

MINAS DE BENGA LIMITADA
COAL CHAIN

PROCUREMENT OF SPARE PARTS FOR GT26 LOCOMOTIVE
(16-645E3B EMD ENGINE)

	RESPONSIBILITY	SIGNATURE	DATE
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TERMS OF REFERENCE

1. Background

MBL has a fleet of 15 locomotives, GT26C Model (EMD 16-645E3B) supplied by NRE -US. The locomotives were supplied in 2012, and have been running for more than ten years, on which have not attended yet the annual maintenance services or other major services above annual service, although being recommended by the OEM (Original Equipment Manufacturer) - NRE.

Due to time of use some parts and components becomes worn, and some reach his life time which lead them to fail or malfunction any time due to fatigue. So, to avoid that scenario the locomotive OEM recommends to follow all maintenance schedule, on which some parts should be replaced either due to life time or worn or malfunction. It's to be noted that parts should be as per OEM specifications and being of material of the good quality. Therefore, to proceed with maintenance as recommended by OEM, required to have the parts readily in stock to avoid long down time of locomotive when is under maintenance, either scheduled or repair services.

2. Scope of works

The scope of work will be to supply the locomotive parts as per OEM technical specifications and comply to technical standards that regulate the manufacture of locomotive parts. The supplier should supply based on Part Number herewith provided or equivalent drawing number but duly substantiated. Note, the parts are for **locomotive GT26 Model, using EMD Diesel Engine 16-645E3B.**

3. Technical reference & Quantity

Item	Description of Part	Part Number	Qty required
1	Knuckle coupler E type (buffer)	8055811	26
2	Batteries	MS390	40
3	GE Wick	494A549G1	84

4	Side bearer sheer pads	5250000600	36
5	Side bearer sheer pads	5250000599	32
6	Bogie spring outer	5250000609	24
7	Bogie springs inner	5250000610	24
8	F pipe	8047164 or 8251749	20
9	L pipe	8203160	20
10	H pipe (hose 25")	534007	20
11	Crater box upper	41D735428G1	36
12	Crater box lower	41D735428G2	36
13	Crater box seals outer	41C637209P1	42
14	Crater box seals inner	41C637187P1	42
15	Brake cylinder Left 8" dia x 10" long	579192-2400 (wabco)	7
16	Brake cylinder Right 8" dia x 10" long	579192-2600 (wabco)	4
17	Axle alternator	908-0001-000-N	4
18	Finished Axle -761, F bearing	4950000116	12
19	Cylinder head with valves - diamond 5	40121467	72
20	Cylinder liners	9318833	48
21	Partial power pack	9527321	24
22	Cylinder assembly fork rod - new (645E3B) cast iron	40018698	8
23	Cylinder assembly blade rod - new (645E3B) cast iron	40018699	8
24	Injectors	8478055 or 5229335	32
25	Valve bridges	8085260	64
26	Cam shaft asm - (Left bank)	8419910	1
27	Cam shaft asm - (Right bank)	8419911	1
28	Water pump LB	9530407	3
29	Water pump RB	9530406	3
30	Exhaust bellow turbo to Screen	8408987	4
31	Exhaust flexible bellow (bellow between exhausts)	8408985	10
32	Detector	9320130	1
33	Turbo installation kit	9580730	5
34	Governor 0,80 rack	9334838	3
35	Fan cooling complete	8296483R	6
36	Fuel pump (new GE type)	8152343	4
37	Turbo - Soak back -mechanical	8498155	2
38	Turbo lube pump motor	4947308R	2
39	Load Regulator 1500 ohm	9322456	2
40	Starter motor 32 volt	10478828	6
41	SCR panel complete	8451653	1
42	Alternator Rectifier bank	9084997	2
43	Alternator fuses (1000VAC 425A)	8346478 or 8407729	50
44	Alternator neg diodes	8368469	50
45	Alternator pos diodes	8368467	50
46	Horn	5250000109	2

47	Radiator - R/hand	52500001010	1
48	Radiator - L/hand	52500001011	1
49	Compressor WBO 8103 (8102)	8423344	1
50	Auto drain	8451213	12
51	Window wiper motor	8343468	6
52	Window wiper motor	8385217	6
53	Window wiper motor	8313469	12
54	Window wiper motor	8454075	6
55	Connecting rod upper bearing	8354118	10
56	connecting rod lower bearing	8136114	10
57	Contacto B	8464114	10
58	RVR contactor	8464118	10
59	Power supply card	580-0066-000	4
60	CPU 2 card	580-0074-000	2
61	I/O card	580-0003-000	6
62	Axle alternator cable	057-0003-000	3
63	ST contactor	9325207	2
64	Sander valves	8269587	20
65	26C brake valve	562073	1
66	SA26 brake valve	558497	1
67	26F brake valve	567141	1
68	Ring gear (3 piece)	40121149	3
69	Engine piston cooling P Pipes	9549578	16
70	Engine liner inserts	8268641	16
71	Piston with rings	9533163	10
72	Engine compression screws	8048880	16
73	Air duck flexible	41D716865G1	12
74	Traction motor nose	N8339952	12
75	Suspension bearings	41C633819G1	36
76	Suspension bearing 2 nd size	41C633819G4	12
77	Water elbow left bank	8346691	1
78	Water pump left bank	9320244	1
79	Water pump inlet elbow	8359082	1
80	Main air sensor	775-0005-000	1
81	Water temp sensor	775-0001-000	3
82	CT 2000 amp	775-0003-000	10
83	Main alternator resistors	8380922	4
84	Crator box bolt long	N763P39088	54
85	Crator box bolts for 2 halves	41B537014G1	72
86	Crator box washer	41B537014P1	72
87	Crator box washer 1"	41A231294P4	18
88	Crator box nut for 2 halves	N216AP35B	18
89	Crator box filler cap	41B538243P1	18

90	Traction motor dust guard clamp	41A235215P5	18
91	Traction motor dust guard	41B537778P1	18
92	Traction motor cable sleeve	8194449	40
93	Traction Motor	GE 761A23	12

4. Supplier's experience

The Supplier should have an expertise and long experience of supplying locomotive parts, and be familiar with GE and GM locomotives types.

5. Period for deliver

The period for delivery of the parts should be earliest possible.