



G-003C NOTE 9
CRUDE OIL BOOSTER PUMP
FLOWRATE m3/h (BPD) : 364 (55000)
DRIVER POWER KW (HP) : 110 (147.51)
DIFF PRESS ΔP bar (PSI) : 6.115 (88.7)
SP GRAVITY @ OP/OT : 0.897~0.843
FLUID VISCOSITY @ PT CP : 48~8
OP PRESS/DES PRESS barg (PSIG) : 6.19/8.97 (89.8/130)
OP TEMP/DESIGN TEMP °C (°F) : 15~65 (93/~3)/(59~149/200/27)
UTC NO. :
TRIM NO. : GT-G-003C-Q15B

GENERAL NOTES:

- FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
- ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 530--.
- ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 030--.
- FOR TYPICAL INSTRUMENT CONNECTION, SBDV, XV, MOV & ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.001, .002, .003, .004, .005, .006 & .007.
- 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.
- 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.
- FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
- DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
- PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
- LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
- FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
- FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

NOTES:

- DELETED.
- CHECK VALVES ARE OF THE NON-SLAM TYPE.
- DELETED.
- DUPLEX STRAINERS WITH PROPER DRAINAGE TO DRAIN SYSTEM. REFER P&ID:- 50489-530-020-PID-1108.004.
- INLINE BS&W ANALYZER IS INSTALLED.
- PIPING PURGE CONNECTION IS PROVIDED.
- TWO OFF 50% PUMPS OPERATING AND ONE OFF 50% STANDBY.
- PIPELINE PROBE, WITHDRAWABLE TYPE.
- FOR DETAILS OF AUTOMATIC SAMPLER SEE P&ID: 50489-530-020-PID-1108.002, 1275.001 & 1275.002.
- DELETED.
- PURGE CONNECTION IS PROVIDED TO PURGE THE PUMP FROM SUCTION LINE TO DISCHARGE LINE.
- ALL A/G PIPING SUPPORTS & MOV'S ARE FIRE PROOFED INSIDE THE CRUDE OIL BOOSTER PUMP SHELTER.
- STRAIGHT LENGTH REQUIREMENT FOR ORIFICE FLOW METER ARE 200 UPSTREAM & 50 DOWNSTREAM.
- BLEED POINT IS PROVIDED.
- FUTURE CHEMICAL INJECTION POINT FOR CHEMICAL INJECTION NOZZLE DETAIL SEE STANDARD DRAWING 50489-530-020-PID-1108.001. 300# CHEMICAL INJECTION QUILL SHALL BE PROVIDED FOR FUTURE.
- SUCTION LINES ARE SIZED FOR BOTH PUMPS TAKING FEED FROM ONE TANK DURING PUMP CHANGEOVER.

AS-BUILT

KOC APPROVAL

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

AS-BUILT

LARSEN & TOUBRO LIMITED

NAME : VAIBHAV VERMA
DESIGNATION : AGM
SIGNATURE :
DATE : 10-Oct-2018
DEPT/ DIVISION : ENGINEERING

Z1	RE-ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	10.10.18
Z0	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	01.09.18
Z	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	07.12.16
1	RE-ISSUED FOR CONSTRUCTION	HSB/VSA	AKG	SRA	RAK	13.06.16
0	ISSUED FOR CONSTRUCTION	HSB/VSA	AKG	SRA	RAK	22.03.16
D	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	23.12.15
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	15.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	30.05.15
B	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	30.01.15
A	ISSUED FOR APPROVAL	BAK/VSA	AKG	SRA	RAK	29.11.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE

CONTRACTOR REVISION

KUWAIT OIL CO.
K. S. C.



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ش.م.ك.

CONTRACTOR DETAILS:-



LARSEN & TOUBRO LIMITED
FARIDABAD

PROJECT TITLE:-

NEW GATHERING CENTRE GC-30
IN NORTH KUWAIT

DOCUMENT TITLE:-

PIPING & INSTRUMENTATION DIAGRAM
CRUDE OIL BOOSTER PUMP G-003C

PROJECT NO.	DRAWING NO.
CONTRACTOR DRG. NO.	REV. KOC DRG. NO.
50489-530-020-PID-1125.002	Z1
SHEET NO. 2 OF 2	SHEET NO.
COMPANY DRG. NO.	REV.
EF1902-530-DC0-PID-0125.002	A2
SHEET NO.	