

**PRINCIPAL CHARACTERISTICS**

LENGTH OVER ALL (INCLUDING ANCHORS)	ABT 85.50 M.
LENGTH B.P.P.	ABT 77.00 M.
BREADTH MLD	AT LEAST 10.50 M.
DEPTH MLD	ABT 6.00 M.
DRAFT LOADED	ABT 4.50 M.
HOPPER CAPACITY	ABT 1000 MT
SAFES DEADWEIGHT	ABT 1550 T.
TOTAL DEADWEIGHT	ABT 2500 T.
GRAB CRANES CAPACITY	ABT 4.180 MT
LOADING TRIAL SPEED	12 KNOTS
DREDGING DEPTH	12/17 M.

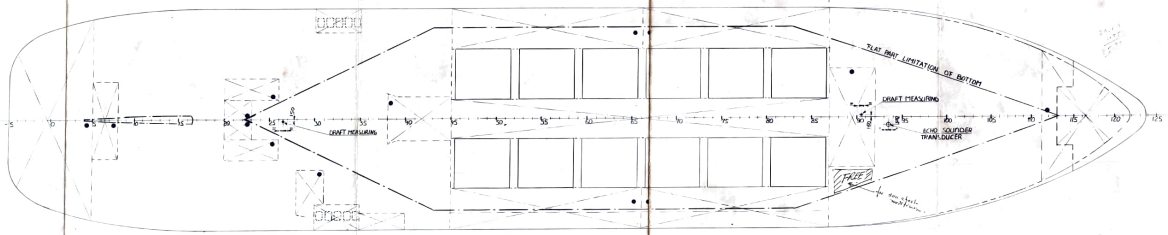
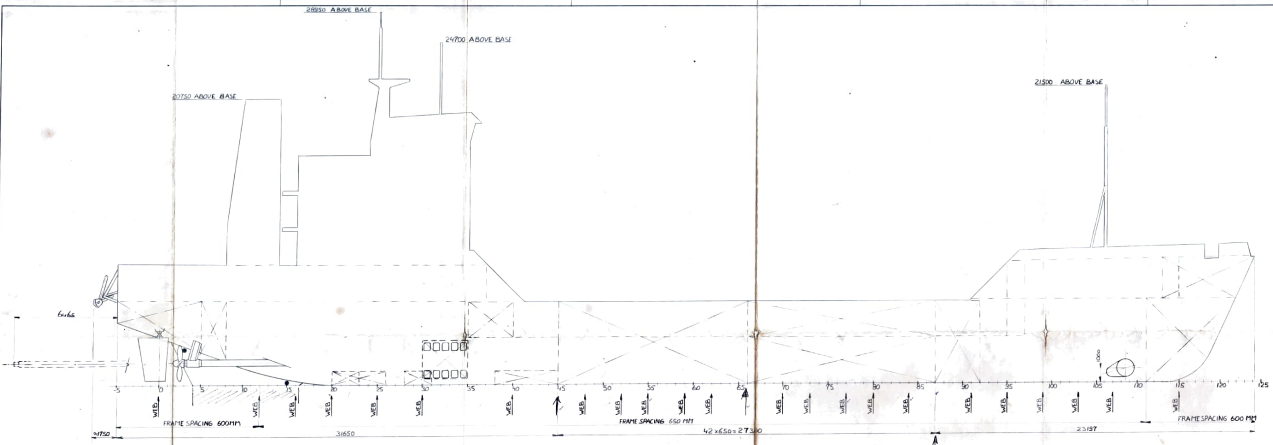
GRAB HOPPER DREDGER HOOCHLY DOCK & PORT ENGINEERS YARD No. 453

**vuyk engineering** **K. DAMEN**

GENERAL ARRANGEMENT PLAN  
GRAB HOPPER DREDGER

APRIL '85  
1:100  
GSS

A B C D 1.012.001

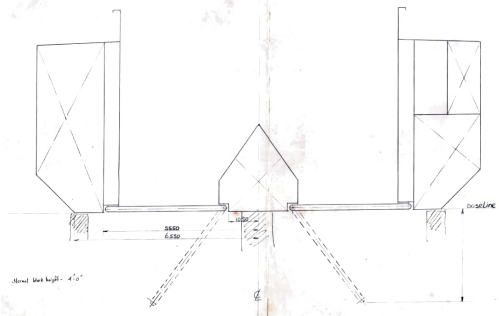
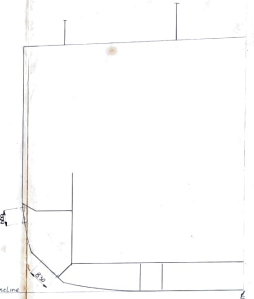
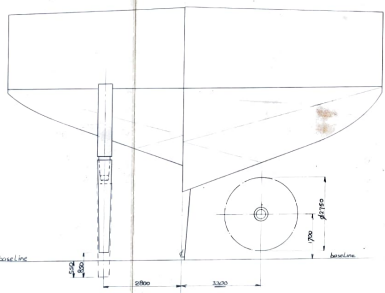


FRAME 0

FRAME 5

FRAME 33

FRAME 25



MAIN PARTICULARS

LENGTH OVER ALL (INCLUDING ANCHORS)	433'0"
BREADTH P.L.D. AT LEAST	15'0" P.P.
DEPTH P.L.D.	6'00" P.P.
DRAUGHT LOADED	4'60" P.P.
TOTAL DEADWEIGHT	2500 T.

- 1. Horizontal bottom line and ribs as indicated by dotted line in top view.
- 2. Principal members of hull, complete with angle, bulk and stiffeners to be received by outer bottom plating.
- 3. Side stowage to be arranged unless otherwise shown and in way of superstructure.

APPROVED BY: [Signature]

APPROVED BY: [Signature]

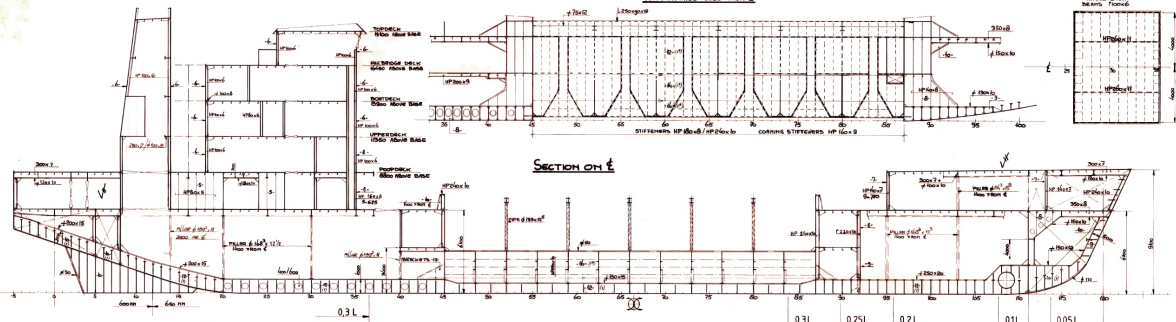
**vuyk engineering**

**K. DAMEN ENGINEERING**

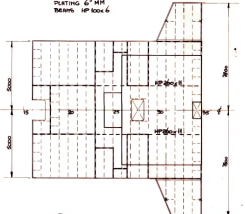
OSCARSWAAL

MARK: 390  
SCALE: 1:50  
SHEET: 665

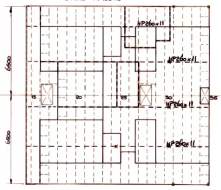
HOPPERWALL 3000 mm



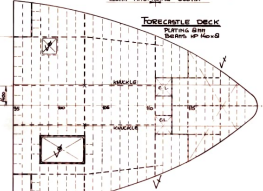
NAV BRIDGE DECK



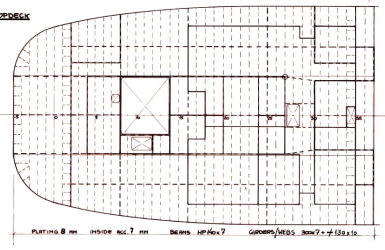
ROOFTOP DECK



TOPSIDE DECK



ROOFTOP DECK



NO CORRUGATION NOT SHOWN ON THIS APPROVED PLAN WHICH HAS BE CUT IN BULK HEADS OR BULK PLATING ARE TO BE PREPARILY FINISHED AND ADOPTIVE CONSTRUCTION PROVIDED TO THE SATISFACTORY SATISFACTION THE LONG OR SECTIONAL BEAMS OF LONGITUDINAL MATERIALS IS TO BE REINFORCED BY DOUBLING OR INCREASED THICKNESS OF PLATING IN LINE OF THE CORRUGATION. ADOPTIVE CONSTRUCTION IS ALSO TO BE FITTED TO THE CEILING OF OTHER STRUCTURE MEMBERS IN THE STRUCTURE AS PER BE NECESSARY.



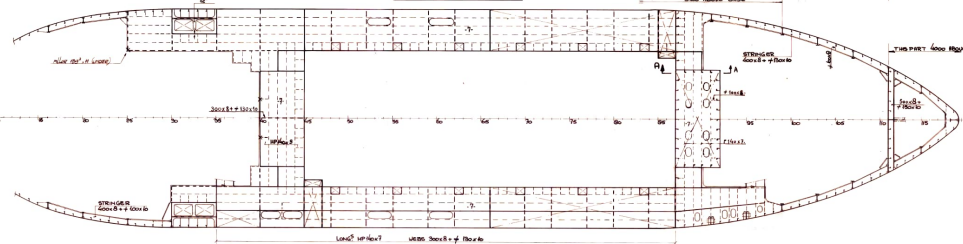
W/T HATCH TO BE FITTED  
CONNECTION OF LONG GIRDER TO SURVEYOR'S SATISFACTION

CONNECTIONS, COLLARS TRIPPING BRACKETS OF LONG GIRDER AND TRANSVERSE AS PER OUR PRACTICE AND TO SURVEYOR'S SATISFACTION

MAIN DECK



SECTION 3000 ABOVE BLAKE



THE SCANTLINES BE SHOWN AND MENTIONED ARE SUPPLIED FOR THE SURVEYOR'S REFERENCE FROM TOP OF WELLS OF 6.00"

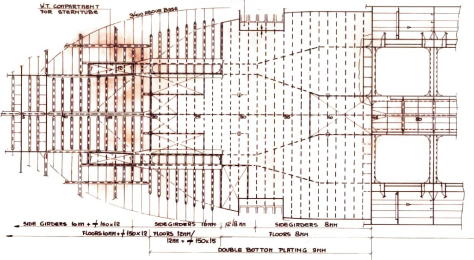
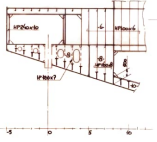
- PLATE ON DECK
- ⊕ PLATE BELOW DECK
- ⊗ PLATE ON AND BELOW DECK
- ⊖ SCANTLINE FLUERS TYPE 2 6/2-7

REFERENCE DRAWINGS:  
2.019.001 MIDSHIP SECTION  
2.019.002 MAIN SECTIONS FORESHIP  
2.019.003 MAIN SECTIONS AFTSHIP

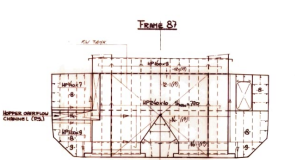
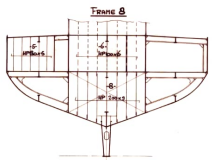
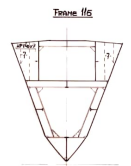
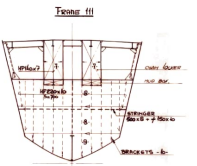
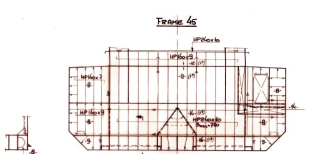
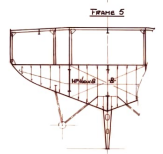
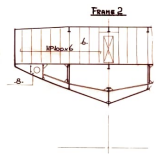
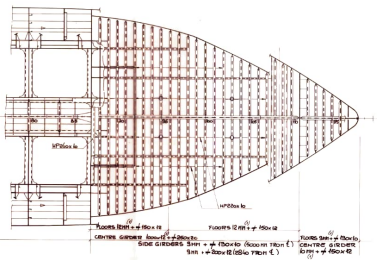
CONTRACT OF MESSERS LINDSAY BROWN, DUNDEE, SCOTLAND, ARCHITECTS, ENGINEERS, ETC. 10, RAINBOW ROAD, SINGAPORE.

GRAB HOPPER CRIBBER JAGHOOFY DOCK & PILOT ENGINEERS YARD MALAYSIA  
vuk engineering  
SHEPPARD & DAMEN SHIPBUILDING  
STEEL PLAN  
LR SCA  
15.07.88 12.07.88  
APR 88  
666  
2.019.004

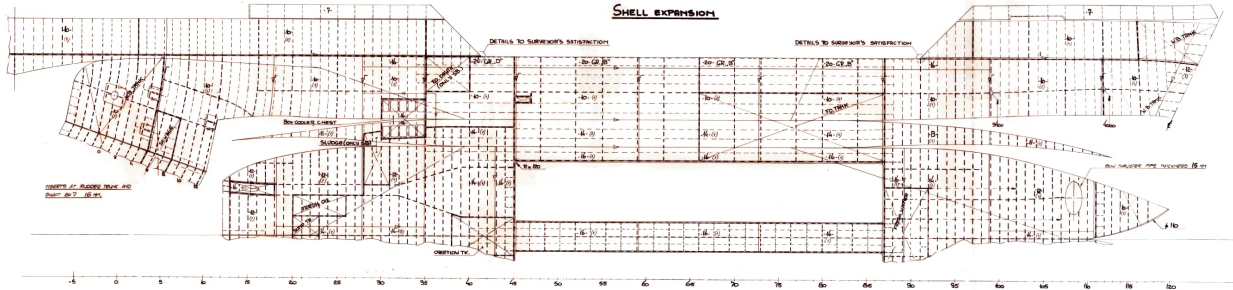
LONG SECTION 2800 FROM 6 TO 1000



**BOTTOM CONSTRUCTION**



**SHELL EXPANSION**



NOTE: STRENGTHENING (SEGMENTS, DOUBLE PLATES ETC.) 1/40 INCHES REQUIRED

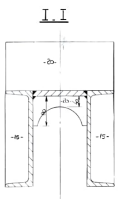
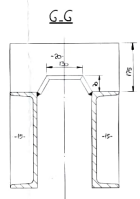
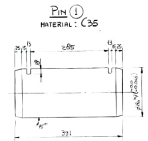
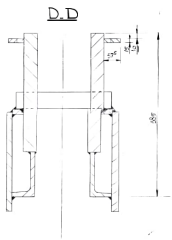
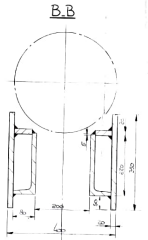
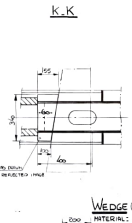
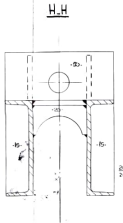
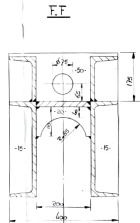
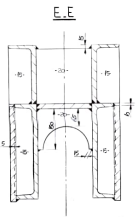
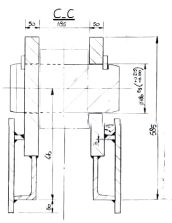
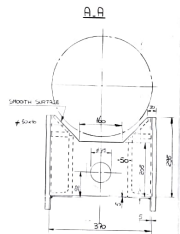
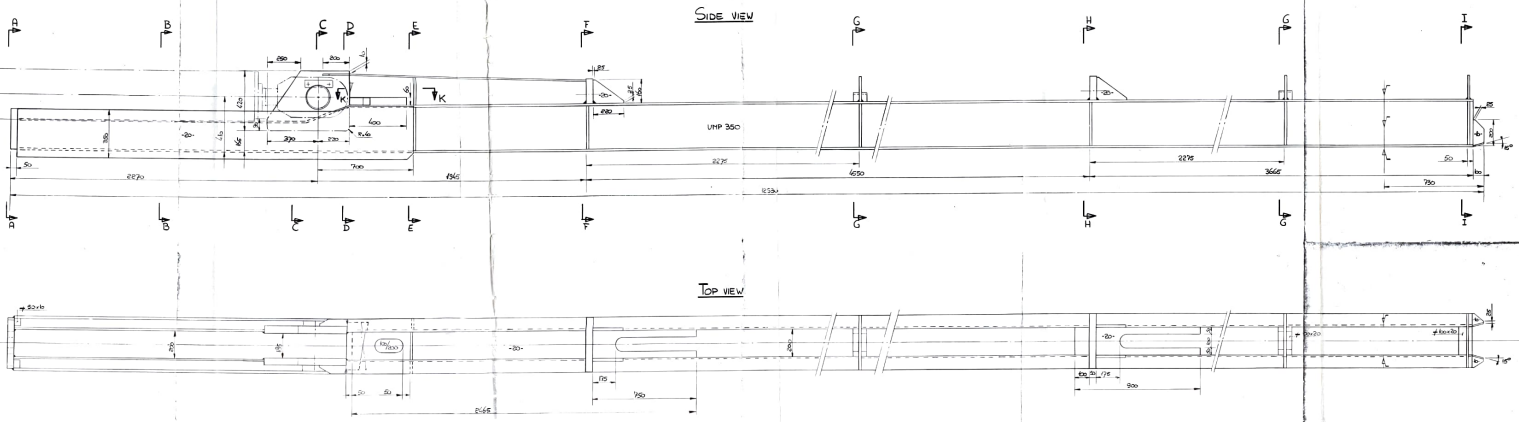
ANY OPENINGS NOT SHOWN ON THIS APPROVED PLAN SHALL BE CUT IN BULK HEADS OR BULK PLATING ARE TO BE PROPERLY TYPED AND INDICATE CORRESPONDING 'TRACES' TO THE SUPERVISOR'S SATISFACTION. THE LOSS OF SECTIONAL AREA OF LONGITUDINAL MATERIAL IS TO BE RESTORED BY DOUBLINGS OR INCREASED THICKNESS OF PLATING IN LIPS OF AND AROUND SUCH OPENINGS. ADEQUATE CORROSION IS ALSO TO BE FITTED FOR THE CUTTING OF OTHER STRENGTH MEMBERS IN THE STRUCTURE, AS FAR AS NECESSARY.

THE SCANTLING IS SHOWN AND ARRANGED BE SUITABLE FOR A DRAUGHT ENLIGHT REQUIRED FROM TOP OF KEEL OF 4.000.

- REFERENCE DRAWINGS**
- 2.019.001 HULLSHIP SECTION
  - 2.019.002 HULL SECTIONS TOWERSHIP
  - 2.019.003 HULL SECTIONS AFFSHIP

NOTE: FIGURES IN ( ) REPRESENT ADDITIONAL OWNER'S REQUIREMENTS WHICH HAVE BEEN INCLUDED IN THE PROPOSED SCANTLING.

GRAB HOPPER ORDERER: HOOGHEIJ DOCK & PORT ENGINEERS YARD NL485		SHIPYARD: H. DAMEN ROTTERDAM	
vuyk engineering		vuyk engineering	
2.019.004.001		2.019.004.001	
<b>STEEL PLAN</b>			
L.R.		S.C.B.	
5.07.88		2.07.88	
A		B	
APR 1988		665	
2.019.004.001		2.019.004.001	



SECURING PLATE

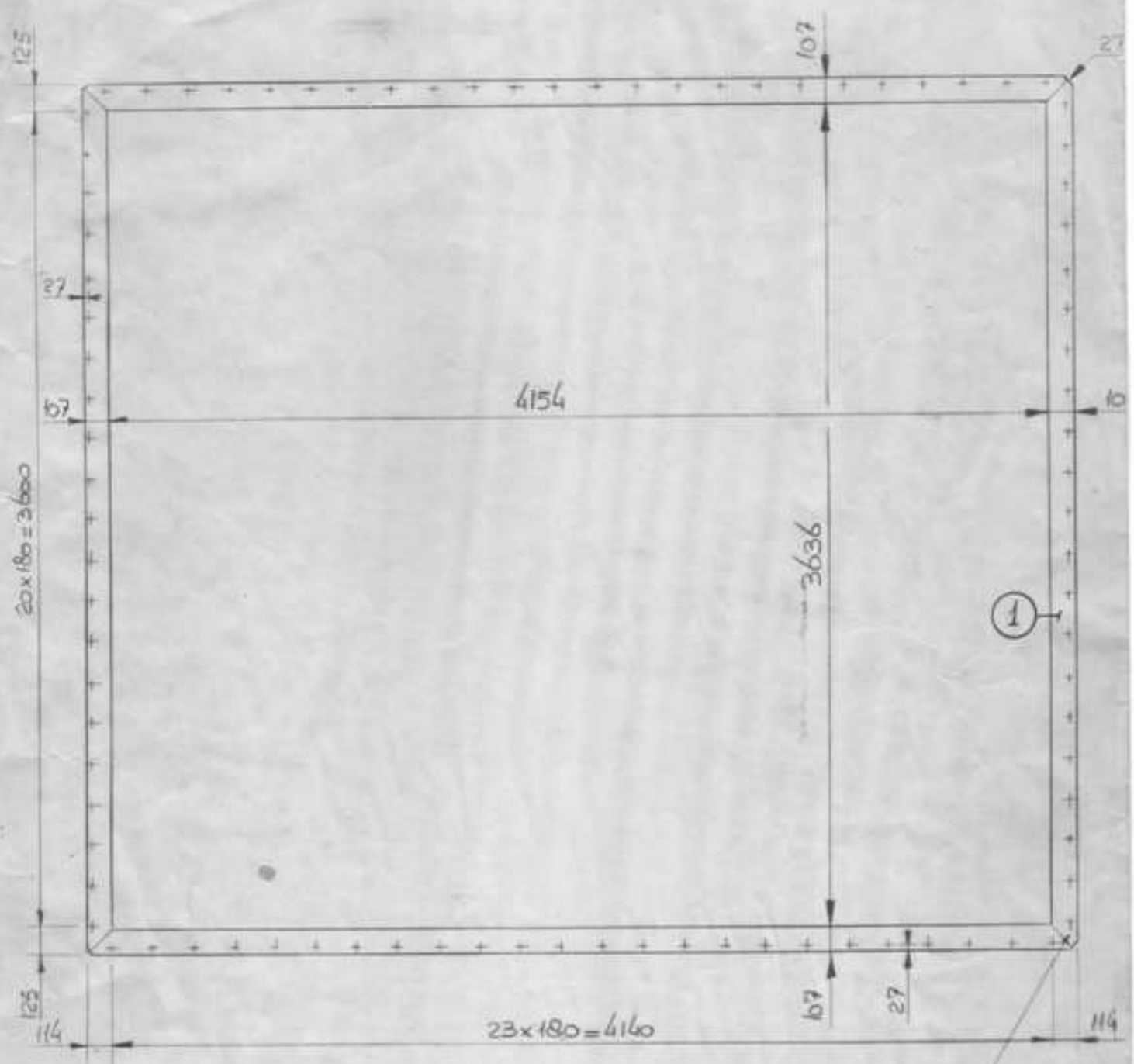


NO.	QTY.	DESCRIPTION	DIMENSIONS	MAT.	REMARKS
1	1	WEDGE	100x50	FE 50	
4	4	BOLT	M10x50	S.6	
2	2	SECURING PLATE	100x100	FE 40	
1	1	PIN	10x50	C 35	

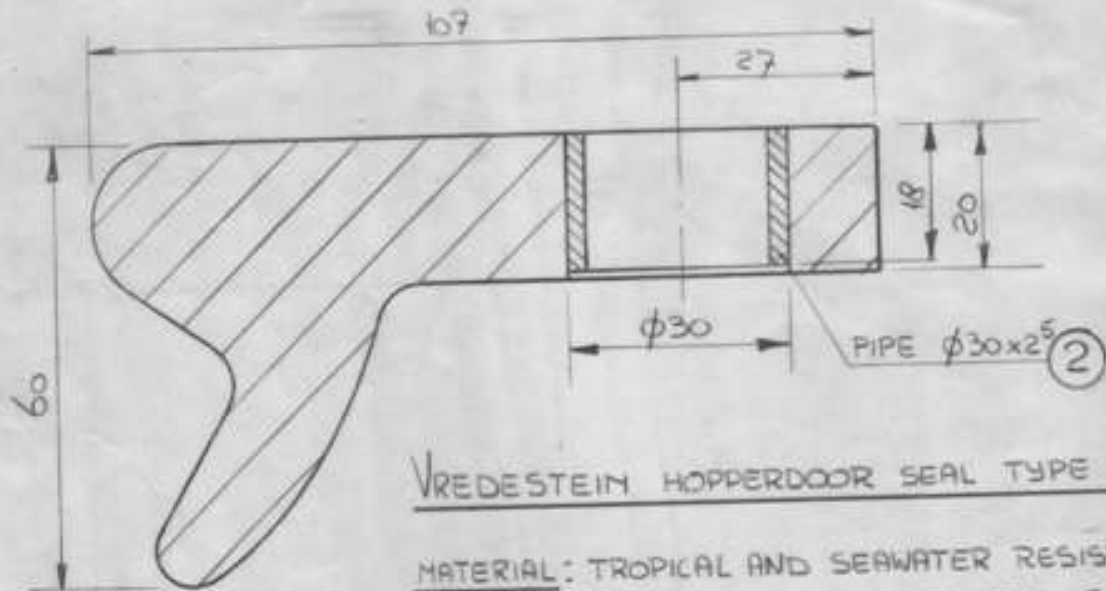
DATE	27-11-38	BY	DR
SCALE	1:1	CHECKED	DR
DESIGNED BY	SHEKHAR K. DAMEN		
APPROVED BY	SHEKHAR K. DAMEN		
DATE	27-11-38	BY	DR
SCALE	1:1	CHECKED	DR
DESIGNED BY	SHEKHAR K. DAMEN		
APPROVED BY	SHEKHAR K. DAMEN		

**DEWBAR**  
 27-11-38  
 6.260.009



TOTAL NUMBER OF HOLES : 90

CORNERS TO BE VULCANIZED



VREDESTEIN HOPPERDOOR SEAL TYPE 12766 B

MATERIAL: TROPICAL AND SEAWATER RESISTANT RUBBER; SHORE HARDNESS 50°

M. RASICA

29/11/88

24 NOV 1988

QUAN. (TOTAL)	POS.	QUAN. (IX)	DESCRIPTION	DIMENSIONS	MAT.	REMARKS
1080	2	90	BUSH	PIPE φ30x2.5, L=18	FE 360	
12	1	1	RUBBERSEAL		RUBBER	VREDESTEIN TYPE 12766 B

GRAB HOPPER DREDGER HOOGHLY DOCK & PORT ENGINEERS YARD No.463