

**PART C2: PRICING DATA**

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**Part C2**

**PRICING DATA**

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## PART C2: PRICING DATA

### PART C2.1 PRICING INSTRUCTIONS

#### MAINTENANCE OF TRACK WITH ON TRACK RAIL GRINDING MACHINES

##### PART A: Open line Production Rail Grinding

##### PART B: Turnout Rail Grinding

#### PART A: OPEN LINE PRODUCTION GRINDING

##### 1. PAYMENT of Open line Production grinding

Payment will be made in accordance with the rates tendered in the schedule of prices for each machine or group of machines.

The contractor shall throughout the contract period record and manage the use of time and continuously communicate time losses to the Technical Officers deputy to ensure that sufficient time is achieved to execute the planned work load. The following time management information as well as any other relevant time management information shall be provided:

- (a) All parameters recording the productive use and availability of the machine shall continuously be recorded and be summarised and be provided daily for time management as well as for the contract management and for each month's payment. The following parameters are required for the calculation of Availability and productivity. To, Tw, Tb, Tss, Tp and all other factors influencing the time available for production such as Ts, Tx, Tt, Tm. The totals for the month per machine are required. .
- (b) Availability =  $\frac{T_o - T_b}{T_o}$
- (c) Productivity factor, P, is calculated as in clause 4.6 or 4.7 of the Particular specifications C3.24.2, and further: -
- i) The productivity factor will be limited to a maximum of 1,0.
  - ii) Where Spoornet prescribes deployment of the machine and thereby prevents the Contractor, from achieving his normal distance productivity, that period's work will be excluded from the month's productivity measurements. This does not exempt the contractor from having to achieve the required volume of steel removal required as per the rate tendered for the machine.
  - ii) All required functions and equipment, including measurement functions, fire fighting support and track work assistance and support shall form part of the machinery and shall affect the availability of the whole grinding operation. Unavailability of any of the functions may allow the Technical Officer to either declare the machine as a whole as unavailable or on Tb or may allow him to adjust productivity as defined in the Particular specifications. Alternatively the Technical Officer may discard actual pass kilometre and require re-profiling, whereby only the re-profiled pass kilometre is recorded for payment purposes.
  - iii) Payment for each item below is applicable to each separately functioning machine if separate machines are accepted to produce the grind output

required.

(d) Only work that was required and accepted will be included in the productivity measurement and payment under item 2.

2.1 ITEM 1

An establishment payment will be made after the machine or part as tendered for and accepted separately, first attains a minimum availability of 75% over a period of 1 month.

2.2 ITEM 2 Payment for Standard Grind Pass kilometre

2.2.1 Payment for grinding will be made under Item 2.1 of the schedule of quantities and prices per "Standard Grind Pass kilometre" of grinding according to the definition as specified below.

2.2.2 All Actual grind pass kilometre will be converted to "Standard grind pass kilometre" according the specified conversion procedure as defined here.

2.2.3 The quantity of Standard Grind Pass kilometre required in the Schedule of quantities is bases on the m3 of steel required to be removed, related all the variable requirements for grinding of TFR track. Because of the contradictory requirement to remove as little metal at any specific position as required and on the other hand to do this metal removal as fast as possible and also because of the total complexity and impracticality of measurement volume of metal removal, it is elected to rather measure "Standard Grind Pass Kilometre".

2.2.4 The conversion to Standard Grind Pass kilometre shall therefore be related to variation of speed of grinding and metal removal capacity of the machine offered and accepted for this contract. This metal removal capacity will also be subject to the actual Productivity of the machine. This implies that tenderers shall clearly qualify tenders stating:

2.2.4.1 What the average speed of grinding can be expected to be and

2.2.4.2 What will the average metal removal capacity of the machine be when used optimally at the average speed of grinding as per the above clause.

2.2.5 Conversion to standard Grind Pass Kilometre:

2.2.5.1 Standard Grind Pass kilometre = The total **Actual pass kilometre grinded** according to a pre agreed grind plan x conversion factor to standard grind pass kilometre.

2.2.5.2 Grinding shall under all circumstances be done at the optimum grinding speed for the machine, which shall be as per the pre-planned grinding plan to achieve the grinding result required for a section for the capacity of the machine for which the contract is awarded for, grinding and utilising its total capacity optimally.

2.2.5.3 Conversion factor to Standard Grind Pass kilometre = Grind **Speed** conversion factor x Grind machine **capacity** conversion factor

2.2.5.4 Grind **Speed** conversion factor = Standard grind speed as quoted or as estimated in kilometre per hour / Average grind speed for a month.

2.2.5.5 Average grind speed for the month = Total length of grind passes / total actual recorded Tw grinding spark time recorded on the event recorder.

2.2.5.6 Grinding machine capacity conversion factor = Actual average metal removal capacity of the machine offered and accepted x grinding productivity factor / Standard metal removal capacity of  $y$  m<sup>3</sup> steel removal per hour of a machine that can grind a full cover with one pass.

2.2.5.7 The standard metal removal capacity of  $Y$  must for the purpose of the tender be assumed to be the same as the offered metal removal rate of the machine. This implies that for the purpose of determining the grinding price rate, the Capacity conversion factor = 1 (Excluding productivity adjustment)

2.2.5.8 As the standard Grind Pass kilometre work load required as in the schedule of quantities is related to historic metal removal, TFR might require an adjustment to this work volume. Any adjustment of this quantity of work required will be in relation to a practical measurable process which may then have to be agreed on with the tenderer during negotiations, prior to the award of the contract. Tenderers may however propose a formula for the calculation of rate adjustment should the quantity of the "Standard grind Pass km have to be adjusted higher for a lower output machine or higher for a higher output machine than that of which the work quantity is based on.

2.2.5.9 Summary of definition of "Standard Grind Pass kilometre" = Pass kilometre of a type of grinder that can produce a full grind cover with one pass where required, and a metal removal capacity of  $Y$  m<sup>3</sup> / hour average metal removal capacity, grinding at a "Standard average grinding speed as offered and accepted as per clause 2.2.4.1 above, utilising the full metal removal capacity of the machine optimally

2.2.6 The rate tendered for a Standard Grind Pass kilometre shall include all related cost to produce the standard grind pass kilometre. This shall include the cost for the following:

2.2.6.1 All fixed and variable costs of the machine and staff required to execute the planned work load

2.2.6.2 All standard default fire fighting and track support labour and equipment and to operate the machine

2.2.6.3 The development cost, if required, of the method of measurement and data collection and processing for planning of grinding. (Tenderers may qualify what is allowed for in the tenders to achieve this process and propose any adjustment considered necessary to continue development of a process of data processing to be able to do effective grind planning)

2.2.7 Item 2.2 Payment for additional Standard Pass kilometre.

2.2.7.1 Payment for additional pass kilometre will only be made once the planned pass kilometre has been achieved.

2.2.7.2 If more than the average planned pass kilometre is grinded per month in relation to the work days of the month, payment for the work in excess will be provisionally done against the addition pass kilometre rate of item 2.2. If however less is done in a following month, a monthly reconciliation will be done whereby the difference of rate will be payable for the quantity reconciled, all so as to comply with the planned quantity at the end of each year.

2.2.7.3 Additional kilometres may only be grinded if the Project Manager agrees and authorises

this.

2.2.7.4 The conditions or method of determination of Standard Grind Pass kilometre as for item 2.1 shall also apply for item 2.2

### 2.3 Item 3 Overtime payment.

Overtime and Sunday time payment, where applicable, shall apply for the total group of staff for the operation of the machine as well as for all staff required as the standard default support staff offered and agreed on as per the schedule of labour submitted with the tender

Item 3.1 Overtime payment will be made for occupation time **during week days** (Monday to Friday) in excess of the hours of maximum occupation time (TOM) of 8 (eight) hours per day, as well as for Saturdays for work in excess of 8 hours per day. No Overtime will be payable for normal Saturday working as Saturday work is Shift time.

Item 3.1 (a). Normal Overtime:

Overtime payment will be made for occupation time of the grinder recorded:

- i. Overtime payment will be made for occupation time recorded **in excess** of the hours of maximum occupation time (Tom) of eight (8),
- ii. Overtime will also be paid on weekends of shift working after shift time exceeds the maximum hours allowed for Tom.
- iii. If any option of a 12 hour shift is accepted, overtime payment will only apply after 12 hours working.

Item 3.1 (b). Overtime > 9h average per month: This payment will apply for that over time where the total hours of occupation per month, divided by the total working days for the month, exceed nine and a half (9) hours per day.

Item 3.2 Sunday time payment will be made for work:  
For Sunday time or Time on PPH worked on shift working after shift time exceeds the maximum hours allowed for Tom.

2.4. Item 4 Shift Payment (All staff including default support staff as per item 3)

Item 4.1 An overtime shift payment will be made for work performed on a **Saturday** when such work forms part of the total work for this machine according to the planned number of total work days offered and accepted for this contract.

Item 4.2 A Sunday shift allowance payment will be made for work performed on a **Sunday** or Paid Public Holiday when such work forms part of the total work for this machine according to the planned number of total work days offered and accepted for this contract.

Item 4.3 A **night shift** allowance payment will be made when a 8 hour occupation or part thereof falls between 18h00 and 06h00, and will be paid in addition to any other shift or overtime payments.

### 2.5 Item 5

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Pricing Data Grinding: A) Open line B) Turnouts

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Part C2.1  
Pricing Instructions



- 2.5.1 Although the work volume in the schedule of quantities is what is planned for this contract, traffic conditions may not allow TFR to allow sufficient time to the contractor to achieve this planned work load.
- 2.5.2 The purpose of the Idle item is to adjust payment for the loss of opportunity to the contractor to be allowed sufficient time to execute the planned “Standard grind pass kilometre”
- 2.5.3 Any Idle time adjustment shall only be for the fixed cost portion of cost per the rate tendered in item 2 for planned work. The payment shall then be for the lost grind pass km after deduction of an availability (Breakdown) x Fixed cost portion of the tendered rate. (% tendered for fixed cost in item 2.5)
- 2.5.4 No idle time payment adjustment will be made if the “Standard Grind pass Kilometre” has been achieved, even if less work days has been worked than the number of work days planned and or offered by the tenderer and accepted by TFR as a grind plan for the year.
- 2.5.5 Payment of Idle time adjustment will also only be done proportionally for loss of work days due to TFR not allowing sufficient work time after the loss of availability of the grinder has been allowed for.
- 2.5.6 Any adjustment shall only be calculated after the total analysis of planned work time based on average speed planned and tendered and building in losses of availability of the machine. Proper recording and management of time shall therefore be essential throughout the contract period.
- 2.5.7 The calculation of an adjustment for lost time shall therefore consider time required to execute the planned grind pass km, using the average grind speed quoted and accepted and deduction of lost time.
- 2.6 Item 6.1 Additional Fire fighting and track work support equipment and labour.

Payment will be made for each day **additional** supplementary equipment and support labour, over and above that specified and described in Clause 2.3.10 to 2.3.15 of the Particular specification C3.24.2, is required and approved to be used.

- a) TFR shall decide, during pre planning what type of LDV or 4x4 LDV be provided. Payment will be made per day for the type of vehicle for the days for which the additional LDV is required.
- b) As specified elsewhere, no payment will apply for support vehicles for days when the grinder has to travel and where no travelling is required for the additional LDV's or tanker or Road Railer.
- c) ITEM 7.3 -Road Rail vehicle. – If this item is accepted as part of the default equipment no payment under this item for this vehicle will apply. Alternatively, again depending on the acceptance of what is offered by tenderers, such a vehicle may be hired as a daily plant hire item under this payment item. The additional payment conditions for this type of vehicle are as set out in clause 2.3.15 of the Particular Specifications.
- d) Item 6.6 & 6.7 (a) & (b): Overtime and Sunday time for additional support labour and support vehicles. Payment of over time for this function shall be made under this item according applicable principles as per clause 6.4 above and to conditions as per

clause 2.3 of the Particular Specifications.

- e) Item 6.6 & 6.7 (c) & (d): Shift time for support labour and support vehicles. Payment for this item shall also apply according to the same applicable principles as in clause 6.4 above: Payment of shift time for this function shall be made under this item according to conditions as per clause 2.3 of the Particular Specifications.
- f) The availability of the support fire fighting and track assistance vehicles, staff and equipment shall form part of the machinery and shall affect the availability of the whole grinding operation. Grinding without this support will only be permitted should conditions allow the Technical Officer to permit grinding to take place.

## 2.7 Item 7

Payment will be made per track kilometre for moving the machinery between work site and work site. All moves during a normal full grinding day or shorter or equal to 50km (track distance) shall not be regarded as moving and will not be paid for as a move. All moves longer than 50km shall be paid for under item 7 and the distance shall be recorded as from the departure point to the staging point. Tendered rates shall include for the variable cost of the move, not allowed for under item 2. No payment will be made when the machinery is not moving under its own power.

## 2.8 Item 8 Day Labour

- a) When an incident or neglect by Spoornet staff causes minor damage to a machine or when technological development required by Spoornet necessitate changes to the machine, an assessment of the time and cost of repairs/charges shall be submitted to the Technical Officer as soon as possible.
- b) Repairs in the field shall only be done on instruction by the Technical Officer, for which the following shall apply:
- c) For labour, the rates in item 8;
  - (i) A mark-up of 75% will be allowed on landed prices of imported parts or the delivered prices of locally manufactured parts and will be excluded from price adjustment described in clause 2.2 of the Contract Data provided by the Employer.
  - (ii) If for any other labour function not specified separately, additional labour may be required, the labour rates under this item shall also apply. These labour rates shall therefore also apply in respect of additional labour approved by the Service Manager in terms of the applicable clause of the Service Information.
- d) Where additional Day Labour is required, not covered under Item 7 and such Day Labour is authorised by the Technical Officer, payment for the day labour shall also be made under this item.

## 2.9 Item 2.9 Hand Gauges

If additional Hand held rail profile gauges are required by TFR for control profile measurement, this item will be used for the payment for the gauged. TFR will provide specifications of the profile and engraving requirements and the contractor shall then have the gauges manufactured and delivered within a reasonable period, not exceeding 3

months.

## 2.10 Item 10 (Provisional)

Lump sum amount (Provisional): This lump sum is allowed for possible re-design, alteration or addition of revised measure equipment, software or procedures. If additional systems are required requiring additional cost, the Project Manager may request a detail breakdown of actual additional cost to the contractor. If justified, and approved for payment may then be made for such an alteration under this item.

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## PART B: TURNOUT GRINDING

### 1. PAYMENT of TURNOUT GRINDING.

Payment will be made in accordance with the rates tendered in the schedule of prices for each machine or group of machines.

The contractor shall throughout the contract period record and manage the use of time and continuously communicate time losses to the Technical Officers deputy to ensure that sufficient time is achieved to execute the planned work load. The following time management information as well as any other relevant time management information shall be provided:

- (a) All parameters recording the productive use and availability of the machine shall continuously be recorded and be summarised and be provided daily for time management as well as for the contract management and for each month's payment. The following parameters are required for the calculation of Availability and productivity.  $T_o$ ,  $T_w$ ,  $T_b$ ,  $T_{ss}$ ,  $T_p$  and all other factors influencing the time available for production such as  $T_s$ ,  $T_x$ ,  $T_t$ ,  $T_m$ . The totals for the month per machine are required. .
- (b) Availability =  $\frac{T_o - T_b}{T_o}$
- (c) Productivity factor, P, is calculated as in clause 4.6 or 4.7 of the Particular specifications C3.24.2, and further: -
  - i) The productivity factor will be limited to a maximum of 1,0.
  - ii) Where Spoornet prescribes deployment of the machine and thereby prevents the Contractor, from achieving his normal distance productivity, that period's work will be excluded from the month's productivity measurements. This does not exempt the contractor from having to achieve the required volume of steel removal required as per the rate tendered for the machine.
  - iv) All required functions and equipment, including measurement functions, fire fighting support and track work assistance and support shall form part of the machinery and shall affect the availability of the whole grinding operation. Unavailability of any of the functions may allow the Technical Officer to either declare the machine as a whole as unavailable or on  $T_b$  or may allow him to adjust productivity as defined in the Particular specifications. Alternatively the Technical Officer may discard actual pass kilometre and require re-profiling, whereby only the re-profiled pass kilometre is recorded for payment purposes.
  - v) Payment for each item below is applicable to each separately functioning machine if separate machines are accepted to produce the grind output required.
- (d) Only work that was required and accepted will be included in the productivity measurement and payment under item 2.

2.1 Item 1

An establishment payment will be made for the machine after the machine first attained a minimum availability of 75% over a period of 1 month.

2.2 Item 2 Payment for Turnouts grinded.

2.2.1 Payment will be made for each turnout grinded, finalised and accepted. The grinding shall consist of the grinding required as described in the Particular Specification for turnout grinding. Tenderers shall qualify tenders stating the number of passes and metal removal and process of finalisation allowed for each item as well as any relevant information that may impact on time required for the grinding work load in this tender.

Item 2.1 Payment shall be made under this item for all turnouts on running lines on the **Coal line** grinded for the short cycle, grinding only the tangent of the turnout, requiring a full top cover, correcting rail profile and removing the required metal. Grinding of turnouts in yards may also be included if required by TFR.

Item 2.2 Payment shall be made under this item for all turnouts on running lines on the **Coal line** grinded for the full long cycle of grinding, grinding the tangent as well as the turnout part of the turnout, requiring a full top cover as well as any required corrections of the rail profile as specified in the Particular specification. This campaign shall also include rail profile correction and removing the required metal. Grinding of turnouts in yards may also be included if required by TFR

Item 2.3 Payment shall be made under this item for all turnouts on running lines on the **Iron Ore line** grinded for the any cycle. This shall include for both the a short and a full long cycle of grinding, grinding the tangent as well as the turnout part of the turnout, requiring a full top cover as well as any required corrections of the rail profile as specified in the Particular specification. This campaign shall also include rail profile correction and removing the required metal. Grinding of turnouts in yards may also be included if required by TFR

Item 2.4 (Provisional) Payment shall be made under this item for additional turnouts on running lines on the **Coal line** grinded for the short cycle, grinding only the tangent of the turnout, requiring a full top cover, correcting rail profile and removing the required metal. Grinding of turnouts in yards may also be included if required by TFR

Item 2.5 (Provisional) Payment shall be made under this item for additional turnouts on running lines on both the **Coal line and the Iron Ore** grinded for the full long cycle of grinding, grinding the tangent as well as the turnout part of the turnout, requiring a full top cover as well as any required corrections of the rail profile as specified in the Particular specification. This campaign shall also include rail profile correction and removing the required metal. Grinding of turnouts in yards may also be included if required by TFR.

2.2.2 Additional turnout grinding shall only be payable once the total number of planned turnout grinds have been done.

## 2.3 Item 3: Overtime payment.

Overtime and Sunday time payment, where applicable, shall apply for the total group of staff for the operation of the machine as well as for all staff required as the standard default support staff offered and agreed on as per the schedule of labour submitted with the tender

Item 3.1 Overtime payment will be made for occupation time **during week days** (Monday to Friday) in excess of the hours of maximum occupation time (TOM) of 8 (eight) hours per day, as well as for Saturdays for work in excess of 8 hours per day. No Overtime will be payable for normal Saturday working as Saturday work is Shift time.

Item 3.1 (a). Normal Overtime:

Overtime payment will be made for occupation time of the grinder recorded:

- i. Overtime payment will be made for occupation time recorded **in excess** of the hours of maximum occupation time (Tom) of eight (8),
- ii. Overtime will also be paid on weekends of shift working after shift time exceeds the maximum hours allowed for Tom.
- iii. If any option of a 12 hour shift is accepted, overtime payment will only apply after 12 hours working.

Item 3.1 (b). Overtime > 9h average per month. This payment will apply for that over time where the total hours of occupation per month, divided by the total working days for the month, exceed nine and a half (9) hours per day.

Item 3.2 Sunday time payment will be made for work:

For Sunday time or Time on PPH worked on shift working after shift time exceeds the maximum hours allowed for Tom.

## 2.4. Item 4 Shift Payment (All staff including default support staff as per item 3)

Item 4.1 An overtime shift payment will be made for work performed on a **Saturday** when such work forms part of the total work for this machine according to the planned number of total work days offered and accepted for this contract.

Item 4.2 A Sunday shift allowance payment will be made for work performed on a **Sunday** or Paid Public Holiday when such work forms part of the total work for this machine according to the planned number of total work days offered and accepted for this contract.

Item 4.3 A **night shift** allowance payment will be made when a 8 hour occupation or part thereof falls between 18h00 and 06h00, and will be paid in addition to any other shift or overtime payments.

## 2.5 Item 5

- 2.5.1 Although the work volume in the schedule of quantities is what is planned for this contract, traffic conditions may not allow TFR to allow sufficient time to the contractor to achieve this planned work load.
- 2.5.2 The purpose of the Idle item is to adjust payment for the loss of opportunity to the contractor to be allowed sufficient time to execute the planned “Standard grind pass kilometre”.
- 2.5.3 Any Idle time adjustment shall only be for the fixed cost portion of cost per the rate tendered in item 2 for planned work. The payment shall then be for the lost grind pass km after deduction of an availability (Breakdown) x Fixed cost portion of the tendered rate. (% tendered for fixed cost in item 2.5).
- 2.5.4 No idle time payment adjustment will be made if the “Standard Grind pass Kilometre” has been achieved, even if less work days has been worked than the number of work days planned and or offered by the tenderer and accepted by TFR as a grind plan for the year.
- 2.5.5 Payment of Idle time adjustment will also only be done proportionally for loss of work days due to TFR not allowing sufficient work time after the loss of availability of the grinder has been allowed for.
- 2.5.6 Any adjustment shall only be calculated after the total analysis of planned work time based on average speed planned and tendered and building in losses of availability of the machine. Proper recording and management of time shall therefore be essential throughout the contract period.
- 2.5.7 The calculation of an adjustment for lost time shall therefore consider time required to execute the planned grind pass km, using the average grind speed quoted and accepted and deduction of lost time.
- 2.6 ITEM 6.1 Additional Fire fighting and track work support equipment and labour.
- a) Payment will be made for each day **additional** supplementary equipment and support labour, over and above that specified and described in Clause 2.3.10 to 2.3.15 of the Particular specification C3.24.2, is required and approved to be used.
  - b) TFR shall decide, during pre planning what type of LDV or 4x4 LDV be provided. Payment will be made per day for the type of vehicle for the days for which the additional LDV is required.
  - c) As specified elsewhere, no payment will apply for support vehicles for days when the grinder has to travel and where no travelling is required for the additional LDV's or tanker or Road Railer.
  - d) ITEM 7.3 -Road Rail vehicle. – If this item is accepted as part of the default equipment no payment under this item for this vehicle will apply. Alternatively, again depending on the acceptance of what is offered by tenderers, such a vehicle may be hired as a daily plant hire item under this payment item. The additional payment conditions for this type of vehicle are as set out in clause 2.3.15 of the Particular Specifications.
  - e) Item 6.6 & 6.7 (a) & (b): Overtime and Sunday time for additional support labour and support vehicles. Payment of over time for this function shall be made under this item according applicable principles as per clause 6.4 above and to conditions as per clause 2.3 of the Particular Specifications.

- f) Item 6.6 & 6.7 ( c ) & ( d ): Shift time for support labour and support vehicles.  
Payment for this item shall also apply according to the same applicable principles as in clause 6.4 above:  
Payment of shift time for this function shall be made under this item according to conditions as per clause 2.3 of the Particular Specifications.
- g) The availability of the support fire fighting and track assistance vehicles, staff and equipment shall form part of the machinery and shall affect the availability of the whole grinding operation. Grinding without this support will only be permitted should conditions allow the Technical Officer to permit grinding to take place.

2.7 Item 7

Payment will be made per track kilometre for moving the machinery between work site and work site. All moves during a normal full grinding day or shorter or equal to 50km (track distance) shall not be regarded as moving and will not be paid for as a move. All moves longer than 50km shall be paid for under item 7 and the distance shall be recorded as from the departure point to the staging point. Tendered rates shall include for the variable cost of the move, not allowed for under item 2. No payment will be made when the machinery is not moving under its own power.

2.8 Item 8: Day Labour

- a) When an incident or neglect by Spoornet staff causes minor damage to a machine or when technological development required by Spoornet necessitate changes to the machine, an assessment of the time and cost of repairs/charges shall be submitted to the Technical Officer as soon as possible.
- b) Repairs in the field shall only be done on instruction by the Technical Officer, for which the following shall apply:
- c) For labour, the rates in item 8,
  - (iii) A mark-up of 75% will be allowed on landed prices of imported parts or the delivered prices of locally manufactured parts and will be excluded from price adjustment described in clause .2 of the Contract Data provided by the Employer.
  - (iv) If for any other labour function not specified separately, additional labour may be required, the labour rates under this item shall also apply. These labour rates shall therefore also apply in respect of additional labour approved by the Service Manager in terms of the applicable clause of the Service Information.
- d) Where additional Day Labour is required, not covered under Item 7 and such Day Labour is authorised by the Technical Officer, payment for the day labour shall also be made under this item.

**A) SCHEDULE OF MACHINES offered for OPEN LINE PRODUCTION GRINDING**

		Option 1: Machine type and capacity as offered	Option 2 or Any other option.
1.Type, model and Number of grinding stones (Full machine description, including first year machine started working and what major upgrades for older machines offered) (Full information of all equipment provided with machine is to be provided – preferably in attached annexure provided with tender)			
2. Travelling. (Ability / Capacity)			
2.1 Level (80km/h max)	km/h	-----	-----
2.2 1:50 (40km/h min)	km/h	-----	-----
2.3 Travel between curves, motors not locked but picked up	km/h	-----	-----
2.4 Time to check motors locked for short travel.	sec.	-----	-----
3. Turnaround time between passes	sec.		
4. Fuel Capacity	litre		
5. Metal Removal Rate (Tender rate = rate for planning & production calc)	m <sup>3</sup> /h	_____ m <sup>3</sup> /h (Max.)	_____ m <sup>3</sup> /h (Max.)
		_____ m <sup>3</sup> /h (Tender rate)	_____ m <sup>3</sup> /h (Tender rate)
6.1 Maximum Grind speed			
6.2 Average allowed grind speed			
6. Grind machine Water storage capacity	litre		
7.Fire fighting vehicles:		Vehicle Type & Water cap(l)	Vehicle Type(t) & Water cap(l)
7.1 LDV (700/500L)	Litre	1. _____ Litre	1. _____ Litre
7.2 LDV 4x4 (500L)		2. _____ Litre	2. _____ Litre
7.3 Water truck (6000 L minimum)		3. _____ litre	3. _____ litre
7.4 Road / rail vehicle	Qty	4.	4.



**Part A) Open Line Production Rail Grinding  
LABOUR SCHEDULE**

Tenderers are required to complete the following schedule labour Schedule indicating the number of labour to be used on or for the machine every machine offered.

LABOUR

Artisan/s (Total) \_\_\_\_\_  
Skilled labour (Total) \_\_\_\_\_  
Semi-skilled labour (Total) \_\_\_\_\_  
Unskilled labour (Total) \_\_\_\_\_

SUBCONTRACTOR/S (Fire fighting & or Track support teams & or supply teams) Specify where & for what labour is used)

Supervisor/s (Total) \_\_\_\_\_  
Labourer/s (Total) \_\_\_\_\_

DETAILS OF OTHER EMPLOYEES (State):

\_\_\_\_\_ (Total) \_\_\_\_\_  
\_\_\_\_\_ (Total) \_\_\_\_\_  
\_\_\_\_\_ (Total) \_\_\_\_\_  
\_\_\_\_\_ (Total) \_\_\_\_\_

TENDERER : \_\_\_\_\_

DATE: \_\_\_\_\_

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**Part B). Turnout Grinding  
SCHEDULE OF MACHINES**

	UNIT	Turnout grinder
1.Type, model and stones (Full machine description)	Number of grinding stones description)	
2. Travelling: a) Level (Requirement) b) 1:50(Requirement)	(80km/h max) km/h (40km/h min) km/h	
3. Turnaround time (Tender time)	between passes Sec.	
4. Stone changing time. (Tender time)	Min.	
4. Fuel Capacity	Litre	
5. Metal Removal Rate Plain track	m <sup>3</sup> /h	
6. Metal Removal Rate Restricted track (Steel removal Capacity Tendered)	m <sup>3</sup> /h	
7. Grinding Train's water storage capacity	Litre	
8. Fire fighting vehicles: (Type and water carrying capacity) 8.1. Permanent LDV (700L) 8.2. Provisional additional (4x4) LDV (700L) 8.3 Trailer or other equipment	Type (Ton) & Litre Cap.	



**Part B. TURNOUT GRINDING  
LABOUR SCHEDULE**

Tenderers are required to complete the following schedule of staff allowed for in the tender:

**LABOUR**

Grade	Turnout grinder
Artisan/s	
Skilled labour	
Semi-skilled labour	
Unskilled labour	
Other :	

**SUBCONTRACTOR/S**

Grade	Turnout grinder
Supervisor/s	
Labourer/s	
Any other equipment support forming part of offer	

Tenderer: \_\_\_\_\_

DATE: \_\_\_\_\_