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KENYA RAILWAYS
right on track

ADDENDUM 2 **Date:** January 10, 2025

SUPPLY AND DELIVERY OF LOCOMOTIVE LUBRICANTS (FRAMEWORK CONTRACT)

TENDER NO. KR/SCM/FRC/004/2024-2025

Please take note of the following changes to the above advertised tender;

S/No	Bidders Request/ Clause	KR Response/Amendments
1	**SECTION III - Evaluation and Qualification Criteria** **2.2 Evaluation of Tenders -** Preliminary examination for Determination of Responsiveness Mandatory Requirement S/No 116: Part of the Preliminary/Mandatory Evaluation Requirements/Criteria is the Form Con 2, which is to be filled in the "Format Provided". The form has however not been shared on the tender document.	The form is hereby attached **Annex 3:** Form Con 2.
2	**SECTION V - SCHEDULE OF REQUIREMENTS** **3. Lubricants Technical Specifications** **Clarifications from Bidders** (i) Pg. 69 - Price schedule Item No. 18 - Metrolube 5002 NLG1-2 Technical Specifications Missing in the Tender Document. (iv)Pg. 69 - Price schedule Item No. 25 – Rimula R3 X 15W40 Technical	(i) Technical Specifications for Metrolube 5002 NLG1-2 added to the Tender Document. (ii) Technical Specifications and the Price Schedule for Rimula

	Specification and the Price Schedule Missing in the Tender Document. (v) Pg. 85 Gadus S2 V 100 3 missing in the Price Schedule. (vi) Pg. 89 Shell Gadus S3 V220 C3 Missing in the Price Schedule. (vii) Pg 89 Shell Gadus S3 V220 C3 Missing in the Price Schedule.	R3 X 15W40 added to the Tender Document. (iii) Product Description corrected to GADUS S2 V220AC 3 and included in the Price schedule. (iv) Product Description corrected to GADUS S3 V220C 2 and included in the Price schedule (v) Technical Specification and Price Schedule for 94 Motorol Calibest included in the Tender Document. Annex 1 – Revised Price Schedule Annex 2 – Revised Lubricants Technical Specifications
3	**Addendum 1 dated January 2, 2025** Tender Opening Date, Time and Venue **Tuesday 14th January, 2025 at 2.00 p.m.** at Kenya Railways Headquarters.	New Closing date, Time and Venue The Tender opening date will be **21st January, 2025 at 2.00 p.m.** The venue remains the same

Benedict Kiema
General Manager- SCM

Price Schedule: Goods Manufactured in Kenya

Kenya _____	(Group A and B Tenders) Currencies in accordance with ITT 15	Date: _____ ITT No: _____ Alternative No: _____ Page N□ _____ of __

1	2	3	4	5	6	7	8	9	10
Line Item N□	Description of Goods	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price EXW	Total EXW price per line item (Col. 4□5)	Price per line item for inland transportation and other services required in Kenya to convey the Goods to their final destination	Cost of local labor, raw materials and components from with origin in Kenya % of Col. 5	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITT 14.8(a)(ii)	Total Price per line item (Col. 6+7)
1	MULTIS COMPLEX EP 2		**10** Drums - 180KG						
2	Mobilith SHC100 Grease		**30** Bucket - 50KG						
3	No. 3 lithium grease (GB7324)		**50** Bucket - 50KG						
4	Roller bearing grease (Chinese Standard- TB/T 2955-1999)		**6** Bucket - 200KG						
5	L-XEGEB2 GREASE		**40** Bucket - 100KG						
6	ZG3 calcium base grease (GB491)		**80** Bucket - 50KG						

7	AZOLLA VTR 32		**80** Drums - 208L						
8	AZOLLA ZS 46		**115** Drums - 208L						
9	AZOLLA ZS 68		**92** Drums - 208L						
10	CIRKAN C 100		**69** Drums - 208L						
11	CIRKAN C 220		**54** Drums - 208L						
12	EP 85W90		**30** Drums - 208L						
13	MULTIS EP 3		**50** Bucket - 180KG						
14	PRESLIA 68		**100** Drums - 208L						
15	RUBIA G 1700 SAE 40 BULK		**348,000** Ltrs -LTR						
16	RUBIA G 1700 SAE 40 DRUM		**533** Drums - 208L						
17	RUBIA TIR 7400 15W40		**400** Drums - 208L						
18	Metrolube 5002 NLG1-2		**5,000Kg**- 1KG						
19	DACNIS SH 46		**500** Drums - 20L						
20	GADUS S2 V220AC 3		**230Buckets**- 18KG						
21	GADUS S3 V220C 2		**230 Buckets**- 18KG						

22	CIRKAN C 100 DRUM (MORLINA SB 100)		**69** Drums - 208L						
23	LACTUCA LT 3000		**40** Drums - 208L						
24	MOTOROL CALIBEST		**10** Drums - 210L						
25	Rimula R3 X 15W40		**912** Buckets -20L						
26	Rimula R3+30		**50** Buckets - 20L						
27	Tellus S 2 46		**6** Drums - 209L						
28	Omala S2 GX 150		**2** Drums - 209L						
29	Cat ELC 205-6612V(extended life coolant premix 50/50)		**6** Drums - 200L						

Name of tenderer .....Signature of tenderer .....Date .....

Annex 2 – Revised Lubricants Technical Specifications

3. Lubricants Technical Specifications

3.1 The purpose of the Technical Specifications (TS), is to define the technical characteristics of the Goods and Related Services required by the Procuring Entity. The Procuring Entity shall prepare the detailed TS consider that:

i) The TS constitute the benchmarks against which the Procuring Entity will verify the technical responsiveness of Tenders and subsequently evaluate the Tenders. Therefore, well-defined TS will facilitate preparation of responsive Tenders by tenderers, as well as examination, evaluation, and comparison of the Tenders by the Procuring Entity.

ii) The TS shall require that all goods and materials to be incorporated in the goods be new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided for otherwise in the contract.

iii) The TS shall make use of best practices. Samples of specifications from successful similar procurements in the same country or sector may provide a sound basis for drafting the TS.

iv) The PPRA encourages the use of metric units.

v) Standardizing technical specifications may be advantageous, depending on the complexity of the goods and the repetitiveness of the type of procurement. Technical Specifications should be broad enough to avoid restrictions on workmanship, materials, and equipment commonly used in manufacturing similar kinds of goods.

vi) Standards for equipment, materials, and workmanship specified in the Tendering document shall not be restrictive. Recognized international standards should be specified as much as possible. Reference to brand names, catalogue numbers, or other details that limit any materials or items to a specific manufacturer should be avoided as far as possible. Where unavoidable, such item description should always be followed by the words "or substantially equivalent." When other particular standards or codes of practice are referred to in the TS, whether from the Procuring Entity's or from other eligible countries, a statement should follow other authoritative standards that ensure at least a substantially equal quality, then the standards mentioned in the TS will also be acceptable.

vii) Reference to brand names and catalogue numbers should be avoided as far as possible; where unavoidable the words "or at least equivalent" shall always follow such references.

viii) Technical Specifications shall be fully descriptive of the requirements in respect of, but not limited to, the following:

a) Standards of materials and workmanship required for the production and manufacturing of the Goods.

b) Any sustainable procurement technical requirements shall be clearly specified.

3.2 To encourage tenderers' innovation in addressing sustainable procurement requirements, as long as the Tender evaluation criteria specify the mechanism for monetary adjustments for the purpose of Tender comparisons, tenderers may be invited to offer Goods that exceeds the specified minimum sustainable procurement requirements.

i) Detailed tests required (type and number).

ii) Other additional work and/or Related Services required to achieve full delivery/completion.

iii) Detailed activities to be performed by the Supplier, and participation of the Procuring Entity thereon.

iv) List of detailed functional guarantees covered by the Warranty and the specification of the liquidated damages to be applied in the event that such guarantees are not met.

3.3 The TS shall specify all essential technical and performance characteristics and requirements, including guaranteed or acceptable maximum or minimum values, as appropriate. Whenever necessary, the Procuring Entity shall include an additional ad-hoc Tendering form (to be an Attachment to the Letter of Tender), where the tenderer shall provide detailed information on such technical performance characteristics in respect to the corresponding acceptable or guaranteed values.

3.4 When the Procuring Entity requests that the tenderer provides in its Tender a part or all of the Technical Specifications, technical schedules, or other technical information, the Procuring Entity shall specify in detail the nature and extent of the required information and the manner in which it has to be presented by the tenderer in its Tender.

3.5 If a summary of the Technical Specifications(TS) has to be provided, the Procuring Entity shall insert information in the table below. The tenderer shall prepare a similar table to justify compliance with the requirements.

Summary of Technical Specifications: The Goods and Related Services shall comply with following Technical Specifications and Standards:

Item No	**Name of Goods or Related Service**	**Technical Specifications and Standards**
[insert item No]	[insert name]	[insert TS and Standards]

Detailed Technical Specifications and Standards

1.1 RUBIA G1700 SAE 40 OR EQUIVALENT

It should meet the following requirements

General Electric (Ge): "Fundamental Approval" (Generation 4 Long Life or Generation 5)

PHYSICAL AND CHEMICAL CHARACTERISTICS

	RUBIA G1700 SAE 40 OR EQUIVALENT			
	CHARACTERISTIC	**UNIT**	**METHOD**	**VALUE**
1	Kinematic Viscosity at 40°C	mm2/s	ASTM D445	149
2	Kinematic Viscosity at 100°C	mm2/s	ASTM D445	15.1
3	Viscosity Index	-	ASTM D2270	99
4	Pour Point	°C	ASTM D97	-12
5	T.B.N	mgKOH/g	ASTM D2896	17
6	Zinc content	ppm		<10
7	Chlorine content	ppm		<100

1.2 CIRKAN C100 or Equivalent

PHYSICAL AND CHEMICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS	METHODS	UNITS	**CIRKAN C**						
			32	**46**	**68**	**100**	**150**	**220**	**320**
Density at 15 °C	ISO 3675	kg/m^3	870	877	884	**886**	890	897	900
Viscosity at 40 °C	ISO 3104	mm^2/s	32	46	68	**100**	150	220	320
Viscosity at 100 °C	ISO 3104	mm^2/s	5.7	7.1	9.1	**11.3**	15.3	19.2	25
Viscosity index	ISO 2909		100	99	97	**96**	96	96	96
Open cup flash point	ISO 2592	°C	210	230	240	**250**	260	260	270
Pour point	ISO 3016	°C	- 12	- 12	- 6	**- 6**	- 6	- 6	- 6

Above characteristics are mean values given as information.

1.3 RUBIA TIR 7400 15W -40 OR EQUIVALENT

PHYSICAL AND CHEMICAL CHARACTERISTICS

TOTAL RUBIA TIR 7400 15W-40		Method	Value
Density at 15°C	kg/m^3	ASTM D1298	888
Kinematic Viscosity at 40°C	mm^2/s	ASTM D445	98.7
Kinematic Viscosity at 100°C	mm^2/s	ASTM D445	13.4
Viscosity Index	-	ASTM D2270	136
Flash point	°C	ASTM D92	236
Pour point	°C	ASTM D97	-30
T.B.N	mgKOH/g	ASTM D2896	11
Sulphated Ash	% m/m	ASTM D874	1.45

The features mentioned above are average values obtained with some variability in production and do not constitute a specification.

1.4 AZZOLLA ZS 46 OR EQUIVALENT

PHYSICAL AND CHEMICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS	METHODS	UNITS	AZOLLA ZS 10	22	32	46	68	100	150
Appearance (visual)	**Internal**	-	Clear liquid						
Density at 15 °C	ISO 3675	kg/m^3	846	866	875	**880**	884	888	892
Viscosity at 40°C	ISO 3104	mm^2/s	10	22	32	**46**	68	100	150
Viscosity at 100°C	ISO 3104	mm^2/s	2.6	4.4	5.4	**6.8**	8.7	11.2	14.5
Viscosity index	ISO 2909	-	100	102	102	**100**	100	100	97
Pour point	ISO 3016	°C	- 33	- 30	- 27	**- 27**	- 21	- 18	- 18
Filterability 0.8 µ without water	NF E 48-690	Index (IF)	1	1	1	**.02**	1.0 1	.05	.05
Filterability 0.8 µ with water	NF E 48-691	Index (IF)			1.5	**1.5**	1.5		
Cleveland flash point	ISO 2592	°C	170	221	227	**232**	242	254	26

Above characteristics are mean values given as an information.

1.5 AZOLLA VTR 32 OR EQUIVALENT

Hydraulic transmission fluid for turbo transmissions

PHYSICAL AND CHEMICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS	METHODS	UNITS	AZOLLA VTR 32
Appearance	Visual		Clear
Density at 15 °C	ISO 3675	kg/m^3	876
Viscosity at 40°C	ISO 3104	mm^2/s	32
Viscosity at 100°C	ISO 3104	mm^2/s	5.6
Viscosity index	ISO 2909	-	107
Cleveland flash point OC	ISO 2592	°C	230
Pour point	ISO 3016	°C	- 36
FZG (failure load stage)	DIN 51345	Stage	> 12

Above characteristics are mean values given as information

1.6 TOTAL EP85W90 OR EQUIVALENT

This is gear oil with the following chemical and physical characteristics:

PHYSICAL AND CHEMICAL CHARACTERISTICS

EP	Units	Grade SAE
		85W-90
Volumetric mass at 15°C	kg/m³	895
Viscosity at 40°C	mm²/s	195
Viscosity at 100°C	mm²/s	17.5
Viscosity index	-	96
Flash point Cleveland	°C	225
Pour point	°C	-18

The typical characteristics mentioned represent mean values.

1.7 PRESLIA 68 OR EQUIVALENT

This is a mineral oil used in turbines, compressors and turbochargers. It should meet the specifications requirements of General electric locomotives.

PHYSICAL AND CHEMICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS	METHODS	UNITS	PRESLIA 32	PRESLIA 46	PRESLIA 68	PRESLIA 100
Density at 15 °C	ISO 3675	kg/m3	870	875	**884**	886
Viscosity at 40 °C	ISO 3104	mm2/s	32	46	**68**	100
Viscosity at 100 °C	ISO 3104	mm2/s	5,4	6,8	**8,7**	11,4
Viscosity index	ISO 2909	-	100	100	**100**	100
Flash point	ISO 2592	°C	218	230	**240**	250
Pour point	ISO 3016	°C	- 12	- 9	**- 9**	- 9

Above characteristics are mean values given as information.

1.8 LACTUCA LT 3000 OR EQUIVALENT

PHYSICAL AND CHEMICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS	METHODS	UNITS	LACTUCA LT 3000	
			CONCENTRATE	SOLUTION AT 3 %
Density at 15°C	ISO 3675	kg/m^3	890	
Kinematic viscosity at 40 °C	ISO 3104	mm^2/s	34	
pH	NF T 60 193			8.8
Refractometric factor			1.1	

Above characteristics are mean values given as information.

1.9 AZOLLA ZS 68 OR EQUIVALENT

PHYSICAL AND CHEMICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS	METHODS	UNITS	AZOLLA ZS						
			10	**22**	**32**	**46**	**68**	**100**	**150**
Appearance (visual)	Internal	-	Clear liquid						
Density at 15 °C	ISO 3675	kg/ m^3	846	866	875	880	**884**	888	892
Viscosity at 40°C	ISO 3104	mm^2/s	10	22	32	46	**68**	100	150
Viscosity at 100°C	ISO 3104	mm^2/s	2.6	4.4	5.4	6.8	**8.7**	11.2	14.5
Viscosity index	ISO 2909	-	100	102	102	100	**100**	100	97
Cleveland flash point	ISO 2592	°C	170	221	227	232	**242**	254	268
Pour point	ISO 3016	°C	-33	-30	-27	-27	**-21**	-18	-18
Filterability 0.8 □ without water	NF E 48-690	Index (IF)	1	1	1	1.02	**1.01**	1.05	1.05
Filterability 0.8 □ with water	NF E 48-691	Index (IF)			1.5	1.5	**1.5**		

2.0 MORLINA S1B 100

This is an advanced circulating and bearing oil used in General Electric locomotives wood ward governors.

PHYSICAL AND CHEMICAL CHARACTERISTICS

Morlina			**100**	**150**	**220**	**320**	**460**	**680**
ISO Viscosity Grade			**100**	150	220	320	460	680
Kinematic Viscosity		ASTM D 445						
at 40°C	mm^2/s		**100**	150	220	320	460	680
at 100°C	mm^2/s		**11,2**	15	18,3	25	30	37
Density at 15°C	kg/m^3	ISO 12185	**881**	887	891	897	904	910
Viscosity Index		ISO 2909	**97**	95	92	96	94	80
Flash Point COC °C		ISO 2592	**250**	262	280	282	300	300
Pour Point	°C	ISO 3016	**-18**	-15	-15	-12	-9	-9

2.1 MORLINA S1B 220

PHYSICAL AND CHEMICAL CHARACTERISTICS

Morlina			100	**150**	**220**	**320**	**460**	**680**
ISO Viscosity Grade			100	150	**220**	320	460	680
Kinematic Viscosity		ASTM D 445						
at 40°C	mm^2/s		100	150	**220**	320	460	680
at 100°C	mm^2/s		11,2	15	**18,3**	25	30	37
Density at 15°C	kg/m^3	ISO 12185	881	887	**891**	897	904	910
Viscosity Index		ISO 2909	97	95	**92**	96	94	80
Flash Point COC °C		ISO 2592	250	262	**280**	282	300	300
Pour Point	°C	ISO 3016	-18	-15	**-15**	-12	-9	-9

2.2 GADUS S2 V220AC 3 OR EQUIVALENT

Technical specification

This is general purpose industrial grease based on a new lithium hydroxystearate soap thickener fortified with anti-oxidant, anti-wear and anti-rust additives.

PHYSICAL AND CHEMICAL CHARACTERISTICS

PROPERTY	METHOD	EXPECTED
NLGI consistency		3
Soap type		Lithium hydroxystearate
Base oil (Type)		Mineral
Kinematic viscosity @40°C cSt	IP 71/ ASTM D445	100
Kinematic viscosity @100°C cSt	IP 71/ ASTM D445	11
Cone penetration, worked @ 25°C 0.1 mm	IP50/ASTM/D217	220-250
Dropping point °C	IP 396	180

2.3 Shell Gadus S3 V220C 2

Shell GADUS S3 V220C 3 is used for grease lubrication of heavy-duty industrial bearings used in wheel bearings for locomotives.

Technical specifications

Properties			Method	Shell Gadus S3 V220C 3
NLGI Consistency				3
Colour				Red
Soap Type				Lithium complex
Base Oil Type				Mineral
Base Oil Viscosity	@400C	cSt	IP 71 / ASTM D445	220
Base Oil Viscosity	@1000C	cSt	IP 71 / ASTM D445	19
Cone Penetration, Worked	@250C	0.1mm	IP 50 / ASTM D217	220-250
Dropping Point		0C	IP 396	240

2.3 Motorol Calibest

This lubricant is used as a calibration fluid medium for the calibration of locomotive fuel injection pump, fuel injection nozzle and elements of stationary as well as mobile engines.

Technical specifications

Characteristics	TEST METHOD	M	K
Colour (ASTM), Max	ASTM D1500	0.5	0.5
Kinematic Viscosity at 40°C (cSt)	ASTM D445	3.9 - 4.1	2.45 – 2.60
Flash point (°C), Min	ASTM D92	90	90
Pour point (°C), Max	ASTM D97	(-)18	(-)18
Acidity (mg KOH/gm), Max	-	0.03	0.03
Foaming	-	LESS THAN 20 SEC	LESS THAN 20 SEC
Density at 15° C	ASTM D1298	0.821	0.82

LUBRICANT SPECIFICATION

1. No.3 Lithium base grease (GB7324)

Technical specifications

Project	lithium base grease
Standard number	GB/T 7324-2010
shop sign	3#
surface	Light yellow to brown with smooth oil cream
Working cone entry degree / (0.1mm)	220～250
dropping point ℃≥	180
Corrosion (T2 copper sheet, 100℃, 24h)	Copper sheet has no green or black changes

Project	lithium base grease
Steel mesh divided oil (100℃, 24h) (mass fraction) /% not greater than	5
Evaporation amount (99℃, 22h), (mass fraction) /% not greater than	2
Impurity content (microscope method) / (individual / cm3) More than 10 m above Not greater than More than 25 m above Not greater than More than 75 m above Not greater than More than 125 m above Not greater than	 2000 1000 200 0
Oxidation stability, 99℃,100h,0.760Mpa (pressure drop Mpa is not greater than	0.070
Similar viscosity (-15℃, 10s-1)) / (Pa s) not greater than	1300
Extension working cone entry degree (1000000 times) / (0.1mm) not greater than	320
Water loss (38℃, 1h) (mass fraction) /% not greater than	8
Anti-corrosion resistance (52℃, 48h)	Qualified

2. GADUS S2 V220AC 3

Technical specifications

Properties			Method	Shell Gadus S2 V220AC 3
NLGI Consistency				3
Colour				Red
Soap Type				Lithium/Calcium
Base Oil				Mineral
Kinematic Viscosity	@400C	cSt	IP 71 / ASTM D445	220
Kinematic Viscosity	@1000C	cSt	IP 71 / ASTM D445	18
Cone Penetration, Worked	@250C	0.1mm	IP 50 / ASTM D217	220-250
Dropping Point		0C	IP 396	175

3.Mobilith SHC100 Grease

Technical specifications

Usage-electric motors, generators and alternator bearings

Mobilith SHC	100
NLGI LEVEL	2
TYPE OF THICKENING AGENT	Composite Lithium Base
COLOR	RED
WORKED CONE PENETRATION,25℃, ASTM D 217,MM/10	280
DROPPING POINT, ℃,ASTM D 2265	265
BASE OIL VISCOSITY,ASTM D 445 CST@40℃	100
FOUR BALL WELDING LOAD,ASTM D 2596,KG	250
WATER WASHOUT,ASTM D 1264,79 ℃ WEIGHTLESSNESS%, WT %	6
RUST PROOF TEST, ASTM D 6138	0,0
CORROSION PROTECTION, ASTM D 1743,LEVEL	PASS
FOUR BALL WEAR TEST, ASTM D 2266,SCRATCHES,MM	0.50
LOW TEMPERATURE TORQUE, ASTM D 1478,STARTING/I HOUR GCM AND TESTING TEMPERATURE	9520/2199@-50℃

4. Shell Gadus S3 V220C 2

Technical specifications

Properties			Method	Shell Gadus S3 V220C 3
NLGI Consistency				3
Colour				Red
Soap Type				Lithium complex
Base Oil Type				Mineral
Base Oil Viscosity	@400C	cSt	IP 71 / ASTM D445	220
Base Oil Viscosity	@1000C	cSt	IP 71 / ASTM D445	19
Cone Penetration, Worked	@250C	0.1mm	IP 50 / ASTM D217	220-250
Dropping Point		0C	IP 396	240

5.Rolling bearing Grease for railway locomotive Wheel set (Chinese Standard- TB/T 2955-1999).

Technical specifications

Project	Qualitative index
extrinsic feature	Brown to tan brown ointment
Working cone entry degree, 0.1mm	265-295
Drop point, the ℃ is not lower than	170
Corrosion (T2 copper sheet, 100℃, 24h)	Copper copper without black and green
Water,% Not bigger than	mark
Steel mesh with oil separation (100℃, 24h),% Not bigger than	5.0
Evaporation amount (99℃, 22h),%, Not bigger than	2.0
Extend tended cone entry (The difference between working cone entry degree of 100,000 times and working cone entry degree) / (0.1mm) is not greater than	±30
Water loss (38℃, 1h), /% not greater than	5
Corrosion (52℃, 48h), grade	1
Similar viscosity (-20℃, D=10S-1), Pa s Not greater than	2000
Extreme pressure performance (four-ball machine method), Pa value, N Not less than	696
Extreme pressure performance (Timken machine), OK, N Not less than	178
Four-ball wear (392N, 60min) wear diameter, mm Not greater than	0.60
Oxidative stability (100℃,500h,0.78Mpa), pressure drop, Mpa Not greater than	0.17
Imurity, individual / cm^3 More than 25 m above Not greater than More than 75 m above Not greater than More than 125 m above Not greater than	3000 500 0

Base oil viscosity (40℃), m m2/s not less than	120
Basic oil viscisity index	80
Base oil flash point (opening), ℃	200
Base oil condensation point, ℃	-10

6.ZG3 calcium-based lubricating grease (GB491)

Technical specifications

project	lithium base grease
shop sign	3#
surface	Light yellow to dark brown uniform cream
Working cone entry degree / (0.1mm)	220～250
dropping point ℃≥	90
Corrosion (T2 copper sheet, room temperature, 24h)	Copper sheet has no green or black changes
Water content (mass fraction) /% not greater than	2.5
Ash score (mass score) /% not greater than	4.0
Steel mesh divided oil (60℃, 24h) (mass fraction) /% not greater than	8
The difference between extended working cone entry degree (100,000 times) and working cone entry value / (0.1mm) not greater than	35
Water loss (38℃, 1h) (mass fraction) /% not greater than	10

7.Multis Complex EP3

Technical specifications

PROPERTIES	METHODS	UNITS	MULTI COMPLEX EP 3
Soap/thickener		-	Lithium complex
NLGI Grade	ASTM D 217/DIN 51 818	-	3
Color	Visual	-	Dark brown
Appearance	Visual	-	Smooth
Operating temperature range		°C	-20 to 160
Penetration at 25°C	ASTM D 217/DIN 51 818	0.1 mm	220-250
Four ball weld load	ASTM D 2596	kgf	400
Anti-rust performance SKF- EMCOR	DIN 51 802/IP220/NFT 60-135/ISO 11007	Rating	0-0
Dropping point	IP 396/DIN ISO 2176	°C	275
Kinematic viscosity of the base oil at 40°C	ASTM D 445/DIN 51 562-1/ISO 3104/IP71	mm^2/s (cSt)	165

8.Multis complex EP 2

Technical specifications

PROPERTIES	METHODS	UNITS	MULTI COMPLEX EP 2
Soap/thickener		-	Lithium Complex
NLGI Grade	ASTM D 217/DIN 51 818	-	2
Color	Visual	-	Red
Appearance	Visual	-	Smooth
Operating temperature range		°C	-25 to 160
Penetration at 25°C	ASTM D 217/DIN 51 818	0.1 mm	265-295
Four ball weld load	DIN 51 350-4	daN	280-300
Anti-rust performance SKF- EMCOR	DIN 51 802/IP220/NFT	Rating	0-0
	60-135/ISO 11007		
Dropping point	IP 396/DIN ISO 2176	°C	>275
Kinematic viscosity of the base oil at 40°C	ASTM D 445/DIN 51 562-1/ISO 3104/IP71	mm²/s (cSt)	165
Flow pressure at -25°C	DIN 51805	mBar	<1400

9. L-XEGEB2 GREASE

Technical specifications

PROPERTY	UNIT	DATA	AUDIT
Colour		rot	VISUELL
Thickener		Lithium-Komplexseifen	DIN 51757
NLGI-Class		2	DIN 51818
Product Classification		KP2P-35	DIN 51502
Working Temperature	°C	-0.21875	DIN 51825
Short term temperature up to	°C	200	DIN 51757
Worked Penetration at 60 Strokes	mm/10/25°C	265-295	ISO 2137
Corrosion (SKF Emcor dist. Water)	Korr. Grad	0	DIN 51802
Dropping Point	°C	>260	DIN ISO 2176
Copper Corrosion (24h/120 °C)		1	DIN 51811
Water Resistance (3h/90 °C)	°C	Jan-90	DIN 51807-1
VKA Pressure Carrying Capacity	N	2600-2800	DIN 51350-4
Kinematic Viscosity (Base Oil) at 40 °C	mm²/s	140	DIN 51562-1

10.Dacnis SH 46

Technical specifications

Properties	Units	Standards	Dacnis SH			
			32	46	68	100
Density at 15°C	kg/m3	ISO 3675	831	838	836	839
Viscosity at 40°C	mm2/s	ISO 3104	32	46	68	100
Viscosity index	-	ISO 2909	137	140	152	159
Pour point	°C	ISO 3016	< -60	-58	-58	-54
Flash point (open cup)	°C	ISO 2592	232	240	264	268

11.Motorol Calibest

Technical specifications

Characteristics	TEST METHOD	M	K
Colour (ASTM), Max	ASTM D1500	0.5	0.5
Kinematic Viscosity at 40°C (cSt)	ASTM D445	3.9 - 4.1	2.45 – 2.60
Flash point (°C), Min	ASTM D92	90	90
Pour point (°C), Max	ASTM D97	(-)18	(-)18
Acidity (mg KOH/gm), Max	-	0.03	0.03
Foaming	-	LESS THAN 20 SEC	LESS THAN 20 SEC
Density at 15° C	ASTM D1298	0.821	0.82

12.Rimula R3+30

Technical specifications

Properties			Method	Shell Rimula R3+ 30
Kinematic Viscosity	@400C	mm2/s	ASTM D445	93
Kinematic Viscosity	@1000C	mm2/s	ASTM D445	11
Dynamic Viscosity	@-250C	mPa s	ASTM D5293	-
Viscosity Index			ASTM D2270	103
Density	@150C	kg/l	ASTM D4052	0.89
Flash Point (COC)		0C	ASTM D92	242
Pour Point		0C	ASTM D97	-18

13. Tellus S2 M 46

Technical specifications

Properties			Method	Tellus S2 M 46
ISO Viscosity Grade			ISO 3448	46
ISO Fluid Type				HM
Kinematic Viscosity	@00C	cSt	ASTM D445	580
Kinematic Viscosity	@400C	cSt	ASTM D445	46
Kinematic Viscosity	@1000C	cSt	ASTM D445	6.7
Viscosity Index			ISO 2909	98
Density	@150C	kg/m3	ISO 12185	879
Flash Point (COC)		0C	ISO 2592	230
Pour Point		0C	ISO 3016	-30

14.Omala S2 GX 15

Technical specifications

Properties			Method	Shell Omala S2 GX 150
Kinematic Viscosity	@ 400C	mm2/s	ISO 3104	150
Kinematic Viscosity	@ 1000C	mm2/s	ISO 3104	14.8
Viscosity Index			ISO 2909	98
Flash Point COC		0C	ISO 2592	>240
Pour Point		0C	ISO 3016	-24
Density	@ 150C	Kg/m3	ISO 12185	897

15.Cat ELC 205-6612 V (Extended life coolant premix 50/50).

Technical specifications

Appearance	Strawberry Red		
Specific gravity	ASTM D1122	1.11	
pH (33% solution)	ASTM D1287	8.3	
Reserve alkalinity	ASTM D1121	5.5	
Ash content, % max.	ASTM D1119	5	
Boiling protection, 1 bar pressure cap		50% (Cat ELC premixed)	129°C

60% (Cat ELC concentrate)	132°C		
Freezing protection		50% (Cat ELC premixed)	-37°C
60% (Cat ELC concentrate)	-54°C		
Nitrites	550 ppm		
Molybdates	950 ppm		
Silicate, %	0		
Phosphate, %	0		
Amine, %	0		
Borate, %	0		
Nitrates, %	0		

16.Shell Rimula R3 X 15W-40

Technical Specification

Properties		Method
Kinematic Viscosity	@40°C	ASTM D445
Kinematic Viscosity	@100°C	ASTM D445
Dynamic Viscosity	@-20°C	ASTM D5293
Viscosity Index	-	ASTM D2270

17.Metrolube

Technical Specification

Technical Properties	Test Method	Multi-Purpose Grease
NLGI Grade	ASTM D217	2
Color	Visual	Amber
Base Oil Viscosity @ 40°C, cSt	ASTM D445	220

Performance Properties	Test Method	
Dropping Point °C (°F)	ASTM D2265	282 (540)
Worked Penetration @ 60 Strokes mm/10 25°C	ASTM D217	271
Water washout @ 79°C % loss, max	ASTM D1264	5
4 Ball weld point, KG	ASTM D2596	315
Water Content (mg/Kg)	ASTM D1533	115
Timken OK Load, lbs.	ASTM D2509	45
Leaking tendencies, %	ASTM D1263	5

Performance Requirement

The lubricants supplied should meet the following requirements:

i. Be compatible with KR locomotives and meet the GE (General electric) OEM standards of rail road lubrication applications
ii. Pass quality inspection and tests.
iii. Perform its intended function of lubrication in the locomotive and locomotive components and associated plant and machinery.

Not alter the locomotive and equipment normal operation

ANNEX 3: FORM CON –2
Historical Contract Non-Performance, Pending Litigation and Litigation History

Tenderer's Name:_____ Date:_____

JV Member's Name_____ ITT No. and title:_

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
• Contract non-performance did not occur since **1st January *2020*** specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1. • Contract(s) not performed since **1st January *2020*** specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	**Non- performed portion of contract**	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)**
2020	100%	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Procuring Entity: *[insert full name]* Address of Procuring Entity: *[insert street/city/country]* Reason(s) for nonperformance: *[indicate main reason(s)]*	*[insert amount]*
2021	100%	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country]	

		Reason(s) for nonperformance: [indicate main reason(s)]	
2022	100%	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] Reason(s) for nonperformance: [indicate main reason(s)]	
2023	100%	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] Reason(s) for nonperformance: [indicate main reason(s)]	
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
• No pending litigation in accordance with Section III, Evaluation and *Qualification* Criteria, Sub-Factor 2.3. • Pending litigation in accordance with Section III, Evaluation and Qualification *Criteria*, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
2020	*50%*	Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: ____ Status of dispute: _____	
2021	*50%*	Contract Identification: Name of Procuring Entity: Address of Procuring Entity: Matter in dispute: Party who initiated the dispute: Status of dispute:	
2022	*50%*	Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: ____ Matter in dispute: _____ Party who initiated the dispute: ___ Status of dispute: _____	
2023	*50%*	Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: ____ Status of dispute: _____	

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
• No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. • Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
Year of award	**Outcome as percentage of Net Worth**	**Contract Identification**	**Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)**
2020	*40%*	Contract Identification: complete contract name, number, and any other identification] Name of Procuring Entity--------- Address of Procuring Entity: Matter in dispute: ---------- Party who initiated the dispute:--------- Reason(s) for Litigation and award decision *[indicate main reason(s)]*	*[insert amount]*
2021	40%	Contract Identification: complete contract name, number, and any other identification] Name of Procuring Entity--------- Address of Procuring Entity: Matter in dispute: ---------- Party who initiated the dispute:--------- Reason(s) for Litigation and award decision [indicate main reason(s)]	

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
2022	40%	Contract Identification: complete contract name, number, and any other identification] Name of Procuring Entity--------- Address of Procuring Entity: Matter in dispute: ---------- Party who initiated the dispute:--------- Reason(s) for Litigation and award decision [indicate main reason(s)]	

11. FORM FIN – 3.1: PART OF FORM CON –2

Financial Situation and Performance

Tenderer's Name:_____

Date:_____

JV Member's Name_____

ITT No. and title:_____

Financial Data PART OF FORM CON –2

Type of Financial information in_____ (currency)	**Historic information for previous _____ *years,* (amount in currency, currency, exchange rate*, USD equivalent)**				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

*Refer to ITT 15 for the exchange rate

Sources of Finance PART OF FORM CON –2

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (Kenya Shilling equivalent)
1		
2		
3		

Financial documents

The Tenderer and its parties shall provide copies of financial statements for_____years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor3.1.The financial statements shall:

a) reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).

b) Be independently audited or certified in accordance with local legislation.

c) Be complete, including all notes to the financial statements.

d) Correspond to accounting periods already completed and audited.

Attached are copies of financial statements[1] for the___years required above ; and complying with the requirements

[2] *If the most recent set of financial statements is for a period earlier than 12 months from the date of Tender, the reason for this should be justified.*

12. FORM FIN–3.3: PART OF FORM CON –2

Financial Situation and Performance

Tenderer's
Name:.....

Date:
.....

JV Member's Name:
.....

ITT No. and title:.....

	Annual turnover data construction only		
Year	Amount Currency	Exchange Rate	Kenya Shillings Equivalent
[Indicate Year]	*[Insert amount and indicate currency]*		
Average annual construction turnover*			

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

13. FORM FIN–3.3: PART OF FORM CON –2

Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contractor contracts as specified in Section III, Evaluation and Qualification Criteria.

Financial Resources		
No.	**Source of financing**	**Amount (Kenya Shilling equivalent)**
1		
2		
3		

14. FORMFIN–3.4: PART OF FORM CON –2

Current Contract Commitments / Works in Progress

Tenderers and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

No.	**Name of Contract**	**Procuring Entity's Contact Address, Tel,**	**Value of Outstanding Work [Current Kenya Shilling /month Equivalent]**	**Estimated Completion Date**	**Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month)]**
1					
2					
3					
4					
5					

15. FORM EXP-4.1 PART OF FORM CON –2

General Construction Experience

Tenderer's Name:_____

Date:_____ JV Member's Name_____ ITT No. and title:_____Page_____of____pages

Starting Year	**Ending Year**	**Contract Identification**	**Role of Tenderer**
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____	

		Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	

16. FORM EXP -4.2(a) PART OF FORM CON –2

Specific Construction and Contract Management Experience

Tenderer's Name:_____

Date:_____ JV

Member's Name_____ ITT

No. and title:_____

Similar Contract No.	**Information**			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount			**Kenya Shilling**	
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:				
1. Amount				
2. Physical size of required works items				
3. Complexity				
4. Methods/Technology				

5. Construction rate for key activities	
6. Other Characteristics	

17. FORMEXP-4.2(b) PART OF FORM CON –2

Construction Experience in Key Activities

Tenderer's Name:___ Date:_____ Tenderer's JV Member Name:__ Sub-contractor's Name[3] (as perITT35):_____

ITT No. and title:_____

All Sub-contractors for key activities must complete the information in this form as per ITT 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

1. Key Activity No One:_____

	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor	Sub-contractor ☐
Total Contract Amount			**Kenya Shilling**	
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				

	Information		
Year 2			
Year 3			
Year 4			
Procuring Entity's Name:			
Address: Telephone/fax number E-mail:			

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	
1	
2	
3	
4	
5	

2. Activity No. Two

3. .....