



SALE PROPOSAL

CASTING YARD EQUIPMENTS



ICEC/CICI

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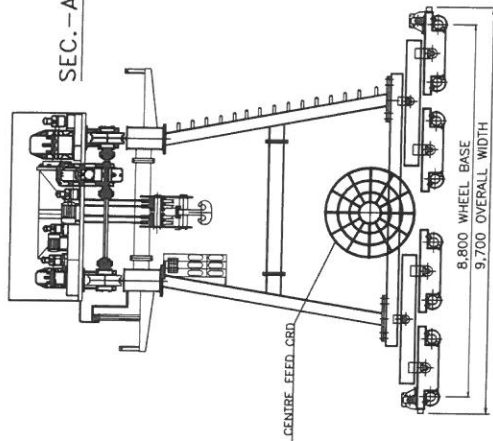
ICEC/CICI

**Technical Specification &
GA Drawing For 100/25 MT
Gantry Crane**



ICEC/CICI		
TECHNICAL DETAILS OF API MAKE 100/25T GANTRY CRANE		
S.No	Parameter	100/25 MT -30 M
1	Type of crane	Double Girder Goliath Crane.
2	Class of duty	Class M5 duty as per IS :3177, 807, 800
3	Capacity	100/25 Tonne
4	Available Qty	6 Nos.
	Operating Environment	Outdoor,Ambient Temperature 45°c
5	Span	30.0 Mtrs
6	Height of Lift	12.0 Mtr.
7	Crane Control	Closed Type Cabin &Radio Remote Control
8	SPEED	
a.	Main Hoist	0.1- 1.0MPM Through VVFD
	Aux. Hoist	0.5- 5.0 MPM Through VVFD
b.	Cross Travel	1.5 - 15.0 MPM Through VVFD
c.	Long travel	2.0 - 20.0 MPM Through VVFD
9	MOTOR	
a.	Main Hoist	26.8KW Sq. Cage {300 start/hours}
	Aux. Hoist	26.8 KW Sq. Cage {300 start/hours}
b.	Cross Travel	2 x 3.54 KW Sq. Cage
c.	Long travel	4 X 4.72 KWSq. Cage
e.	Make	M.H/A.H :BBL/GEC(MARATHON) C.T/L.T : NORDS/ GEARED MOTOR
10	WIRE ROPE	
a.	No of Falls/Dia(M.H)	12/28 m
	No of Falls/Dia(AH)	8/18 mm
c.	Type of construction	Steel core / 6 x 36 / 180 Kg/sq mm
	IS Specification	IS 2266 – 1770 N/mm2
f.	Make	USHA MARTIN
11	GEAR BOX	
a.	Type of gear box	Totally enclosed helical gear box
	Type Of Lubrication	Oil Splash lubrication
b.	Material of Body	CI Grade –FG-20, IS-210
c.	Material of Gears & Pinion	20MnCr5, SAE-8620,En-9/19/24 HARD &GROUND
e.	Type of Lubrication	Oil Splash Lubrication
12	ROPE DRUM	Seamles Pipe as per ASTM A106
13	BRAKES	M.H: 1 NO. EHT + 1 NO. EHT A.H : 1 NO. EHT + 1 NO. EHT C.T / L.T : EM DISC TYPE
14	LIMIT SWITCH	
a.	Main Hoist	Geared Rotary type + Gravity Limit Switch

ICEC/CICI		
TECHNICAL DETAILS OF API MAKE 100/25T GANTRY CRANE		
S.No	Parameter	100/25 MT -30 M
b.	Cross Travel/Long travel	Two way lever type
d.	Make	Crane Control
15	CRANE CONTROLS	
a.	Protective Panel	Consisting MCCB, MCB Main line contactor, Step down transformer, Single Phase Preventer. (Fuse les Panel.)
b.	Drive Panel	Consisting Contactor, MCB, Over Load Relays.
c.	Make	L&T/Siemens/Schneider.
16	CABLES	Multi Core, PVC Sheathed flexible type
a.	Make	Finolex/KEI /Heatflex/Powerage Any ISI mark
17	CURRENT COLLECTION	
a.	Cross Travel	Through trailing cable on 4 - wheeled trolleys running on I Beam
b.	Long travel	Through Centre FeedCRD Suitable for 400 Mtr Bay Length
18	Power Supply	415V,+/-10%, 3 phase, 50 Hz
19	Control Voltage	110V AC,1phase, 50Hz
20	Coupling	Flexible geared coupling
21	WHEELS	
a.	Type	Double flanged straight tread type
b.	Material	Forging EN-8/9, 300-350 BHN
c.	Type of bearings	Antifriction Ball/roller
d.	L.T Wheel Dia	Ø 400 /16
e.	C.T Wheel Dia	Ø 500/4
22	HOOKS	
a.	Type	Ramshorn Type (M.H) C Type (A.H)
b.	Swiveling	On thrust bearing
c.	Make	Smiriti Forging
23	Bearing	Antifriction Ball/ roller
24	PLATFORM	
a.	Type	Steel Chequered plate with toe guard and two tier hand railing on drive side full and other side two short.
25	Buffer	Rubber Buffer shall be provided for L.T



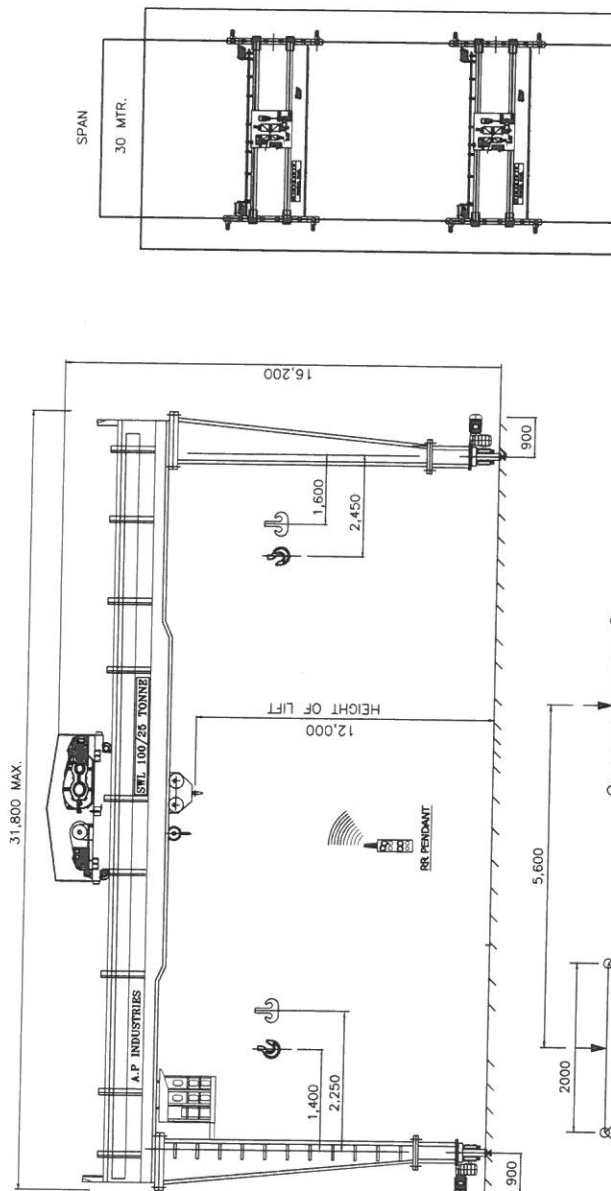
WHEEL TREAD TO SUIT : 105 lbs./yard
WHEEL LOAD IN TONNES : 20.3 TONNES APPROX.
CRANE WEIGHT IN TONNES : 114 TONNES APPROX.

TECHNICAL SPECIFICATION	
CLASS II (M5) OUTDOOR AS PER IS : 3177 & 807	
100 TONNE	
CAPACITY (AUX. HOIST)	
CAPACITY (AUX. HOIST)	25 TONNE
SPAN	30.0 METRE
HEIGHT OF LIFT	12.0 METRE
MAIN HOIST SPEED	0.1-11.0 MPM
MAIN AUX. SPEED	0.5-5.0 MPM
CROSS TRAVEL SPEED	1.5-15.0 MPM
LONG TRAVEL SPEED	2.0-20.0 MPM
MAIN HOIST MOTOR	26.8 KW SQ. CAGE
MAIN AUX. MOTOR	26.8 KW SQ. CAGE
CROSS TRAVEL MOTOR	2 x 3.54 KW SQ. CAGE GEARED MOTOR
LONG TRAVEL MOTOR	4 x 4.72 KW SQ CAGE GEARED MOTOR
BRAKE	M/H/A/H
BRAKE	L/T/C/T
CONTROL	EM DISC TYPE
MAIN HOIST WIRE ROPE	RADIO REMOTE CONTROL (JOYSTICK TYPE)
AUX HOIST WIRE ROPE	MASTER CONTROLLER FROM CLOSED TYPE CABIN MOUNTED
BRIDGE CONSTRUCTION	ø28MM/12FALLS,6x36 STEEL CORE,USHA MARTIN MAKE
HOOK (MAIN HOIST)	ø18MM/8FALLS,6x36 FMC,USHA MARTIN MAKE
HOOK (AUX. HOIST)	DOUBLE GIRDER BOX
POWER SUPPLY	RAMSHORN TYPE
	'C' TYPE
	415V,3-Ø-PHASE,50HZ.AC.

NOTE:- 1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED
2. MICRO SPEED SHALL BE ACHIEVED THROUGH VVVF DRIVE FROM 10% TO 100% OF MAIN SPEED

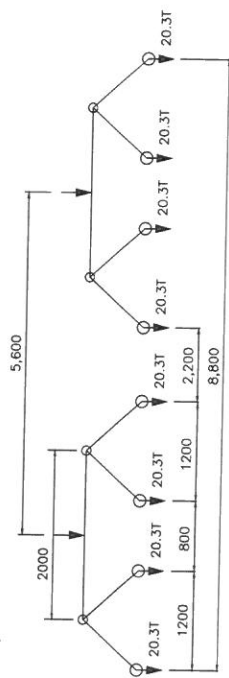
FROM 10% TO 100% OF MAX. SPEED											
TYPE	DWG. NO.	INDEX	NO.	REV. NO.	DATE	NAME	INDEX	NO.	REV. NO.	DATE	NAME
DRAWN	28/05	ANKIT									
CHECKED	28/05	ANKIT									
APPROVED	28/05	R.C.TAYAL									
WORK MATERIAL	2015	DATE	NAME								
DWG. NO.							JOB NO.				
API/GA/DGC/100T/25T/15004							15004				
TITLE:-											
GA DRG OF 100/25 TONNE DG GOLIATH CRANE											

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KEY PLAN

LOCATION :- OUTDOOR, CASTING YARD
OPERATION :- TENDOM



WHEEL LOAD DIAGRAM

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**Technical Specification &
GA Drawing For 80/20 MT
Gantry Crane**



ICEC/CICI

TECHNICAL DETAILS OF GRIP MAKE 80/20T GANTRY CRANE			
A.	GENERAL		
1	TYPE OF CRANE	Electrically Operated Gantry Crane confirming to IS: 3177, 800 & 807.	
2	DUTY OR CLASS OF CRANE (As per IS:807)		
	-Mechanical	Class-III/ M6 Duty	
	-Electrical	Class - III/M6 Duty	
3	Crane No.	11103352 & 11104142	
4	Available Qty	2	
5	CAPACITY OF CRANE		
	MAIN HOIST	80Tonne	
	AUX. HOIST	20Tonne	
6	Year of Manufacture	2015 & 2016	
7	OPERATING ENVIRONMENT		
	-Indoor / Outdoor	Outdoor	
	-Ambient Temperature	Upto 52 ⁰ C	
	-Atmosphere	Tropical	
	- Application	HANDLING SMALL TO LARGE (WITHIN THE LIFTING CAPACITY OF THE CRANE) COMPONENT, PRECASE GIRDER FROM WORKS ETC.	
B.	DIMENSIONAL DETAILS		
1	Span	25.0 mtr.	
2	Height of lift (total lift)	12 mtr	
C.	CRANE PERFORMANCE		
	Operating speeds		
	-Main Hoisting	1 m/min	
	-Aux. Hoisting	5.0 m/min	
	-Cross Travel	5 - 15.0 m/min	
	-Long Travel	2-20 m/min	
	Note		
	Creep speed will be achieved by means of AC VVVF drive in all the motions.		
D.	CRANE CONTROLS		
	- Control	Cabin with master controller (Joystick type)and Radio remote (Joystick type)	
E.	MECHANICAL DETAILS		
1	80/20T		
	WIRE ROPE	MH- 80T	AH-20T
	-Number of Falls	12	8
	-Factor of Safety	6	6
	-Wire rope Diameter	24 mm	16 mm
	-Construction	6 x 36	6 x 36
	-Type of Core	Steel	Steel
	-Tensile strength	1960 N/mm. Sq	
2	ROPE DRUM		
	-Material	M.S Fabricated / Seamless as per ASTM A106	
	-Grooving (Single / Double)	Double	
3	GEAR BOXES		
	-Type of Gear Boxes	Totally enclosed Helical Hardened and Profile ground design as per IS: 4460	
	-Material of Gear Box body	CI Grade 20 / M.S. Fabricated IS:2062	
	-Type of Lubrication	Oil Splash	

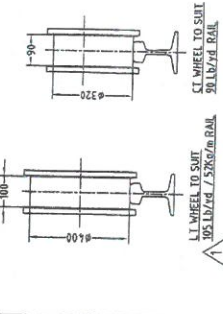
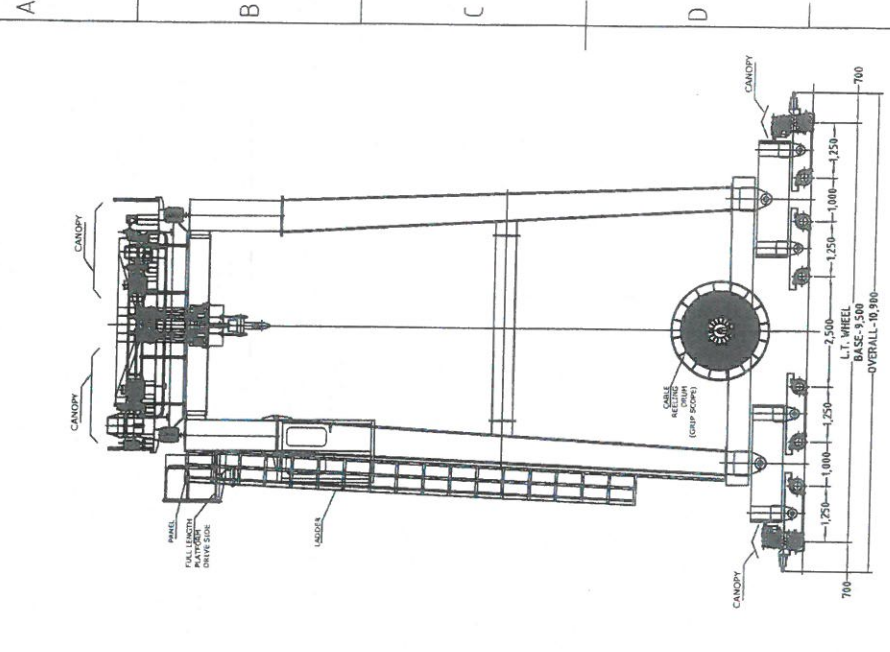
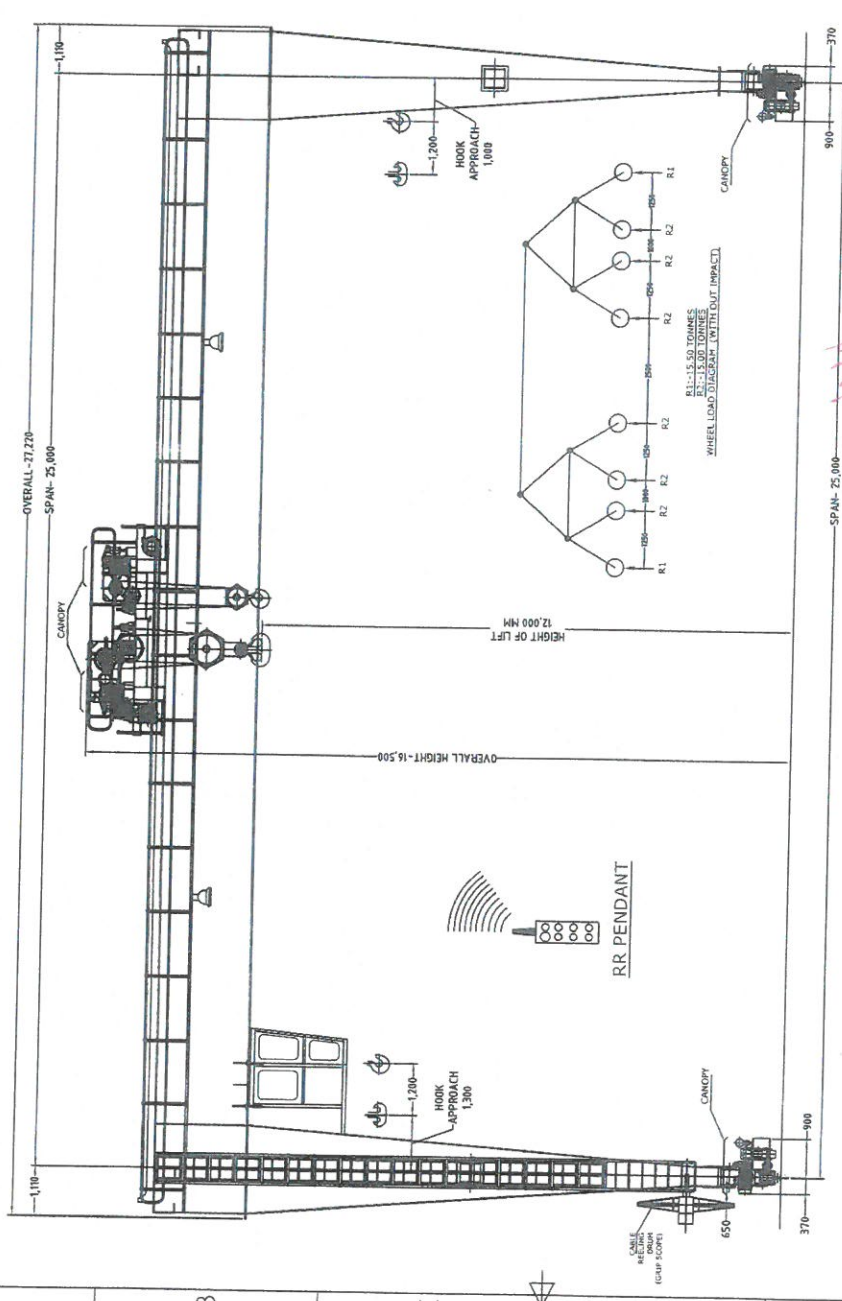
ICEC/CICI

TECHNICAL DETAILS OF GRIP MAKE 80/20T GANTRY CRANE

A.	GENERAL		
	-Make	Own make	
4	WHEELS	80/20T	
	-Type	Double Flanged straight tread type	
	-Material	C 55 Mn75 / IS:1570	
	-Flanged Single / Double	Double flange	
	-Type of Bearings	Anti - Friction Ball / Roller	
	-Diameter of Wheels		
	L.T.	320 mm	
	C.T.	400 mm	
	-Number of Wheels		
	L.T.	16 nos.	
	C.T.	4 nos.	
5	HOOKS	Main (80T)	Aux. (20T)
	-Type	Ramshorn type	"C" Shank
	-IS Specification	IS: 5749	IS: 15560
	-Swivelling	Yes on Thrust Bearing	
	-Makes	Steel Forging / Karan Engineering / Smriti Forging.	
6	BEARINGS		
	-Type	Anti - Friction Ball / Roller	
	-Makes	SKF / NTN / KOYO / FAG/ GALVI	
E.	STRUCTURAL DETAILS		
1	MAIN BRIDGE GIRDERS		
	-Type	Fabricated box type	
	-Material	As per Is: 2062	
2	END CARRIAGE		
	-Type	Fusion Welded Plate Box Type	
	-Material	IS:2062	
3	GANTRY LEG		
	-Type	Fusion Welded Plate Box Type	
	-Material	IS:2062	
4	TROLLEY FRAME		
	-Type	Fusion Welded Plate Box Type	
	-Material	IS:2062	
5	PLATFORM		
	Type	Steel Chequered Plate with toe guard and two-tier Hand Railing. Full length on drive side	
G.	ELECTRICAL DETAILS		
1	MOTORS	All motors are inverter duty Sq. Cage, S4 Duty, Fan cooled type, having IP-55 protection, Temp rise limited to class B. 300 starts/hrs.	
	Main Hoist	26.8kW	
	Aux. Hoist	26.8 kW	
	C.T.	7.1kW	
	L.T.	4 x 7.1 kW	
	Note:	Motor rating may be change subject to final detailed and engineering as per Motor calculation after placement of order	
	BRAKES	80/20TON	

ICEC/CICI

TECHNICAL DETAILS OF GRIP MAKE 80/20T GANTRY CRANE		
A.	GENERAL	
2	- Main Hoist	EHT+ EHT BRAKE
	- Aux. hoist	EHT+ DCEM BRAKE
	-Cross Travel	EHTBRAKE-1NO.
	-Long Travel	EHTBRAKE + DCEM BRAKE
3	LIMIT SWITCHES	
	-Main Hoist	GEARED ROTARY & GRAVITY LIMIT SWITCH
	-Aux. Hoist	GEARED ROTARY & GRAVITY LIMIT SWITCH
	-Cross Travel	TWO WAY LEVER
	-Long Travel	TWO WAY LEVER
4	CRANE CONTROLS	
	-Protective Panel	Consisting of Switch Fuse Unit, Main line contactor, Step Down Transformer, Single Phase Preventor, Switch for Control Supply
	-Drive Panel	Electrical Control for Hoist, C.T. & L.T. Drive will be provided which shall consist of Main Contactor, Drive Contactors, MCB, and Relays etc. duly wired with terminal block.
5	CABLES	
	-Type	Multicore Copper
	-Insulation	PVC Sheathed Flexible
	-Minimum Size	
	-For Power circuit	2.5 mm ²
	-For Control circuit	1.5 mm ²
6	CURRENT COLLECTION	
	-Cross Traverse	Through PVC flexible cables laid in drag chain
	-Long Traverse	By means of cable reeling drum with centre feed power supply.
7	POWER SUPPLY (MAIN)	415 V \pm 10%, 3 Phase, 50 Hz A.C.
9	POWER SUPPLY CONTROL VOLTAGE	110 V A.C., 1Phase, 50HZ
H.	WEIGHT OF CRANE (UNLADEN)	82 Ton
I	LT Wheel Load (Static)	16.5 Ton



NOTES :-

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
2. INDIVIDUAL CANOPIES WILL BE PROVIDED OVER ALL ELECTRICAL COMPONENTS FOR PROTECTION AGAINST WEATHER, BEING AN OUTDOOR DUTY CRANE.
3. SUPPLY OF 90 LB/YD. OR 52kg/m L.T. RAIL WILL BE UNDER "CEC I.C." SCOPE.
4. HOOK WILL HAVE SAFETY LATCH.
5. SUPPLY & INSTALLATION OF GANTRY RAIL WITH RAIL CLAMPS & SOLE PLATS IS UNDER CEC I.C. SCOPE.
6. SUPPLY OF CABLE REELING DRUM WITH CABLE SUITABLE FOR 400.0 MT. CRANE TRAVEL LENGTH IS UNDER "GRIP" SCOPE.
7. 415(+10%) Volts, 3-Phase POWER SUPPLY SOURCE TO BE LOCATED AT CENTRE OF BAY LENGTH FOR POWER SUPPLY TO CRD.
8. OVERALL CRANE WEIGHT - 87.0 TONNES.
9. OVERALL CRANE WEIGHT - 87.0 TONNES.

10. Color of crane will be RAL 9001

CEC/CICI
Drg Appd by: *[Signature]*
Date: *06/06/2015*

D.G. - GOLIATH	Qty: - 2	Client :- M/s. CEC INTERNATIONAL CORP. INDIA PVT. LTD.	Job Reference No. :- 1347
Designed by DEEPAK	Approved by - date R_ARYA-06/06/2015	Filename DES-1347	Date 06/06/2015
Checked by AMIT	Scale NTS		
		G.A. DRG FOR 80/20 TON D.G. GOLIATH CRANE	
DWG.NO.:-GEPL/1347/03		REV. #1	Sheet 1/2


1	2	3	4	5	6	7	8
RevNo	Revision note	Date	Signature	Checked			

DESCRIPTIONS	MAIN HOIST	MAIN HOIST	DESCRIPTIONS	CROSS TRAVEL	LONG TRAVEL
TYPE OF LIMIT SWITCH	GEARED ROTARY - GRAVITY	GEARED ROTARY - GRAVITY	TYPE OF LIMIT SWITCH	2-WAY LEVER	2-WAY LEVER
RATING	10 AMP.	10 AMP.	RATING	10 AMP.	10 AMP.
MAKE	S-N-5 / S-0-C / S-AGE	S-N-5 / S-0-C / S-AGE	MAKE	S-N-5 / S-0-C / S-AGE	S-N-5 / S-0-C / S-AGE
QUANTITY	ONE - ONE	ONE - ONE	QUANTITY	ONE	ONE
TYPE OF COUPLING	GEARED FLEXIBLE	GEARED FLEXIBLE	TYPE OF COUPLING	GEARED FLEXIBLE	GEARED FLEXIBLE
BETWEEN MOTOR & GBOX	BRAKE DRUM GEARED	BRAKE DRUM GEARED	BETWEEN MOTOR & GBOX	BRAKE DRUM GEARED	BRAKE DRUM GEARED
INTEGRAL HALF GEARED	INTEGRAL HALF GEARED	INTEGRAL HALF GEARED	INTEGRAL HALF GEARED	INTEGRAL HALF GEARED	INTEGRAL HALF GEARED
SIZE	250mm x 110	250mm x 110	SIZE	150mm x 110	150mm x 110
MAKE	GRIP	GRIP	MAKE	GRIP	GRIP
QUANTITY	TWO - ONE	TWO - ONE	QUANTITY	ONE	ONE
TYPE OF BRAKE	EMT	EMT	TYPE OF BRAKE	EMT	EMT
SIZE	250 DIA / 110 kg	250 DIA / 110 kg	SIZE	150 DIA / 110 kg	150 DIA / 110 kg
MAKE	S-0-C	S-0-C	MAKE	S-0-C	S-0-C
QUANTITY	TWO	TWO	QUANTITY	ONE	ONE
TYPE OF MOTOR	SO. CAGE / 4000CF/6 POLE	SO. CAGE / 4000CF/6 POLE	TYPE OF MOTOR	SO. CAGE / 4000CF/6 POLE	SO. CAGE / 4000CF/6 POLE
KW.	28.4 KW.	28.4 KW.	KW.	7.1 KW.	7.1 KW.
RPM OF MOTOR	980 RPM	980 RPM	RPM OF MOTOR	960 RPM	960 RPM
CLASS OF INSULATION	CLASS 'B' / 'F'	CLASS 'B' / 'F'	CLASS OF INSULATION	CLASS 'B' / 'F'	CLASS 'B' / 'F'
MAKE	MARATHON	MARATHON	MAKE	MARATHON	MARATHON
QUANTITY	ONE	ONE	QUANTITY	ONE	ONE
TYPE / SIZE	HELICAL / 110-300	HELICAL / 110-500	TYPE / SIZE	HELICAL / 110-550	HELICAL / 110-500
REDUCTION RATIO	44.5:1	44.5:1	REDUCTION RATIO	44.5:1	44.5:1
MAKE	GRIP	GRIP	MAKE	GRIP	GRIP
QUANTITY	ONE	ONE	QUANTITY	ONE	ONE
ROOT DIAMETER	650 mm	400 mm	TREAD DIAMETER	400 mm	320 mm
OUTSIDE DIAMETER	730 mm	460 mm	TREAD WIDTH	90 mm	90 mm
MATERIAL	IS-2062	IS-2062	TYPE	DOUBLE FLANGED	DOUBLE FLANGED
QUANTITY	FOUR	FOUR	QUANTITY	FOUR	SIXTEEN
ROOT DIAMETER	560 mm x 320 mm	320 mm x 320 mm	SIZE	90.16 / yd	105.16 / yd / 320g/m
OUTSIDE DIAMETER	640 mm x 400 mm	380 mm x 380 mm	BULB WIDTH	67 mm	67 mm
MATERIAL	IS-2062 / CS - IS-1030	IS-2062 / CS - IS-1030	WEIGHT / METRE	4.56g/m	5.79g/m
QUANTITY	FOUR - ONE	TWO - ONE	SPECIFICATION	IS-3443	IS-3443
OUTSIDE DIAMETER	454 mm	320 mm	TYPE	STEEL CURVED	GSR-3
LENGTH	3.800 mm	2.600 mm	QUANTITY	FOUR	FOUR
MATERIAL	IS-2062	IS-2062			
QUANTITY	ONE	ONE			
SPECIFICATION	IS-2266	IS-2266			
NO. OF FALLS	TWELVE	EIGHT			
DIA. / CONSTRUCTION	24 mm / 6 x 36	16 mm / 6 x 36			
TYPE OF CORE	STEEL	STEEL			
FACTOR OF SAFETY	5.25	5.25			
TENSILE STRENGTH	1960 N/MM SQ.	1960 N/MM SQ.			
MIN. BREAKING LOAD	492 KN	179 KN			
MAKE	USHA MARTIN	USHA MARTIN			
HEIGHT OF LIFT	52.0 METRES	12.0 METRES			
CAPACITY	80.0 TONNES	20.0 TONNES			
RATED SPEEDS (SLOW/FAST)	1.0 rpm	5.0 rpm			
SPEED CONTROL SYSTEM	ALL MOTOR ACHIEVED THRU VVVF DRIVE CONTROL OF SO. CAGE MOTORS.				
CONTROL VOLTAGE	110 VOLTS, 50 Hz, AC.				
POWER SUPPLY	415/50/3PH VOLTS, 50/60Hz, 3-PHASE, AC (L-WBB)				
OPERATION	THROUGH JOYSTICK TYPE MASTER CONTROLLER IN CABIN - PUSH BUTTON TYPE REMOTE CONTROL				
CLASS / DUTY	CLASS - III / DUTY - HEAVY DUTY / OUTDOOR OPERATION				
SPECIFICATIONS	THE CRANE CONFORMS TO IS-3071, IS-4971, IS-800				

DATA	DATA	DATA	DATA	DATA	DATA
MAX. WHEEL LOAD	29.4 TONNES (without impact)	29.4 TONNES (without impact)	MAX. WHEEL LOAD	29.4 TONNES (without impact)	29.4 TONNES (without impact)
WEIGHT	18.0 TONNES	18.0 TONNES	WEIGHT	18.0 TONNES	18.0 TONNES
WHEEL BASE	3.600 mm	3.600 mm	WHEEL BASE	3.600 mm	3.600 mm
WHEEL GAUGE	5.600 mm	5.600 mm	WHEEL GAUGE	5.600 mm	5.600 mm
RATED SPEEDS	5.0 rpm / 15.0 rpm	5.0 rpm / 15.0 rpm	RATED SPEEDS	5.0 rpm / 15.0 rpm	5.0 rpm / 15.0 rpm

TECHNICAL SPECIFICATIONS	TECHNICAL SPECIFICATIONS	TECHNICAL SPECIFICATIONS	TECHNICAL SPECIFICATIONS	TECHNICAL SPECIFICATIONS	TECHNICAL SPECIFICATIONS
ALL MOTORS ACHIEVED THRU VVVF DRIVE CONTROL OF SO. CAGE MOTORS.					
110 VOLTS, 50 Hz, AC.					
415/50/3PH VOLTS, 50/60Hz, 3-PHASE, AC (L-WBB)					
THROUGH JOYSTICK TYPE MASTER CONTROLLER IN CABIN - PUSH BUTTON TYPE REMOTE CONTROL					
CLASS - III / DUTY - HEAVY DUTY / OUTDOOR OPERATION					
THE CRANE CONFORMS TO IS-3071, IS-4971, IS-800					

CEC/CICI
Org Appd by: *[Signature]*
Date: 09/06/2015

D.G.-GOLIATH Qty.-2	Client :- M/s. CEC INTERNATIONAL CORP. INDIA PVT. LTD.	Job Reference No. :- 1347
Designed by DEEPAK	Checked by AMIT	Approved by - date R_ARYA-06/06/2015
	Filename DES-1347	Date 06/06/2015
	Scale NTS	Sheet 2/2
		
DATA SHEET FOR 80/20 TON D.G. GOLIATH CRANE		
DWG.NO.-GEPL/1347/01		
Edition 0		



ICEC/CICI

Technical Specification &
GA Drawing For 100/100/10/ MT
Gantry Crane



ANNEXURE - II

S.No	Parameter	150 MT (2 Trolley of 100MT each with additional 10MT AH on one trolley)
		24.4m
1	Type of Crane	<u>Double Girder Gantry Crane, with 2(two) trolley of 100MT capacity each. Total Capacity in Tandem motion of trolley shall be 150T</u>
2	Crane No.	---
3	Nos Reqd	1
4	Operation	Cabin Operated Through Master Controller
5	Radio Remote Control	N/A
6	Control	All motions shall be controlled through VVVF Drives.
7	Indoor/Outdoor	Outdoor
8	Location	-
9	Class of Duty	M6 as per IS: 3177/1999 & IS: 807
10	Lifting Capacity MT	
	MH 1	100 MT
	MH 2	100 MT
	AH	10 MT
11	Span in M	24.4m
12	Height of Lift	
		MH1 MH2
	Above GL	12m 12m
	Below GL	20m 20m
13	Operating Speeds(MPM)	
	MH 1	1/Micro
	MH 2	1/Micro
	AH	10/Micro
	LT	20/Micro
	CT	15/Micro
	Micro Speed	Has been offered for all motions through VVVF drives. The micro speed shall be at any desired percentage of the Main speed subject to minimum of 10%
14	Power Supply	415V, 3Ph, 50Hz+-3%
15	Control Voltage	110V
16	<u>MH Motor 1</u>	
	Type	CRANE DUTY & INVERTER DUTY, TEFC, HAVING INTERNATIONAL FRAME SIZE, SQC TYPE MOTOR

ANNEXURE - II

	KW	26.8
	Poles	6/8
	No. of Starts	300
	CDF	40%
	Qty.	1
	Insulation Class	F
	Degree of Protection	IP 55
17	<u>MH Motor 2</u>	
	Type	CRANE DUTY & INVERTER DUTY, TEFC, HAVING INTERNATIONAL FRAME SIZE, SQC TYPE MOTOR

S.No	Parameter	150 MT (2 Trolley of 100MT each with additional 10MT AH on one trolley)
		24.4m
	KW	26.8
	Poles	6/8
	No. of Starts	300
	CDF	40%
	Qty.	1
	Insulation Class	F
	Degree of Protection	IP 55
17	<u>AH Motor</u>	
	Type	CRANE DUTY & INVERTER DUTY, TEFC, HAVING INTERNATIONAL FRAME SIZE, SQC TYPE MOTOR
	KW	19.7
	Poles	6/8
	No. of Starts	300
	CDF	40%
	Qty.	1
	Insulation Class	F
	Degree of Protection	IP 55
18	<u>LT Motor</u>	
	Type	CRANE DUTY & INVERTER DUTY, TEFC, HAVING INTERNATIONAL FRAME SIZE, SQC TYPE MOTOR
	KW	4.9
	Poles	4/6

ANNEXURE - II

	No of Starts	300
	CDF	40%
	Qty.	4 (FOUR CORNER DRIVE)
	Insulation Class	F
	Degree of Protection	IP 55
19	CT Motor	
	Type	CRANE DUTY & INVERTER DUTY, TEFC, HAVING INTERNATIONAL FRAME SIZE, SQC TYPE MOTOR
	KW	4.9
	Poles	4/6
	No. of Starts	300
	CDF	40%
	Qty.	1
	Insulation Class	F
	Degree of Protection	IP 55
20	Limit Switches	
	Hoist	Rotory+Gravity
	CT	Lever Type
	LT	Lever Type
21	Brake Type	
	MH 1	2 Nos. E.H.T
	MH 2	2 Nos. E.H.T
	AH	2 Nos. E.H.T

S.No	Parameter	150 MT (2 Trolley of 100MT each with additional 10MT AH on one trolley)
		24.4m
	LT	1 No. EM Disc per Motor
	CT	1No. EM Disc
22	Gear Boxes	
	Type	CI/MS Fabricated Housings, having spur/helical gears capable of splash lubrication
	Make	Unicon
	Material of Pinion	EN19/EN24
	Hardness of Pinion	265 - 300 BHN

ANNEXURE - II

	Material of Gear	EN8/EN9
	Hardness of Gear	215 - 255 BHN
23	MH Wire Rope 1	
	Type	Steel Core
	Construction	6X36
	Factor of Safety	As per IS: 3177/1999
	IS Code	2266
24	MH Wire Rope 2	
	Type	Steel Core
	Construction	6X36
	Factor of Safety	As per IS: 3177/1999
	IS Code	2266
24	AH Wire Rope	
	Type	Steel Core
	Construction	6X36
	Factor of Safety	As per IS: 3177/1999
	IS Code	2266
25	Rope Drum	
	Type	Seamless Pipe/ M.S Fabricated
	Material of Construction	As per IS : 2062
26	Wheels	
	Type	Machined from forged steel and duly hardened,supported on self alingning roller bearing,enclosed in L Type housing
	Material of Wheels	C55Mn75
	Hardness of Wheels	300-350 BHN
	Size(Dia in MM)-LT	400
	Qty.	16
	Size(Dia in MM)-CT	500
	Qty.	4
27	L.T. Rail	
	Size	105 lbs/yd
	Scope of Supply	Client's Scope
28	L.T. DSL	
	Type	Cable Reeling Drum along with cable- 1 No. crane shall work in the bay suitable for centre feed.

ANNEXURE - II

S.No	Parameter	150 MT (2 Trolley of 100MT each with additional 10MT AH on one trolley)
		24.4m
	Scope of Supply	Unicon' s Scope
29	Bay Length	50M
30	Ambient Temperature(in deg C)	50
31	Type of Hook	
	Main Hoist 1	Ramshorn Type Hook
	Main Hoist 2	Ramshorn Type Hook
	Aux. Hoist	C Type Hook
	Provision of Safety Latch	Provided
32	Attachments	N.A
33	Special Features	1. Load Cell shall be provided for for 2 Nos 100T & 1 No. 10T Hoists
34	Couplings	Only Gear Couplings shall be used
35	Bridge Construction	Plate Box Girder having anti vibration design, robust in construction. 2 Nos Splice Joints shall be provided in each girder for ease of transportation.
36	Platform	Anti-skid Platform Full length on one side.
37	Buffers	Rubber Buffers
38	Cables	Only copper cables shall be used
39	Radiography	All butt welds shall be Radiographed
40	Hooks	Only forged hooks, duly proof load, Ultrasonically and chemically tested shall be used.
41	Lubrication	Localized Manual Lubrication
42	Painting	Surface Cleaning shall be done through Wire brushes and followed by red oxide primer and yellow color enamel paint
43	Control Panels	Enclosed with cut out for cooling fans and located on the bridge walk way platform.

