

THE **NEWALL** GROUP

NEWALL

THE NEWALL ENGINEERING CO LTD

HIGH STREET OLD FLETTON PETERBOROUGH

TELEPHONE: PETERBOROUGH 68601

TELEGRAMS: 'PRECISION' PETERBOROUGH

JIG BORING MACHINES
PRODUCTION CYLINDRICAL GRINDING
MACHINES
UNIT BUILT GRINDING MACHINES
FINE BORING MACHINES
LAPPING MACHINES
CRANKSHAFT GRINDING MACHINES
CAMSHAFT GRINDING MACHINES
MULTI-WHEEL GRINDING MACHINES

OMT

OPTICAL MEASURING TOOLS LTD

BRIDGE ROAD MAIDENHEAD

TELEPHONE: MAIDENHEAD 26171

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OPTICAL ROTARY TABLES
PROJECTION PANTOMETERS
WORKSHOP PROJECTORS
TOOLMAKERS' MICROSCOPES
HORIZONTAL COMPARATORS
HIGH PRECISION MEASURING MACHINES
PNEUMATIC GAUGING AND MACHINE
CONTROL EQUIPMENT
UNIT OPTICS AND OPTICAL SYSTEMS

KG
MACHINE TOOLS

KEIGHLEY GRINDERS (M.T.) LTD

AIREWORTH WORKS KEIGHLEY

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CYLINDRICAL GRINDING MACHINES
UNIVERSAL GRINDING MACHINES
INTERNAL GRINDING MACHINES
PRECISION MACHINE TOOL EQUIPMENT
BALANCING STANDS
ANGLE HEAD GRINDING MACHINES
ANGLE APPROACH GRINDING MACHINES

SALES ORGANISATION

NEWALL GROUP SALES LIMITED

PETERBOROUGH TELEPHONE: 67116

TELEGRAMS: 'PRECISION' PETERBOROUGH

TELEX: 3236

PRINTED IN ENGLAND

NEWALL

PRECISION FINE BORING MACHINES · SINGLE AND DOUBLE ENDED



NEWALL

**PRECISION
FINE BORING
MACHINES**

PRECISION BORING MACHINES

SINGLE AND DOUBLE ENDED

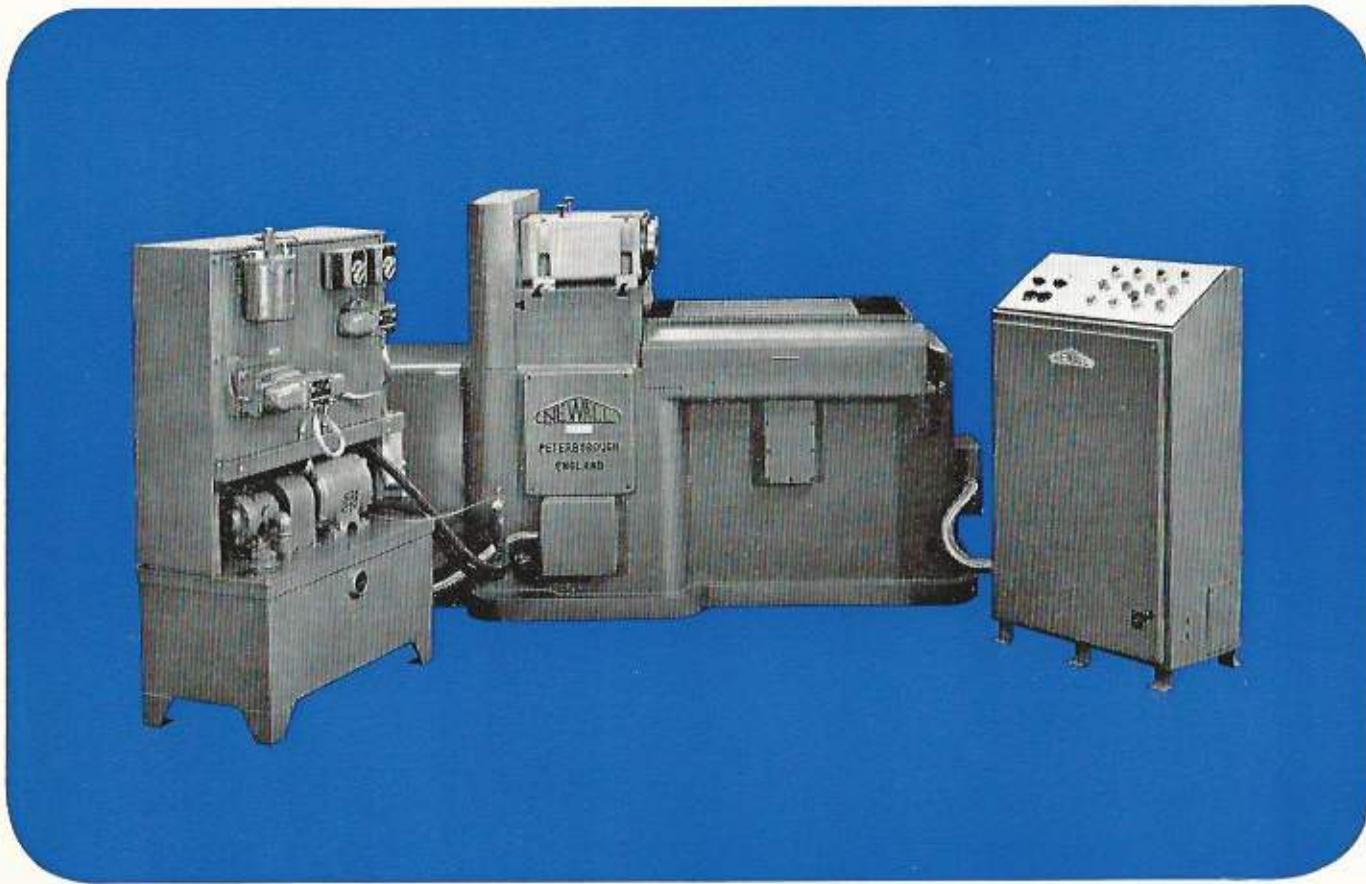
The Newall Fine Boring machine, available in single and double-ended versions, meets the increasing demand for a reasonably priced machine with high output potential capable of maintaining accuracy under exacting production conditions.

The machine combines the functions of precision boring, turning and facing. Various types of spindles, multi-tool boring bars and/or facing heads are incorporated for machining components mounted in fixtures located either on the table or spindles. A variety of standard type units for hydraulic and electrical control are available for alternative operations within the automatic cycle of the machine.

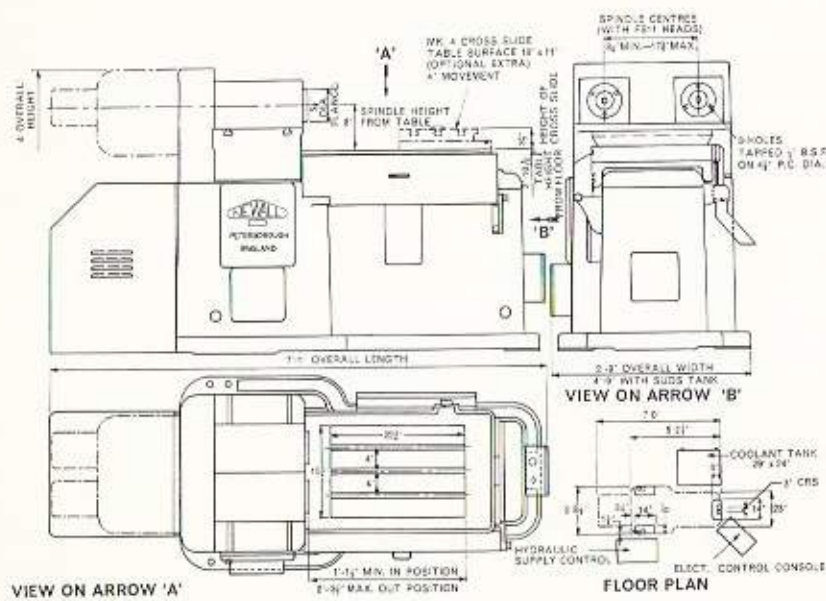
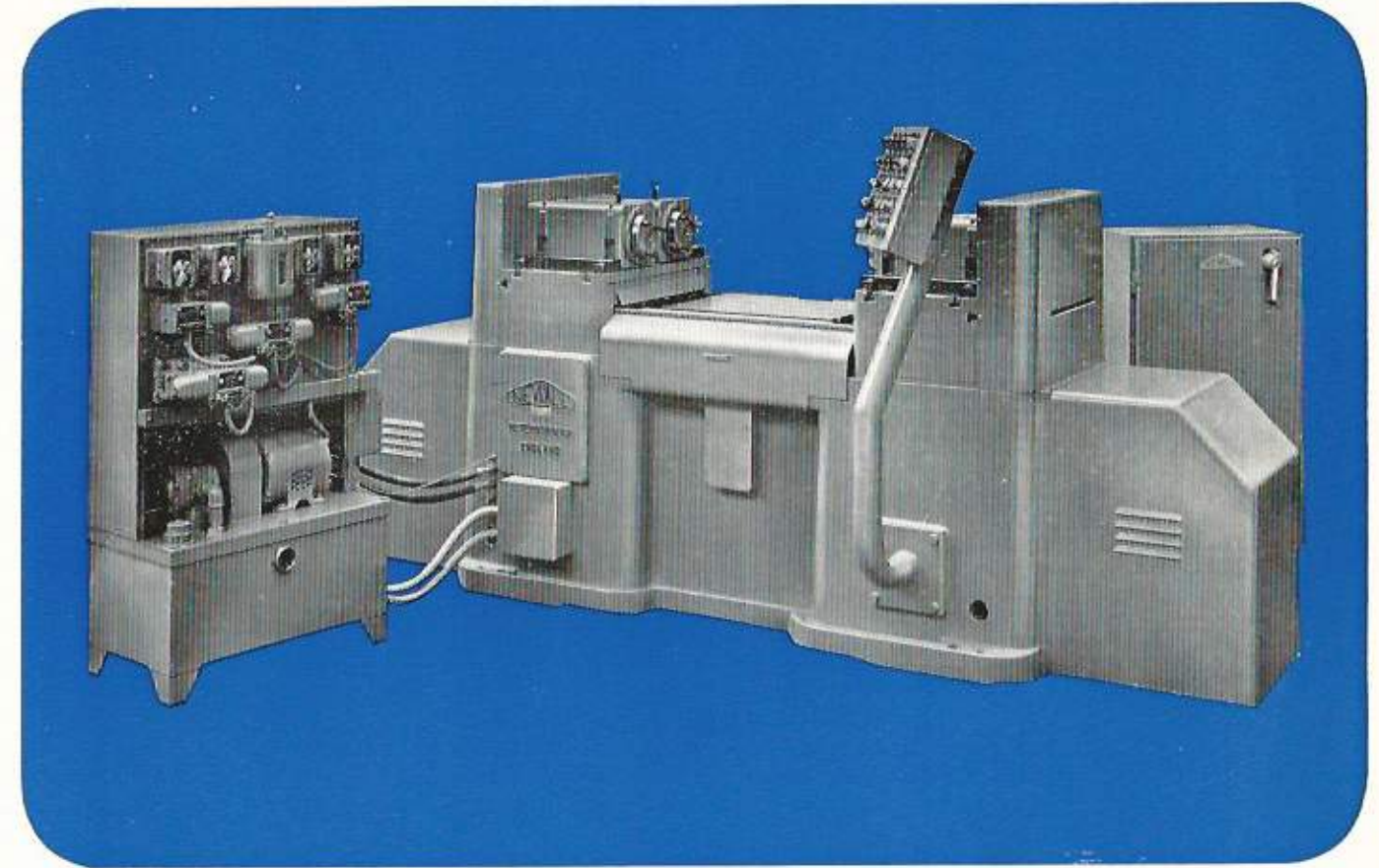
The Newall Fine Borer is of unit construction, entirely self-contained with controls reduced to a minimum. The machine is arranged for automatic operation thus enabling one operator to control more than one machine.



SINGLE ENDED FINE BORING MACHINE Mk. II. DRY BED



DOUBLE ENDED FINE BORING MACHINE

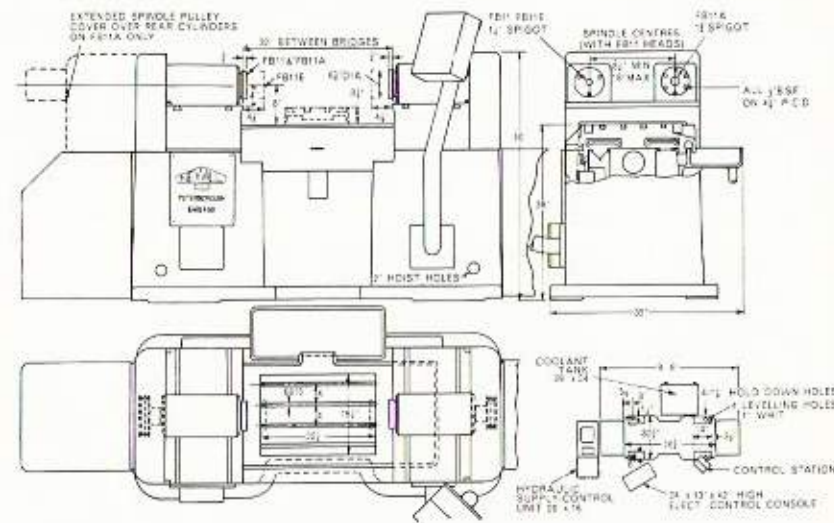


SPECIFICATION

TABLE WORKING SURFACE:
 15 3/4" x 22 1/2" (400 x 578 mm.)
 MAX. TABLE TRAVERSE: 14" (356 mm.)
 MAX. TABLE FEED RANGE: 13 3/4" (349 mm.)
 TABLE WORKING FEED RANGE:
 1/2" - 16" per min. (6-406 mm.)
 TABLE FAST APPROACH AND RETURN:
 120' per min. (36.6 metres)
 TABLE DEAD STOP: 1" (25 mm.) at each end
 TABLE HEIGHT FROM FLOOR LEVEL:
 36" (919 mm.)
 HEIGHT FROM TABLE TOP TO SPINDLE
 CENTRE LINE: 8" (203 mm.)
 TABLE TEE SLOTS: 3 at 4" (102 mm.) centres
 SPINDLE DRIVE MOTOR AT 1430 r.p.m.:
 3 H.P.-single spindle or 5 H.P.-twin spindle
 HYDRAULIC DRIVE MOTOR:
 1 1/2 H.P., 1430 r.p.m.

APPROX. OVERALL DIMENSIONS:

MACHINE:
 84" x 36" x 48" high (2133 x 919 x 1219 mm.)
 HYDRAULIC SUPPLY CONTROL UNIT:
 28" x 16" x 42" high (711 x 406 x 1067 mm.)
 ELECTRICAL CONTROL CONSOLE:
 24" x 13" x 36" (610 x 330 x 919 mm.) high
 INDEPENDENT COOLANT TANK AND
 PUMP UNIT:
 24" x 29" x 18" (610 x 737 x 457 mm.) high
 NETT. WEIGHT OF MACHINE ONLY:
 2 tons 14 cwt. (2743 kgs.)



SPECIFICATION

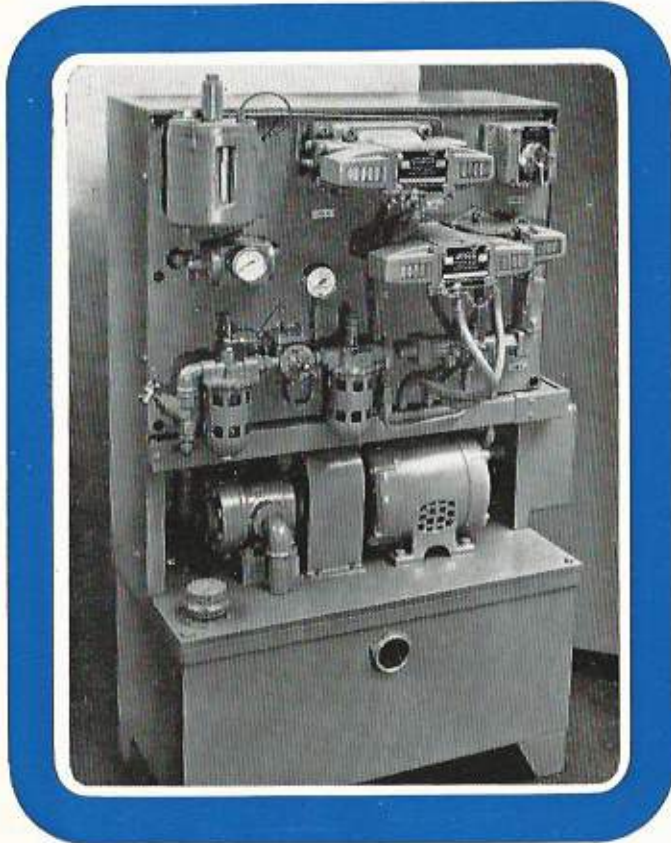
TABLE WORKING SURFACE:
 15 3/4" x 22 1/2" (400 x 578 mm.)
 MAX. TABLE TRAVERSE: 16" (406 mm.)
 MAX. TABLE FEED RANGE: 16" (406 mm.)
 TABLE WORKING FEED RANGE:
 1/2" - 16" (6-406 mm.) per min.
 TABLE FAST APPROACH AND RETURN:
 120' (36.6 metres) per min.
 TABLE DEAD STOP: 1" (25 mm.) at each end
 TABLE HEIGHT FROM FLOOR LEVEL:
 36" (919 mm.)
 HEIGHT FROM TABLE TOP TO SPINDLE
 CENTRE LINE: 8" (203 mm.)
 TABLE TEE SLOTS: 4 at 4" (102 mm.) centres
 SPINDLE DRIVE MOTORS, 2 off at 1430 r.p.m.:
 3 H.P.-single spindle or 5 H.P.-twin spindle
 HYDRAULIC DRIVE MOTOR:
 1 1/2 H.P., 1430 r.p.m.

APPROX. OVERALL DIMENSIONS:

MACHINE:
 120" x 36" x 48" (3048 x 919 x 1219 mm.) high
 HYDRAULIC SUPPLY CONTROL UNIT:
 28" x 16" x 42" (711 x 406 x 1067 mm.) high
 ELECTRICAL CONTROL CONSOLE:
 24" x 13" x 36" (610 x 330 x 919 mm.) high
 INDEPENDENT COOLANT TANK AND
 PUMP UNIT:
 24" x 29" x 18" (610 x 737 x 457 mm.) high
 NETT. WEIGHT OF MACHINE ONLY:
 4 tons 2 cwt. (4166 kgs.)

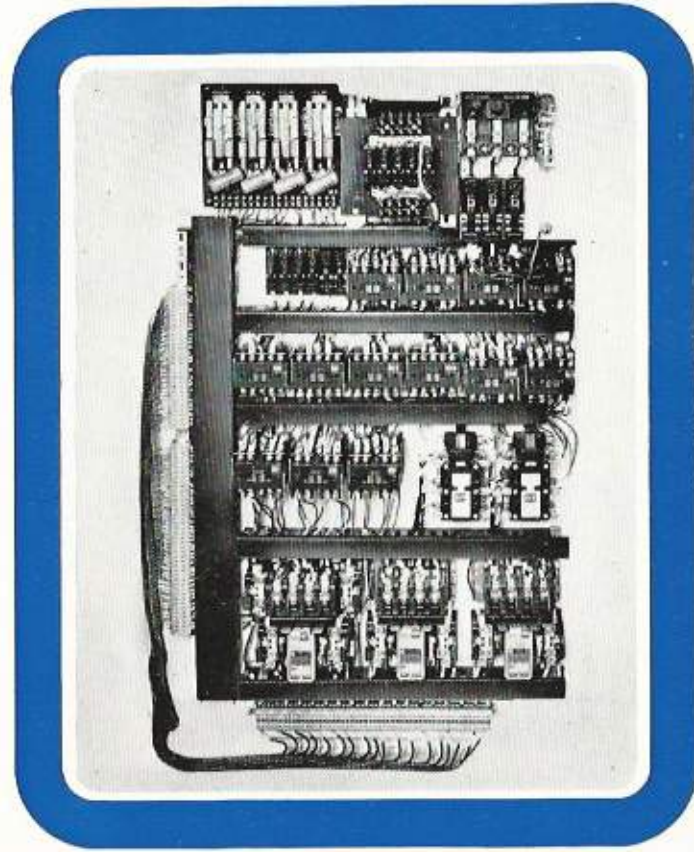
HYDRAULIC CONTROL UNIT

Connected to the machine by flexible piping, thus minimising temperature variations in the machine, this free-standing unit is completely self-contained. Built to J.I.C. standards, the unit is designed to facilitate the addition of solenoid operated valves, for the provision of extra tooling.



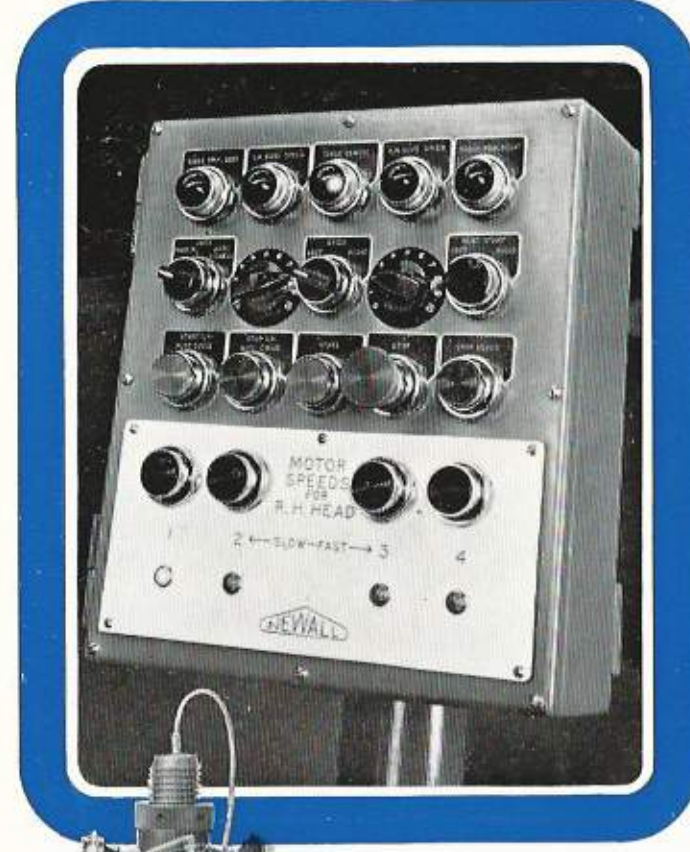
ELECTRICAL CONTROL CONSOLE

Built to J.I.C. standards, this unit is self-contained, free-standing and is equipped for standard voltages and frequencies. Provision is made for the control circuits to be stepped down to 110 volts.



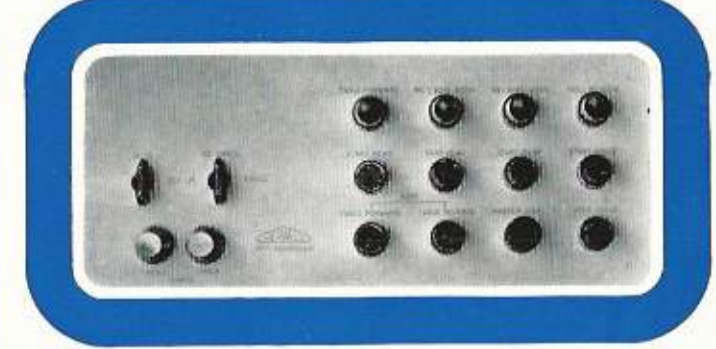
PUSH-BUTTON CONTROL STATION

Supplied as standard equipment with double ended fine borers, this self-contained unit is mounted, direct, on to the machine base. This type of control station, however, may be supplied as an optional extra with single ended fine borers.

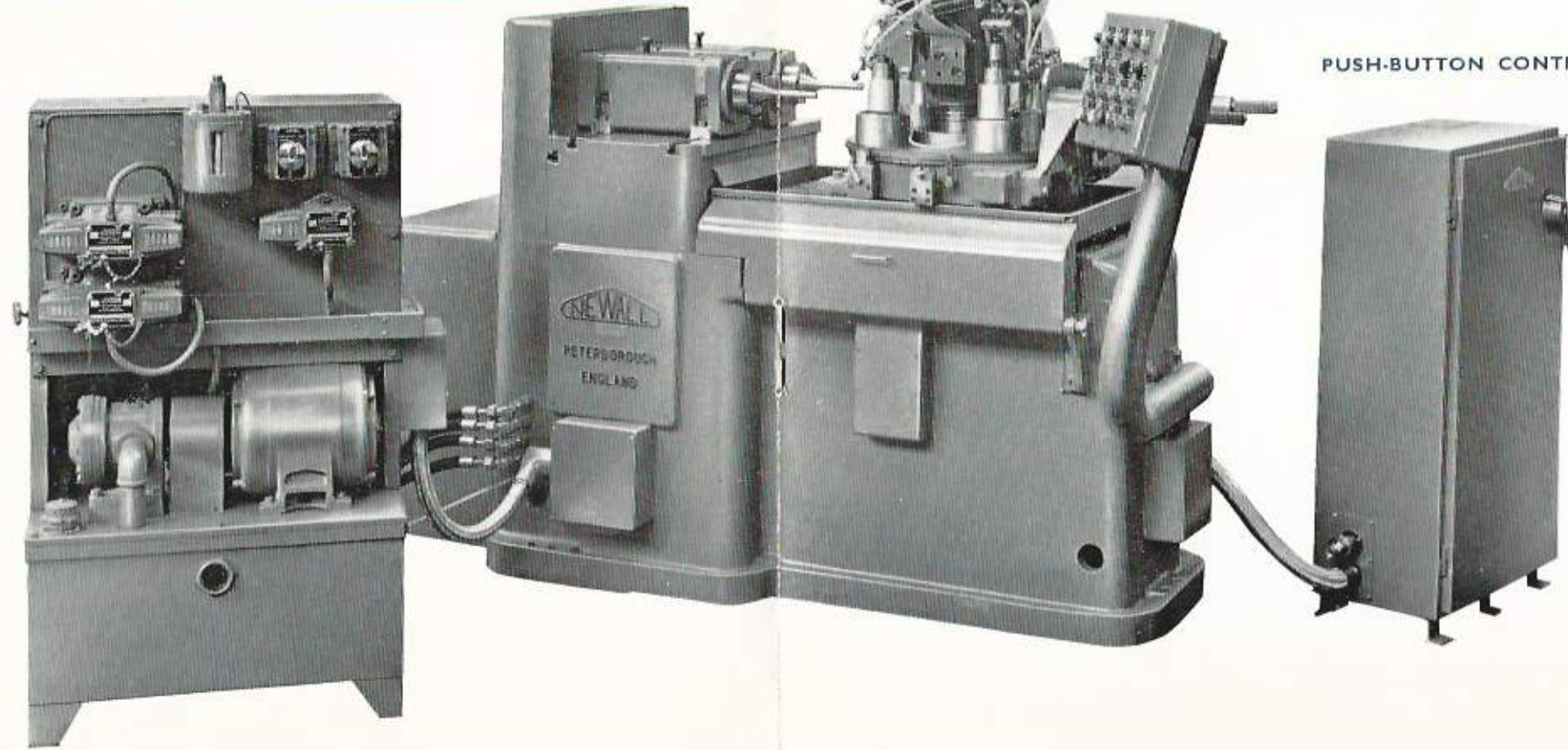


STANDARD PUSH-BUTTON CONTROL PANEL

Supplied as standard equipment with single ended fine borers, this unit is mounted on top of the electrical control console and carries push buttons and signal lights to indicate machine positions during various operations.



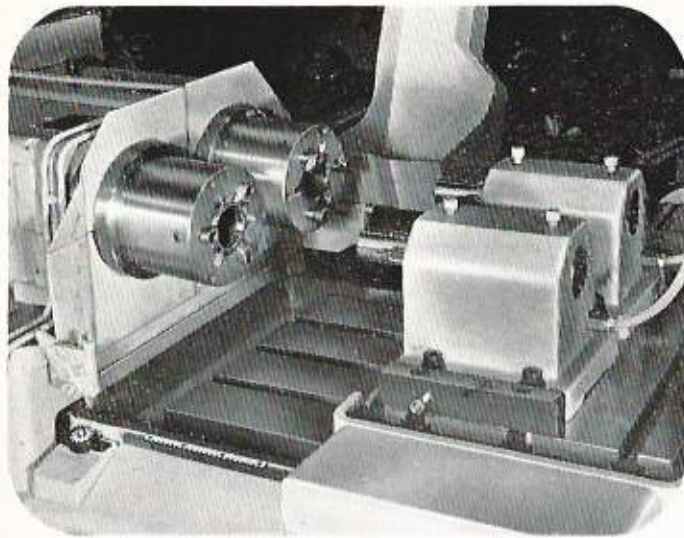
HYDRAULIC CONTROL UNIT



PUSH-BUTTON CONTROL STATION

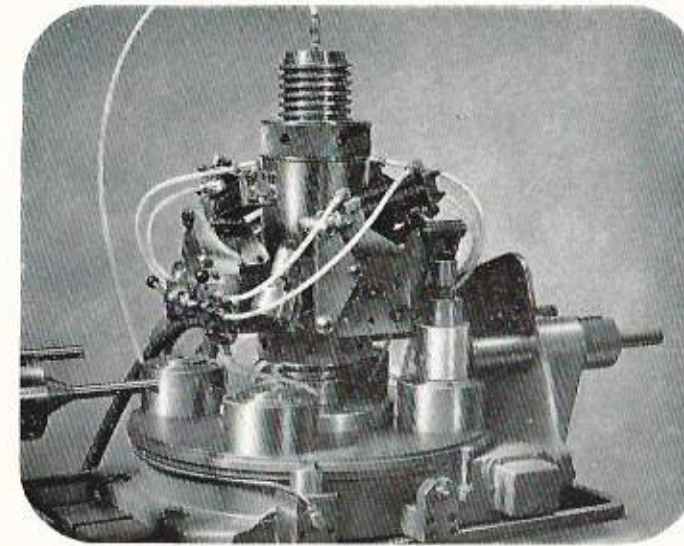
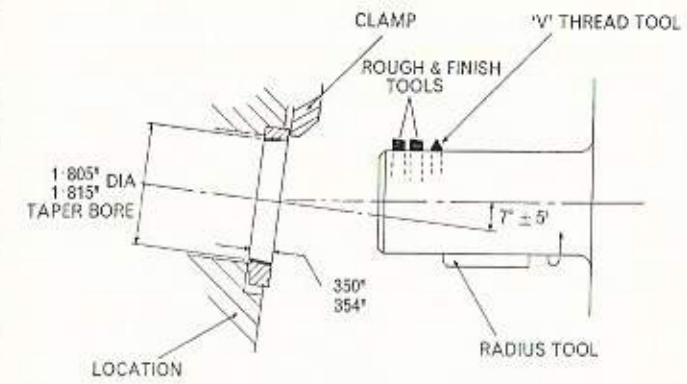
ELECTRICAL CONTROL CONSOLE

EXAMPLES OF SPECIAL PURPOSE TOOLING SINGLE ENDED MACHINE



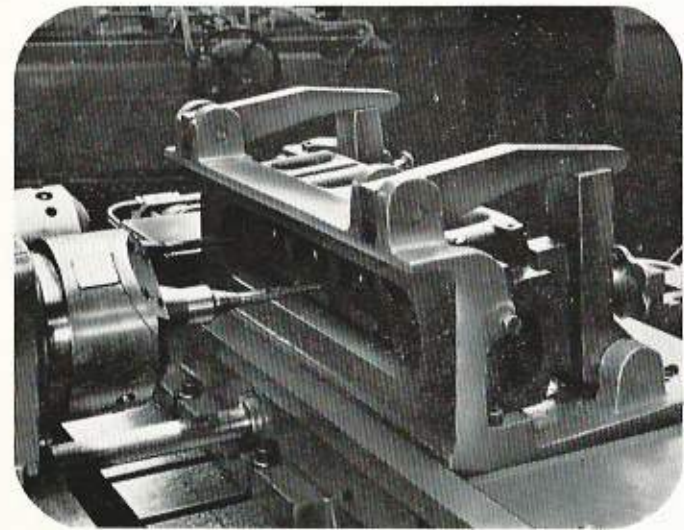
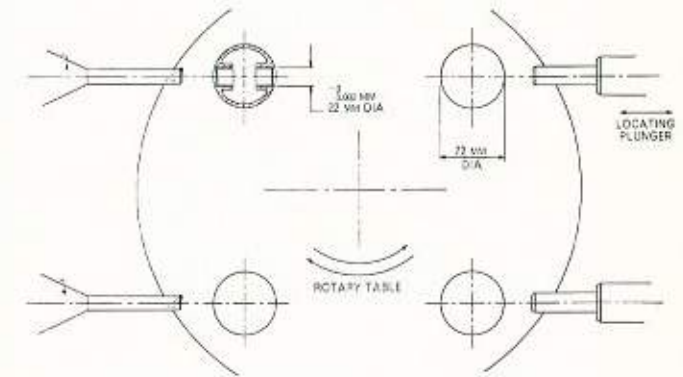
AUTOMOTIVE TRANSMISSION BAULK RING

Floor-to-floor: 40 secs. (2 off)



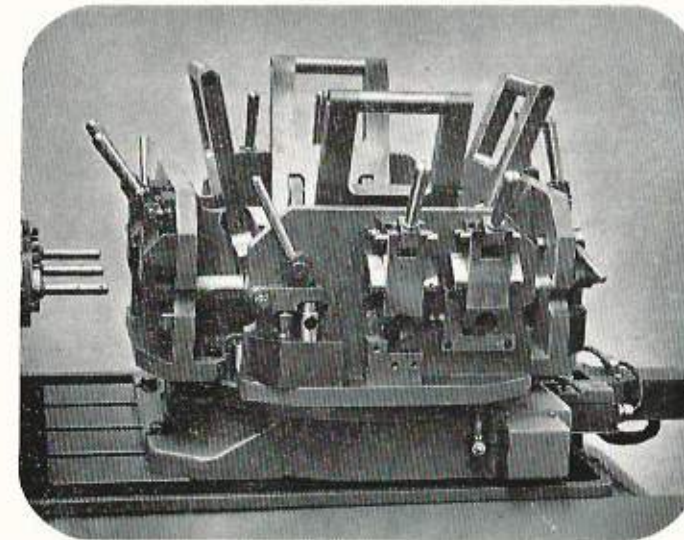
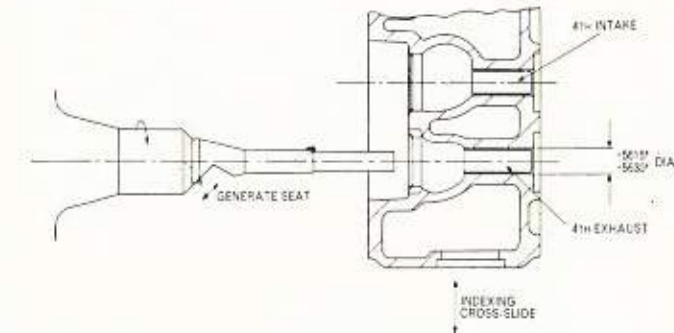
GUDGEON PIN BORES

Floor-to-floor: 1 min. 25 sec. (2 off)



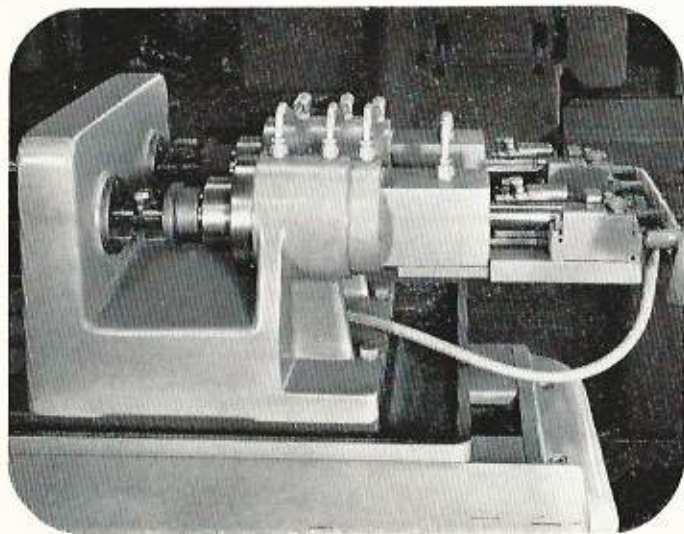
AUTOMOTIVE CYLINDER HEAD

Floor-to-floor: 4 min. 30 sec.



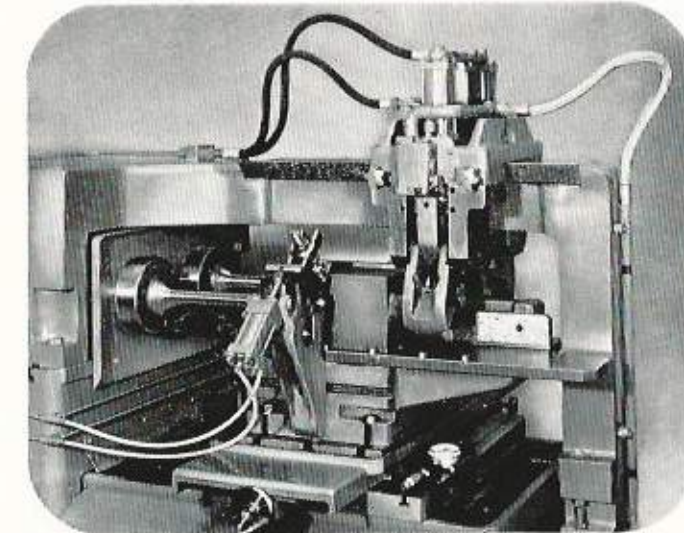
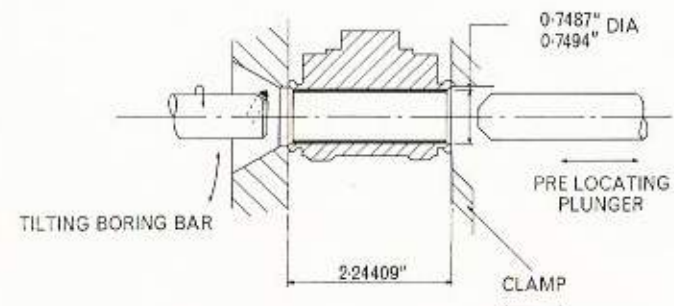
SET-UP FOR COMPRESSOR COMPONENTS

Floor-to-floor: 25 secs. (per set of 3 components)



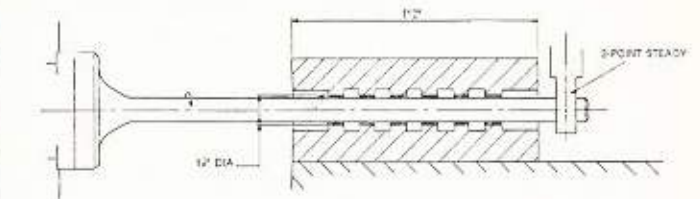
AUTOMOTIVE BRAKE CYLINDER

Floor-to-floor: 1 min. (2 off)

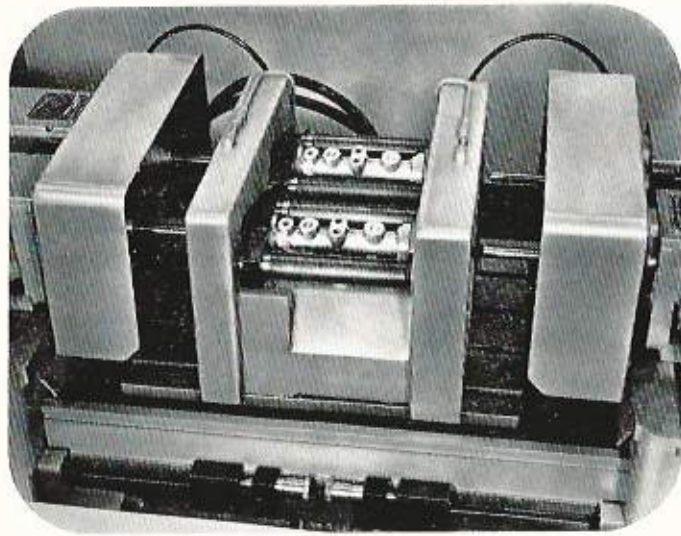


HYDRAULIC, CLOSE-GRAINED, CAST IRON VALVE BLOCKS

Cutting time: 5 mins. (2 off)

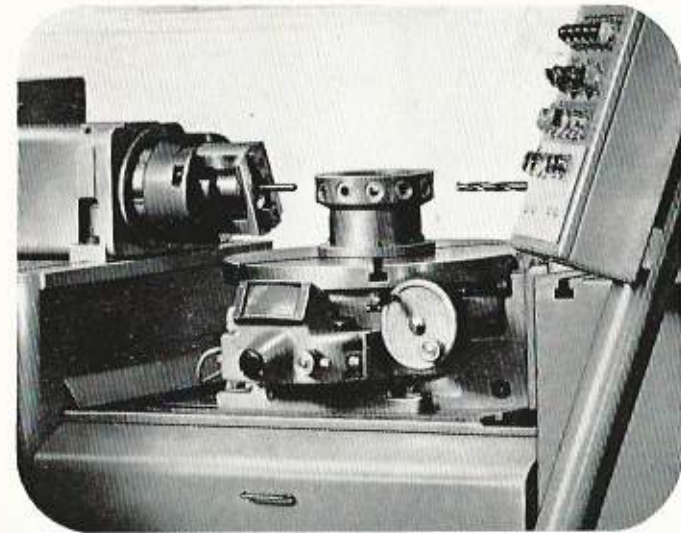
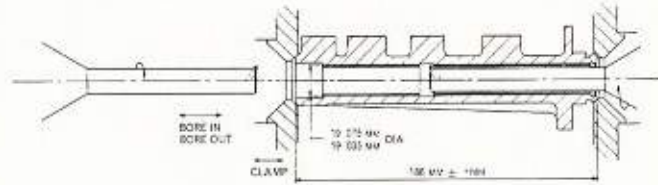


EXAMPLES OF SPECIAL PURPOSE TOOLING DOUBLE ENDED MACHINE



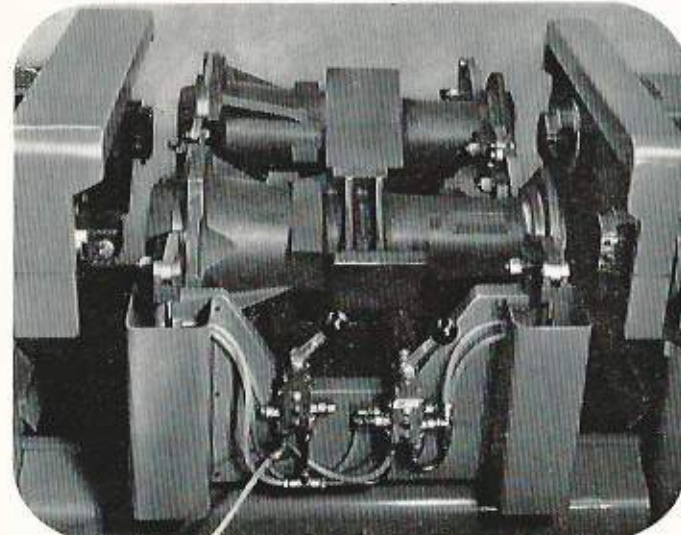
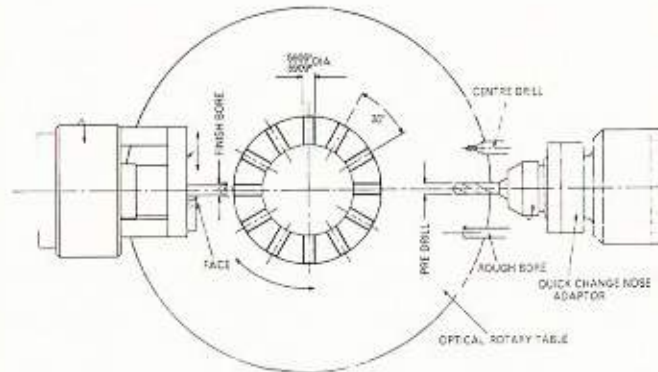
AUTOMOTIVE MASTER BRAKE CYLINDER

Floor-to-floor: 2 mins. 10 secs. (2 off)



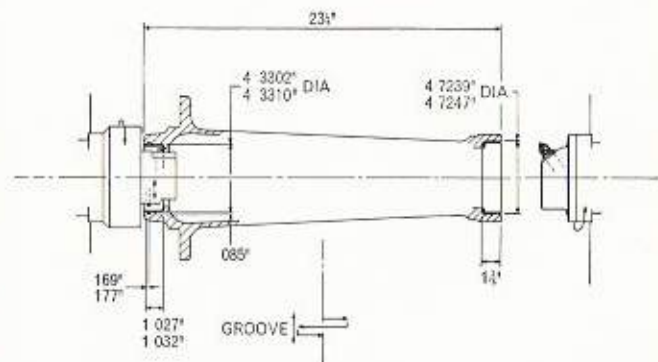
AUTOMATIC PROCESS MACHINE TURRETS

Hand-operated machine



REAR AXLE CASINGS

Floor-to-floor: 6 mins. 26 secs. (2 off)



EXTRA EQUIPMENT FOR NEWALL FINE BORING MACHINES

PUSH BUTTON CONTROL STATION MOUNTED ON MACHINE IN LIEU OF PUSH BUTTON CONTROL PANEL

INDEPENDENT COOLANT UNIT, STANDARD MACHINE

INDEPENDENT COOLANT UNIT, FOUR SPINDLE MACHINE

HYDRAULICALLY OPERATED CROSS-SLIDE, TABLE SURFACE 18" × 11", 4" STROKE

FACING HEAD, RANGE 0-5" ON DIAMETER, MOUNTED ON SPINDLES AND OPERATED BY FB.11A HYDRAULIC CYLINDER

20" DIAMETER ROTARY TABLE, ARRANGED TO INDEX 180° RECIPROCATING, HYDRAULICALLY OPERATED WITH MACHINE CYCLE

20" DIAMETER ROTARY TABLE, ARRANGED TO INDEX 90° CONTINUOUS HYDRAULICALLY OPERATED WITHIN MACHINE CYCLE

CAM PLATE FOR AUTO FEED CONTROL

AIR FILTER EQUIPMENT

SOME USERS OF NEWALL FINE BORING MACHINES

A.E.I. HOTPOINT LTD; ALLOYLIT (ITALY); AUTOMOTIVE PRODUCTS LTD; BLACK AND DECKER LTD; BORG-WARNER LTD; BRITISH MOTOR CORPORATION; CROMPTON PARKINSON LTD; CROMPTON PARKINSON LTD. (INDIA); DUALLOYS LTD; EDESA (SPAIN); ELECTRO-POWER GEARS LTD; FIAT OSA (ITALY); FRACTIONAL H.P. MOTORS LTD; GLOBE PNEUMATIC ENGINEERING CO. LTD; GRESHAM & CRAVEN LTD; INTERNATIONAL HARVESTER CO. OF GREAT BRITAIN LTD; INTERNATIONAL TRACTOR CO. LTD. (INDIA); KEIGHLEY GRINDERS (MACHINE TOOLS) LTD; R. A. LISTER & CO. LTD; MARELLI (FRANCE); F. PERKINS LTD. (BRAZIL); THE PLESSEY CO. LTD; RODD ENGINEERING CO. LTD; STANLEY BRIDGES LTD; TARABUSI S.A. (SPAIN); TOWLER BROS. LTD; VAUXHALL MOTORS LTD; VICKERS SPERRY RAND.