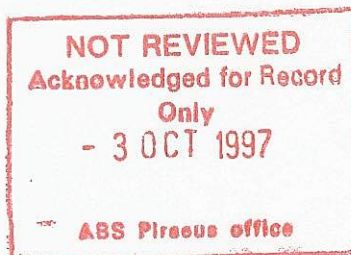


Project No 50



Final Technical Documentation

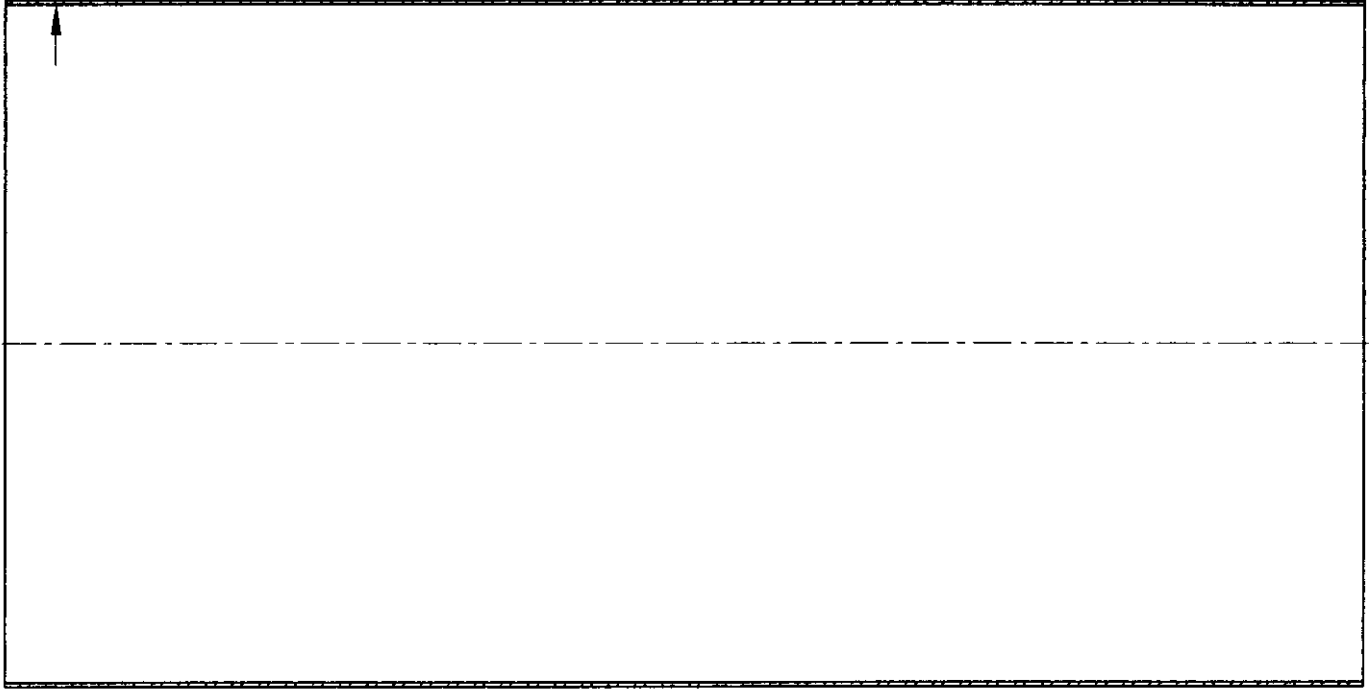
***STRUCTURAL DETAILS OF STORAGE REEL FOR
THE PENNANT LINE OF EMERGENCY TOWING
SYSTEM TYPE CMF 1000***

Piraeus Oct.-97

INDEX

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3



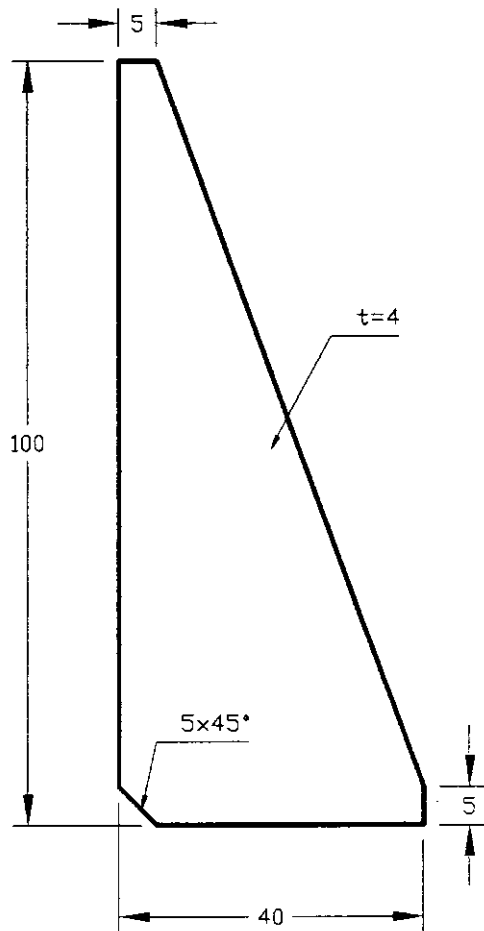
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892

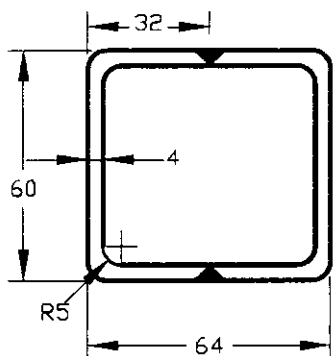
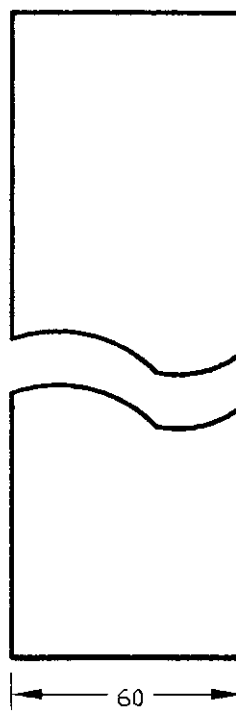
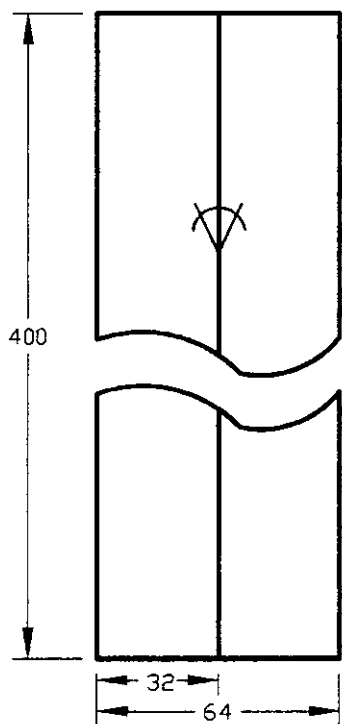
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			1/5					Title :
			Dimensions without Tolerance		CYLINDRICAL PLATE			
Modif.	Date	Name						

11 Mavrokordatou Str.,
Piraeus 185-38
Greece

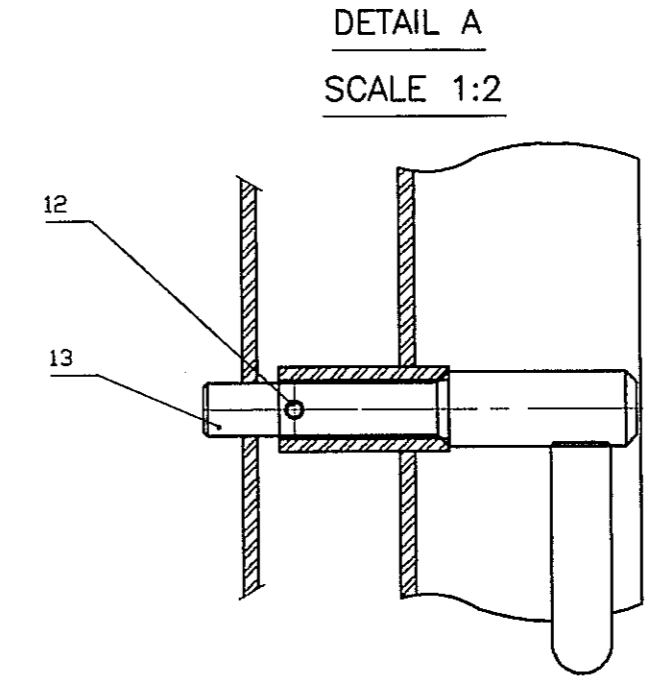
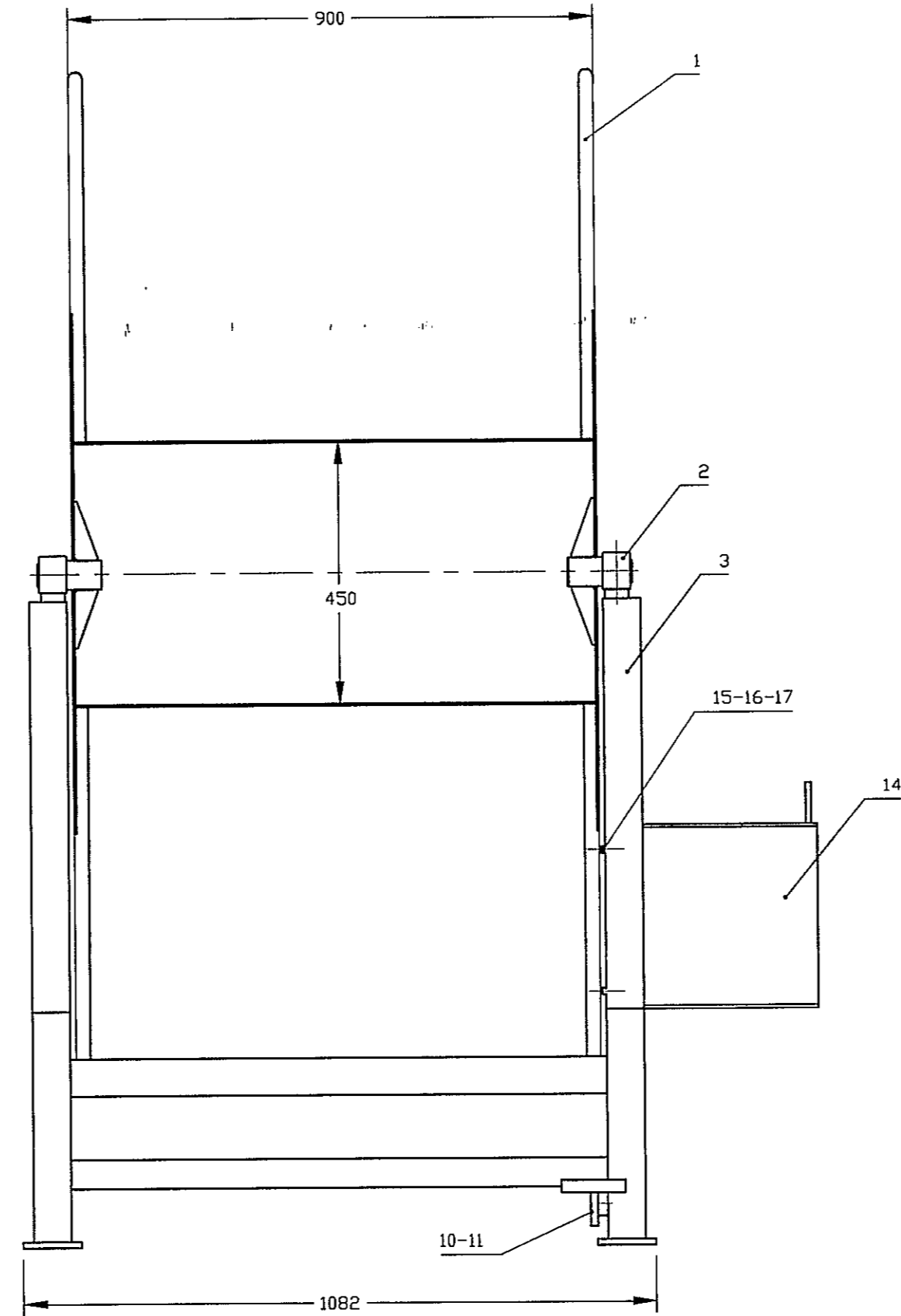
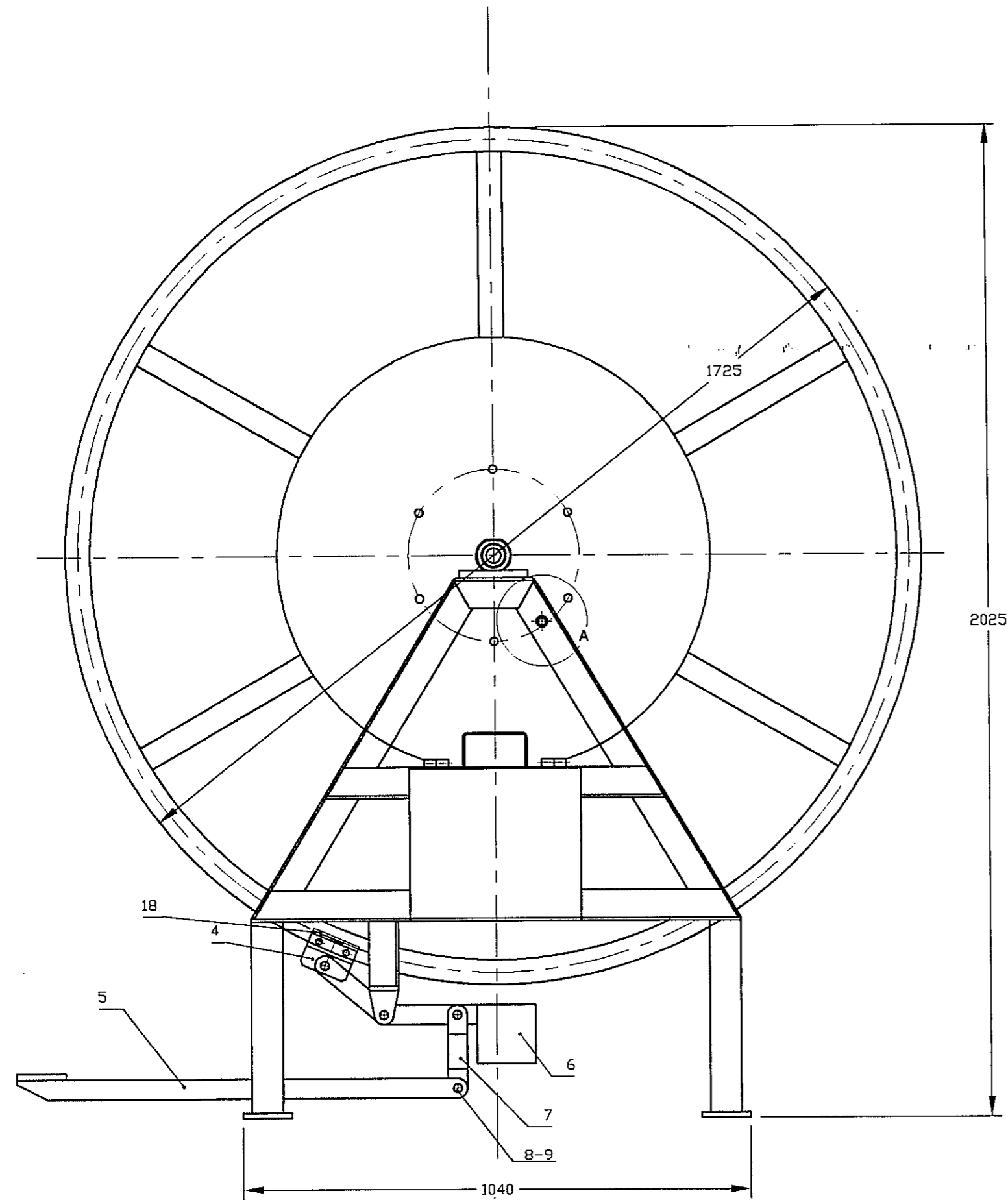
Tel : +30-1-4291636, 7
Fax : +30-1-4290415
Tlx : 211935 estm gr



			Designed	Date Oct-97	N.A.Giamakidis	Material Steel Grade "A"	Constech Shipping S.A 11 Mavrokordatou Str., Tel : +30-1-4291636, 7 Piraeus 185-38 Fax : +30-1-4290415 Greece Tlx : 211935 estrn gr
			Checked	Date Oct-97	G.T. Schizas	Weight	
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Modif.	Date	Name					In replacement of :

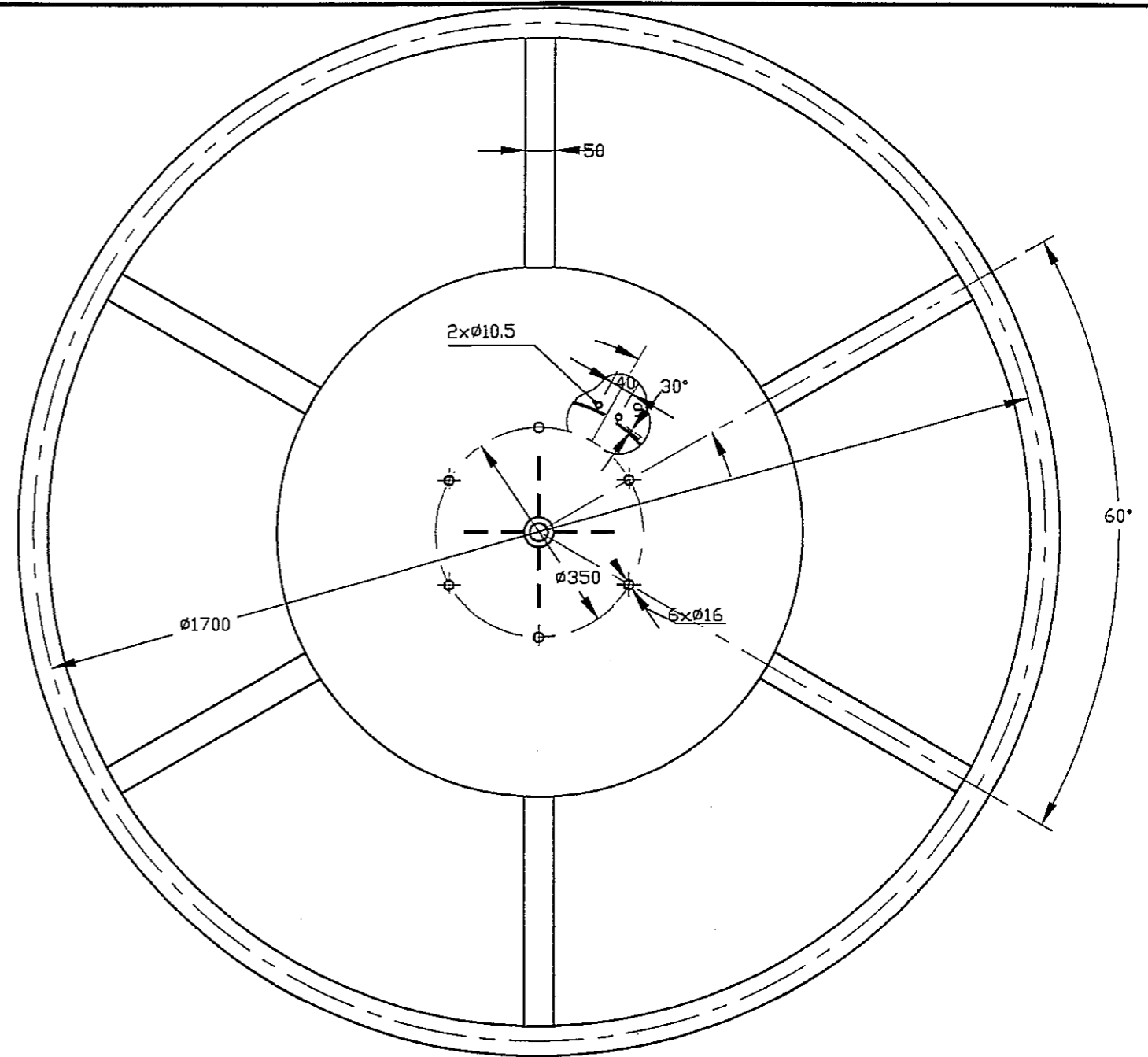
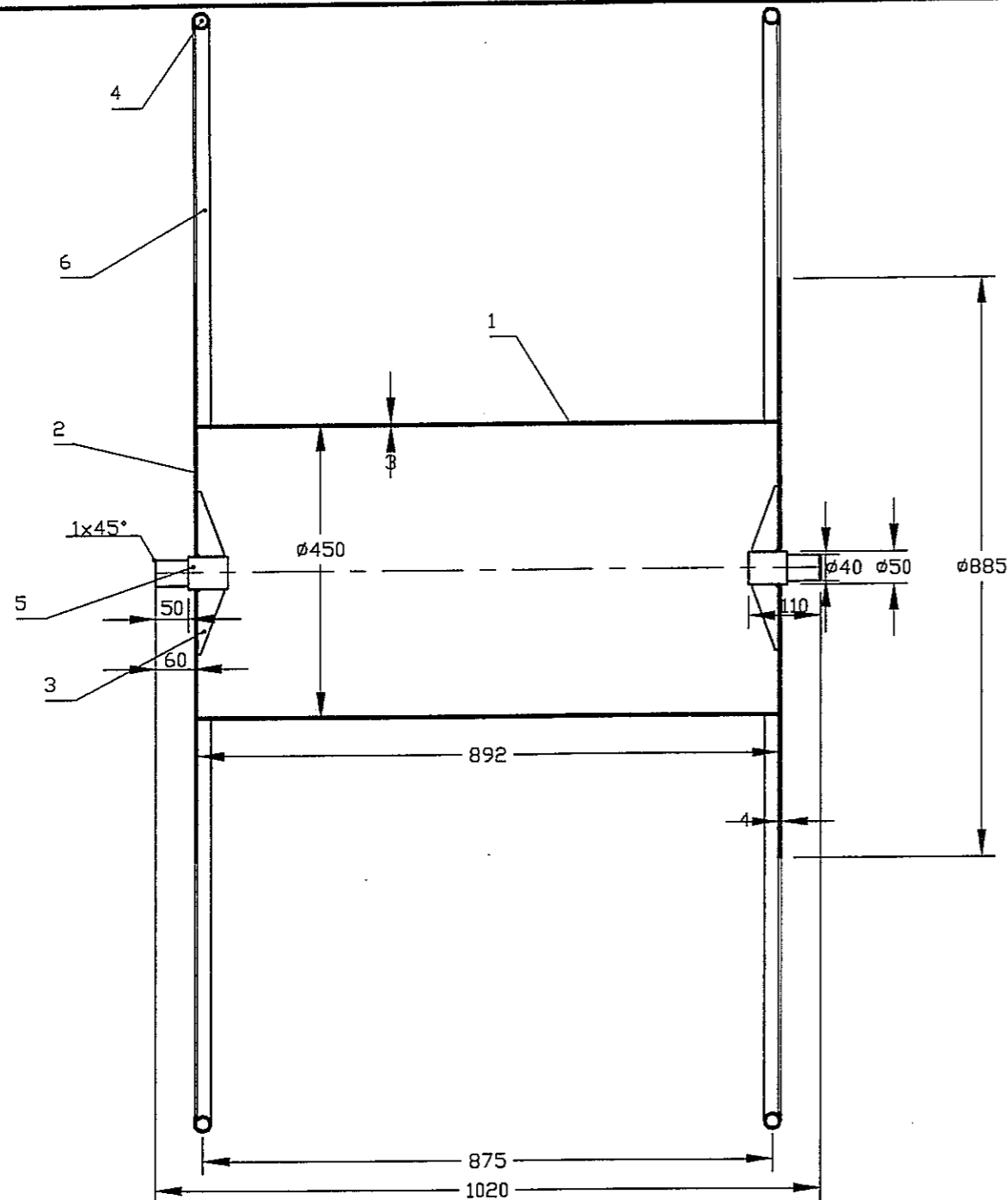


			Designed	Date Oct-97	N.A.Giamakidis	Material Steel Grade "A"	Constech Shipping S.A 11 Mavrokordatou Str., Piraeus 185-38 Greece Tel : +30-1-4291636, 7 Fax : +30-1-4290415 Tlx : 211935 estm gr
			Checked	Date Oct-97	G.T. Schizas	Weight	
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			Dimensions without Tolerance				Replaced from :
Modif.	Date	Name					In replacement of :



Item No	Description	Material	Qt	Dimensions	Ref. DWG No
18	WOODEN BRAKE	WOOD	1		50-02-16
17	WASHER	Steel Grade "A"	4	10H	
16	BOLT	Steel Grade "A"	4	M10	
15	NUT	Steel Grade "A"	4	M10x85	
14	BUOY & MESSENGER STORAGE BOX	Steel Grade "A"	1		50-02-21
13	LOCKING MECHANISM	Steel Grade "A"	1		50-02-20
12	SECURING PIN	Steel Grade "A"	1	5x40	
11	BRAKE PEDAL	Steel Grade "A"	1	0	50-02-17
10	BOLT OF BRAKE PEDAL	Steel Grade "A"	1		50-02-22
9	SHAFT	Steel Grade "A"	4	T=2 16h8x45x38x4	
8	SECURING ELEMENT OF SHAFT	Steel Grade "A"	4	4x25	
7	VERTICAL BRAKE ARM	Steel Grade "A"	1		50-02-19
6	BRAKE ARM	Steel Grade "A"	1		50-02-18
5	BRAKE PEDAL	Steel Grade "A"	1		50-02-17
4	BRAKE CAVE	Steel Grade "A"	1		50-02-15
3	FOUNDATION	Steel Grade "A"	1		50-02-04
2	SHAFT	Steel Grade "A"	2	D=50 L=110	50-02-01
1	DRUM	Steel Grade "A"	1		50-02-01

Item No	Description	Material	Qt	Dimensions	Ref. DWG No
Designed	Oct-97	N.A.Giamakidis	Material	Constech Shipping S.A 11 Mavrokordatou Str., Tel : +30-1-4291636, 7 Piraeus 185-38 Fax : +30-1-4290415 Greece Tx : 211935 estm gr	
Checked	Oct-97	G.T. Schizas	Weight		
Scale :	PROJECT 50			Drawing No :	
1/10	Title :			50-02-00	
Dimensions without Tolerance	STORAGE REEL			Replaced from :	
Modif.	Date	Name	In replacement of :		

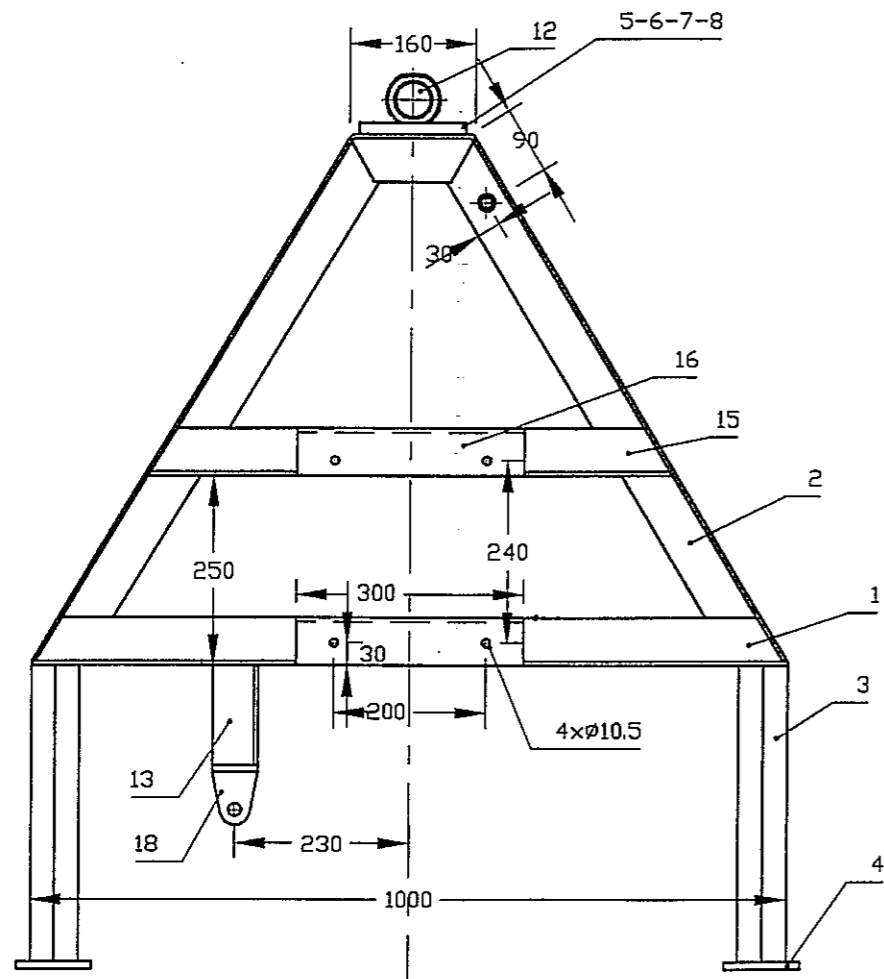
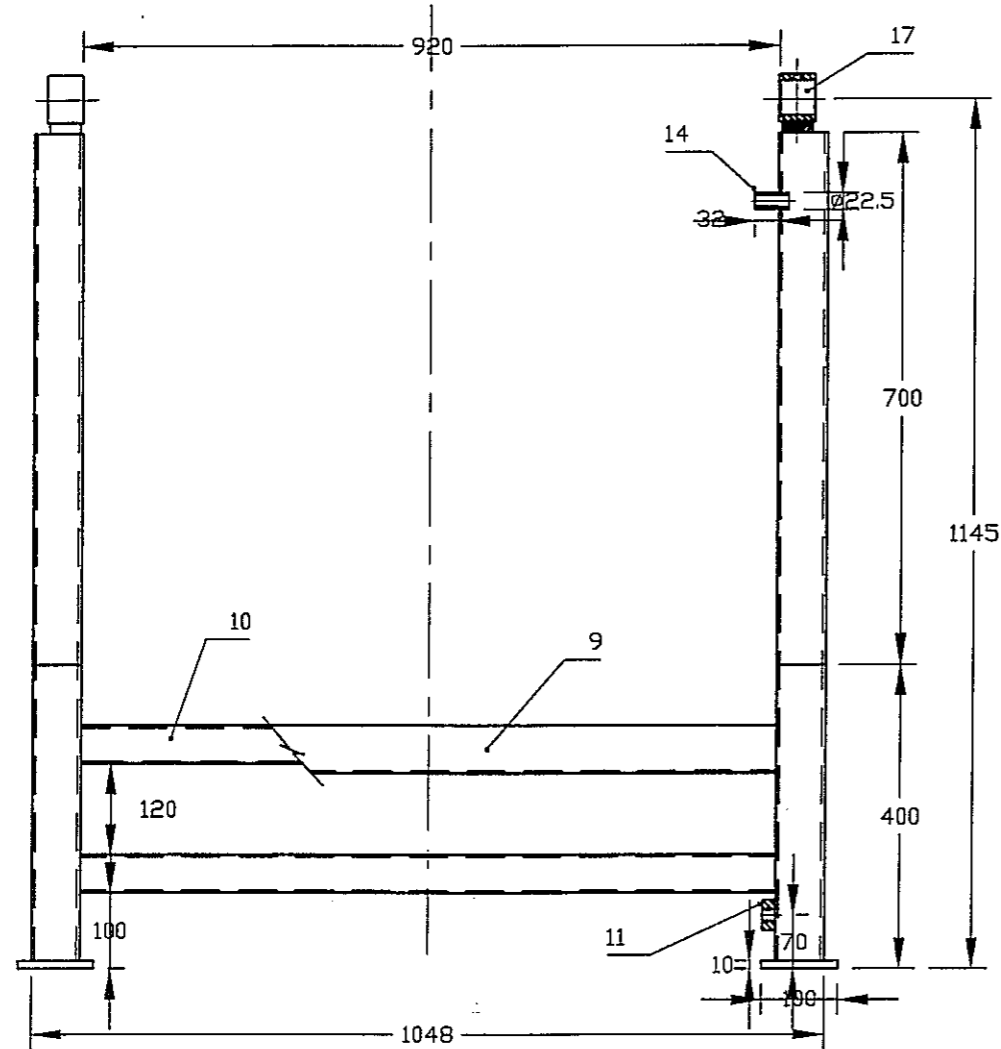


Item No	Description	Material	Qt	Dimensions	Ref. DWG No
6	STIFFENER	Steel Grade "A"	12	4x50 L=390	
5	SHAFT	Steel Grade "A"	2	D=50 L=110	
4	OUTSIDE PIPE	Steel Grade "A"	2	25x2.5 L=5340	
3	BRACKETS	Steel Grade "A"	8	0	50-02-03
2	SIDE PLATES	Steel Grade "A"	2	D=50 D=885 T=4	
1	CYLINDRICAL PLATE	Steel Grade "A"	1	0	50-02-02

Item No	Description	Material	Qt	Dimensions	Ref. DWG No
	Designed	Date	N.A.Giamakidis	Material	
	Checked	Date	G.T. Schizas	Weight	
	Scale :	PROJECT 50			Drawing No :
	1/10	DRUM			50-02-01
	Dimensions without Tolerance				Replaced from :
Modif.	Date	Name	In replacement of :		

Constech Shipping S.A

11 Mavrokordatou Str., Piraeus 185-38 Greece
 Tel : +30-1-4291636, 7
 Fax : +30-1-4290415
 Tlx : 211935 estm gr

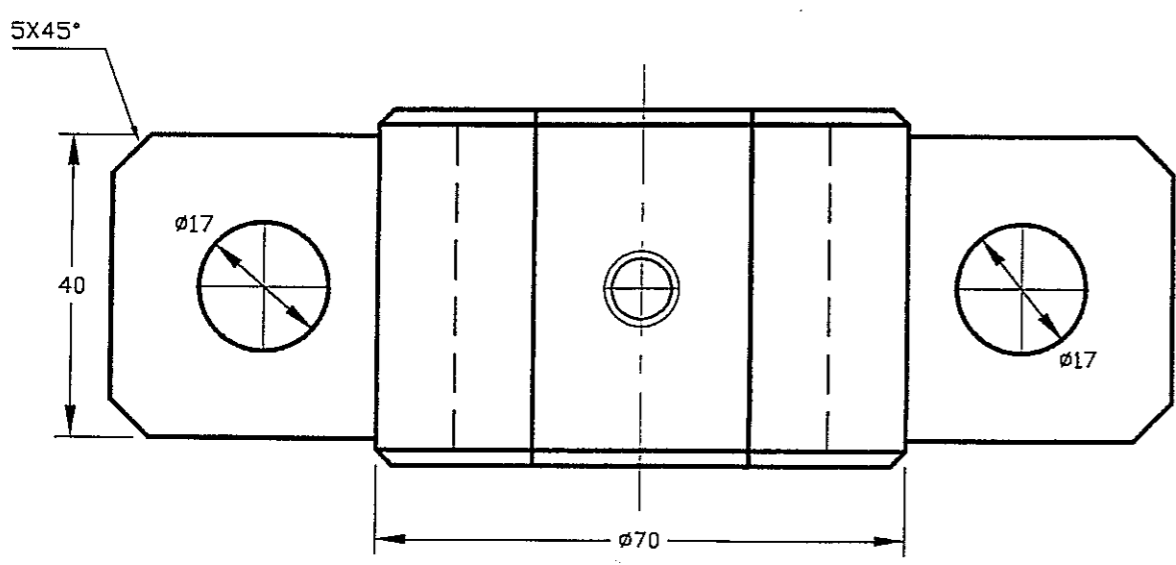
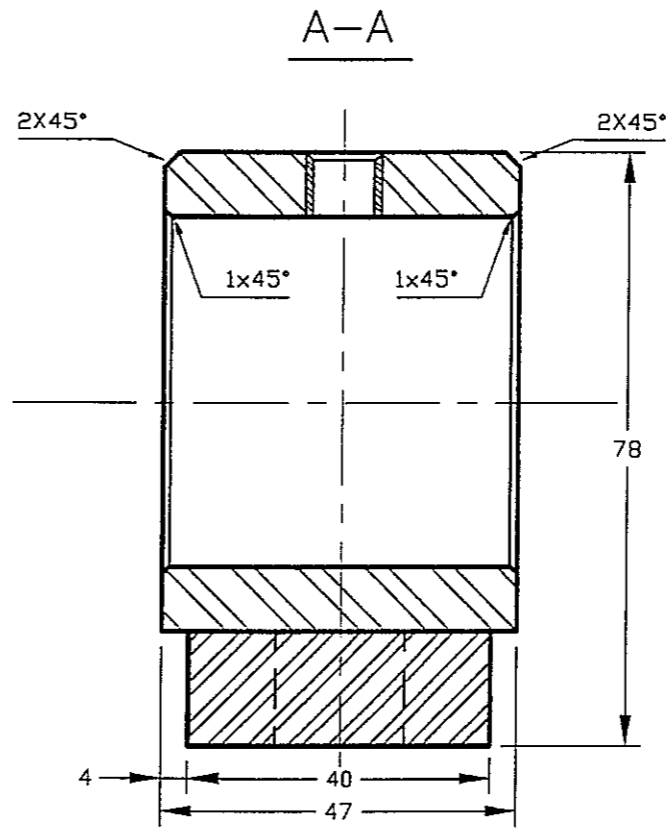
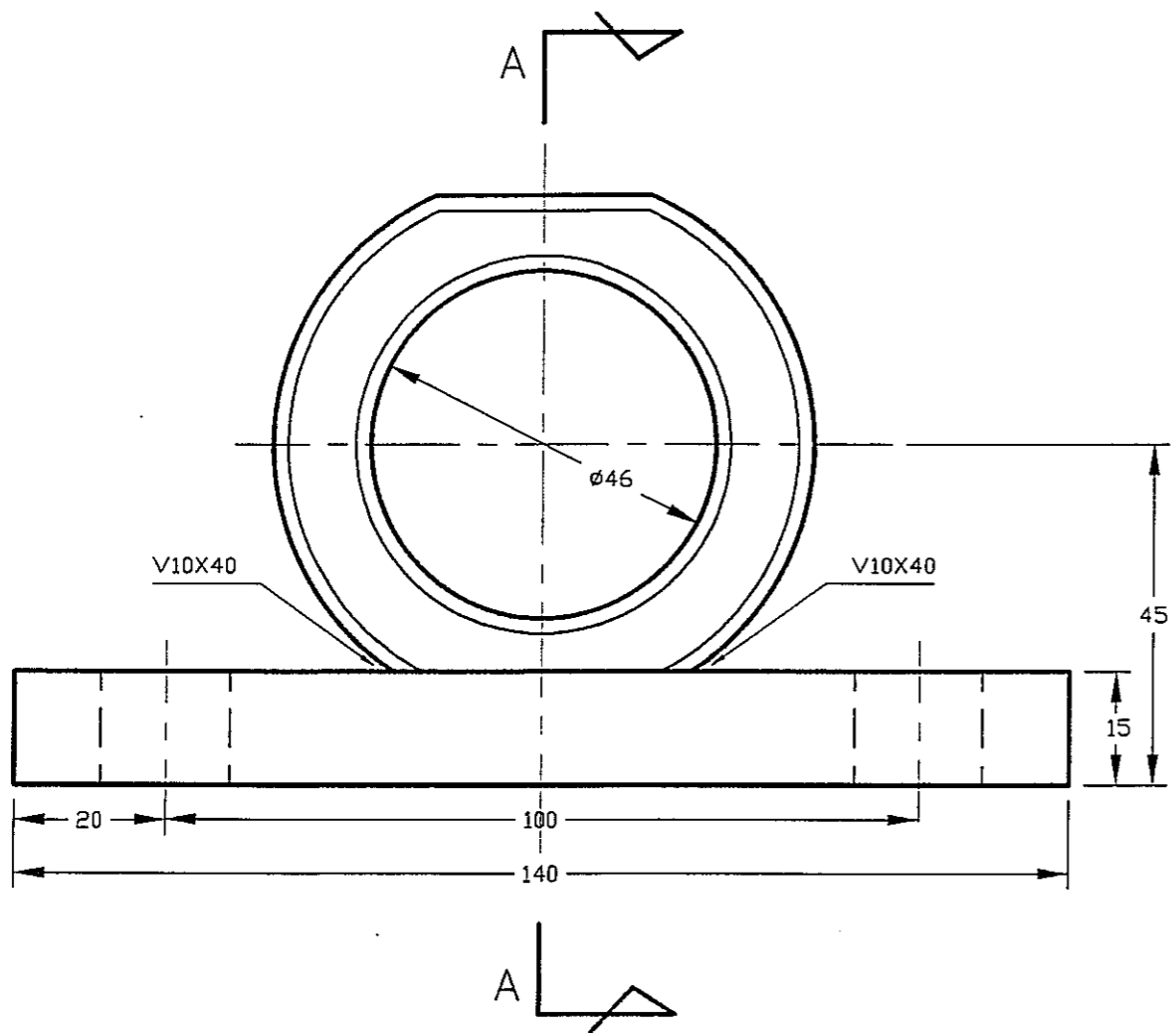


Item No	Description	Material	Qt	Dimensions	Ref. DWG No
18	VERTICAL BRACKET SUPPORT EYE PLATE	Steel Grade "A"	1		50-02-09
17	BEARING	BRONZE	2		50-02-13
16	SUPPORT OF MESSENGER STORAGE BUOY	Steel Grade "A"	2	L 63x63x5 L=300	
15	INTERMEDIATE SUPPORT	Steel Grade "A"	1	L 63x63x5 L=690	
14	LOCKING MECHANISM	Steel Grade "A"	1		50-02-14
13	VERTICAL BRACKET SUPPORT	Steel Grade "A"	1		50-02-08
12	BEARING SHELL	Steel Grade "A"	2		50-02-07
11	SUPPORT OF BRAKE	Steel Grade "A"	1		50-02-12
10	GAY PIPES	Steel Grade "A"	2	D=50x3 L=920	
9	GAY CHANNEL	Steel Grade "A"	1	L63x63x4 L=920	
8	WASHER	Steel Grade "A"	4	16H	50-02-06
7	NUT	Steel Grade "A"	4	M16x45	50-02-06
6	BOLT	Steel Grade "A"	4	M16	50-02-06
5	BEARING PLATE	Steel Grade "A"	2	140x40x5	50-02-06
4	END PLATE	Steel Grade "A"	2	T=10 100x100	50-02-06
3	LOWER CHANNEL	Steel Grade "A"	4		50-02-05
2	UPPER FOUNDATION	Steel Grade "A"	2		50-02-11
1	HORIZONTAL STIFFENER	Steel Grade "A"	1		50-02-10

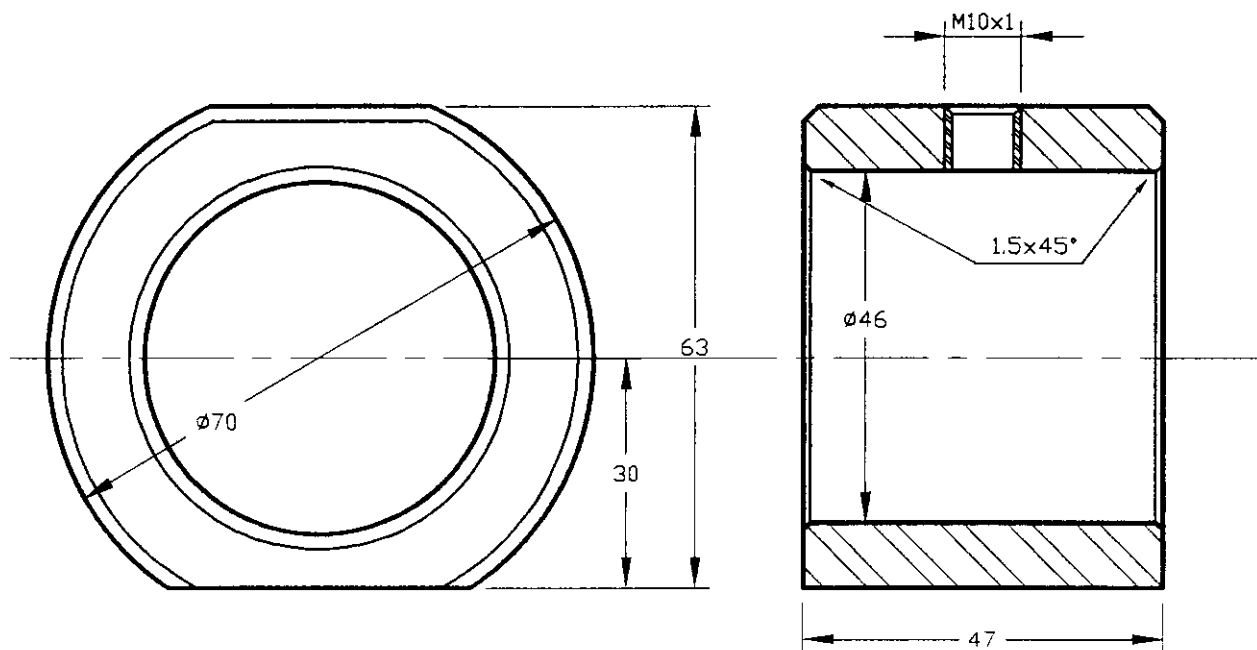
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	Dimensions without Tolerance	FOUNDATION			Replaced from :
Modif.	Date	Name	In replacement of :		

Constech Shipping S.A

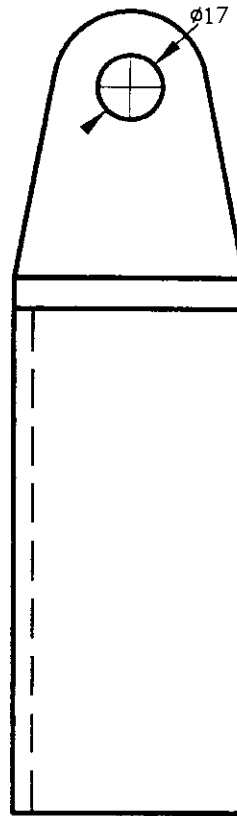
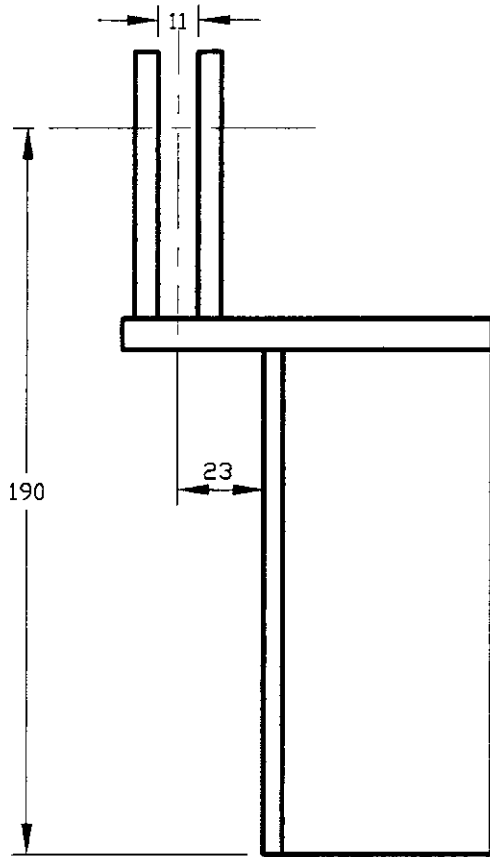
11 Mavrokordatou Str., Tel : +30-1-4291636, 7
Piraeus 185-38 Fax : +30-1-4290415
Greece Tlx : 211935 estm gr



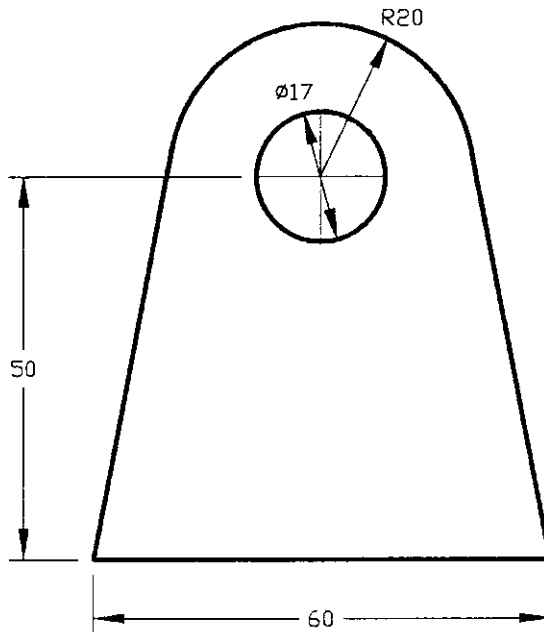
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Checked	Oct-97	G.T. Schizas	Weight			
Scale :	PROJECT 50				Drawing No :	
1/1	Title :				50-02-06	
Dimensions without Tolerance	BEARING				Replaced from :	
Modif.	Date	Name	In replacement of :			



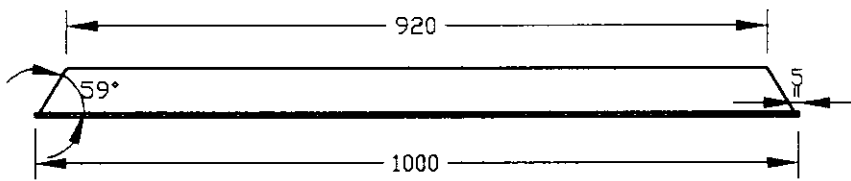
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			Checked	Date Oct--97	G.T. Schizas	Weight	
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			1/1				Title :
			Dimensions without Tolerance	BEARING SHELL			Replaced from :
Modif.	Date	Name					



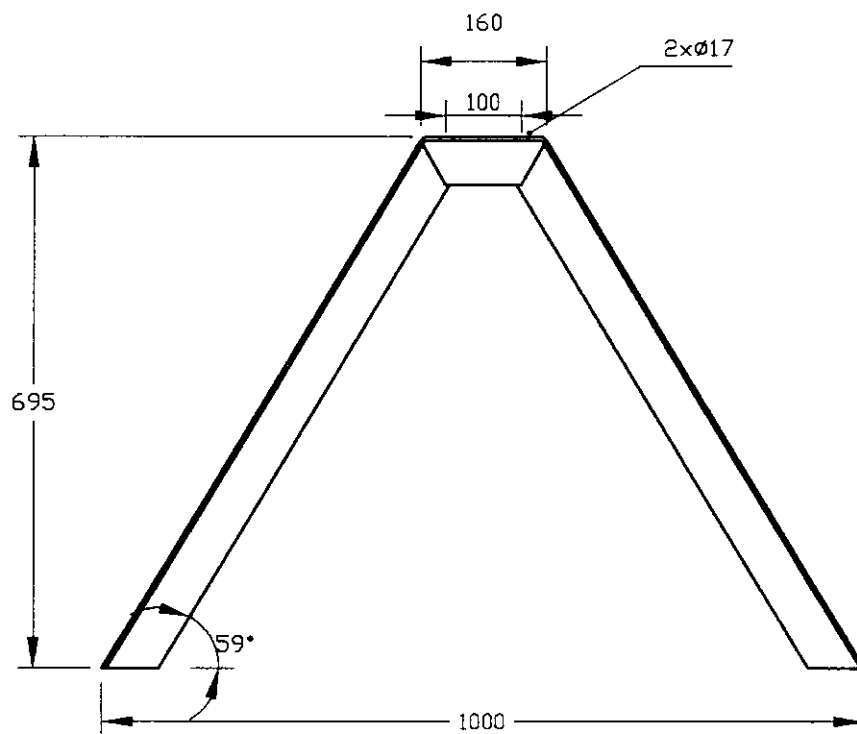
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			Checked	Date Oct-97	G.T. Schizas	Weight	
			Scale :	PROJECT 50			Drawing No :
			1/2				Title :
			Dimensions without Tolerance	VERTICAL BRACKET SUPPORT			Replaced from :
Modif.	Date	Name					



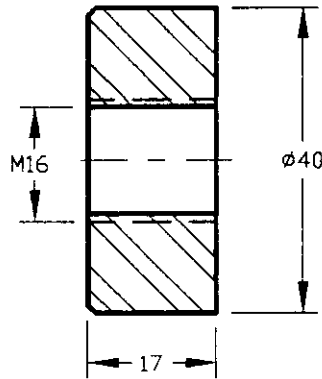
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			Checked	Date Oct-97	G.T. Schizas	Weight	
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Modif.	Date	Name					In replacement of :



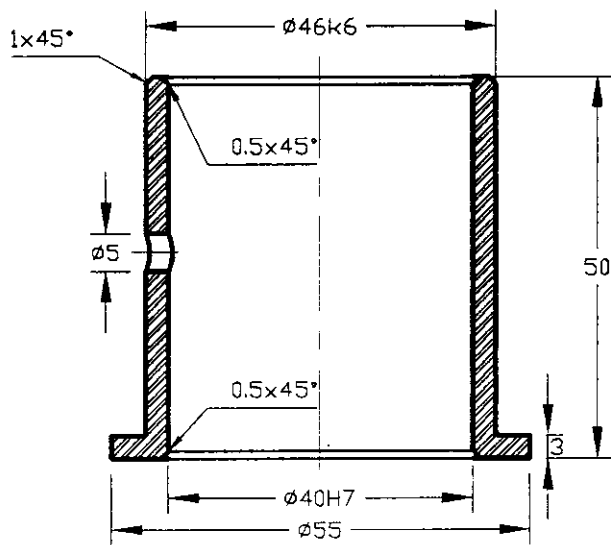
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			Checked	Date Oct-97	G.T. Schizas	Weight	
			Scale :	PROJECT 50			Drawing No :
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			Dimensions without Tolerance	HORIZONTAL STIFFENER			Replaced from :
Modif.	Date	Name					In replacement of :



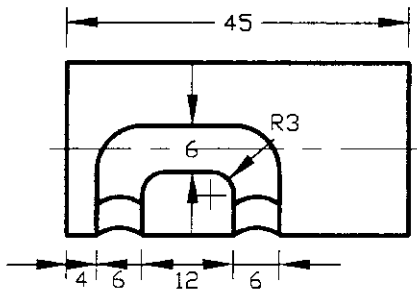
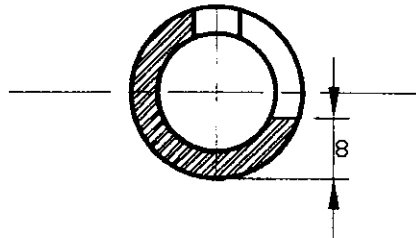
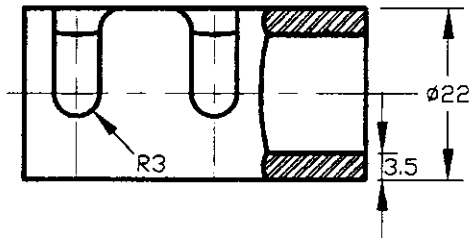
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			Checked	Date Oct-97	G.T. Schizas	Weight	
			Scale :	PROJECT 50			Drawing No :
			1/10				Title :
			Dimensions without Tolerance	UPPER FOUNDATION			Replaced from :
Modif.	Date	Name					



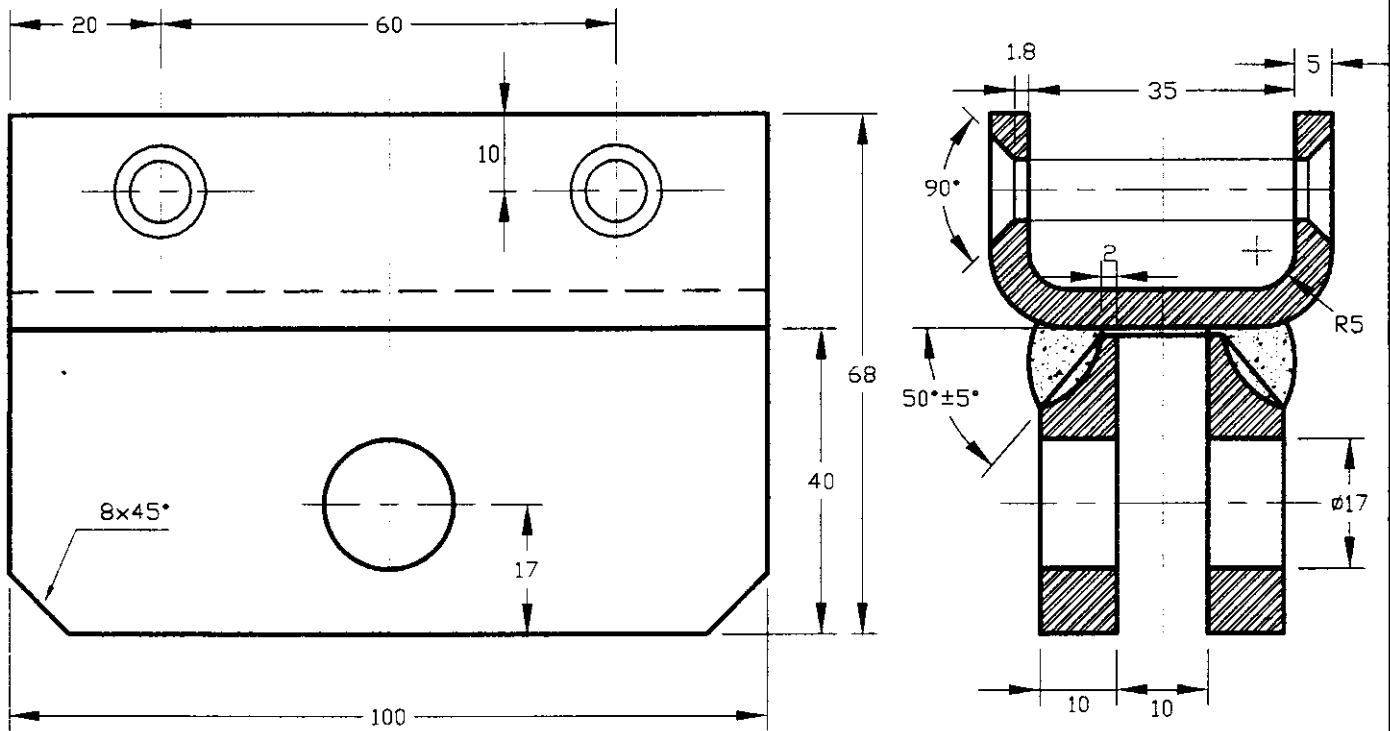
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			Checked	Date Oct	G.T. Schizas	Weight	
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			1/1				Title : SUPPORT OF BRAKE
			Dimensions without Tolerance				
Modif.	Date	Name				In replacement of :	



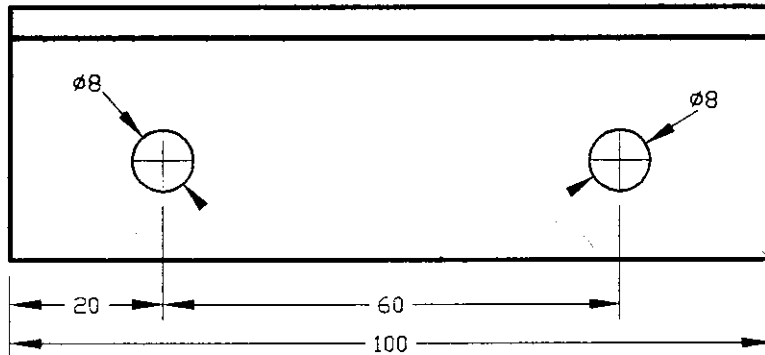
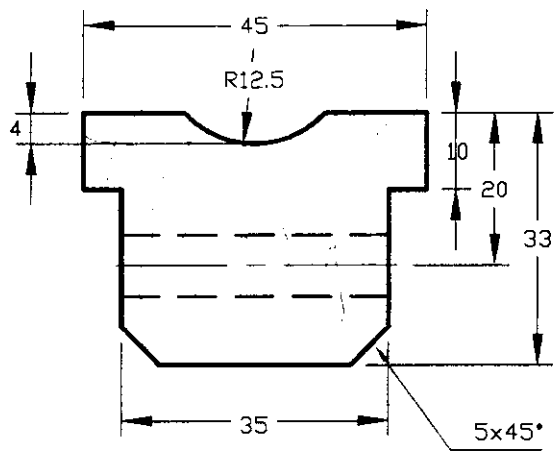
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			Checked	Date Oct-97	G.T. Schizas	Weight		
			Scale :	PROJECT 50 Title : BEARING			Drawing No : 50-02-13	
			1/1					
			Dimensions without Tolerance				In replacement of :	
Modif.	Date	Name						



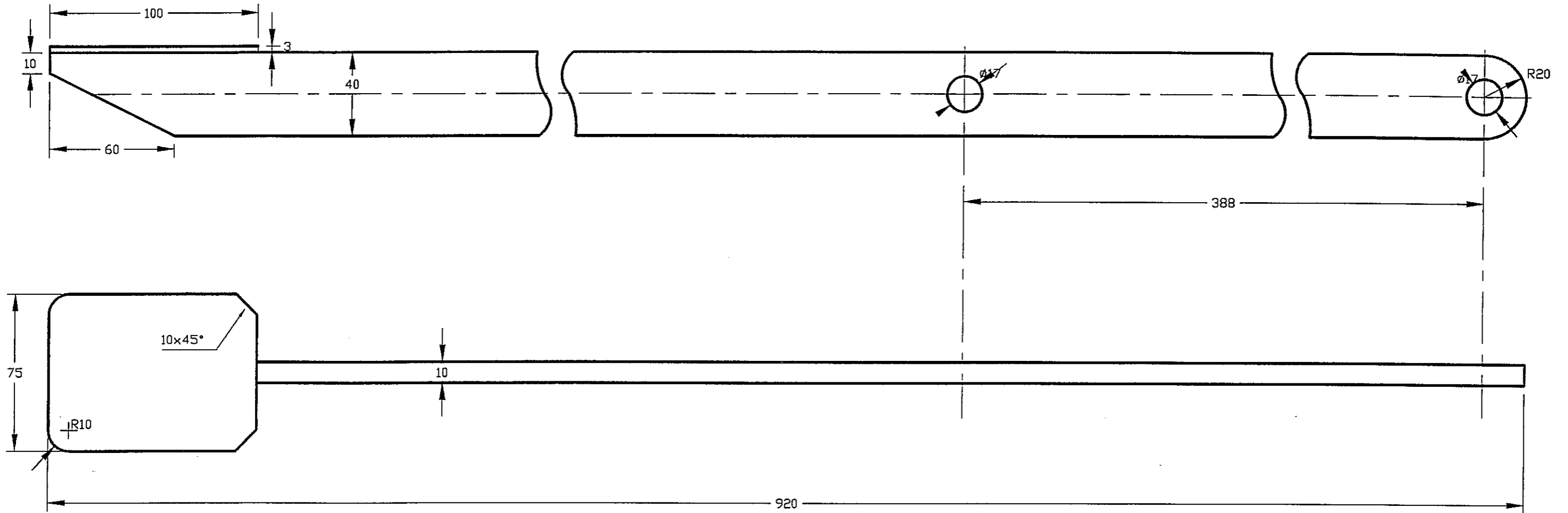
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			Checked	Date Oct-97	G.T. Schizas	Weight	
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			1/1				
			Dimensions without Tolerance				Replaced from :
Modif.	Date	Name					In replacement of :



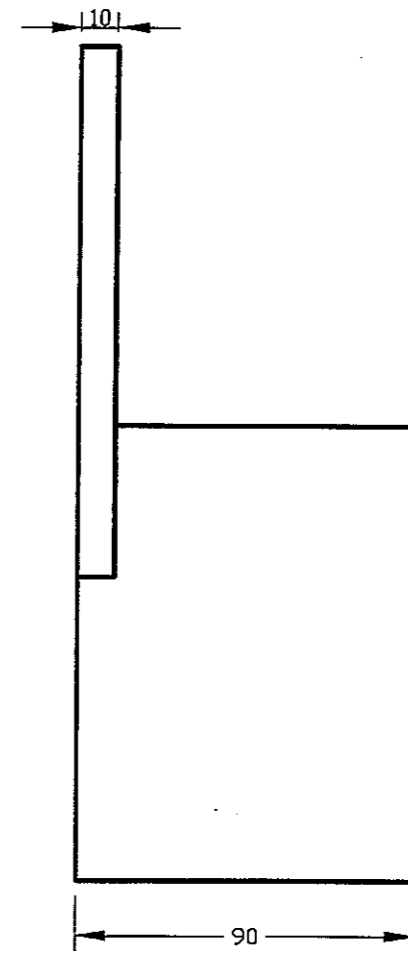
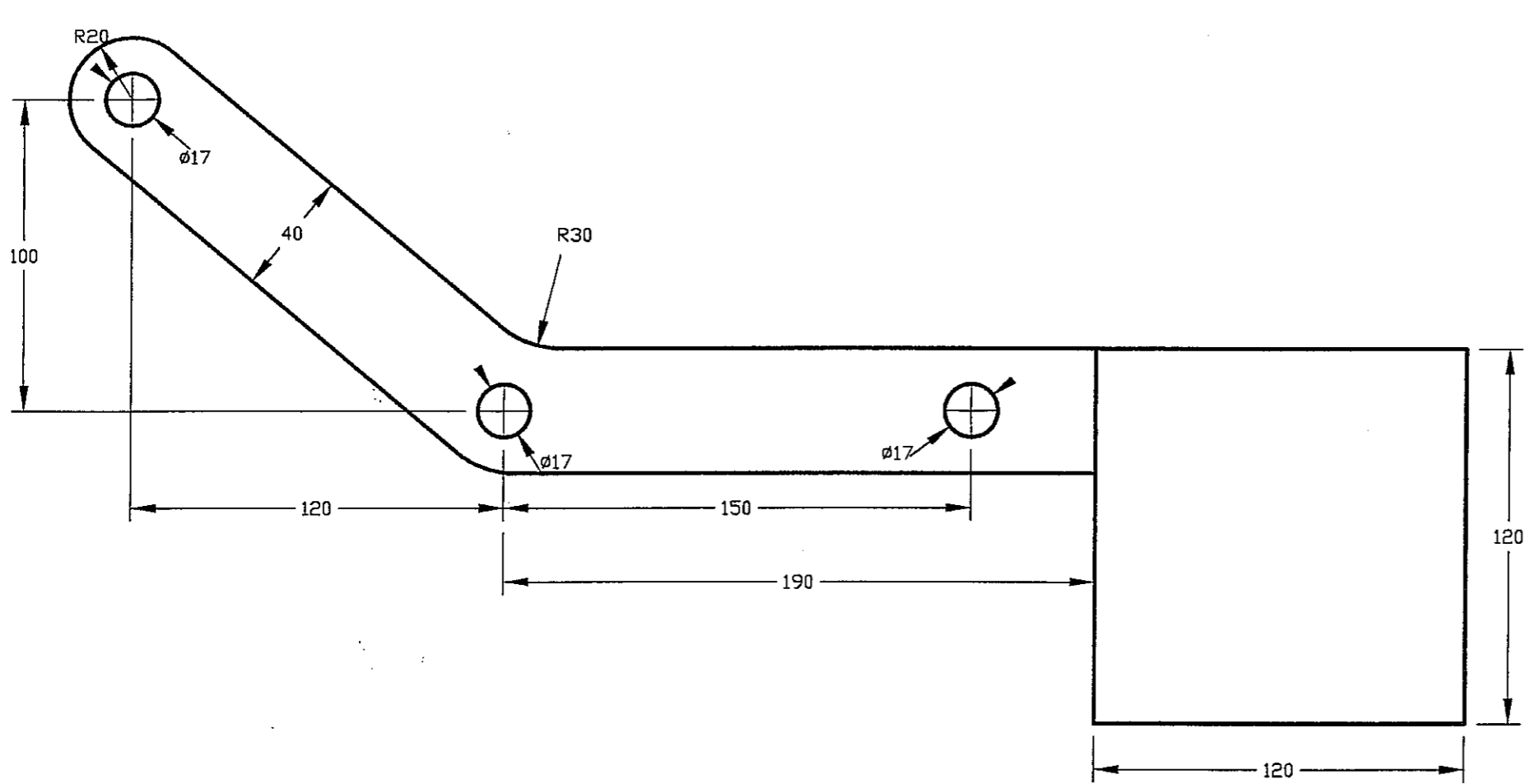
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			Checked	Date Oct-97	G.T. Schizas	Weight	
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			1/1				
			Dimensions without Tolerance	BRAKE CAVE			Replaced from :
Modif.	Date	Name					



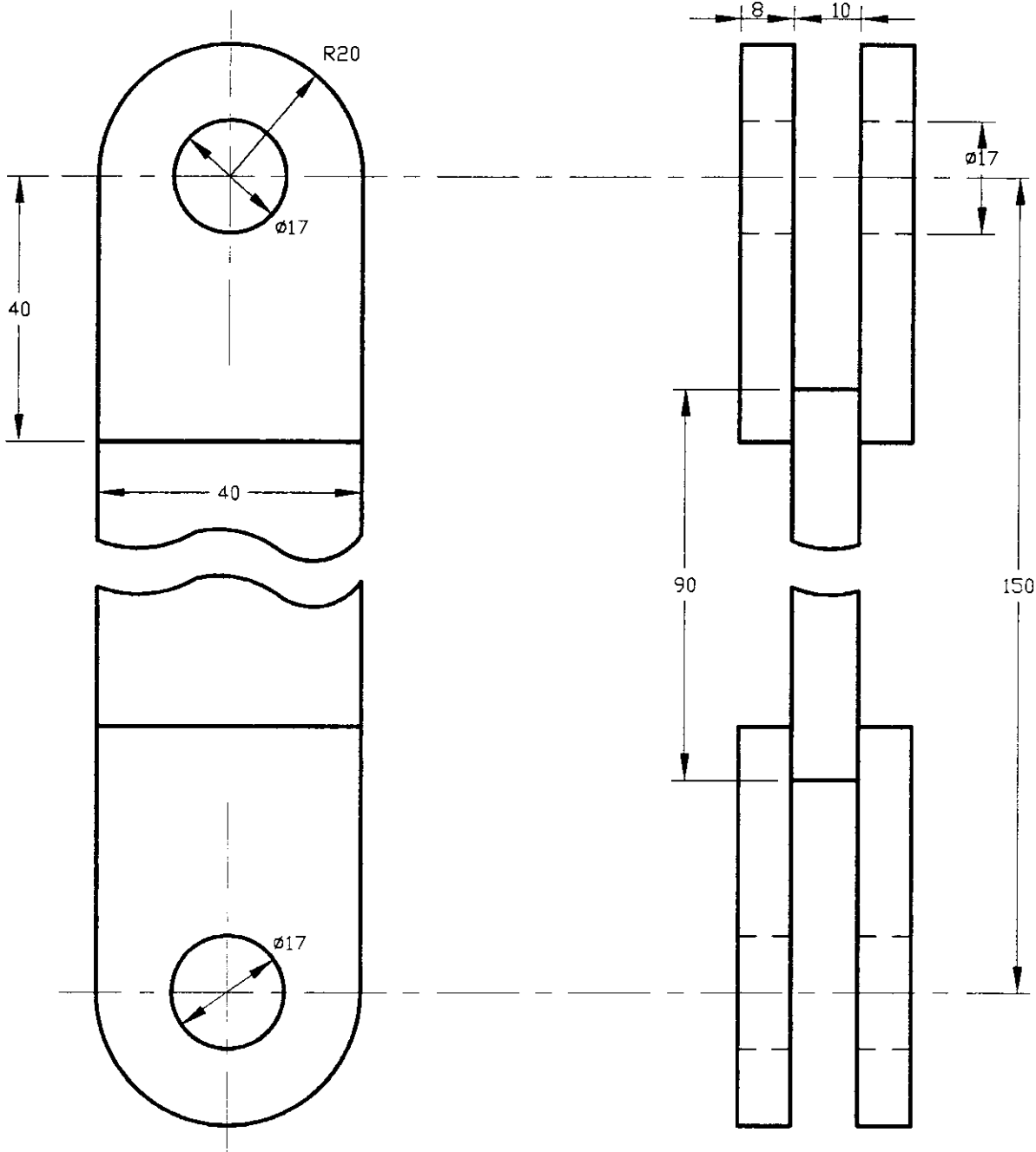
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			Checked	Date Oct-97	G.T. Schizas	Weight		
			Scale :	PROJECT 50 Title : WOODEN BRAKE			Drawing No : 50-02-16	
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Modif.	Date	Name						



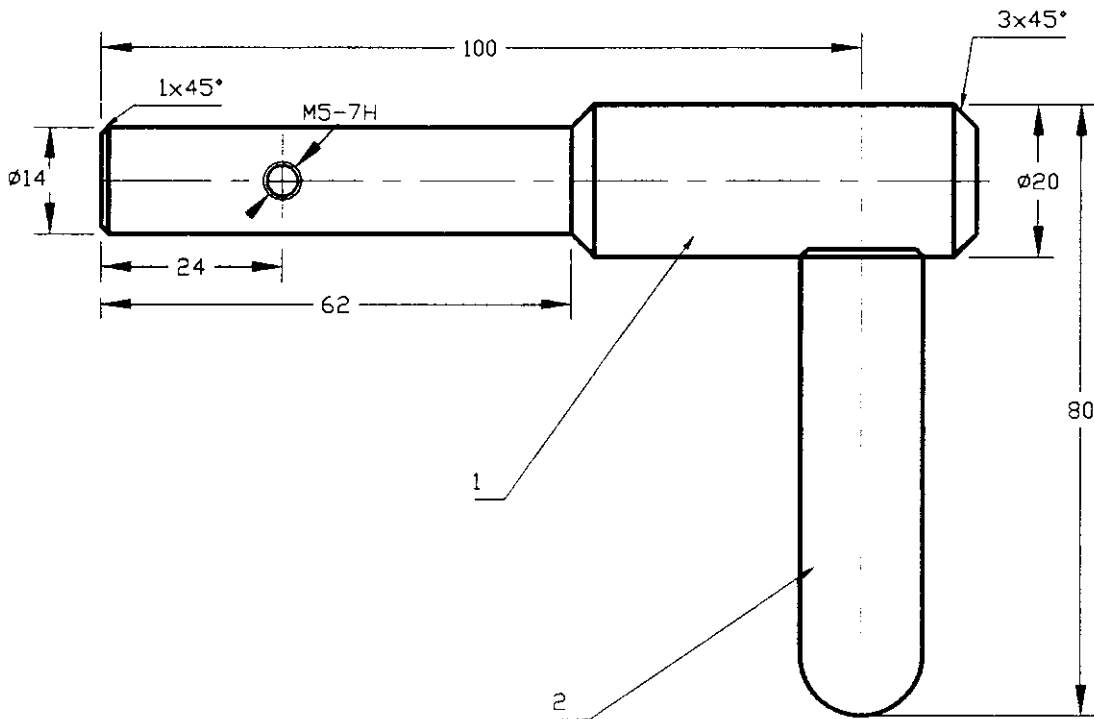
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			Checked	Date	Oct-97	G.T. Schizas	Weight			
			Scale :	PROJECT 50					Drawing No :	
			1/2						Title : BRAKE PEDAL	
			Dimensions without Tolerance							
Modif.	Date	Name								



			Designed	Oct-97	N.A.Giamakidis	Material	Steel Grade "A"	Constech Shipping S.A 11 Mavrokordatou Str., Piraeus 185-38 Greece	Tel : +30-1-4291636, 7 Fax : +30-1-4290415 Tlx : 211935 estm gr
			Checked	Oct-97	G.T. Schizas	Weight			
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			1/2	Title : BRAKE ARM				50-02-18	
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Modif.	Date	Name						In replacement of :	



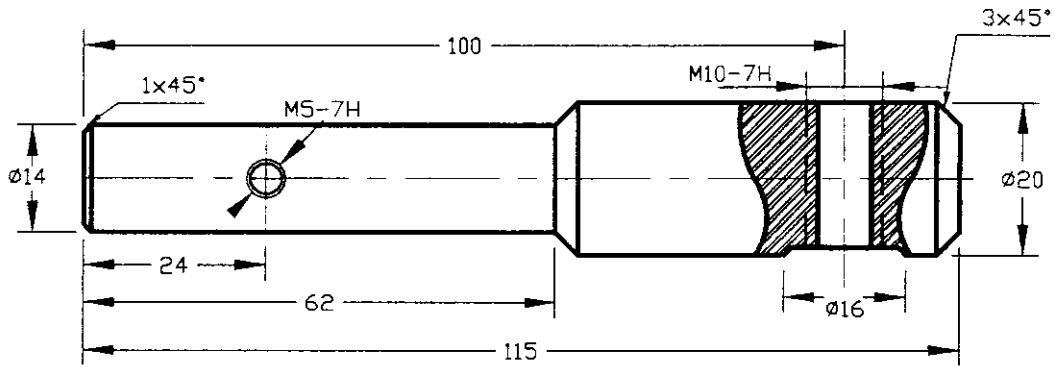
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			Checked	Date Oct-97	G.T. Schizas	Weight	
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			1/1				Title :
			Dimensions without Tolerance	VERTICAL BRAKE ARM			Replaced from :
Modif.	Date	Name					



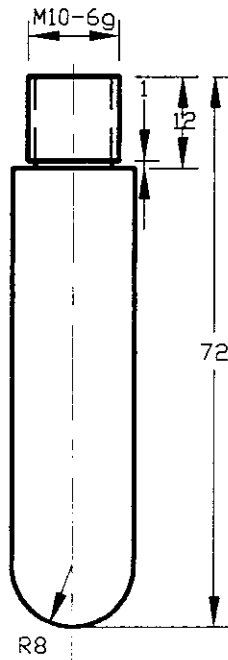
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1	HORIZONTAL CLIT	Steel Grade "A"	1		50-02-20-1
Item No	Description	Material	Qt	Dimensions	Ref. DWG No

Designed	Date	Material	Constech Shipping S.A 11 Mavrokordatou Str., Tel : +30-1-4291636, 7 Piraeus 185-38 Fax : +30-1-4290415 Greece Tlx : 211935 estm gr
Checked	Date	Weight	
	Oct-97	N.A.Giamakidis	
	Oct-97	G.T. Schizas	

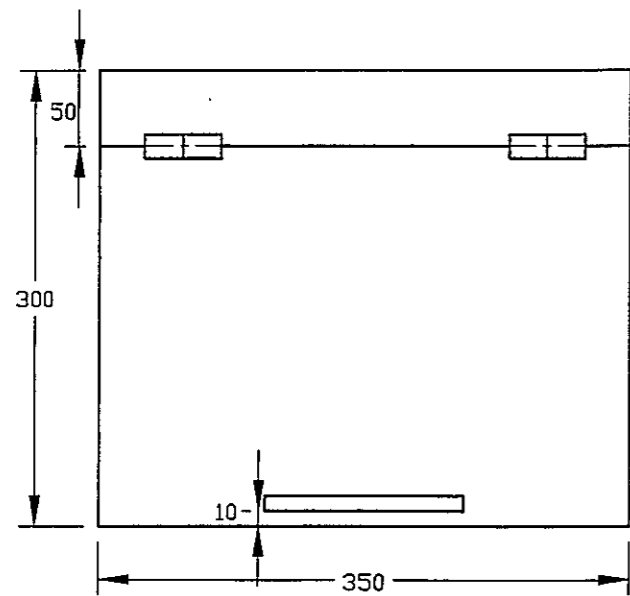
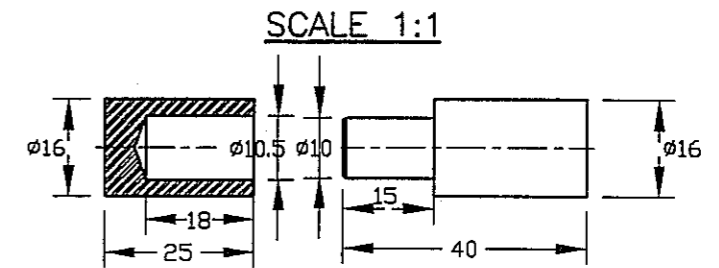
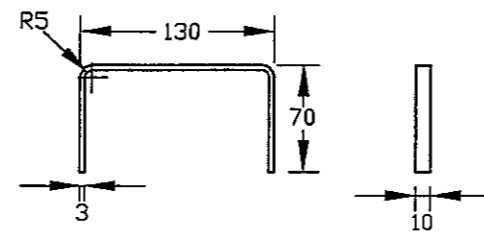
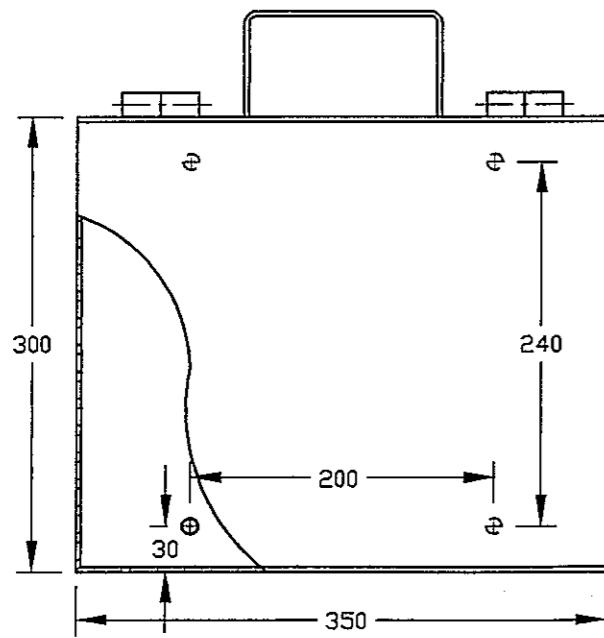
Scale :	PROJECT 50 Title : LOCKING MECHANISM	Drawing No :	
1/1		50-02-20	
Dimensions without Tolerance		Replaced from :	
Modif.	Date	Name	In replacement of :



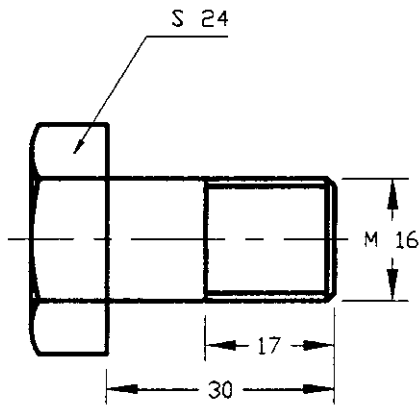
			Designed	Date	Oct-97	N.A.Giamakidis	Material	Steel Grade "A"	Constech Shipping S.A 11 Mavrokordatou Str., Tel : +30-1-4291636, 7 Piraeus 185-38 Fax : +30-1-4290415 Greece Tlx : 211935 estm gr
			Checked	Date	Oct-97	G.T. Schizas	Weight		
			Scale :	PROJECT 50				Drawing No :	
			1/1	Title :				50-02-20-1	
			Dimensions without Tolerance	HORIZONTAL CLIT				Replaced from :	
Modif.	Date	Name						In replacement of :	



			Designed	Date Oct-97	N.A.Giamakidis	Material Steel Grade "A"	Constech Shipping S.A 11 Mavrokordatou Str., Piraeus 185-38 Greece Tel : +30-1-4291636, 7 Fax : +30-1-4290415 Tlx : 211935 estm gr
			Checked	Date Oct-97	G.T. Schizas	Weight	
			Scale :	PROJECT 50			Drawing No :
			1/1				Title :
			Dimensions without Tolerance	ARM OF CLIT			
Modif.	Date	Name					



			Designed	Oct-97	N.A.Giamakidis	Material	Steel Grade "A"	Constech Shipping S.A 11 Mavrokordatou Str., Piraeus 185-38 Greece	Tel : +30-1-4291636, 7 Fax : +30-1-4290415 Tlx : 211935 estrn gr
			Checked	Oct-97	G.T. Schizas	Weight			
			Scale :	PROJECT 50				Drawing No :	
				1/5				50-02-21	
			Dimensions	BUOY & MESSENGER STORAGE BOX				Replaced from :	
			without					Title :	
			Tolerance	Modif.	Date	Name			



			Designed	Date Oct-97	N.A.Giamakidis	Material Steel Grade "A"	Constech Shipping S.A 11 Mavrokordatou Str., Piraeus 185-38 Greece Tel : +30-1-4291636, 7 Fax : +30-1-4290415 Tlx : 211935 estm gr
			Checked	Date Oct-97	G.T. Schizas	Weight	
			Scale :	PROJECT 50 Title : BOLT			Drawing No :
			1/1				
			Dimensions without Tolerance				Replaced from :
Modif.	Date	Name					In replacement of :