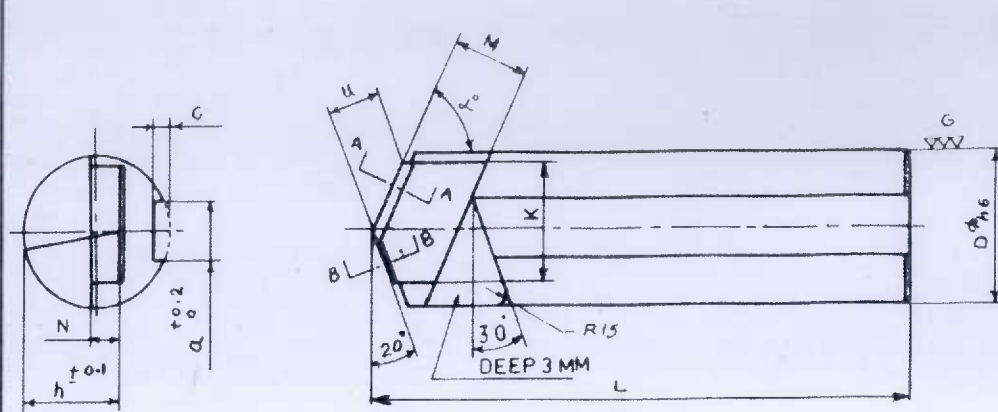


SECTION A-A



SECTION B-B

BORING RANGE DIM.	CATALOG NUMBERS	L	D	MAX. OF CUT	b	i	R	g	a	c	h	α	MXN	K
50-54	015-12	40	16	5	2.0	0.6	0.7	0.8	7.8	2.3	11	65°	9 X 5	14
62-66	015-15	45	"	"	"	"	"	"	"	"	"	"	9 X 5	14
80-85	015-24	61	25	7	2.2	0.6	"	1.0	"	2.8	16.5	"	13 X 6.5	19
100-106	015-28	76	"	"	"	"	"	"	"	"	"	"	13 X 6.5	19
107-115	015-31	85	32	10	2.4	"	"	"	12.8	3.3	21	"	17 X 7.5	25
125-135	015-33	98	"	"	"	"	"	"	"	"	"	"	17 X 7.5	25
145-155	015-35	116	"	"	"	"	"	"	"	"	"	"	17 X 7.5	25
236-251	015-53	150	48	24	2.6	"	"	1.2	"	3.5	30	50°	21 X 10	37

THIS DRAWING SHOWS THE DIMENSIONS OF CHIPBREAKERS THAT SUITS THE COMMONEST GROUPS OF STEEL USED IN INDUSTRIAL MACHINE SHOPS. PROPER DIMENSIONS OF CHIPBREAKERS MUST BE CHOSEN BY THE TYPES OF MATERIALS.

MATERIAL CARBIDE (P 40) TO BE BRAZED

DESIGNED BY	KA RAO
CHECKED BY	
APPROVED BY	
DATE	

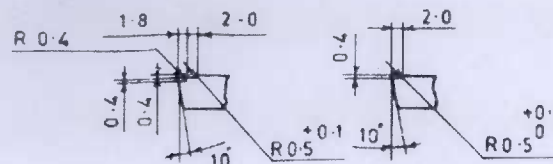
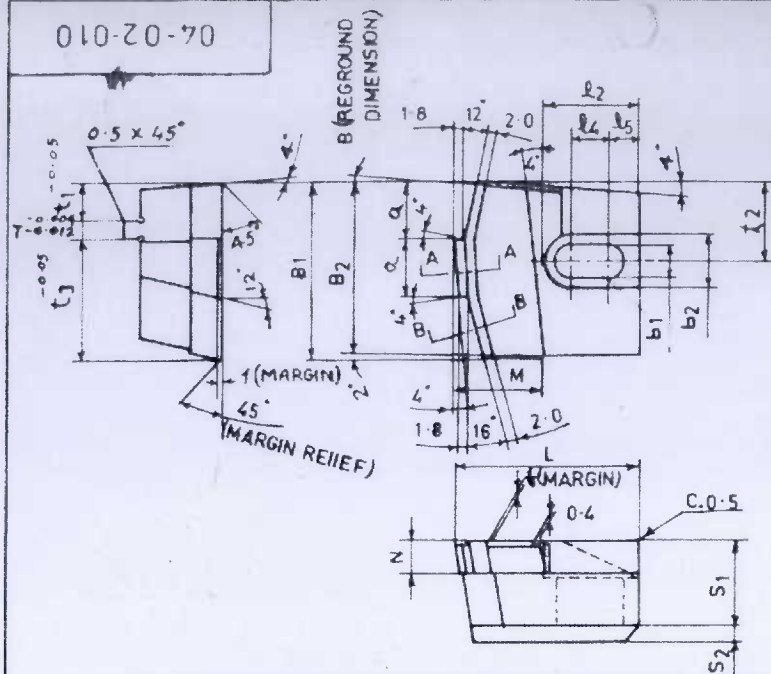
COUNTER BORE TOOL BIT

04-02-006

LETTER	WEIGHT	SCALE
		NPS
SHEET	TOTAL SHEETS	
5	5	

C.F.F. M/C SHOP

010-20-70



SECTION A-A

SECTION B-B

THE BRAZED CUTTER IS DESIGNED SO THAT THE SINGLE EDGE HAS 3 STEPS WHICH BREAK THE CHIP INTO 3 WIDTHS. EACH STEP INCLUDES A PARALLEL CHIP BEAKER, CHIP BREAKER DIMENSIONS IN THIS DRAWING, WITHOUT MORE SPECIFIC DETAILS, COULD BE USED AS A STARTING POINT. THE USER SHOULD BE GOVERNED CHIEFLY BY CHIP CHARACTERISTICS AS THE CRITERION FOR MAKING CHANGE, THE OBJECT BEING TO FORM SMALL BROKEN CHIPS THAT CAN READILY BE EXHAUSTED.

TIP GRADE P-20 (ISO)

NOTE:-

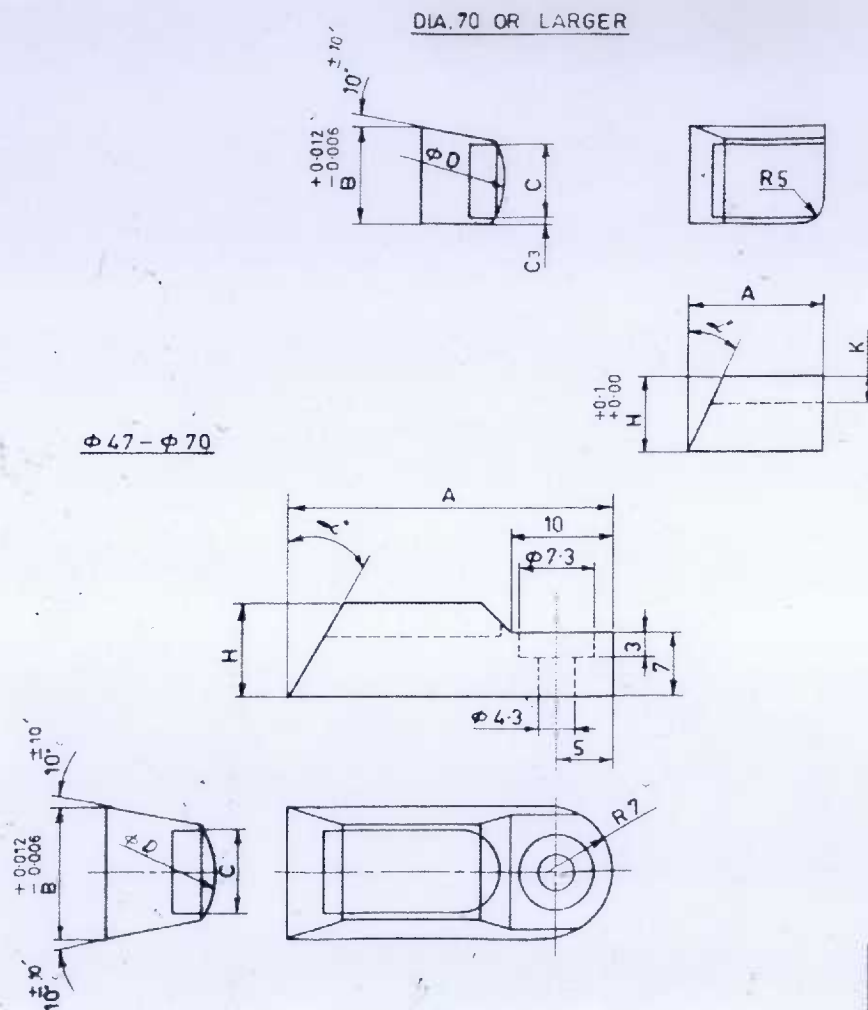
THE CUTTING EDGE MUST BE GROUND AND LAPPED.

BORING RANGE	CATALOG NUMBERS	B	B ₁	B ₂	L	S ₁	S ₂	a	b ₁	b ₂	f	l ₂	l ₄	l ₅	l ₁	l ₂	l ₃	T	MXN
220 ^φ 365 ^φ	TO 89-07	44	44.76	44.3	45	18	3.5	14.6	6.5	10.5	1	21	8	7	10	19	29.3	5	22 X 8
134 ^φ	TO 89-05	37	37.72	37.3	40	"	"	12.3	"	"	"	"	"	"	8	17	25.3	4	17 X 8
100 ^φ 115.5 ^φ	TO 89-04	34	34.68	34.3	32.5	16	"	11.3	"	"	"	17.5	6	5.5	7	14.5	23.3	"	15 X 6
90 ^φ	TO 89-03	31	31.68	31.3	31.5	13	"	10.3	"	"	10.8	"	"	"	"	"	20.3	"	14 X 6
70 ^φ	TO 89-02	28	28.65	28.3	"	10	"	9.3	"	"	"	"	"	"	6	13.5	18.3	"	13 X 6
56 ^φ	TO 88-01	21	21.65	21.3	30.5	8	2.5	7.0	4.5	7.5	"	16	"	"	5	11.5	12.3	"	13 X 4
* 56 ^φ			16.5	"	"	"	"	5.5	"	"	"	"	"	"	2.5	9	10	"	"

NOTE:-

- * 56^φ TO TAKE A CORE OF $\phi 20$
 43^φ FOR DETAIL SEE DRG. NO. 04-02-061

TREPPANNING CUTTER				04-02-010			
CHG. NO.	DOC. NO.	SIGN.		LETTER	WEIGHT	SCALE	
DRAWN	MISHRA						
CHK	K. A. RAO						
SUPER.							
T. CONT.							
S. CONT.							
APPRO.							
JAPAN 1011				SHEET	TOTAL SHEETS		
				CFFP	MC SHOP		



BORING ϕ IN MM	ϕD	B	A	C	C3	H	$\angle$	K
400	401	35	62	25	2	31.8	28°	8
250	251	30	51	23	1	30.3	20°	8
150	151	20	31	14.8	1	15.5	20°	7
127	128	20	31	14.8	1	14.8	30°	6
115	116	20	31	14.8	1	17.8	20°	6
110	111	20	31	14.8	1	15.3	25°	6
101.6	102.6	16	29	12	1	11.6	30°	5
100	101	16	29	12	1	10.8	30°	5
80	81	16	29	12	1	11.3	30°	5
63.5	64.5	14	35	9		9.55	30°	5
50	51	14	35	9		8.8	30°	4

DIMENSION 'H' INCLUDE CIRCLE GRINDING SURPLUS.
CARBIDE TIP GRADE IS ISO P20
SHANK MATERIAL:- S55 C
CARBIDE BIT 'C' MUST BE RIGIDLY LOCATED IN SLOT.

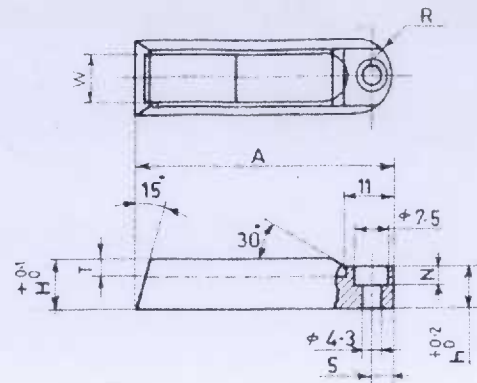
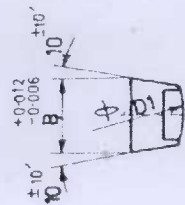
TOLERANCES ± 0.25 MM
UNLESS OTHERWISE STATED.

NOTE:- DIMENSION FOR SIZE 150 INCORPORATED.

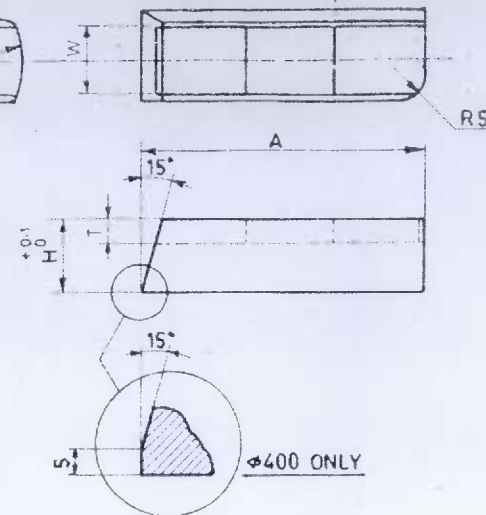
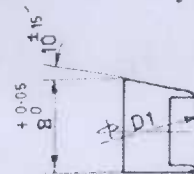
				GUIDE PADS FOR COUNTER BORE		04-02-009	
						CODE	SCALE
NAME	DATE	BY	DATE				
DRAWN	DA. RAO						
CHECKED	KA. RAO						
APPROVED							
				SHEET		TOTAL SHEETS	
				C.R.P.		M/C SHOP	

W

BORING RANGE
50 - 85



> 85.1 OR LARGER



DIMENSION 'H' HAS CYLINDRICAL GRINDING SURPLUS.
GRADE OF CARBIDE TIPS ARE ISO P20
SHANK MATERIAL IS CARBON STEEL C 30
SAND WICH BRAZED WITH 0.3MM COPPER PLATE.

TOLERANCES ± 0.25
UNLESS OTHERWISE STATED.

BORING RANGE	$\phi D1$	B	A	H	h	N	R	W	T
55-65.9	66.9	14	50	9.3	7.5	4	7	8	3
66-85.9	86.9	16	55	10.8	9.0	4.5	8	10	3
86-110.9	111.9	17	55	12.8	—	—	—	12	5
111-161.9	162.9	20	60	15.8	—	—	—	14.5	5
162-257.9	258.9	22	65	17.8	—	—	—	16	6
< 400	401	34	77.5	25.3	—	—	—	25.5	6



TREPPANNING GUIDE
PADS

04-02-076

NAME	SIGN	DATE
DRAWN MISHRA		11.8.18
CHECKED PANGLI		20.12.18
APPROVED		

CODE	WEIGHT	SCALE
		NTS
SHEET 1		TOTAL SHEETS 1
C.F.P.		M.C. SHOP

2