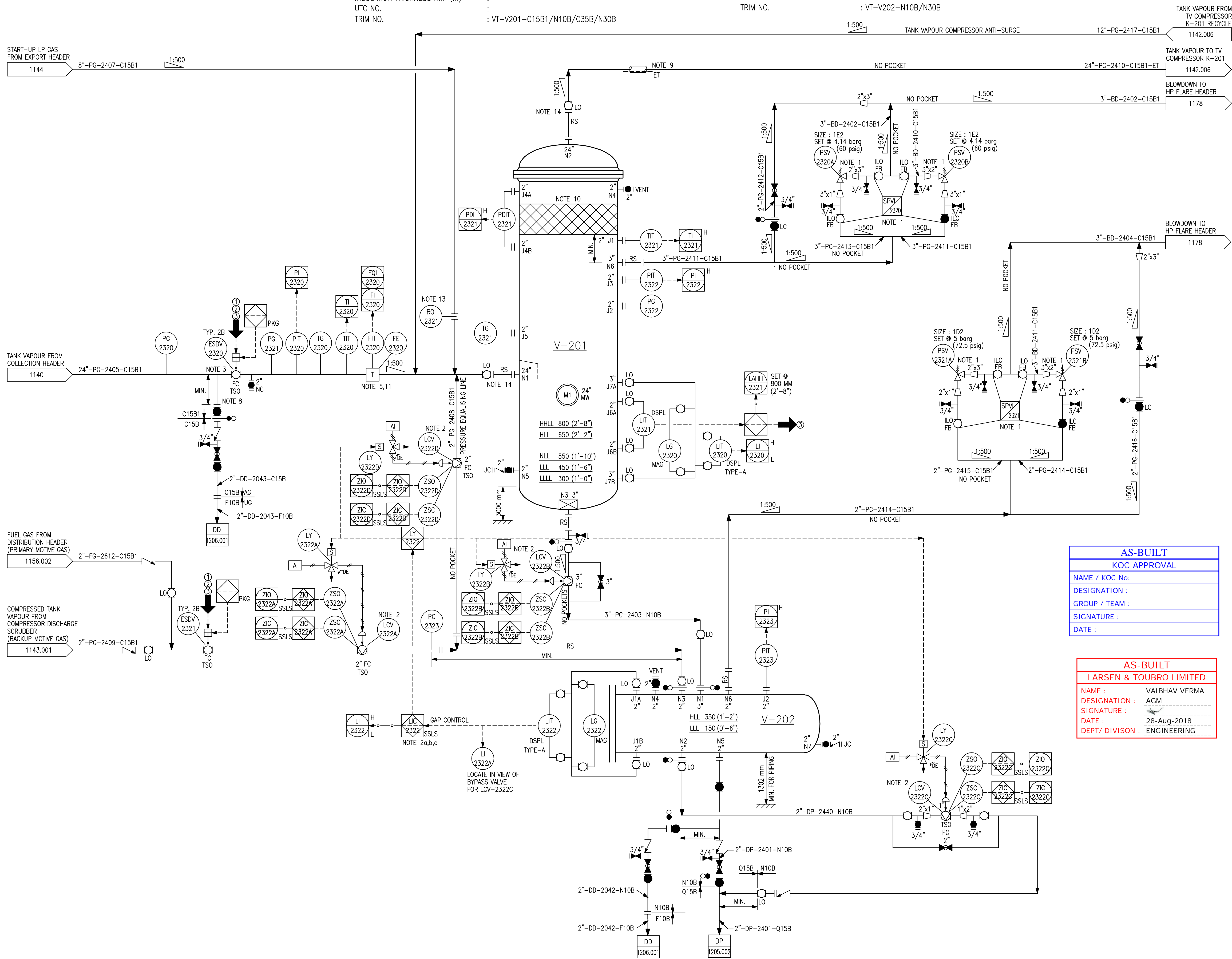


V-201
TANK VAPOUR COMPRESSOR SUCTION SCRUBBER (TRAIN B)
DUTY: VAPOUR - Nm3 (MMSCFD) : 3216 (2.875)
LIQUID - m3/hr (BPD) : 0.662 (100)
OD mm (ft.-in) : 1016 (3'-4")
HEIGHT (TL-FLANGE FACE) mm (ft.-in) : 3124 (10'-3")
OP PRESS /DES PRESS barg (PSIG) : 0.0048/4.14(0.0696/60.03) FV
OP TEMP/DESIGN TEMP °C (°F) : 36.56~56.61/140/-3 (98~134/284/27)
CORROSION ALLOWANCE mm (in) : 3 (0.118)
INSULATION THICKNESS mm (in) :
UTC NO. :
TRIM NO. : VT-V201-C15B1/N10B/C35B/N30B

V-202
SCRUBBER DRAIN SEAL DRUM (TRAIN B)
DUTY LIQUID m3/hr (BPD) : 0.662 (100)
OD mm (ft.-in) : 406 (1'-4")
LENGTH (T/T) mm (ft.-in) : 1680 (5'-6")
OP PRESS /DES PRESS barg (PSIG) : 0.0048~4.5/FV (0.0696~58/72.5/FV)
OP TEMP/DESIGN TEMP °C (°F) : 42.32~56.4/93/-3 (108.2~133.5/200/27)
CORROSION ALLOWANCE mm (in) :
INSULATION THICKNESS mm (in) :
UTC NO. :
TRIM NO. : VT-V202-N10B/N30B



- GENERAL NOTES:
- A. FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
 - B. ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 530--.
 - C. ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 030--.
 - D. FOR TYPICAL INSTRUMENT CONNECTION, SBDV, XV, MOV & ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.001, .002, .003, .004, .005, .006 & .007.
 - E. FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE & GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, PUMPS, STRAINERS & CONTROL VALVES SEE DRAWINGS 50489-530-020-PID-1108.001 TO 1108.010.
 - F. DRAWING NUMBERS SHOWN IN P&ID CONTINUATION BOXES ARE ABBREVIATED SHOWING DRAWING SEQUENTIAL NUMBERS ONLY. THE FULL FORM OF THE DRAWING NUMBER IS 50489-530-020-PID-XXXX.SHT.NO.
 - G. FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
 - H. DETAIL NUMBERING FOR CL, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
 - I. PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
 - J. LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
 - K. FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
 - L. FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

NOTES:

1. RELIEF VALVE INLET AND DISCHARGE VALVES ARE KEY INTERLOCKED SUCH THAT ONE RELIEF VALVE IS ALWAYS ON LINE AT ANY TIME.

2 (a). ON HIGH LIQUID LEVEL IN V-202, LCV-2322D & LCV-2322B CLOSURES & LCV-2322C OPENS. AFTER A SHORT DURATION LCV-2322A OPENS.

(b). WHEN LEVEL IN V-202 REACHES MINIMUM, LCV-2322C, LCV-2322A CLOSURES & LCV-2322D OPENS. AFTER A SHORT DURATION LCV-2322B OPENS.

(c). LIC-2322 SET POINT OF SEQUENCE OPERATION FOR HIGH LEVEL & LOW LEVEL IS 300mm & 175mm RESPECTIVELY FOR GAP CONTROL.

V-202 LEVEL	LCV-2322A	LCV-2322B	LCV-2322C	LCV-2322D
LAH-2322	OPEN (10 SEC. DELAY)	CLOSE	OPEN	CLOSE
LAL-2322	CLOSE	OPEN (5 SEC. DELAY)	CLOSE	OPEN

3. COMPRESSOR SUCTION/DISCHARGE ESDVS AND ANTI-SURGE VALVE ARE OPENED BY STARTING SEQUENCE. ON COMPRESSOR TRIP SUCTION AND DISCHARGE ESDV'S ARE CLOSED AND ANTI SURGE VALVE OPENS.

4. DELETED.

5. INSERTION TYPE THERMAL MASS FLOW METER WITH 1 1/2" BALL VALVE.

6,7. DELETED.

8. THIS MANUAL VALVE IS OPEN PERIODICALLY WHEN TV COMPRESSOR SHUTDOWN OR OUT OF SERVICE.

9. LINE TO BE CHEMICALLY CLEANED PRIOR TO COMMISSIONING.

10. DEMISTER PAD IS DESIGNED FOR MAXIMUM PARTICLE SIZE 50 µm.

11. STRAIGHT LENGTH REQUIRED FOR THERMAL MASS FLOW METER ARE 100' UPSTREAM & 50' DOWNSTREAM.

12. ALL VALVES (MOV's/ESDV's/XV's/SBDV's) ARE FIRE SAFE INSIDE THE TV COMPRESSOR SHELTER.

13. RO SIZING IS BASED ON START UP GAS REQUIRED FOR TV COMPRESSOR.

14. DRIP RING WITH BLEED VALVE IS PROVIDED BETWEEN ISOLATION VALVE & REMOVABLE SPOOL PIECE FLANGE CONNECTION FOR BLEED PURPOSE. BLIND FLANGE TO BE PROVIDED AFTER DISMANTLING OF REMOVABLE SPOOL PIECE DURING MAINTENANCE.

AS-BUILT
KOC APPROVAL

NAME / KOC No. :
DESIGNATION :
GROUP / TEAM :
SIGNATURE :
DATE :

AS-BUILT
LARSEN & TOUBRO LIMITED

NAME : VAIBHAV VERMA
DESIGNATION : AGM
SIGNATURE :
DATE : 28-Aug-2018
DEPT/ DIVISION : ENGINEERING

ZO	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	28.08.18
01	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	29.11.16
0	ISSUED FOR CONSTRUCTION	HSB/VSA	AKG	SRA	RAK	25.03.16
D	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	22.12.15
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	15.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	30.05.15
B	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	17.02.15
A	ISSUED FOR APPROVAL	BAK/VSA	AKG	SRA	RAK	05.12.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE

CONTRACTOR REVISION

KUWAIT OIL CO.
K. S. C.

شركة نفط الكويت
ش.م.ك.

CONTRACTOR DETAILS:-
LARSEN & TOUBRO LIMITED
FARIDABAD

PROJECT TITLE:-
NEW GATHERING CENTRE GC-30
IN NORTH KUWAIT

DOCUMENT TITLE:-
PIPING & INSTRUMENTATION DIAGRAM
TANK VAPOUR COMPRESSOR SUCTION SCRUBBER (V-201) TRAIN B

PROJECT NO.	DRAWING NO.
50489-530-020-PID-1141.002	REV. KOC DRG. NO.
SHEET NO. 2 OF 3	ZO
COMPANY DRG. NO.	REV.
EF1902-530-DCO-PID-0141.001	SHEET NO.
SHEET NO.	A4