

SNS ENGINEERING NTA PRIVATE LIMITED
 H1-818-19, RIICO INDUSTRIAL AREA CHOPANKI,
 BHIWADI - 301019, Alwar (Rajasthan),
 E.MAIL:- sns@snsengg.com, snsengg@yahoo.com
 Web:- www.snsengg.com, +917734054280



OFFER NO. - SNS/22-23/QTN-36/SEP
 Kind Attn. - Mr. Rupesh Ji
 M/S - Jindal Aluminium

DATE: 27 Sep, 2022

~~DIS-20801928~~

Appendure -

TECHNICAL SPECIFICATION FOR S/G EOT CRANE CAP-5 T SPAN-23.2 M

1	Type of crane	: D/G EOT CRANE	
2	Class of duty	: Class-II (M5), as per IS 3177, 887, 800	
3	Capacity	: 5 T	
4	Qty. required	: 1 No.	
5	Operating Environment	: Indoor	
6	Span	: 23.2 m	
7	Height of Lift	: 11.0 m	
8	Crane Control	: Operation Through Pendant push button Station from ground floor & Radio Remote	
9	SPEED*		
a.	Main Hoist	: 0.6-6.0 mpm (Through VVVF)	
b.	Cross Travel	: 2.5-25 mpm (Through VVVF)	
c.	Long travel	: 3.5-3.5 mpm (Through VVVF)	
10	MOTOR**		
a.	Main Hoist (KW/Pole/Type)	: 5.5 KW/ 6P / Sq. Cage.	
b.	Cross Travel (KW/Pole/Type)	: 0.75 KW/ 4P /Sq. Cage Geared Brake Motor.	
c.	Long travel (KW/Pole/Type)	: 2 X 1.1 KW / 4P /Sq. Cage Geared Brake Motor.	
e.	Make	: Alstom (Marathon) / BBL / Crompton / ABB / Nord / SEW / Bonfiglioli.	
	NOTE 1:	All Motors are, TEFC, MH-40% CDF, CT<-100% CDF, 150 Starts/hr., Crane Duty Motors, Class F Insulation, Temp rise limited to Class B.	
11	WIRE ROPE		
a.	No of Falls/Dia.	: 4/11 mm.	
b.	Factor of Safety	: As Per IS 3177	
c.	Type of core/construction	: FMC / 6X36	
d.	Tensile Strength	: 180 kg / mm sq.	
e.	IS specification	: IS 2266.	
f.	Make	: USHA MARTIN.	
12	GEAR BOX		
a.	Type of gear box	: MH: -Totally enclosed helical gear box CT & LT: -Geared Brake Motor	
b.	Material of Body	: CI Grade -FG-200, IS 210.	
c.	Material of Gears & Pinion	: Low carbon alloy Steel (20MnCr5, SAE-8520 or Equivalent), Hardened & profile ground.	
d.	Type of Lubrication	: Oil Splash Lubrication.	
13	ROPE DRUM	: Seamless Pipe as per ASTM A106.	
14	BRAKES:	MH: - EHT Brake CT & LT: - All EM DC DISC Brakes	
	Make	: EHT: - Crane Control / SOC / Multitech AC Disc: - Crane Control / SOC / Multitech	
15	LIMIT SWITCH		
a.	Main Hoist	: Geared Rotary type & Gravity type.	
b.	Cross Travel	: Two-way lever type.	
c.	Long Travel	: Two-way lever type.	
d.	Make	: Crane Control / SOC / Multitech	

Handwritten notes:

- LT Rail Evol
- Discussed with Mr. Saraswati and repeated through LT speed increased to 45m/min
- 2 to 45 mpm (VVVF)
- Ag Speed
- RRC - SNT IT-301
- Moist up/down - limit switch
- API motor - AC Brake is not ever applicable
- Anti collision sensor -
- Dray chain system - green
- Height of lift - as above
- Speed drooping as per above
- Crane Height - Incl
- Crane Unloady at site - In
- Evolutions - Incl
- LT Rail Evolution - Incl
- 3rd party inspection at our site by authorized ops
- Test certificate of all RM/

Signature: [Signature]
 12/01/23

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DATE: 27Se p. 2022

- 16 CRANE CONTROLS :
 - a. Protective Panel : Consisting of MCCB, MCB Main line contactor, Step down transformer, Single Phase Preventer.
 - b. Operation : Pendant & Radio Remote(SNT & Schneider)
 - c. Drive Panel : Consisting of Contactor, MCB, Overload Relays.
 - d. Make : L&T/Siemens/Schneider
- 17 CABLES : Multi Core, PVC Sheathed flexible type.
 - a. Make : Unique/Finolex/ECKO/KEI Any ISI mark.
- 18 CURRENT COLLECTION :
 - a. Cross Travel : Through festoon trailing cable on 4 - wheeled trolleys running on C Track.
 - b. Long travel : Through Shrouded Type DSL 100Amp GI Cond.
- 19 POWER SUPPLY : 415 V, +/-10%, 3 phase, 50 Hz.
- 20 CONTROL VOLTAGE : 110 V AC, 1 phase, 50 Hz.
- 21 COUPLING : Flexible geared coupling.
- 22 WHEELS :
 - a. Type : Double flanged straight tread type.
 - b. Material : Forging EN-8/9.
 - c. Type of bearings : Antifriction Ball/roller.
 - d. LT Wheel Dia./ qty. : Ø 200 / 4
 - e. CT Wheel Dia./ qty. : Ø 160 / 4
- 23 HOOKS :
 - a. Type : 'C' type as per IS 15560.
 - b. Swiveling : On thrust bearing.
 - c. Make : Smiriti Forging/mazumdar/mk forge
- 24 BEARING : Antifriction Ball / Taper roller & Spherical roller etc.
- 25 PLATFORM :
 - a. Type : Steel Chequered plate with toe guard and two-tier hand railing on drive side full length platform shall be provided.
- 26 BUFFER : Rubber Buffer shall be provided for LT & C.T.
- 27 L.T. RAIL : 40 x 40 Sq. Bar
- 28 PAINTING : The cranes shall be painted with two coats of zinc chromate primer followed by two coats of golden yellow synthetic enamel paint. / As per client's specification.
- 29 CRANE WEIGHT : 13.5 T (Approximate)
- 30 LT MAX WHEEL LOAD (Without impact) : 6 T (Approximate)

* SPEEDS OF MH, CT< ARE SUBJECTED TO ±10 % VARIATION AFTER DETAILED ENGINEERING.
** ACTUAL KW MAY VARY SUBJECTED TO FINAL CALCULATIONS.

- Price Basis: FER-JAL BWD Inv Unloading of 29m
- Est: 12% Extra.
- Delivery: up to 6 weeks
- Warranty: One year from the date of Commissioning
- Payment: 30% Advance against ABG valid for 75d.
60% with 100% GST after receipt within 7d
10%. After erection against PBG valid for one year from the date of erection.


- 21/12/22

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 M/S - Jindal Aluminium

DATE: 27Sep.2022

Sr. No	DESCRIPTIONS	UOM	QTY	UNIT PRICE (RS.)	TOTAL AMOUNTS (RS.)
1	BASIC COST OF DESIGN, MANUFACTURING, SUPPLY OF S/G EOT CRANE CAPACITY - 5T, SPAN -23.2M AND HEIGHT OF LIFT- 11 m CLASS-II.	NO.	1	24,50,000.00	24,90,000.00 (Rs. Twenty five Lacs Fifty Th.ousand On ly)
2	ERECTION & COMISSIONING CRANE	Crane	1	1,00,000	1,00,000.00
3	Freight	Crane	1	EXTRA	AS PER ACTUAL
4	Rail Line 50 LBS Installation Charge (RAIL IN CLIENT Scope)	Mtr	1	450	450
Total					Rs. 25,90,500/-

ANNEXURE - III TERMS & CONDITIONS

1	Prices	• The above prices are on Ex - Work, Bhiwadi.
2	Offer Validity	• 10 days
3	Warranty	• 12 Months from the date of commissioning or 18 Months from the date of supply
4	Taxes & Duties	• All taxes and duties shall be charged extra as applicable at the time of dispatch. However, the current GST is @18.00%.
5	Freight	• Freight Extra AS PER ACTUAL.
6	Delivery	• 06 - 08 Weeks from the date of approval of GA Drawing.
7	Payment Terms	• 50% advance along with Purchase order • Balance 40% before dispatch + 10% After Dispatch.
8	Others	• First fill of Gear box & Thruster oil shall be provided by you. • Unloading of material at your site in your scope. • Civil work involves if any shall be in your scope. • Dead Load For Load Test at your site under the crane in your scope.

For **SNSENGINEERING NTA PVT. LTD.**

Navneet Saraswat

Director Sales & Marketing

Mob - +917734054280

*Discussed with
 Mr. Navneet and
 agreed. Rs. 24,25,000/-
 + GST.
 Terms and conditions as
 per annexure.*

11/10/22



Jindal Aluminium Limited

GST NO : 08AAACJ4324M1ZH
 PAN : AAACJ4324M
 CIN : U27203KA1970PLC002806

Jindal Aluminium Limited

SP-2/333, RIICO Industrial Area,
 Bhiwadi-301019 (Dist : Alwar)
 Registered Jindal Nagar, Tumkur Road,
 Office: Bengaluru - 560073
 +91-80-27735003 - 27735051/2
 Direct +91-8611195368
 purchase.bhiwadi@jindalaluminium.com
 www.jindalaluminium.com

PURCHASE ORDER

VENDOR	CODE : 86614	ORDER NO.	PO221000832	DATE : 17/10/2022
SSENGINEERING NTA PRIVATE LIMITED H1-818-19 RIICO INDUSTRIAL AREA CHOPANKI BHIWADI BHIWADI 301019 Ph.No : 7734064280 FAX:		ENQUIRY NO.	EN221001732	DATE : 12-OCT-22
		QUOTATION NO.	N.A.	DATE : 12-OCT-22

SR NO.	ITEM CODE	DESCRIPTION	QUANTITY	UNIT	RATE (IN INR)	AMOUNT (IN INR)
1	08090178	DI220801928 - 05-AUG-22 DESIGN, MANUFACTURING, SUPPLY, ERECTION AND COMMISSIONING OF 5 TON CAPACITY EOT CRANE/WHEEL CENTRE DISTANCE - 23200MM; LONG TRAVEL - 90 MTR; HEIGHT OF LIFT - 11MTRS, SGST @ 9%, CGST @ 9%	1.00	SET	2425000.00	2425000.00
			1	YEARS	WARRANTY	

SIGNED COPY OF ORIGINAL INVOICE (ORIGINAL FOR BUYER) MUST BE SENT ALONG WITH MATERIAL, FAILING WHICH ATTRACT IN DELAY FOR RELEASING THE PAYMENT

PACKING INSTRUCTION STANDARD P & F N.A.

DELIVERY SCHEDULE 24-Oct-22

DESPATCH THROUGH FOR - OUR WORKS AT BHIWADI by Road

PAYMENT TERMS 30% ADVANCE AGASINST ABG VALID FOR 75 DAYS 60 % WITH 100% GST AFTER RECEIPT WITH IN 7 DAYS 10% AFTER ERECTION AGASINST PBG VALID FOR ONE YEAR FROM THE DATE OF ERECTION.

REMARKS N.A.

- 1) Please enclose e-way bill with invoice / dispatch documents.
- 2) Tax/penalty raised by commercial tax authority due to non-issuance of an e-way bill will be supplier's liability.
- 3) Please mention our GST No. in all documents.
- 4) The order should be acknowledged within 2 days of the ordered date any non-conformance may result in revoking/cancellation of purchase order.
- 5) Please mention the amount of applicable GST (SGST, CGST, IGST) seperately in invoice.
- 6) Warranty / guarantee / test certificate to be sent along with invoice wherever applicable.
- 7) Please refer other terms & conditions in enclosed annexure.
- 8) Our Bankers : HDFC BANK LTD,Salco Centre, Richmond Road- Bangalore
A/C No. 5750000343426 IFSC Code : HDFC0000523
- 9) Despatch by Lorry / to our works, BHIWADI.

For Jindal Aluminium Ltd.

Authorised Signatory

Terms and Conditions

- 1) **Quality:** The material ordered must be exactly as per the approved sample/specifications/drawings and will be subject to our inspection and acceptance within 30 days from the date of receipt of the material. If any deviation in the specifications or variation from the sample material is observed by the buyer during inspection, then the material will be returned to the seller, at seller's expense.
- 2) **Quantity:** The quantity of material must not exceed the ordered quantity/tolerance limits mentioned in this PO. Buyer shall have the right to return or reject the excess material at seller's expense. However, if the delivered quantity is less than the order quantity, seller shall be liable to deliver the same within stipulated timeframe.
- 3) **Packing and transportation:** Material must be properly packed, securely covered and marked as per specifications agreed or as per best industries practice to withstand any damage in transit. The shipment should be sent through shortest route strictly otherwise the difference in freight and extra cost of cartage will be charged to seller's account.
- 4) **Delivery:** Time is essence of the order; hence the seller is obligated to deliver the goods/services within stipulated time, while adhering to the delivery terms mentioned in this PO.
 - a. If there is a delay in delivery of goods/services, then the buyer reserves the right to cancel/voke the purchase order or any part of the purchase order and claim compensation by way of damages or the loss suffered due to non-compliances/delay.
 - b. Upon making partial or full payment to the seller, if there is a delay in delivery of goods/services, then the buyer may procure the same goods/service from another supplier at a fair market price. However, if the same goods/services are delivered by another supplier at a higher price, then the differential cost will be recovered from the supplier.
- 5) **Guarantee/Warranty:** Guarantee Certificate/warranty card/performance guarantees as per the terms of the order must be furnished by the supplier along with the submission of invoice/delivery of material, failing which; the invoice will not be processed for payment.
- 6) **Payment terms:**
 - a. Payment will be subject to inspection of the material and verification of quantity of the supplied goods/services, if any deviation is observed in the quality or quantity of the supplied material, then the seller shall issue a credit note for the concerned amount to the supplier.
 - b. Details/price break-up of all the items should be mentioned clearly in the invoice. Buyer will not be liable for coolie/cartage charges, loading/unloading charges or courier charges, which was not mutually agreed upon and prior written consent was not obtained from purchaser.
 - c. If the seller fails to deliver goods/perform services within the schedule mentioned in the PO, then any advance payment made by the buyer, must be returned with 18% interest p.a within 7 days.
- 7) All the rejected goods must be picked-up from the buyer's premises within 15 days of rejection intimation. If the seller fails to collect the material within 15 days, the buyer may discard the material, at seller's cost and risk.
- 8) No replacement or repair of rejected goods will be accepted without written approval from purchaser.
- 9) **Bills:** All bills must be submitted to us in DUPLICATE (original and duplicate for transporter copy) mentioning our purchase order number, the LR numbers and date under which the material is dispatched must appear on the bills.
- 10) **Insurance:** For all the supplies against our purchase order, seller shall bear the cost of insurance. However, if the buyer has agreed in writing to cover the insurance cost, then the buyer will make arrangements to insure the material, for which, the seller must provide the dispatch details via e-mail within 24 hours from the date of dispatch, in case of failure to adhere to these guidelines, any transit loss/damage will be to the account of seller.
- 11) **Non disclosure agreement:** All the documents, sketches, drawings and any other technical information containing buyer's specific models related to product or subsequent to the formation of contract will remain the property of buyer. All such information, without written confirmation from buyer should not be shared, copied, used otherwise, reproduced, transmitted or communicated to the third party. After completion of the contract/supplies, all such original documents, drawings and other technical data should be returned in as is/good condition and no copies of the same should be retained by the supplier. Supplier further warrants to Buyer that at all times all Goods and or Services (including any Deliverables) will not be in violation of or infringe any Intellectual Property Rights of any person.
- 12) **Taxation and statutory charges:**
 - a. Buyer will not be liable for any tax/Govt. Levies without our specific agreement or written consent.
 - b. Seller must provide duplicate copy of Transport Invoice with complete details as per GST rule for claiming GST input credit.
- 13) Buyer will bear all their bank charges, while any of seller's bank charges will be charged to seller's account.
- 14) Demurrage if any incurred due to delay on seller's part in dispatching the L/R or delay in dispatch information will be borne by the seller.
- 15) Test certificate should be dispatched along with all relevant document and information.
- 16) If any material is rejected for any reason, then free replacement / refund should be made by the seller within stipulated timeframe.
- 17) If freight has to be borne by the buyer, then the entire order quantity should be supplied in one lot/batch, unless written consent is obtained from the buyer for a staggered delivery schedule.
- 18) All disputes arising out of this Purchase Order are subject to conciliation at the highest level of both parties.
 - a. Failing which matter is to be referred to Arbitration as per Conciliation Act of 1996 and its subsequent amendments and place of Arbitration will be Bengaluru.
- 19) All disputes are subject to Bengaluru jurisdiction.

A. COMMERCIAL TERMS
B. Product Pricing

Des.	Brief Specification	Quantity		Supply Price in INR	
		Nos	Unit	Unit	Total
A1	5 MT X 23.200 Mtr. Span D/G EOT Crane	1	EACH	27,00,000	27,00,000
A2	7.5 MT X 17.100 Mtr. Span D/G EOT Crane	1	EACH	28,00,000	28,00,000
A3	Supply of Shrouded Bus Bar type DSL	80 MTR.	EACH	1500	1,20,000

ERECTION & COMMISSIONING

Des.	Brief Specification	Quantity		Supply Price in INR	
		Nos	Unit	Unit	Total
A1	5 MT X 23.700 Mtr. Span D/G EOT Crane	1	EACH	50,000	50,000
A2	7.5 MT X 17.100 Mtr. Span D/G EOT Crane	1	EACH	50,000	50,000
A3	DSL Installation	80 MTR	EACH	500	40,000

NOTES:-

- All the civil work including foundation for LT Rails shall be in client scope.
- LT End Stopper is in client scope.
- First Fill of oil shall be in Client scope.
- Mobile Crane, Gus Cutter, Welding set required for erection shall be in Client scope.
- Please refer to the customer responsibility clause below to understand the scope of work.
- Transportation charges extra at actual.

→ Payment: 30% advance against ABC valid for 75 days
 → 60% + 100% GST after rail within 7 days.
 → 10% after erection against PDS valid for one life

B2. PACKING & FORWARDING

2% extra

→ Crane - 27,00,000/-
 → Erection - 50,000/-

B3. TAXES & DUTIES FOR SUPPLY

All ex-works prices quoted are exclusive of taxes, insurance, octroi and transportation, and are payable at actual at rates ruling at the time of delivery. GST @ 18% applicable on supplies, services, transportation charges extra at actuals.

Erection of Rail → Rs. 2500/-
 Pesante x 20 = 1,20,000/-

B4. PAYMENT TERMS FOR SUPPLY

SUPPLY PORTION

30% of supply value as advance along with confirmed order,
 70% of supply value with 100% taxes & duties against Proforma Invoice before dispatch.

ERECTION PORTION

100% of erection value after erection and commissioning at site.

B5. DELIVERY TERMS FOR SUPPLY

SUPPLY PORTION EX WORKS Gayatri Construction Machinery.

4-5 Weeks after approval of GA Drawings and receipt of advance, whichever is later.

ERECTION PORTION

30 days after receipt of material at site, subject to site readiness and other factors outside the influence of the manufacturer.

→ Crane Unloading - JAL Slope
 → Warranty: one year
 → RRC SVD Make
 → Drag Chain - Not provided.

Disless with
 Mr. Gagan
 25/1/23
 25,154,000/-

A. ANNEXURE - I

A1. TECHNICAL SPECIFICATION FOR 5 MT, 23.200 MTR. SPAN DG EOT CRANE

1.	Type of Crane	<u>DOUBLE GIRDER EOT CRANE</u> ✓
2.	Class of duty	Class II (M5) as per IS :3177, 807, 800
3.	Capacity	<u>5 MT</u> ✓
4.	Qty required	1 Nos.
5.	Operating Environment	Indoor, Ambient Temperature 50°C
6.	Span	<u>23.200 Mtr.</u> ✓
7.	Height of Lift MH -	<u>11.0 Mtr.</u> ✓
8.	Crane Control	<u>Through Independent Pendant Push Button & RRC</u> ✓ <i>SNY make</i>
9.	SPEED	
a.	Main Hoist	<u>0.80 - 8.0 MPM</u> Through VVFD
b.	Cross Travel	<u>3.0 - 30.0 MPM</u> Through VVFD ✓
c.	Long Travel	<u>4.5 - 45.0 MPM</u> Through VVFD ✓
10.	MOTOR	
a.	Main Hoist	9.3 Kw Sq. Cage Motor
b.	Cross Travel	0.75 Kw Sq. Cage (Geared Motor)
c.	Long Travel	2 x 2.2 Kw Sq. Cage (Geared Motor)
d.	Make	Marathon/ BBL/Crompton/SEW etc. All motors are TEFC 40% CDF, 150 starts/hr., Crane duty, class F Insulation.
11.	WIRE ROPE	
a.	No of Falls/Dia MH	<u>4/12 mm</u> ✓
b.	Type of Construction IS Specification	FMC/Steel Core / 6 x 36 / 180 Kg/sq. mm <u>IS 2266</u> ✓
c.	Make	<u>USHA MARTIN</u> ✓
12.	GEAR BOX	
a.	Type of Gear Box	<u>Helical Gear Box</u>
b.	Material of Body	<u>CI Grade-FG-20, IS-210</u>
c.	Material of Gears & Pinion	<u>20 MnCr5, SAE-8620, EN9/19/24</u>
d.	Type of Lubrication	<u>Oil Splash Lubrication</u>

13.	ROPE DRUM	Seamless Pipe as per ASTM A106
14.	BRAKES	MH- EHT BRAKE CT & LT - EM DISC TYPE
15.	LIMIT SWITCH	
a.	Main Hoist	Rotory + Gravity type
b.	Cross Travel/Long travel	Two Way Lever Type
c.	Make	Speed O Control/CCE
16.	CRANE CONTROLS	
a.	Protective Panel	Consisting MCCB, MCB Main line contactor, Step down transformer, Single Phase Preventer.
b.	Drive Panel	Consisting Contactor, MCB, Overload Relays.
c.	Make	L&T/Siemens/Schneider.
17.	CABLES	Multi Core, PVC Sheathed flexible type
a.	Make	Finolex/KEI /Heatflex/Powerage Any ISI Mark
18.	CURRENT COLLECTION	
a.	Cross Travel	Four trolley moving on I Beam <i>without dog chain</i>
b.	Long Travel	Through Shrouded Bus Bar DSL
19.	Power Supply	415V, +/-10%, 3 phase, 50 Hz
20.	Control Voltage	110V AC, 1phase, 50Hz
21.	WHEELS	
a.	Type	LT Double flanged straight tread, CT Double flange type
b.	Material	EN 8/9
c.	Type of bearings	Antifriction Ball/Roller
23.	HOOKS	
a.	Type in MH	C Type Hook
b.	Swivelling	On Thrust Bearing
c.	Make	Smriti Forging
24.	Bearing	Antifriction Ball/Roller
25.	PLATFORM	
26.	Buffer	Rubber Buffer shall be provided for LT
27.	PLATFORM	

