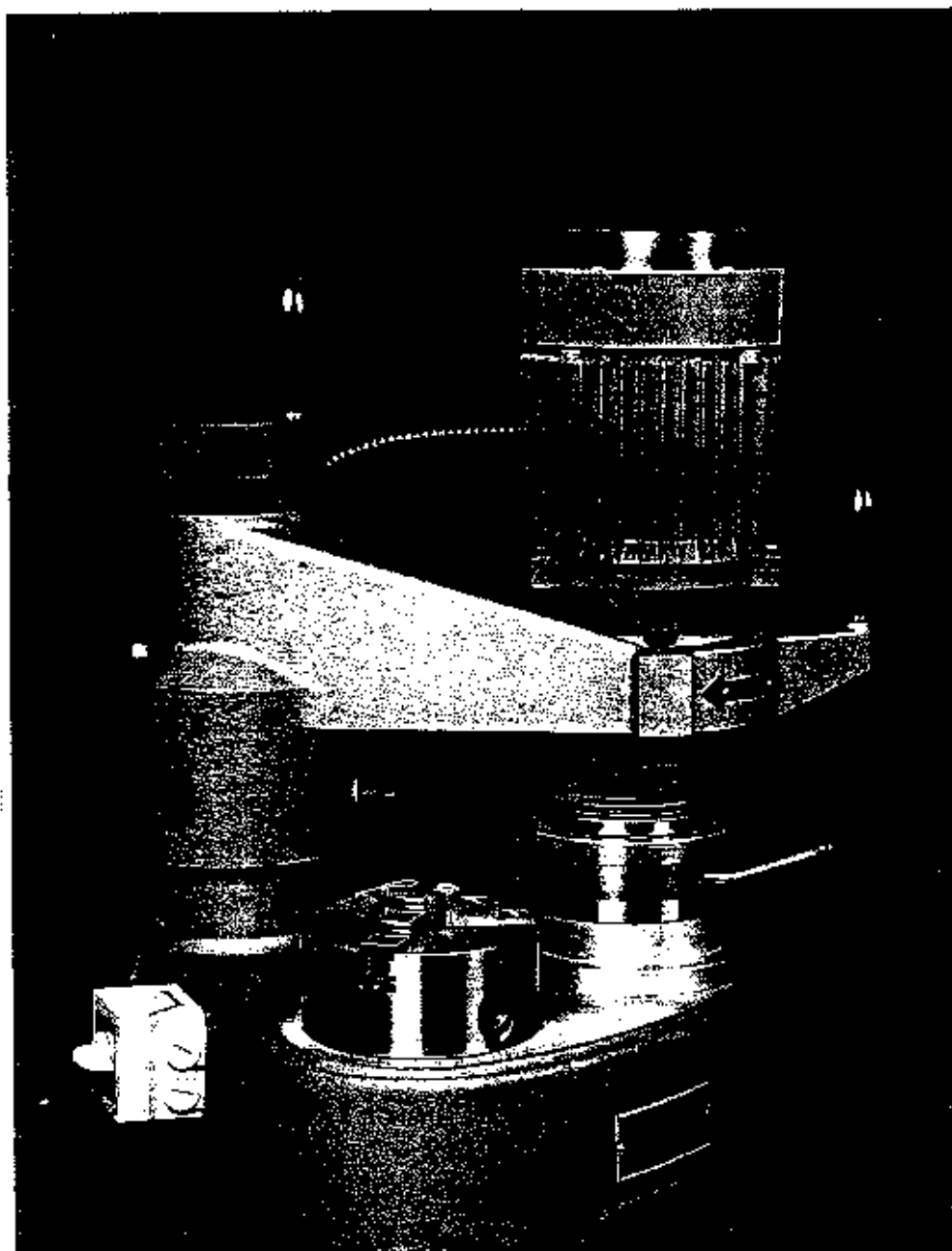


STANDARD MODEL

PUNCH & DIE GRINDER INSTRUCTION MANUAL



HUNTON LTD

COUNTY WORKS, DUMPTON PARK DRIVE, RAMSGATE, KENT CT11 8AD

Telephone: 01843 591416 · Telefax: 01843 582601



This Safety Alert Symbol Indicates Important Safety Messages In This Manual. When You See This Symbol Carefully Read The Message That Follows And Be Alert To The Possibility Of Personal Injury Or Death.



WARNING

BEFORE ANY MACHINE IS USED BY AN EMPLOYEE OR IS LOANED OR RENTED. MAKE ABSOLUTELY CERTAIN THAT THE OPERATOR(S), PRIOR TO OPERATING:

- 1.) IS INSTRUCTED IN SAFE AND PROPER USE.**
- 2.) REVIEWS AND UNDERSTANDS THE MANUAL(S) PERTAINING TO THE MACHINE.**

IT IS THE USER'S RESPONSIBILITY TO UNDERSTAND AND FOLLOW THE MANUFACTURERS INSTRUCTIONS ON MACHINE OPERATION AND MAINTENANCE, AND TO OBSERVE PERTINENT LAWS AND REGULATIONS.



CAUTION, improper operation of this machine may cause personal injury or damage to the machine.



WARNING, you must never disconnect or remove any safety device or operate any machine who's safety devices have been disconnected or removed.



DANGER, disconnect and lock out all power sources before initiating any maintenance or repairs.



WARNING, do not overload equipment beyond it's stated or implied capacities.



WARNING, do not operate any equipment without all guards in place.



WARNING, keep the work area clear of obstructions and the floor clean and dry.



WARNING, never use stools, crates or similar items as substitutes for work platforms, scaffolding or ladders.



WARNING, do not operate any equipment which has loose, worn or broken parts.



REMEMBER, a careful operator is always the best insurance against an accident. give complete and undivided attention to the job at hand.



DANGER, you must never check dimensions of workpiece while equipment is operating.



WARNING, do not wear loose clothing, jewelry, or unrestrained hair or beard styles which may catch in moving parts.



WARNING, the operator must at all times have auxiliary operating personnel clearly within his field of view.



WARNING, keep liquids (solvents, lubricants, etc.) away from electrical equipment



WARNING, exposed area of the wheel. Always keep this to a minimum by correct adjustment of the guard.



DANGER, this machine must not be used in potentially explosive atmosphere, as sparks are produced when grinding.



WARNING, single phase motors should not be allowed to run at no-load for long periods, because this will develop extremely high temperatures in the windings.



WARNING, all electrical installation work to be carried out by a competent electrician.



WARNING, use recommended coolant. Water should never be used as a coolant, as it causes corrosion.



WARNING, make certain that the machine is switched off, and that the wheel has stopped before attempting to change the wheel.



WARNING, after changing the wheel, make certain that the wheel has been tightened correctly.

PUNCH AND DIE GRINDER.

OPERATING INSTRUCTIONS.

INSTALLING.

To achieve best results, we suggest the machine should be mounted on a firm flat surface. When the machine has been connected to the power supply, by a competent electrician, and the transit screw has been removed, the grinder is ready to operate. 3 phase models should be connected to an isolation switch on the wall.

OPERATING.

Check that the wheel guard is in the correct position, so that approximately 2mm of the wheel is showing beneath the guard. The guard is adjusted via 2 knurled screws, each side of the motor on top of the arm.

Dress the grinding wheel with the diamond, or dressing stick provided, to ensure a clean cut. To achieve a sharp edge on your die, or workpiece, place die on centre of magnetic chuck. Switch on the magnetic chuck, by moving the handle clockwise to the far right. Check that the die is firmly held by the magnet. Punches and larger dies can be held in the 3 jaw chuck, or vice, if fitted.

To commence grinding, make sure you have clearance between the grinding wheel and the workpiece. Wind down the grinding wheel, by means of the hand wheel (Which is graduated in 1 thousandths of an inch) So that it is nearly touching the workpiece. Switch on the power, then by swinging the head of the grinder radially from right to left, and indexing down, until the wheel touches the workpiece. Ensure that each sweep of the wheel covers the whole area of the surface to be ground.

Grind the surface until only light contact is made, then index down about one graduation on the index wheel, and repeat the process, until the workpiece has a sharp edge, or, a flat surface. The larger the surface area, the more grinding out will be required. Do not take large, heavy cuts, or, a flat surface will not be achieved.

Safety.

The operator must use protective eyewear, when using the grinder, and, make sure the wheel guard is in the correct position.

Maintenance.

The machine will give many years of trouble free use, providing, that it is kept clean, and, lubricated with grease, and, oil, in the nipples provided at the rear of the grinder. To change the grinding wheel, make sure that the machine is switched off, and isolated, or, the plug removed. Hold the wheel firmly, and, with the box spanner provided, undo the retaining screw, and face plate. Remove the old wheel, and, replace new wheel. Make sure the retaining screw is firmly tightened, and, that the guard is reset. Before using dress the new wheel.

N.B. Single phase motors should not be allowed to run at no-load for long periods, because, this will develop extremely high temperatures in the windings.

WHEEL DRESSING INSTRUCTIONS

The grinding wheel supplied with the machine has been chosen for it's fast metal removal rate,combined with cool cutting and good surface finish.

To achieve the above ,the wheel must be initially & periodically "Dressed" using the diamond or dressing stick provided.

SAFETY GLASSES MUST BE WORN.

When mounting a new wheel,it must be dressed to take out any unevenness of the wheel.This is done with the diamond dressing stick held firmly in the the three jaw chuck.However,in some cases,it is an advantage,after,the initial dressing to relieve the wheel as shown,in the diagram below.This will minimise the contact area.

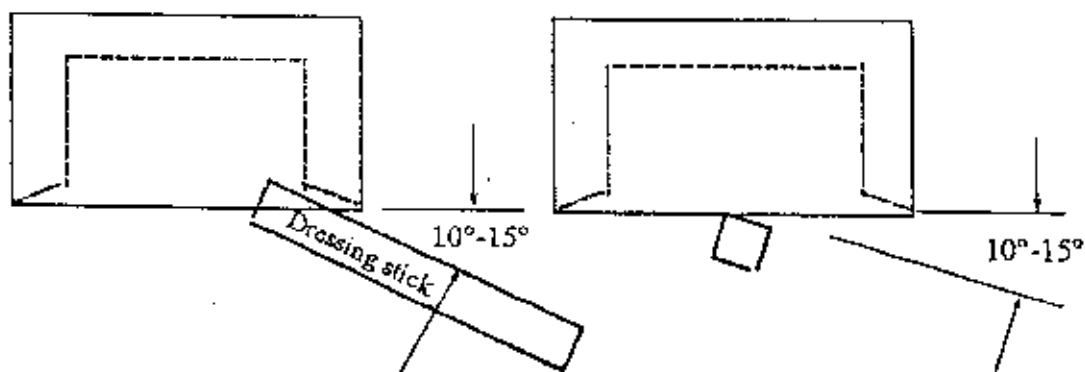
The wheel must be dressed away at an angle,to leave a sharp outer edge. Hold the dressing stick firmly in both hands,at an angle of approximately 10 to 15 degrees along its length & width. (see sketches below).Rub the stick against the wheel in a backwards & forwards motion,using a reasonable firm pressure,until the required shape is achieved.

Do not allow the stick to bounce again'st the wheel.

After the initial dressing of the wheel,it will only require a periodical "touch up" to maintain a good cut & surface finish.

It is important that the initial angle dressed on the wheel is maintained.

Use light pressure on periodic dressing.





Registered No: 223936-London

HUNTON LTD

TOOLMAKERS

COUNTY WORKS,
DUMPTON PARK DRIVE,
RAMSGATE,
KENT, CT11 8AD.

Telephone: 0843-591416
Telex: 966223

Fax Number: 0843 582601

Directors:

M. J. Allen,
G. D. Gordon,
D. J. S. Young (Managing)

FITTING INSTRUCTIONS FOR VFT GRINDER KIT

Before bolting Punch and Die Grinder into splash tray screw the flexible hose adaptor into the base of the Grinder from the under side, then push on the hose.

Remove the on/off switch from side of Grinder by loosening the knob screw and pulling off. Then undo the 4 screws holding the face plate and remove complete with gasket. Carefully pull out the rotary switch unit, noting position of the numbers and undo 4 screws holding back box to Grinder. Earth cable goes to bottom right hand fixing screw.

Pass the flexible conduit and switch round behind the splash guard stay and screw on to the plate on left hand side of Grinder. Fit back the switch unit, face plate and knob making sure the switch unit fits on to the 2 small plastic locating pins in back box.

The Grinder can then be bolted in the splash tray. Screw in the loc line flexible hosing in the top of the base behind the 3 jaw chuck or shear attachment.

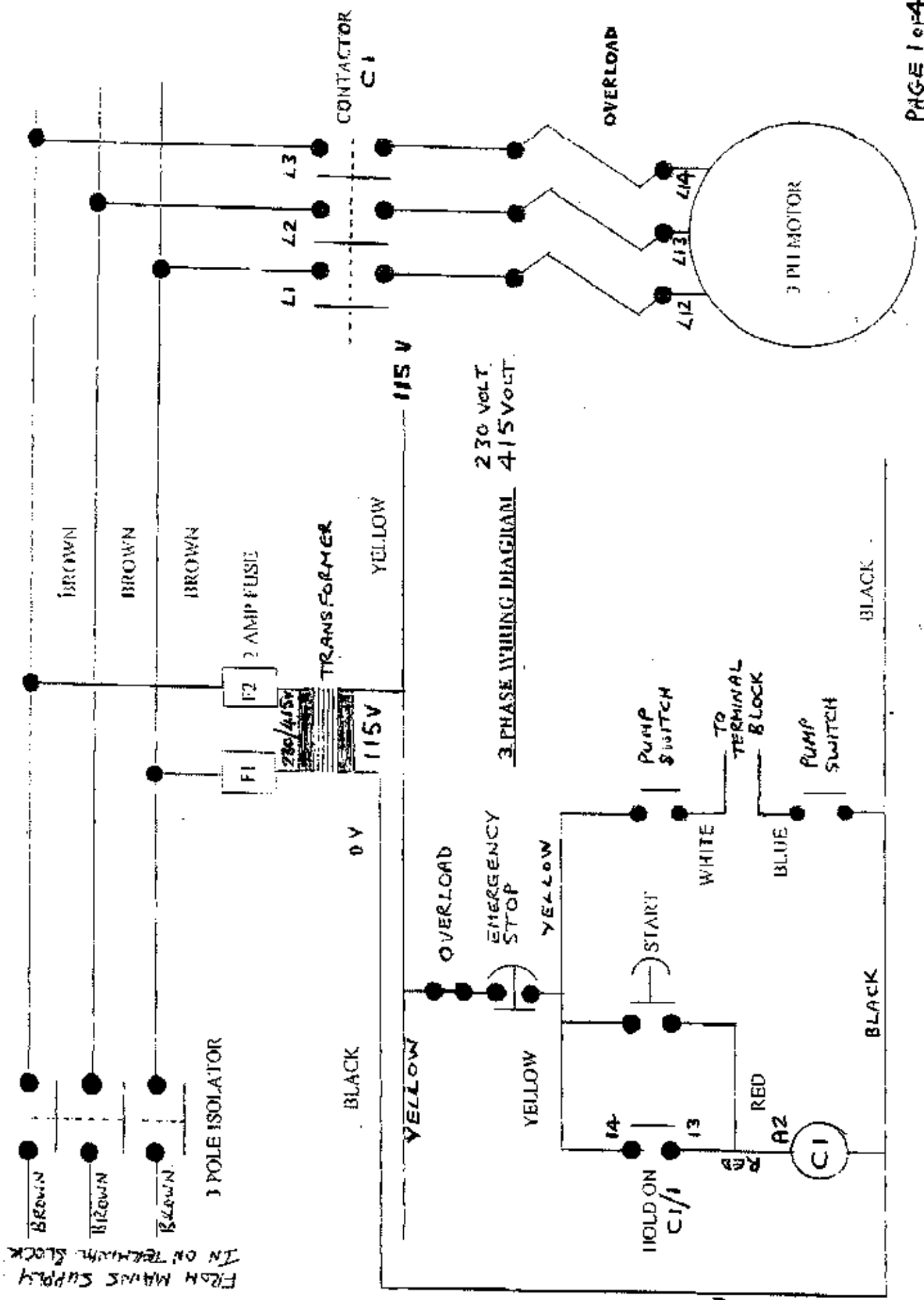
The soluble grinding oil should be 2" to 3" deep.



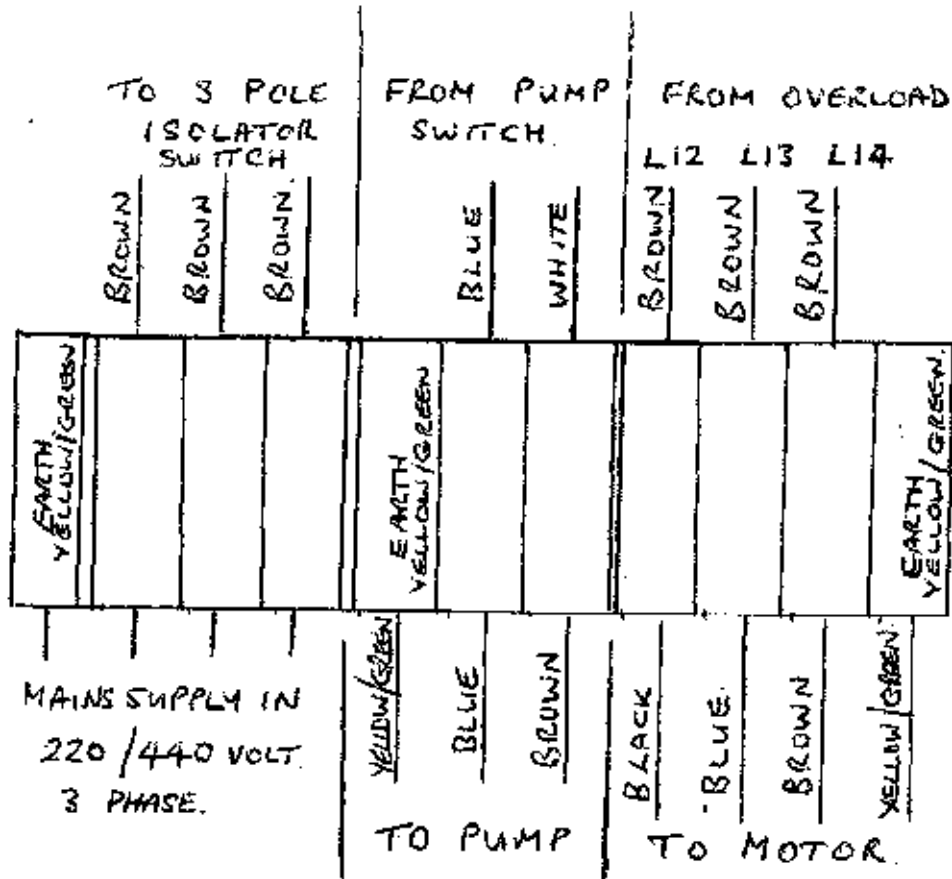
Reg'd Office & Accounts: Hilton Road, Cobb's Wood Industrial Estate, Ashford, Kent, TN23 1EW

Makers of: The Hunton Universal Bolster Outfit with standardised Punches, Dies and Tools. 'Phoenix' Treadle and Hand Presses.

Stockists of Machines for Sheet Metal: Punching, Shearing, Bending, Notching, etc. 'Whitney' & 'Vickers' Portable Punches & Angle Iron Machines.

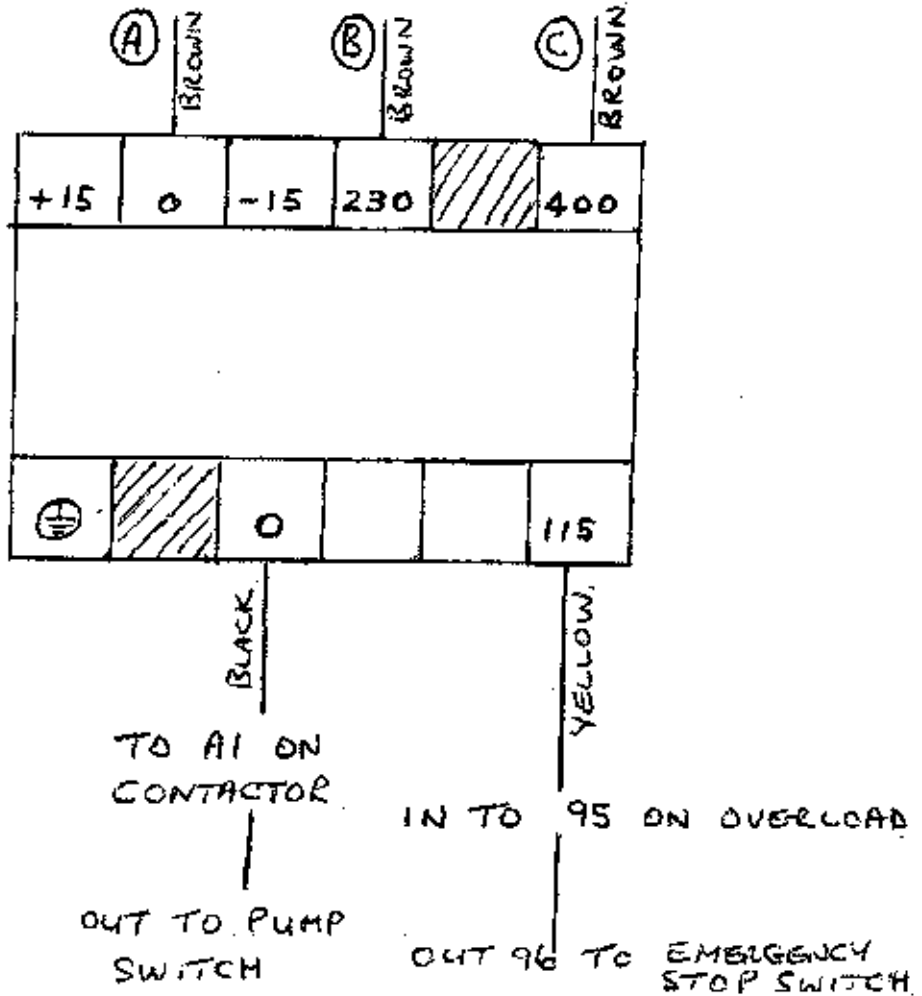


HUNTON GRINDER TERMINAL BLOCK



LE-GRAND TRANSFORMER HUNTON GRINDER

(A) + (B) 220v 3 PHASE IN
 (A) + (C) 415v 3 PHASE IN

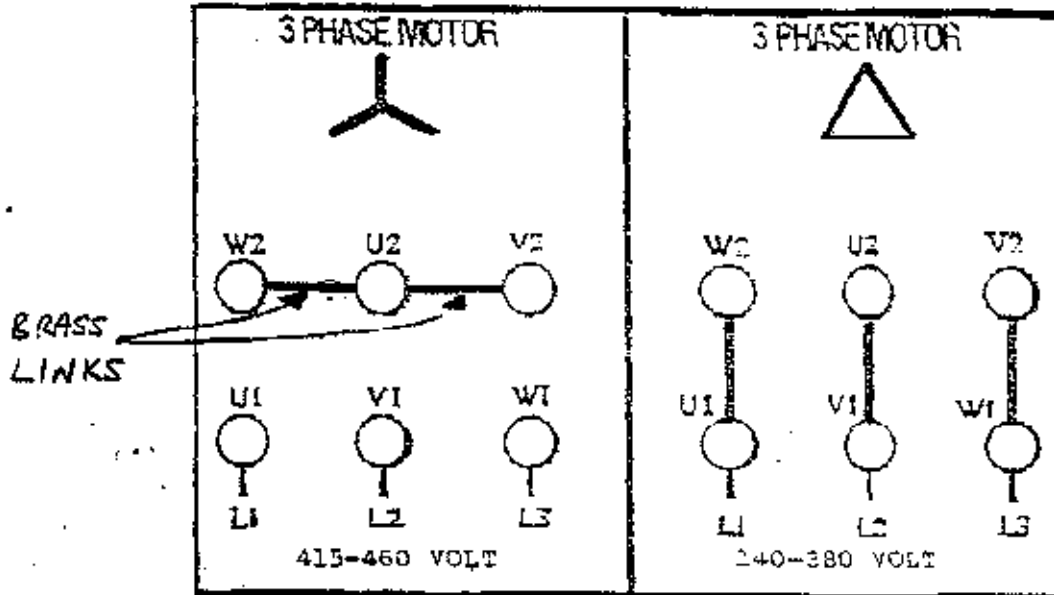




DATA SHEET

Customer

HUNTON LTD.



MOTOR TERMINAL BOX

TO CHANGE THE MOTOR FROM 415-460 VOLT. 3 PHASE. TO 240-380 VOLT. 3 PHASE. CHANGE LINKS AS THE ABOVE DRAWING. L1, L2, L3 TERMINALS ARE MAINS FEED IN TO MOTOR. FROM TERMINALS L12 L13 L14 FROM CONTACTOR. VIA TERMINAL BLOCK.

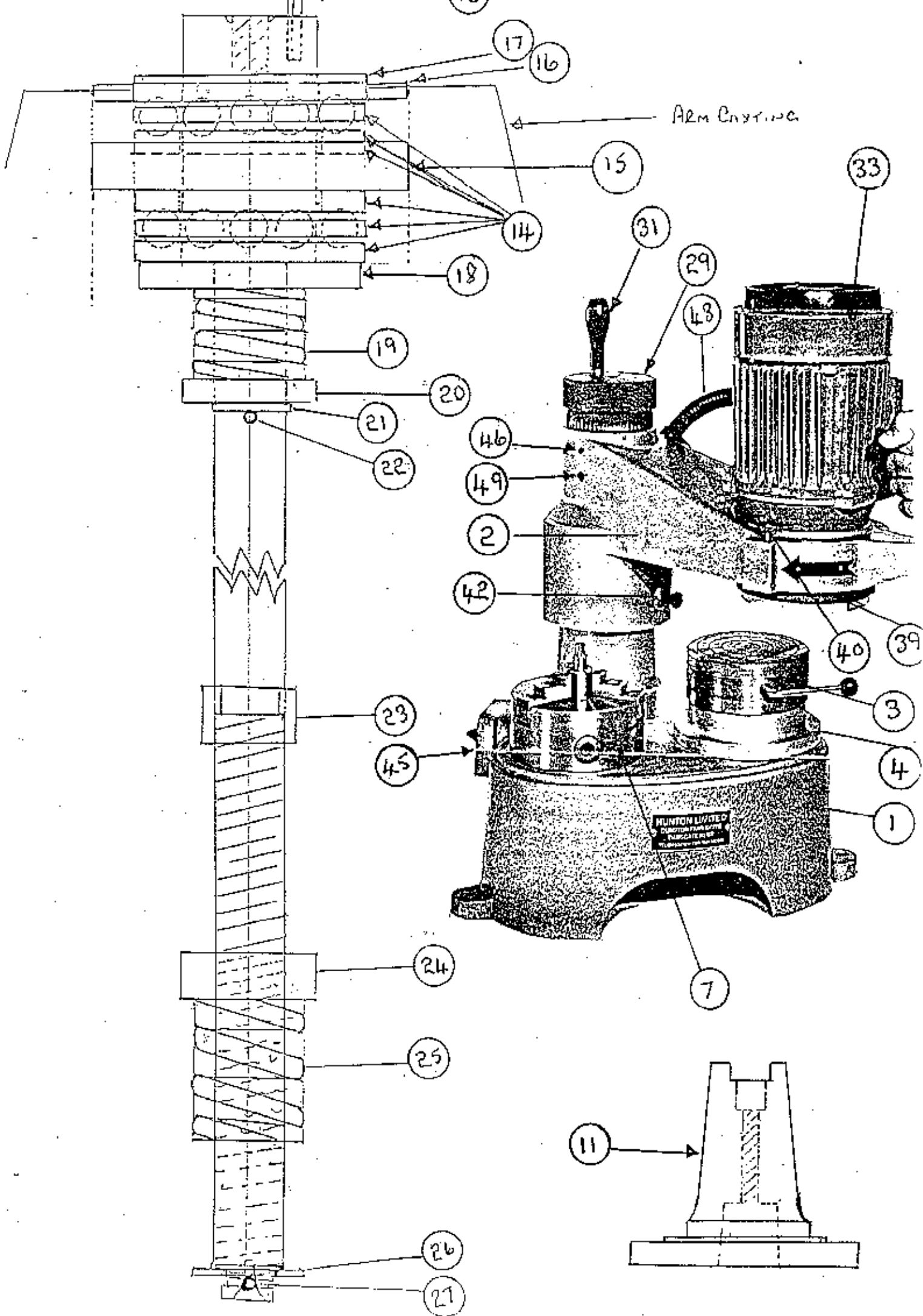
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PARTS LIST FOR PUNCH AND DIE GRINDER

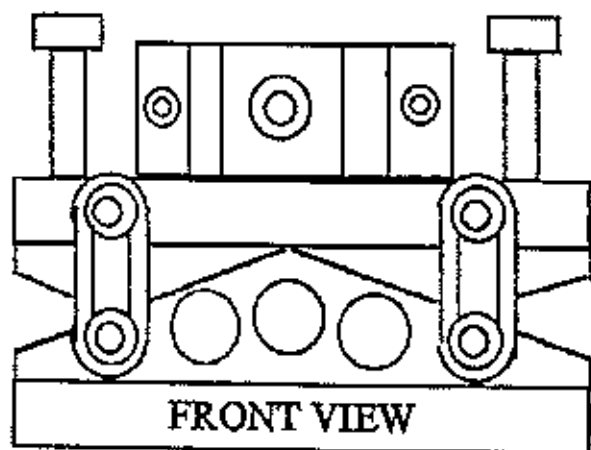
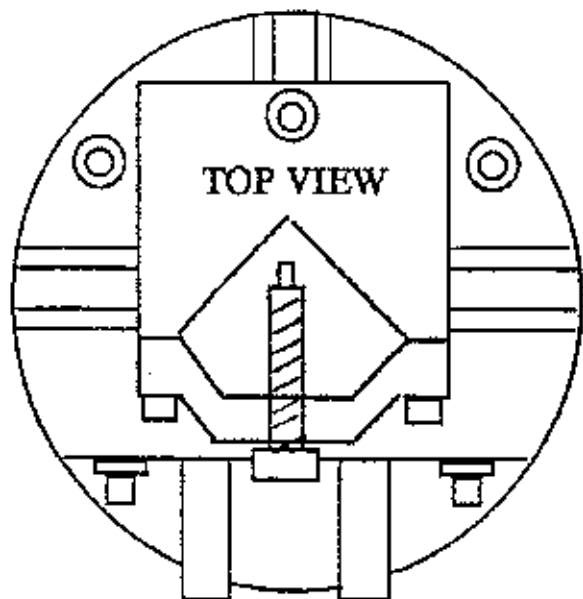
1. Main Base Casting.
2. Arm Casting.
3. Mag Chuck and Key.
4. Mag Chuck Spacer Casting.
5. 6 x 35 Socket Cap Screw for Spacer to Mag Chuck. 4 Qty.
6. 8 x 25 Socket Cap Screw for Base Casting to Mag Spacer. 3 Qty.
7. 3 Jaw Chuck with Outside and Inside Jaws Plus Chuck Key.
8. 8 x 25 Hex Head Screws for 3 Jaw Chuck.
9. Grease Nipple on Base Casting.
10. Oiling Nipple on Arm for Main Spindle Assembly.
11. Base Nut Casting for Main Spindle Assembly.
12. Main Spindle.
13. Ceelock Pin.
14. Thrust Bearing. 2 Sets.
15. Top Seating Bush.
16. Felt Pad.
17. Shim Washer.
18. Bearing Support Washer.
19. Spring.
20. Spring Support Washer.
21. 16mm Circlip.
22. 1/8" Dia Split Pin.
23. 1/2" Dia Stop Washer.
24. Rectangular Tension Nut.
25. Lower Spring.
26. 1/2" Dia Stop Washer.
27. 1/8" Dia Split Pin.
28. 6 x 20 Socket Cap Screws. Main Base Nut Casting to Grinder Base. 4 Qty.
29. Dial Indicator.
30. 8 x 50 Socket Cap Screw. Dial Indicator to main spindle.
31. Revolving Handle and Retaining Screw.
32. Front Revolving Handle and Retaining Screw.
33. 3 Phase Motor.
34. 6 x 50 Socket Cap Screws. Motor to Arm Fixing. 4 off.
35. Grinding Wheel Arbor and Locking Screws.
36. Grinding Cup Wheel.
37. Face Plate for Arbor.
38. 8 x 25 Hex Head Screw.
39. Wheel Guard.
40. Knurled Screws for Wheel Guard. 2 Qty.
41. Springs for Wheel Guard.
42. 10 x 35 Hex Head Set Screws for Locking Arm.
43. Flexible Conduit.
44. Conduit Clip and 2BA x 1 1/2 Cap Head Screw.
45. 3 Phase Switch KN3.
46. 6 x 20 Socket Set Screw for Locking No.15. 2 Qty.
47. Main Central Shaft.
48. Glacier Bearings PM of MB. Stamped on Back of Base. 2 Qty.
49. 6 x 12 and 6 x 6 Socket Set Screws for Locking Main Shaft. 2 Qty.
50. Diamond Dressing Stick.

(DIFFERENT TO THE STANDARD MODEL)

1. Main Base Casting.
2. Arm Casting.
4. Mag Chuck Casting.
7. 6" Three Jaw Chuck.
35. Grinding Wheel Arbor.
- 35A. Back Plate for Arbor.
36. Ceramic Grinding Cup Wheel.
37. Face plate for Arbor.
39. Wheel Guard.



SHEAR GRINDING ATTACHMENT



THE ANGLE PLATE ATTACHMENT FIXES TO THE PUNCH AND DIE GRINDER IN PLACE OF THE 3 JAW CHUCK. PUNCH SHANKS OF UP TO 2" DIAMETER CAN BE HLD IN THE MOVABLE VEE BLOCK.

SHEARS UP TO 10 DEGREES CAN BE GROUND ON PUNCHES, OR IT CAN BE LOCKED IN THE HORIZONTAL POSITION BY MEANS OF 2 REMOVABLE PINS. THE ANGLE PLATE HAS 2 LOCKING STRAPS ON THE FRONT, AND HAS 2 ADJUSTING SCREWS ON TOP.

THE ANGLE ATTACHMENT IS MADE OF HIGH GRADE CAST IRON, AND THE ANGLE BLOCK IS HARDENED STEEL. FOR YEARS OF SERVICE.

DIMENSIONS

5½" DIAMETER
3" HIGH
½" WIDE TEE SLOTS
FOR FIXING OTHER
ATTACHMENTS.