FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN "mm")

DRG. NO. 32210120501

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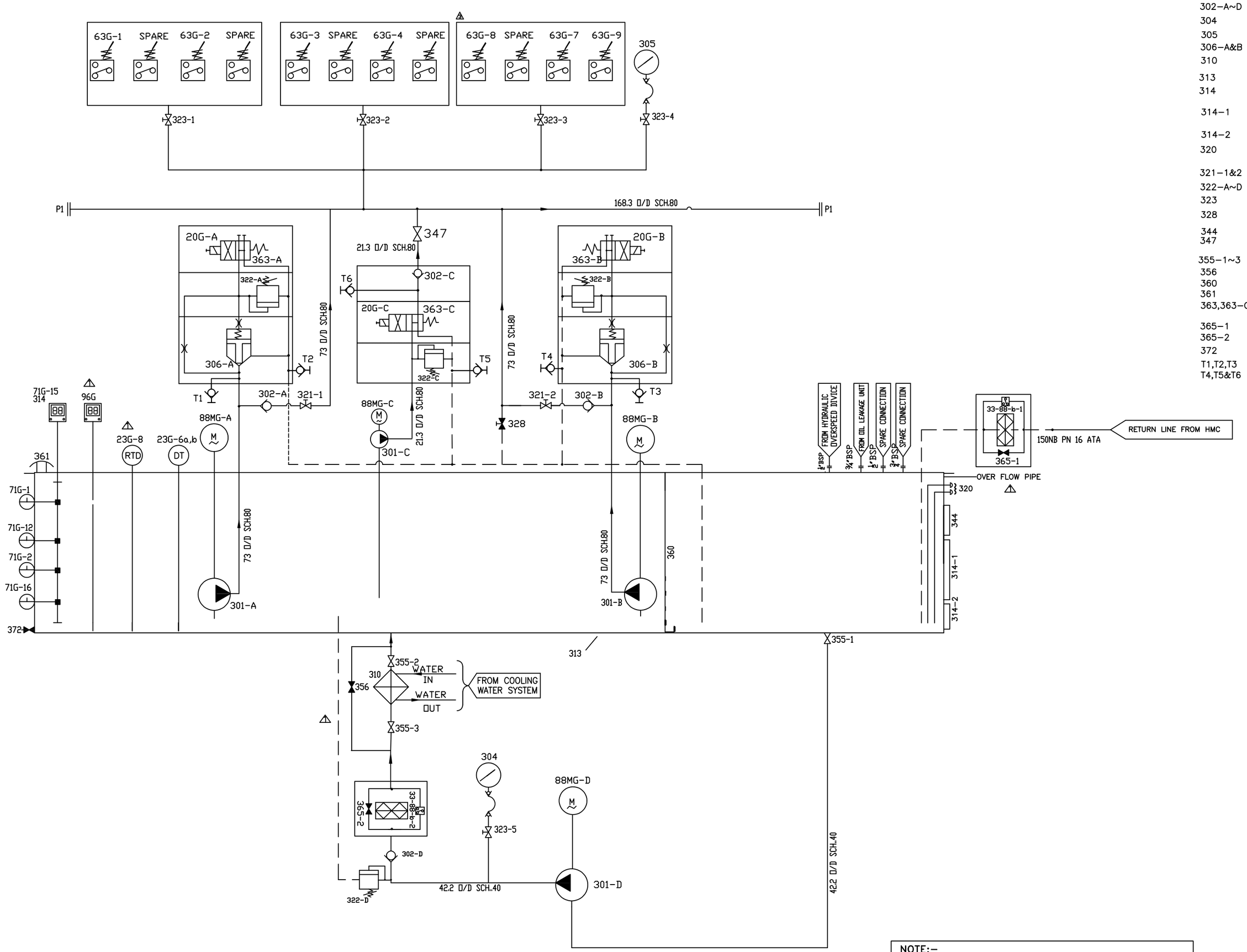

MECHANICAL DEVICES

301-A&B	TRIPLE SCREW OIL PUMP (MAIN & STANDBY)
301-C	JOCKEY OIL PUMP (GEAR/ VANE)
301-D	CIRCULATING PUMP FOR OIL FILTERATION UNIT (GEAR/ VANE)
302-A~D	CHECK VALVE
304	PRESSURE GAUGE
305	PRESSURE GAUGE
306-A&B	UNLOADER VALVE CARTRIDGE TYPE
310	WATER COOLED OIL COOLER
313	OIL SUMP TANK
314	OIL LEVEL SENSOR WITH CONTROLLER (CAPACITANCE TYPE)
314-1	OIL LEVEL SIGHT GAUGE(SHALL COVER FULL RANGE i.e. FROM BOTTOM TO TOP LEVEL)
314-2	STAINLESS STEEL GRADUATED SCALE
320	OIL PURIFIER CONNECTIONS FOR SUCTION & RETURN
321-1&2	ISOLATING VALVE AFTER 302
322-A~D	OIL SAFETY RELIEF VALVE
323	ISOLATING VALVE
328	OIL RELEASE VALVE
344	MANHOLE (SIZE 600 MM)
347	ISOLATING VALVE ON JOCKEY PUMP DISCHARGE LINE
355-1~3	ISOLATING VALVE
356	BY PASS VALVE FOR 310
360	OIL STRAINER WITH MAGNETS
361	AIR BREATHER
363,363-C	SOLENOID OPERATED VALVE FOR NO-LOAD START
365-1	DUPLEX FILTER ON RETURN LINE
365-2	DUPLEX FILTER ON OIL FILTERATION UNIT
372	DRAIN VALVE FOR 313
T1,T2,T3 T4,T5&T6	TEST POINTS

ELECTRICAL DEVICES

20G-A	SOLENOID FOR 363-A
20G-B	SOLENOID FOR 363-B
20G-C	SOLENOID FOR 363-C
23G-6a,b	DIAL TYPE THERMOMETER WITH ELECTRICAL CONTACT FOR HIGH TEMPERATURE ALARM & SHUTDOWN
23G-8	RESISTANCE TEMPARATURE DETECTOR (RTD)
33-88-b	SWITCH FOR RETURN LINE FILTER CLOGGING INDICATOR & ALARM
63G-1	ELECRONIC PRESSURE SWITCH CONTACT FOR MACHINE START AT NORMAL PRESSURE
63G-2	ELECTRONIC PRESSURE SWITCH CONTACT FOR SYSTEM PRESSURE VERY LOW SHUT DOWN
63G-3	ELECTRONIC PRESSURE SWITCH CONTACT FOR SYSTEM PRESSURE LOW ALARM
63G-4	ELECTRONIC PRESSURE SWITCH CONTACT FOR HIGH PRESSURE ALARM
63G-7	ELECTRONIC PRESSURE SWITCH CONTACT TO START & STOP STANDBY PUMP MOTOR 88MG-B
63G-8	ELECTRONIC PRESSURE SWITCH CONTACT FOR LOADING & UNLOADING JOCKEY PUMP MOTOR 88MG-C
63G-9	ELECTRONIC PRESSURE SWITCH CONTACT TO START & STOP MAIN PUMP MOTOR 88MG-A
71G-1	LEVEL SWITCH CONTACT OF P.P.SET OIL LEVEL GAUGE FOR ALARM AT HIGH LEVEL
71G-2	LEVEL SWITCH CONTACT OF P.P.SET OIL LEVEL GAUGE FOR ALARM AT LOW LEVEL
71G-12	LEVEL SWITCH CONTACT OF P.P.SET OIL LEVEL GAUGE FOR PUMP RESTART INTERLOCK
71G-15	OIL LEVEL TRANSMITTER ON 313
71G-16	OIL LEVEL VERY LOW FOR STOP 88MG-A & B
88MG-A	OIL PUMP MOTOR (MAIN)
88MG-B	OIL PUMP MOTOR (STANDBY)
88MG-C	OIL PUMP MOTOR (JOCKEY PUMP)
88MG-D	CIRCULATING PUMP FOR OIL FILTERATION SYSTEM
96G	ONLINE CONTAMINATION SENSOR WITH LOCAL DISPLAY AND REMOTE TRANSMISSION SENSOR

LEGEND

P1	150 NB DIN, PN100 ATA FOR PRESSURE LINE WITH MATCHING BLANK FLANGE
P2	150 NB DIN, PN100 ATA FOR PRESSURE LINE WITH MATCHING BLIND FLANGE
T	150 NB DIN, PN16 ATA FOR DRAIN LINE WITH MATCHING BLANK FLANGE
S1 & S2	40 NB DIN, PN16 ATA FOR WATER LINE WITH MATCHING BLIND FLANGE
320-1, 320-2	1" BSP (MALE) FOR OIL PURIFIER CONNECTION WITH BLANKING CAP (ONE FOR SUCTION LINE & ONE FOR RETURN LINE)
T1	150 NB DIN, PN16 ATA FOR DRAIN LINE (SPARE CONNECTION) WITH MATCHING BLIND FLANGE
L1	100NB DIN, PN16 ATA FOR DRAIN LINE (SPARE), WITH MATCHING BLIND FLANGE

COLOUR CODE:

OIL PRESSURE PIPE EXTERNAL	YELLOW RAL 1016
SUMP TANK INTERNAL SURFACE	YELLOW ORANGE RAL 2000
OIL CONTROL PRESSURE PIPE EXTERNAL	YELLOW ORANGE RAL 2000
OIL DRAIN PIPE EXTERNAL	BROWN RAL 8012
WATER COOLED OIL COOLER WATER LINE	MINT GREEN RAL 6029
SUMP TANK EXTERNAL SURFACE	PEBBLE GRAY RAL 7032

NOTE : COLOUR CODE GIVEN IN THE TABLE ARE TENTATIVE. IT WILL BE FINALLY APPROVED BY THE CUSTOMER DURING DRAWING APPROVAL.

NOTE:-

1. ALL DEVICE SHOWN IN CLOSED,DE-ENERGISED AND DE-PRESSURISED CONDITION.
2. WORKING PRESSURE OF GOVERNOR & MIV OIL = 100 KG/CM2

LEGENDS

- NORMALLY OPEN VALVE
- NORMALLY CLOSED VALVE
- DRAIN LINE
- PRESSURE LINE

ADDITIONAL INFORMATION		PROJECT	ARUN-3 HYDRO ELECTRIC PROJECT, NEPAL (4x 225 MW)
STATUS OF DRAWING	U	CUSTOMER	SJVN ARUN-3 POWER DEVELOPMENT COMPANY PVT. LTD. (SAPDC LTD.)
DISTRIBUTION OF PRINTS		CONSULTANT	SJVN LIMITED (A JOINT VENTURE OF GOVT. OF INDIA & GOVT. OF HP)
NAME / SIGN / DATE / NO. OF VAR. — DRWN, CHKD, APPD		CONTRACTOR	भारत हेवी इलेक्ट्रिकल्स लिमिटेड, भोपाल Bharat Heavy Electricals Limited, Bhopal
SUB-SUPPLIER / VENDOR		DEPT HTE CODE 402	UNTOL. DIMS. GR. / ANGLE / SCALE / WEIGHT(kg) / REF.TO ASSY.DRG. ARUN3-GOV-01 / ITEM NO. / NO.OF ITEMS
		TITLE: DIAGRAM OF CONTROL GEAR FOR OPU -TURBINE & MIV	DRAWING NO. 32210120501 / REV. 00 / SHEET NO. 01 / NO. OF SHEETS. 01

REV.	DATE	ALTERED / CHECKED / APPROVED	ZONE

REF. DRG. NO. / SIGN. & DATE / INVENTORY NO.

A1 SIZE