



G-017A/B NOTE 7.9  
TV FLARE K.O DRUM PUMP

FLOWRATE m<sup>3</sup>/hr (BPD) : 15 (2264)  
DRIVER POWER KW (HP) : 15 (20.1)  
DIFF PRESS ΔP bar (PSI) : 5.34 (77.45)  
S.G. @ OP OT : 0.697-0.842  
FLUID VISCOSITY @ PT CP : 2.02  
OP PRESS/DES PRESS barg (PSIG) : 5.39/14.4 (78.2/209)  
OP TEMP/DESIGN TEMP °C (°F) : 15-55/93/-3 (59-131/200/27)  
UTC NO. :  
TRIM NO. : GT-G017A/B-Q15B

## GENERAL NOTES:

- FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
- ALL EQUIPMENT NUMBERS SHOWN ON THIS PAID ARE PREFIXED BY 530-.
- ALL INSTRUMENT NUMBERS SHOWN ON THIS PAID ARE PREFIXED BY 030-.
- FOR TYPICAL INSTRUMENT CONNECTION SREV, XV, MOV AND ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.002, .003, .004, .005 & .006.
- FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE AND GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, PUMPS & CONTROL VALVES SEE DRAWING 50489-530-020-PID-1108.001 TO 1108.010.
- DRAWING NUMBERS SHOWN IN PAID 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 O, SC, CC & OP SEE DRAWING 50489-530-020-PID-1108.003.
- PAINING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
- LOW POINT DRAIN & HIGH POINT VENT ARE PROVIDED AS PER PIPING LAYOUT.
- FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
- FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

## NOTES:

- H2 SET @ 750mm (2'-6") : START STANDBY PUMP BY SSLS  
H1 SET @ 650mm (2'-2") : START DUTY PUMP BY SSLS  
L SET @ 550mm (1'-8") : STOP DUTY & STANDBY PUMP BY SSLS  
LLL SET @ 300mm (1'-0") : STOPS DUTY AND STANDBY PUMPS BY ESD LOGIC
- DELETED.
- FLARE LINES ARE SLOPED AND NO POCKET TO FACILITATE DRAINING TO LOW POINT DRAIN/TV FLARE K.O DRUM.
- INSERTION TYPE THERMAL MASS FLOWMETER WITH 1 1/2" BALL VALVE.
- \* MARKED ITEM IS SUPPLIED BY TV FLARE VENDOR.
- DUPLEX STRAINERS WITH PROPER DRAINAGE TO DRAIN SYSTEM.
- TV FLARE PUMPS ARE ON EMERGENCY POWER SUPPLY ALSO.
- DELETED.
- ONE PUMP OPERATING AND ONE PUMP ON STAND-BY.
- LAHH INITIATES LEVEL 2 SHUTDOWN.
- DELETED.
- FALL-0569B LOGIC CAN INITIATE LEVEL-4 SHUTDOWN ONLY WHEN K.O DRUM PUMPS (G-017A/B) ARE IN RUNNING CONDITION (TIME DELAY 45 SEC.) EXCEPT THIS DURATION FALL-0569B LOGIC SHALL BE INACTIVATED.
- STRAIGHT LENGTH REQUIREMENT FOR THERMAL MASS FLOW METER ARE 100 UPSTREAM & 50 DOWNSTREAM.
- STRAIGHT LENGTH REQUIREMENT FOR ORIFICE FLOW METER SHALL BE 200 UPSTREAM & 50 DOWNSTREAM.
- BRIDLE VENT ARE ROUTED TO SAFE LOCATION.
- PURGE POINT.
- BLEED POINT.
- STANDBY PUMP SHALL AUTO START IF DUTY PUMP FAILS TO START ON DEMAND.
- DCS INDICATION NOT ALARM.

REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
Z1	RE-ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	27.09.18
Z0	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	28.08.18
01	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	21.11.16
0	ISSUED FOR CONSTRUCTION	PAK/VSA	AKG	SRA	RAK	31.03.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	28.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	BAK/SSI	AKG	SRA	RAK	02.06.15
B	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	18.02.15
A	ISSUED FOR APPROVAL	JSI/ABY	AKG	SRA	RAK	12.12.14

## CONTRACTOR REVISION

**KUWAIT OIL CO.**  
K. S. C.

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CONTRACTOR DETAILS:-

**LARSEN & TOUBRO LIMITED**  
FARIDABAD

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

DOCUMENT TITLE:-  
PIPING & INSTRUMENTAION DIAGRAM  
TV FLARE K.O DRUM (V-017)

PROJECT NO.	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.	REV.
EF1902	50489-530-020-PID-1176	Z1		
	SHEET NO. 1 OF 1			
	COMPANY DRG. NO.			
	EF1902-530-DCO-PID-0176.001	A3		