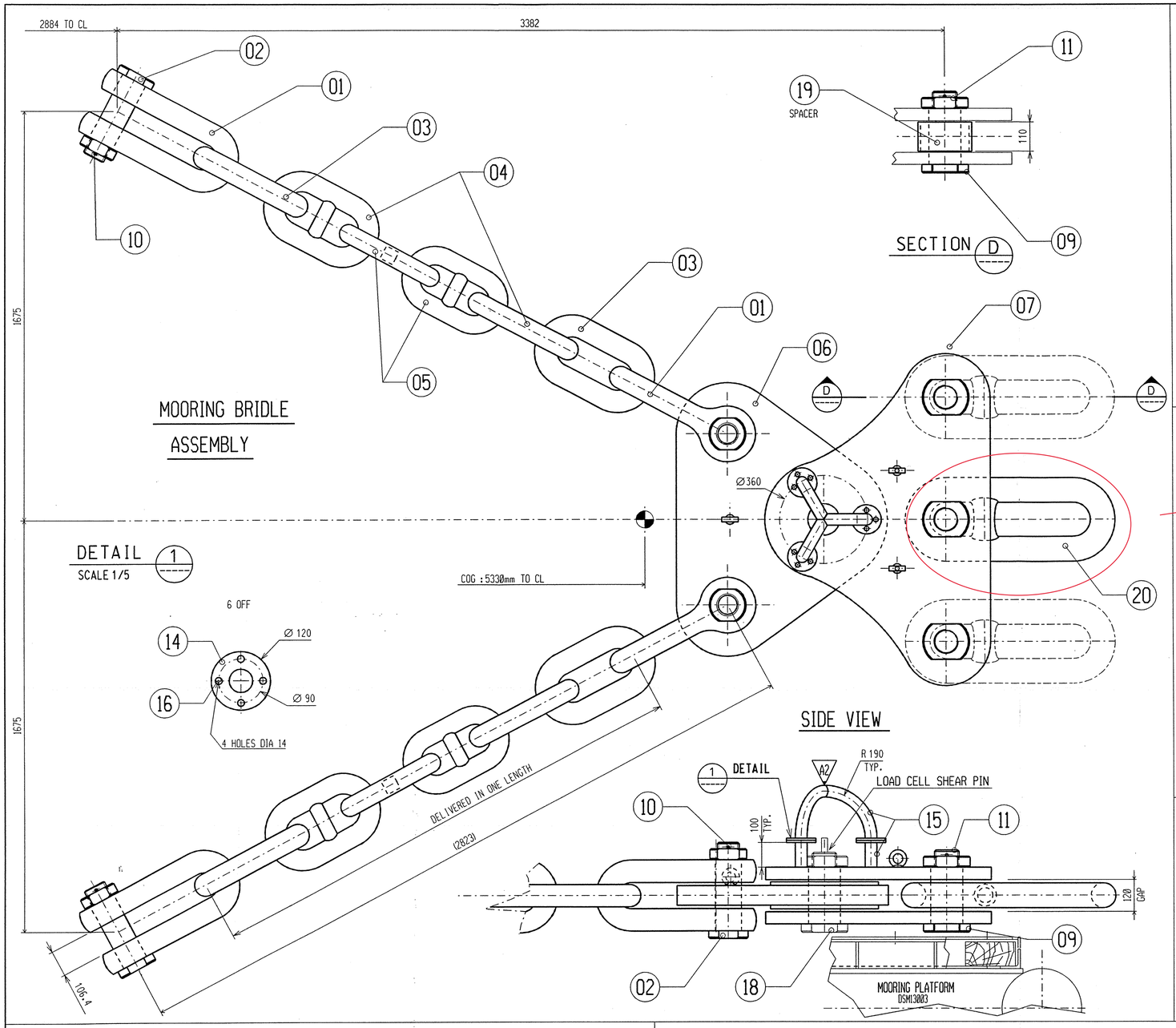

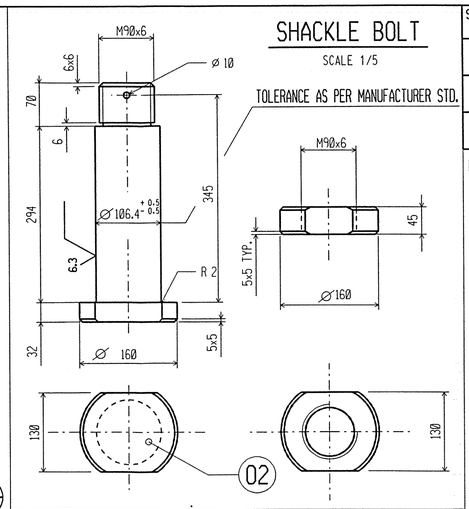

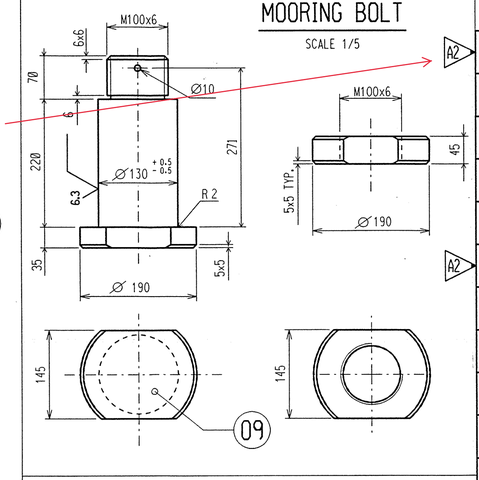

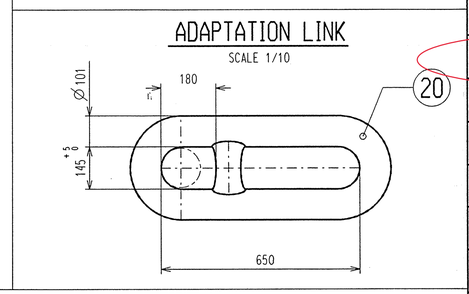

Status	Rev	Description	Author	Checker	Stress analyst	Group leader	Date
C	2	DRAWING UP DATED WITH CALCULATION	CHE	SGO	SMA	CHE	JUNE 99
A	1	APPROVED FOR CONSTRUCTION MODIFICATION AS NOTED	SGO	CHE	SMA	CHE	JULY 99
A	2	MODIFICATION AS NOTED	~~SGO~~	CHE	SMA	CHE	OCT 99

CASPIAN PIPELINE PROJECT
TC CHECKED: 9OCT99 BIS
QUALITY: 26/10/99
PCS: 11-10-99
Print Issue: Yes (No)
EDM CLOSED: DP
DATA FILES:
ON HAND(ES):
Serial No. (Document Control Numbering System)
SI-2
D*CUMENT CONTROL TO COMPLETE:
Date Received: 11 OCT 1999
Authorized by:
(Process)
A=Accepted, changes as noted and resubmit.
C=DO NOT PROCEED, changes as noted & resubmit.
D=Reviewed for Information Only.
E=Quality is below standards. Correct and resubmit.
A duplication by grazed discs not below consecutive number of
Superintendent body unless permitted by
557 C (Min. VALUE:42 J)

NOTES: 1 : MATERIAL

- TRIANGLE PLATE : ALLOY STEEL (ASTM A514 or EQUIVALENT)
  MIN. BREAKING : 85 Kg/mm2
  0.85 ⟩ YIELD / BREAKING ⟩ 0.60
  CHARPY TEST VALUE Kcv (longitudinal): 56 J average at -35 C (Min. VALUE:42 J)
- BOLTS & NUTS : ALLOY STEEL (34 Cr Ni Mo 6 or EQUIVALENT)
  MIN. BREAKING : 100 Kg/mm2
  0.85 ⟩ YIELD / BREAKING ⟩ 0.70
  CHARPY TEST VALUE Kcv (longitudinal): 42 J average at -35 C (MIN. VALUE: 27 J)

2 : ALL BOLTS MUST BE OF A GOOD SLIDING FIT AND ALL EDGES MUST BE ROUNDED OFF

3 : ANY MATERIAL EQUIVALENT SHALL BE SUBMITTED TO SBM. inc. FOR APPROVAL

A2 4 : FINISH AFTER COMPLETION AND TESTING , THE CHAIN PART SHALL BE PROTECTED AS PER API-2F SECTION 4-11 REQUIREMENT AND THE TRIANGLE PLATES ITEM 06 & 07 SHALL BE GALVANIZED WITH ADDITIVE COALTAR COAT (DFT=100 micron)

ITEM N°	QTY	EXTRA	DESCRIPTION	MATERIAL	UNITARY WEIGHT KG.	TOTAL WEIGHT KG.	REMARKS
20	2		101mm ADAPTATION LINK	RQ3	120	240	MBL= 5000 KN
19	2		219.1mm (8") PIPE; SCH 60; L= 110mm THK= 10.31	API 5L GR. B	7	14	
18	1		LOAD CELL SHEAR PIN SUPPLIED BY OTHER	SEE NOTE	68	68	SEE SPEC: SO12700 SEM54003
17	5		SQUARE BAR 30x30 L= 100mm	24.III	1.5	7.5	
16	12		M12 x 35 HEX BOLT C/W NUT & WASHER	AISI 316	/	1	
15	1.2 ML		48.3mm (1 1/2") PIPE SCH 160 7.14 WT	API 5L GR. A	7.25	8.7	
14	0.1 M2		PLATE : 9 mm THK.	24.II	70.6	7	SEE NOTE 5
13	1		1/4" NPTF GREASE NIPPLE BUTTON TYPE	AISI 316	/	/	
12	5		EYE BOLT M20	FORGED	0.5	2.5	GALVANIZED
11	3		SPLIT PIN V10-160	AISI 316	/	/	
10	4		SPLIT PIN V10-112	AISI 316	/	/	
09	3		MOORING BOLT C/W NUT	SEE NOTE	45	135	
08	2		WASHER OD= 360mm; THK: 15mm	SEE NOTE	11	22	
07	2		CONNECTION PLATE THK= 50mm	SEE NOTE	326	652	
06	1		TRIANGLE PLATE THK= 80mm	SEE NOTE	484	484	
05	4		76mm (3") COMMON LINK	RQ3	40	160	MBL= 4621 KN
04	4		76mm (3") ENLARGED LINK	RQ3	54	216	MBL= 4621 KN
03	4		76mm END LINK	RQ3	60	240	MBL= 4621 KN
02	4		SHACKLE BOLT AND NUT	SEE NOTE 1&2	33	132	
01	4		76mm (3") END JOINING SHACKLE WITHOUT BOLT	RQ3	80	320	MBL= 4621 KN

Caspian Pipeline Consortium
Каспийский Трубопроводный Консорциум

2 CALM BUOYS FOR NOVOROSSIYSK (RUSSIA)
Contract nº 8765115-4-0800

SEE DWG.ASS'Y: SO12700 DSM97012 / DSM97013 | TOTAL WEIGHT: 2710 Kg A2

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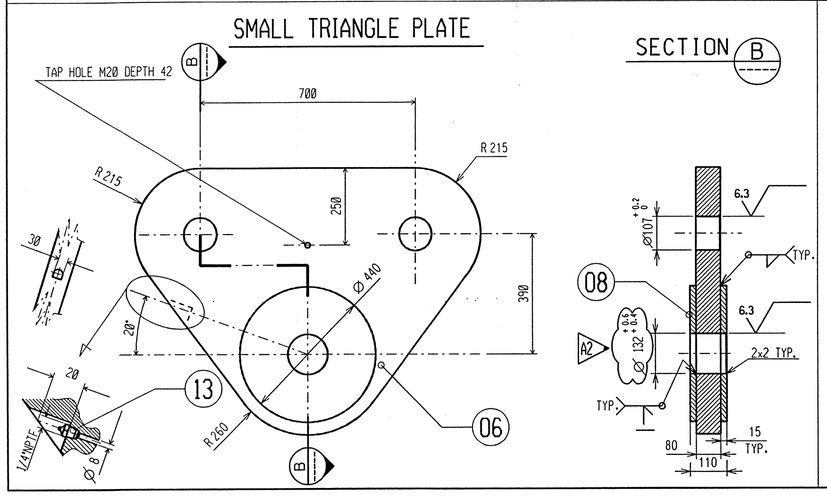
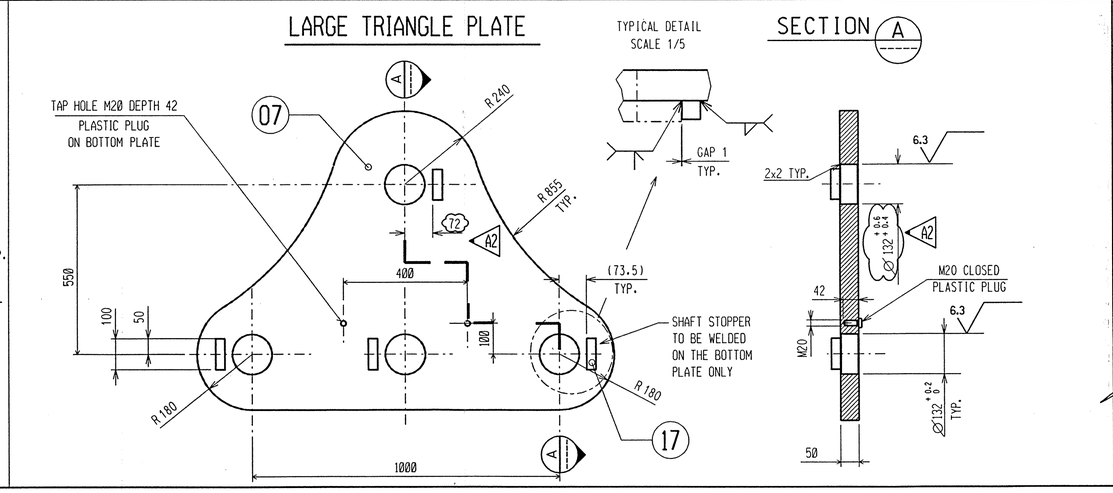
E.P.M NAME	DATE
C. ESCHENDORF	7/10/99

SINGLE BUOY MOORINGS INC
MARLY - SWITZERLAND
ENGINEERING OFFICES MONACO P.O. BOX 199

ROTATING PART
MOORING BRIDLE
GENERAL ASSEMBLY

SCALE 1/10 | DRAWING Size : A1
DRAWING Number : SO 12700 DSM43001 A2