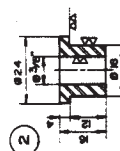
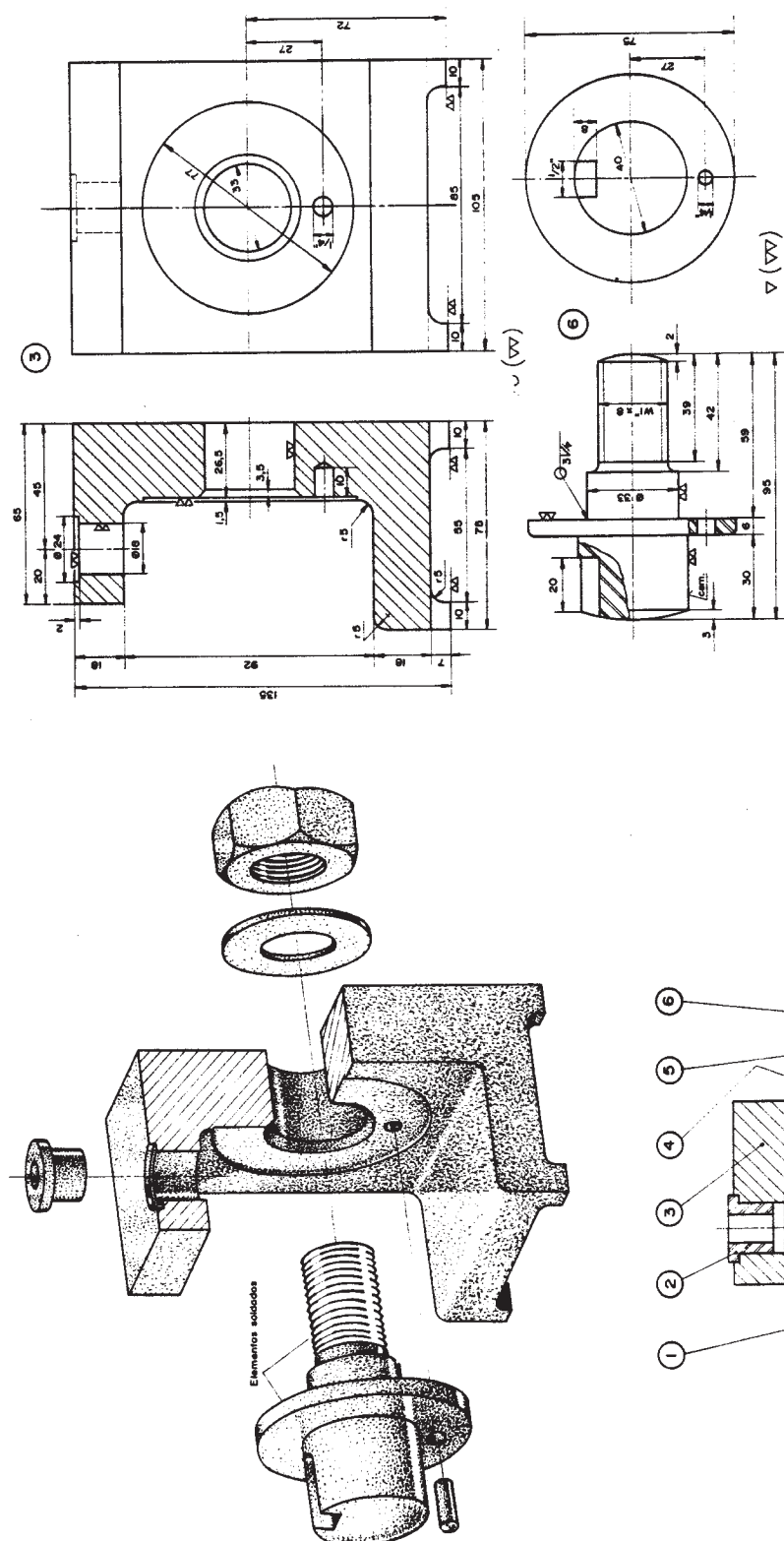
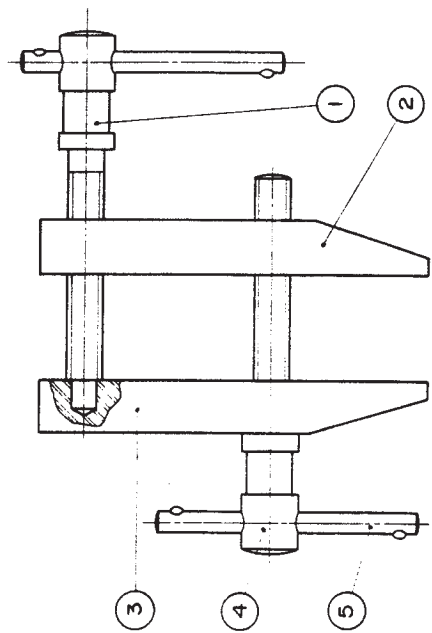
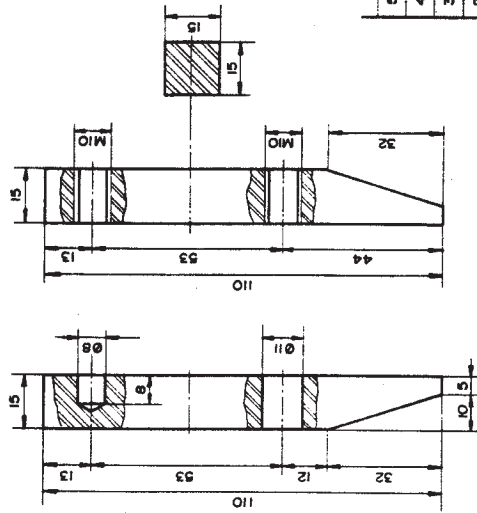
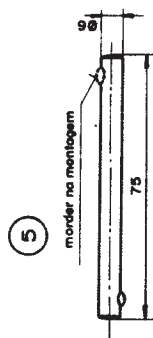
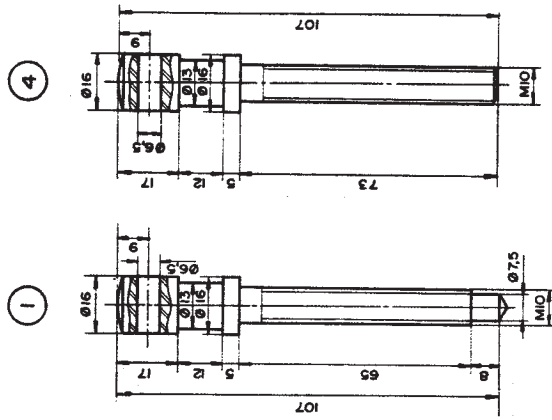
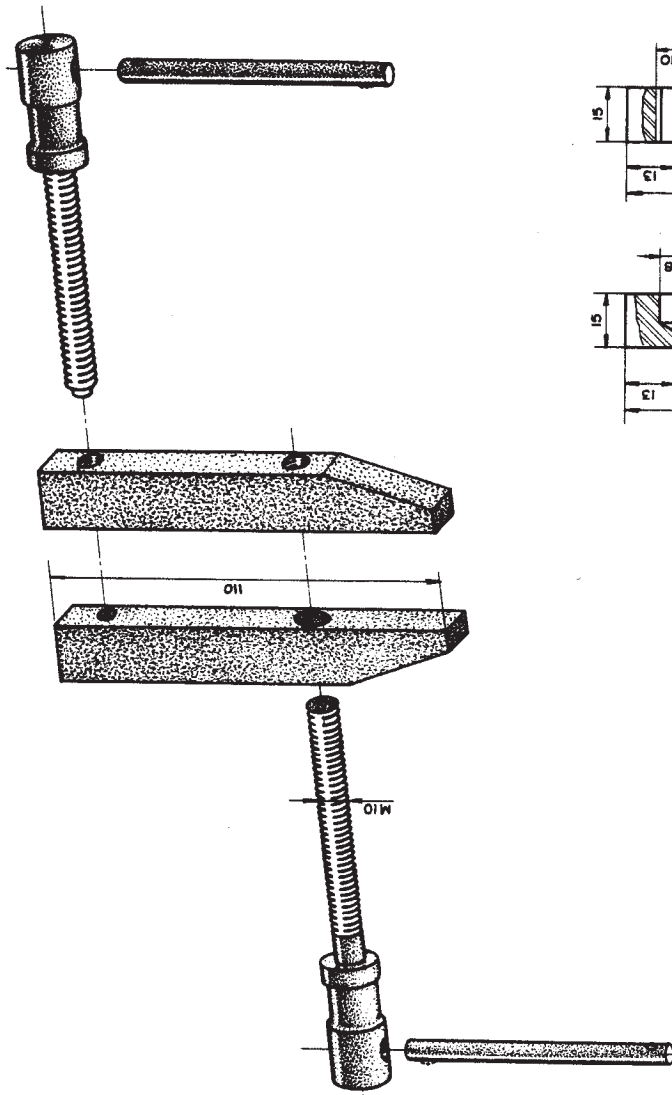


DISPOSITIVO DE FURAR ANÉIS



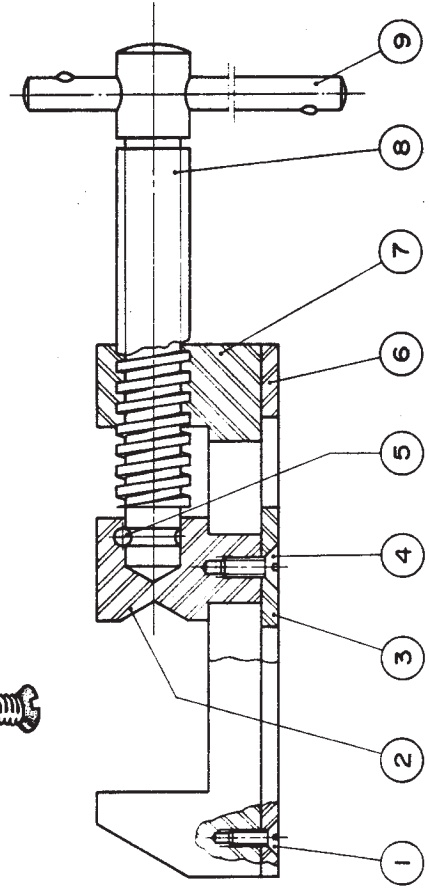
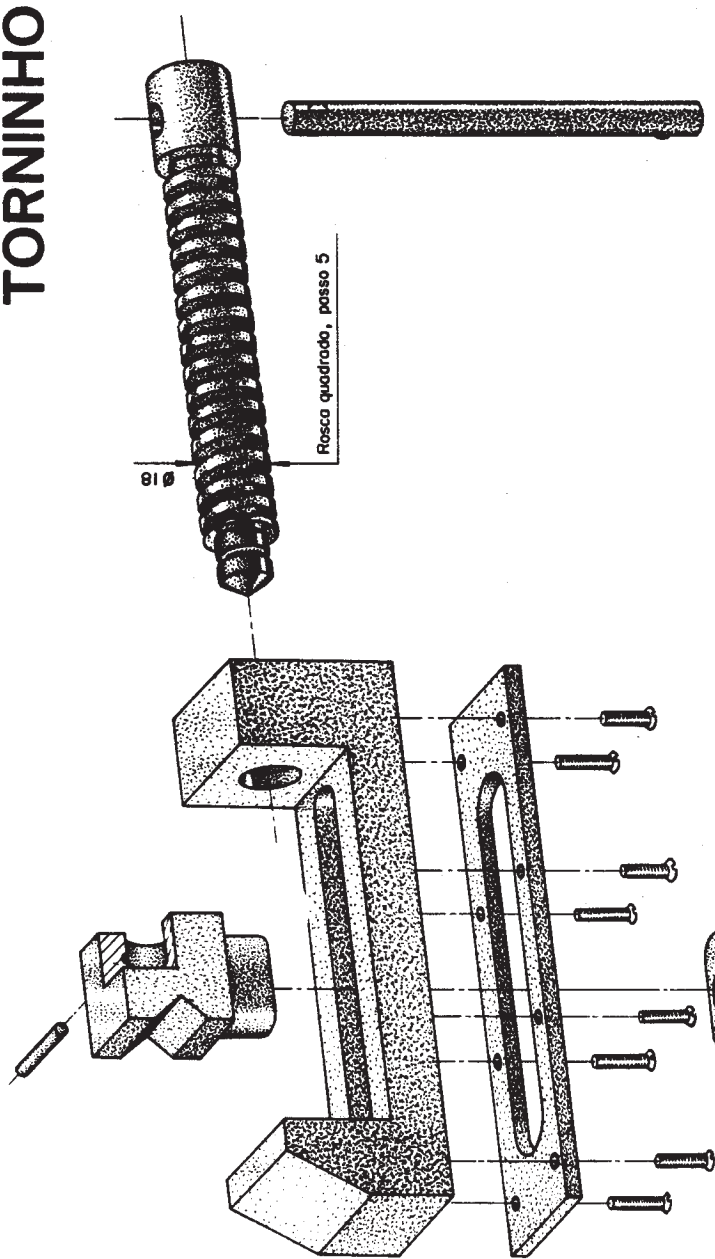
Nº	DENOMINAÇÕES	Quant	MATERIAL E DIMENSÕES
6	Eixo	1	Aço NB 030 Ø 75 x 95
5	Porca serrada	1	Aço NB 020 Ø 1"
4	Arruela	1	Aço NB 020 Ø 26
3	Suporte	1	Aço fundido 3525 AF
2	Bucha	1	Aço NB 030 Ø 24 x 16 Temp. cam.
1	Pêlo cilíndrico	1	Aço preto Ø 1/4" x 15

TORNINHO DE MECÂNICO

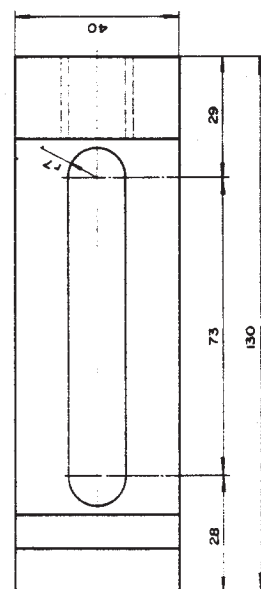


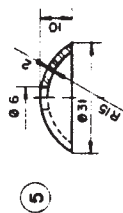
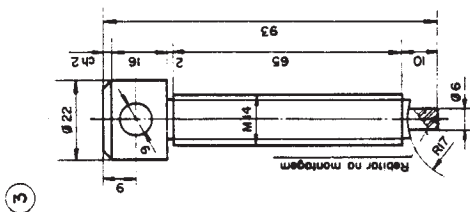
5	Manípulo	2	Aço NB 1020 Ø 6 x 75
4	Parafuso	1	Aço NB 1020 Ø 16 x 107 - M10
3	Garra	1	Aço NB 1020 15x15 x 110
2	Garra	1	Aço NB 1020 15x15 x 110
1	Parafuso	1	Aço NB 1020 Ø 16 x 107 - M10
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES

TORNINHO PARALELO



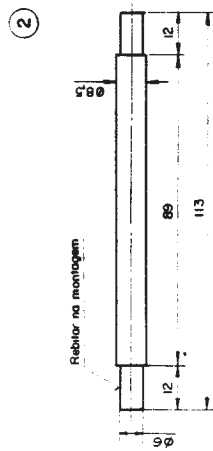
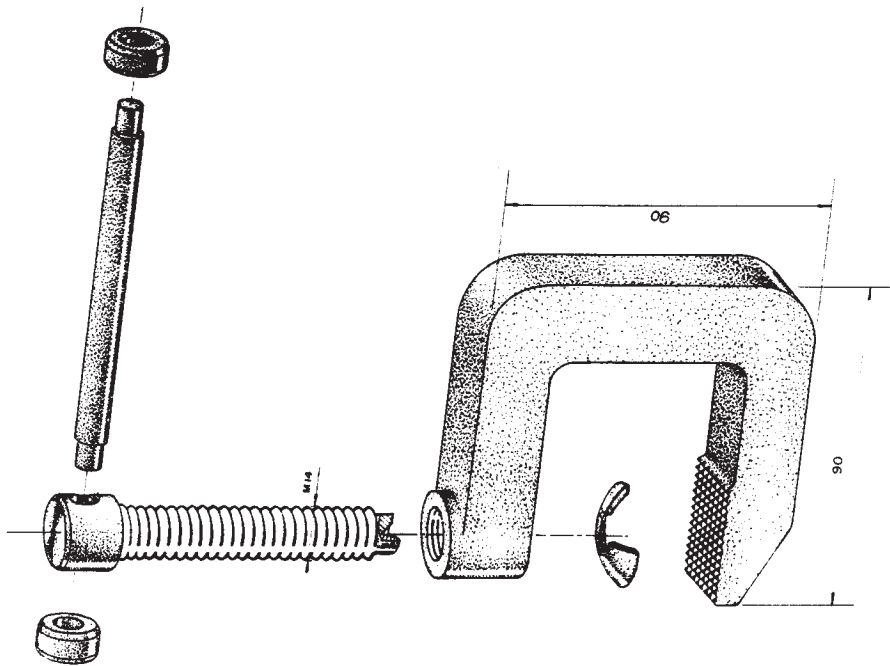
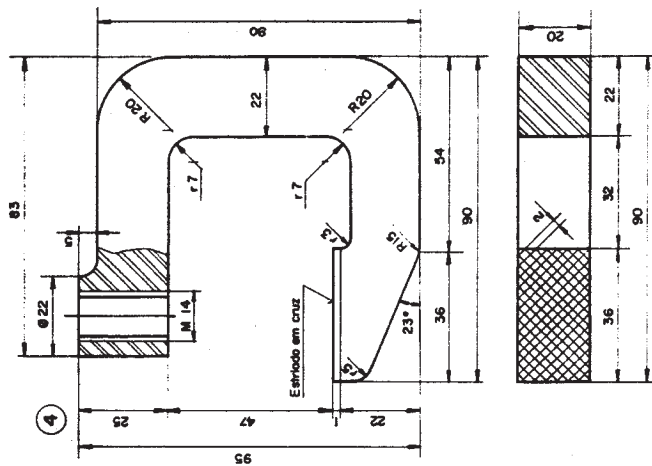
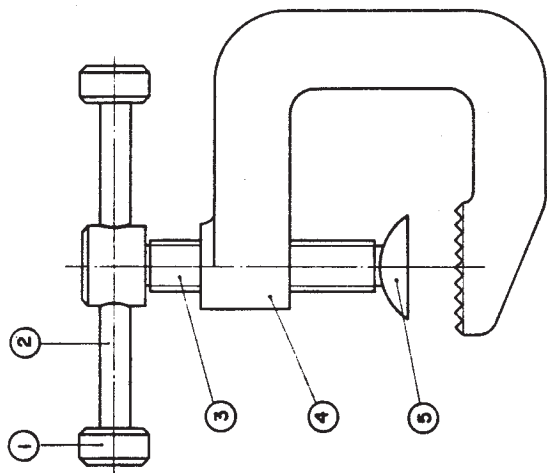
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES
9	Manípulo	1	Aço NB 1020 Ø8x100
8	Parafuso	1	Aço NB 1030 Ø18x132
7	Mandibula fixa	1	Aço NB 1020 40x40x130
6	Chapa de guia	1	Aço NB 1020 40x130x4
5	Pino cilíndrico	1	Aço prata Ø 4x40
4	Paraf. escareado	1	Ø 5/16" x 14
3	Corrediga	1	Aço NB 1020 18x28x4
2	Mandibula móvel	1	Aço NB 1020 40x40x26
1	Paraf. escareado	8	Ø 1/8" x 12
	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES

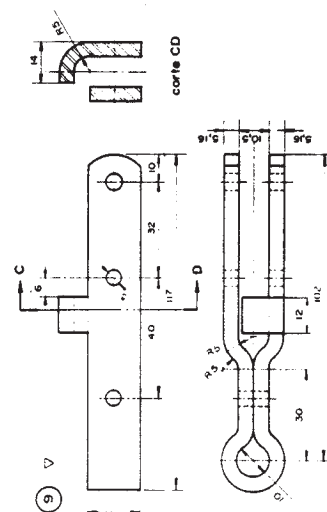
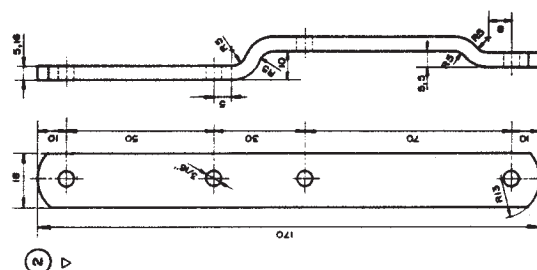
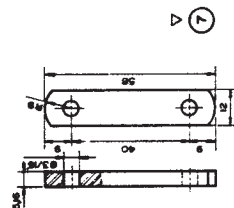




GRAMPO

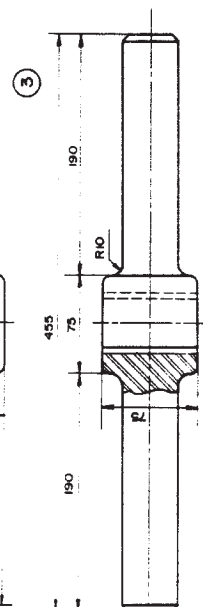
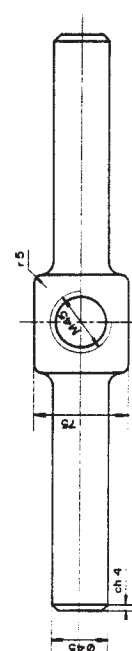
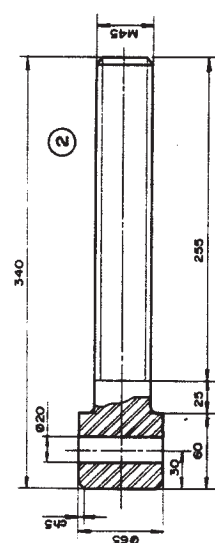
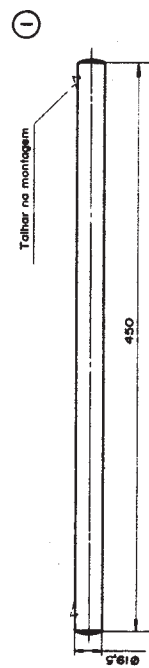
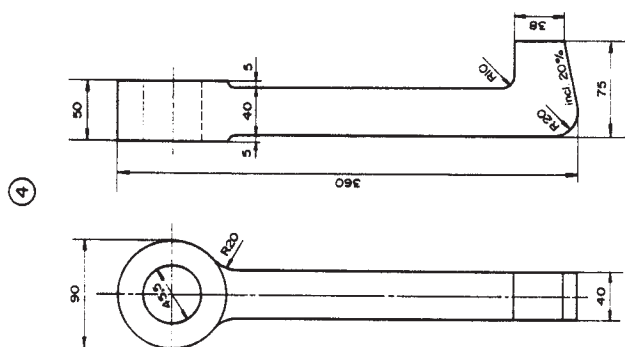
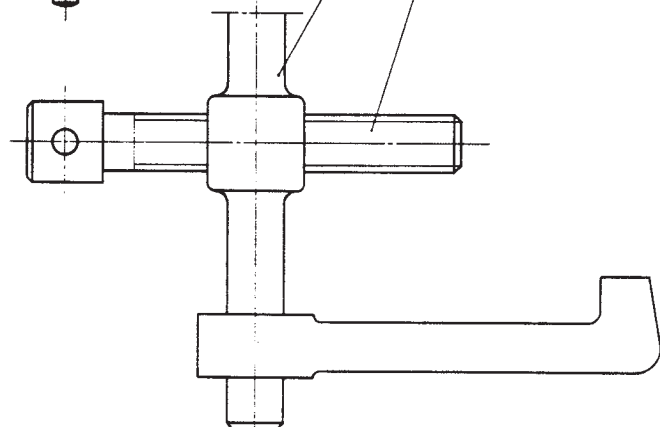
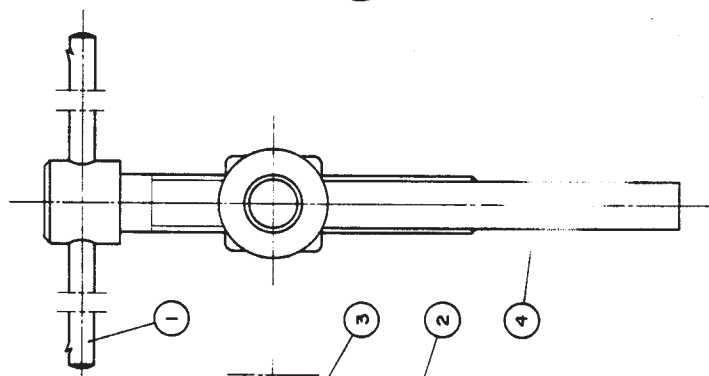
Nº	DENOMINAÇÕES	Quant	MATERIAL E DIMENSÕES
5	Mordente	1	Aço NB 1020
4	Corpo	1	Aço forjado NB 1020
3	Parafuso	1	Aço NB 1020 Ø22x93 - M4
2	Manipulo	1	Aço NB 1020 Ø8,5x113
1	Encosto	2	Aço NB 1020 Ø20x10





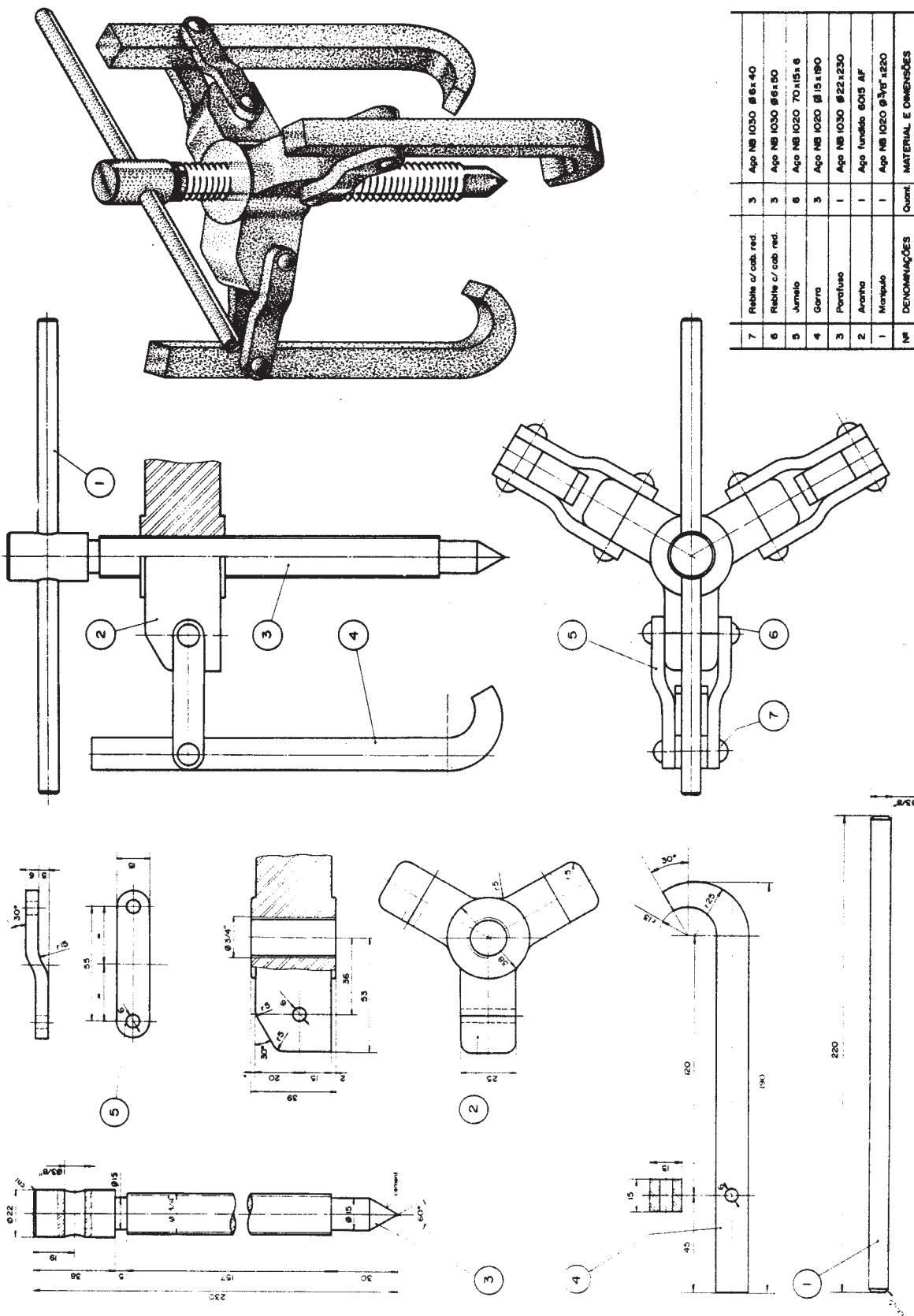
12	Base direito	1	Apq NB 0200 Chapo BG # 6
11	Base esquerdo	2	Apq NB 0200 Chapo BG # 6
10	Rebite	2	Apq NB 1010 Ø 3/16" x 1/8"
9	Travesa	1	Apq NB 0200 Chapo BG # 6
8	Pino	1	Apq NB 1040 Ø 3/16" x 20
7	Trovis	1	Apq NB 0200 Chapo BG # 6
6	Parafuso selado	2	Apq NB 0200 Ø 3/8"
5	Parafuso	1	Apq NB 0200 Ø 3/8" x 75
4	Distancador	2	Apq NB 0200 Ø 10 x 70
3	Rebite	1	Apq NB 1010 Ø 3/16" x 1/2"
2	Alavancas	2	Apq NB 0200 Chapo BG # 6
1	Rebite	4	Apq NB 1010 Ø 3/16" x 1/8"
	REPARAÇÕES	Quant	MATERIAL E DIMENSÕES

A technical drawing of a bolt and nut assembly. The bolt is shown in a perspective view, with a hexagonal head and a threaded shank. A nut is threaded onto the end of the bolt. A washer is placed between the bolt head and the nut. A lock washer is also shown, which is a thin, flat, rectangular piece with a central hole and a raised edge. The drawing is a black and white line drawing with hatching for shading.



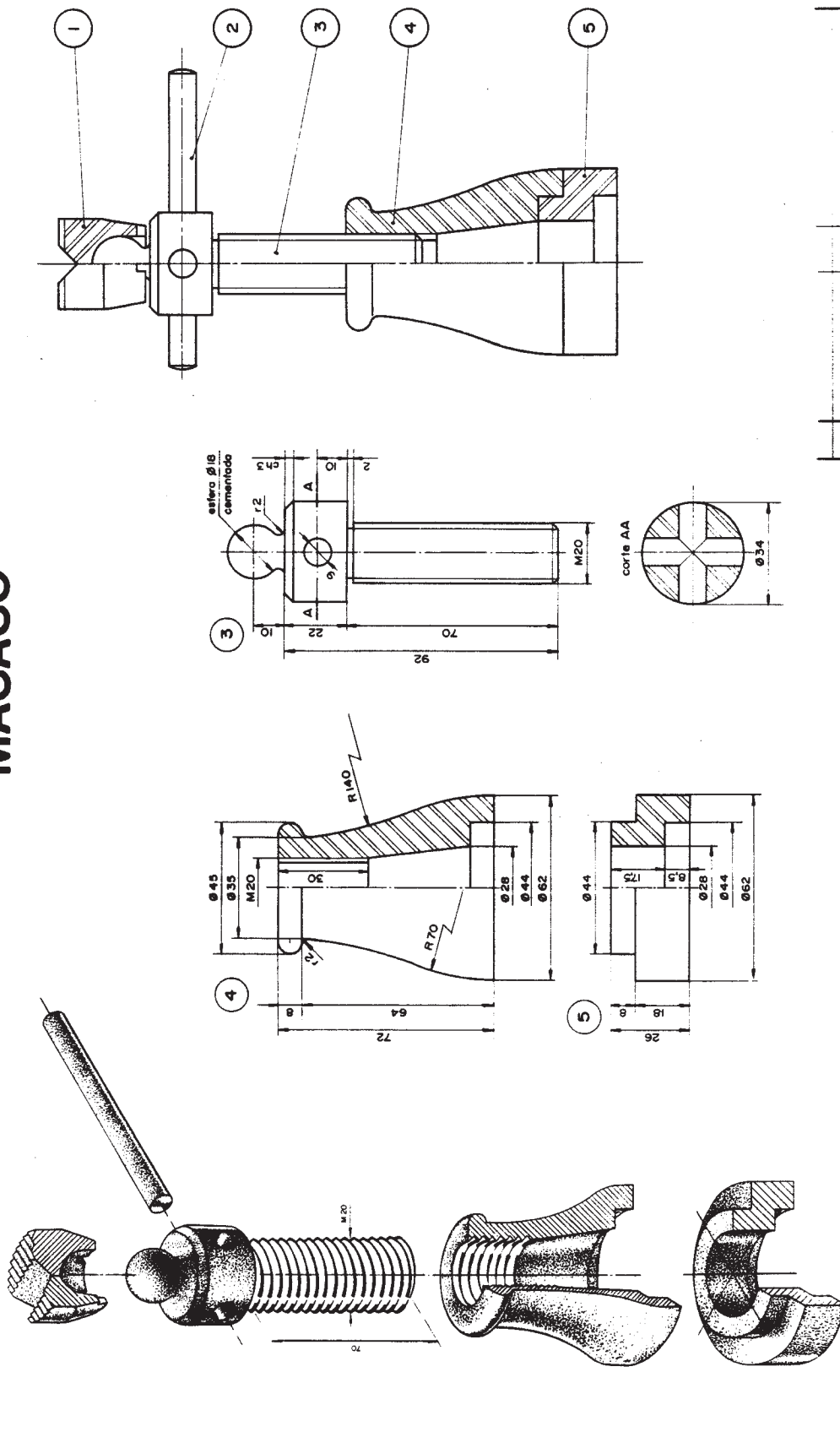
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES
4	Garra	2	Aço NB 1020 Forjado
5	Travessa	1	Aço NB 1020 Forjado
2	Parafuso	1	Aço NB 1020 66x3,40-M45
1	Monte-pla	1	Aço NB 1020 61x3,5 x 450

EXTRACTOR

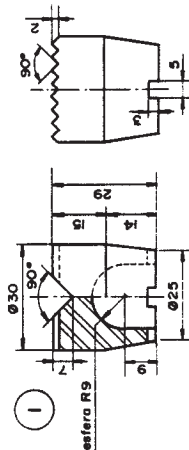


7	Releite c/ cab. red.	3	Aço NB 1030 Ø6x40
6	Releite c/ cab. red.	3	Aço NB 1030 Ø6x50
5	Jumêlo	6	Aço NB 1020 70x15x6
4	Garra	3	Aço NB 1020 113x190
3	Pontaluso	1	Aço NB 1030 Ø22x230
2	Avanço	1	Aço fundido 6015 A/F
1	Manípulo	1	Aço NB 1020 Ø3/4" x220
Nº	DESCRIÇÕES	Quant.	MATERIAL E DIMENSÕES

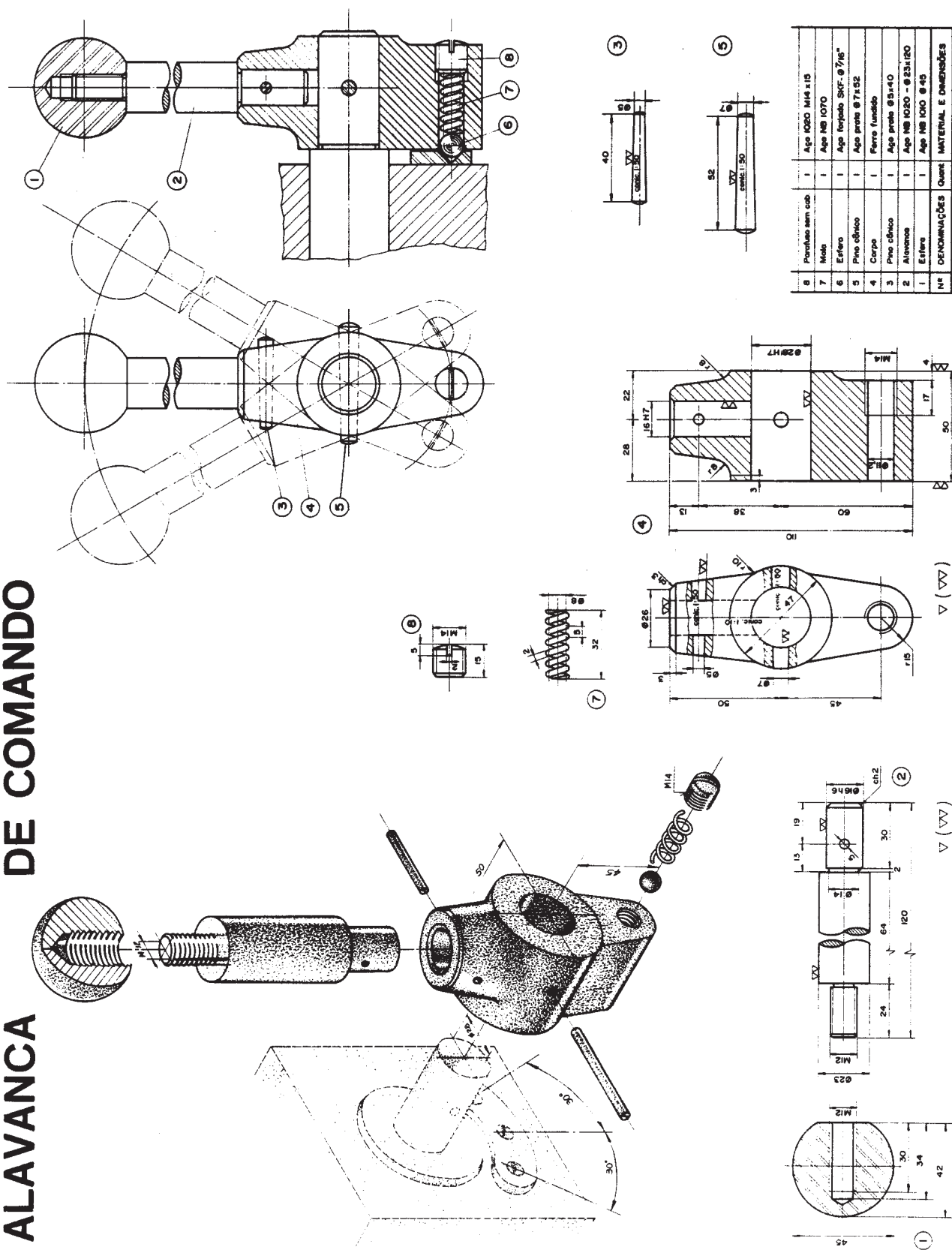
MACACO



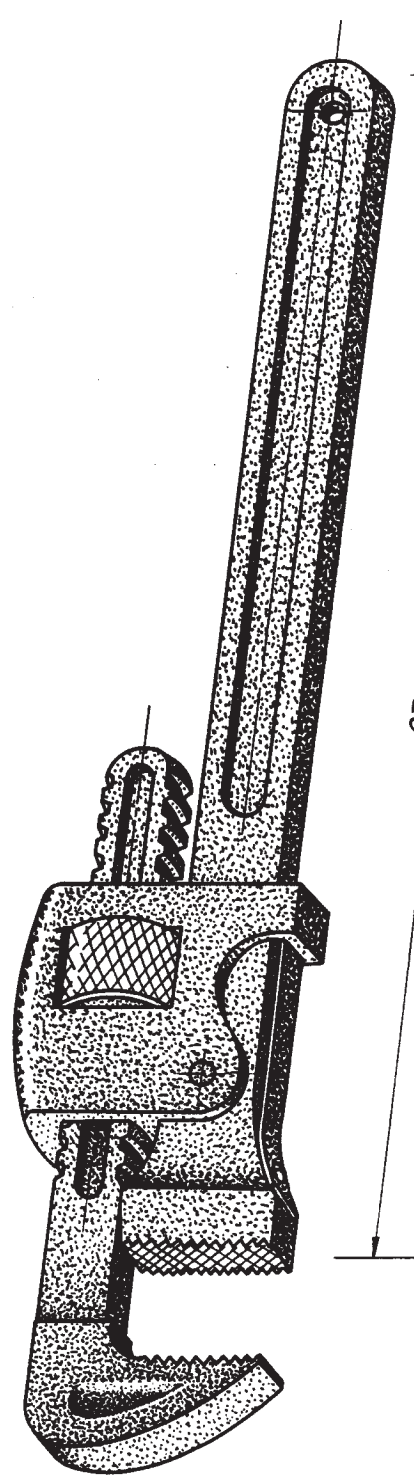
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES
5	Suplemento	1	Aço NB 1030 $\phi 62 \times 26$
4	Corpo	1	Aço NB 1030 $\phi 62 \times 72$
3	Parafuso	1	Aço NB 1030 $\phi 34 \times 111$
2	Manípulo	1	Aço NB 1020 $\phi 9 \times 100$
1	Chapêu	1	Aço NB 1030 $\phi 30 \times 29$ temp. cem.



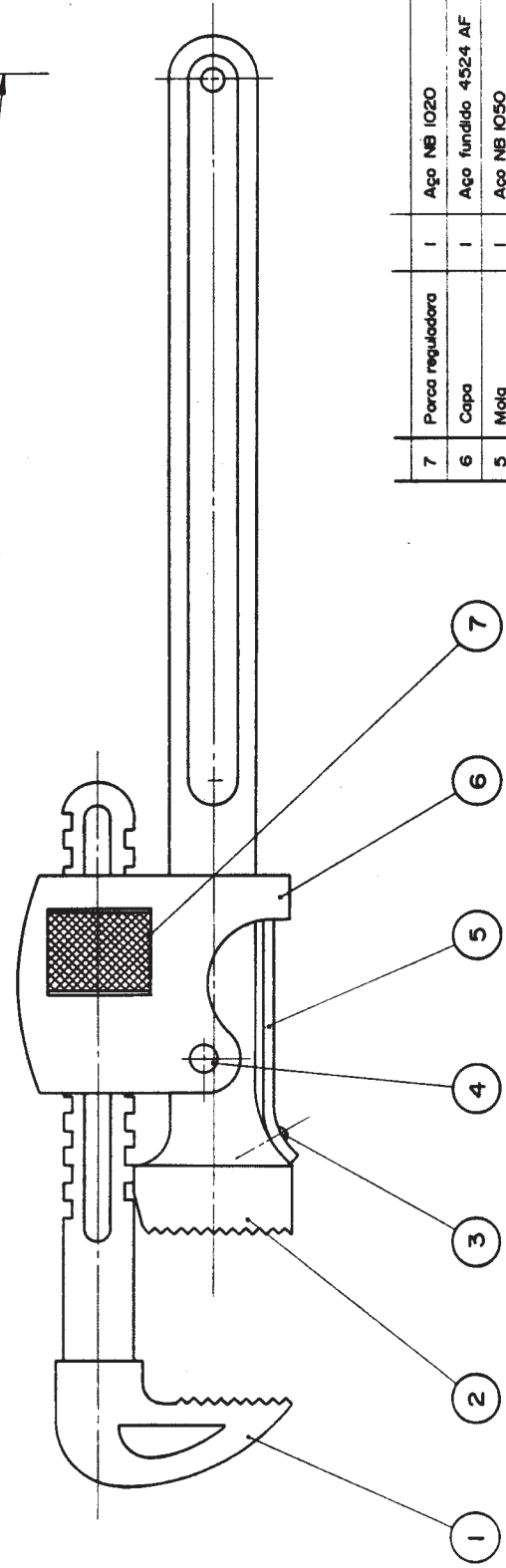
DE COMANDO



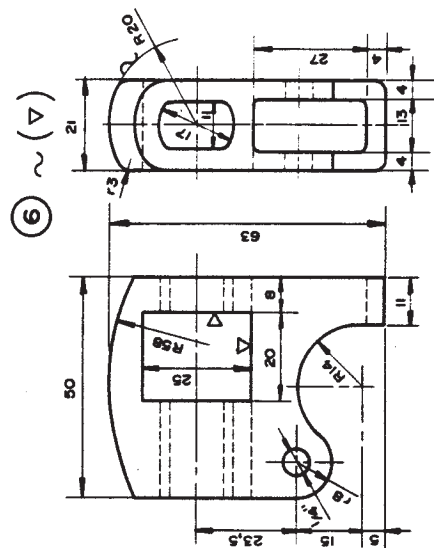
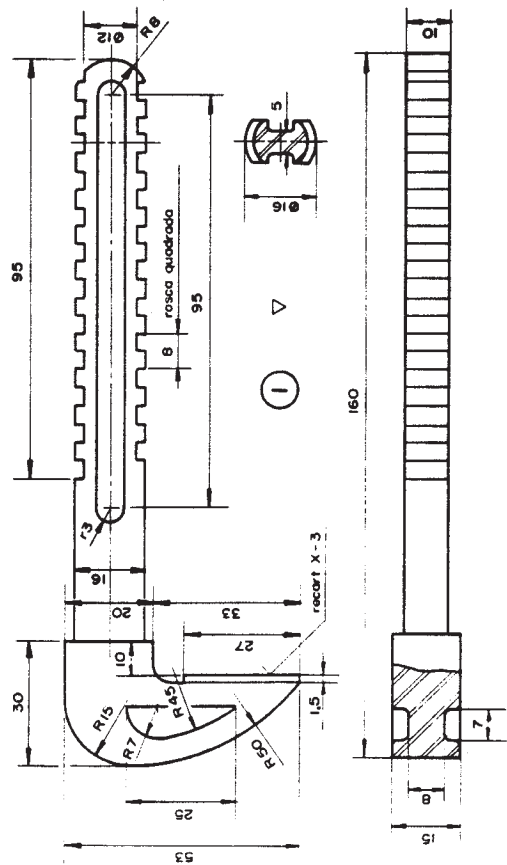
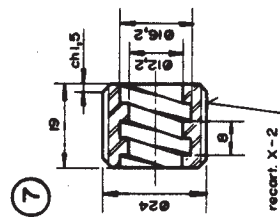
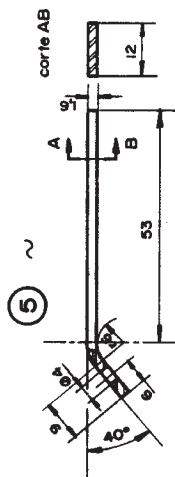
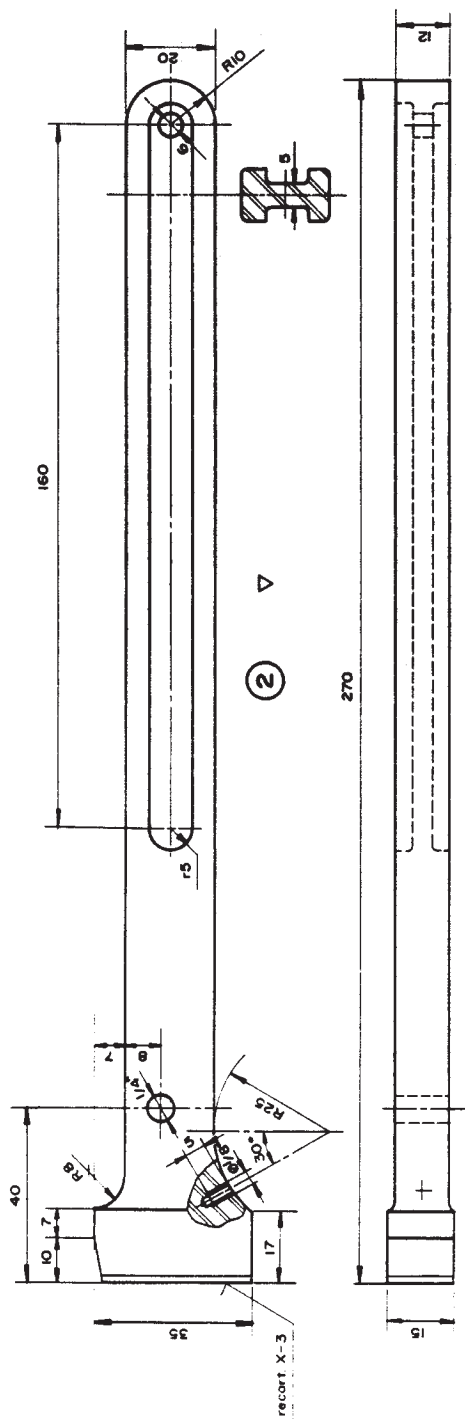
CHAVE DE GRIFO



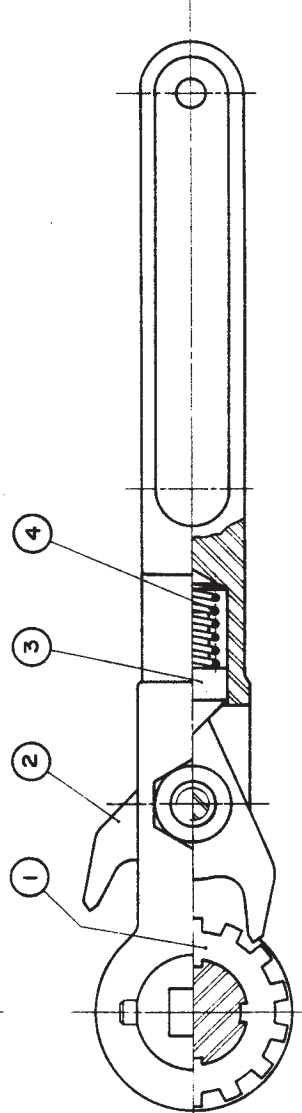
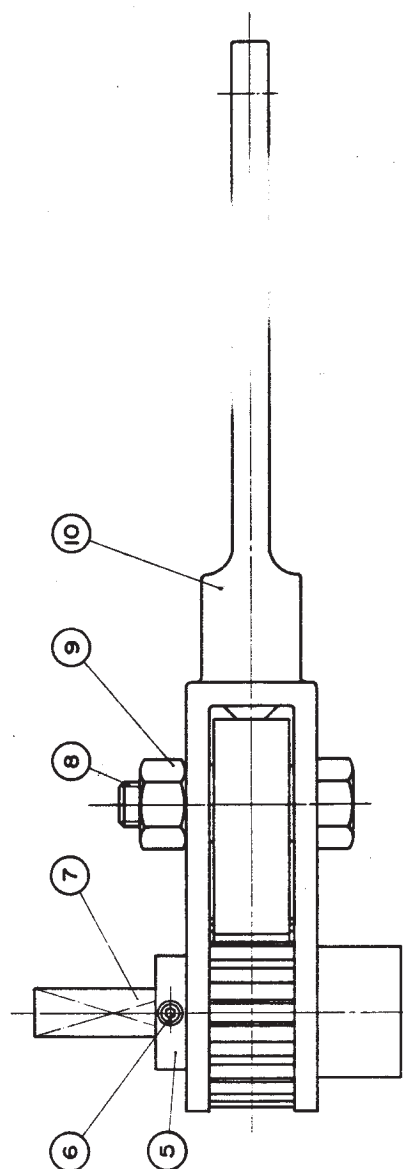
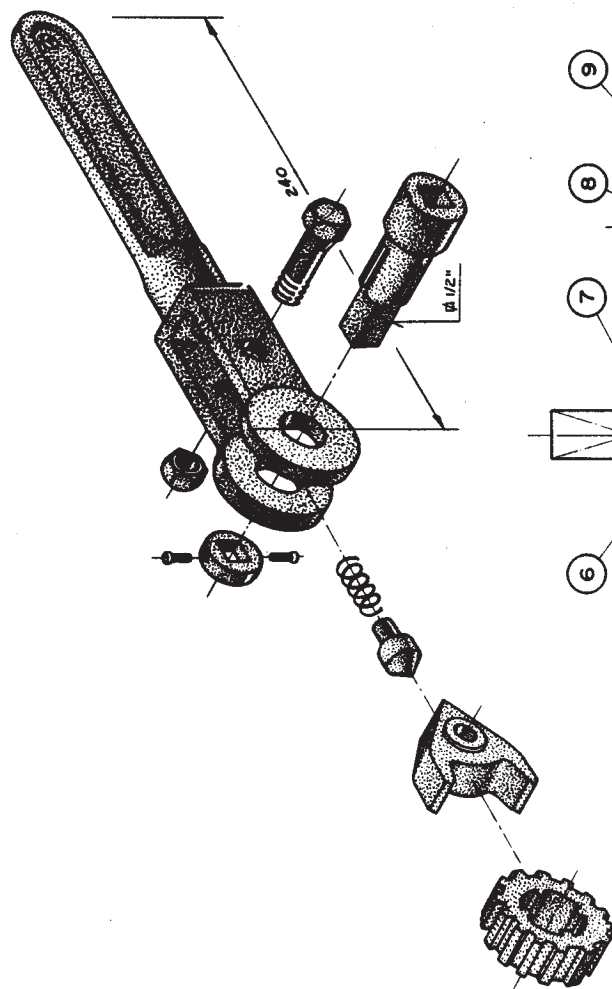
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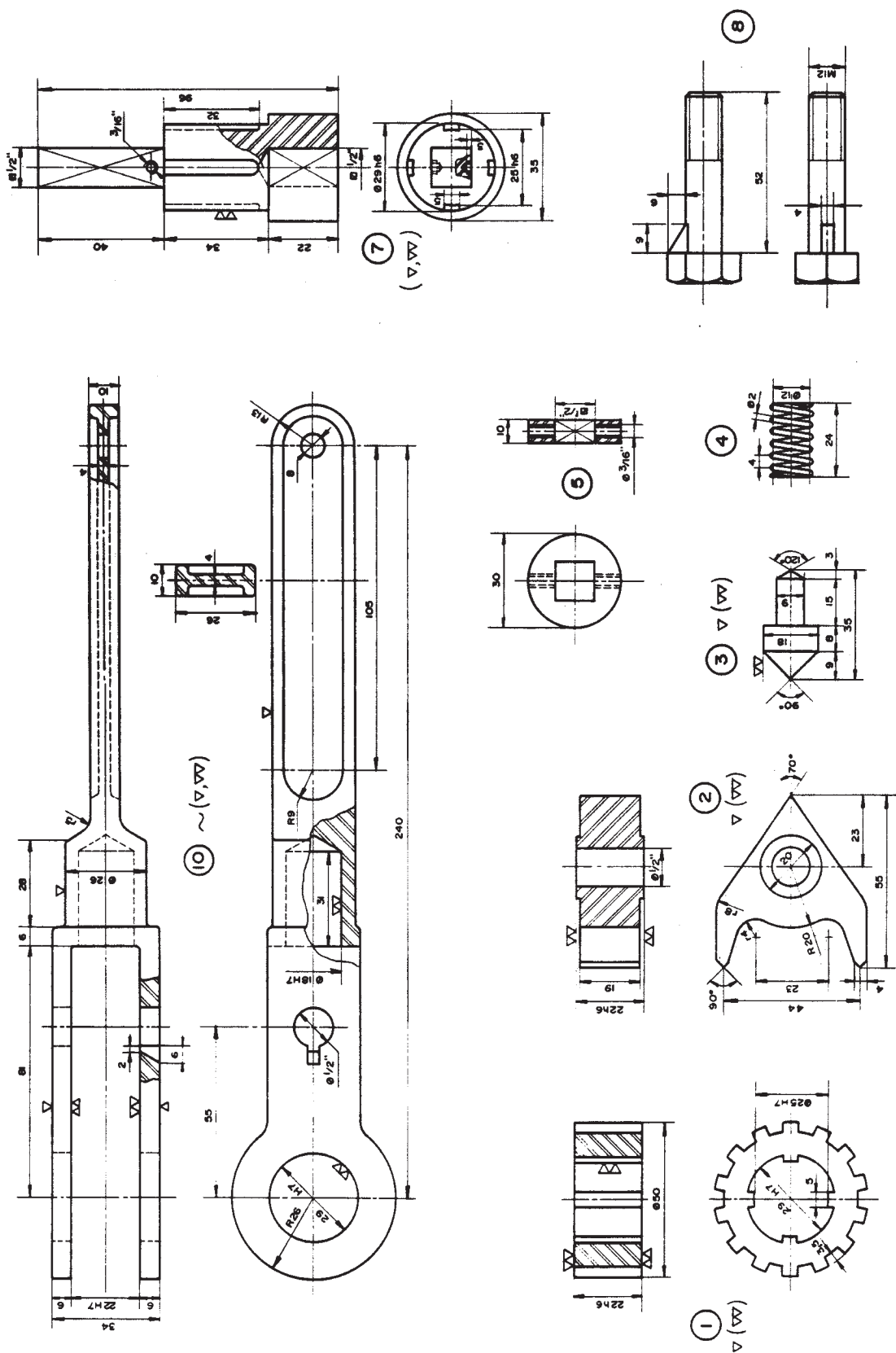
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES
7	Parca reguladora	1	Aço NB 1020
6	Capa	1	Aço fundido 4524 AF
5	Mola	1	Aço NB 1050
4	Pino cônico	1	Aço NB 1050 Ø 6x21
3	Paraf. cab. red.	1	Aço NB 1020 Ø 1/8" x 6
2	Mandibula fixa	1	Aço forjado NB 1030
1	Mandibula móvel	1	Aço forjado NB 1030



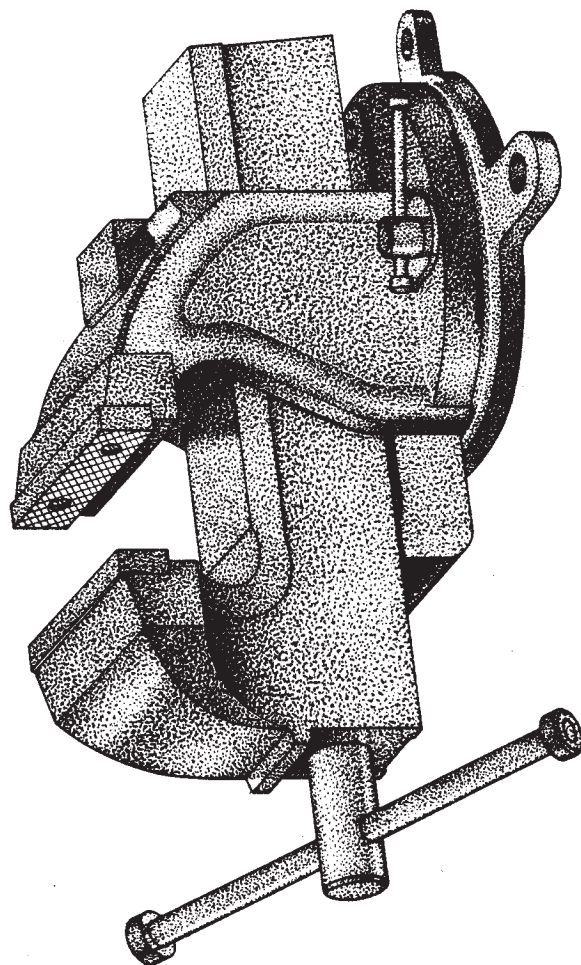
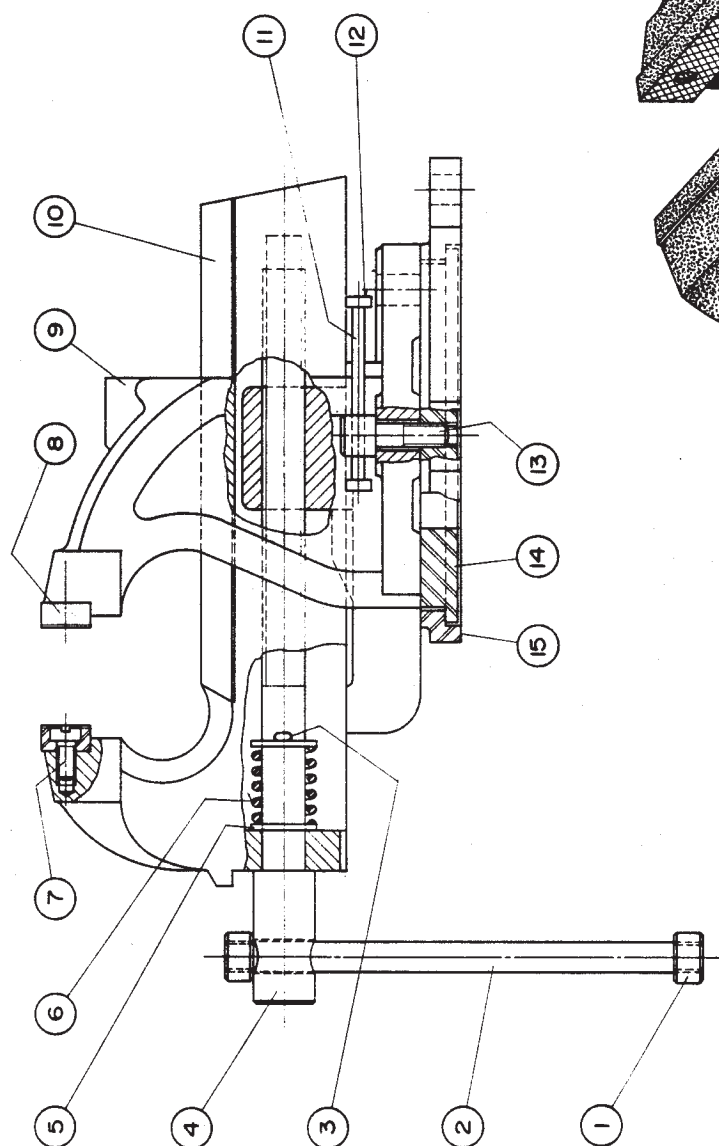
CHAVE ROQUETE



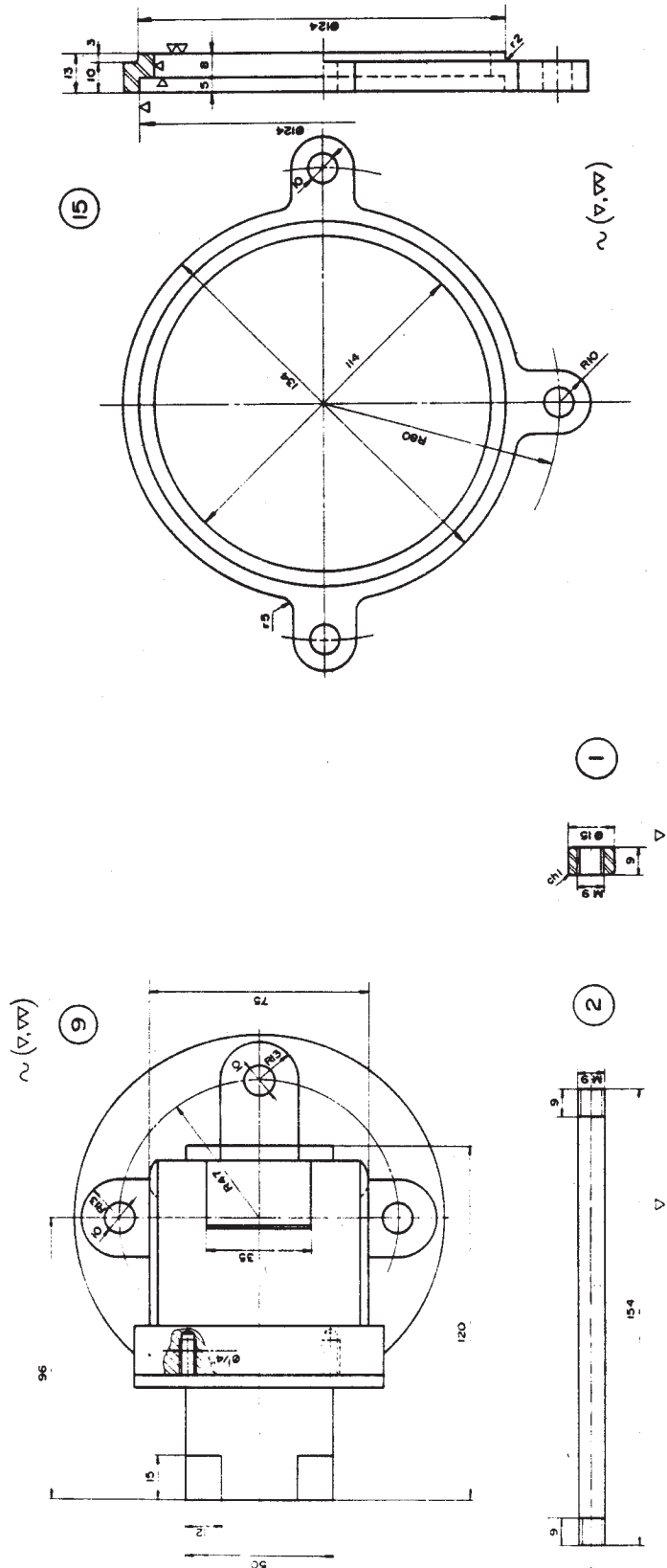
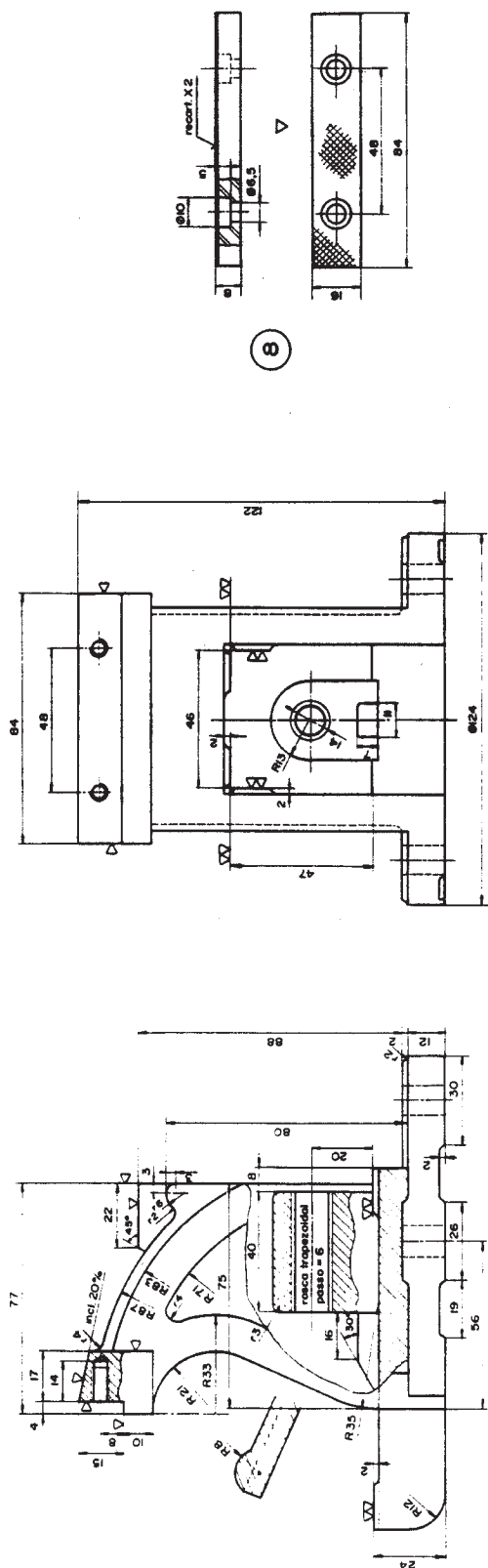
Nº	DENOMINAÇÕES	Quanti.	MATERIAL E DIMENSÕES
10	Braco	1	Aço fundido 3525 AF
9	Paraf sext c/nerv	1	M12
8	Paraf sext c/nerv	1	M12 x 52
7	Encaxe	1	Aço NB 1030 Temp. e cem.
6	Paraf Allen	2	Ø 3/16" x 1/2"
5	Encôsto	1	Aço NB 1020
4	Mola	1	Aço NB 1070
3	Trava	1	Aço NB 1020 Temp. e cem.
2	Tranqueta	1	Aço NB 1030 "
1	Calraca	1	Aço NB 1030 "

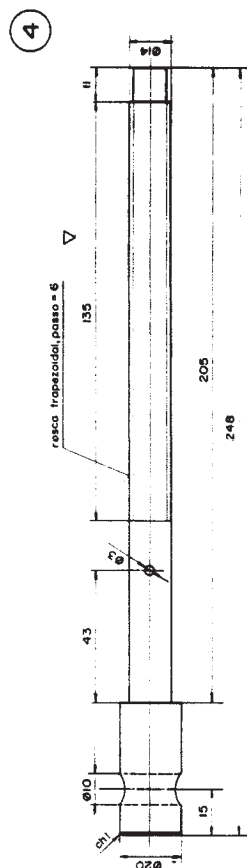
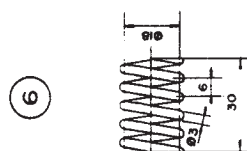
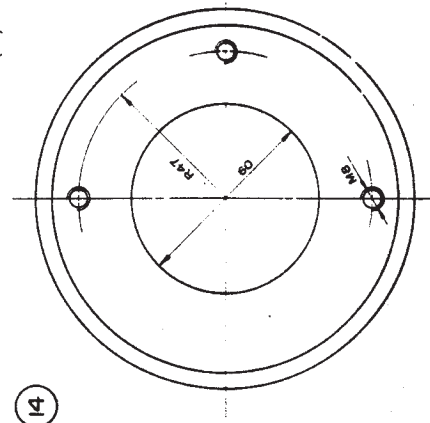
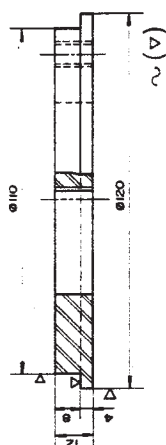


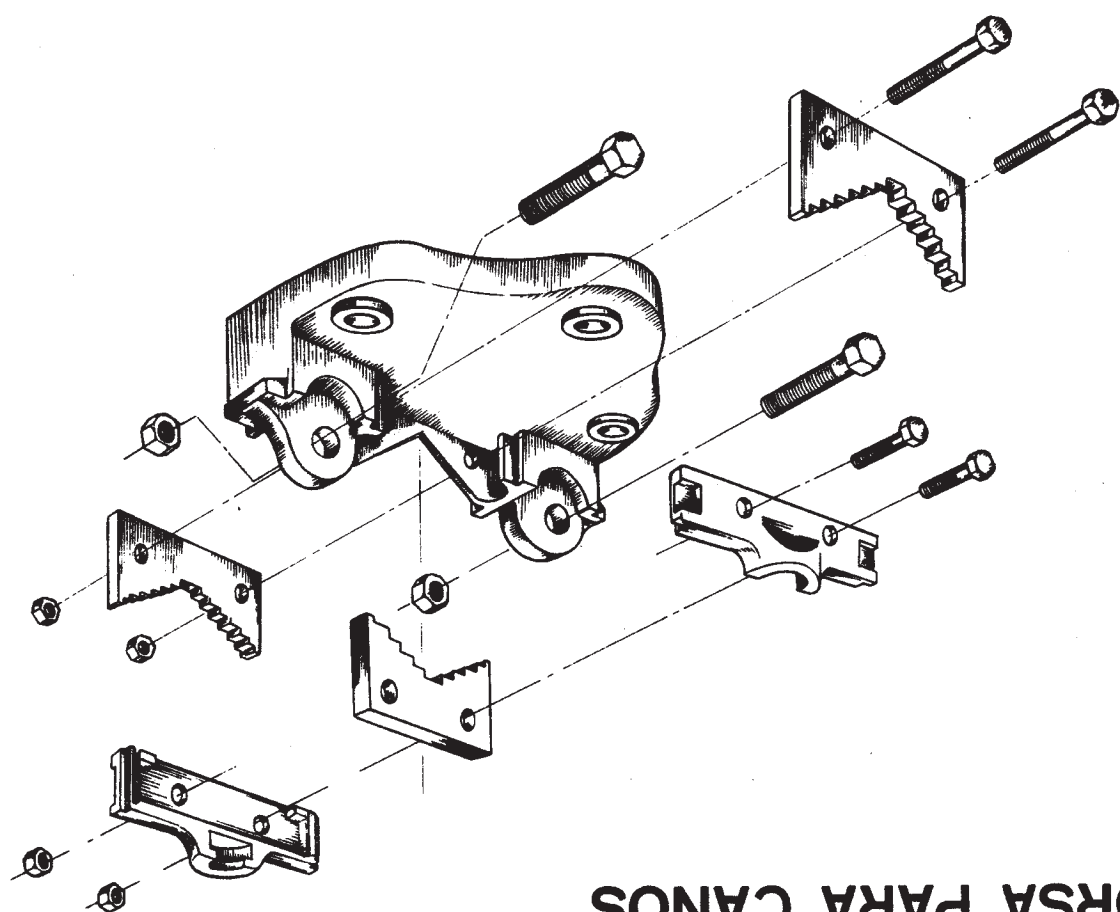
MORSA DE BANCADA



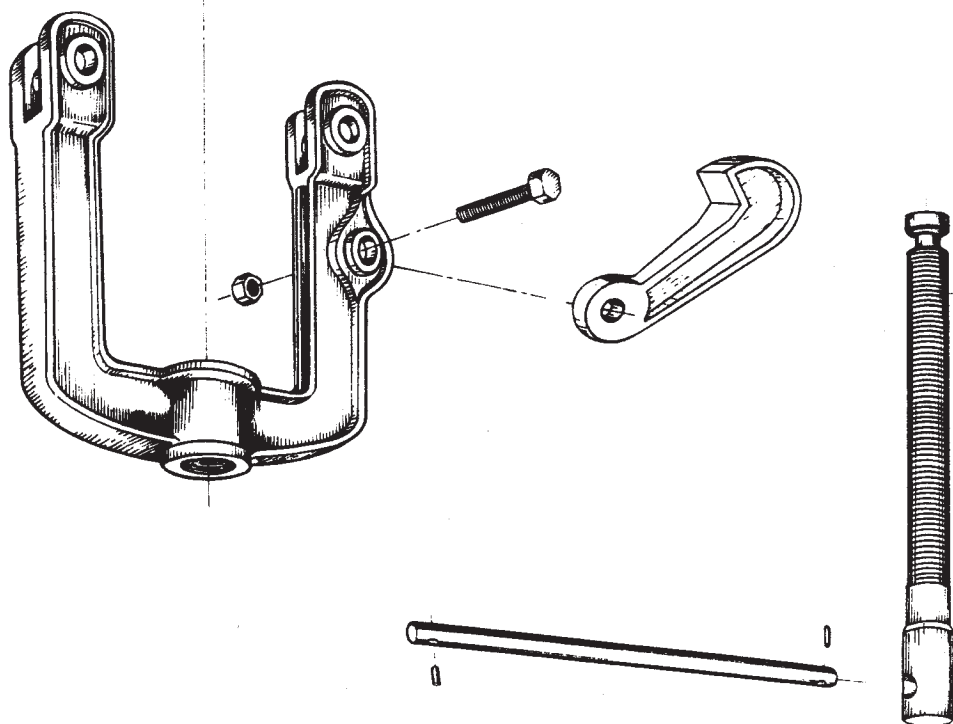
Nº	DENOMINAÇÕES	Quant	MATERIAL E DIMENSÕES
15	Suporte	1	Aço NB 1020 13x158x178
14	Placa	1	Aço NB 1020 12x1020
13	Pivô	2	Aço NB 1020 14x35
12	Encosto	4	Aço NB 1020 16x4
11	Broca	2	Aço NB 1020 14x63
10	Corpo	1	Ferro fundido 230x158x184
9	Corpo	1	Ferro fundido 158x124x122
8	Mordente	1	Aço NB 1020 16x16x84
7	Paraf. com calad	4	Aço NB 1010 1/4x16
6	Mola seção circ.	1	Aço NB 1045 D=16, p=6, d=3
5	Arruela	2	Aço NB 1010 15
4	Paraf. de aperto	1	Aço NB 1020 12x248
3	Contrapielo	1	Aço 13x22
2	Broca	1	Aço NB 1020 16x154
1	Encosto	2	Aço NB 1020 15x9



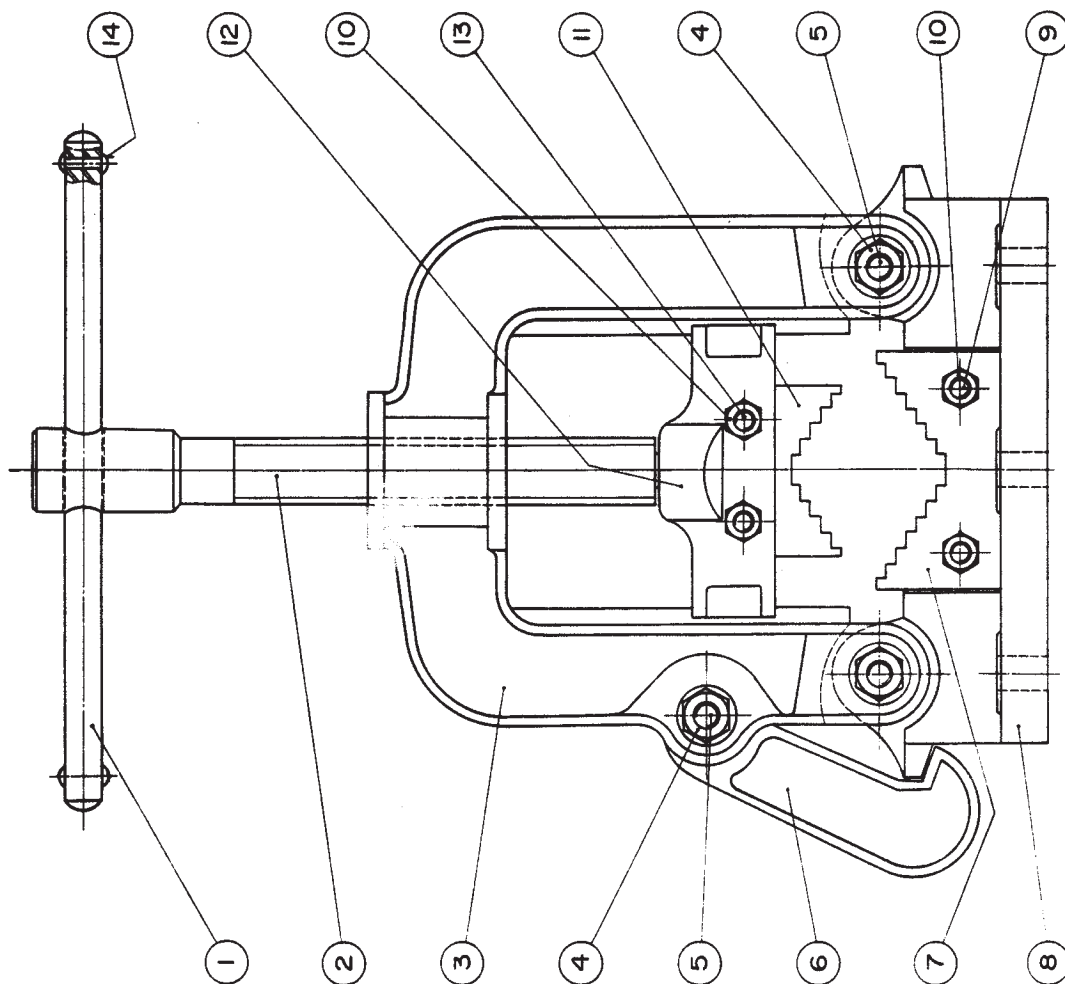




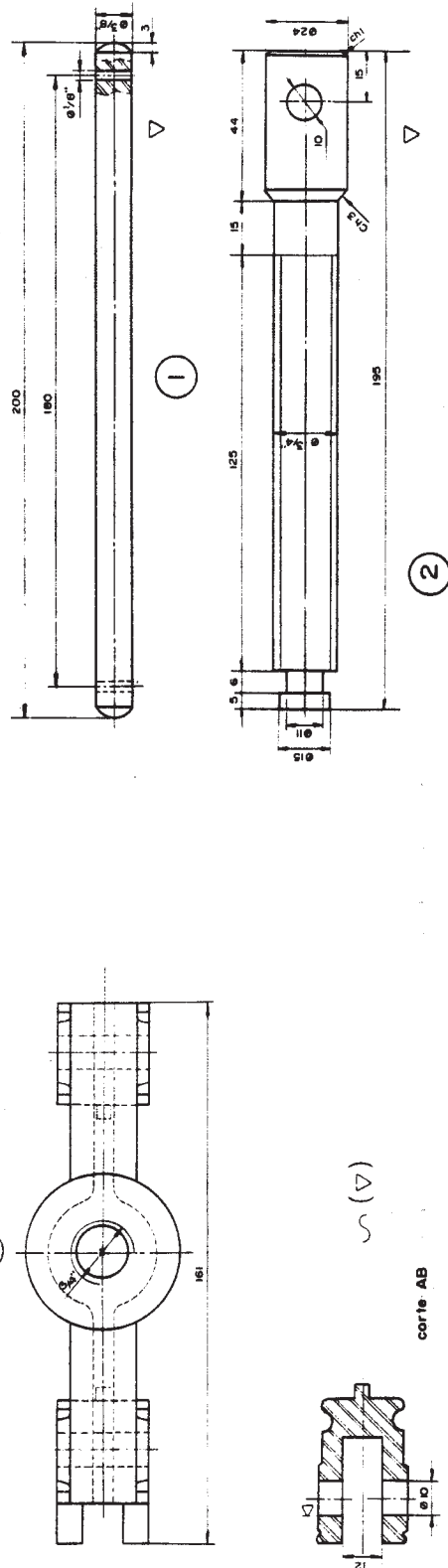
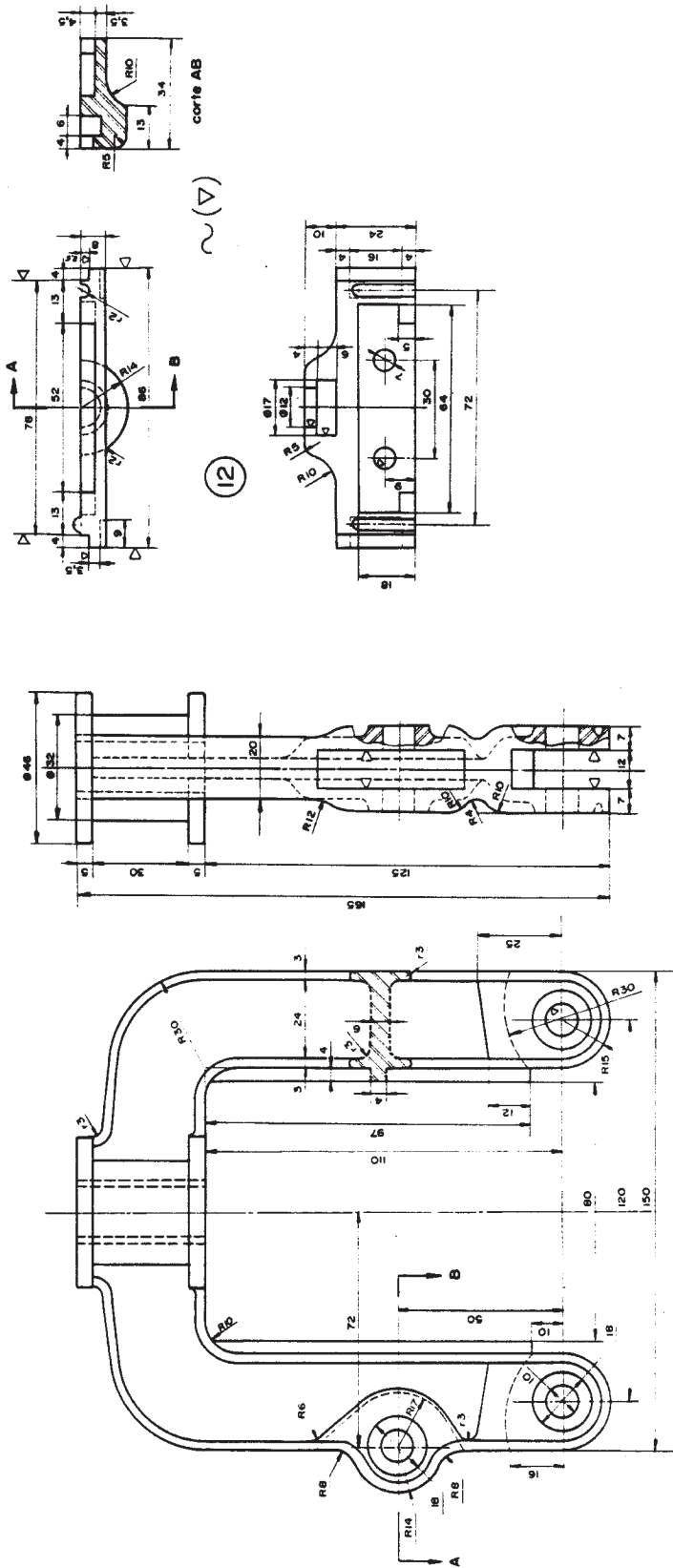
MORSA PARA CANOS



MORSA PARA CANOS

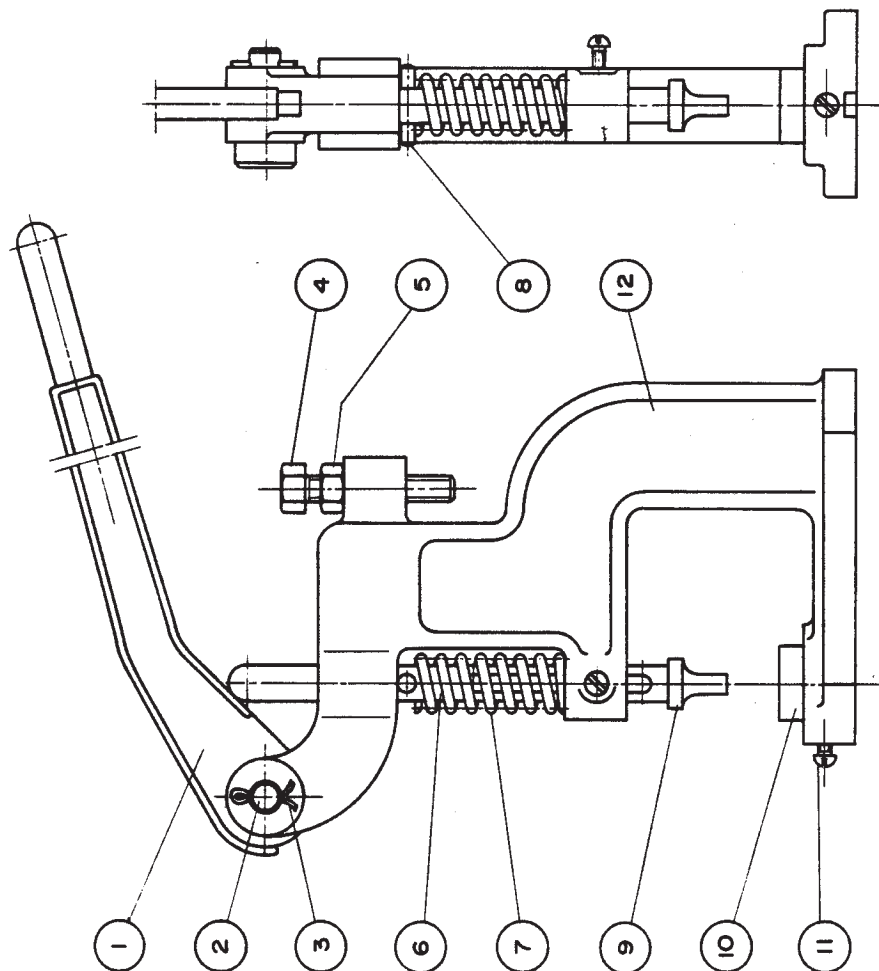
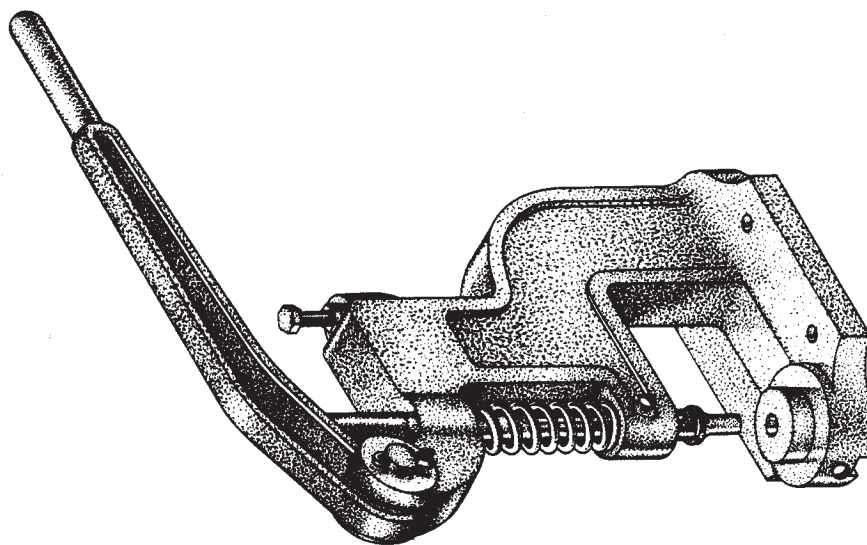


Nº	DENOMINAÇÕES	Quant	MATERIAL E DIMENSÕES
14	Pino	2	Ferro Ø 3x18
13	Paraf. cob. sext.	2	Ferro Ø 1/4" x 7/8"
12	Guia	2	Aço 3525 AF 86x34x14
11	Garra superior	1	Aço NB 1020 50x37x9
10	Parca sext.	4	Ferro Ø 1/4"
9	Paraf. cob. sext.	2	Ferro Ø 1/4" x 1 3/4"
8	Base	1	Aço 3525 AF 180x118x64
7	Garra inferior	2	Aço NB 1020 70x37x8
6	Trava	1	Aço 3525 AF
5	Paraf. cob. sext.	3	Ferro Ø 3/8" x 1 1/2"
4	Parca sext.	3	Ferro Ø 3/8"
3	Corpo	1	Aço 3525 AF Ø 46x165x161
2	Paraf. de aperto	1	Aço NB 1020 Ø 24x195
1	Braco	1	Aço NB 1010 Ø 3/8" x 200



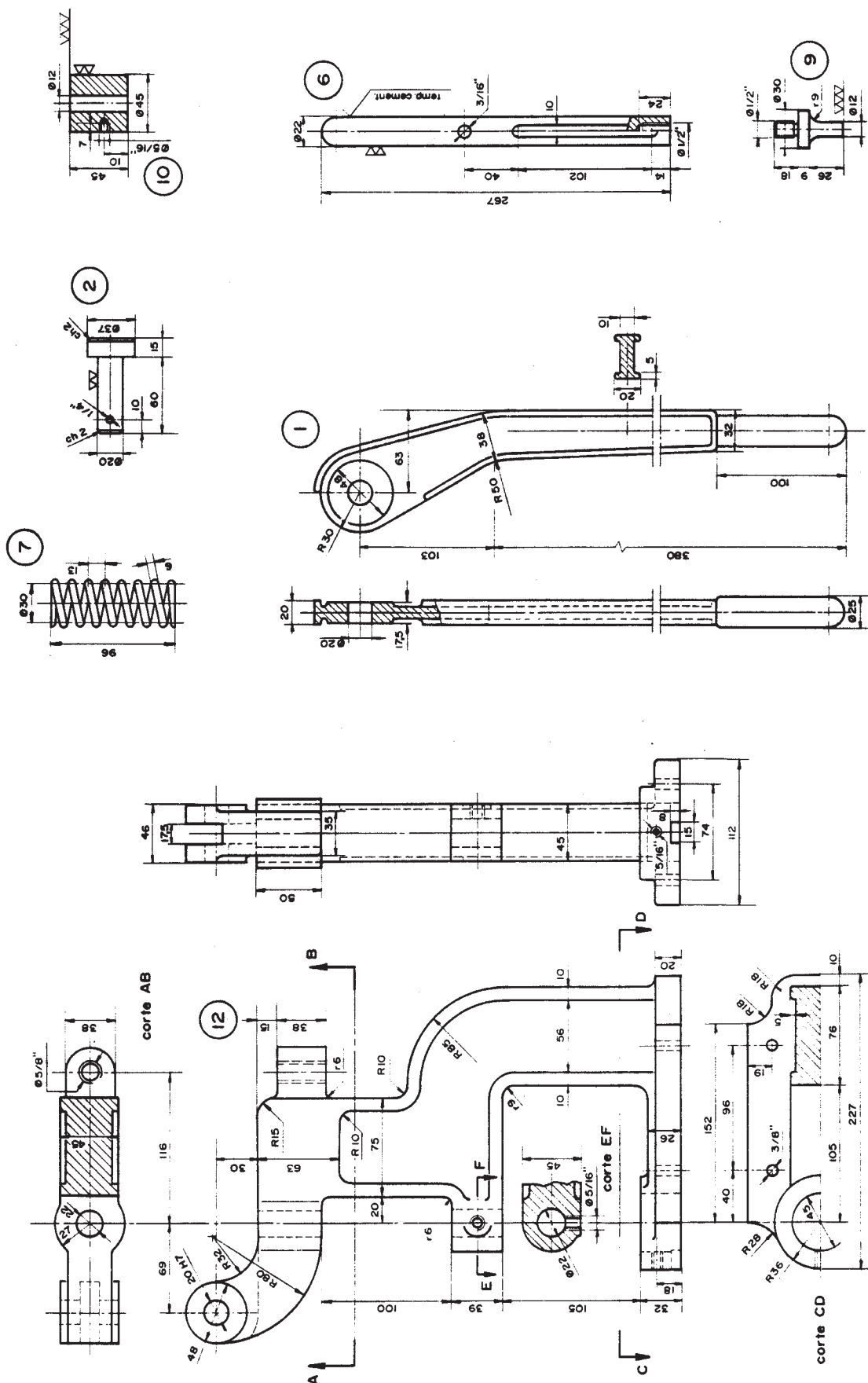


FURADOR

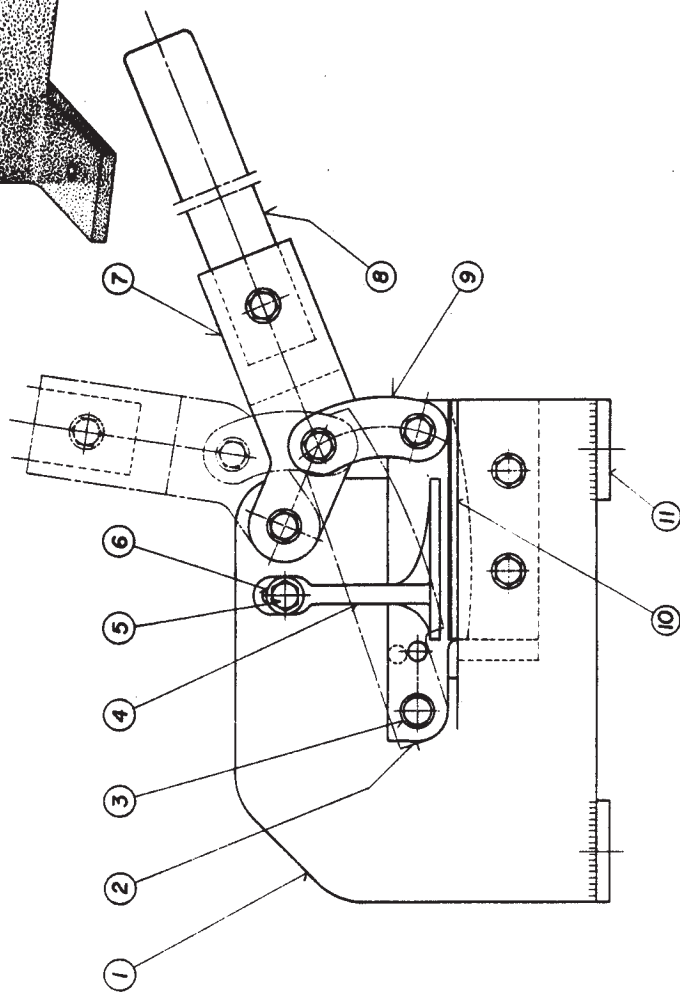
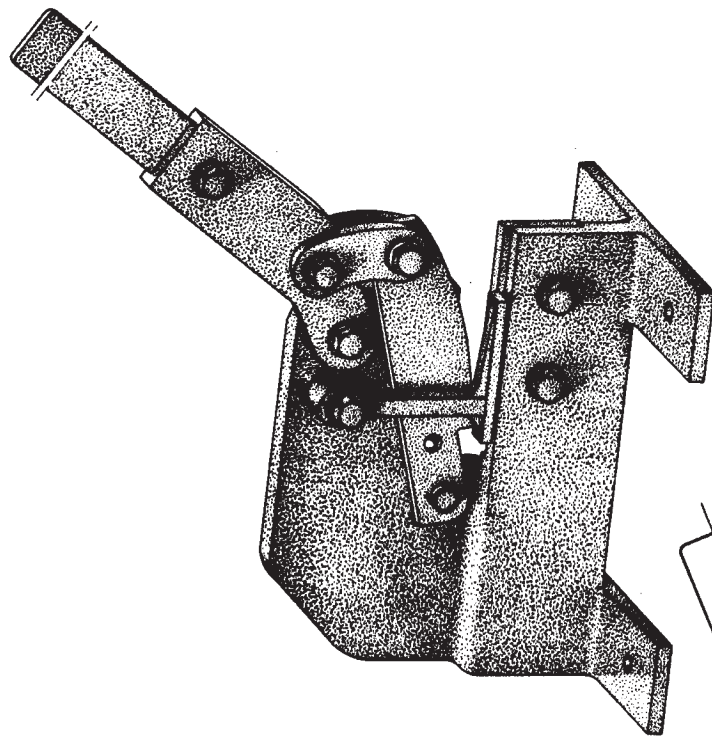


12	Corpo	1	Aço fundido 3525 AF
11	Paraf. c/ cab. red.	2	Ø 5/16" x 7/8"
10	Matriz	1	Aço RCC Temp. relif.
9	Punção	1	Aço RCC Temp. relif.
8	Pino conico	1	Aço prata Ø 3/16" x 45
7	Mola	1	Aço NB 1070
6	Porta-punção	1	Aço NB 1020 Temp. cement.

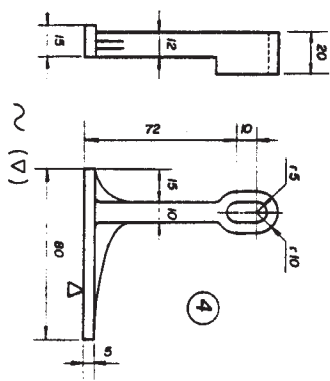
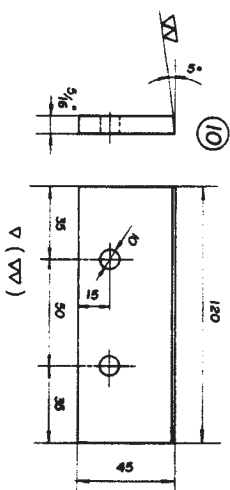
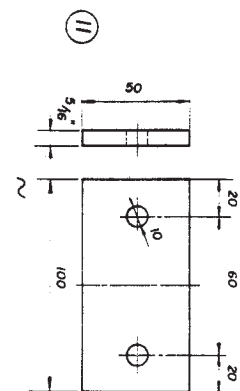
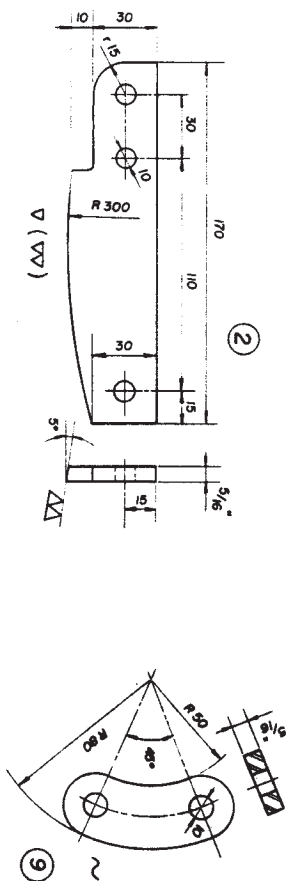
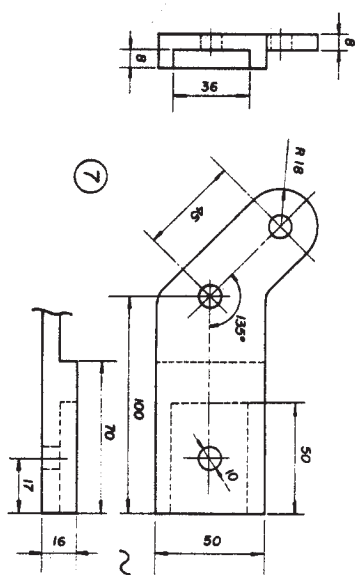
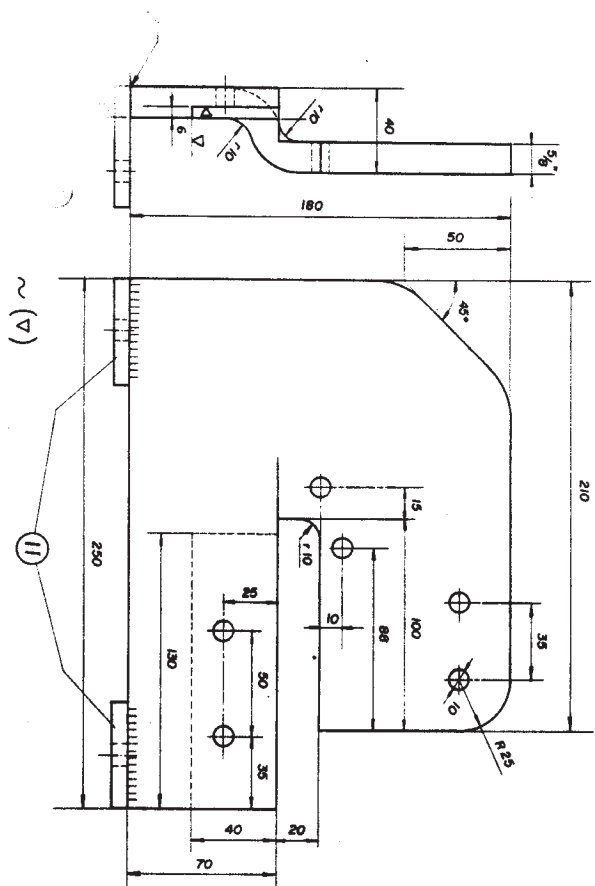
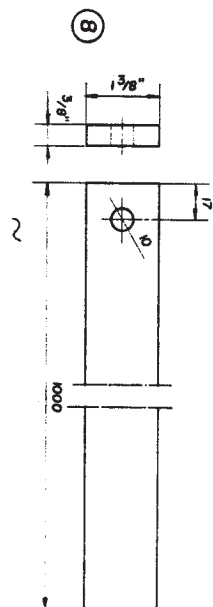
5	Parca sext.	1	Ø 5/8"
4	Parafuso sext.	1	Ø 5/8" x 3 1/2"
3	Contra-pino	1	Aço Ø 1/4" x 40
2	Pino c/ cabeça	1	Aço NB 1020
1	Alavanca	1	Aço fundido 3525 AF
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES

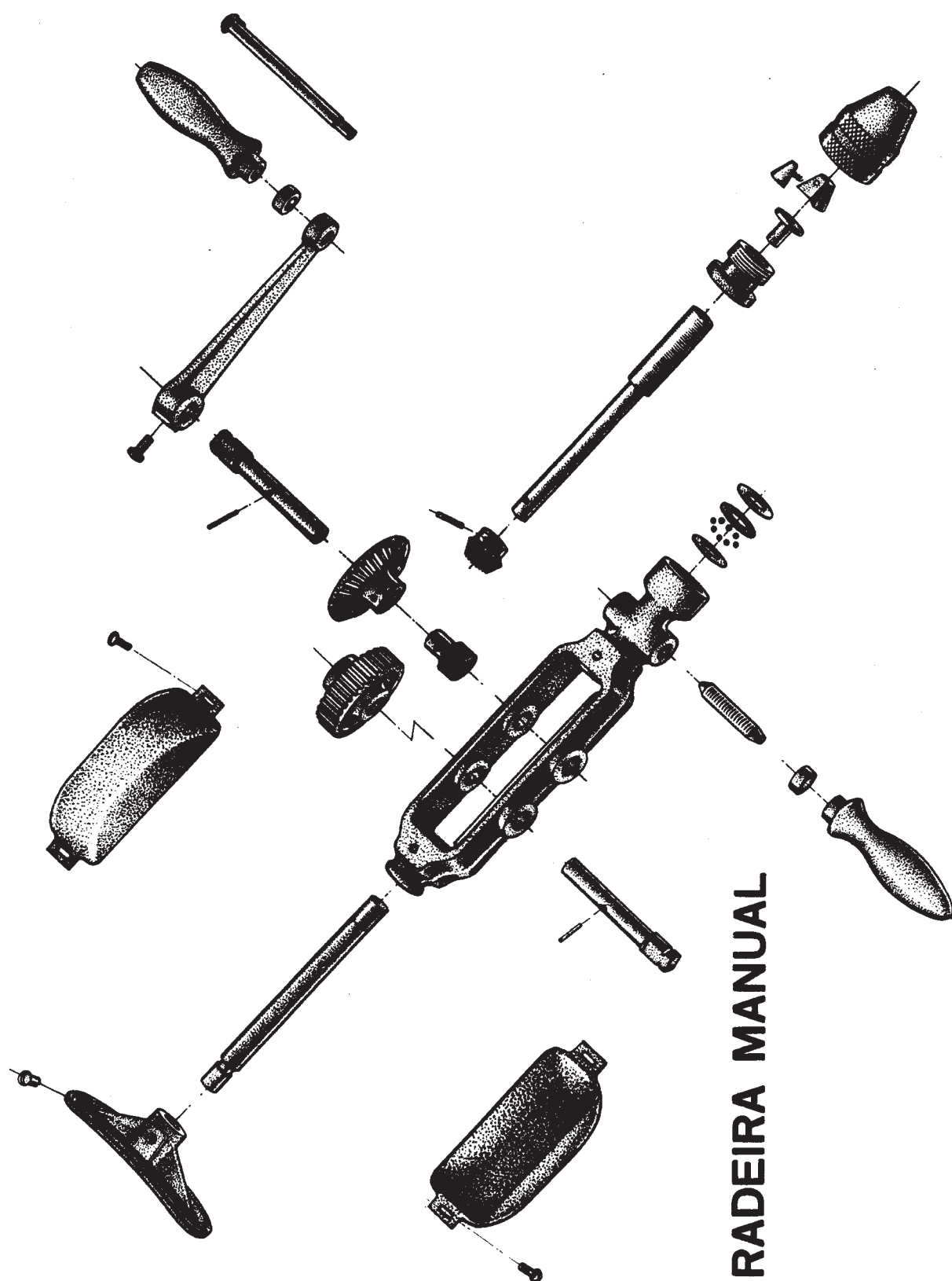


TESOURÃO DE BANCADA



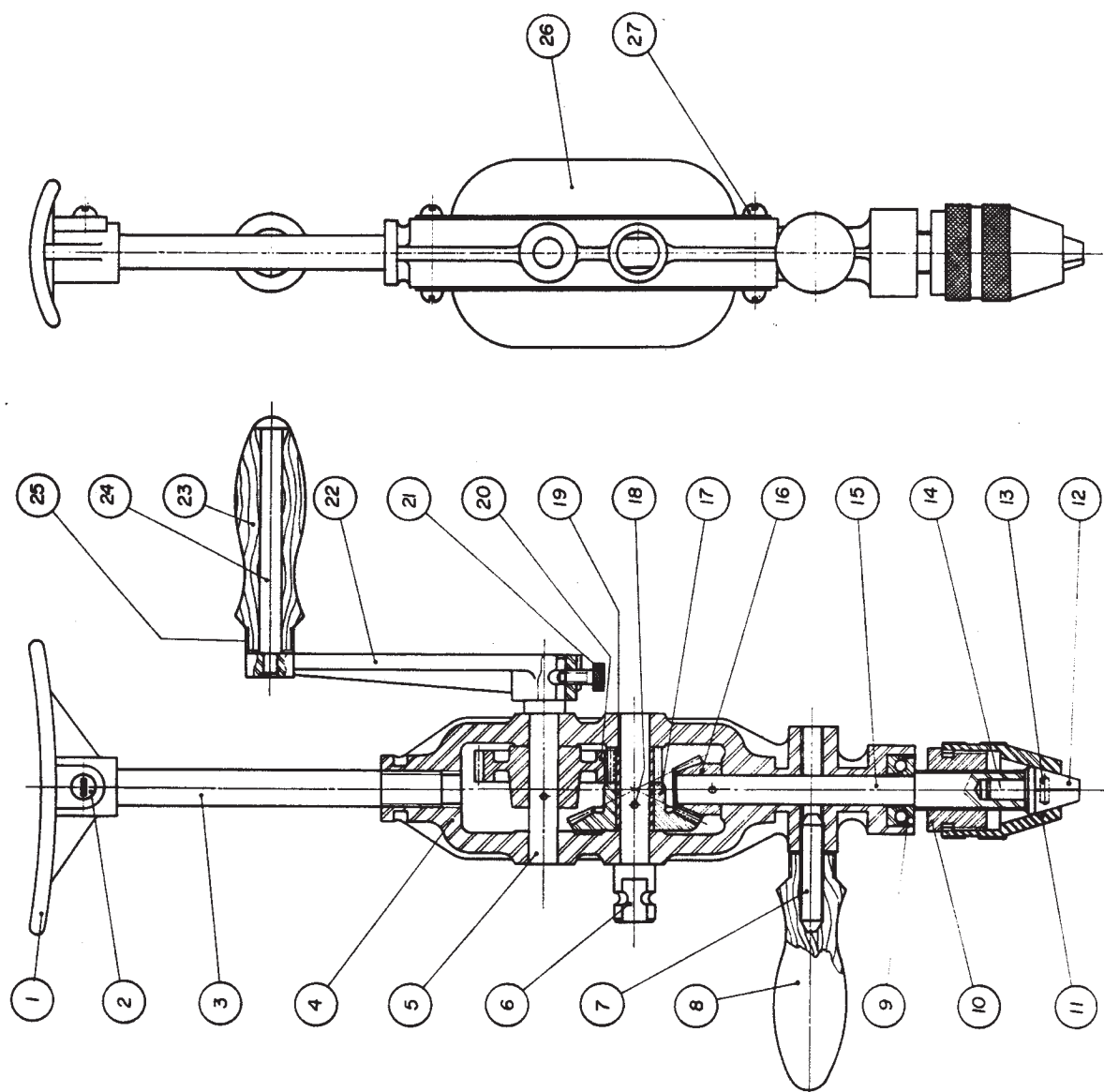
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES
11	Base	2	Chapa de aço 3/16"
10	Contro - placa	1	Aço Villiers VW - 3
9	Junho	2	Chapa de aço 3/16"
8	Alavanca	1	Ferro chato 3/8" x 1 1/2" x 1000
7	Suporte do alavanca	1	Aço fundido 7010 AF
6	Arruela lisa	11	Ø 10 DIN - 1440
5	Parafuso com porca	11	Ø 3/8" x 45
4	Segura chapa	1	Aço fundido 3525 AF
3	Placa com cabço munda de 1 arruela a 1 contra-pla	1	Ø 10 x Ø 26,5 - 30
2	Faca	1	Aço Villiers VW - 3
1	Corpo	1	Chapa de aço 3/8"



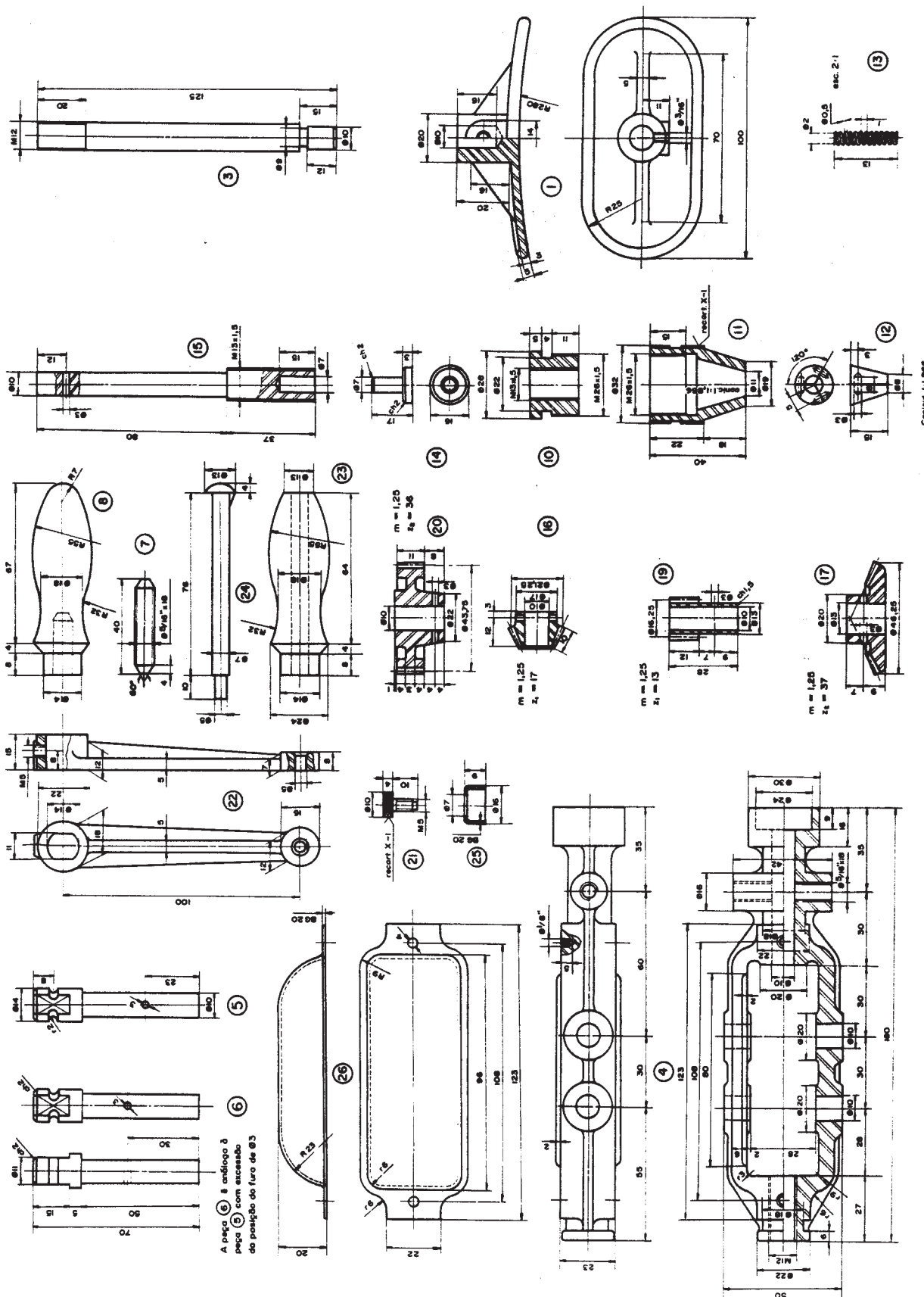


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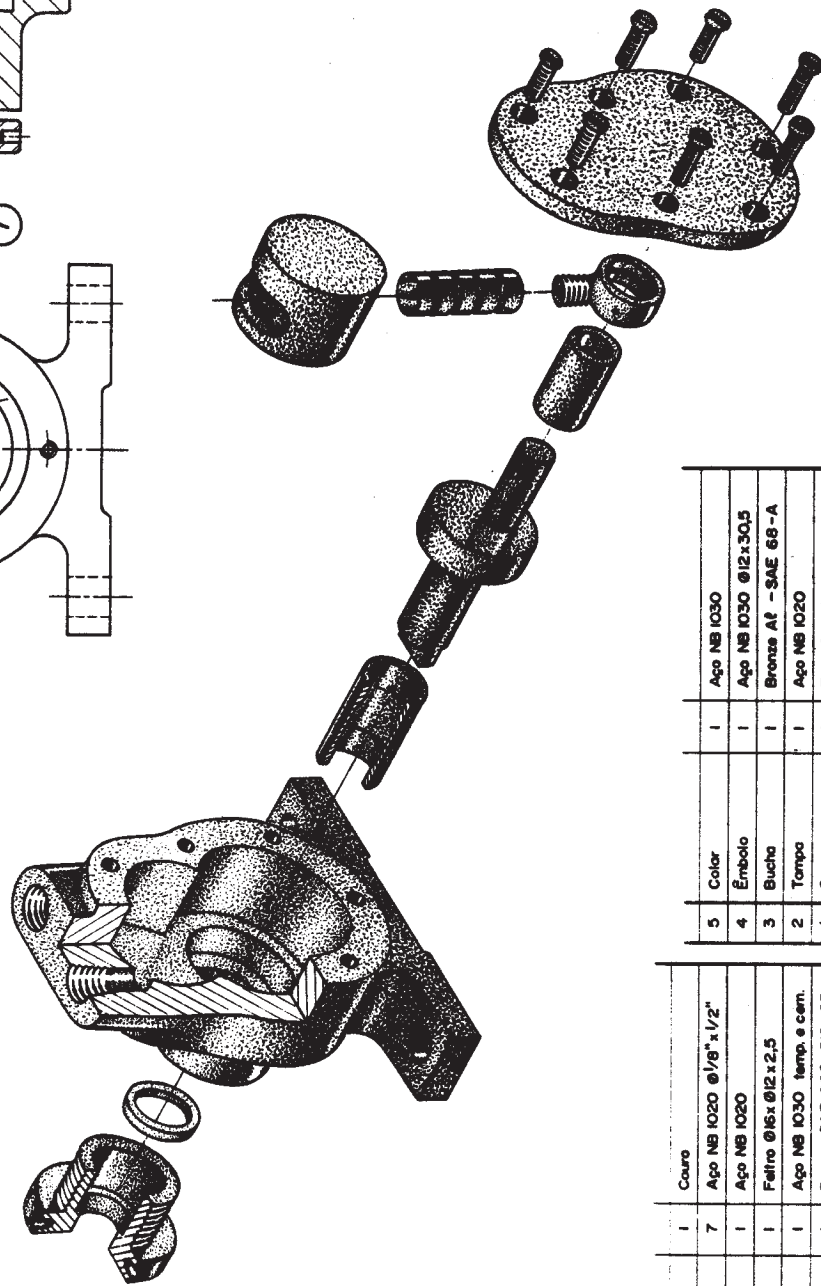
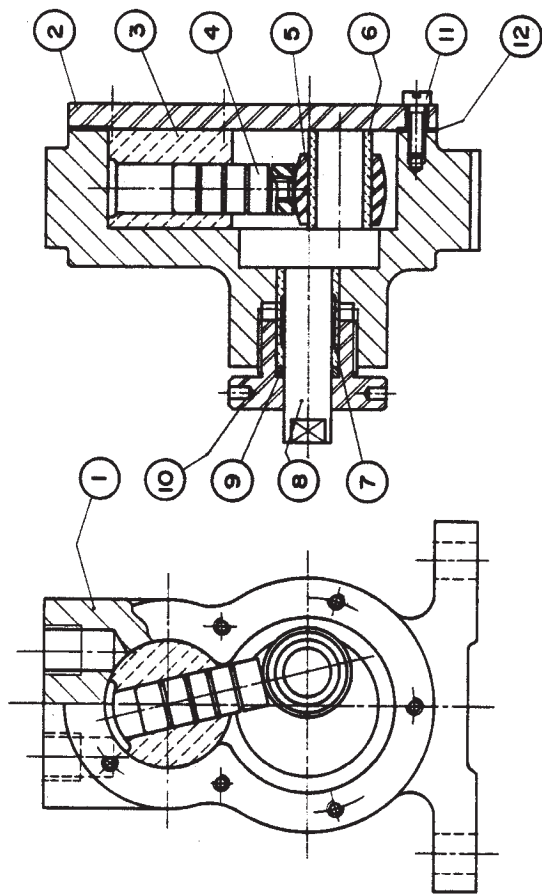
FURADEIRA MANUAL



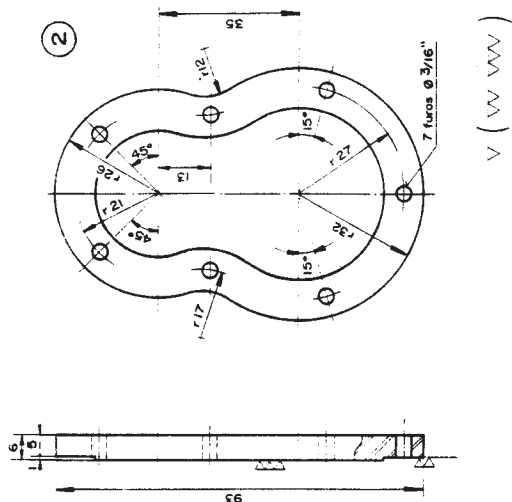
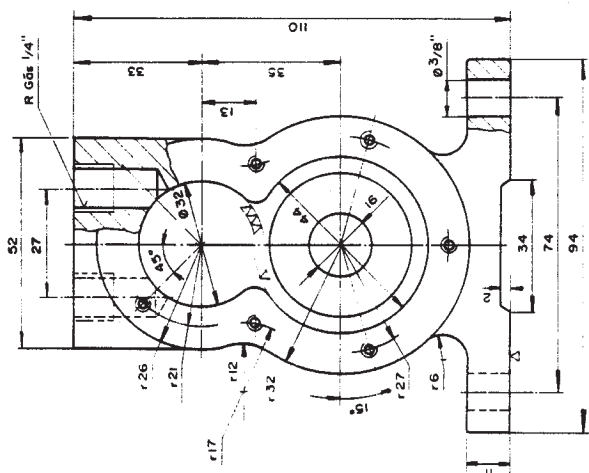
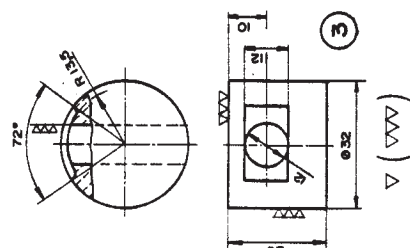
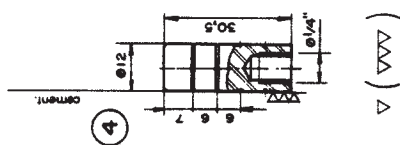
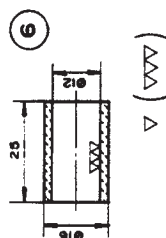
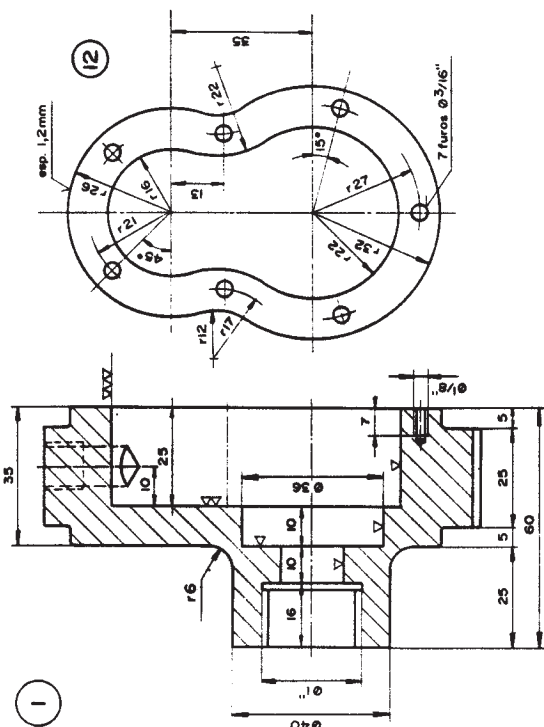
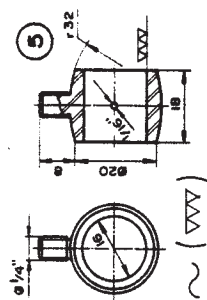
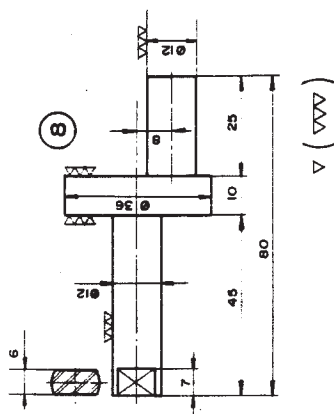
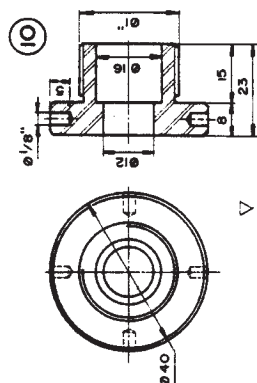
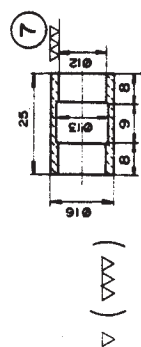
27	Paraf. cab. red.	4	Ferro Ø 3/8" x 3/16"
26	Capa de proteção	2	Chapa preta BG # 20
25	Capa da base do punho	2	Chapa preta BG # 20
24	Pino do punho	1	Ferro
23	Punho do manivela	1	Moldado
22	Manivela	1	Aço fundido 3525 AF
21	Paraf. de flange	1	Ferro N5100
20	Carca cilíndrica	1	Aço N51030
19	Pinhão cilíndrico	1	Aço N51030
18	Pino de fix. dos engren.	3	Ferro Ø3"x22
17	Carca cônica	1	Aço N51030
16	Pinhão cônico	1	Aço N51030
15	Eixo	1	Aço N51020
14	Pino de eșpultado	1	Aço N51010
13	Mola	3	Aço N5150
12	Castanha	3	Aço N51020 sem cement.
11	Capa do mandril	1	Aço N51020
10	Porca reguladora	1	Aço N51020
9	Roldamento axial	1	SKF 51100 Ø24 x 19
8	Punho fixo	1	Moldado
7	Paraf. s/cab. do punho fixo	1	Ferro Ø3/16" x 40
6	Eixo superior	1	Aço N51020 Ø10 x 70
5	Eixo inferior	1	Aço N51020 Ø10 x 70
4	Chavil	4	Aço fundido 3525 AF
3	Hoste do eșcãto	1	Aço N51010 Ø12 x 125
2	Paraf. de flange do eșcãto	1	Ferro Ø3/16" x 3/8"
1	Eșcãto	1	Aço fundido 3525 AF
Nº	DENOMINAÇÕES		MATERIAL E DIMENSÕES



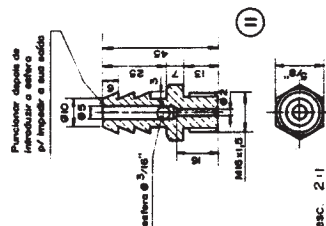
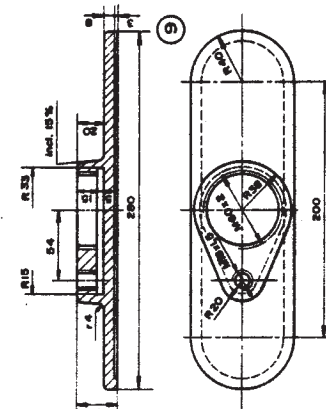
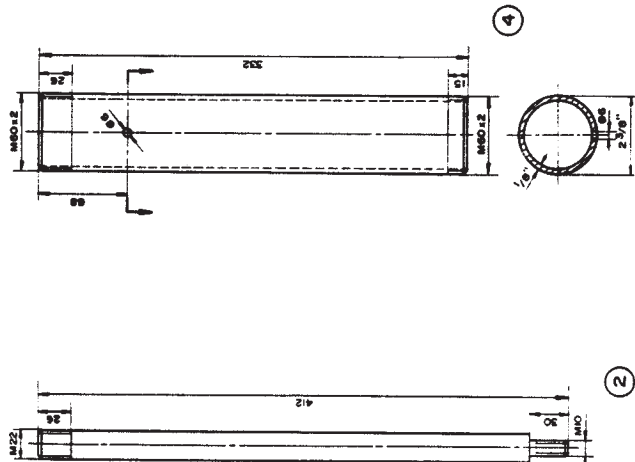
BOMBINHA DE ÓLEO



Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES
12	Guarnição	1	Couro
11	Paraf. de fundo	7	Aço NB 1020 Ø 1/8" x 1/2"
10	Tampão	1	Aço NB 1020
9	Vedação	1	Feltro Ø 16 x Ø 12 x 2,5
8	Eixo	1	Aço NB 1030 temp. e cern.
7	Bucha	1	Bronze SAE 660 Ø 12 x 25
6	Bucha	1	Bronze SAE 660 Ø 12 x 25
5	Coro	1	Aço NB 1030
4	Êmbolo	1	Aço NB 1030 Ø 12 x 30,5
3	Bucha	1	Bronze Al - SAE 68-A
2	Tampa	1	Aço NB 1020
1	Corpo	1	Ferro fundido

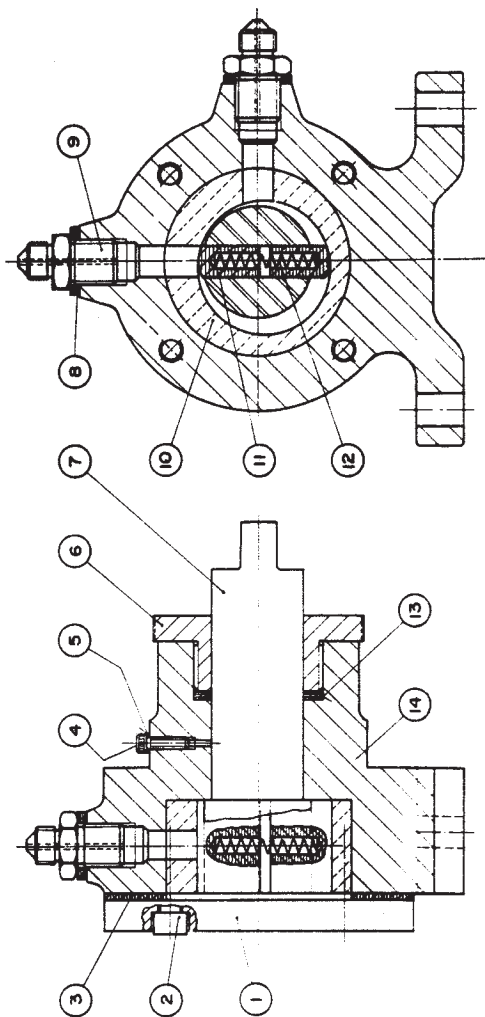
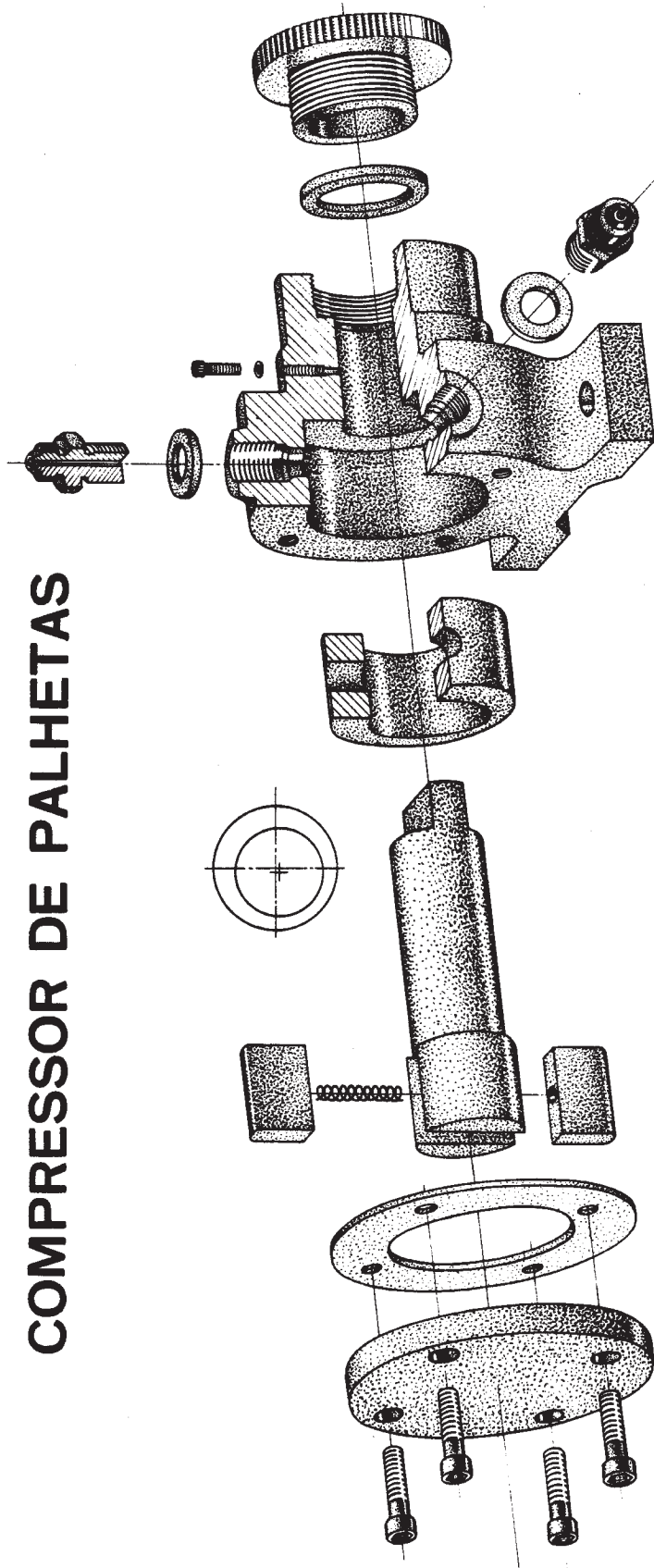


①



Nº	DENOMINAÇÕES	Quant	Material e Dimensões
1	Mezquedo	1	Alumínio TONOLLI Al
2	Haste	1	Aço NB 1020 Ø 22 x 412
3	Tampa	1	Latão TONOLLI L1
4	Corpo	1	Latão LNM Ø 2 3/8" x 1/8"
5	Mola	1	Aço NB 1070 - Ø 4
6	Arruela lisa	2	Aço NB 1010 Ø 15 x Ø 30 x 2
7	Plástico	1	Couro
8	Porco	1	MIO-8
9	Base	1	Aço fundido NB 3525 AF
10	Arruela	1	Couro Ø 15 x Ø 30 x 3
11	Esterão	1	Aço SKF Ø 3/16"
12	Bloco	1	Latão TM - Sent 5/8" - Lipo U

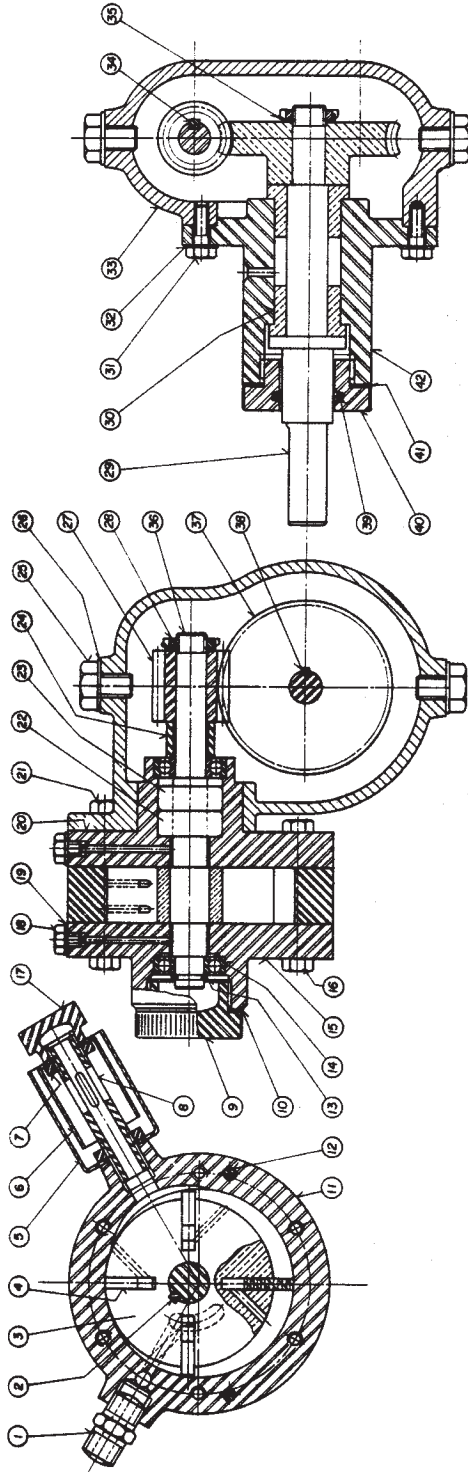
COMPRESSOR DE PALHETAS



Nº	DENOMINAÇÕES	Quant	MATERIAL E DIMENSÕES
14	Corpo	1	Ferro fundido
13	Guarnição	1	Neoprene Ø 40xØ30x4
12	Mola	1	Aço p/ mola
11	Palheta	2	Fibra Celoron
10	Eccêntrica	1	Bronze
9	Bloco	2	Aço NB 100
8	Guarnição	2	Neoprene Ø 24 x Ø12 x 2
7	Eixo	1	Aço NB 1020
6	Pinha estopa	1	Ferro fundido
5	Guarnição	1	Neoprene Ø 5xØ7x1,5
4	Paraf Allen recort	1	Ø10x12
3	Guarnição	1	Couro
2	Paraf Allen	4	Ø5/16" x 20
1	Tampa	1	Ferro fundido



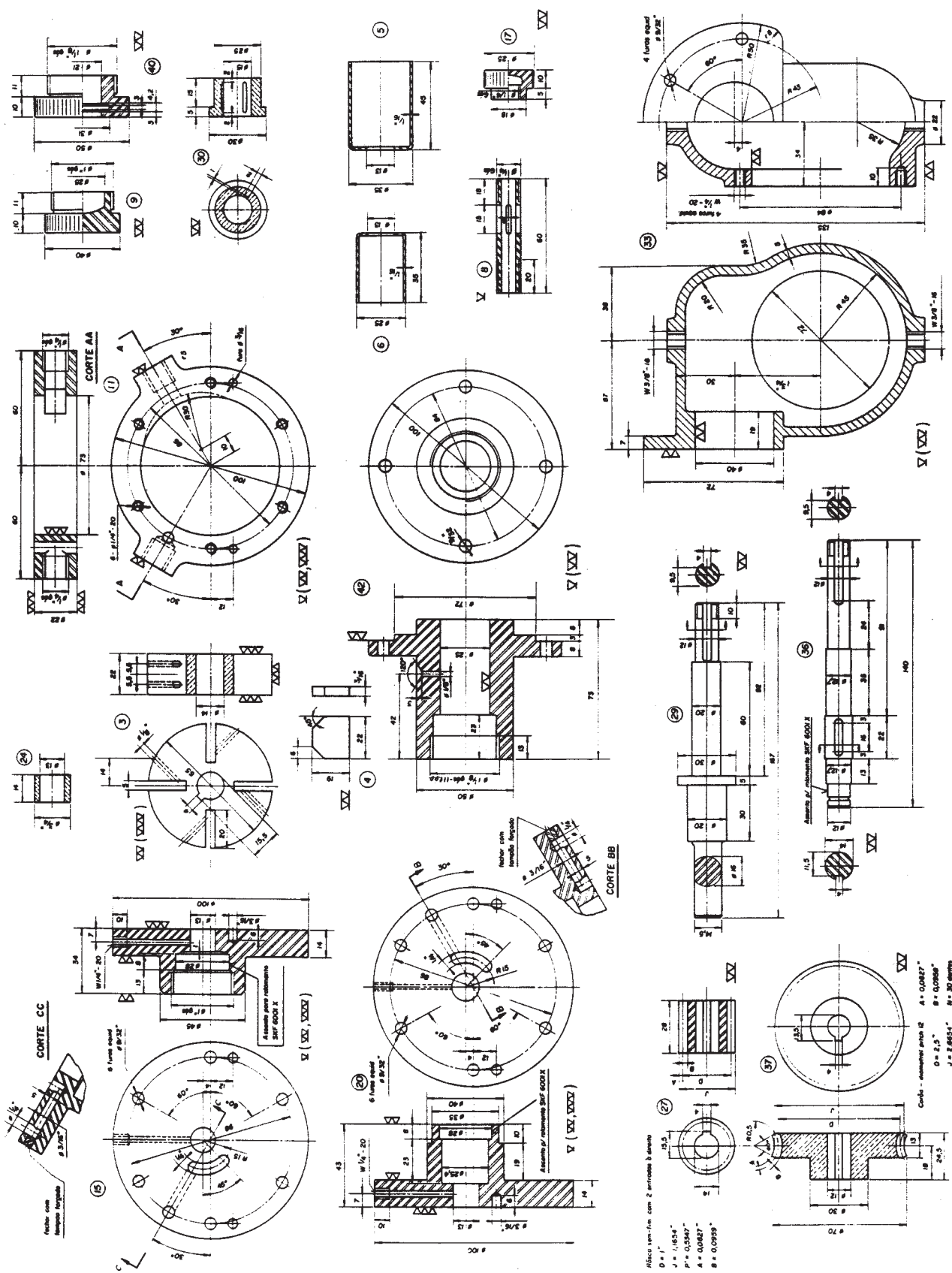
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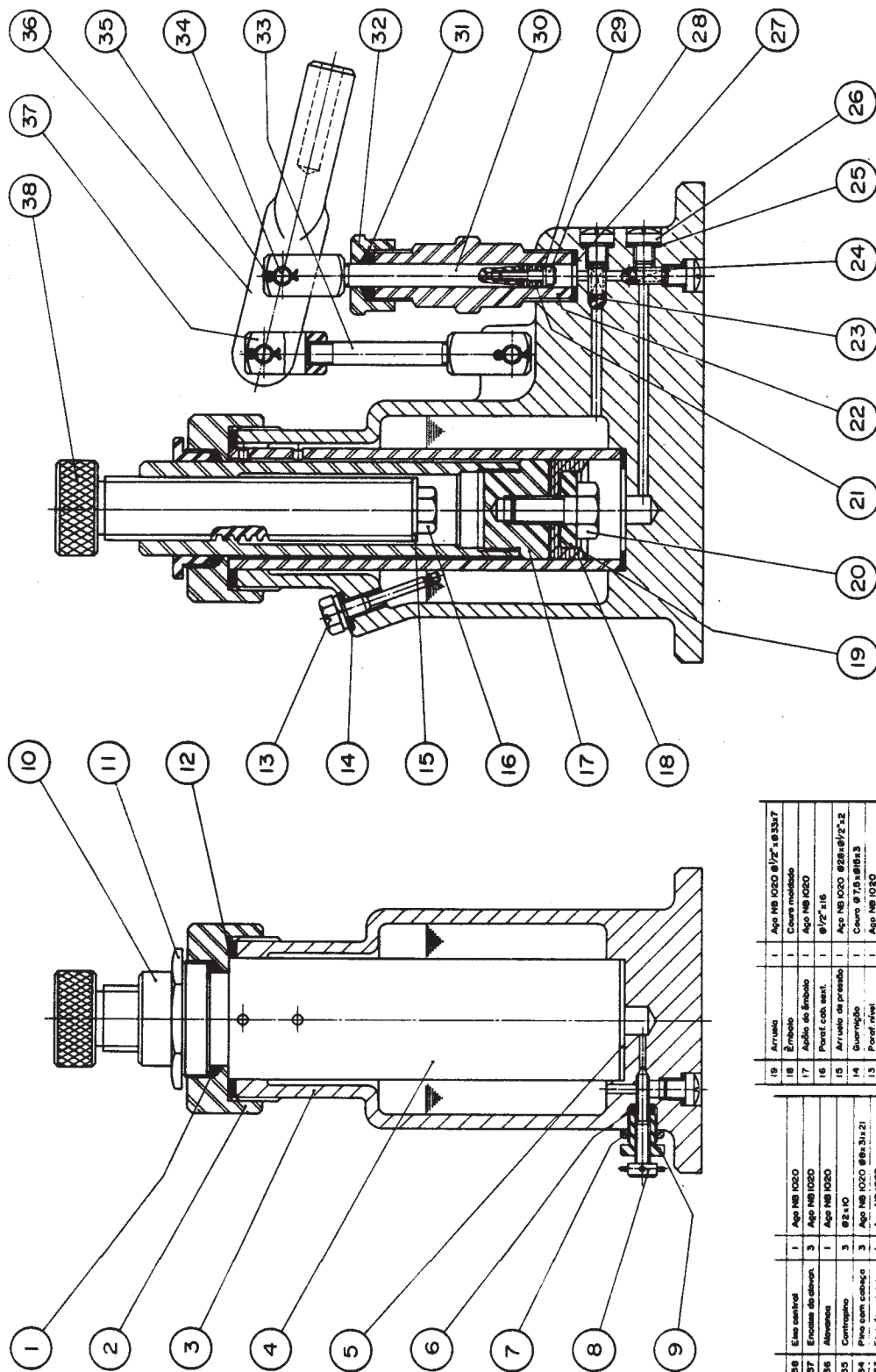


42	Mancol	/	/	qpo 3225 AF	$\mu^4 = 73$
41	Gumejo	/	/	couro	$\mu 37^* \times 50,1,5$
40	Tonco	/	/	qpo NB 020	$\mu^2 \times 21$
39	Anal de ferro	/	/	SOF F-15	$\mu^2 \times 31 \pm 3,5$
38	Chave	/	/	qpo NB 020	$3/8^* \times 24$
37	Cordo	/	/	broze SAC 68A	$\mu^3 \times 24,5$
36	Eixo	/	/	Villares VT-38	$\mu^5 \times 140$
35	Arrasto de saponeira	2	/	SOF MB1	$\mu 0,5 \times 25 \pm 1$
34	Chave de ligas fus	/	/	qpo NB 020	$3/8^* \times 28$
33	Caua	/	/	ferro humido	ver detalhes
32	Gumejo	4	/	couro	$\mu 48^* \times 15 \pm 1,5$
31	Pentula de cob lust	4	/	—	$\mu 44^* \times 20,50^*$
30	Bacha	2	/	broze SAC 660	$\mu 14^* \times 20$
29	Eixo	/	/	Villares VT-38	$\mu 14^* \times 167$

26	Avro de fuso	2	SKF - NHI 1X	$\phi 12 \times 22 \pm 4$
27	Rolico sem-fim	1	Villares VV-38	$\phi 1\frac{1}{2} \times 28$
28	Guarnido	2	curso	$3,30 \times \phi 20 \pm 1,5$
29	Parafuso de cab. ext.	1	—	$3,30 \times 1,61 \pm 1/2$
30	Parafuso de cab. ext.	1	—	$\phi 3/8 \times 14$
31	Avul. dinamizador	1	opc MB 1020	$\phi 1/2 \times 21 \pm 3,30$
32	Revolvo de óleo	1	—	$\phi 1/2 \times 21 \pm 3,30$
33	Revolvo de ar	1	—	$\phi 1/2 \times 21 \pm 3,30$
34	Parafuso de cab. ext.	2	—	$20 \times 1\frac{1}{2}$
35	Parafuso de cab. ext.	1	—	$\phi 3/8 \times 14$
36	Tempo interno	1	opc 3525 AF	$2 \times \phi 100$
37	Guarnido	2	curso	$\phi 14 \times 21 \pm 1,5$
38	Parafuso de cab. ext.	1	—	$\phi 1\frac{1}{2} \times 3/8$
39	Tempo do dinamizador	1	opc MB 1020	$\phi 1\frac{1}{2} \times 15$
40	Parafuso de cab. ext.	8	—	$\phi 1/4 \times 20 \pm 7/8$
41	Tempo externo	1	opc 3525 AF	$1\frac{1}{2} \times \phi 100$
42	Revolvo lmeo	2	SKF 8001 X	$\phi 2 \times \phi 28 \pm 8$

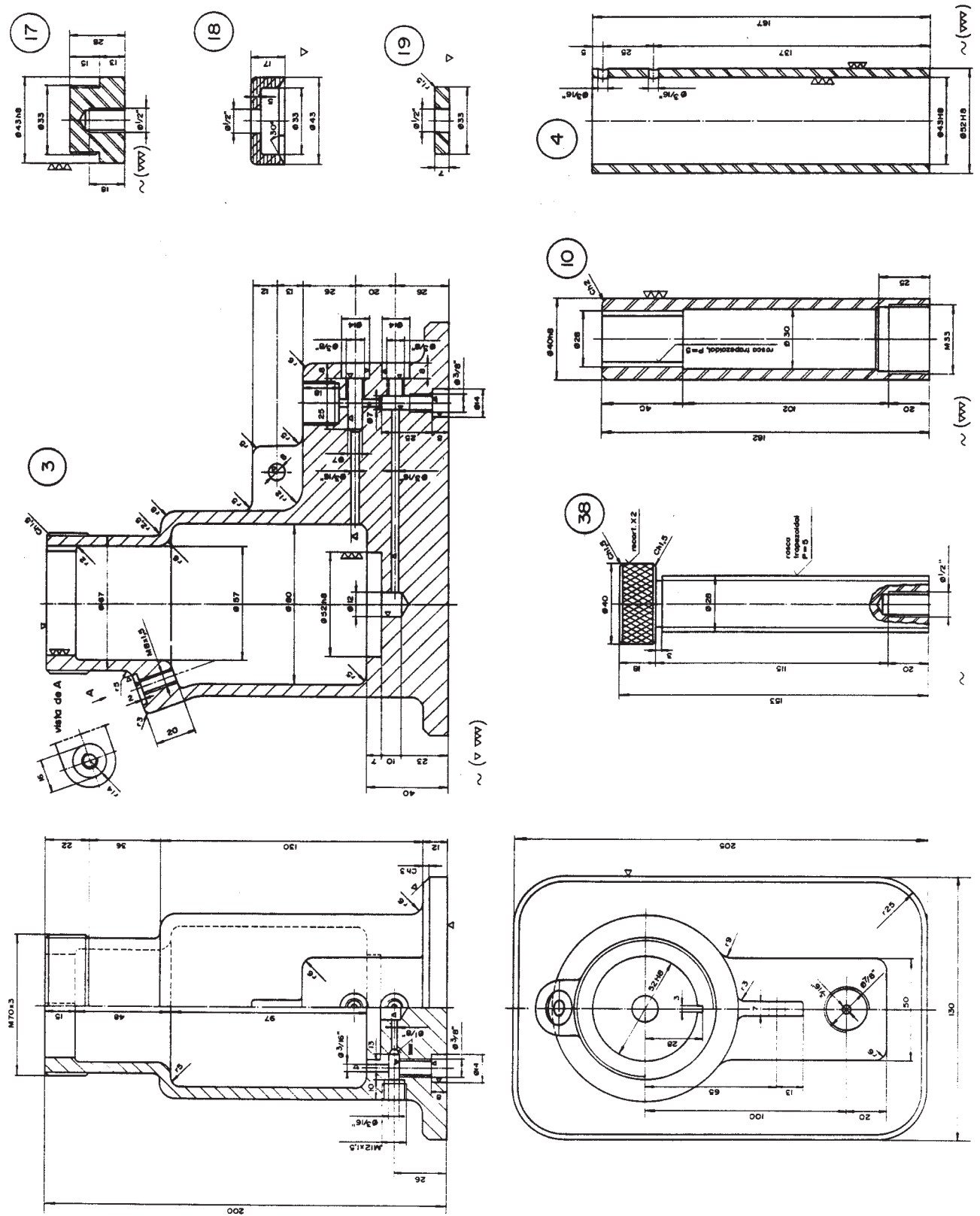
Item	Denominação	Quant.	Material e dimensões
13	Anel elástico	1	—
12	Pino	2	ferrão triviteado 3/8" x 30
11	Anel	1	aga 3523 AF 1" x #120
10	Guarnição	1	cano 3/32 x #120 ± 15
9	Tampo	1	ferrão fundido 1 1/2" x 21"
8	Capa de silenciador	1	ferrão 1/2" - 160
7	Porca leve	2	ferrão 1/4" #16
6	Capa interna do silenciador	1	capa para 1/4"
5	Capa externa do silenciador	1	capa para 1/4"
4	Poltrona	4	seleção
3	Motor	1	branco 3/4" #40 43" x 22
2	Chave de ajuste final	1	aga 18 0210 3/8" x 4 x 20
1	Dieta	1	branco 3/4" #40 9 1/4" #16





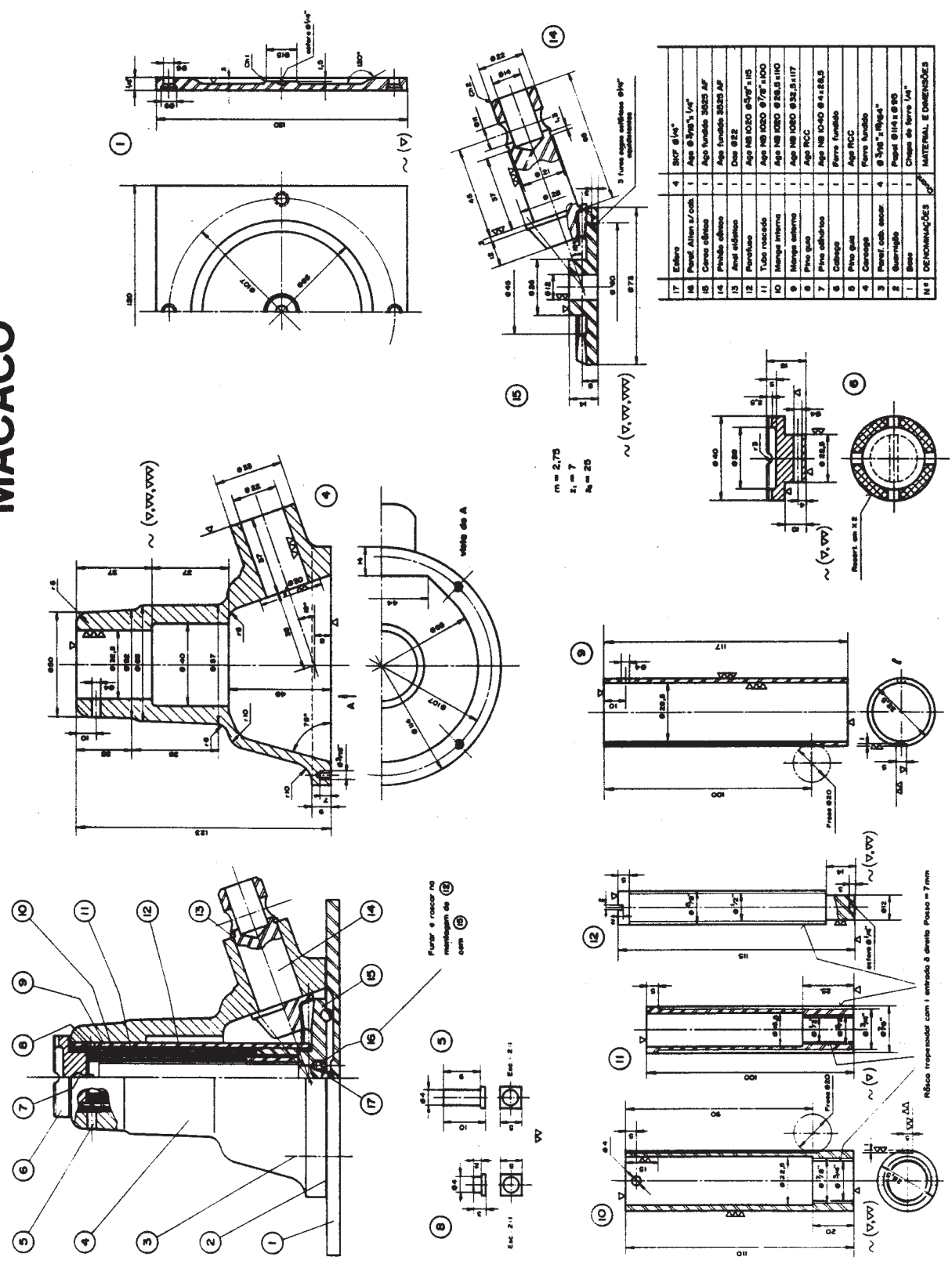
Nº	DENOMINAÇÕES	Nº	DENOMINAÇÕES	Nº	DENOMINAÇÕES
38	Eixo central	19	Arruela	1	Aço HB 0200 Ø1/2" x 19.33x7
37	Enxada de diâmetro	18	Emboia	1	Couro moldado
36	Arruela	17	Apêlo do Emboia	1	Aço HB 0200
35	Contingente	16	Paraf. cob. ext.	1	Ø1/2" x 16
34	Pino com cabeça	15	Arruela de pressão	1	Aço HB 0200 Ø22xØ1/2" x 2
33	Eixo de encaixe	14	Guarnição	1	Couro Ø7,5xØ15x3
32	Porca especial	13	Paraf. nível	1	Aço HB 0200
31	Guarnição	12	Guarnição	1	Couro Ø50xØ65x3
30	Eixo superior	11	Paraf. especial	1	Aço HB 0200 M50x1,5
29	Arruela fixa	10	Eixo	1	Aço HB 0200 Ø40x1,62
28	Paraf. "ALLEN"	9	Paraf. de apêlo	1	Aço HB 0200 Ø1/2" x 16
27	Guarnição	8	Apêlo	1	Aço HB 0200
26	Paraf. cob. int.	7	Paraf. trava	1	Aço HB 0200 Ø1/2" x 4
25	Guarnição	6	Guarnição	1	Couro Ø4xØ10x3
24	Paraf. Ø1/2" x 16	5	Guarnição	1	Couro Ø35xØ50x2,5
23	Paraf. Ø1/2" x 16	4	Conexão	1	Aço HB 0200
22	Paraf. Ø1/2" x 16	3	Couro	1	Pêlo fundido
21	Paraf. Ø1/2" x 16	2	Paraf. especial	1	Aço HB 0200
20	Paraf. cob. ext.	1	Guarnição	1	Eixo anelado
19	Paraf. cob. ext.	1	Guarnição	1	Eixo anelado

MACACO HIDRÁULICO

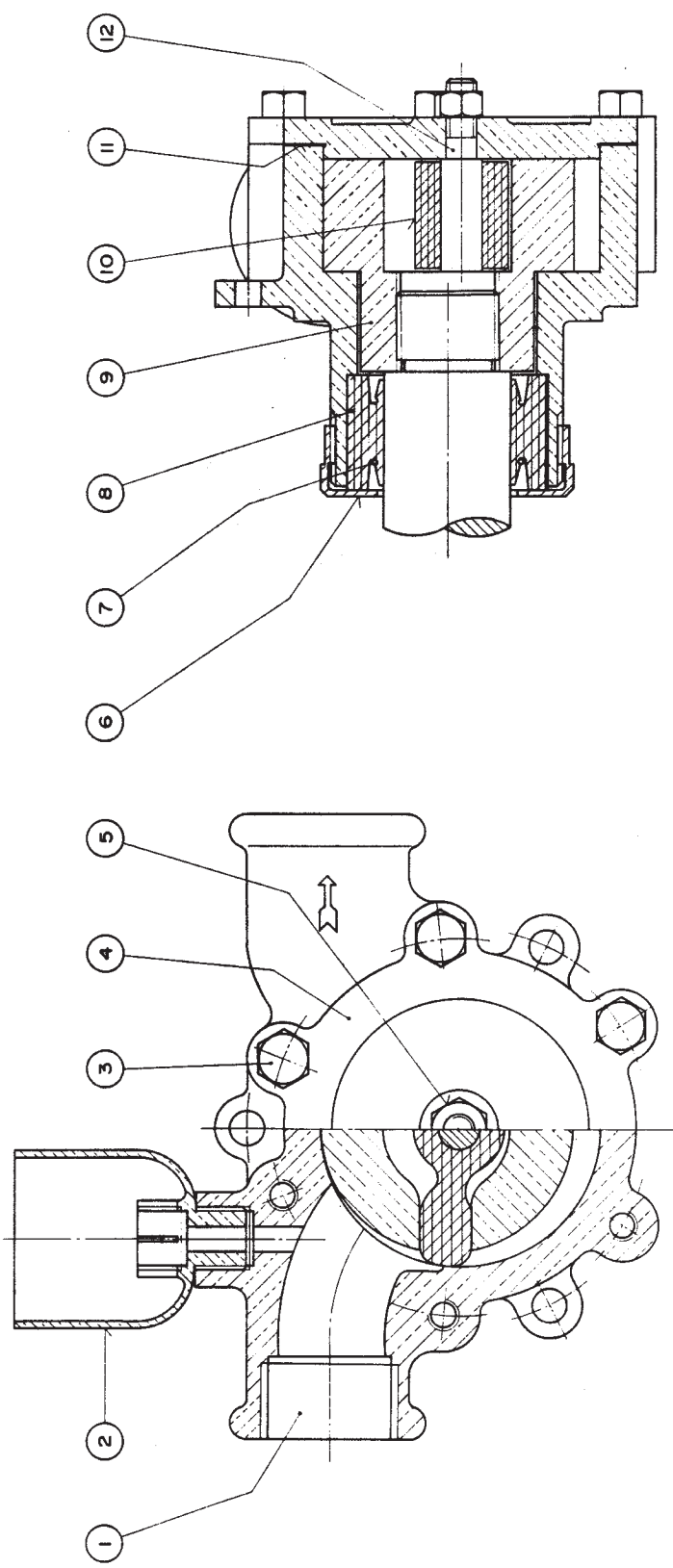




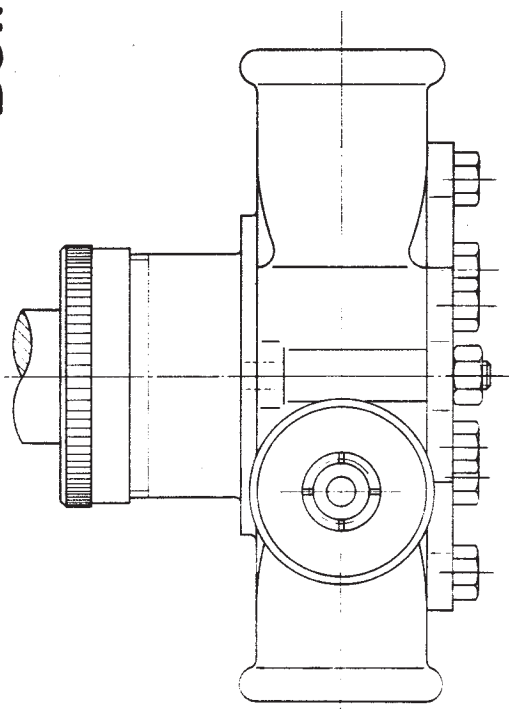
MACACO



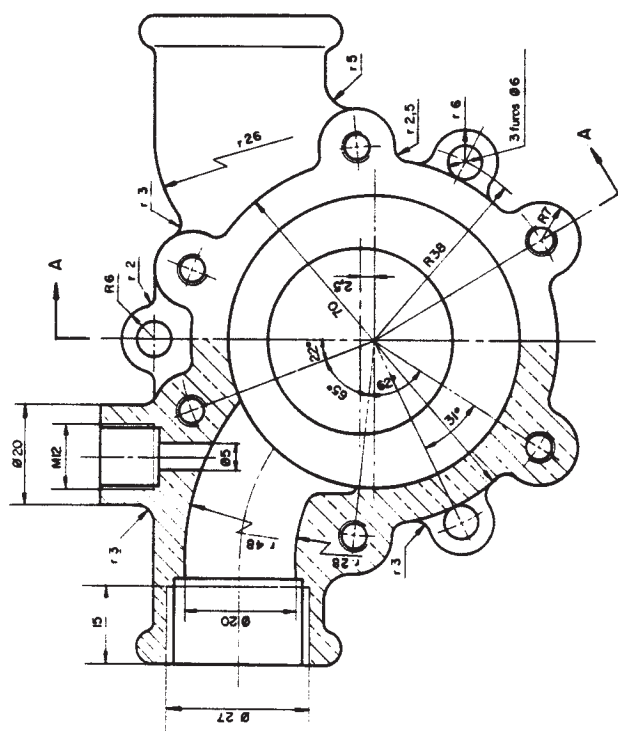
MATERIAL E DIMENSÕES	
17	Eixo
16	Paraf. Allen 1/2" x 1/4"
15	Paraf. Allen 1/2" x 1/4"
14	Paraf. Allen 1/2" x 1/4"
13	Paraf. Allen 1/2" x 1/4"
12	Paraf. Allen 1/2" x 1/4"
11	Paraf. Allen 1/2" x 1/4"
10	Paraf. Allen 1/2" x 1/4"
9	Paraf. Allen 1/2" x 1/4"
8	Paraf. Allen 1/2" x 1/4"
7	Paraf. Allen 1/2" x 1/4"
6	Paraf. Allen 1/2" x 1/4"
5	Paraf. Allen 1/2" x 1/4"
4	Paraf. Allen 1/2" x 1/4"
3	Paraf. Allen 1/2" x 1/4"
2	Paraf. Allen 1/2" x 1/4"
1	Paraf. Allen 1/2" x 1/4"
MATERIAL E DIMENSÕES	



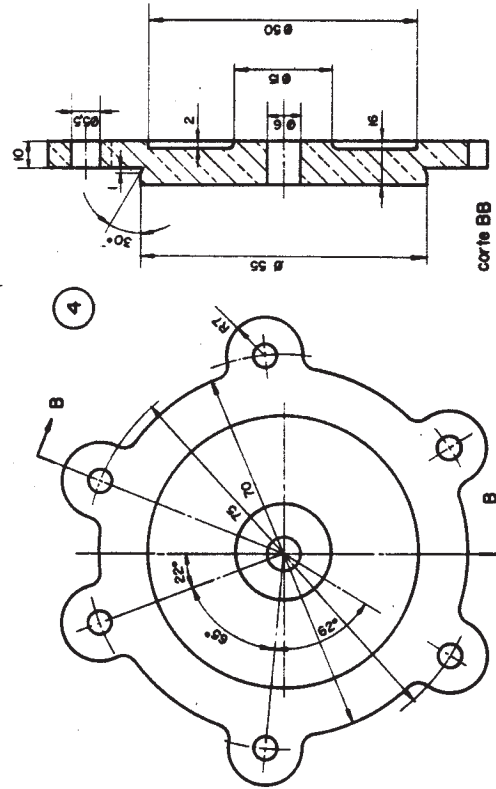
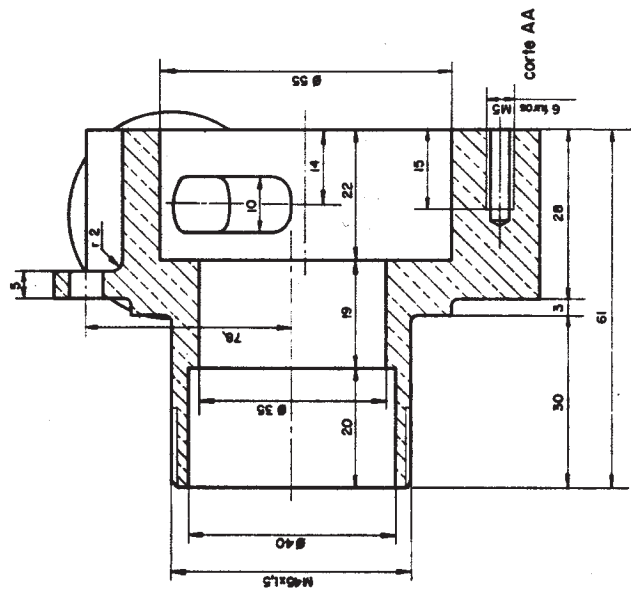
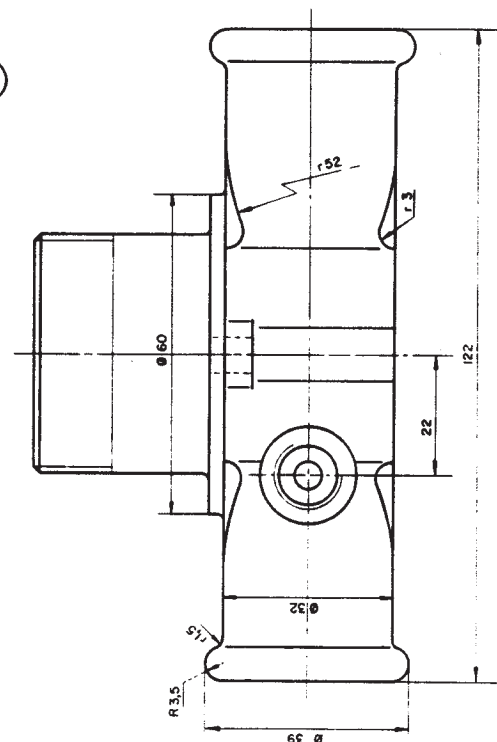
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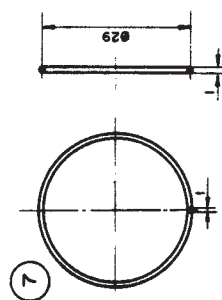
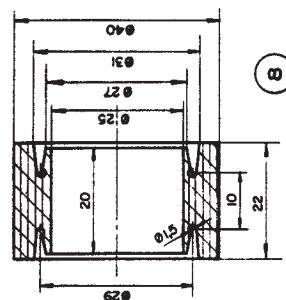
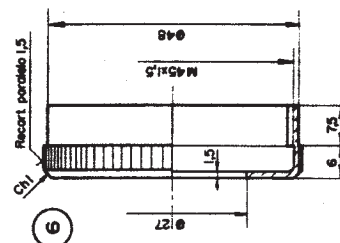
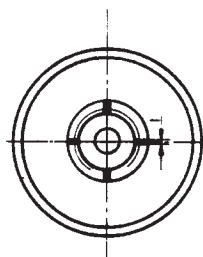
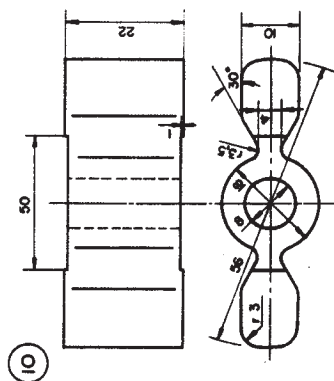
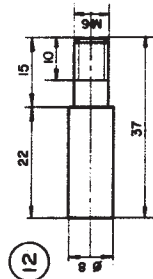
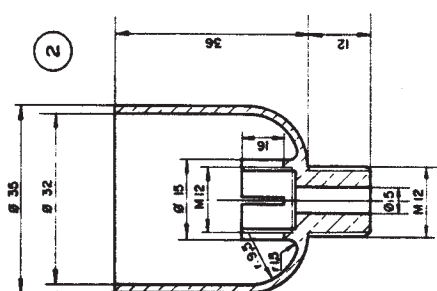
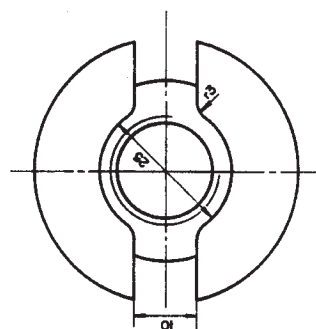
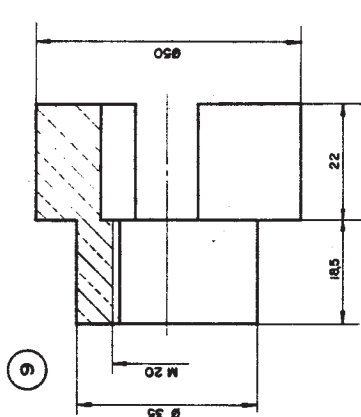


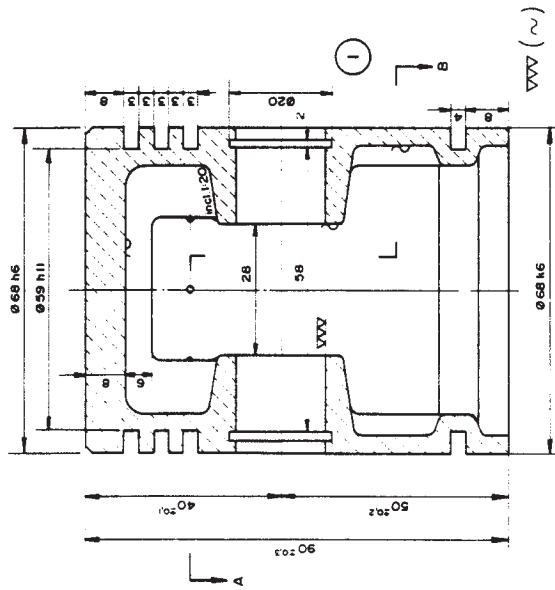
Item	Qtd	Descrição	Material	Dimensões
12	1	Parafuso	Aço 1045 Ø8 x 37	
11	1	Porca	Latão Ø85 x Ø70 x 1	
10	1	Platina	Latão	
9	1	Guia da platina	Latão	
8	1	Retentor	Borracha Ø40 x Ø25 x 22	
7	1	Anel do retentor	Aço 1045 Ø29	
6	1	Parafuso especial	Latão	
5	1	Parafuso	MS	
4	1	Temperado	Latão	
3	1	Parafuso	MS x 15	
2	1	Capim	Latão	
1	1	Carroça	Latão	
Item		DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES



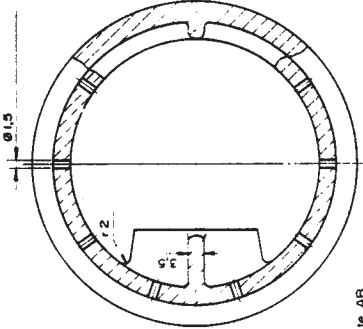
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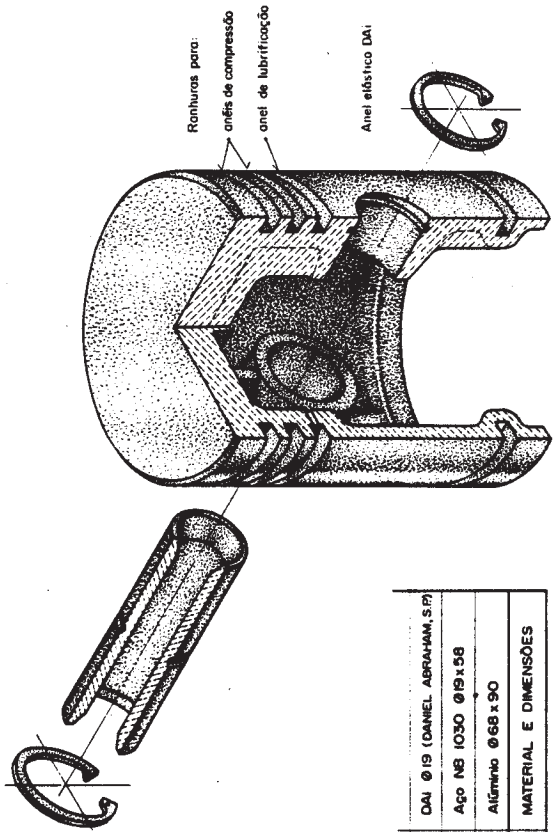
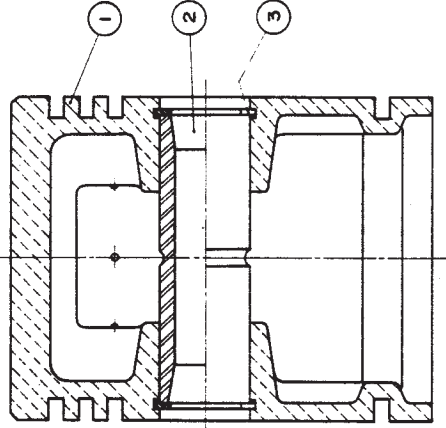
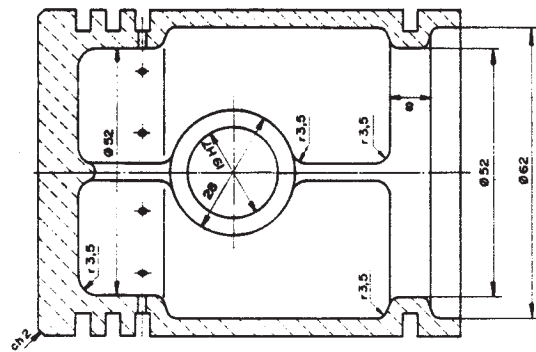
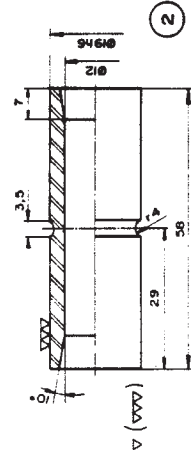




10 furos equidistantes



corde AB

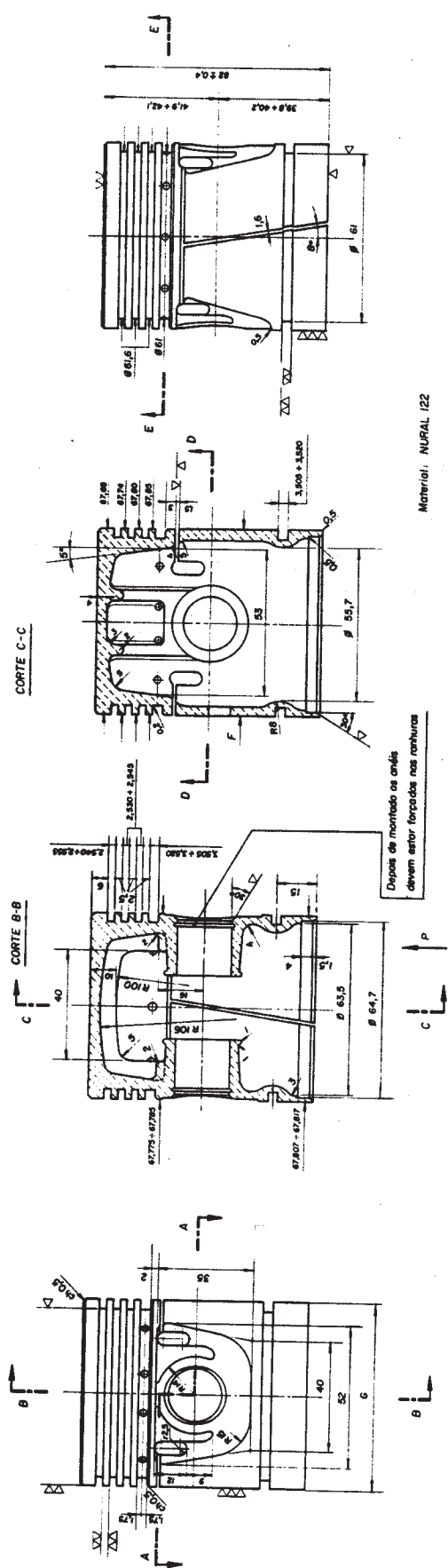


PISTÃO

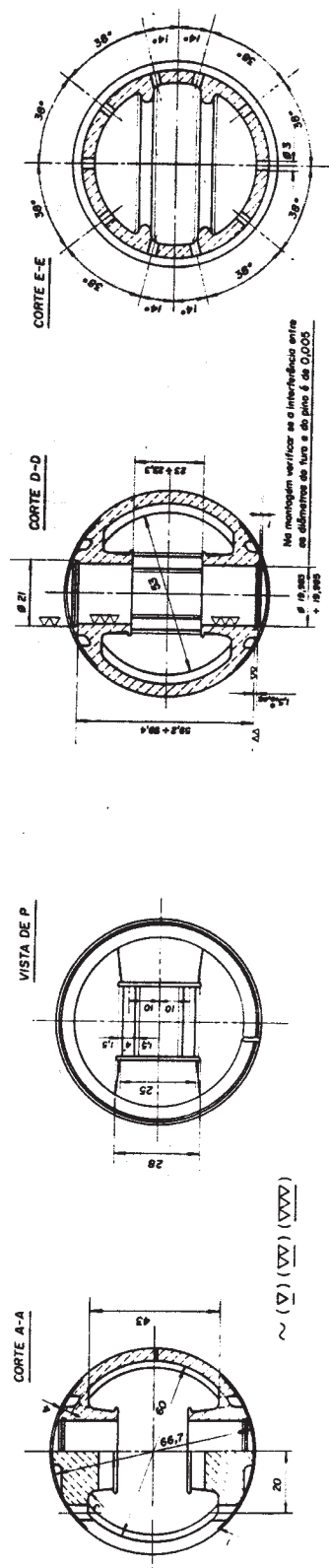
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES
3	Anel elástico	2	DAi Ø 19 (DANIEL ABRAHAM, S.P)
2	Pino	1	Aço N5 1050 Ø 19 x 58
1	Pistão	1	Alumínio Ø 68 x 90

PISTÃO

PARA MOTOR DE 4 TEMPOS, CILINDRO DE 68mm DE DIÂMETRO, CURSO DE 75mm E 8,5 CV POR CILINDRO A 4500 R.P.M.

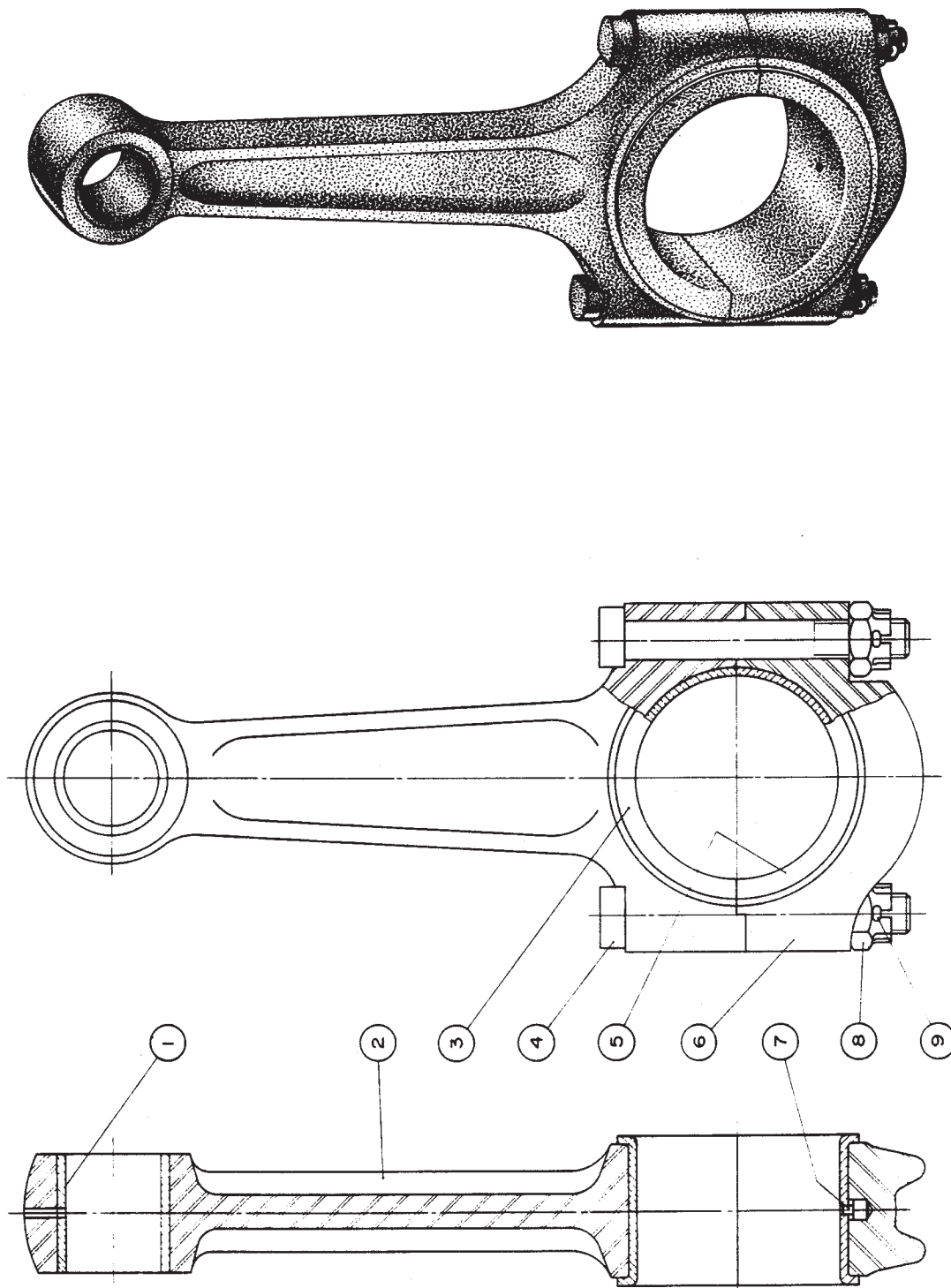


Material: NURAL 122



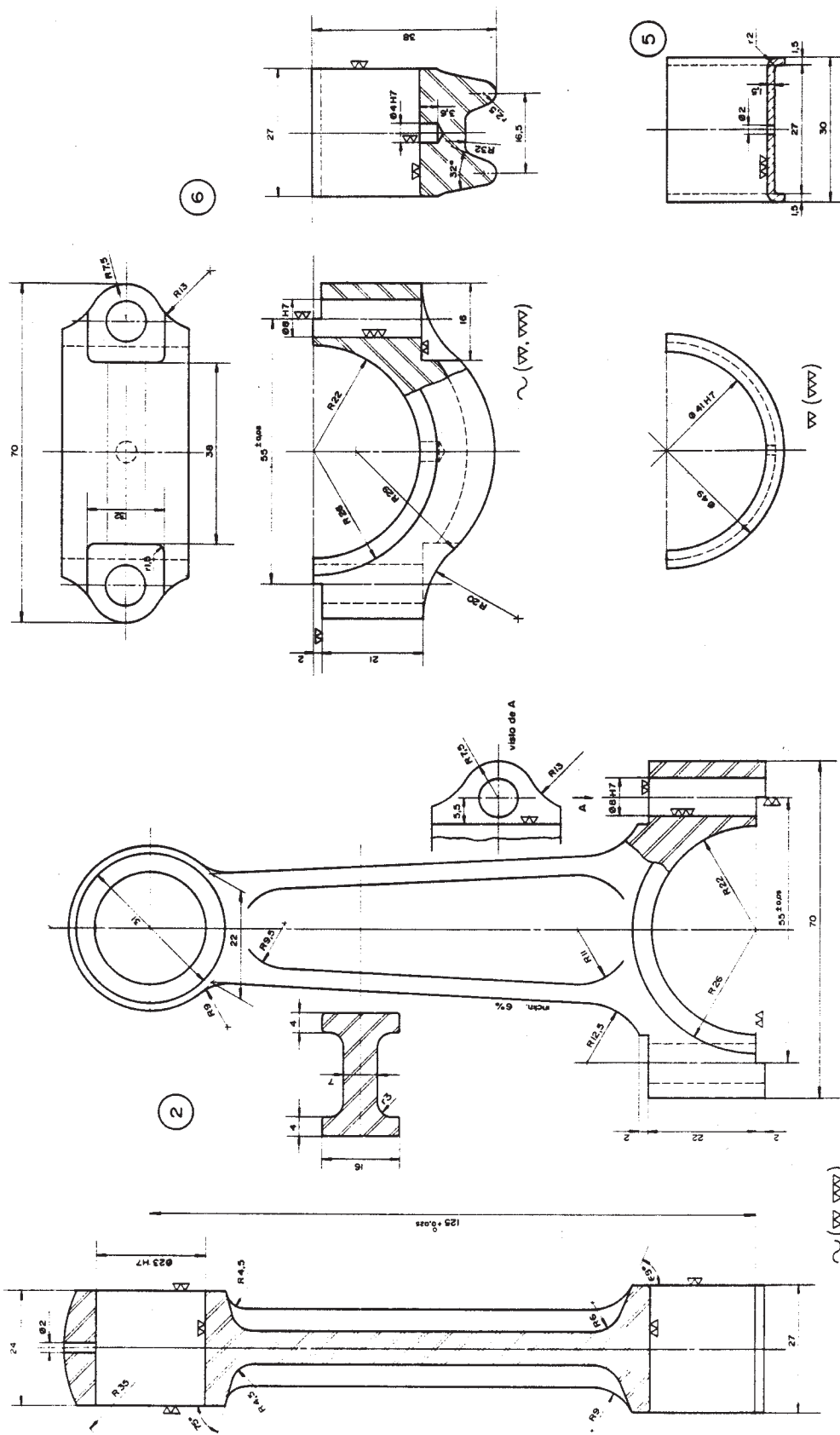
Estampar no pistão a letra A, B ou C, segundo a tolerância usada.

G A : 67,967 + 67,977 B : 67,977 + 67,987 C : 67,987 + 67,997	F	A : 67,935 + 67,945 B : 67,945 + 67,955 C : 67,955 + 67,965
--	-----------------	--

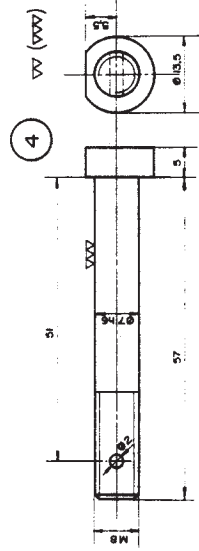
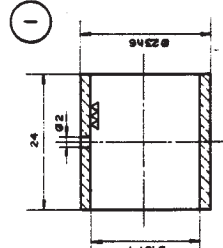


BIELA

9	Cabeça	2	Ø 2 x 28	2	Apó MB 1040 MB 137
6	Pinos castiço	2	Apó MB 1040 MB	1	Brasão SAE 660
7	Pinos da biela	1	Apó MB 1030	1	Apó MB 1040
4	Travessa	1	Apó MB 1040	1	Brasão SAE 660
5	Cabeça inferior	1	Brasão SAE 660	1	Brasão SAE 660
			Nº DENOMINAÇÕES		
			Quant		
			MATERIAL E DIMENSÕES		



A peça nº 3 será enfiada à nº 5
porém sem o furo de Ø2



3

7

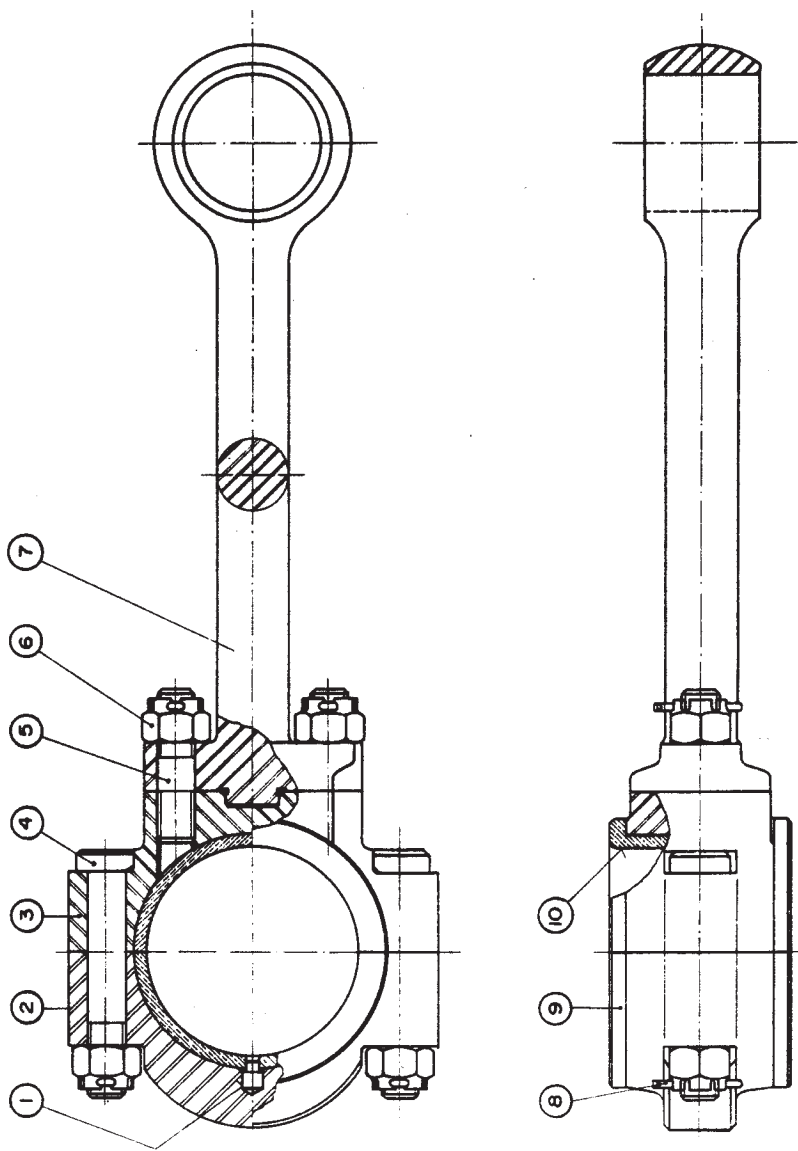
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4

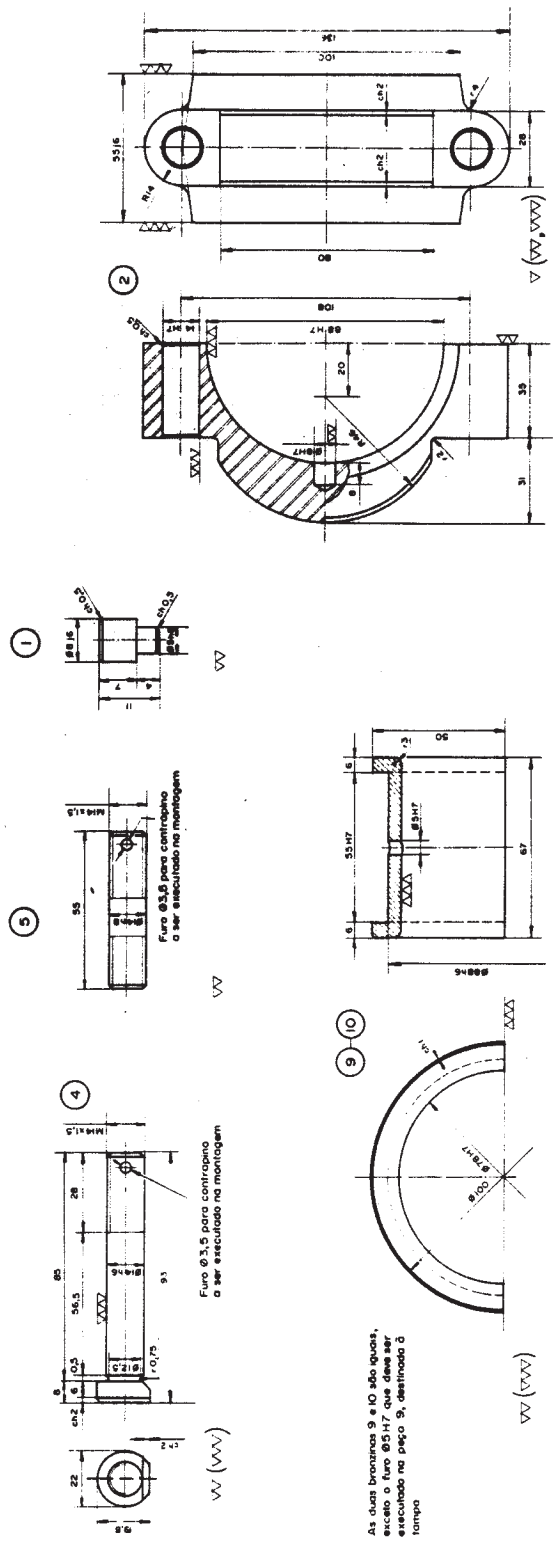
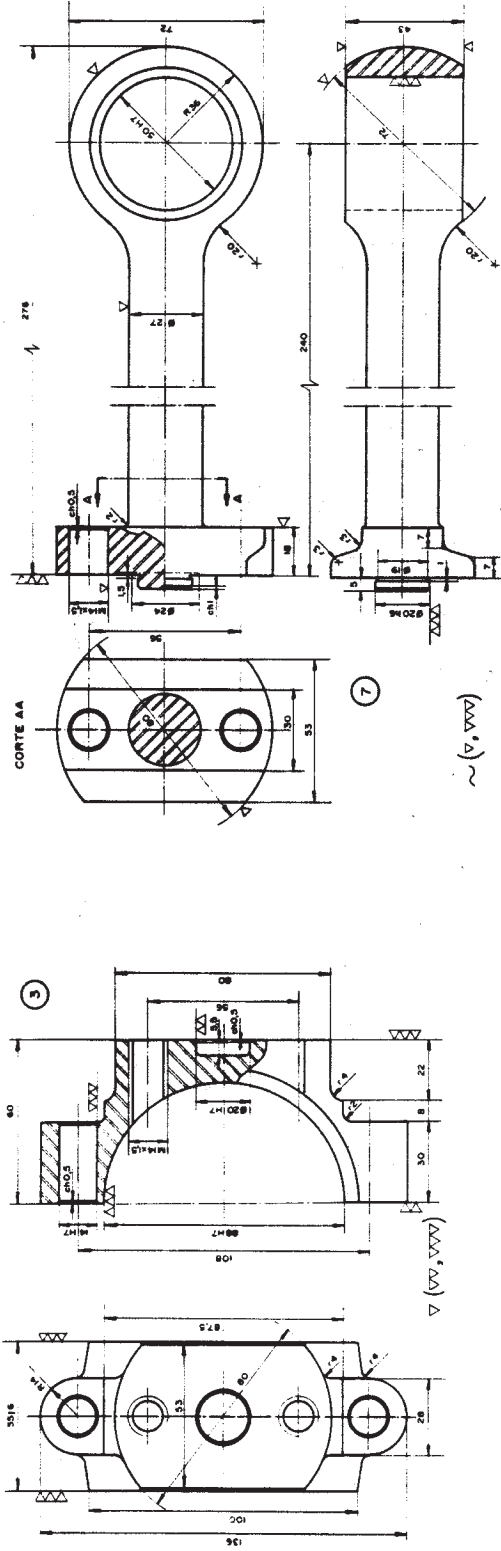
∇ (∇∇)

∇ (∇∇, ∇∇)

BIELA



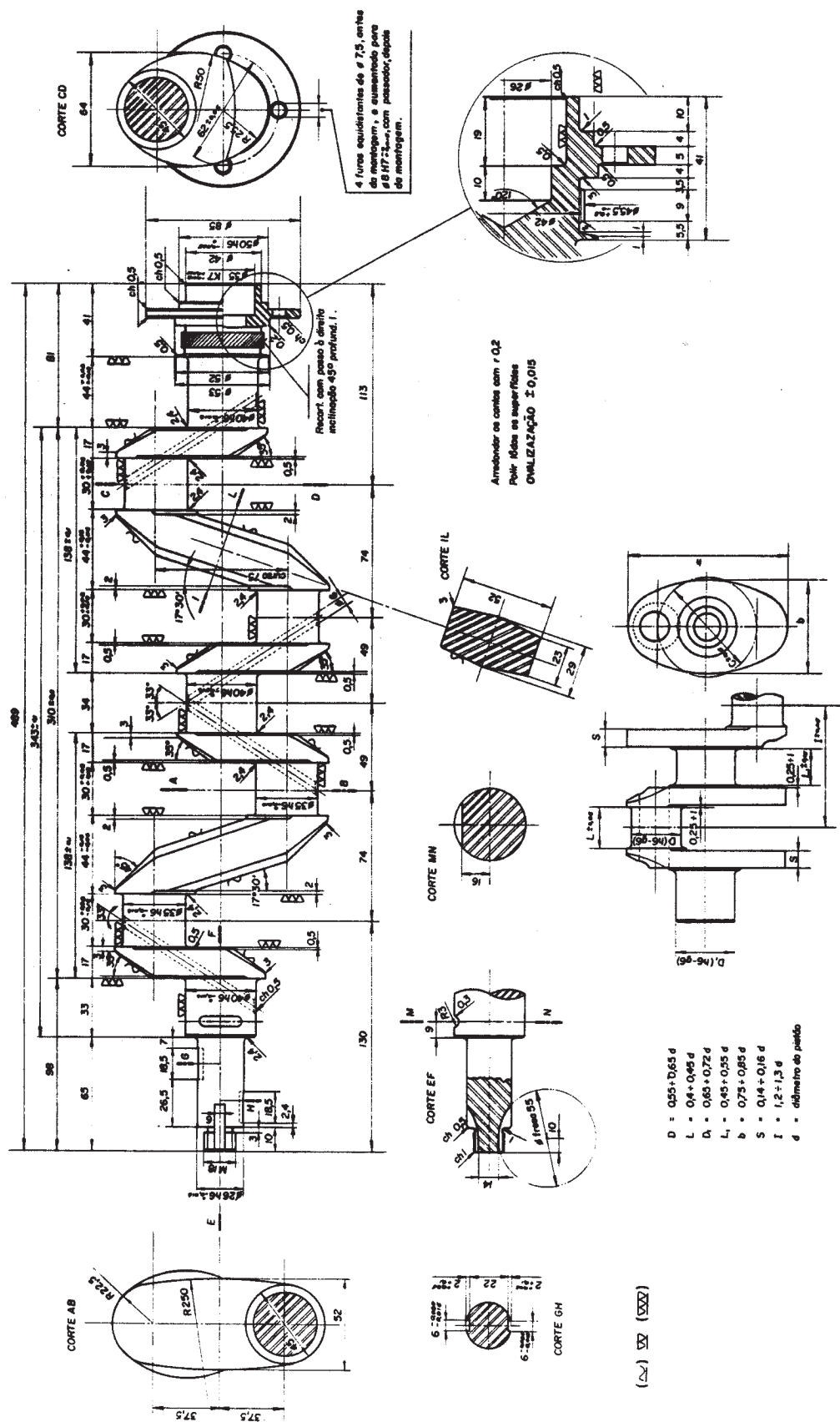
10	Bronzina da cabeça	1	Bronze SAE 660
9	Bronzina da tampa	1	Bronze SAE 660
8	Contrapino	4	Aço NB 1040 Ø3x35
7	Haste	1	Aço NB 9837
6	Porca castelo	4	Aço NB 1040 M14x1,5
5	Prisioneiro	2	Aço NB 1040 M14x1,5x55
4	Parafuso da tampa	2	Aço NB 1040
3	Cabeça	1	Aço NB 9837
2	Tampa	1	Aço NB 9837
1	Pino da bronzina	1	Aço NB 1040
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES



As duas brancas 9 e 10 são iguais,
 exceto o furo Ø15 H7 que deve ser
 executado na peça 9, destinada à
 tampa

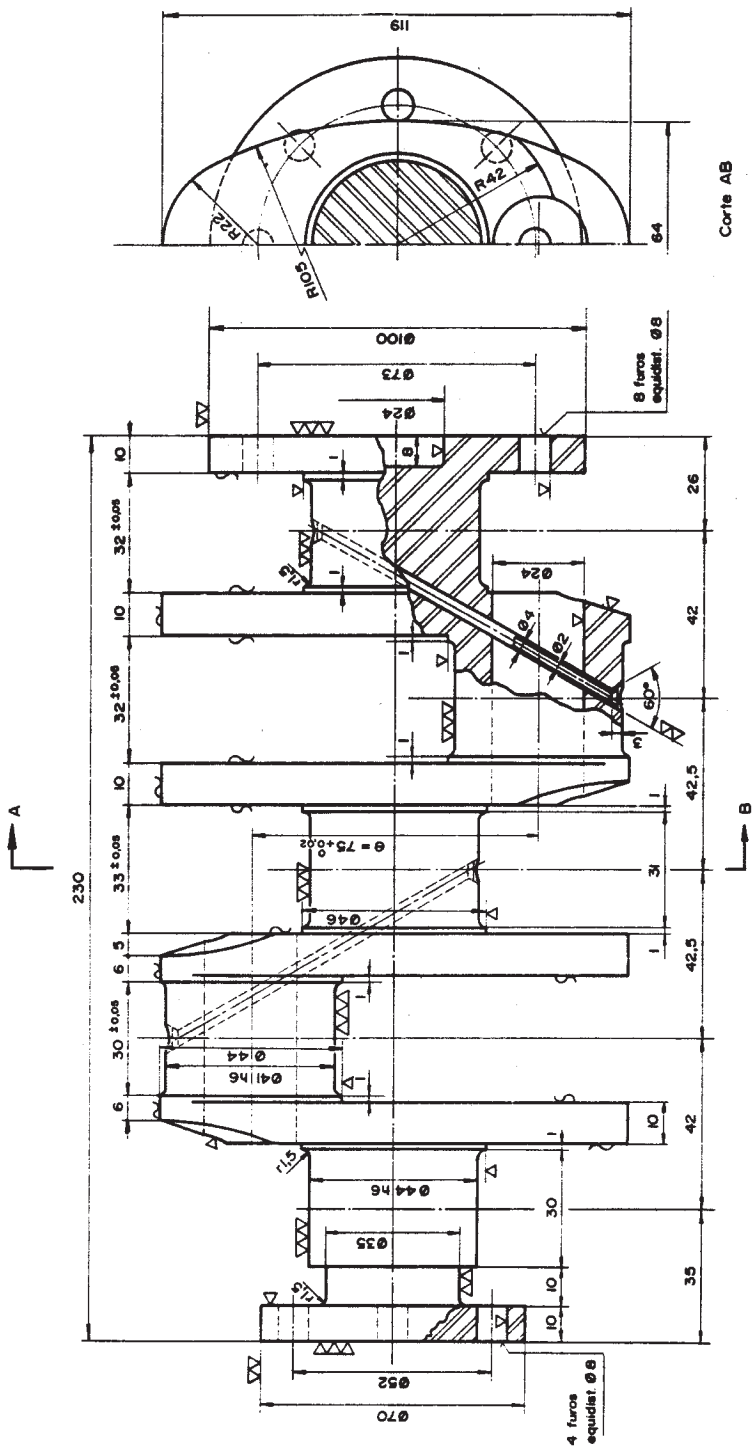
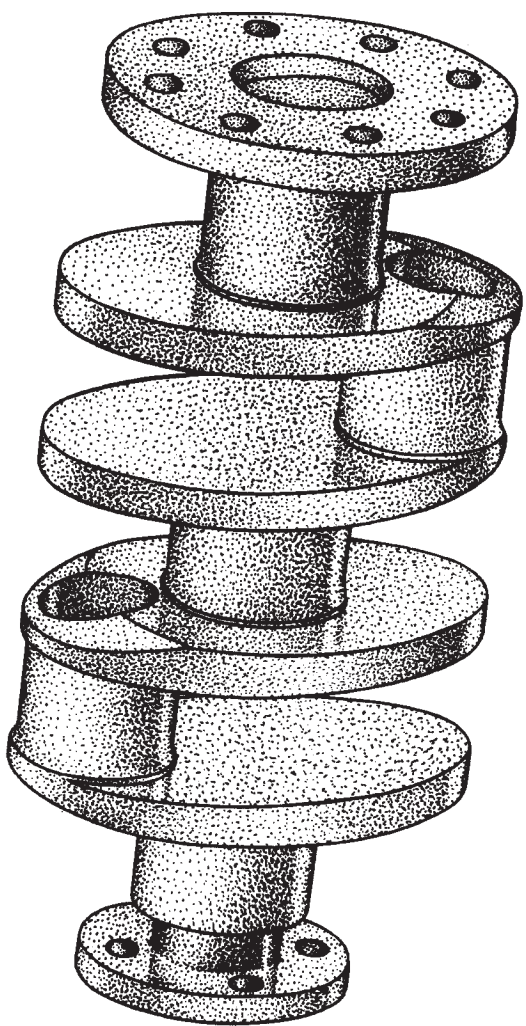
VIRABREQUIM

MOTOR DE AUTOMÓVEL DE QUATRO CILINDROS, 35 CV E 4500 RPM.

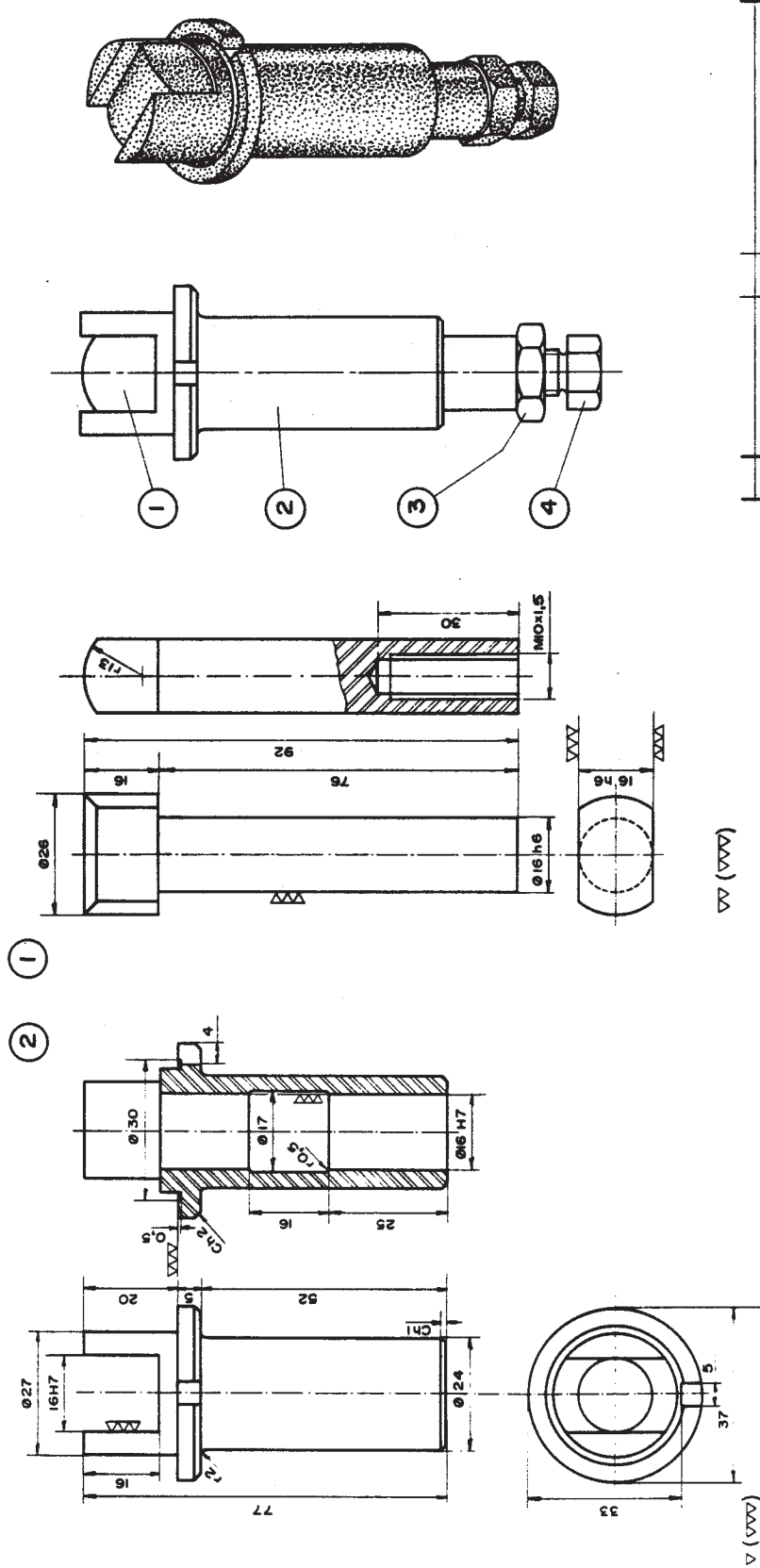


VIRABREQUIM DE MOTOR EM LINHA COM DOIS SUPORTES POR CILINDRO

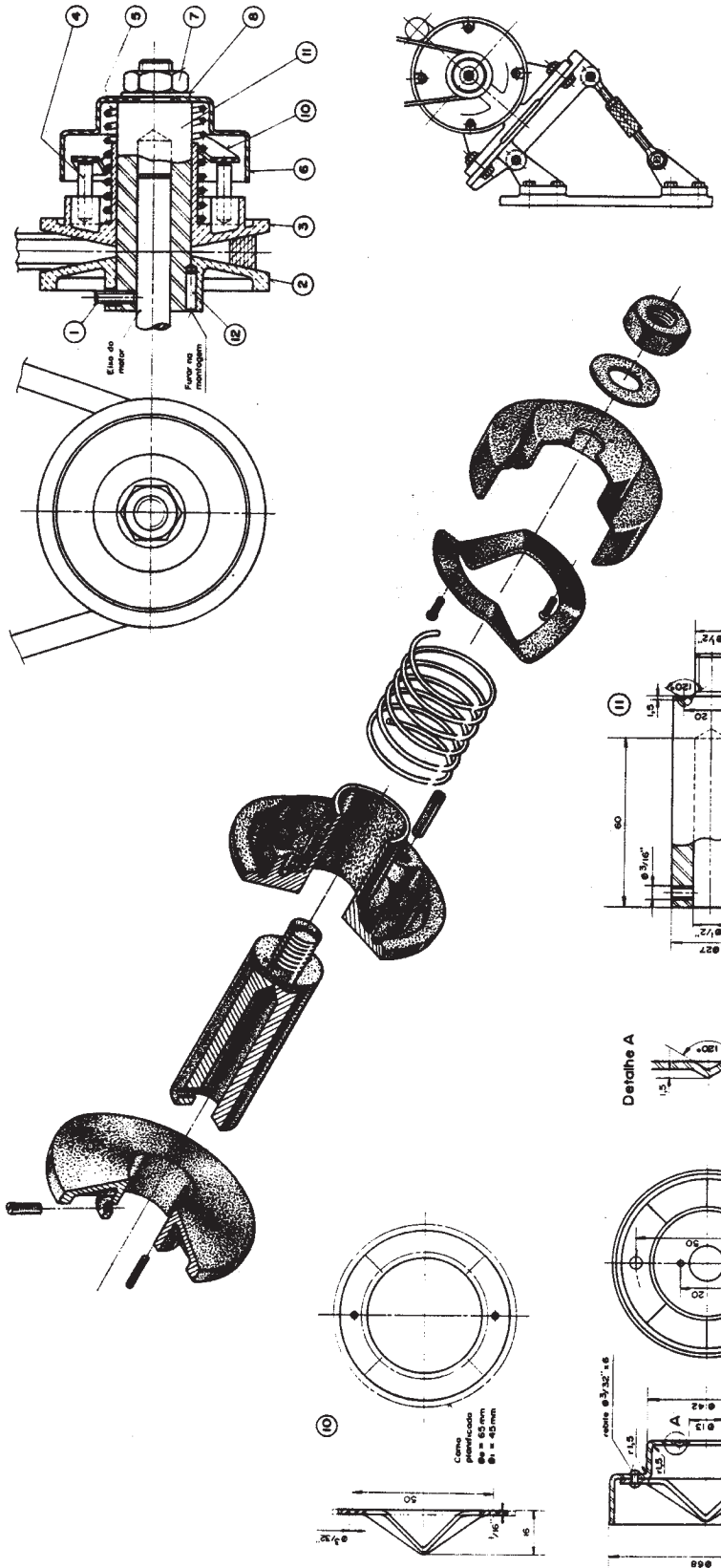
VIRABREQUIM



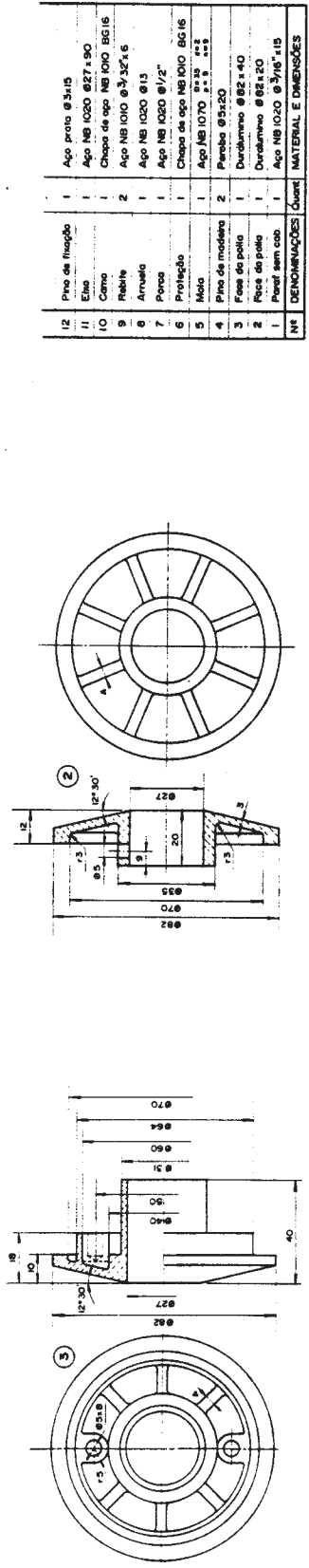
TUCHO PARA VÁLVULA



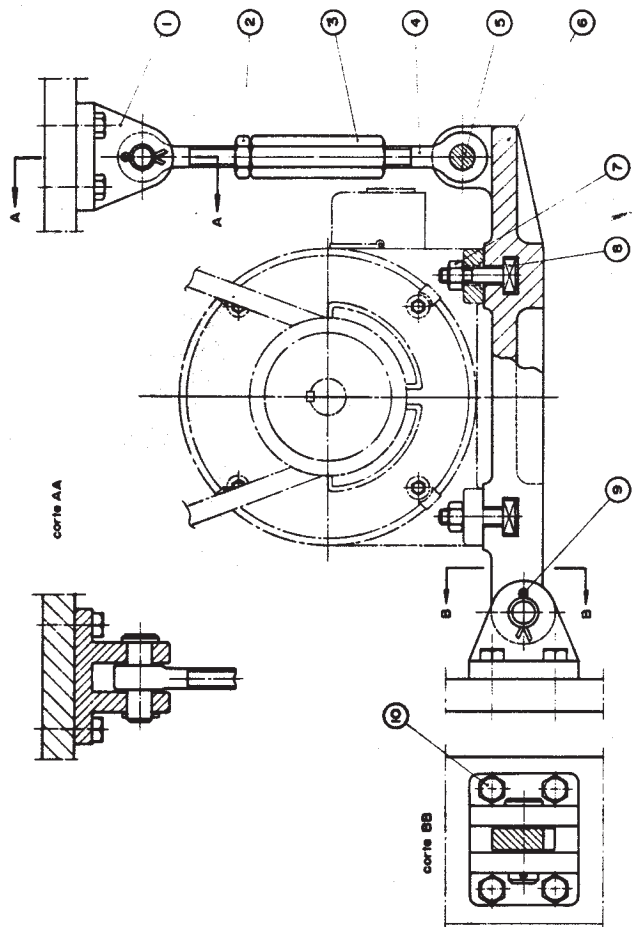
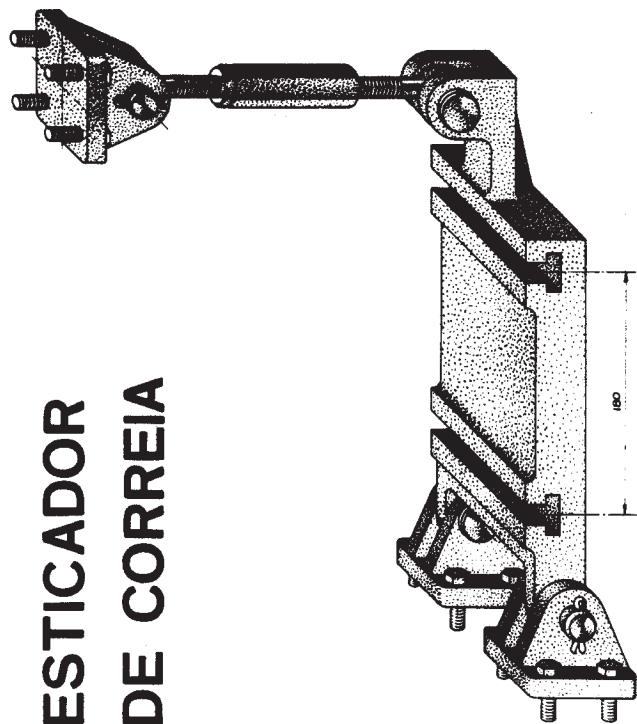
Item	DENOMINAÇÕES	MATERIAL E DIMENSÕES
4	Paraf. cab. sext.	MIO x 1,5 x 24
3	Porca sext.	MIO x 1,5
2	Bucha	Aço NB IO60
1	Haste	Aço NB IO60



POLIA VARIÁVEL

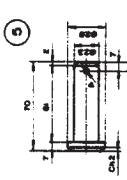
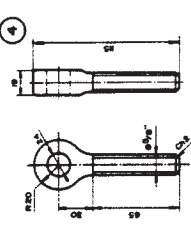
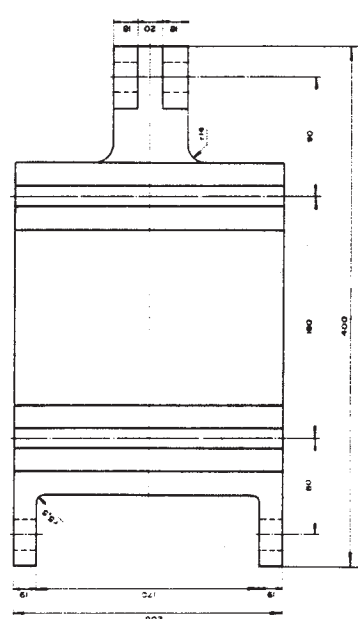
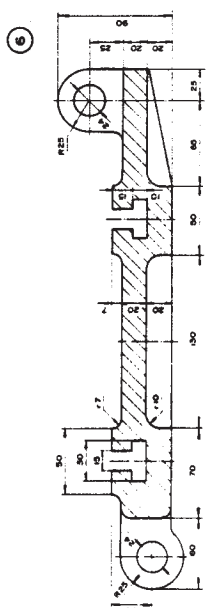


ESTICADOR DE CORREIA

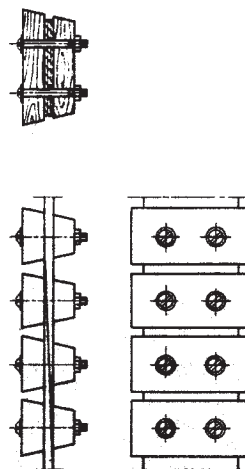
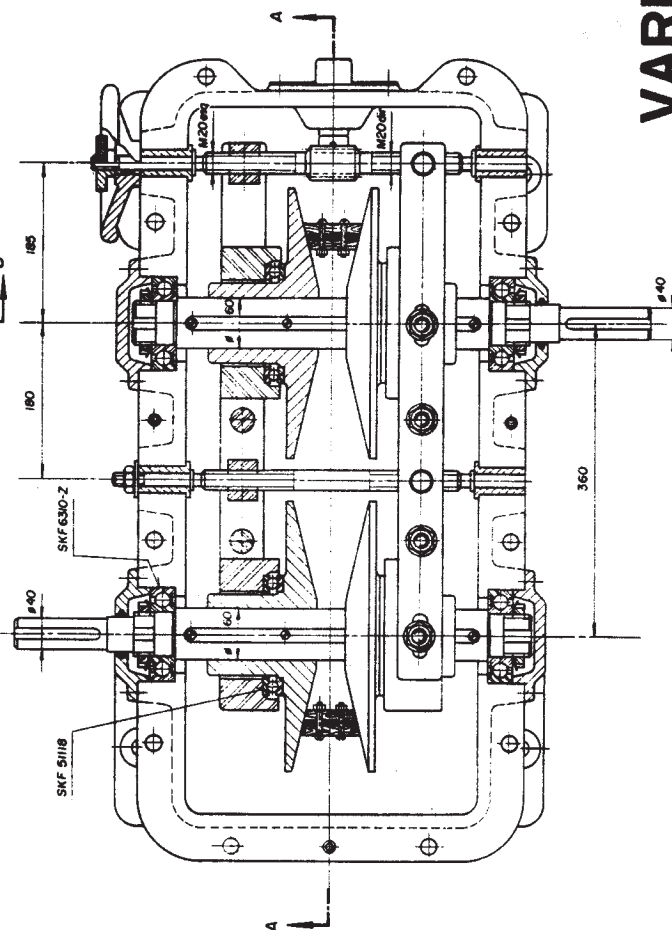
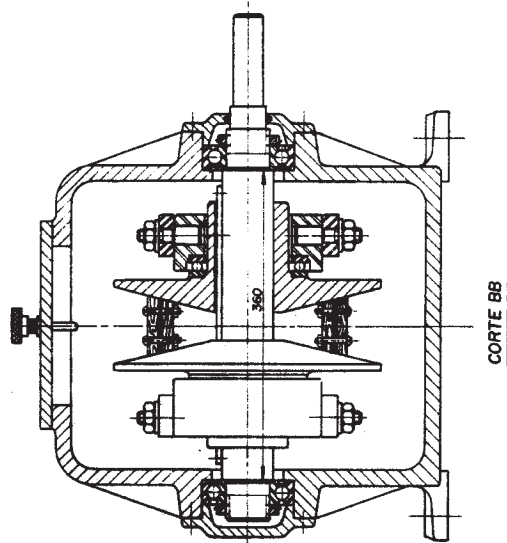
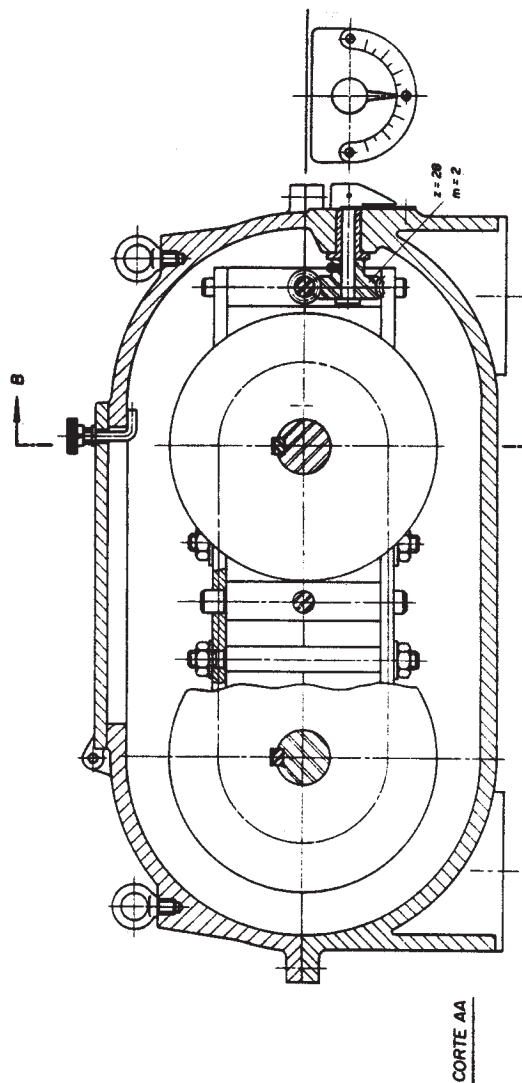


corde AA

corde BB

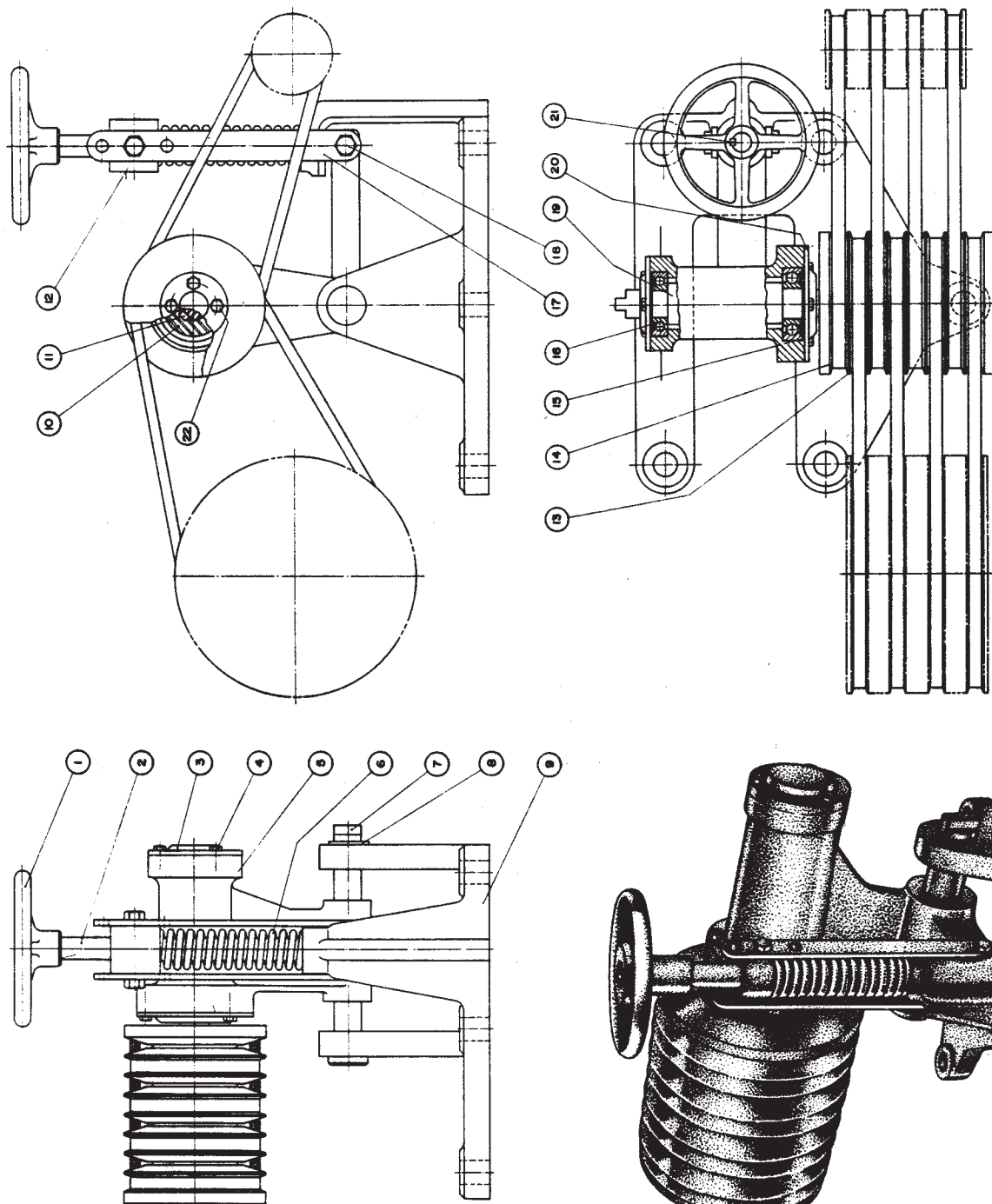


Qtd	DENOMINAÇÕES	MATERIAL E DIMENSÕES
10	Paraf. cab. set	12 $\phi 3/8" \times 60$
9	Cupilha	4 $\phi 4 \times 30$
8	Paraf. cab. quad	4 $\phi 1/2" \times 50$
7	Placa set	4 $\phi 1/2" \times 10$
6	Suporte	1 Ferro fundido
5	Pino com cabega	4 Ago N8 1020 $\phi 23 \times 63$
4	Paraf. de angulo	2 $\phi 3/8" \times 115$
3	Placa set	1 Ago N8 1050 $\phi 3/8" \times 100$
2	Contra-parca set	1 $\phi 3/8" \times 12$
1	Ar. Haste	3 Ferro fundido

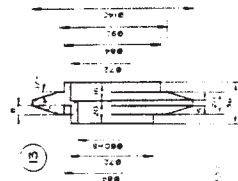
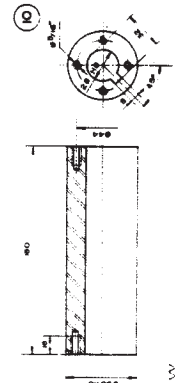
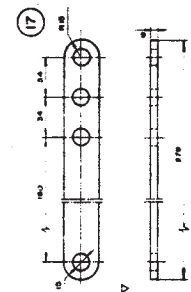
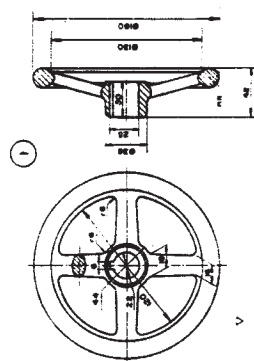
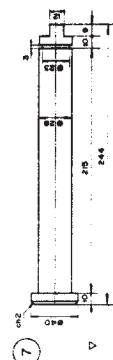
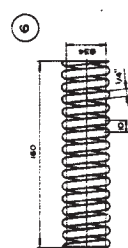
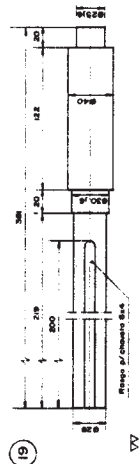
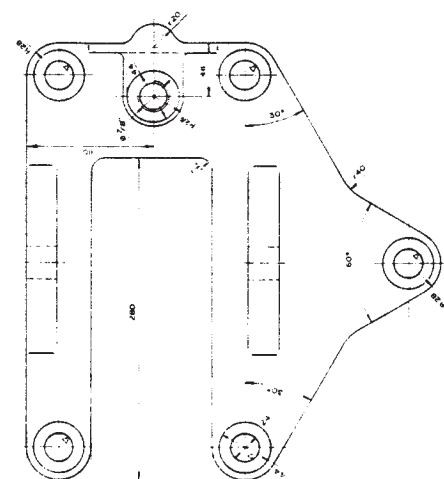
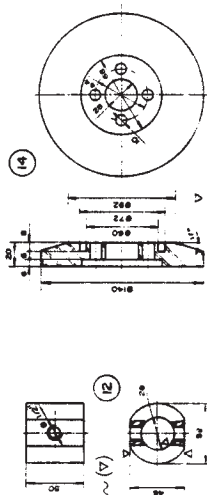
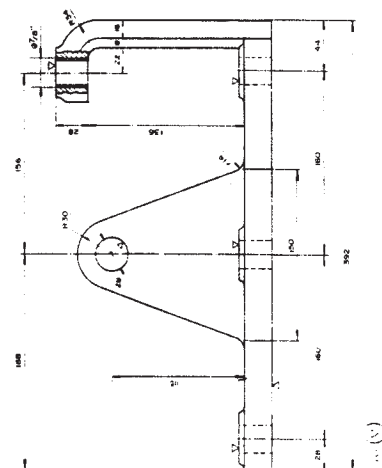
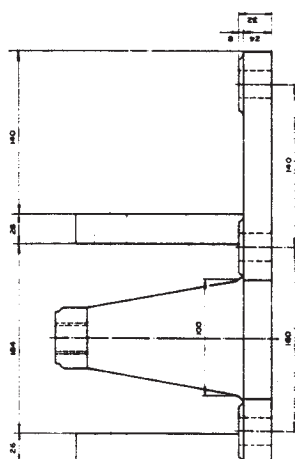


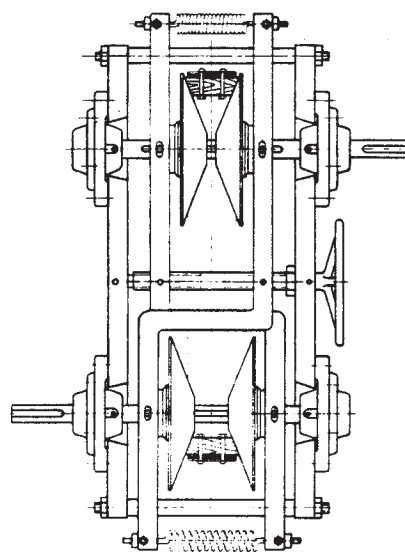
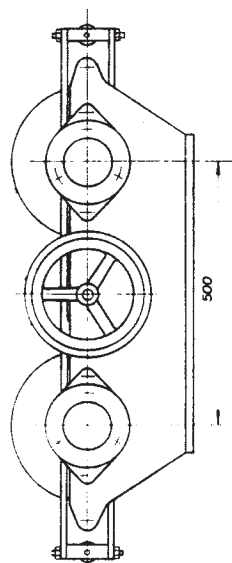
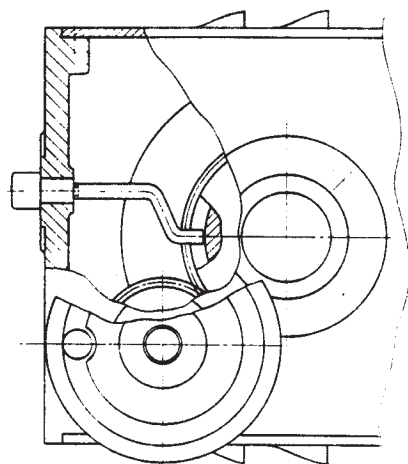
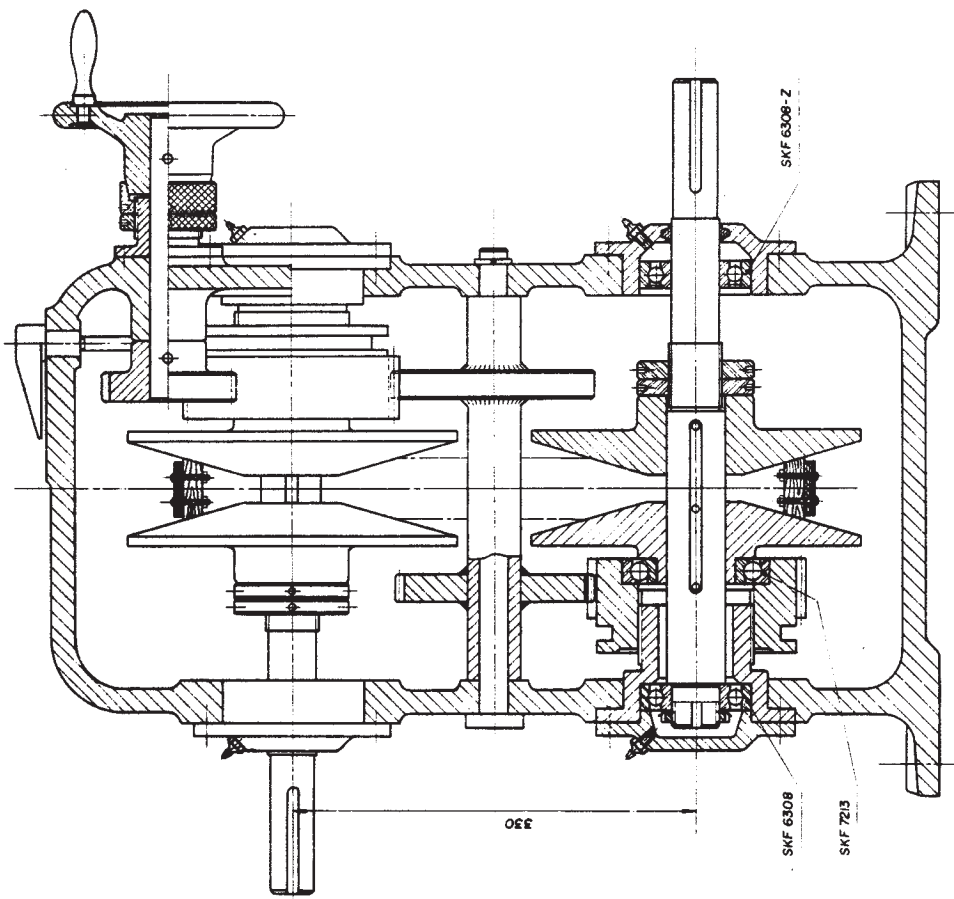
VARIADOR DE VELOCIDADE

VARIADOR DE VELOCIDADE



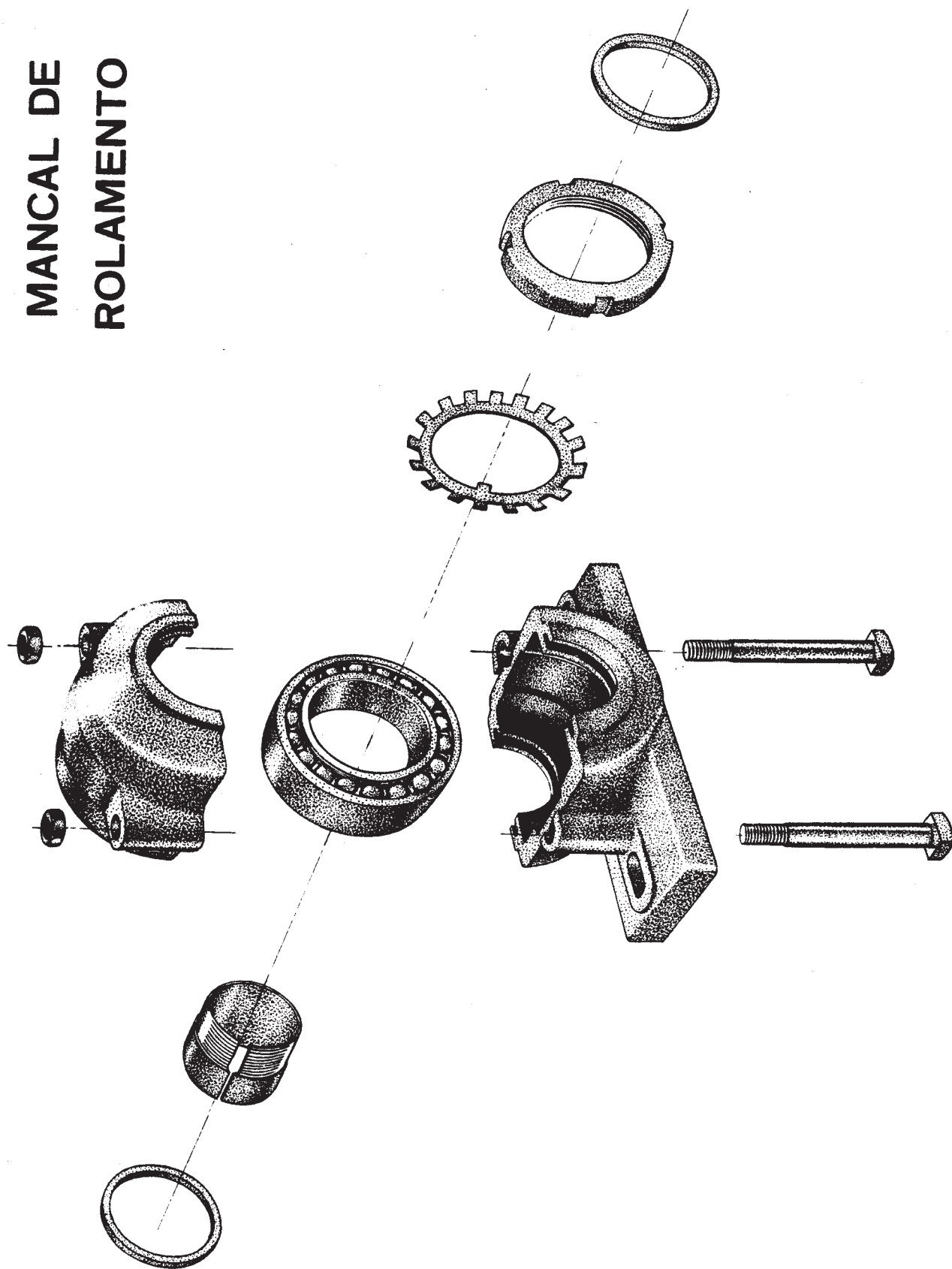
2.2	Partes com text.	9	9/16" x 18
2.1	Chaveta parafuso	1	6x16x25
20	Tempo do rotem	1	Ferro fundido
19	Eixo do pino	1	Aço N8 1020
18	Paraf. cab. ext.	1	8/12" x 14
17	Uso do eixo	2	Aço N8 1020
16	Alumínio	1	8x12x180
15	Alumínio	1	8x12x180
14	Fica ext. do pino	2	Aço N8 1020
13	Fica ext. do pino	2	Aço N8 1020
12	Eixo do eixo	1	Aço N8 1020
11	Chaveta parafuso	1	8x12x180
10	Chaveta	1	Aço N8 1020
9	Corpo fixo	1	Ferro fundido
8	Alum. elástico	1	8x12x180
7	Paraf.	1	8x12x180
6	Mola	1	Aço N8 1020
5	Carro móvel	1	Ferro fundido
4	Paraf. cab. ext.	6	8/12" x 10
3	Tempo do rotem	1	Ferro fundido
2	Eixo do volante	1	Aço N8 1020
1	Volante	1	Ferro fundido
10	MATERIAL E DIMENSÕES		



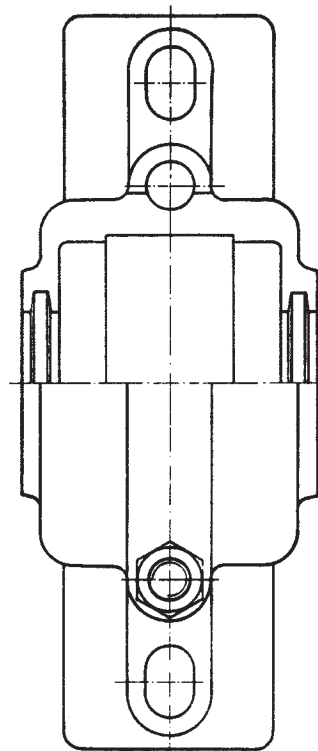
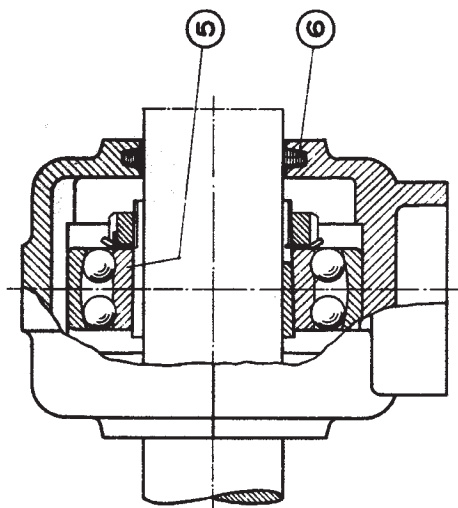
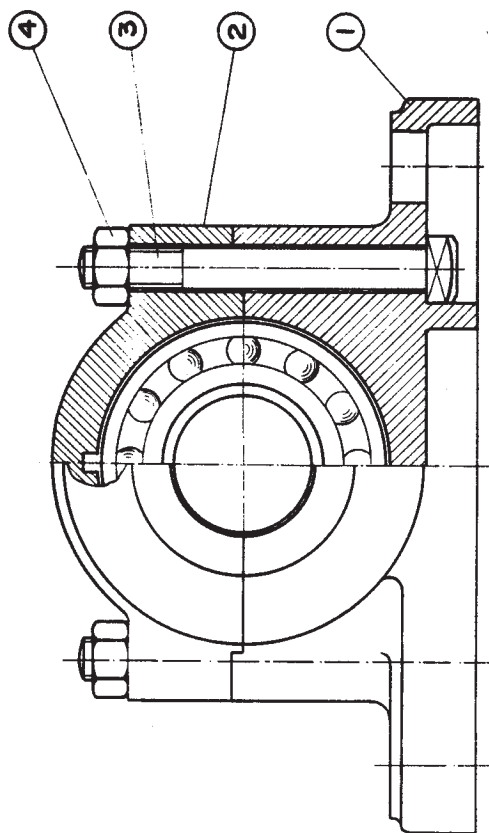


TIPOS DE VARIADORES DE VELOCIDADE

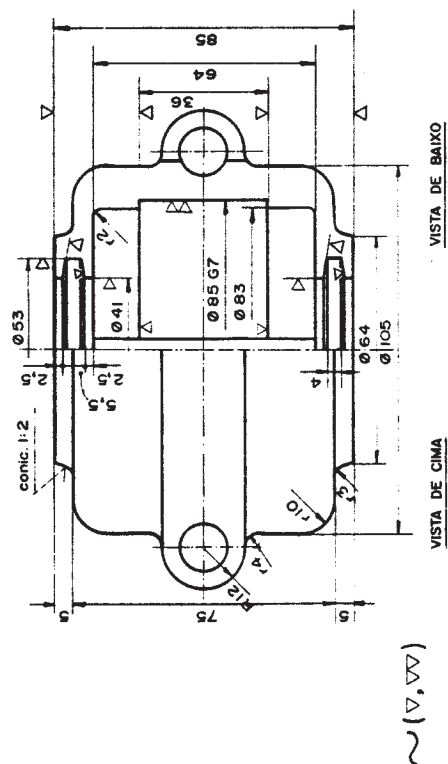
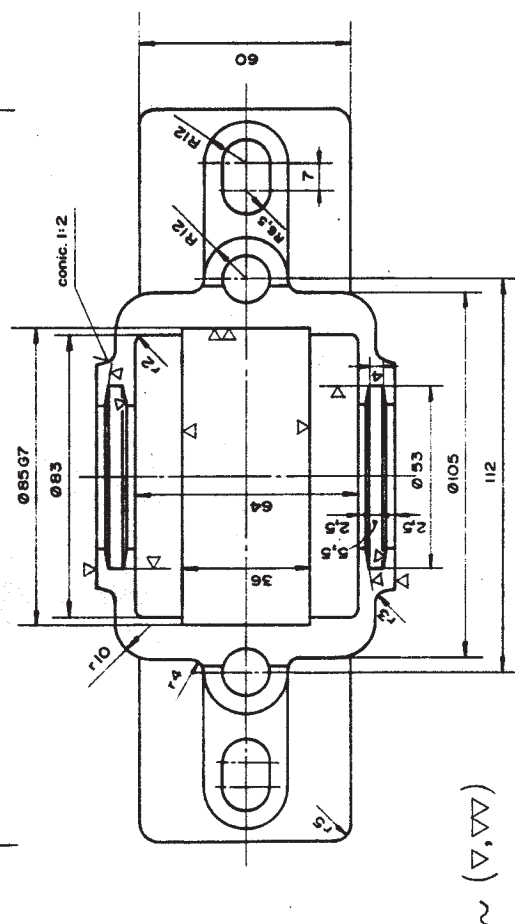
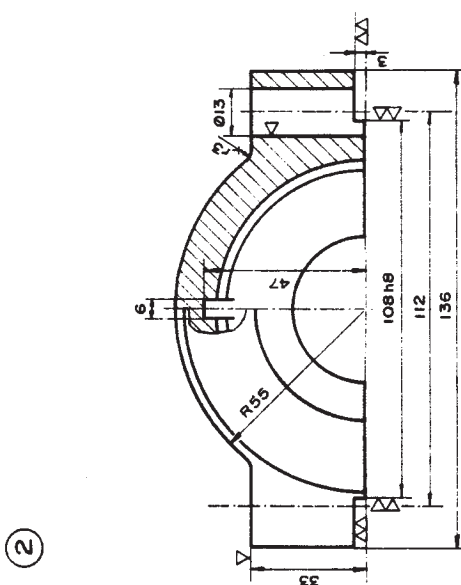
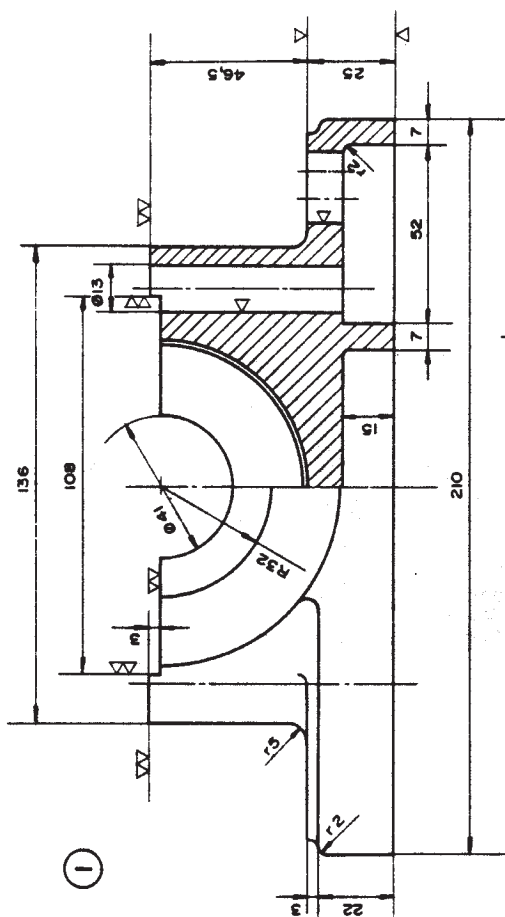
MANCAL DE ROLAMENTO

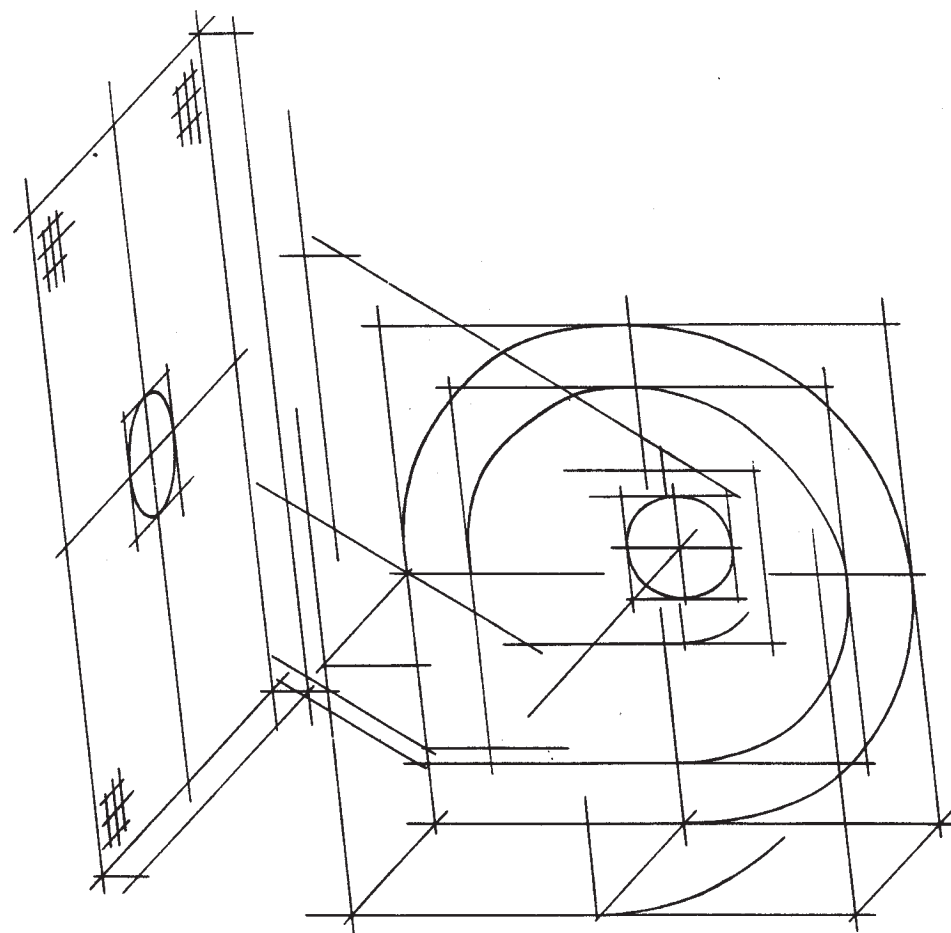
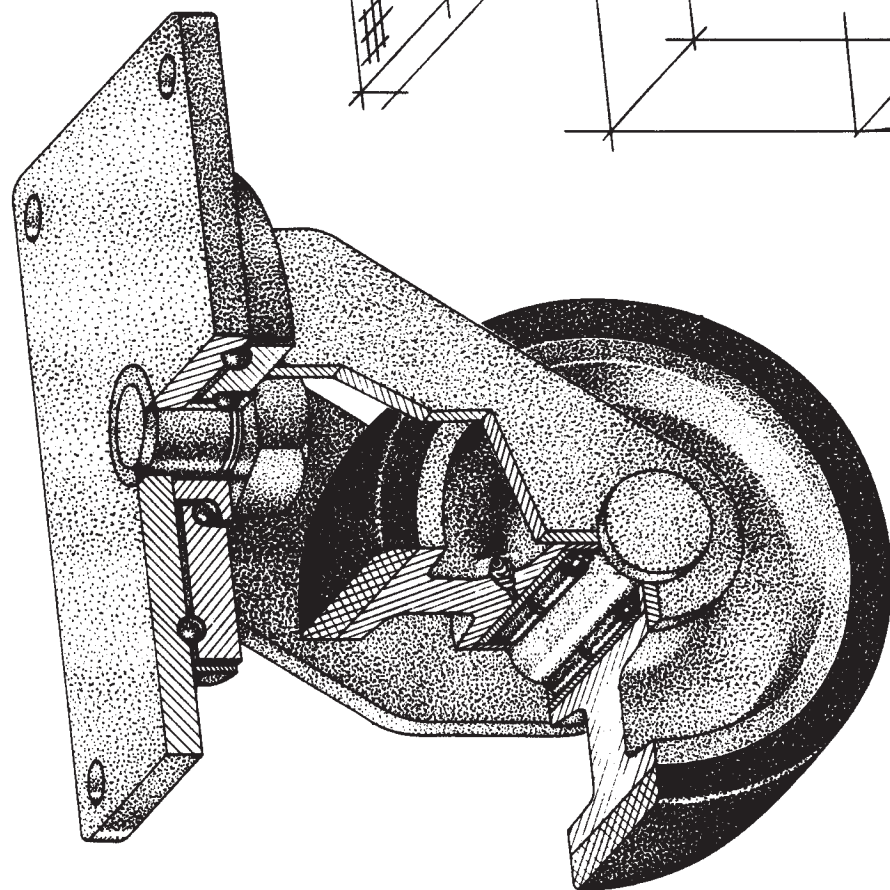


MANCAL DE ROLAMENTO



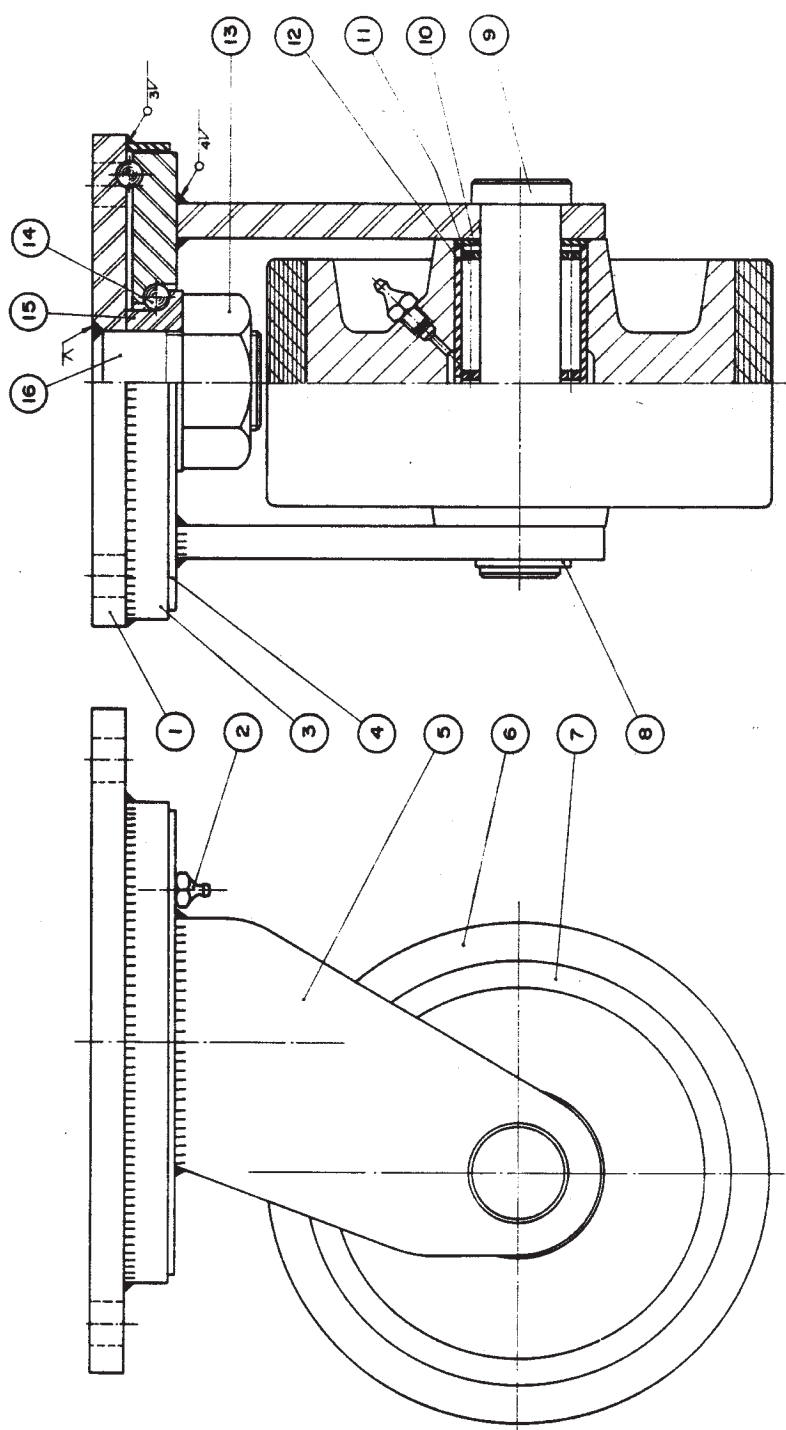
6	Guarnição	2	Feltro Ø53xØ40x5,5
5	Rolam. autocomp. com bucha de fix.	1	SKF 1209 K + H209
4	Porca sext.	2	M12
3	Paraf. cab. quad.	2	M12 x 100
2	Tampa	1	Ferro fundido
1	Corpo	1	Ferro fundido
Item	DENOMINAÇÕES	Qtd	MATERIAL E DIMENSÕES





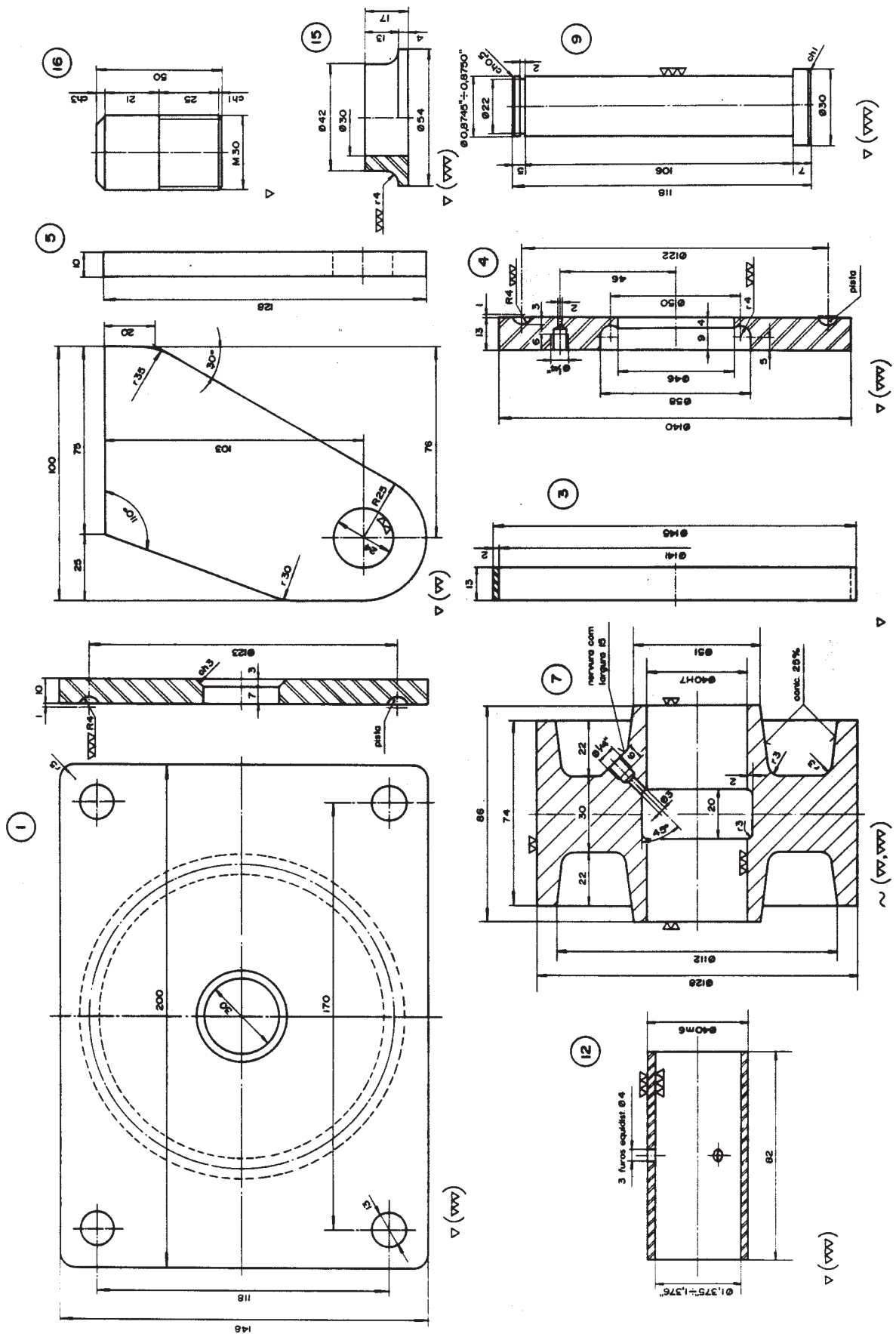
RODÍZIO GIRATÓRIO

RODÍZIO GIRATÓRIO

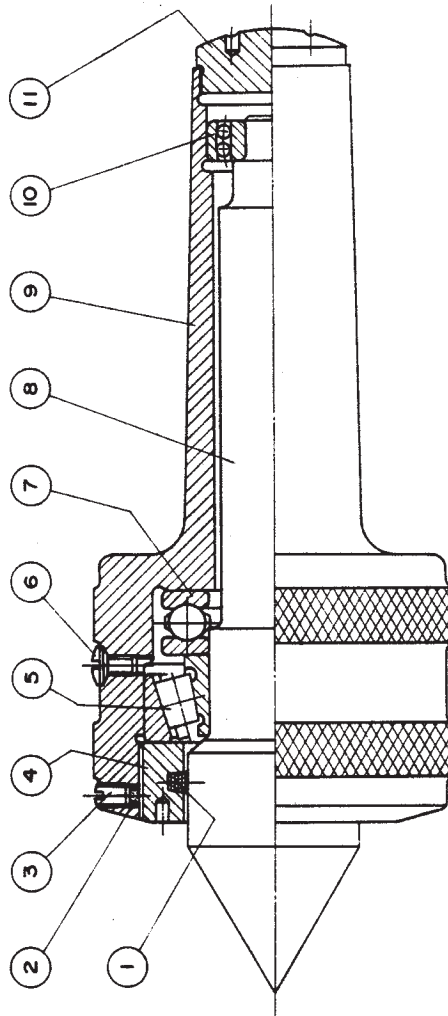
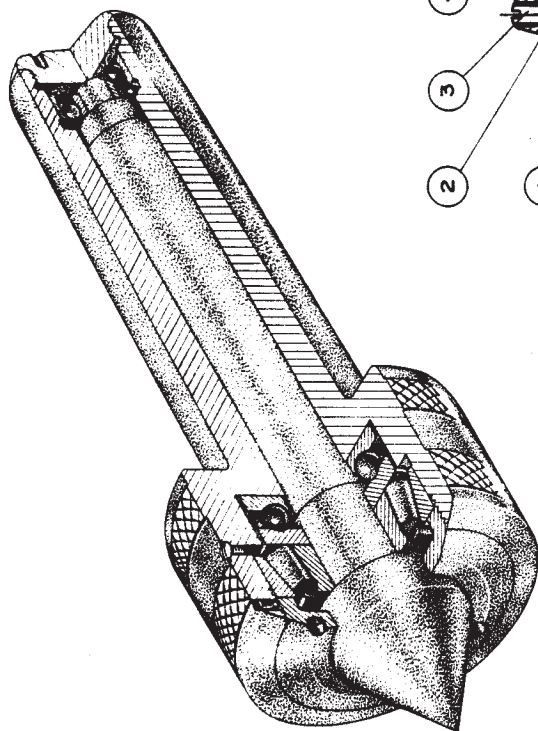


16	Part sem cab.	1	Aço NB 1020
15	Encheto	1	Aço NB 1030 cementado
14	Esferas	64	SKF Ø 9/16"
13	Porca serrada	1	Aço NB 1020 Ø 1 1/8" x 80
12	Bucha	1	Aço NB 1040
11	Rolamentos Hyatt	2	Nº 94428
10	Encheto	2	Aço NB 1020 Ø 40 x 82 x 48
9	Pino com cabeça	1	Aço NB 1030 cementado
8	Anel elástico	1	Data 24

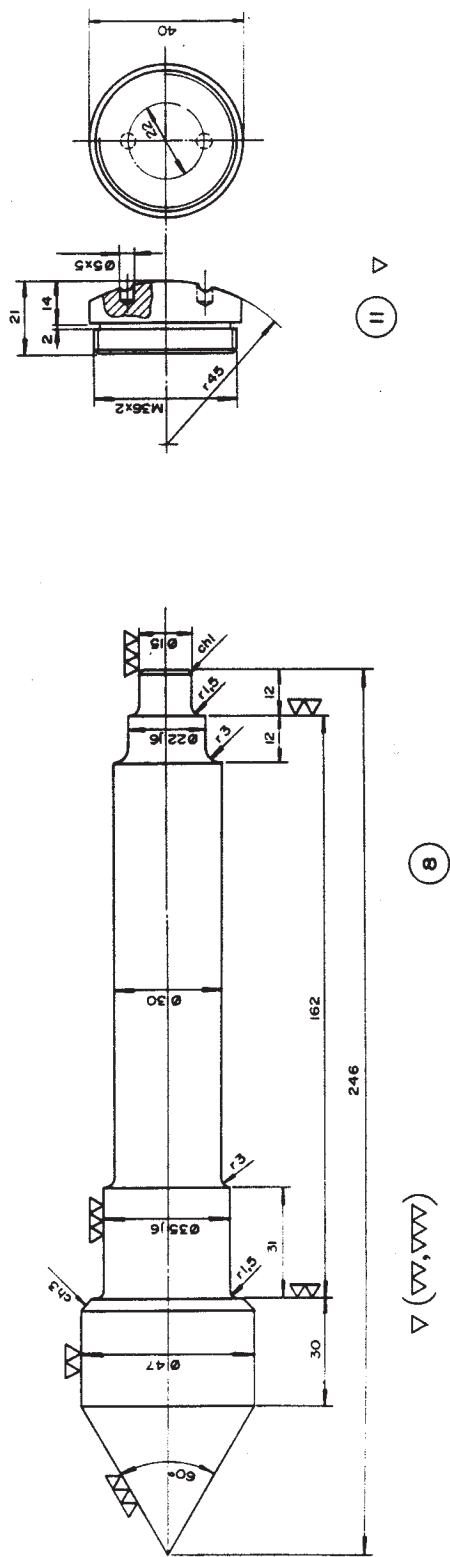
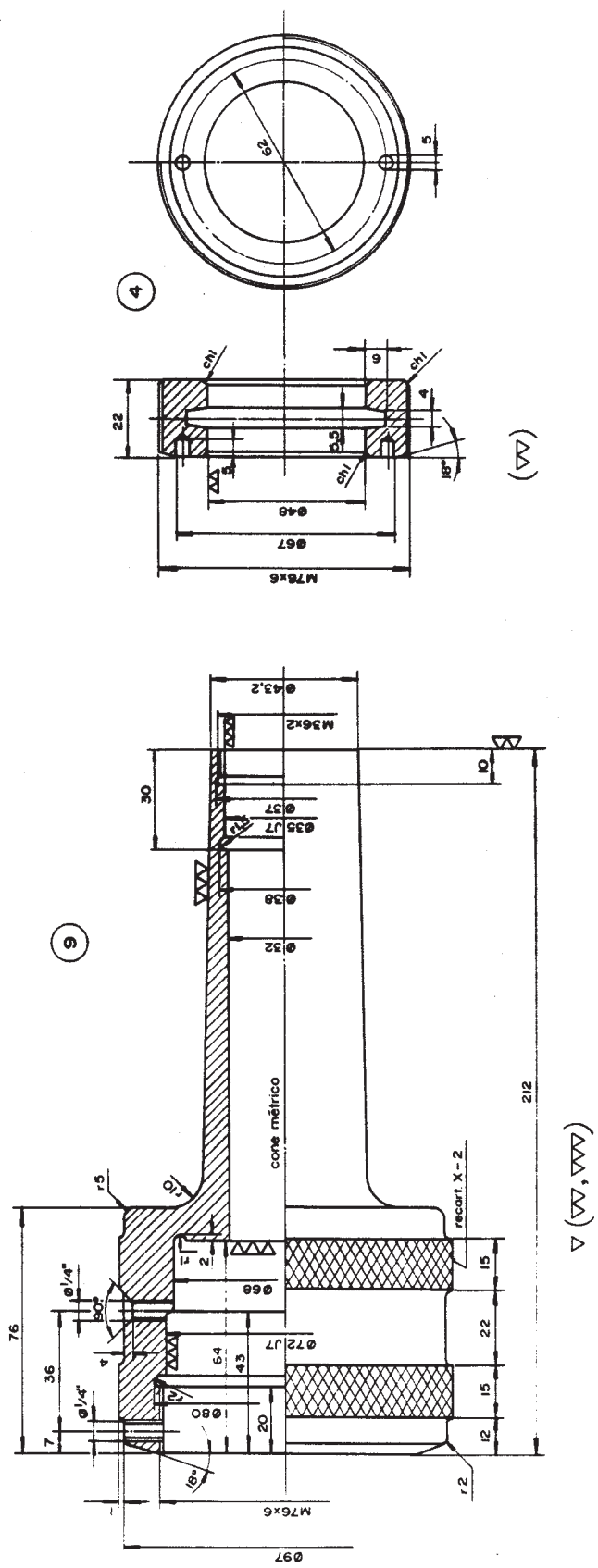
7	Roda	1	Ferro fundido
6	Bando	1	Barricho Ø150 x Ø128 x 74
5	Braco	2	Aço NB 1020
4	Calço das esferas	1	Aço NB 1030 cementado
3	Chapa proteção	1	Aço NB 1010
2	Engrenadeira lab	2	Ø 1/4" - 28 SAE
1	Bola	1	Aço NB 1020
MATERIAL E DIMENSÕES			



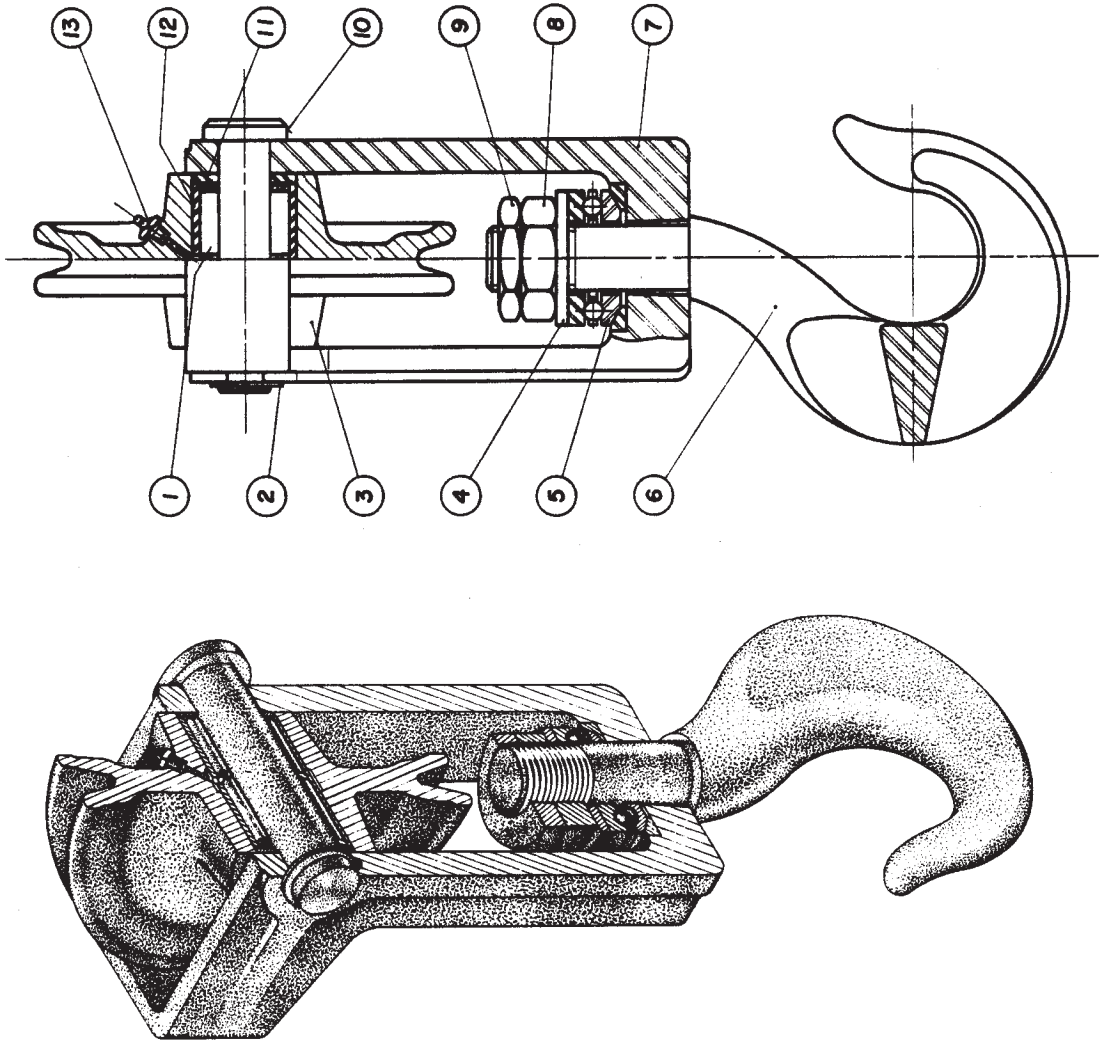
CONTRA-PONTA GIRATÓRIA



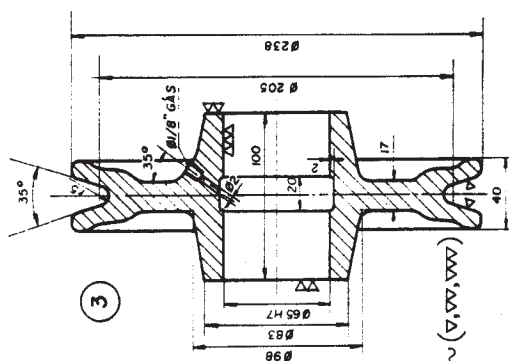
Item	Denominações	Material e Dimensões
11	Tampa	Ferro fundido
10	Rol. autocomp.	SKF 1202
9	Corpo	Ferro fundido
8	Ponta (cementada)	Aço NB 1040
7	Rol. de espora	SKF 51207
6	Paraf. cab. oval	Ø1/4" x 10
5	Rol. rolo conico	SKF 32207
4	Tampa	Ferro fundido
3	Paraf. de fix.	Ø1/4" x 9
2	Trava	Laitão tref. Ø4
1	Retentor	Feltro Ø48
MATERIAL E DIMENSÕES		

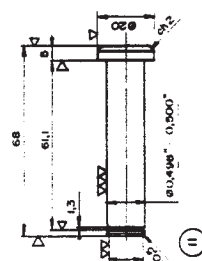


GANCHO

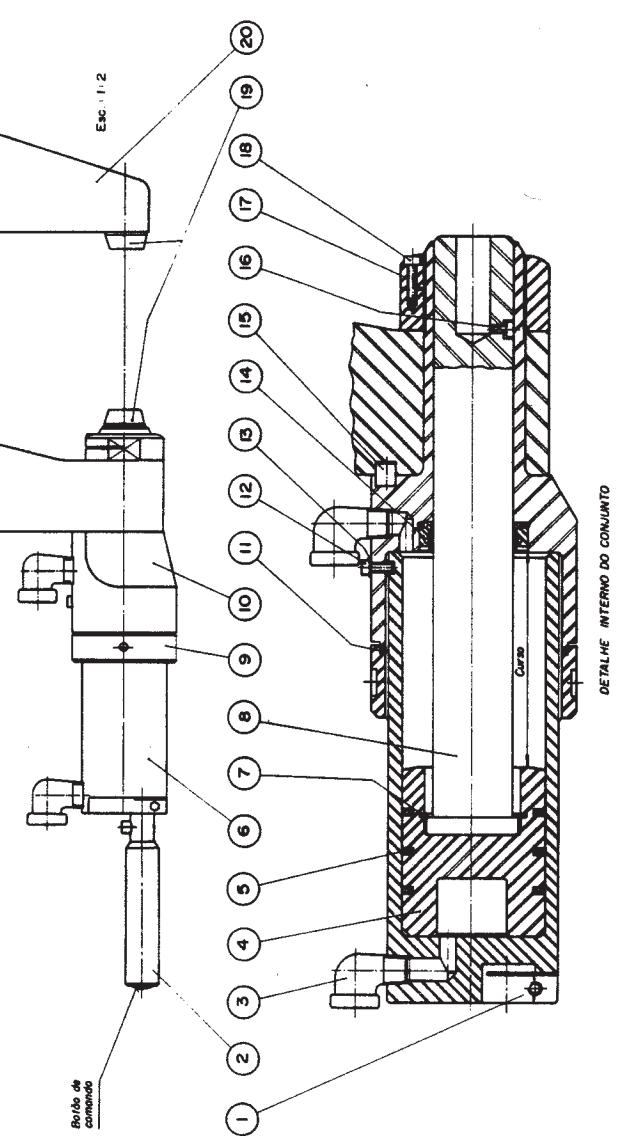
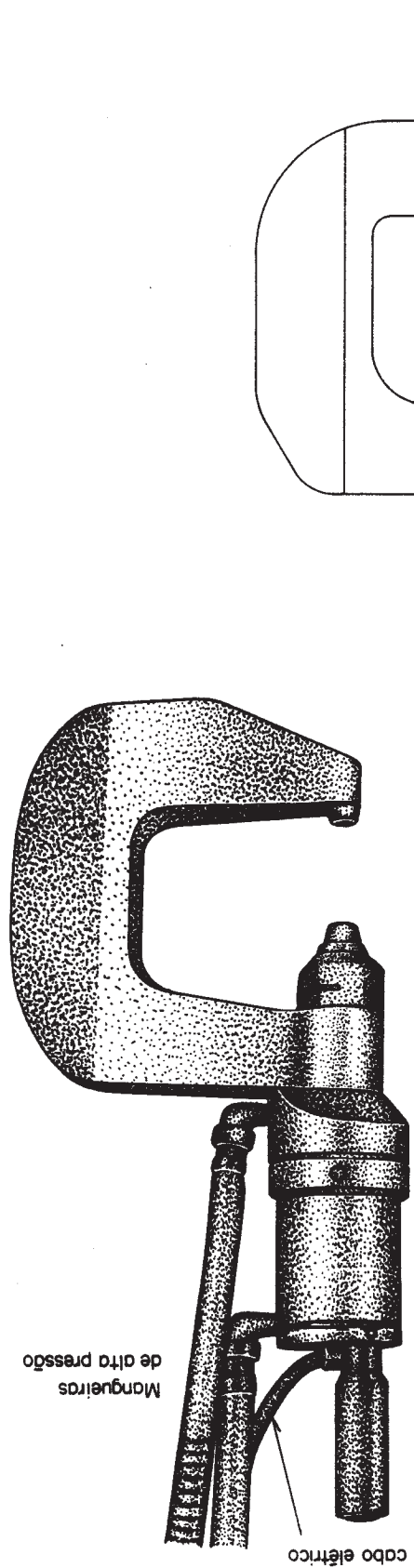


Nº	DENOMINAÇÕES	Qtd	MATERIAL E DIMENSÕES
13	Engraxadeira lub	1	Ø1/8" Gás
12	Bucha	1	Aço NB 1040
11	Tampa	2	Aço NB 1020 Ø65xØ38x2
10	Plano com cab.	1	Aço NB 1050
9	Contra-porca	1	M 35
8	Porca sextavada	1	M 35
7	Suporte	1	Aço NB 6020 AF
6	Gancho	1	Aço forjado NB 1040
5	Rol. de escora	1	SKF 53308 U
4	Arruela	1	Ø1/2"
3	Polia	1	Ferro fundido esferoidal
2	Anel elástico	1	DAE 38
1	Bucha de ojeiras	2	Hyatt Nº 95932

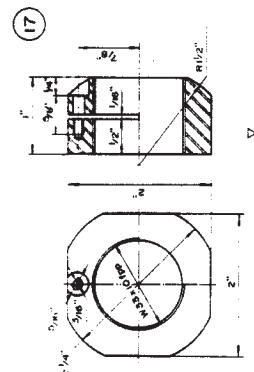
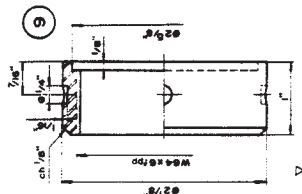
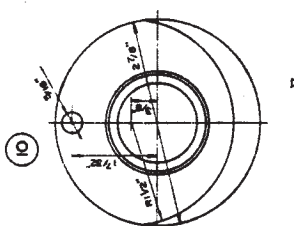
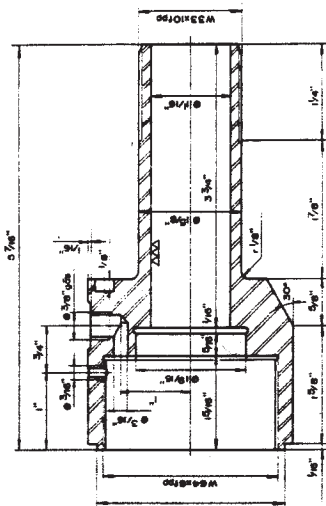
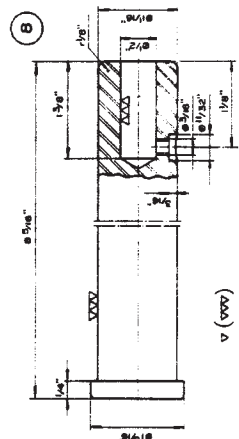
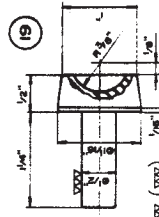
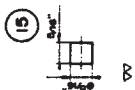
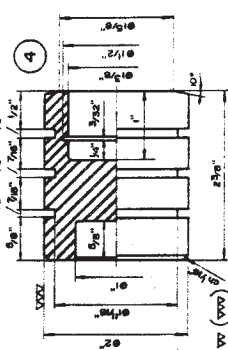
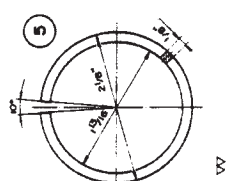
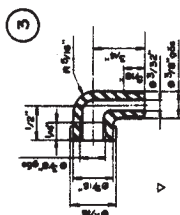
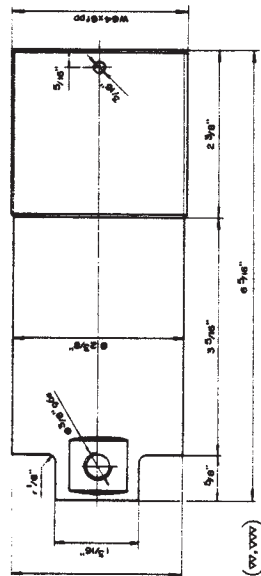
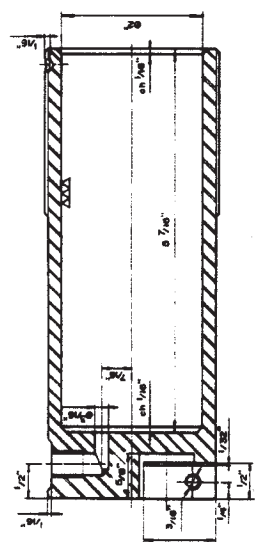
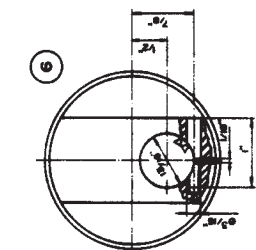
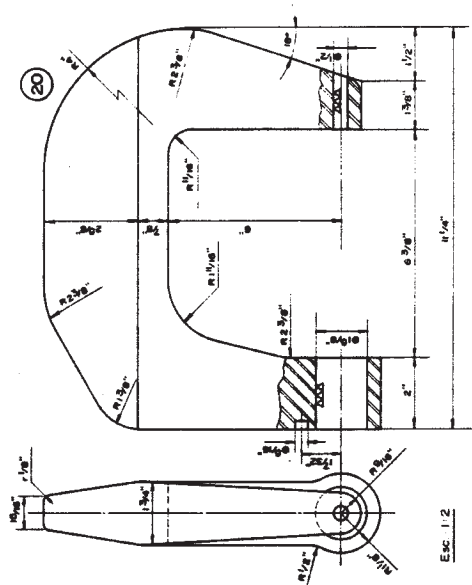


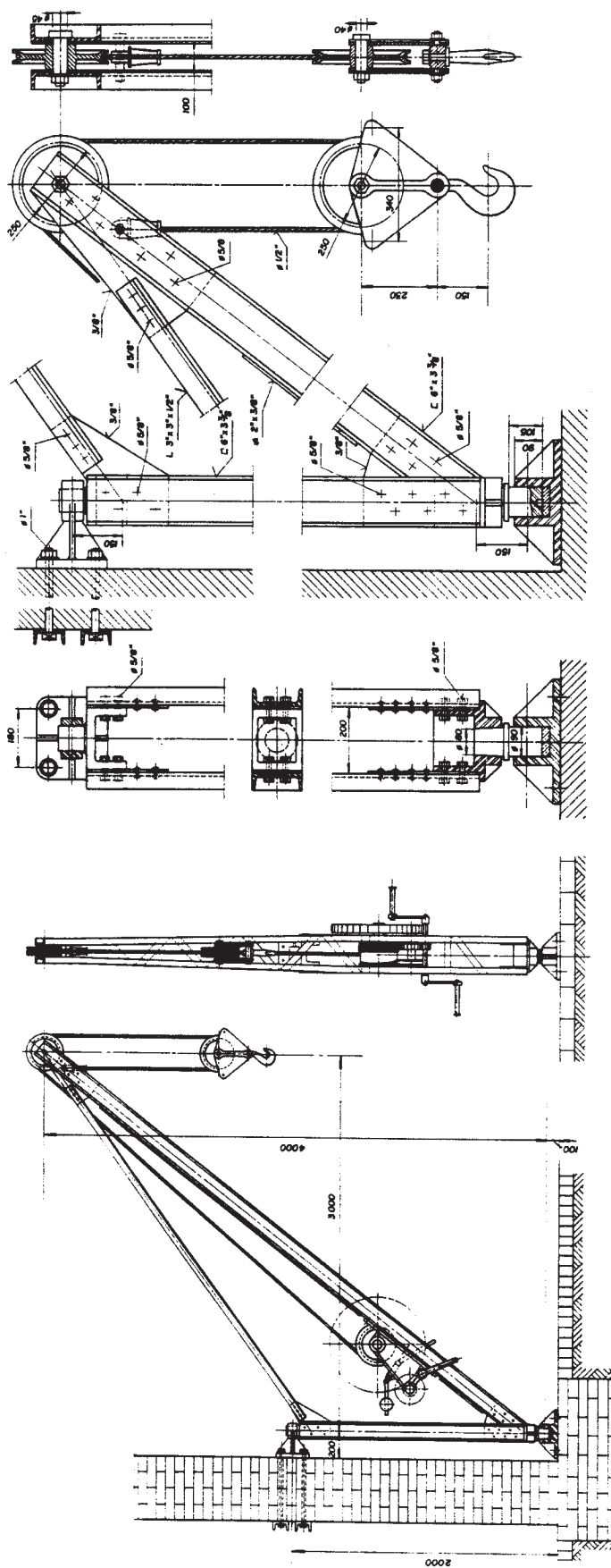


MÁQUINA DE REBITAR



Nº	DENOMINAÇÕES	Qtd	MATERIAL E DIMENSÕES
20	Arco	1	Aço temperado NB 1020
19	Punção	2	Aço VW - 9 Vilares
18	Paraf. "ALLEN"	1	Ø 3/16" x 18
17	Porca especial	1	Aço NB 1020
16	Paraf. cap. cilind.	1	Ø 3/16" x 18
15	Pino	1	Aço NB 1020
14	Retentor	1	Ø 19/16" x Ø 1/8" x 3/8"
13	Guarnição	1	Couro Ø 3/16" x Ø 5/16" x 1/16"
12	Paraf. "ALLEN"	1	Ø 3/16" x 12
11	Guarnição	1	Couro Ø 2 5/8" x Ø 2 3/8" x 1/8"
10	Corpo	1	Aço NB 1020
9	Porca especial	1	Aço NB 1020
8	Eixo	1	Aço NB 1020
7	Anel elástico	1	DAL 35
6	Corisa	1	Aço Ni Cr NB 3120
5	Anel	3	Ferro fundido nodular
4	Pistão	1	Aço NB 1020
3	Bico	2	Aço NB 1020
2	Interruptor	1	Micro Siemens
1	Paraf. "ALLEN"	1	Ø 3/8" x 18
Nº	DENOMINAÇÕES	Qtd	MATERIAL E DIMENSÕES



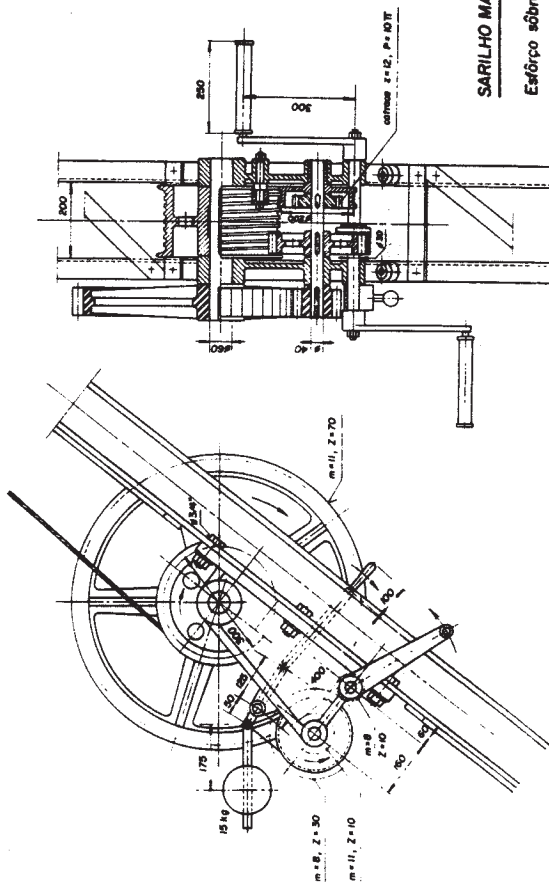


GUINDASTE GIRATÓRIO DE PAREDE

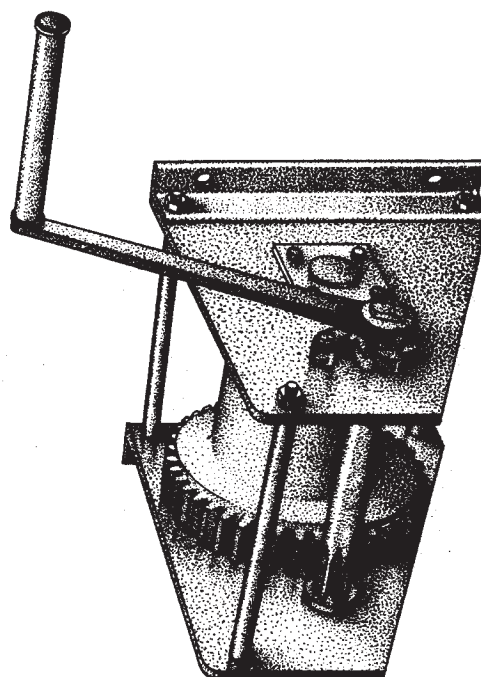
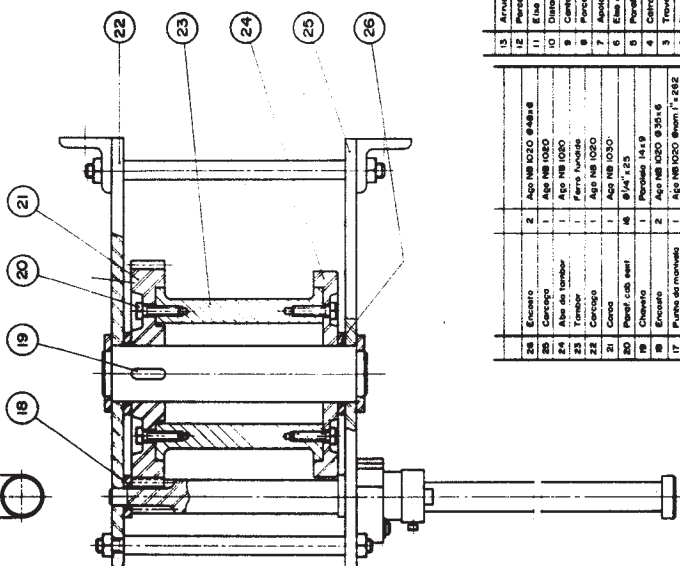
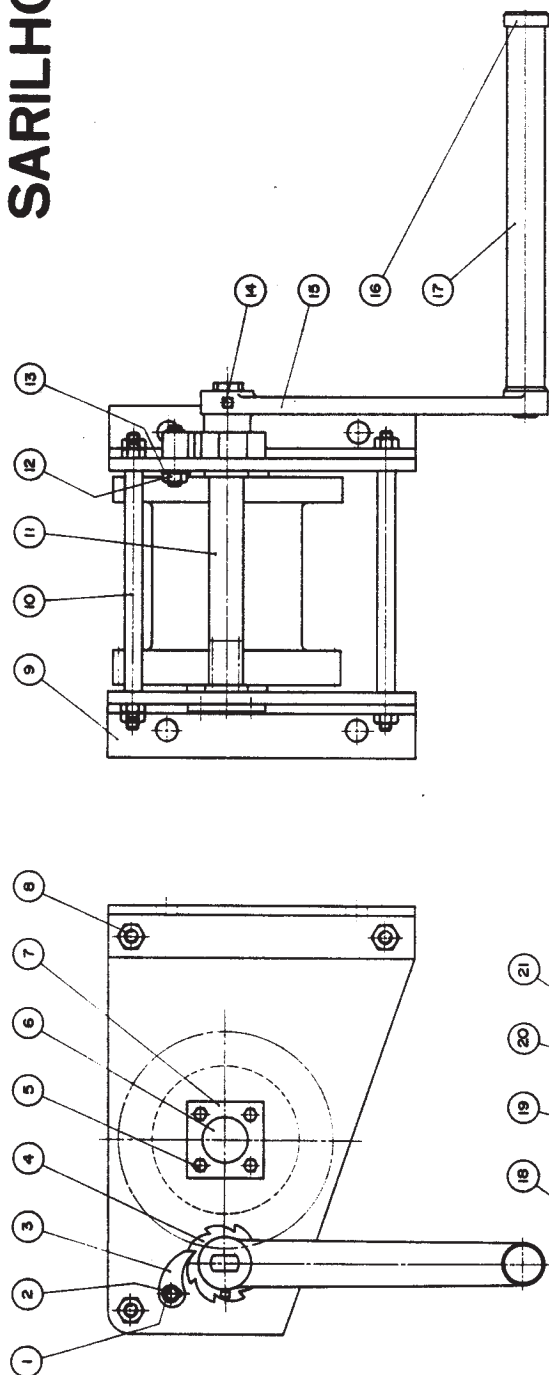
CARGA : 2 ton LANCE : 3 m

SARILHO MANUAL DE 1000 kg

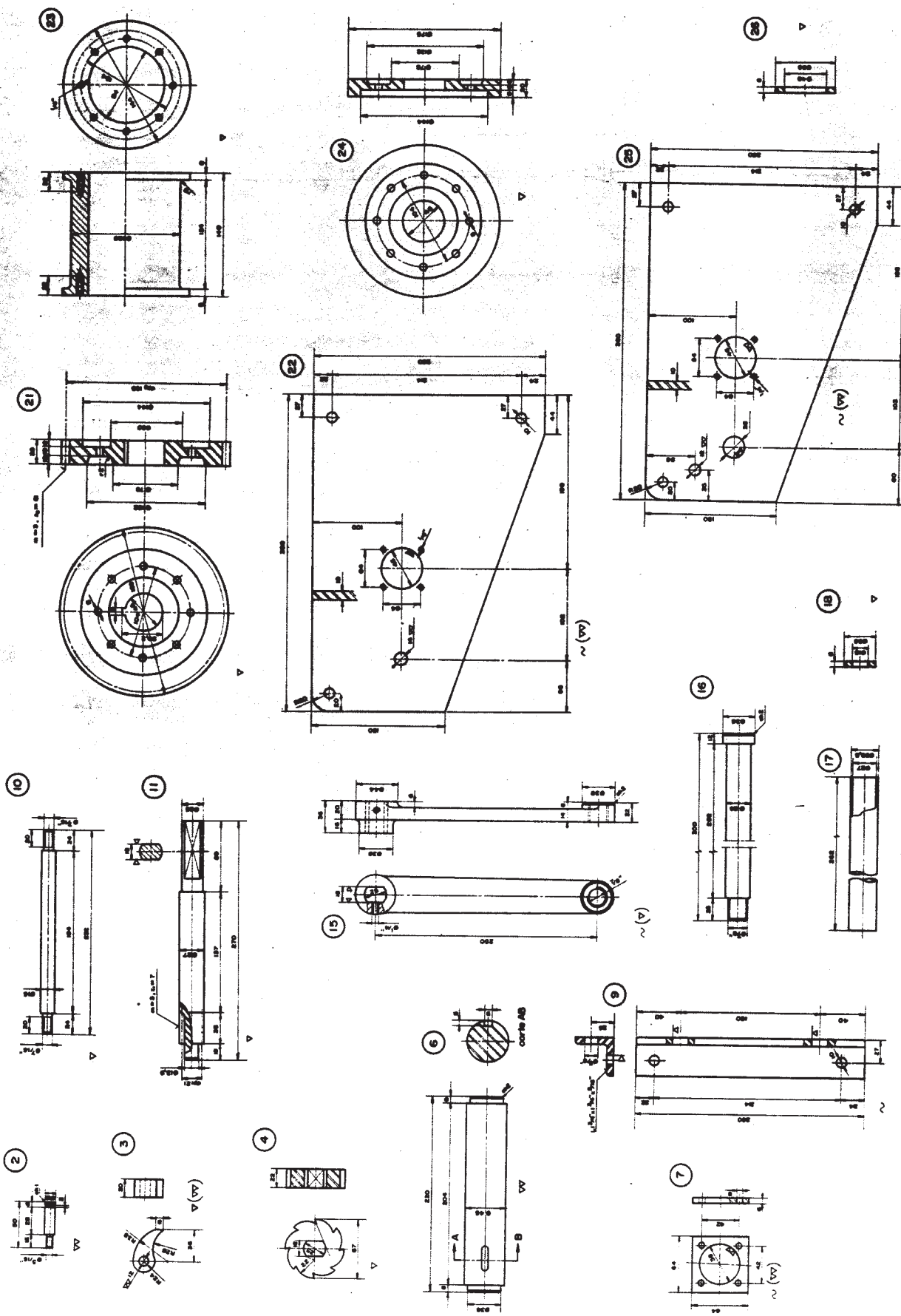
Esforço sobre cada manivela : 15 kg



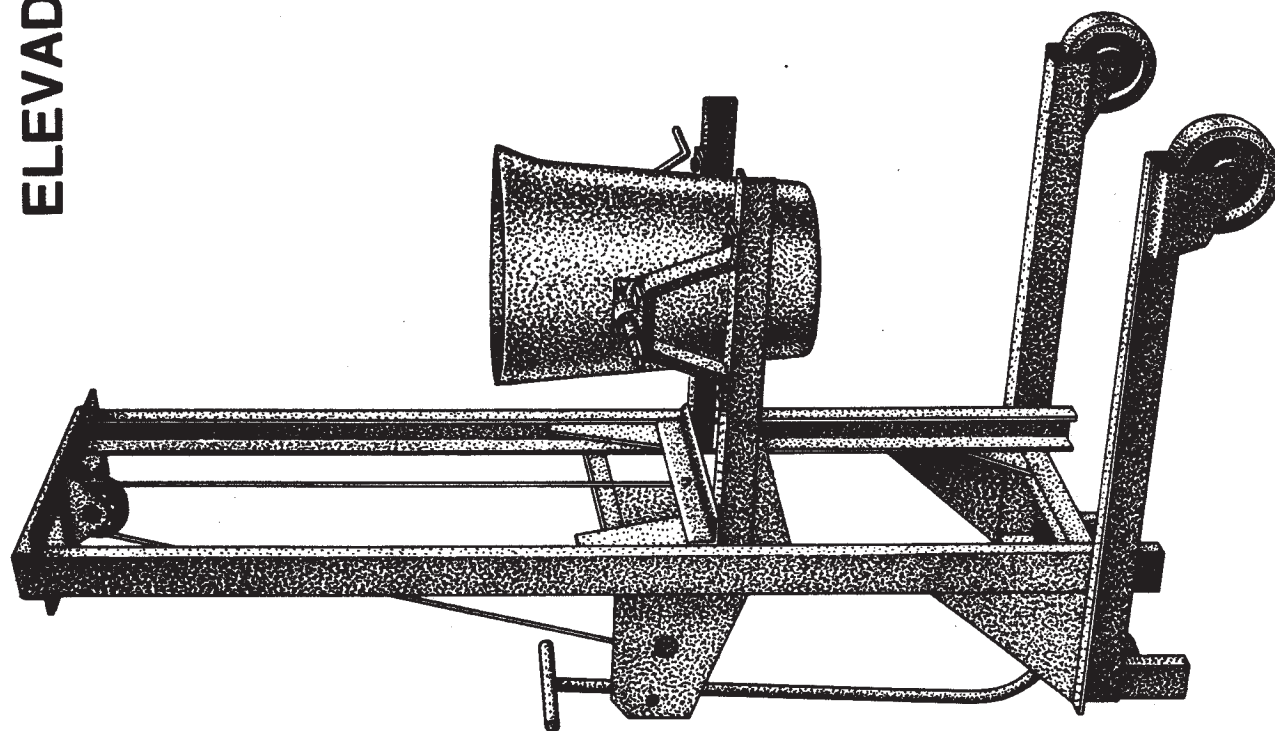
SARILHO PARA 250 KG

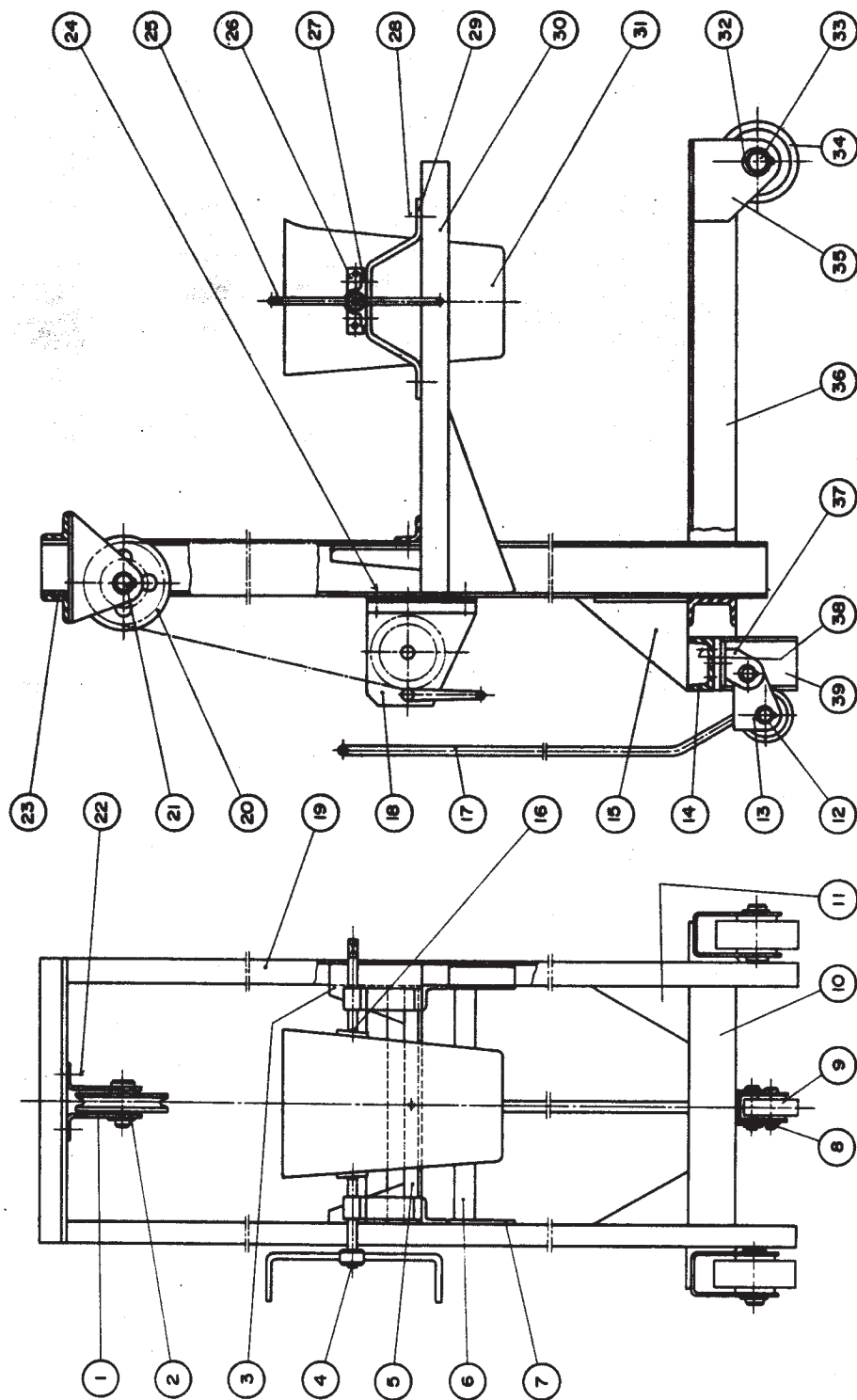


MATERIAL E DIMENSÕES		MATERIAL E DIMENSÕES	
28	Encosto	2	Apó MB 1020 84x48
25	Carroço	1	Apó MB 1020
24	Alça de tambor	1	Apó MB 1020 84x48
23	Tambor	1	Ferro fundido
22	Carroço	1	Apó MB 1020
21	Conex	1	Apó MB 1020
20	Platf. cob. ext.	1	Platf. 14x19
19	Chaveta	1	Chaveta 14x19
18	Encosto	2	Apó MB 1020 84x48
17	Punho de manivela	1	Apó MB 1020 84x48
16	Eixo do eixo	1	Apó MB 1020 84x48
15	Sapo de manivela	1	Apó MB 1020 84x48
14	Platf. cob. ext.	1	Platf. 14x19



ELEVADOR TRANSPORTADOR



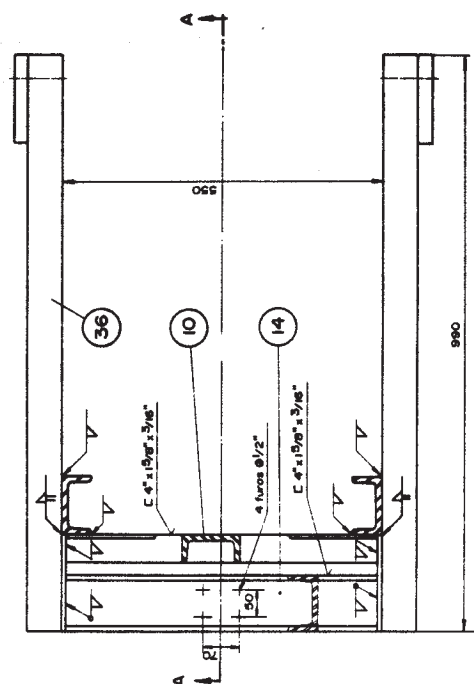
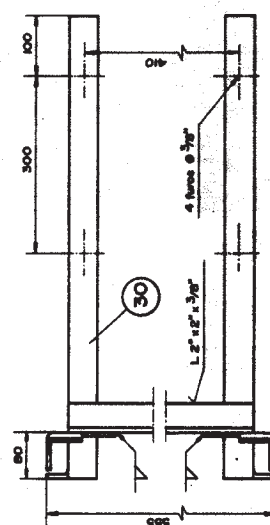
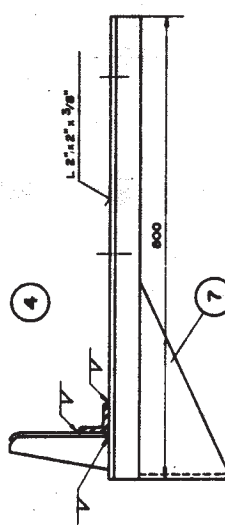
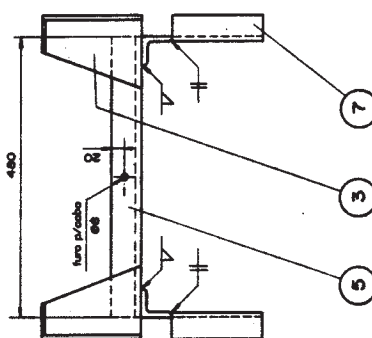
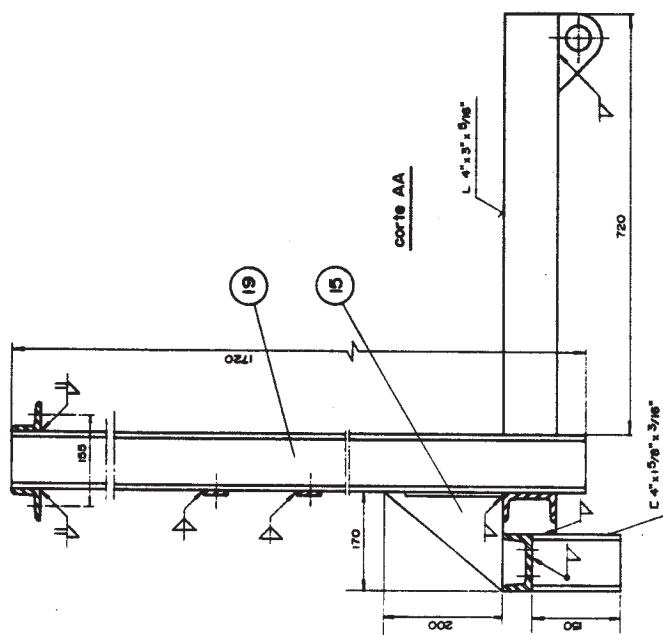
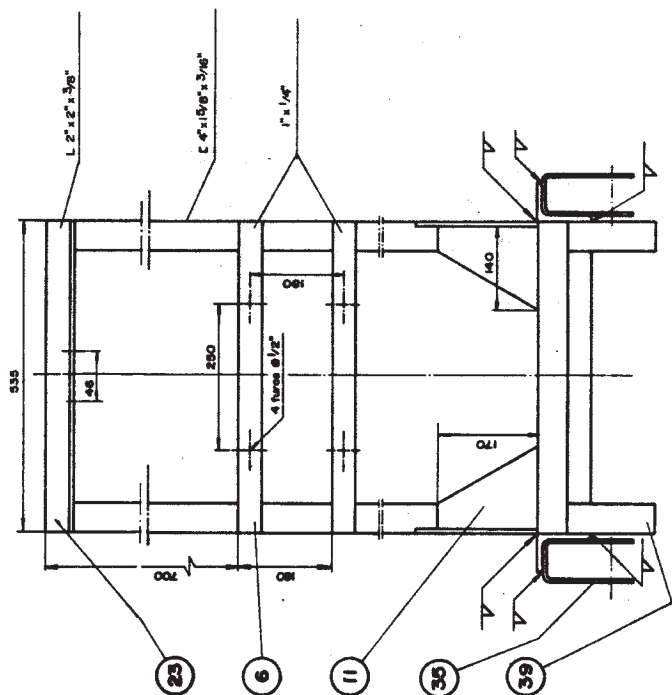


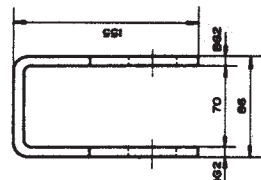
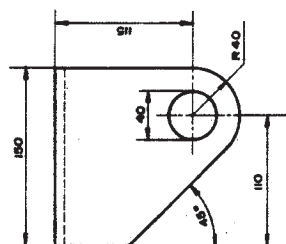
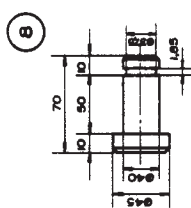
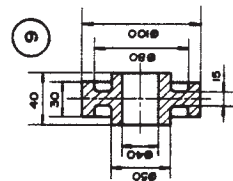
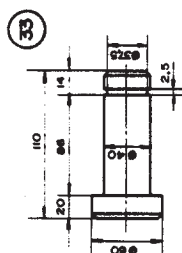
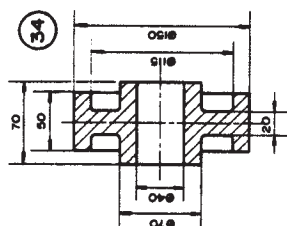
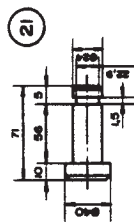
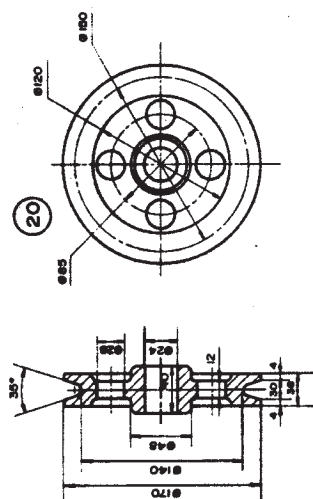
9	Roda maior	1	Ferro fundido Ø 100 x 40
10	Eixo menor	2	Aço N8 1020
11	Supporte inferior	2	Chapa B8 5-0
12	Sup. p/ suporte	2	Aço N8 1020 1" x 1/4" x 1335
13	Contorno	1	L 2" x 2" x 1/4" x 480
14	Eixo de roda	2	Aço N8 1020
15	Supporte superior	2	Chapa B8 5-0
16	Anal atípico	1	Diã 24
17	Supporte de roda	2	Chapa B8 2
18	MATERIAL E DIMENSÕES		
19	Nº		

19	Viga	2	L 4" x 15/8" x 3/8" x 1720
20	Serrote	1	P/ carga de 200 kg
21	Alumínio	1	Aço N8 1020 8/16"
22	Rodão	4	Ø 1/2"
23	Perifoneo	2	Chapa B8 3-0
24	Viga	1	L 4" x 15/8" x 3/8" x 1580
25	Supporte rodão	1	Chapa B8 6
26	Anal atípico	2	Diã 40
27	Rebrinço	2	Chapa B8 3-0
28	Viga	1	L 4" x 15/8" x 3/8" x 1590

29	Sup. de roda	2	Aço N8 1020
30	Perif. e parca	6	Ø 1/2"
31	Mecanismo	2	Ferro fundido
32	Chapa	2	Aço N8 1020
33	Colete	1	Aço N8 1020
34	Perif. e parca	4	Ø 1/2"
35	Contorno	2	L 2" x 2" x 3/8" x 1335
36	Perif. e parca	4	Ø 1/2"
37	Eixo de roda	1	Aço N8 1020
38	Pole p/ roda	1	Ferro fundido Ø 100

39	Viga	2	L 4" x 15/8" x 3/8" x 1510
40	Perif. e parca	4	Ø 1/2"
41	Rodão giratório	1	
42	Cont. abas desliz	2	L 4" x 3" x 5/8" x 990
43	Supporte	2	Chapa B8 2
44	Roda maior	2	Ferro fundido Ø 100 x 70
45	Eixo maior	2	Aço N8 1020
46	Anal atípico	2	Diã 40
47	Roda	1	Aço N8 1020
48	Contorno	2	L 2" x 2" x 3/8" x 800

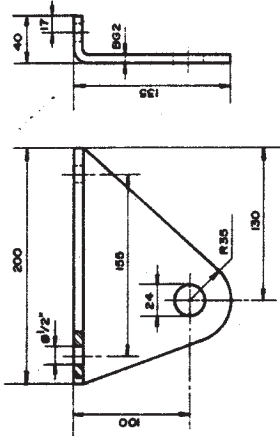




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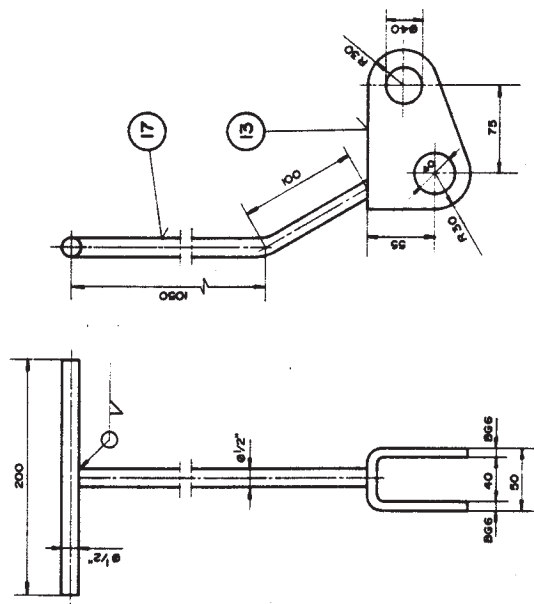
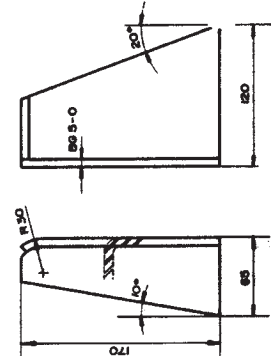
O suporte da direita é idêntico ao da esquerda com excepção da alça menor que é dobrada em sentido contrário.

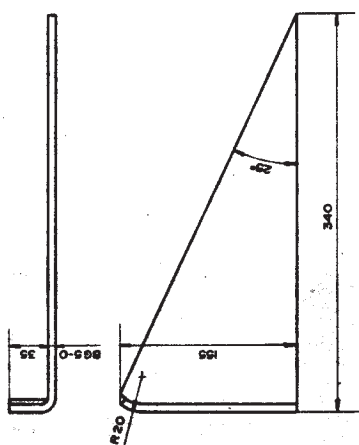
1



A alça da esquerda é idêntica à da direita com excepção da alça maior que é dobrada em sentido contrário.

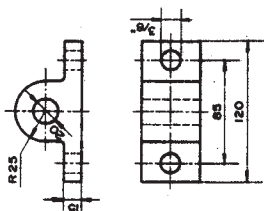
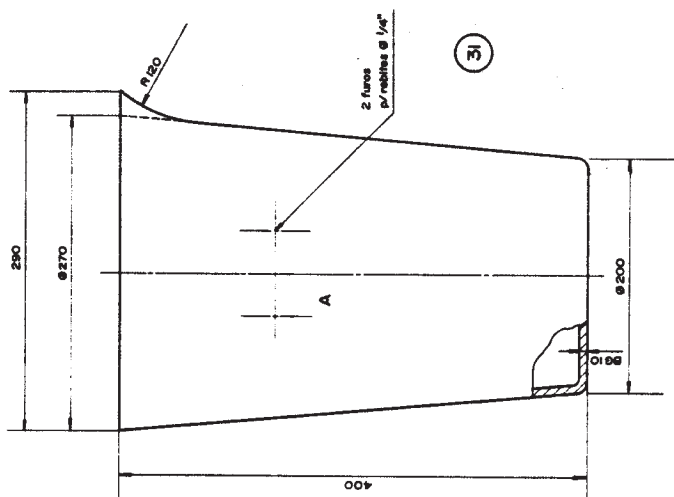
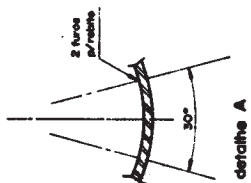
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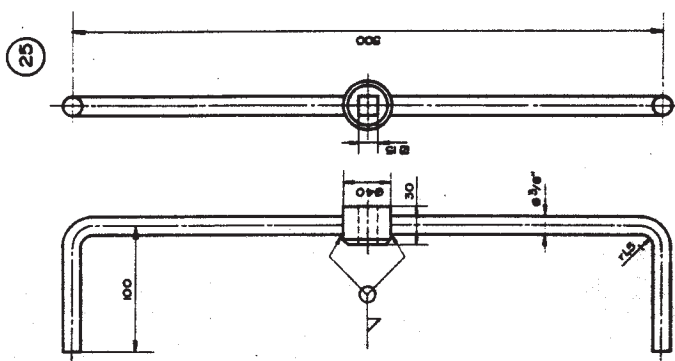


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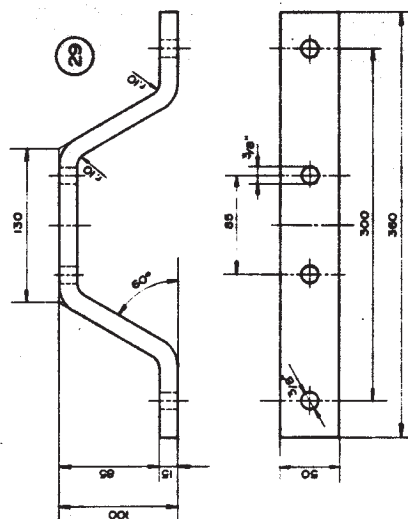
A seta da esquerda é idêntica à da direita com exceção de abarçar o dobro em sentido contrário.



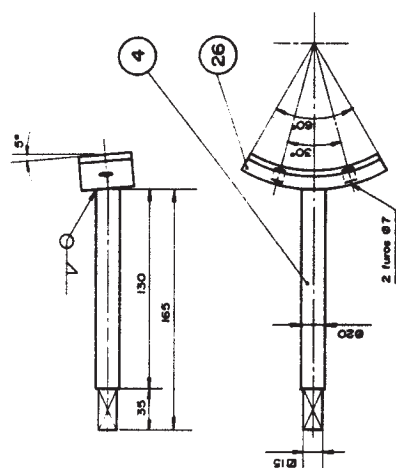
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25



②

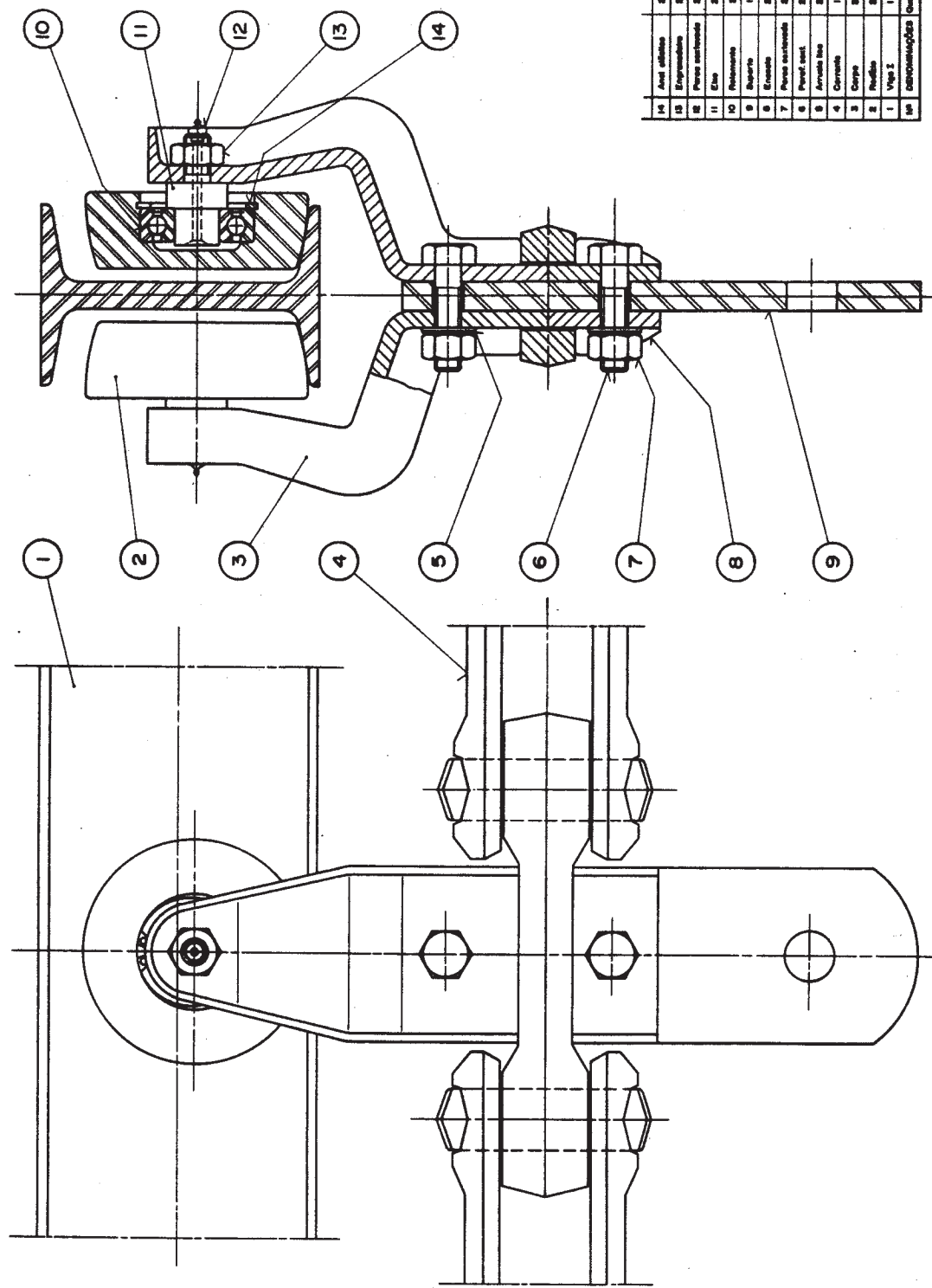


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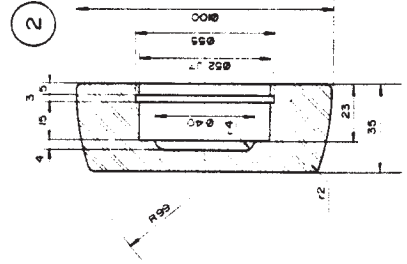
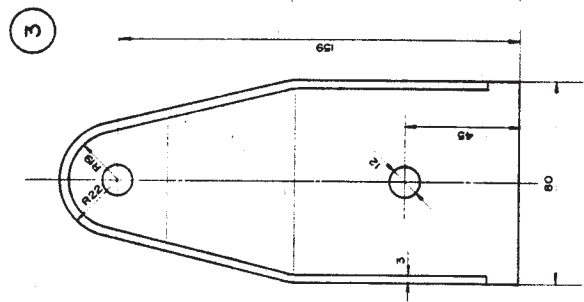
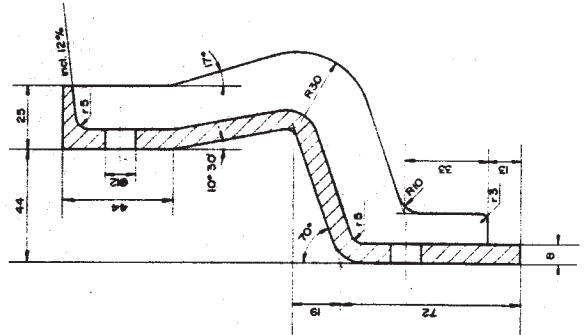
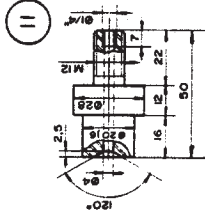
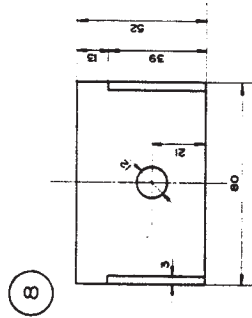
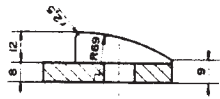
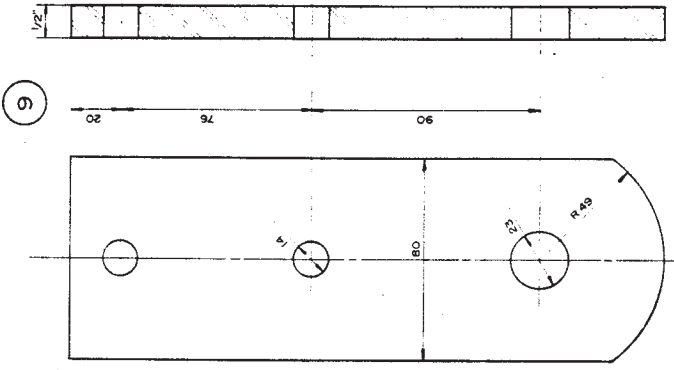
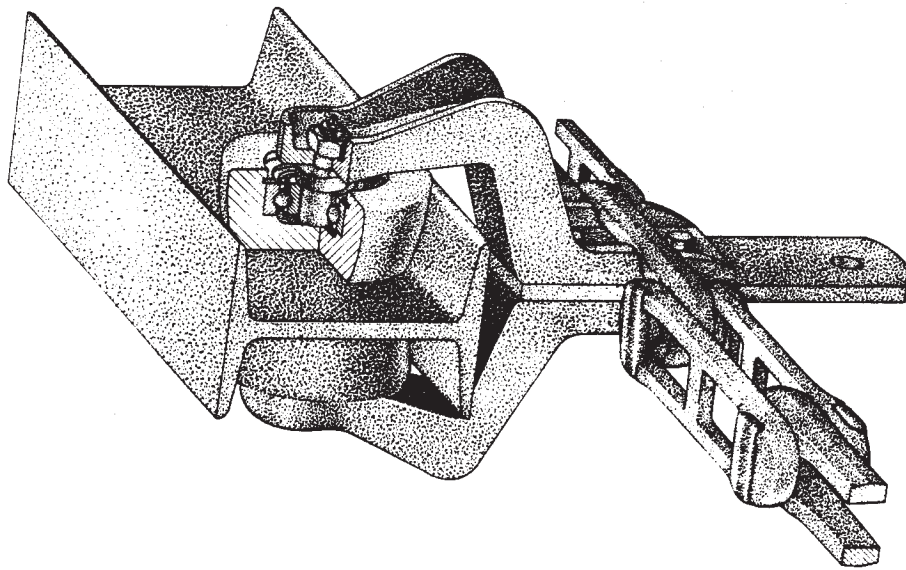
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2 euros

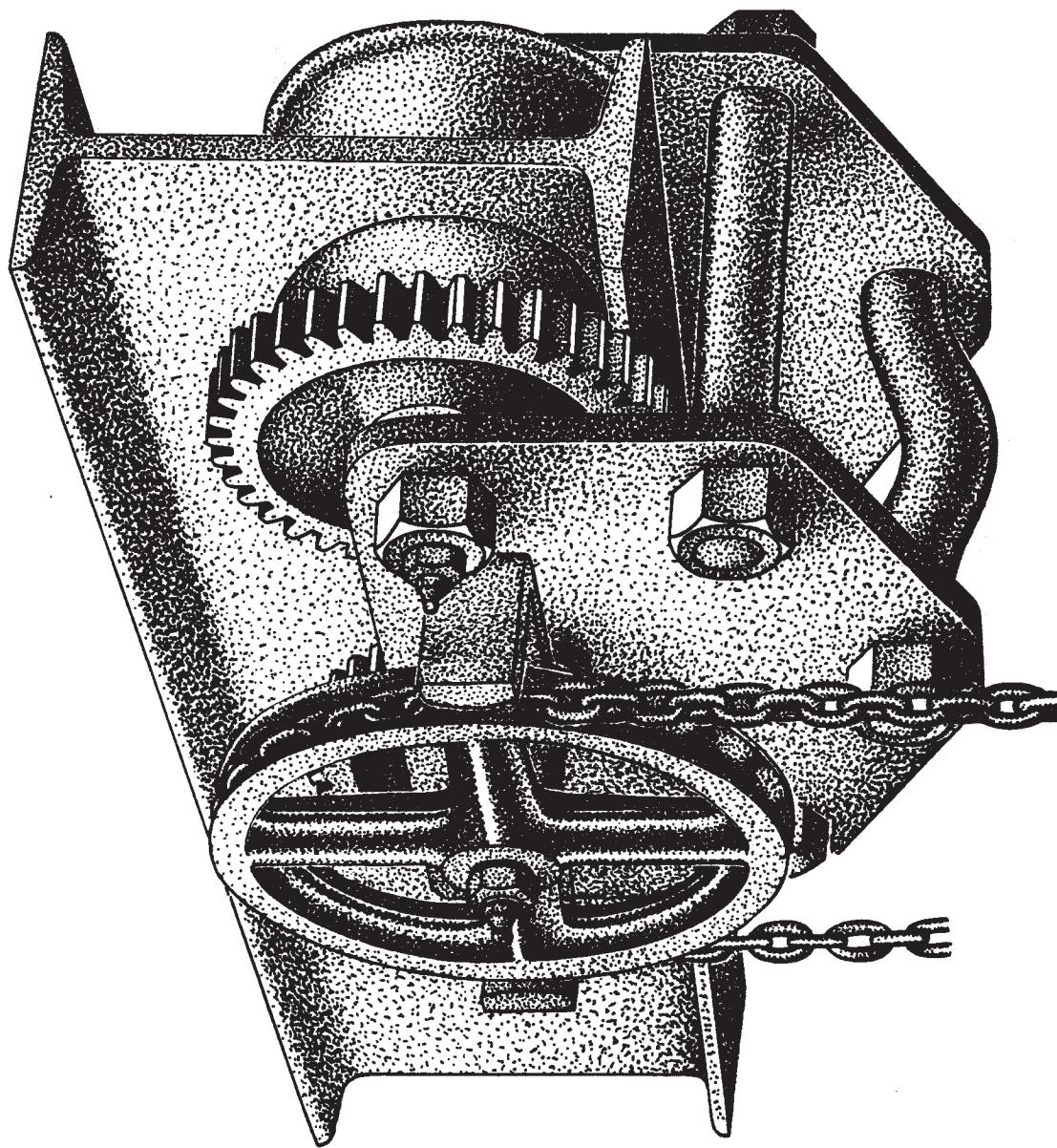
TRANSPORTADOR AÉREO

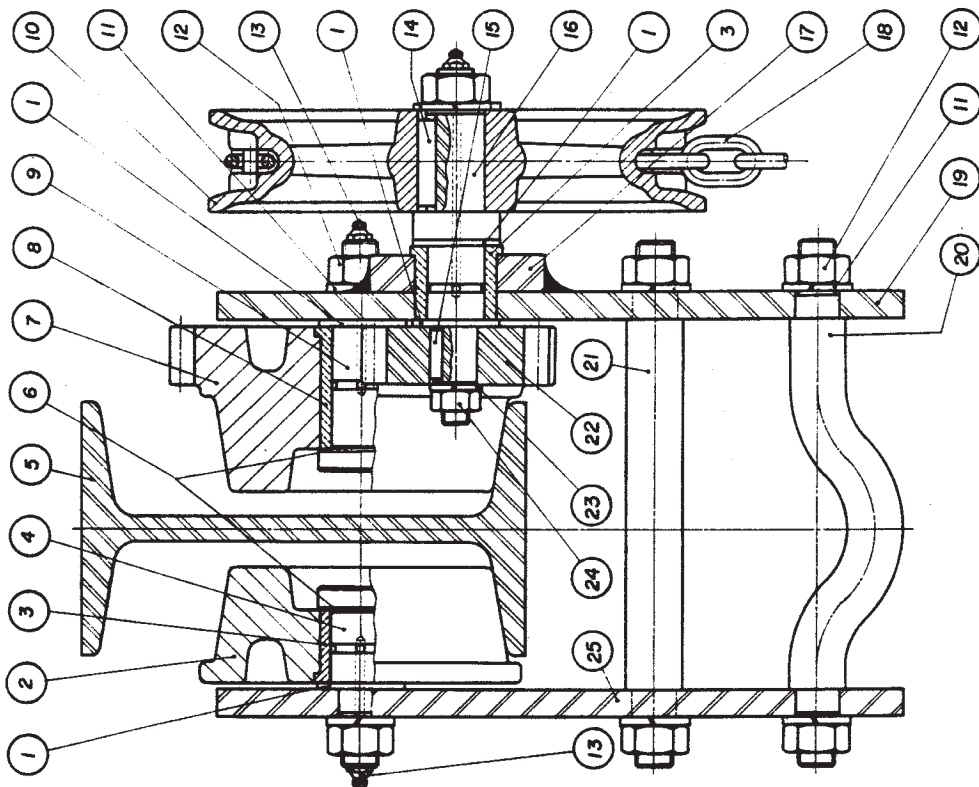


14	Arca de apoio	2	DM SE
13	Engrenagem	2	Ø 1/4"
12	Pinos antirrotas	2	M12 x 40
11	Eixo	2	Aço HB 1050 Ø 25 x 50
10	Relevo	2	Ø 1/2"
9	Relevo	1	Ø 1/2"
8	Relevo	2	Ø 1/2"
7	Relevo	2	Ø 1/2"
6	Relevo	2	Ø 1/2"
5	Relevo	2	Ø 1/2"
4	Relevo	2	Ø 1/2"
3	Relevo	2	Ø 1/2"
2	Relevo	2	Ø 1/2"
1	Relevo	2	Ø 1/2"
MATERIAL E DIMENSÕES			



TROLE ACIONADO POR CORRENTE

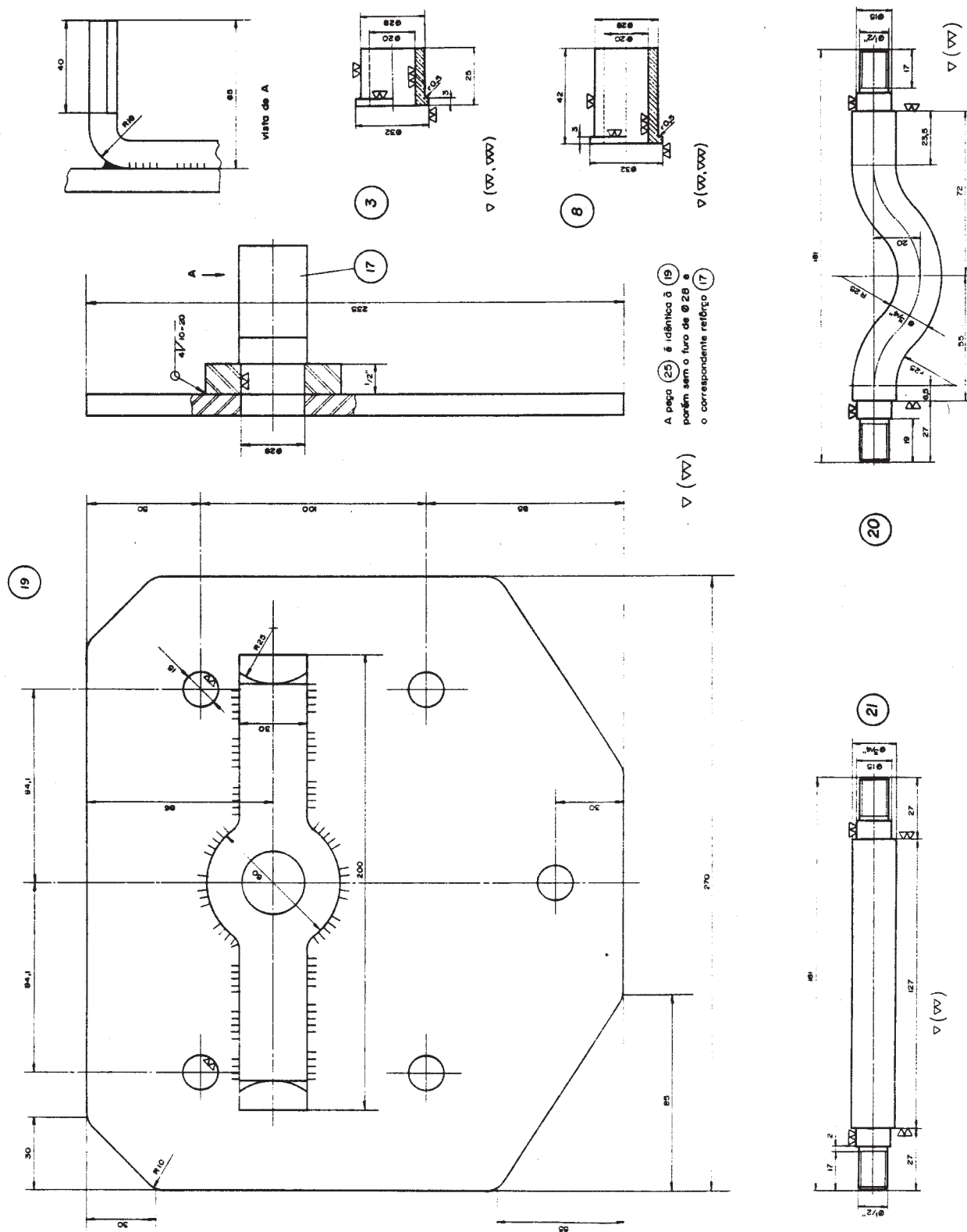


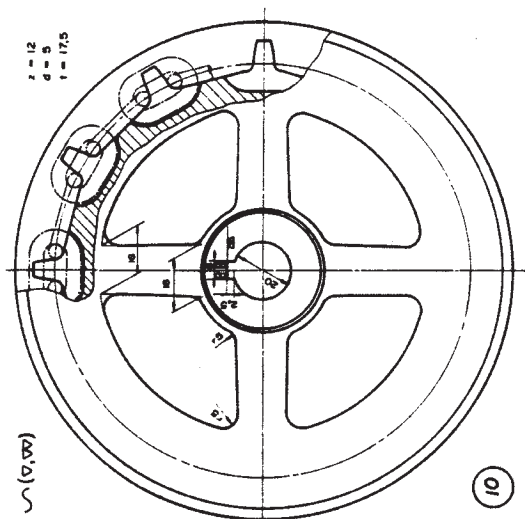
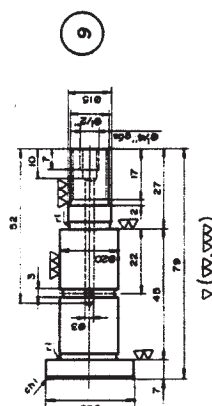
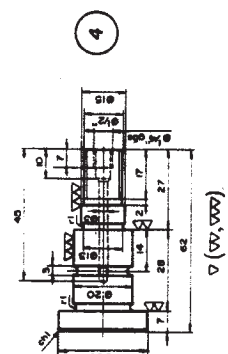
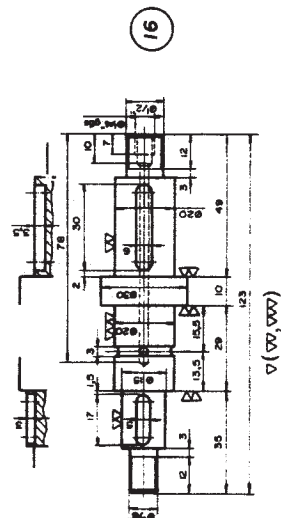
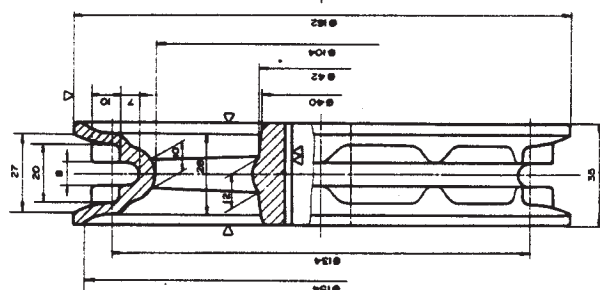
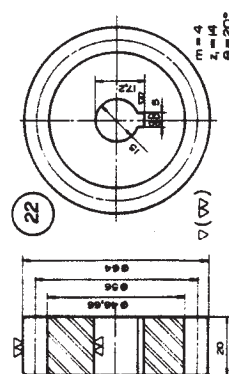
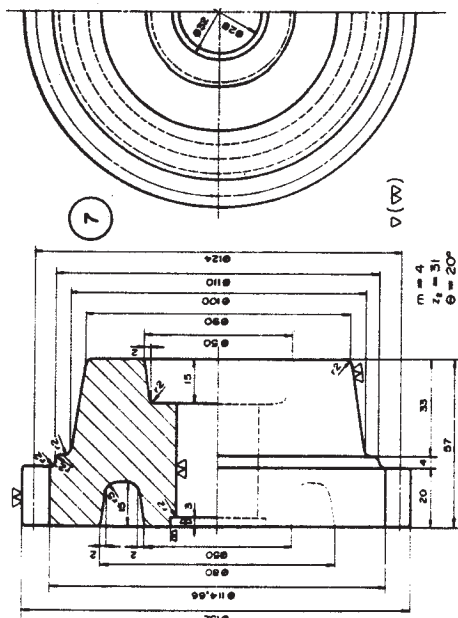
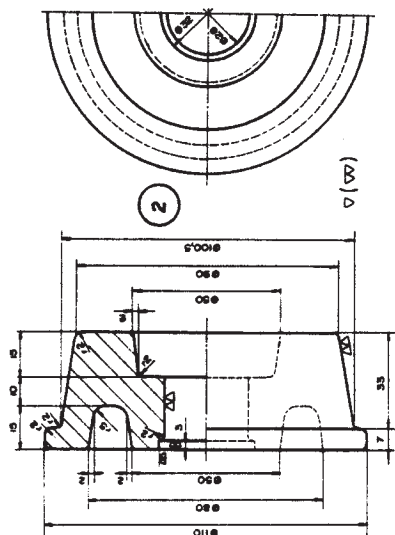


25	Lateral	1	Aço N6 100 270x253x3 ^{1/2}
24	Placa subscuda	1	Ø 3 ^{1/2}
23	Arruela de pressão	1	Ø 12
22	Angulo demais rebas	1	Aço N6 350 30x4,2x14
21	Dilatonador	2	Aço N6 100 Ø 3 ^{1/2} x181
20	Tornex de suspensão	1	Aço N6 100 Ø 3 ^{1/2} x181
19	Lateral	1	Aço N6 100 270x253x3 ^{1/2}
18	Coar cobrada	5m	Ferro d=5, P=17,5

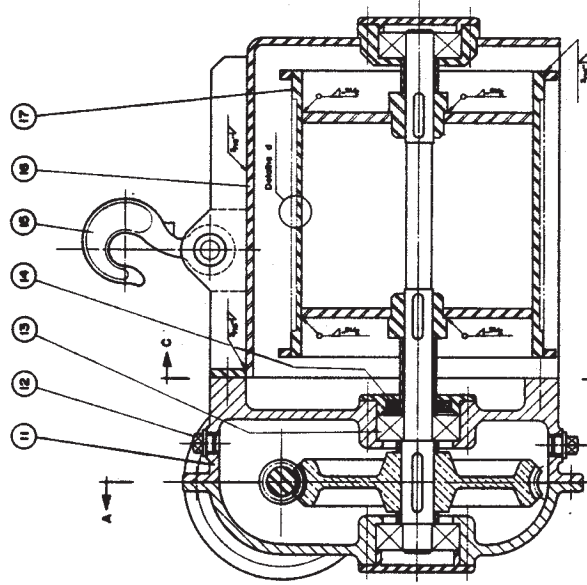
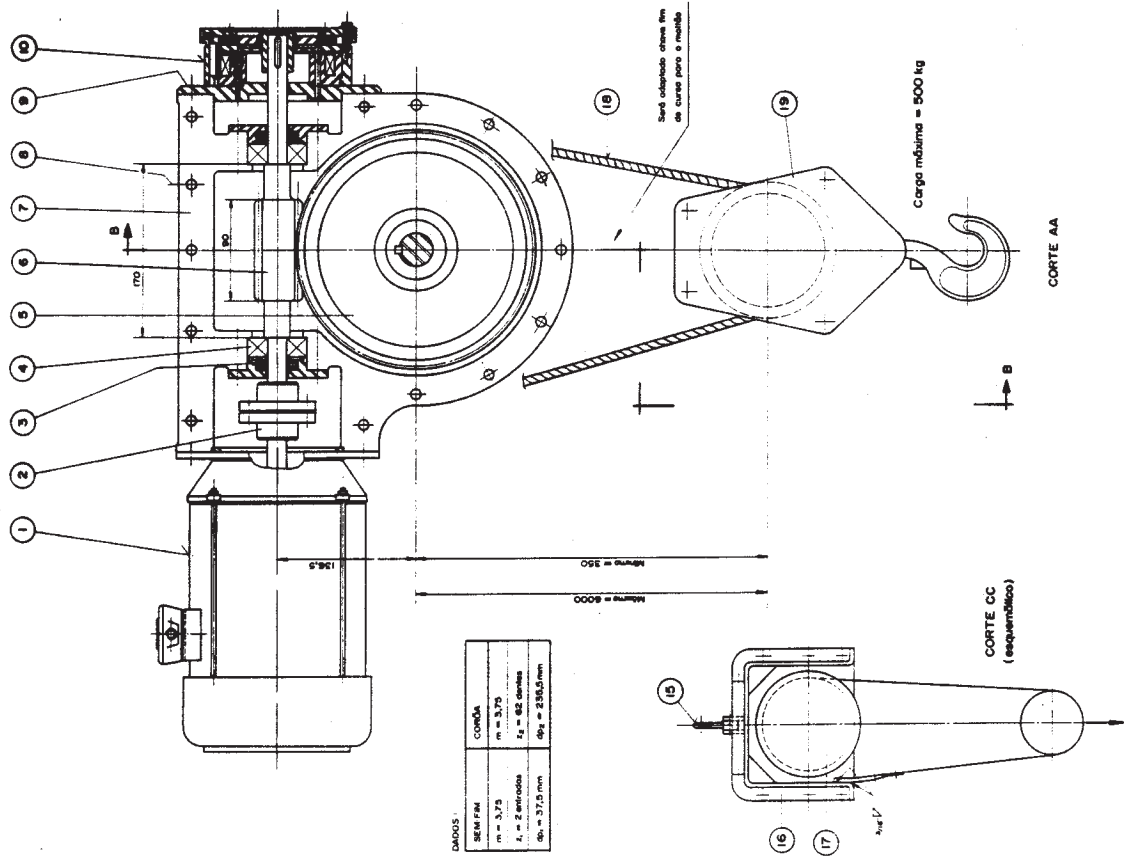
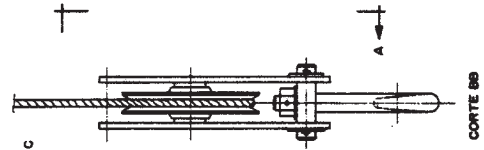
17	Chojo de refrega	1	Ago MB OIO
18	Eiso	1	Ago MB OIO @ 30x123
19	Chaveta	1	Ago MB OIO 17x6x15
14	Chaveta	1	Ago MB OIO 30x6x6
13	Engomadora	5	Lardo 9/4 gda
12	Porco setoadona	11	9/12"
11	Arvudo de presilha	1	9/15
10	Pedaço p/ ceara	1	1 unidade P = 12,4 L = 15,5 A = 17,5
9	Eiso	2	Ago MB OIO @ 30x75

№	Descrição	Material e dimensões
1	Arredos terminais	3 Ø30 x 0,03 x 2
2	Rodo com engren.	3 Ø30 x 0,03 x 2
3	Arredos terminais	3 Ø30 x 0,03 x 2
4	Arredos terminais	3 Ø30 x 0,03 x 2
5	Arredos terminais	3 Ø30 x 0,03 x 2
6	Arredos terminais	3 Ø30 x 0,03 x 2
7	Rodo com engren.	3 Ø30 x 0,03 x 2
8	Arredos terminais	3 Ø30 x 0,03 x 2

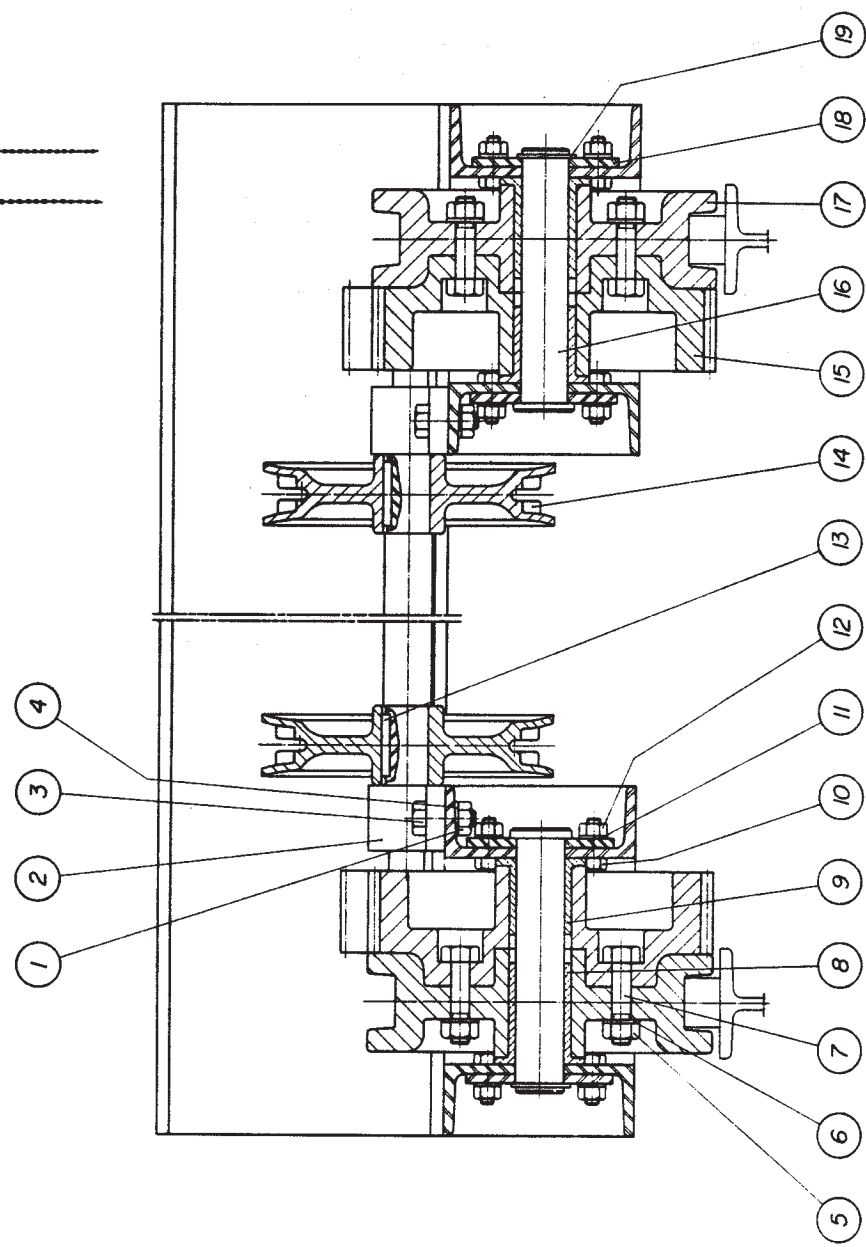
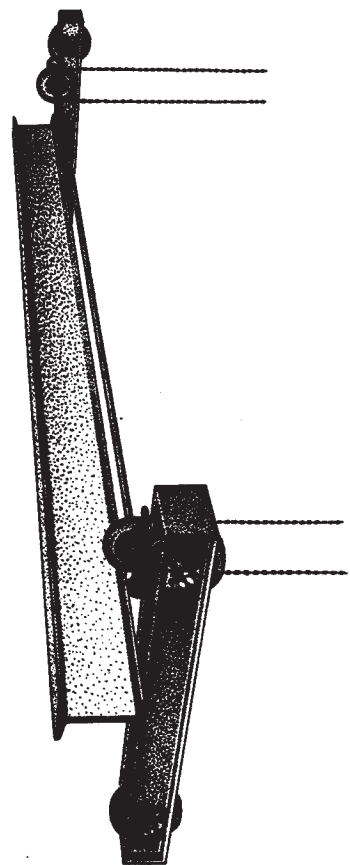




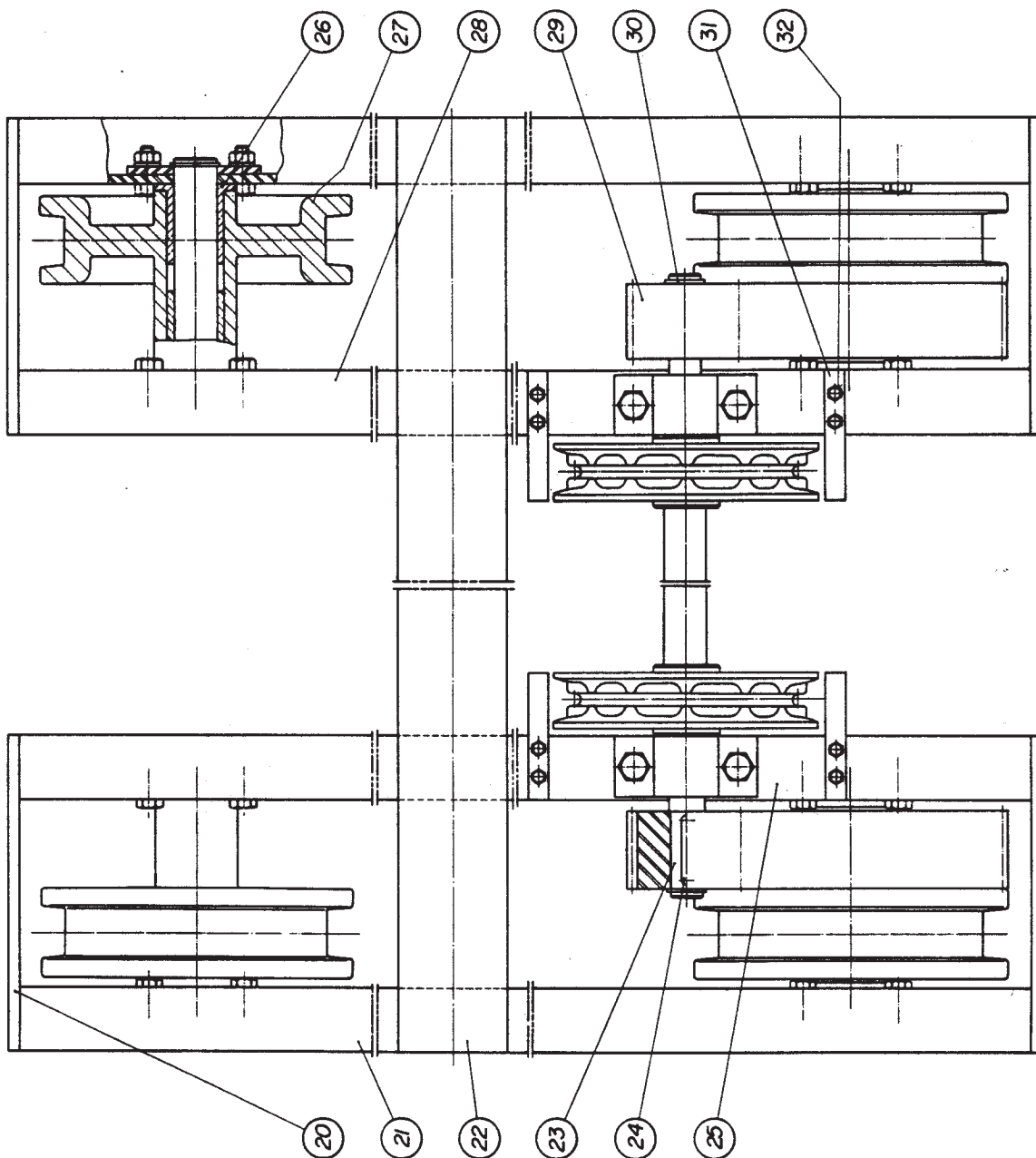
TROLE ELÉTRICO

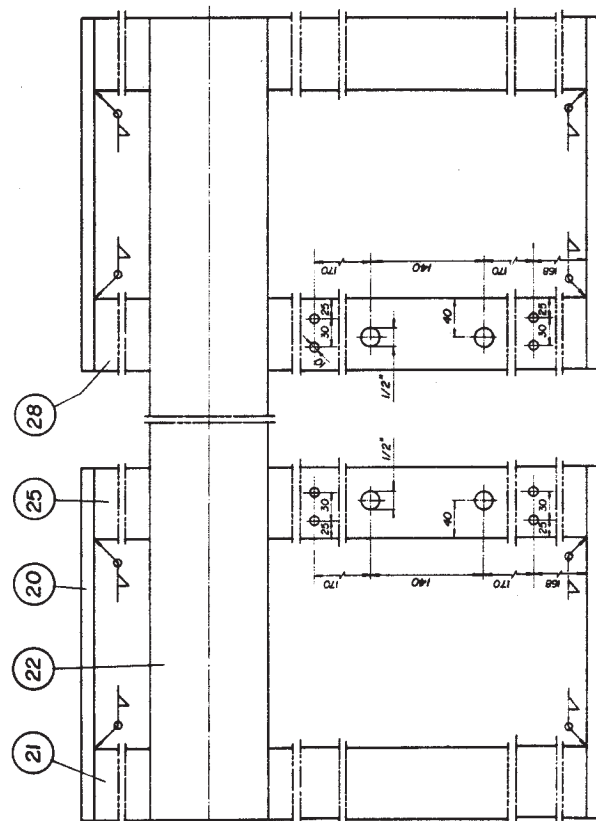
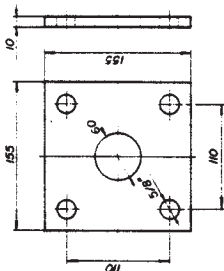
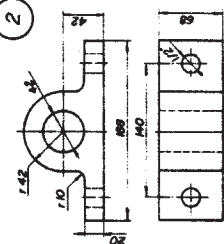
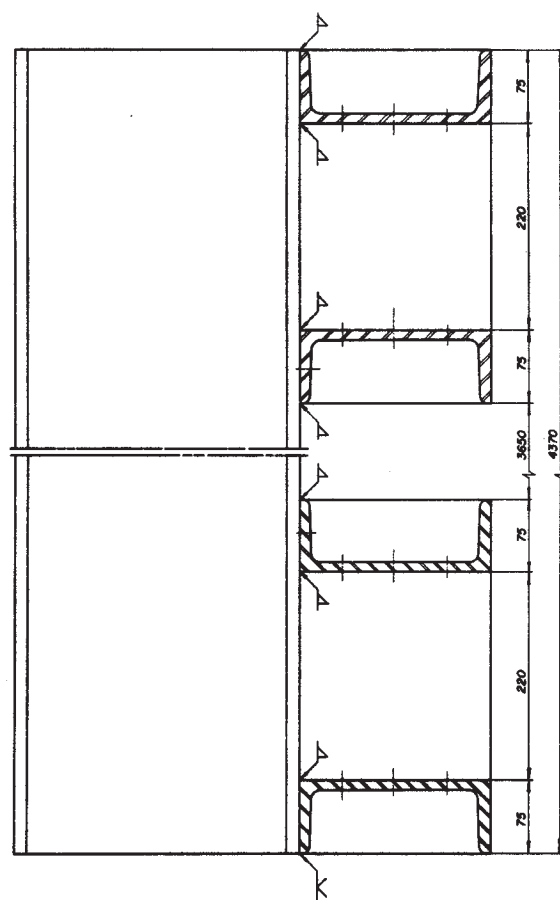
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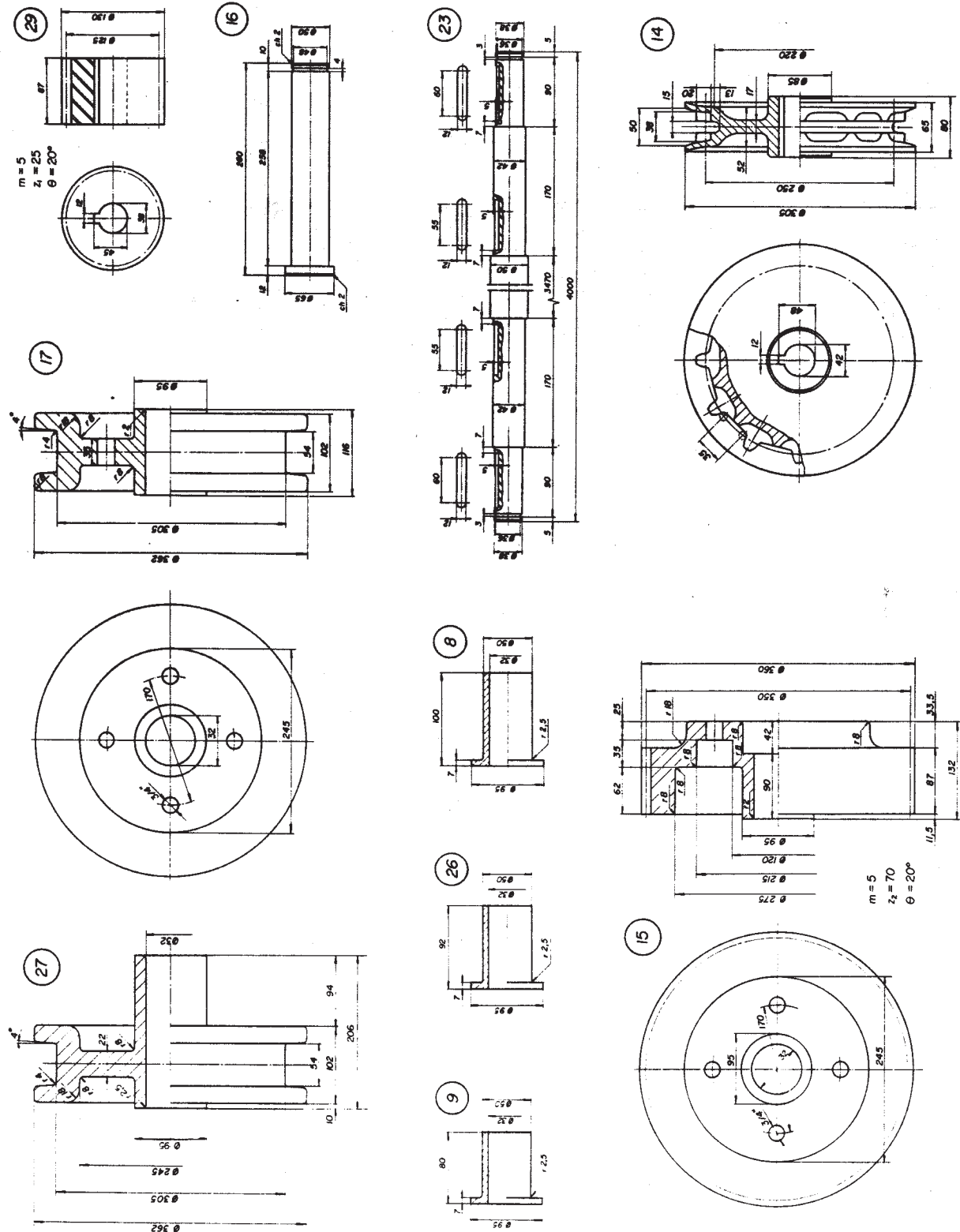
PONTE ROLANTE ACIONADA POR CORRENTE

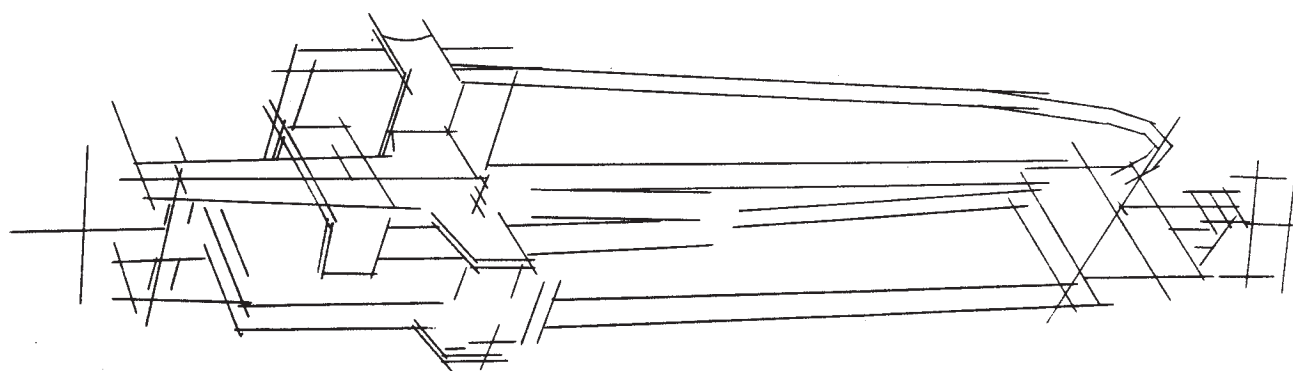
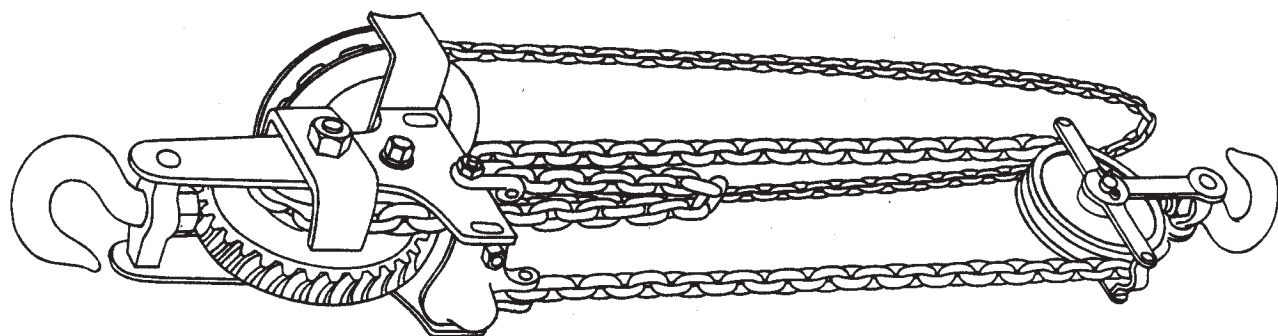
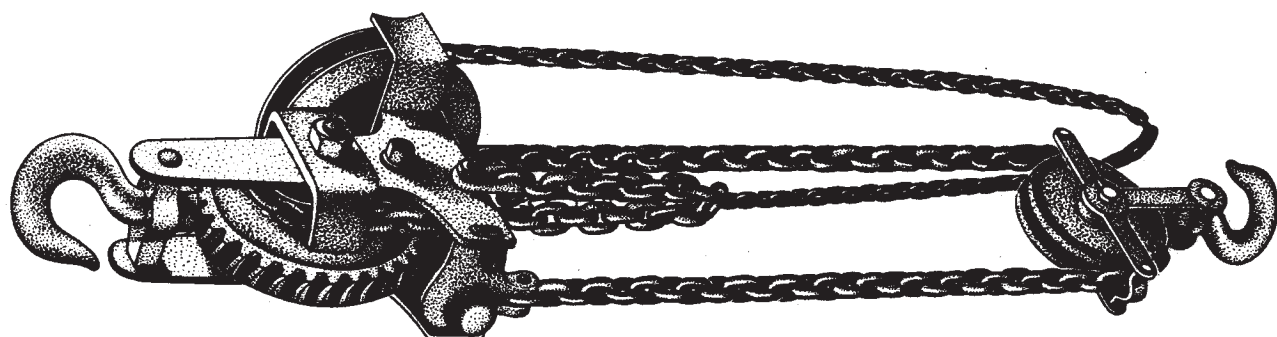


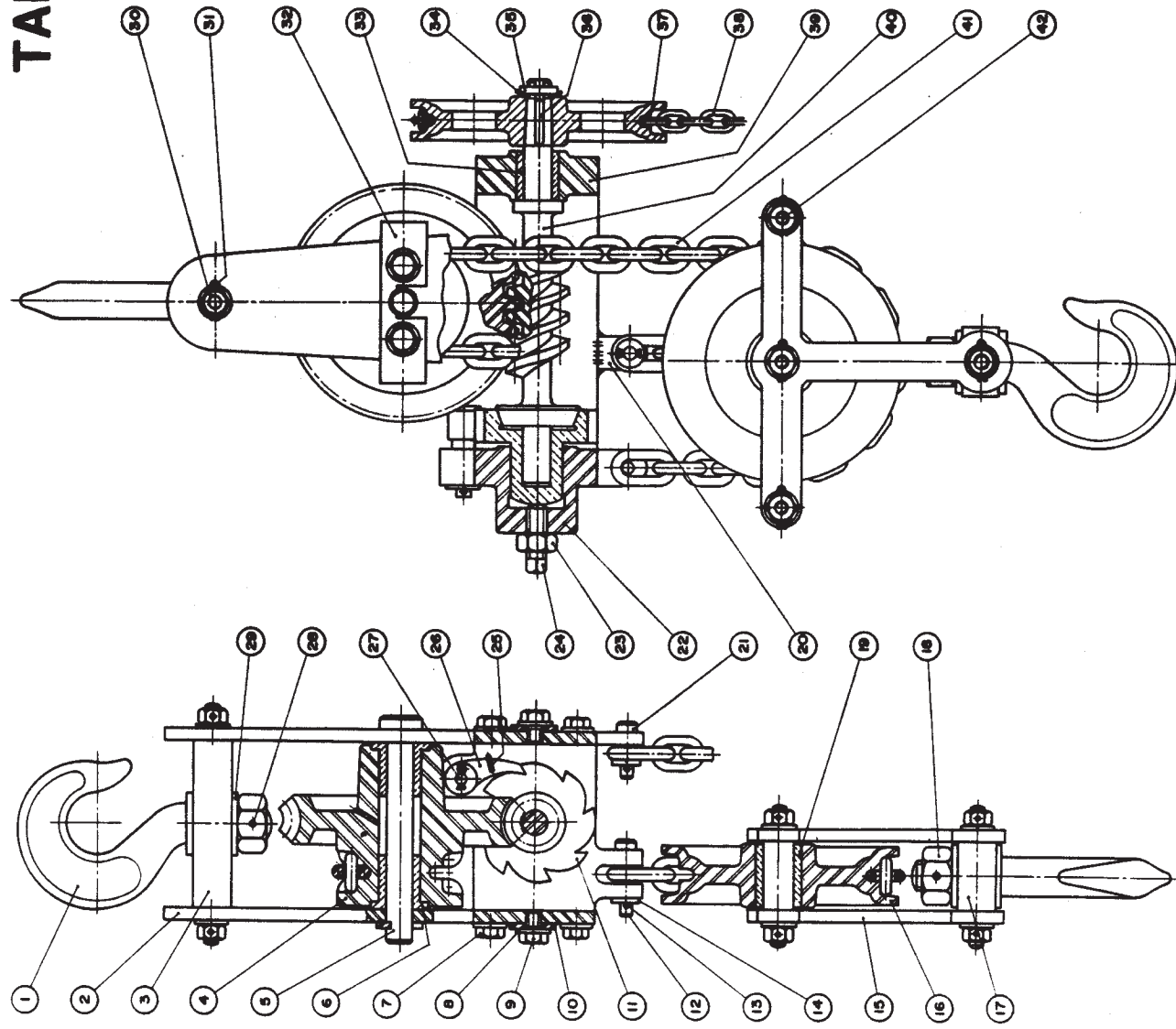
36	Paraf. paraf. e arr. 8	Ø 1/2" x 10
31	Paraf. 4	Chapa Ø 3/8" x 150 x 23
30	Anal. elástico 2	Data 35
29	Paraf. 2	Ap. Nº 1020
28	Viga base 2	C 200 x 75 x 8,5
27	Roda 2	Ferro fundido
26	Bucha 4	Bronze SAE 660
25	Viga base 1	C 200 x 75 x 8,5
24	Chapa paraf. 2	Ø 1/2" x 10
23	Eixo 1	Ap. Nº 1030
22	Viga central 1	Z 300 x 125 x 10,8
21	Viga base 2	C 200 x 75 x 8,5
20	Chapa de fundo 4	Chapa de ferro 807-0
19	Anal. elástico 4	Data 50
18	Paraf. 4	Chapa de aço B60
17	Roda 2	Ferro fundido
16	Eixo 4	Ap. Nº 1030
15	Condo 2	Ferro fundido
14	Roda p/ carreta 2	Ferro fundido
13	Chapa paraf. 2	12 x 8 x 70
12	Paraf. autolub. 32	Ø 1/2"
11	Arruela de pres. 32	Ø 1/2"
10	Paraf. cob. arr. 32	Ø 1/2" x 25
9	Bucha 2	Bronze SAE 660
8	Bucha 2	Bronze SAE 660
7	Paraf. cob. arr. 8	Ø 3/8" x 50
6	Arruela simples 8	Ø 3/8"
5	Paraf. autolub. 8	Ø 3/8"
4	Chapinho 4	Ø 9/16"
3	Paraf. cob. arr. 4	Ø 9/16" x 45
2	Mancal simples 2	Ferro fundido
1	Paraf. autolub. 4	Ø 7/8"
MATERIAL E DIMENSÕES		





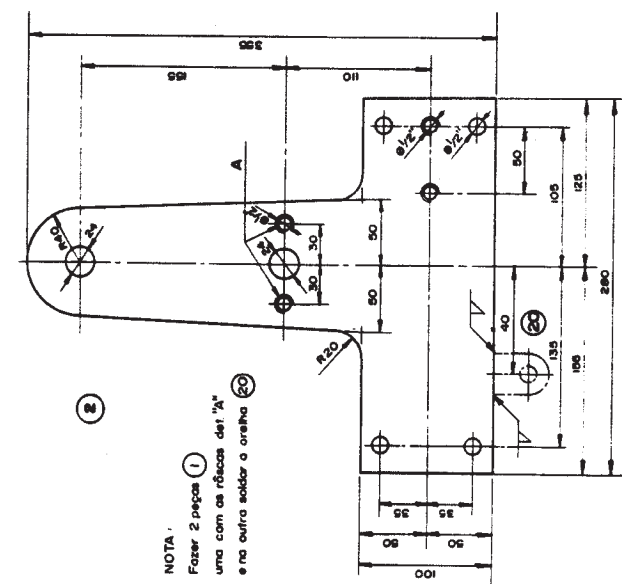
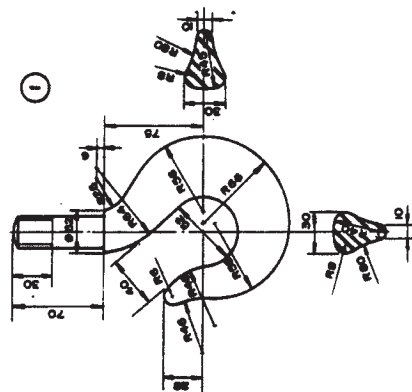
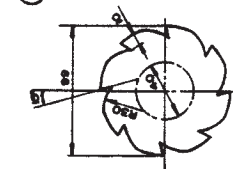
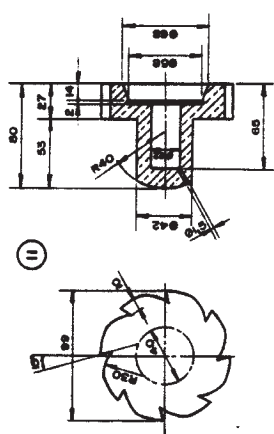




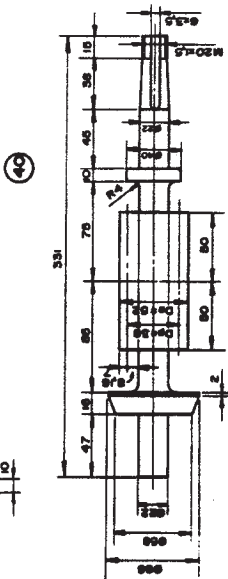
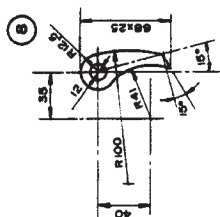


TALHA MANUAL PARA 1500 KG

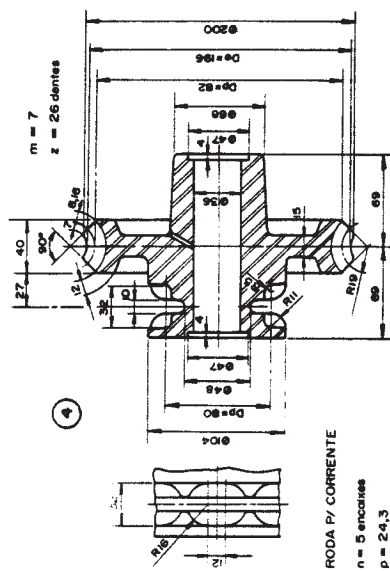
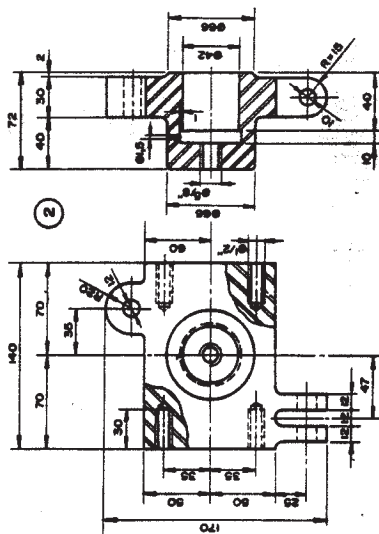
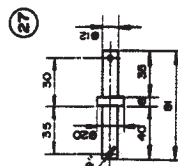
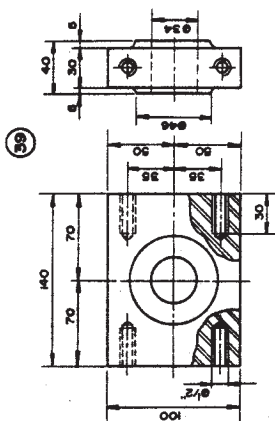
42	Distanciador	3	Aço NB 1030
41	Corrente de elo compr.	—	d = 9,5 t = 24,3
40	Sent-fim	1	Aço NB 1040
39	Mancal	1	Aço NB 3525 AF
38	Corrente de elo compr.	—	d = 5 t = 18,5
37	Polia	1	Ferro fundido
36	Chaveta	1	6x6x40
35	Porca	1	M20x1,5
34	Arruela	1	Latão
33	Bucha	1	Bronze SAE 660
32	Proteção	1	Aço NB 1020 BG 6
31	Cupilha	10	9/16" x 35
30	Porca sextavada	10	9/16"
29	Arruela liso	4	9/16"
28	Cupilha	2	9/16" x 80
27	Eixo	1	Aço NB 1040
26	Tranqueta	1	Aço NB 1040
25	Mola	1	Aço NB 1050
24	Paraf. de fixação	1	9/8" x 40
23	Porca sextavada	1	9/8"
22	Mancal	1	Aço NB 3525 AF
21	Pino com cabeça	1	9/16" x 25 x 20
20	Orçã	1	Aço NB 1020
19	Bucha	1	Bronze SAE 660
18	Porca sextavada	2	9/16"
17	Distanciador	1	Aço NB 1030
16	Polia	1	Ferro fundido
15	Lateral	2	Aço NB 1020 BG 3-0
14	Arruela liso	2	9/16" x 15
13	Cupilha	4	9/16" x 38
12	Pino com cabeça	1	9/16" x 15
11	Calçava	1	Bronze SAE 660
10	Proteção	2	Aço NB 1020 BG 6
9	Paraf. cob. ext.	4	9/16" x 15
8	Arruela liso	26	9/16"
7	Paraf. cob. ext.	8	9/16" x 30
6	Bucha	2	Bronze SAE 660
5	Eixo	1	Aço NB 1040
4	Coroa	1	Aço NB 3525 AF
3	Distanciador	1	Aço NB 1030
2	Lateral	2	Aço NB 1020 BG 3-0
1	Gancha	2	Aço forjado NB 1030
Nº	DENOMINAÇÕES		MATERIAL E DIMENSÕES



NOTA: Fazer 2 peças (1) uma com as riscas do "A" e na outra soldar o orilha (20)



RÔSCA SEMI-FIM DIREITA

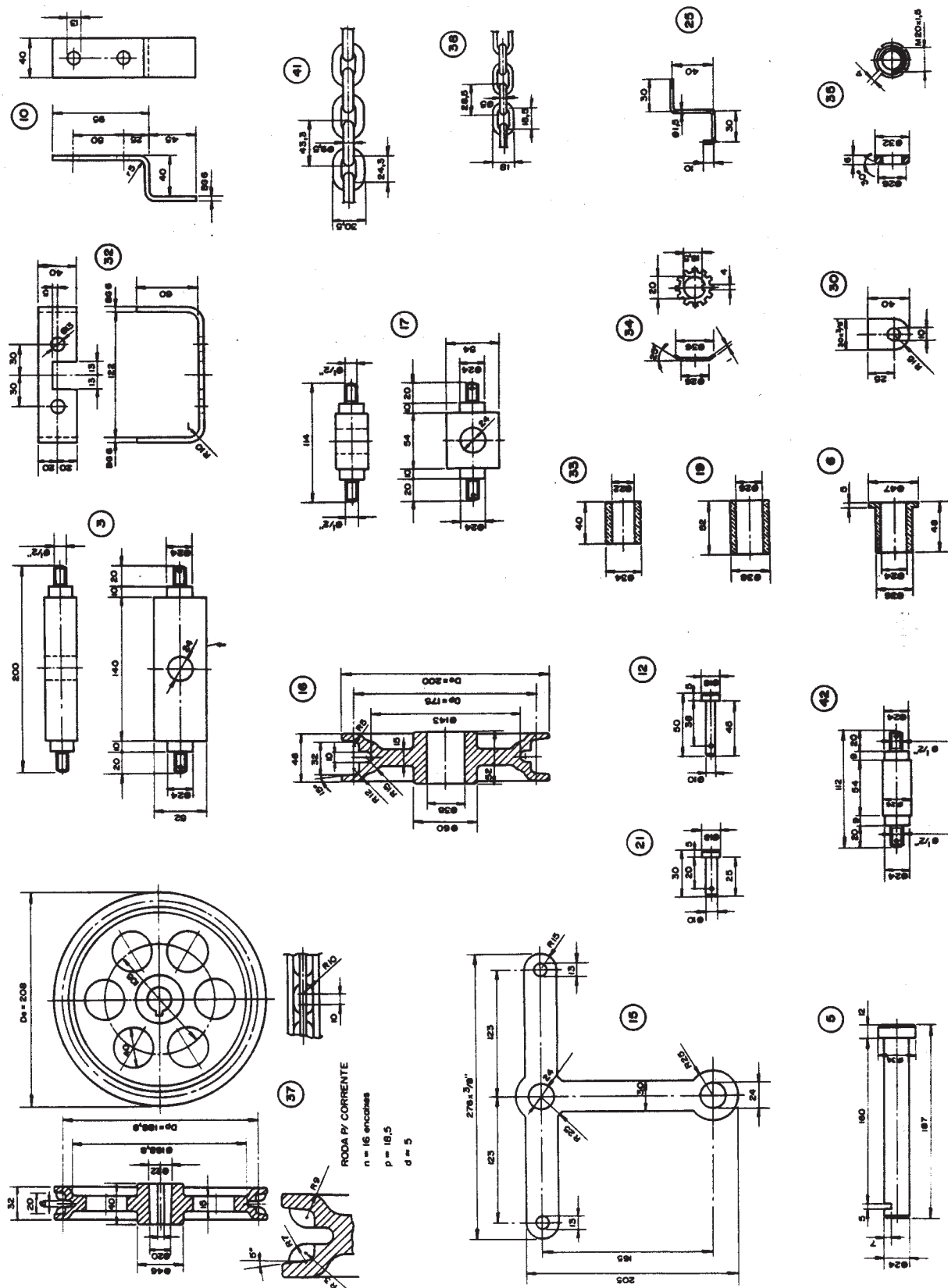
 $m = 7, z = 2 \text{ entradas } \theta = 20^\circ 20'$ 

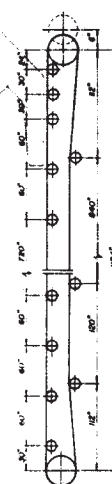
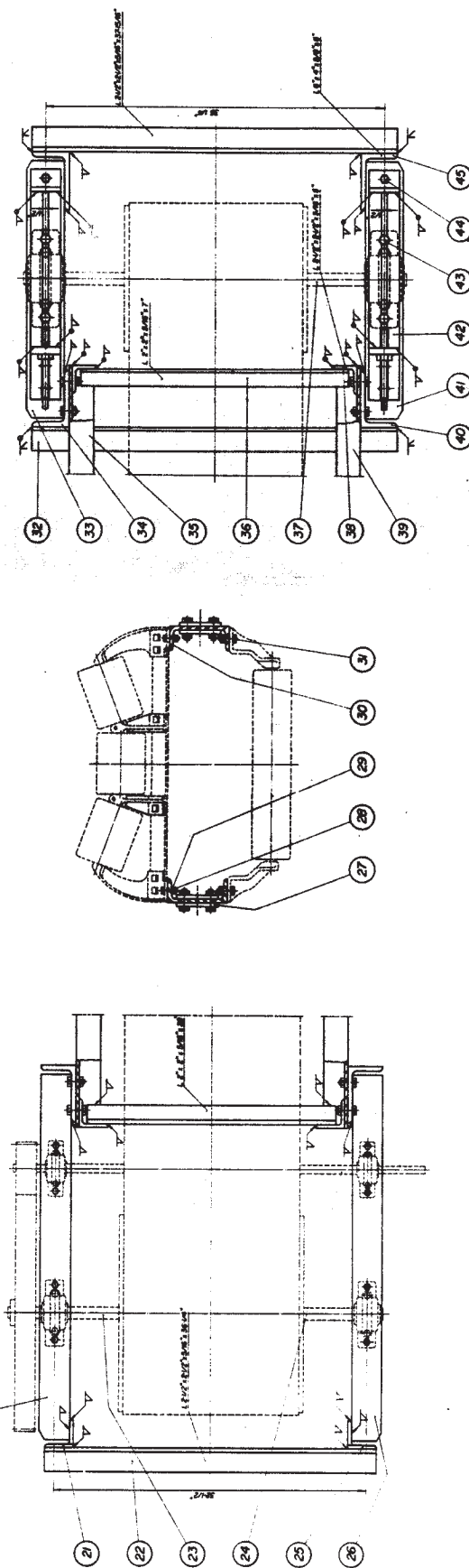
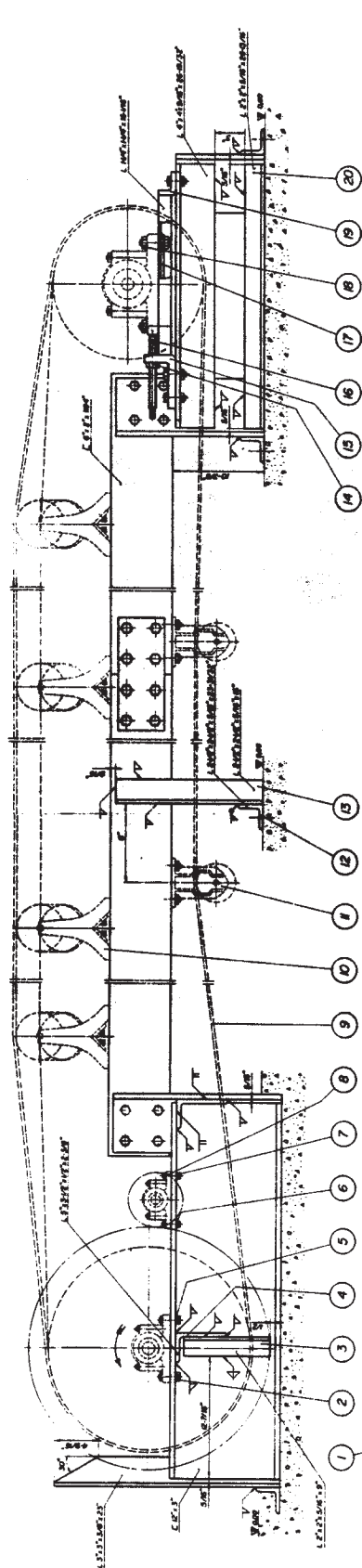
RODA P/ CORRENTE

n = 5 encaloes

p = 24,3

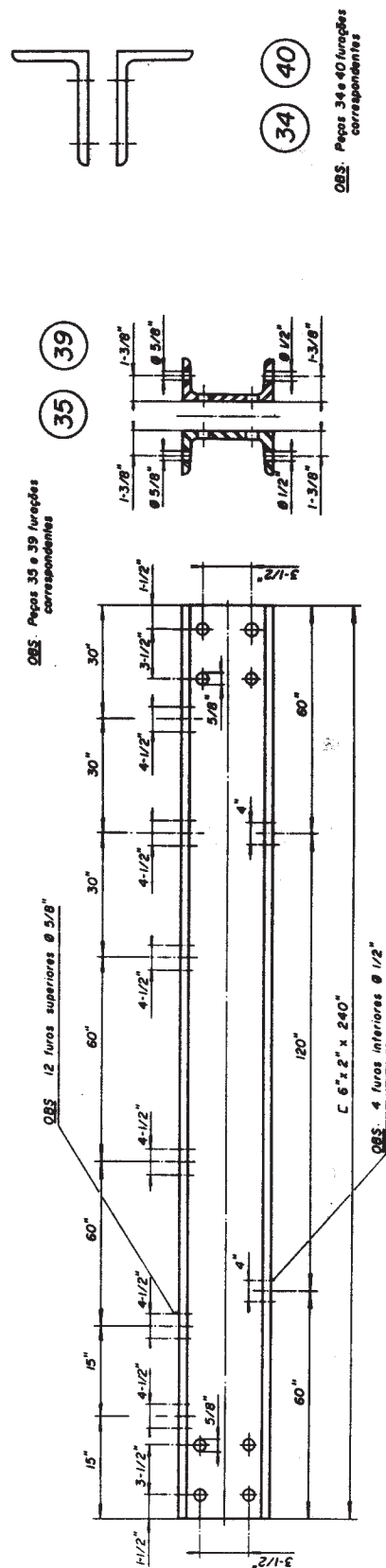
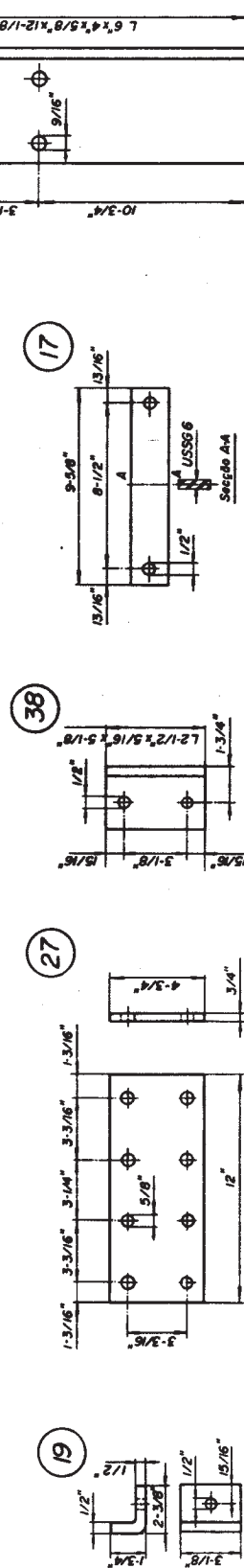
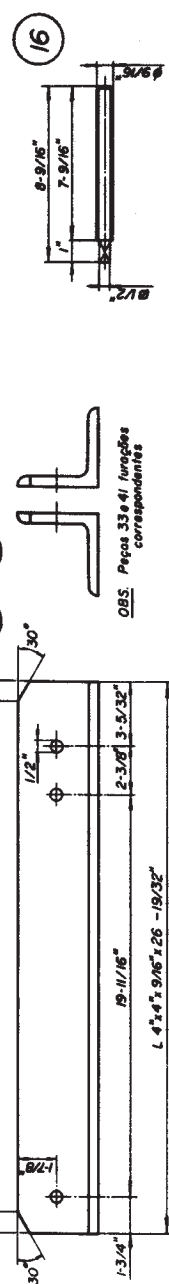
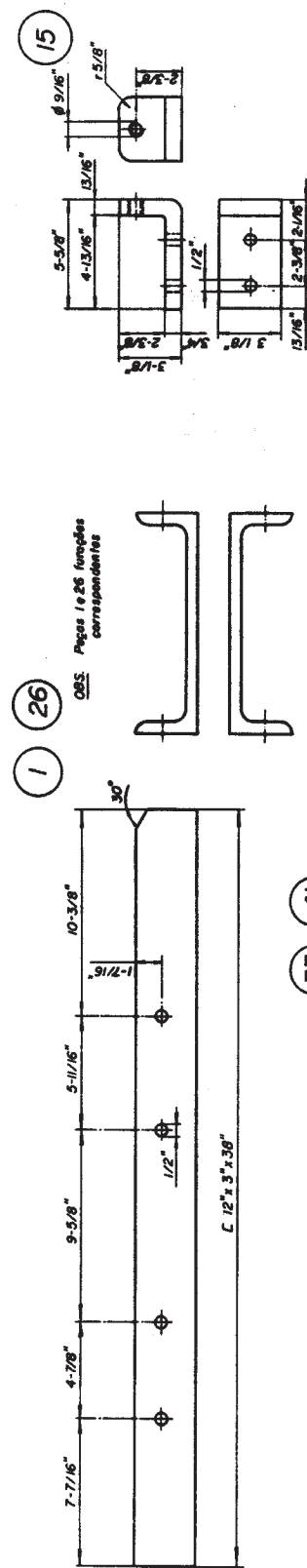
d = 9.5



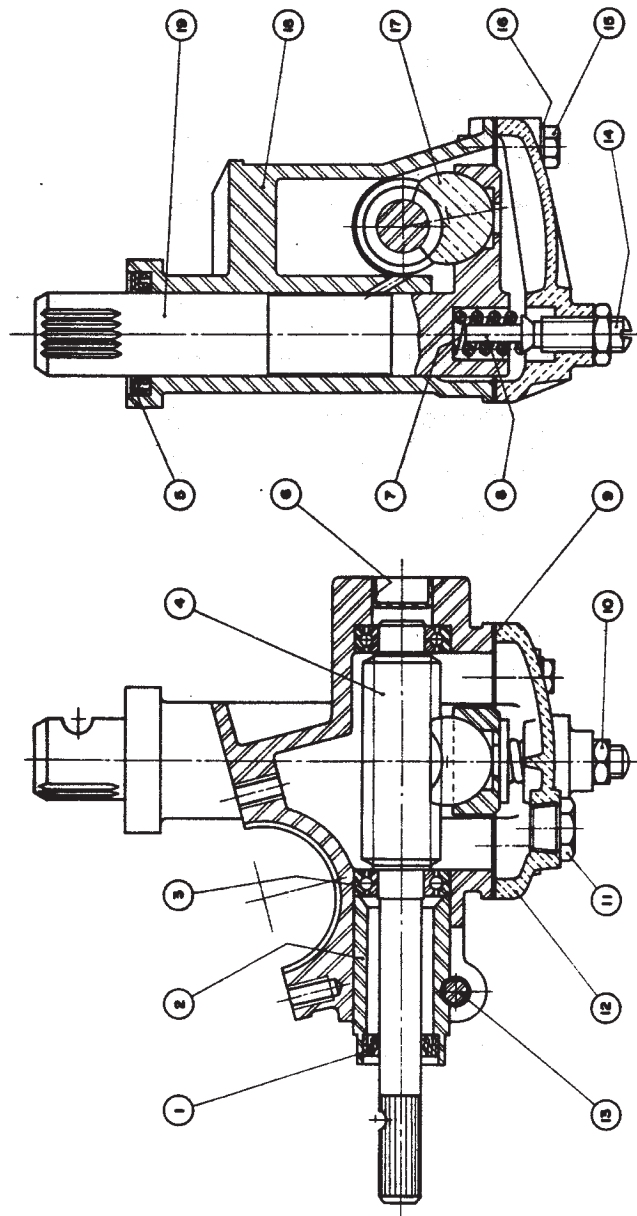


TRANSPORTADOR DE CORREIA

Tabela de Dados		Tabela de Dados	
1	Motor	1	Motor
2	Redutor	2	Redutor
3	Polia motriz	3	Polia motriz
4	Polia guia	4	Polia guia
5	Polia de apoio	5	Polia de apoio
6	Polia de retorno	6	Polia de retorno
7	Polia de descarga	7	Polia de descarga
8	Polia de carga	8	Polia de carga
9	Polia de transição	9	Polia de transição
10	Polia de apoio	10	Polia de apoio
11	Polia de retorno	11	Polia de retorno
12	Polia de descarga	12	Polia de descarga
13	Polia de carga	13	Polia de carga
14	Polia de transição	14	Polia de transição
15	Polia de apoio	15	Polia de apoio
16	Polia de retorno	16	Polia de retorno
17	Polia de descarga	17	Polia de descarga
18	Polia de carga	18	Polia de carga
19	Polia de transição	19	Polia de transição
20	Polia de apoio	20	Polia de apoio
21	Polia de retorno	21	Polia de retorno
22	Polia de descarga	22	Polia de descarga
23	Polia de carga	23	Polia de carga
24	Polia de transição	24	Polia de transição
25	Polia de apoio	25	Polia de apoio
26	Polia de retorno	26	Polia de retorno
27	Polia de descarga	27	Polia de descarga
28	Polia de carga	28	Polia de carga
29	Polia de transição	29	Polia de transição
30	Polia de apoio	30	Polia de apoio
31	Polia de retorno	31	Polia de retorno
32	Polia de descarga	32	Polia de descarga
33	Polia de carga	33	Polia de carga
34	Polia de transição	34	Polia de transição
35	Polia de apoio	35	Polia de apoio
36	Polia de retorno	36	Polia de retorno
37	Polia de descarga	37	Polia de descarga
38	Polia de carga	38	Polia de carga
39	Polia de transição	39	Polia de transição
40	Polia de apoio	40	Polia de apoio
41	Polia de retorno	41	Polia de retorno
42	Polia de descarga	42	Polia de descarga
43	Polia de carga	43	Polia de carga
44	Polia de transição	44	Polia de transição
45	Polia de apoio	45	Polia de apoio



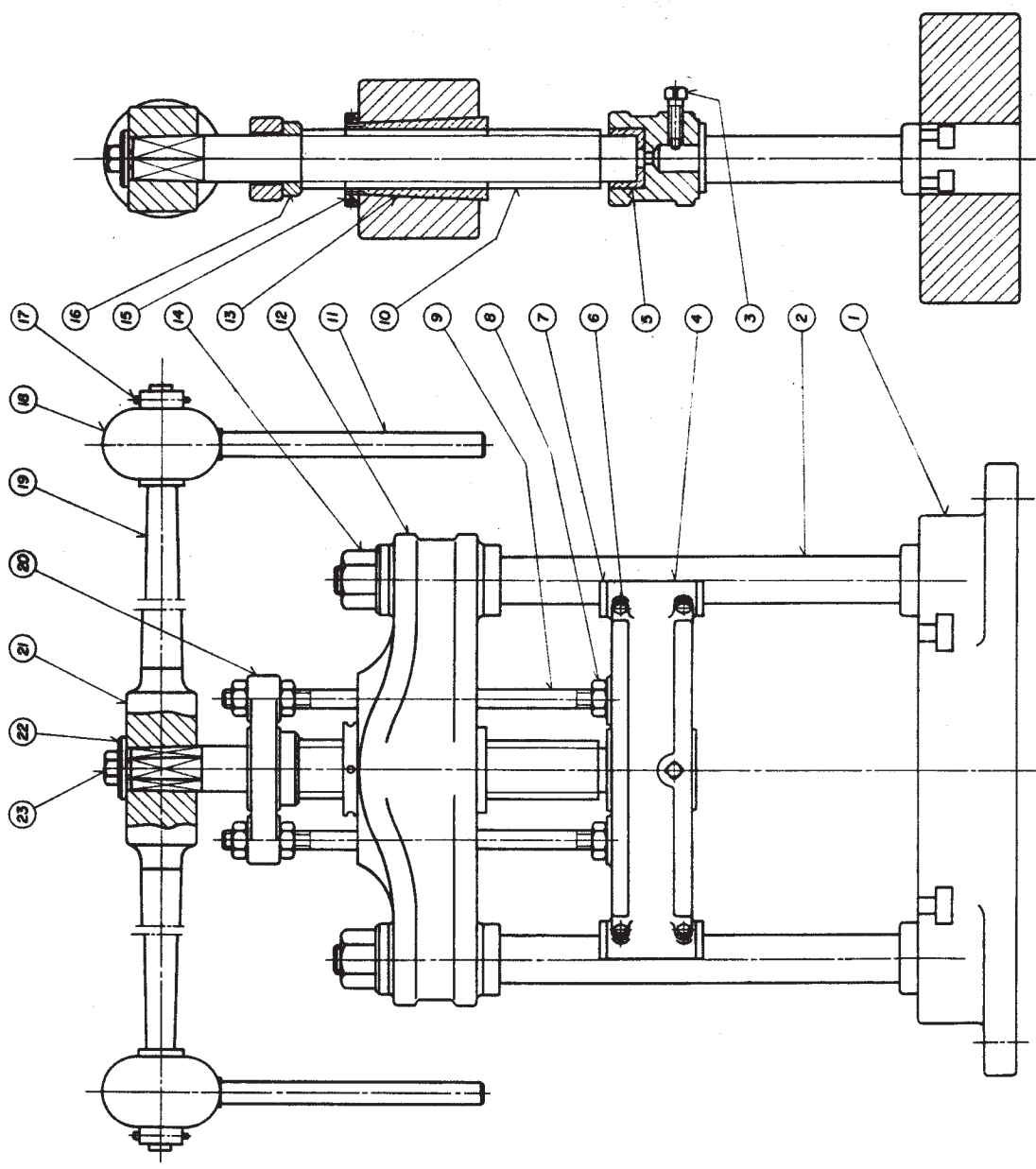
CAIXA DE DIREÇÃO



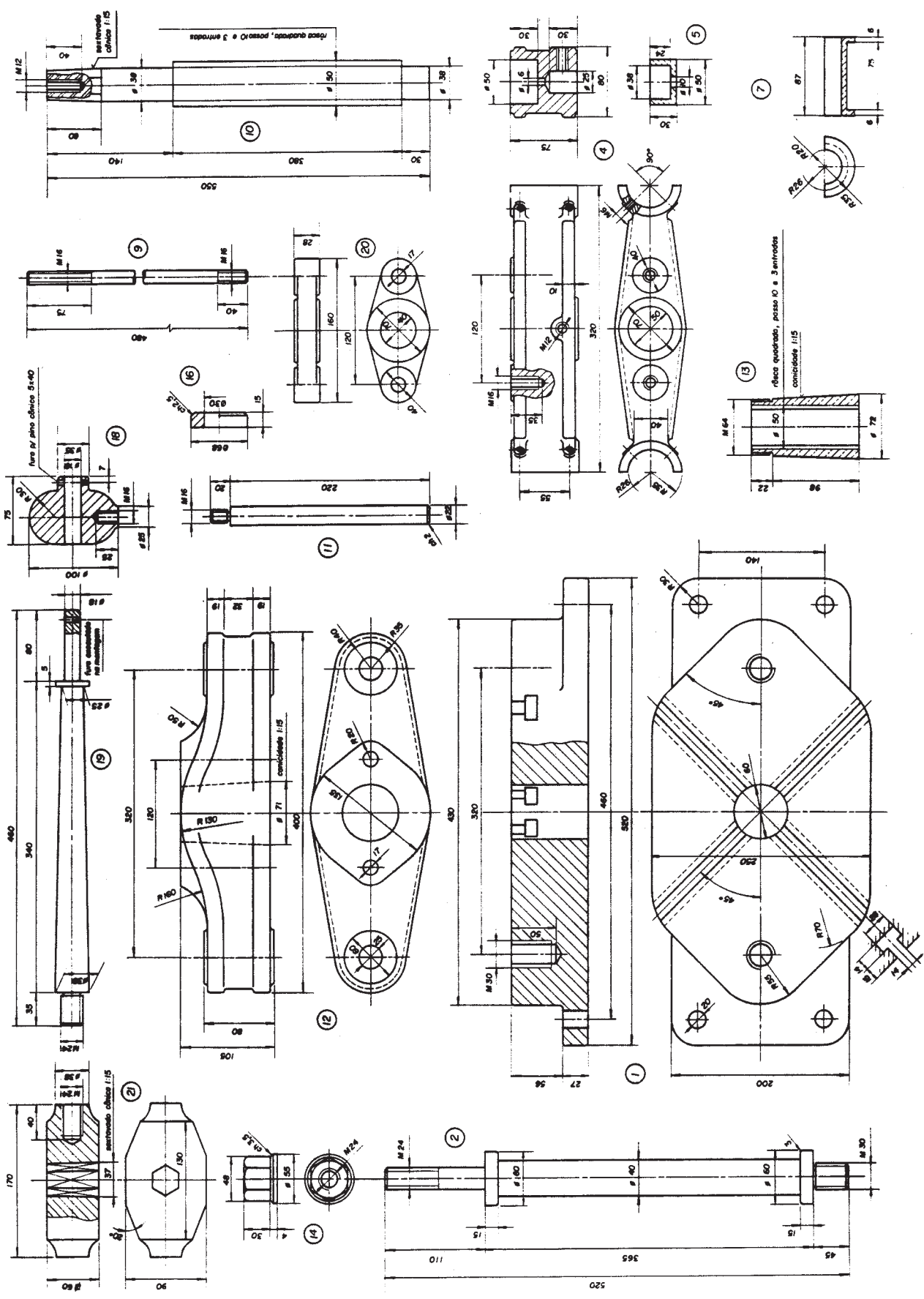
19	Eixo de direção	1	Aço NB 6020 AF	9	Quantidade	1	Papel
18	Correção	1	Aço NB 3525 AF	8	Pino	1	Aço NB 1030
17	Seguidor	1	Bronze SAE 430 - E	7	Mola	1	Aço SAE 9280
16	Arruela	4	Ø 6,5	6	Tampa	1	Aço NB 1010 USSG e 14
15	Paraf. cob. ext.	4	M 6 x 28	5	Retentor	1	Ø 40 x Ø 27 x 7
14	Paraf. prillanero	1	M 12 x 32	4	Parafuso	1	Aço NB 5140
13	Paraf. porca e chap.	1	M 8 x 80	3	Releamento	2	BNF 6002
12	Tampa	1	Liga Zamac	2	Eixo de	1	Aço NB 1020
11	Bujão	1	Ø 5/8" gda	1	Retentor	1	Ø 27 x Ø 14 x 7
10	Porca estavada	1	M 12	Nº	DENOMINAÇÕES		MATERIAL E DIMENSÕES



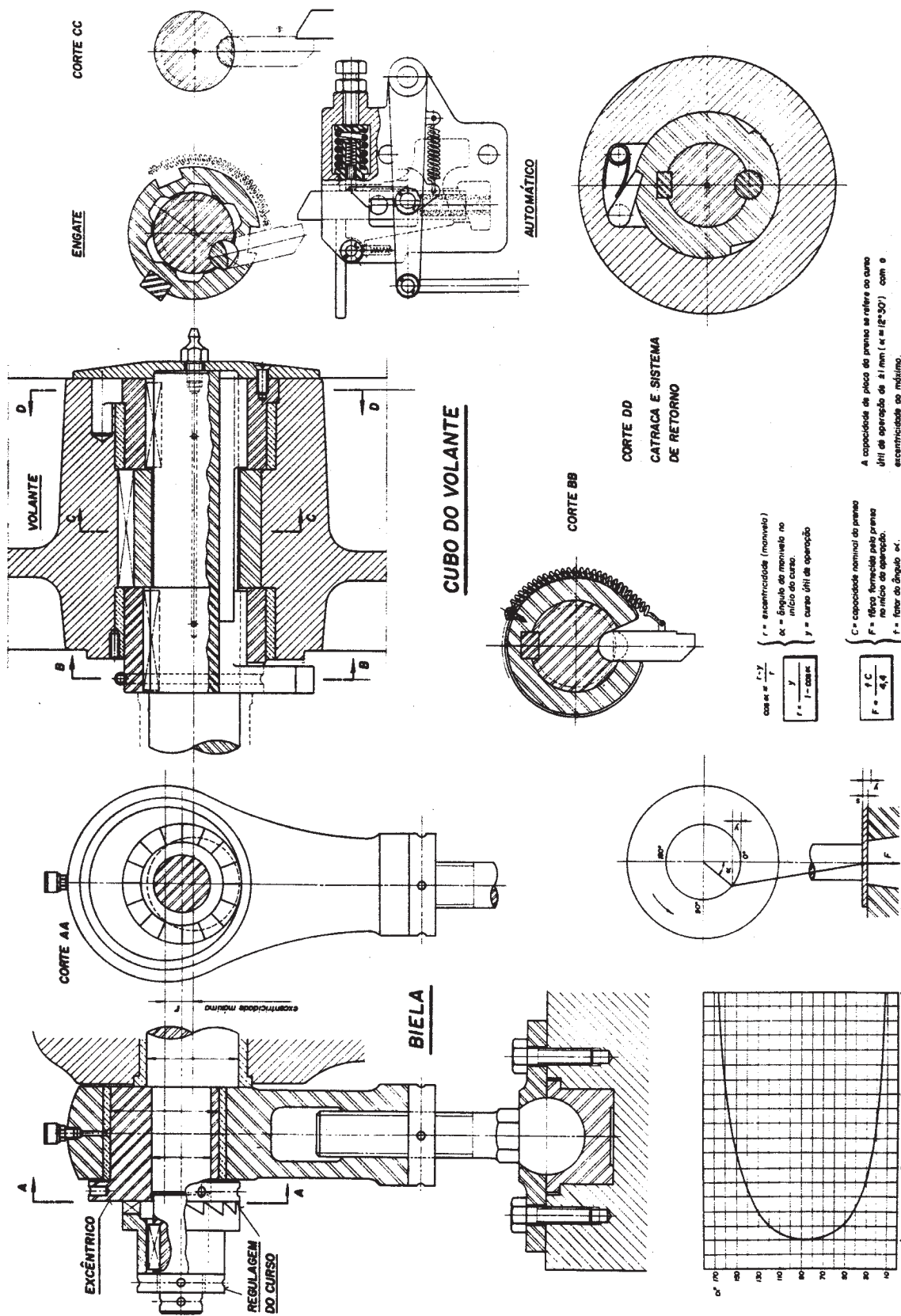
BALANCIM



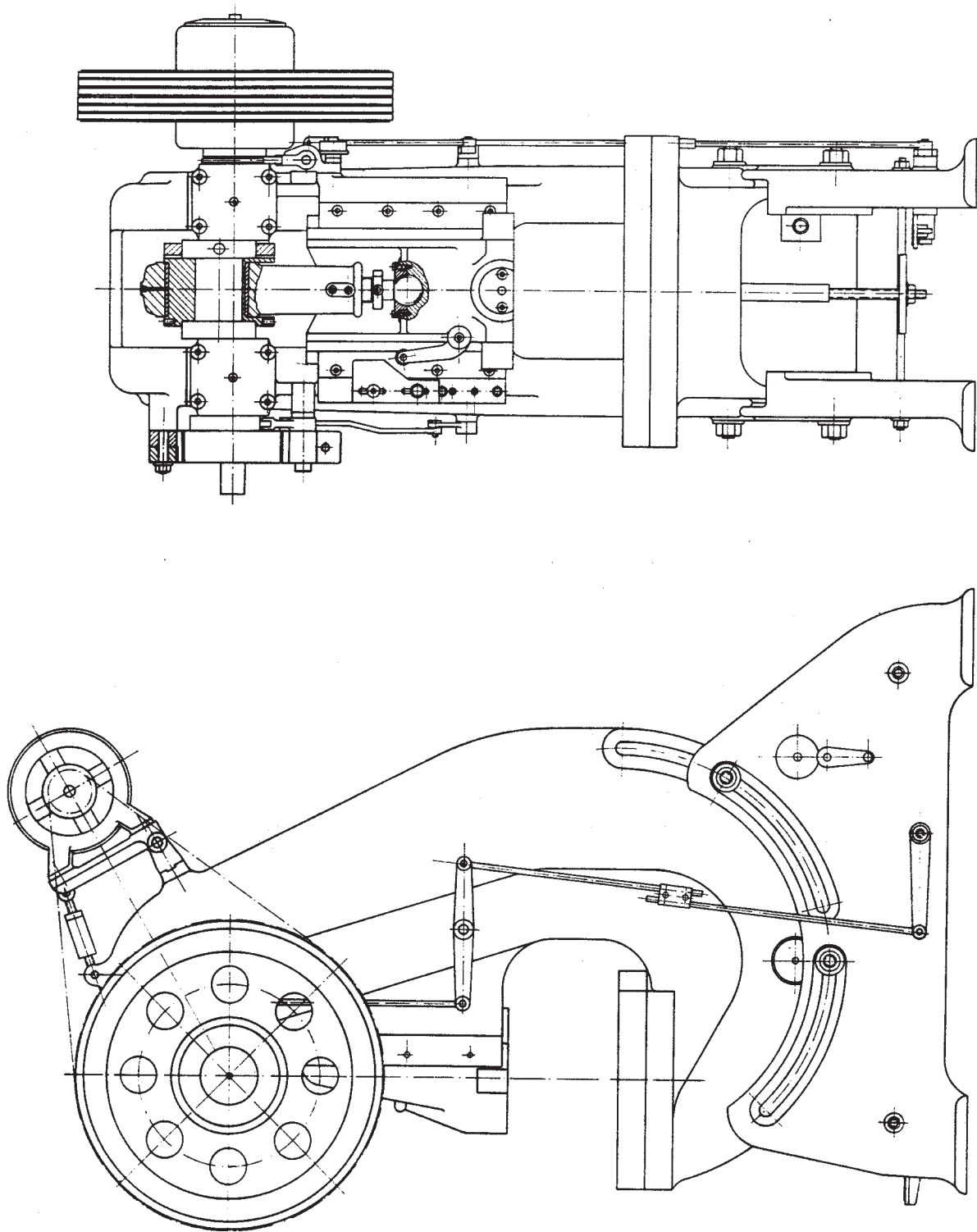
Nº	DENOMINAÇÕES	Quant.	MATERIAL E DIMENSÕES
23	Parafuso sext.	1	M12 x 35
22	Arruela	1	Ø15 x Ø50 x 6
21	Suporte do braço	1	Aço fundido 3525 AF
20	Suporte do tirante	1	Ferro fundido
19	Braços	2	Aço NB 1020 Ø38 x 460
18	Massa	2	Ferro fundido
17	Pinos cônicos	2	Aço NB 1030 Ø5 x 40
16	Arruela de escora montado sob pressão	1	Aço NB 1030 Ø38 x 68 x 15
15	Parca sext	1	M64 x Ø80 x 12
14	Parcas sext	2	M24 x 34
13	Parca cônica	1	Bronze SAE 660
12	Travessão superior	1	Ferro fundido
11	Manipulos	2	Ferro redondo Ø22 x 240
10	Fuso	1	Aço NB 1040 Ø90 x 590
9	Tirantes	2	Aço NB 1020
8	Parcas sext.	6	M16 x 13
7	Parfis	2	Bronze SAE 660
6	Parafusos sext	8	M6 x 18
5	Placa de escora	1	Bronze SAE 660 Ø50 x 30
4	Mar-felo	1	Ferro fundido
3	Paraf. cob. quadrado	1	M12 x 40
2	Colunas	2	Aço NB 1030 Ø60 x 520
1	Mesa	1	Ferro fundido



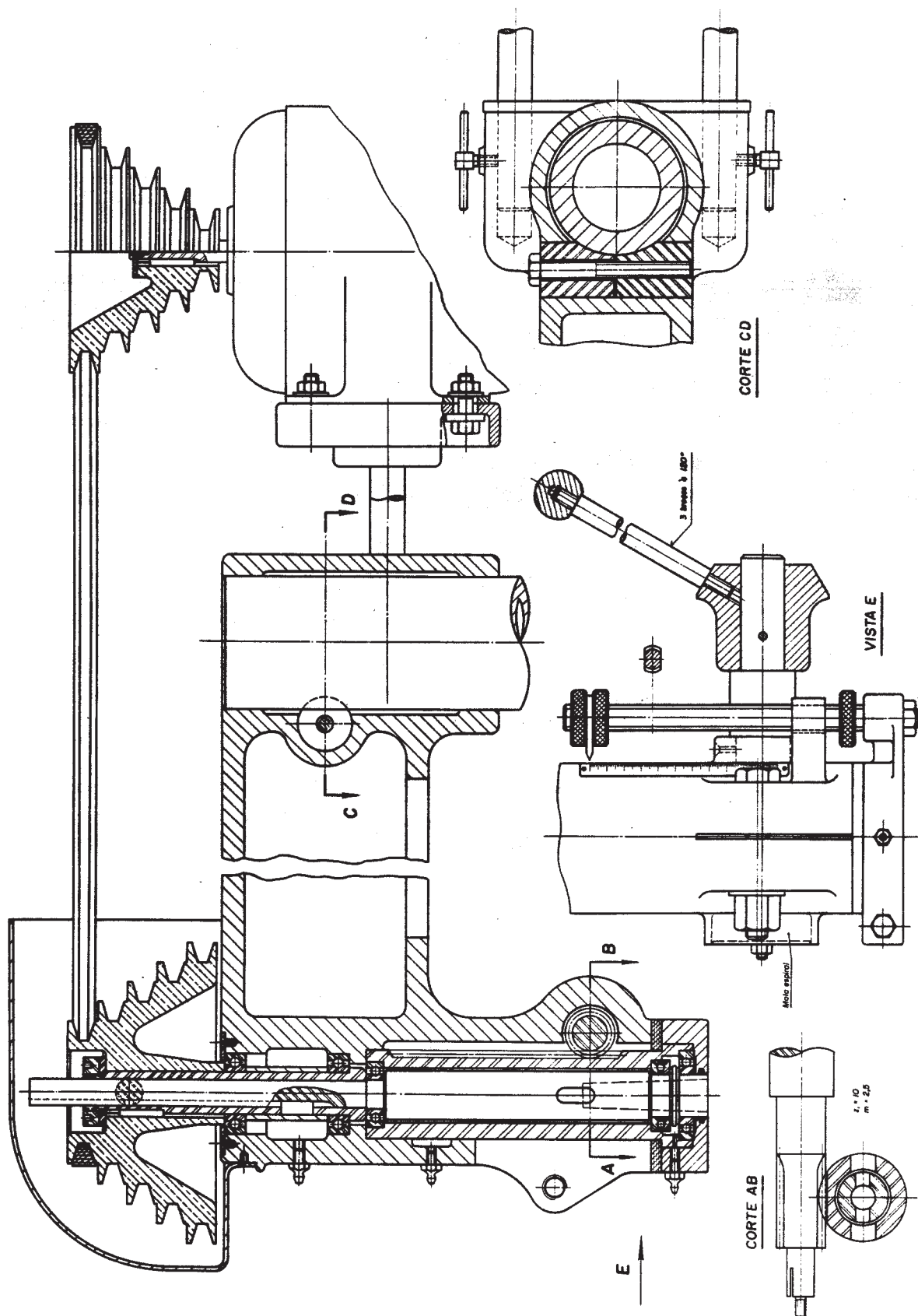
PRENSA EXCÊNTRICA



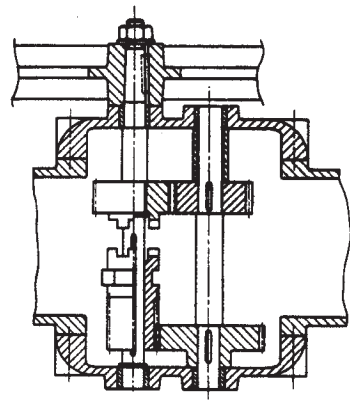
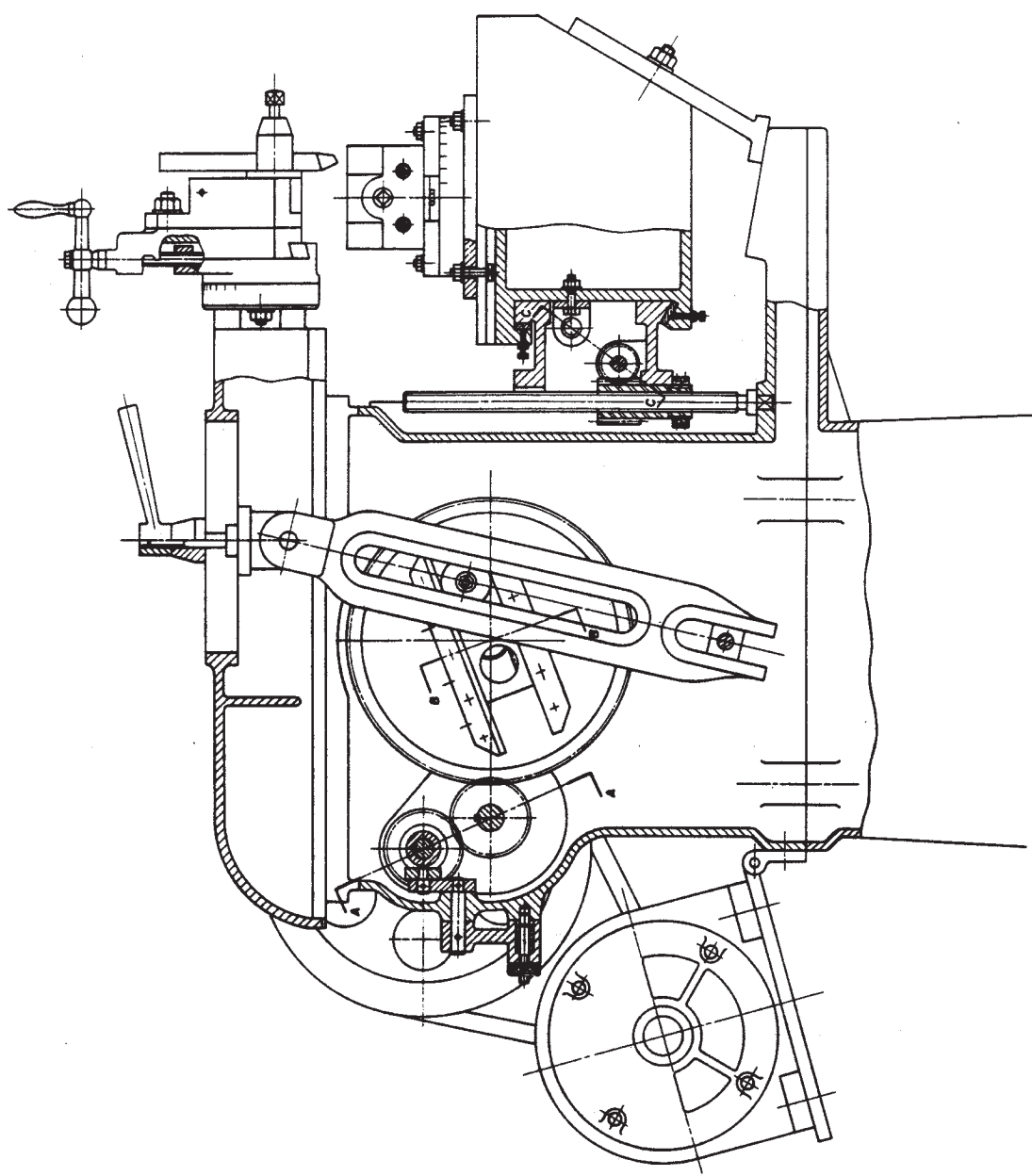
PRENSA EXCÊNTRICA DE 20 t



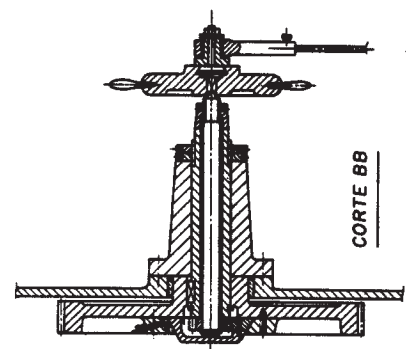
FURADEIRA DE COLUNA



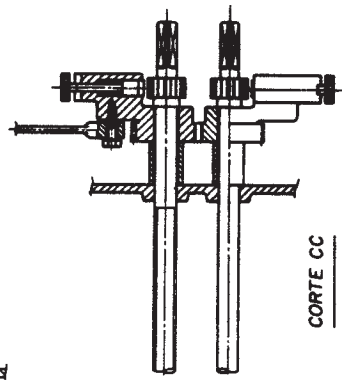
PLAINA LIMADORA



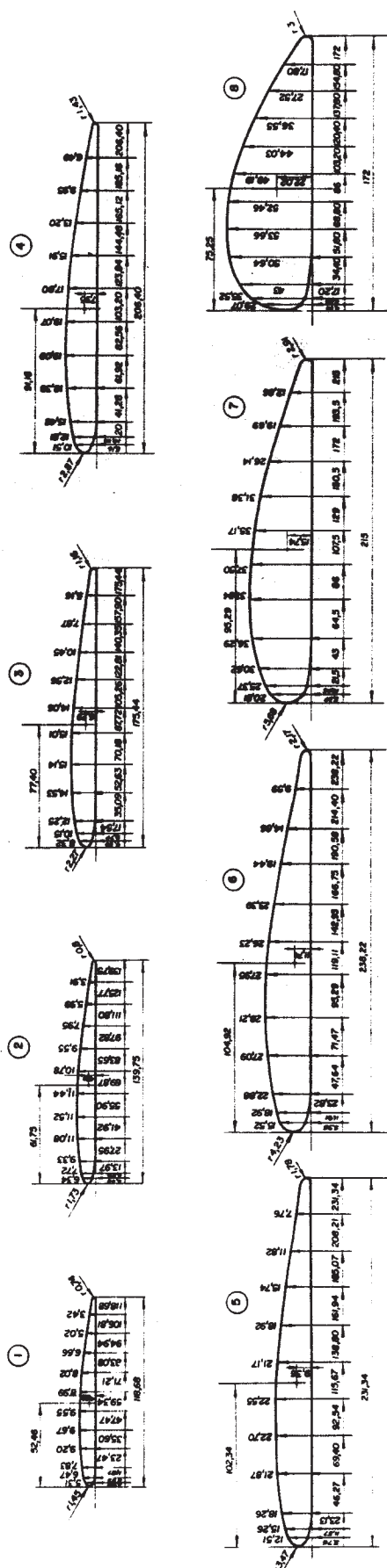
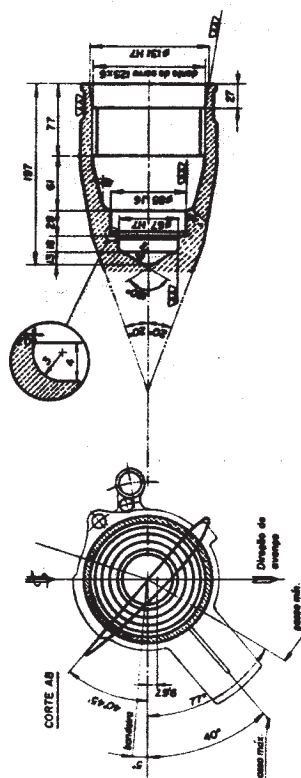
CORTE AA

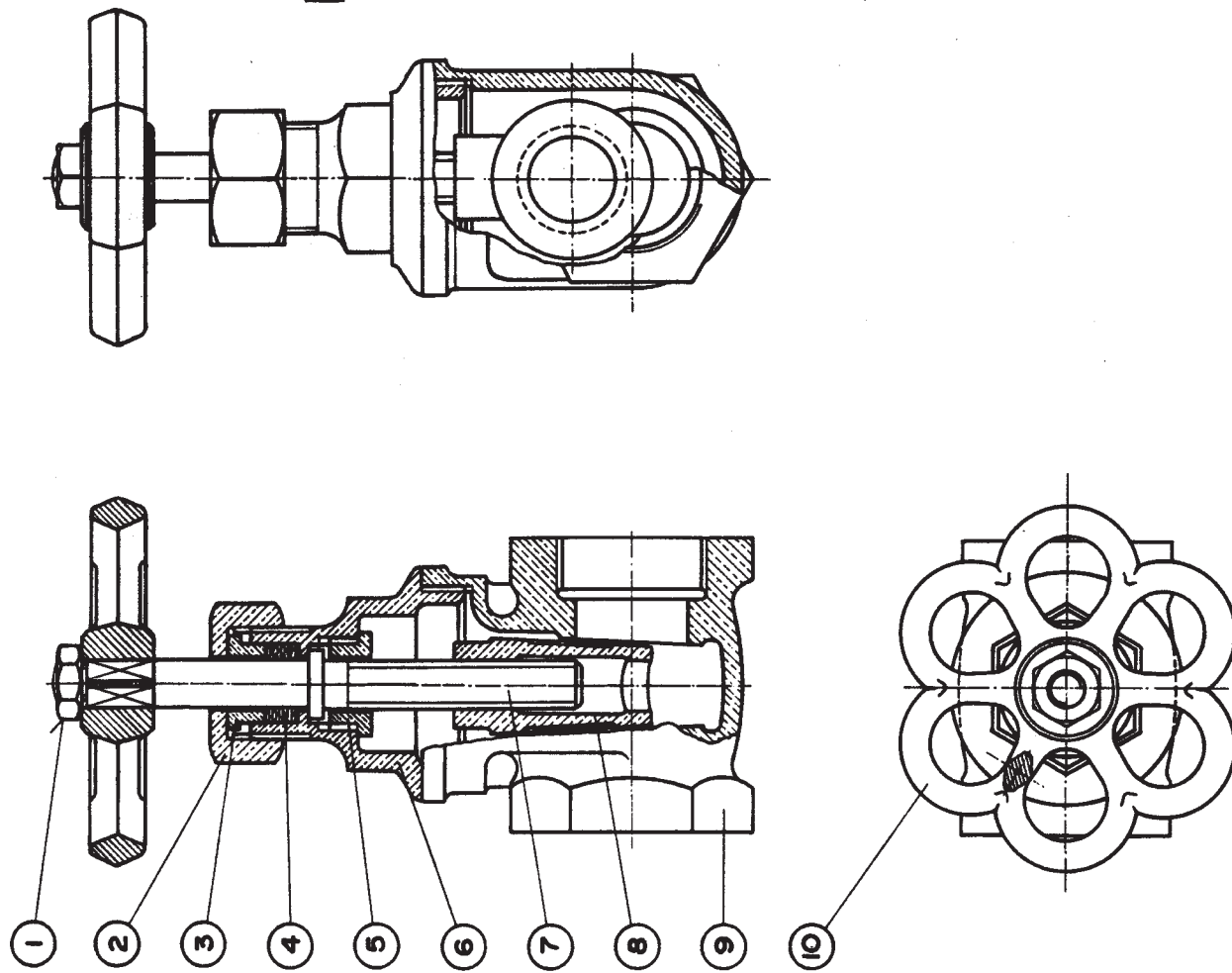


CORTE BB



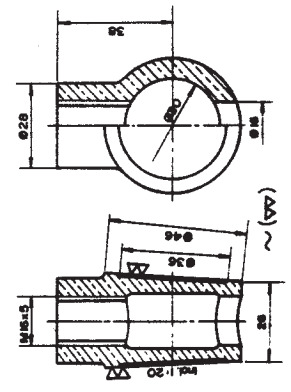
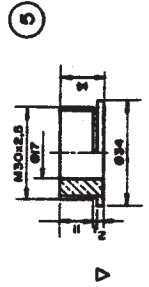
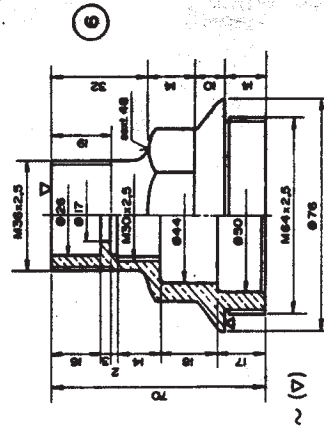
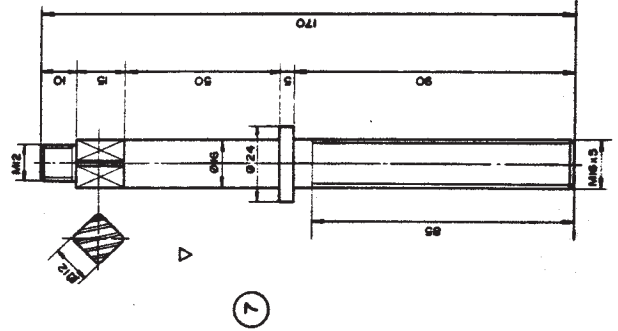
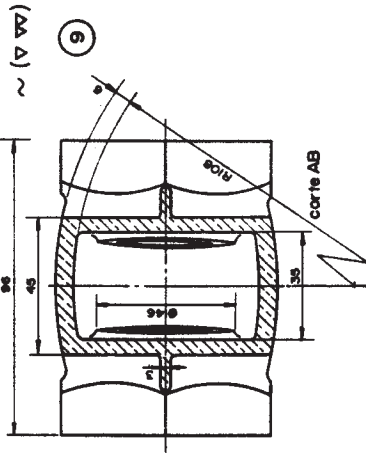
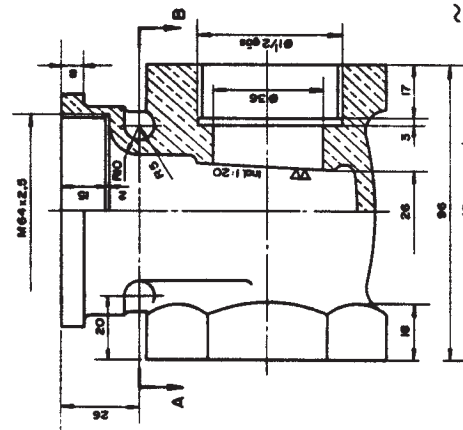
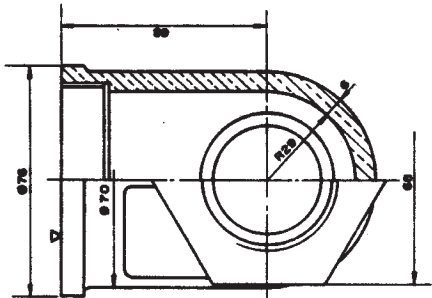
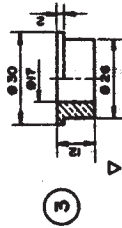
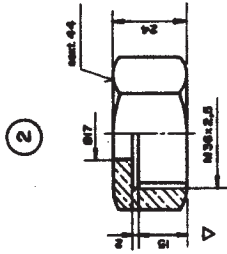
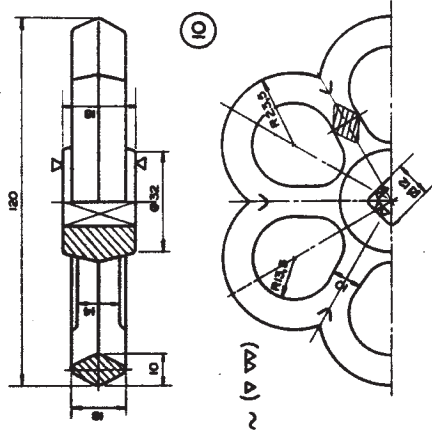
CORTE CC

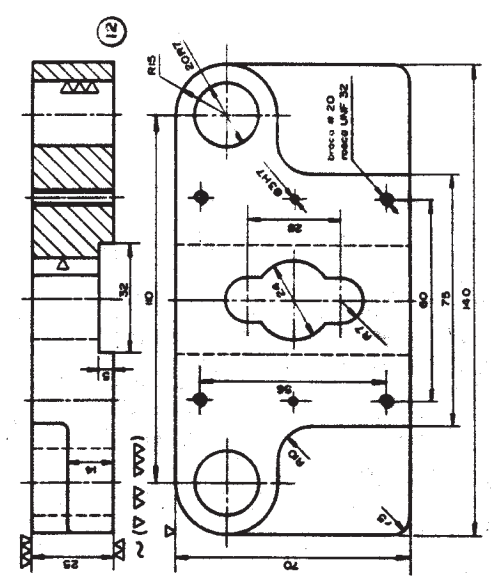
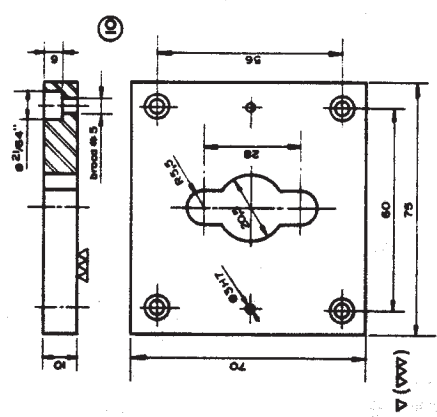
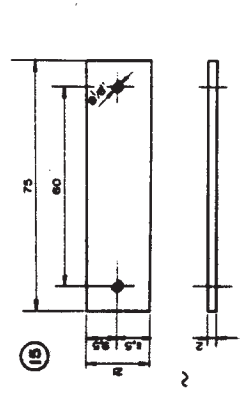
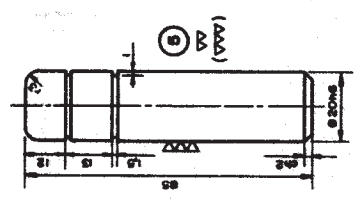
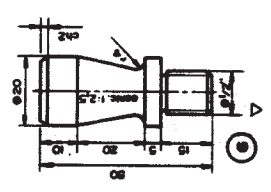
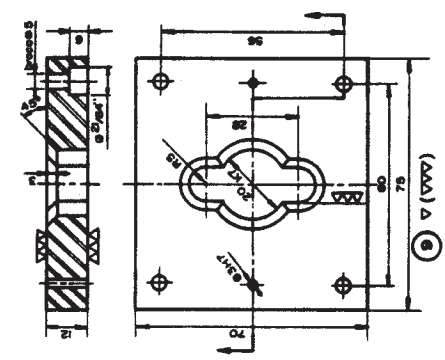
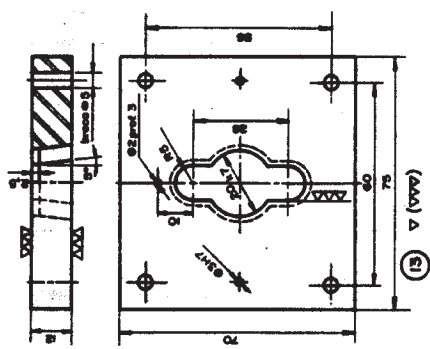
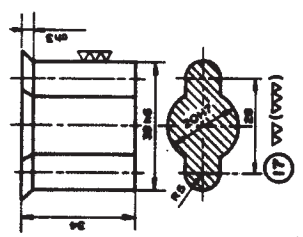
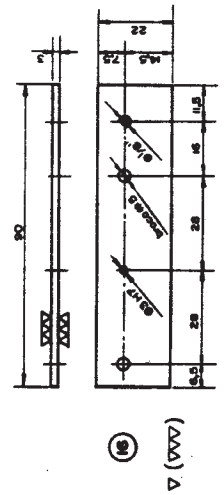
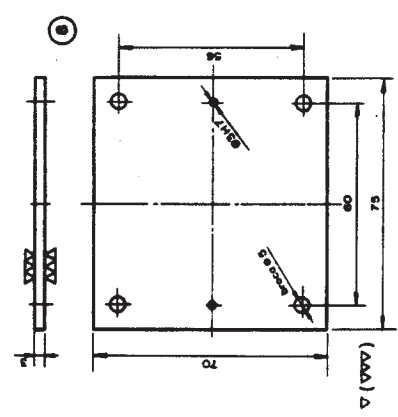
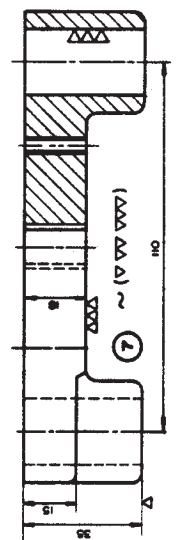
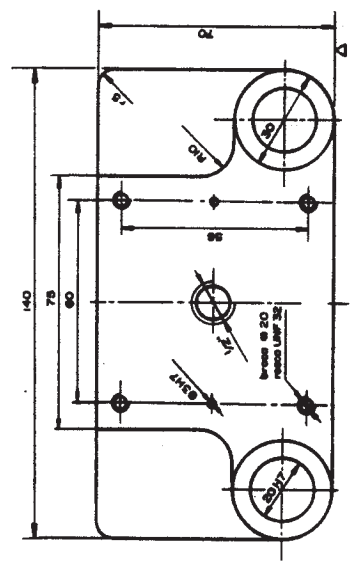




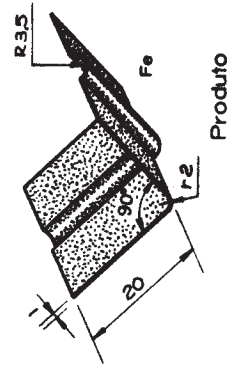
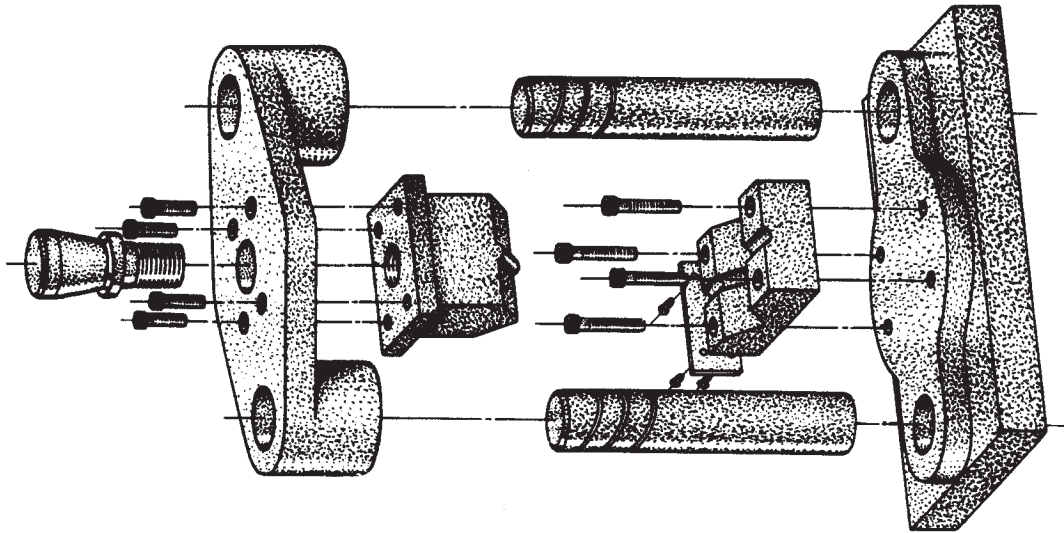
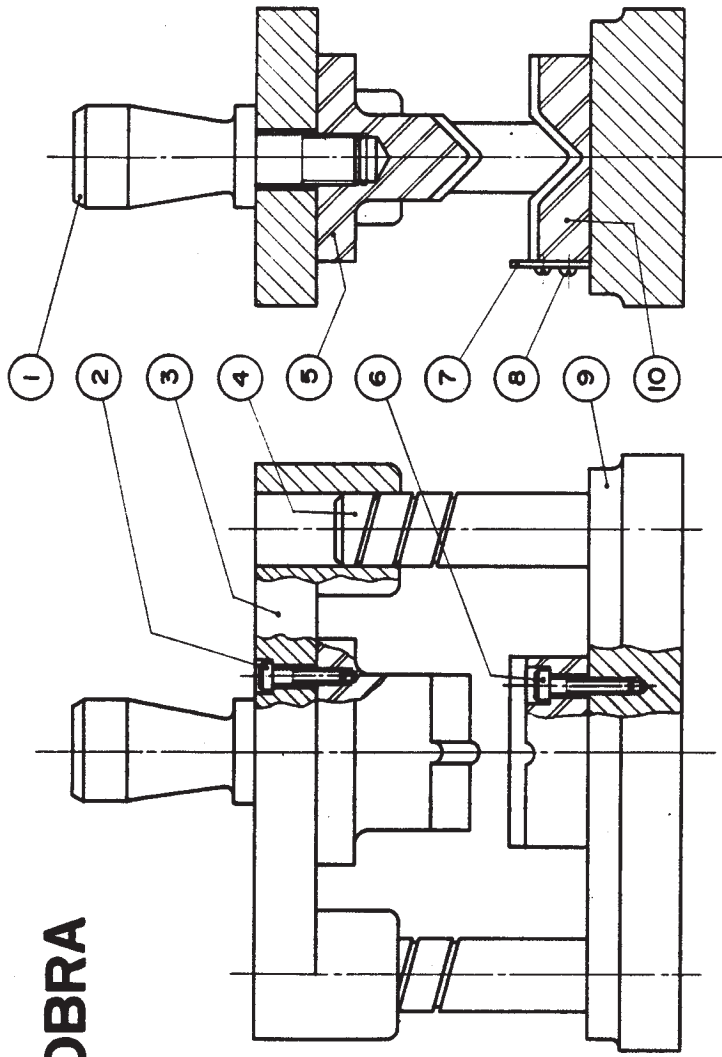
REGISTRO DE GAVETA

Nº	DENOMINAÇÕES	Qtd	MATERIAL E DIMENSÕES
10	Volante	1	Ferro fundido
9	Caroça	1	Bronze SAE 660
8	Gaveta	1	Bronze SAE 660
7	Fuso	1	Latão
6	Tampa	1	Bronze SAE 660
5	Bucha	1	Latão
4	Guarnição	1	Fibra Ø26 x Ø16 x 15
3	Bucha	1	Latão
2	Porca	1	Latão M 36 x 2,5
1	Porca sextavada	1	Latão M 20
Nº	DENOMINAÇÕES	Qtd	MATERIAL E DIMENSÕES

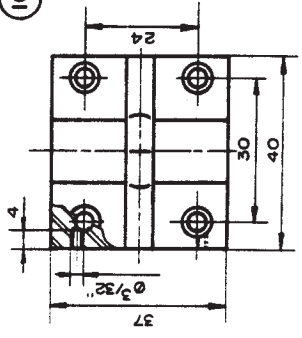
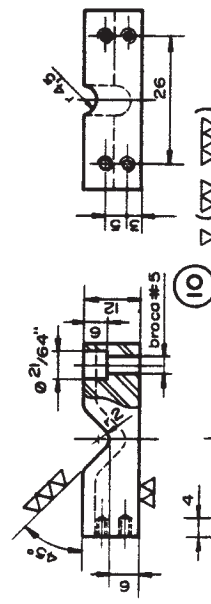
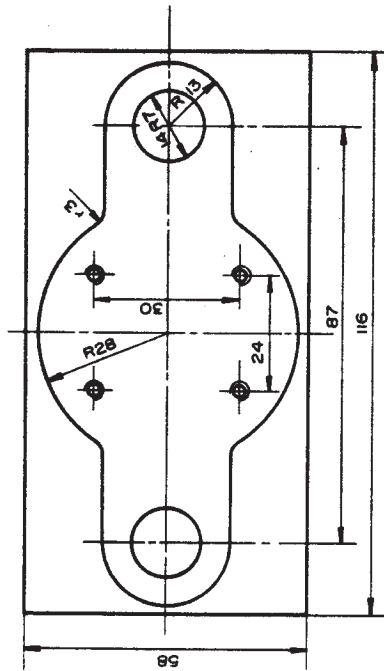
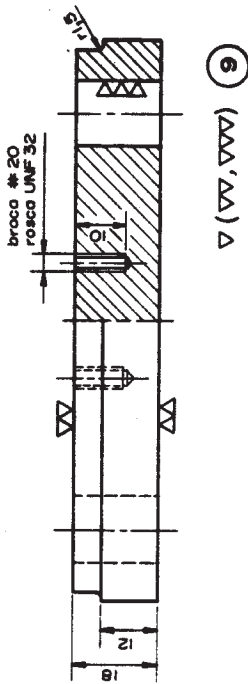
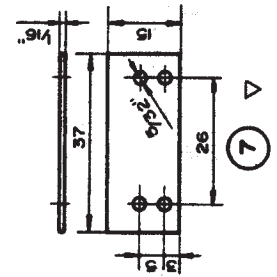
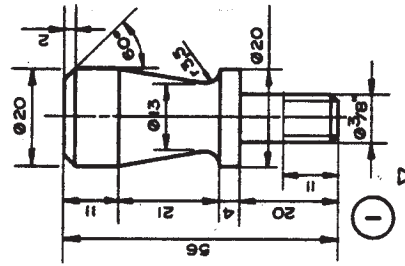
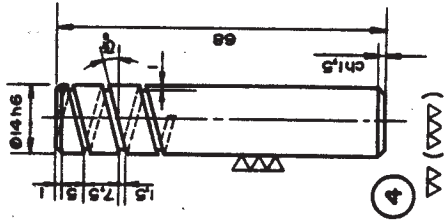
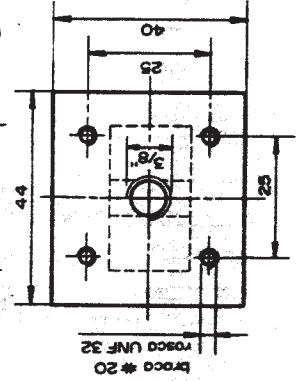
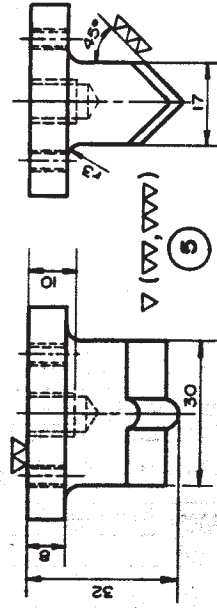
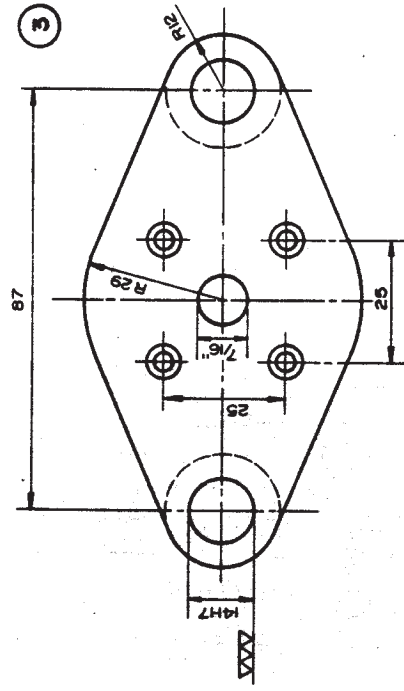
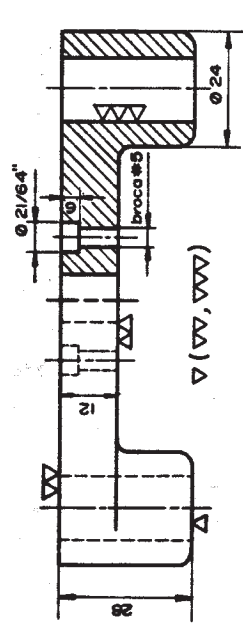




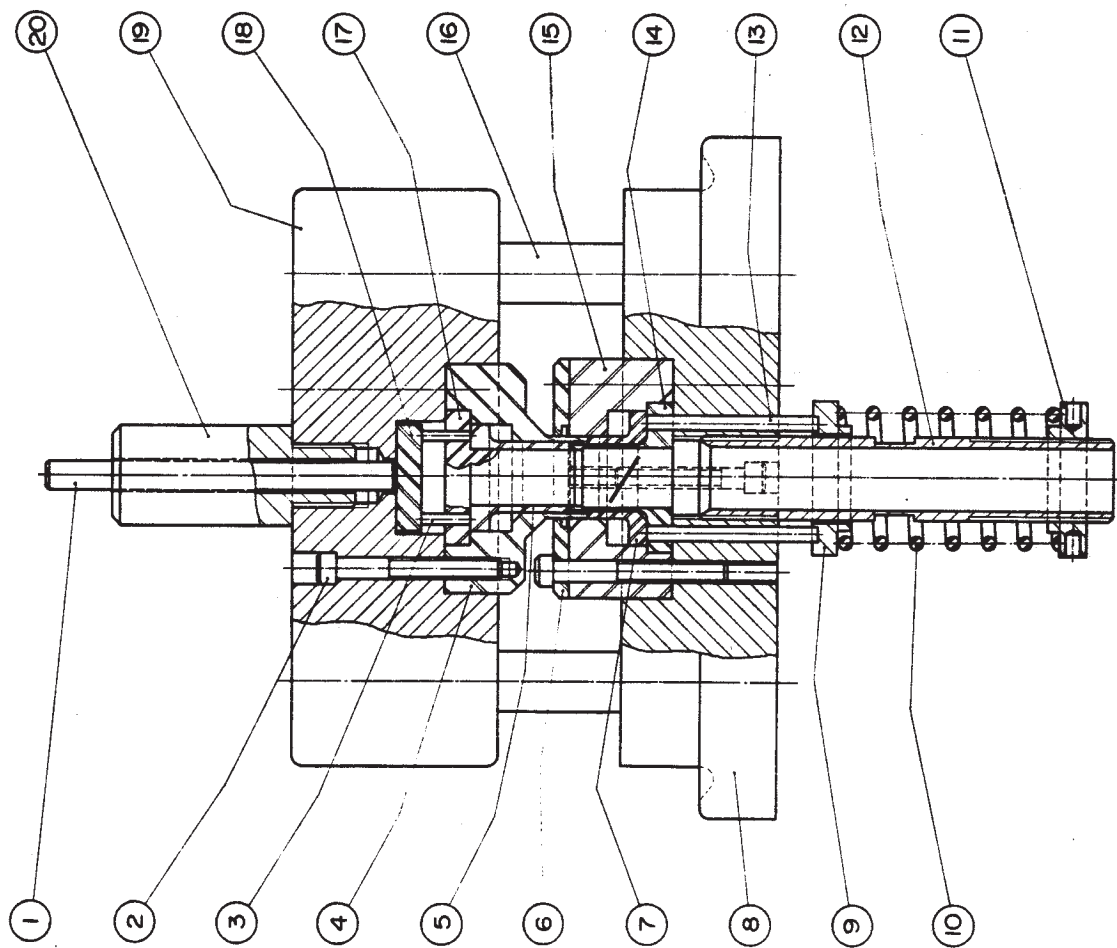
FERRAMENTA DE DOBRA



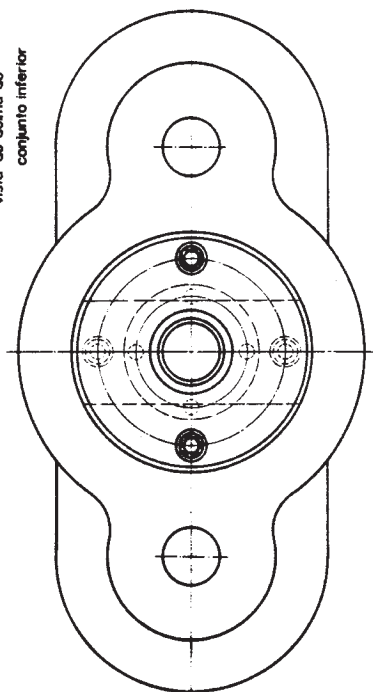
Nº	DENOMINAÇÕES	Qtd	MATERIAL E DIMENSÕES
10	Matriz	1	Aço RCC retificado e temp.
9	Base inferior	1	Ferro fundido
8	Paraf. de fenda	4	$\varnothing 3/32" \times 4$
7	Encosto	1	Chapa preta # 16
6	Parafuso Allen	4	# 10x13
5	Punção	1	Aço RCC retificado e temp.
4	Coluna	2	Aço NB 1020 $\varnothing 14 \times 68$
3	Base superior	1	Ferro fundido
2	Parafuso Allen	4	# 10x13
1	Espiga	1	Aço NB 1020



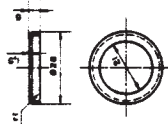
FERRAMENTA COMBINADA DE CORTE, FURAÇÃO E REPUXO



vista de cima do
conjunto inferior



Produto



20	Escapo	1	Aço HB 1040
19	Base superior	1	Ferro fundido
18	Placa de choque	1	Aço HB 1045, temp. rev. 180°
17	Parafuso de corte	1	Aço VM - 130
16	Coluna	2	Aço VM - 130
15	Molde de repuxo	1	Aço VM - 130
14	Molde	1	Aço VM - 130
13	Pino articulador	4	Aço para 9/16" x 65
12	Parafuso de mola	1	Ø 33,5 x 60
11	Parca reguladora	1	Aço HB 1040
10	Mola	1	Aço HB 1045
9	Disco de mola	1	Aço HB 1040
8	Base inferior	1	Ferro fundido
7	Extrator inferior	1	Aço HB 1045
6	Extrator fixo	1	Aço HB 1040
5	Seguidor	1	Aço HB 1040
4	Parafuso de repuxo	1	Aço VM - 130, temp. rev. 180°
3	Pino articulador	4	Aço para 9/16" x 65
2	Parafuso Allen	6	Ø 7/16" x 65
1	Vereta	1	Aço HB 1040
10	MATERIAL E DIMENSÕES		