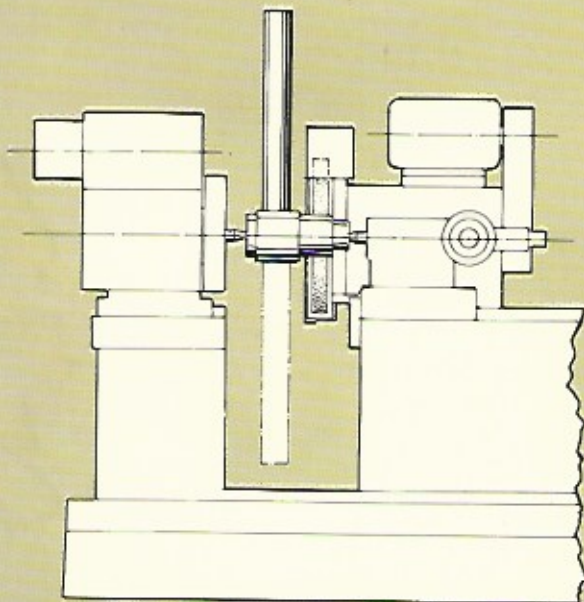
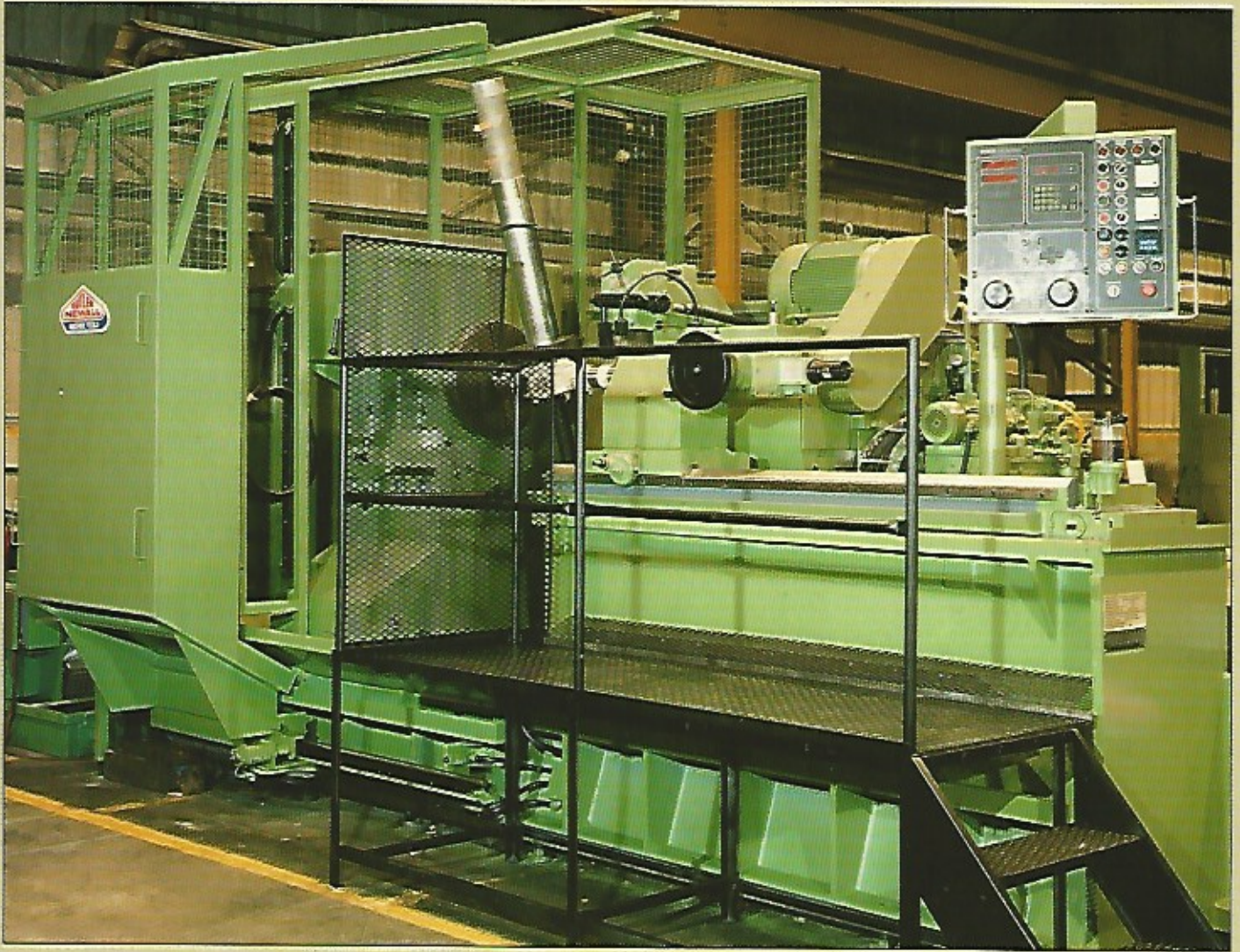


GBG

GAP BED GRINDER



The Butler Newall Gap Bed Grinder (GBG) has been specifically designed to accommodate components which would be impractical to grind on any conventional machine.

The illustrations on this page show the general principle of the GBG. The photograph shows the bearing surface of an aircraft undercarriage component being ground and the line drawing illustrates the gap between the headstock and tailstock which is necessary to swing unwieldy components of this type.

Although originally designed for the aerospace industry, the GBG has obvious potential in other sectors of engineering.

GENERAL DESCRIPTION

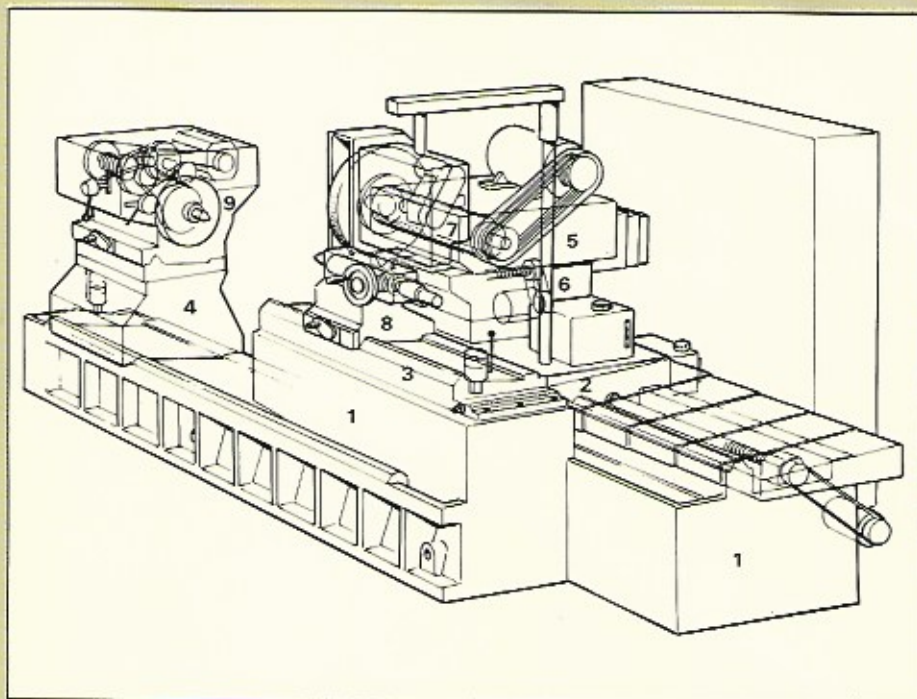
The machine has a one piece bed (1) on which are mounted the carriage (2), table (3) and pedestal (4).

The carriage traverses on vee & flat slideways at the rear of the bed and is driven by an a.c. servo motor through a precision ballscrew. The wheelhead (5) is mounted on vee & flat slideways on an underslide (6) which is bolted to the carriage. Wheelhead infeed and retraction are by an a.c. servo motor through a precision ballscrew, and the hydrostatic wheelspindle (7) is supported by bronze bearings fed by oil under pressure.

The top section of the table is pivoted for taper correction. A tailstock (8) is provided which can be adjusted over the full length of the table.

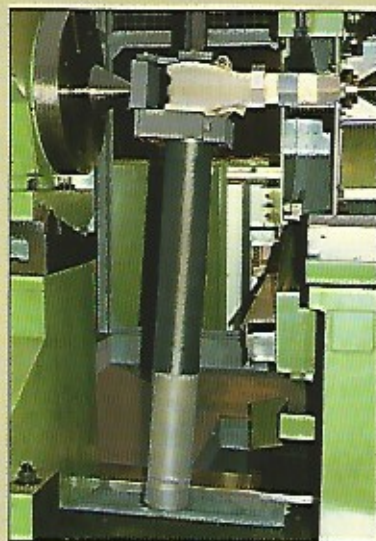
The pedestal, which carries the workhead (9), can be adjusted to close the gap thus allowing the workhead to be moved along the bed to create a conventional, (gapless) machine.

The control system is pendant mounted and incorporates wheelspeed and workspeed meters and electronic handwheels for wheelhead traverse



and infeed.

An operator's platform is provided so that the operator can observe the wheel, and a combination of fixed and sliding guards give protection from the rotating component.



SPECIFICATION

MACHINES ARE DESIGNED AND MANUFACTURED TO SUIT CUSTOMERS' REQUIREMENTS BUT TYPICAL CAPACITIES ARE AS FOLLOWS:-

| | |
|----------------------------------|---------------------------------------|
| Swing over table | 26" - 32" |
| Swing in gap | 110" - 120" |
| Max between centres (gap open) | 96" - 108" |
| Max between centres (gap closed) | 54" - 60" |
| Wheelhead carriage travel | 72" |
| Table swivel | ±3° |
| WHEELHEAD | |
| Wheel | 30" Ø x 3" wide x 12" Bore |
| Spindle speeds | 500 - 1500 r.p.m. (4000 - 8000 ft/mm) |
| HEADSTOCK | |
| Speeds | 8 - 100 r.p.m. inf. var. |
| WHEELHEAD CARRIAGE | |
| Grinding rates | 1" - 120"/min. inf. var. |



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