



Bharat Coking Coal Limited
(A Subsidiary of Coal India Limited)
(A GOVT. OF INDIA UNDERTAKING)
Koyla Bhawan, Koyla Nagar, Post- B.C.C.L. Township,
DHANBAD-826005 (Jharkhand)
OFFICE OF THE GENERAL MANAGER (MM)
Phone No. 0326-2230181 Fax No. 0326-2230183

Purchase Order

Ref No. BCCL/PUR/412128(12-13)/2.7-3.2 Cum HDBH, 3.2-3.8 Cum HDFS with MARC/13-14/90 Dated: 27.07.2013

To,
M/s L&T CONSTRUCTION EQUIPMENT LIMITED
BELLARY ROAD, BYATARAYANAPURA,
BANGALORE-560092

VENDOR CODE-1/20/M/T/025
Vendor Type- OEM
FAX NO-080-23636065

- Sub: Supply of 16 nos 2.7 – 3.2 Cum HDBH Shovel with 07 Years MARC and 02 nos. 3.2-3.8 Cum HDFS shovel with 07 Years MARC.
- Ref: Your offer No CEB/DHN/BCCL/13-14/1110 dated 20.05.13 read with subsequent clarifications last being CEB/DHN/NIT02/OFFLINE/05 dated 20.06.13 against this office Domestic open/advertised E-Tender Ref No. BCCL/PUR/412128(12-13)/2.7-3.2 Cum HDBH, 3.2-3.8 Cum HDFS with MARC/13-14/02 Dated: 04.04.2013, Due date OFF-LINE 20-05-2013/ ON- LINE 21-05-2013 read with subsequent letters Last being PUR/ PUR/412128(12-13)/2.7-3.2 Cum HDBH, 3.2-3.8 Cum HDFS with MARC/13-14/ Dated:10.06.2013

Dear Sirs,

Your above referred offer for supply of 16 nos 2.7 – 3.2 Cum HDBH Shovel with 07 Years MARC and 02 nos. 3.2-3.8 Cum HDFS shovel with 07 Years MARC has been accepted to the extent as indicated hereunder:-

1. SCOPE OF SUPPLY

A. Equipment: Diesel Powered Hydraulic Excavator with 2.7-3.2 Cu.M. Back-Hoe Bucket (NCD)

Sl.No	Particulars	Qty (Set)	Unit Rate (Rs) (Ex works Bangalore)	Extended Value (Rs)
1.	Equipment (Ex Works Bangalore) as per Annexure A	16 Nos	1,08,00,000.00	17,28,00,000.00
2.	ED @ 12.36%			2,13,58,080.00
3.	CST @ 2%			38,83,161.60
4.	Freight Charges		5,20,623.00	83,29,968.00
5.	Transit Insurance		6885.00	1,10,160.00
	Total (Equipment)			20,64,81,369.60
6.	Spares for 1 st Year(Ex Depot Dhanbad) As per Annexure-B- I (a)	16 Sets	5,08,027.38	81,28,438.08
7.	ED @ 12.36%			Inclusive
8.	VAT @ 14%			11,37,981.33
	Total (Spares 1 st Year)			92,66,419.41
9.	Consumables for 1 st Year (Ex Depot Dhanbad) As per Annexure-B-I (b)	16Sets	40,856.30	6,53,700.80
10.	ED @12.36%			Inclusive
11.	VAT @ 14%			91,518.11
	Total (Consumables 1 st Year)			7,45,218.91
	Equipment , Spares (1 st Year) & Consumables (1 st Year) landed Purchase Value			21,64,93,007.92
	Total Marc Price for 7 years		3,19,02,554.00	51,04,40,864.00
	Total Landed Price of Equipment with Spare & Consumable for Warranty Period and MARC Price for 7 years			72,69,33,871.92

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Supply Point:**Equipment:**

Supply and billing will be from
M/s L&T CONSTRUCTION EQUIPMENT LIMITED
BELLARY ROAD, BYATARAYANAPURA, BANGALORE-560092

Spares & Consumables:

Supply and billing will be from Larsen & Toubro Limited,
Dhansar, Dhanbad 828106 as per ANNEXURE B-I (a) & B-I (b)

B. Equipment: Diesel Powered Hydraulic (F/S) Excavator with 3.2-3.8 Cu.M.(NCD)


Sl.No	Particulars	Quantity	Unit Rate (Rs) (Ex works Bangalore)	Extended Value (Rs)
1.	Equipment (Ex Works Bangalore) as per Annexure A	02 Nos	1,10,50,000.00	2,21,00,000.00
2.	ED @ 12.36%			27,31,560.00
3.	CST @ 2%			4,96,631.20
4.	Freight Charges		5,20,623.00	10,41,246.00
5.	Transit Insurance		6885.00	13,770.00
	Total (Equipment)			2,63,83,207.20
6.	Spares for 1 st Year (Ex Depot Dhanbad) As per Annexure-B II (a)	02 Sets	5,08,027.38	10,16,054.76
7.	ED @ 12.36%			Inclusive
8.	VAT @ 14%			1,42,247.67
	Total (Spares 1st Year)			11,58,302.43
9.	Consumables for 1 st Year (Ex Depot Dhanbad) As per Annexure-BII (b)	02 Sets	40,856.30	81,712.60
10.	ED (@12.36%			Inclusive
11.	VAT @ 14%			11,439.76
	Total (Consumables 1st Year)			93,152.36
	Equipment , Spares (1st Year) & Consumables (1st Year) landed Purchase Value			2,76,34,661.99
	Total Marc Price for 7 years		3,19,02,554.00	6,38,05,108.00
	Total Landed Price of Equipment with Spare & Consumable for Warranty Period and MARC Price for 7 years			9,14,39,769.99

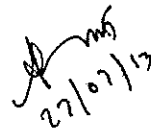
Supply Point:**Equipment:**

Supply and billing will be from
M/s L&T CONSTRUCTION EQUIPMENT LIMITED
BELLARY ROAD, BYATARAYANAPURA, BANGALORE-560092

Spares & Consumables:

Supply and billing will be from Larsen & Toubro Limited,
Dhansar, Dhanbad 828106 as per ANNEXURE B-II (a) & B-II (b)


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C. MARC:

MARC agreement for a period of Seven years (including one year warranty) is to be signed separately by the Purchaser and MARC holder (M/s L&T LIMITED, Dhansar Dhanbad) and documented as per NIT and as agreed by you (Draft copy enclosed). The MARC agreement will be an integral part of this supply order.

Year wise hourly Spares and Supervision & Overhead Charges for MARC indicated below for expected annual working hours of 5000 Hrs.

Year	Total Spares and consumables charges per working hour of equipment including all taxes & duties (in Rs.)	Supervision and overhead charges per available hour of equipment excluding service tax. (in Rs.)
1	Nil	325.00
2	500.00	138.00
3	812.00	138.00
4	679.00	138.00
5	1020.00	138.00
6	1026.00	138.00
7	1048.00	138.00

NOTE: Present applicable rate of service tax on supervision and overhead charges is 12.36%.

TOTAL PURCHASE VALUE (Equipment with Spares & Consumables for Warranty period): Rs 24,41,27,669.91 (Rupees Twenty Four Crore Forty One lakhs Twenty Seven Thousand Six Hundred Sixty Nine Paise Ninety One) only. The above price is on Ex-works – Bangalore for equipment & Ex- Depot Dhanbad for spares and consumables for warranty period & firm till completion of order; however the contract is concluded on F.O.R. destination basis. Duties & taxes and other charges are payable extra as indicated in the scope of supply above.

3. **EXCISE DUTY WITH EDUCATION CESS:** Shall be paid extra at legally applicable rates at the time of delivery, subject to production of documentary evidence. Present rate is @ 12.36% on basic price of equipment, spares & Consumables for warranty period @12.36%.

Refund/Credit, if any, obtained shall be passed on to the buyer which shall be certified by your auditor and to be submitted along with your bill.

BCCCL is entitled to avail CENVAT credit on account of Excise duty for Indigenous products and Countervailing Duty and Special additional duty for imported products. The invoice issued by the supplier should contain the following element as per Central excise rule:-

- Name and address of assessee
- Serial No. of Invoice (should not be hand written)
- Central excise duty Registration No.(assessee & consignee)
- Address of the concerned Central Excise Division
- Range and commissionerate.(assessee & consignee)
- Name and address of the consignee
- Description and Classification of the goods
- Time and date of removal
- Mode of Transport and vehicle registration number
- Rate of duty
- Quantity and value of goods and the Duty payable thereon.
- Education Cess and Higher Education Cess to be shown separately for complying with CENVAT Credit rules.
- Five copies of invoice are to be submitted among those original copies being marked as the "original for buyer", duplicate as "duplicate for transporter".
- Invoice issued by input service providers should contain the Following information:
- Serial No. of invoice(should not be hand written)
- Name, address and registration no. of person providing taxable service.
- Name and address of the person receiving taxable service.
- Description, classification and value of taxable service provided or to be provided
- Service tax payable thereon
- Education Cess and Higher Education Cess to be shown separately for complying with CENVAT Credit rules.

Consignor/Service providers should show excise/service tax element separately in their offer and invoice should be raised as per Cenvat credit rules as stated earlier.

4. **SALES TAX:** CST shall be paid extra @2% against form "C" on price of equipment and VAT @14% on Spares & Consumables for warranty period.

NB: Any increase in duties & taxes after expiry of delivery period shall be to your account. Road permit, if required, shall be obtained from the consignees.

5. **PACKING & FORWARDING CHARGES:** NIL.

6. **FREIGHT/TRANSPORTATION CHARGES INCLUSIVE OF SERVICE TAX:** To be paid extra at actual subject to a maximum of Rs.5,20,623.00 (Rupees Five lakh Twenty Thousand Six

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Hundred Twenty Three) only per equipment subject to production of documentary evidence. The transport charge is inclusive of service tax at legally applicable rate. Freight/Transportation Charges are not applicable for spares & consumable for 1st year.

7. **TRANSIT INSURANCE INCLUSIVE OF SERVICE TAX:** To be paid extra at actual subject to a maximum of Rs. 6,885.00 (Rupees Six Thousand Eight Hundred Eighty Five) only per Equipment subject to production of documentary evidence. The transit insurance charge is inclusive of service tax at legally applicable rate. Transit Insurance Charges are not applicable for spares & consumable for 1st year.

8. **TERMS OF PAYMENT:**
FOR EQUIPMENT:

- (a) 80% value of each equipment and the accessories and 100% Excise duty and full concessional ST/CST along with 100% transportation & Insurance charges will be paid within 21 days after delivery of the equipment and receipt and acceptance of performance bank guarantee. The equipment should be accompanied with relevant dispatch documents like Challan, Maker's Test Cum Inspection Certificate Warranty Certificate, Pre dispatch inspection certificate wherever applicable etc.
- (b) Balance 20% payment shall be made within 21 days of successful completion of erection testing, commissioning and final acceptance of the equipment (along with accessories) at site upon presentation of a certificate from the project Officer the effect that the equipment has been erected and commissioned to their entire satisfaction.

FOR MARC

- i. Billing Schedule
- ii. On the first working day of each month, BCCL shall notify in writing to the MARC Holder the readings of the Service Hours Meter recorded in the previous month in respect of each equipment. The Available Hours and the Working Hours will be calculated based on the above readings of Service Hours Meter and the equipment Log-Book to be maintained jointly by BCCL and MARC holder as per Clause-7 (i), Part- F, Sec-VI.
- iii. The MARC Holder may within 5 days of the succeeding month provide to BCCL an invoice, along with the following documents, for monthly price payable to it for the preceding month:
- a). Certified copy of the relevant pages of the Equipment Log-Book applicable for the particular month;
- b). Certified copy of the notification of readings of Service Hour Meter applicable for the particular month.
- iv. If BCCL agrees with the amount of the invoice after audit and verification, it shall make the payment of the invoice to the MARC Holder within 21 (twenty one) days from the date of receipt and acceptance of the invoice.

BCCL is making payment of supplier's bills through Electronic Fund Transfer (EFT). Bidders are therefore, advised to indicate their Bank Account number and other Bank Details in their Invoice.

Name of the Bank.

Name of the Branch with complete address.

Party's Account Style.

Party's nature of Account.

Party's Account Number..


Your E-Payment mandate is enclosed as ANNEXURE-S

9. **DELIVERY:**

- A. Diesel Powered Hydraulic Excavator with 2.7-3.2 Cu.M. Back-Hoe Bucket 09(Nine) to be supplied within 6 months from the date of receipt of purchase order and rest at the rate of 02 (Two) shovels per month thereafter. Delivery schedule shall be reckoned from the 10TH day from the date of order and the date of receipt of materials at our stores shall be treated as the date of delivery.

After supply of the first 11 Nos, the remaining 05 Nos will be supplied on confirmation from this office and above delivery period will be reckoned from the date of issue of confirmation.

- B. Diesel Powered Hydraulic (F/S) Excavator with 3.2-3.8 Cu.M. 02 (Two) nos shovel to be supplied within 06 months from the date of receipt of supply order. Delivery schedule shall be reckoned from the 10TH day from the date of order and the date of receipt of materials at our stores shall be treated as the date of delivery.


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10. LIQUIDATED DAMAGES CLAUSE: The bidders will confirm their acceptance of the following:

In the event of failure to deliver/dispatch the equipment/stores within the stipulated date/period to effect supply in accordance with the terms and conditions and the specifications mentioned in the supply order and in the event of breach of any of the terms and conditions mentioned in the supply order, Bharat Coking Coal Ltd., shall be entitled at its option either to enforce the following:

- 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 the successful tenderer 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% (TEN Percent) and where felt necessary by BCCL, it may be increased up to 15 %.
- To cancel the supply order or a portion thereof, and if so desired to purchase the stores at the risk and expenses of the defaulting supplier and also/or
- To purchase elsewhere after notice to the successful tenderer on the account and at the risk of the defaulting supplier, the equipment/stores not supplied or others of similar description without cancelling the supply order in respect of the consignment not yet due for supply/or
- To extend the period of delivery with or without liquidated damages as may be considered fit and proper. The liquidated damages if imposed, shall not be more than the agreed liquidated damages referred to in CLAUSE 9 (a) above except in case of force majeure condition
- Whenever under this contract any sum of money is recoverable from and payable by the supplier, Bharat Coking Coal Limited, shall be entitled to recover such sum by appropriating in part or in whole by deducting any sum or which at any time thereafter may become due to the successful tenderer in this or any other contract, should this sum be not sufficient to recover the full amount recoverable, the successful tenderer shall pay. Bharat Coking Coal Limited, the balance amount on demand the remaining balance. The supplier shall not be entitled to any gain on any such purchase. To forfeit the security deposit fully or in part.

11. CONSIGNEE:

The 2.7-3.2 m3 Hyd (B/H) shovel allocated to the mine projects are as follows which is subject to change as per the requirement of purchaser:

Sl No.	Area/Project	Total Requirement
		Under NCD
1.	Block-II Area	02 nos
2.	Barora Area	01 no
3.	Govindpur Area	02 nos
4.	Katras Area	02 nos
5.	Sijua Area	02 nos
6.	Kusunda Area	02 nos
7.	Bastacolla Area	01 no
8.	Lodna Area	02 nos
9.	CV Area	02 nos
	Total	16 nos

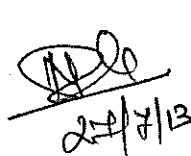
The 3.2-3.8 m3 Hyd (F/S) shovel allocated to the mine projects are as follows which is subject to change as per the requirement of purchaser:

Sl No.	Area/Project	Total Requirement
		Under NCD
1.	Barora Area	01 no
2.	Katras Area	01 no
	Total	02 nos

12. PAYING AUTHORITY: The General Manager (Finance)/MM, Koyla Bhawan : Koyla Nagar,Dhanbad

13. SECURITY DEPOSIT: Equipment with Spares & Consumables for Warranty period
 Diesel Powered Hydraulic Excavator with 2.7-3.2 Cu.M. Back-Hoe Bucket: 2,16,49,300.00 or 13,53,081.00 / equipment
 Diesel Powered Hydraulic (F/S) Excavator with 3.2-3.8 Cu.M: 27,63,466.00 or 13,81,733.00/ equipment

For MARC: You will be required to deposit as security money 10% of the value of the Maintenance & Repair Contract (including Taxes, duties, and other charges to the FOR Destination prices) without having any ceiling in the form of Cash/ Bank Draft / Bank Guarantee within 15 days from the date of order. If the successful tenderer fails to deposit the security deposit


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within 15(fifteen) days from the date of order, the same shall be recorded as unsatisfactory performance for future dealings apart from taking any other penal action as may be deemed fit by BCCL. For successful tenderers, the Security Money shall be refunded within 30 days of satisfactory execution of contract. For unsatisfactory execution of contract and / or failure of execution of contract, the security money shall be forfeited. The Bank Guarantee should be submitted on Rs.250/- non-judicial stamp paper as per the enclosed format at Annexure- C. The value of SECURITY DEPOSIT for MARC is Rs 5,74,24,597.00 or Rs 31,90,255.00/Equipment

14. **COMPOSITE GUARANTEE / WARRANTY:** as indicated in Technical Specification (ANNEXURE-A)

15. **PERFORMANCE GUARANTEE:** In accordance with the provisions of clauses 7 & C7 of the Technical Specifications, you shall guarantee that the availability of the equipment shall be not less than 85% (eighty five per cent) for a period of 12 months from the accepted date of commissioning.

You shall furnish a Performance Guarantee equivalent to 10% of the total value of the supply order / contract (by adding Excise Duty and Sales Tax etc to the FOR destination price of the equipment ordered). The performance guarantee shall be submitted in the form of a Bank Guarantee issued by a scheduled bank in the format attached as ANNEXURE-C-I (on a non judicial stamp paper of value Rs.250.00 only). This Bank Guarantee shall be initially valid for a period of 18 months from the date of receipt and acceptance of equipment and the same shall either be released or extended depending upon the merit of the case. This Performance Guarantee shall be for the performance of the Contract / Supply Order.

Submission of Bank Guarantee: The original Bank Guarantee should be sent to the beneficiary directly by the issuing Bank under Registered Post (A.D.).

However, in exceptional cases, where the Bank Guarantee is handed over to the customer for any genuine reasons, the issuing branch should immediately send by Registered Post (A.D.) an unstamped duplicate copy of the guarantee directly to the beneficiary with a covering letter requesting them to compare with the original received from supplier and confirm that it is in order. The A.D. card should be kept with the loan papers of the relevant guarantee.

The value of **PERFORMANCE BANK GUARANTEE** for Equipment, Spares & consumable for 1st year for

Diesel Powered Hydraulic Excavator with 2.7-3.2 Cu.M. Back-Hoe Bucket: 2,16,49,300.00 or 13,53,081.00 / equipment

Diesel Powered Hydraulic (F/S) Excavator with 3.2-3.8 Cu.M: 27,63,466.00 or 13,81,733.00/ equipment

16. **INTEGRITY PACT:** The Integrity Pact document signed by you is at ANNEXURE- T.

This Integrity Pact is deemed to have been signed by BCCL Authorities

Name of Independent External Monitor is:

Justice Ashok Kumar Chakra barty (Retd)

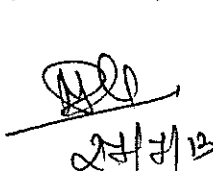
BB-69, Sector-I, Salt Lake

Kolkata-700064

17. **PRICE FALL CLAUSE** – The price charged for the Stores / Equipment supplied against the order, if placed, shall in no event exceed the lowest price at which the bidder shall sell or offer to sell the Stores / Equipment of identical description to its any customer during the pendency of the Contract / Supply Order. If the successful tenderer at any time during the pendency of the Contract / Supply Order sells or offers to sell such stores to any customer, at a price lower than the price stipulated in the Contract / Supply Order placed by BCCL, the successful tenderer shall forthwith notify to BCCL such reduction in sale price of stores / equipment supplied after such reduction coming into force shall stand correspondingly reduced.

18. **INSPECTION AND TESTS:**

- The purchaser or its authorized representative shall have the right to inspect and/or to test the goods to confirm their conformity to the contract. The purchaser shall notify the supplier in writing of the identity of any representative retained for these purposes.
- The inspections and tests may be conducted on the premises of the supplier or its subcontractors), at point of delivery and/or at the goods final destination when conducted on the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production date, shall be furnished to the inspectors at no charge to the purchaser.
- Should any inspected or tested Goods fail to conform to the specifications, the purchaser may reject them and the supplier shall either replace the rejected goods and make all alternatives necessary to meet specification requirements free of cost to the Purchaser.
- The Purchaser's right to inspect, test and, where necessary, reject the goods after the Goods arrival in the Purchaser's country shall in no way be limited or waived by reason of the Goods having



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- previously been inspected, tested and passed by the Purchaser or its representatives prior to the Goods shipment from the country of origin.
- e) Materials are subject to inspection by the purchaser before dispatch. The materials may also be subject to stage inspection by a third party nominated by BCCL for the purpose. Final inspection shall, however, be carried out at the consignee's end by GM(Excv);BCCL or his authorized representative
 - f) Nothing in these documents shall in any way release the supplier from any warranty or other obligations under this contract.
 - g) The purchaser shall, at its discretion, have the right to test the ordered material in a Government Test House or in a test house nominated by the purchaser. In case of failure of the material after testing, the cost of tests as well as of the material shall have to be borne by the supplier.
 - h) Pre-dispatch inspection by CM (Excv), 40 Kempe Gowda Road, 4th Floor, Geetha Mansion, Coal India Ltd., Bangalore - 560 009
19. **GENERAL TERMS AND CONDITIONS:** Unless otherwise specified in the purchase order, the Purchase order shall be subject to the General Terms and Conditions of Supply of Stores given as ANNEXURE -D. In case there is a conflict in any particular term of the NIT with the General Terms, the terms of the NIT will prevail.
20. **JURISDICTION:** Any dispute arising out of this enquiry shall come under the sole jurisdiction of the Dhanbad/Jharkhand High Court, (INDIA).

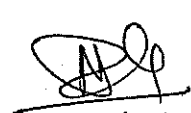
The contract is concluded with the issuance of this order. We are enclosing 2 copies of the Purchase Order, one of which should be returned to us duly stamped and signed.

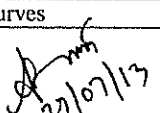
Yours faithfully,
For & on behalf of Bharat Coking Coal Limited


(A D Santhish)
Chief Manager (MM)

Enclosures:

SL	ANNEXURE	DESCRIPTION
1	ANNEXURE - A	TECHNICAL SPECIFICATIONS comprising SECTION-V SCHEDULE OF REQUIREMENTS; PART I,II, SCHEDULE OF REQUIREMENTS OF SERVICES, SECTION VI - TECHNICAL SPECIFICATIONS PREFACE - INSTRUCTIONS TO BIDDERS A.SCOPE OF SUPPLY, B.SPECIFIC SITE REQUIREMENTS, PART C GENERAL REQUIREMENTS, PART E EQUIPMENT SPECIFICATIONS PART F MAINTENANCE AND REPAIR CONTRACT (MARC), TECHNICAL CONFIRMATION VIDE LETTER REF. CB/DHN/NIT 02/OFFLINE/02 Dated 05.06.2013
2	ANNEXURE - B -I (a)	List of Spares for 1 st Year for Diesel Powered Hydraulic Excavator with 2.7-3.2 Cu.M. Back-Hoe Bucket.
	ANNEXURE - B -I (b)	List of Consumables for 1 st Year for Diesel Powered Hydraulic Excavator with 2.7-3.2 Cu.M. Back-Hoe Bucket.
3	ANNEXURE - B -II (a)	List of Spares for 1 st Year for Diesel Powered Hydraulic (F/S) Excavator with 3.2-3.8 Cu.M.
	ANNEXURE - B -II (b)	List of Consumables for 1 st Year for Diesel Powered Hydraulic (F/S) Excavator with 3.2-3.8 Cu.M.
4	ANNEXURE - C	Performa of Security Deposit
5	ANNEXURE- C-I	Performa of Performance Bank Guarantee.
6	ANNEXURE - D	General Terms and Conditions of supply of stores.
7	ANNEXURE - E	Performance of equipment under performance guarantee during warranty period
8	ANNEXURE - F	Hydraulic Excavator tool list
9	ANNEXURE - G	Quality Assurance Plan
10	ANNEXURE - H	Leaflet of L&T 300 Hydraulic Excavator.
11	ANNEXURE - I	Engine performance curves


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12	ANNEXURE - J	Hydraulic system & circuit diagram
13	ANNEXURE - K	Auto Lube System
14	ANNEXURE - L-I	L&T 300 Hydraulic Excavator Bucket volume calculation for Back-Hoe Shovel.
15	ANNEXURE - L-II	L&T 300 Hydraulic Excavator Bucket volume calculation for Face Shovel
16	ANNEXURE - M	List of major bought-out items for L&T 300 Hydraulic Excavator
17	ANNEXURE - N	Description & layout of auto fire detection and suppression system.
18	ANNEXURE - O	Lubricant Change Schedule of L&T 300 Hydraulic Excavator
19	ANNEXURE - P	Training schedule.
20	ANNEXURE - Q	Erection Program for L&T 300 Hydraulic Excavator
21	ANNEXURE - R	Maintenance schedule for L&T 300 Hydraulic Excavator
22	ANNEXURE - S	Authorization for E-Payment.
23	ANNEXURE - T	Integrity Pact.
24	ANNEXURE -U	Schematic Diagram for Lubrication System
25	ANNEXURE I, II & III	REPORTS FOR MARC

Copy to:

- GM(Excv) /GM(Excv)Cap, Koyla Bhawan : Koyla Nagar,Dhanbad
- The General Manager (Finance)/MM, Koyla Bhawan : Koyla Nagar,Dhanbad.
- The GM(Areas), Block II Area / Barora Area / Govindpur Area / Katras Area / Sijua Area / Kusunda Area / Bastacolla Area / Lodna Area / CV Area
- The Depot Officer, RS/ Block II Area / Barora Area / Govindpur Area / Katras Area / Sijua Area / Kusunda Area / Bastacolla Area / Lodna Area / CV Area, BCCL,Dhanbad
- GM(Company Secretary), BCCL, Koyla Bhawan : Koyla Nagar,Dhanbad – in ref. to BCCL:CS:F-I(A):468 dated 02.07.13
- GM(MM/Stores), Koyla Bhawan : Koyla Nagar,Dhanbad: in ref. to Indent Registration No 412128 dtd 27.08.12

Indent No	IR No of MM Divn	Qty (No)	Project/Area
RS-BII-15-P&M/272/12-13 DTD 02.08.12	412128 dtd 27.08.12	02	Madhuban Coal Washery (Replacement requirement-1.5m ³ Hydraulic Shovel)
R/S-BII-15-P&M/273/12-13 DTD 02.08.12		01	Block II OCP (Replacement requirement-2.7m ³ Hyd Elect B/H Shovel)
R222R8010363 DTD 02.08.12		01	Block IV OCP (Replacement requirement-2.7m ³ Hyd Elect B/H Shovel)
S/L/Store /12-13/507 DTD 31.07.12		01	Tetumari OCP (Replacement requirement-2.7m ³ Hyd Elect B/H Shovel)
BCCL/LA/R-S/12-13/66 DTD 31.07.12		01	S TISRA OCP (Replacement requirement-2.7m ³ Hyd Elect B/H Shovel)
04/1122/2012-2013/248 DTD 16.08.12		01	Damodar OCP (Replacement requirement-2.7m ³ Hyd Elect B/H Shovel)
BCCL/BA/01/RS/Capita/12-13/02 DTD 02.08.12		01	Shatabdi OCP (Replacement requirement-3.2-3.8m ³ Hyd Elect F/S Shovel)
RSLD/12-13/170 DTD 03.08.12		01	Dahibari OCP (Replacement requirement-3.2-3.8m ³ Hyd diesel F/S Shovel)
R/S-BII-15/P&M/110/12-13 DTD 21.05.12		01	Jamunia OCP (Replacement requirement-1.2m ³ Hyd Shovel)
RS/BA01/CAP/AM(X)/12-13/01 DTD 18.05.12		02	Damoda OCP (Replacement requirement-1.2m ³ Hyd Shovel)
R.S.S/Cap/AR III/12-13/02 DTD 16.05.12		01	Akashinara OCP (Replacement requirement-1.2m ³ Hyd Shovel)
BCCL/IV/Excv/2012/21 DTD 16.05.12		02	AKWMC (Replacement requirement-1.2m ³ Hyd Shovel)
GM/SA/Excv/12/206 DTD 08.05.12		02	Nichitpur & Tetumari OCP (Replacement requirement-1.2m ³ Hyd Shovel)
RS/VII/CAP/12-13/03 DTD 08.05.12		01	Ena OCP (Replacement requirement-1.2m ³ Hyd Shovel)
BCCL/Cap/R-S/IX/12-13/03 DTD 07.05.12		01	GOC (Replacement requirement-1.2m ³ Hyd Shovel)
BCCL/LA/IND/12-13/10 DTD 03.05.12		01	N. Tisra OCP (Replacement requirement-1.2m ³ Hyd Shovel)
04/1122/2012-2013/075 DTD 12.05.12		02	Damodar OCP (Replacement requirement-1.2m ³ Hyd Shovel)
R-S. LD/12-13/41 DTD 09.05.12		02	Dahibari OCP (Replacement requirement-1.2m ³ Hyd Shovel)

- GM(UMD),CMPDI Ltd,Gondwana Place,Kanke Road,Ranchi-8
- GM / GM (MM), ECL/ CCL/WCL/SECL/NCL/MCL
- CM (Excv), 40 Kempe Gowda Road, 4th Floor, Geetha Mansion, Coal India Ltd., Bangalore – 560 009
- M/s ITI Ltd.,Regional Office,F-29,Ground Floor,Doorvani nagar,Bangalore-560016
- AM,Tech Cell,MM Divn, Koyla Bhawan : Koyla Nagar,Dhanbad

27/4/13

27/7/13

- The Independent External Monitor for Integrity Pact:-
Justice Ashok Kumar Chakra barty (Retd)
BB-69, Sector-1, Salt Lake
Kolkata-700064
- This issues with approval of agenda item No 298.4M of the 298th BCCL Board meeting by the Board of Directors of BCCL and minutes communicated by Co.Secy vide BCCL/CS/F-1(A):468 dated 02.07.13

For Equipment with Spares & Consumables for Warranty period

eBC no BCCL/C&B/CAP/REG/PN-126/SN-10/eBC No 250 dated 23.07.2013 (Cap 13-14) for Rs 24,41,27,669.91/-.


eFC No 67 Dated 23.07.2013 for Rs 24,41,27,669.91/-

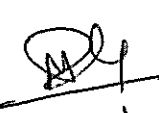
For MARC

Advance budget of Rs 25,16,38,272.48 by CM(F)C&B vide letter No BCCL/FIN(C&B)/12/D/195 dated 25/27.09.2012 for 2013-14 to 2019-2020

Additional Advance budget of Rs 32,26,07,699.52 by CM(F)C&B vide letter No BCCL/FIN(C&B)/13/D/106 dated 26/27.07.13 for 2013-14 to 2019-2020.

Year	Approved Budget (Rs.)	Budget Allotted (Rs.)	Additional additional advance (Rs.)	/ Bud.
2013-14	32865300.00	6277411.13	26587888.87	
2014-15	58955112.00	25795301.33	33159810.67	
2015-16	87035112.00	41810904.82	45224207.18	
2016-17	75065112.00	39863919.66	35201192.34	
2017-18	105755112.00	64152143.24	41602968.76	
2018-19	106295112.00	36869296.15	69425815.85	
2019-20	108275112.00	36869296.15	71405815.85	
Overall	574245972.00	251638272.48	322607699.52	


27/7/13
Chief Manager (MM)


27/7/13

BHARAT COKING COAL LIMITED

Tender Ref No: BRC No. PUN/42128/12-13/27-32 Cum HDB: 33-33 Cum HDB with MARC13-1402 Dated 04.04.2013

TECHNICAL SPECIFICATIONS

BIDDER SHOULD CONFIRM THE ACCEPTANCE/CONFIRM SUBMISSION OF RELEVANT DOCUMENTS:

NAME OF THE BIDDER

LAT Construction Equipment Limited
Beltary Road, Bikanernagar, Rajasthan-560002, Tel: 080-22165100,
Fax: 080-22636065

Description

Bidder to Agree

SL No

ANNEXURE-F

PROVENANCE CRITERIA

TENDERS WHO FULFILL THE FOLLOWING CRITERIA OF PROVENANCE WILL BE CONSIDERED AS PROVEN Bidders.

PROVEN MEANS THOSE MANUFACTURERS WHO HAVE SUCCESSFULLY SUPPLIED, ERECTED, COMMISSIONED, THE TYPE AND MODEL OF THE OFFERED EQUIPMENT IN THE PAST TO THE MINING INDUSTRY AND /OR TO THE OTHER INDUSTRIES (PRIVATE OR GOVERNMENT/ PUBLIC SECTOR) UNDERTAKING - INDICIOUS OR GLOBAL AGAINST REGULAR (FIRM ORDER NOTIAL ORDER) AND SUCH EQUIPMENTS HAVE GIVEN SATISFACTORY PERFORMANCE. SATISFACTORY PERFORMANCE MEANS THAT THE SUPPLIED EQUIPMENTS HAVE ACHIEVED PERCENTAGE OF GUARANTEED AVAILABILITY FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF COMMISSIONING AS SPECIFIED BY CIL AND ITS SUBSIDIARY CO. MAY BE CONSIDERED IF THE FIRM ON WHICH TRAIL ORDER HAS BEEN PLACED, CERTAINS PROVEN STATUS ON PERFORMANCE BASIS ON THE DATE OF TENDER OPENING AGAINST SUCH TRAIL ORDERS.

AGREED

Noted and agreed. The offered model meets the requirement of NT

S. No

Brief Description of Goods & Services

Quantity

Preferred /Expected Delivery Schedule at Site

1

Diesel Powered Hydraulic Excavator with 2.7-3.2 Cum Back-Hoe Bucket

07-09-15

4 (Four) - 15 (Fifteen) - 09 (Nine) Nos. to be supplied within 05 months from the date of receipt of supply order has been at the rate of Rs. (Two) Lakhs per month and to be paid in actual survey of the equipment.

AGREED

We offer LAT 300 CK-II diesel powered hydraulic excavator fitted with 3.0 Cum backhoe bucket.

2

Auxiliary Equipment and other requirement for each of item 1 as specified in Technical Specifications included in Section VI.

In accordance with item 1

Delivery to be made along with the machine.

AGREED

Will be supplied with the equipment

3

Diesel Powered Hydraulic (F/S) Excavator with 2.7-3.2 Cum

02

02 (Two) Nos. to be supplied within 05 months from the date of receipt of supply order.

AGREED

We offer LAT 300CK-II diesel powered hydraulic excavator fitted with 3.0 Cum shovel bucket.

4

Auxiliary Equipment and other requirement for each of item 3 as specified in Technical Specifications included in Section VI.

In accordance with item 3

Delivery to be made along with the machine.

AGREED

Will be supplied with the equipment

The quantities of equipment against which this procurement is being made are as follows:

The 27-32 m3 Hyd (B/H) Shovel allocated to the mine projects are as follows which is subject to change as per the requirement of purchaser:

AGREED

Accepted

SI No.

Area/Project

Company

Total Requirement

Under MCO

Under POC

1

MCOI Block-II Area

BCCCL

02 Nos

AGREED

Noted and accepted

2

Block-II Area

BCCCL

02 Nos

AGREED

Noted and accepted

3

Siga Area

BCCCL

01 No

AGREED

Noted and accepted

5

Lodna Area

BCCCL

01 No

AGREED

Noted and accepted

6

E./Area

BCCCL

02 Nos

AGREED

Noted and accepted

7

Batera

BCCCL

02 Nos

AGREED

Noted and accepted

8

Karnas

BCCCL

02 Nos

AGREED

Noted and accepted

9

E./Area

BCCCL

01 No

AGREED

Noted and accepted

10

One each to every three Areas among Gauda, Siga, Lodna, E./Area, Karnas, E./Area for requirement at the time of delivery.

03 Nos

AGREED

Noted and accepted

TOTAL				16 Nos	Nil			AGREED	Noted and accepted				
The 3.3-3.8 m3 Hyd (F/9) Shovel allocated to the mine projects are as follows which is subject to change as per the requirement of purchaser.									Accepted				
SI No.	Area/Project	Company	Total Requirement	Under MCO	Under PCD			AGREED					
1	Bakra Area	BCL	01 No.					AGREED	Noted and accepted				
2	C/V Area	do	01 No.					AGREED	Noted and accepted				
TOTAL				02 Nos	Nil			AGREED	Noted and accepted				
Part B													
S.No.	Brief Description of Services			Particulars				AGREED					
1	Training of Purchaser's Personnel at the manufacturer's works or elsewhere outside India			Please refer to Schedule of Requirements of Services Part in this Section and to the Technical Specifications.				AGREED	Noted and agreed				
2	Training of Purchaser's Personnel on Site			Please refer to Schedule of Requirements of Services Part in this Section and to the Technical Specifications				AGREED	Noted and agreed				
3	Assembly and erection of equipment at Site in accordance with the Technical Specification and Conditions of Contract.			To be specified by the Bidder to comply with the Technical Specifications and the brand and Conditions of Contract.				AGREED	Noted and agreed				
Note: 1. Price for 2.7-3.2 m3 Hyd (B/H) Shovel 3.3-3.8 m3 Hyd (F/9) Shovel along with accessories should be quoted with format Custom Duty (MCO) for 16 nos. & 02 nos (respectively) separately in two separate sheets and Project Conditional Duty (PCD) for 01 nos. applicable for the imported contents. 2. The Bidder has to quote for any model or both the models of shovel in full quantity as given above, otherwise their offer will not be considered. Evaluation of both the models of above shovel will be done separately.										AGREED	Noted and agreed		
Schedule of Requirements of Services The Supplier's scope of the Contract will include the following: I. Type test on each equipment included in the technical specification and offered in the bid. II. Providing Services of Supplier's qualified engineer/personnel for: A. unloading, transportation to site, storage at site and/or. B. reassembling from storage to erection site, installation, testing and commissioning. III. Training of Purchaser's Personnel. IV. The Purchaser's estimate of the minimum training requirements, in terms of Purchaser's personnel, periods and locations, are given in the following table. These estimates relate to the total number of items of equipment specified in Part-I										AGREED	Noted and agreed		
Type of Personnel										At Manufacturer's Works		At Site	
				No	Period	Total	No	Period	Total				
Mech Engineer				1	1 week	1 man weeks		Week	Week				
Elec Engineer				1	1 weeks	1 man weeks		Week	Week				
Mech Supervisor				1	1 weeks	1 man weeks		Week	Week				
Elec Supervisor				1	1 weeks	1 man weeks		Week	Week				
Mech Fitter							9	1 Week	9man Week				
Electrician							9	1 Week	9man Week				
Operator							9	1 Week	9man Week				
Total				4			27		27 man weeks				
Definition: Mech/Elec Engineer:- Electrical Supervisor :- Mech Fitter/Electrician/Operator :- Mech Fitter/Electrician/Operator :- Un-skilld, semi-skilld and skilld										AGREED		AGREED	
Section VI - Technical Specifications Preface - Instructions to Bidders Introduction										AGREED		AGREED	

<p>A.4 Erection/Assembly, Commissioning and Performance Testing The Supplier shall provide the Services of Specialist Technicians (not Part C) and labour to undertake the installation, erection, assembly, commissioning and any performance testing of the plant, Equipment and accessories supplied.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>A.5 Training The Supplier in consultation with the project in-charge (HOD) [Execution of the respective site shall make available experienced personnel to conduct training of equipment, sub-contractors, workmen and operation personnel for suitable periods from the date of issued acceptance certificate of the equipment. The training shall cover the following: a) Installation and erection of the equipment. b) Starting of system, safety and risk assessment. c) Equipment operation and maintenance. d) Trouble shooting, localization of fault and their remedial measures. 1. Electrical and electronics. 2. Mechanical 3. Hydraulic system 4. Lubrication system 5. Pneumatic system etc. Competent training manuals with clear illustrations shall be provided to each participant in English language. The training records shall be maintained in both English and Hindi language.</p>	<p>AGREED</p>	<p>Noted and Agreed, except simulator training as the same is yet to develop.</p>
<p>B Specific Site Requirements All the projects of B.O.C. are located within 30 KM range (approx) from Durgam Chakki Railway Station. Part C, General Requirements C.1 Geography and Climatic Conditions Elevation:- The natural surface water level from 100 to 1000 m above mean sea level. The ground is sub-hilly to hilly, dry, with a hot and humid atmosphere. Monsoon rains occur in the period from June to October. Ambient Conditions - Relative Humidity - Maximum 95% Temperature - Minimum 10° C Maximum 50° C Rainfall - The mean annual rainfall is 1,000mm, 90 to 95% of which may fall in rainy season from June to October. Wind - April to September - South to South West October to March - North West Speed - 8 km per hr average 100 km per hr maximum</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.2 Goods (Equipment and Machinery) Detailed specifications of the Equipment to be supplied are given in Part E of the section. In general, all items shall be designed and constructed to handle without overflow and for the working hours stated. The maximum volume rates specified, designed to facilitate ready making, changing, inspection, maintenance and repair of component parts. The component parts of all items shall, wherever possible, be selected from the standard range of available manufacturers. The Equipment and accessories shall be physically robust and where necessary, capable of dismantling for transportation and ready re-assembly using simple tools. All Equipment items provided shall be compatible within the proposed overall Scope of Supply. Electrical Equipment shall provide all protection devices, controls and interfaces for the Equipment to operate safely and efficiently. All workmanship and materials shall be of first class quality in every respect. All parts and surfaces which are exposed to corrosive environment shall be suitably protected to prevent any effects of corrosion or wear.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.3 Services The supplier shall be responsible for the erection and commissioning of the equipment at site. The supplier shall deploy qualified and competent Engineers (s) and specialist technicians to supervise the entire assembly, erection and commissioning of equipment.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.4 Standards The design, assembly, erection, testing and commissioning of all Equipment under the Contract shall in all respects comply with the requirements of the applicable standards and with the applicable current Indian standards and specifications. The Supplier shall ensure that the equipment complies with any international standards to be supported by documentary evidence certifying the different standards are followed in the corresponding ISO Indian standards. The Equipment shall be to the approval of the Statutory Government Authorities, including Director General of Mines Safety (DGMS) having jurisdiction over the Equipment and its use. The system of units for all measurements shall be the Systeme International d'Unites (S.I.).</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.5 Suppliers Responsibility The Purchaser reserves that the Supplier shall accept responsibility for the provision of complete, operable and compatible Equipment and systems within the Scope of Supply. This document contains only the major items required for the installation and the Supplier shall ensure that the total supply includes all necessary Equipment for it to function effectively, safely and efficiently. Any additional items the Supplier considers necessary to ensure compliance with such a requirement shall be identified and included. If the Supplier declares that this Specification document contains any omissions, ambiguities, flaws, errors or omissions, the Supplier shall immediately bring them to the attention of the Purchaser. The supplier shall be responsible for the testing and commissioning of the Equipment and ensure that it meets the requirements as specified. The commissioning and testing to work of the whole Equipment Supply package shall be carried out under the supervision of the supplier in conjunction with the Purchaser's nominated personnel.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>

<p>C.6 Spare Parts Provisions C.6.1 Spare Parts All items and Equipment proposed shall be of current design and manufacture. The Supplier shall warrant that sufficient spare and service facilities will be available to maintain the Equipment covering the MABC period as stipulated in table 1 of MABC, section VI part 'F' and payment would be made as per the instructions made in clause 2.1 of MABC. The bidder shall also ensure availability of spares for a period of at least 5 years beyond the MABC period which shall be procured by the purchaser as per the need.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.6.1.1 Bought-out assemblies and sub-assemblies The supplier is required to furnish the details of all bought-out items as indicated in the technical specification against 'Information to be provided by the bidder'. The bidder has to furnish a certificate indicating therein that 'All other components not identified/mentioned herein are manufactured by the bidder at their works exclusively, i.e. the components are property of bidder's firm.'</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.6.2 Provision of Consumables Each equipment shall be delivered with spare consumables required for operation during warranty period as detailed in clause 1(a) of MABC, section VI part 'F'. The consumables shall be of the same quality and specification as the original consumables. The MABC period shall be extended by the Supplier for the period for the spare consumables. The consumables shall be supplied along with spare parts. The Supplier shall ensure that the purchaser will not be responsible for supply of any consumable items for condition of the equipment during the warranty period.</p>	<p>AGREED</p>	<p>We have offered spares and consumables required for warranty period separately.</p>
<p>C.6.3 Lifetime Spare Parts The supplier undertakes and guarantees to produce and maintain stocks to be available for purchase by the purchaser of all spare parts and consumables as may be required for maintenance and repair of the equipment beyond the MABC period, wherever applicable, against separate contract. In the event that the supplier wishes to terminate production/beyond the MABC period, wherever applicable of such spare parts the supplier shall:</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.6.3.1 Give not less than 6 months' notice in writing of its intention to terminate production in order to permit the purchaser reasonable time to procure needed requirements, and</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.6.3.2 Immediately following termination provide to the purchaser at no cost manufacturing drawings, material specifications and necessary permission to manufacture by the spare parts manufacturer.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.6.3.3 Any change in part number or name coded part number should be referred to the BCCIL - Equipment Department, I&T Department and the project site whenever the equipment is operating. In any event the supplier shall not seek to terminate manufacture of spare parts for a period of not less than 5 years beyond MABC period.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.6.4 Oils, Lubricants and Fluids The bidder shall indicate the detail schedule of use of all necessary oils, lubricants, fluids for the operation and maintenance of the equipment, determined annual consumption and specify the appropriate international standard number or the name and reference number of equivalent available in India.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.6.5 General C.6.5.1 Nothing in this Clause C.6 shall relieve the Supplier of any Guarantee, Availability, Performance or other obligations of liabilities under this Contract.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.7 Availability Provisions during warranty and to MABC (Maintenance and Repair Contract) period.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.7.1 Introduction C.7.1.1 The Supplier shall guarantee that the Equipment supplied pursuant to the Contract shall be governed by the minimum annual Guaranteed Percentage Availability stipulated in table 1 of the MABC, section VI part 'F' and in accordance with the terms and conditions of the Availability Guarantee herein contained.</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>C.7.2 Guarantee C.7.2.1 The supplier shall guarantee that the Equipment shall be available to perform its duty to minimum criteria met to the maximum availability percentage level as defined in table 1 of MABC, section VI part 'F'. The method of assessment/assess shall be as follows: The following calculation shall determine the availability of the Equipment:</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>% Availability = $\frac{\text{Schedule Available Time - Downtime}}{\text{Schedule Available Time}} \times 100$</p>	<p>AGREED</p>	<p>Noted and Agreed</p>
<p>Schedule Available Time shall require to 24 hours daily. Downtime shall mean all hours of work lost due to mechanical, electrical or other failure affecting: a) routine servicing and maintenance in accordance with the manufacturer's published recommendations, including changing oil, oil filters and air filter; lubrication, changing identified consumable or wear parts; b) planned preventive maintenance programmes;</p>	<p>AGREED</p>	<p>Noted and Agreed</p>



4.8 Lubrication system A centralized automatic lubrication system of positive pressure type should be provided with warning alarms for identification of failed points.	AGREED	The offered model will be provided with a Positive Pressure Type Centralized Automatic Lubrication System fitted with warning alarms.
4.9 Operator's cab A fully installed, sound suppressed, air-conditioned, ROPS operator's cab with front guard, lined safety glass, wind shield wiper and wiper (should be mounted on rubber shock absorber and allowed to facilitate a clear and unobstructed view of the operating area). The operator's seat shall be a fully adjustable bucket type with foam rubber cushion and back quality upholstery. A cooling fan shall also be provided. All operating controls, monitoring and warning signals should be conveniently located in cabs within easy reach of the operator and of reach control when ISO 4587, ISO 9409-1 and ISO 14405-2.	AGREED	The offered model will be provided with fully installed, sound suppressed, air-conditioned, lined bucket type seat with foam rubber cushion and back quality upholstery. Wind shield wiper and wiper will be mounted on rubber shock absorber and allowed to facilitate a clear and unobstructed view of the operating area.
4.10 Guards and Shields Adequate guards and shields which comply with ISO 3457 shall be provided throughout the excavator.	AGREED	The offered model will be provided with adequate guards and shields which comply with ISO 3457.
4.11a) Automatic Fire Detection & Suppression System Automatic fire detection and suppression system of a standard proven and required make duly approved by DGAS is to be provided. The system shall also have provision of isolating a manually. The system shall provide circuitry testing/inspection of system without operating system.	AGREED	The offered model will be provided with a standard proven and required make of Automatic fire detection and suppression system duly approved by DGAS. The system shall have provision of isolating a manually.
4.11b) Fire Extinguishers Adequate number (not less than 02 number) of fire extinguishers shall be provided at strategic points on the excavator, suitably mounted in heavy-duty brackets for ease of removal. The extinguishers shall be of a minimum capacity of 6 kg and shall comply with IS: 2171. The type/size and quantity to be used in all fire fighting and the suppression system to be supplied with equipment must be of a type and make approved in writing from DGAS.	AGREED	The offered model will be provided with 02 (two) number of fire extinguishers which will be located at strategic points, suitably mounted in heavy-duty brackets for ease of removal. The extinguishers will be of a minimum capacity of 6 kg and will comply with IS: 2171. The type/size and quantity to be used in all fire fighting and the suppression system to be supplied with equipment must be of a type and make approved in writing from DGAS.
4.12 Lighting Adequate flood lighting and illumination at strategic points both outside and inside of the excavator shall be provided for visual observation and night shift operation. The lighting fixtures shall be supplied at 24 V DC of adequate capacity.	AGREED	The offered model will be provided with adequate flood lighting and illumination at strategic points both outside and inside of the excavator. The offered model will be provided with Audible warning alarm system for low engine oil pressure and high coolant temperature.
4.13 Warning Alarms A fully installed warning alarm system shall be provided for the following: high coolant temperature.	AGREED	The offered model will be provided with following: a) Water temperature gauge b) Engine oil temperature and pressure gauge/indicator c) Fuel capacity gauge d) Engine tachometer e) Engine hour-meter f) All function cut off switch g) Swing motor brake h) Hydraulic oil pressure gauge i) Tachometer Guard j) Operator Seat Belt k) Vent Valve on top of Hydraulic Tank (for pressurized Tank) l) Bellows Plate between hot and cold zones m) Hydraulic Cylinders Designed with Stopper cushioning effect at extreme ends. n) Automatic fire detection & suppression system of required make.
4.14 Gauges, Indicators and safety items. In case of diesel drive, the following shall be provided as a minimum: a) Water temperature gauge b) Engine oil temperature and pressure gauge/indicator c) Fuel capacity gauge d) Engine tachometer e) Engine hour-meter f) All function cut off switch g) Swing motor brake h) Hydraulic oil pressure gauge i) Tachometer Guard j) Operator Seat Belt k) Vent Valve on top of Hydraulic Tank (for pressurized Tank) l) Bellows Plate between hot and cold zones m) Hydraulic Cylinders Designed with Stopper cushioning effect at extreme ends. n) Automatic fire detection & suppression system of required make.	AGREED	The offered model will be provided with the following: a) Water temperature gauge b) Engine oil temperature and pressure gauge/indicator c) Fuel capacity gauge d) Engine tachometer e) Engine hour-meter f) All function cut off switch g) Swing motor brake h) Hydraulic oil pressure gauge i) Tachometer Guard j) Operator Seat Belt k) Vent Valve on top of Hydraulic Tank (for pressurized Tank) l) Bellows Plate between hot and cold zones m) Hydraulic Cylinders Designed with Stopper cushioning effect at extreme ends. n) Automatic fire detection & suppression system of required make.
4.15 Electrical Equipment The excavator shall be provided with the following: a) 24V DC electrical system with suitable rated alternator preferably NICO/DELCO-REMY/LUCAS make. b) Electric start c) Repurable make high capacity batteries d) Battery isolation switch All electrical circuits shall be protected by adequately rated fuses, which shall be easily accessible for maintenance. At least two ground lines of each size shall be provided in each live box.	AGREED	The offered model will be provided with the following: a) 24V DC electrical system with suitable rated alternator preferably NICO/DELCO-REMY/LUCAS make. b) Electric start c) Repurable make high capacity batteries d) Battery isolation switch All electrical circuits will be protected by Adequately rated fuses, which shall be easily accessible for maintenance. At least two ground lines of each size shall be provided in each live box.
5. Ancillary Equipment and Other Requirements. The following air to be provided on the excavator: a) Horn b) Hydraulic oil and air line-dragging nozzles c) All filter element & O-rings including Engine filters for warranty period	AGREED	The offered model will be provided with the following: a) Horn b) Hydraulic oil and air line-dragging nozzles c) All filter element & O-rings including Engine filters for warranty period
6. Performance Guarantee In accordance with provisions of clauses C.7.2.1 and C.7.2.2 of the Technical Specifications, the Supplier shall guarantee that the availability of the equipment shall not be less than 85% (eighty five per cent) for a period of 36 months from the acceptance date of commissioning 85% from 40 years to 70 years from the acceptance date of commissioning. Please refer to (M&S) Clause 6 for further details.	AGREED	The offered model will be provided with the following: a) Horn b) Hydraulic oil and air line-dragging nozzles c) All filter element & O-rings including Engine filters for warranty period
6.1 Special Guarantee The following guarantee will apply for the different components: a) Body Cylinders - 10,000 hrs. or 1000 calendar days (whichever is earlier) b) Hydraulic Cylinders - 24 months or 6000 hrs. (whichever is earlier) c) In case of failure of engine system within 6500 hrs., the labeled components of the engine system will have to be replaced, required depending on the cost of the cost, free of cost by the supplier. d) In case of failure of engine system beyond 6500 hrs., the system will have to be replaced on pro-rata payment basis taking the life of the engine system as 7500 hrs. e) Undercarriage - 12 months or 3000 hrs. (whichever is earlier) f) Hydraulic Pumps & Motors - 24 months or 6000 hrs. (whichever is earlier) g) Hydraulic Cylinders Assembly - 24 months or 6000 hrs. (whichever is earlier) h) Electrical Items, 24V DC - 6 months or 1000 hrs. (whichever is earlier) i) Engine Hour Meter - 12 months or 3000 hrs. (whichever is earlier)	AGREED	The offered model will be provided with the following: a) Body Cylinders - 10,000 hrs. or 1000 calendar days (whichever is earlier) b) Hydraulic Cylinders - 24 months or 6000 hrs. (whichever is earlier) c) In case of failure of engine system within 6500 hrs., the labeled components of the engine system will have to be replaced, required depending on the cost of the cost, free of cost by the supplier. d) In case of failure of engine system beyond 6500 hrs., the system will have to be replaced on pro-rata payment basis taking the life of the engine system as 7500 hrs. e) Undercarriage - 12 months or 3000 hrs. (whichever is earlier) f) Hydraulic Pumps & Motors - 24 months or 6000 hrs. (whichever is earlier) g) Hydraulic Cylinders Assembly - 24 months or 6000 hrs. (whichever is earlier) h) Electrical Items, 24V DC - 6 months or 1000 hrs. (whichever is earlier) i) Engine Hour Meter - 12 months or 3000 hrs. (whichever is earlier)

<p>7.2.7 Undercarriage</p> <p>a) Crawler width b) Crawler foot, total number c) Crawler track, total length and sprocket d) Ground contact area e) Ground bearing pressure f) Load rollers, diameter and number per crawler g) Driving sprocket diameter h) Idler roller diameter</p>	<p>AGREED</p>	<p>a) Crawler width - 3999 mm b) Crawler foot, total number - 660mm - 18 c) Crawler track, total length and sprocket - 412mm d) Ground bearing pressure - 5.40 kg/cm² e) Ground contact area - 1.8 kg/cm² f) Load rollers, diameter and number per crawler - 210mm, 7 numbers on each side g) Driving sprocket, diameter - 387mm h) Idler roller, diameter - 387mm</p>
<p>7.2.8 Electrical system</p> <p>1. Starter make and model 2. Starter control make and model 3. Alternator make and model 4. Battery - Number and rating</p>	<p>AGREED</p>	<p>1. Starter make and model - 1344C : Drive Kewo, Type : 400, Rating : 50 MT, Operating Voltage : 24V, Rotation : CW, KW : 1.95/ 1201 HP / 1000 Amp 2. Starter control make and model - 1344C : Baker Kewo, Model : 50 MT, Voltage : 24V 3. Alternator make and model - 1344C : Baker Kewo, Model : 50 MT, Voltage : 24V 4. Battery - 2 nos on Cables, 1 cable lamp, 30Ah - 1344C : Drive Kewo, Model : 50 MT, Voltage : 24V</p>
<p>7.2.9 Lighting details</p>	<p>AGREED</p>	<p>Working Lights - 2 nos on Boom, 2 nos on Turret, 2 nos on Cables, 1 cable lamp, 30Ah - 1344C : Drive Kewo, Model : 50 MT, Voltage : 24V</p>
<p>Equipment Acceptance</p> <p>The equipment ordered will be finally accepted subject to the Supplier demonstrating to the Purchaser or its authorized representative (any, see third party) that the equipment, or assembly or sub-assembly, (selected at random by the Purchaser) when tested as indicated below, meets the Performance Data provided by the Supplier in accordance with the requirements of clause 7. A detrimental deviation of up to 2.5% will be accepted.</p>	<p>AGREED</p>	<p>28 Sec</p>
<p>1</p> <p>Cycle Time at 90 deg swing</p>	<p>AGREED</p>	<p>36 - 36 Min Hour</p>
<p>2</p> <p>Hourly Fuel Consumption</p>	<p>AGREED</p>	<p>2199.81 kgf (ISO)</p>
<p>3</p> <p>Digging Force</p>	<p>AGREED</p>	<p>Noted and agreed</p>
<p>EQUIPMENT SPECIFICATION OF A DIESEL HYDRAULIC EXCAVATOR WITH 3.2 - 3.9 m FRONT SHOVEL BUCKET</p>	<p>AGREED</p>	<p>1.67 380C11 (Diesel Version) Hydraulic Excavator, Crawler mounted and fitted with the following: - Cummins India diesel engine NT 855 C 3Btg Noted and agreed</p>
<p>1. Scope of Specification</p> <p>This specification is intended to cover the technical requirements for the design, manufacture, testing, delivery, on-site erection and commissioning of a self-propelled crawler mounted, diesel powered hydraulic excavator with 3.2 - 3.9 m Bottom Discharge Front Shovel Bucket.</p> <p>2. References</p> <p>The following International Standards are referred to in, and form part of, the Specification:</p> <p>ISO 3487 Earth-moving machinery - Access systems ISO 3487 Earth-moving machinery - Guards and shields - Dimensions and specifications ISO 3487 Earth-moving machinery - Excavators - Operator's controls ISO 3487 Earth-moving machinery - Dimensions of ground level ISO 6015 Earth-moving machinery - Symbols for operator controls and other displays - Part 1: Common symbols ISO 6015 Earth-moving machinery - Symbols for operator controls and other displays - Part 2: Specific symbols for machines, equipment and accessories ISO 6759 Earth-moving machinery - Operation and maintenance - Format and content of manuals ISO 7135 Earth-moving machinery - Hydraulic excavators - Terminology and commercial specifications ISO 7346 Earth-moving machinery - Loader and front loading excavator buckets - Volumetric ratings ISO 8543 Earth-moving machinery - Hydraulic excavator and backhoe loader boom lowering control device - Terminology and tests</p>	<p>AGREED</p>	<p>Noted and agreed</p>
<p>3. Design Criteria</p> <p>The excavator shall be capable of continuous digging for prolonged periods on a system of 3 shifts each of 8 hours duration per day throughout the year in hard, highly abrasive, blasted sandstone rock having a density after blasting of 1.850 kg/cm³ and on coal having a density after blasting of 1.1 (ISO kg/cm³). The excavator shall be suitable for 3:1 blasted loading of later Dumps, with capacities ranging from 31 tonnes to 40 tonnes.</p>	<p>AGREED</p>	<p>The off-site model will have the following working range: a) Maximum digging reach - 10.2 M b) Maximum digging reach - 9.8 M c) Maximum digging depth - 2.7 M d) Maximum level crowding distance - 5.5 M The bucket digging force measured in accordance with ISO 6015 should be equal to or less than 15,000 kg/cm² of bucket width.</p>

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4. Technical Requirements			
4.1 Bucket	AGREED	The excavator shall be supplied with a hard faced, heavy duty bottom attachment rock bucket of 3.2 - 3.8 m ³ capacity, and according to ISO 7546. The bucket weight of the bucket material shall be not less than 1,300 kg/m ³ . The main points supplied with the bucket shall also be hard faced and should have proper, durable, easily removable and shock absorbing type attachment with the bucket.	The offered model will be supplied with 4.0 Cu M (53.5) Bottom Discharge Rock Bucket, completely new, galvanized with wear and of standard duty bucket capacity of 3.2m ³ . The bucket supplied along the bucket will be hard faced, easily removable and shock absorbing type.
4.2 Front End Equipment	AGREED	The boom and arm should be a rugged durable construction of high strength steel and free from any stress concentrations. The design must take care of all forces i.e. bending, twisting, compression, etc. encountered during operation of the equipment. Good bearings should be provided at pivot points. The bucket attachment connecting pins shall be welded and lubricated.	The offered model is with 3.5m boom with 2.5ton arm and free from any stress concentration. The design will take care of all stresses and strains of the equipment. The offered model will be of standard type.
4.3 Engine	AGREED	The excavator shall be powered by a direct injection 4-stroke diesel engine of not less 217 kW and power measured between 1700 and 2100 rpm according to ISO 7243. The engine shall be provided with 24 volt electric starting, dry type 2-stage air cleaner with automatic dust extractor and dust level indicator. The engine shall have a water jacket cooling system thermostatically controlled, using an engine driven water pump with the cooling water pre-circulated through a heavy duty radiator. The system shall be capable of providing sufficient cooling to allow the excavator to continuously operate at the full rated output at the maximum ambient temperature. The moving parts of the engine shall be lubricated by an engine driven oil pump with full flow oil filtration and cooling. The engine shall be equipped with an over speed governor.	The offered model will be provided with MT-655-CR16 CAN 1101 direct injection 2-stroke diesel engine manufactured by Cummins Industries, India, with a power of 217 kW and 2100 rpm. The engine will be having 24V D/C electric starter motor, dry type 2-stage air cleaner with dust extractor, dust level indicator and 2-stage fuel filter with water separator. The engine will have a water jacket cooling system, thermostatically controlled.
4.4 Operating weight	AGREED	Operating weight of the machine should not be less than 54,000 kg for the definite boom, arm and bucket combination offered in the bid.	54000 Kg
4.4.1 Hydraulic Drive System	AGREED	The excavator hydraulic system should preferably be directly powered by the engine for efficient operation of the arm and bucket motion and the front end equipment. The hydraulic pump, motor and cylinder should be of the proven high pressure type and have suitable in-built protection from surge, cavitation, loss of oil due to hose leakage or burst, etc. As far as practicable replaceable single stage pumps, motors, cylinders and valves, etc. shall be used in the machine. Adequate filtration of hydraulic oil with provision of warning alarm in case of blockage of filter shall be provided. An adequate and effective hydraulic oil cooling system shall also be provided. All hoses shall be grouped as far as possible and be easily drained to protect against hose scaling. A boom lowering control system which complies with ISO 6020 shall be provided.	The offered model drive system for traction, steer and attachment operations will be of proven design. Hydraulic joystick operated power by heavy duty high pressure oil based dual pump system. The pump output will be regulated and power efficiency and minimal hydraulic power losses. The hydraulic motors and cylinders will be of the proven heavy duty type. The Control Valves will be of heavy duty type with suitable for action reaction force.
4.4.2 Swing System	AGREED	An independent efficient hydraulic system should be provided for the swing motion. An upper structure swing lock shall be provided.	An independent hydraulic system driven by high torque piston motors will be provided for 360 degree bidirectional A parking brake of reaction support structure. A parking brake of independent crawler drive with high torque piston motors will be provided. Both the track and swing motors will be equipped with parking brakes.
4.4.3 Propel and Steering	AGREED	Independent crawler drive with independent left and braking system and hydraulically operated emergency and parking brakes shall be provided.	The undercarriage of the offered model will be of heavy duty and of sufficient strength to withstand the high loads which may occur due to uneven ground conditions. It will be of welded construction and stress relieved as required.
4.4.4 Undercarriage	AGREED	The undercarriage shall be heavy duty and of sufficient strength to withstand the high loads which may occur due to uneven ground conditions. It shall be of welded construction and stress relieved as required. The sprockets should be a single piece type. The drive sprockets, idler, roller and a reliable track tensioning arrangement should be provided. Crawler shoes shall be heavy duty and designed for ease of replacement whenever necessary. The weight of the undercarriage should preferably be 40 to 45% of the operating weight of the machine.	The offered model will be a standard class 1000 non-slip type walkways and catwalks with handrails will be provided in and around the machinery house, the operator's cab and service platforms and shall comply with ISO 23867.
4.7 Machinery House	AGREED	The operator shall be provided with a seat, good machinery house, non-slip type walkways and controls with handrails shall be provided in and around the machinery house, the operator's cab and service platforms and shall comply with ISO 23867.	The offered model will be provided with a Positive Pressure type Centralized Automatic Lubrication System fitted with warning alarms.
4.5 Lubrication System	AGREED	A centralized automatic lubrication system of positive pressure type should be provided with warning alarms for identification of failed points.	The offered model will be provided with fully installed, sound suppressed, air-conditioned, FOPS operator's cab with front guard, fitted safety glass, wind shield wiper and heater will be mounted on rubber shock absorbers and designed to facilitate a clear and unobstructed view of the operating area. The operator's seat will be fully adjustable bucket type with foam rubber cushion and back rest upholstery. A cooling fan shall also be provided. All operating controls, monitoring and warning signals should be conveniently located in cabs with easy reach of the operator and shall comply with ISO 4557, ISO 5405-1 and ISO 5405-2.
4.6 Operator's Cab	AGREED	A fully enclosed, air-conditioned, FOPS operator's cab with front guard, fitted safety glass, wind shield wiper and heater, should be mounted on rubber shock absorbers and designed to facilitate a clear and unobstructed view of the operating area. The operator's seat shall be a fully adjustable bucket type with foam rubber cushion and back rest upholstery. A cooling fan shall also be provided. All operating controls, monitoring and warning signals should be conveniently located in cabs with easy reach of the operator and shall comply with ISO 4557, ISO 5405-1 and ISO 5405-2.	The offered model will be provided with a standard boom and payload loader of Automatic fire detection and suppression system duly approved by DGAS. The system will be provided with 02 (two) number of fire extinguishers which will be located at strategic points, suitably mounted in heavy duty brackets for ease of removal. The extinguishers will be of a minimum capacity of 5 kg and will comply with BS 2171. The
4.7 Guards and Shields	AGREED	Adequate guards and shields which comply with ISO 3449 shall be provided throughout the excavator.	
4.10 Guards and Shields	AGREED	Adequate guards and shields which comply with ISO 3449 shall be provided throughout the excavator.	
4.11(a) Automatic Fire Detection & Suppression System	AGREED	Automatic fire detection and suppression system of a standard proven and tested make duly approved by DGAS is to be provided. The system shall also have provision of actuating it manually. The system shall provide checkup (warning) inspection of system without operating system.	
4.11(b) Fire Extinguishers	AGREED	Adequate number (not less than 02 number) of fire extinguishers shall be provided at strategic points on the excavator, suitably mounted in heavy duty brackets for ease of removal. The extinguishers shall be of a minimum capacity of 5 kg and shall comply with BS 2171. The materials and chemicals to be used in all the fire fighting and fire suppression system to be supplied with equipment must be of a type and make approved in writing from DGAS.	

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7.2.8 Electrical system 1. Starter make and model 2. Starter control make and model 3. Starter control make and model 4. Battery - Voltage and rating				AGREED	1. Starter make and model - Make: Delco Item, Type: 400, Rating: 50 MT, Operating Voltage: 24V, Rotation: CW, KW: 4.5/5.7 2. Starter control make and model - Make: Delco Item, Type: 1201 HP/100 Amp 3. Starter control make and model - Make: Delco Item, Type: 1201 HP/100 Amp 4. Battery - Make and model: 120 MT, Voltage: 24V Working Light - 2 set on boom, 2 set on turret, 2 set on cabin, 1 cabin lamp. Make: Noted and agreed
7.2.9 Lighting details				AGREED	Noted and agreed
Equipment Acceptance The Equipment ordered will be finally accepted subject to the Supplier demonstrating to the Purchaser or its authorized representative (may be their party) that the equipment, or assembly of sub-assembly (selected at random by the Purchaser) when tested as indicated below, meets the Performance Data provided by the Supplier in accordance with the requirements of clause 7. A detrimental deviation of up to 20% will be accepted.				AGREED	23 Sec
1 Cycle Time as per bag every				AGREED	30 - 36 Litres / hour
2 Hourly Fuel Consumption				AGREED	3770 kgf
3 Digging Force				AGREED	Noted and agreed
PART F - MAINTENANCE AND REPAIR CONTRACT (MARC) DIESEL POWERED HYDRAULIC EXCAVATOR WITH 2.7-3.2 M3 BACK-HOE BUCKET/ DIESEL HYDRAULIC EXCAVATOR WITH 3.2 - 3.8 M3 FRONT SHOVEL BUCKET 1. SCOPE OF MARC The Buyer will undertake responsibility for maintenance and repair of the equipment (at the end of the contract period). The following conditions will prevail on the Buyer who hereon will be termed as MARC holder. (a) The contract will start from the date of commissioning and will be for a period as indicated in the Table given below.				AGREED	Noted and agreed
Table-1					
SLNo	Equipment	Period of MARC (in Yrs)	Minimum Annual Guaranteed Percentage Availability		
		Yrs	Yes 1-3	Yes 4-7	
1	Hydraulic shovels 2.7-3.2 CLM	7	85	83	Noted and agreed
2	Hydraulic shovels 3.2-3.8 CLM	7	85	83	Noted and agreed
(b) The MARC period can be extended for the balance period (as agreed mutually) both by BCCCL & MARC Holder.					
					Noted and agreed
(c) MARC holder to Rehabilitate the Equipment during the MARC period as stipulated in Table 1. From start till to be rehabilitated once during the MARC period. The maximum permitted time for rehabilitation would be 4 weeks for each Shovel. The period during which the equipment is under rehabilitation will not be considered as downtime on account of MARC holder for calculation of availability. However the period in excess of the permitted time for rehabilitation would be treated as downtime on account of MARC holder. The MARC holder shall only be entitled for suspension of overhead charges only upto a maximum period of 4 weeks permitted for rehabilitation. The exact duration of rehabilitation & its commencement date are to be clearly specified by MARC holder in their offer.					
					Noted and agreed
(d) The MARC holder shall be responsible for supply of all spare, sub-assemblies, accessories, components and all other items including all consumables required during the entire MARC period except fuel & power.					
					Noted and agreed
(e) MARC holder will supply all the spares, required for break-down, unscheduled repair, wearing repair, scheduled preventive maintenance, major repair, and overhauling of assemblies, sub-assemblies and capital overhaul of equipment.					
(f) BCCCL expect to utilize the each equipment annually as given in Table-2.					
Table-2					
SLNo.	Equipment	Expected Annual Hours Utilization		AGREED	Noted and agreed
1	Hydraulic shovels	5000		AGREED	Noted and agreed

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		(v) Grease & consumables for MABC period shall be under the custody and control of MABC holder and will be issued by their representative as and when required.		
		(vi) The MABC Holder shall be responsible for all their properties and BCCU will not be responsible for any theft, pilferage etc.	AGREED	Noted and agreed
		(vii) Collection of failed assemblies, sub-assemblies and all other scrap from the maintenance yards, it shall be responsibility of the MABC Holder to keep the maintenance area clean from all such things.		
		(viii) Replacement with local assemblies and sub-assemblies in ready to use condition at site shall be the responsibility of MABC Holder.		
		(ix) Grease & consumables cost per working hour shall be payable after expiry of warranty period of the individual equipment.		
		(x) Supervision & overhead cost per available hour shall be payable from the date of commissioning of the individual equipment.		
		(xi) The bidder should furnish a complete list of spares & consumables required for the scheduled maintenance during the warranty period. The purchaser will procure the same as initial set which are to be supplied along with the equipment, anything required, both in terms of item and quantity, in excess of the spares & consumables procured based on the list furnished by the bidder, will be supplied immediately by the bidder to the purchaser at their cost. The annual spares & consumables, if any, after warranty period shall be taken back by the bidder within 30 days from the expiry date of warranty period against payment thereof. At the same time, cost at which initially purchased by BCCU. The cost of the same shall be decided from the next monthly payment to the bidder, even if the same has not been taken back by the bidder within specified time.	AGREED	Noted and agreed
		(xii) Disposal of scrap by BCCU Engineer, supervisors and workers for operation, maintenance & repairs for failed equipment required to achieve guaranteed availability as per OEM recommendations.		
		(xiii) The MABC holder shall ensure that the equipment is ready to start and the maintenance per OEM recommendations for the required equipment, whenever for the entire tenure of the Contract and shall during the tenure to BCCU, for approval.		
		(iv) The MABC Holder shall also provide the schedule on a monthly basis for the maintenance of the landed equipment as per the equipment manufacturer's schedule. The MABC Holder shall also attend any unscheduled emergency meetings required.	AGREED	Noted and agreed
		(v) The MABC Holder shall perform regular oil sampling and testing on all landed equipments, per OEM guidelines and provide to BCCU results of sampling and shall under the necessary corrective & preventive actions based on the sampling results under information to BCCU.		
		(vi) MABC holder will be solely responsible for providing safety items to the personnel engaged by them for working in the mine area.		
		(vii) The MABC Holder shall conduct structural inspections of critical parts to be decided jointly at every 5000 hrs by Non-Operating Test Record and Report on defects of the structural components of the landed equipments. If needed, shall be undertaken subsequently for corrective and preventive actions by the MABC Holder on such equipments based on the said report. The frequency of such inspections shall fall in the statutory compliances wherever applicable or otherwise on mutually agreed terms.	AGREED	Noted and agreed
		(viii) MABC holder shall give expected life of major assemblies also in the Form Given in Job's body, duly signed.		
		Table-3	AGREED	Noted and agreed
EQUIPMENT	MAJOR ASSEMBLIES	EXPECTED LIFE (in hours)		
	Prime Motor (Diesel)		AGREED	
	Under charge		AGREED	
	Hydraulic pump		AGREED	
	Hydraulic motor		AGREED	
	Hydraulic Cylinders		AGREED	
	Hydraulic control valves		AGREED	
Hydraulic Shovel	Boom & Sicks		AGREED	
	Bucket Dipper		AGREED	
	Other Electrical Items		AGREED	
	Note :- Expected life means life before first overhaul.		AGREED	Noted and agreed
2. MANPOWER			AGREED	Noted and agreed
The MABC holder shall provide a list of all necessary personnel and system agreed to be provided at BCCU, wherever project for maintenance and repair of the equipment and controlling MABC, for BCCU approval.				
BCCU shall provide arm called & installed manpower for at each project site as per Table 4.				
Manpower Training & Induction			AGREED	Noted and agreed
The MABC holder shall provide training in the operations & maintenance personnel engaged by BCCU is a kind of proficiency towards achievement of guaranteed availability. Such training shall be provided by the bidder at the mine. (annexure 1) is attached.				
The MABC Holder, in consultation with BCCU, shall install comprehensive classification training practical demonstration of the landed equipment and on the job training under actual working conditions to the operators and maintenance personnel engaged by BCCU. Safety should be an important part of the training. In the course of training the MABC Holder shall provide to such personnel, complete and comprehensive literature relating to necessary technical information about the landed equipment and detailed instructions for operation and maintenance of the same in English and Hindi.			AGREED	Noted and agreed
The MABC Holder, in consultation with BCCU, shall conduct annual training audits of the existing personnel and provide further training to enhance their skill for the operation and maintenance of the landed equipment.				
All the MABC Holder's personnel and/or representatives shall, prior to commencing work at site, attend an induction course conducted by BCCU. The induction course shall include the MABC holder personnel in the scheduled training, the induction safety requirements contained in the Annex-1 and other Law for the mine being in force.			AGREED	Noted and agreed
3. AVAILABILITY PROVISIONS & DOWNTIME			AGREED	Noted and agreed
MABC holder shall ensure that the equipment are available for starting to use at least to the guaranteed availability specified in Table-1.				

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[illegible]

<p>11. OTHER TERMS & CONDITIONS OF MARC</p> <p>11.1. Indemnification The MARC Holder shall indemnify BCLL against all damage and losses incurred or to be incurred including all expenses by BCLL due to non observance of statutory provisions, not containing proper permit/licenses from the appropriate authorities as mentioned under this contract. The MARC Holder shall indemnify BCLL against any claims or damages made by any employee of BCLL or by any other third party against BCLL as well as any other third party against BCLL in connection with the property or personal injury or death of any person or damage to property or loss of income or business of BCLL. Similarly BCLL shall be responsible for any damage or compensation or claim made by any employee of third party due to the loss suffered by the said person in furtherance to the willful negligence or carelessness by BCLL or its representatives.</p>	<p>AGREED</p>	<p>Noted and agreed</p>
<p>11.2. RESOLUTION OF DISPUTES The purchaser and the MARC Holder shall make every effort to resolve any dispute arising between them in connection with the contract. Unresolved disputes (any arising out of contract) shall be referred to the High Court in India.</p>	<p>AGREED</p>	<p>Noted and agreed</p>
<p>11.3. ERM Clause Due to any unforeseen / unavoidable circumstances, if the operation of the MARC at any time during entire MARC period of 17 years becomes inoperable, the contract shall be suspended / terminated with mutual consent of BCLL and MARC holder on mutually agreed terms & conditions.</p>	<p>AGREED</p>	<p>Noted and agreed</p>
<p>11.4. Termination BCLL RESERVES ITS RIGHT TO SHORT CLOSE THE MAINTENANCE AND REPAIR CONTRACT (MARC) AT ANY STAGE DURING THE PERIOD OF THE CONTRACT IN CASE MARC HOLDER FAILS TO MEET ITS OBLIGATIONS TOWARDS THE CONTRACT AFTER LEAVING SUITABLE FEMALTY AS DEEMED FIT.</p>	<p>AGREED</p>	<p>Noted and agreed</p>
<p>11.5. Notices Unless otherwise specified in this Contract, all notices shall be given in writing in the persons and addresses listed below, or such other person or such other address and as the party receiving the notice would have previously indicated in writing. Unless otherwise specified, the effective date of any notice given in connection with the Contract shall be the date on which the addressee receives it.</p>	<p>AGREED</p>	<p>Noted and agreed</p>
<p>Address of MARC Holder:</p> <p>GENERAL MANAGER (MM) BHARAT COYING COAL LTD. COMMERCIAL BLOCK LEVEL-III KOYLA BHAWANKOYLA NAGAR DHANBAD-825005</p> <p>All notices to BCLL shall be given at the following address:</p>	<p>AGREED</p>	<p>Noted and agreed</p>

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L&T CONSTRUCTION EQUIPMENT LIMITED 1316

Bt. Shal esparto Sarani, Eollata- 700 071, P.O.Box-619 • PHONE : 44002470 • FAX : 033 - 22821025 7587

Ref : CEB/DHN/NIT02/OFFLINE/02

Date: 05.06.2013

To,
The General Manager (MM)
Bharat Coking Coal Limited
Koyla Bhawan, Dhanbad - 826005 (JH)

Dear Sir,

Subject: Your NIT No: PUR/412128(12-13)/2.7-3.2 Cum HDBH, 3.2-3.8 Cum HDFS with MARC/13-14/02 Dated 04.04.2013.

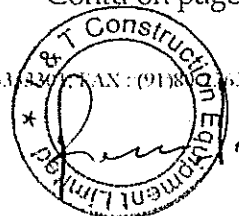
Ref: Your letter no. BCCL/PUR/412128(12-13)/2.7-3.2 Cum HDBH, 3.2-3.8 Cum HDFS with MARC/13-14/Clarifications/02/1147 dt. 04.06.2013

We are in receipt of your above letter and please find below the details,

for 2.7-3.2 backhoe shovels

1. Clause No. A.5 : We agreed as per NIT. We will arrange for simulator training of your personnel at our factory or at convenient location.
2. Clause No. C.6.4 : Estimated annual consumption for oil & lubricants and name and reference no of the Indian equivalent is given in Annexure - I.
3. Clause No. C.10.1 : We enclose the quality assurance plan of M/s L&T CONSTRUCTION EQUIPMENT LIMITED in Annexure - II.
4. Clause No. C.10.2 : We hereby enclose test data for major manufactured and bought out items in Annexure-III.
5. Clause No. 4.3.A : We provide below the details of filters and cooling provided on L&T300CK:
 - a. L&T300CK is equipped with two nos of hydraulic filters with anti-burst mechanism to take care of hydraulic oil filtering. Capacities of installed filters are 1090 LPM and 390 LPM. It is also provided with filter choke indicator in the operator's console.
 - b. L&T300CK is fitted with two nos hydraulic oil coolers having heat dissipation capacity of 50,000 Kcal/hr and assisted by two nos high speed fans driven by hydraulic motors at 3200 RPM. This will provide sufficient cooling in the ambient conditions described in NIT.
 - c. All the hoses in the machine are grouped as far as possible, and clipped together wherever feasible. Anti-scuffing material on hoses is also used at certain areas, where possibility of scuffing is high.
7. Clause No. 4.5 : We agree as per NIT. The offered model will be provided with independent crawler drive with independent fail-safe braking system and hydraulically operated emergency and parking brakes.
8. Clause No.7.2.h : We enclose the commercial literature of L&T300CKD in Annexure - IV.

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L&T CONSTRUCTION EQUIPMENT LIMITED/305

311, Shal eshpore Sarani, Kolkata- 700 071 P.O.Box-619 • PHONE : 41002470 • FAX : 033 - 22821025-7587

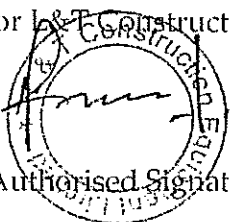
Reply for 3.2 – 3.8 front end shovels

1. Clause No. A.5 : We agreed as per NIT. We will arrange for simulator training of your personnel at our factory or at convenient location.
2. Clause No. C.6.4 : Estimated annual consumption for oil & lubricants and name and reference no of the Indian equivalent is given in Annexure – I.
3. Clause No. C.10.1 : We enclose the quality assurance plan of M/s L&T CONSTRUCTION EQUIPMENT LIMITED in Annexure – II.
4. Clause No. C.10.2 : We hereby enclose test data for major manufactured and bought out items in Annexure-III.
5. Clause No. 4.1 : We accept as per NIT. Please note that bottom dump bucket of capacity 3.2 CuM or 4.0 CuM as per your requirement, can be supplied along with the machine.
6. Clause No. 4.2 : Please note that excavator pivot pins are provided with journal bearings (composite material bushes) instead of bearings. We provide adequate sealing to prevent grease leakage from various joints at pivot pins.
7. Clause No. 4.3.A : Please note down the details of filters and cooling provided on L&T300CK below:
 - a. L&T300CK is equipped with adequate nos of hydraulic filters with anti-burst mechanism to take care of hydraulic oil filtering. Capacities of installed filters are 1090 LPM and 390 LPM. It is also provided with filter choke indicator in the operator's console.
 - b. L&T300CK is fitted with two nos hydraulic oil coolers having heat dissipation capacity of 50,000 Kcal/hr and two nos high speed fans driven by hydraulic motors at 3200 RPM. This will provide sufficient cooling in the ambient conditions described in NIT.
 - c. All the hoses in the machine are grouped as far as possible, and clipped together wherever feasible. Anti-scuffing material on hoses are also used at certain areas, where possibility of scuffing is high.
8. Clause No. 4.5 : We agree as per NIT. The offered model will be provided with independent crawler drive with independent fail-safe braking system and hydraulically operated emergency and parking brakes.
9. Clause No.7.2.h : We enclose the commercial literature of L&T300CKD in Annexure – IV.

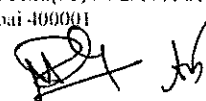
We hope you will be actively considering our offer, and look forward to receive your order at the earliest. Please feel free to contact us for any further clarification or discussion.

Thanking you,

For L&T Construction Equipment Limited

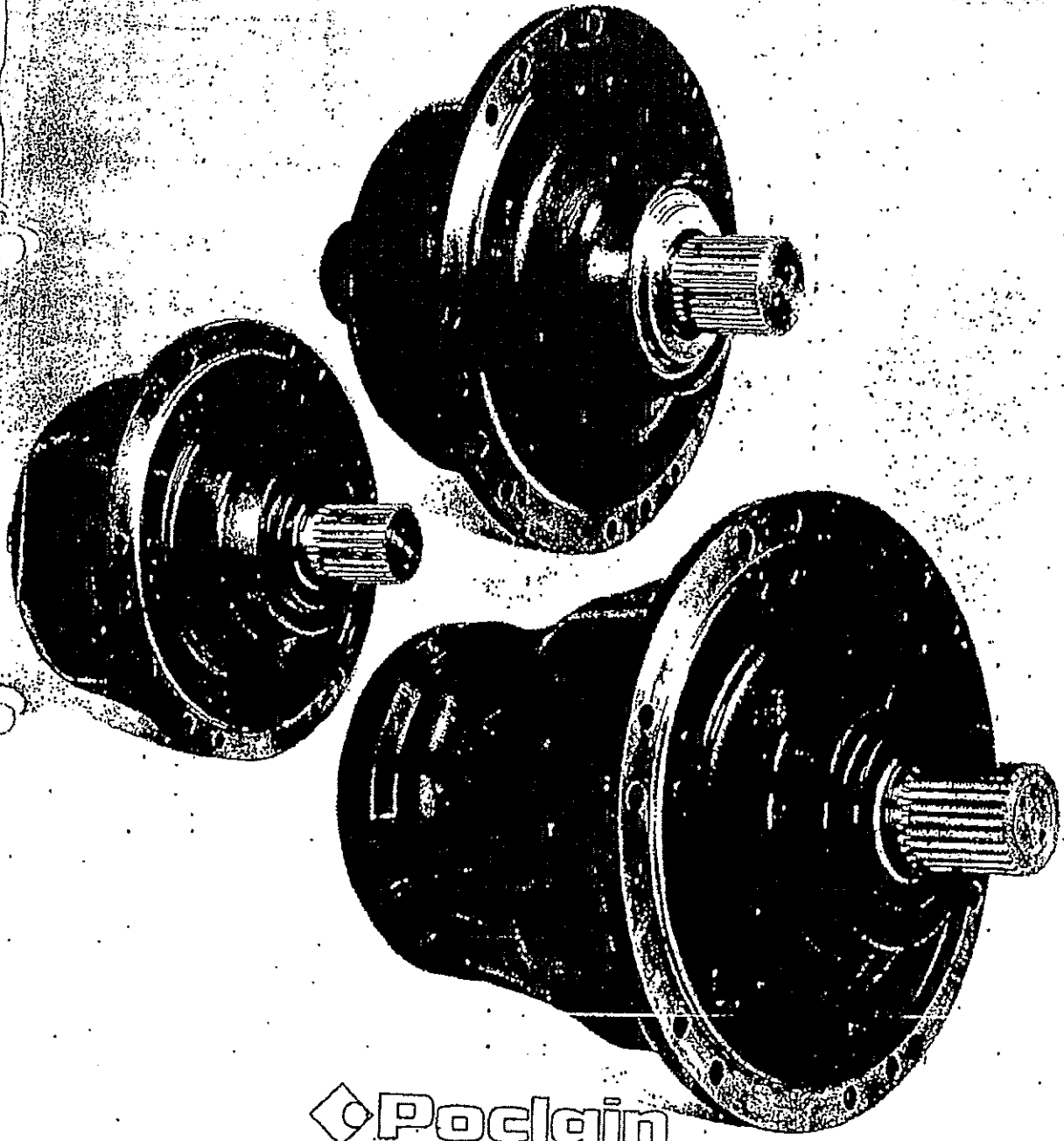

(Authorised Signatory)

CC: General Manager (Excv)



1302

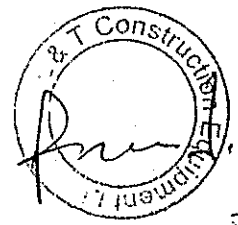
LOW SPEED MOTORS TECHNICAL SPECIFICATIONS



 **Poclain**
HYDRAULICS

1981 ISSUE

Am *AT*



RANGE

TYPE	H 15		H 20		H 25	
DISPLACEMENT (cm ³ /t)	809	1130	1649	1979	2533	3122
TORQUE (m.daN) at 400 bar	515	719	1050	1258	1161	1986
TORQUE (m.daN) at 100 bar	129	180	262	315	403	496
MAX. POWER	KW	42	52	62	75	81
	HP	57	70	84	101	110
MAX. SPEED (rpm)	153	146	120		100	
MAX. LOAD (tons)	9		13,6		18	
WEIGHT	without brake (kg)	115	200		285	
	with brake (kg)	150	250		345	
STATIC BRAKE torque (m.daN)	614		944		1473	

THEORETICAL TORQUE ($T_{m.daN}$): $T_{m.daN} = 1,59 \times \text{Pressure (bar)} \times \text{Displacement (litres)}$

THEORETICAL POWER (P_{kW} / P_{HP}): $P_{(kW)} = \frac{\text{Pressure (bar)} \times \text{flow (l/mn)}}{600}$

$P_{(HP)} = \frac{\text{Pressure (bar)} \times \text{flow (l/mn)}}{441,6}$

GENERAL CONDITIONS OF USE

FLUID:

Our components are designed to be used with mineral fluids corresponding to the standard NFE 48-600 HV and HM catégories (equivalence: ISO 3448 - CETOP RP 75 H and R 39 H).

- Mobile applications, we recommend HV 46 or HV 68
 - Fixed installations, we recommend HM 46 or HM 68
- Minimum viscosity: 9 cst,
Optimum viscosity: 20 cst à 50 cst,
Maximum viscosity: 2.000 cst.

FILTRATION:

Feeding with filtered oil at 10 μ (nominal).

AMBIENT TEMPERATURE:

- 20° C + 50° C.

TEMPERATURE OF OIL

To be measured in the drain line as near as possible to the motor housing.

Working temperature: - 20° C + 80° C

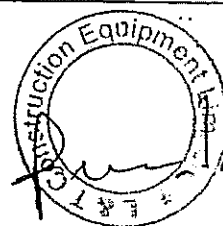
OPERATING PRESSURE:

• Peak : 450 bar

• Intermittent : 350 bar

Performances are given with a fluid HV 46 — viscosity 30 cst at 50° C.

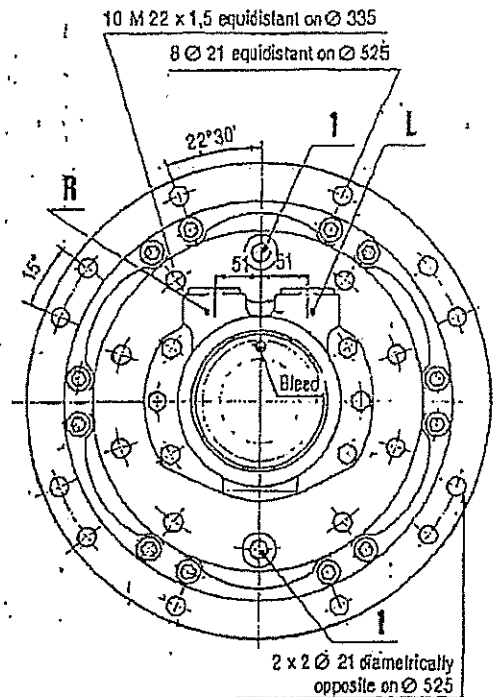
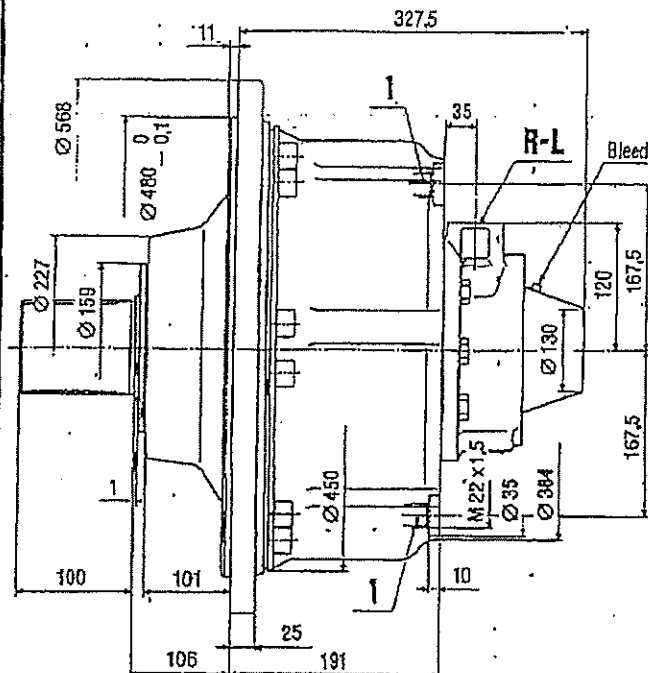
The brakes, of the oil-immersed multidisc type, are static brakes only (speed = 0).
The braking torques correspond to our minimum guaranteed values.



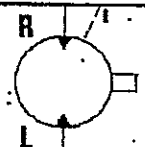
Handwritten initials and a signature.

H 20 MOTOR

DIMENSIONS :



PORTS :

		
FUNCTIONS	DIMENSIONS	
R-L	High pressure lines	SAE (ISO DPB162) 6000 PSI 3/4"
1	Drain line	M 22 x 1.5

WEIGHT - EMPTY :

200 kg

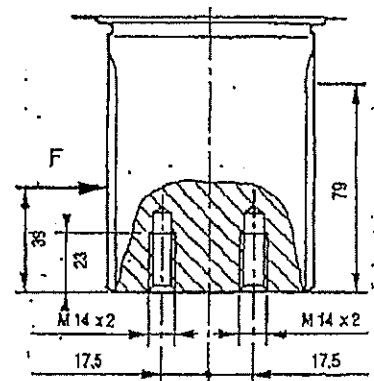
OIL CAPACITY :

10,5 litres

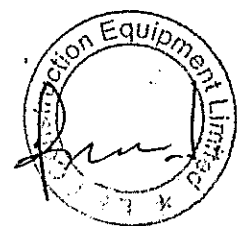
DIMENSIONS :

Ø 568 x 533.5 mm

SHAFT :

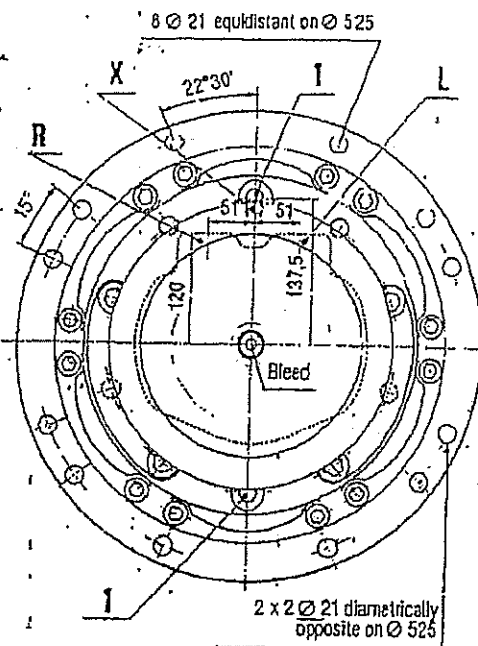
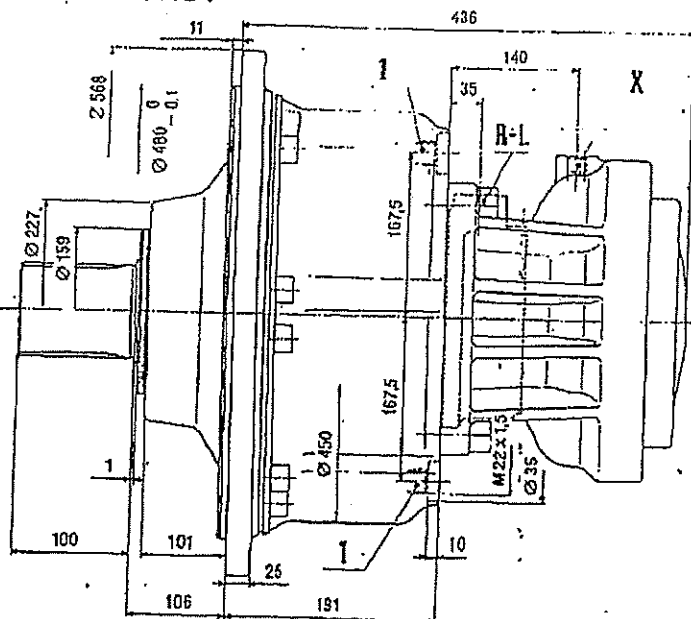


- splines: NFE 22.141 standard
- nominal Ø : 100 mm
- number of teeth : 38
- modulus : 2.5
- F maximum radial load : 13.6 tons



H 20 MOTOR with brake

DIMENSIONS :



PORTS :

FUNCTIONS		DIMENSIONS
R-L	High pressure lines	SAE (ISO DP 6162) 6000 PSI 3/4"
1	Drain line	M 22 x 1,5
X	Brake control	17 gaz cyl. 3/8" BSP

WEIGHT : EMPTY :

250 kg

OIL CAPACITY :

12,5 litres

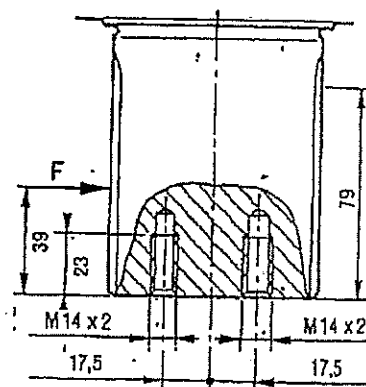
DIMENSIONS WITH BRAKE :

Ø 568 x 642 mm

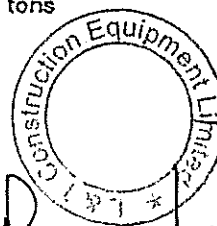
BRAKE SPECIFICATION :

- brake torque : 944 m.daN
- brake release pressure minimum/maximum : 30/50 bar
- brake release cylinder displacement : 50 cm³

SHAFT :



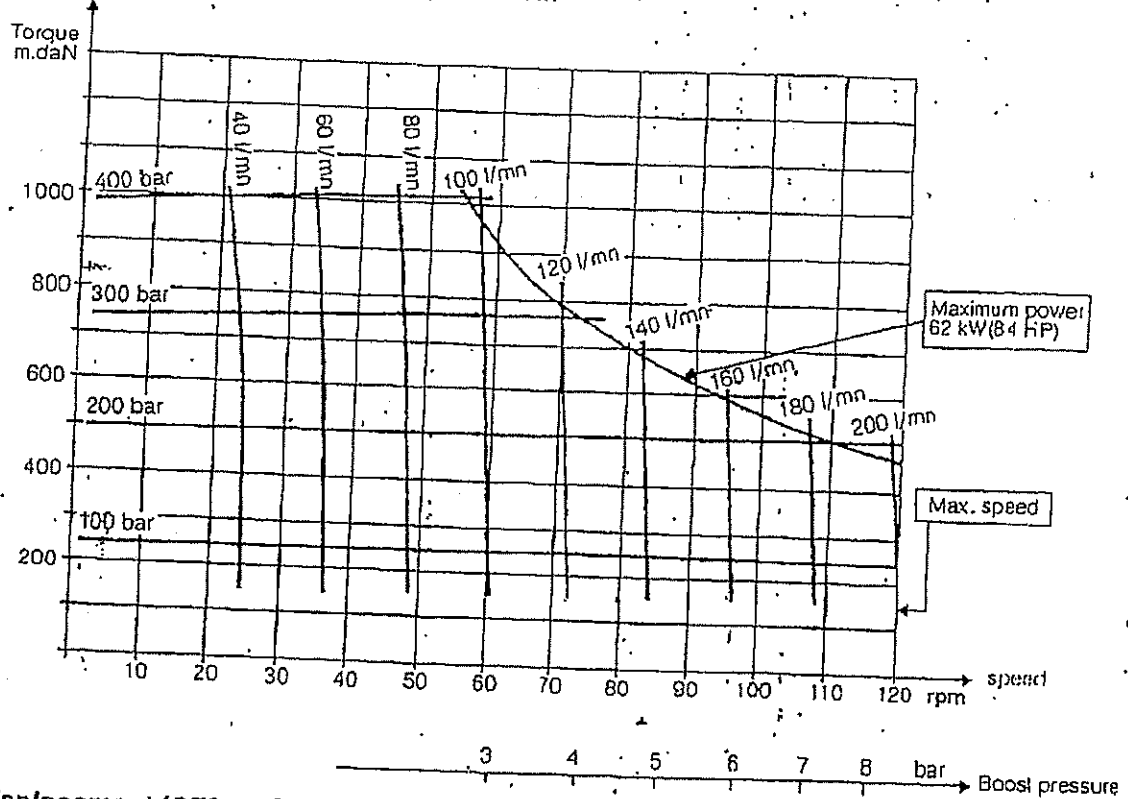
- splines : NFE 22.141 standard
- nominal Ø : 100 mm
- number of teeth : 38
- modulus : 2,5
- F maximum radial load : 13.6 tons



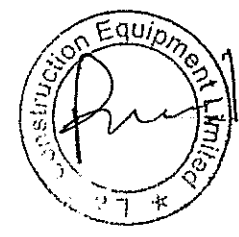
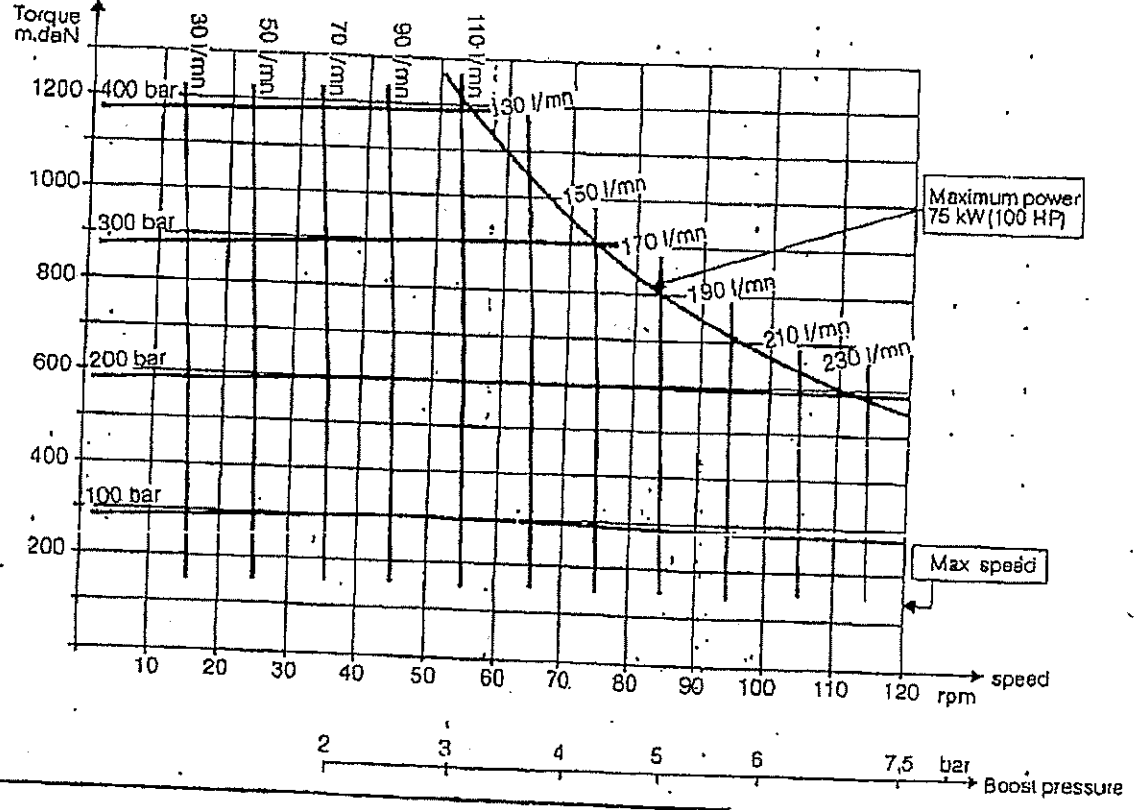
1208

H 20 MOTOR

PERFORMANCES: Displacement 1649 cm³



Displacement 1979 cm³





L6 H2O PUMP

CHARACTERISTICS

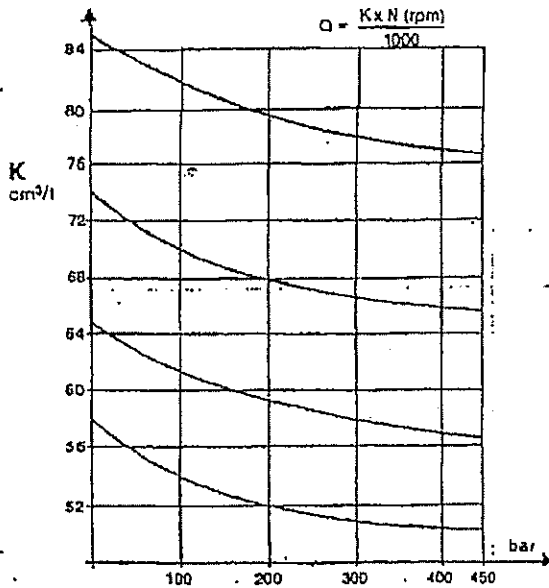
Geometric displacement (cm ³ /r)	5x58		6x65		5x74		6x84.5	
	SERVICE		SERVICE		SERVICE		SERVICE	
	CONTINUOUS	INTERMITTENT	CONTINUOUS	INTERMITTENT	CONTINUOUS	INTERMITTENT	CONTINUOUS	INTERMITTENT
Power (HP - kW)	510/449	851/626	681/500	954/701	274/568	1087/800	575/422	800/587
Pressure (bar)	350	450	350	450	350	450	350	450
Theoretical flow (l/min)	6x128	6x139	6x143	6x156	6x163	6x178	6x125	6x143
Speed (rpm)	2200	2400	2200	2400	2200	2400	1500	1700

Minimum speed of pump in continuous use (rpm): 100
On load starting possible.

PERFORMANCES:

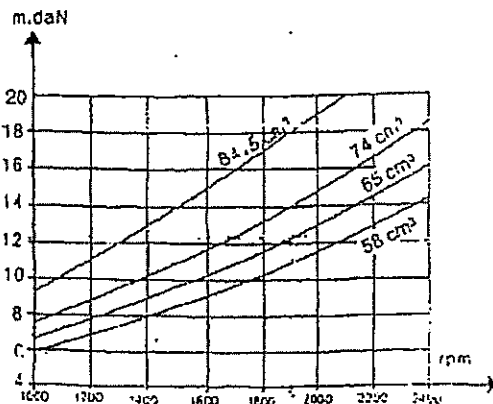
All performances are given for oil viscosity : 37 cST - 5° E - 173 SSU

CALCULATION OF FLOW PER BODY:

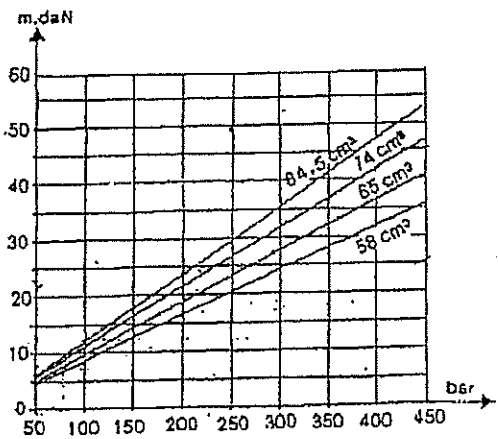


(K = real displacement allowing for oil compressibility and volumetric efficiency).
Performances given at 1000 < N rpm < 2400

OFF LOAD TORQUE (OLT mdaN)



DRIVING TORQUE PER BODY RELATIVE TO PRESSURE (DT mdaN)

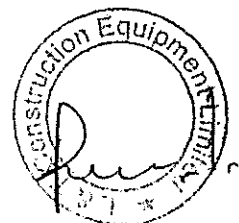


POWER REQUIRED BY PUMP

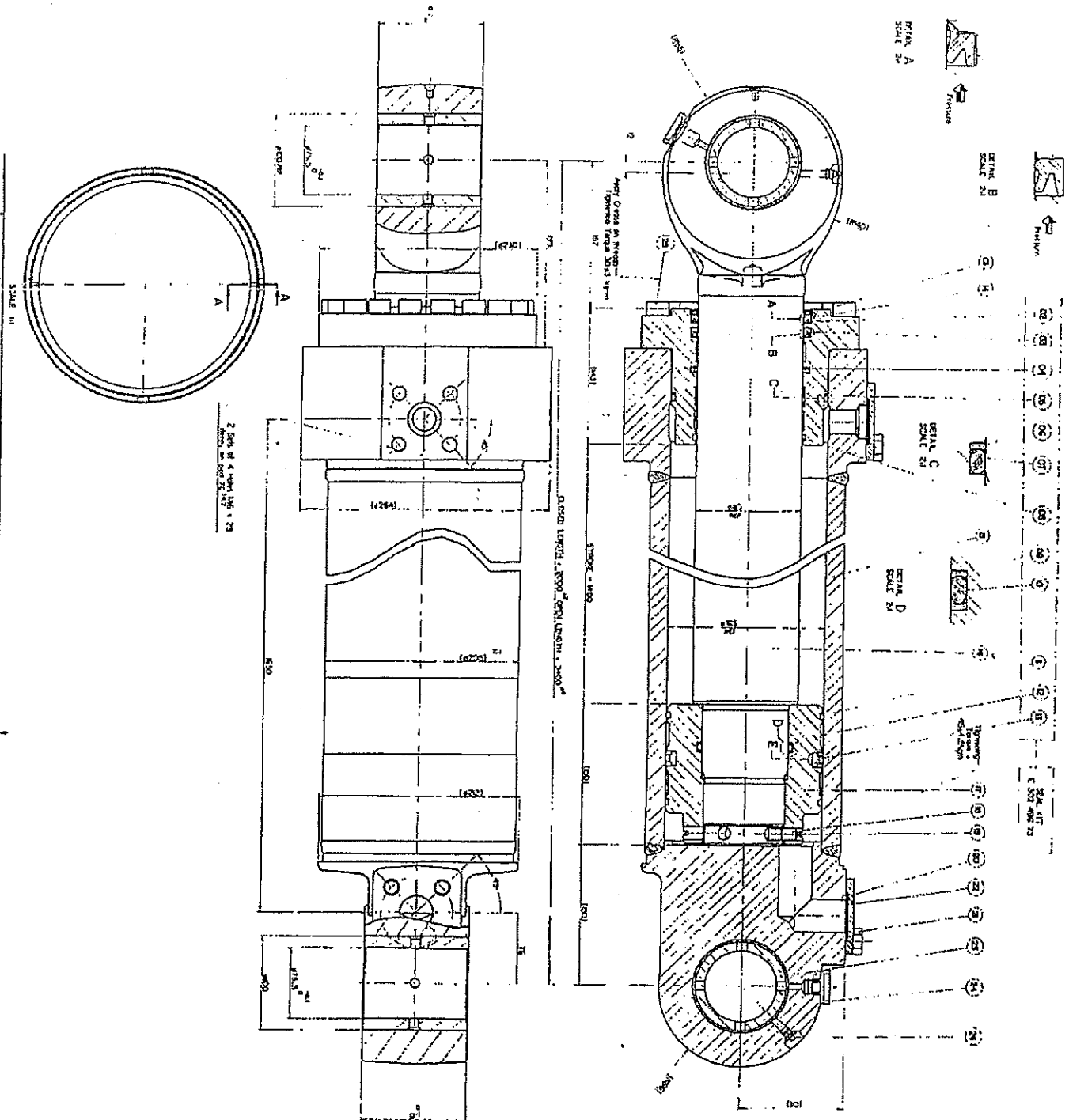
$$P. HP = \frac{OLT + (DT \times \text{no. of bodies}) \times N \text{ rpm}}{703}$$

$$P. KW = \frac{OLT + (DT \times \text{no. of bodies}) \times N \text{ rpm}}{955}$$

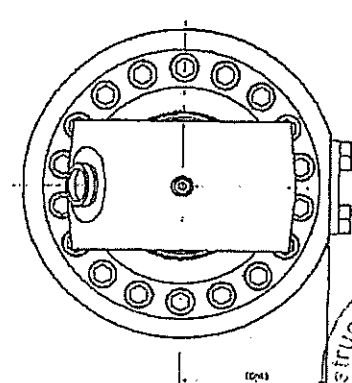
$$INERTIA: I = Mp^2 = 0.105 \text{ m}^2/\text{kg}$$



(305)



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100



Construction Equipment Ltd.

HYDRAULIC CYLINDER

Price Format for List of Spares required during the warranty period of 12 months from the date of Diesel Powered Hydraulic Excavator with 2.7-3.2 Cu.M. Back-Hoe Bucket (NCD)							
	Sl. No.	Description	Part No.	Unit of Measurement (UOM)	Qty. Quoted	UNIT BASIC PRICE (EX WORKS) (Rs)	TOTAL BASIC PRICE (EX WORKS) (Rs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)*(6)
	1.00	Hydraulic Filter Element	V20350111	EA	10.00	9930.00	99300.00
	2.00	Hydraulic Filter Element	T20350509	EA	10.00	3285.00	32850.00
	3.00	Breather Element	W20050569	EA	20.00	165.00	3300.00
	4.00	Tooth point	K20204083	EA	54.00	3990.00	215460.00
	5.00	Locking Washer	B20134730	EA	54.00	125.00	6750.00
	6.00	Locking Pin	P20127382	EA	54.00	400.00	21600.00
	7.00	Tooth Adaptor	J20204082	EA	6.00	9525.00	57150.00
	8.00	KIT Fuel Filter	KIT3238493	EA	17.00	562.40	9560.80
	9.00	Element Lub Oil	KIT3238204	EA	17.00	391.81	6660.77
	10.00	KIT Super By Pass Filter	KIT3879488	EA	17.00	830.03	14110.51
	11.00	KIT Air Cleaner Element	KIT3238155	EA	7.00	5897.90	41285.30
TOTAL							508027.38
PACKING & FORWARDING CHARGE (Rs)							0.00
EXCISE DUTY (Rs)							Inclusive
SALES TAX / VAT (Rs)							71123.83
FREIGHT CHARGES (Rs)							0.00
TRANSIT INSURANCE CHARGES (Rs)							0.00
LANDED VALUE (Rs)							579151.21
Remarks	All prices are inclusive of Excise Duty but exclusive of Sales Tax and other Govt levies if applicable will be charged extra at the time of delivery. Order to be placed						

Price Format for List of Consumable required during the warranty period of 12 months from the date Diesel Powered Hydraulic Excavator with 2.7-3.2 Cu.M. Back-Hoe Bucket (NCD)							
Name of the Firm & Address	Larsen & Toubro Limited, Dhansar Dhanbad-828 106, Jharkhand						
	Sl. No.	Description	Part No.	Unit of Measurement (UOM)	Qty. Quoted	UNIT BASIC PRICE (EX WORKS) (Rs)	TOTAL BASIC PRICE (EX WORKS) (Rs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)*(6)
	1.00	Belt V Ribbed	3098367.00	EA	2.00	6739.07	13478.14
	2.00	Belt V	178655.00	EA	2.00	2385.74	4771.48
	3.00	Tensioner Belt	3095684.00	EA	1.00	17349.52	17349.52
	4.00	Belt V Ribbed	217638.00	EA	2.00	2628.58	5257.16
TOTAL							40856.30
PACKING & FORWARDING CHARGE (Rs)							0.00
EXCISE DUTY (Rs)							Inclusive
SALES TAX / VAT (Rs)							5719.88
FREIGHT CHARGES (Rs)							0.00
TRANSIT INSURANCE CHARGES (Rs)							0.00
LANDED VALUE (Rs)							46576.18
Remarks	All prices are inclusive of Excise Duty but exclusive of Sales Tax and other Govt levies if applicable will be charged extra at the time of delivery. Order to be placed						

Price Format for List of Spares required during the warranty period of 12 months from the date Diesel Powered Hydraulic (F/S) Excavator with 3.2-3.8 Cu.M.(NCD)							
	Sl. No.	Description	Part No.	Unit of Measure ment (UOM)	Qty. Quoted	UNIT BASIC PRICE (EX WORKS) (Rs)	TOTAL BASIC PRICE (EX WORKS) (Rs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)*(6)
	1.00	Hydraulic Filter Element	V20350111	EA	10.00	9930.00	99300.00
	2.00	Hydraulic Filter Element	T20350509	EA	10.00	3285.00	32850.00
	3.00	Breather Element	W20050569	EA	20.00	165.00	3300.00
	4.00	Tooth point	K20204083	EA	54.00	3990.00	215460.00
	5.00	Locking Washer	B20134730	EA	54.00	125.00	6750.00
	6.00	Locking Pin	P20127382	EA	54.00	400.00	21600.00
	7.00	Tooth Adaptor	J20204082	EA	6.00	9525.00	57150.00
	8.00	KIT Fuel Filter	KIT3238493	EA	17.00	562.40	9560.80
	9.00	Element Lub Oil	KIT3238204	EA	17.00	391.81	6660.77
	10.00	KIT Super By Pass Filter	KIT3879488	EA	17.00	830.03	14110.51
	11.00	KIT Air Cleaner Element	KIT3238155	EA	7.00	5897.90	41285.30
	TOTAL						508027.38
	PACKING & FORWARDING CHARGE (Rs)						0.00
	EXCISE DUTY (Rs)						Inclusive
	SALES TAX / VAT (Rs)						71123.83
	FREIGHT CHARGES (Rs)						0.00
	TRANSIT INSURANCE CHARGES (Rs)						0.00
	LANDED VALUE (Rs)						579151.21
Remarks	All prices are inclusive of Excise Duty but exclusive of Sales Tax and other Govt levies if applicable will be charged extra at the time of delivery. Order to						

Price Format for List of Consumable required during the warranty period of 12 months from the date Diesel Powered Hydraulic (F/S) Excavator with 3.2-3.8 Cu.M.(NCD)							
Name of the Firm & Address	Larsen & Toubro Limited, Dhansar Dhanbad-828 106, Jharkhand						
	Sl. No.	Description	Part No.	Unit of Measurement (UOM)	Qty. Quoted	UNIT BASIC PRICE (EX WORKS) (Rs)	TOTAL BASIC PRICE (EX WORKS) (Rs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)*(6)
	1.00	Belt V Ribbed	3098367.00	EA	2.00	6739.07	13478.14
	2.00	Belt V	178655.00	EA	2.00	2385.74	4771.48
	3.00	Tensioner Belt	3095684.00	EA	1.00	17349.52	17349.52
	4.00	Belt V Ribbed	217638.00	EA	2.00	2628.58	5257.16
TOTAL							40856.30
PACKING & FORWARDING CHARGE (Rs)							0.00
EXCISE DUTY (Rs)							Inclusive
SALES TAX / VAT (Rs)							5719.88
FREIGHT CHARGES (Rs)							0.00
TRANSIT INSURANCE CHARGES (Rs)							0.00
LANDED VALUE (Rs)							46576.18
Remarks							

Format of Bank Guarantee for Security Deposit:
(RS.250 non-judicial stamp paper)

Messrs -----, a Company having its office -----
 ----- (hereinafter called the Contractor) has entered into a Contract No. -----
 -----dated ----- (hereinafter called the said Contract) with Bharat
 Coking Coal Limited (hereinafter called BCCL, Buyer) to supply equipment on the terms and conditions
 contained in the said contract.

1. It has been agreed that hundred percent (100%) payment of the value of the equipment will be made to the Contractor in terms of the said contract on the Contractor furnishing to the purchaser a Bank Guarantee for the sum of ----- equivalent to 10% of the value of order by the Contractor, as security for the due and faithful performance of the terms of the said contract and against any loss or damage caused to or would be caused to or suffered by Purchaser by reason of any breach by the said Seller of any of the terms and conditions contained in the said contract.

The ----- having its office at -----has at the request of Seller agreed to give the guarantee hereinafter contained.

2. We, -----Bank Ltd. do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Purchaser stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Purchaser by reason of any breach by the said Seller or any of the terms and conditions contained in the said Contract or by reason of the Seller's failure to perform the said contract. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. We shall not withhold the payment on the ground that the Seller has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between purchaser and the Seller regarding the claim. However, our liability under this guarantee shall be restricted to an amount not exceeding -----.

3. We, -----, further agree that the guarantee herein contained shall come into force from the date hereof and shall remain in full force and effect during the period that would be taken for the performance of the said contract and that it shall continue to be enforceable till all the dues of the Purchaser under or by virtue of the said contract have been fully paid and its claims satisfied or purchaser certifies that the terms and conditions of the said contract have been fully and properly carried out by the said Seller and accordingly discharge the guarantee.

Unless a demand or claim under this guarantee is made on us in writing on or before the -----
 -----(date to be given), we shall be discharged from all liability under this guarantee thereafter.

4. We, -----Bank Ltd., further agree with the Purchaser, that the Purchaser, shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the said seller (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Purchaser, against the said Seller and to forbear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason or any such variation or extension being granted to the said Seller or for any forbearance act or omission on the part of the Purchaser, or any indulgence by the Purchaser, to the said Seller or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the Purchaser the said sum of -----
 ----- (specify the amount) or such lesser sum as may then be due to the Purchaser and as the Purchaser may demand.

5. We, -----Bank Ltd., further agree to renew the Bank Guarantee from time to time at the request of the BCCL.

6. We, -----Bank Ltd., lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Purchaser, in writing.

7.. The Bank has under its constitution power to give this guarantee and -----
 ----- who have signed it on behalf of the Bank have authority to do so.

7. This Bank Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

Dated : Day of 20.....
 for Bank Limited.

Signature of the authorised person
 for and on behalf of the Bank.

Format of Performance Bank Guarantee
(RS.250 non-judicial stamp paper)

Messers -----, a Company having its office -----
----- (hereinafter called the Contractor) has entered into a Contract No. -----
-----dated ----- (hereinafter called the said Contract) with Bharat
Coking Coal Limited (hereinafter called BCCL, Buyer) to supply equipment on the terms and conditions
contained in the said contract.

1. It has been agreed that hundred percent (100%) payment of the value of the equipment will be made to the Contractor in terms of the said contract on the Contractor furnishing to the purchaser a Bank Guarantee for the sum of ----- equivalent to 10% of the value of order by the Contractor, as security for the due and faithful performance of the terms of the said contract and against any loss or damage caused to or would be caused to or suffered by Purchaser by reason of any breach by the said Seller of any of the terms and conditions contained in the said contract.

The ----- having its office at -----has at the request of Seller agreed to give the guarantee hereinafter contained.

2. We, -----Bank Ltd. do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Purchaser stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Purchaser by reason of any breach by the said Seller or any of the terms and conditions contained in the said Contract or by reason of the Seller's failure to perform the said contract. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. We shall not withhold the payment on the ground that the Seller has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between purchaser and the Seller regarding the claim. However, our liability under this guarantee shall be restricted to an amount not exceeding -----.

3. We, -----, further agree that the guarantee herein contained shall come into force from the date hereof and shall remain in full force and effect during the period that would be taken for the performance of the said contract and that it shall continue to be enforceable till all the dues of the Purchaser under or by virtue of the said contract have been fully paid and its claims satisfied or purchaser certifies that the terms and conditions of the said contract have been fully and properly carried out by the said Seller and accordingly discharge the guarantee.

Unless a demand or claim under this guarantee is made on us in writing on or before the -----
----- (date to be given), we shall be discharged from all liability under this guarantee thereafter.

4. We, -----Bank Ltd., further agree with the Purchaser, that the Purchaser, shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the said seller (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Purchaser, against the said Seller and to forbear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason or any such variation or extension being granted to the said Seller or for any forbearance act or omission on the part of the Purchaser, or any indulgence by the Purchaser, to the said Seller or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the Purchaser the said sum of -----
----- (specify the amount) or such lesser sum as may then be due to the Purchaser and as the Purchaser may demand.

5. We, -----Bank Ltd., further agree to renew the Bank Guarantee from time to time at the request of the BCCL.

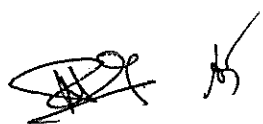
6. We, -----Bank Ltd., lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Purchaser, in writing.

7.. The Bank has under its constitution power to give this guarantee and -----
----- who have signed it on behalf of the Bank have authority to do so.

7. This Bank Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

Dated : Day of 20.....
for Bank Limited.

Signature of the authorised person
for and on behalf of the Bank.



GENERAL TERMS & CONDITIONS OF SUPPLY OF STORES

Definition

1. In the interpretation of the contract and the general and special conditions governing it, unless the context otherwise requires :

(i) "Contract" means the invitation to tender, instructions to tenderers, acceptance of tender, particulars and the general and special conditions specified in the acceptance of tender and includes a repeat order which has been accepted and acted upon by the contractor.

(ii) The term "Supplier" shall mean the person, firm or company with whom the contract is placed and shall be deemed to include the supplier in successors (approved by the purchaser), representatives, heirs, executors, administrators and permitted assignees as the case may be.

(iii) "Contract Price" shall mean the sum accepted or the sum calculated in accordance with the price and/or terms accepted by or on behalf of the purchaser.

(iv) The Chairman, means the Chairman of Coal India Limited. The Chairman-cum-Managing Director means Chairman-cum-Managing Director of any of the Subsidiary Companies of Coal India Limited, presently Central Coalfields Limited, Eastern Coalfields Limited, Western Coalfields Limited, Bharat Coking Coal Limited and Central Mine Planning & Design Institute Limited, South Eastern Coalfields Limited, Northern Coalfields Limited, Mahanadi Coalfields Limited and North Eastern Coalfields.

(v) The terms "Drawing" shall mean the drawing the plans specified in or annexed the schedule or specifications.

(vi) The terms "Purchase Executive" shall mean the purchaser or purchaser named in the schedule to Tender, his or their successors or assignees.

(vii) The term the "Inspector" shall mean any person nominated by or on behalf of the purchaser to inspect supplies, Stores or work under the contract or his duly authorized agent.

(viii) The term "Progress Officer" shall mean any person nominated by or on behalf of the purchaser to visit supplier's works to ascertain the position of deliveries of stores purchased.

(ix) The term "Materials" shall mean anything used in the manufacture or fabrication of the stores.

(x) The term "Particulars" shall mean the following :

(a) Specifications;

(b) Drawing;

(c) Sealed pattern denoting a pattern sealed and signed by the Inspector.

(d) Certified or sealed sample denoting a copy of the sealed pattern or sample sealed by the purchaser for guidance of the Inspector.

(e) Trade pattern denoting a standard of the ISI or other standardizing authority or Coal India Ltd. and/or any of its subsidiary companies or a general standard of the industry and obtainable in the open market.

(f) Proprietary make denoting the product of an individual manufacturers.

(g) Any other details governing the construction, manufacturer and/or supply as existing in the contract.

(xi) "Stores" means the goods specified in the supply order or schedule which the contractor has agreed to supply under contract.

(xii) The term "Test" shall mean such test or tests as are prescribed by the specification or considered necessary by the Inspector or any agency acting under direction of the Inspector.

(xiii) The term "Site" shall mean the place or places named in the "supply order" or such other place or places at which any work has to be carried out as may be approved by the purchaser.

(xiv) Works denoting the persons shall include any company or association or body of individuals whether incorporated or not.

(xv) "Writing" shall include any manuscript, typewritten or printed statement under or over signature or seal as the case may be.

(xvi) "Unit" and "Quality" means the unit and quantity specified in the schedule.

(xvii) "Supply Order" or "Purchase Order" means an order for supply of stores and includes an order for performance.

2. The delivery of stores shall be deemed to take place on delivery of the stores in accordance with the terms of the contract after approval of stores by the Inspector, to :

(i) The consignee at his premises, or

(ii) where-so provided the interim consignee at his premises, or

(iii) a carrier or other persons named in the contract an interim consignee for the purpose of transmission to the consignee.

(iv) The consignee at the destination station in case of contracts stipulated for delivery stores at destination station.

3. Words in the singular include the plural and vice-versa.

4. Words denoting the masculine gender shall be taken to include the feminine gender and work persons, shall include any company or association or body of individuals whether incorporated or not.

5. Terms and expressions not herein defined shall have the meanings assigned to them in the Indian Sale of Goods Act, 1930 or the Indian Contract, 1872 or the General Clauses Act, 1897 and as amended in respect of all the Acts, as the case may be.

6. (a) Parties

The parties to the contract are the supplier and the purchaser named in the schedule or any other specifically mentioned in the contract.

(b) Address to which communication are to be sent

For all purposes of the contract, including arbitration there under, the address of the supplier mentioned in the tender shall be the address to which all communications addressed to the supplier shall be sent, unless the supplier has notified a change by a separate letter containing no other communication and sent by registered post acknowledgement due to the head of the office placing the supply order. The supplier shall be solely responsible for the consequence of an omission to notify a change of address in the manner aforesaid.

Any communication or notice on behalf of the purchaser in relation to the contract may be issued to the supplier by Purchase Executive and all such communications and notices may be served on the supplier either by registered post or under certificate of posting or by ordinary post or by hand delivery at the option of such executive.

7. (i) The price quoted shall be either FOR place or Railway Station of dispatch, FOR Destination, Delivery free to the consignee, FOB or CIF as specified in the invitation to tender. All offers from countries other than Purchaser's country shall quote on FOB and CIF basis.

(ii) In all cases the prices quoted must be net per unit shown in the enquiry and must include all packing and delivery where applicable. Refunds on account of returnable packages(if any) are to be separately specified. The price should show separately the Foreign Exchange Element and the Rupee Element for stores to be imported. Sales Tax shall be shown separately and whether it is State Sales Tax or Central Sales Tax. If no mention is made about Sales Tax, it will be assumed to be included in the price quoted.

The prices should be included of excise, or excise duty should be separately mentioned. In case where price is quoted inclusive of excise duty, the rate of quantum of the same should be separately indicated. In case of contracts providing for free delivery to the consignee octroi charges shall be included where leviable.

(iii) The price must be stated separately for each item on unit basis.

(iv) When quotations are made for units other than those specified in the enquiry, the relationships should be stated.

(v) The prices quoted must be firm and the offers made must remain open for at least four months from the date of submitting quotations unless otherwise specified.

(vi) Tender must invariably be submitted along with illustrated literature giving complete and detailed specification, particulars etc. of the main unit and of the standard accessories to be supplied with the stores.

(vii) The tenderers must clearly specify their recommended spare parts that will be supplied along with the main unit and item wise prices of the spare parts, also what are fast moving; medium moving; slow moving and insurance spares and the period up to which they are likely to last.

(viii) Printed terms and conditions of the tendering firms shall not be considered as forming part of their tender. In case the terms and conditions of contract applicable to this invitation to tender are not acceptable to the tendering firms, they should clearly specify deviations there from in their tender.

(ix) Typed quotations should be submitted. Those containing erasures and over-writings are liable to be rejected. Any corrections made in the tenders must be initiated by the tenderers, failing which their tenders will not be considered.

(x) Insurance arrangement will be made as per instructions being issued from time to time by the Materials Management Division of Coal India Limited and/or its subsidiary companies.

8. (i) Samples of each item, if considered necessary, should be submitted simultaneously by the contractor for inspection by Inspector/Inspectors unless the articles under tender are of considerable bulk, in which case separate arrangement will be made for inspection of the articles offered while considering the quotations.

(ii) All samples required for inspection or test shall be supplied by the successful Tenderers free of cost.

(iii) All samples must be clearly labeled with the tenderer's name, this offer enquiry Number and the last date of opening of tender.

9. (a) Subletting and Assignment

The supplier shall not save with the previous consent in writing of the purchaser, sublet, transfer or assign the contract or any part thereof or interest therein or benefit or advantage thereof in any manner whatsoever. Provided nevertheless that any such consent shall not relieve the supplier from any obligation, duty or responsibility under the contract.

(b) Change in a Firm

(i) Where the supplier is a partnership firm, a new partner shall not be introduced in the firm except with the previous consent in writing of the purchaser(which may be granted only as an exception) of a written undertaking by the new partner to perform the contract and accept all liabilities incurred by the firm under the contract prior to the date of such undertaking.

(ii) On the death or retirement of any partner of the supplier firm before complete performance of the contract the purchaser may at his option cancel the contract in such case the supplier shall have no claim whatsoever to compensation against the purchaser.

(iii) If the contract is not determined as provided in the sub-clause(ii) above notwithstanding the retirement of a partner from the firm, he shall continue to be liable under the contract for acts of the firm until a copy of the public notice given by him under Section 32 of the Partnership Act has been sent by him to the purchaser by registered post acknowledgement due.

10. (a) Consequence of Breach

Should the supplier or a partner in the supplier firm commit breach of either of the conditions (a) or (b)(i) of this sub-clause, it shall be lawful of the purchaser to cancel the contract and purchase or authorize the purchaser of the stores at the risk and cost of the supplier and in that event the provisions of clause 20 shall as far as applicable shall apply.

(b) The decision of Coal India Ltd. and/or its subsidiary companies as to any matter or thing concerning or arising out of this sub-clause or any question whether the supplier or any partner of the supplier firm has committed a breach of any of the conditions in this sub-clause contained shall be final and binding on the supplier.

11. Use of raw materials secured with Government assistance.

(a) Where any raw material for the execution of the contract is procured with the assistance of Coal India Limited and/or its subsidiary companies by purchase or under arrangement made or permit, licence, quota certificate or release order issued by or on behalf of or under authority or by any officer empowered in that behalf by law, or is issued from government stock and where advance payments are made to the supplier to enable him to purchase such raw materials for the execution of the contract, the supplier,

(i) shall hold such material as trustee of Coal India Limited and/or its subsidiary companies,

(ii) shall use such material economically and solely for the purpose of the contract.

(iii) shall not dispose of the same without the previous permission in writing of the purchaser; and

(iv) shall tender due account of such material and return to the purchaser at such

place as the purchaser may direct all surplus or unserviceable material that may be left after the completion of the contract or its termination for any reason whatsoever. On returning such material, the supplier shall be entitled to such price thereof as the purchaser may fix having regard to the condition of such material.

(b) Where the contract is terminated due to any default on the part of the supplier, the supplier shall pay all transport charges incurred for returning any material upto such destination as may be determined by Coal India Limited and/or its subsidiary companies whose decision shall be final.

(c) If the supplier commits breach of any of the conditions in this clause specified, he shall, without prejudice to any other liability, penal or otherwise, be liable to account to Coal India Limited and/or its subsidiary companies all moneys, advantages of profits accruing from or which in the usual course would have accrued to him by reasons of such breach.

(d) Where the stores manufactured or fabricated by the supplier out of the materials arranged or procured by or on behalf of Coal India Limited and/or its subsidiary companies are rejected the supplier shall, without prejudice to any other right or remedy of the Government, pay to the government on demand the cost price or market value of all such materials whichever is greater.

12. The tenderers in case of imported items, shall clearly mention in the quotation that in the event of the supply order being placed with them, they shall arrange for supply within a reasonable period of all necessary maintenance tools and spares parts that may be required from time to time during the normal life of the machines, on a continuous basis and at a price not in excess of the landed cost at their premises plus a stated percentage differential (such a differential should be indicated) and proper servicing of the main unit supplied by them as and when required. In case there is a Rate Contract with the DGS&D supply be made at the RC rates.

13. The tenderers shall give a warranty of satisfactory performance of the unit offered by them for a period of 12 months from the date of commissioning or 18 months from the date of receipt and acceptance by Coal India Limited and/or its Subsidiary Companies. The supplier shall be responsible for any defects that they develop under the conditions provided for by the contract and under proper use, arising from faulty materials, design or workmanship and shall remedy such defects at his own cost when called upon to do so. If it becomes necessary for the supplier to replace or renew any defective portion of the goods, such replacement or renewal should be made by the supplier without any extra cost to Coal India Limited and/or its subsidiary company.

14. For orders placed directly on overseas suppliers, the tenderers should separately indicated whether their prices quoted include any commission for the manufacturer's agents in India and the amount of remuneration for the agent included in the quoted price. Price shall include,

a) the service that will be rendered by them as manufacturer's agent;

b) the name and address of agents, if any, in India; and

c) the agency commission or remuneration or freight in case FOR prices are accepted will be paid in Rupees in India.

15. On acceptance of the tender, a formal acceptance of tender or supply order will invariably be issued. Advance intimation in writing of acceptance of the tender will be given whenever considered necessary by the said authority. In case an advance intimation has been given, the formal acceptance of tender or supply order shall follow in due course, but immediate action towards execution of supply order shall be taken on receipt of the advance intimation.

16. EARNEST MONEY/SECURITY MONEY :

a) Earnest Money Clause should be stipulated in the tender. The value of Earnest Money to be deposited by the tenderer should be 2% of the value of the estimated cost tendered for or Rs.10,00,000/-, whichever is lower. EMD. should be in the form of Demand Draft and must accompany the quotation i.e. Cover-I of the bid. For unsuccessful tenderer EMD shall be refunded immediately after finalisation of the tender with the approval of the HOD of MM deptt. or Head of Area. EMD shall be forfeited if any tenderer withdraw their offer before finalization of the tender or fails to submit order acceptance within 15 days from the date of order.

b) Security Deposit clause should be stipulated in the tender. Two weeks time (15 days) shall be given in the order to the successful tenderer to furnish the security deposit. In case the firm fails to deposit the security money, the order shall be cancelled and the case shall be processed to order elsewhere and the firm's performance is to be kept recorded for future dealings with them.

The value of Security Money to be deposited by the successful tenderer in the form of Bank Draft shall be 10% of the value of the awarded contract without having any ceiling. For successful tenderer, EMD should be converted to Security Money which will be refunded to the firm within 30 days of satisfactory execution of the contract with the approval of the HOD of MM deptt./Head of the Area. For unsatisfactory performance and/or contractual failure, the security money shall be forfeited.

c) For procurement value less than Rs.1,00,000/-, no earnest money/security deposit will be required.

d) If any State/Central Govt. Organisation/PSU & valid DGS&D/NSIC registered (for the tendered items) firm can produce documentary evidence issued by Govt. Authorities for according exemption towards submission of EMD/SD, they may be considered for exemption from submission of EMD/Security Deposit.

17. Inspection and Rejection

Generally the stores shall be of the best quality and workmanship and comply with the contract or supply order in all respect. The stores supplied shall be in accordance with specification unless any deviation is authorized and specified in the contract or supply order or any amendment thereto.

(a) Facilities for Test and Examination

The supplier shall, at his own expenses, afford to the Inspector all reasonable facilities and such accommodation as may be necessary for satisfying itself, that the stores are being and/or have been manufactured in accordance with particulars. The Inspector shall have full and free access at any time during the execution of the contract to the suppliers work for the purpose aforesaid, and he may require the supplier to make arrangements for inspection of the stores or any part thereof or any material at his premises or at any other places specified by the Inspector and if the supplier has been permitted to employ the services of the sub-supplier, he shall in his contract with the sub-supplier reserve to the Inspector a similar right.

(b) Cost of Test

The supplier shall provide without any extra charge, all materials, tools, labour and assistance of every kind which the inspector may demand from him for any test, and examination, other than special or independent test, which he shall require to be made on the supplier's premises and the supplier shall bear and pay all costs attendant thereon. If the supplier fails to comply with the conditions aforesaid, the Inspector shall in consultation with the purchaser, be entitled to remove for test and examinations all or any of the stores manufactured by the supplier to any premises other than his(suppliers) and in all such cases the supplier bear the cost of transport and/or carrying out such tests elsewhere. A certificate in writing of the Inspector, that the supplier has failed to provide the facilities and the means, for test and examination shall be final.

(c) Delivery of Stores for Test

The supplier shall also provide and deliver the test free of charge, at such place other than his premises as the Inspector may specify, such materials or stores as he may require.

(d) Liability for Costs of Laboratory Test

In the event of rejection of stores or any part thereof by the Inspector in consequence of the sample thereof, which removed to the laboratory or other place of test, being found on test to be not in conformity with the contract or in the event of the failure of the supplier for any reason to deliver the stores passed on test within the stipulated period, the supplier shall, on demand pay to the purchaser all costs incurred in the Inspection and/or test cost of the test shall be assessed at the rate charged by the laboratory to provide persons for similar work.

(e) Method of Testing

The Inspector shall have the right to put all the stores or materials forming part of the same or any part thereof to such tests as he may think fit and proper. The supplier shall not be entitled to object on any ground whatsoever to the method of testing adopted by the Inspector.

(f) Stores Expended in Test

Unless otherwise provided for in the contract, all stores/materials expended in test will be to supplier's account.

(g) Inspector Final Authority and to Certify Performance

(i) The Inspector shall have the power :

Before any stores or part thereof are submitted for inspection to certify that they can not be in accordance with the contract owing to the adoption of any unsatisfactory method or manufacturer;

(ii) To reject any stores submitted as not being in accordance with the particulars.

(iii) To reject the whole of the installment tendered for inspection, if after inspections of such portion thereof as he may in his discretion think fit, he satisfied that the same is unsatisfactory ; and

(iv) To mark the rejected stores with a rejection mark so that they may be easily identified if re-submitted.

(h) Consequence of Rejection

If on the stores being rejected by the Inspector or consignee at the destination, the supplier fails to make satisfactory supplies within the stipulated period of delivery, the purchaser shall be at liberty to :

(i) Allow the supplier to re-submit the stores, in replacement of those rejected, within a specified time, the supplier bearing the cost of freight, if any, on such replacement without being entitled to any extra payment on that account ; or

(ii) Purchase or authorize the purchase of quantity of the stores rejected or so others of a similar description (when stores exactly complying with particulars opinion of the purchase executive which shall be final, readily available) without notice to the supplier's liability as regards the supply of any further installment due under the contract ; or

(iii) Cancel the contract and purchase or authorize the purchase of the stores or others of a similar description (when stores exactly complying with particulars are not in a opinion of the purchaser, which shall be final, readily available) at the risk and cost of the supplier. In the event of action being taken under sub-clause(ii) above or this sub-clause in the provisions of clause 20 shall apply as far as applicable.

(i) Inspectors' Decision as to Rejection Final

The Inspector's decision as regards the rejection shall be final and binding on the supplier.

(j) Where under a contract, the price payable is fixed on FOR station of dispatch basis, the supplier shall, if the stores are rejected at destination by the consignee, be liable in addition to other liabilities to reimburse to the purchaser the freight paid by the purchaser.

(k) Notification of Result of Inspection

Unless otherwise provided in the specification or schedule, the examination of the stores will be made as soon as practicable after the same have been submitted for inspection and the result of the examination will be notified to the supplier.

(l) Marking of Stores

The supplier shall, if so required, at his own expense mark or permit the Inspector to mark all the approved stores with a recognized Government or purchaser's mark. The stores which cannot be so marked shall, if so required by the Inspector, be packed in suitable package or cases each of which shall be sealed and marked with such mark.

(m) Removal of Rejection

(i) Any stores submitted for inspection at a place other than the premises of the supplier and rejected shall be removed by the supplier subject as hereinafter provided within 14 days of the date of receipt of intimation of such rejection. If it is proved that letter containing such intimation is addressed and posted to him at the address mentioned in the schedule, it will be deemed to have been served on the supplier at the time when such letter would in the course of ordinary post reach the supplier. It shall be competent for the Inspector to call upon the

supplier to remove what he considers to be dangerous, infected or perishable stores within 48 hours of the receipt of such intimation.

(ii) Such rejected stores shall under all circumstances lie at the risk of the supplier from the moment of such rejection and if such stores are not removed by the supplier within the period aforementioned, the Inspector/Purchaser may either return the same to the supplier at his risk and cost a public tariff rate by such mode of transport as the purchaser or Inspector may select, or dispose of such stores at the supplier's risk on his account and retain in such portion of the proceeds as may be necessary to cover any expense incurred in connection with such disposal. The purchaser shall also be entitled to recover handling and storage charges for the period during which the rejected stores are not removed.

(n) Inspection Notes

On the stores being found acceptable by the Inspector, he shall furnish the supplier with necessary copies of Inspection notes duly completed, for being attached to the supplier's bill in support thereof.

18. Packing and Transport

(a) It shall be the responsibility of the successful tenderers to arrange for the stores being sufficiently and properly packed for transport by Rail, Road or Sea as the case may be so as to their being free from loss or injury on arrival at destination. The packing of the stores shall be done at the expense of the successful tenderer.

(b) The successful tenderer is responsible for obtaining a clear receipt from the transport authorities specifying the goods dispatched. He will not book any consignment on a "said to contain" basis. If he does so, he does it on his own responsibility. Coal India Limited and/or its subsidiary company shall pay for only such stores as are actually received by them in accordance with the contract.

(c) All packing cases, containers, packing and other similar materials shall be supplied free by the successful tenderer and shall not be returned unless otherwise specified in the contract/supply order.

(d) Packages must be so marked that identification is made easy. Packages will be stamped with identification marks both outside the packages as well as on the contents inside.

Packages containing articles liable to be broken by rough handling like glass or machinery made of cast iron will be marked with cautionary works like 'Fragile', 'Handle with care'. Weight of each packages will be marked on the package.

(e) A complete list of contents in each package called the packing list will be prepared and one copy will be packed in the package itself and another copy will be forwarded to the consignee, in advance

19. Delivery :

The time for and the date of delivery of the stores stipulated in the 'Purchase Order' shall be deemed to be of the essence of the contract and delivery of the stores must be completed by the date specified.

20. In the event of failure to delivery or dispatch the stores within the stipulated date/period in accordance with the samples and/or specifications mentioned in the supply order and in the event of breach of any of the terms and conditions mentioned in the supply order, Coal India Ltd. and its Subsidiary Companies should have the right :

(a) To recover from the successful tenderer as agreed liquidated damages, a sum not less than 0.5% (half percent) of the price of any stores which the successful tenderer 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%. Where felt necessary the limit of 10% can be increased to 15% at the discretion of Head of the Materials Management Division.

(b) To purchase elsewhere, after due notice to the successful tenderer 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 -

(c) 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 -

(d) 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.

(e) To forfeit the security deposit full or in part.

(f) 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 or any other contract should this sum be not sufficient to cover the full amount recoverable, the successful tenderer 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.

21. 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 any 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.

22. The supplier shall allow reasonable facilities and free access to his works and records to the Inspector, Progress Officer or such other Officer nominated for the purpose. Inspector of stores, i.e. supplies made by the successful tenderer against the supply order mentioned at (15) above, shall be carried out by the Inspector/Consignee at the colliery site/stores or by the Inspecting Wing (inclusive of all its branch offices) of the DGS&D, New Delhi or any other agency as may be specified in the supply order. Where necessary, inspection may be carried out at the supplier's premises.

23. Coal India Ltd. and/or its subsidiary companies do not bind itself to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of the tender or portion of the quantity offered and the tenderer shall supply the same at the rate quoted.

24. The supplier shall at all times indemnify Coal India Limited and its subsidiary companies against all claims which may be made in respect of the supplies for infringement of any right protected by patent, Registration of Design or Trade Mark, provided that in the event of any claim in respect of alleged breach of Letter

Patent, Registered Design or Trade Mark being made against Coal India Ltd. and/or its subsidiary companies, the said authority shall notify the supplier of the same and the supplier shall be at liberty at his own expense to settle any dispute or to conduct any litigation that may arise there from.

25. Carrying Vessels for Imported Items

In case of machinery imported from abroad, it is preferable that shipment should be affected in Indian Vessels, wherever possible. Supplies will however not be delayed on this account.

26. Freight

The stores shall be dispatched at public tariff rates in the case of FOR station of dispatch contract and the stores shall be booked at full wagon rates whenever available and by the most economical route or by the most economical tariff available at the time of dispatch as the case may be. Failure to do so will render the supplier liable for any avoidable expenditure causes to the purchaser.

Where alternative routes exist, Coal India Limited and/or its subsidiary companies shall, if called upon also to do indicate the most economical route available or name the authority whose advice in the matter should be taken and acted upon. If any advice of any such authority is sought, his decision or advice in the matter shall be final and binding on the supplier.

27. Passing of Property

Property in the stores shall not pass to the purchaser unless and until the stores have been delivered to the consignee or interim consignee as the case may be in terms of the contract.

28. Laws Governing the Contract

a) This contract shall be governed by the Laws of India for the time being in force.

b) Irrespective of the place of delivery, the place of performance of place of payment under the contract, the contract shall be deemed to have been made at the place from which the acceptance of tender or supply order has been issued.

c) Jurisdiction of Courts

The courts of the place from the acceptance of tender has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.

d) Marking of Stores

The marking of the stores must comply with the requirements of the law relating to Merchandise Marks for the time being in force in India.

29. Corrupt Practices

a) The supplier shall not offer or give or agree to give to any person in the employment of the purchaser or working under the orders of Coal India Ltd. and/or its subsidiary companies any gift or consideration of any kind as an inducement or reward for going or forbearing to do or for having done or forborne to do any act relating to the obtaining or execution of the contract or any other contract with the purchaser or for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the purchaser. Any breach of the aforesaid condition by the supplier or any one employed by him or acting on his behalf (whether with or without the knowledge of the supplier) or the Commission of any offence by the supplier or by any one employed by him or acting on behalf under Chapter IX of the India Penal Code, 1860 or the Prevention of Corruption Act, 1947 and any amendments thereto or any other Act enacted for the prevention of corruption by Public Servants shall entitle Coal India Limited and/or its subsidiary companies to cancel the contract and all or any other contract with the supplier and to recover from the supplier the amount of any loss arising from such cancellation in accordance with the provisions of Clause 20.

b) Any dispute or difference in respect of either the interpretation effect or application of the above condition or of the amount recoverable, the re-undertaken by the purchaser from the supplier shall be decided by Coal India Limited and its subsidiary companies whose decision thereon shall be final and binding on the supplier.

30. Insolvency and Breach of Contract

(a) Coal India Limited and/or its subsidiary companies may at any time by notice in writing, summarily determine the contract without compensation to the supplier in any of the following event, that is to say

If the supplier being an individual or if a firm any partner thereof, shall at any time be adjusted insolvent or shall have a receiving order or order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any arrangements or composition with his creditors or suspend payment or if the firm be dissolved under the Partnership Act.

(b) If the supplier being a company is wound up voluntarily by the order of a court or a Receiver, Liquidator Manager on behalf of the Debenture-Holders is appointed or circumstances shall have arisen which entitles the court or Debenture-Holders to appoint a Receiver, Liquidator or Manager.

(c) If the supplier commits any breach of the contract not herein specifically provided For, Provided always that such determination shall not prejudice any right of action or remedy which shall have accrued or shall accrue thereafter to the purchaser and provided also the supplier shall be liable to pay to the purchaser for any extra expenditure he is thereby put to and the supplier shall under no circumstances be entitled to any gain on repurchase.

31. Terms of Payment

(a) For all stores, 100% payment should be made on receipt of the consignment at site and acceptance by the consignee as per actual payment term stipulated in the contract. The number and date of Railway receipt, Bill of Lading, Air Way Bill or Consignment Note under which the goods charged for in the bill are dispatched by Railway, Ship, Air or Road respectively, and the number and date of the letter with which such Railway Receipt, Bill of Lading, Air Way Bill or Consignment Note is forwarded to the consignee should be quoted on the bill. In the case of stores dispatched by post, the postal receipt should be attached in original to the bill and its number and date quoted therein.

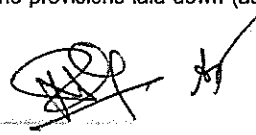
(b) Payment against the supply orders placed either by the Subsidiary company or by CIL shall be arranged by the Subsidiary Companies, if not specified otherwise. Wherever order is placed by CIL on any foreign supplier involving requirement of more than one Subsidiary Co., payment shall be arranged by CIL normally through Letter of Credit.

(c) Payment for Agency Commission, if any, involved, may be considered in case of necessity, subject to compliance of the Government of India Guidelines issued from time to time. The name of the Indian Agent with their full address and the quantum of Agency Commission, if any, payable, shall have to be mentioned in the supply order itself.

(d) Payment from CIL may also be considered, if felt necessary, by the CIL management, even though order is placed against the requirement of one subsidiary company by CIL.

(e) Specific payment term may be formulated in accordance with the provisions laid down (as applicable) at Chapter-IX of the Purchase Manual.

32. Progress Reports



- (a) The supplier shall from time to time render such reports concerning the progress of the contract and/or supply of the stores in such form as may be required.
- b) The submission, receipt and acceptance of such reports shall not prejudice the right of the purchaser under the contract, nor shall operate as an estoppel against the purchaser merely by reason of the fact that he has not taken notice of or objected to any information contained in such report.
- 33 All disputes arising out of this contract shall be under the jurisdiction of Dhanbad /Jharkhand Court only and as per the "Law of the Land".
34. PROFORMA FOR COLLECTING PAYMENT THROUGH ELECTRONIC MODE INCLUDING ELECTRONIC FUND TRANSFER (EFT) & ELECTRONIC CLEARING SYSTEM
(To be submitted off line in triplicate)

1	VENDOR/SUPPLIER NAME AND ADDRESS (WITH TELEPHONE NO. AND FAX NO.)	
2	PARTICULARS OF BANK ACCOUNT	
	A. BANK NAME	
	B. BRANCH NAME (INCLUDING RTGS CODE)	
	ADDRESS	
	TELEPHONE NO. AND FAX NO.	
	C. 9- DIGIT CODE NO. OF THE BANK AND BRANCH(Appearing on the MICR cheque issued on the Bank) or 5-Digit code No. of SBI	
	D. ACCOUNT TYPE (SB Account/current account or cash credit with code 10/11/13)	
	E. LEDGER NO./LEDGER FOLIO NO.	
	F. ACCOUNT NO. (CORE BANKING) AND STYLE OF ACCOUNT (As appearing on the cheque book)	
3	<p>DATE OF EFFECT</p> <p>I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge responsibility expected of me as a participant under the scheme. Any Bank charges levied by the Bank of such e-transfer shall be borne by us.</p> <p>Date----- (-----) Signature of the vendor/supplier</p> <p>Certified that the particulars furnished above are correct as per our records.</p> <p>(-----) Signature of the authorised officials of the Bank</p>	

ANNEXURE E**Performance of equipment under performance guarantee during warranty period**

Supplier Name

M/c Model

M/cv No

D.O.C.

S.O.No

Project

Area

Month	W/Hrs	M/Hrs	B/Dn Hrs		I/D Hrs	Shf Hrs	% AV	Remarks
			Users	Suppliers				

Certificate

1. The Deemed breakdown has been considered for calculating availability of equipment during warranty period as above
2. Warranty claim, if any, is detailed below:-

GM/CGM(Area)

SO(Excv)

Project Officer

PE(Excv)

Service Engineer
(L&T Ltd)



L&T CONSTRUCTION EQUIPMENT LIMITED

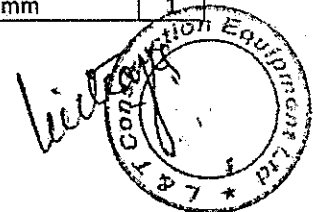
3B, Shakespeare Sarani, Kolkata- 700 071, P.O.Box:619 • PHONE : 44002470 • FAX : 033- 22821025/7587

Clause No. 7.1.c. General :

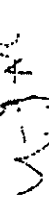

Tools List :

List of Tools With Equipment

Sl No	Make	Part No/Model no.	Description	Size/Specification	Qty
1	LTK	J00045801	NIPPLE	8 mm	1
2	LTK	D04037516	QUICK COUPLER	19 MM	2
4	LTK	N20040510	INSPECTION LAMP	24V DC	1
5	LTK	U20028210	ADOPTER	LTK-specification	1
6	LTK	U20028211	ADOPTER	LTK-specification	1
7	LTK	V20028212	ADOPTER	LTK-specification	1
8	LTK	W20044405	D/E SPANNER	6 X 7 mm	1
9	LTK	X20044406	D/E SPANNER	8 X 9 mm	1
10	LTK	L20144491	D/E SPANNER	10 X 11 mm	1
11	LTK	A20044408	D/E SPANNER	12 X 13 mm	1
12	LTK	B20044409	D/E SPANNER	14 X 15 mm	1
13	LTK	C20044410	D/E SPANNER	16 X 17 mm	1
14	LTK	D20044411	D/E SPANNER	18 X 19 mm	1
15	LTK	F20044413	D/E SPANNER	21 X 23 mm	1
16	LTK	M20144492	D/E SPANNER	22 X 24 mm	1
17	LTK	N20144493	D/E SPANNER	27 X 30 mm	1
18	LTK	Q20144495	D/E SPANNER	41 X 46 mm	1
19	LTK	M20044419	S/E SPANNER	55 mm	1
20	LTK	P20144494	D/E SPANNER	32 X 36 mm	1
21	UNBREKO	H20052005	ALLEN KEY	3 mm	1
22	UNBREKO	J20052006	ALLEN KEY	4 mm	1
23	UNBREKO	K20052007	ALLEN KEY	5 mm	1
24	UNBREKO	L20052008	ALLEN KEY	6 mm	1
25	UNBREKO	N20052010	ALLEN KEY	8 mm	1
26	UNBREKO	G20052012	ALLEN KEY	10 mm	1
27	UNBREKO	R20052013	ALLEN KEY	12 mm	1
28	UNBREKO	S20052014	ALLEN KEY	14 mm	1
29	UNBREKO	T20052015	ALLEN KEY	17 mm	1
30	UNBREKO	U20052016	ALLEN KEY	19 mm	1
31	LTK	A20144412	TOMMY BAR	10 mm	1
32	LTK	Z20144411	BOX SPANNER	8 mm	1




QUALITY ASSURANCE PLAN FOR L&T - 300CK (Diesel) AND L&T-300CK (Electric) MACHINES

STAGE DESCRIPTION	QUALITY CONFIRMATION PROCESS
Bought out Components	Inspection / Quality verification are carried as per procedures. Inspection records and necessary documents are maintained. Component quality is assured during machine performance testing.
Imported components	This category of components are sourced from reputed global suppliers. Visual inspection is done at LTK for any transit damages. Performance is confirmed during final machine testing.
OE components	Components are accepted based on Test Certificate / declaration by manufacturer. Visual inspection done at LTK for any transit damages. Performance is confirmed during final machine performance testing.
Make items	LTK is certified under ISO 9001:2008. Established systems and processes are in place for manufacturing and quality confirmation during various stages of manufacturing.
Assembly Operation	Established systems and processes are in place for machine Assembly. These include process sheets and check sheets for critical assemblies and records of quality confirmation are maintained.
PAINTING	Painting is carried out as per established procedures and work instructions. Checklists are maintained as records.
ELECTRICAL CHECKS	Electrical checks are carried out during performance testing of machines.
PERFORMANCE TESTING	Machines are tested for performance as per established inspection/ test procedures. The checklists of earlier stages are verified during final inspection. Contracts / Order requirements mutually agreed are verified for compliance. This will also include verification by customer at LTK.
STANDARD DOCUMENTS TO BE SUBMITTED	a) Engine / Electric Motor - Test Certificate
	b) Machine Inspection Certificate
	c) Records as per order terms
	IF THIS STAMP IS NOT
Date of Issue: 18/01/2011	Reviewed by:  Approved by: 
Effectivity : 18/01/2011	B.V. Harish - Asst. Manager (Quality Assurance) K.V. Sankaranarayanan - Sr. DGM (Quality Assurance)
	DOCUMENT No. : QP MQA.1005
	REVISION : -
	PAGE : 1 / 1

ANNEXURE - G

85



L&T 300

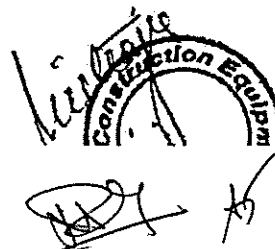
Hydraulic Excavator



Larsen & Toubro Limited, India's leading multi-dimensional industrial organisation, has an unmatched track record in the Earthmoving & Construction Equipment sector. L&T offers a wide range of machines which incorporate contemporary technology as well as advanced features based on feedback generated from extensive field trials. Every machine is therefore engineered to deliver a high level of performance.

L&T 300 Hydraulic Excavator is the leader in its class. Sturdy, rugged and reliable, these machines are manufactured by L&T Construction Equipment Limited at Bangalore Works with ISO 9001 accreditation for design, development, manufacturing, sales and servicing and ISO 14001 certification for Environment Management System and OHSAS 18001 certification for Occupational Health and Safety Management Systems.

Manufactured by:



Engine

Make : Cummins India Limited
 Model : NT 855-C335, Big Cam III
 Type : Direct Injection, 4 Stroke
 Water cooled,
 Diesel Engine
 Aspiration : Turbo-charged
 No. of Cylinders : 6
 Bore : 140 mm
 Stroke : 152 mm
 Piston Displacement : 14 L
 Flywheel Horsepower : 320 hp @ 1900 rpm
 (SAE J1349)
 Max. Torque : 1192 Nm @ 1900 rpm

Hydraulic System

Varlodyn® Hydraulic system provides optimum conversion of engine power into hydraulic power at the bucket. The 'heavy lift' mode provides increased lifting capabilities and digging force at the flick of a switch. The hydraulic circuit provides series parallel flow to the attachment and smooth simultaneous operations.
 Maximum Operating Pressure in
 normal lift mode – 320 bar
 heavy lift mode – 400 bar

Hydraulic Pump

A radial piston, fixed displacement pump is simple, compact and contain a few moving parts which contribute significantly to its high efficiency and reliability.
 Maximum flow of the pump : 741 lpm @ 1900 rpm

Operating Weight: 58,400 kg

Operating weight with 600 mm tracks, 3.9 m boom, 2.75 m stick and 4000 L B/D bucket.

Hydraulic Cylinders

Cylinder	Qty. per Machine	Bore Diameter (mm)	Rod Diameter (mm)	Stroke(mm)
Boom	2	165	110	1400
B/A Stick	1	195	130	1500
B/A Bucket	1	155	110	1400
LDR Stick	1	210	140	1400
LDR Bucket	1	225	150	800
B/D Stick	1	210	140	1400
B/D Bucket	1	225	150	800
B/D Open	2	115	75	400



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Floating Boom

The front end automatically adapts to contours of the terrain, simplifying digging and preventing the bucket from jolting against the ground.

Outstanding Features

- Six flow hydraulic pump
- Fewer hoses, pipes and joints
- Increased capacity of coolers
- Improved layout for easy accessibility

Motor for Electric Version

Make: Alstom/Crompton Greaves (tube ventilated) squirrel cage induction motor developing 300 HP (225 kW) at 1500 rpm synchronous speed having class F insulation IP55 protection and suitable for 3300 V, 3 phase 50 Hz electric supply.

Upper Structure

Frame

All welded heavy-duty steel structure with heavy gauge steel plate ensures durability. Aesthetically designed, open-type cowling provides easy service accessibility.

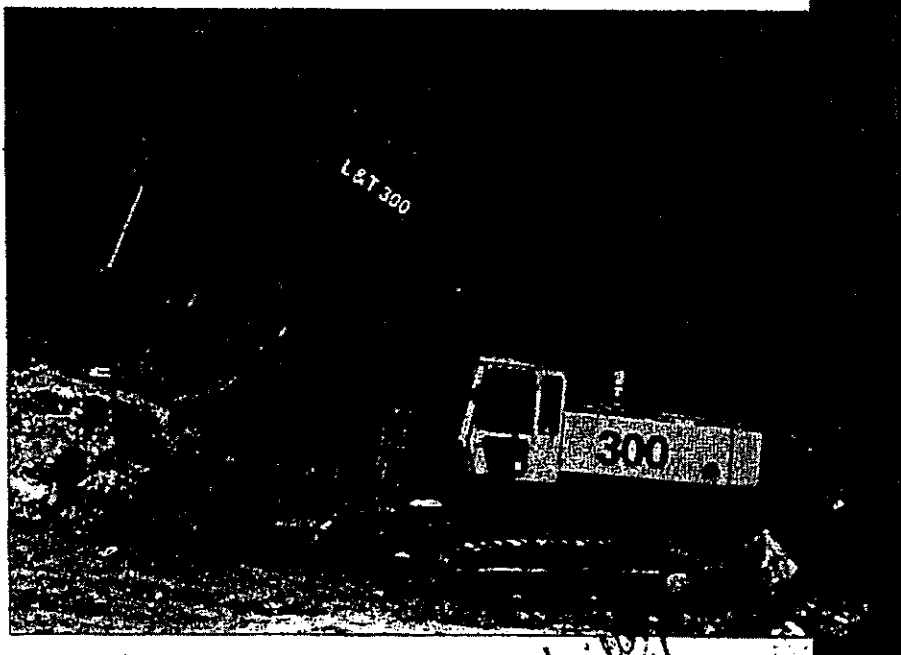
Swing Mechanism

High torque, low speed hydraulic motor engages with ring gear ensuring high efficiency. Single row cross roller bearings support induction hardened external ring gear. Swing can be locked from operator's cabin.

Cabin

The cab interior is spacious. An ergonomically designed operator seat and easy access to all control levers ensure maximum operator comfort and better concentration on the job.

Adjustable seat and control levers – The seat slides forward and backward together with the work equipment control levers to ensure the best operating position at all times. Literature compartment with lock facility, electric horn, wiper and fan are also provided.



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Undercarriage

All welded reinforced steel structure, track adjuster with shock absorbing spring. Track rollers, carrier rollers and idlers lubricated for life. Double grouser track shoes

Shoe width (mm)	500	600
No. of track shoes	48	48
No. of track rollers	7	7
No. of carrier rollers	2	2
Ground bearing pressure (kg/cm ²)	1.2	1.0

Travel

An independent axial piston high torque hydraulic motor through planetary reduction gearbox drives each track

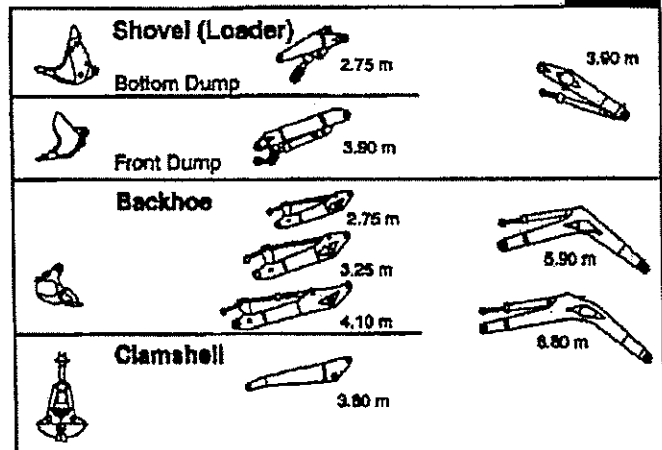
Maximum drawbar pull	414 kN
Travel speeds	1.3/2.6 kmph
Maximum Gradeability	58% continuous

Travel parking brake is spring set, hydraulically released multiple disc type (for electronic version and available as option in diesel version).

Service refill capacity

Fuel tank	710 L
Engine crank case	27 L
Cooling system	52 L
Hydraulic oil tank	600 L
Hydraulic Oil System	1020 L
Final drive case (each side)	5 L

Attachments



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BUCKET CAPACITIES

BACKHOE (5.9 m boom & 3.25 m stick)

Designation (litre)	Bucket Capacity HEAPED		Outside width (mm)		Mass Kg	No. of teeth	Density T/m ³
	CECE (L)	PCSA (L)	with side cutter	without side cutter			
1900	1900	2100	1750	1800	2200	5	3.0
2300	2300	2500	1736	-	2390	6	2.4
2700	2700	3000	1916	-	2470	6	2.0
3000	3000	3120	2000	1850	2670	6	1.9

LOADER (3.9 m boom & 3.9 m stick)

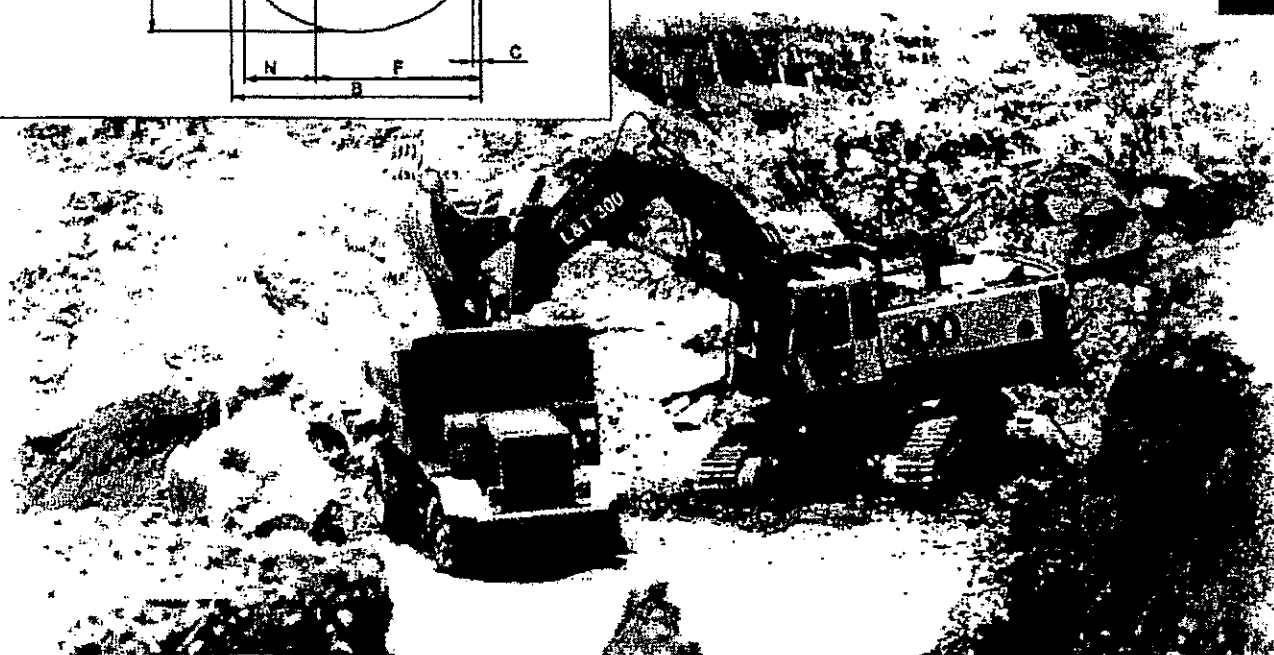
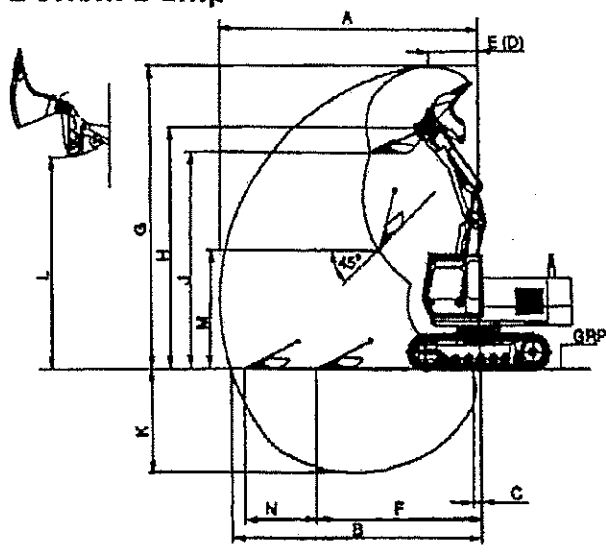
Designation (litre)	Bucket Capacity	Internal width (mm)	Mass Kg	No. of teeth	Density T/m ³
	CECE HEAPED (Litres)				
3200	3200	2000	3700	6	2.5
3900	3900	2000	3920	6	2.1

BOTTOM DUMP (3.9 m boom & 2.75 m stick)

Designation (litre)	Bucket Capacity	Internal width (mm)	Mass Kg	No. of Teeth	Density T/m ³
	CECE HEAPED (Litres)				
3200	3200	2000	5840	6	2.5
4000	4000	2000	6100	6	2.0

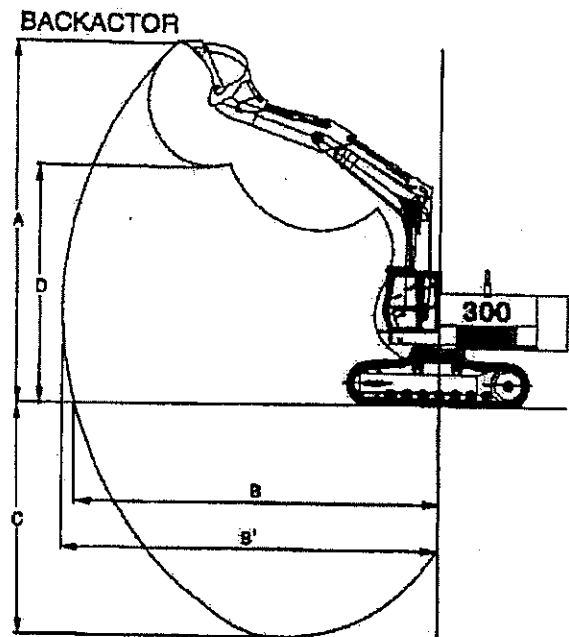
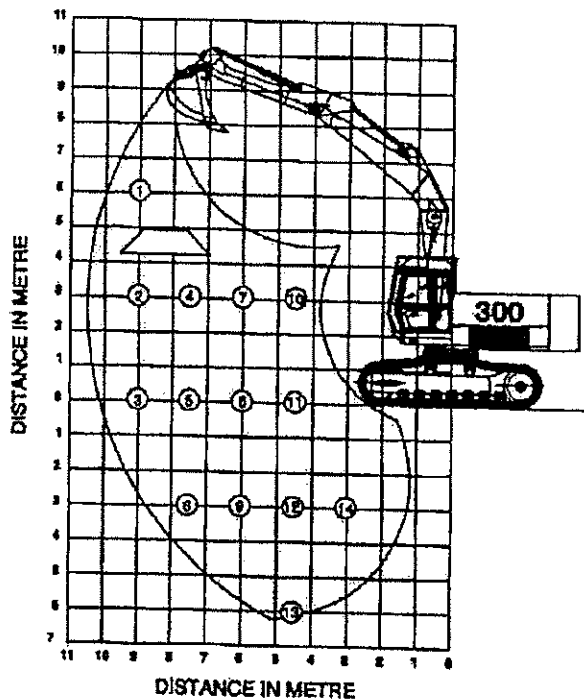
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Bottom Dump



SYMBOL	TERM	LOADER (m)	BOTTOM DUMP (m)
		3.9 m Boom/ 3.9 m Stick	3.9 m Boom/ 2.75 m Stick
A	Maximum reach	9.7	9.0
B	Maximum reach at GRP	9.3	8.5
C	Minimum reach at GRP	0	2.0
D	Reach to bucket pin centre at maximum height	4.8	3.7
E	Reach at maximum height	4.8	3.7
F	Minimum level floor radius	5.8	5.5
G	Maximum height of cutting edge	10.5	10.2
H	Maximum bucket hinge pin height	8.2	7.7
J	Maximum bucket loading clearance	6.2	6.9
K	Maximum digging depth	3.6	3.0
L	Maximum dumping height for bottom dump	—	6.9
M	Maximum dumping height for shovel	4.0	—
..

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All dimensions in metre

BOOM STICK	RATED LIFT CAPACITY WITH 1800 L BUCKET IN Kg			
	S.9		S.8	
1	2.75	3.25	2.75	3.25
2	8919	10347	8257	7698
3	-	10703	10907	10907
4	12388	11826	11818	11060
5	14475	14373	13680	13680
6	-	-	13200	13710
7	18341	14828	14834	14271
8	19062	18960	18288	18288
9	17584	18602	17482	18186
10	21713	20193	22732	21308
11	27674	27825	28738	25994
12	24485	28994	24006	28331
13	-	-	-	18868
14	36895	33843	27880	24924

BOOM	STICK	A	B	B'	C	D
S.9	2.75	10.35	10.30	10.05	8.25	8.70
	3.25	10.8	10.75	11.10	8.75	9.30
	4.10	10.88	11.55	11.98	7.80	7.20
S.8	2.75	11.10	11.20	11.50	8.90	7.90
	3.25	11.30	11.55	12	7.4	7.7
	4.10	11.80	12.45	12.75	8.20	8.00

Rated lift capacity is limited by Hydraulic capacity.

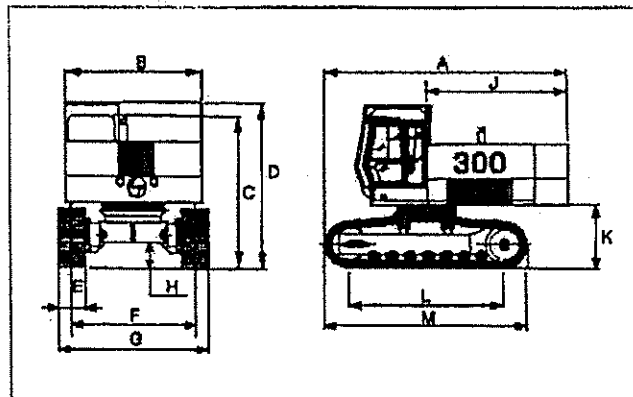
Safety Features

- Upper structure Swing lock
- Safety Glass
- Horn
- Warning Flashing Indicators (For electrical Version only)
- Fire extinguisher
- Cabin guard
- Cabin cut off switch
- In case of engine failure, front-end can be grounded (foot pump)
- Engine lube oil pressure gauge
- Engine water temperature gauge
- Battery Charging Indicator
- Air filter clog Indicator
- Low engine lube oil pressure Indicator
- Hydraulic oil filter clog Indicator
- Ammeter
- Hour meter
- Clogging indicator for centralized lubrication system
- Low mark on grease reservoir
- Motor overload Indicator (For electrical version only)
- Phase failure (for electrical version only)

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SHIPPING DIMENSIONS (mm)

A	Overall length	6425
B	Width of upper structure	3310
C	Top of cabin to groundline	3850
D	Top of cabin guard to groundline	4200
E	Width of crawler track assembly	610
F	Track gauge, roller centreline to roller centreline	3340
G	Overall width of crawler	3990
H	Ground clearance (per SAE J 1234)	580
J	Swing clearance, rear of upper structure	3820
K	Clearance, upper structure to groundline	1570
L	Nominal distance between centrelines of drive sprockets and idlers	4120
M	Nominal overall length of track assembly	5210



Product improvement is a continuous process. Specifications given in this publication are therefore subject to change without notice. Photograph depicted may be of optional equipment.

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Near Jyoti School, Fatehpura
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Tel: (0674) 2537 301, 2537 305/06
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- P.O. Dhaner
Dhanbad 826 001
Tel: (0326) 2291391/2291387
- A1/11, Astronauts Avenue
Bichan Nagar
Durgapur 713 212
Tel: (0343) 253 5852/253 5880,
253 7843
Fax: (0343) 2536 493
- Mitrapur Road, Barnuni Malden
Guwahati 781 021
Tel: (0361) 2651 328, 2651 299
Fax: (0361) 2551 308
- Alakshdeep Plaza, 2nd Floor,
P.O. Golmuri,
Jamshedpur 831 003
Tel: (0657) 2340 829, 2487 112
Fax: (0657) 234 1250
- Plot No. 763/26, Thane : 194
P.B. Seder, Koker Area
Opp. Hanuman Dharam Kanta
(on NH 33), Hazaribagh Road,
Ranchi - 834 009
Tel: (0661) 2544834 / 2544836
8234300415
- L&T-House, Sector 19
Rourkela 769 005
Tel: (0661) 264748
- L&T-House, P.O. Box 119
191/1, Dhule Path Road
Pune 411 001
Tel: (020) 2612 7964
Fax: (020) 26114007
- 501, Sakar Complex
Opp. Gandhinagar Fly. Str.
Ahmedabad 380 009
Tel: (079) 88904017/18,
26582536
Fax: (079) 2658 0491
- Plot 15, 8 Hectar Land
Journalist Colony, Altopporvorn
Goa 403 512
Tel: (0832) 2414055, 2416 524
Fax: (0832) 2416 523
- North Block II, First Floor,
Gate No.1, Powai Campus,
Sakshi Vihar Road, Powai (W)
Mumbai 400 072
Tel: (022) 67053285/67052470
Fax: (022) 67051510
- 328, Star Plaza, Poochhah Chowk,
Rajkot 360001
Tel: (0281) 2453 532
Fax: (0281) 2453 532
- Rachdevya Complex,
Near Charodar Complex,
Old Padra Road
Vadodra 390 015
Tel: (0265) 2334 799
Fax: (0265) 2336 184
- 8-B Farm Land, Ramdaspeti
Nagpur 440 010
Tel: (0712) 2420644 / 628
Fax: (0712) 2420618
- 131/1 Zone II, Maharana Pratap Nagar
Bhopal 462 011
Tel: (0755) 4239913 / 914
Fax: (0755) 2769264
- L&T-House, Group MIG-5,
Padmareshpur, P.O. Box 39,
Durg 491 001 (M.P.)
Tel: (0788) 2322 809, 2330727
Fax: (0788) 2210 181
- II Floor, Viswanth Chambers
6-10-173 Fateh Malden Road
Hyderabad 500 004
Tel: (040) 5572 0000, 2323 0206
Fax: (040) 2323 0836
- 10, Club House Road
Anna Road, Post Bag 3247
Chennai 600 002
Tel: (044) 2846 0000 / 2846 2025
Fax: (044) 2846 2102
- Post Bag 7156
67, Appuseram Road
Coimbatore 641 045
Tel: (0422) 2586136/2586105
Fax: (0422) 2586148
- Plot No. 518, 4th Main Road
KCK Nagar
Madurai 625 020
Tel: (0452) 2537 305
Fax: (0452) 2537 552
- 48-6-18, Dwarkanagar
Visakhapatnam 530 018
Tel: (0891) 2754687, 2755483,
2501468
Fax: (0891) 2748 075
- 40-5-6-1 First Floor,
Tickle Road
Near Sweet (Mango)
Brindavan Colony
Vijayawada 520 010
Tel: (0866) 2470856, 5527056,
5567036, 2482436
Fax: (0866) 2485274
- 38, Cubbon Road
Bangalore 560 001
Tel: (080) 35020131/25020140
Fax: (080) 25585214/25586387
- Skybright Building, M.G. Road,
Ravipuram Junction,
P.O. Box 1723,
Ernakulam,
Kochi 682 016
Tel: (0484) 2358688
Fax: (0484) 2358982



Marketed & Serviced by:

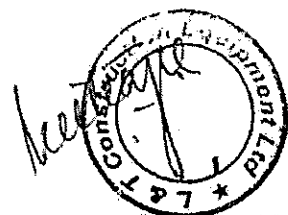
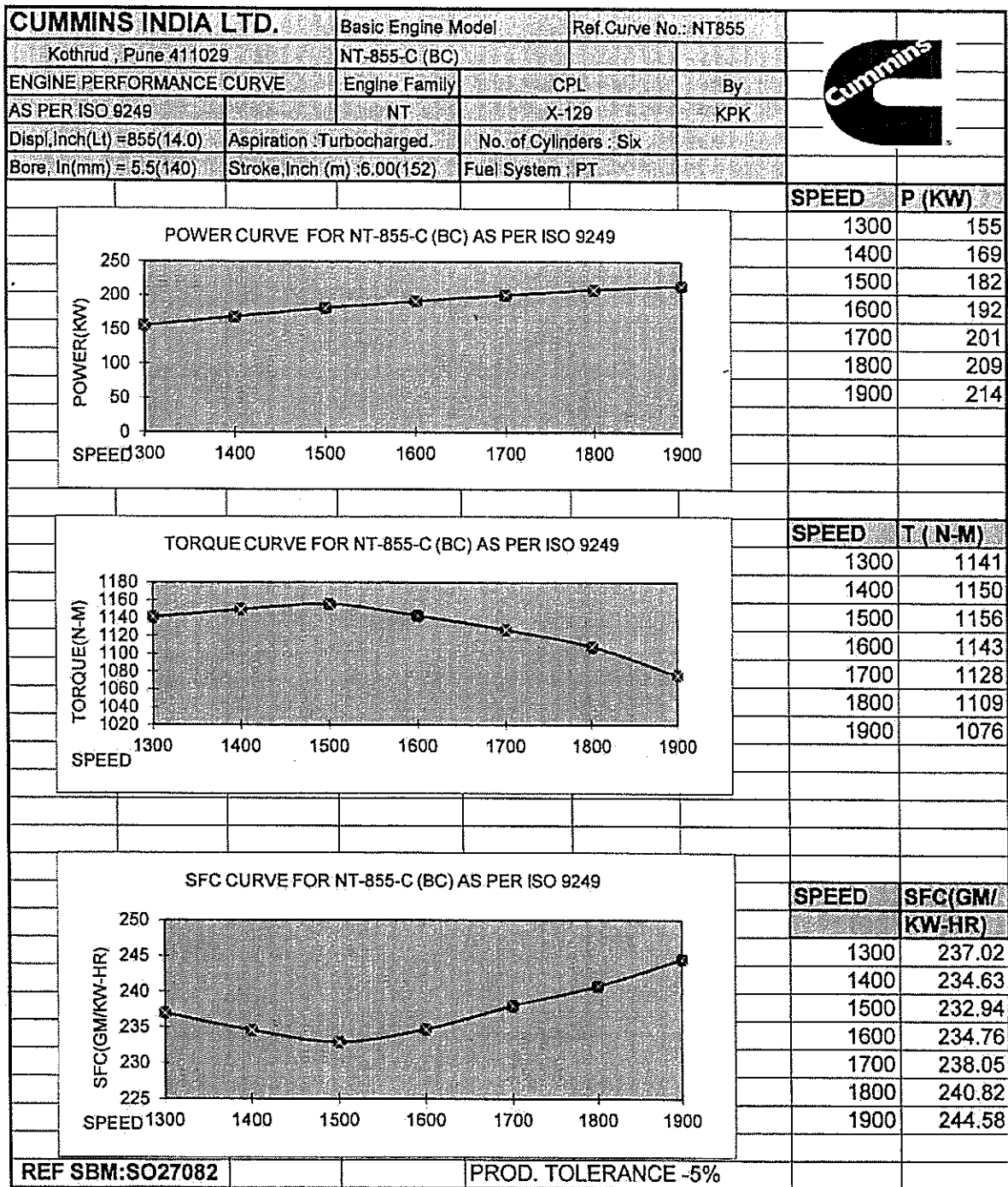
Construction Equipment Business

LARSEN & TOUBRO LIMITED

Lakshminarayana Complex (1st Floor), 10/1 Palace Road, Bangalore 560 052
Tel: (080) 22258982 / 83 / 84 Fax: (080) 22250309

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CLAUSE NO. C.7.2.d. Technical Details.



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L&T CONSTRUCTION EQUIPMENT LIMITED

3B, Shakespeare Sarani, Kolkata- 700 071, P.O.Box:619 • PHONE : 44002470 • FAX : 033- 22821025/7587

Clause No 7.2.i of NIT : Technical Details :

Automatic Lubrication System

The LINCOLN FLOW MASTER PUMP is a electrically operated grease pump and operates on 24 V DC. The pump is driven by rotary motion of the electric DC gear motor. Rotary motion is converted to reciprocating motion through an eccentric crank mechanism. The reciprocating action causes the pump cylinder to move up and down.

The pump is a positive displacement double acting pump as grease output occurs during both the up and down stroke of the pump.

CENTRO-MATIC single Line Parallel system consists of an electric operated Vent Valve. The line pressure is vented between lubrication cycles to allow the Injector valves to recharge.

As long as power supply is maintained to the pump and vent valve, the pump is in operation and the Injectors are charged with set amount of grease. Once the power supply is cut off the pump stops operating and vent valve opens. This causes the grease in the line to relieve back to the reservoir through vent valve assembly. Once the grease line pressure relieves, the injectors will dispense the lubricant to the points and get ready for charging for the next cycle.

The system is monitored by means of Pressure Switch provided along with the pump and signal from the Pressure Switch is used for control of the pump run and off times.

The pump reservoir shall be refilled through the refilling kit/port provided in the pump and the refilling process can be stopped as soon as grease reaches the higher level, by visually observing overflow of grease from overflow port.

The pump is fitted with a grease low level sensing mechanism by which the pump will stop functioning when the grease level in the container drops below a certain level and fault signal lamp comes on.

TECHNICAL SPECIFICATIONS

PUMP ASSEMBLY:

MODEL	:	FLOW MASTER
DRIVE SOURCE	:	ELECTRICAL
SUPPLY VOLTAGE	:	24 V DC
LUBRICANT OUTPUT	:	108CC/MIN
LUBRICANT PRESSURE	:	240 BAR (MAX)
LUBRICANT	:	GREASE NLGI 2
RESERVOIR CAPACITY	:	20 LTS

PUMP ASSEMBLY INCLUDES GREASE LOW LEVEL INDICATOR, VENT VALVE, PRESSURE SWITCH, PRESSURE GAUGE & SAFETY VALVE.

Grease Injector :

Model	:	LH-IM
Adjustable output	:	0.131-1.31 CC/ Cycle

BANGALORE WORKS : BELLARY ROAD, BYATARYANAPURA, BANGALORE - 560 092, TEL: (91) 80-23333301, FAX : (91) 80-23636065
Regd. Off.: L&T House, Ballard Estate, P.O.Box 278, Mumbai 400001

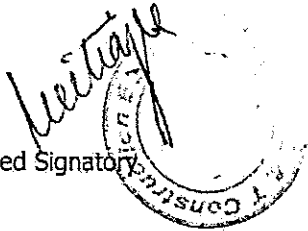


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Operating pressure	:	125 bar(min), 240 bar(max), 170 bar (recommended)
Vent pressure	:	41 bar (max)
Monitoring adjusting screw.	:	Visual - with indicator stem & output
Inlet/Outlet port (Manifold)	:	3/8"NPT(F)
Lubricant outlet port	:	1/8"NPT(F)
Timer :		
Voltage	:	24V DC
Features	:	Run Time Setting, Pause Time Setting, Fault Monitoring
No of lubrication Points	:	25 Nos.
Control Voltage	:	24 V DC
Grade of Grease used	:	NLGI 2

Authorized Signatory



CLASSIFICATION NO. 7.2.2. Technical Details.

Volumetric Rating of Backhoe Loader Bucket (ISO 7451)

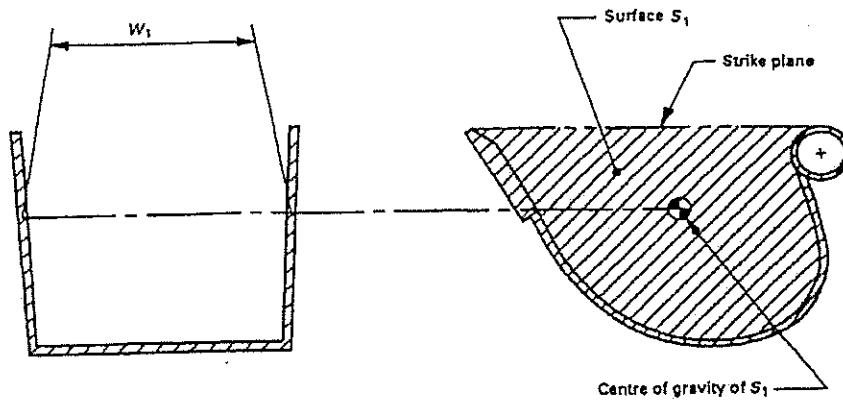


Figure 1 - Establishment of W_1 dimension

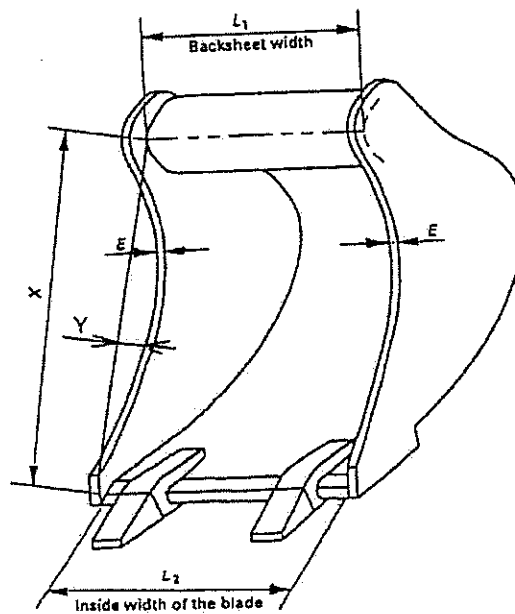


Figure 2 - Establishment of W_4

SHEET 1/2



Volumetric Rating as per ISO 7541 for 3000L Cu.M B/A Bucket

1. Formulae used:

Struck Volume: $V_s = S_1 W_1$ in m^3 (Refer Figure3)

Top Volume: $V_t = X^3/6 + (X^2/4)(W_4 - X)$ in m^3 (Refer Figure3)

Rated capacity: $V_r = V_s + V_t$ in m^3

$$W_4 = ((L_1 + L_2)/2) + 2E$$

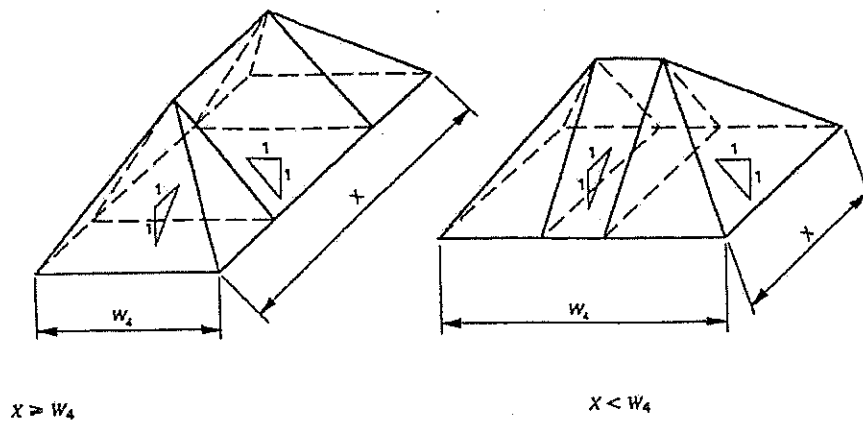


Figure 3 - Representation of top volume

2. Parameters	S_1 in m^2	W_1 in m	x in m	W_4 in m	L_1 in m	L_2 in m	E in m
Input values →	1.379	1.723	1.55	1.8105	1.701	1.78	0.035

3. Results

Calculations:

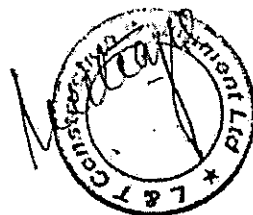
$$V_s = 2.376017 \text{ m}^3$$

$$V_t = 0.777109 \text{ m}^3$$

$$V_r = 3.153126 \text{ m}^3$$

AS PER ISO 7541 AT 1:1

SHEET 2/2



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CLAUSE NO. 7.2.9. Technical Details.



Volumetric Rating of Bottom dump Bucket
(ISO 7546)

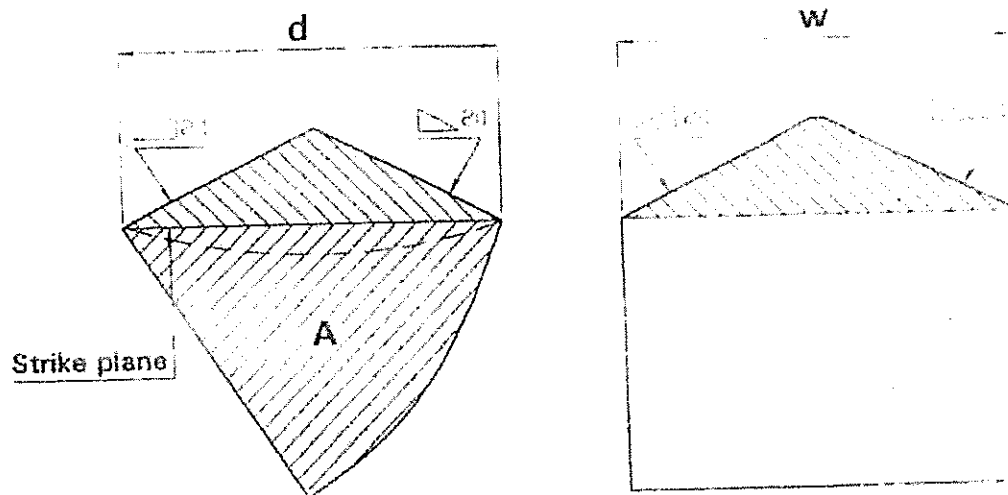


Figure - 1

1 Formulae used

Struck Volume: $V_s = A W$ (refer figure 1)

Top Volume $V_t = \frac{d^2 W}{8} \frac{d}{2d}$ (refer figure 1)

Rated capacity $V_r = V_s + V_t$

2 Parameters

$A = 1.653 \text{ m}^2$

$W = 2.000 \text{ m}$

$d = 2.068 \text{ m}$

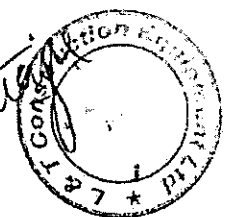
3 Results

$V_s = 3.306 \text{ m}^3$

$V_t = 0.701 \text{ m}^3$

$V = 4.007 \text{ m}^3$

4 Rated Bucket Capacity = 4.0 m^3



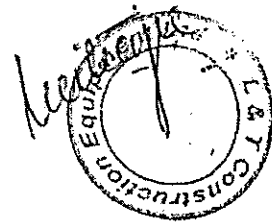
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CLAUSE NO. 7.2.j. Technical Details.

L&T300D

LIST OF MAJOR ASSYs & SUB-ASSYs

COMPONENT	MANUFACTURER/ SUPPLIER & ADDRESS
ENGINE	M/s Cummins India Lt., Kothrud, Pune 411029
GREASING SYSTEM	M/s Lincoln Helios Devanahalli Road, off old Madras Road, Bangalore 560 049
FIRE SUPPRESSION SYSTEM	M/s Southern Electronics Ltd
ATTACHMENT V/B	M/s Rexroth India Ltd., M/s Bosch Rexroth India Ltd., Peenya, plot no. 96, III phase peenya Industrial estate Bangalore 560 058
SLEW RING	M/s Rotherde, Germany
HYD OIL COOLER	M/s AKG, Germany
RADIATOR	M/s Cummins India Lt., Kothrud, Pune 411029
COOLER MOTOR	M/s CASAPPA, Italy
BATTERY	M/s EXIDE, India



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L&T CONSTRUCTION EQUIPMENT LIMITED

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Clause No 7.2.1 of NIT : Technical Details :

DETAILS OF AUTOMATIC FIRE DETECTION AND SUPPRESSION SYSTEM

Pre-Engineered Automatic Fire Detection and Suppression System covering Detection, Nozzling and Suppression approved by DGMS.

Make : Southern Electronics

Total Number of Nozzles : 8 Nos.

Location of Nozzles are as follows:

Battery box: 1 No,

Hydraulic tank: 1 No

Fuel tank : 2 Nos

Engine area: 3 Nos

Pump & valve bank side: 1 No

Nozzle: Manufactured by Southern Electronics of size 1/2".

Detection: Linear Heat Detection Cable used is from Protecto Wire USA with UL/FM approval.

Suppression Agent: Powder made of Mono Ammonium Phosphate base dry chemical power siliconised to 97% having an active retention span of 5 years. Source: Caldick, Germany.

Technical details:

The main features of the system are:

- Automatic Detection of Fire
- Automatic flooding of extinguishing agent.
- Activation of Audio Alarm.

The detection of fire is primarily made by a Sensor cable, which can detect fire anywhere along its length. The Sensor Cable is highly flexible is routed throughout the equipment so as to cover areas prone to fire due to spillage areas like turbo-charger, exhaust manifold transmission, parking brake etc.

In the event of a fire / overheat condition, the sensor cable gets shorted and the solenoid valve on the Pilot Cylinders get activated (energised) thereby initiating the extinguishing process. The pressurized gas from Pilot cylinder enters into the DCP Cylinder Assy. thereby rupturing the CO2 Cartridge housed inside the Dry Chemical Powder Cylinder. The CO2 will propel the Dry Chemical Powder and get released through hose to the pre defined nozzle Points.

The built-in buzzer and external Horn Unit starts sounding continuously and stops only after the system is reset. The system can also reset itself automatically after two minutes.

Auto Fire Suppression System Consists of:

BANGALORE WORKS : BELLARY ROAD, BYATARYANAPURA, BANGALORE - 560 092, TEL: (91) 80-23333301, FAX : (91) 80-23333301
 Regd. Off.: L&T House, Ballard Estate, P.O.Box 278, Mumbai 400001



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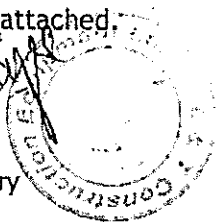
L&T CONSTRUCTION EQUIPMENT LIMITED



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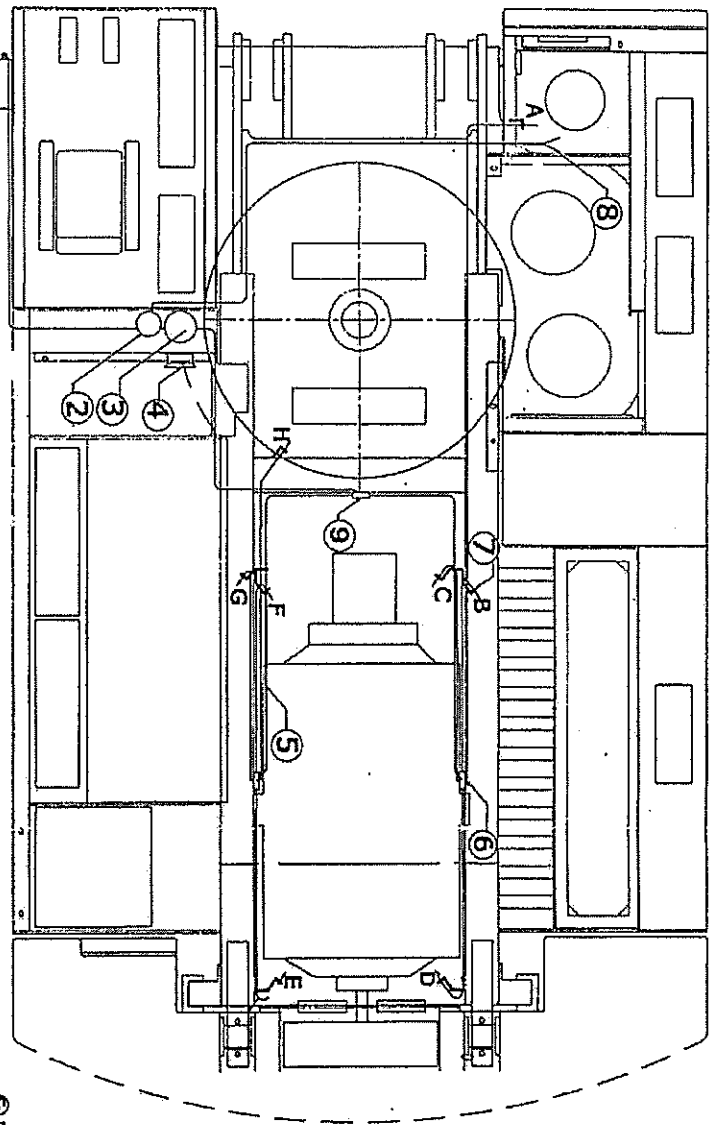
- I. Sensor Cable assy.
- II. Control Unit. - 1 No
- III. Conical Nozzles - 8 nos as given above
- IV. Nitrogen Cylinder assy 0.5 litre Capacity - 1 no
- V. DCP cylinder assy 15 kg capacity - 1 no
- VI. Pilot Cylinder assy for system actuation - 2 nos
- VII. Hooter for alarm - 1 no
- VIII. 5 way distributor block - 1 no
- IX. Hoses connecting nozzles, cylinders & distributor blocks.

Layout diagrams attached.

Authorized Signatory



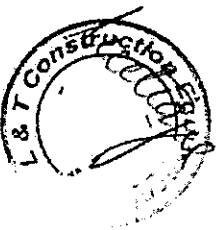


NOZZLE ORIENTATION

- Nozzle 'A' Aimed on to Batteries. ✓
- Nozzle 'B' Aimed on to Fuel Tank. ✓
- Nozzle 'C' Aimed on to Engine Top. ✓
- Nozzle 'D' Aimed on to Engine Side & Bottom. ✓
- Nozzle 'E' Aimed on to Turbocharger & Top of the Engine. ✓
- Nozzle 'F' Aimed on to Side of the Engine. ✓
- Nozzle 'G' Aimed on to Hydraulic Tank. ✓
- Nozzle 'H' Aimed on to Valve Bank & Hydraulic Hoses. ✓

- ① Rubber Hose.
- ② Horn Unit.
- ③ DCP Cylinder Assy.
- ④ Nitrogen Cylinder Assy.
- ⑤ Pilot Cylinder Assy.
- ⑥ 3/4" Tee/ bracket.
- ⑦ Cable Assy. Power Supply.
- ⑧ Nozzle Bracket/Coupler/
- ⑨ Elbow/Nozzle Cap.
- ⑩ Pipecross 5 Way.

AUTOMATIC FIRE SUPPRESSION SYSTEM



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	Capacity (Lts)	Drain/Refill/ Application (Hrs)	Estimated Annual Consumption @ 5000 Hrs pa
Engine Oil	57	300	969 Lts
Coolant	80	5000	80 Lts
Final Drive	34	2000	85 Lts
Hydraulic Oil	600	2000	1500 Lts
Cardium Compound	N/A*	50	300 Kgs
Grease	15Kg	N/A	500 Kgs

N/A = Applicatin quantity depends on ambient temp.

HYDRAULIC OIL

L&T-CASTROL HYDOEL VISCUS

Castrol India Limited

VEEDOL L&T-KOMATSU ATRANSOL 100

Tide Water Oil Co. (India) Limited

SERVO LTK HYDOL VISCOUS

Indian Oil Corporation Limited

L&T MAK HYDROL P100

Bharat Petroleum Corporation

FINAL DRIVE

SERVO GEAR HP 90 India

Oil Corporation Limited

SERVO MESH SP 220

India Oil Corporation Limited

HYPOY 90 EP

Castrol India Limited

ALPHA SP 220

Castrol India Limited

PARTHAN EP 220

Hindustan Petroleum Corporation Limited

BALMEROL HP 90

Balmer Lawrie & Co Limited

MAK SPIROL 90 EP

Bharat Petroleum Corporation Limited

CARDIUM COMPOUND

SERVO COAT 190

Indian Oil Corporation Limited

BALMEROL BLUCOAT5

Balmer Lawrie & Co. Limited

GREASE

SERVOGEM EP2

Indian Oil Corporation Limited

CASTROL EPL2

Castrol India Limited

BALMEROL LIPREX EP2

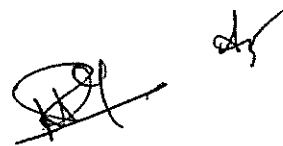
Balmer Lawrie & Co Limited

ENGINE OIL

15W40 API CH4 or higher

As recommended by engine manufacturer

Type of Personnel	At Manufacturer's Works			At Site		
	No	Period	Total	No	Period	Total
Mech Engineer	1	1 weeks	1 man weeks		Week	Week
Elec Engineer	1	1 weeks	1 man weeks		Week	Week
Mech Supervisor	1	1 weeks	1 man weeks		Week	Week
Elec Supervisor	1	1 weeks	1 man weeks		Week	Week
Mech Fitter				9	1 Week	9man Week
Electrician				9	1 Week	9man Week
Operator				9	1 Week	9man Week
Total	4		4 man weeks	27		27 man weeks



L&T CONSTRUCTION EQUIPMENT LIMITED

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Clause No. 7.1.d. General :

Erection Programme :

PERT Schedule for L&T 300CKD-II (Diesel Version Hydraulic Excavator)									
PERT Days	Day1		Day2		Day3		Day4		Tools
Activity/Day Slot Half	H1	H2	H1	H2	H1	H2	H1	H2	
Positioning	■								
Setting Up	■								
Cleaning									HEMM
Marriage		■							Crane 40T
Torqueing		■							Torque Multiplier
Counter Weight Mounting			■						
Attachment Mounting			■						
Cabin Mounting				■					
Accessories, Electricals, & Safety Mounting					■				
Pre-Commissioning Check					■				
Commissioning						■			
Test Run							■		
Training								■	



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MAINTENANCE SCHEDULE FOR CK300 HYDRAULIC EXCAVATOR CONSIDERING WORKING OF @ 5000 HRS PER YEAR

A	Daily check/maintenance	Approx Time	Man Power	Avg Total Time
1	Checks for looseness of the external connectors	15 mins	5	1hr
2	Visual checks for Hydraulic oil leakage	10 min		
3	Hydraulic oil level check	5 mins		
4	Cleaning of under carriage	10mins		
5	Cleaning & grease filling	15 mins		
6	External checks of the Engine	5 min		

B	Every 300 hrs	Approx Time	Man Power	Avg Total Time
1	Replace Fuel filter(Both primary & secondary)	90 mins	3	2 hr
2	Clean air filter outer element			
3	Clean fuel strainer			
4	Replace Lube oil filter			
5	Replace super by pass filter			
6	Check fan belt tension	30 mins	2	
7	Checks & cleaning for dirt accumulation on cooler/radiator			
8	Daily maintenance as per schedule A	As per schedule A		

C	Every 500 hrs	Approx Time	Man Power	Avg Total Time
1	Replace Hydraulic oil filter & breather	45mins	2	1 hrs 45 mins
2	Tooth point replacement	45 min	2	
3	Air filter replaced	15	1	
4	Daily maintenance as per schedule A	As per schedule A		

D	1st 1000 hrs	Approx Time	Man Power	Avg Total Time
1	Hydraulic oil change(1st change at 1000hrs) & Cleaning of Hydraulic tank	120 mins	6	3 hr
2	Replace Hydraulic tank breather			
3	Final drive oil change			
4	Alternator belt change	30 mins		
5	Counter bolt torque check	30		
6	500 hrs maintenance as per schedule C	As per schedule C		
8	Daily maintenance as per schedule A	As per schedule A		

E	Every 1500 hrs	Approx Time	Man Power	Avg Total Time
1	Tapped setting	90 mins	2	1 hrs 30 mins
	300 hrs maintenance as per schedule B	As per schedule B		

F	Every 2000 hrs	Approx Time	Man Power	Avg Total Time
1	Hydraulic oil change(1st change at 100Chrs) & Cleaning of Hydraulic tank	120 mins	6	3 hrs 30 mins
2	Replace Hydraulic tank breather			
3	Final drive oil change			
4	Counter bolt torque check	30 mins		
8	Alternator belt change	30 mins		
8	belt tainsioner check			
9	check fan belt & water belt check	30 mins	2	
5	500 hrs maintenance as per schedule C	As per schedule C		
7	Daily maintenance as per schedule A	As per schedule A		
G	1st 5000 hrs	Approx Time	Man Power	Avg Total Time
1	2000 hrs maintenance as per schedule F	As per schedule F	10	6 hrs
10	Torque checking of all hardwares	60 mins		
11	Internal cleaning of coolers	120 mins		
12	Denting ,Painting & washing	180 mins		



L&T Construction Equipment

L&T Construction Equipment Limited
Bellary Road, Byatarayanapura
Bangalore - 560 092
Karnataka, INDIA

LTK /NEFT/ /2012-13

To

Sub: Details for National Electronic Fund Transfer

We Request and authorize you to effect payment through NEFT/RTGS to our bank account, subject to RBI guidelines .As per the details given below.

NAME OF BENEFICIARY	L&T CONSTRUCTION EQUIPMENT LIMITED BANGALORE WORKS BELLARY ROAD BANGALORE -560092
BANK NAME & ADDRESS	HSBC NO 7, MG ROAD BANGALORE-560001 PH 080-25002023 FAX 080- 41186520
Title of Account in the Bank	L&T CONSTRUCTION EQUIPMENT LIMITED
BRANCH (OF BANK)	M G ROAD
MIRC CODE	560039002
A/C NUMBER	071-667638-001
IFSC NUMBER	HSBC0560002
A/C TYPE	CASH CREDIT
PAN NUMER	AAACL4175C

Thanking you
For L&T CONSTRUCTION EQUIPMENT LIMITED



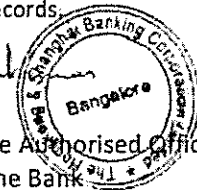
Sundeep S. Chavan
Authorised Signatory

Certified that the particulars furnished above are correct as per our records.

Bank's Stamp

Dated: 21/5/13


Signature of the Authorised Official
from the Bank



INTEGRITY PACT

Between

BHARAT COKING COAL LIMITED (BCCL) hereinafter referred to as "The Principal"

And

"L&T Construction Equipment Limited" hereinafter referred to as "The Bidder/Contractor"

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for supply of **2.7 Cum Diesel Hydraulic backhoe Shovel (16 nos) & 3.2 Cum Diesel Hydraulic face shovel(02 nos) with MARC for 7 years**. The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organisation "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.

The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.

The Principal will exclude from the process all known prejudiced persons.

If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder/Contractor

The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.

The Bidder/Contractor will not commit any offence under the relevant Anti-corruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

(2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is

entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

The Bidder accepts and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

If the Bidder/Contractor can prove that he has restored/recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

Section 4 – Compensation for Damages

If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to 3 % of the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.

If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 – Previous transgression

The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 – Equal treatment of all Bidders/Contractor/Subcontractors

The Bidder/Contractor undertakes to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.

The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.

The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidders/Contractors/Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 – External Independent Monitor/Monitors

The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.

The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also

[Handwritten signatures and initials]

grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality.

The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.

Monitor shall be entitled to compensation on the same terms as being extended to/provided to Outside Expert Committee members/Chairman as prevailing with Principal.

If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.

Section 10 – Other provisions

This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. DHANBAD (JHARKHAND).

Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.

Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

For the Principal

For the Bidder/Contractor

Place Kolkata

Witness 1 : Falguni Banerjee

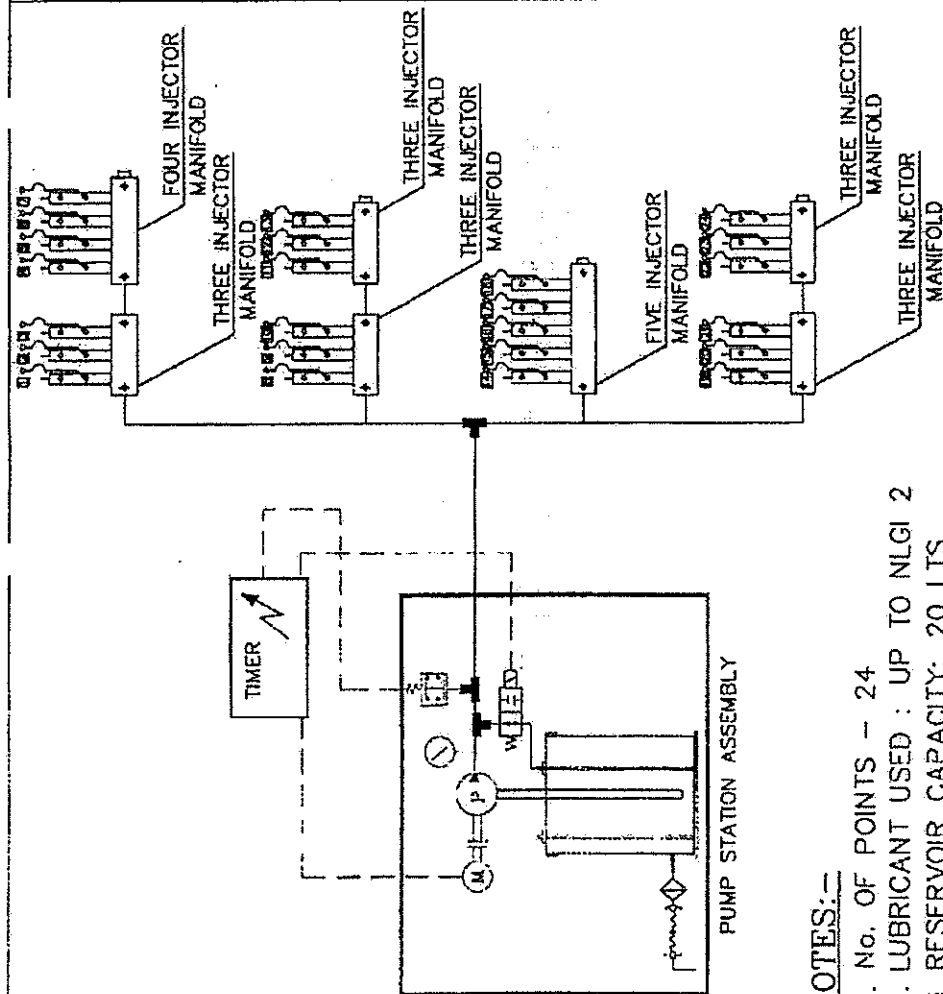
Date 20.05.2013

Witness 2 : A. Datta

As SD



LUB. POINT	DESCRIPTION
01	LEFT BOOM PIVOT.
02	RIGHT BOOM CYL. ROD END.
03	RIGHT BOOM PIVOT.
04	LEFT BOOM CYL. ROD END.
05	LEFT BOOM CYL. HEAD END.
06	STICK CYL. PIVOT HEAD END.
07	RIGHT BOOM CYL. HEAD END.
08	SWING GEAR POINTS.
09	SWING GEAR POINTS.
10	SWING GEAR POINTS.
11	SWING GEAR POINTS.
12	SWING GEAR POINTS.
13	SWING GEAR POINTS.
14	STICK & YOKE PIVOT LEFT.
15	BUCKET CYL. ROD END.
16	ROD BUCKET PIVOT.
17	ROD YOKE PIVOT.
18	STICK & YOKE PIVOT RIGHT.
19	STICK CYL. ROD END.
20	BOOM & STICK PIVOT LEFT.
21	STICK-BUCKET PIVOT LEFT.
22	STICK-BUCKET PIVOT RIGHT.
23	BOOM & STICK PIVOT RIGHT.
24	BUCKET CYL. HEAD END.



NOTES:-

1. No. OF POINTS - 24
2. LUBRICANT USED : UP TO NLGI 2
3. RESERVOIR CAPACITY: 20 LTS.

TITLE: SCHEMATIC OF LINCOLN
CENTROMATIC SYSTEM
FOR CK-300
BACK ACTING

OFFER No.

LHIL/CK-300/2011/76-A

LINCOLN HELIOS (INDIA) LTD.

Old Madras Road, Off Devanahalli Road, Bangalore

Name of the Project:

Date:-

Name of the Operator:-

Signature of MARC Holder representative

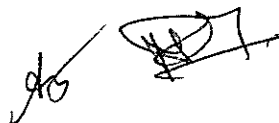
Handwritten signature: *[Signature]*

ANNEXURE-I
Page 2 of 2

Details of Breakdown						Fuel Consump. in ltrs.	Lub. Consump. in ltrs.	Time taken for repair	Name of MARC holder person who attended B/d	Time at which equipment made ready
B/d due to MARC Holder / BCCL A/c	Reason of B/d	Time of B/d	Nature of B/d	Nature of Repair	Description of Spares consumed	(16)	(17)	(18)	(19)	(20)
(10)	(11)	(12)	(13)	(14)	(15)					
MARC Holder										
BCCL										

Signature of BCCL Representative

Signature of MARC Holders Representative



MONTHLY MANAGEMENT REPORT (SHOVEL)

NAME OF THE COMPANY:

NAME OF THE PROJECT :

EQUIPMENT MODEL:

EQUIPMENT SERIAL NO:

[illegible]

Signature of BCCL Representative

Signature of MARC Holders Representative

Handwritten signature and initials.

Check List at the time of hand over of equipment

Hydraulic Shovel (Diesel)

- 1 Engine
- 2 P.T.O
- 3 Cooler
- 4 Radiator
- 5 Hydraulic Pump
- 6 All Hydraulic Cylinders
- 7 Under Carriage (Rollers, Track Chain & Sprocket segments)
- 8 Bucket
- 9 Pin & Bushings
- 10 Automatic Fire Suppression system
- 11 A.C. of Operator cabin
- 12 Automatic Lubrication system
- 13 Control Valve
- 14 Track Motor
- 15 Other Hydraulic Motors
- 16 Boom
- 17 Arm
- 18 Steering system
- 19 Hydraulic tank
- 20 Lower frame
- 21 Revolving frame.
- 22 Warning lights & Alarms
- 23 Gauges & Indicators
- 24 Self starter
- 25 Alternator
- 26 Batteries

