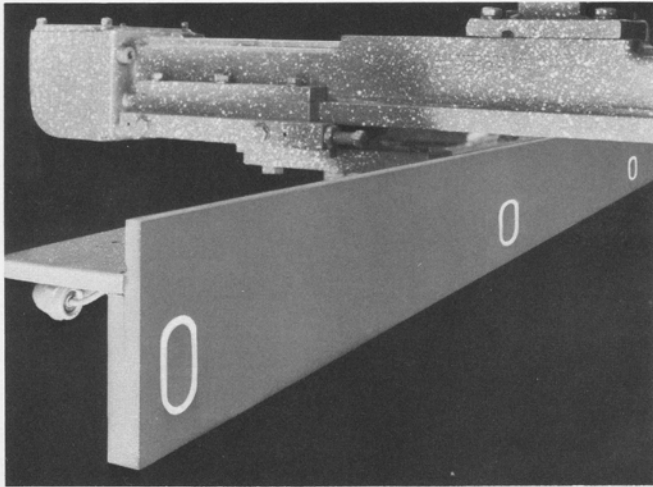
The hinged back gauge may be swung up and easily secured to permit shearing beyond gauge range. (Range of back gauge must be at least 36" to install the hinged gauge.)

(Ask your Wysong distributor for separate brochure on this equipment.)

WYSONG POWER SQUARING SHEARS

Electronic probe gauge

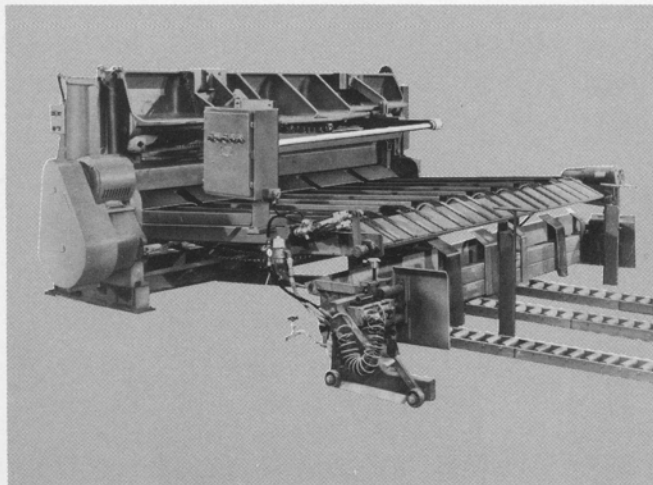
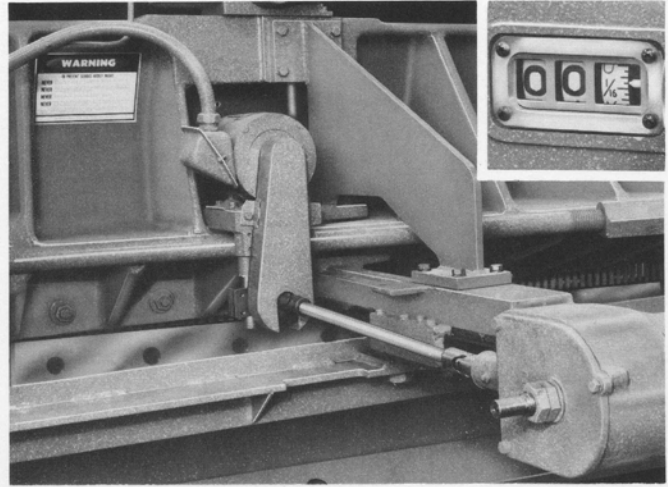
Wysong's automatic probe gauge involves an electronic system of sensory units mounted in the backstop angle. Any combination of these probe units may be activated at one time from the control panel. The shear cycles only when simultaneous contact is made with activated units thus assuring repetitive parallel cuts at tremendously increased production rates.



Power operated back gauge

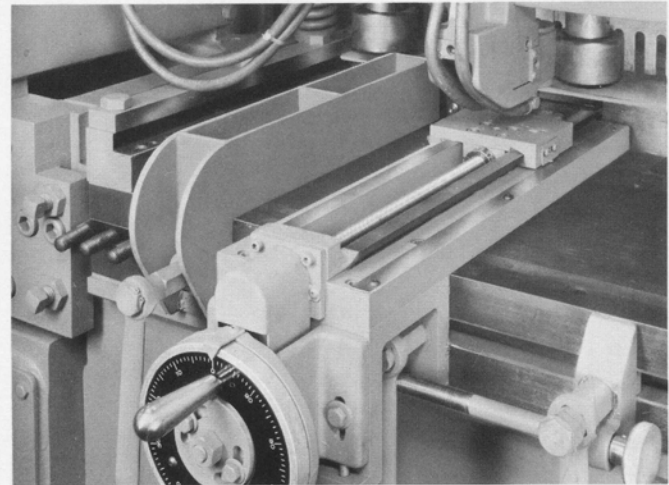
Normally furnished in fractions.

Where close gauge settings are required, the power operated back gauge can be furnished with readings calibrated in increments of .001".



Rear conveyor and stacker

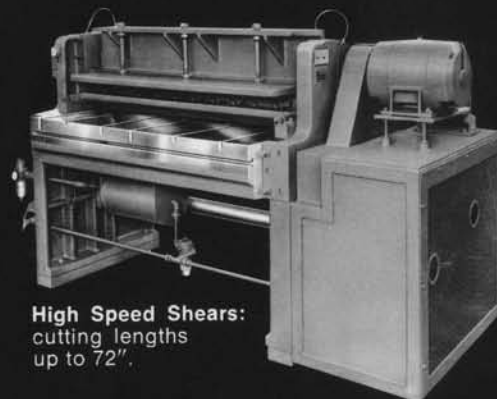
Adding 30% or more production capacity to any shear, this unit automates the process of separating scrap from finished cuts and prepares work pieces for immediate delivery to next station. (Ask your Wysong distributor for separate brochure concerning this equipment.)



Pin gauge

This system offers a direct dial reading pin gauge calibrated in .001" readings. This unit complements the accuracy of pre-punched holes in the work-piece. The air-operated pins are inserted into pre-punched holes at points along an axis parallel to the cutting line, thus locking the work piece and preventing the slightest change of position. (Request special brochure from your Wysong distributor.)

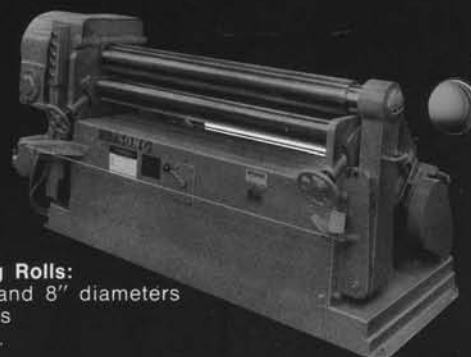
WYSONG[®] POWER SQUARING SHEARS



High Speed Shears:
cutting lengths
up to 72".



Air Power Shears:
120" through 168" cutting lengths
in 18 through 14
gauge capacity.



All Steel Bending Rolls:
4 1/4", 5", 6", 7" and 8" diameters
in working lengths
36" through 120".



Mechanical Press Brakes:
Up to 225 tons capacity

Hydra-Mechanical Press Brakes:
Up to 325 tons capacity

Distributed by:

WYSONG & MILES COMPANY

U. S. 29 North □ P. O. Box 21168
Greensboro, North Carolina 27420
919/621-3960