SHU34-MPS-DES-001/-/0/S/N2025022801001

DOOSAN Doosan Enerbility

FA Bele]
YES AA YH

Engineering & Design Purchase Specification

17] 91 3o

#34 STG PROJECT

Hl S(Title)

wee} Gul J99u!6uZ BUId!d d9d/89!AJ9S//0:80 GO-?0-SZ0z/907 GnoABues/8E:/0 SO-E?0-SZ0Z/eH ee }OueMD/ZZ:G| 8zZ-z0-SzOZ/Huer ueBYyobuoeAg[WW! 1N3G!4NO9]

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NO. DATE (DESCRIPTION) PREPARED BY REVIEWED BY APPROVED BY

(& 4|/9| S-C-3600-001) = toll 2 cl El(=) A4 (210 x 297 m/m)

SHU34-MPS-DES-001/-/0/S/N2025022801001

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Table of Contents

(& 4|/9| S-C-3600-001) = toll 2 cl El(=) A4 (210 x 297 m/m)

wee} Gul J99u!6uZ BUId!d d9d/89!AJ9S//0:80 GO-?0-SZ0z/907 GnoABues/8E:/0 SO-E?0-SZ0Z/eH ee }OueMD/ZZ:G| 8zZ-z0-SzOZ/Huer ueBYyobuoeAg[WW! 1N3G!4NO9]

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FAO Sele]

YESAA YA

Engineering & Design Purchase Specification

1 A2 2 S44
11 $4 SA 712 2 54
1.1.1 & OH ASAE FAO HeIE|)7} AlS+S#34 STG PIT SA Al SA] Aitse oe
Turbine / Generator Piping Arrangement, Ha SA 2+ Q Interface check S dH
Best Het Hanger & Support, 7/7/2| 3D Modeling, Stress Analysis ==, AAt
SA|5 9st SO, BOM HB Ae GA AHS Agop7| Flotao SsAOls+ (EaAh))7+

4a

SH/SaoHok S AAD] RPAMSS Jilsot Aol, (SBrANE B ASALQ] AUS
SOE Buss FAY BelE/)AAl Sa oOjOF Sect.
1.1.2 SAPS: NS AAPAHAsA 34 57| YHSA|
1.1.3 $848 : Turbine / Generator HHH SA] SS
114 5 4: # S42 turbine / Generator HHtt 47] SF VAS as.
1.2 2 2484 ASAE Turbine / Generator Q| Het SA] 2/4 SAO] Chet = OHAPSFAO|CH.

13 2 POH ASA Bla US S FAMOUS (Sara et SSS sat GO| #7|
=z

1.3.1 (AOL HelEl]) : FAROE] Bele] AALS|At, FAL] Hale
1.3.2 (SaAh: SAl 2827] BAl(Supplier), Vendor

1 (Fee Seles (Saree Hse ASA ASopo] lo] Chet SYS] AS O|BStct.

2.3 Feo Selel= (Sarh7r SF SAO Choro] Oot Seats M SAS FUME 2

24 feo HSE BH, FAOLBAlEl AMS Gio] (SAME Ys AS aps
BPz ZEH,

TOL BelE|S| AAO] WSO SAS (SAA)

EA = go e 4 2|E| O74) bi As sl
FMOLBZIELE (SS HS SLO BA Bol SF wjpo] MH Ke Ae axle +
YOO, (SAAS Old Hoo] ofS A|T/SHALE SHMWAS AT S + Sich

|% Hol HIS A+ AS Bapep-a YS APIA] OLS BP.

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24.2 A

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2.4.3 Z|EF AlSFAH

(& 4|/9| S-C-3600-001) = toll 2 cl El(=) A4 (210 x 297 m/m)

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SHU34-MPS-DES-001/-/0/S/N2025022801001

[CONFIDENTIAL]Byeongchan Jang/2025-02-28 15:22/Gwangtae Ha/2025-03-05 07:38/Sangyoub Lee/2025-03-05 08:07/Service/CCP Piping Engineer ing Team

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Engineering & Design Purchase Specification

3.7 ASME B16.20 & 21 : Metallic Gasket & Non Metallic Gasket

3.8 ASME B16.25 : Butt Welding Ends

3.9 ASME B16.34 : Valves-Flanged, Threaded, and Welding End

3.10 ASME SEC.V_ : Nondestructive Examination

3.11 ASME SEC.IX : Welding Qualification

3.12 Doosan Specification 4M tA)

3.13 MSS-SP-58, 69, 89 (H#! Hanger & Support)

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41 (SEAS FMOUEBE 7 MSote LA SE ASA! Chet Wet SAl ASS qMoroj Ofel

GO| SA StS Horo AS ASS +A OPOjOF SHC.

4.2 (FAL HelE))7E MASOHE Reference Project Data St (SSAH7t AlSOHE Al ABSS ya

QU YES PWS PAA +e WOKS APP S Holstch.

43 SA SZe&142 FO Soe SSIBOS Stef

YES NO
SP3D 7
PDMS 7
PDS 7

43.1 (SaAH7E PAS-ook ope AA S@A FA AF| (Detail APL HH] PRID HA)
1) STG SHSSl= Oe System S| MA WHE! & Support BA O|G,
P&ID 4 Mark-up =! Scope S&S 4A] APO] BStotct.

YES NO

Main Steam System

MSR Heating Steam System

Gland Steam System

Lube Oil System

Hydraulic System

Stator Water Cooling System

Shaft Seal Oil System

(& 4|/9| S-C-3600-001) = AOL cl El (48) A4 (210 x 297 m/m)

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YES AA YH

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FAH 2tQ(BOM Check, DWG 44, Interface check S)S AHStO] AH A]B FlO{OF SpoH ojAt
SB (FURIE) A SA SH SFOjOF Stcf.

6.5 2S Document, Drawing SAL FALE Bele ASor=E SAS APBoto AIS ofofpOF Stct.

6.6 SE Documents & FAQ ANE SFOe HSC,
6.7 SE Documents 2% [HO SSE CAME 7IBALES UnitlL= AS sect.
Ch (FAOE| BelE)2] Qo] Chet I+ SAS Sol FtP{Al (imperial and US customary unit)

a) Piping arrangement drawing, Support Drawing Oe (Fete #Wele|y2| Ql] Chet si

Unit a SO] HAAS BS + US

68 SE Documents X SHE WAIA SA Ast AS SA HE ASS + UES BAS
Ss
Ss

6.9 SM 2B eal 5 Soll Aauns ?le* AEB 2
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6.10 (SAAS FAYE SHE 71ZMAS ot M7] DataS BESO 4.2 SOA MAH

2
program 3 O|Zo-O] 7| =A] Output (Arrangement Ss) 2 SA A] Output (ISO, BOM 5)S
AtorOfOF StCf.
<SP3D>
Alot S#34 STG PIT O] oHESOl= 3D Modeling works, Smart Plant Review file, Navisworks file,
Data Base(D/B), Archival file S AIS 7heStOjOF StCt.

6.11 FAL] BelE|7} SASHE GA, Structure, Pedestal [HO Chet 9M Layout setup =

Equipment Modeling 42S Sta Pipe Routing Sas S MAE Review 24 =F 2D
2 3

XI
Arrangement && 4a, AAS EH SAS GA FO
6.12 50HS= ASS Se Sect.

6.13 (FAL SelEl) TG SA SA Ag 7/EO] Chet AAopojok of, WA Selgoe MSS
Arrangement [HE FAtoje] HelE| Title Block S BYSotO] 2D LAS} o-OjOF Sct.

6.14 Arrangement THE SSLS AAorojof oy, Al 71 Al (SaAH7t AVS HSoANe

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(4! //9| S-C-3600-001) = At OLA & 2] El(75) A4 (210 x 297 mim)

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Engineering & Design Purchase Specification

15.1 FOE SEE (SaAHAUA SA S49 +A] Beet LAS AMSoH, (Sarh2| SAl SS
FQ Al Beet ASE FAO SSE LE AlS SHC.

15.2 84 We list

NO. | Als =A SB H] a1
1 (SaAh)7t MSH S 2A A FASS

3D Modeling @71AtSt

EH etAgs

Bo S7|Ars

EOFALSFAL(AIL 3 ALS) AlSF Al APS SF SAL AS
Turbine / Generator P&ID

General Arrangement DWG

AR ALO] WBE EME AS EE AS SYS FMOLYBALE|7} HIB sHch,

NIL OD} um} KR] W]rm

(& 4|/9| S-C-3600-001) = AOL cl El (48) A4 (210 x 297 m/m)

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3D Modeling 27A}3

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1) OfeH SFO] HS! 3D Modeling SSTS +B, SA AAO] Mer HSel AS

3D Modeling Ol] BIS orct.

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7t) Equipment with Nozzle Information
Lt) Steel Structure, including Platform , Ladder, Grating, etc,
Ct) Piping Route including Insulation, Outline Equipment, Piping Information
Zt) Cable Tray
Of) Building, Concrete, Foundation
Ht) Hanger & Support
AF) ZJEb Wet ZFS GEO] Bast Atet
2) Interface / Maintenance / Accessibility Check.
3) Piping Arrg't DWG (RevA) [HAH Sl S 1 7HA O|LHO] Design Review File S *4o+o
"Zh" O Al AlSotGy, Oh2= Update =! Design Review File S AlSStCt.
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Jt) FALE] HeEOA, ALSoHE SA Format S AtSstCh.
Lt) ISO SHOVA,
- SBA size = FHS HE AS ASOH SHOl FSSA] At FO{OF SEC,
A

- 2f Equipment 2] AAH#E HEA] SMO SelEOAL AlSst PaID 2] SIS Mpepof

SECt.
Ch) SHE TMOL SSE ASct GAL! AHS ChepOF Stct.

2) WAL BAI

(1) Steam Turbine Piping

7t) PIPING ISO:
@Cover, @Index, @General requirement, @Piping ISO

Lt) PIPING ARRANGEMENT :
@Cover, @IIndex, @|SO view(TE side, CE side), @Lube Oil Feed & Drain ISO view
©Plan view(ground, mezzanine, operation floor), ©Section view

Ct) PIPING SUPPORT :

@Cover, @Index, @Small bore support, @Large bore support

(4141/91 S-C-3600-001) = AOL 2 el El(#) Ad (210 x 297 mim)

wee} Gul J99u!6uZ BUId!d d9d/89!AJ9S//0:80 GO-?0-SZ0z/907 GnoABues/8E:/0 SO-E?0-SZ0Z/eH ee }OueMD/ZZ:G| 8zZ-z0-SzOZ/Huer ueBYyobuoeAg[WW! 1N3G!4NO9]

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SALOHLY Bele]

YESAA YA

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SY S7Ast Be HA
AUUM SIME SIAM BRA YESH Yolot Sa cee YLS +aystc}

1) Coordination
S3ZH9l Coordination S ZIStO} L/ESHE HEE 1482] HE Coordinator 2 MASE.
BEAM ABAlL Sa7/SAt Ol] Coordinator S 2 E! Oo] AA@o-a ?A"at YS BIs+q als

Aasch GE BA =/H4!l ASE Coordinator S SStCt.

2) He SA +a Al SO] SH Software S MASAO GE BA, ASIA HAS AOS "SOA

3) HEtSAl SAt7/Zt S 2SArS BSA Et APO] PMopo, AAl wet As SQ] 7ISAAS HOF
oF, SA] SAL S SSA ASS As-built [A ABA! AS BPAT/OfOF Stct.

4) Project Review Meeting
SAl 7|2t S OS ?A"| APAOVA, ?Z"2| Coordinator, ?S"2| Coordinator 3 Lead Engineer7t

BASLE Project Review MeetingS 7H2/o+O] SA] AAAS AA/=lStct.

(& 4l/9| S-C-3600-001) = Ol 2 cl El (4s) A4 (210 x 297 m/m)

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wee| Gul J90u\6uZ BUld!d d9d/89!A49S/20:80 GO-?0-SZ0z/907 anoABues/8E:/0 SO-?0-SZ0Z/PH ee }OueMD/ZZ:G| 8z-z0-Sz0z/Huer ueBYyobuoeAg[WW! NIG! 4NO9]

SHU34-MPS-DES-001/-/0/S/N2025022801001 | = Vv ~~
EQUIPMENT MISCELLANEOUS (CONT) LINE VALVES PNEUMATIC OPERATORS (SPRING RETURN) FOR CONTROL N Q
AND ON/OFF VALVES (TYPICAL FOR OTHER VALVE TYPES)
: ~ v DIAPHRAGM CYLINDER
oe ? ? ie ? i ?_ ><} GATE OPERATOR OPERATOR AOV DATA
- ae TURBINE PIPING HIGH POINT VENT (V) OR (TYPICAL) (TYPICAL)
PIPING LOW POINT DRAIN (D) w | oe CV@
DOUBLE |
SINGLE Dou ' sk ' ' GATE VALVE AIR DESIGN RATED VALVE AIR REGULATOR CONNECTIONS SIZE
ec} MOTOR OPERATED VALVE GLOBE OS fo fa VALVE CONSUMPTION CV FLOW SIZE SET VALUE i TYPE
) | ? ___ _ VALVE ped a (lb/hr)
a. U-TUBE HEAT EXCHANGER
a = /- DWGTYP,) ?? Sef GLOBE AIR TO CLOSE, FAIL OPEN " - - "
?- / ooo yaaa, 2.47 SCFM 160 86.3 @ 8 72.5~116psig 1/4" NPT
/ . OPERATOR LOADED (3/4-522-V-0043) 294694 (150mm)
7 7 XK \ LINE BREAK OR RESUMPTION POINT OPERATOR UNLOADED
ae / ZONE D-1 / TYPICAL (TYPICAL)
(| +s / xf BUTTERFLY TYPICAL) = .
| _. a MOISTURE SEPARATOR & REHEATER I. Ed i (3/4-522-V-0044) 2.47 SCFM 160 394694 (150mm) 72.5~116psig 1/4" NPT
? ???$?? a4 LINE BREAK OR RESUMPTION POINT fh | CHECK aaa
. AIR TO OPEN, FAIL CLOSED
5 (ON-DRAWING POINT) (AOV-1RDV-H1 2.47 SCEM 160 86.3 @ 6" 72.5~116psig 4/4" NPT
Vai ENTRIFUGAL BLOWER SOLENOID OPERATORS (3/4-522-V-0041) 294694 (150mm)
UV OR COMPRESSOR - ANGLE (SPRING RETURN) FOR VALVES
_ CUSTOMER Cc ONCINEEAING TURBINE (TYPICAL FOR OTHER VALVE TYPES)
Na, AOV-1RDV-H2 86.3 @ 6" . , .
pe Sa
PROCESS PIPING . ENERGIZE TO CLOSE ENERGIZE TO OPEN * AOV-2RDV-C1 167 @ 6"
lo 58~65.3ps "
~ BALL (FAIL OPEN) (FAIL CLOSED) (3/4-522-V-0017) 1.38 SCFM 360 393045 = (150mm) psig VAUNPT
} -?? SENSOR-FLOW O. BUTTERFLY ws "
AOV-2RDV-C2 167 @ 6 ;
| LOOP SEAL 1.38 SCFM 360 58~65.3psig 1/4" NPT
UJ ? 3/4-522-V-0018 4 150mm
(io) . owe ABBREVIATION | | 399045 | (150mm)
la A om FE - ORIFICE PLATE
LL I oR VENT | oo FO. RESTRICTION ? ANGLE CHECK REFER TO 9-511-271-L-T-101-029 VAVLE & INSTRUMENT IDENTIFICATION AOV-2RDV-H1 1.38 SCEM 360 167 @ 6" 58-65 3psi 4/4" NPT
| ORIFICE NON-RETURN VALVE (3/4-522-V-0015) 393045 = (150mm) PSI
(FE \ _ SPU: STEAM PACKING UNLOADING
CONNECTION To PROCESS OR ye (M) SPUV: STEAM PACKING UNLADING VALVE AOV-2RDV-H2 167 @ 6" 58~65.3psi 0"
INSTRUMENT SUPPLY / FORWARD-REVERSE uP SSF: STEAM SEAL FEED 3/4-522-V-0016 1.38 SCFM 360 450mm -OPSig 1/4" NPT
, H?§ PITOT TUBE DX MOTOR OPERATED VALVE SSFX: STEAM SEAL FEED EXTRACTION 393045 | {
; PNEUMATIC ANALOG SIGNAL SSFB: STEAM SEAL FEED BYPASS
_ SLMSV: MSV STEM LEAKOFF
? . AOV-2RSLLV1 1535.2 42" ,
COMMUNICATION SIGNAL rk PNEUMATIC OPERATED VALVE TEWD: TEMP ELEMENT FOR WATER INDUCTION
EPT: ELECTRONIC PRESSURE TRANSMITTER
HYDRAULIC SIGNAL
SENSOR-LEVEL {4] ?x, PERFORMANCE TEST POINT AOV-2RSLLV2 5 51 SCFM 1600 1535.2 42" 72.5~116psig va" NPT
. , 3/4-511-V-0023 413316 (300 "
} _ L():
I : FIELD RUN PIPING ~ See en fy (ox) INSTRUMENT FOR AOVMSDV-C' 2.46 SCFM 700 88 @ te 58~65.3psig 1/4" NPT
ho LI- LEVEL GAUGE Dk] SOLENOID VALVE \=_/ PERFORMANCE CALCULATION (3/4-522-V-0067) 846977 (300mm)
_ CO) - POINT (COMMERCIAL OPERATION)
a CONDENSATE LINE nat GAGE GLASS OR FLOAT OR a
} PLUS NORMAL USE AOV-MSDV-C2 435.7 @ 12"
- DISPLACEMENT TYPE I 2.16 SCFM 700 : 58~65.3psig 4/4" NPT
LEVEL INSTRUMENT (3/4-522-V-0068) 846977 (300mm)
ae PIPE SLOPE SK CONTROL VALVE WITH POSITIONER . -
> -XXX-L-XX **-XX/N #
_ ppp ti(?<?éiétiés*?*~*S??C INSULATION AOV-MSDV-H1 435.7 @ 1"
SENSOR-PRESSURE See mai | CU THCIKNESS (INCH.) - - 57 79 5=116 psi ;
> WATER SEAL EQUIPMENT I | {| _ROON. 1.41 SCFM 1920 . psig 1/4" NPT
y INDIRECT DRAIN OR Pf of (3/4-522-V-0065) 846977 (300mm)
\v FUNNEL DRAIN CATEGORY |
PS. PRESSURE SWITCH ><] VACUUM SEAL PLANT SYSTEM CODE fof | AOV-MSDV-H2 435.7 @ 12" 72.5~116psi "
r PORT a. - / PT- PRESSURE TRANSMITTER OF LINE SIZE (INCH.) I |
VALVE STATUS SYMBOLS . a . PIT- PRESSURE TRANSMITTER WITH Sky FLOAT VALVE
INSULATION CLASS. AOV-SPDV4 4" ,
LOCAL DISPLAY GAUGE DIRECT) Ov-S 0.23 SCEM 32 2.28 @ 58~65.3psig 4/4" NPT
? CONNECTED eV: FIBER GLASS WITH VAPOR BARRIER AND AL. JACKET (3/4-511-V-0010) 14158 (25mm)
FOR ANTI SWEAT
NO OPEN DURING NORMAL eT: CALCIUM SILICATE WITH AL JACKET FOR HEAT TRACED AOV-SPUV 455.1 @ 8" 7 ; .
be} ? OPERATION (ALL VALVES SENSOR-TEMPERATURE PIPING (3/4-511-V-0074) 142 SCFM 640 10361.7 (200mm) F89-SPSI va" NPT
eC: CALCIUM SILICATE WITH AL JACKET FOR HEAT
EXCEPT UTTERFLY) - TI. TEMPERATURE ELEMENT VALVE BODY WITH ACTUATOR-TYPICAL RETENTION AOV-SSFV 18 @ 4" 58-65. Sos
a NC ow) WITH INDICATOR e A: CALCIUM SILICATE WITH AL JACKET FOR PERSONAL (3/4-511-V-0071) 0.91 SCFM 60 35190 (100mm) -opsig 1/4" NPT
a oo CLOSED DURING NORMAL OPERATION es PROTECTION OR MINERAL
ae TOUR ERATURE -LEMENT . 7 FIBER FOR TUBING LINE ONLY AOV-SSFVX 255.1 @ 3" 58-653
- 7 1.42 SCFM 610 ~65.3psig 1/4" NPT
No OPEN DURING NORMAL TT- TEMPERATURE ELEMENT wy, ON-OFF MOV © N:NO INSULATION (3/4-511-V-0072) 20011 (200mm)
¬e. OPERATION (BUTTERFLY a WITH TRANSDUCER AOV-WSV 7.24 @ 172 3"
ONLY) (SUBSTITUTE LO FOR (te \ Te) : 58~65.3psi "
LOCKED OPEN) \ : A : / DUAL SENSOR PBS AND PLANT SYSTEM CODE (3/4-511-V-0073) 0.61 SCFM 28 GPM (80mm) psig VA" NPT
_ i ? (SHOWN WHEN BOTH ARE USED) TA BAT
IH \ , |
? CLOSED DURING NORMAL . A | = PNEUMATIC MODULATING VALVE ts om ** ? THE 1RDV-C AND 2RDV-C SHOULD BE SIZED TO PASS 769 GPM AND 1,025 GPM, RESPECTIVELY, FOR THE VERY UNLIKELY
Ne OPERATION (BUTTERFLY a aaa " CONDITION THAT A CIV WOULD GO TEMPORARILY CLOSED WHILE THE FEEDWATER HEATER WHICH NORMALLY
" ONLY) (SUBSTITUTE LC FOR > ? RECEIVES THE REHEATER CONDENSATE IS TEMPORARILY OUT OF SERVICE.
LOCKED CLOSED) SELF-ACTUATED DEVICES-PRESSURE
eA DISTRIBUTED CONTROL
aa a PNEUMATIC ON-OFF VALVE ??
? (Psv \ ay ?ams?
? bed MS CUSTOMER USE (MMIS)
MISCELLANEOUS AS PRESSURE RELIEF OR SAFETY VALVE a
a. ANGLE PATTERN SPRING OR WEIGHT x
i TRAP , LOADED OR WITH INTEGRAL PILOT ca PNEUMATIC MODULATING VALVE a, ?anew
sv ST = STEAM TRAP (SHOWN) WITH ON/OFF FUNCTION Tike.
? AT = AIR TRAP _MMIS Customer Use & MARK Vle
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ry STRANER DOOSAWN Enerbility
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This drawing is the property of DOOSAN re NF 44 NA 4 mm Ae AD. 4
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CLOSURE AT BELOW 15% LOAD

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INTERFACE POINT TABLE N Q

REHEATER HEATING STEAM SYSTEM PIPING

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INTERFACE PT. | ZONE FLUID TYPE MAXFLOW Beess TEMP FLOW ~PRSSURE _?TEMP. CONNECTION DESCRIPTION MATERIAL CONN. size [NTERFACE INTERFACE PT. | ZONE FLUID TYPE MAXFLOW BRess TEMP FLOW -PRSSURE ??TEMP. CONNECTION DESCRIPTION MATERIAL CONN. size. NTERFACE
NAME SHEET NO. LB/HR TYPE NAME SHEET NO. LB/HR TYPE
PSIG. oF LB/HR PSIG F PSIG. oF LB/HR PSIG F
SD909 oe STEAM - 457.7 461 - 451 460 4RSDV-1 OUTLET A182-F22 CL.3 1" sw ES701 sae STEAM 371533. 195 385 350000 194.8 382 CROSSAROUND TO #5HEATER A234M-WPBW 22" XS BW
SD910 a STEAM - 457.7 461 - 451 460 1RSDV-2 OUTLET A182-F22 CL.3 1" sw ES703 a STEAM 371533 195 385 350000 194.8 382 CRSSAOURND TO #5 HEATER A2324M-WPBW 22" XS BW
_ SD916 ile STEAM - 457.7 461 - 451 460 1STAGE REHEATER STEAM SOURCE DRAIN A182-F22 1" sw ES704 aii STEAM 371533 195 385 350000 194.8 382 CRSSAOURND TO #5 HEATER A2324M-WPBW 22" BW
$D912 ile STEAM - 457.7 461 - 451 460 1STAGE REHEATER STEAM SOURCE DRAIN A182-F22 1" sw SD115 ow 3 STEAM - 947.3 540 - 947.3 450 SV-1 BEFORE SEAT DRN MOV OUTLET (MOV-SV1) A105 1.5" sw
SD915 ie STEAM - 457.7 461 - 451 460 1STAGE REHEATER STEAM SOURCE DRAIN A182-F22 1" sw $D125 ne STEAM - 947.3 540 - 947.3 450 SV-3 BEFORE SEAT DRN MOV OUTLET (MOV-SV3) A105 1.5" sw
Sp911 oe STEAM - 457.7 461 - 451 460 1STAGE REHEATER STEAM SOURCE DRAIN A182-F22 1" sw $D135 ne STEAM - 947.3 540 - 947.3 450 SV-5 BEFORE SEAT DRN MOV OUTLET (MOV-SV5) A105 1.5" sw
B $D913 oe STEAM - 457.7 461 - 451 460 MOV-1RSDV-1A OUTLET A182-F22 1" sw SD145 ne STEAM 0 947.3 540 - 947.3 450 SV-7 BEFORE SEAT DRN MOV OUTLET (MOV-SV7) A105 1.5" sw
SD914 ile STEAM - 457.7 461 - 451 460 MOV-1RSDV-2A OUTLET A182-F22 1" sw SD250 SHT3H-1 STEAM - 912.7 536 - 912.7 536 MOV-CV OUTLET A106 B 2" sw
SHT 5 MAIN STM REHEATER STEAM SOURCE 2ND 42"
XRO20 A-5 STEAM 413317 | 747.3) 540 | 387665 187.6 936 REHEATER A234-WPB SCH80 BW STEAM SEAL & EXHAUST HOOD SPRAYS SYSTEM PIPING
SHT 5 MAIN STM REHEATER STEAM SOURCE 2ND 42"
XRO10 , STEAM 413317 747.3 540 387665 187.6 536 A234-WPB BW $s191 SHT 6 STEAM 12547 866 329 3635 83.7 327 AOV-SSFVX INLET A106-B 8" SCH.40 SW
A-4 REHEATER SCH80 G-4
= SHT4 MAIN STM REHEATER STEAM SOURCE 2ND ; 258
SD902 B-5 STEAM - | FATS) 940 : 187.6 936 REHEATER CLEAN OUT A105 1 sw cooit1 = SEES CONDENSATE (cpm) 620. 125-∞O(GPM) ~? 300 92.7 EXHAUST HOOD WATER SPRAY BYPASS A106-B 2"S80 SW
SHT 4 MAIN STM REHEATER STEAM SOURCE 2ND
SD901 Bo STEAM 747.3 540 187.6 536 REHEATER CLEAN OUT A105 1 sw cbo11 a cea rnenacelia (GPM) 620. 125 0(GPM) 300 92.7 EXHAUST HOOD WATER SPRAY INLET A106-B 3" STD BW
SHT 5 MAIN STM REHEATER STEAM SOURCE 2ND ;
SD904 B-5 STEAM - 747.3 | 540 - 187.6 936 REHEATER DRAIN A105 { sw GC102 sare WATER 8298 10 150 3958 -0.2 120 FWPT PACKING VENT A106-B 3" BW
SD903 ?Ba STEAM - | FA7.3 | 540 - 187.6 936 MAINT MREHEATER DRAIN we A105 " sw GC103 SHT 6 STEAMIAIR 58540 450. 2347cFM. 133 GLAND STEAM CONDENSER VENT A106-B 8" BW
- AG 12784 InHG INHG.G (REFER TO 9-511-147-L-T-174-001) °
~ SD905 ae STEAM - 747.3. 540 - 187.6 536 MOV-2RSDV-1A OUTLET A182 F22 1" sw Gceo1 SHT 6 STEAM /AIR 525 io | on 642 02 O14 EWPT PACKING VENT MO06-B 3" BW
C-7 M17 a ?
SHT 4 ;
SD906 B-8 STEAM - 747.3. 540 - 187.6 536 MOV-2RSDV-2A OUTLET A182 F22 1 sw sp601 SHT 6 STEAM ; 20 | 240 ; 4 995 SSH LOW POINT DRAIN M06-B " sw
SHT 4 MAIN STM REHEATER STEAM SOURCE 2ND ;
SD907 B-4 STEAM - 747.3 | 540 - 187.6 536 REHEATER CLEAN OUT A182 F22 { sw Ss601 on STEAM - 20. 240 - 4 225 FWPT SEAL STEAM A105 8"SCH.40 BW
SHT 4 MAIN STM REHEATER STEAM SOURCE 2ND ;
$D908 B-5 STEAM ~ | F473 | 540 - 187.6 536 REHEATER CLEAN OUT A182 F22 ' sw GC104 sare cee 12668320 520 135 11519731 300 92 GSC WATER INLET A106-B 34" FL
MSR DRAIN SYSTEM PIPING GC105 ore cea rnenacelia 12668320 520 135 11519731 300 92 GSC WATER OUTLET A106-B 34" FL
sp021 ie WATER - 457.7 461 - 451 460 4ST STAGE REHEATER DRAIN SA106-B SCH 100 | BW SHT 6 49" SCH
- $312 F8 STEAM 37200 -27 240 9681 -27 230 SPU A106-B 4.
sp011 ae WATER - 457.7 461 - 451 460 4ST STAGE REHEATER DRAIN SA106-B SCH 400. BW SHT 6 6" SCH
: $221 Hot STEAM 38762 250 395 20693 175 377 MOV-S6 INLET A106-B 10 BW
sp021-1 ae STEAM 2946 420.8 453 - 420.8 453 1ST STAGE REHEATER SCAVANGING FLOW SA106-B SCH 100 | BW SHT 6
D : $S121 G4 STEAM 38976 947.3 540 20766 947.3 540 MOV-S1 INLET A106-B 4"SCH.40 BW
$D011-1 ae STEAM 2946 420.8 453 - 420.8 453 1ST STAGE REHEATER SCAVANGING FLOW SA106-B SCH 400. BW SHT6
° $8413 p2 STEAM 0 10 321 0 0 91.7 R1A DRAIN A106-B 4" sw
SD022 ae WATER - 947.3 540 - 918.4 536 2ND STAGE REHEATER DRAIN SA106-B SCH 100 «BW SHT 6 FL 150
- $8412 p2 STEAM 52000 10 321 0 0 91.7 R1A OUTLET A105 10" RE
$D012 ae WATER - 947.3 540 - 918.4 536 2ND STAGE REHEATER DRAIN SA106-B SCH 12 BW SHT 6
: 120 $S423 F3 STEAM 0 10 321 0 0 91.7 R1B DRAIN A105 4" sw
~~ spoz21 SH STEAM 7857 909.5 5352 ~~ - 909.5 535.2 2ND STAGE REHEATER SCAVANGING FLOW SA106-B scHiz0 BW Sr FL 150
=; - $422 a STEAM 52000 10 321 0 0 91.7 R1B OUTLET A105 10 RE
$D012-1 - STEAM 7857 909.5 535.2 - 909.5 535.2 2ND STAGE REHEATER SCAVANGING FLOW SA106-B SscHi20 BW SHT6 FL 150
- $8432 F3 STEAM 52000 10 321 0 0 91.7 R1C OUTLET A105 10" RE
$0020 ale WATER - 193-385 - 180 379 MOISTUER SEPARATOR DRAIN SM106-B scnao BW SHT6
: $8443 pA STEAM 0 10 321 0 0 91.7 R1D DRAIN A105 4" sw
SD010 ae WATER - 193 385 - 180 379 MOISTUER SEPARATOR DRAIN SA106-B scn 4 BW SHT 6
- 40 $8433 F3 STEAM 0 10 321 0 0 91.7 R1D OUTLET A105 4" sw
H SD919 aD STEAM - 193.4 507 - 187.6 507 MSR B POCKET DRAIN A106-B 1-1/2 sw SHT 6 FL 150
: $8442 pA STEAM 52000 10 321 0 0 91.7 R1D OUTLET A105 10" RE
SD920 mB STEAM - 193.4 507 - 187.6 507 MSR B POCKET DRAIN A106-B 1-1/2 sw SHT 6
- SS453 pA STEAM 0 10 321 0 0 91.7 R1E DRAIN A105 4" sw
SD917 aw STEAM - 193.4 507 - 187.6 507 MSR A POCKET DRAIN A106-B 1-1/2 sw SHT 6 FL 150
- $8452 pA STEAM 52000 10 321 0 0 91.7 R1E OUTLET A105 10" RE
SD918 a STEAM - 193.4 507 - 187.6 507 MSR A POCKET DRAIN A106-B 1-1/2 sw SHT 6
° $8403 G2 STEAM 0 60 366 0 0 91.7 R2A DRAIN A105 4" sw
SHT 6 ; FL 150
TURBINE STEAM DRAINS & MISC. SYSTEM PIPING $S402 G2 STEAM 193616 60 366 0 0 91.7 R2A OUTLET A105 10 RE
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ;
$D770 B-3 STEAM - 195 | 385 - 194.8 382 OUTLET (MOV-CA2) A105 2 Sw $8406 oe STEAM 0 60 366 0 0 91.7 R2B DRAIN A105 1 sw
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ;
SD760 B-3 STEAM - 195 | 385 - 194.8 382 OUTLET (MOV-CA2) A105 2 sw $S405 oe STEAM 193616 60 366 0 0 91.7 R2B OUTLET A105 10" mee
; SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ;
G SD790 3.3 STEAM - 195 385 - 194.8 382 OUTLET (MOV-CA2) A105 2 sw HP SHELL DRAIN
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ; SHT 5 ; ; ;
SD780 B-3 STEAM - 195 385 - 194.8 382 OUTLET (MOV-CA2) A105 2 sw SD522 C2 STEAM 912.7 536 912.7 536 INNER SHELL DRAIN A182 F22 CL.3 2 sw
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ; SD512 SHT 5 STEAM - 912.7 536 - 912.7 536 INNER SHELL DRAIN A182 F22 CL.3 2" sw
SD785 B-3 STEAM - 195 385 - 194.8 382 OUTLET (MOV-CA2) A105 2 sw C1
SHT 5
SD755 SHT 3 STEAM : 195 | 385 : 194.8 389 CROSSAROUND PPG LOW POINT DRN MOV M105 > sw SD615 E4 STEAM - 494.8 456.9 - 494.8 456.9 SSD-3 OUTER SHELL DRN MOV OUTLET A182 F22 CL3 2 sw
B-3 OUTLET (MOV-CA2)
SHT 5
= SD625 STEAM - 494.8 456.9 - 494.8 456.9 D-4 OUTER SHELL DRN MOV OUTLET A182 F22 CL3 2 sw
SD725 SHT 3 STEAM : 195 | 385 : 194.8 382 CROSSAROUND PPG LOW POINT DRN MOV M105 > sw i SSD-4 OUTER S OV OU
B-3 OUTLET (MOV-CA2)
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ;
SD775 3.3 STEAM - 195 385 - 194.8 382 OUTLET (MOV-CA2) A105 2 sw
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV
. 1 . 2 "
SD765 B-3 STEAM 95 | 385 194.8 38 OUTLET (MOV-CA2) A105 2 sw
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV
- 1 4. "
- SD735 Ad STEAM . 195 385 94.8 382 OUTLET (MOV-CA3) A105 2 sw ;
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ; FOR REY
SD745 3.2 STEAM - 195 385 : 194.8 382 OUTLET (MOV-CA4) A105 2 sw
SD715 SHT 3 STEAM : 495 | 385 194.8 382 CROSSAROUND PPG LOW POINT DRN MOV M105 oe sw
Ass OUTLET KOREA FAR - CO.,LT
lan | Ae AB Ba ? < L i). i
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ; ?
SD730 A-3 STEAM - 195 385 _ 194.8 382 OUTLET A105 2 SW SHIN?HANUL NUCLEAR POWER PLANT UNITS 3&4
5p720 SHT 3 STEAM ; 195 | 385 194.8 380 CROSSAROUND PPG LOW POINT DRN MOV M105 > sw
? A-3 - OUTLET epze
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ; DOOSA NN - b | t
SD740 AD STEAM - 195 385 ; 194.8 382 OUTLET A105 2 sw Nn a if | |
SHT 3 CROSSAROUND PPG LOW POINT DRN MOV ;
SD750 AD STEAM - 195 385 ; 194.8 382 OUTLET A105 2 sw coe
ES702 sae STEAM 371533 195 385 350000 194.8 382 CROSSAROUND TO #5 HEATER A234M-WPBW 22" XS BW PSI, O iA |
This drawing is the property of DOOSAN re QO £4 fava? Yy TM 4nNnEe AN? SAS 6
Enerbility Chang?Won, Korea, and is not to be PROJECT DWG NO ITO UU lu YUol-vUU ane
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information for making of drawing or /A\ | 2024.08.26 FIRST ISSUE S.M.LEE S.MLEE | T.JLHWANG | T.J.HWANG | K.H.KIM JOB NO. ay AREA CODE SCALE REV.
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MAIN & CROSSAROUND STEAM SYTSEM PIPING
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INTERFACE PT. ZONE FLUID TYPE MAX FLOW PRESS TEMP FLOW PRSSURE TEMP. CONNECTION DESCRIPTION MATERIAL CONN. SIZE INTERFACE INTERFACE PT. ZONE FLUID TYPE MAX FLOW PRESS TEMP FLOW PRSSURE TEMP. CONNECTION DESCRIPTION MATERIAL CONN. SIZE INTERFACE
NAME SHEET NO. LB/HR TYPE NAME SHEET NO. LB/HR TYPE
PSIG F LB/HR PSIG F PSIG F LB/HR PSIG F
XR109 SHT 3 A-7 STEAM 97840 193.4 507 94020 187.6 507 MSR A TO FWPT A234M-WPBW 16" STD BW MS812 SHT 3 E-1 STEAM 0 947.3 540 0 947.3 536 MAIN STEAM LEAD PRESS. TRANS. A106 B 1" Sw
-?-= XR209 SHT 3 G-6 STEAM 97840 193.4 507 94020 187.6 507 MSR B TO FWPT A234M-WPBW 16" STD BW MS702 SHT 3 E-1 STEAM 0 947.3 540 0 947.3 536 MAIN STEAM LEAD THERMOCOUPLE - NA SW ~---
MS100 SHT 3 D-2 STEAM 4505626 947.3 540 4291072 947.3 540 MAIN STOP VALVE #1 INLET SEE DWG 9-511-092-L-T-174-002 BW MS701 SHT 3 D-1 STEAM 0 947.3 540 0 947.3 536 MAIN STEAM LEAD THERMOCOUPLE NIA Sw
MS200 SHT 3 E-2 STEAM 4505626 947.3 540 4291072 947.3 540 MAIN STOP VALVE #2 INLET SEE DWG 9-511-092-L-T-174-002 BW
MS300 SHT 3 D-2 STEAM 4505626 947.3 540 4291072 947.3 540 MAIN STOP VALVE #3 INLET SEE DWG 9-511-092-L-T-174-002 BW
) MS400 SHT 3 E-2 STEAM 4505626 947.3 540 4291072 947.3 540 MAIN STOP VALVE #4 INLET SEE DWG 9-511-092-L-T-174-002 BW)
XR901 (RV-1) SHT 3 A-5 STEAM 1799482 68.7 388 - 0 70 RV-1 VENT A216 WCB 24" FL #150 RF $D110 SHT3 B-2 STEAM Warer NE - -0.69 475 - -0.69 475 STEAM PIPE DRAIN A106-B 2" Sw
XR902 (RV-2) SHT 3 A-5 STEAM 2416425 68.7 388 - 0 70 RV-2 VENT A216 WCB 24" FL #150 RF ES440 SHT 5 B-4 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPA E11A-GE 18" BW
XR903 (RV-3) SHT 3 A-5 STEAM 1894206 68.7 388 - 0 70 RV-3 VENT A216 WCB 24" FL #150 RF ES430 SHT 5 B-3 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPA E11A-TE 18" BW
XR911 (RV-4) SHT 3 G-5 STEAM 1831057 68.7 388 - 0 70 RV-4 VENT A216 WCB 24" FL #150 RF ES441 SHT 5 B-4 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPA E11B-GE 18" BW
XR912 (RV-5) SHT 3 G-5 STEAM 2377445 68.7 388 - 0 70 RV-5 VENT A216 WCB 24" FL #150 RF ES431 SHT 5 B-3 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPA E11B-TE 18" BW
XR913 (RV-6) SHT 3 G-5 STEAM 1862632 68.7 388 - 0 70 RV-6 VENT A216 WCB 24" FL #150 RF ES500 SHT 5 B-6 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPB E11A-GE 18" BW
A ETC. ES490 SHT 5 B-5 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPB E11A-TE 18" BW ~
~ MAX MAX NORMAL NORMAL NORMAL " ~
INTERFACE PT. ZONE FLUID TYPE MAX FLOW PRESS TEMP FLOW PRSSURE TEMP. CONNECTION DESCRIPTION MATERIAL CONN. SIZE INTERFACE ES501 SHT 5 B-6 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPB E11B-GE 18 BW
NAME SHEET NO. LB/HR PSIG F LB/HR PSIG F TYPE
ES491 SHT 5 B-5 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPB E11B-TE 18" BW
ES474 SHT 5 B-3 STEAM 29469 ?11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPA E13D-TE 30" BW
ES640 SHT 5 B-8 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPC E11A-GE 18" BW
ES561 SHT 5 B-6 STEAM 29469 ?11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPB E13A-GE 30" BW
a ES590 SHT 5 B-7 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPC E11A-TE 18" BW a
ES551 SHT 5 B-5 STEAM 29469 ?11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPB E13A-TE 30" BW
ES601 SHT 5 B-8 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPC E11B-GE 18" BW
ES560 SHT 5 B-6 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPB E13B-GE 30" BW
ES591 SHT 5 B-7 STEAM 39839 0.7 214.3 37763 0.1 212.3 STG 11 EXTRACTION LPC E11B-TE 18" BW
ES550 SHT 5 B-5 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPB E13B-TE 30" BW
ES461 SHT 5 B-4 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPA E12A-GE 24" BW
ES562 SHT 5 B-6 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPB E13C-GE 30" BW
) ES451 SHT 5 B-3 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPA E12A-TE 24" BW)
ES552 SHT 5 B-5 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPB E13C-TE 30" BW
ES462 SHT 5 B-4 STEAM 40783 74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPA E12B-GE 24" BW
ES563 SHT 5 B-6 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPB E13D-GE 30" BW
ES452 SHT 5 B-3 STEAM 40783 74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPA E12B-TE 24" BW
ES553 SHT 5 B-5 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPB E13D-TE 30" BW
ES541 SHT 5 B-6 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPB E12A-GE 24" BW
ES661 SHT 5 B-8 STEAM 29469 ?11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPC E13A-GE 30" BW
> ES531 SHT 5 B-5 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPB E12A-TE 24" BW a
ES651 SHT 5 B-7 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPC E13A-TE 30" BW
ES540 SHT 5 B-6 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPB E12B-GE 24" BW
ES660 SHT 5 B-8 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPC E13B-GE 30" BW
ES530 SHT 5 B-5 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPB E12B-TE 24" BW
ES650 SHT 5 B-7 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPC E13B-TE 30" BW
ES641 SHT 5 B-8 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPC E12A-GE 24" BW
GL! ES662 SHT 5 B-8 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPC E13C-GE 30" BW nh
ES631 SHT 5 B-7 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPC E12A-TE 24" BW
ES652 SHT 5 B-7 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPC E13C-TE 30" BW
ES640 SHT 5 B-8 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPC E12B-GE 24" BW
ES663 SHT 5 B-8 STEAM 29469 ?11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPC E13D-GE 30" BW
ES630 SHT 5 B-7 STEAM 40783 -74 178.7 38563 -7.69 176.9 STG 12 EXTRACTION LPC E12B-TE 24" BW
ES653 SHT 5 B-7 STEAM 29469 ?11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPC E13D-TE 30" BW
ES481 SHT 5 B-4 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPA E13A-GE 30" BW
7 ES020 SHT 5 B-2 STEAM 538457 465.3 462.9 492057 443.5 458.1 STG 3 EXTRACTION STG3-EXTA-GE 14" BW oe
ES471 SHT 5 B-3 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPA E13A-TE 30" BW
ES030 SHT 5 B-1 STEAM 538457 465.3 462.9 492057 443.5 458.1 STG 3 EXTRACTION STG3-EXTB-TE 14" BW
ES482 SHT 5 B-4 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPA E13B-GE 30" BW
ES210 STG 5 B-2 STEAM 508740 299 421.5 381202 285 417.3 STG 5 EXTRACTION STG5-EXT-GE 14" BW
ES472 SHT 5 B-3 STEAM 29469 ?11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPA E13B-TE 30" BW
ES200 SHT 5 B-1 STEAM 508740 299 421.5 381202 285 417.3 STG 5 EXTRACTION STG5-EXT-TE 14" BW
Ta ES483 SHT 5 B-4 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPA E13C-GE 30" BW Tn
a ES420 SHT 5 B-3 STEAM 172772 45.7 293.1 160291 43.2 291.6 STG 9 EXTRACTION LPA E9A-GE 20" BW 4
ES473 SHT 5 B-3 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPA E13C-TE 30" BW
ES410 SHT 5 B-3 STEAM 172772 45.7 | 293.1 160291 43.2 291.6 STG 9 EXTRACTION LPA E9B-TE 20" BW
ES484 SHT 5 B-4 STEAM 29469 -11.1 148.2 27328 -11.3 146.5 STG 13 EXTRACTION LPA E13D-GE 30" BW
ES520 SHT 5 B-5 STEAM 172772 45.7 293.1 160291 43.2 291.6 STG 9 EXTRACTION LPB E9A-GE 20" BW
ES510 SHT 5 B-5 STEAM 172772 45.7 293.1 160291 43.2 291.6 STG 9 EXTRACTION LPB E9B-TE 20" BW
ES620 SHT 5 B-8 STEAM 172772 45.7 293.1 160291 43.2 291.6 STG 9 EXTRACTION LPC E9A-GE 20" BW
ES610 SHT 5 B-7 STEAM 172772 45.7 293.1 160291 43.2 291.6 STG 9 EXTRACTION LPC E9B-TE 20" BW
Wwo004 SHT 6 E-5 WTRIOIL 30 GPM 15 220 0 0 80 WASTE WATER AND OIL A105 1.5" Sw
A? Wwo005 SHT 6 E-6 WTRIOIL 30 GPM 15 220 0 0 80 WASTE WATER AND OIL A105 1.5" Sw -~
Wwo006 SHT 6 E-7 WTRIOIL 30 GPM 15 220 0 0 80 WASTE WATER AND OIL A105 1.5" Sw ? ?_
wo001 SHT 6 E-4 WTRIOIL 30 GPM 15 220 0 0 80 WASTE WATER AND OIL A105 1.5" Sw 2 ae
wo002 SHT 6 E-4 WTRIOIL 30 GPM 15 220 0 0 80 WASTE WATER AND OIL A105 1.5" Sw SHIN?HANUL NUCLEAR POWER PLANT UNITS 3&4
WO0003 SHT 6 E-5 WTRIOIL 30 GPM 15 220 0 0 80 WASTE WATER AND OIL A105 1.5" Sw
DOOSAWN Enerbility
TITLE 7 7
This drawing is the property of DOOSAN re O £44 Ann 4 nm ne nn -
Enerbility Chang?Won, Korea, and is not to be PROJECT DWG NO J~OLL-UVUIL-L-1 UI-VUUY 3 OF
-eproduced or used to furnish any : ; ; :
information for making of drawing or A 2024.08.26 FIRST ISSUE 5.M.LEE 5.M.LEE T.J.HWANG | T.J.HWANG K.H.KIM JOB NO. C AREA CODE SCALE RE
apparatus except where provided for by
agreement with said company. REV. DATE DESCRIPTION DRN DGN CK RV APP 11064 N N/S A

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SHU34-MPS-DES-001/-/0/S/N2025022801001 z 3 4 OD 6 7 8
(6/1) 2OO-GOT?L?I-I6T?STS?6 noma - - , - WT. (ko) | pena
aos NO.| DESCRIPTION | MATERIAL|Q?TY| SIZE, DWG. NO. ? REMARK
UNI TOTAL
GENERAL LEGEND STANDARD FLOW CONTROL DEVICES(SEE NOTE#1)
LINE SYMBOLS COMPONENT SYMBOLS SHOWN IN "ON SHELF" POSITION, UNLESS OTHERWISE NOTED)
OIL OR | TABLE OF CONTENTS
HYDRAULIC CHECK VALVE N- <@ PRESSURE GAGE
FLUID FLUID PILOT-OPERATED, TWO-WAY SHEET
(SHUT-OFF) VALVE: NORMALLY (WITH
ELECTRICAL TEST VALVE x TRANSMITTER NO PRESSURE ON PILOT "X") CLOSED. 1. INDEX NOMENCLATURE, SYMBOLS
CONNECTION 2. HYDRAULIC ARRANGEMENT
B LINE TO RESERVOIR - 3. HYDRAULIC POWER UNIT B
AIR LINE SHUT-OFF VALVE LX ABOVE FLUID LEVEL
4. EMERGENCY TRIP SYSTEM
MOTOR-OPERATED LINE TO RESERVOIR - 5. MAIN STOP VALVES
WATER LINE Sn nn nn VALVE BELOW FLUID LEVEL
6. CONTROL VALVES
STEAM LINE 9000 o ooo PRESSURE SWITCH SUSLIBCTON 7. COMBINED INTERMEDIATE VALVES-1-2-3
| | 8. COMBINED INTERMEDIATE VALVES-4-5-6
LINES JOINING 9. LINE DESCRIPTION TABLE
| ELECTRIC MOTOR FILTER, STRAINER
REFERENCE DRAWING
HEAT EXCHANGER Tr?Te?eeeeamwss,_:
LINES CROSSINGS HYDRAULIC MOTOR ?+) (COOLER)
1. ARRANGEMENT - HYDRAULIC POWER UNIT
DRAWING: 9-515-345-L-T-174-001 (T1GE0200)
ee SPRING OFFSET SOLENOID-OPERATED
vps AY 2. PIPING-HYDRAULIC FLUID SYSTEM
COMPONENTS SHOWN | THREE-WAY VALVE: "P" CLOSED, "A
| | PUMP HEATER TO "T" WHEN DE-ENERGIZED: "P" TO DRAWING: 9-515-196-L-T-191-001 (T1GE0206)
IN PHANTOM, SUPPLIED "A", "T" CLOSED WHEN ENERGIZED. 3. PIPING NOTES-HYDRAULIC FLUID SYSTEM
BY CUSTOMER DRAWING: 9-515-196-L-T-479-001 (T1GB1530)
oe VARIABLE DISPLACEMENT 4. NOTES FOR HYDRAULIC POWER UNIT
D PUMP. HOLDING RESTRICTION. FIXED DRAWING: 9-515-345-L-T-479-001 (T1GB1529) D
LUBE OIL SYSTEM psi. 5. D760 TMA HYDRAULIC DIAGRAM
..P.S.1.G. «gz] SERVO VALVE-CLOSED CENTERS DRAWING: 9-515-191-L-T-105-001 (243D2007)
APPROX. 220 PS.G. WITH CLOSING BIAS, INTERNAL
MAIN PUMP DISCHARGE STRAINER AND INTERNAL JET 6. D760 TMA MECHANICAL OUTLINE
DRAWING: 9-515-191-L-T-171-001 (243D2008)
OIL ACCUMULATOR SUPPLY FROM FAS.
RESTRICTION, VARIABLE
(GAS CHARGED)
25 P.S.I.G, BEARING a> NOTES
HEADER OIL
POSITION SWITCH mA THERMOMETER 1. THE SYMBOLS USED HERE CONFORM TO THE AMERICAN
NATIONAL STANDARDS INSTITUTE (ANSI) SPECIFICATIONS.
NO ATTEMPT IS MADE TO SHOW ALL COMBINATIONS.
ER 18 TO 40 P.S.1.G. PUMP THERMOSTAT =| TEMPERATURE PRESSURE RELIEF VALVE REGULATING E
SUCTION OIL SENSING BULB UPSTREAM PRESSURE AT ...P.S.I.G. 2. ALL PRESSURE SWITCHES AND THERMOSTATS SHOULD BE SET
AT THE CONTACT CLOSING POINT WITH THE MEASURED
PARAMETER INCREASING OR DECREASING AS INDICATED IN THE
PLANT AIR SYSTEM TAP PLUG POINT FOR TABLES THROUGHOUT THIS DIAGRAM. THE RESET POINT
SENSING AND GAUGE CHECKUP ?_? (CONTACTS OPENING) IS AN APPROXIMATE VALUE AND IS
DEPENDENT ON THE DIFFERENTIAL BUILT INTO THE INSTRUMENT.
70 TO 105 P.S.1.G.
AIR (BY CUSTOMER)
70 TO 105 P.S.I.G.
TO EMERGENCY TRIP
EF AIR SYSTEM (ETAS) FE
HYDRAULIC FLUID SYSTEM
1600 P.S.I.G.
HYDRAULIC FLUID TO
OPERATING DEVICES
1600 P.S.I.G. INTERNAL
HYDRAULIC FLUID TO
C JETS OF SERVO FROM FAS C
1600 P.S.I.G. TO
EMERGENCY TRIP J, KOREA HYDRO & NUCLEAR POWER CO.,LTD
FLUID SYSTEM(ETS SHIN?HANUL NUCLEAR POWER PLANT UNITS 3&4
HYDRAULIC FLUID)
DOOSAWN Enerbilit
0TO50P.S.1.G. y
HYDRAULIC FLUID
DRAIN TITLE
DOOSAN DWG NO 9-515-191-L-T-105-002 SHEET

REV. DATE DESCRIPTION DRN DGN CK RV APP 11C64 N/S A

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1 2 3 4 = Atoll 2] E] (3) i) 6 A2(420X594 mim) CONT. NO ~ ~

ueyoouoexg[TW | LN30| JNOO]

wee| Gul Je8eu!6uZ BU!d!dg d99/89!A19S/20:80 SO0-?0-S202/887 GnoABues/8E:20 SO-?0-SZ0Z/eH ee HueMD/Z2:S| 82-20-S20z/6uer

) 6 7 8

SHU34-MPS-DES-001/-/0/S4N2025022801001 eC 3 4

(6/7) Z00-GOL-L-T-16L-G1LS-6 oN ome NO.| DESCRIPTION | MATERIAL/Q?TY| SIZE, DWG. NO. ~~ ae REMARK

(EMERGENCY TRIP SYSTEM)

TRIP SUPPLY
1. TAP PLUG FOR TEST (??_x)

2. CRITICAL CHECK VALVES IN THE HIGH ENERGY CONTAINED IN THE
EXTRACTION SYSTEM (HP TURBINE EXTRACTION) PROVIDE OVERSPEED
PROTECTION AND PARTIAL WATER INDUCTION PROTECTION.

TO KEEP THE PROBABILITY HIGH THAT THE VALVES WILL WORK PROPERLY,
B FUNCTION TESTING IS REQUIRED ACCORDING TO GEK72349C B

WHICH IS INCLUDED IN 9-510-001-L-T-431-001 (T/G INSTRUCTION BOOK).

NON-CRITICAL VALVES, THOSE NOT RETAINING SIGNIFICANT ENERGY,
(LP TURBINE EXTRACTION) PROVIDE SOME PROTECTION AGAINST
WATER OR COLD STEAM FLOWING INTO THE TURBINE AND QUITE SMALL
OVERSPEED CONTRIBUTION.

3. SEE DWG NO. (243D2007 / 9-515-191-L-T-105-001)
FOR "D760 TMA HYDRAULIC DIAGRAM"

HF040
D760 TMA (3/4-515-M-ZM05)
(NOTE 3)
HF041 | | SIDE A SIDE B | [HEO49
S760 TMA L S760 TMA |
DRA | MANIFOLD iL MANIFOLD | DRB
=~ MECHANICAL
| ? => LINKAGE |
D iL TSV D
(TRIP SYSTEM VENT)

TSD ie TSD

HF042
OO PRESSURE SWITCH NOTES
FRONT STANDARD (3/4-511-M-ZM01)
RY | PRESSURE SWITCH CONTACTS OPERATE AT PRESSURE
PAS-1 PAS-2 | (P.S.I.G.) INCREASE AND DECREASE AS FOLLOWS:
SWITCH INCREASE * DECREASE
ETS-PS3
HF043 ; : 650 (0 400 (C
B HF044 HF045 (3/4-515-J-PS-0032) (0) (C) E
ETS-PS4
ARDV-1 ARDV-2 (3/4-515-J-PS-0033) 650 (0) 400 (C)
< >
* DIFFERENTIAL IS NOT ADJUSTABLE.
AIR RELAY AIR RELAY ' INCREASING PRESSURE SETTINGS ARE APPROXIMATE.
DUMP VALVE 1 DUMP VALVE 2
Fp a CONTACTS OPEN (0) - CLOSE (C)
HF046 HF 047
| ETAS-1 ETAS-2
/ hv
3/4-515-V-0100
3/4-515-J-PS-0032 ETS-PS3 EMERGENCY TRIP AIR EMERGENCY TRIP AIR
. SYSTEM TO CRITICAL SYSTEM TO NON-CRITICAL
3/4-515-J-PS-0033 | ETS-PS4 EXTRACTION CHECK EXTRACTION CHECK
TWO OUT OF TWO VALVE AIR CYLINDERS VALVE AIR CYLINDERS
LOGIC (NOTE 2) (NOTE 2)
> HF048
ETS (TO FRONT STANDARD) ' ' FO R R E V | E W
DY, KOREA HYDRO & NUCLEAR POWER CO.,LTD
EMERGENCY SHIN?HANUL NUCLEAR POWER PLANT UNITS 3&4
TRIP SUPPLY
e e
ETS (TO MAIN STOP VALVES, CONTROL VALVES, DOOSA NM E ne rb | lity
COMBINED INTERMEDIATE VALVES)
TITLE
A DOOSAN DWG NO 9-515-191-L-T-105-002 ser | H

REV. DATE DESCRIPTION DRN DGN CK RV APP 11C64 N/S A

1 2 3 4 = AroL] wlele| (z) 5 6 A2(420X594 mim) CONT. NO - -

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6 7 8

SHU34-MPS-DES-001/-/0/S4N2025022801001 eg 3 4 fs)

(6/S) ZO0-SOL-L-T-161-SLS-6 ON ome NO.) DESCRIPTION |MATERIAL/Q?TY| SIZE, DWG. NO. ? a REMARK

MAIN STOP VALVE MAIN STOP VALVE

(SV-1) 3/4-511-V-0901 (SV-2) 3/4-511-V-0902
(SV-3) 3/4-511-V-0903
(SV-4) 3/4-511-V-0904

STOP VALVE
BY-PASS VALVE
PT-201 ON SV-1__| 3/4-511-J-PT-0135 N]
B STEAM INLET - STEAM INLET _ B
?
x | V0224 ?«-3/4-511-V-0224
STEM XH 0225 ?.3/4-511-V-0225 STEM
5 SEAL Ee
SEAL ~ STEAM OUTLET TO NIN ~ STEAM OUTLET TO
CONTROL VALVES is \\ CONTROL VALVES
Al
NA
C N ON C
||
D D
DISK DUMP DISK DUMP
VALVE (OPEN) CAVE (OPEN)
SHUT-OFF | -~?| SVOS7] 3/4-511-J-ZS-0901Y a [SVOS-2] 3/4-511-J-ZS-0902Y
0.030" DIA. / SVOS-3 | 3/4-511-J-ZS-0903Y
TL. ? SVOS-4 | 3/4-511-J-ZS-0904Y - ?=
SOV-SV1 | 3/4-515-V-0902R (CLOSED) SOVSVS 0.030" DIA. - (CLOSED)
E SOV-SV3 | 3/4-515-V-0908R = SVCS-1_| 3/4-511-J-ZS-0901X [SOV-Sv2 | { SVCS-2] 3/4-511-J-ZS-0902X ER
SOV-SV4_| 3/4-515-V-0911R SVCS-3 | 3/4-511-J-ZS-0903X 3/4-515-V-0905R
SS SVCS-4 | 3/4-511-J-ZS-0904X
y
A A
\k §V1-SD2 | | 3/4-515-V-0902 SV2-SV1
SV3-SD2 3/4-515-V-0908 3/4-515-V-0905
TEST SOLENOID SV4-SD2 | | 3/4-515-V-0910
VALVE
F ? EF
??
0.109" DIA.
(POSITION
?_ TRANSDUCER) ?_ TRANSDUCER)
? Svi-LT1 | 3/4-511-J-ZT-0901 ?= ?+?[SV2-LT1] 3/4-511-J-ZT-0902
0.109" DIA. SV3-LT1 3/4-511-J-ZT-0903 0.109" DIA.
p SV4-LT1_ | 3/4-511-J-ZT-0904 p
lyx lyx
WW | 7 | _\k??_{__Sv1-SD1 3/4-515-V-0903 WW /
SV3-SD1 3/4-515-V-0909 !
FAST-ACTING SV4-SD1 3/4-515-V-0911 FAST-ACTING 3/4-515-V-0906
SOLENOID SOLENOID
G VALVE FOR REVIEW G
Y
D KOREA HYDRO & NUCLEAR POWER CO.,LTD
SHIN?HANUL NUCLEAR POWER PLANT UNITS 3&4
DOOSAWN Enerbility
TITLE
DIAGRAM OF HYDRAULIC SYSTEM
A DOOSAN DWG No 9-515-191-L-T-105-002 ser |
Chang Won, Korea and is rot to be reproduced PROJECT DWG NO 9-515-191-L-T-105-002 5 OF 9
of cewing oF apparatus sxcent where provige , A\, |2024.08.07 FIRST ISSUE DH.KIM | DH.KIM | J.Y.GWAK | E.S.LEE | K.HKIM JOB NO. catty AREA CODE SCALE REV.
Tor By agreement with said company. REV. DATE DESCRIPTION DRN DGN CK RV APP 11C64 N/S A

1 2 3 4 = Molly Welel (2) 5 6 A2(420X594 mm) | CONT. NO - -

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wee} Gul J9eu!6uZ BU!d!dg d9Q/89!A19S//0:80 SO0-?0-S20z/987 anoABuesg/8e:20 SO-?0-SZ02/eH ee }OueMD/ZZ:S| 82-z0-S202/Huer ueBYyobuoeAg[WW! LNG! 4NO9]

6 7 8

SHU34-MPS-DES-001/-/0/S4N2025022801001 eg 3 4 fs)

(6/r) ZOO-SOL-L-T-161-SLS-6 ON ome NO.| DESCRIPTION |MATERIAL|Q?TY| SIZE, DWG. NO. ? a REMARK

CONTROL VALVE

( ) (3/4-511-V-0905)
( ) (3/4-511-V-0907)
(CV-3) (3/4-511-V-0906)
( ) (3/4-511-V-0908)

B B
?4 STEAM FROM
?? MAIN STOP
VALVES
W
C C
(OPEN)
3/4-511-J-ZS-0905Y | CVOS-1
3/4-511-J-ZS-0907Y | CVOS-2 DISK DUMP
3/4-511-J-ZS-0906Y | CVOS-3 VALVE
3/4-511-J-ZS-0908Y | CVOS-4 oN N
D (CLOSE) 0.030" DIA. D
3/4-511-J-ZS-0905X | CVCS-1 |_?_-[ous - ?
3/4-511-J-ZS-0907X | CVCS-2
3/4-511-J-ZS-0906X | CVCS-3
3/4-511-J-ZS-0908X | CVCS-4
i]
_ < /-
SHUT.OFF SOV-CV1 | 3/4-515-V-0914R sy
1 VALVE SOV-CV2_| 3/4-515-V-0917R
E SOV-CV3_| 3/4-515-V-0920R E
SOV-CV4 | 3/4-515-V-0923R
|
"R" "s"
(POSITION (POSITION
TRANSDUCER) TRANSDUCER) «yk CV1-SV1 3/4-515-V-0914
3/4-511-J-ZT-0905X | CV1-LT1 [| ?» 3/4-511-J-ZT-0905Y | CV1-LT2 a CV2-SV1 3/4-515-V-0917
3/4-511-J-ZT-0907X | CV2-LT1 3/4-511-J-ZT-0907Y | CV2-LT2 SERVO CV3-SV1 3/4-515-V-0920
F 3/4-511-J-ZT-0906X | CV3-LT1 3/4-511-J-ZT-0906Y | CV3-LT2 VALVE CV4-SV1 3/4-515-V-0923 F
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3/4-511-J-ZT-0905Z CV1-LT3 ?
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6 SOLENOID CV3-SD1 | 3/4-515-V-0921 FOR REVIEW C
VALVE CV4-SD1_ | 3/4-515-V-0924
D KOREA HYDRO & NUCLEAR POWER CO.,LTD
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Tor by agreement with said company. REV. DATE DESCRIPTION DRN DGN CK RV APP 11C64 N/S A

1 2 3 4 = Molly Welel (2) 5 6 A2(420X594 wm _) CONT. NO - -

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(6/6) ZOO-GOL-L-1-L61-GLG-6 oN 9a - - , - WT. (kg) | pe
as NO.} DESCRIPTION | MATERIAL|Q?TY| SIZE, DWG. NO. EMARK
UNIT | TOTAL
A
NQ
INTERFACE SHEET NO. FLUID NORMAL NORMAL NORMAL MAXIMUM MAXIMUM MAXIMUM INTERFACE SHEET NO. FLUID NORMAL NORMAL NORMAL MAXIMUM MAXIMUM MAXIMUM
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NAME PSIG (KG/CM2) °F (°C) GPM (LPM) PSIG (KG/CM2) °F (°C) GPM (LPM) NAME PSIG (KG/CM2) °F (°C) GPM (LPM) PSIG (KG/CM2) °F (°C) GPM (LPM)
HFO001 SHT. 2 G-3 HYDRAULIC 0 (0) 115 (46.1) 5 (18.9) 200 (14.1) 150 (65.5) 588.5 (2227.7) FLUID DRAIN HF200 SHT. 2 B-7 HYDRAULIC 1600 (112.5) 115 (46.1) 0.01 (0) 3000 (210.9) 150 (65.5) 3 (11.4) EMERGENCY TRIP SUPPLY
B HF002 SHT. 2 G-3 HYDRAULIC 0 (0) 115 (46.1) 2.2 (8.3) 200 (14.1) 150 (65.5) 220 (832.8) FLUID DRAIN HF201 SHT. 2 B-7 HYDRAULIC 0 (0) 115 (46.1) 0.4 (1.5) 200 (14.1) 150 (65.5) 55 (208.2) FLUID DRAIN
HYDRAU 0 (0) 115 (46.1) 5 (18.9) 200 (14.1) 150 (65.5) 588.5 (2227.7) FLUID DRAIN HF202 SHT. 2 B-7 HYDRAULIC 1600 (112.5) 115 (46.1) 0.39 (1.5) 3000 (210.9) 150 (65.5) 9.5 (36) FLUID SUPPLY
HYDRAU 1600 (112.5 115 (46.1) 3.6 (13.6) 3000 (210.9 150 (65.5) 380 (1438.5) FLUID SUPPLY HF210 SHT. 2 B-6 HYDRAULIC 1600 (112.5) 115 (46.1) 0.01 (0) 3000 (210.9) 150 (65.5) 3 (11.4) EMERGENCY TRIP SUPPLY
HYDRAU 1600 (112.5 115 (46.1) 0.55 (2.1) 3000 (210.9 150 (65.5) 19 (71.9) FLUID SUPPLY HF211 SHT. 2 B-6 HYDRAULIC 0 (0) 115 (46.1) 0.4 (1.5) 200 (14.1) 150 (65.5) 55 (208.2) FLUID DRAIN
HYDRAU 1600 (112.5 115 (46.1) 3.6 (13.6) 3000 (210.9 150 (65.5) 380 (1438.5) FLUID SUPPLY HF212 SHT. 2 B-6 HYDRAULIC 1600 (112.5) 115 (46.1) 0.39 (1.5) 3000 (210.9) 150 (65.5) 9.5 (36) FLUID SUPPLY
HYDRAU 1600 (112.5 115 (46.1) 3.6 (13.6) 3000 (210.9 150 (65.5) 380 (1438.5) FLUID SUPPLY HF220 SHT. 2 B-5 HYDRAULIC. 1600 (112.5) 115 (46.1) 0.01 (0) 3000 (210.9) 150 (65.5) 3 (11.4) EMERGENCY TRIP SUPPLY
HYDRAU 1600 (112.5 115 (46.1) 0.5 (1.9) 3000 (210.9 150 (65.5) 1 (3.8) FLUID TRIP SUPPLY HF221 SHT. 2 B-5 HYDRAULIC 0 (0) 115 (46.1) 0.4 (1.5) 200 (14.1) 150 (65.5) 55 (208.2) FLUID DRAIN
HYDRAU 115 (46.1) 200 (14.1) 150 (65.5) 1 (3.8) TRIP SYSTEM DRAIN HF222 SHT. 2 B-5 HYDRAULIC 1600 (112.5) 115 (46.1) 0.39 (1.5) 3000 (210.9) 150 (65.5) 9.5 (36) FLUID SUPPLY
HYDRAU 115 (46.1) 200 (14.1) 150 (65.5) 0.1 (0.4) TRIP SYSTEM VENT HF230 SHT. 2 D-5 HYDRAULIC 1600 (112.5) 115 (46.1) 0.01 (0) 3000 (210.9) 150 (65.5) 3 (11.4) EMERGENCY TRIP SUPPLY
HYDRAU 115 (46.1) 3000 (210.9) 150 (65.5) 1 (3.8) FLUID RESERVOIR FILL HF231 SHT. 2D-5 HYDRAULIC 0 (0) 115 (46.1) 0.4 (1.5) 200 (14.1) 150 (65.5) 55 (208.2) FLUID DRAIN
HYDRAULIC 0 (0) 115 (46.1) 0 (0) 150 (65.5) 1 (3.8) FLUID RESERVOIR DRAIN HF232 SHT. 2 D-5 HYDRAULIC. 1600 (112.5) 115 (46.1) 0.39 (1.5) 3000 (210.9) 150 (65.5) 9.5 (36) FLUID SUPPLY
C HYDRAULIC 1600 (112.5) 115 (46.1) 3000 (210.9) 150 (65.5) 1 (3.8) FLUID TRIP SUPPLY HF240 SHT. 2 D-6 HYDRAULIC. 1600 (112.5) 115 (46.1) 0.01 (0) 3000 (210.9) 150 (65.5) 3 (11.4) EMERGENCY TRIP SUPPLY
HYDRAULIC 0 (0) 115 (46.1) 200 (14.1) 150 (65.5) 1 (3.8) TRIP SYSTEM DRAIN HF 241 SHT. 2 D-6 HYDRAULIC 0 (0) 115 (46.1) 0.4 (1.5) 200 (14.1) 150 (65.5) 55 (208.2) FLUID DRAIN
HYDRAULIC 0 (0) 115 (46.1) 200 (14.1) 150 (65.5) 0.1 (0.4) TRIP SYSTEM VENT HF242 SHT. 2 D-6 HYDRAULIC 1600 (112.5) 115 (46.1) 0.39 (1.5) 3000 (210.9) 150 (65.5) 9.5 (36) FLUID SUPPLY
HYDRAULIC 1600 (112.5) 115 (46.1) 0.62 (2.3) 3000 (210.9) 150 (65.5) 9.12 (34.5) EMERGENCY TRIP SUPPLY HF250 SHT. 2 D-7 HYDRAULIC 1600 (112.5) 115 (46.1) 0.01 (0) 3000 (210.9) 150 (65.5) 3 (11.4) EMERGENCY TRIP SUPPLY
AIR 60 (4.2) 70.2 (21.1) 0.01 (0) 125 (8.8) 150 (65.5) 1 SCFM AIR RELAY DUMP SUPPLY HF251 SHT. 2 D-7 HYDRAULIC 0 (0) 115 (46.1) 0.4 (1.5) 200 (14.1) 150 (65.5) 55 (208.2) FLUID DRAIN
AIR 60 (4.2) 70.2 (21.1) 0.01 (0) 125 (8.8) 150 (65.5) 1 SCFM AIR RELAY DUMP SUPPLY HF252 SHT. 2 D-7 HYDRAULIC 1600 (112.5) 115 (46.1) 0.39 (1.5) 3000 (210.9) 150 (65.5) 9.5 (36) FLUID SUPPLY
AIR 60 (4.2) 70.2 (21.1) 0.01 (0) 125 (8.8) 150 (65.5) 1 SCFM EMERGENCY TRIP AIR SUPPLY HF048 SHT. 2 B-2 HYDRAULIC. 1600 (112.5) 115 (46.1) 0.62 (2.3) 3000 (210.9) 150 (65.5) 9.12 (34.5) EMERGENCY TRIP SUPPLY
AIR 60 (4.2) 70.2 (21.1) 0.01 (0) 125 (8.8) 150 (65.5) 1 SCFM EMERGENCY TRIP AIR SUPPLY HF049 SHT. 2 F-2 HYDRAULIC 0 (0) 115 (46.1) 0.5 (1.9) 200 (14.1) 150 (65.5) 1 (3.8) TRIP SYSTEM DRAIN
HYDRAU 1600 (112.5) 115 (46.1) 3000 (210.9) 150 (65.5) 3 (11.4) EMERGENCY TRIP SUPPLY
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E HYDRAU 1600 (112.5) 115 (46.1) 0.01 (0) 3000 (210.9) 150 (65.5) 0.02 (0.1) EMERGENCY TRIP SUPPLY
HYDRAU 0 (0) 115 (46.1) 0.7 (2.6) 200 (14.1) 150 (65.5) 95.5 (361.5) FLUID DRAIN
HYDRAU 1600 (112.5) 115 (46.1) 0.9 (3.4) 3000 (210.9) 150 (65.5) 95 (359.6) FLUID SUPPLY
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