

CYCLONE

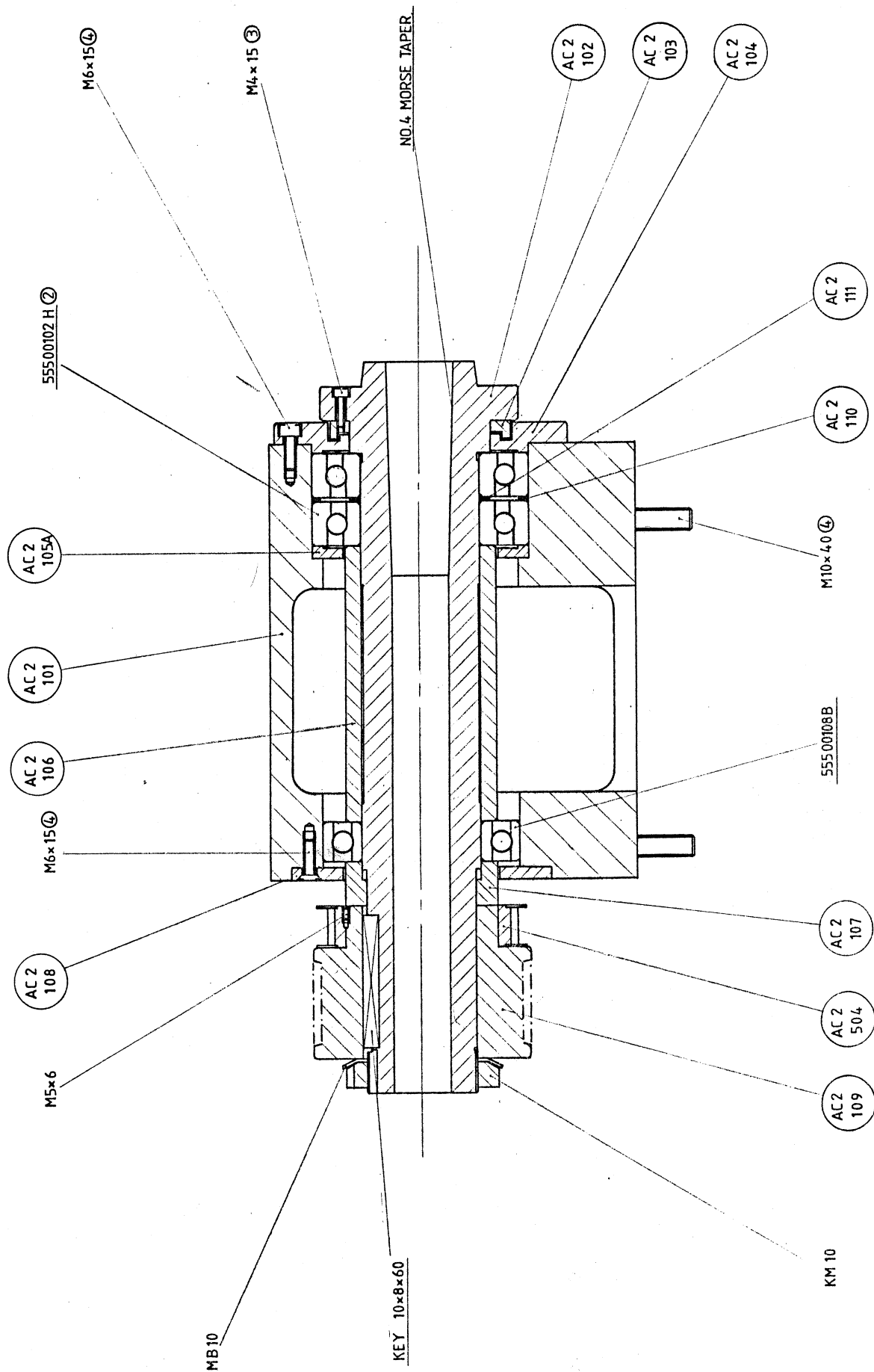
PARTS ILLUSTRATIONS

HEADSTOCK	AC 2 / 100
BED & SADDLE DRIVE	AC 2 / 200
SADDLE & CROSS SLIDE	AC 2 / 300
CONTROL & DRIVES	AC 2 / 400
SPINDLE DRIVE	AC 2 / 500
CABINET	AC 2 / 600
TAILSTOCK	AC 2 / 700
TOOLING	AC 2 / 800
MANUAL TOOLING	AC 2 / 900
BAR FEEDER	AC 2 / 1000
PNEUMATIC CHUCK	AC 2 / 1100
LUBRICATION SYSTEM	AC 2 / 1200
TURRET COOLANT	AC 2 / 1300
BENCH / SWARF DRAWER	AC 2 / 1420
PARTS CATCHER	AC 2 / 1500
POWER GUARD	AC 2 / 1600
NAME PLATES	AC 2 / 2000

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC.2/101	HEADSTOCK	1
102	MAIN SPINDLE (A2-3)	1
103	GREASE RING	1
104	BEARING FRONT PLATE	1
105A	BEARING BACKPLATE	1
106	SPACING SLEEVE	1
107	REAR BEARING SPACER	1
108	REAR COVER PLATE	1
109	SPINDLE PULLEY	1
110	PRE LOAD OUTER SHIM	1
111	PRE LOAD INNER SHIM	1
112	SPINDLE END PLUG	1

<u>DESCRIPTION</u>	<u>MANUFACTURER & REF</u>	<u>COMPUTER No.</u>	<u>QTY</u>
BEARING	SKF : 7211 BEP	55500102H	2
BEARING	FAG : 6011 2Z	55500108B	1
LOCKNUT	FAG : KM 10	55500186J	1
TABWASHER	FAG : MB 10	55500186K	1

DRG. No.

[illegible]

DENFORD MACHINE TOOLS LTD. BRIGHOUSE, YORKSHIRE.
<u>CYCLONE</u> <u>HEADSTOCK</u> <u>ARRANGEMENT</u>

LIMITS ON DIMENSIONS UNLESS OTHERWISE STATED:

ANGULAR	$\pm \frac{1}{2}^\circ$	3 PLACE DECIMAL	$\pm .005"$
FRACTIONAL	$\pm .010"$	4 PLACE DECIMAL	$\pm .0005"$

MATL	
MATL SIZE	
No REQD	
MACHINE AT 'S	
GRIND AT 'S	

DRAWN G.A.	TRACED	CHECKED	APPROVED	DATE 25-11-87	SCALE 1:1
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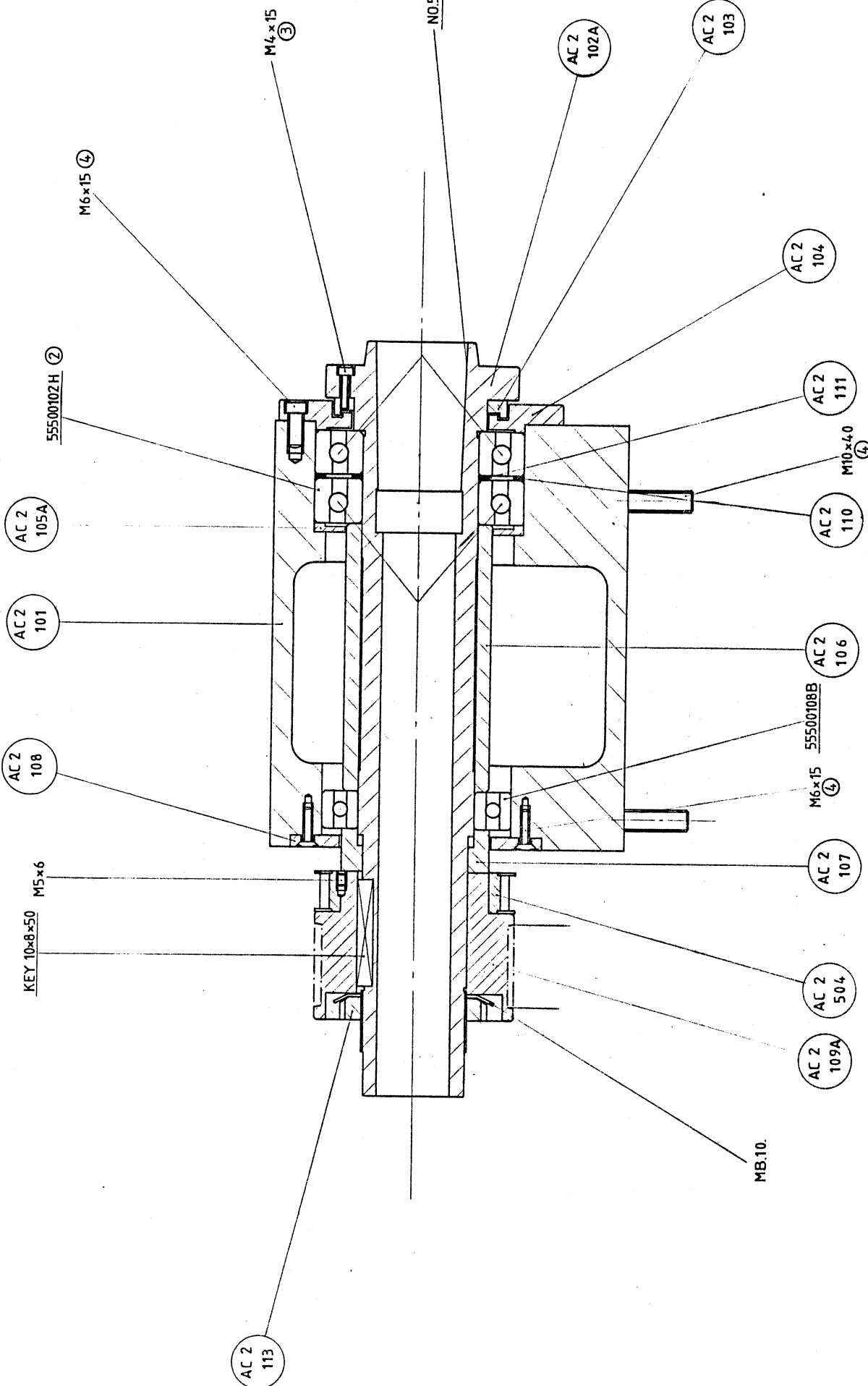
DRAWING No. AC.2 / 100

DRAWING No.AC.2/100

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC.2/101	HEADSTOCK	1
102A	MAIN SPINDLE	1
103	GREASE RING	1
104	BEARING FRONT PLATE	1
105A	BEARING BACK PLATE	1
106	SPACING SLEEVE	1
107	REAR BEARING SPACER	1
108	REAR COVER PLATE	1
109A	SPINDLE PULLEY	1
110	PRE-LOAD OUTER SHIM	1
111	PRE-LOAD INNER SHIM	1
113	SPINDLE LOCKNUT (LH)	1

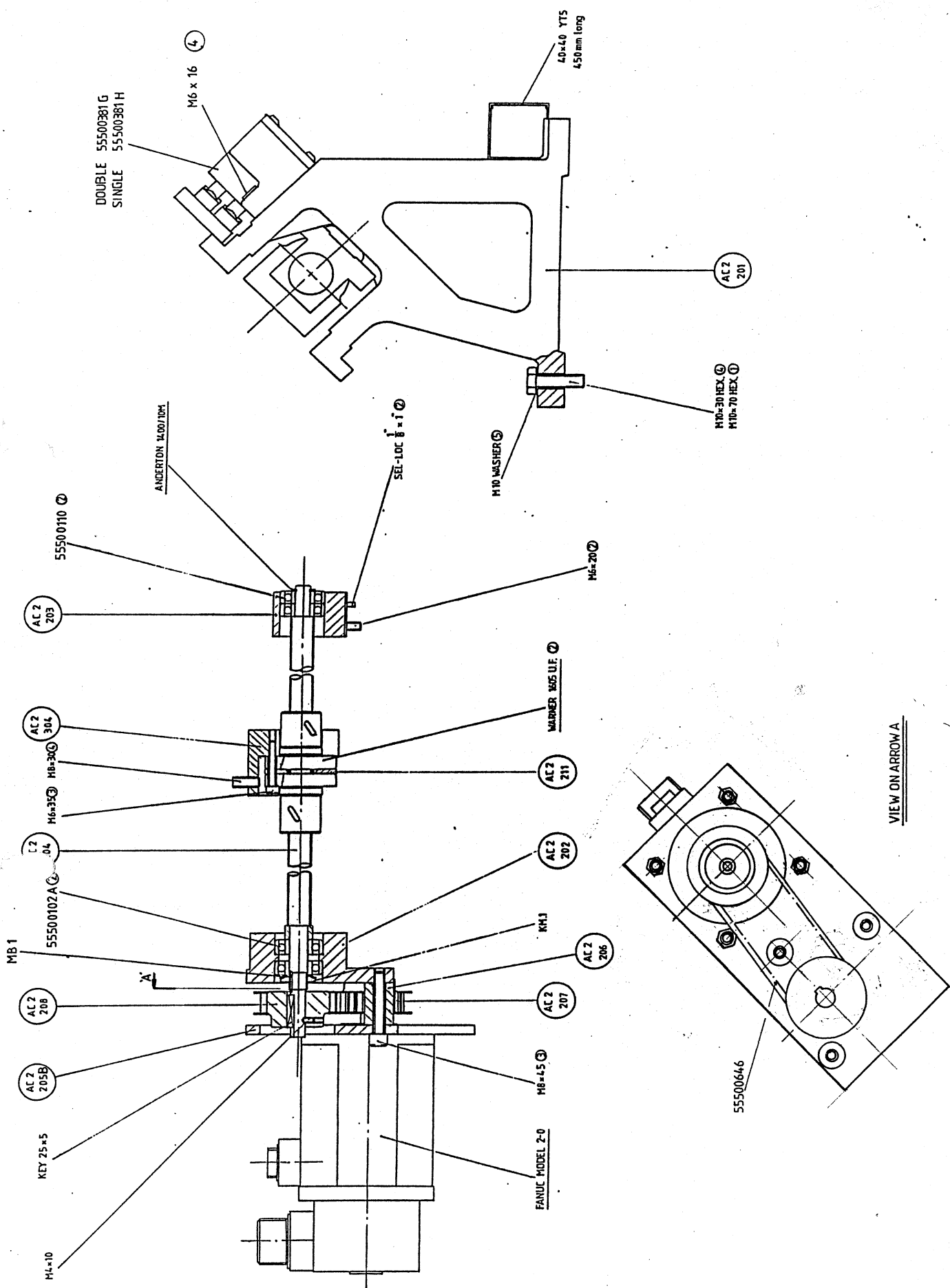
<u>DESCRIPTION</u>	<u>MANUFACTURER & REF</u>	<u>COMPUTER No.</u>	<u>QTY</u>
BEARING	SKF : 7211 BEP	55500102H	2
BEARING	FAG : 6011 2Z	55500108B	1
TAB WASHER	FAG : MB 10	55500186K	1

DRG. No.

[illegible]

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC.2/201	BED	1
202	BEARING HOUSING	1
203	BEARING SUPPORT BLOCK	1
204	'Z' AXIS BALLSCREW	1
205B	SADDLE DRIVE BRACKET	1
206	SPACER	3
207	AXIS MOTOR PULLEY	1
208	BALLSCREW PULLEY	1
209		
210		
211	BALLNUT SHIM	1

<u>DESCRIPTION</u>	<u>MANUFACTURER & REF</u>	<u>COMPUTER No.</u>	<u>QTY</u>
BEARING	SKF : 7201 BEP	55500102A	2
BEARING	FAG : 6200 2RS	55500110	2
BALLNUT	WARNER : 1605 UF	55500178A	2
LOCKNUT	FAG : KM 1	55500186A	1
TABWASHER	FAG : MB 1	55500186B	1
CIRCLIP	ANDERTON : 1400/10 M		1
TIMING PULLEY	FENNER : 16 L050	55500641	2
TIMING BELT	FENNER : 150 L050	55500646	1
DOUBLE MICROSWITCH	BALUFF : BNS 543B02D	55500381G	1
SINGLE SWITCH	BALUFF : BNS 519FD60	55500381H	1



REVISIONS		DATE		BY		CHECKED		DATE		BY	
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DENFORD MACHINE TOOLS LTD. BIGHOUSE, YORKSHIRE.

Z-AXIS DRIVE ARRANGEMENT

CYCLONE

ALTERATIONS

DRAWING No. AC2/200

CYCLONE
with
FANUC MODEL 2 SPINDLE DRIVE MOTOR
AMENDED PARTS, LIST

AC 2/202 B	BEARING HOUSING	1
AC 2/205 B	SADDLE DRIVE BRACKET	1
AC 2/501 B	SPINDLE MOTOR DRIVE PLATE	1
AC 2/502 B	MOTOR PULLEY	1
AC 2/506 B	PULLEY RETAINING PLATE	1
AC 2/207 B	AXIS MOTOR PULLEY	1
AC 2/307 B	SADDLE GIB STRIP (NO DRG.)	1
AC 2/206 B		

SPINDLE PULLEY DIA = 100

MOTOR PULLEY DIA = 65

~~CENTER DISTANCE = 455~~

BELT = ~~460 J16~~ 430 J16 (AS STANDARD)

NOTE:-

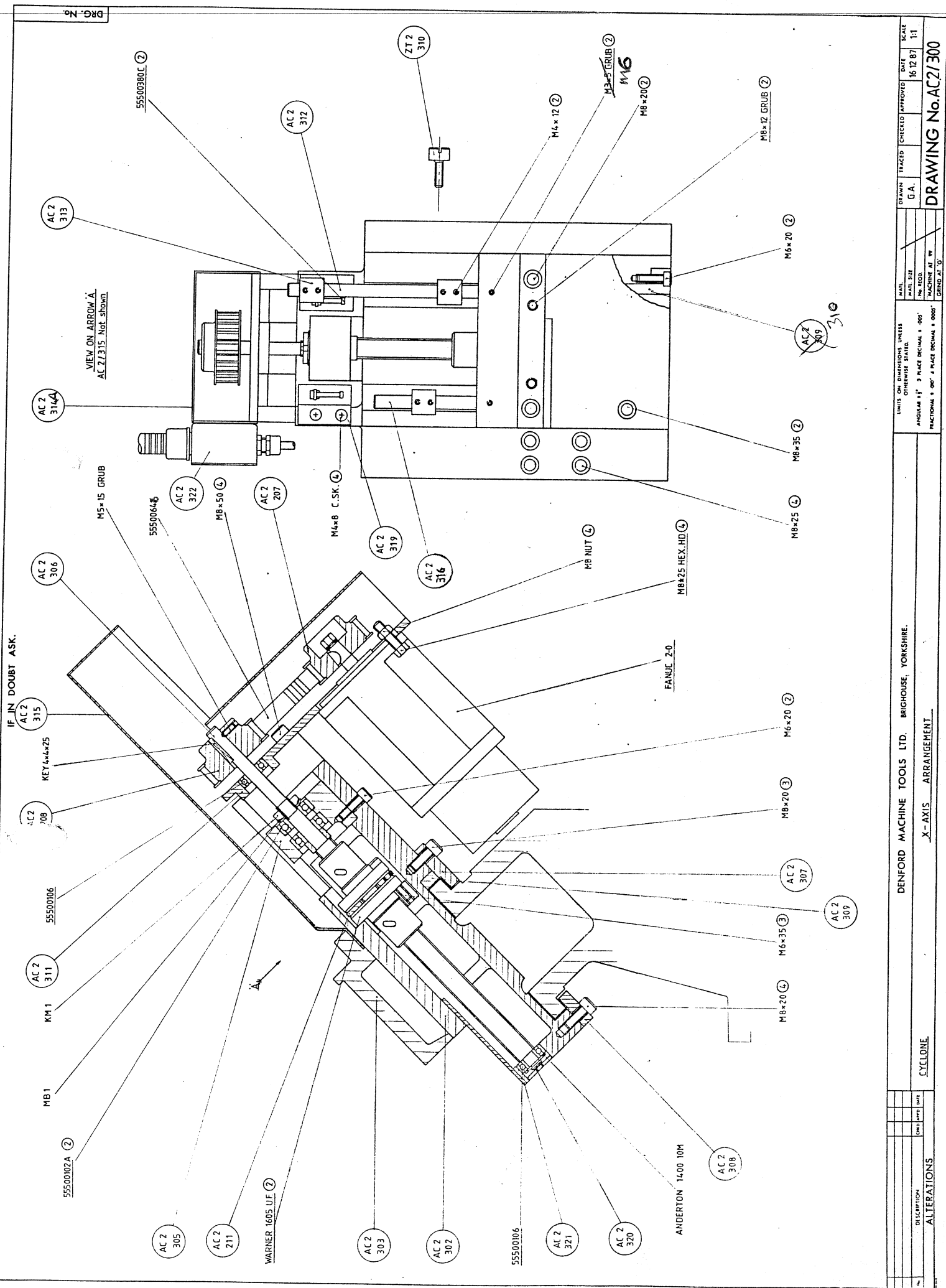
SCREWS IN ELECTRICAL CONNECTION BOX ARE CHANGED
TO M5 ALLEN BUTTON HEADS

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC.2/301	SADDLE	1
302 A	CROSS SLIDE	1
303 A	TOOL TURRET BASE	1
304	'Z' BALLSCREW BRACKET	1
305	BEARING HOUSING	1
306	'X' AXIS BALLSCREW	1
307	SADDLE GIB STRIP	1
308	SADDLE GIB STRIP	1
309	SADDLE TAPER STRIP	1
310 A	GIB STRIP	1
311	CROSS SLIDE DRIVE BRACKET	1
312	CAM TRIP BAR	1
313	KNOCK OFF CAM	3
314 A	DRIVE COVER	1
315 A	CROSS SLIDE REAR COVER	1
316	DATUM TRIP BAR	1
317	KNOCK OFF BLOCK	1
318	KNOCK OFF BLOCK	1
319	MICRO-SWITCH BRACKET	1
320	PLUG	1
321	CROSS SLIDE FRONT COVER	1
322	CONNECTION BOX	1
323	GIB STRIP SCREW	1
324	X AXIS CONNECTION BOX	1
325	FLANGED BEARING HOUSING	1
AC4/316A	TERMINAL BOX BRACKET	1
AC.2/207	AXIS MOTOR PULLEY	1
208	BALLSCREW PULLEY	1
211	BALLNUT SHIM	1
ZT.2/310	GIB LOCKING SCREW	2

<u>DESCRIPTION</u>	<u>MANUFACTURER & REF</u>	<u>COMPUTER No.</u>	<u>QTY</u>
BEARING	SKF : 7201 BEP	55500102A	2
BEARING	FAG : 6000	55500106	2
BALLNUT	WARNER : 1605 UF	55500178A	2
CIRCLIP	ANDERTON : 1400/10M		1
LOCKNUT	FAG : KM 1	55500186A	1
TABWASHER	FAG : MB.1	55500186B	1
TIMING PULLEY	FENNER : 16L050	55500641	2
TIMING BELT	FENNER : 150L050	55500646	1
MICRO-SWITCH	BURGESS : V9LR/CSA	55500380C	2
DIE CAST BOX	FARNELL : FEC 1145P	FEC 1145P	1
CABLE CARRIER	HENNIG:SR305/008/1/805	BI 01443D	1

IF IN DOUBT ASK.

VIEW ON ARROW 'A'
AC21315 Not shown



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TRANSFORMER BOX-FANUC B

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC2/406 407	TRANSFORMER BOX (SAREL:8029) BACKPLATE (SAREL:5229)	1 1

<u>DESCRIPTION</u>	<u>MANUFACTURER & REF</u>	<u>COMPUTER No.</u>	<u>QTY</u>
TRANSFORMER	4 KVA (DRIVES)	55500374B	1
"	1.1 KVA (CONTROL)	55500374E	1
"	200 VA (CONTROL)	55500374A	1
"	300 VA (TOOLPOST)	55500374	1
CIRCUIT BREAKERS	BBC S273 20A	55500366N	1
"	BBC S273 10A	55500366I	1
"	BBC S273 2A <i>S273</i>	55500366K	1
"	BBC S272 <i>8A</i> <i>10 AMP.</i>	55500366F <i>H</i>	1
CONTACTOR	B9-30-10-240V	238-463	1
SUPPRESSOR	RS 238-463	507-905	2
FILTERS	RS 507-905	480-333	2
16 WAY PLUGS	RS 480-333	480-355	2
16 WAY SOCKETS	RS 480-355	55500406E	2
GLANDS	ADAPTIFLEX 25mm	55500406B	2
CONDUIT	ADAPTIFLEX 25mm x 2.1M	55500440	1
TRUNKING	40 x 40 1M	55500402D	4
DIN RAIL	T535F	55500402E	1
END STOPS		55500402F	1
FUSE HOLDER		55501435D	4
FUSE CARRIER			
RUBBER FOOT	BAINES : No. 392		
ISOLATOR SWITCH	KLOCKER-MOELLER	55500368A	1

FANUC-B

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC.2/401	CONTROL BOX	1
402	CONTROL BOX DOOR	1
403A	BACKPLATE	1
404		
405	POWER SUPPLY MOUNTING PLATE	1
406	TRANSFORMER BOX (see sheet No.1)	
407	BACKPLATE (see sheet No.1)	
408	ELECTRICAL BOX SUPPORT	2
409	AXIS DRIVE PLINTH	2
410	CONTROL UNIT BACKPLATE	1
411	CONTROL BOX CHAIN FIXING	2
412	AXIS DRIVE BOARD SPACER	4
413	REAR DOOR CABLE	2
414	TRANS INPUT PLATE	1

CYCLONECONTROL & DRIVESAC.2/400FANUC-BOPERATORS PANEL

<u>DESCRIPTION</u>	<u>MANUFACTURER & REF</u>	<u>COMPUTER</u>	<u>QTY</u>
PUSHBUTTONS	HIGHLAND:801-0000/200-6900	55500365I/J	4
LENS (GREEN)	" :200-5401	55500365L	2
LENS (RED)	" :200-5201	55500365K	1
LENS (ORANGE)	" :200-5101	55500365N	1
SHIELDS	RS.339-027	339-027	2
BULES,24v	RS.586-655	586-655	1
ROTARY SWITCH	RS.327-658	327-658	1
KNOB	70-28-6-BLACK	FEC 70-28-6	1
CAP	1450-28-GREY	FEC 1450-28GREY	1
POINTER	1451-28-RED	FEC 145128-RED	1
DIODES	RS.261-176	261-176	6
<u>24v SUPPLY</u>			
24v 2A REGULATOR	RS.633-054	633-054	1
PCB	RS.434-289	434-289	1
2A RECTIFIER	RS.261-592	261-592	1
CAPACITOR 0.1 F	RS.124-178	124-178	1
CAPACITOR 0.47 F	RS.114-008	114-008	1
CAPACITOR 2200 F	RS.105-896	105-896	1
TRANSFORMER	RS.207-251	207-251	1
RESISTOR 4.7K	RS.148-663	148-663	1
MOUNTING PLATE	AC.2/405(see sheet No.2)		1
CONTACTOR	BBC B9-30-10 110V	B9-30-10 110v	1
CONTACTOR	BBC B9-30-01 110V	B9-30-01 110v	2
FAN	HIGHLAND 1098072UL		1
FINGER GUARD	HIGHLAND 109-049C		1
FAN FILTER	RS.507-905	507-905	1
SUPPRESSOR	MURRELEKTRONIC RC 21011	55500430B	3
CONNECTORS	RS.425-415	425-415	96
END PLATES	RS.425-437	425-437	6
PLUG (chuck)	RS.467-239	467-239	1
SOCKET (chuck)	RS.467-194	467-194	2
DUST CAP (chuck)	RS.468-513	468-513	2
TRUNKING	60 x 60	55500440B	2.1M
TRUNKING	40 x 40	55500440	2.2M
3 PH SUPPRESSORS		55500430	2
RELAY 24v DC 8 PIN		55500362E	1
8 PIN RELAY-BASE		55500362A	1
DIODE	RS. 261-176	261-176	1
RELAY 24v DC	MURRELEKTRONIC RMM11/24 51551		4

FANUC-B

GE FANUC O-B BASIC UNIT
 MASTER PCB FOR 2 AXES
 INPUT UNIT A2
 BATTERY UNIT
 FUSE FOR CONTROL UNIT
 SPARE FUSE (INPUT UNIT)
 9"CRT/MDI UNIT,T(WITH GRAPHIC)
 MACHINE CONTROL PANEL FOR OT-A
 PUNCH PANEL (2M)
 EPROM FOR DEBUG/PMC L & M 27256
 CONNECTOR (20P-F-S)
 CONNECTOR (20P-M-S)
 CONNECTOR (50P-F-S)
 CONNECTOR (50P-M-S)
 BURNDY CONNECTOR (6P,BLACK)
 BURNDY CONNECTOR (6P,BROWN)
 HANDWHEEL WITHOUT FLANGE
 POSITION CODER 6000 RPM
 OT-B OPERATORS MANUAL
 OB MAINTENANCE MANUAL
 MAINTENANCE MANUAL AC SERVO
 MAINTENANCE MANUAL AC SP MOTOR

A02B-0091-B501
 A02B-0091-H001
 A14B-0076-B001
 A02B-0083-H021
 A02B-0083-K101
 A02B-0072-K107
 A02B-0083-C102
 A02B-0083-C141
 A02B-0072-C061
 A02B-0091-J191
 A02B-0029-K890
 A02B-0029-K898
 A02B-0029-K891
 A02B-0029-K899
 A02B-0072-K891
 A02B-0061-K203
 A860-0201-T001
 A86L-0027-0001/002
 B-60124E
 B-60125E
 B-54765E
 B-53425E

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DIGITAL SERVO DRIVES - 200/220/230V INPUT

AC MOTOR,MODEL 2-0,2500 PPR CODER
 2 AXIS DIGITAL SERVO AMP,MODEL 2-0
 INPUT CONNECTOR SET
 CONNECTOR(ELBOW)-MOTOR POWER
 CONNECTOR(ELBOW)-MOTOR SIGNAL
 CLAMP

A06B-0311-B002
 A06B-6058-H201 H221
 A06B-6058-K201
 A63L-0001-0233/4
 MS3108B20-29SH
 MS3057-12A

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GE FANUC AC SPINDLE DRIVE

AC SPINDLE AMP,MODEL 1
 SPINDLE MOTOR,MODEL 1,8000 RPM
 FUSES
 INPUT CONNECTOR SET
 DISCHARGE UNIT

A06B-6052-H001
 A06B-1001-B100
 A06B-6052-K010
 A06B-6044-K009
 A06B-6052-K050

1
1
1
1
1

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC.2/501	SPINDLE MOTOR DRIVE PLATE	1
502	MOTOR PULLEY (5000 rpm)	1
503	ENDCODER BRACKET	1
504	SPINDLE ENCODER PULLEY (30T)	1
505	ENDCODER PULLEY (30T)	1
506	PULLEY RETAINING PLATE	1
507		
508	MOTOR PULLEY (6000 rpm)	1

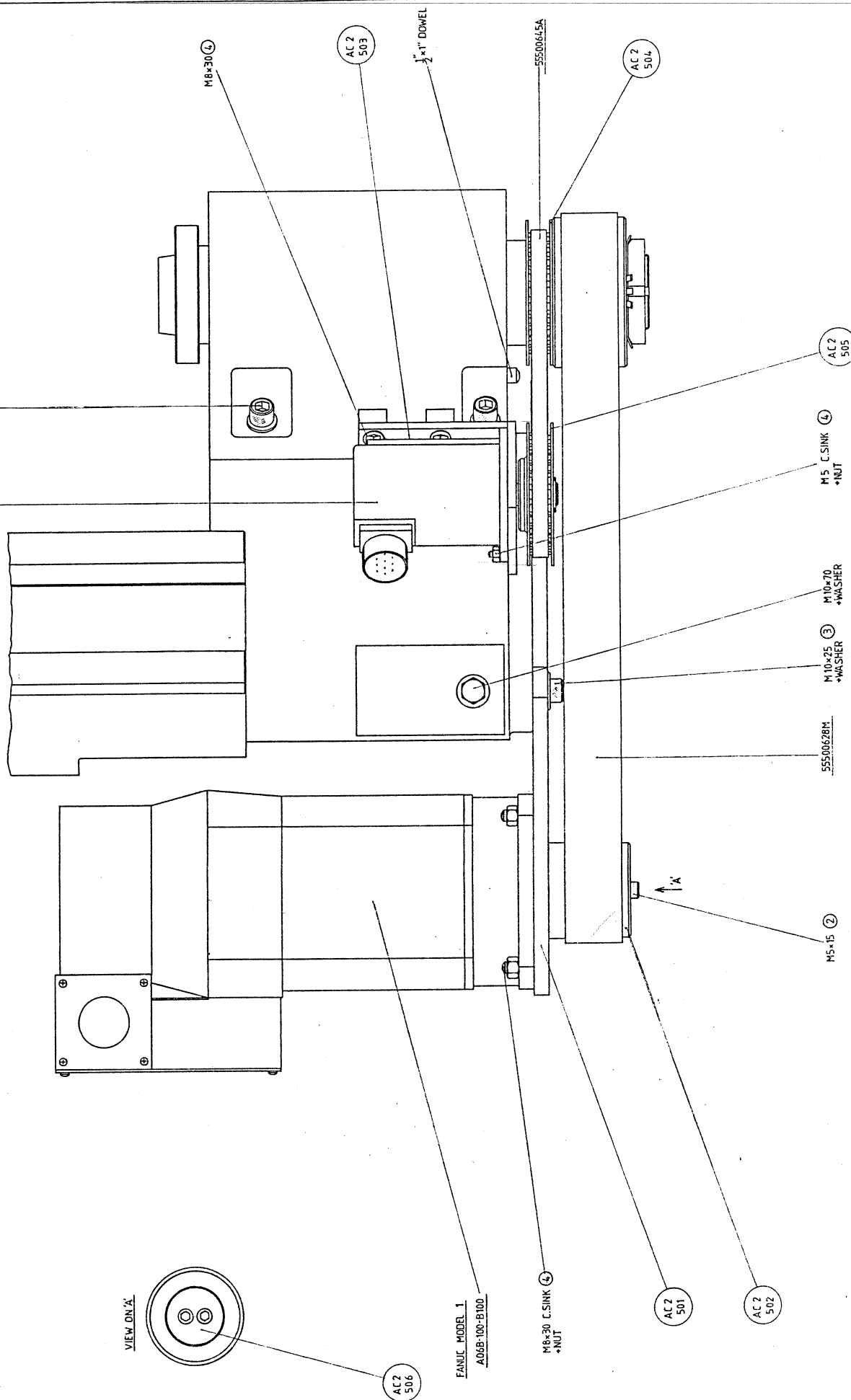
<u>DESCRIPTION</u>	<u>MANUFACTURER & REF</u>	<u>COMPUTER No.</u>	<u>QTY</u>
DRIVE BELT	TBA : POLY'V' 430 J16	55500628M	1
TIMING BELT	FENNER : 225 L050	55500645A	1
TIMING PULLEY	FENNER : 30 L050	55500649	2
CIRCLIP	ANDERTON : 1400/15 M		1

IF IN DOUBT ASK.

27-00001/002

M10x25+WASHER (L)

DRG. No.

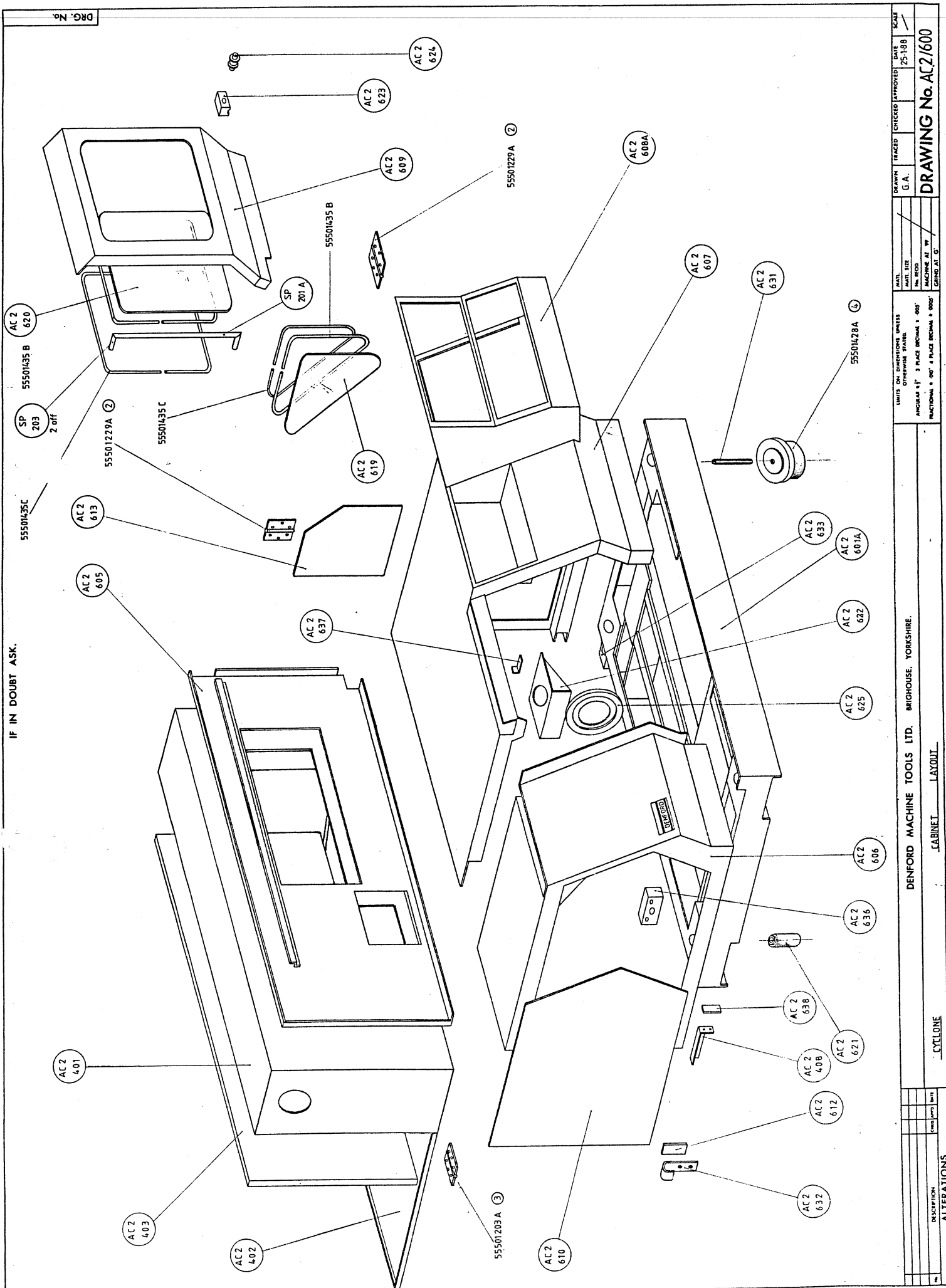


1400/15M

ALTERATIONS		CYCLONE		SPINDLE DRIVE ARRANGEMENT		DENFORD MACHINE TOOLS LTD. BRIGHOUSE, YORKSHIRE.		DRAWING No. AC2/500	
DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY
14-188									
LIMITS ON DIMENSIONS UNLESS OTHERWISE STATED		MAIL SIZE		TRACED		CHECKED		APPROVED	
ANGULAR ± 1° 3 PLACE DECIMAL ± 0.05°		NO HOLE		GA					
FRACTIONAL ± 0.01" 4 PLACE DECIMAL ± 0.001"		MACHINE AT 90°							
		GRIND AT 5°							

PART No.	DESCRIPTION	QTY
AC.2/601B	CABINET BASE	1
602		
603		
604		
605A	REAR PANEL	1
606A	TOP HOUSING	1
607		
608A	CONTROL PANEL HOUSING	1
609	SLIDING DOOR	1
610	END DRIVE COVER	1
611		1
612	LIFTING HOOK BRACKET	4
613A	ACCESS PANEL	1
614A	BED COVER EXTENTION	1
615	BED COVER	1
616	SADDLE SIDE PLATE (RH)	1
617	SADDLE SIDE PLATE (LE)	1
618	BED COVER HOUSING	1
619	INSPECTION WINDOW	1
620	DOOR WINDOW	1
621	FOOT SUPPORT	4
622	COOLANT PUMP BRACKET	1
623	DOOR SLIDE HOUSING	4
624	DOOR SLIDE AXLE	4
625	HEADSTOCK RING	1
626A	SPINDLE DRIVE PLINTH	1
627		
628		
629 A	MOUNTING PLATE	1
630 A	MOUNTING PLATE	1
631	JACKING SCREWS	4
632	LIFTING HOOK	4
633	COOLANT DRAIN	1
634	TOP DOOR RAIL	1
635	BOTTOM DOOR RAIL	1
636	COOLANT PIPE JUNCTION BLOCK	1
637	WORK LIGHT BRACKET	2
638	REAR PAD	2
639	GUARD WIPER	1
640	COOLANT RETURN RING	1
641	ACCESS PANEL SCREW	1
642	DIVIDING WALL	1
643	TOP GUARD WIPER	1
644 A&B	DOOR WIPER	1E
645	DOOR GUARD RAIL	2
646	DOOR GUARD ROD	6
647	DOOR AXLE BRACKET	1
648	TOOLPOST CABLE PLATE	1
649	DOOR SWITCH SPACER	4
650	DOOR SLIDE ANGLE	1
SP.185	DOOR PLUNGER	1
201A	HANDLE	1
202	HANDLE SCREW	2
203	FIXING BLOCK	2

DESCRIPTION	MANUFACTURER & REF	COMPUTER No.	QTY
CABINET FOOT	SUNNEX : MODEL 2(no legs)	55501428A	4
COOLANT PUMP	M.G.ELECTRONICS.AQ3/2/SS 3PH	55500398	1
WORK LIGHT	WALDMANN;SRL206+BALLAST B2x6/110	55500415J/K	1
WINDOW SEAL	BAINES;I.R.S.736 WS-CHROME INSERT	55501435B/C	1
BEARING	FAG ; 627	55500105A	8
MICRO-SWITCH	BURGESS : 4CRQR	55500381C	1
GUARD WIPER	HYDRAQUIP : A6	55501425A	2
HINGES	SOUTHCO : E6-10-301-20	55501229A	4
HINGES	No.868 - 3x2 -	55501203A	4
LOCK & KEY	SOUTHCO : 24-20-812-10	55501229B	1
COOLANT PIPE	SNAP-LOC : R450-12	55501102C	1
COOLANT NOZZLE	SNAP-LOC : 8450-19		1
COOLANT TAP	$\frac{3}{8}$ BSP	55501116D	2
$\frac{3}{8}$ BSP ADAPTOR	SNAP-LOC : 8450-17BSP	55501102E	1
DOOR CATCH	STENOR : SRV 1637.17.C	55501202	1
COOLANT SIGHT	ADAMS : BW 4040P	55501106	1
WINDOW WIPER	DURAFLEX;SILVER DK20 201043	55501438	0,56M
TOP GUARD WIPER	KLEENEZE;SUPERSEAL,STD RANGE E	55501425B	0,80M



CYCLONE TAILSTOCK AC.2/700

PART NO.	DESCRIPTION	QTY
AC.2/701	BED	1
AC.2/702	SHOE	1
AC.2/703A	BODY	1
AC.2/704A	BARREL	1
AC.2/705	SCREW	1
AC.2/706	CLAMP	1
AC.2/707A	LINK	1
AC.2/708	GIB STRIP	1

PNEUMATIC LAYOUT

PART NO.	DESCRIPTION	QTY
BI 01131	CYLINDER KCF2/25/80	1
BI 01131A	REGULATOR	1
BI 01131C	REGULATOR BASE	1
BI 01131F	FLOW CONTROL VALVE	1
BI 01130Y	SOLENOID	2
BI 01128U	1/8 BSP ADAPTOR	1
BI 01128T	SILENCER	1
BI 01128N	ADAPTOR 4MM / 1/8 BSP	5
BI 01123S	BULKHEAD ADAPTOR	1
BI 01123Q	LOCK NUT	1
BI 01126G	BRAIDED OIL PIPE	1
BI 01126F	4MM NYLON PIPE	1

IF IN DOUBT ASK

[illegible]

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC2/801A	TOOL TURRET	1
802	TOOL CLAMP	6
803A	AXIAL TOOLHOLDER	1
806	DOWEL PIN	2
807	TOOLSLEEVE HOLDER	3
ZT2/805	BORING BAR HOLDER 6mm DIA	1
806	" " " 8mm DIA	1
807	" " " 10mm DIA	1
808	" " " 12mm DIA	1
809	" " " 16mm DIA	1
810	" " " 20mm DIA	1
811	CENTRE DRILL HOLDER	1
814A	AXIAL TOOLHOLDER PLATE	1

<u>DESCRIPTION</u>	<u>MANUFACTURER REF</u>	<u>COMPUTER No.</u>	<u>QTY</u>
TOOLPOST	BARUFFALDI: RH80/6/M 110v/3ph/50Hz 24vDC BRAKE	BI 00968	1
CAP HD SCREWS	MB x 110		4
TRANSFORMER	110v/415v	BI 00374	1
CONTACTORS	BBC : B9-30-01-110	B9-30-01-110	2
OVERLOAD RELAY	BBC : TD25 2.1-3.2	TDS 2.1 TO 3.2	1
SUPPRESSORS	RS 238-463	RS 238-463	2
3PH SUPPRESSOR	MURELEKRON	BI 00430C	1
1K Ω RESISTOR	RS 149-694	RS 149-694	1

<u>PART No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC2/802	TOOL CLAMP	8
806	DOWEL PIN	2
810A ³	TOOL TURRET	1
811A	TOOLSLEEVE HOLDER	4
812	BORING BAR HOLDER 6mm DIA	1
813	" " " 8mm DIA	1
814	" " " 10mm DIA	1
815	" " " 12mm DIA	1
816	" " " 16mm DIA	1
817	" " " 20mm DIA	1
818	CENTRE DRILL HOLDER	1
819A	AXIAL TOOLHOLDER	3

PART N°.DESCRIPTION.QTY.

AC2/901

TOOLPOST BASE

1

BUS 150/61

TOOLPOSTUD

1

DESCRIPTIONMANUFACTURER & REF.COMPUTER N°.QTY.

TOOLPOST.

MULTIFIX

BI. 00851A

1

PART No.	DESCRIPTION	QTY
AC.2/1101	CHUCK BACKPLATE ;(R Leader not used)	1
1102	CHUCK BACKPLATE ;(R Leader 5"HP)	1
1103	CHUCK BACKPLATE ;(Pratt 160mm 3 jaw manual)	1
1104	CHUCK BACKPLATE ;(R Leader front operated collet)	1
1105	CHUCK KEY	1
1106		1
1107	PNEUMATIC CHUCK SUPPLY BRACKET	1
1108	CYLINDER GUARD (Matthews Eng)	1
1109		
1110	PNEUMATIC DRAWTUBE ARRANGEMENT;(5c Collet)	
1111	CYLINDER FIXING BUSH	1
1112	COOLANT DRAIN	1
1113	COOLANT RETURN ADAPTOR	1
1114	CYLINDER GUARD (MULTI-FIT)	1
1115	CYLINDER GUARD BASE	1
1116	SUPPORT ARM	1
1117	BED COVER (5c COLLET)	1
1118	BED COVER HOUSING (5c COLLET)	1
1119		
1120	DRAWTUBE ARRANGEMENT ;(GAMET AX27.1)	
1121	DRAWTUBE CYLINDER ADAPTOR	1
1122	DRAWTUBE ANCHOR BRACKET	1
1123	CYLINDER & END DRIVE COVER	1
1124	CYLINDER COVER	1
1125	COOLANT RETURN ;(GAMET AX27.1)	1
1130	PNEUMATIC BOX ARRANGEMENT	
1131	PNEUMATIC BOX BACKPLATE	1
1132	PRESSURE SWITCH BRACKET	1
1133	FLOW VALVE BRACKET	1
1134	PNEUMATIC BOX	1

CYCLONEPNEUMATIC CHUCK con.AC.2/1100ACHUCKS

3 JAW 160mm S.C. MANUAL

PRATT Ref. 1210-01705

3 JAW 5" POWER CHUCK

RICHARD LEADER Ref 5" HP

3 JAW DRAWTUBE CHUCK

GAMET Ref AX27.1

<u>DESCRIPTION</u>	<u>MANUFACTURER & REF</u>	<u>COMPUTER No.</u>	<u>QTY</u>
SOLENOID VALVE	ENOTS 14 1131 50 110v	55501130Y	1
PRESSURE SWITCH	ENOTS 04-0140-02-000	55501451Y	1
FILTER REGULATOR	ENOTS B06-101-A2kD	55501451	1
LUBRICATOR	ENOTS Lo7-100-MPD	55501127A	1
PRESSURE GAUGE	NORGREN 18-013-013	55501451A	1
FILTER BRACKET	NORGREN 18-001-053	55501451B	1
AIR LINE ADAPTOR	SCHRADER SH 8051-11	555014513	1
CONNECTOR $\frac{1}{8}$ B.S.P.	ENOTS 36-0633-01	55501128U	1
ELBOW $\frac{1}{8}$ BSP -6mm	ENOTS 97-1114-04	55501129H	3
ADAPTOR $\frac{1}{8}$ BSP -6mm	ENOTS 97-1505-04	55501451E	2
TEE CONNECTOR	ENOTS 97-1514-04	55501451L	1
BULKHEAD ADAPTOR	ENOTS 97-1508-04	55501451I	1
LOCKNUT	ENOTS 36-0520-03	55501451J	1
$\frac{1}{8}$ BSP SILENCER	S/S1X10	55501128T	1
CONNECTOR	FEMALE $\frac{1}{8}$ BSP CHROME		1
ELBOW $\frac{1}{8}$ " BSP.-6mm	ENOTS 36-0005-04	55501129N	1
TUBING NUT 6mm	ENOTS 36-0500-04	55501451P	1
OLIVE 6mm	ENOTS 36-0501-04	55501451Q	1
TUBE	NYLON 6mm Dia	55501110C	1

55501451B

55501128U

55501451A

55501451S

55501451

55501127A

55501128T 2 off

55501129Y

55501129H 4 off

55501451E 2 off

55500050B

55501451G

55501451J

55501451I

AC 2/1106

55501129N

55501451P

55501451Q

CONNECTOR

55501451E

AC 2/1107

To CHUCK

ALL TUBE 55501110C

[illegible]

<u>DESCRIPTION</u>	<u>MANUFACTURER & REF.</u>	<u>COMPUTER NO.</u>	<u>QTY.</u>
OIL PUMP	INTERLUBE LF 1510-6840	55501120	1
3-WAY JUNCTION	INTERLUBE 114830	55501123T	1
JUNCTION BLOCK	INTERLUBE 114824	55501123V	1
SLEEVE PLUG	INTERLUBE LE.305	55501123H	9
BLANKING PLUG	INTERLUBE LE.405	55501123N	2
METER UNIT	INTERLUBE 53458	55501123E	5
METER UNIT	INTERLUBE 53462	55501123F	1
NYLON PIPE	ENOTS 135131	55501126F	3M
COPPER PIPE	YORKSHIRE IMPERIAL	55501123J	0.5M
(4mm x 0.6)			
* BRAIDED PIPE	ENOTS 42-0020-00 600	55501126G	1
CONES	ENOTS 36 0501 02	55501123I	12

DRG. No.



CYCLONE LUBRICATION SYSTEM

ALTERATIONS

MAIL	
MAIL SIZE	
No. REQD.	
MACHINE AT W	
COUNT AT YC	

TRACED	CHECKED
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DATE 22-12-8

SCALE /

DRAWING No.AC2/1200

CYCLONETURRET COOLANTA.C.2/1300

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
A.C.2/1301	TURRET COOLANT BODY	1
1302	TURRET COOLANT PISTON	1
1303	PISTON SEAL HOUSING	1

ZT2/1302

TOOL SLEEVE HOLDER

<u>DESCRIPTION.</u>	<u>MANUFACT.& REFERENCE.</u>	<u>QTY.</u>
SEAL	GACO MI 062100 $\frac{3}{16}$	1
O RING	ANGUS #3037/BS 110	1
SPRING	L3795A BI 01416A	1

CYCLONE

TURRET COOLANT

AC2/1350

AC2/1351

COOLANT TAP BLOCK

COOLANT HOSE

BI 01102B.

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
AC.2/1420A	TABLE WELDED ASSEMBLY	
1421	REAR LEFT LEG	1
1422	REAR RIGHT LEG	1
1423	FRONT LEFT LEG	1
1424	FRONT RIGHT LEG	1
1425	LEFT SIDE PANEL	1
1426	RIGHT SIDE PANEL	1
1427 B	SUPPORT	1
1428 A	TOP	1
1429	TRAY	1
1430	COOLANT TANK SUPPORT	1
1432		
1433 A	FRONT PANEL	1
1434	REAR PANEL	1
1435	COOLANT TANK	1
1436A		
1439		
1440	LIFTING BLOCK	4
1441	CABINET BASE	1
1442	SPACING FOOT	4

NOTE: AC.2/1441 (CABINET BASE) USED INSTEAD OF AC.2/601
WHEN BENCH / SWarf DRAWER FITTED.

ZT.1/609	SWarf DRAWER.	1
SP.191 S	$\frac{1}{2}$ TAILPIECE ADAPTOR	1

<u>DESCRIPTION</u>	<u>MANUFACTURER & REF.</u>	<u>COMPUTER NO.</u>	<u>QTY</u>
ADJUSTABLE FOOT			1

PART N ^o	DESCRIPTION	QTY.
AC2/1501	SM BUCKET.	1
1502	BUCKET ARMS	2
1503	ARM SUPPORT	1
1504	CROSS BEAM	1
1505	PIVOT BUSH	2
1506	SPGOT	1
1507	BEARING HOUSING	1
1508	COLLAR	1
1509	TRIP CAM	1
1510	DRIVE SHAFT	1
1511	SUPPORT BRACKET	1
1512	DRIVE ARM	1
1513	LINK	1
1514	WASHER	1
1515	SM COLLECTION BOX	2
1516	SM COLLECTION BOX LID	2
1517	ANCHOR PLATE	1
1518	SM COLLECTION BOX PLATE	1
1519	CYLINDER STOP	1
1520	CYLINDER SUPPORT	1

OILITE BUSH. ~~22x26~~. 20x26

AIR CYLINDER. 60202000100

CYCLONEPARTS CATCHER

AC 2/1550

5C COLLET / GAMET 130mm CHUCK

PART NO

AC 2/1501

1505

1506

1507

1508

1509

1510

1511

1512

1513

1514

1517

1519

1520

~~BUCKET~~

PIVOT BUSH

SPIGOT

BEARING HOUSING

COLLAR

TRIP CAM

DRIVE SHAFT

SUPPORT BRACKET

DRIVE ARM

LINK

WASHER

ANCHOR PLATE

CYLINDER STOP

CYLINDER SUPPORT

#

2

1

1

1

1

1

1

1

2

1

1

1

1

AC 2/1551

1552

1553

1554

1555

1556

1557

1558

1559

1560

1561

SM

BUCKET

BUCKET ARMS

ARM SUPPORT

CROSS BEAM

SLEEVE

ROD SUPPORT

ROD

TRIP CAM SPACER

SM

COLLECTION BOX

SM

COLLECTION BOX LID

SM

COLLECTION BOX PLATE

2

1

1

1

1

1

2

1

1

1

AIR CYLINDER

ENOTS 60-20200-00-100

B1011285

SPRING

B101415C

STEEL BALL

3/16" DIA

OILITE BUSH

20 x 26 x 20 B100195C

1

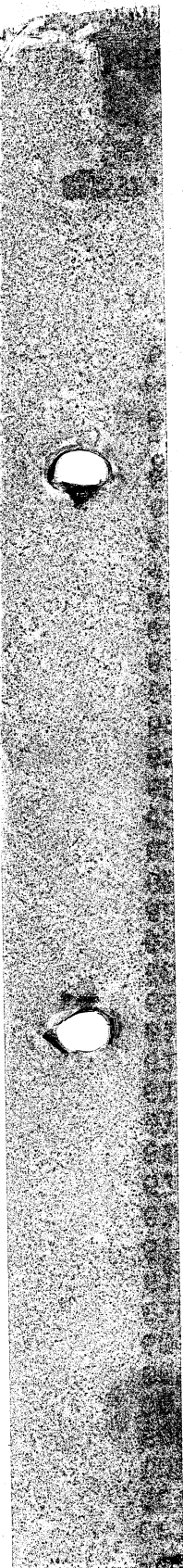
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2

3

AC 2/2000

CH. 269 ✓	ELECTRIC WARNING LABEL	2
CH. 438B ✓	NAMERATE "DENFORD"	1
CH. 441 ✓	TOOL NUMBERS	1 SET.
CH. 357 ✓	LUBRICATION PLATE	1
CH. 363 ✓	AIR PRESSURE PLATE	1
CH. 444 ✓	CHUCK FOOT SWITCH	1
CH. 445 ✓	AUXILIARIES	1
CH. 446 ✓	AXIS LIMIT SWITCH OVERRIDE	1
CH. 447 ✓	COOLANT LEVEL	1
CH. 436A ✓	OPERATORS PANEL	1
CH. 267D ✓	SPECIFICATION PLATE	1
POWER SUPPLY PLATE TO SUIT THE MACHINE		+
CH. 453 ✓		
↓		
"CYCLONE"	LETTERS PLUS RED STRIP.	1



ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 08-28-02 BY 60322

