

# PRINCIPAL PARTICULARS

|                |  |                      |
|----------------|--|----------------------|
| LENGTH         | (O. A)   | approx. 180.00 M     |
| LENGTH         | (B. P)   | 172.00 M             |
| BREADTH        | (M.D.)   | 30.00 M              |
| DEPTH          | (M.D.) UPPER DECK  | 14.70 M              |
| DRAFT          | (DESIGNED)   | 9.50 M               |
|                | (SCANTLING)  | approx. 9.80 M       |
| DEADWEIGHT     | (at D L W L)   | approx. 32,000 MT    |
|                | (at SCANTLING DRAFT)   | approx. 33,500 MT    |
| MAIN ENGINE    | B&W 550MC-C7   |                      |
|                | (at MCR)   | 7,900 kW x 127.0 RPM |
|                | (at NCR)   | 6,715 kW x 120.3 RPM |
| SERVICE SPEED  | (at SCANTLING DRAFT)   |                      |
|                | (NCR with 15% S.M)   | abt. 14.0 KTS        |
| COMPLEMENT     |  | 25P+6                |
| CLASSIFICATION |  | KR                   |
|                | +KRS1-Bulk Carrier "ESP", CSR, BC-A (HOLD Nos.2 & 4 may be empty), GRAB [20] |                      |
|                | LL IWS, +KRM1-UMA, STCM  |                      |



## 图纸 分发

| 分发处                                 |                             | 分发数 |    |
|-------------------------------------|-----------------------------|-----|----|
| 汉 字                                 | ENGLISH                     | FW  | FC |
| 基本设计                                | Basic Design Team           |     |    |
| 构造设计                                | Hull Structure Design Team  | 1   | 1  |
| 船体设计                                | Hull Design Team            |     |    |
| 船室设计                                | Accommodation Design        |     |    |
| 铁舾设计                                | Steel Outfitting Design     | 1   | 1  |
| 排管设计                                | Piping Design               | 1   | 1  |
| 电装设计                                | Electrical Design           |     |    |
| 先行舾装                                | Preoutfitting Division      |     | 2  |
| 机械舾装                                | Machinery Outfitting        |     | 2  |
| 船室生产                                | Accommodation Production    |     |    |
| 试航部                                 | Trial Cruise Division       |     |    |
| 管件资材采购                              | Pipe M. Procurement Team    |     |    |
| 舾装品质管理                              | Outfitting Quality MGT.Team |     | 2  |
| 搭载运营                                | Erection Operation Team     |     |    |
| 电装team                              | Electrical Outfitting Team  |     |    |
| 品质物流(镇海)                            | Logistics Team (Jinhae)     |     |    |
| 轴舵设计                                | Shaft & Rudder Design       | 1   | 1  |
| 合 计 (Total)                         |                             | 4   | 10 |
| <input type="checkbox"/>            | For Working                 |     |    |
| <input type="checkbox"/>            | For Construction            |     |    |
| <input checked="" type="checkbox"/> | For Revision                |     |    |

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HULL NO.

1009-1012,  
1031-1032

PROJECT

TPC KOREA  
33,500 DWT LOG/BULK CARRIER

TITLE

## INSTALLATION PLAN OF MAIN ENGINE

APPD BY

*[Signature]*  
J. H. Park

CHKD BY

*[Signature]*  
J. S. Lee

DWN BY

*[Signature]*  
J. H. Park  
(Ext. : 0133)

TEL

+86) 0631-538-1888

TOTAL 5 SHEET(S) WITH COVER

DEPT

SHAFT & RUDDER  
DESIGN TEAM

DWG NO.

DA300M711

SCALE

EACH

DATE

JULY. 03. 2008

REV. NO.

2



Samjin Shipbuilding  
Industries Co.,Ltd.



## SHAFTING PLAN

HULL NO.

1009-1012  
1031-1032

DWG. NO.

DA500M104

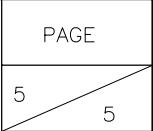
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| DATE          | REV.<br>NO. | D E S C R I P T I O N   | DWN       | CHKD | APPD |
|---------------|-------------|---|-----------|------|------|
| JULY.03,2008  | A           | SUBMITTED TO CLASS FOR APPROVAL.  | J. H PARK |      |      |
| AUG.06,2008   |             | APPROVED BY CLASS WITHOUT COMMENT.  | J. H PARK |      |      |
| NOV.10,2008   |             | SUBMITTED TO OWNER FOR APPROVAL.  | J. H PARK |      |      |
| NOV.10,2008   |             | ISSUED FOR WORKING.   | J. H PARK |      |      |
| NOV.13,2008   |             | APPROVED BY OWNER WITHOUT COMMENT.  | J. H PARK |      |      |
| NOV.15,2008   | 0           | ISSUED FOR CONSTRUCTION.  | J. H PARK |      |      |
| JAN.05,2009   | 1           | ADDED TO MATERIAL LIST 21 TO 23 ON 3 PAGE.  | J. H PARK |      |      |
|               |             | ISSUED FOR REVISION.  | J. H PARK |      |      |
| APRIL.22,2009 | 2           | a) CHANGED FOR MATERIAL DESCRIPTION DAMMING MATERIAL (ROUND PLUG) TO WOODEN PLUG ON 3/5 PAGE. | J. H PARK |      |      |
|               |             | b) CHANGED FOR QUANTITYOF HOLDING DOWNBOLT SET 64 SETS TO 56 SETS SETS ON 3/5 PAGE.           | J. H PARK |      |      |
| JULY.17,2009  | 2           | ISSUED FOR REVISION.  | J. H PARK |      |      |

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|---|--|--|--|--|--|--|--|--|--|--|---|--|------|--|
| <div>SS</div> <div>CALCULATION OF EPOXY CHOCK FOR M/E</div> |  |  | 2.MATERIAL LIST FOR M/E SEATING  |  |  |  |  |  |  |  | 1 |  | PAGE |  |
|   |  |  |  |  |  |  |  |  |  |  | 3 |  | 5    |  |
| 1.CALCULATION   |  |  |  |  |  |  |  |  |  |  |   |  |      |  |
| 1)  | MAIN ENGINE DEAD WEIGHT (We)   |  | NET WEIGHT+WATER+OIL WEIGHT<br>=204,600kg  |  |  |  |  |  |  |  |   |  |      |  |
| 2)  | HOLDING DOWN BOLT  |  | M36 x 48EA (SCM435)  |  |  |  |  |  |  |  |   |  |      |  |
| 3)  | ACTUAL AREA OF RESIN CHOCK (Ac)  |  | AREA OF RESIN CHOCKS – AREA OF BOLT HOLES (44,600–1,267)=43,333cm2                 |  |  |  |  |  |  |  |   |  |      |  |
| 4)  | TIGHTENING PRESSURE OF HOLDING DOWN BOLT USING HYD.RAM (Pa)                                |  | 1500 BAR(ACCORDING TO THE MAN B&W INSTRUCTION MANUAL)                              |  |  |  |  |  |  |  |   |  |      |  |
| 5)  | ALLOWABLE EACH BOLT TENSION (Tb)<br>(FORCE REDUCTION FACTOR:0.85, HYD.RAM AREA: 18.85cm2)  |  | Tb = 1529.05 x 0.85 x 18.85<br>= 24,499 kg<br>(Pa(BAR) / 0.981 = 1,529.05(kg.cm2)) |  |  |  |  |  |  |  |   |  |      |  |
| 6)  | ALLOWABLE TOTAL BOLT TENSION (Tt)  |  | Tt = 24,499 x 48 (NO. OF BOLT)<br>= 1,175,952 kg                                   |  |  |  |  |  |  |  |   |  |      |  |
| 7)  | ALLOWABLE MAX.LOAD OF BOLT (Pb)  |  | Pb = 1,175,952 / 43,333<br>= 27.13 kg/cm2  |  |  |  |  |  |  |  |   |  |      |  |
| 8)  | ACTUAL LOAD OF M/E DEADWEIGHT (Pe)   |  | Pe = 204,600 / 43,333<br>= 4.72 kg/cm2   |  |  |  |  |  |  |  |   |  |      |  |
| 9)  | TOTAL LOAD (TI)  |  | TI = Pb + Pe = 37.13 + 4.72<br>= 31.85 kg/cm2                                      |  |  |  |  |  |  |  |   |  |      |  |
| 10)   | REQUIRED MIN. TOTAL BOLT TENSION<br>(TOTAL BOLT TENSION MUST 2.5 TIMES THE M/E DEADWEIGHT) |  | 1,175,952(Tt) ≥ 204,600(We) x 2.5<br>≥ 511,500 kg                                  |  |  |  |  |  |  |  |   |  |      |  |
| 11)   | REQUIRED MIN. RESIN CHOCK AREA<br>(COMPRESSIVE STRENGTH ASSUMED AS 45Kg/Cm2)               |  | (1,175,952+204,600)/45 = 30,678 cm2<br>ACTUAL AREA: 43,333cm2                      |  |  |  |  |  |  |  |   |  |      |  |
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\* THE LINERS TO BE MOUNTED FROM AFT. ON BOTH SIDES OF ENGINE.  
(衬垫从后部装配在主机的一侧。)

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| HULL NO. | 1009-1012<br>1031-1032 |
| DWG. NO. | DA300M711              |
| SCALE    | NONE                   |

## INSTALLATION PLAN OF MAIN ENGINE