

PROME CAM



hydraulic shears

GH 630 Z

keeping design current

Close collaboration with the users of our shears that have been sold for 15 years throughout the world have enabled us to make improvements in a new series of GH shears.

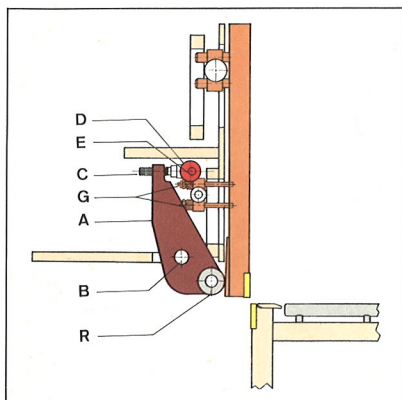
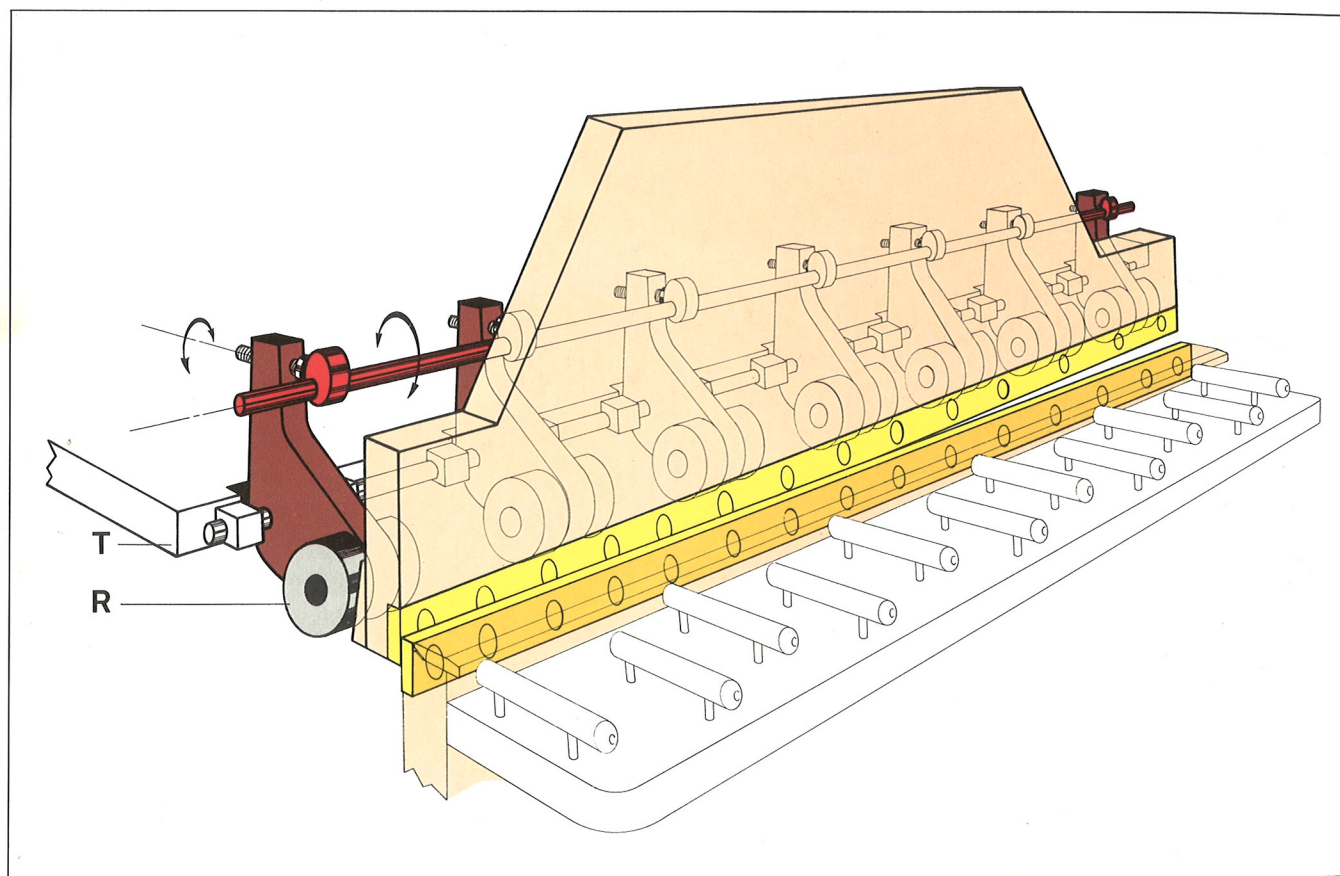
clearance-free guiding

The guiding of the ram of our shears, of a unique design, is patented in many countries.

The guiding is provided by sets of

double rollers mounted across the whole shearing length. Each pair of rollers (R) is integral with an arm mounted on the face of the ram brace which is welded to the side housings and part of the rigid box frame. Only the ram and upper knife

move in the shearing. This construction provides rigidity and linearity to the ram at all points in the cutting action. Moreover, this multi-point guiding eliminates sliding bearings and all friction parts. Roller bearings are permanently lubricated and require no servicing.



simple settings of the clearance between knives

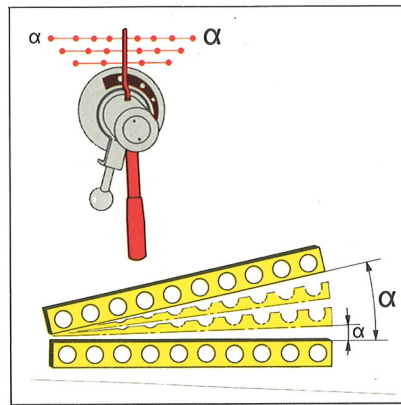
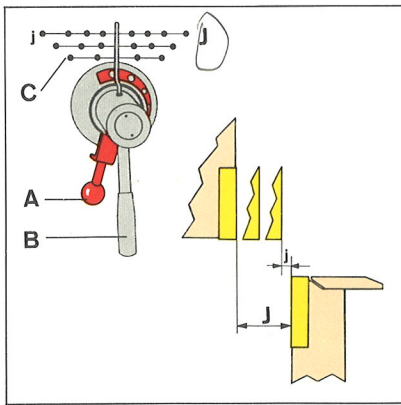
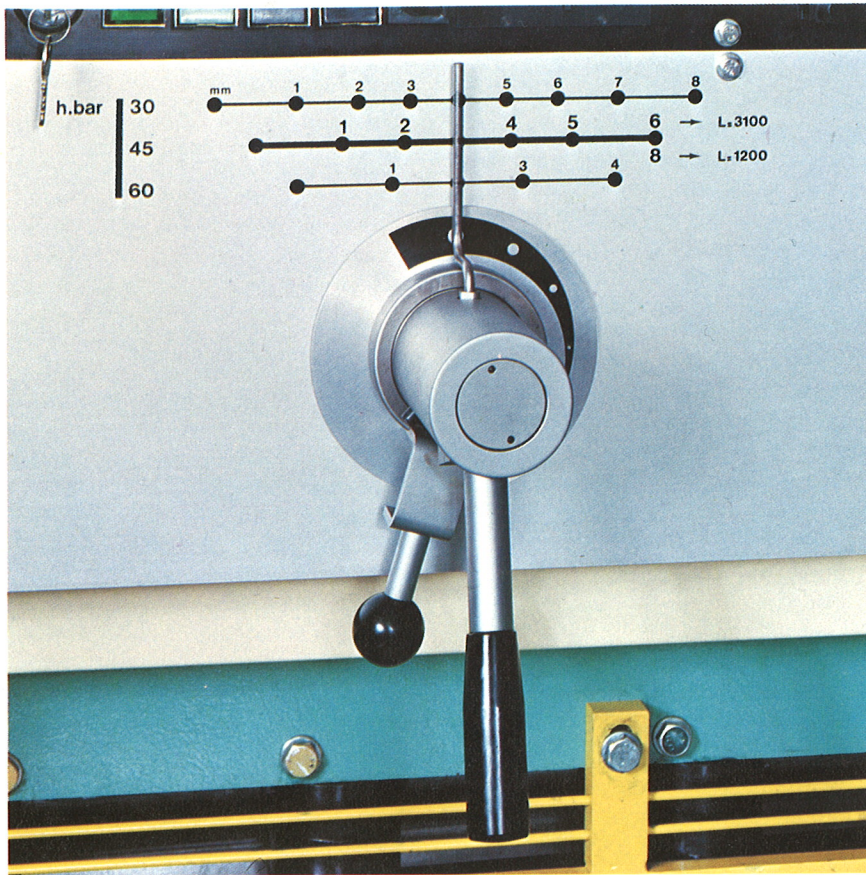
The reaction arms (A) move independently from each other around shaft (B) thus providing for very accurate pinpoint setting of the initial clearance by adjusting screws (C).

The upper part of the arms bears on

the eccentrics (D) integral with the bar (E) controlled from the front by the operator through a lever. Rotation of this bar causes simultaneous movement of the arms around shaft (B) and subsequently forward or backward movement of the ram, always kept in contact with rollers (R) by the prestressed return device (G).

The clearance between knives can be changed instantaneously from minimum to maximum.

predetermined α J selection



clean and square cuts with least distortion

The setting of the clearance between knives and the cutting angle is synchronized.

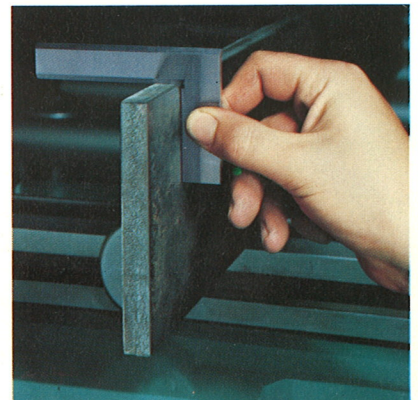
Clearance (J) varies with two criteria:

- the type of material
- the thickness of material

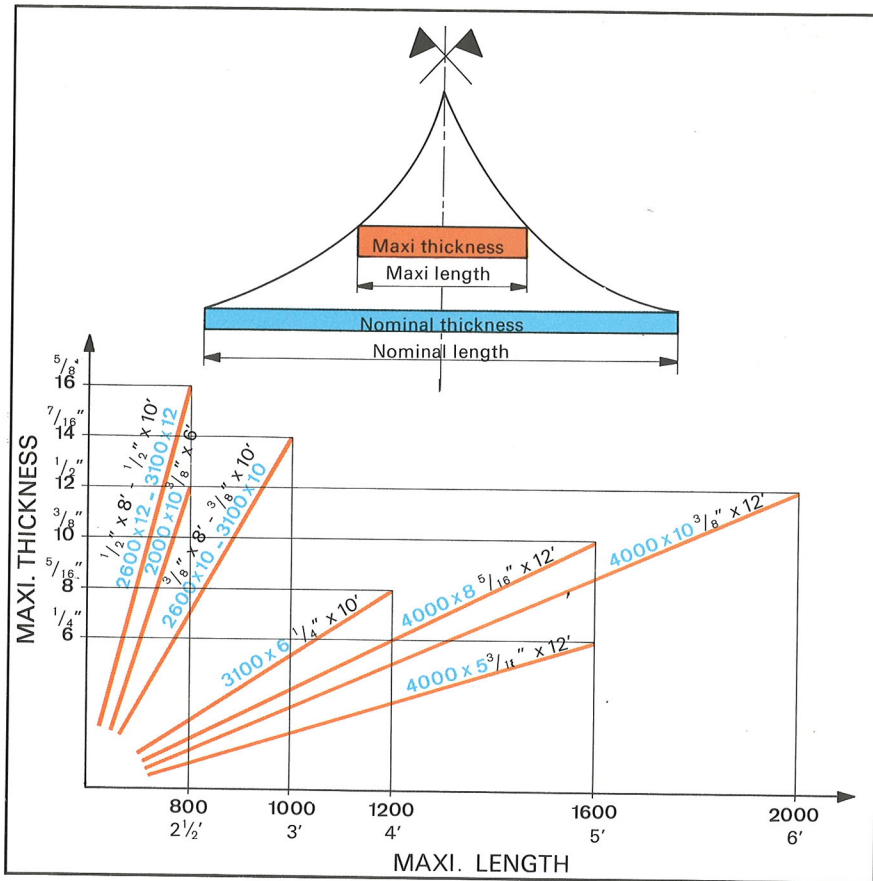
Depending on the type of material, the operator selects through lever

(A) one of three possible clearance variation ratios: aluminium, mild, or stainless steel. He then sets the thickness of the material on the corresponding scale (C) using lever (B). This operation determines the rake angle α and the knife clearance (J) best suited. Locking this lever prevents getting out of adjustment. These operations assure clearance perfectly adjusted between knives for clean and square cuts and a minimum cutting angle for the production of minimum distorted pieces.

For unusual requirements these controls can be unsynchronized.



additional capacity

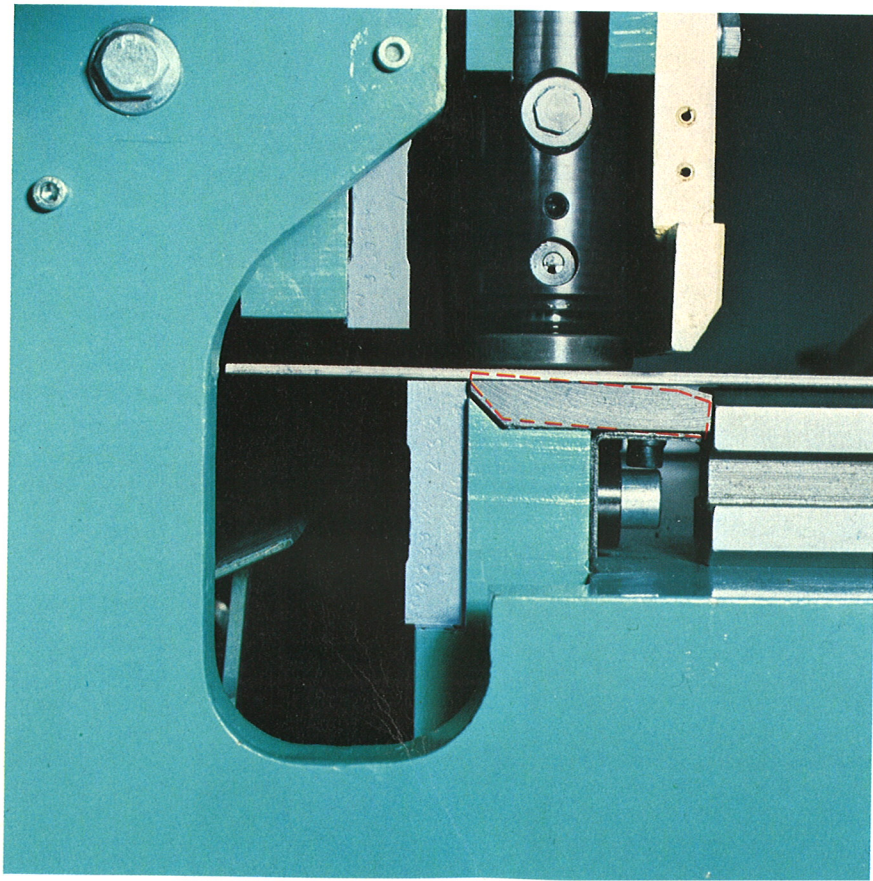


increased thickness of cuts in the center

A further advantage of the GH shears is their design which provides for cutting greater than nominal thickness in the lengths specified.

The two cylinders, supplied independently, exert their force at the ends of the upper ram. Through this design, the cutting force available increases when the cross point of the knives moves toward the center of the machine. The maximum force is obtained when the cross point between the knives is exactly in the center.

This characteristic requires structural members designed to withstand the forces due to cutting maximum thickness, assuring added rigidity in shearing nominal rated thickness.



cuts with minimum camber and bow

A pressure of 100 bars (1450 PSI) enables the holddowns to clamp the part in position. As soon as the knives come in contact with the material, this clamping force increases proportionally to the cutting load. This clamping force amounts to 55 % of the cutting load.

Effective holding of heavy and narrow plates is assured by a "bridge", an accessory which connects two holddowns.

Soft and fragile materials are sheared without difficulty through proportional reduction of the clamping force, and protected against marring by fitting the holddowns with rubber cups and a plastic pivot plate. Wear on the lower knife due to feeding of the material is prevented by the tilting action of the pivot plate.

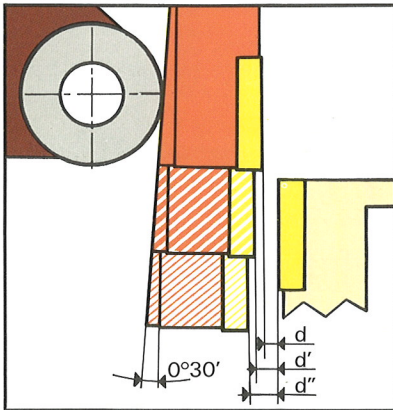
important features



a sensitive cutting device

An independent holddown control, which is very sensitive, allows for slowing down, stopping, or reversing the movement of the upper ram at all points of its stroke. This possibility for controlling cutting is particularly useful for cutting to a scribed line or partial shearing.

The upper and lower 90° knives are 4 edge high carbon, high chrome blades. The 1/2 degree slope of the surface in contact with the roller bearings ensures that the upper knife moves slightly backwards during the cutting cycle, thus increasing knife life.



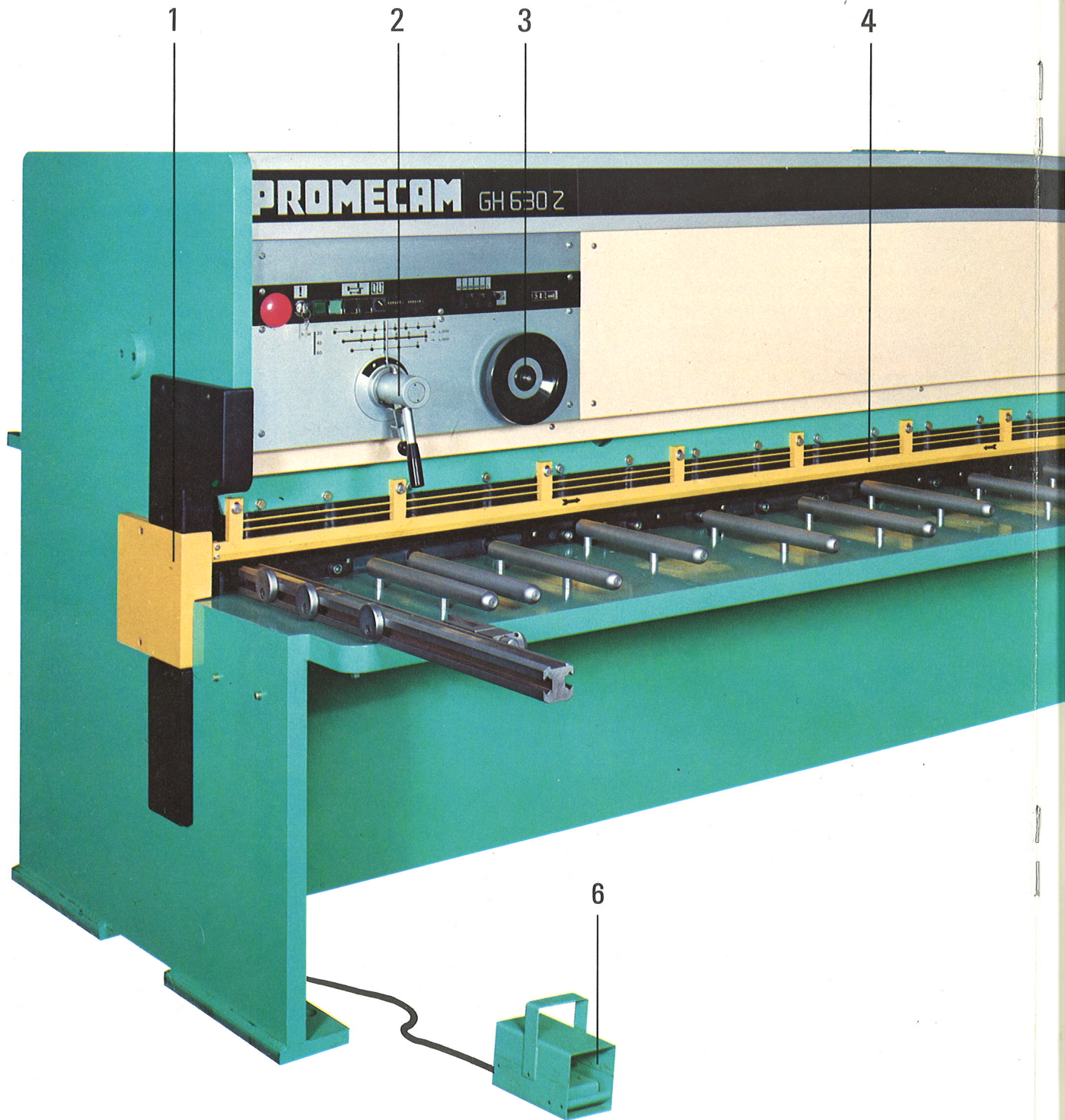
practical and safe operation

PROMECAM shears are in compliance with existing safety regulations. The front guard is designed with several notches to allow for cutting small blanks ($\frac{5}{16}$ ", $\frac{3}{8}$ ", and $\frac{1}{2}$ " models) or (8, 10 and 12 mm models).

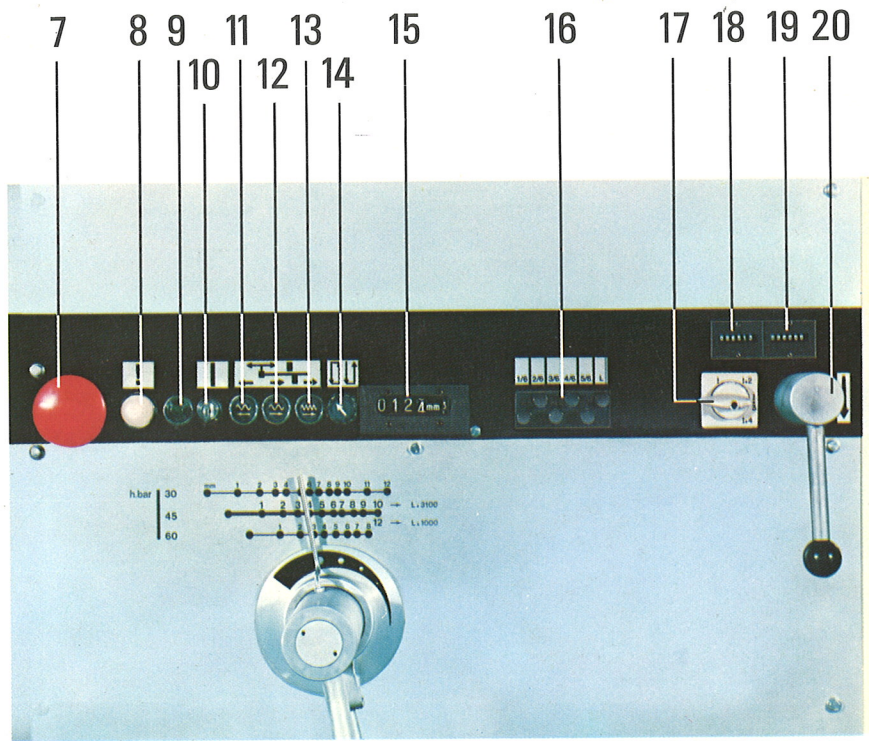
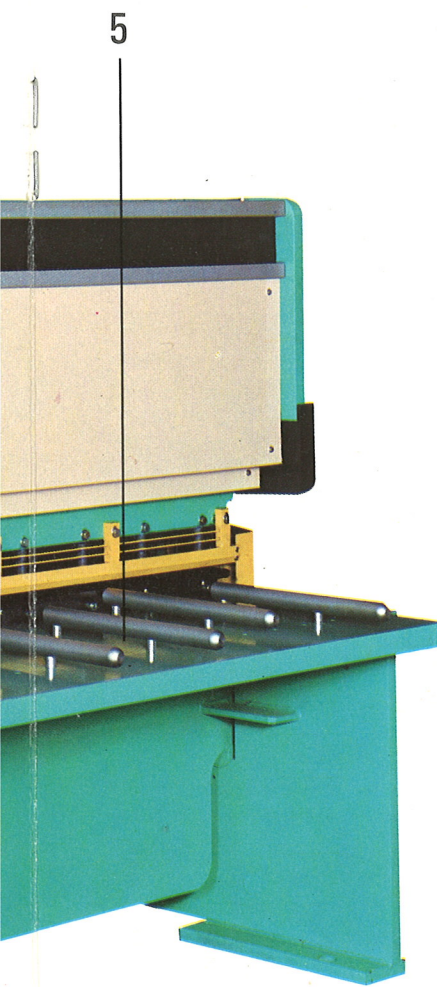
It has been designed to minimize the drop on the table side and to provide a clear view of the knives all the way across the machine.

Several fluorescent lights illuminate the knives. This light, projected on a wire, permits accurate positioning for shearing to a scribed line.

a design with optimum shearing control



GH 630 Z



GH 1030

- 1 Removable guard for throat used in secondary operations such as slitting or in replacement of knives.
- 2 Synchronized blade clearance and rake adjustment control.
- 3 Manual control for back gauge fine adjustment.
- 4 Knife and holddown guard. A beam of light projected on a taut wire provides for accurate scribed line shearing over the whole length.
- 5 Dropped work table with hard chrome plate support rods to minimize friction in handling material and provide for attachment of many accessories.
- 6 Electric control pedal.
- 7 Emergency stop.
- 8 Indicator light for power.
- 9 Indicator light for start.
- 10 Power switch.
- 11-12 Powered back gauge controls.
- 13 Fine adjustment push button (GH 1026, 1226, 1030, 1230, 840, and 1040).
- 14 Continuous or single stroke selection.
- 15 Back gauge readout. (1/10 mm or 1/100").
- 16 Stroke selector.
- 17 Electrical probes' control (optional).
- 18 Continuous stroke counter.
- 19 Daily stroke counter, resetable to zero (optional).
- 20 Independent control of the holddowns (optional for models GH 1026 - 1226 - 1030 - 1230 - 840 and 1040).

minimum maintenance

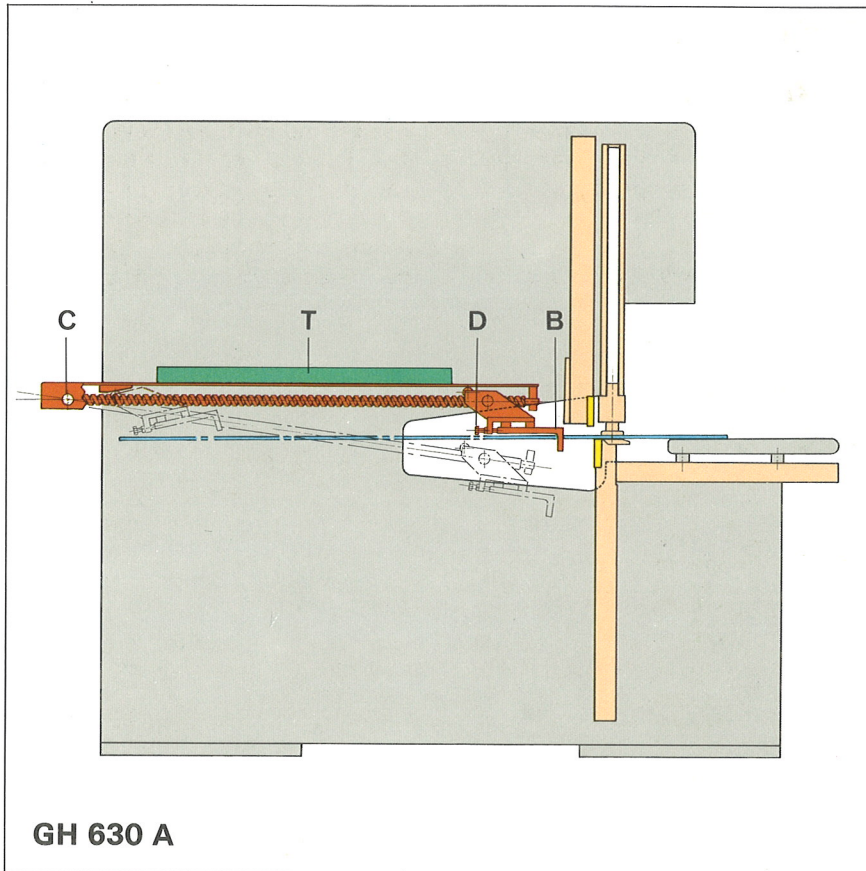
a back gauge integral with the frame

The back gauge is independent of the moving ram and firmly secured to the ram brace (T) which is fixed and welded between the two housings.

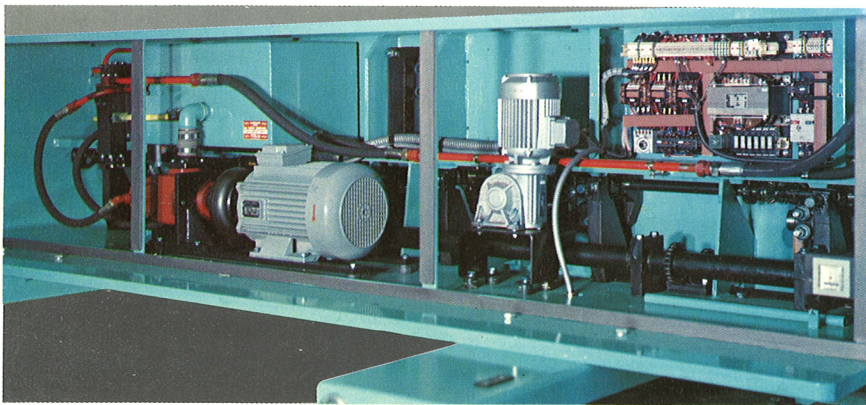
This arrangement offers the advantages of:

- an open area at the rear of our shears, making it simple to remove the sheared pieces,
- eliminating any dangerous area in view of the minor movement of the back gauge,
- guaranteeing greater accuracy, the gauge being integral with the fixed ram brace.

The back gauge angle (B) retracts before cutting by simply rotating around shaft (C), thus eliminating the shearing reactions against the back gauge and angle which would affect accuracy, and also avoiding binding of narrow sheared pieces. In the rear position, the angle automatically lifts to provide for the passage of depth over 40" (one meter). Parallelism of the cross-bar is adjusted by means of screw devices (D) placed on the support arms.



GH 630 A



standardized components

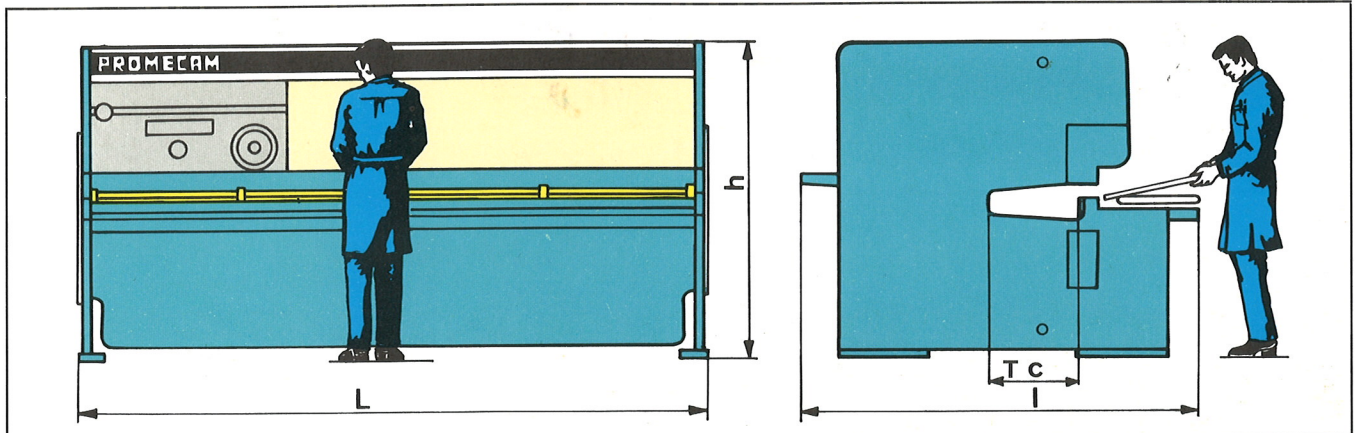
The hydraulic unit, consisting of motor, pump, valves, distributor, tank, is grouped at the rear of the machine for easy access in routine maintenance. A relief valve protects all components against sudden overload.

The electrical components, isolated in the cabinet, conform to international standards. For the U.S., ma-

chines are provided with an approved cabinet with disconnect, mounted on the left hand side housing. The whole unit is protected by fuses and thermal relays.

Design and choice of the components of these shears assure reduced maintenance operations.

18 types of GH models



Model	Maximum length in inches* (mm)	Maximum thickness in inches* (mm)	Capacity in the center of the machine inches* (mm)	Speed (strokes per min.)		Rake angle variation (inch per foot)	Motor HP	Throat depth in inches (mm)	Overall length in inches** (mm)	Overall width in inches (mm)	Overall height in inches (mm)	Net weight in lbs. (Kg)
				Without stroke selector	With stroke selector							
GH 1020 Z	6'7" (2040)	3/8" (10)	1/2" x 30' (12 x 800)	17 to 34	17 to 60	0° 35' to 2° 30' (1/8 to 17/32)	12	2 1/2" (60)	7'4" (2230)	7' (2130)	5'7" (1705)	12500 (5700)
GH 1020 A	6'7" (2040)	3/8" (10)	1/2" x 30E (12 x 800)	17 to 34	17 to 60	0° 35' to 2° 30' (1/8 to 17/32)	12	20" (500)	7'5" (2270)	7' (2130)	5'7" (1705)	15400 (7000)
GH 630 Z	10'2" (3100)	1/4" (6)	5/16" x 4' (8 x 1200)	17 to 29	17 to 47	0° 36' to 1° 40' (1/8 to 11/32)	12	2 1/2" (60)	10'10" (3290)	7' (2130)	5'7" (1705)	14700 (6700)
GH 630 A	10'2" (3100)	1/4" (6)	5/16" x 4' (8 x 1200)	17 to 29	17 to 47	0° 36' to 1° 40' (1/8 to 11/32)	12	20" (500)	10'11" (3330)	7' (2130)	5'7" (1705)	17600 (8000)
GH 540 Z	13'3" (4040)	3/16" (5)	1/4" x 5'3" (6 x 1600)	17 to 29	17 to 47	0° 29' to 1° 14' (7/64 to 17/64)	12	2 1/2" (60)	13'11" (4230)	7'6" (2290)	5'7" (1705)	21300 (9700)
GH 540 A	13'3" (4040)	3/16" (5)	1/4" x 5'3" (6 x 1600)	17 to 29	17 to 47	0° 29' to 1° 14' (7/64 to 17/64)	12	20" (500)	14' (4270)	7'6" (2290)	5'7" (1705)	24200 (11000)
GH 1026 Z	8'8" (2640)	3/8" (10)	1/2" x 4' (12 x 1200)	14 to 29	14 to 58	0° 12' to 1° 58' (3/64 to 3/8)	25	2 1/2" (60)	9'6" (2890)	7'7" (2310)	6' (1820)	18700 (8500)
GH 1026 A	8'8" (2640)	3/8" (10)	1/2" x 4' (12 x 1200)	14 to 29	14 to 58	0° 12' to 1° 58' (3/64 to 3/8)	25	20" (500)	9'7" (2930)	7'7" (2310)	6' (1870)	20900 (9500)
GH 1226 Z	8'8" (2640)	1/2" (12)	5/8" x 3' (16 x 800)	14 to 29	14 to 58	0° 12' to 2° 12' (3/16 to 7/16)	30	2 1/2" (60)	9'6" (2910)	7'10" (2400)	6' (1820)	19800 (9000)
GH 1226 A	8'8" (2640)	1/2" (12)	5/8" x 3' (16 x 800)	14 to 29	14 to 58	0° 12' to 2° 12' (3/64 to 7/16)	30	20" (500)	9'8" (2950)	7'10" (2400)	6' (1820)	23100 (10500)
GH 1030 Z	10'2" (3100)	3/8" (10)	1/2" x 4' (12 x 1200)	14 to 25	14 to 54	0° 10' to 1° 40' (1/32 to 11/32)	25	2 1/2" (60)	10'9" (3290)	7'10" (2400)	6' (1820)	20900 (9500)
GH 1030 A	10'2" (3100)	3/8" (10)	1/2" x 4' (12 x 1200)	14 to 25	14 to 54	0° 10' to 1° 40' (1/32 to 11/32)	25	20" (500)	10'11" (3330)	7'10" (2400)	6' (1820)	23100 (10500)
GH 1230 Z	10'2" (3100)	1/2" (12)	5/8" x 3' (16 x 800)	14 to 25	14 to 54	0° 10' to 1° 52' (1/32 to 3/8)	30	2 1/2" (60)	10'10" (3310)	7'10" (2400)	6' (1820)	22000 (10000)
GH 1230 A	10'2" (3100)	1/2" (12)	5/8" x 3' (16 x 800)	14 to 25	14 to 54	0° 10' to 1° 52' (1/32 to 3/8)	30	20" (500)	11" (3350)	7'10" (2400)	6' (1820)	25300 (11500)
GH 840 Z	13'3" (4040)	5/16" (8)	3/8" x 5' (10 x 1600)	16 to 24	16 to 43	0° 8' to 1° 17' (1/32 to 1/4)	25	2 1/2" (60)	14" (4290)	8'5" (2570)	6' (1820)	26400 (12000)
GH 840 A	13'3" (4040)	5/16" (8)	3/8" x 5' (10 x 1600)	16 to 24	16 to 43	0° 8' to 1° 17' (1/32 to 1/4)	25	20" (500)	14'2" (4330)	8'5" (2570)	6' (1820)	28600 (13000)
GH 1040 Z	13'3" (4040)	3/8" (10)	1/2" x 6' (12 x 2000)	15 to 22	15 to 39	0° 8' to 1° 25' (1/32 to 9/32)	30	2 1/2" (60)	14'1" (4310)	8'5" (2570)	6' (1820)	28600 (13000)
GH 1040 A	13'3" (4040)	3/8" (10)	1/2" x 6' (12 x 2000)	15 to 22	15 to 39	0° 8' to 1° 25' (1/32 to 9/32)	30	20" (500)	14'3" (4350)	8'5" (2570)	6' (1820)	30800 (14000)