

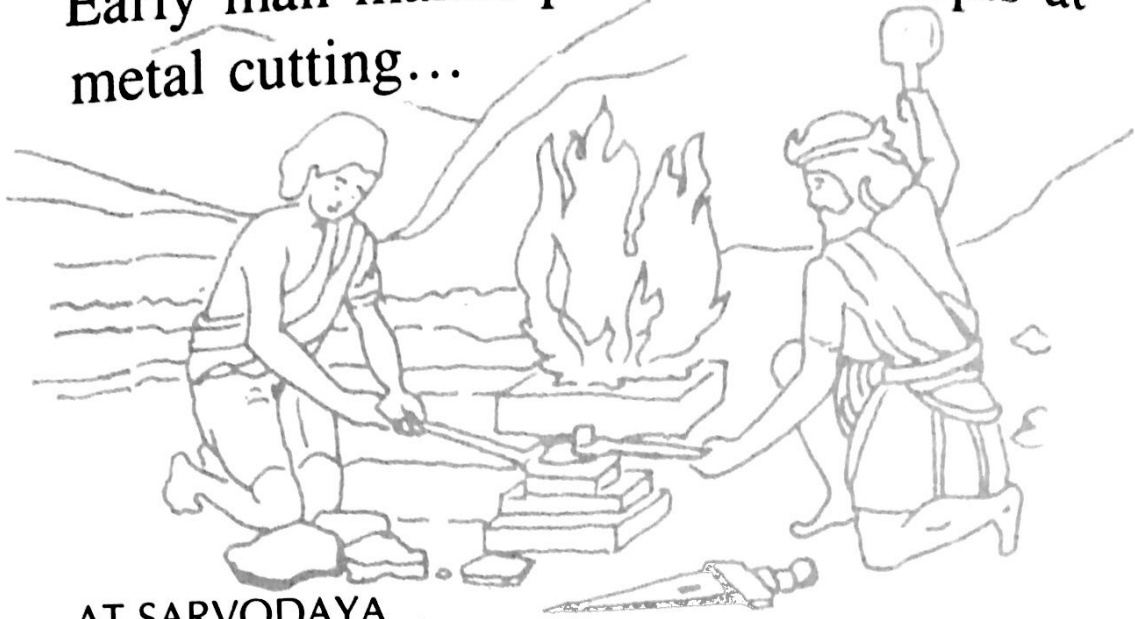


◀ SARVODAYA ▶



2500 B.C.

Early man makes primitive attempts at metal cutting...



AT SARVODAYA...

With the most modern equipments we bring to you Heavy Forgings of indisputable quality at reasonable prices with prompt deliveries.

Any application.....

any Industry.....

Our open forgings go to Cement, Sugar, Steel, Fertilizer, Power, Heavy Engineering Industries, manufacturers of Pumps, Turbines, Compressors, Hydraulic Power Packs, Pressure Vessels, Heat Exchangers, Gearbox Cranes and Material Handling Systems, Ship Building, Railway and Defence.

Open Forgings, Drop Forgings in a wide range.....

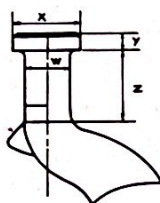
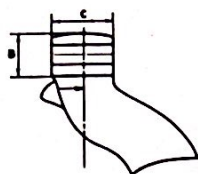
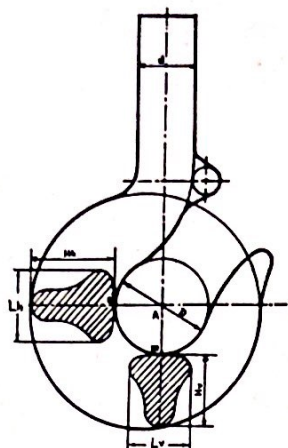
Our forgings as well as finish machined components are available in all grades of Carbon, Alloy and Stainless Steel. Some of the typical products are –

■ heavy duty hooks & cranes wheels ■ plain, multi-stepped and roller shafts ■ geared couplings and thick-walled shells ■ large flanges ■ trunnions ■ gear blanks and pinions ■ rings ■ hydraulic manifolds and fluid ends ■ piston rods, tie rods, rams, guides and tieplates for hammers and presses ■ Special-purpose forgings.....

Sarvodaya Forgings Advantage.....

■ heat-treatment shop to normalise, harden and temper upto 8m length

■ Well-equipped quality assurance facilities duly approved by Lloyds, I.S.I., Nuclear Power Corporation, N.T.P.C., B.H.E.L. etc....



SHANK HOOKS

LIFTING CAPACITY C_p IN TONNES FOR GRADES
IS:8610 1977

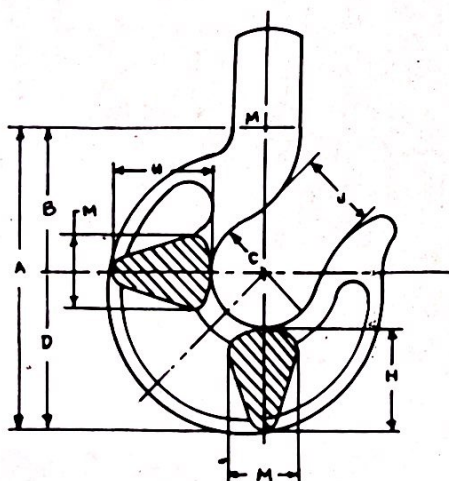
SR. NO.	PATTERN NO.	L	M	P	S	T	V	B	A	G	d	Hh	Lh	Hv	Lv	Wl
1	17	0.32	0.40	0.50	0.63	0.80	1.00	33.5	50	28	22	28	17.5	23.8	15.9	
2	20	0.63	0.80	1.00	1.25	1.60	2.00	40	60	31	25	38.5	22.4	30.7	20	
3	23	1.25	1.60	2.00	2.50	3.15	4.00	47.5	71	37	35	47.5	29	40	25.7	
4	25	2.00	2.50	3.15	4.00	5.00	6.30	53	80	42	43	56	34.5	47.5	30.7	
5	27	3.15	4.00	5.00	6.30	8.00	10.00	67	100	53	51	67	42.5	56	36.5	
6	30	6.30	8.00	10.00	12.50	16.00	20.00	85	140	75	75	95	60	80	50	
7	33	12.50	16.00	20.00	25.00	—	—	132	200	106	85	132	85	112	71	

BOTTOM TYPE HOOK

COLLAR TYPE HOOK

CAPACITY	B	C	WEIGHT	W	Z	Y	Z	WEIGHT
PAT NO. 17 0.5 TONNE	21	28		22	20	8	32	
PAT NO. 20 1.0 TONNE	30	37		25	31	10	30	
PAT NO. 23 2.0 TONNE	36	43		35	43	12	46	
PAT NO. 25 3.0 TONNE				29	45	15	30	

DIMENSIONS FOR STANDARD TRAPEZOIDAL SECTION POINT HOOKS WITH SHANK I.S. 3815



SR. NO.	SAFE WORKING LOAD W TONNES	A	B	C	D	H	J	M	WEIGHT
1	0.5	MS 74	35	27	39	25	20	16	
2	1.0	MS105	50	38	55	35	28	23	
3	2.0	MS145	69	53	76	49	40	32	
4	3.2	MS187	89	68	98	63	51	41	
5	5.0	MS233	111	85	122	79	64	51	
6	8.0	MS294	140	107	154	100	80	64	
7	10.0	MS327	156	119	171	111	89	71	
8	12.0	MS369	176	134	193	125	100	80	
9	16.0	MS415	198	151	217	140	113	91	
10	20.0	MS465	221	169	243	157	127	101	
11	25	MS520	248	189	272	176	142	113	
12	32	MS569	271	207	298	193	155	124	
13	40	MS516	293	224	323	208	168	134	
14	50	MS680	324	247	356	229	187	148	

GRAIN FLOW IS NOT LINEAR

GRAIN FLOW IS LINEAR

FORGING METHOD

The process of drop-forging a hook by the old method, in which cutting the fibre was unavoidable.

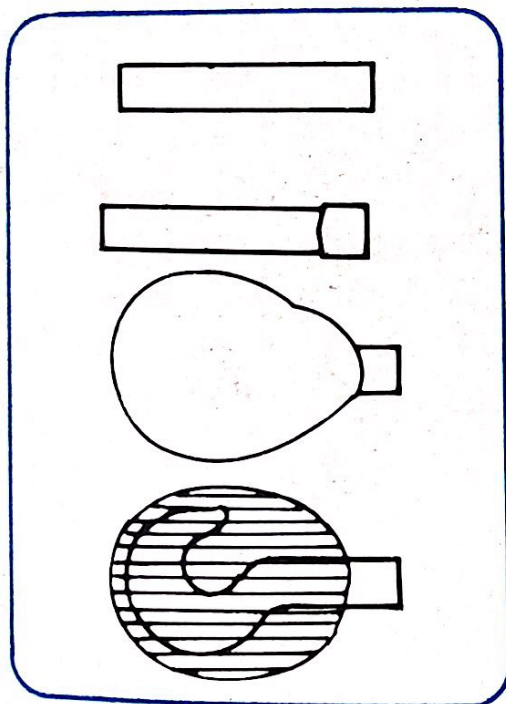
The Sequence of Operations was as follows:

- (1) Cutting the stock to length;
 - (2) drawing-out the head under a hammer;
 - (3) flattening the head;
 - (4) forging in dies to the shape and subsequently trimming the flash,
- these methods of forging hook, fibre of the metal is severed at the most dangerous section – at the nose of the hook; and, since the tractive effort is directed along, and not across the fibres, there is the danger that the hook will break at this point.

Hook drop-forged by old method.

The new technological process of drop-forging a hook so as to ensure the proper disposition of the fibre;

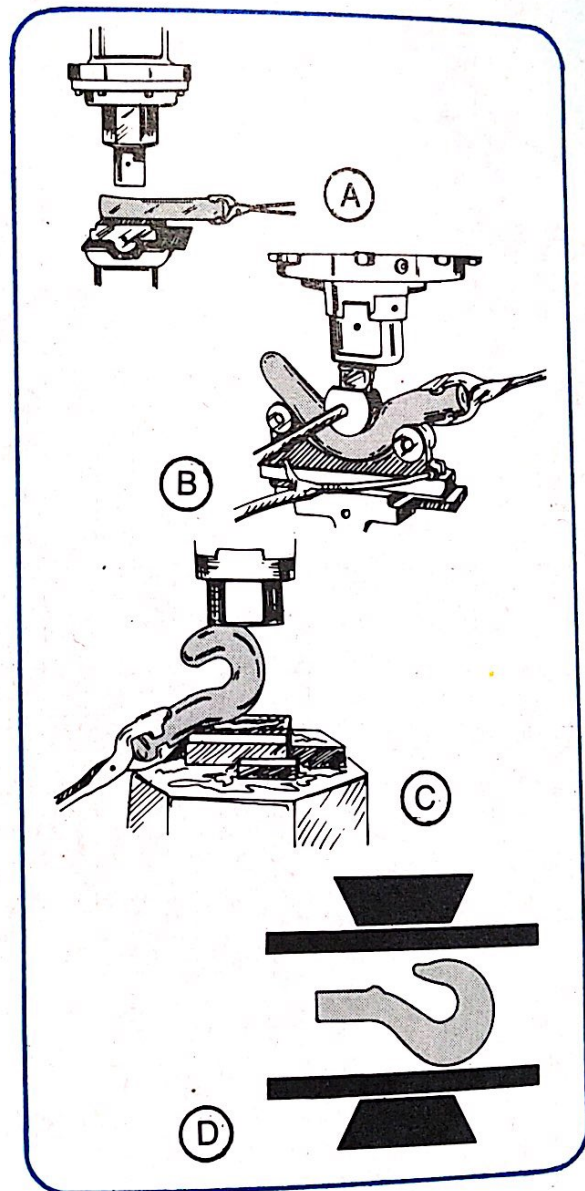
- (a) drawing-out end of stock;
- (b) stock bent to form head of hook;
- (c) hook after being drop-forged without trimming flash;
- (d) location of fibres in hook after drop-forging.



HOOK-DROP FORGED
MADE BY OTHERS.

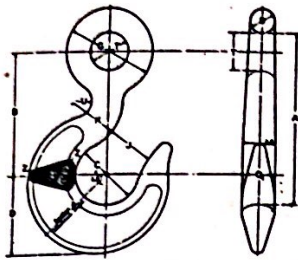
Difference between this method and the former one is that first operation of drawing-out the head of the hook a) the hook is bent, b) then stamped and trimmed, c) In this the direction of the tractive effort now coincides with that of the fibre i.e. Grain flow is linear.

According to this technological process, the mechanical properties of hooks forged in such dies will be much higher than those of hooks forged by the former technological process.



HOOK-DROP FORGED
MADE BY US.

EYE HOOKS, TRAPEZOIDAL SECTION FOR USE WITH WIRE ROPE THIMBLES B.S. 482:195

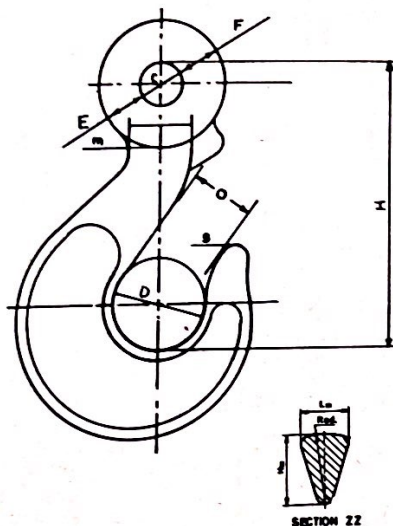


SRL NO.	W	C	A	B	D	G	H	J	W
	W = Safe working load	$C = 1.84 \sqrt{WA}$	$A = 2.79 \sqrt{CB}$	$B = 1.95 \sqrt{CD}$	$D = 1.29 \sqrt{CG}$	$G = 1.41 \sqrt{CH}$	$H = 0.76 \sqrt{CJ}$	$J = 0.76 \sqrt{CW}$	
	tons	in.	in.	in.	in.	in.	in.	in.	
1.	1	1 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1	1	
2.	1	1 1/2	5 1/2	3 1/2	2 1/2	2 1/2	1 1/2	1 1/2	
3.	2	2 1/2	6 1/2	4 1/2	2 1/2	3 1/2	1 1/2	1 1/2	
4.	3	2 1/2	8 1/2	5 1/2	3 1/2	4 1/2	2 1/2	2 1/2	
5.	5	3 1/2	10 1/2	7 1/2	4 1/2	5 1/2	2 1/2	2 1/2	
6.	8	4 1/2	12 1/2	8 1/2	5 1/2	6 1/2	3 1/2	3 1/2	
7.	10	5	14	9 1/2	6 1/2	7	3 1/2	3 1/2	

EYE-HOOKS FOR USE WITH CHAIN

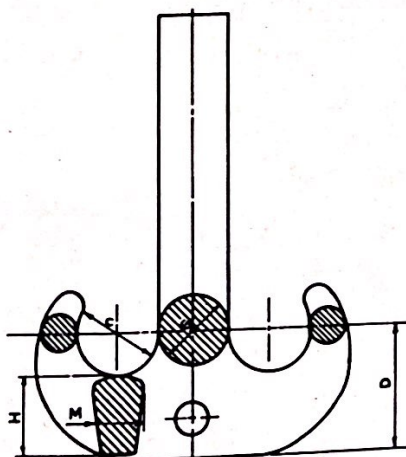
IS : 3822-1952

All Dimensions in mm



SRL NO.	PATTERN NO.	HORIZONTAL DIA OF CHAIN d	THROAT OPENING 2.0 d	SEAT DIA. d	SECTOR DEPTH 4.5 d	SECTION WIDTH 2.0 d	1.75 d	1.0 d	1.2 d	2.5 d	WT
1	21	8	23.2	30.4	34.4	23.2	14.0	14.4	98.0	28.0	
2	22	10	29.0	36.0	43.0	29.0	17.5	18.0	120.0	35.0	
3	23	12	36.3	47.5	53.9	36.3	21.9	22.5	150.0	51.2	
4	27	16	48.4	60.8	68.8	48.4	28.8	28.8	192.0	68.0	
5	29	20	58.0	76.8	86.0	58.0	36.0	36.0	240.0	90.0	
6	30	22	65.0	85.1	96.3	65.0	39.2	40.3	268.0	98.0	
7	31	25	72.5	95.1	103.5	72.5	43.8	35.0	300.0	112.5	
8	32	28	81.2	106.4	120.4	81.2	48.0	54.4	336.0	128.0	
9	33	32	92.8	121.6	137.6	92.8	56.0	57.6	380.0	144.0	
10	34	36	104.4	136.8	154.8	104.4	63.0	64.8	432.0	168.0	
11	35	40	116.8	152.0	172.0	116.8	70.0	72.0	480.0	192.0	
12	36	45	130.5	171.0	193.0	130.5	78.0	81.0	540.0	225.0	

RAMSHORN HOOKS



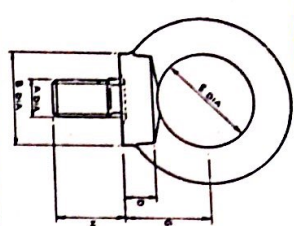
HOOK AS-PER B.S. 3017

SRL NO.	CAPACITY	B	K	M	R	H	C	
1	5	63	38	54	26	60	80	
2	10	80	50	60	30	89	90	
3	20	102	52	76	39	117	121	
4	25	114	57	86	33	132	133	
5	30	121	63	94	37	144	146	
6	35	127	68	100	38	156	152	
7	40	133	71	106	41	162	162	
8	50	146	79	117	46	181	179	
9	63	132	87	132	53	178	160	
10	80	156	98	150	60	190	185	
11	100	178	111	170	67	212	200	
12	125	190	121	190	75	236	224	
13	160	212	138	212	85	265	250	
14	200	236	152	236	95	300	280	
15	250	265	180	265	110	335	315	

SARVODAYA FORGINGS

FORGED EYE BOLTS WITH COLLAR

ISS-4190 1967.

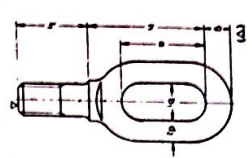


Dimensions in Millimeters

S.R. NO.	SWL kg	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	1050	24	3.00	50	18	50	20	45	38	24	74																
2	1700	30	3.50	65	22	60	24	55	45	28	74																
3	5200	48	5.00	100	35	90	38	85	70	46	84																
4	6500	56	5.50	110	38	100	42	95	80	50	88																

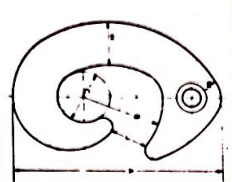
OVAL EYE HEAD FITTINGS FOR SHIPS' BLOCKS.

I.S. 6148-1971



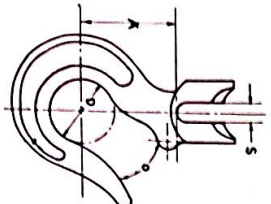
S.R. NO.	SAFE WORKING LOAD kg	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	17	46	21	M18	14	64	22																				
2	27	58	26	M24	18	81	47																				
3	37	72	32	M30	23	101	57																				
4	57	94	40	M36	28	129	73																				
5	87	115	49	M45	35	159	90																				
6	10	125	54	M52	39	174	100																				
7	16	163	68	M64	49	225	123																				
8	25	192	80	M76X6	59	266	143																				

CARGO HOOKS 'C' TYPE



CAP	C	B	M	J	A	H	WT.
3T	53	90	30	43	223	50	3.5 kg
5T	62	105	45	55	260	55	4.5 kg

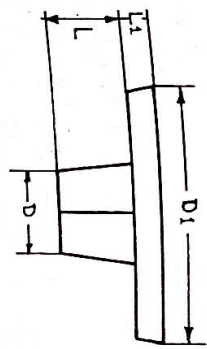
INSTA-SLING HOOKS — IS-8610-1977.



S.R. NO.	PATTERN NO.	SWL kg	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	21	2.50	63	42.5	23.5	9	46	33.5	24.3	21.8																		
2	25	5.00	80	53	42.5	14	56	42.5	24.3	20.7																		
3	22	8.00	100	67	53	17	67	56	42.5	24.3																		
4	26	14.00	112	75	60	20	75	60	42.5	24.3																		

SARVODAYA FORGINGS

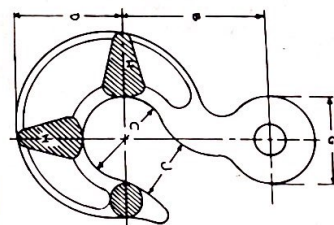
FORGED COUPLINGS



S.R. NO.	MODEL NO.	D1	D	L	L1	WEIGHT
1	S1	80	40	42	8	
2	S2	105	45	52	10	
3	S3	102	52	42	10	
4	S4	102	45	45	10	
5	S5	60	38	45	8	
6	S6	85	36	58	8	
7	S7	80	35	40	10	
8	S8	100	39	50	16	
9	S9	70	40	43	12	
10	S10	170	85	41	17	
11	S11	185	110	56	17	
12	S12	170	110	32	17	
13	S13	185	125	45	17	
14	S14					
15	S15					
16	S16					

EYE HOOKS, TRAPEZOIDAL SECTION FOR USE WITH CHAIN

B.S. 482-1958



S. No.	Age	Weight	Height	Arm span	Wing span	Hand span	Foot span	Hand length	Foot length	Hand width	Foot width	Hand depth	Foot depth	Hand girth	Foot girth	Hand circumference	Foot circumference	Hand volume	Foot volume	Hand area	Foot area	Hand surface	Foot surface	Hand mass	Foot mass	Hand density	Foot density
1	10	14	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
2	15	18	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
3	20	22	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	
4	25	28	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
5	30	34	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
6	35	40	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
7	40	46	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	
8	45	52	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	
9	50	58	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
10	55	64	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	
11	60	70	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
12	65	76	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	
13	70	82	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
14	75	88	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	
15	80	100	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
16	85	112	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
17	90	126	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	
18	95	140	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	
19	100	156	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	
20	105	172	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	
21	110	188	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
22	115	206	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	
23	120	224	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	
24	125	244	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	
25	130	264	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	
26	135	286	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	
27	140	308	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	