



PHOOLTAS TRANSRAIL LIMITED

RAIL BOUND MOBILE VEHICLE (8 - WHEELER)

MODEL : RBMV.02.B

G A U G E : 1676 mm



PARTS MANUAL

REFERENCE NO. PM/302B/3K23, REV.: -00

(All Right Reserved With Phooltas To Amend This Manual Any Time And To Issue It With Rev. No.)

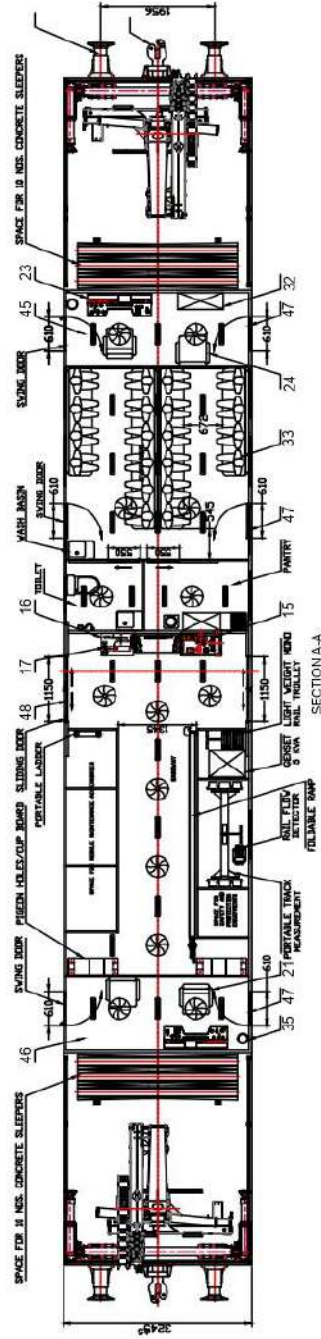
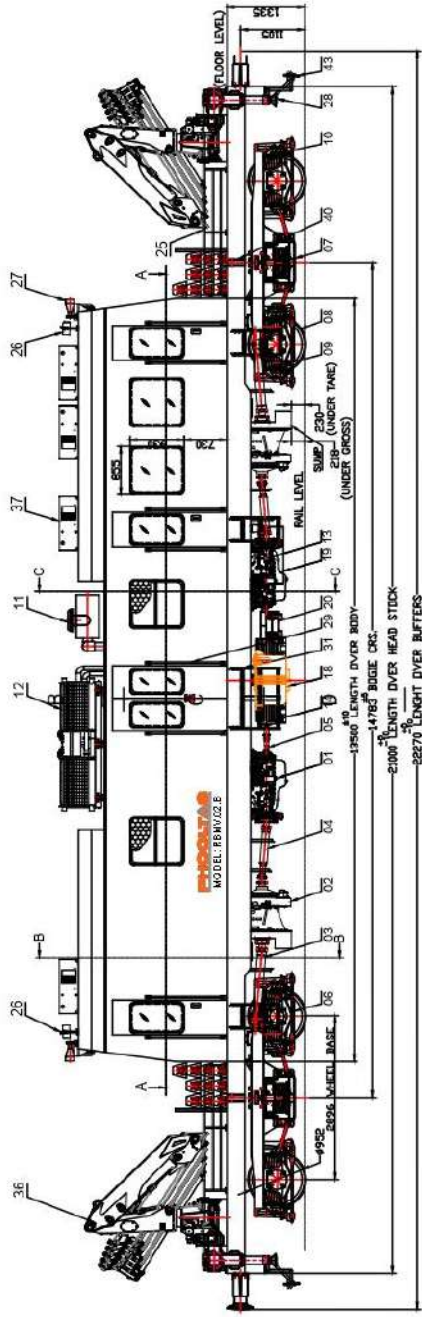
 **phooltas**
 **phooltas**
 **info@phooltas.org**
 **www.phooltas.org**



B.O: Plot No.- 1A, Sector-7,IIE, SIDCUL, Haridwar, Uttarakhand-249403 (INDIA)
H.O.: Layak Enclave (East), Sahay Nagar, Phulwari Sharif, Patna Bihar-801506 (INDIA)

INDEX			
Sl. No.	Description	Part No.	Page No.
1	INDEX		2-2
2	GENERAL LAYOUT	3020000000	3-5
3	POWER PACK ARRANGEMENT	3020100000	6-7
4	AXLE DRIVE GEAR BOX ASSEMBLY	3020501000	8-10
5	TORQUE ARM ASSEMBLY	3020121000	11-12
6	HYDRAULIC TANK 400 L	3020015000	13-15
7	WHEEL & AXLE (POWERED)	3020500000	16-17
8	WHEEL & AXLE (NON-POWERED)	3020502000	18-19
9	BOGIE GENERAL ARRGT.	3021600000	20-21
10	BOGIE BOLSTER SUSPENSION ARRGT.	3020300000	22-25
11	BOGIE BRAKE ARRGT.	3020400000	26-29
12	AXLE BOX GUIDE ARRGT.	3020503000	30-31
13	ROOF WATER TANK	3020054000	32-33
14	INTEGRAL OIL SUMP	3029100000	34-36
15	COOLING CIRCUIT OF TRANSMISSION AND RADIATOR	3021100000	37-38
16	HYDRAULIC CIRCUIT WITH COMPONENTS	3020900000	39-40
17	PENUMATIC CIRCUIT WITH COMPONENTS	3020800000	41-43
18	TRANSMISSION AUXILIARY LUBRICATION CIRCUIT	3021101000	44-45
19	COOLENT TANK ASSLY	3021102000	46-47
20	24V POWER SUPPLY FOR ENGINE-I & ENGINE-II	3021001000	48-49
21	ENGINE-I ECU-I CONTROL DIAGRAM	3021002000	50-51
22	ENGINE-II ECU-II CONTROL DIAGRAM	3021003000	52-53
23	ELECTRICAL INTERFACE & ENGINE SHUT DOWN SAFETY CAB-1 & CAB-2	3021004000	54-55
24	ELECTRICAL CIRCUIT ENGINE & TRANSMISSION SAFETY CONTROL	3021005000	56-57
25	DRIVE SELECTION CIRCUIT IN BOTH CABINS(ENGINE-I & ENGINE II)	3021006000	58-59
26	DRIVING CIRCUIT FOR MANUAL & AUTO CONTROL (CABIN-I & CABIN II)	3021007000	60-61
27	110V DC ELECTRICAL CIRCUIT & ELECTRICAL BLOCK DIAGRAM	3021008000	62-64
28	CONTROL CIRCUIT - HEAD LIGHT, CAB LIGHT & FAN FOR CAB-I	3021009000	65-66
29	CONTROL CIRCUIT - HEAD LIGHT, CAB LIGHT & FAN FOR CAB-II	3021010000	67-68
30	ELECTRO PNEUMATIC CKT OF VCD INTERFACE CONTROL	3021011000	69-70
31	AC CONTROL DIAGRAM -I	3021012000	71-73
32	AC CONTROL DIAGRAM -II	3021013000	74-75
33	ELECTRO PNEUMATIC CONTROL CIRCUIT OF PARKING BRAKE	3021014000	76-77
34	COMMUNICATION SYSTEM	3021015000	78-79
35	PANTRY EQUIPMENT DIAGRAM	3021016000	80-81
36	CAMERA & MONITOR DIAGRAM	3021017000	82-83
37	CONTROL CIRCUIT OF OHE DRIVE	3021018000	84-85
38	CRANE CONTROL DIAGRAM	3021019000	86-87
39	GAUGE DIAGRAM FOR CAB-I	3021020000	88-89
40	GAUGE DIAGRAM FOR CAB-II	3021021000	90-91

COMPANY'S LOGO AND TRADE MARKS
 COMPANY'S LOGO AND TRADE MARKS
 COMPANY'S LOGO AND TRADE MARKS



PHOOLTAS TRANSRAIL LIMITED
 (FORMERLY PHOOLTAS HANSCO RAIL SOLUTIONS PVT. LTD.)
 LAYAK ENCLAVES, SAHAY NAGAR, PATNA-801506 (INDIA)

GENERAL LAYOUT OF 8-WHEELER RBMV

MODEL RBMV/02.B

PROJECT RBMV/02.B-DFCC

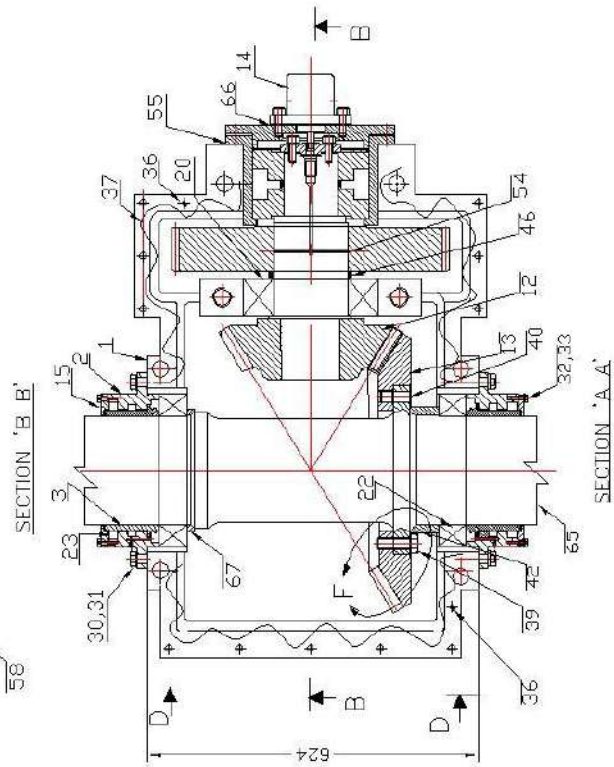
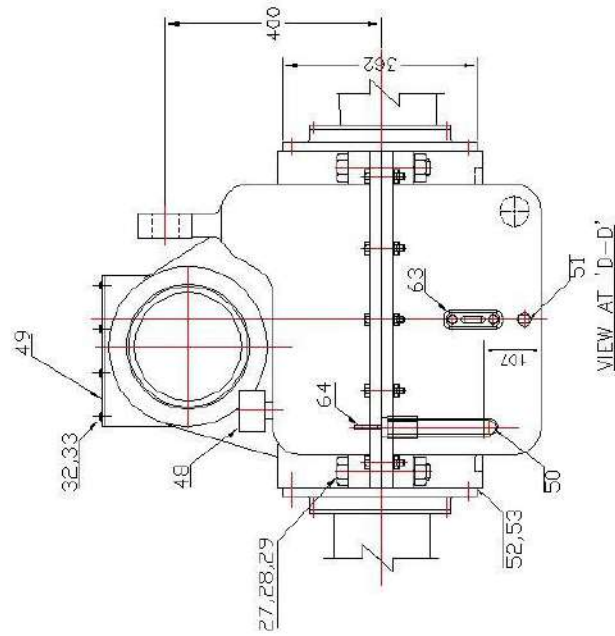
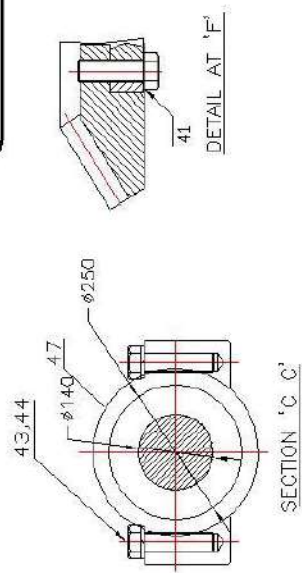
2) GENERAL LAYOUT (3020000000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	ENGINE	3020001000	2
2	TRANSMISSION	3020002000	2
3	CARDAN SHAFT – 1 (TRANS TO ADGB)	3020003000	2
4	CARDAN SHAFT – 2 (ENGINE TO TRANS)	3020004000	2
5	CARDAN SHAFT – (AUXILIARY ALT. DRIVE)	3020005000	2
6	AXLE DRIVE GEAR BOX (HYDRODYNAMIC DRIVE)	3020006000	2
7	BOGIE	3020007000	2
8	WHEEL	3020008000	8
9	COIL SPRING SUSPENSION ASSLY.	3020009000	8
10	CLASP TYPE BRAKE ASSLY.	3020010000	8
11	AIR CLEANERS	3020011000	2
12	RADIATOR, ROOF MOUNTED	3020012000	1
13	AIR COMPRESSOR (ENGINE MOUNTED)	3020013000	2
14	AUXILIARY ALTERNATORS, KEL 4.5 KW, 110V/ EQUIVALENT	3020014000	2
15	HYDRAULIC TANK WITH OIL COOLER	3020015000	1
16	COOLANT TANK 100 LTS. WITH WATER FITTING ARRGT. TO RADIATOR	3020016000	1
17	WATER RAISING APPARATUS	3020017000	1
18	FUEL TANK – 700 LTRS.	3020018000	1
19	110V BATTERY BOX	3020019000	1
20	T.C COOLER	3020020000	2
21	DRIVER'S SEAT	3020021000	2
22	CATTLE GUARD	3020022000	2
23	CONTROL PANEL	3020023000	2
24	FOLDABLE SEATS	3020024000	2
25	FIXED RAILING	3020025000	12
26	CAMERA	3020026000	2
27	HORN	3020027000	2
28	STABILIZERS	3020028000	4
29	HAND HOLDS	3020029000	16
30	FLASHER LIGHTS	3020030000	2
31	FOOT STEPS	3020031000	8
32	TOOL BOX	3020032000	2
33	CREW SEATS	3020033000	20
34	C.B.C COUPLERS	3020034000	2
35	FIRE EXTINGUISHERS	3020035000	2
36	CRANE	3020036000	2
37	AIR CONDITIONER	3020037000	4
38	BUFFERS	3020038000	4
39	MARKER LIGHT	3020039000	4
40	LIFTING BRACKET	3020040000	4
41	ELECTRICAL WIPER AND WASHER ASSLY. (2 FRONT & 2 REAR)	3020041000	4

42	HEAD LIGHTS	3020042000	2
43	RAIL GUARD ARRGT.	3020043000	2
44	RAIL WATER CUTTER	3020044000	4
45	CAB – 1	3020045000	1
46	CAB – 2	3020046000	1
47	SWING DOOR (CABIN & STAFF ROOM)	3020047000	6
48	SLIDING DOOR (MIDDLE)	3020048000	2

3) POWER PACK ARRANGEMENT (3020100000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1.	ENGINES,MAKE: ASHOK LEYLAND.MODEL:N6 DEVELOPING 450HP@2200 RPM	3020101000	02 NOS
2.	TRANSMISSIONS, AVTEC CRT 5633 / EQUIVALENT	3020102000	02 NOS
3.	AXLE DRIVE GEAR BOXES	3020103000	02 NOS
4.	AUXILIARY ALTERNATORS	3020104000	02 NOS
5.	CARDAN SHAFTS-1	3020105000	02 NOS
6.	CARDAN SHAFT-2	3020106000	02 NOS
7.	CARDAN SHAFT-3	3020107000	02 NOS
8.	VAULKAN COUPLERS	3020108000	02 NOS
9.	TORQUE ARM ASSEMBLIES	3020109000	02 NOS
10.	RADIATORS	3020110000	01 NOS
11.	AIR CLEANERS	3020111000	02 NOS
12.	MUFFLERS	3020112000	02 NOS
13.	T.C. COOLERS	3020113000	02 NOS
14.	FUEL TANK-700 LTRS	3020114000	01 NO
15.	HYDRAULIC TANK-400 LTRS	3020115000	01 NO
16.	ENGINE FLYWHEELS	3020116000	02 NOS
17.	ANTI VIBRATION MOUNTINGS	3020117000	14 NOS
18.	ANTI VIBRATION MOUNTINGS	3020118000	08 NOS
19.	ANTI VIBRATION MOUNTINGS	3020119000	08 NOS
20.	BATTERY BOXES – 24 V	3020120000	01 NO
21.	BATTERY BOXES – 110 V	3020121000	02 NOS
22.	COOLANT TANK WITH WATER FILLING ARRGT.	3020122000	01 NO
23.	TRAP DOORS-1	3020123000	02 NOS
24.	TRAP DOORS-2	3020124000	02 NOS
25.	SAFETY CHAINS	3020125000	As Req'd.
26.	SAFETY STRAPS	3020126000	As Req'd.
27.	DUCT FOR PIPES	3020127000	01 NO
28.	HYDRAULIC PUMP FOR RADIATOR FAN DRIVE	3020128000	02 NOS
29.	HYDRAULIC PUMP FOR CRANE OPERATION	3020129000	02 NOS
30.	P.T.O ASSEMBLY	3020130000	02 NOS



PHOOLTAS TRANSRAIL LIMITED
LAYAK ENCLAVES,SAHAY NAGAR,PATNA-801506(INDIA)

AXLE DRIVE GEAR BOX ASSY.
(BI-DIRECTIONAL PUMP)

MODEL OHE.01.B

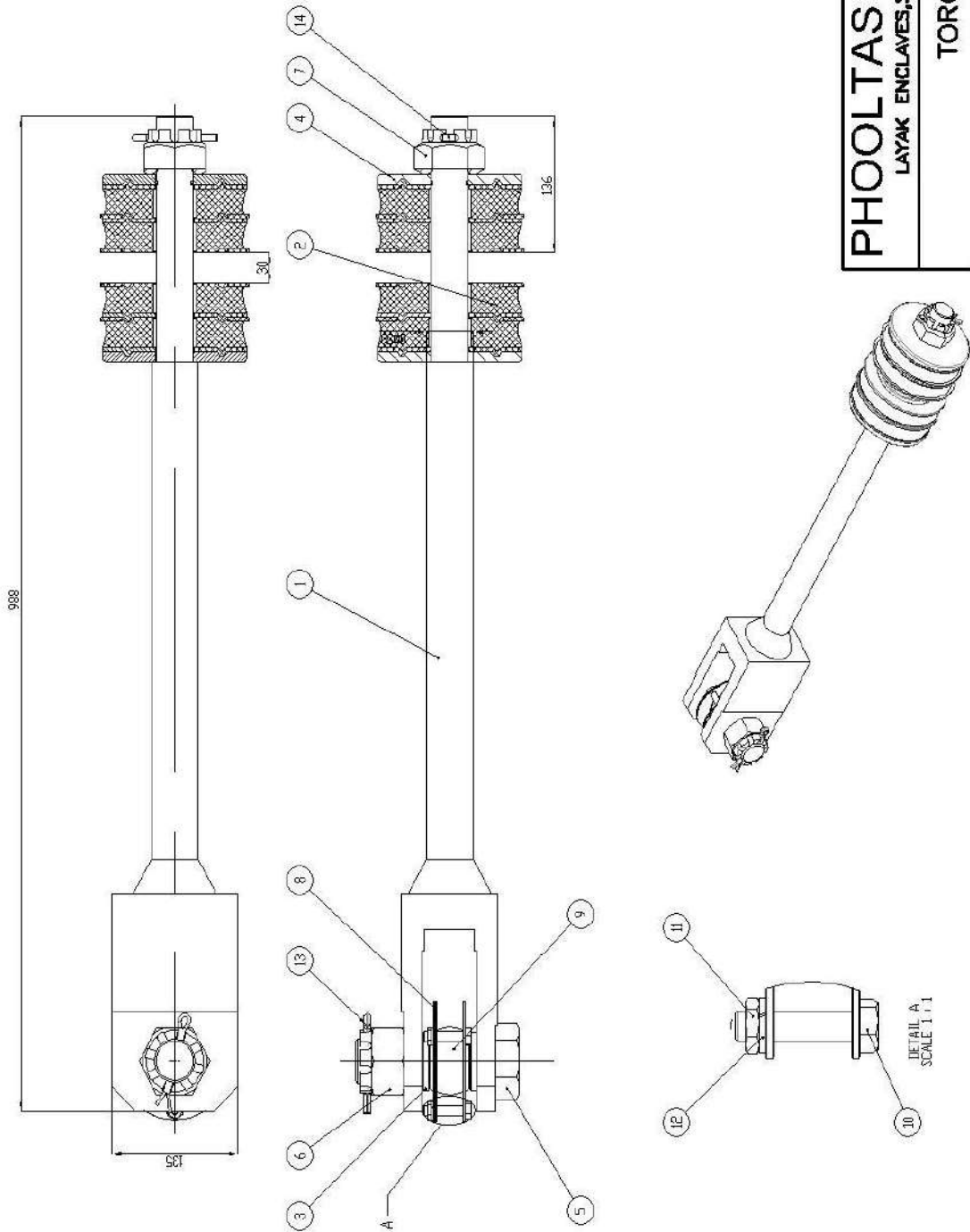
PROJECT	OHE.01.B-DFCC
---------	---------------

4) AXLE DRIVE GEAR BOX ASSEMBLY (3020501000)

S. No.	DESCRIPTION	PART NO.	QTY.
1.	GEAR BOX HOUSING	3020501010	01 Set.
2.	SEAL CARRIER OUTPUT	3020501020	02 Nos
3.	SPACER SEAL OUTPUT	3020501030	02 Nos
4.	BEARING CARRIER INPUT	3020501040	01 No
5.	SEAL CARRIER INPUT	3020501050	01 No
6.	SPACER SEAL INPUT	3020501060	01 No
7.	SPACER INPUT	3020501070	01 No
8.	HELICAL PINION	3020501080	01 No
9.	HELICAL GEAR	3020501090	01 No
10.	DUST COVER INPUT	3020501100	01 No
11.	INPUT FLANGE	3020501110	01 No
12.	BEVEL PINION – 23 T	3020501120	01 No
13.	BEVEL GEAR 37 T	3020501130	01 No
14.	LUB. OIL PUMP	3020501140	01 No
15.	DUST COVER OUTPUT	3020501150	02 Nos
16.	AUXILIARY BRG. CARRIER	3020501160	01 No
17.	AUXILIARY DUST COVER	3020501170	01 No
18.	BRG. LOCKING PLATE	3020501180	01 No
19.	TAPER ROLLER BRG.	3020501190	02 Nos
20.	SPHERICAL ROLLER BRG.	3020501200	01 No
21.	TAPER ROLLER BRG.	3020501210	02 Nos
22.	TAPER ROLLER BRG.	3020501220	02 Nos
23.	OIL SEAL	3020501230	02 Nos
24.	OIL SEAL	3020501240	01 Nos
25.	HEX. HEAD BOLT	3020501250	06 Nos
26.	SPRING WASHER	3020501260	15 Nos
27.	HEX. HEAD BOLT	3020501270	06 Nos
28.	HEX. NUT	3020501280	06 Nos
29.	SPRING WASHER	3020501290	06 Nos
30.	HEX. HEAD BOLT	3020501300	12 Nos
31.	SPRING WASHER	3020501310	12 Nos
32.	HEX. HEAD BOLT	3020501320	20 Nos
33.	SPRING WASHER	3020501330	20 Nos
34.	HEX. HEAD BOLT	3020501340	11 Nos
35.	HEX. NUT	3020501350	11 Nos
36.	DOWEL PIN	3020501360	02 Nos
37.	PACKING WOOLEN	3020501370	2 Nos
38.	HEX. HEAD BOLT	3020501380	08 No
39.	HEX. HEAD BOLT	3020501390	06 No
40.	DOWEL PIN	3020501400	06 No
41.	LOCK SHEET	3020501410	03 Nos

42.	SPACER	3020501420	01 No
43.	HEX. HEAD BOLT	3020501430	02 Nos
44.	SPRING WASHER	3020501440	02 Nos
45.	SOCKET HD.BOLT	3020501450	06 Nos
46.	SPACER	3020501460	01 No
47.	UPPER HOUSING	3020501470	01 No
48.	FILLER BREATHER ASSLY.	3020501480	01 No
49.	INSPECTION COVER	3020501490	01 No
50.	DIPSTICK	3020501500	01 No
51.	DRAIN PLUG.	3020501510	01 No
52.	SHIM 0.2 THK.	3020501520	04 Nos
53.	GASKET	3020501530	04 Nos
54.	OUTPUT SHAFT	3020501540	01 No
55.	GASKET	3020501550	01 No
56.	GASKET	3020501560	01 No
57.	GASKET	3020501570	01 No
58.	½" BSP SUCTION STRAINER	3020501580	01 No
59.	LOCKING PLATE	3020501590	01 No
60.	STR. ADOPTER	3020501600	01 No
61.	HEX. BOLT	3020501610	04 Nos
62.	SPRING WASHER	3020501620	04 Nos
63.	LEVEL GAUGE	3020501630	01 No
64.	DIPSTICK GAUGE	3020501640	01 No
65.	AXLE (POWER)	3020501650	01 No
66.	GASKET PUMP MOUNTING FLANGE	3020501660	01 No
67.	SPACER	3020501670	01 No

CONFIDENTIAL
COPYRIGHT VESTS WITH PHOOLTAS TRANSRAIL LIMITED
CANNOT BE REPRODUCED, COPIED OR CONVERTED



PHOOLTAS TRANSRAIL LIMITED

LAYAK ENCLAVES, SAHAY NAGAR, PATNA - 801506 (INDIA)

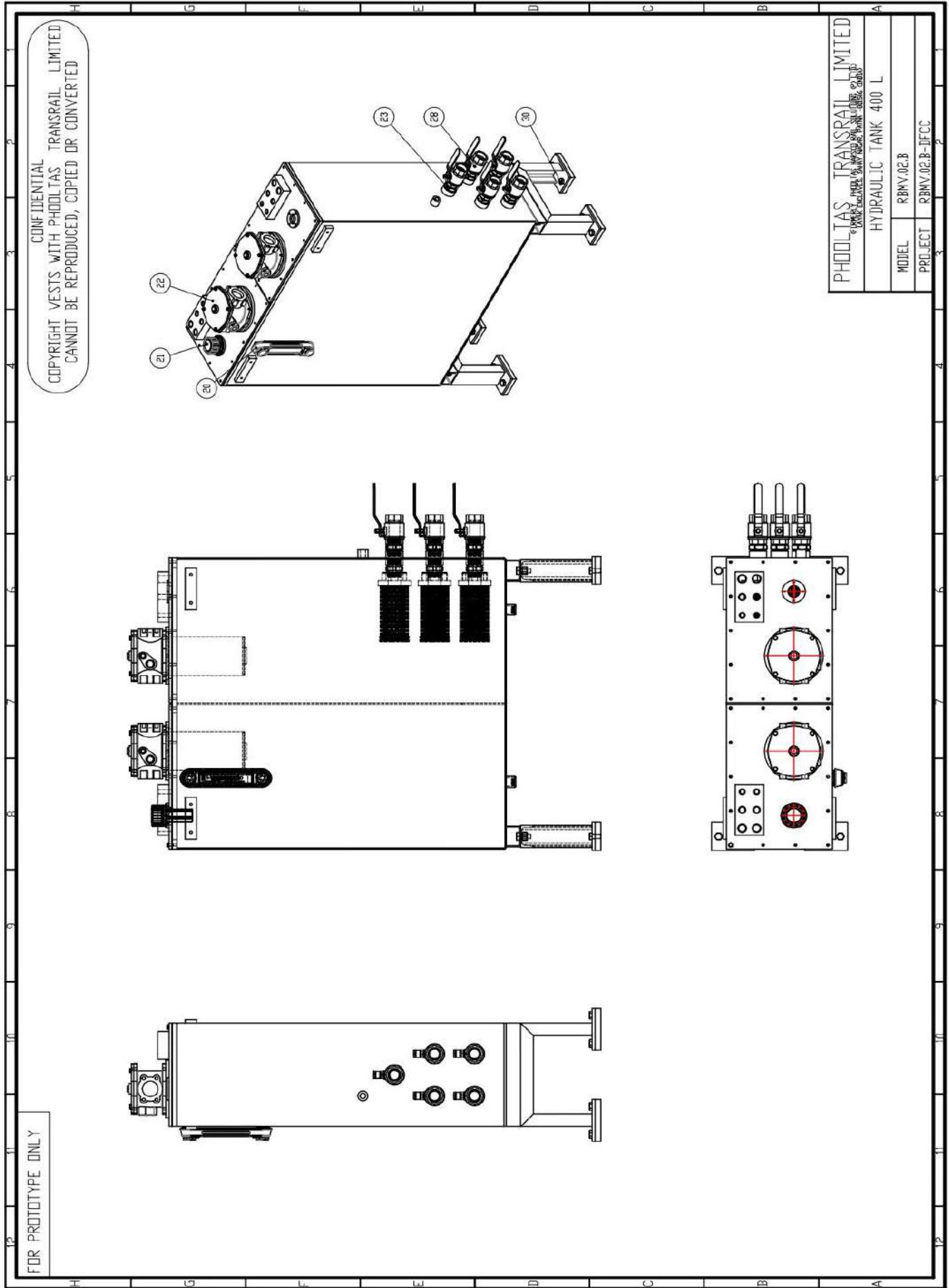
TORQUE ARM ASSLY.

MODEL OHE.O1.B

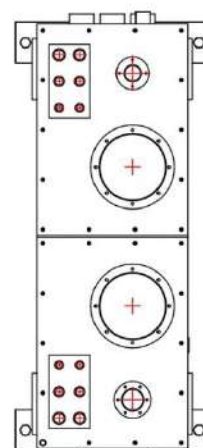
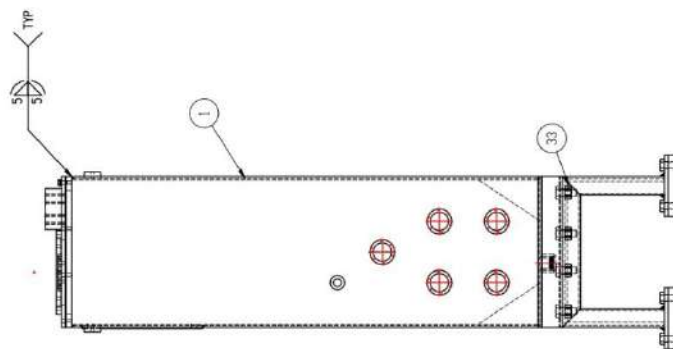
PROJECT OHE.O1.B - DFCC

5) TORQUE ARM ASSEMBLY (3020121000)

S.NO.	DESCRIPTION	PART NO.	QTY.
1.	TORQUE ARM	3020121010	01 NO
2.	SPRING DISC	3020121020	04 NOS
3.	SPACER	3020121030	02 NOS
4.	END PLATE	3020121040	02 NOS
5.	HEX HEAD BOLT	3020121050	01 NO
6.	CASTLE NUT	3020121060	01 NO
7.	CASTLE NUT	3020121070	01 NO
8.	BRG. RETAINER	3020121080	02 NOS
9.	PLAIN SPERICAL BEG. GEH 45 ES 2 RS	3020121090	01 NO
10.	HEX HEAD BOLT	3020121100	03 NOS
11.	HEX HEAD NUT	3020121110	03 NOS
12.	SPRING WASHER	3020121120	03 NOS
13.	SPLIT PIN D 8 X 75	3020121130	01 NO
14.	SPLIT PIN D 8 X 75	3020121140	01 NO



CONFIDENTIAL
COPYRIGHT VESTS WITH PHOOLAS
CANNOT BE REPRODUCED, COPIED OR CONVERTED
TRANSRAIL LIMITED

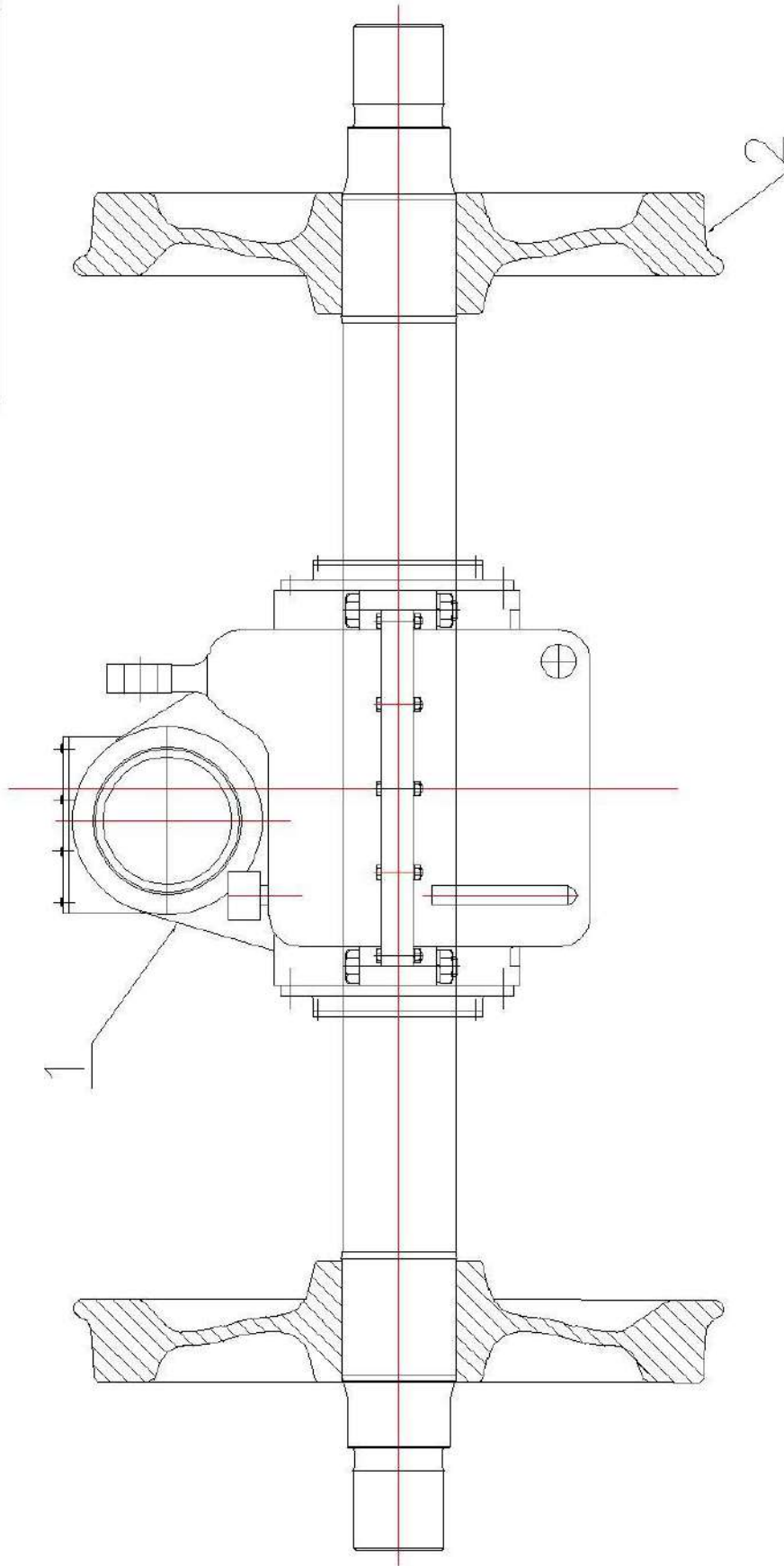


PHOOLAS TRANSRAIL LIMITED	CHANDLER, PHILLIPS LIMITED, 100, CHATELAIN, 10, LIES LANGE ENCLAVE, 2000, 2000, 2000, 2000, 2000, 2000
HYDRAULIC TANK 400 L	
MODEL	RMV02B
PROJECT	RMV02B-DFCC

6) HYDRAULIC TANK 400L (3020015000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	SOCKET-1	3020015010	1 Nos
2	RING-1	3020015020	2 Nos
3	RING-2 FOR LOW LEVEL SAFETY SWITCH	3020015030	1 No
4	RING-3 FOR FILLER BREATHER	3020015040	1 No
5	LEVEL GUAGE BACK PLATE 295X35X8	3020015050	1 No
6	SOCKET-2	3020015060	5 Nos
7	BLOCK	3020015070	2 Nos
8	U BEND PLATE	3020015080	2 Nos
9	ACCESSORIES MOUNTING PAD	3020015090	4 Nos
10	GUSSET-1	3020015100	1 No
11	SOCKET-3	3020015110	2 Nos
12	TANK STAND	3020015120	2 Nos
13	HEX HEAD BOLT M8	3020015130	28 Nos
14	SPRING WASHER M8	3020015140	28 Nos
15	HEX HEAD BOLT M16	3020015150	8 Nos
16	HEX HEAD NUT M16	3020015160	8 Nos
17	LEVEL INDICATOR	3020015170	1 No.
18	FILLER BREATHER	3020015180	1 No.
19	RETURN FILTER ASSLY. 1-1/2" PORT 150 MICRON	3020015190	2 Nos
20	MS STR. 1-1/2" BSP(M) X 1-1/2" BSP (M) C	3020015200	10 Nos
21	SUCTION STRAINER 1-1/2" PORT	3020015210	5 Nos
22	MAGNETIC DRAIN PLUG ½"	3020015220	2 Nos
23	SHUT OFF COCK 1-1/2"	3020015230	5 Nos

CONFIDENTIAL
COPYRIGHT VESTS WITH PHOOLTAS TRANSRAIL LIMITED
CANNOT BE REPRODUCED, COPIED OR CONVERTED



PHOOLTAS TRANSRAIL LIMITED

LAYAK ENCLAVES, SAHAY NAGAR, PATNA-801508(INDIA)

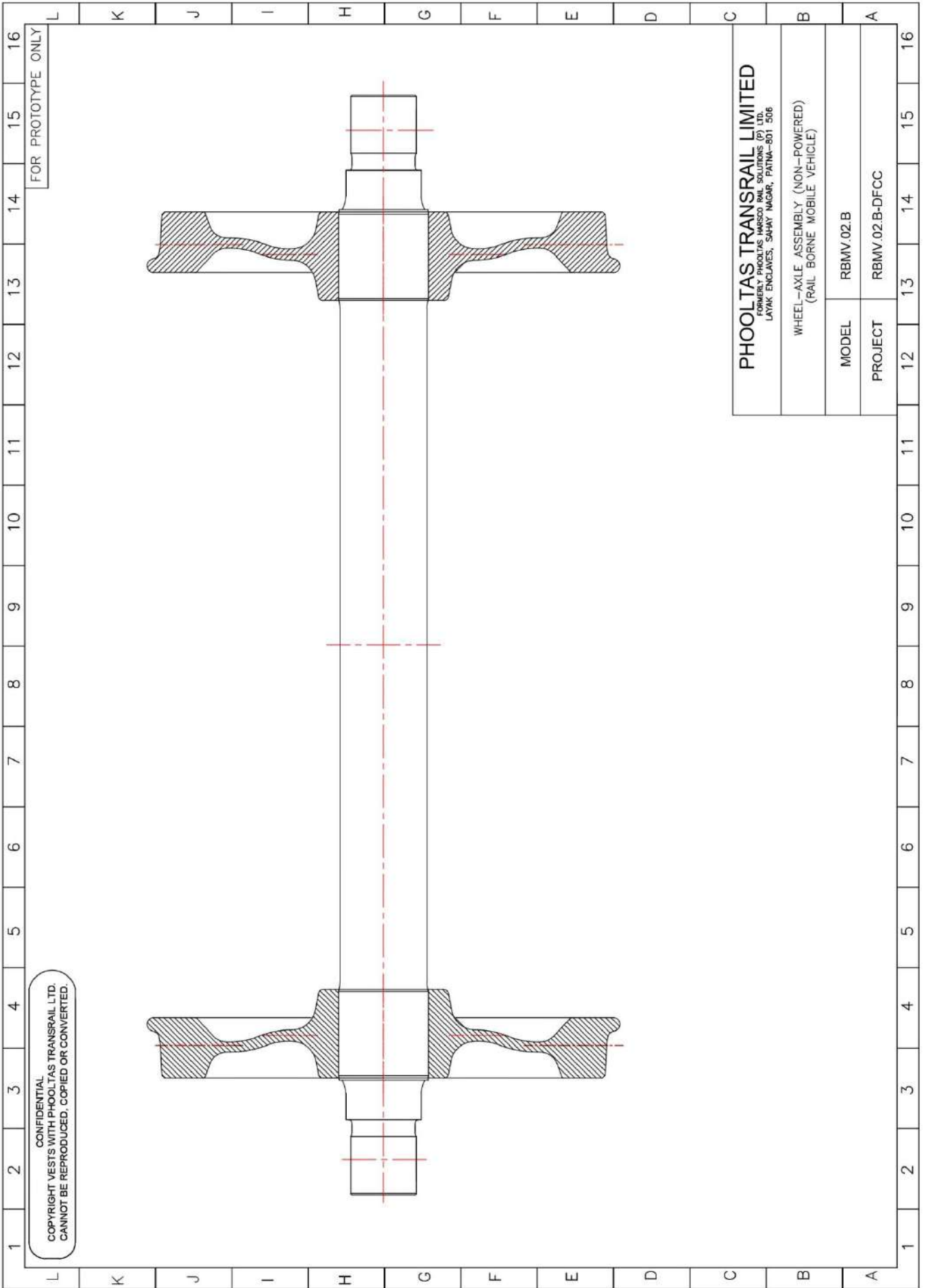
WHEEL & AXLE (POWERED)

MODEL OHE.O1.B

PROJECT OHE.O1.B-DFCC

7) WHEEL & AXLE (POWERED) (3020500000)

S.NO.	DESCRIPTION	PART NO.	QTY.
1.	AXLE DRIVE ASSLY.	3020500100	02 NOS
2.	WHEELS	3020500200	04 NOS

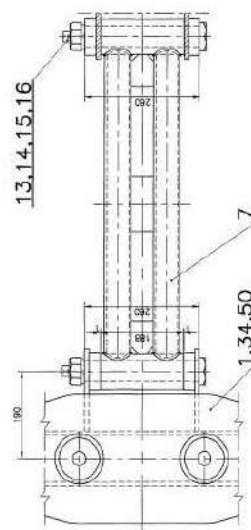


8) WHEEL AND AXLE (NON- POWERED) –(3020502000)

S.NO.	DESCRIPTION	PART NO.	QTY.
01.	WHEELS	3020502100	04 NOS
02.	AXLE (NON-POWERED)	3020502200	02 NOS

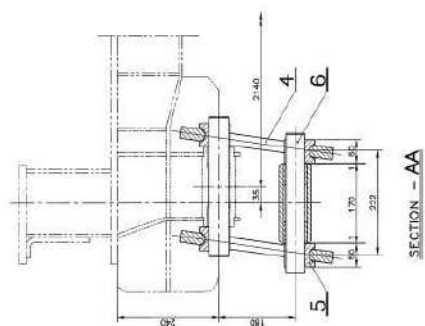
9). BOGIE GENERAL ARRGT.(3021600000)

S.NO.	DISCERPTION	PART NO.	QTY.
1	AXLE BOX GUIDE ARRGT.	3021600100	4 Nos
2	PRIMARY HELICAL COIL SPRING	3021600200	8 Nos
3	BOGIE BOLSTER SUSPENSION ARRGT.	3021600300	1 No
4	BOGIE BOLSTER	3021600400	1 No
5	HYDRODYNAMIC ADGB	3021600500	1 No
6	BRAKE CYLINDER	3021600600	4 Nos
7	PARKING BRAKE CYLINDER	3021600700	4 Nos
8	BOGIE FRAME	3021600800	1 No
9	BOGIE BRAKE ARRGT.	3021600900	1 No



POOL-AS TRANSRA LIMITED
P.O. BOX 100, NAIROBI
KENYA. TEL: 254-20-311170, 31228, 31234

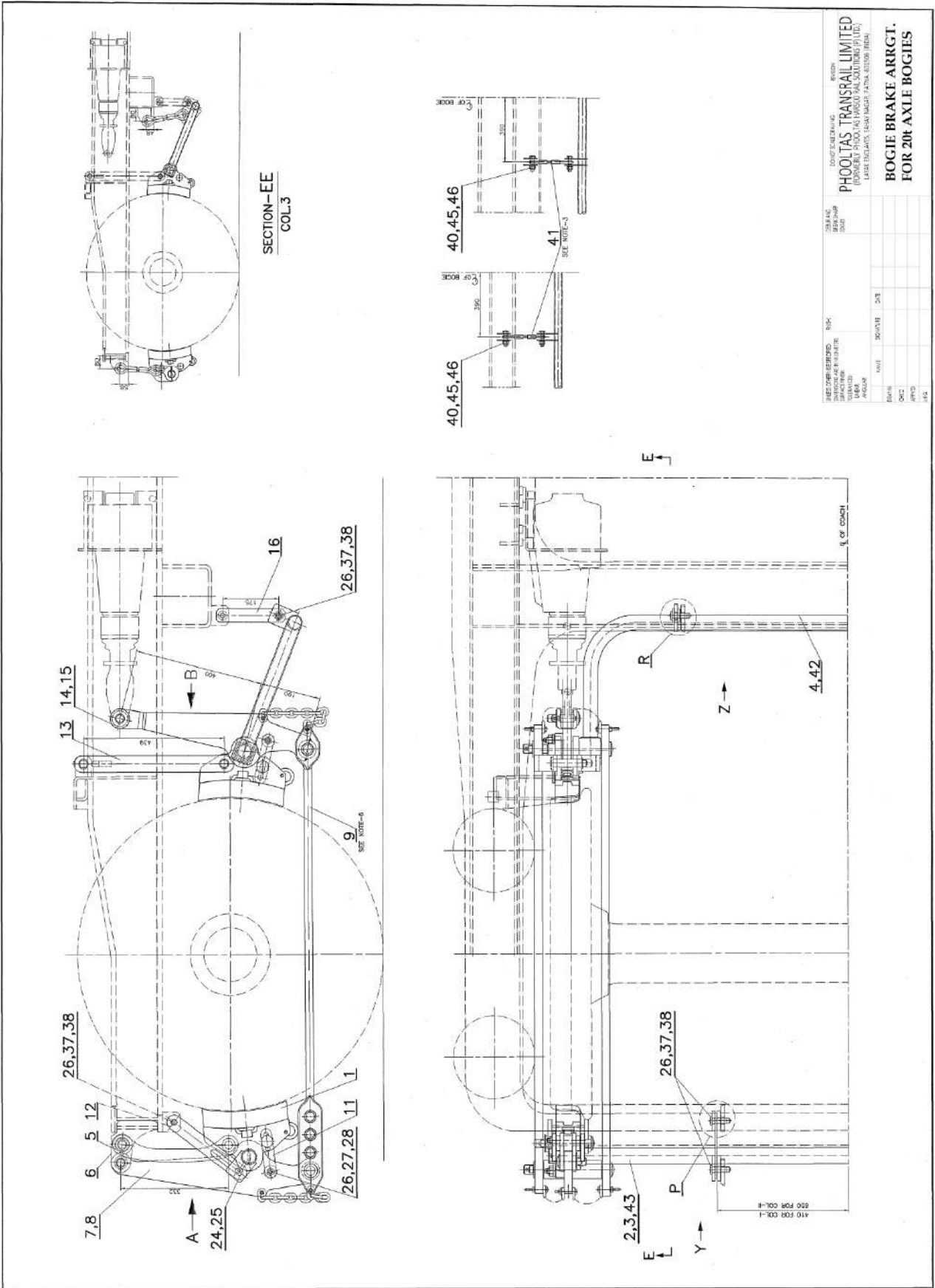
**BOGIE BOLSTER
SUSPENSION ARRGT.**

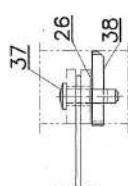
[illegible]

10). BOGIE BOLSTER SUSPENSION ARRGT. (3020300000)

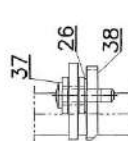
S.NO.	DISCERPTION	PART NO.	QTY.
1	LOWER SPRING BEAM ARRGT.	3020300100	1 No
2	BOLSTER NEST	3020300200	1 No
3	CENTRE PIVOT ARRGT.	3020300300	2 Nos
4	STOP PLATE	3020300400	1 No
5	BOTTOM BUSH	3020300500	1 No
6	TOP BUSH	3020300600	1 No
7	DISTANCE TUBE	3020300700	1 No
8	SPLIT RING COMPLETE	3020300800	1 No
9	HEX. HD SCREW M16x40-5.6	3020300900	2 Nos
10	SPRING LOCK WASHER B16	3020301000	2 Nos
11	SPLIT PIN 5x56	3020301100	4 Nos
12	CENTER PIVOT PIN COMPLETE	3020301200	1 No
13	SHEAR BLOCK	3020301300	2 Nos
14	SHEAR BLOCK	3020301400	2 Nos
15	HEX. HEAD BOLT COMPLETE	3020301500	4 Nos
16	GUIDE BUSH	3020301600	1 Nos
17	HANGER	3020301700	16 Nos
18	SEDDLE	3020301800	32 Nos
19	PIN	3020301900	16 Nos
20	EQUALISING STAY	3020302000	4 Nos
21	STAY TUBE	3020302100	2 Nos
22	TUBE COMPLETE	3020302200	2 Nos
23	RIB 5x50x70	3020302300	2 Nos
24	RIB 5x50x120	3020302400	1 Nos
25	NYLON BUSH	3020302500	4 Nos
26	STAY TUBE	3020302600	4 Nos
27	WEARING PLATE	3020302700	4 Nos
28	WERRING PIECE	3020302800	4 Nos
29	SCREW	3020302900	4 Nos
30	SPLIT PIN Ø8x45	3020303000	8 Nos
31	HEX. NUT M30-4	3020303100	8 Nos
32	SPRING LOCK WASHER B30	3020303200	8 Nos
33	SPECIAL PIN	3020303300	8 Nos
34	RUBBER SNUBBER	3020303400	8 Nos
35	SPRING LOCK WASHER B10	3020303500	32 Nos
36	SHOOCK ABSORBER	3020303600	4 Nos
37	FLANGE	3020303700	8 Nos
38	SPLIT PIN Ø4x45	3020303800	32 Nos
39	HEX NUT M20-4	3020303900	16 Nos
40	SPRING LOCK WASHER B20	3020304000	32 Nos
41	HEX. HD. BOLT M20x120-4.6	3020304100	16 Nos
42	RUBBER PLATE	3020304200	16 Nos

43	CHEESE HD. SCREW M10x20	3020304300	32 Nos
44	SAFETY STRAP COMPLETE	3020304400	8 Nos
45	HEX . HD BOLT M20x120-4.6	3020304500	16 Nos
46	CASTLE NUT M20-8	3020304600	16 Nos
47	STRIKING PLATE	3020304700	8 Nos
48	LOWER SPRING BEAM ARRGT.	3020304800	4 Nos
49	COMPENSATING RING	3020304900	As Required
50	STRIKING PLATE	3020305000	8 Nos
51	PUNCHED WASHER A18	3020305100	4 Nos





DETAIL AT-P



DETAIL AT-R

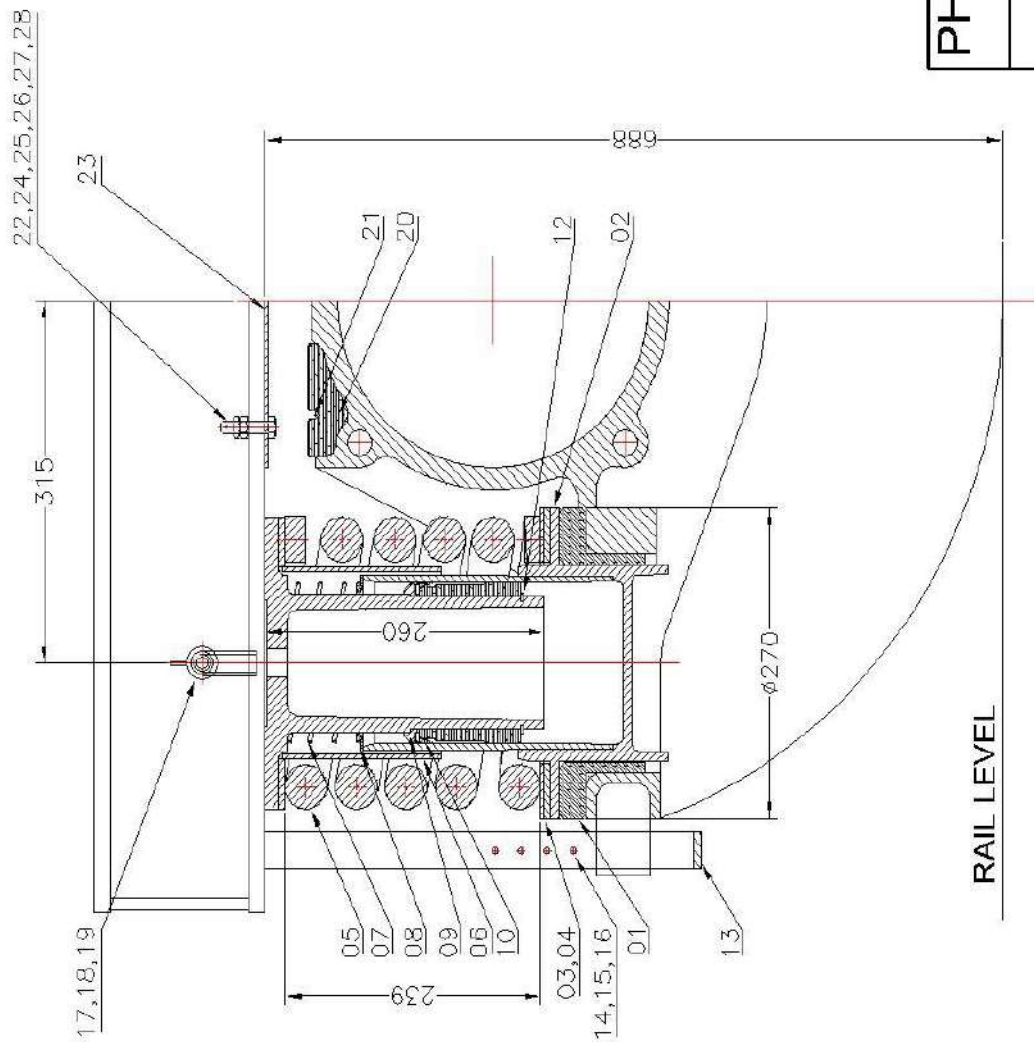
[illegible]

11). BOGIE BRAKE ARRGT. (3020400000)

S.NO.	DESCRIPTION	PART NO.	QTY.
1	BRAKE HEAD & BLOCK COMPLETE	3020400100	16 Nos
2	BRAKE HEAD ASSEMBLY	3020400200	16 Nos
3	BRAKE HEAD FABRICATED	3020400300	16 Nos
4	NYLON BUSH	3020400400	32 Nos
5	NYLON BUSH	3020400500	32 Nos
6	K-TYPE NON-ASBESTOS BASED BRAKE BLOCK	3020400600	16 Nos
7	KEY	3020400700	16 Nos
8	SPRING Ø4x280 APPROX	3020400800	16 Nos
9	SPLIT PIN Ø3.2x40	3020400900	16 Nos
10	SPLIT PIN Ø10x100	3020401000	16 Nos
11	BOLT Ø40x113	3020401100	16 Nos
12	SPRING LOCK WASHER B12	3020401200	16 Nos
13	CASTLE NUT M12	3020401300	16 Nos
14	BRAKE BEAM OUTER	3020401400	4 Nos
15	TUBE 40 BORE x 1654	3020401500	4 Nos
16	PIN	3020401600	8 Nos
17	FLANGE 10x60x80	3020401700	16 Nos
18	NYLON BUSH	3020401800	16 Nos
19	BRAKE BEAM INNER	3020401900	4 Nos
20	TUBE 40BORE x 2380	3020402000	4 Nos
21	FLANGE 10x60x80	3020402100	8 Nos
22	BOLT SQ.65 x 167	3020402200	8 Nos
23	NYLON BUSH	3020402300	8 Nos
24	BRAKE BLOCK HANGER OUTER	3020402400	16 Nos
25	NYLON BUSH	3020402500	32 Nos
26	ARTICULATION PIECE COMPLETE	3020402600	8 Nos
27	ARTICULATION PIECE	3020402700	8 Nos
28	NYLON BUSH	3020402800	16 Nos
29	NYLON BUSH	3020402900	16 Nos
30	LEVER OUTER R.H	3020403000	4 Nos
31	DISTANCE TUBE	3020403100	4 Nos
32	NYLON BUSH	3020403200	8 Nos
33	BOLT FOR LEVER	3020403300	4 Nos
34	NYLON BUSH	3020403400	4 Nos
35	NYLON BUSH	3020403500	4 Nos
36	LEVER OUTER L.H	3020403600	2 Nos
37	DISTANCE TUBE	3020403700	4 Nos
38	NYLON BUSH	3020403800	8 Nos
39	BOLT FOR LEVER	3020403900	4 Nos
40	NYLON BUSH	3020404000	4 Nos
41	NYLON BUSH	3020404100	4 Nos

42	ADJUSTING PULL ROD	3020404200	16 Nos
43	NYLON BUSH	3020404300	80 Nos
44	BRAKE BLOCK ADJUSTER	3020404400	16 Nos
45	SAFETY STRAP	3020404500	8 Nos
46	BLOCK HANGER INNER	3020404600	8 Nos
47	NYLON BUSH	3020404700	32 Nos
48	LEVER INNER R.H	3020404800	4 Nos
49	FORK	3020404900	4 Nos
50	DISTANCE TUBE	3020405000	4 Nos
51	NYLON BUSH	3020405100	8 Nos
52	BOLT FOR LEVER	3020405200	4 Nos
53	NYLON BUSH	3020405300	4 Nos
54	NYLON BUSH	3020405400	8 Nos
55	LEVER INNER L.H	3020405500	4 Nos
56	FORK	3020405600	4 Nos
57	DISTANCE TUBE	3020405700	4 Nos
58	NYLON BUSH	3020405800	8 Nos
59	BOLT FOR LEVER	3020405900	4 Nos
60	NYLON BUSH	3020406000	4 Nos
61	NYLON BUSH	3020406100	8 Nos
62	BRAKE BEAM HANGER	3020406200	16 Nos
63	PIN	3020406300	16 Nos
64	PUNCHED WASHER A26	3020406400	40 Nos
65	SPLIT COTTER	3020406500	56 Nos
66	PIN	3020406600	8 Nos
67	PIN	3020406700	16 Nos
68	PIN	3020406800	8 Nos
69	WASHER	3020406900	32 Nos
70	SPLIT PIN ISO 1234-10x63-ST	3020407000	16 Nos
71	PUNCHED WASHER A18	3020407100	48 Nos
72	HEXAGON NUT -IS 1363(PART -3)/ISO 4034-M16-4	3020407200	16 Nos
73	SPLIT PIN ISO 1234 -4x22-St	3020407300	16 Nos
74	PIN	3020407400	16 Nos
75	WASHER Ø54/Ø30	3020407500	32 Nos
76	PUNCHED WASHER A30-IS:2016-STEEL	3020407600	16 Nos
77	SPLIT PIN ISO 1234-5x40-St	3020407700	16 Nos
78	PIN	3020407800	32 Nos
79	SPLIT COTTER	3020407900	32 Nos
80	MODIFIED PARKING BRAKE LEVER	3020408000	4 Nos

CONFIDENTIAL
COPYRIGHT VESTS WITH PHOOLTAS TRANSRAIL LIMITED
CANNOT BE REPRODUCED, COPIED OR CONVERTED



PHOOLTAS TRANSRAIL LIMITED	
LAYAK ENCLAVES, SAHAY NAGAR, PATNA - 801508 (INDIA)	
AXLE BOX GUIDE ARRANGEMENT	
MODEL	OHE.O1.B
PROJECT	OHE.O1.B-DFCC

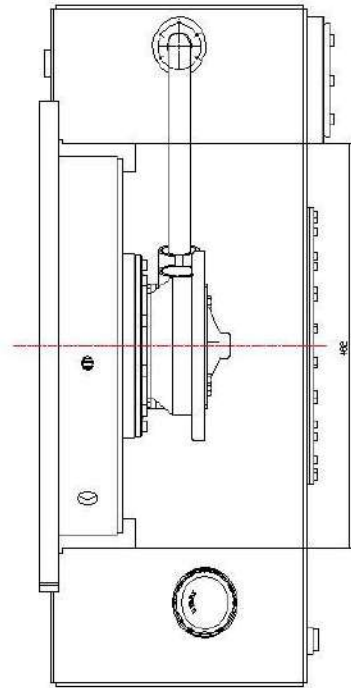
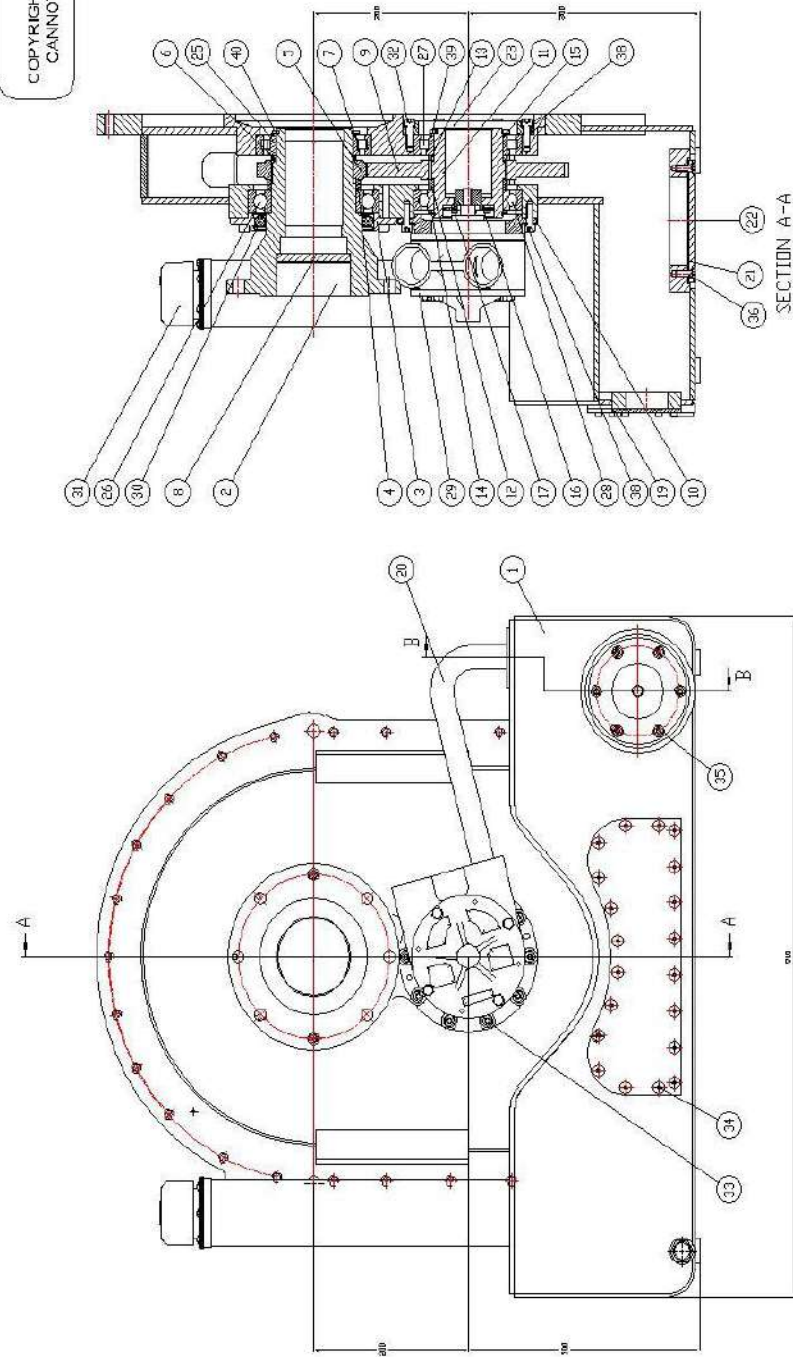
12). AXLE BOX GUIDE ARRGT. (3020503000)

S.NO.	DESCRIPTION	PART NO.	QTY./CAR
1.	LOWER RUBBER WASHER	3020503010	16 Nos
2.	LOWER SPRING SEAT	3020503020	16 Nos
3.	PACKING RING	3020503030	08 Nos
4.	COMPENSATING RING	3020503040	08 Nos
5.	HELICAL SPRING	3020503050	08 Nos
6.	PROTECTIVE TUBE COMPLETE	3020503060	08 Nos
7.	DUST SHIELD SPRING	3020503070	08 Nos
8.	DUST SHIELD	3020503080	08 Nos
9.	GUIDE RING	3020503090	08 Nos
10.	RUBBER PACKING RING	3020503100	08 Nos
11.	GUIDE BUSH	3020503110	02 Nos
12.	CIRCLIP	3020503120	01 No
13.	SAFETY STRAP	3020503130	01 No
14.	HEX. HEAD BOLT	3020503140	01 No
15.	SPRING LOCK WASHER	3020503150	02 Nos
16.	HEX.NUT	3020503160	16 Nos
17.	WASHER	3020503170	16 Nos
18.	HEX. HEAD SCREW	3020503180	16 Nos
19.	STEEL WIRE	3020503190	16 Nos
20.	RUBBER SNUBBER	3020503200	16 Nos
21.	FIXING ARRGT. OF RUBBER SNUBBER	3020503210	16 Nos
22.	SPLIT PIN	3020503220	25 Nos
23.	PACKING PLATE	3020503230	04 Nos
24.	HEX. HEAD SCREW	3020503240	32 Nos
25.	HEX. NUT	3020503250	32 Nos
26.	HEX. THIN NUT	3020503260	32 Nos
27.	SPRING LOCK WASHER	3020503270	32 Nos
28.	HEX. HEAD SCREW	3020503280	32 Nos

13). ROOF WATER TANK (3020054000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	SS PIPE 1/2", THK-1MM	3020054010	20m
2	TAFLOX TAPE 1/2"	3020054020	10 Pc.
3	SS TEE 1/2" BSP(F)	3020054030	2 Nos
4	STR 1/2" - 3/4" BSP	3020054040	1 Nos
5	ALBOW 3/4" BSP	3020054050	1 Nos
6	SS TEE 3/4" BSP	3020054060	4 Nos
7	SS ELBOW 1/2" (F)	3020054070	2 Nos
8	SHOKET 3/4" BSP	3020054080	1 Nos
9	SS ELBOW 3/4" (F)	3020054090	22 Nos
10	SS PIPE 1" ,THK-1MM	3020054100	10m
11	GUN METAL NRV HORIZONTAL 1"	3020054110	2 Nos
12	SS UNION 3/4" CF8 304	3020054120	3 Nos
13	SS UNION 1" CF8 304	3020054130	2 Nos
14	SS ELBOW 1" (F)	3020054140	12 Nos
15	SS TEE 1" BSP (F)	3020054150	1 Nos
16	TAFLOX TAPE 1"	3020054160	5 Pc.
17	SS BARREL NIPPLE 1"x6"	3020054170	2 Nos
18	STR. 1" BSP	3020054180	2 Nos
19	BALL VALVE 3/4" BSP	3020054190	1 Nos
20	WHITE PLUMBER SEAL 500ML	3020054200	1 Nos
21	HEX HEAD BOLT M16x40	3020054210	15 Nos
22	HEX NUT M16x40	3020054220	15 Nos
23	HEX HEAD BOLT M8x20	3020054230	12 Nos
24	HEX NUT M8x20	3020054240	12 Nos

CONFIDENTIAL
 COPYRIGHT VESTS WITH PHOOLTAS TRANSRAIL LIMITED
 CANNOT BE REPRODUCED, COPIED OR CONVERTED



PHOOLTAS TRANSRAIL LIMITED

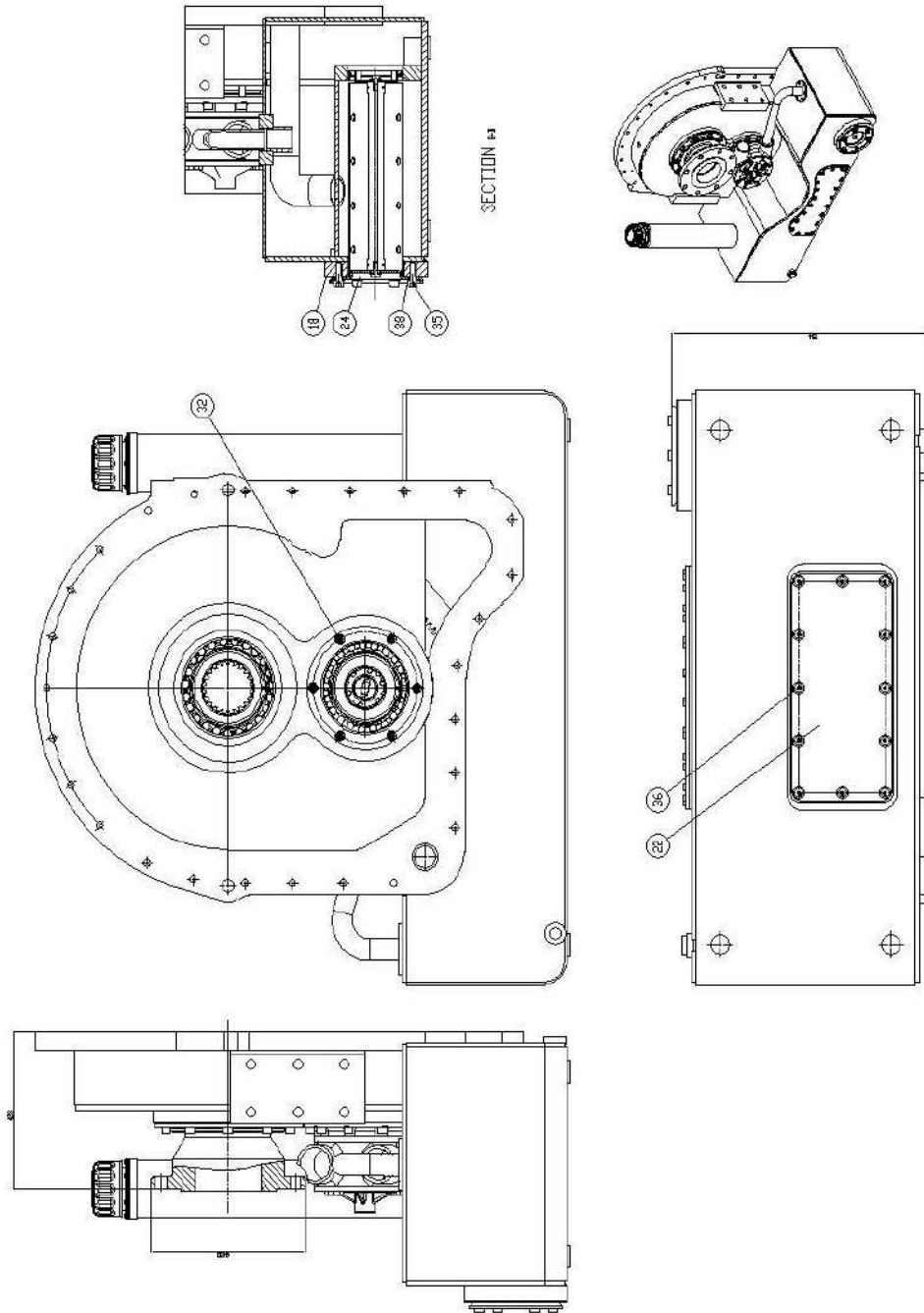
LAYAK ENCLAVES, SAHAY NAGAR, PATNA - 801506 (INDIA)

INTEGRAL OIL SUMP ASSLY (FOR CRT 5633 TRANSMISSION)

MODEL OHE.O1.B

PROJECT OHE.O1.B-DFCC

CONFIDENTIAL
 COPYRIGHT VESTS WITH PHOOLTAS TRANSRAIL LIMITED
 CANNOT BE REPRODUCED, COPIED OR CONVERTED



PHOOLTAS TRANSRAIL LIMITED

LAYAK ENCLAVES, SAHAY NAGAR, PATNA-801506 (INDIA)

INTEGRAL OIL SUMP ASSLY
 (FOR CRT 5633 TRANSMISSION)

MODEL OHE.01.B

PROJECT OHE.01.B-DFCC

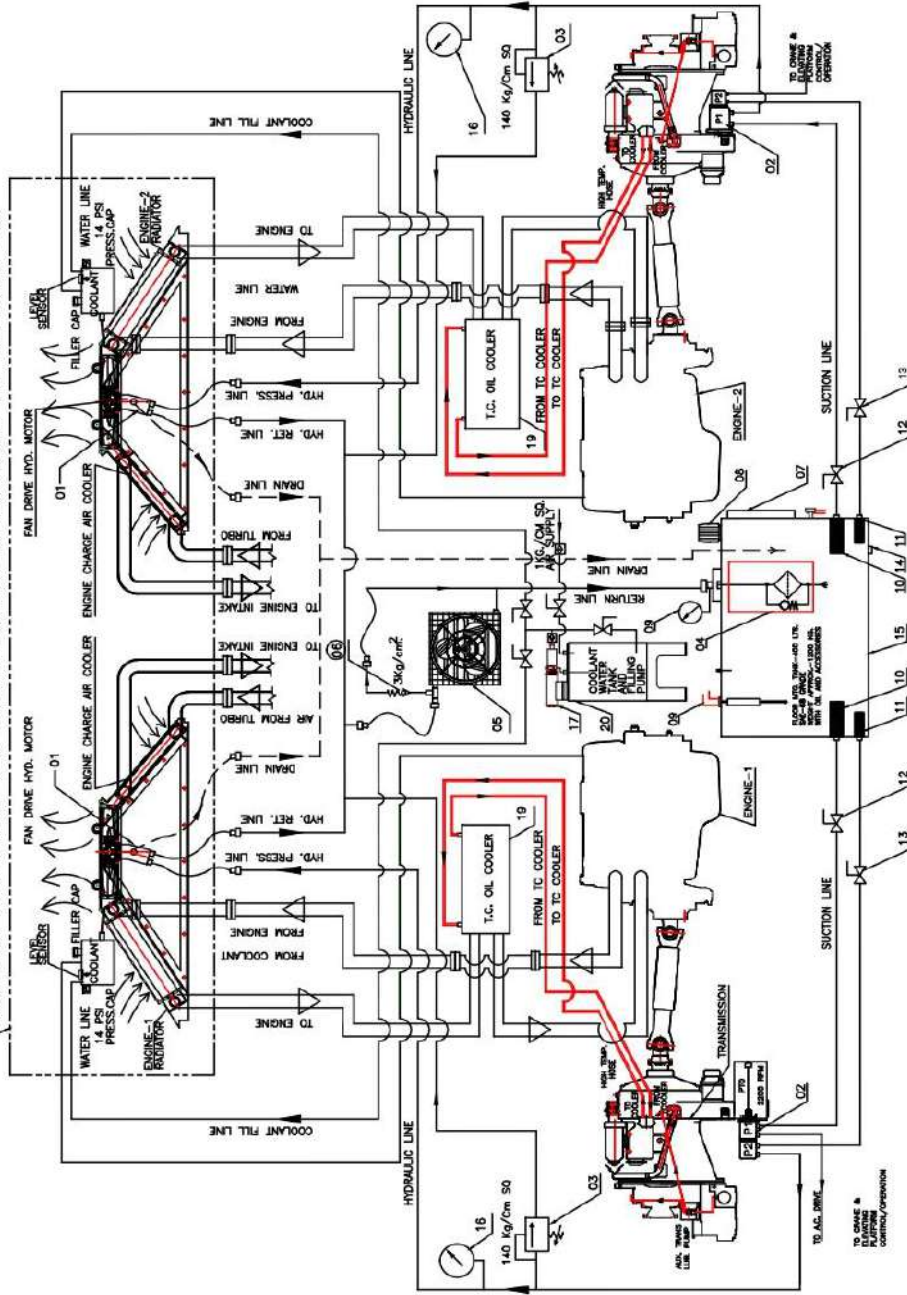
14). INTEGRAL OIL SUMP (3029100000)

S.NO.	DESCRIPTION	PART NO.	QTY.
1.	HOUSING INTEGRAL OIL SUMP (MACHINED)	3029100100	01 No
2.	FLANGE, OUTPUT	3029100200	01 No
3.	SEAL CARRIER	3029100300	01 No
4.	SPACER – 1, OUTER	3029100400	01 No
5.	HELICAL PINION 55 T	3029100500	01 No
6.	SPACER – 2, OUTER	3029100600	01 No
7.	SPACER – 3, OUTER	3029100700	01 No
8.	CLOSING – PLATE	3029100800	01 No
9.	HELICAL GEAR 89 T	3029100900	01 No
10.	PUMP MTG. COVER	3029101000	01 No
11.	PUMP DRIVE SHAFT	3029101100	01 No
12.	SPACER – 1, PUMP SHAFT	3029101200	01 No
13.	SPACER – 2, PUMP SHAFT	3029101300	01 No
14.	SPACER – 3, PUMP SHAFT	3029101400	01 No
15.	SPACER – 4, PUMP SHAFT	3029101500	01 No
16.	FLANGE, DRIVING PUMP	3029101600	01 No
17.	DRIVING PIN	3029101700	01 No
18.	GASKET – 1M STRAINER	3029101800	01 No
19.	COVER	3029101900	01 No
20.	BEND PIPE	3029102000	01 No
21.	GASKET, BOTTOM COVER	3029102100	01 No
22.	BOTTOM COVER	3029102200	01 No
23.	BEARING RETAINER	3029102300	01 No
24.	STRAINER AND MAGNETIC ASSLY.	3029102400	01 No
25.	CYLINDRICAL ROLLER BEARING, SKF	3029102500	01 No
26.	DEEP GROOVE BALL BEARING, SKF	3029102600	01 No
27.	CYLINDRICAL ROLLER BEARING, SKF	3029102700	01 No
28.	DEEP GROOVE BALL BEARING, SKF	3029102800	01 No
29.	AUXILIARY LUB. OIL PUMP FOR TRANSMISSION	3029102900	01 No
30.	OIL SEAL	3029103000	01 No
31.	FILLER CUM BREATHER	3029103100	01 No
32.	SOCKET HEAD BOLT	3029103200	06 Nos
33.	SOCKET HEAD BOLT	3029103300	20 Nos
34.	SOCKET HEAD BOLT	3029103400	20 Nos
35.	SOCKET HEAD SCREW	3029103500	06 Nos
36.	SOCKET HEAD SCREW	3029103600	12 Nos
37.	MAGNETIC DRAIN PLUG	3029103700	01 No
38.	SP. WASHER M 8	3029103800	32 Nos
39.	EXTERNAL CIRCLIP, SIZE - 90	3029103900	01 No
40.	EXTERNAL CIRCLIP, SIZE - 100	3029104000	01 No

CONFIDENTIAL
 COPYRIGHT © 2005 PHOOLTAS TRANSRAIL LTD.
 CANNOT BE REPRODUCED, COPIED OR CONVERTED.

FOR PROTOTYPE ONLY

18 SINGLE UNIT AS COMPOSITE ROOF MOUNTED RADIATOR AND CAC ASSLY. FOR TWIN POWER PACK



PHOOLTAS TRANSRAIL LIMITED

COOLING CIRCUIT OF TRANSMISSION AND RADIATOR (HYDRAULICALLY FAN DRIVEN)

MODEL RBMV.02.B

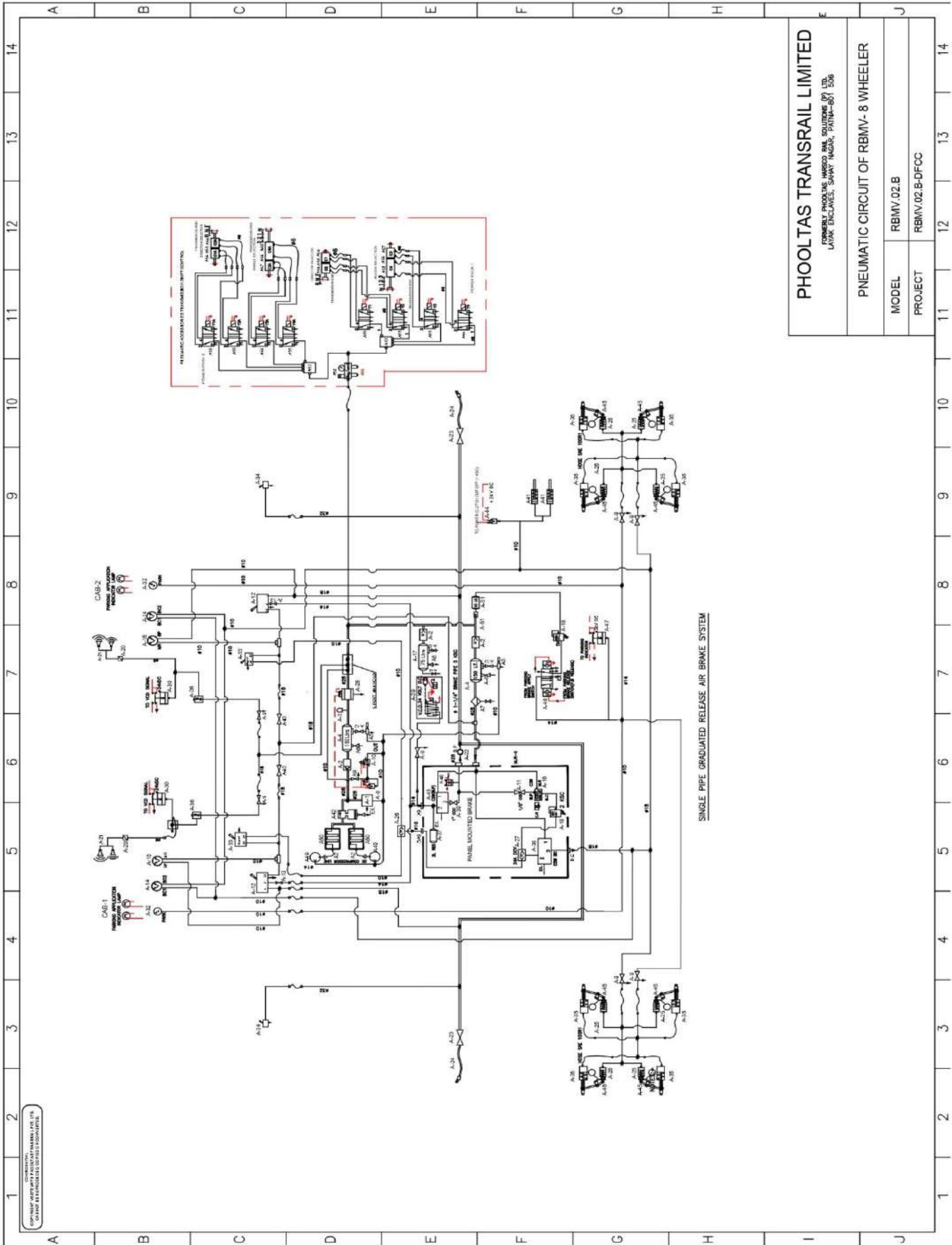
PROJECT RBMV.02.B-DFCC

**15). COOLING CIRCUIT OF TRANSMISSION AND RADIATOR
(HYDRAULICALLY DRIVEN) (3021100000)**

S.NO.	DESCRIPTION	PART NO.	QTY.
1.	FAN DRIVE HYDRAULIC MOTOR	3021100100	02 Nos
2.	DOUBLE (TANDEM) GEAR PUMP	3021100200	02 Nos
3.	PRESSURE RELIEF/PROTECTION VALVE	3021100300	02 Nos
4.	RETURN FILTER ASSLY. PORT-1-1/2"	3021100400	01 No
5.	OIL COOLER 1-1/4" BSPT PORT	3021100500	01 No
6.	IN LINE CHECK VALVE (BY PASS)	3021100600	01 No
7.	OIL LEVEL CUM TEMP. GAUGE	3021100700	01 No
8.	FILLER CUM BREATHER	3021100800	01 No
9.	HYDRAULIC OIL FLOAT SWITCH	3021100900	01 No
10.	SUCTION STRAINER	3021101000	02 Nos
11.	SUCTION STRAINER	3021101100	02 Nos
12.	GM BALL VALVE	3021101200	02 Nos
13.	GM BALL VALVE	3021101300	02 Nos
14.	DRAIN PLUG	3021101400	01 No
15.	HYDRAULIC TANK ASSLY.	3021101500	01 No
16.	PRESSURE GAUGE	3021101600	02 Nos
17.	COOLANT RISING PUMP	3021101700	01 No
18.	RADIATOR ASSLY.	3021101800	01 No
19.	T.C. OIL COOLER FOR TWIN POWER PACK	3021101900	02 Nos
20.	COOLANT FILLING TANK	3021102000	01 No

16.) HYDRAULIC CIRCUIT WITH COMPONENTS (3020900000)

S.NO.	DESCRIPTION	PARTS NO.	QTY.
1.	HYDRAULIC TANK 400 LTRS.	3020900100	01 No.
2.	EMERGENCY GEAR PUMP	3020900200	01 No.
3.	HYDEX GEAR COUPLING	3020900300	01 No.
4.	EMERGENCY PUMP DRIVE ELECTRICAL MOTOR 3HP	3020900400	01 No.
5.	IN LINE CHECK VALVE 5 PSI ½"	3020900500	01 Nos.
6.	SUB PLATE 06 SIZE SERIES 1"PORT	3020900600	01 No.
7.	3 POSITION DIRECTION CONTROL VALVE	3020900700	01 Nos.
8.	EXT. ELC. POWER DRIVEN AC COMPRESSOR (DEPORT USE)	3020900800	01 No.
9.	2 POSITION VALVE (PUMP POWER SELECTION)	3020900900	04 Nos.
10.	SUB PLATE 03 SERIES	3020901000	04 Nos.
11.	IN LINE CHECK VALVE (BYPASS) 3 BAR, 1" PORT	3020901100	02 Nos.
12.	OIL COOLER 1-1/2",110/24VDC FAN DIA 400, MODEL-AH-1680, 26.5 KW,FLOW 300 LPM	3020901200	01 No.
13.	IN LINE CHECK VALVE 5 PSI 3/4"	3020901300	04 Nos.
14.	DIRT INDICATOR GAUGE 1/8"	3020901400	01 Nos.
15.	PRESSURE GAUGE 0 TO 400 KG/CM.SQ.	3020901500	03 Nos.
16.	GAUGE CONNECTOR	3020901600	03 Nos.
17.	QUICK CONNECT COUPLING 1/2"	3020901700	02 No.
18.	3/4" SUB PLATE FOR 2 POSITION DIRECTION VALVE	3020901800	02 Nos.
19.	BALL VALVE (LOW PRESSURE) 3/4"	3020901900	01 Nos.
20.	SINGLE GEAR PUMP FOR RADIATOR FAN DRIVE MOTOR	3020902000	02 Nos.
21.	FAN DRIVE HYDRAULIC MOTOR	3020902100	02 Nos.
22.	RADIO REMOTE CONTROL FOR 4 SECTION MANUAL VALVE CRANE MEC HL RADIO REMOTE CONTROL SYSTEM	3020902200	02 No.
23.	BALL VALVE (LOW PRESSURE) 1-1/2"	3020902300	03 Nos.
24.	PRESSURE RELIVE VALVE	3020902400	01 No.
25.	BEND AXIS FIXED DISP. PISTON PUMP FOR CRANE AND PLATFORM REXROTH 32 CC-A17FO032/10NLWKOE81-0	3020902500	02 Nos.
26.	SUCTION STRAINER 1-1/2" PORT 150 MICRONS	3020902600	05 Nos.
27.	HIGH TEMP. SEAFTY SWITCH 85°C	3020902700	01 No.
28.	LEVEL GAUGE WITH TEMP. INDICATOR	3020902800	01 No.
29.	FILLER BREATHER	3020902900	01 No.
30.	RETURN FILTER ASSLY. 1-1/2" PORT 10MICRON FILTER FLOW 200LPM	3020903000	01 Nos.
31.	LOW OIL SAFETY SWITCH	3020903100	01 No.
32.	PILOT OPERATOR CHECK VALVE	3020903200	04 Nos.
33.	STABILIZER CYLINDER	3020903300	04 No.
34.	3 POSITION STABILISER CONTROL VALVE	3020903400	02 No.
35.	HIGH PRESSURE SHUT OFF COCK 1/2"	3020903500	04 No.
36.	2 POSITION MANUAL DIRECTION CONTROL VALVE 03 SERIES	3020903600	02 No.
37.	OIL COOLER 1-1/2",110/24VDC FAN DIA 350	3020903700	01 No.

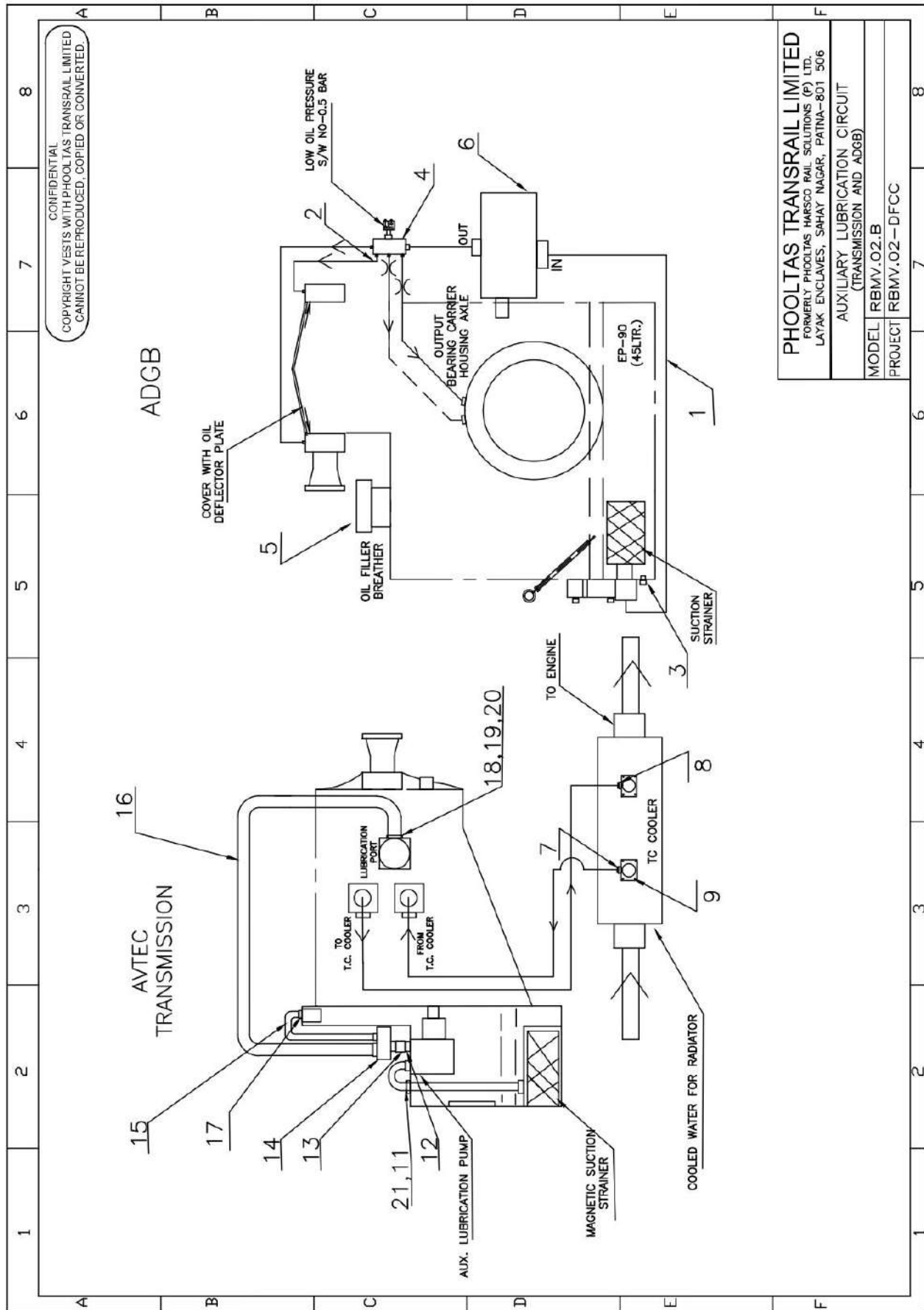


PHOOLTA TRANSRAIL LIMITED	
PHOOLTA TRANSRAIL LIMITED, PHOOLTA TRANSRAIL LTD., LATA, ENGLAND, S74 4JG, TEL: 01924 601 500	
PNEUMATIC CIRCUIT OF RBMV-8 WHEELER	
MODEL	RBMV 02.B
PROJECT	RBMV 02 B-DFCC

17). PENUMATIC CIRCUIT WITH COMPONENTS (3020800000)

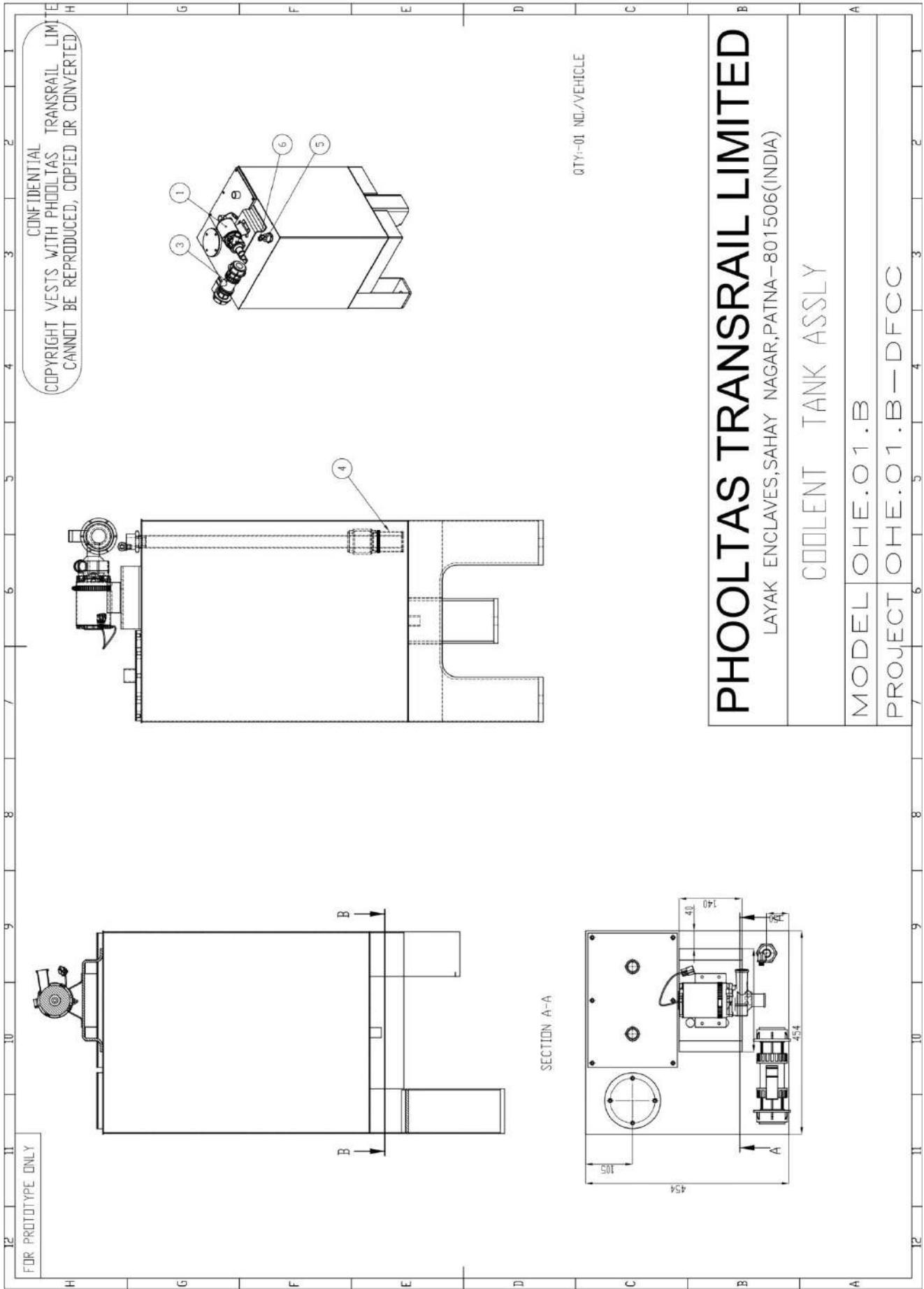
S. NO.	DESCRIPTION	PART NO.	QTY.
A1	UNLOADER VALVE	3020800000	01 No.
A2	1" CHECK VALVE	3020800000	05 Nos.
A3	SAFETY VALVE TYPE J-1 SET AT 8.5 Kg/cm ² .	3020800000	01 No.
A4	M.R-I AND MR-II RESERVOIR (150 Ltrs EACH)	3020800000	02 No.
A5	Auto drain valve with timing reservoir type D-1	3020800000	03 No.
A6	½" Drain cock	3020800000	03 Nos.
A7	J- Air filter with drain cock	3020800000	01 No.
A8	PRESSURE SWITCH RT-116 SET TO CLOSE AT 8Kg/cm ² OPEN AT 7Kg/cm ²	3020800000	01 No.
A9	3/8" ISO cock with vent	3020800000	08 Nos.
A10	3-WAY MAGNET VALVE 24V D.C.NORMALLY CLOSED	3020800000	01 No.
A11	1" ISOLATING COCK WITH OUT VENT,P/MTD.	3020800000	01 Nos.
A12	A-9 Auto brake valve	3020800000	02 Nos.
A13	½" ISO cock	3020800000	05 Nos.
A14	4" Duplex press gauge (BP)	3020800000	02 Nos.
A15	4" Duplex press gauge (MR)	3020800000	02 Nos.
A16	C3W DIST. VALVE WITH SUPPORT/CONTROL RESERVOIR AND FILTER, P/MOUNTED	3020800000	01 No.
A17	M.R-III, RESERVOIR 100 Ltrs	3020800000	01 No.
A18	N1-REDUCING VALVE SET AT 5 kg/cm ² .	3020800000	03 Nos.
A19	N1-REDUCING VALVE SET AT 2 kg/cm ² ,P/MTD.	3020800000	02 No.
A20	1/4" BSP 2 WAY HEAVY DUTY DIRECT ACTING SOLENOID VALVE FOR HORN 24V DC 2S025-08	3020800000	02 Nos.
A21	PNEUMATIC HORN(DOUBLE TONE)	3020800000	02 Nos.
A22	2 Way Dirt collector	3020800000	01 No.
A23	ANGLE COCK (BP)(AS PER RDSO DRG. NO. WD-88123/S-02)	3020800000	02 Nos.
A24	HOSE WITH DUMMY COUPLING (BP)	3020800000	02 Nos.
A25	SPRING BRAKE ACTUATOR (PARKING BRAKE)	3020800000	08 Nos.
A26	GRADUATED HAND CONTROL VALVE (FOR PARKING BRAKE)	3020800000	02 Nos.
A27	24 A DOUBLE CHECK. VALVE, P/MOUNTED	3020800000	01 Nos.
A28	AIR DRYER-OF RDSO APPROVED	3020800000	01 No.
A29	V.C.D control assly. 24 V DC	3020800000	01 No.
A30	PRESSURE SWITCH (VCD SIGNAL), 3Kg/cm ² to 4Kg/cm ²	3020800000	02 Nos.
A31	RESURVOIR 10 LTR	3020800000	02 Nos.
A32	4" PARKING BRAKE INDICATOR GAUGE	3020800000	02 Nos.
A33	SA-9 BRAKE VALVE SET AT 2 kg/cm ²	3020800000	02 Nos.
A34	EAB/D-1 EMERGENCY BRAKE VALVE	3020800000	02 Nos.
A35	8" BRAKE CYLINDER,JSL TYPE,WITH TRUNION	3020800000	08 Nos.
A36	PRESSURE PROTECTION VALVE	3020800000	02 Nos.
A37	RESERVOIR-2 LTRS.(B.P.EQUALISE)	3020800000	01 No.
A38	C-2W RELAY VALVE (B.C.), P/MOUNTED	3020800000	01 No.
A39	1" ISOLATING COCK WITHOUT VENT,P/MTD.	3020800000	01 No.

A40	3/8" ISO COCK WITHOUT VENT	3020800000	01 No.
A41	SINGLE ACTING SPRING RETURN CYL. (TRANS. POWER CUT OFF CYL. (1 kg/cm ²)	3020800000	01 Nos.
A42	1" CDC WITH 7L RESERV WITH DRAIN COCK	3020800000	01 No.
A43	C-2W RELAY VALVE (B.P.), P/MOUNTED	3020800000	01 No.
A44	PRESSURE SWITCH/W RT-200 POWER CUT OFF (0.5kg/cm ² /1 kg/cm ²)	3020800000	01 No.
A45	MECHANICAL QUICK RELEASE MECHANISUM	3020800000	04 Nos.



18). TRANSMISSION AUXILIARY LUBRICATION CIRCUIT (3021101000)

S. NO.	DESCRIPTION	PARTS NO.	QTY.
1.	HOSE PIPE 3/4"x M30	3021101010	1 NO.
2.	HOSE PIPE R1 1/4" WITH CRIMPED FITTING	3021101020	5 NOS
3.	HEX HEAD BOLT M12x75	3021101030	4 NOS
4.	MAINFOLD 1/2"	3021101040	1 NO.
5.	OIL FILLER BREATHER	3021101050	1 NO.
6.	BI-DIRECTIONAL PUMP WITH OIL SEAL	3021101060	1 NO.
7.	1" X 3" STR.	3021101070	1 NO.
8.	1" x1" STR	3021101080	1 NO.
9.	HEX HEAD BOLT M16X45	3021101090	8 NOS
10.	STR. 1/2" x M36	3021101100	1 NO.
11.	SS PIPE 1" THK.-1MM	3021101110	0.6M
12.	STR. 1-1/2"x3/4"	3021101120	1 NO.
13.	STR. 3/4"-1/2"	3021101130	1 NO.
14.	TEE 1/2" WITH SLOT NUT 1/2" RUN 1/2" BSP	3021101140	1 NO.
15.	HOSE PIPE 1/2" LONG 550MM	3021101150	1 NO.
16.	HOSE PIPE 1/2" LONG 1450	3021101160	1 NO.
17.	STR 3/4" -1/2"	3021101170	1 NO.
18.	STR 1/4"-1/2"	3021101180	1 NO.
19.	CHECK VALVE 1/2"	3021101190	1 NO.
20.	STR 1/2"-1/2"	3021101200	1 NO.
21.	HEX NUT M6x20	3021101210	1 NO.

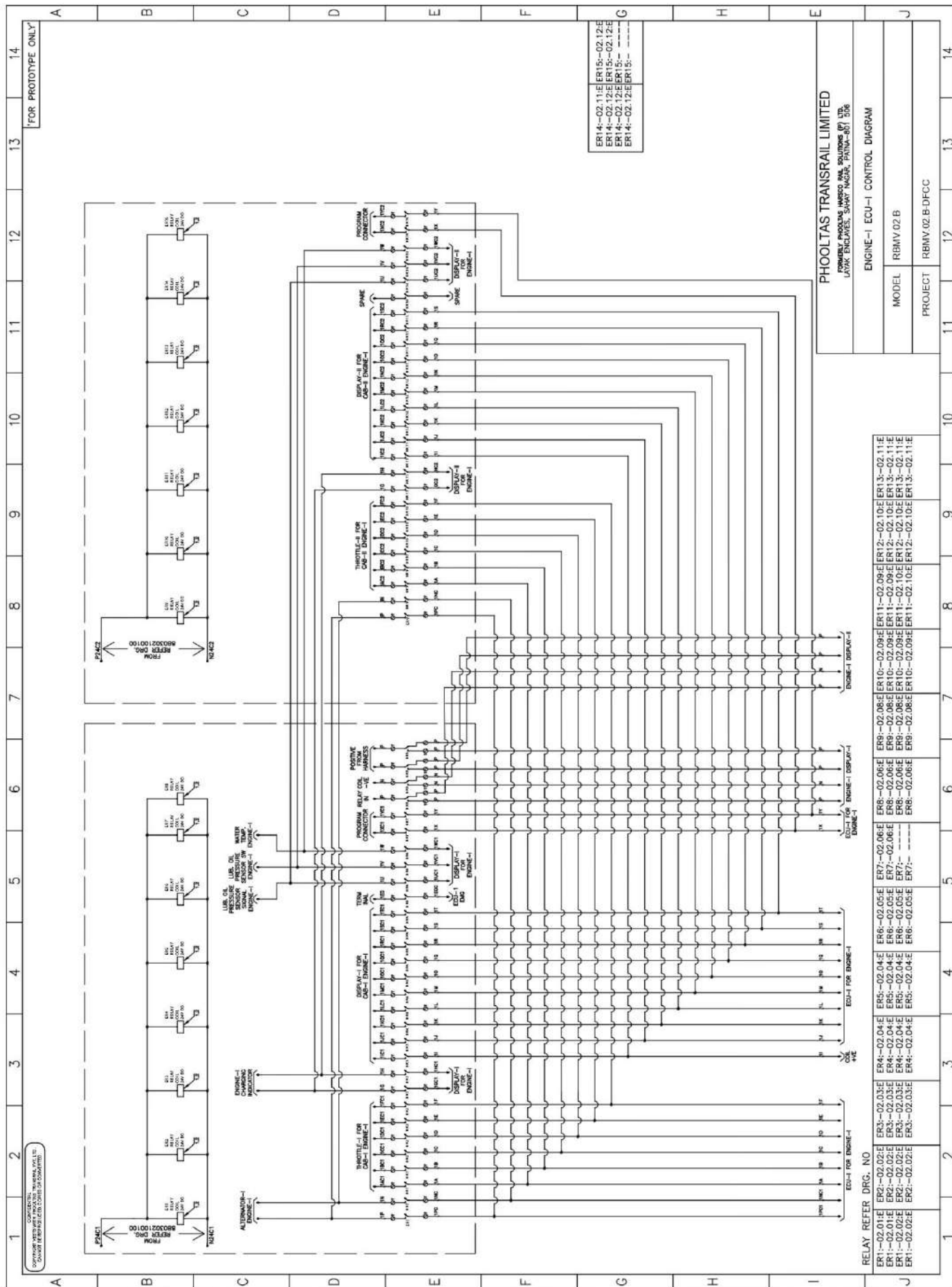


19) COOLENT TANK ASSLY (3021102000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	WATER PUMP ASSLY	3021102010	1 NO.
2	COOLENT WATER TANK (100 LTR)	3021102020	1 NO.
3	BALL VALVE	3021102030	1 NO.
4	CHECK FOOT VALVE WITH STRAINER	3021102040	1 NO.
5	1 INCH M26 FITTING	3021102050	1 NO.
6	MS ELBOW BSP 1/2" XM22	3021102060	1 NO.

20). 24V POWER SUPPLY FOR ENGINE-I & ENGINE-II (3021001000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	12V 150 AH BATTERY	3021001010	8 Nos
2	ALTERNATOR 24V, 100A, MAKE- LUCAS TVS	3021001020	2 Nos
3	SELF STARTER RELAY	3021001030	2 Nos
4	DIODE IN5408 (D1 TO D4)	3021001040	4 Nos
5A-5B	BATTERY CUT OFF SWITCH 100 AMP	3021001050	3 Nos
6	40A DP MCB, DC	3021001060	2 Nos
7	6A SP MCB, DC	3021001070	4 Nos
8	SOCKET 2 POLE 20 AMP. FOR BATTERY CHARGING	3021001080	4 Nos
9	3P SEL. SWITCH WITH KEY OPERATING	3021001090	1 No.
10	NO ELEMENT FOR S/W	3021001100	4 Nos
11	RELAY NO/NC CONTACT (R3)	3021001110	2 Nos
12	25A DP MCB, DC	3021001120	2 Nos
13	GREEN INDICATOR 24VOLT DC	3021001130	2 Nos
14	UNLOADER PRESSURE SWITCH	3021001140	1 No.
15	UNLOADER VALVE	3021001150	1 No.

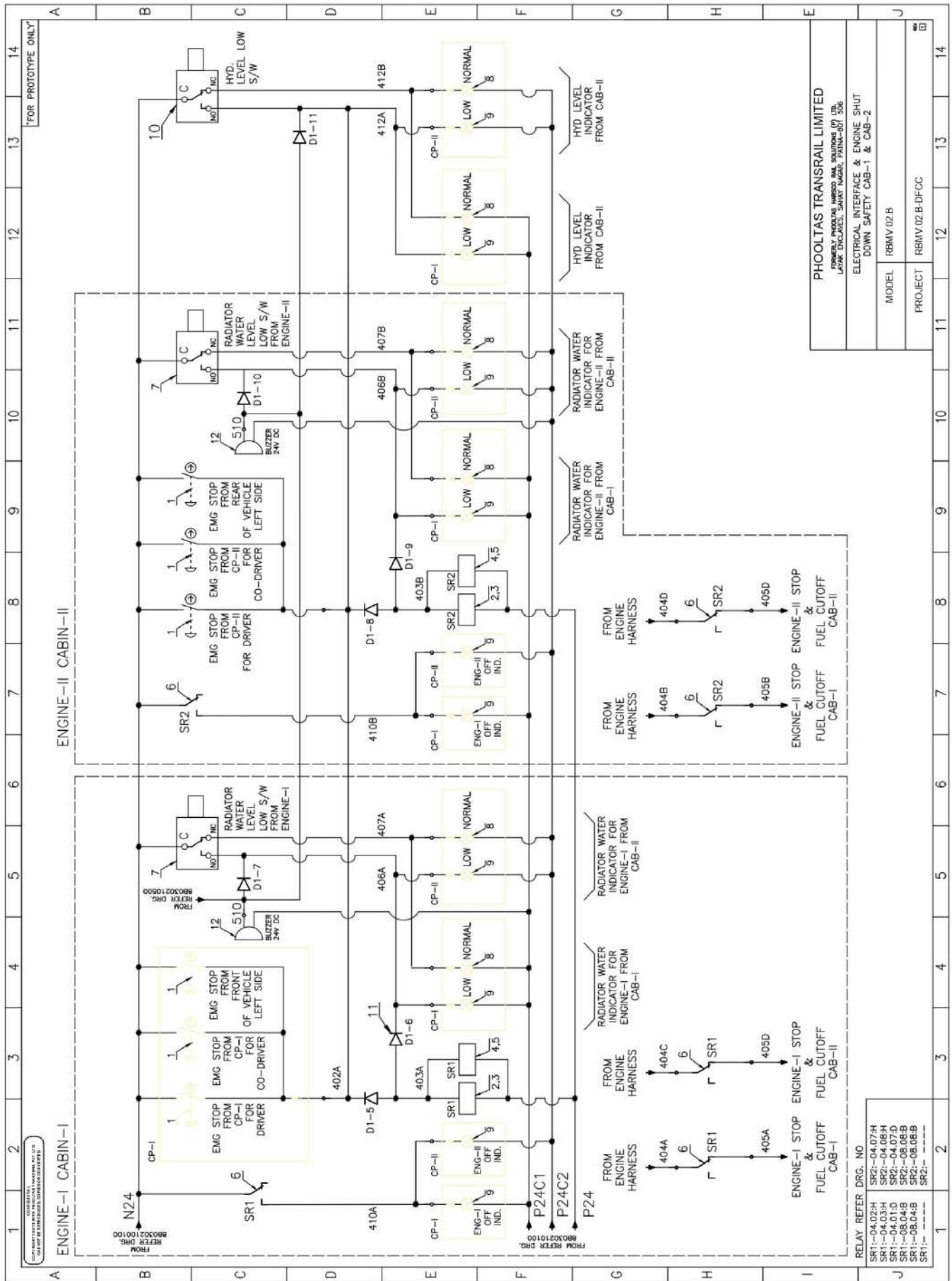


21) ENGINE-I ECU-I CONTROL DIAGRAM (3021002000)

S. NO.	DESCRIPTION	PARTS NO.	QTY.
1	RELAY 14 PIN 6A 24V DC 4 C/O	3021002100	15 Nos
2	RELAY BASE 14 PIN	3021002200	15 Nos

22) ENGINE-II ECU-II CONTROL DIAGRAM (3021003000)

S. NO.	DESCRIPTION	PARTS NO.	QTY.
1A	RELAY 14 PIN 6A 24V DC 4 C/O	3021003100	15 Nos
2B	RELAY BASE 14 PIN	3021003200	15 Nos

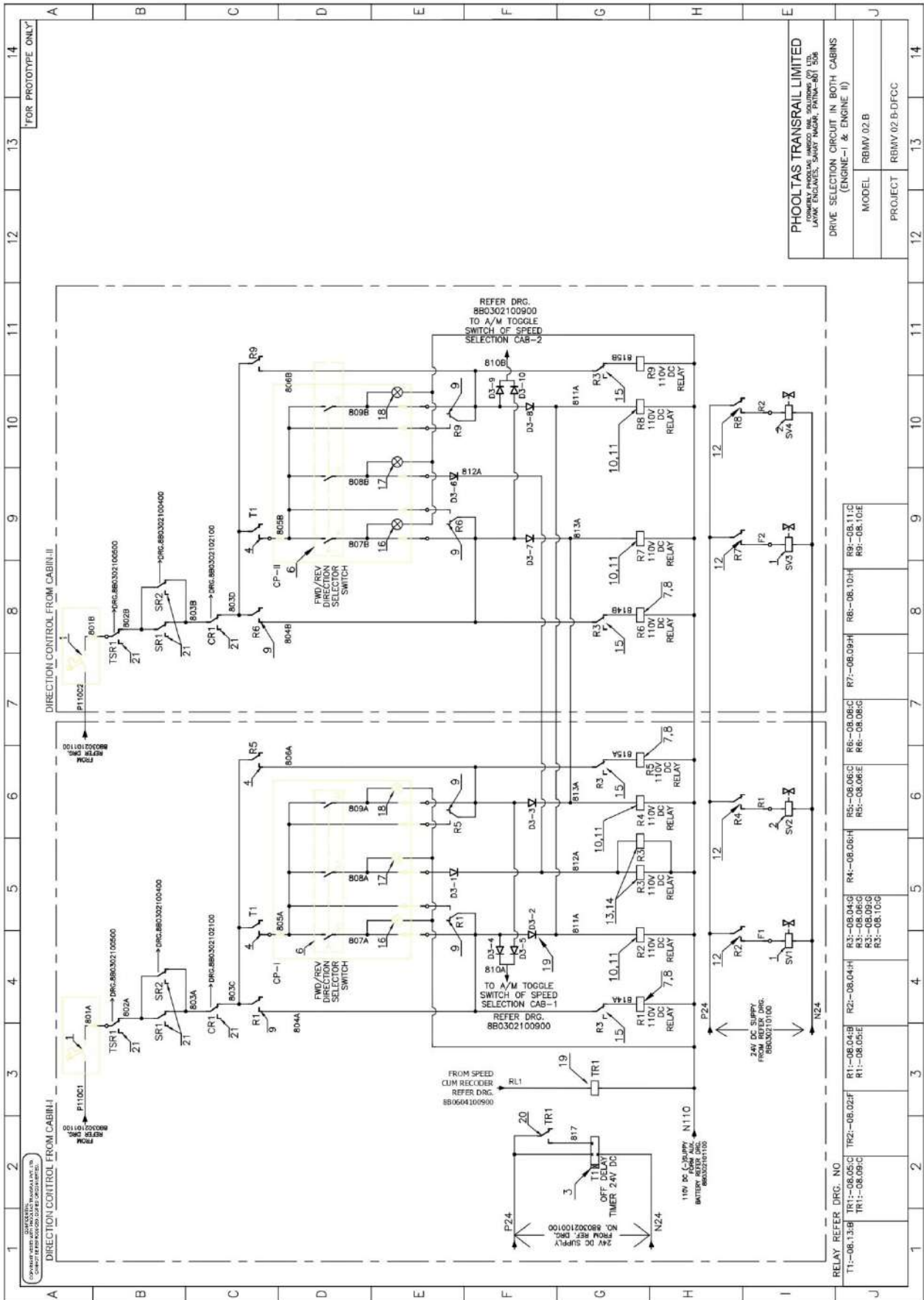


**23). ELECTRICAL INTERFACE & ENGINE SHUT DOWN SAFETY CAB-1 & CAB-2
(3021004000)**

S. NO.	DESCRIPTION	PART NO.	QTY.
1	RED EMERGENCY SWITCH MUSHROOM TYPE WITH NO POINT	3021004010	12 Nos
2	4 C/O RELAY, 24V DC (SR1 & SR2)	3021004020	2 Nos
3	4 C/O RELAY BASE (SR1 & SR2)	3021004030	2 Nos
4	2 C/O RELAY, 24V DC (SR1 & SR2)	3021004040	2 Nos
5	2 C/O RELAY BASE (SR1 & SR2)	3021004050	2 Nos
6	RELAY NO/NC CONTACT (SR1 & SR2)	3021004060	6 Nos
7	RADIATOR WATER LEVEL LOW SAFETY SWITCH, MAKE-SHRIDHAN	3021004070	2 Nos
8	GREEN INDICATOR 24VOLT DC	3021004080	6 Nos
9	RED INDICATOR 24VOLT DC	3021004090	10 Nos
10	HYDRAULIC LEVEL LOW SWITCH (HYD CKT)	3021004100	1 No.
11	DIODE IN5408 (D5 TO D8)	3021004110	4 Nos
12	BUZZER 24VOLT V DC	3021004120	2 Nos

24). ELECTRICAL CIRCUIT ENGINE & TRANSMISSION SAFETY CONTROL (3021005000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	4 C/O RELAY, 24V DC (TSR1)	3021005010	1 No.
2	4 C/O RELAY BASE (TSR1)	3021005020	1 No.
3	2 C/O RELAY, 24V DC (TSR1)	3021005030	1 No.
4	2 C/O RELAY BASE (TSR1)	3021005040	1 No.
5	RELAY NO/NC CONTACT (TSR1)	3021005050	4 Nos
6	TRANSMISSION OIL TEMP. HIGH	3021005060	2 Nos
7	HYD TEMP. HIGH SWITCH	3021005070	1 No.
8	INDICATOR 24VOLT DC GREEN	3021005080	6 Nos
9	INDICATOR 24VOLT DC RED	3021005090	6 Nos
10	DIODE IN5408 (D9 TO D11)	3021005100	3 Nos
11	B.C. PRESSURE SWITCH	3021005110	1 No.
12	4 C/O RELAY, 24V DC (BCR1)	3021005120	1 No.
13	4 C/O RELAY BASE (BCR1)	3021005130	1 No.
14	RELAY NO/NC CONTACT (TSR1)	3021005140	4 Nos
15	B.P. PRESSURE SWITCH	3021005150	1 No.



**25). DRIVE SELECTION CIRCUIT IN BOTH CABIN (ENGINE-I & ENGINE –II)
(3021006000)**

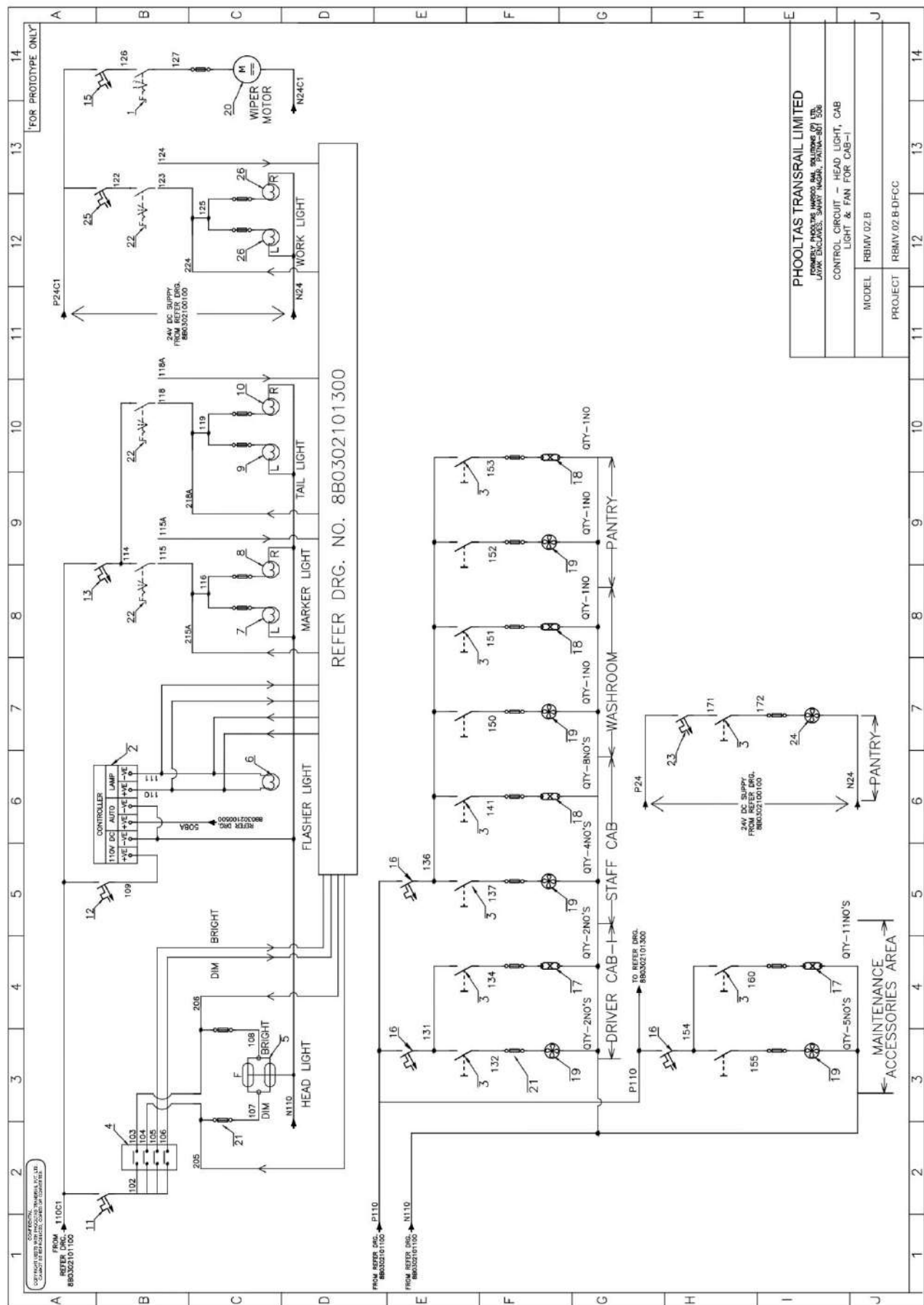
S. NO.	DESCRIPTION	PARTS NO.	QTY.
1	SINGLE SOLENOID VALVE 110V DC FOR FWD DIRECTION CONTROL	3021006010	2 Nos
2	SINGLE SOLENOID VALVE 110V DC FOR REV DIRECTION CONTROL	3021006020	2 Nos
3	OFF DELAY TIMER 1 C/O, (T1) COIL 24V DC	3021006030	1 No.
4	TIMER (T1) NO/NC CONTACT	3021006040	2 Nos
5	DIODE IN5408 (D12 TO D21)	3021006050	10 Nos
6	16A ROTARY SWITCH SINGLE POLE, 4 WAY, 61050 FOR DIRECTION FWD/REV	3021006060	2 Nos
7	8 PIN, 2 CHANGE OVER RELAY (R1,R5,R6,R9) 110V DC	3021006070	4 Nos
8	8 PIN 2 CHANGE OVER RELAY BASE (R1,R5,R6,R9)	3021006080	4 Nos
9	RELAY NO/NC CONTACT (R1,R5,R6,R9) FOR 2 CHANGE OVER RELAY	3021006090	8 Nos
10	5 PIN, 1 CHANGE OVER RELAY (R2,R4,R7,R8) 110V DC	3021006100	4 Nos
11	5 PIN 2 CHANGE OVER RELAY BASE (R2,R4,R7,R8)	3021006110	4 Nos
12	RELAY NO/NC CONTACT (R2,R4,R7,R8) FOR 1 CHANGE OVER RELAY	3021006120	4 Nos.
13	14PIN, 4 CHANGE OVER RELAY (R3) 110V DC	3021006130	2 Nos
14	14PIN, 4 CHANGE OVER RELAY BASE (R3)	3021006140	2 Nos
15	RELAY NO/NC CONTACT (R3) FOR 4 CHANGE OVER RELAY	3021006150	4 Nos
16	GREEN INDICATOR 110V DC FOR FORWARD DIRECTION	3021006160	2 Nos
17	YELLOW INDICATOR 110V DC FOR NEUTRAL DIRECTION	3021006170	2 Nos
18	BLUE INDICATOR 110V DC FOR REVERSE DIRECTION	3021006180	2 Nos
19a	5 PIN, 1 CHANGE OVER RELAY (TR2) 110V DC	3021006190	1 No.
19b	5 PIN, 1 CHANGE OVER RELAY BASE (TR2)	3021006200	1 No.
20	RELAY NO/NC CONTACT (TR2) FOR 2 CHANGE OVER RELAY	3021006210	1 No.
21	RELAY NO/NC CONTACT (TSR1,SR1,SR2,CR1)	3021006010	8 Nos

**26). DRIVER CIRCUIT FOR MANUAL & AUTO CONTROL
(CABIN-I & CABIN-II) (3021007000)**

S. NO.	DESCRIPTION	PART NO.	QTY.
1	SINGLE SOLENOID VALVE 24V DC FOR SPEED SELECTION (BOTH TRANS.)	3021007010	4 Nos
2	AUTO/MANUAL 3P SELECTOR SWITCH	3021007020	2 Nos
3	16A ROTARY SWITCH, 2P3W, GEAR SEL., 61080	3021007030	2 Nos
4	5 PIN,1C/O RELAY COIL(R12,R13,R14,R15)110V	3021007040	4 Nos
5	5 PIN,1C/O RELAY BASE(R12,R13,R14,R15)	3021007050	4 Nos
6	RELAY NO/NC CONTACT (R12,R13,R14,R15) FOR 1 CHANGE OVER RELAY	3021007060	4 Nos
7	GREEN INDICATOR 110V DC FOR SPEED-1	3021007070	2 Nos
8	YELLOW INDICATOR 110V DC FOR SPEED-2	3021007080	4 Nos
9	BLUE INDICATOR 110V DC FOR SPEED-3	3021007090	4 Nos
10	3 C/O RELAY COIL (R10) 110V DC	3021007100	1 No.
11	3 C/O RELAY BASE(R10)	3021007110	1 No.
12	RELAY NO/NC CONTACT (R10)	3021007120	3 Nos
13	DIODE IN5408 (D22 TO D38)	3021007130	17 Nos
14	ON/OFF 2P SELECTOR SWITCH NO ELEMENT FOR S/W	3021007140	8 Nos
15	2 C/O RELAY COIL (R8) 110V DC	3021007150	1 No.
16	2 C/O RELAY BASE(R8)	3021007160	1 No.
17	RELAY NO/NC CONTACT (R8)	3021007170	2 Nos
18	RED INDICATOR 24VOLT DC	3021007180	2 Nos
19	SOLENOID VALVE 24V DC	3021007190	1 No.

27). 110V DC ELECTRICAL CIRCUIT (3021008000)

S.NO.	DESCRIPTION	PART NO.	QTY.
1	AUXILLIARY ALTERNATOR 4.5 KW,110V	3021008010	2 Nos.
2	RECTIFIER REGULATOR PANEL	3021008020	2 Nos.
3	BATTERY110V X 120 AH	3021008030	1 No.
4	SOCKET 2 POLE 20 AMP. FOR BATTERY CHARGING	3021008040	2 Nos.
5	SOCKET 2 POLE 20 AMP. FOR HAND SIGNALS	3021008050	4 Nos.
6	BATTERY CUT OFF SWITCH100AMP	3021008060	1 No.
7	3 POS. SEL. S/W WITH KEY OPERATE	3021008070	1 No.
8	NO ELEMENT FOR S/W	3021008080	2 Nos.
9	NO ELEMENT FOR S/W	3021008090	6 Nos.
10	AIR DRYER PURGE VALVE	3021008100	1 No.
11	40A DP MCB, DC	3021008110	1 No.
12	25A DIODE, MODEL NO-25HM160 M8 WL, MAKE RUTTONSHA	3021008120	4 Nos.



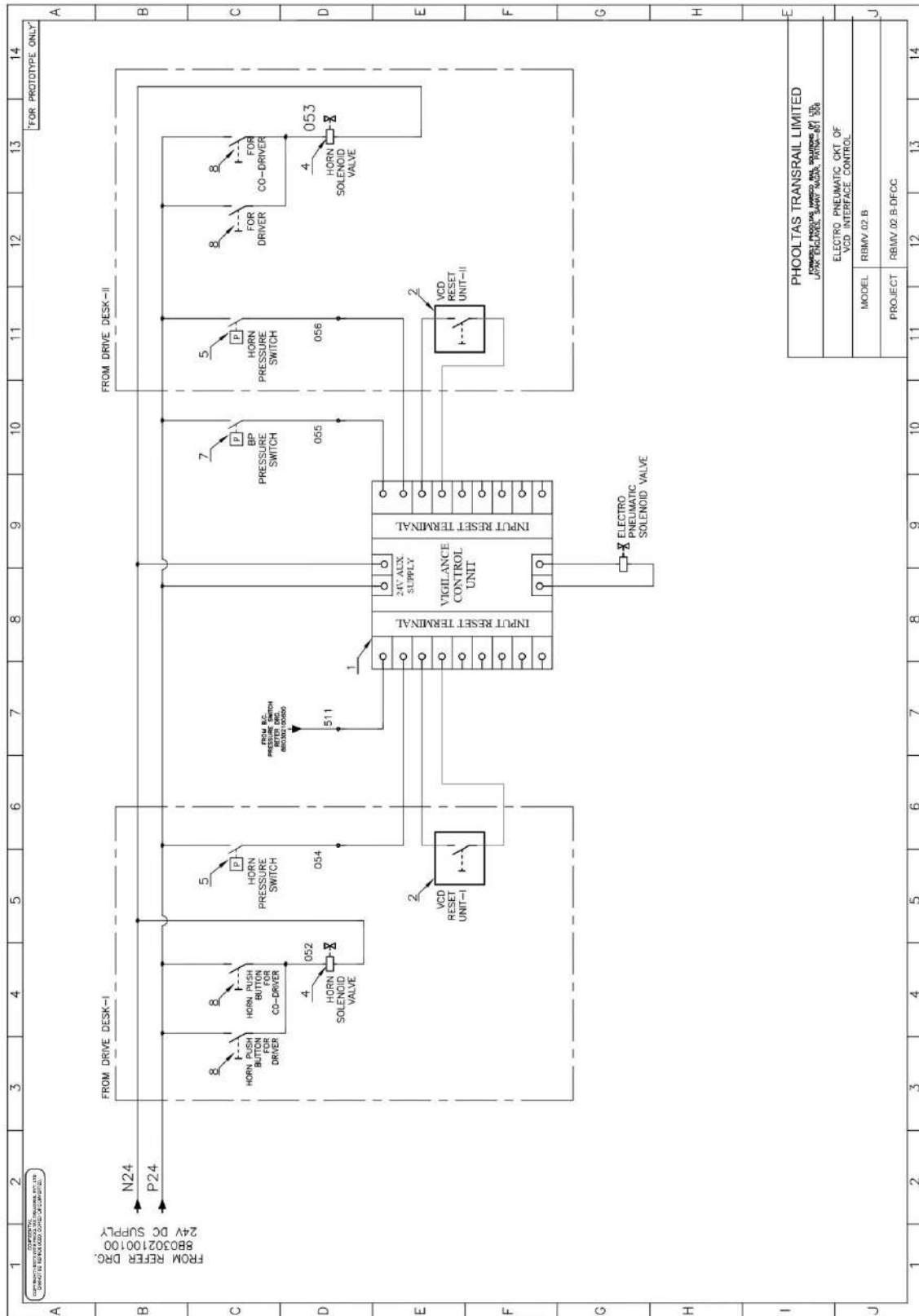
28) CONTROL CIRCUIT – HEAD LIGHT, CABIN LIGHT & FAN FOR CAB-I (3021009000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	ON/OFF 2P SELECTOR SWITCH	3021009010	1 No.
2	FLASHER LIGHT CONTROL UNIT	3021009020	1 No.
3	ONE WAY SWITCH, COLOR-WHITE	3021009030	40 Nos
4	ROTARY SWITCH 1P 5W-HEAD LIGHT	3021009040	1 No.
5	HEAD LIGHT 110V DC	3021009050	1 No.
6	FLASHER LIGHT 110V DC	3021009060	1 No.
7	MARKER LIGHT LEFT 110V DC	3021009070	1 No.
8	MARKER LIGHT RIGHT 110V DC	3021009080	1 No.
9	TAIL LIGHT LEFT 110V DC	3021009090	1 No.
10	TAIL LIGHT RIGHT 110V DC	3021009100	1 No.
11	MCB 6A SP FOR HEAD LIGHT	3021009110	1 No.
12	MCB 6A SP FOR FLASHER LIGHT	3021009120	1 No.
13	MCB 6A SP FOR MAR.&TAIL LIGHT	3021009130	1 No.
14	MCB 16A SP FOR WIPER MOTOR	3021009140	1 No.
15	MCB 6AMP FOR LIGHT & FAN	3021009150	3 Nos
16	DRIVER CAB LIGHT 110V, 18W	3021009160	2 Nos
17	DRIVER CAB LIGHT 110V, 9W	3021009170	21 Nos
18	FAN 110V DC	3021009180	13 Nos
19	WIPER 24V DC	3021009190	1 No.
20	GLASS FUSE	3021009200	46 Nos
21	ON/OFF/ON 3P SWITCH	3021009210	2 Nos
22	MCB 6A SP FOR EXHAUST FAN	3021009220	1 No.
23	8" FAN EXHAUST 24V DC	3021009230	1 No.
24	MCB 6A SP FOR WORK LIGHT	3021009240	1 No.
25	WORK LIGHT RIGHT 24V DC	3021009250	2 Nos



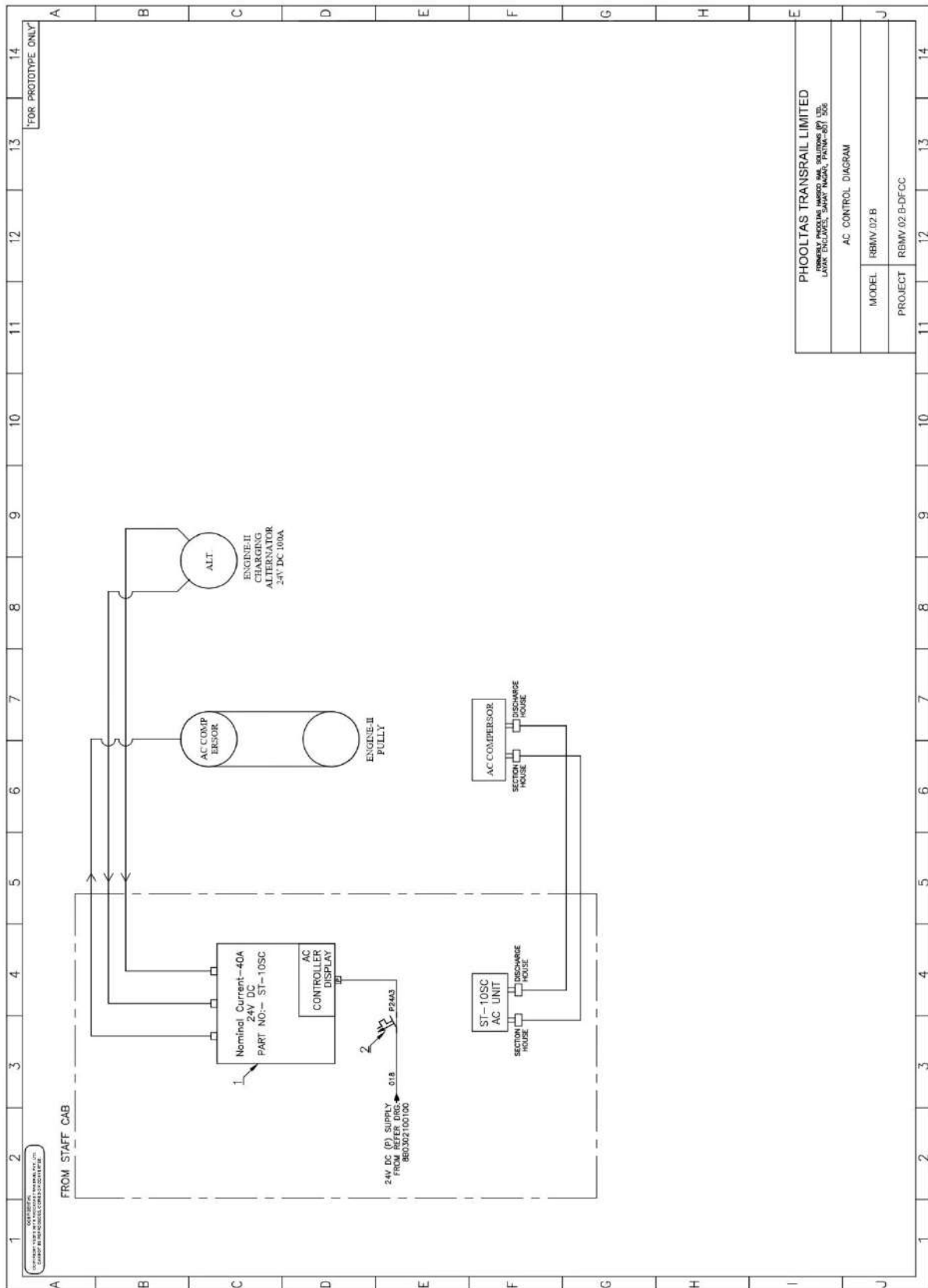
**29). CONTROL CIRCUIT – HEAD LIGHT, CABIN LIGHT & FAN FOR CAB-II
(3021010000)**

S. NO.	DESCRIPTION	PART NO.	QTY.
1	ON/OFF 2P SELECTOR SWITCH	3021010100	1 No.
2	FLASHER LIGHT CONTROL UNIT	3021010200	1 No.
3	ONE WAY SWITCH, COLOR-WHITE	3021010300	17 No.
4	ROTARY SWITCH 1P 5W FOR HEAD LIGHT	3021010400	1 No.
5	HEAD LIGHT 110V DC	3021010500	1 No.
6	FLASHER LIGHT 110V DC	3021010600	1 No.
7	MARKER LIGHT LEFT 110V DC	3021010700	1 No.
8	MARKER LIGHT RIGHT 110V DC	3021010800	1 No.
9	TAIL LIGHT LEFT 110V DC	3021010900	1 No.
10	TAIL LIGHT RIGHT 110V DC	3021011000	1 No.
11	MCB 6A SP FOR HEAD LIGHT	3021011100	1 No.
12	MCB 6A SP FOR FLASHER LIGHT	3021011200	1 No.
13	MCB 6A SP FOR MAR.&TAIL LIGHT	3021011300	1 No.
14	MCB 16A SP FOR WIPER MOTOR	3021011400	1 No.
15	MCB 6AMP FOR LIGHT & FAN	3021011500	1 No.
16	DRIVER CAB LIGHT 110V, 18W	3021011600	2 Nos
17	FAN 110V DC	3021011700	2 Nos
18	WIPER 24V DC	3021011800	1 No.
19	GLASS FUSE	3021011900	15 Nos
20	ON/OFF/ON 3P SWITCH	3021012000	2 Nos
21	MCB 16A SP FOR WATER MOTOR	3021012100	1 No.
22	0.23KW 24V DC MOTOR	3021012200	1 No.
23	MCB 16A SP FOR HYD OIL COOLER FAN	3021012300	1 No.
24	TEMPERATURE SWITCH VARUAVKE TYPE (25°C 90°C)	3021012400	2 Nos
25	HYD OIL COOLER FAN	3021012500	2 Nos
26	DUAL USB CHARGER	3021012600	4 Nos
27	TWIN SOCKET	3021012700	14 Nos



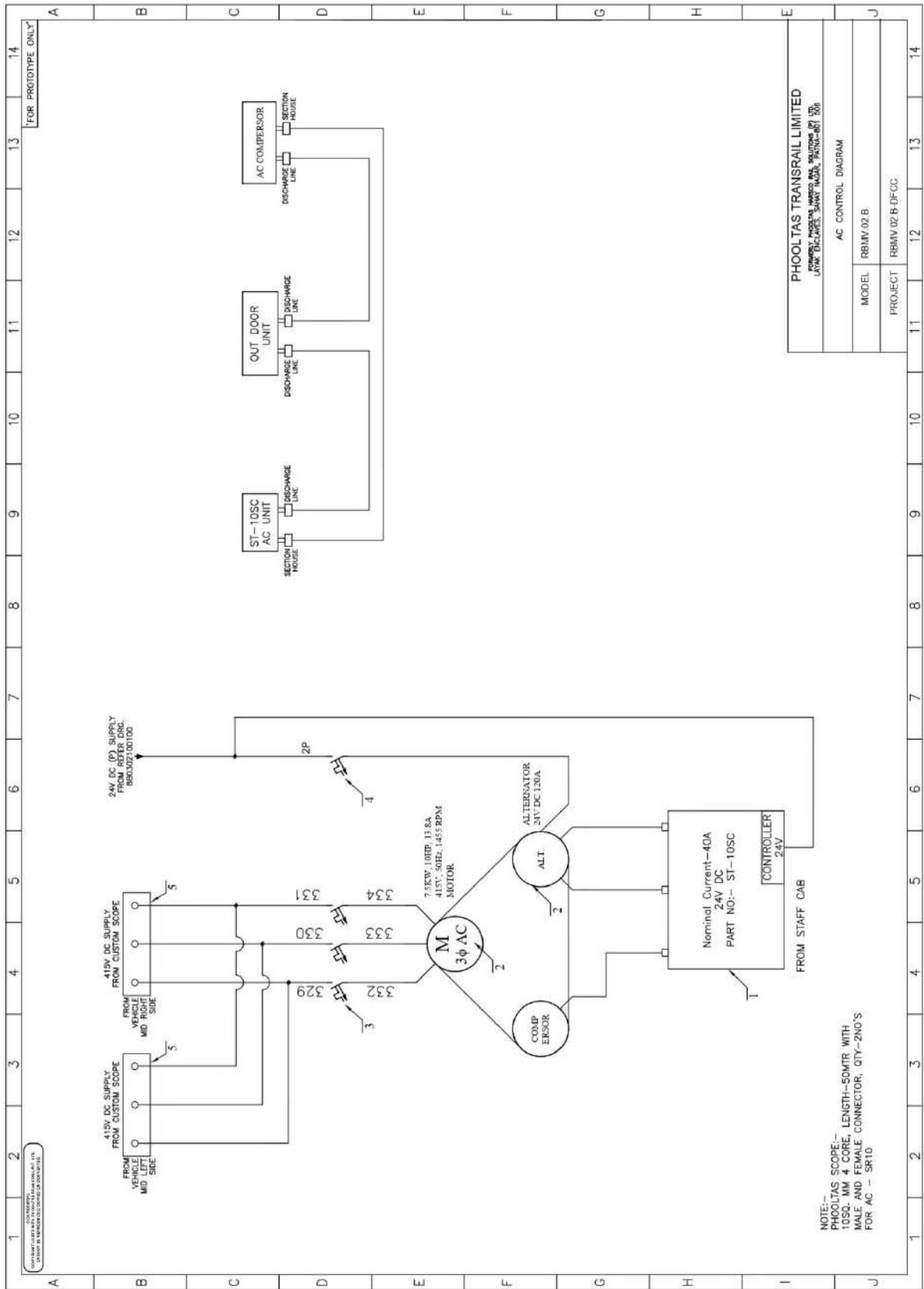
30). ELECTRO PNEUMATIC CKT OF VCD INTERFACE CONTROL (3021011000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	VCD CONTROL UNIT	3021011100	1 No.
2	VCD RESET UNIT	3021011200	2 Nos
3	HORN SOLENOID VALVE	3021011300	2 Nos
4	HORN PRESSURE SWITCH	3021011400	2 Nos
5	B.C PRESSURE SWITCH	3021011500	2 Nos
6	HORN PUSH BUTTON SWITCH YELLOW NO	3021011600	8 Nos
7	ELECTRO PNEUMATIC SOLENOID VALVE	3021011700	1 No.



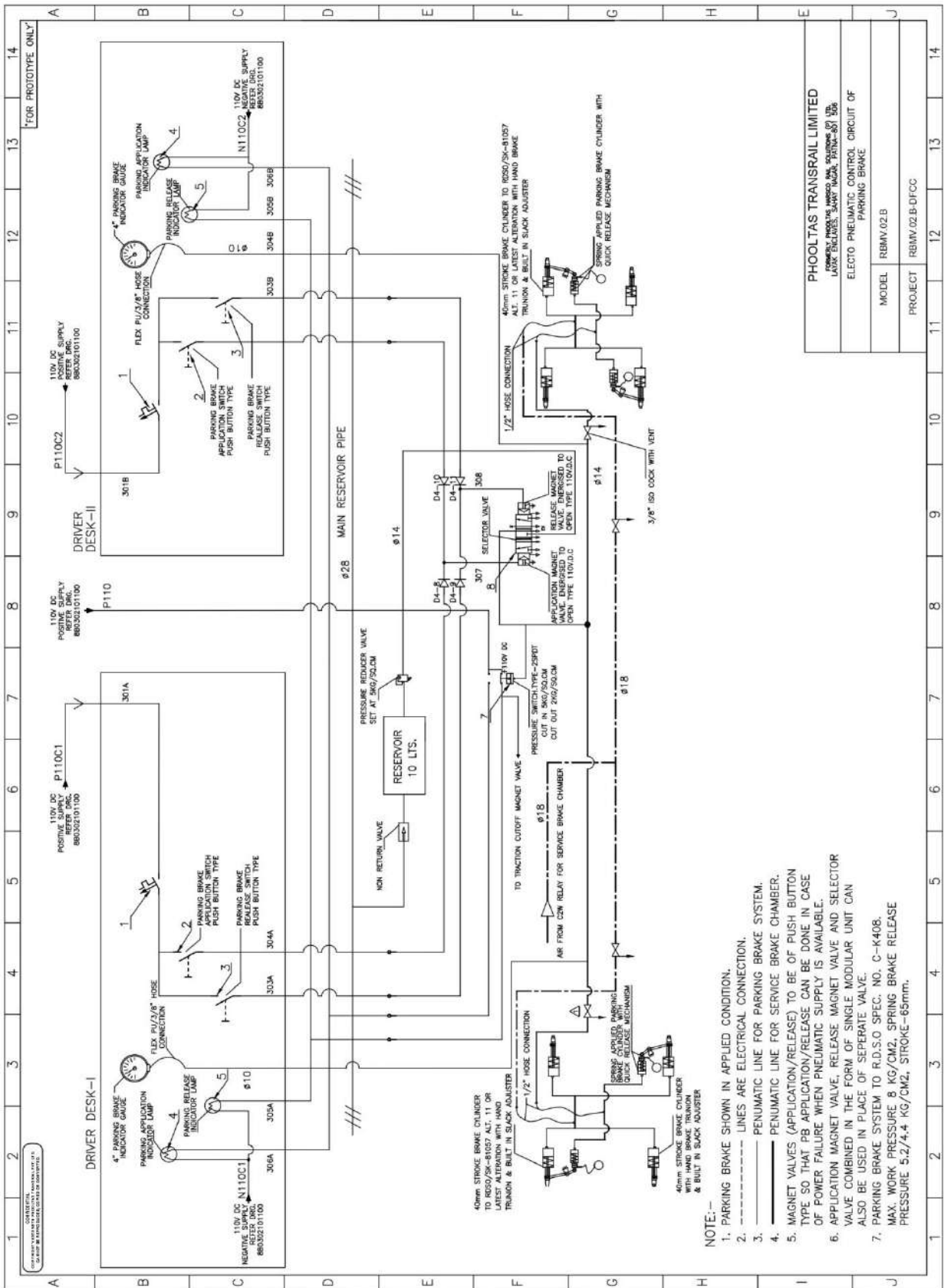
21). AC CONTROL DIAGRAM-I (3021012000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	40A AC, 24V DC, PART NO- ST-10SC	3021012100	4 No.
2	6A SP MCB, DC	3021012200	4 No.



32). AC CONTROL DIAGRAM-II (3021013000)

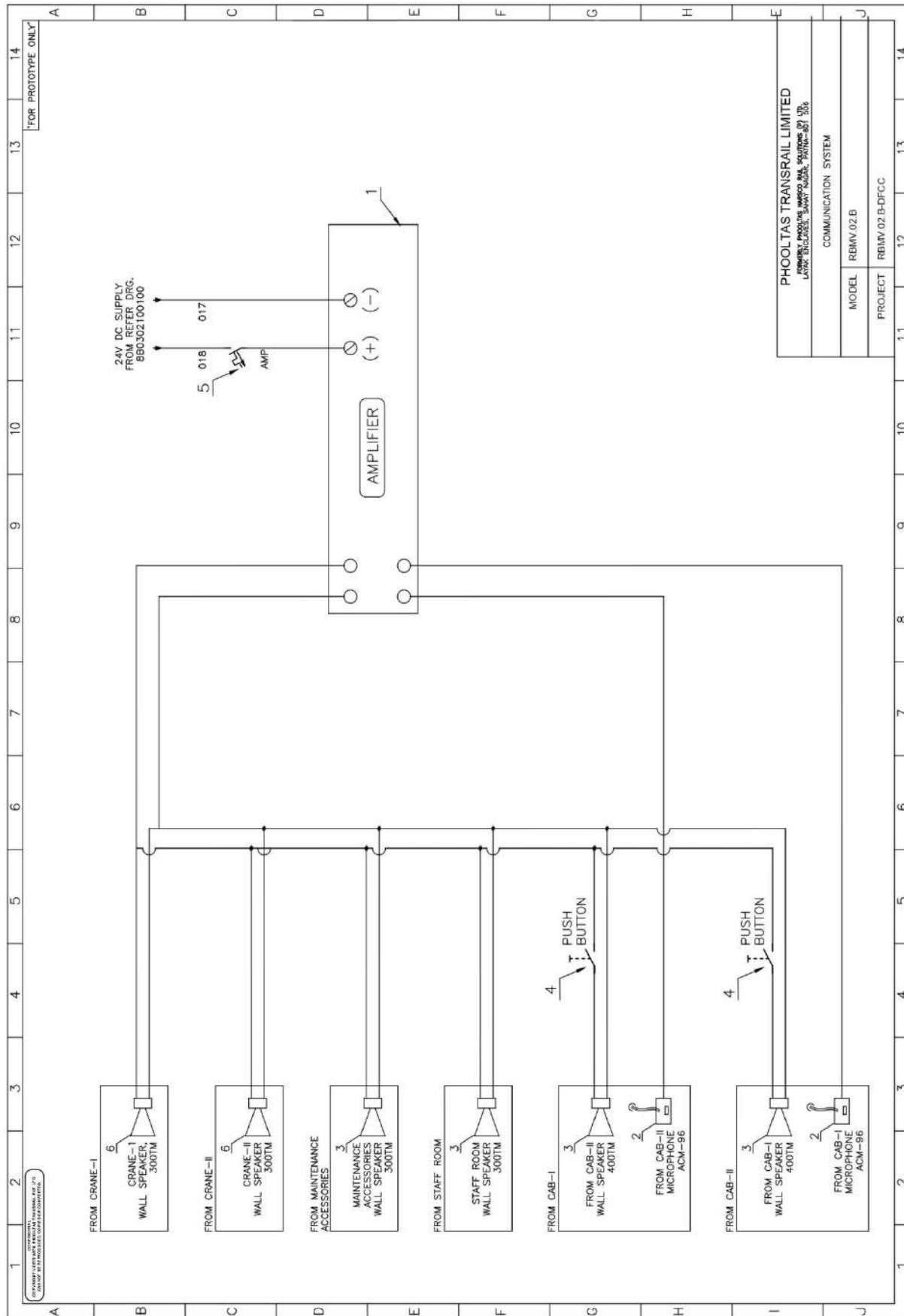
S. NO.	DESCRIPTION	PART NO.	QTY.
1	40A AC, 24V DC, PART NO- ST-10SC	3021013100	1 No.
2	THREE PHASE MOTOR & ALTERNATOR	3021013200	1 No.
3	32A TP MCB, AC	3021013300	1 No.
4	6A SP MCB, DC	3021013400	1 No.
5	5 PINS PANEL MOUNTING SOCKET 30A 415V	3021013500	2 Nos



PHOOLAS TRANSRAIL LIMITED	
LATEST MODELING APPROVED BY RAILWAYS	
ELECTRO PNEUMATIC CONTROL CIRCUIT OF PARKING BRAKE	
MODEL	RBMV.02.B
PROJECT	RBMV.02.B-DFCC

33). ELECTRO PNEUMATIC CONTROL CIRCUIT OF PARKING BRAKE (3021014000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	6A SP MCB	3021014100	2 Nos
2	PARKING BRAKE APPLICATION RED PUSH BUTTON SWITCH	3021014200	2 Nos
3	PARKING BRAKE RELEASE GREEN PUSH BUTTON SWITCH	3021014300	2 Nos
4	PARKING APPLICATION RED INDICATOR 110V DC	3021014400	2 Nos
5	PARKING RELEASE GREEN INDICATOR 110V DC	3021014500	2 Nos
6	DIODE IN5408 (D39 TO D42)	3021014600	4 Nos
7	PARKING PRESSURE SWITCH	3021014700	1 No.
8	SELECTOR VALVE 110V DC	3021014800	1 No.



34). COMMUNICATION SYSTEM (3021015000)

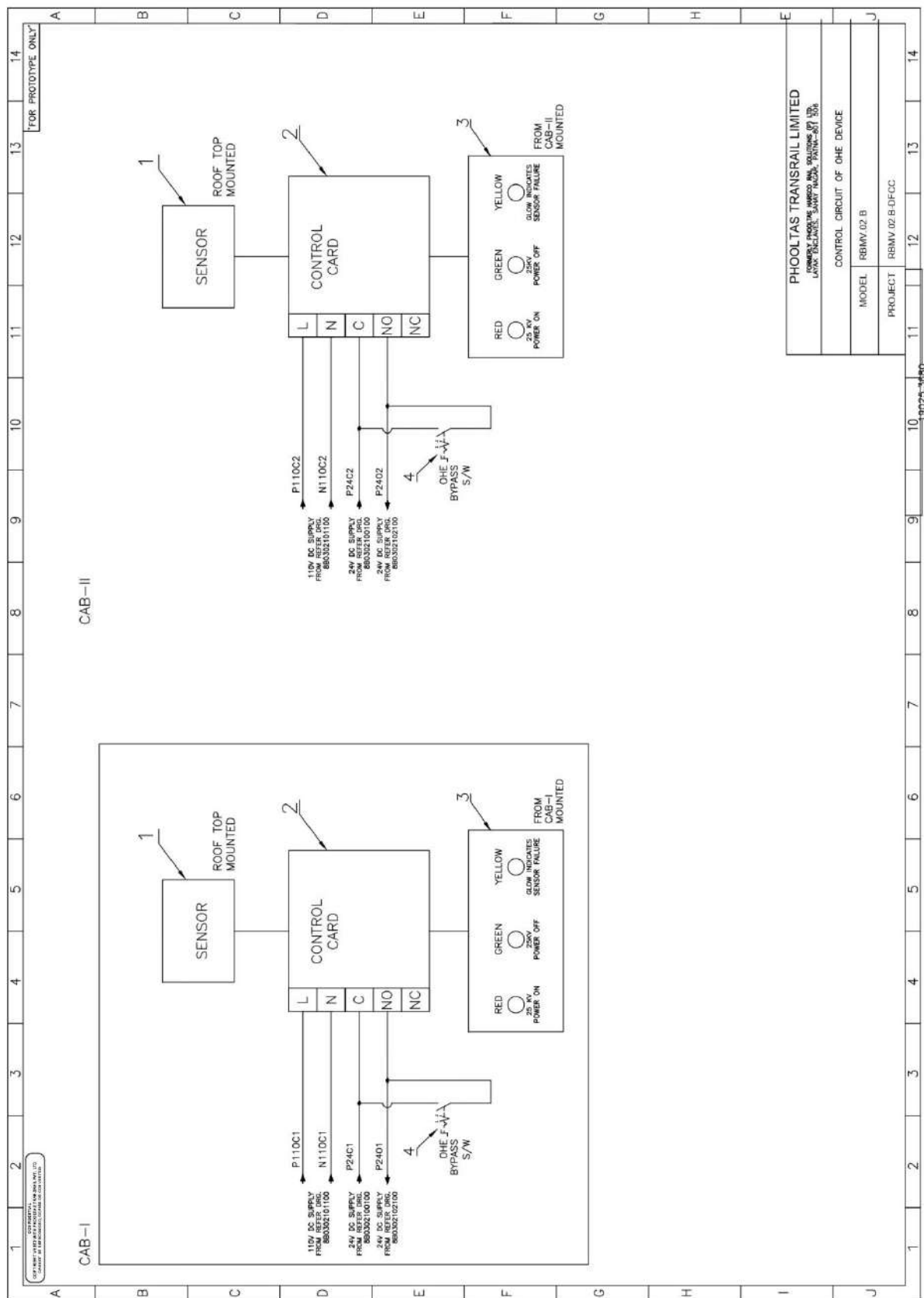
S. NO.	DESCRIPTION	PART NO.	QTY.
1	AMPLIFIER	3021015100	1 No.
2	MICROPHONE	3021015200	2 Nos
3	WALL SPEAKER, 300TM	3021015300	4 Nos
4	YELLOW PUSH BUTTON SWITCH WITH NO ELEMENT	3021015400	4 Nos
5	MCB 16A SP	3021015500	1 No.
6	WALL MOUNTED, OUTDOOR SPEAKER	3021015600	2 Nos

35). PANTRY EQUIPMENT DIAGRAM (3021016000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	WATER DISPENSARY, 230V AC 500W	3021016010	1 No.
2	MICROWAVE 230V AC, 1150W	3021016020	1 No.
3	KETTLE, 230V AC, 1500W	3021016030	1 No.
4	REFRIGERATOR, 230V AC, 65W	3021016040	1 No.
5	Socket, COLOR-WHITE	3021016050	4 Nos
6	10A 1 Way Switch, COLOR-WHITE	3021016060	4 Nos
7	HONDA GENSET EU30iS	3021016070	1 No.
8	AC TO DC Converter, CAPACITY- 2.0KVA, I/P- 230VAC, O/P-110V DC & (b) 24 VDC	3021016080	1 No.
9	SOCKET 2 POLE 20 AMP.	3021016090	4 Nos
10	CHANGEOVER SWITCH 2 POLE 2 WAY, 25AMP, Make-GIC, 61026	3021016100	1 No.

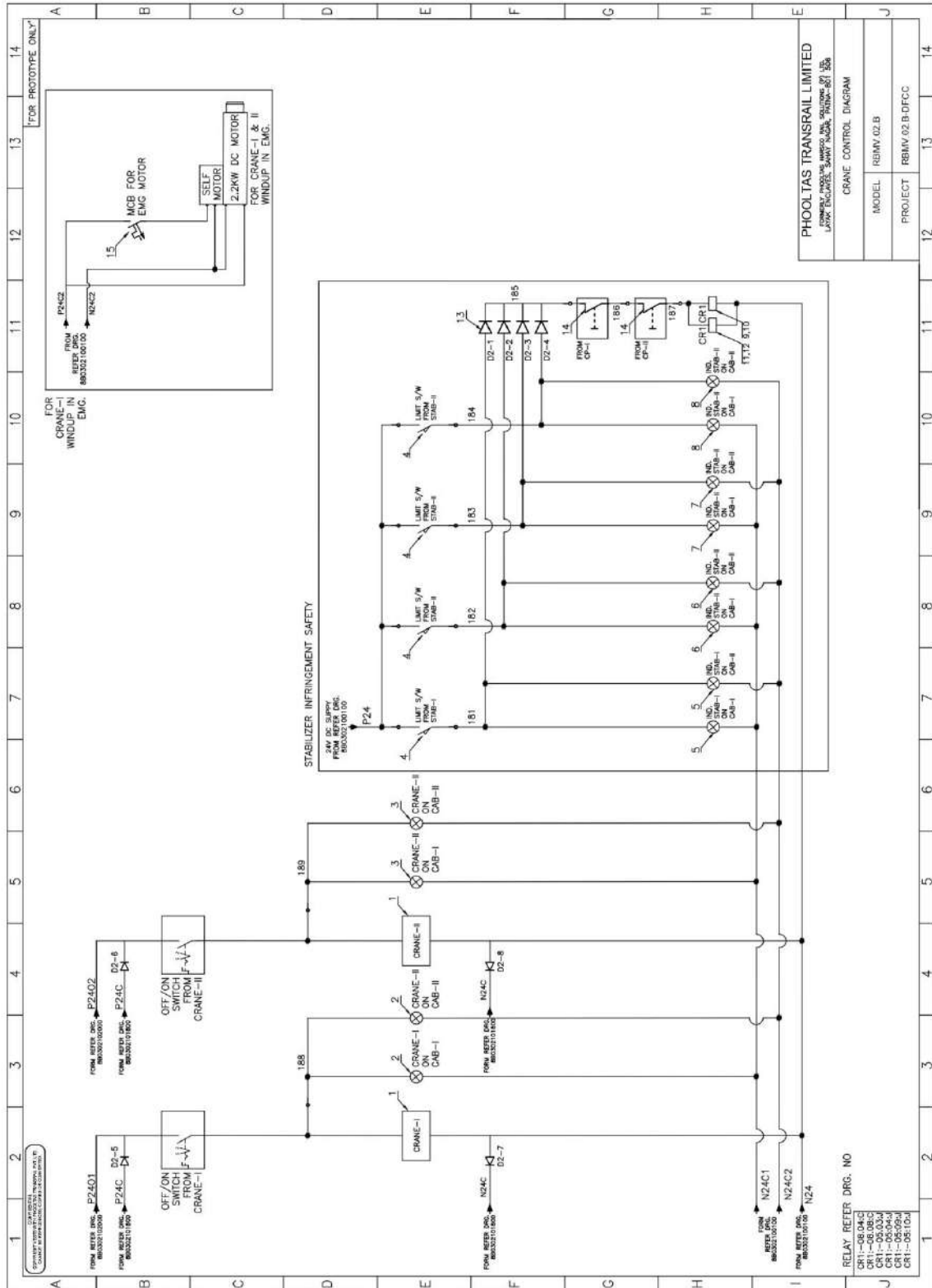
36). CAMERA & MONITOR DIAGRAM (3021017000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	CAMERA	3021017100	4 Nos
2	7 INCH (WITH RECORDING) TFT MONITOR	3021017200	2 Nos
3a	ON/OFF 2P SELECTOR SWITCH	3021017300	2 Nos
3b	NO ELEMENT FOR S/W	3021017400	2 Nos



37) CONTROL CIRCUIT OF OHE DEVICE (3021018000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	OHE SENSOR	3021018100	2 Set.
	OHE CONTROL CARD		
	OHE DISPLAY		
2	OFF/ON SWITCH FOR OHE BYPASS	3021018200	4 Nos



38). CRANE CONTROL DIAGRAM (3021019000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	CRANE	3021019010	2 Nos
2	CRANE-1 ON IND. GREEN	3021019020	2 Nos
3	CRANE-2 ON IND. GREEN	3021019030	2 Nos
4	LIMIT SWITCH	3021019040	4 Nos
5	RED IND. STAB-I ON	3021019050	2 Nos
6	RED IND. STAB-II ON	3021019060	2 Nos
7	RED IND. STAB-III ON	3021019070	2 Nos
8	RED IND. STAB-IV ON	3021019080	2 Nos
9	2 C/O RELAY, 24V DC	3021019090	1 No.
10	2 C/O RELAY BASE	3021019100	1 No.
11	4 C/O RELAY, 24V DC	3021019110	1 No.
12	4 C/O RELAY BASE	3021019120	1 No.
13	DIODE IN5408 (47 TO 50)	3021019130	4 Nos
14	BY PASS SWITCH GREEN PUSH BUTTON WITH NO TYPE	3021019140	4 Nos
15	6A SP MCB, DC	3021019150	1 No.

39). GAUGE DIAGRAM FOR CAB-I (3021020000)

S. No.	DESCRIPTION	PART NO.	QTY.
1	CRANE	3021020000	2 Nos
2	CRANE-1 ON IND. GREEN	3021020000	2 Nos
3	CRANE-2 ON IND. GREEN	3021020000	2 Nos
4	LIMIT SWITCH	3021020000	4 Nos
5	RED IND. STAB-I ON	3021020000	2 Nos
6	RED IND. STAB-II ON	3021020000	2 Nos
7	RED IND. STAB-III ON	3021020000	2 Nos
8	RED IND. STAB-IV ON	3021020000	2 Nos
9	2 C/O RELAY, 24V DC	3021020000	1 No.
10	2 C/O RELAY BASE	3021020000	1 No.
11	4 C/O RELAY, 24V DC	3021020000	1 No.
12	4 C/O RELAY BASE	3021020000	1 No.
13	DIODE IN5408 (47 TO 50)	3021020000	4 Nos
14	BY PASS SWITCH GREEN PUSH BUTTON WITH NO TYPE	3021020000	4 Nos
15	6A SP MCB, DC	3021020000	1 No.

40) GAUGE DIAGRAM FOR CAB-II (3021021000)

S. NO.	DESCRIPTION	PART NO.	QTY.
1	4" PARKING BRAKE GAUGE	3021021010	1 No.
2	4" DUPLEX PRESS. GAUGE (MR-BP)	3021021020	1 No.
3	TRANSMISSION TEMPERATURE GAUGE	3021021030	2 Nos
4	TRANSMISSION TEMPERATURE SENSOR	3021021040	1 No.
5	TRANSMISSION OIL PRESSURE GAUGE	3021021050	2 Nos
6	PRESSURE SENSOR/SENDER, ES2PM-200	3021021060	1 No.
7	FUEL LEVEL GAUGE ELECTRICAL, VEETHREE 24V DC	3021021070	1 No.
8	FUEL LEVEL SENSOR, 24V DC	3021021080	1 No.
9	HYDRAULIC TEMPERATURE GAUGE	3021021090	1 No.
10	HYD TEMPERATURE SENSOR	3021021100	1 No.
11	2 C/O RELAY, 24V DC (MR1)	3021021110	1 No.
12	2 C/O RELAY BASE (MR1)	3021021120	1 No.
13	RELAY NO/NC CONTACT (MR1)	3021021130	2 Nos