

order no 11000112120046 dt 07.05.2020; M/s Simplex Engg & Foundry Works Pvt Ltd

M/E



WESTERN COALFIELDS LIMITED  
( A SUBSIDIARY OF Coal India Limited )  
CIN U10100MH1975GOI018626

MATERIALS MANAGEMENT WING, COAL ESTATE, CIVIL LINES,  
NAGPUR - 440 001.

PHONE : PBX : 0712-2611381, 2510691 Extn : 5606, 5861, Fax : 0712-2510284

Dated: 07.05.2020

Supply Order no:11000112120046

**SUPPLY ORDER**

To  
M/s Simplex Engineering & Foundry Works Pvt Ltd  
65, Industrial Estate, Bhilai,  
Chattisgarh 490026

Vendor Code :515040  
Vendor Category : Manufacturer  
email : marketing@simplexengg.in

Dear Sir,

Sub : **Formal Order for supply of Standard Height Side Discharge Loaders (SDLs)**

Ref: 1. WCL Tender Enquiry no: WCL-hq-Pur-yvr-ra-e048-2018-19 opened on 31.07.2019, (tender ID: 2019\_WCL\_143037\_1), Price bid opened / reverse Auction held on 31.12.2019

2. Your offer / Bid ID: 426537 and subsequent submission of shortfall / confirmatory documents on portal

3. WCL's letter no NGP/WCL/MMW/19-20/Sec1A/SDLs/127580/1306 dt 17.01.2019

4. Your letter no SES/DJS/0918/C-2352/1430 dt 21.01.2020

5. Your letter no SES/I/DJS/0918/C-2390/1439 dt 06.02.2020

6. Your letter no SES/I/DJS/0918/C-2390/1446 dt 20.02.2020

7. Your email dated 14.02.2020, 27.02.2020

8. WCL's email dt 18.03.2020

9. Your letter no SES/I/DJS/0918/C-2390/1456 dt 18.03.2020

10. Your email dt 06.05.2020 extending the validity of your offer

With reference to above, we are pleased to place FORMAL ORDER on you for the supply of **Standard Height Side Discharge Loaders (SDLs)**, at the rates and as per terms and conditions stipulated below and general terms and conditions enclosed:

NIT item sl no	Description	Ordered Quantity (nos)	Unit price Rs.	Extended value Rs.
2	Standard Height SDL, Electro-hydraulically powered machine with Chain Conveyor Bucket / Arrangement. Scope of supply & detailed Technical specifications as per Annexure "A" enclosed	4	29,63,700.00	1,18,54,800.00
	Freight charges for 4 SDLs @ Rs.50,000.00 per SDL			2,00,000.00
	GST extra @ 18% on equipment and Freight charges			21,69,864.00
	Total value of order before availing ITC			<b>1,42,24,664.00</b>

**Total Value: Rs. 1,42,24,664.00** (Rupees one crore forty two lakhs twenty four thousand six hundred and sixty four only).

**Other Terms and conditions :**

1. **Prices:** The prices are FIRM on F.O.R. destination basis inclusive of Packing, forwarding, freight & Insurance charges upto destination, However, freight charges shall be paid extra at actuals subject maximum ceiling of @ Rs.50,000.00 per machine against documentary evidence, for FOR destination supply. Safe arrival of the consignment shall be your responsibility.

2. **GST:** GST shall be paid at actual against documentary evidence as applicable at the time of Dispatch within the stipulated delivery period. The current rate of GST applicable on equipment is 18%. Input Tax Credit benefit shall be availed by the consignee, for which you should submit GST Complaint Invoice. You have to comply with the terms and conditions of GST Act/ Rules such as issuance of Tax Invoices, ensure payment of GST and enabling mechanism to facilitate Input Tax credit by WCL. You should upload the Tax Invoices/ Debit Note/ Credit Note in GST Portal, make payment of GST and file returns in time, as prescribed under GST Act and Rule to facilitate WCL to avail Input Tax Credit (ITC) as per eligibility under GST. In case WCL is unable to avail ITC or any liability arises to WCL due to failure on the part of you to comply the above provisions, the entire amount including Interest (If any) borne by WCL shall be recovered from the firm.

*Signature*

*Signature*

Supply order no 11000112120046 dt 07.05.2020; M/s Simplex Engg & Foundry Works Pvt Ltd

3. **Delivery:** Delivery to be completed within three months, which shall be reckoned from 7<sup>th</sup> da, order date. Early supplies are acceptable.
4. **Final Inspection:** Final inspection shall be carried out by the authorised representative of WCL, at the consignee stores.
5. **Consignee & Allocation:-**

Qty	Project Allocation	Area	POSTAL ADDRESS OF THE CONSIGNEE
1 no	Sasti UG	Ballarpur	The Depot Officer, Regional Stores, Western Coalfields Limited, Ballarpur Area, PO : Sasti, Distt:-Chandrapur (M.S) Pin: - 442 701
1 no	BC 3 & 4		
2 nos	Mahakali	Chandrapur	The Depot Officer, Regional Stores, Western Coalfields Limited, Chandrapur area, Durgapur OCM, PO : Durgapur, Dist. Chandrapur (M.S) 442403

6. **Payment terms :** 80% value of equipment and accessories and initial spares for 1<sup>st</sup> year of operation and 100% taxes and duties and other charges shall be made within 21 days after receipt and acceptance of material at site by the consignee or submission of bills whichever is later. Balance 20% payment shall be made after successful completion of erection, testing, commissioning and final acceptance of the equipment (along with the accessories) upon presentation of certificates from Area GM/SO(E&M) of concerned area to the effect that the equipment has been erected and commissioned to their entire satisfaction and free training imparted to the end users & performance testing at the allocated location.

7. **Paying Authority:** General Manager (Fin.), Western Coalfields Limited, Coal Estate, Civil Lines, Nagpur-1

8. **EFT Details :-**

Name of the Bank, Branch & Location	State Bank of India, SME Bhilai, Sector-1, Bhilai
Account Number, Nature of Account	10184627594, Cash Credit
IFSC Code	SBIN0012277

9. **Mode of dispatch:** All the stores securely packed are to be dispatched by road transport to the consignee on Freight paid basis.

10. **Security Deposit :** You shall furnish the security deposit amount in the form of Demand Draft or Bank Guarantee of any scheduled bank for 10% (ten percent) value of the awarded contract i.e. for Rs.14,22,467.00 (Rupees fourteen lakhs twenty two thousand four hundred and sixty seven only), within 15 days time from the date of supply order to this office. The Bank Guarantee issued by the banker of the firm shall be operational for all purposes at Nagpur branch (Maharashtra). The banker of the firm shall issue Bank Guarantee in paper form as per format at Annexure "D" as well as on SFMS (Structured Finance Message Service) platform as per the details indicated in clause no 11 i.e. PBG clause. The security deposit may be converted into performance bank guarantee as per NIT provisions after completion of the supplies.

11. **Performance Bank Guarantee (PBG):** You have to furnish a Performance Bank Guarantee for 10% (ten percent) value of the awarded contract i.e. for Rs.14,22,467.00 (Rupees fourteen lakhs twenty two thousand four hundred and sixty seven only), satisfactory operation and performance valid for 18 months from the date of supply and acceptance of equipment. The Bank Guarantee shall be released after successful completion of the Guarantee / Warranty period after confirmation from GM(E&M) HOD, WCL Hq. Any short fall of performance availability, deduction shall be made as per clause no 13 of Annexure "A" (i.e. Performance Guarantees). The PBG must be submitted within 15 days from the date of receipt and acceptance of the equipment. No payment shall be made without submission of Performance Bank Guarantee. PBG may be submitted equipment-wise also.

The Bank Guarantee issued by the issuing bank on behalf of the supplier in the favour of Western Coalfields Ltd shall be in paper form as per Format at Annexure "D" as well as issued under "Structured financial messaging system".

The details of beneficiary for issue of BG under SFMS platform is furnished below:

Name of beneficiary and details	
Name	Western Coalfields Ltd.
Area	Head Quarter
Bank A/c No: / Cust ID	Current Account no: 005905018053; Customer Id: 556096497; ICICI Bank Ltd, Commercial Banking, 9C/A & 9C/B, Ground Floor, Shriram Towers, LIC Square, Nagpur - 440001 Maharashtra
IFSC code	ICIC0000059
Bank Manager Name & Ph. No.	UJJWAL KITE: Ph n: 0712-6627389

*Signature*

*Signature*

Supply order no 11000112120046 dt 07.05.2020; M/s Simplex Engg & Foundry Works Pvt Ltd

BG advising message – 760COV / 767 COV via SFMS

Field number	Particulars
7035	ICICI0000059
7037	WCL556096497

The original bank guarantee issued by the issuing bank shall be sent by the issuing bank to "General Manager (MM) I/c, Materials Management Wing, Western coalfields ltd HQ, Coal Estate, Civil lines, Nagpur – 440001, Maharashtra" by **Registered post /AD**.  
Any extension / amendments to the BG shall be done following the same procedure as above.

12. **Guarantee / Warranty:** The equipment should be guaranteed for satisfactory operation and performance for a period of 12 months from the date of installation / commissioning or 18 months from the date of receipt and acceptance of Equipment, whichever is earlier. In the event of any defect in material, design, workmanship, operation and performance during the aforesaid period, defective materials, spares, sub-assembly components shall be replaced and the equipment rectified and brought back to satisfactory performance free of cost.

13. **Performance Guarantee Clause for guaranteed availability:** You shall ensure that availability of the machine over a period of 12 months does not fall below 75%. For every 1% fall in the % availability below 75%, 1% of the value of the machine will be deducted. In case the fall in availability below 75% exceeds 10%, the equipment will be rejected out right and the supplier will have to refund the full amount.

The availability will be calculated as per the following formula.

$$\% \text{ Availability} = \frac{8760 - \text{Down Time}}{8760} \times 100$$

Where, Down Time = Maintenance hours + Breakdown hours.

14. **Liquidated Damages clause :-** In the event of failure to deliver or dispatch the stores within the stipulated date / period in accordance with the specification mentioned in the supply order, and in event of breach of any terms and conditions mentioned in the supply order, WCL shall have the right,

- To recover from the successful bidder as agreed liquidated damages, a sum not less than 0.5% (half percent) of the price of any stores which successful bidder has not been able to supply as aforesaid for each week or part of a week during which the delivery of such stores may be in arrears limited to 10% can be increased to 15% at the discretion of Head of MM division.
- To purchase elsewhere, after due notice to the successful bidder on the account and at the risk of the defaulting supplier the stores not supplied or others of a similar description without canceling the supply order in respect of the consignment not yet due for supply, or
- To cancel the supply order or a portion thereof, and if so desired to purchase the stores at the risk and cost of the defaulting supplier and also-
- To extend the period of delivery with or without penalty as may be considered fit and proper, the penalty, if imposed shall not be more than the agreed Liquidated Damages referred to in clause (a) above.
- To forfeit the security deposit full or in part.
- Whenever under this contract a sum of money is recoverable from any payable by the supplier, Coal India Limited and its subsidiary companies shall be entitled to recover such sum by appropriating, in part or in whole by deducting any sum from any other contract should this sum be not sufficient to cover the full amount recoverable. The successful bidder shall pay Coal India Limited and its subsidiary companies on demand the remaining balance. The supplier shall not be entitled to any gain on any such purchase.

15. **SUBMISSION OF BILLS:**

- For claiming 80% payment,** following documents are to be submitted along with original bills as per terms of the supply order to the consignee.
  - Pre-receipted and stamped GST compliant Invoice as per GST rules and Act indicating HSN code
  - Packing list in original list giving details of bill of materials (Invoice should be strictly as per GST rule 2017)
  - Consignment note / RR/ LR in original.
  - Warranty / Guarantee certificate, if applicable.
  - Manufacturer's test certificate, if applicable.

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W. H. H. H.*

*[Signature]*

Supply order no 11000112120046 dt 07.05.2020; M/s Simplex Engg & Foundry Works Pvt Ltd

(vi) DGMS / BIS / Pre dispatch inspection certificates / any other document, if required as per the contract.

(vii) Price certificate / Price fall clause certificate

(viii) Any other document indicated elsewhere in the order

**b. For Claiming 20% payment**, the following documents are to be submitted

(i) Pre-receipted and stamped bill for 20% payment.

(ii) Commissioning Certificate from the respective Area GM / SO(E&M) of concerned area

(iii) Any other document indicated elsewhere in the order

**16. Force Majeure Clause:** If the execution of the contract/supply order is delayed beyond the period stipulated in the contract/supply order as a result of outbreak of hostilities; declaration of an embargo or blockade, or fire, flood, acts of nature or any other contingency beyond the supplier's control due to act of God then Coal India Limited or its subsidiary companies may allow such additional time by extending the delivery period, as it considers to be justified by the circumstances of the case and its decision shall be final. If and when additional time is granted by the Coal India Limited and its subsidiary companies, the contract/supply order shall be read and understood as if it had contained from its inception the delivery date as extended.

I) You will advise, in the event of his having to resort to this clause, by a registered letter duly certified by the local chamber of commerce or statutory authorities, the beginning and end of the causes of the delay, within fifteen days of the occurrence and cession of such force majeure conditions. In the event of delay lasting out of force majeure, WCL will reserve the right to cancel the contract, and provisions governing termination of contract as stated in the bid documents will apply.

II) For delay arising out of Force majeure, the bidder will not claim the extension in completion date for a period exceeding the period of delay attributable to the causes of force majeure and neither WCL nor the bidder shall be liable to pay extra cost provided it is mutually established that the force majeure conditions did actually exist.

**17. Manufacturing certificate:** As the order is being placed on the basis of consideration that you are a manufacturer of the ordered material, you will have to provide a certificate to the following effect on the body of each bill.

"Certified that the items supplied and included in this bill/ invoice are our own make and have been actually manufactured in our works situated at \_\_\_\_\_ (address of the factory)

**18. Price Certificate** You have to submit the following certificate with each bill:

"Certified that we have not offered the same products at a price lower than that offered in the present bid in respect of any other ministry/ department of the Govt. of India or a PSU. In case we offer the lower prices for same items under similar terms within the validity of this offer to ministry/department of the Govt. of India or a PSU, we undertake to notify such reduction to the buyer and the same will also be applicable against this offer."

**19. Price fall clause:** As undertaken by you in your offer that you have not supplied / are not supplying similar product, systems or sub systems at a price lower than that ordered price in respect of any other ministry/department of the Govt. of India or a PSU and if it is found at any stage that similar product / Systems/ Sub -systems was supplied by you to any other Ministry / Department of the Government of India or a PSU at a lower Price, then that very price with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by you to WCL, if the contract has already been concluded. You will furnish the certificate to this effect to the Consignee / Paying Authority along with bills. Failure in submission of aforesaid certificate by you, may result in with holding of the payment of your bills against supply.

**20. Integrity Pact :** Integrity Pact as per format (Annexure E of the NIT) signed and furnished by you along with the offer shall remain valid and applicable for this contract. IEMs against the tender / Order are:

Dr. (Ms) Nivedita Haran, 23, IFS Vilas, P-6, Builders Area, Greater Noida 201310


Shri A.K.Mohapatra, Flat no.201, Manjusha Manor, Plot no N3/382, IRC Village, Bhabaneshwar 751015

**21. Jurisdiction of courts:** Nagpur only

Unless otherwise specified above, the purchase order shall also be governed by the terms and conditions given in the General terms and conditions enclosed.

This order is issued with this acceptance. Kindly acknowledge the receipt of this order.

  
(Dr. Y. Venkata Ramana)  
Chief Manager (MM) P-III

Yours faithfully  
  
(K.S.R Divakar)  
Chief Manager (MM) P-I

Supply order no 11000112120046 dt 07.05.2020; M/s Simplex Engg & Foundry Works Pvt Ltd

**Enclosures: -**

Annexure-A : Detailed Technical specifications  
Annexure-B : Tool Kit  
Annexure-C : General Terms & Conditions  
Annexure-D : PBG format

**Copy to :**

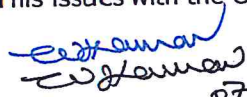
1. GM(E&M) HOD / GM(P&P) / GM(Fin.)WCL(HQ), Nagpur
2. AGM / SO(E&M)/SO(MM)/AFM/Depot Officer, WCL, Ballarpur, Chandrapur.
3. CM(Fin) / AF (MM), MM Wing, WCL Hq., Nagpur
4. GM(MM), SECL, MCL, CCL, BCCL, ECL, NCL , CIL
5. RD, CMPDIL, RI IV, Nagpur
6. TS to DT(P&P), WCL, Nagpur
7. Chief Manager (MM/Admn.), WCL(HQ) – The Landed value of the order is Rs. **1,42,24,664.00**
8. Dr. (Ms) Nivedita Haran, 23, IFS Vilas, P-6, Builders Area, Greater Noida 201310.
9. Shri A.K.Mohapatra, Flat no 201, Manjusha Manor, Plot no N3/382, IRC Village, Bhabaneshwar 751015

**Indent details:**

- ~~i. 3600218 dt 29.08.2016 of Ballarpur area for 1 nos Std height SDL for Sasti UG~~
- ii. 3600213 dt 28.08.2016 of Ballarpur area for 1 no Std height SDL for Ballarpur 3&4 pit
- iii. Ind/18-19/3160/00700 dt 26.03.2019 of Chandrapur for 2 nos Standard height SDLs for Mahakali Col

BC Reference: Capital Budget: FA/WCL/CAP/BC/OPM/12/04/43 dated 30.04.2020 for Rs.1,42,24,664.00

This issues with the Concurrence of GM(Fin) I/c and approval of Director (Tech) P&P on 20.04.2020

  
07.05.2020  
Chief Manager (MM) P-III

 7/5/2020  
Chief Manager (MM) P-I

**TECHNICAL SPECIFICATION**

Specification Parameter *
<b>1. Standard Height SDL:</b> Electro-hydraulically powered crawler mounted side discharge loader of bucket capacity not less than 1.0 Cu.M. With flame proof electricals and with cable reeler for use in underground Coal Mines. <b>QUANTITY</b> - 4 Nos (Chain conveyor type)
<b>2. A-PARAMETERS TO BE INDICATED</b>
1-Make of the SDL : Simplex
2-Model of the SDL : D113 / 1000
3-Over all length (in mm) (Bucket in roll back position) : 5070 mm
4-Over all width (in mm) (with bucket) : 1825 mm
5-Width over tracks (in mm): 1500 mm
6-Height over canopy (in mm) : 2000 mm (+/- 100 mm)
7-Max. Discharge height (in mm) : 1550 mm
8-Min. Discharge height (in mm) : 415 mm
9-Height of the machine with the bucket at its maximum discharge height (in mm) : 2501 mm
<del>10-Track pad width (in mm) : 350 mm</del>
11-Ground pressure (Kg/Sq.cm) : 1.0 kg / sq.cm.
12-Weight of the machine in Kgs : 9000 kgs
13-Max. Crawler speed : 2.4 kmph
<b>2. B-Electric Motor Details :</b>
1-K.W. rating of Electric Motor : 55kw
2-Make of the Motor (As indicated in DGMS approval of SDL) : CGL / LHP
<b>2. C-Details of Hydraulic Pump :</b>
1-Make of the hydraulic pump : Parker COMML
2-Type of the hydraulic pump : Triple Tandem Gear Pump
3-Model No. of the hydraulic pump : PGP 365
4-Rated pressure of the pump in Kg/sq.cm (For , HFDU-68) : 210 Bar
5-Peak pressure of the pump in Kg/sq.cm (For , HFDU-68) : 250 bar
6-Displacement of the pump in CC/Rev.
(i) Front Module : 73.8 cc/ rev
(ii) Centre Module : 73.8 cc/ rev
(iii) Rear Module : 73.8 cc/ rev
(iv) Cable reeler module (if any) : Not applicable
<b>2. D-Details of Traction Hydraulic Motor :</b>
1-Make of the hydraulic Motor : HAWE / Parker / Rexroth
2-Type of the Motor : Axial Piston
3-Model No. of the Motor : SCM 056
4-Geometric displacement CC/Rev. : 56 cc/ rev
5-Max. continuous output in KW: 175 kw
6-Average running torque in Nm/bar : 0.89 NM / Bar
7-Max. continuous speed in RPM (For HFDU-68) : 2200 rpm
8-Max. continuous pressure in bar (For , HFDU-68) : 160 Bar
9-Make of hyd. Motor for chain conveyor : Intermot
10-Model of hyd. Motor for chain conveyor : IAM 500
11-Make of hyd. Motor for cooler : Parker
12-Model of hyd. Motor for cooler : PGME031A
13-Capacity of hydraulic tanks (Ltrs) : 350 ltr
14-Make and type of Hydraulic Fluid : Hardcastle / HFDU - 68
<b>2. E- Make of Gear Box : Bonfiglioli / Rexroth</b>
<b>3.0. APPLICATION:</b> The machine will be required to work in underground coal faces to scoop and load run of mine coal in to transport equipment viz. coal tubs, belt conveyor and light duty chain conveyor.
<b>4.0-SCOPE OF SUPPLY :</b>
4.1-First fill of hydraulic fluid, grade, HFDU-68, DGMS approved and lubricants: Full quantity as required with each SDL.
4.2-Set of filter elements for 1st schedule oil replacement/ maintenance period (Ref.Clause No.9.9)
4.3-Pressure line filter (10 microns):1 Set (with each SDL)

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4.4-Return line filter (25 microns, 650 LPM):1 No. (with each SDL)
4.5-Maintenance tools (List of tools covered in the kit shall be given in the offer):1 Set (with each SDL)
4.6-Operation and maintenance manuals:4 Sets (with each SDL)
4.7-Spare parts catalogue:4 Sets (with each SDL)
4.8-Note : Trailing cable for the machine is not included in the scope of supply.
<b>5.0- STATUTORY APPROVALS:</b> The equipment should have valid approval of Directorate General of Mines Safety, Dhanbad for use in underground coal mines: You shall enclose a copy of valid DGMS approval with the supplies.
<b>6.0.-DUTY CONDITIONS :</b>
6.1-Environment
(a) Ambient temperature (max.):45 deg. Cent.
(b) Relative humidity (max.):98%
(c) Atmosphere: Dusty (coal dust)
6.2-The machine shall be designed for U.G. gassy coal mines for working in development galleries/depillaring coal faces of the dimensions
6.3-Height:2.2 Mtrs (Approx.) for Low Height & 2.5 Mtrs (approx.) for standard height
6.4-Width
i-in development galleries:4.0 Mtrs (Approx.)
ii-in depillaring: 2.4 Mtrs (Approx.)
<del>6.5-The machine should be able to work on load on the gradients as</del>
i-Inline gradient:1 in 4
ii-Cross gradient:1 in 8
6.6-The crawler of the machine should be designed to cope with the floor conditions, where the floor is either soft sand stone or shale. Slightly slushy conditions may also exist.
<b>7.0.-BASIC PARAMETERS :</b>
7.1-Bucket capacity: Not less than 1 Cu.M.
7.2-Overall length with bucket in roll back position:5800 mm (Max.)
7.3-Width at any point (including bucket):1825mm (Max.)
7.4-Height of machine: Standard Height
7.5-Height (over canopy): 2.1 Meter (Max)
7.6-Ground clearance:180mm (min)
7.7-Ground pressure: Not to exceed 1 Kg/Sq.cm.
7.8-Type of track pads: Single grouser pads
7.9-Type of bucket: Bi-directional chain conveyor type
<b>8.0-DESIGN &amp; CONSTRUCTIONAL DETAILS :</b>
8.1-The hull and boom of the machine shall be of robust design and shall be fabricated out of heavy weld-able quality steel plates to withstand arduous duty conditions in the mines.
8.2-The track units shall be of heavy duty and all the components, viz. sprockets, idlers, track rollers, track chain assembly and tensioning arrangement shall be designed to give long life under specified duty conditions.
8.3-The track link/chain shall be provided with single grouser type heat treated track shoes
8.4-The track link/chain assembly used for the machine shall be of proven and reputed make
8.5-The two track units (RH & LH) shall be independently driven by hydraulic motors powered through independent pump out puts and hydraulic circuits to facilitate easy maneuverability
8.6-The final reduction shall be achieved through planetary gear arrangement and shall be adequately rated for trouble free operation and longer life. The reduction arrangement shall be totally enclosed type with bolted covers (with suitable gaskets) to avoid ingress of dust and dirt.
8.7-No light metals such as aluminium or its alloys shall be used in the structure and any of the components of the machine. Only Anti static materials shall be used for the structure and components.
8.8-Bucket arm of the machine shall be fitted with suitable hydraulic cylinders with adequate safety factor for lifting and roll back of bucket
8.9-Bucket
(a) The bucket shall be fabricated from heavy weld-able quality steel plates and the tip shall be hard faced for longer life
(b) The bucket shall roll back on high tensile steel pins (heat treated) and bushes
(c) The bucket shall be provided with bi-directional chain conveyor at the bottom to provide option for either side unloading.
<b>9.0.-HYDRAULICS :</b>

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9.1-Type of hydraulic pump:Heavy duty tandem gear type pump
9.2-The pump shall have number of sections to feed hydraulic fluid independently to each track and services. : 4
9.3-The pump, motors and all other hydraulic components shall be highly reliable and shall be of reputed make.
9.4-All the hydraulic components shall be well protected from external injury and as far as practicable should be enclosed in casing.
9.5-Hydraulic Fluid:
(a) The hydraulic fluid to be used shall be non-toxic, Fire Resistant Invert emulsion type, FRHF-Grade HFDU-68 conforming to IS:10532 duly approved by D.G.M.S. OR AS PER DGMS CIRCULAR NO.DGMS/MECH/TECH.CIR.(APPROVAL)NO.02 DHANBAD, Dtd 13.02.2015
(b) All the hydraulic components including pump and motor shall be compatible to the HFDU- 68
(c) The hydraulic components shall also be compatible for use with organic Esters type, FRHF-Grade HFDU-68 fluid conforming to IS:10532 duly approved by DGMS. OR AS PER DGMS CIRCULAR NO.DGMS/MECH/TECH.CIR.(APPROVAL)NO.02 DHANBAD, Dtd 13.02.2015
9.6-Hydraulic Hoses: The hydraulic hoses and hose assemblies shall conform to BC-174:1992 and DGMS circular No.1 of 1996 dated 31.1.1996 and as per DGMS approval policy 2015 for use in UG coal mines.
9.7-Hydraulic Fluid Tank: Hydraulic tank(s) provided on the machine shall be of ample capacity and shall be provided with the following safety features.
(a) Oil level indicator and temperature gauge
(b) Float switch to cut-off power in case of low oil level.
(c) Adjustable temperature switch with range 65°C - 75°C to cut-off power in case of high oil temperature.
9.8-Type of cable reeler: Hydraulically driven. Length of cable to be accommodated in reeling drum to be furnished. However, the cable reeler shall accommodate not less than 100 meter trailing cable of 25sq.mm.
9.9.-Filters:
9.9.1- All the hydraulic loop/loops shall be provided with high pressure line filters of capacity and 10 microns (constant) equipped with suitable indicators to indicate the cleanliness of the filter elements as given below.
(a) Filter element in good condition
(b) Filter element dirty and needs replacement.
(c) Filter element too dirty and the filter by passed.
9.9.2- Suction strainers of 40 mesh, shall be provided. The capacity should not be less than two times of pump discharge.
9.9.3- The strainers shall be easily accessible with minimum handling of hydraulic fluid to facilitate regular cleaning of the strainers.
9.9.4- A tank mounted replaceable filter of 25 Micron, 650 LPM shall be provided on the return line with by pass arrangement.
9.10-Oil Cooler:
(a)-Hydraulically/mechanically powered fan cooled radiator type oil cooler of ample cooling capacity shall be provided for the machine.
(b)-The cooler together with the hydraulic tank shall be capable of ensuring that the temperature of hydraulic system does not exceed 65°C under full load continuous working conditions.
9.11-Suitable hydraulic power take-off facility with quick release male female coupling shall be provided on the machine for supplying fluid power to other hydraulically operated tools and roof bolting attachments etc.
9.12-Self sealed coupling, hand pump and filling filter shall be provided on the machine to prevent dust ingress into the system during filling and draining of hydraulic fluid.
9.13-Controls
(a) All the controls for loading and trimming shall be centralized and ergonomically designed for easy and safe operation of the machine
(b) The control valve spools shall be self centering and shall return to neutral position immediately after the operator's hand is taken off the control levers.
(c) There shall be provision for locking of control valves in neutral position to prevent unauthorized operation.
(d) The machine shall be provided with oil pressure gauges for service and traction circuits on a protected panel in front of operator for continuous visual indication and should be adjustable in height.

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(e) The machine shall also be provided with Hour meter for monitoring working hours.
(f) Operator's seat shall be sturdy, comfortable and shall enable clear vision for the operator to watch all sides and should be adjustable in height.
<b>10.0-ELECTRICALS :</b>
10.1-Electric Motor
(a) Type ;Squirrel Cage Induction Motor
(b) Operating voltage: 550 V, ± 6%, 3 Ph, 50 Hz
(c) Motor RPM (Syn.): 1500 RPM
(d) Class of duty: Continuous S-1
(e) Class of insulation: Class F with temperature rise limited to Class B
(f) Winding material: Copper
(g) Mounting: Flange Mounted
(h) Enclosure: TEFC, FLP
(i) Starting: Direct on Line
10.2-Cable connection- The machine shall be provided with DGMS approved, FLP restrained type plug & socket assembly to facilitate connection of incoming trailing cable of 25 Sq.mm size, type FT-7 conforming to IS:14494-1998.
<b>11.0-SAFETY FEATURES :</b>
11.1-Effective Parking brake in addition to Service brake for safe parking of SDL when left unattended by the operator to ensure that it does not roll on gradient as per DGMS Memo No.Mech(HQ)/MISC/636-646, Dhanbad dated 18th December, 2006.
11.2-Start/Stop push button station for remote control of gate end box
11.3-Foot operated operation-in-position switch
11.4-Hose fail check valves on lift ram and roll back rams
11.5-Mechanical lock for keeping the boom in raised position for safe maintenance of components underneath boom and bucket
11.6-Adjustable Operator's canopy
11.7-Front and rear head lights operating on 12 V/24 V ensuring good visibility. The fittings shall be FLP, DGMS approved.
11.8-Reliable and effective Audio-visual alarm, FLP, DGMS approved, to operate automatically when the machine is put to travel in reverse direction
11.9-Mechanical gong bell shall also be provided on the machine
<b>12.0.-AVAILABILITY GUARANTEE :</b>
12.1-Availability Guarantee: The SDL shall have guaranteed availability of not less than 75% over a period of 12 months after commissioning
12.2-The availability will be calculated as per the following formula. $\% \text{ Availability} = \frac{8760 - \text{Down Time}}{8760} \times 100$
Where, Down Time = Maintenance hours + Breakdown hours
<b>13.0.- Performance Bank Guarantee:</b>
13.1-The availability guarantee shall be backed by a bank guarantee of 10% of the value of the equipment, which shall be kept valid for a period of 18 months from the date of supply of the equipment.
13.2- The supplier shall ensure that the availability of the equipment over a period of 12 months after commissioning does not fall below 75%.
13.3- For every one percent fall in availability below 75%, 1% value of the equipment will be deducted.
13.4- In case the fall in percentage availability below 75% exceeds 10%, the equipment will be rejected out-right and the supplier will have to refund the full amount i.e. cost of equipment as per the supply order.
<b>14.0.-TESTING, COMMISSIONING &amp; AFTER SALES SERVICES :</b>
14.1-You shall be required to depute qualified and trained service engineers for field testing, commissioning and trial runs of the SDLs in the Mines, where the machines will be deployed.
14.2-The service engineers will be required to impart the necessary training to the operators and maintenance personnel of WCL for proper and safe operation and in maintenance and repairs of the machine.
14.3-You should be in a position to offer efficient and prompt after sales service and to ensure the availability of the spare parts and consumables through-out its life minimum 05 years and stipulated 16500 working hours, whichever is later.

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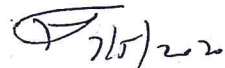
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Supply order no 11000112120046 dt 07.05.2020; M/s Simplex Engg & Foundry Works Pvt Ltd

14.4-Apart from need based service, the after sales service shall also include periodic visits of service engineers to the Mines of WCL where the SDLs are deployed to check the health of the equipment to ensure their performance/ availability.
<b>15. Inspection:</b> Final Inspection of the consignment shall be carried out at the destination stores, which will be arranged by the Consignee on receipt of stores.
<b>16.0-DOCUMENTS TO BE SUBMITTED WITH THE Supplies :</b>
(a)-Notary attested copy of valid DGMS approval for the offered SDL for its use in underground Coal Mines.
(b)-Technical brochures/leaflets in respect of the offered machine and bought-outs viz. hydraulic pump and hydraulic motor containing all technical details.
(f)-General arrangement drawing of the offered SDL showing dimensions and operating limits.
(c)-List of recommended spare parts and quantities required for two years (post warranty period) operation of the machine.



Chief Manager (MM) P-III



Chief Manager (MM) P-I