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TM/HM/BRM/pt.III

Date : 14-03-2019

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विषय : बी.आर.एम (GMAC, Model-SPZ-210K) की क्रिटिकल स्पेर्स पार्ट की सूची  
Sub: Critical Spares Part list for BRM (GMAC, Model-SPZ-210K)

बी.आर.एम (GMAC, Model-SPZ-210K) की क्रिटिकल स्पेर्स पार्ट सूची का अंतिम पत्र सं. टीएम/एच/एम / बी.आर.एम पत्र III दिनांक 01/01/2019 द्वारा जारी किया गया था। परंतु क्षेत्रीय रेलवे से कोई शिकायत प्राप्त नहीं हुई अब क्रिटिकल स्पेर्स पार्ट सूची का तैयार करने की प्रक्रिया पूर्ण की जा चुकी है। जिसकी प्रति, आपके सुचनाएं तथा मशीन के कर्मचारियों जो फील्ड में काम कर रहे हैं का मार्गदर्शन हेतु संलग्न है। इसमें अत्यंत महत्वपूर्ण बनाते समय सभी आवश्यकताएं दर्शाई गई हैं फिर भी यदि कोई प्रति से तो कृपया अपने सुझावों/ टिप्पणियों का सुचारु रूप से ईमेल/ फेक्स/ पोस्ट द्वारा अहोदयाकारी को भेजें।

Provisional of Critical Spares Part list of BRM (GMAC, Model-SPZ-210K) has been circulated vide letter no. TM/HM/BRM pt.III dt.18-01-2019. But no comments received from Zonal Railways. Now procedure of preparation for Critical Spares Part list is completed. A copy of the same is enclosed herewith for your information and guidance of the machine staff working in the field. However every care has been taken during preparation of the above said list, the discrepancy noticed, if any, may be brought to the knowledge of the undersigned by email/fax/post for further improvement.

DA: As above

(डीएम प्रकाश)  
निदेशक, रेलमश मशीन-III

# **INDIAN RAILWAYS**

## **CRITICAL SPARES OF TRACK MACHINES**

### **BOOKLET FOR BALLAST REGULATING MACHINE (GMAC, Model-SPZ-210k)**

**March-2019**

## **PREFACE**

For maintenance of any machine, timely availability of spare parts and consumables play an important role. Thus, to keep the machine in sound condition, first and foremost prerequisite is availability of spares and consumables. As there are thousands of items/spares which are required for maintenance of machine, it is very much required to identify critical spares which are vital and in turn, to ensure availability of such spares well within the scheduled time.

On the basis of experience of Track machine working on Indian Railways, a need for this list was felt. Accordingly, list for Critical Spares of Ballast Regulating Machine (GMAC, Model-SPZ-210k) have been prepared. It may be noted that this is the list of spares required for the normal maintenance of the machine for one year only and does not include the spares required for IOH, POH and other spl. Maintenance. Requirement for such schedule maintenance (IOH/POH) and emergency maintenance/attention, may be assessed separately on need basis by zonal railways itself

March- 2019

(Om Prakash)  
Director Track Machine-III

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**SITE = At Machine , STMD= Satellite Machine Depot, ZTMD= Zonal Track Machine Depot**

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per m/c		
					SITE	STMD	ZTMD
1 .ENGINE MODEL NO- BF12L513 Air Cooled							
1.1.	Self Starter	Deutz	1	4	0.2*	0	0
1.2.	Alternator BOSCH Make	-----	1	4	0	0	0.2*
1.3.	Oil Level Gauge	Mechanical	1	5	0	0	0.2*
1.4.	Air Filter	0312-31-00	1	0.3	2	1	1
1.5.	Lube Oil Filter	-----	1	0.5	2	0	0
1.6.	Lube Oil Bypass Filter	-----	1	0.5	2	0	0
1.7.	Oil and water filter	BD-YS-25 Dg25	1	0.5	2	0	0
1.8.	Air Cleaner	-----	1	0.5	2	0	0
1.9.	V-belt	-----	2	0.5	2	1	1
1.10.	Lube Oil Pressure Gauge	HAD7446-A040—000 Digital	1	5	0	0	0.2*
1.11.	Lube Oil Pressure Switch	T0739A-00	1	5	0	0	0.2*
1.12.	Temperature Switch	-----	1	5	0	0	0.2*
1.13.	Lube Oil Temperature Gauge & Sensor	MBT 3560-084Z 4035 Digital	1	5	0	0	0.2*
1.14.	Water Temperature Gauge	WZP.211T	1	5	0	0	0.2*
1.15.	Ammeter	Digital	1	5	0	0	0.2*
1.16.	Fuel Filter	3315843	2	0.2	4	4	2
1.17.	Fuel Injector pipe for Fuel Supply	-----	6	4	2	0	0
1.18.	Fuel Indicator	-----	3	3	0	0	1

\*MINIMUM QUANTITY 1

S.No	Brief description	Part no.	Nos per M/C	Estt. lifecycle in year	Requirement per m/c		
					SITE	STMD	ZTMD
2.1 PUMP							
2.1.1.	Radial plunger pump	0312-37-00	1	6	0	0	0.2*
2.1.2.	Hand oil pump	GL-35	1	6	0	0	0.2*
2.1.3.	Emergency DC oil pump	PPC-2.2 24DC-A-G132-D/200-H-X+E60543006	1	6	0	0	0.2*
2.1.4.	Gear pump	PGP517A0500AD1H3NN5N3B1B1	1	6	0	0	0.2*
2.1.5.	Triple gear pump	PGP517B0380AD1K6NP5P3S-517B0210 XP3P2S-517A0190XP3P2B1B1	2	6	0	0	0.3*
2.2. Motor							
2.2.1.	Motor	A6VM160HA1/63W-VAB020A	2	6	0	0	0.3*
2.2.2.	Cycloid motor	500160A5802AAAAA	2	6	0	0	0.3*
2.2.3.	Cycloid motor	J2K-080(604-1031)	4	6	0	0	0.7*
2.2.4.	Gear motor	WM09A1C-190-B-07 -TB-161-N-001M	1	6	0	0	0.2*
2.2.5.	Wiper motor	ZD2431,DC24V,85°	2	6	0	0	0.3*
2.3. Cylinder							
2.3.1.	Emergency pressure reducing cylinder	T07193-00	1	6	0	0	0.2*
2.3.2.	Oil cylinder	HSGL01-90/50E-2611-340*652	1	6	0	0	0.2*
2.3.3.	Oil cylinder	HSGL01-80/45E-2801-190*662	2	6	0	0	0.3*
2.3.4.	Cylinder Temperature sensor	WZP-211T	1	6	0	0	0.2*
2.4. Filter							
2.4.1.	Oil suction filter	SF630W100BS2F65	4	0.5	4	0	4
2.4.2.	Pipeline filter	BD-YS-20	6	0.5	6	0	6
2.4.3.	High pressure filter	SPZ350B-23-21-00	2	0.5	2	0	2
2.4.4.	Oil return filter	RFB-800*10Y	2	0.5	2	0	2

\*MINIMUM QUANTITY 1

S.No	Brief description	Part no.	Nos per M/C	Estt. lifecycle in year	Requirement per m/c		
					SITE	STMD	ZTMD
2.5. Valve							
2.5.1.	Pressure reducing valve	AW40-06DE-2	1	6	0	0	0.2*
2.5.2.	Three-way electric control reverse valve	B8V9BCNXXA	1	6	0	0	0.2*
2.5.3.	Dust filtering check valve	TB/T1041	1	6	0	0	0.2*
2.5.4.	Two-pos. two-way electric control valve	MDTW304-10-T031	2	6	0	0	0.3*
2.5.5.	Relay valve	TPJ91-00-00	2	6	0	0	0.3*
2.5.6.	Check valve	WXBT-20A	1	6	0	0	0.2*
2.5.7.	Throttle valve	SPZ210K-23-07-00	1	6	0	0	0.2*
2.5.8.	Shuttle valve	KV-20	1	6	0	0	0.2*
2.5.9.	Valve bank inst. for ballast distributing plate on center plough	SPZ350B-23-11-00	1	6	0	0	0.2*
2.6 Seal Kit							
2.6.1.	Rotary shaft lip seal	GB/T13871 B30*50*7	1	1	0	0	1
2.6.2.	Frame work oil seal	TRAA02400-N7MMR	4	1	2	0	2
2.6.3.	Oil seal	HG4-692-67 PG180*220*18	4	1	2	0	2
2.6.4.	O seal ring	GB/T3452.1 230*3.55G	8	1	4	2	2
2.6.5.	Frame work oil seal	TRAA02400-N7MMR	4	1	2	0	2
2.6.6.	Mounting seat of relay valve	SPZ210K-07-04-00	2	1	2	0	0
2.7. Others							
2.7.1.	Seal sleeve	T1301	70	1	50	10	10
2.7.2.	Steel core combined sealing rubber strip	SPZ350A-23-23-00.9	1	6	0	0	0.2*
2.7.3.	Inscribed elbow union	TB/T800 Dg25	2	6	0.3*	0	0
2.7.4.	Inscribed elbow union	TB/T800 Dg20	15	6	2	0	1
2.7.5.	Inside and outside elbow union	T0757( I)	4	1	2	0	2
2.7.6.	Elbow union	T07279	4	1	2	0	2

\*MINIMUM QUANTITY 1

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per mc		
					SITE	STMT	ZTMD
3.1. BLADE							
3.1.1.	Center plough	SPZ210K -78-00	1	1	0	0	1
3.1.2.	Lateral plough plate	SPZ210K-79-07-00	1	1	0	0	1
3.1.3.	Wing plough plate seat	SPZ210K-78-07-00	1	1	0	0	1
3.1.4.	Lateral plough wear plate	SPC210A-79-24	1	1	0	0	1
3.2. NUTS& BOLTS							
3.2.1.	Nut	GB/T6170 M16	10	6	2	0	0
3.2.2.	Nut	GB/T6170 M20	10	6	2	0	0
3.2.3.	Nut	GB/T6170 M10	10	6	2	0	0
3.2.4.	Nut	GB/T6170 M12	10	6	2	0	0
3.2.5.	Nut	GB/T6170 M24	10	6	2	0	0
3.2.6.	Nut	GB/T6170 M40	10	6	2	0	0
3.2.7.	Slotted nut	GB/T6178 M16	10	6	2	0	0
3.2.8.	Protective nut	T15125	4	6	0.7*	0	0
3.2.9.	Bolt	GB/T5783 M20*55	12	6	2	0	0
3.2.10.	Bolt	GB/T5783 M12*30	12	6	2	0	0
3.2.11.	Bolt	GB/T5782 M8*16	12	6	2	0	0
3.2.12.	Bolt	GB/T32.1 M8*25	8	4	2	0	0
3.2.13.	Bolt	GB/T5785 M16*1.5*15	10	5	2	0	0
3.2.14.	Bolt	TB/T1479 IM22*55	8	4	2	0	0
3.2.15.	Bolt	GB/T5783 M16*40	10	5	2	0	0
3.2.16.	Bolt	GB/T5786 M16*1.5*35	12	6	2	0	0
3.3. WASHER & SCREW							
3.3.1.	Spring washer	GB/T93 16	10	1	10	0	0
3.3.2.	Spring Washer	GB/T93 12	6	1	6	0	0

\*MINIMUM QUANTITY 1



S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per mc			
					SITE		STMT	ZTMD
3.3.3.	Spring Washer	GB/T93 08	10	1	10	0	0	0
3.3.4.	Spring Washer	GB/T93 14	10	1	10	0	0	0
3.3.5.	Spring Washer	GB/T93 6	8	1	8	0	0	0
3.3.6.	Washer	SPZ210K-05-02	4	1	4	0	0	0
3.3.7.	Spring Washer	GB/T93 8	50	1	50	0	0	0
3.3.8.	Spring Washer	GB/T93 16	4	1	4	0	0	0
3.3.9.	Screw	GB/T70.1 M8*35	4	1	4	0	0	0
3.3.10.	Screw type sight glass	FSL-20	4	1	4	0	0	0
3.3.11.	Screw	0312-39	4	1	4	0	0	0
<b>3.4. O-Ring</b>								
3.4.1.	O seal ring	GB/T3452.1 230*3.55G	2	2	1	0	0	0
3.4.2.	O seal ring	GB/T3452.1 60*3.55G	2	2	1	0	0	0
3.4.3.	O seal ring	JB/ZQ4224 11*1.9	2	2	1	0	0	0
<b>3.5. Bearing</b>								
3.5.1.	Bearing	GB/T297 32044	2	2	1	0	0	0
3.5.2.	Bearing	NJP2226Q1/C4S0	2	2	1	0	0	0
3.5.3.	Cylindrical Roller bearing	NJ2316ECM.C3 VA350	2	2	1	0	0	0
3.5.4.	Cylindrical Roller bearing	NJ316ECJ	2	2	1	0	0	0
<b>3.6. Others</b>								

\*MINIMUM QUANTITY 1

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per mc		
					SITE	STMT	ZTMD
3.6.1.	Copper bush	0312-36	1	1	1	0	0
3.6.2.	Sliding bushing	SPZ210K-79-06-00	2	1	1	0	0
3.6.3.	Single pipe clamp pair	T07139-00	2	1	2	0	0
3.6.4.	Single pipe clamp	T07183-00	6	1	4	0	2
3.6.5.	Pipe clamp	TLPG3-533.7	15	1	10	0	5
3.6.6.	Reducing dual-single pipe clamp kit	T0753-00	6	1	4	0	2
3.6.7.	Hose clamp	460-480	1	1	1	0	0
3.6.8.	Rainproof cap and clamp	1575	2	1	2	0	0
3.6.9.	Straight connector and clamp	1580	2	1	2	0	0
3.6.10.	Dustproof plug and chain	TB/T23 433	6	1	4	0	2
3.6.11.	Conveyor belt	-----	1	1	0	0	1
3.6.12.	Broom Hoses	-----	300	0.5	150	0	450

\*MINIMUM QUANTITY 1

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per mc		
					SITE	STMT	ZTMD
4. ELECTRICAL / ELECTRONICS							
4.1.	Low smoke zero halogen cable	4710013,1.0	1	6	10m	0	10m
4.2.	Pressure switch	PEV-1/4-A-SW27	1	6	0	0	0.2*
4.3.	Horn switch joint	T0703-03( I )	1	6	0	0	0.2*
4.4.	Main supply fuse inst	SPZ210K-13-16-00.	2	6	0	0	0.3*
4.5.	DC relay	S137C-DC24V	2	6	0	0	0.3*
4.6.	Proximity switch inst. for center plough	SPZ210K-13-19-00	2	6	0	0	0.3*
4.7.	Locking proximity switch inst. for sleeper surface	SPZ210K-13-20-00	2	6	0	0	0.3*
4.8.	Liquid level switch	LM004HKRQ	1	6	0	0	0.2*
4.9.	Proximity switch	Ni12U-P18SK-AP6X	1	6	0	0	0.2*
4.10.	E-stop button	ZB2BS54C+ZB2BZ101C	1	6	0	0	0.2*
4.11.	Main supply fuse inst.	SPZ210K-13-16-00	1	6	0	0	0.2*
4.12.	Inhaul cable for flexible shaft	LZLS	3	6	0	0	0.5*
4.13.	Two-pos. change-over switch	ZB2BD2C+ZB2BZ101C	1	6	0	0	0.2*
4.14.	Three-pos. self-reset switch	ZB2BD5C+ZB2BZ101C+ZB2BE101C	1	6	0	0	0.2*

\*MINIMUM QUANTITY 1

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per mc		
					SITE	STMT	ZTMD
5. PNEUMATICS							
5.1.	Auto drain filter	F32BR06AM	1	6	0	0	0.2 <sup>*</sup>
5.2.	JZ-7 brake valve inst. assy	JW3C-07( I )-01-00	1	6	0	0	0.2 <sup>*</sup>
5.3.	JZ-7 brake valve	TPJ90-00-00A	1	6	0	0	0.2 <sup>*</sup>
5.4.	Emergency pressure reducing cylinder	T07193-00	2	6	0	0	0.3 <sup>*</sup>
5.5.	Air cylinder for mounting A seat	SPZ350B-67-05-00	2	6	0	0	0.3 <sup>*</sup>
5.6.	Air cylinder	QGB II -63*330-MT4	2	6	0	0	0.3 <sup>*</sup>
5.7.	Seat Lifting cylinder	SPC210A-78-15	1	6	0	0	0.2 <sup>*</sup>
5.8.	Brake cylinder assembly	DLJ6-02-06-200G7	2	6	0	0	0.3 <sup>*</sup>
5.9.	Rubber hose	2808-10	1	6	10m	0	10m
5.10.	Stainless steel seamless steel pipe	SPZ210K-07-00.69	1	6	0	0	0.2 <sup>*</sup>
5.11.	Brake shoe suspended plate	GW229-06-03	4	6	0	0	0.7 <sup>*</sup>
5.12.	Screw rod for balance of brake shoe	T0603( I )	4	6	0	0	0.7 <sup>*</sup>
5.13.	Spring for balance of brake shoe	T0636	4	1	2	2	0
5.14.	High friction compound brake shoe	SPZ210K-06-07	4	1	4	0	0
5.15.	Hose joint	A0250031	1	6	0	0	0.2 <sup>*</sup>
5.16.	Hose clamp	460-480	1	6	0	0	0.2 <sup>*</sup>
5.17.	Single pipe clamp	T07183-00	1	6	0	0	0.2 <sup>*</sup>
5.18.	Brake hose connector	TB/T60-2001	1	6	0	0	0.2 <sup>*</sup>
5.19.	High friction compound brake shoe	SPZ210K-06-07	4	6	0	0	0.3 <sup>*</sup>
5.20.	Combined gasket	JB/T982 22	4	6	0	0	0.7 <sup>*</sup>
5.21.	Combined gasket	JB/T982 26	2	6	0	0	0.3 <sup>*</sup>
5.22.	Stainless steel seamless steel pipe	SPZ210K-07-00.69	1	6	0	0	0.2 <sup>*</sup>
5.23.	Brake riggings	SPZ210K -06-00	4	6	0	0	0.3 <sup>*</sup>

\*MINIMUM QUANTITY 1

## **ACKNOWLEDGEMENT**

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### **RAILWAYS**

- |    |                    |               |
|----|--------------------|---------------|
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### **RDSO**

- |    |                      |           |
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| 2. | Shri A.N.Srivastava  | SSRE/ /TM |
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