# Recommendation of Committee on 'Policy on Procurement of Spares of Track Machines'

#### Authority: Railway Board Letter No.2016/Track/III/TK/4 dated 29.06.2016

1. Railway Board vide referred letter has constituted a committee of seven SAG officers for framing Policy on Procurement of spares for Track Machines. The members of the committee are:

(i)	ED/TM/RDSO	-	Convener
(ii)	CE/TMC/NCR	-	Member
(iii)	CE/TM/SCR	-	Member
(iv)	CE/TMC/NR	-	Member
(v)	CE/TMC/CR	-	Member
(vi)	CE/TMC/ER	-	Member
(vii)	Sr. Professor, IRICEN	-	Member

#### 2. Terms of reference:

- (a) To study the existing system of procurement of spares for Track Machines.
- (b) To suggest the improvement over the existing system of sourcing spares for track machines keeping in view of life cycle cost of track machines and to frame a uniform policy on procurement procedure of spares for track machines to be adopted on IR.

#### 3. Discussion:

The safety of running trains is paramount on a railway system and maintaining the track to safe standards is vital for running of trains. Indian Railways has shifted from manual system of track maintenance to mechanized system of maintenance. Track machines are utilized for regular track maintenance, periodic track maintenance as well as for track renewals.

It is, therefore, very important to keep the track machines in good health by a developing a robust maintenance system. Indian Railways Track Machine Manual prescribes the various maintenance schedules for different types of machines. The maintenance of machines is carried out by Zonal Railways and by centralized POH workshops.

Most of the machines working on IR are imported as of now. The design of a track machine is a result of lot of R&D and is quite complicated. During several years of experience, Railways have been able to identify some components which are

purchased by OEM from a recognized manufacturer (branded) and can be obtained from the authorized dealer of the brand at a competitive cost. Some other parts primarily mechanical in nature have also been developed by local vendors and found to be performing satisfactorily. Other parts/components are procured from OEM. Effort is being made to further decipher equivalent branded/local parts and search for equivalent parts is a continuous process. The search for equivalent parts has to be done very cautiously since one incompatible part can affect several other parts/assemblies adversely and may lead to heavy damages/immobilization of machine for a long time. Any failure of the track machine during the traffic block is treated as accident and affects the train operation.

- i) It is observed by the committee that:
  - Unit cost of operation of various machines on Indian Railways was analyzed and it is seen that the cost of spares constitutes approximately 8% to 10% of the unit cost of operation. However, the cost of the spares for the machines is dependent on the condition and the age of the machine.
  - The selection of source of procurement of spares is critical to the health and performance of machines and any failure of the machine not only results in financial loss to the Railway but also affects the maintenance of the track and may affect the train operations adversely and also lead to unsafe conditions for running trains. The failure of the machines also shakes the confidence of the railway administration to grant traffic blocks for their operation.
  - The procurement of spares being done at present is from the following sources.
    - a) Original Equipment Manufacturer(OEM)
    - b) Branded items from different suppliers
    - c) Manufactured items on the basis of RDSO drawing and specifications
    - d) Manufactured items on the basis of OEMs sample.
  - The committee observes that detailed technical specifications of most of the parts cannot be prepared being patented items of the machine manufacturer. The committee is, therefore, of unanimous view that till the time adequate local capacity and capabilities are established for availability of reliable equivalent spare parts of the track machines based on fitment and functional requirements, most of the items should be procured either from OEM or from already identified brands used by the original part manufacturer for reliability and longer life. This is necessary for ensuring good health of the machines which are vital for track maintenance and safety of the running trains as discussed in para 3 above.
- ii) The committee deliberated upon the list of critical items compiled by RDSO for track machines and broadly identified the items to be procured from OEM/original

- item manufacturer, those to be procured from specific manufacturer (branded items) and items to be procured from local vendors (own make items).
- iii) The committee observed that there is large number of items being used and decided to nominate a sub-committee of the experienced officers to go into the details of the various components being used in the machines and classify them in various categories based on the past experience on Indian Railways. A subcommittee of the following officers working in CPOH workshops, RDSO and zonal railways were nominated to compile the list of spares in various categories.
  - 1. Shri. D. Satyanarayana, Dy.CE/TM/SECR
  - 2. Shri. S.K.Asthana, XEN/TMC/HQ/ALD
  - 3. Shri. Muslim Ahmed, ARE/TM/RDSO
  - 4. Shri. S. D. Mahajan, AEN/TM/WR
  - 5. Shri. K. Srinivasa Rao, AEN/TM/RYP

The list of items has been classified in following categories:

- a) Items to be procured from OEM
- b) Items to be procured from branded suppliers.
- c) Items to be procured from local manufacturers

Since there is a huge list of items being used on Track Machine, the subcommittee has considered items which are being procured by CPOHs/zonal railways at present. The items which are not included in any of the annexures at present should be procured by Zonal railway/CPOH as OEM/Branded/Own make depending upon the type and criticality of the item with the approval of CE/Track Machines. The details of the same should be advised to RDSO duly recommending as per para 6 for deliberations by the standing committee for inclusion in appropriate list.

#### 3.1. OEM/Branded/Own make

- 3.1.1. OEM items: The units/components for which no brand has been identified till now nor any drawing and specification has been developed by RDSO or railways are to be procured from OEM and is enclosed as Annexure-I. As of now, there are 4721 items in this category. The following types of item mainly are taken in Annexure-I.
  - Hydraulic filters used on track machine and other hydraulic components for which no brand has been identified till date.
  - ii) All types of printed circuit boards (PCB) used on track machine and their components.
  - iii) ZF gear box and its spares.

- iv) Most of the Hydraulic valves, pumps and motors for which no brand has been identified/used.
- v) Electronic spares not identified for any brand like data cable, gauges, digital display, censor and switches.
- vi) Pneumatic valves used in brake circuit including brake cylinder.
- vii) Transmission gear boxes and their housing, cardon shafts
- viii) Clutch assemblies of BCM/FRM machines.
- ix) Engine spares
- x) Hydraulic coolers and radiators
- 3.1.2. Branded items: Branded items include those items which are brought out items of OEM and equivalent items of other reputed manufacturers used and tested successfully either by CPOH or zonal railways. As on date, a list of 1283 items has been included in this category and is given in Annexure-II. The brand name has also been included in the list. Mainly following type of items are taken in this category:
  - i) Hydraulic pump and motor for which brand is already identified and established.
  - ii) Hydraulic hoses, pneumatic hoses, hydraulic and pneumatic gauges, pneumatic valves and cylinders.
  - iii) Transducer, potentiometers, cables, lights and batteries.
  - iv) Most of the bearings.
  - v) Hydraulic seals, rotary seals for axles and gear boxes.
  - vi) Some of the hardware such as important fasteners, HTS bolts etc.
  - vii) Hydraulic and pneumatic adopters
  - viii) Accumulators
- 3.1.3. **Own make items:** Own make items include those units / components for which drawing and specification have been developed by RDSO/CPOH/zonal railways. The items for which drawings and specifications have been developed by RDSO are included in the list as Annexure-III(A). The items being procured by CPOH/zonal railways for which they have developed their own drawing and specification have been included in the list as Annexure-III(B).
- 3.2. Spare Part Numbering (SPN) system

Each and every spares has been assigned a 11 digits identification number henceforth called **SPN** (**Spare Part Number**). There are six types of coding number for proper nomenclature such as **A.BB.CCCC.D.EE.F.** Meaning of each letter and group of letters are deliberated as under-

Α	Main Group	
BB	Two digit sub group	
CCCC	Four digit serial number of component/unit	
D	OEM/Branded Items/Own make Items	
EE	Indian Railway/Zonal Railway	
F	Check digit (sum of all above nine digits in single digit)	

SPN number will be followed by two alphabets for identification of the manufacturer of the machine or the engines. These two alphabets will be used only for the purpose of sorting by the user and not for indenting purpose.

- i) First digit marked as **A** has been allotted for main group of machine assemblies with 1 to 9 such as hydraulics, electronics, tamping unit etc. Details of sections are given in Para 3.3
- ii) Second and third digit marked as **BB** has been allotted for sub group as given in Para 3.4
- iii) Fourth, fifth, sixth and seventh digit marked as **CCCC** has been allotted for serial number of component/unit in each sub group with 0001,0002 and so on as per Annexure-I, II & III.
- iv) Eighth digits marked as **D** has been allotted for classification of item under the head of OEM, Branded and Own make etc.

Category	Code
OEM Items	1
Branded Items	2
Own Make Items	3

v) Ninth and tenth digits marked as **EE** for identifying the SPN allotted for Indian Railways or by Zonal Railway as under :

Railway	Code
Indian Railway	01
CPOH/ALD	02
CPOH/RYP	03
CPOH/ER	04
CPOH/WR	05
Central Railway	06
Eastern Railway	07
East Central Railway	08

Railway	Code
East Coast Railway	09
Northern Railway	10
North Central Railway	11
North Western Railway	12
North Eastern Railway	13
North Frontier Railway	14
Western Railway	15
West Central Railway	16
Southern Railway	17
South Eastern Railway	18
South Western Railway	19
South Central Railway	20
South East Central Railway	21
South Coast Railway	22
Metro Railway, Kolkata	23

Further during periodical updating of the list, Zonal Railway items will be included in Indian Railway list by standing committee as per para 6.

- vi) Eleventh digits marked as **F** is the check sum of sum for all previous 10 digits.
- vii) The committee has limited it's scope for assigning SPN for spares for track machines and consumables. Other items such as stock items, T&P etc. have not been considered for which separate system of procurement is existing.

#### 3.3. Main Group

All Items of Track machine have been classified under nine main groups/assemblies with unique numeral as under:

Main Groups	Code
Engine & Compressor	1
Hydraulics	2
Pneumatics	3
Electrical & Electronics	4
Axle & Gear Box	5
Tamping Unit & Lifting Unit	6

Main Groups	Code
Bearings	7
Hardware, General Machine items and Consumables	8
Rubber Items	9

### 3.4. Sub group

Items/spares of each main group are classified in following subgroups for its identification.

S.N. Main Group		Sub Group	Code	
1	Engine &	Cummins	01	
	compressor	Deutz	02	
		Greaves	03	
		Kirlosker	04	
		SUN	05	
		Lombardier	06	
		Mahindra	07	
		Caterpillar	08	
		Ashok Leyland	09	
2	Hydraulics	Hydraulic Pumps	01	
_	Tryaraanoo	Hydraulic Motors	02	
		Hydraulic Valves	03	
		Hydraulic Cylinders & Accessories	04	
		Critical Hydraulic Hoses & Fittings	05	
		Hydraulic Hoses & Fittings	06	
		Hydraulic coolers, accumulators and	07	
		others		
		Hydraulic Filters	08	
		Hydraulic Seals	09	
		Hydraulic Adopters	10	
		Hydraulic Gauges	11	
3	Pneumatic	Pneumatic Valves	01	
		Pneumatic Brake System	02	
		Pneumatic Cylinders	03	
		Pneumatic Hoses	04	
		Pneumatic Adapters	05	
		Pneumatic Others	06	
		Pneumatic Seals	07	

S.N.	Main Group	Sub Group	Code	
4 Electrical &		PCB, Power Supply & Transformer		
	Electronics	Relay, IC, Transistor, Capacitor, Diode,	02	
		Coil & Rectifier		
		Switch & Contact Element	03	
		Gauges, Sensors, LED, Encoders &	04	
		Indicators		
		Transducer, Potentiometer & Resistance	05	
		Pendulum	06	
		Electricals Cables	07	
		Circuit Breakers, Fuses, Coupler, Socket,	08	
		Plug, Chord Wire & Angle Gear		
		Fans, All Lights, Battery, Self-Starter,	09	
		Alternator & Motor		
		ALC, Panel, CWS,CMS, DAR & DRP	10	
5	Gear Box & Axles	ZF Gear Box	01	
		Gear Box Housing	02	
		Gears & Shafts	03	
		Flanges &Couplings	04	
		Cardan Shaft	05	
		Pins, Bushes and Others	06	
		Axles & Axle Assembly Complete	07	
		Wheels	08	
		Bogie & Housing	09	
		Mechanical Brake assembly & Torque	10	
		plates		
		Sensing unit	11	
		BCM Clutch Assemblies	12	
		Complete Gear Box	13	
6	Tamping and	Sq. Cylinder, Tool Tilting Cylinder	1	
	Lifting Units	Taming Unit Gear Box/Tamping Bank	2	
		Taming Arms	3	
		Vibration Shaft	4	
		Guide Rod, C R Bolts, Sleeve, Pins &	5	
		Other miscellaneous		
		P.B. Bushes	6	
		Fly Wheel, Flanges, Spacers, Couplers &	7	
		Bracket		
		Tamping Tools	8	

S.N.	Main Group	The state of the s				
		Auto Greasing	9			
		Tamping Unit Sliding	10			
		Lifting Unit Spares	11			
7	Bearings	Ball Bearing	. 01			
		Cylindrical Roller Bearings	02			
		Spherical Roller Bearings	03			
		Taper Roller Bearings	04			
		Axial Thrust Bearings	05			
		Rocker Bearings	06			
		Pivot Bearings	07			
		PG Bush	08			
		Special Bearings	09			
3	General Machine	Allen Bolts	01			
	items, Hardware	Hexagonal Head Bolts	02			
	and Consumables	Washers	03			
		Split Pins	04			
		CSK & Special Bolts	05			
		Grub Screw, Machine Screw & Nuts	06			
		All Tamper General except HOTSTAB	07			
		BCM General	08			
		FRM General	09			
		BRM General	10			
		PQRS General	11			
		TRT General	12			
		T-28 General	13			
		DGS General	14			
		UTV & RBMV General	15			
		RGM General Component	16			
		Other Miscellaneous items	17			
		Consumables/Paints	18			
		Belts	19			
		VPR General Items	20			
		HOTSTAB General Items	21			
		HOBCM General Items	22			
		MDU General Items	23			
9	Rubber Items	Engine Mounting Pad	01			
0	TODO TOTAL	Cabin & Other Mountings	02			
		Conveyor Belts	03			

S.N.	Main Group	Sub Group	Code
		Couplings	04
		Other Rubber Items	05
		Brooms	06
		Tamping Unit Seals	07

**3.5.** Category of spares: SPN are being allotted as explained below as example for SPN 10100011015:

SPN	1	01	0001	1	01	5
	Engine	Cummins Spare	Serial no. of Spare	PAC Item	Indian Railways	Checksum for Sum of 10 digits

Components of all types of track machines used over Indian railways have been discussed on the basis of criticality and functional requirement including existing procedure of procurement being followed by both CPOH and zonal railways. The Category of spares along with SPN is to be uploaded in TMS. As of now 178 categories have been identified for Indian Railway as under:

Categ	SPN	Main Group	Sub Group	PAC/Bran	Remarks	No.
ory.				ded/Own		of
				Make		Item
						S
1.	1.01.XXXX.1.01.Y	Engine &	Cummins	PAC	All items of Cummins Engine	429
		compressor			except those for which	
					reputed brands are available	
2.	1.01.XXXX.2.01.Y	Engine &	Cummins	Branded	Any other items of reputed	00
		compressor			brands used in lieu	
3.	1.02.XXXX.1.01.Y	Engine &	Deutz	PAC	All items of Deutz Engine	996
		compressor			except those for which	
					reputed brands are available	
4.	1.02.XXXX.2.01.Y	Engine &	Deutz	Branded	Any other items of reputed	00
		compressor			brands used in lieu	
5.	1.03.XXXX.1.01.Y	Engine &	Greaves	PAC	All items of ,Greaves Engine	103
		compressor			except those for which	
					reputed brands are available	

6.	1.03.XXXX.2.01.Y	Engine & compressor	Greaves	Branded	Any other items of reputed brands used in lieu	00
7.	1.04.XXXX.1.01.Y	Engine & compressor	Kirloskar	PAC	All items of , Kirloskar Engine except those for which reputed brands are available	84
8.	1.04.XXXX.2.01.Y	Engine & compressor	Kirloskar	Branded	Any other items of reputed brands used in lieu	00
9.	1.05.XXXX.1.01.Y	Engine & compressor	SUN	PAC	All items of , SUN Engine except those for which reputed brands are available	118
10.	1.05.XXXX.2.01.Y	Engine & compressor	SUN	Branded	Any other items of reputed brands used in lieu	00
11.	1.06.XXXX.1.01.Y	Engine & compressor	Lombardini	PAC	All items of , Lombardini Engine except those for which reputed Brands are available	00
12.	1.06.XXXX.2.01.Y	Engine & compressor	Lombardini	Branded	Any other items of reputed brands used in lieu	00
13.	1.07.XXXX.1.01.Y	Engine & compressor	Mahindra	PAC	All items of , Mahindra Engine except those for which reputed brands are available	00
14.	1.07.XXXX.2.01.Y	Engine & compressor	Mahindra	Branded	Any other items of reputed brands used in lieu	00
15.	1.08.XXXX.1.01.Y	Engine compressor	Cater pillar	PAC	All items of Caterpillar Engine except those for which reputed brands are available	16
16.	1.08.XXXX.2.01.Y	Engine & compressor	Cater pillar	Branded	Any other items of reputed brands used in lieu	00
17.	1.09.XXXX.1.01.Y		Ashok Leyland	PAC	All items of Ashok Leyland Engine except those for which reputed brands are available	00
18.	1.09.XXXX.2.01.Y	Engine & compressor	Ashok Leyland	Branded	Any other items of reputed brands used in lieu	00
19.	2.01.XXXX.1.01.Y		Hydraulic Pumps	PAC	Pumps for which no brand is identified till now	23
20.	2.01.XXXX.2.01.Y	Hydraulics	Hydraulic Pumps	Branded	Pumps which are identified for one to one replacement and used in lieu	89

21.	2.02.XXXX.1.01.Y	Hydraulics	Hydraulic Motor	PAC	Motors for which no brand is identified till now and used in lieu	11
22.	2.02.XXXX.2.01.Y	Hydraulics	Hydraulic Motor	Branded	Motors which are identified for one to one replacement and used in lieu	39
23.	2.03.XXXX.1.01.Y	Hydraulics	Hydraulic Valve	PAC	Valves for which no brand is identified till now	116
24.	2.03.XXXX.2.01.Y	Hydraulics	Hydraulic Valve	Branded	Valves which are identified for one to one replacement and used in lieu	63
25.	2.04.XXXX.1.01.Y	Hydraulics	Hydraulic Cylinders	PAC	BCM, FRM, Supporting cylinders, Tamping unit lifting lowering cylinder & Hook up/down cylinders of tampers	131
26.	2.04.XXXX.3.01.Y	Hydraulics	Hydraulic Cylinders	OWN	All Other than above Cylinders	6
27.	2.05.XXXX.2.01.Y	Hydraulics	Critical Hydraulic Hose	Branded	Super high pressure hoses (GH506/4SH)	2
28.	2.06.XXXX.2.01.Y	Hydraulics	Hydraulic Hose	Branded	All other pressure & return hydraulic hoses	24
29.	2.07.XXXX.1.01.Y	Hydraulics	Hydraulic cooler and accumulators	PAC	Hydraulic coolers and accumulators for which no brand is identified till now	3
30.	2.07.XXXX.2.01.Y	Hydraulics	Hydraulic cooler and accumulators	Branded	Hydraulic coolers and accumulators which are identified for one to one replacement and used in lieu	7
31.	2.08.XXXX.1.01.Y	Hydraulics	Hydraulic Filters	PAC	All hydraulic filters for which no brand is identified till now	104
32.	2.09.XXXX.1.01.Y	Hydraulics	Hydraulic Seals	PAC	Radial seals and Seals of cylinders which are being procured through OEM	83
33.	2.09.XXXX.2.01.Y	Hydraulics	Hydraulic Seals	Branded	Seals for other hydraulic cylinders	33
34.	2.10.XXXX.2.01.Y	Hydraulics	Hydraulic adopter	Branded	All end connections	105
35.	2.10.XXXX.1.01.Y	Hydraulics	Hydraulic adopter	PAC	All end connections	1

36	2.11.XXXX.1.01.Y	Hydraulics	Hydraulic gauges	PAC	Hydraulic gauges which are not identified for one to one	12
37.	2.11.XXXX.2.01.Y	Hydraulics	Hydraulic gauges	Branded	renlessment and	11
38.	3.01.XXXX.1.01.Y	Pneumatic	Pneumatic	PAC	replacement and used in lieu  All Critical valves for which	67
39.	3.01.XXXX.2.01.Y	Description	Valves		no brand is identified till now	
33.	3.01.22.01.4	Pneumatic	Pneumatic Valves	Branded	Hydraulic coolers and accumulators which are identified for one to one replacement and used in lieu	28
40.	3.02.XXXX.1.01.Y	Pneumatic	Pneumatic Brake Systen	PAC	All brake circuit components being safety item	51
41.	3.03.XXXX.1.01.Y	Pneumatic	Pneumatic Cylinders	PAC	Pneumatic Cylinders for which no brand is identified till now	27
42.	3.03.XXXX.2.01.Y	Pneumatic	Pneumatic Cylinders	Branded	Pneumatic Cylinders which are identified for one to one replacement and used in lieu	40
43.	3.04.XXXX.2.01.Y	Pneumatic	Pneumatic Hose	Branded	Reputed brand as per IS specs.	5
44.	3.05.XXXX.2.01.Y	Pneumatic	Pneumatic Adapters	Branded	All end connections in Pneumatic circuit	0
45.	3.06.XXXX.1.01.Y	Pneumatic	Pneumatic Others	PAC	Pneumatic items for which no brand is identified till now	25
46.	3.06.XXXX.2.01.Y	Pneumatic	Pneumatic Others	Branded	Pneumatic items which are identified for one to one replacement and used in lieu	2
47.		Pneumatic	Pneumatic Others	Own	Own make items for which only drawing or samples are available.	0
48.		Pneumatic	Pneumatic Seals	PAC	Seals of cylinders which are under OEM list including Brake Cylinder.	12
		Pneumatic	Pneumatic Seals	Branded	Seals of cylinders which are under branded category.	12
50.		Electrical & Electronics	PCB, Power Supply & Transformer	PAC	All PCBs	312

51.	4.02.XXXX.1.01.Y	Electrical & Electronics	Relay, IC, Transistor, Capacitor, Diode, Coil & Rectifier	PAC	Due to functional requirement	207
52.	4.02.XXXX.2.01.Y	Electrical & Electronics		Branded	Items which are manufactured by reputed makes and identified for one to one replacement	2
53.	4.03.XXXX.1.01.Y	Electrical & Electronics	Switch & Contact Element	PAC	Switch & Contact for which no brand is identified till now	148
54.	4.03.XXXX.2.01.Y	Electrical & Electronics	Switch & Contact Element	Branded	Switch & Contact which are identified for one to one replacement and used	22
55.	4.04.XXXX.1.01.Y	Electrical & Electronics	Gauges, Sensors, LED, Encoder & Indicators	PAC	Items for which no brand is identified till now	161
56.	4.04.XXXX.2.01.Y	Electrical & Electronics	Gauges, Sensors, LED, Encoder & Indicators	Branded	Items which are identified for one to one replacement and used in lieu	07
57.	4.05.XXXX.1.01.Y	Electrical & Electronics	Transducer, Potentiometer & Resistance	PAC	Being critical on accuracy and functional point of view	232
58.	4.05.XXXX.2.01.Y	Electrical & Electronics	Transducer, Potentiometer & Resistance	Branded	Items which are manufactured by reputed makes and identified for one to one replacement	09
59.	4.06.XXXX.1.01.Y	Electrical & Electronics	Pendulum	PAC	All types of pendulums and their components	10
60.	4.06.XXXX.2.01.Y	Electrical & Electronics	Pendulum	Branded	Pendulum items which are manufactured by reputed makes and identified for one to one replacement	01
61.	4.07.XXXX.1.01.Y	Electrical & Electronics	Electricals Cables	PAC	Electricals Cables for which no brand is identified till now	24
62.	4.07.XXXX.2.01.Y	Electrical & Electronics	Electricals Cables	Branded	Electricals Cables which are identified for one to one replacement and used in lieu	44

63.	4.08.XXXX.1.01.Y	Electrical &	Circuit	PAC	Items for which no brand is	137
		Electronics	Breakers,		identified till now	
			Fuses,			
			Coupler,			
			Socket,			
			Chord Wire,			
			Angle Gear &			
			Others			
64.	4.08.XXXX.2.01.Y	Electrical &	Circuit	Branded	Items which are identified for	18
		Electronics	Breakers,		one to one replacement and	
			Fuses,		used in lieu	
			Coupler,			
			Socket,			
			Chord Wire,			
			Angle Gear &			
			Others			
65.	4.09.XXXX.1.01.Y	Electrical &	Fans, All	PAC	Items for which no brand is	35
		Electronics	Lights,		identified till now	
			Battery, Self-			
			Starter,			
			Alternator &			
			Motor			
	1.00.1000/0.04.1/	Electrical 9		Branded	Items identified for one to	22
66.	4.09.XXXX.2.01.Y	Electrical &	Fans, All	Dianueu	one replacement under	
		Electronics	Lights,		reputed make and used in	
			Battery, Self-		lieu	
			Starter,		ned .	
			Alternator &			
			Motor			
67.	4.10.XXXX.1.01.Y	Electrical &	ALC, Panel,	PAC	All items of ALC, Panel,	15
		Electronics	CWS,CMS,		CWS,CMS, DAR & DRP	
			DAR & DRP			
68.	5.01.XXXX.1.01.Y	Gear Box &	ZF gear Box	PAC	All items of ZF Gear Box	239
		Axles				
69.	5.02.XXXX.1.01.Y	Gear Box &	Gear Box	PAC	Housings of Gear Box for	2
		Axles	Housing		which no drawing and	
					specification available	
70.	5.02.XXXX.3.01.Y	Gear Box &	Gear Box	Own	Housings of Gear Box for	1
		Axles	Housing		which drawing and	
					specification available	
71.	5.03.XXXX.1.01.Y	Gear Box &	Gears &	PAC	Gears & Shafts of Gear	39
		Axles	Shafts		Boxes for which no drawing	
					and specification available	

72.	5.03.XXXX.3.01.Y	Gear Box & Axles	Gears & Shafts	Own	Gears & Shafts of Gear Boxes for which drawing and specification available	05
73.	5.04.XXXX.1.01.Y	Gear Box & Axles	Flanges/Coup lings	PAC	All couplings	12
74.	5.04.XXXX.3.01.Y	Gear Box & Axles	Flanges/Coup lings	Own	All flanges	16
75.	5.05.XXXX.1.01.Y	Gear Box & Axles	Cardon Shaft	PAC	All Cardon Shafts	47
76.	5.06.XXXX.1.01.Y	Gear Box & Axles	Pin, Bushes and Others	PAC	Items which are functionally critical	11
77.	5.06.XXXX.3.01.Y	Gear Box & Axles	Pin, Bushes and Others	Own	Pin, Bushes and Other Gears components for which drawing and specification available	18
78.	5.07.XXXX.1.01.Y	Gear Box & Axles	Axles	PAC	All Axles	9
79.	5.07.XXXX.3.01.Y	Gear Box & Axles	Axles	OWN	All Axles for which drawings & specifications are available	03
80.	5.08.XXXX.1.01.Y	Gear Box & Axles	Wheel	PAC	Wheel for BCM/FRM and for which drawings & specifications are not available.	3
81.	5.08.XXXX.3.01.Y	Gear Box & Axles	Wheel	Own	All wheels for which drawings & specifications are available	1
82.	5.09.XXXX.1.01.Y	Gear Box & Axles	Bogie & Housing	PAC	Items for which drawing and specification not available	22
83.	5.09.XXXX.2.01.Y	Gear Box & Axles	Bogie & Housing	Branded	Items identified for one to one replacement under	3
84.	5.09.XXXX.3.01.Y	Gear Box & Axles	Bogie & Housing	Own	Items for which drawings or samples available	5
85.	5.10.XXXX.1.01.Y	Gear Box & Axles	Mechanical Brake assembly & Torque plate	PAC	Being safety item	16
86.	5.10.XXXX.3.01.Y	Gear Box & Axles	Mechanical Brake assembly & Torque plate	OWN	Items for which drawings or samples available	03

87.	5.11.XXXX.3.01.Y	Gear Box & Axles	Sensing unit	Own	All components of Sensing unit for which drawing and specification available	0
88.	5.12.XXXX.1.01.Y	Gear Box & Axles	BCM Clutch Assemblies	PAC	Items for which drawing and specification not available	139
89.	5.13.XXXX.1.01.Y	Gear Box & Axles	Complete Gearbox	PAC	Items for which drawing and specification not available	11
90.	5.13.XXXX.3.01.Y	Gear Box & Axles	Complete Gearbox	Own	Items for which drawings and specifications available	0
91.	6.01.XXXX.3.01.Y	T/U&L/U	Sq. Cylinder, Tool Tilting Cylinder	Own	Items for which drawings or samples available	16
92.	6.02.XXXX.3.01.Y	T/U&L/U	Tamping Gear Box/Bank	Own	Items for which drawings or samples available	0
93.	6.03.XXXX.3.01.Y	T/U&L/U	Tamping Arms	Own	Items for which drawings or samples available	1
94.	6.04.XXXX.3.01.Y	T/U&L/U	Vibration Shaft	Own	Items for which drawings or samples available	4
95.	6.05.XXXX.3.01.Y	T/U&L/U	Guide Rod, C R Bolts, Sleeve, Pins & Other miscellaneo us	Own	Items for which drawings or samples available	42
96.	6.06.XXXX.3.01.Y	T/U&L/U	P.B. Bushes	Own	Items for which drawings or samples available	1
97.	6.07.XXXX.3.01.Y	T/U&L/U	Fly wheels, Flanges, Spacers, Couplers, Bracket etc.	Own	Items for which drawings or samples available	61
98.	6.08.XXXX.3.01.Y	T/U&L/U	Tamping Tools	Own	Items for which drawings or samples available	15
99.	6.09.XXXX.2.01.Y	T/U&L/U	Auto Greasing	Branded	Components of Auto Greasing system which are identified for one to one replacement and used in lieu	18
	6.10.XXXX.1.01.Y	T/U&L/U		PAC	T.U Sliding for which no drawing and specification available	0
101.	6.10.XXXX.3.01.Y	T/U&L/U	T.U Sliding	Own	T.U Sliding for which drawing and specification available	2

	2. 6.11.XXXX.3.01.\		Lifting unit	Own	Items for which drawings or	29
	3. 7.01.XXXX.2.01.Y		Ball Bearing	Branded	samples available  Ball Bearing which are identified for one to one replacement and used in lieu	49
	4. 7.02.XXXX.1.01.Y		Cylindrical Roller Bearings	PAC	Cylindrical Roller Bearings for which no brand identified	1
	5. 7.02.XXXX.2.01.Y	Bearings	Cylindrical Roller Bearings	Branded	Cylindrical Roller Bearings which are identified for one to one replacement and used in lieu	28
	. 7.03.XXXX.2.01.Y	Bearings	Spherical cylindrical Bearing	Branded	Spherical cylindrical Bearing which are identified for one to one replacement and used in lieu	09
	. 7.04.XXXX.1.01.Y	Bearings	Taper Roller Bearing	PAC	Cylindrical Roller Bearings for which no brand identified	3
108	7.04.XXXX.2.01.Y	Bearings	Taper Roller Bearing	Branded	Taper Roller Bearing which are identified for one to one replacement and used in lieu by either CPOH	22
	7.05.XXXX.2.01.Y	Bearings	Axial Thrust Bearings	Branded	Axial Thrust & Needle Bearings which are identified for one to one replacement and used in lieu	15
	7.06.XXXX.2.01.Y	Bearings	Rocker Bearings	Branded	Rocker Bearings which are identified for one to one replacement and used in lieu	25
	7.07.XXXX.2.01.Y		Pivot Bearings	Branded	Pivot Bearings which are identified for one to one replacement and used in lieu	13
	7.08.XXXX.2.01.Y	Bearings	PG Bushes	Branded	PG Bushes which are identified for one to one replacement and used in lieu	39
		Bearings	Special Bearings	PAC	Special Bearings which are not identified for one to one replacement	09
		General & Hardware	Allen Bolts	Branded	All types of Allen Bolts	82
115.		General & Hardware	Hex Bolts	Branded	All types of Hex Bolts	114

116.	8.03.XXXX.2.01.Y	General & Hardware	Washers	Branded	All types of Washers	26
117.	8.04.XXXX.2.01.Y	General & Hardware	Split Pins	Branded	All types of Split pins	07
118.	8.05.XXXX.2.01.Y	General & Hardware	CSK &Spl. Bolt	Branded	All types of CSK &Spl. Bolts	43
119.	8.06.XXXX.2.01.Y	General & Hardware	Grub screw, Machine screw & Nuts	Branded	All types of Grub screw, Machine screw & Nuts	19
120.	8.07.XXXX.1.01.Y	General & Hardware	All Tamper General except HOTSTAB	PAC	General items of Tampers except HOTSTAB for which no drawing and specification is available	10
121.	8.07.XXXX.3.01.Y	General & Hardware	All Tamper General except HOTSTAB	Own	General items of Tampers except HOTSTAB for which drawing and specification available	01
122.	8.08.XXXX.1.01.Y	General & Hardware	BCM General	PAC	General items of BCM for which no drawing and specification is available	113
123.	8.08.XXXX.3.01.Y	General & Hardware	BCM General	Own	General items of BCM for which drawing and specification available	51
124.	8.09.XXXX.1.01.Y	General & Hardware	FRM General	PAC	General items of FRM for which no drawing and specification is available	26
125.	8.09.XXXX.3.01.Y	General & Hardware	FRM General	Own	General items of FRM for which drawing and specification available	05
126	. 8.10.XXXX.1.01.Y	General & Hardware	BRM Genera	PAC	General items of BRM for which no drawing and specification is available	97
127	. 8.10.XXXX.2.01.Y	General & Hardware	BRM Genera	l Branded	identified for one to one replacement and used in lieu	05
128	. 8.10.XXXX.3.01.Y	General & Hardware	BRM Genera		General items of BCM for which drawing and specification available	5
129	8.11.XXXX.1.01.Y	General & Hardware	PQRS General	PAC	General items of PQRS for which no drawing and specification is available	04

30.	8.11.XXXX.2.01.Y	General &		Branded	PQRS Components which are identified for one to one	0
		Hardware	General		replacement and used in lieu	
121	8.11.XXXX.3.01.Y	General &	PQRS	Own	General items of PQRS for	0
131.	0.11.	Hardware	General		which drawing and	
		laraware			specification available	
100	8.12.XXXX.1.01.Y	General &	TRT General	PAC	General items of TRT for	06
132.	8.12.	Hardware			which no drawing and	
		Harawaro			specification is available	
422	8.12.XXXX.2.01.Y	General &	TRT General	Branded	TRT Components which are	0
133.	0.12.	Hardware			identified for one to one	
		lalaware			replacement and used in lieu	
121	8.12.XXXX.3.01.Y	General &	TRT General	Own	General items of TRT for	0
134.	0.12.	Hardware			which drawing and	
		Taraware			specification available	
105	8.13.XXXX.1.01.Y	General &	T-28 General	PAC	General items of T-28 for	4
135.	8.13.	Hardware			which no drawing and	
		lalaware			specification is available	
100	8.13.XXXX.2.01.Y	General &	T-28 General	Branded	T-28 Components which are	12
136.	8.13.	Hardware			identified for one to one	
		Taraware			replacement and used in lieu	
	. 8.13.XXXX.3.01.Y	General &	T-28 General	Own	General items of T-28 for	0
13/	8.13.888.3.01.1	Hardware	, 20 00		which drawing and	
		Hardware			specification available	
120	. 8.14.XXXX.1.01.Y	General &	DTS General	PAC	General items of DTS for	10
138	. 0.14.	Hardware			which no drawing and	
		Tidi divare			specification is available	
120	8.14.XXXX.3.01.Y	General &	DTS General	Own	General items of DTS for	02
139	0.14.	Hardware			which drawing and	
		i iai arrai s			specification available	
1.40	). 8.15.XXXX.1.01.Y	General &	UTV & RBM\	/ PAC	General items of UTV&	46
140	). 0.15.7777.1.01.1	Hardware	General		RBMV for which no drawing	
		Tarawa.			and specification is available	
1.11	1. 8.15.XXXX.2.01.Y	General &	UTV & RBM	/ Branded	UTV & RBMV Components	1:
14]	1. 0. 13. 17. 17. 17. 17. 17. 17. 17. 17. 17. 17	Hardware	General		which are identified for one	
		Tion of the			to one replacement and used	
					in lieu	
1/1	2. 8.15.XXXX.3.01.	General &	UTV& RBM\	/ Own	General items of UTV&	(
14.	2. 0. 10.//////	Hardware	General		RBMV for which drawing and	
					specification available	
1/1	3. 8.16.XXXX.101.Y	General &	RGM	PAC	RGM Components for which	3
14	5. 0. 10.70000. 101.1	Hardware	Components	3	no drawing and specification	
					is available and no other	
					brand is identified till now	

144.	8.16.XXXX.2.01.Y	General &	1.0		RGM Components which are identified for one to one	55
		Hardware	Components		replacement and used in lieu	
1.45	8.16.XXXX.3.01.Y	General &	RGM	Own	RGM Components for which	0
145.	6. 16	Hardware	Components		drawing and specification is available	
146.	8.17.XXXX.1.01.Y	General & Hardware	Other Miscellaneou s items	PAC	Items which are not a spare part but used in operation of machine and no other brand is identified till now	17
147.	8.17.XXXX.2.01.Y	General & Hardware	Other Miscellaneou s items	Branded	Items which are not a spare part but and for which any reputed brand is identified	01
148.	8.17.XXXX.3.01.Y	General & Hardware	Other Miscellaneou s items	Own	Items which are not a spare part but used in operation of machine and for which drawing and specification is available	13
149	. 8.18.XXXX.1.01.Y	Consumable, oil and paints	Oils	PAC	No other make identified	2
150	. 8.18.XXXX.2.01.Y		Oils	Branded	Approved makes	9
151	. 8.19.XXXX.1.01.Y		Belts	PAC	No other make identified	1
152	2. 8.19.XXXX.2.01.Y		Belts	Branded	All Belts	54
153	3. 8.20.XXXX.1.01.Y		OEM items of VPR	f PAC	VPR Components for which no drawing and specification is available and no other brand is identified till now	3
154	4. 8.20.XXXX.2.01.Y	' General	Branded items of VPF	Branded	VPR Components which are identified for one to one replacement and used in lieu	
15	5. 8.20.XXXX.3.01.\	/ General	own make items of VPF	Own	VPR Components for which drawing and specification is available	0
15	6. 8.21.XXXX.1.01.\	General	OEM items of HOTSTAB	of PAC	HOTSTAB Components for which no drawing and specification is available and no other brand is identified till now	1

157. 8	3.21.XXXX.2.01.Y	Corrora.	Branded Eitems of HOTSTAB	Branded	HOTSTAB Components which are identified for one to one replacement and used in lieu	0
158.	8.21.XXXX.3.01.Y	Conordi	own make (items of HOTSTAB	Own	HOTSTAB Components for which drawing and specification is available	0
159.	8.22.XXXX.1.01.Y	General	OEM items of I	PAC	HOBCM Components for which no drawing and specification is available and no other brand is identified till now	0
160.	8.22.XXXX.2.01.Y	General	Branded items of HOBCM	Branded	HOBCM Components which are identified for one to one replacement and used in lieu	0
161.	8.22.XXXX.3.01.Y	General		Own	HOBCM Components for which drawing and specification is available	0
162.	8.23.XXXX.1.01.Y	General	OEM items of MDU	PAC	MDU Components for which no drawing and specification is available and no other brand is identified till now	0
163	. 8.23.XXXX.2.01.Y	General	Branded items of MDU	Branded	MDU Components which are identified for one to one replacement and used in lieu	0
164	. 8.23.XXXX.3.01.Y	General	own make items of MDU	Own	MDU Components for which drawing and specification is available	0
165	5. 9.01.XXXX.1.01.Y	Rubber Items	Engine Mounting Pac	PAC	All Engine Mounting Pad which are identified for one to one replacement and used in lieu	
166	5. 9.01.XXXX.2.01.Y	Rubber Items	Engine Mounting Pac		which are identified for one to one replacement and used in lieu	
16	7. 9.01.XXXX.3.01.\	Rubber Items	Engine Mounting Pa	OWN	Mounting Pads for which Drawing and specifications are available	1
16	8. 9.02.XXXX.1.01.`	Y Rubber Items	Cabin & Other Mountings	PAC	Items for which no other brand is identified till now	0.

169.	9.02.XXXX.2.01.Y	Rubber Items	Cabin & Other Mountings	Branded	Cabin & Other Mountings which are identified for one to one replacement and used in lieu	0
170.	9.03.XXXX.2.01.Y	Rubber Items	Conveyor Belts	Branded	All types of Conveyor Belts	37
171.	9.04.XXXX.1.01.Y	Rubber Items	Other Rubber Items	PAC	Rubber Items for which no other brand is identified till now	06
172.	9.04.XXXX.3.01.Y	Rubber Items	Other Rubber Items	Own	Rubber items for which specification are available and not of critical nature	1
173.	9.05.XXXX.1.01.Y	Rubber Items	Brooms	PAC	ALL Brooms	13
174.	9.06.XXXX.1.01.Y	Rubber Items	Oil Seals & O-Rings	PAC	Items for which no other brand is identified till now	37
175.	. 9.06.XXXX.2.01.Y	Rubber Items	Oil Seals & O-Rings	Branded	All seals & O-Rings which are identified for one to one replacement and used in lieu	0
176	. 9.07.XXXX.1.01.Y	Rubber Items	Tamping Unit	PAC	Items for which no other brand is identified till now	80
177	9.07.XXXX.3.01.Y	Rubber items	Tamping unit	Own	Seal of guide tamping unit rod, damping ring, rubber washer etc	0
178	3. 9.09.XXXX.3.01.Y	Rubber items	Tamping unit	Own	Seal of guide tamping unit rod, damping ring, rubber washer etc	0
			TOTAL			630

# 3.6 Manufacture's identification Code

A unique code for identifying the machine manufacturer has also been assigned as tabulated below. This code is to be suffixed to SPN.

Code	Firm's name	Code	Firm's name	Code
PL	Kalugaputmash	KA	Gemac	GE
Maria Caracteria	Metex	ME	Kershaw	KE
	Phooltas	PH	Srida	SR
	Harsco	НА	Ameca	AM
	SAN	SA	Sun	SU
	Trident	TR	BHEL	ВН
	PL CU GR CA DE AS	PL Kalugaputmash CU Metex GR Phooltas CA Harsco DE SAN	PL Kalugaputmash KA CU Metex ME GR Phooltas PH CA Harsco HA DE SAN SA	PL Kalugaputmash KA Gemac CU Metex ME Kershaw GR Phooltas PH Srida CA Harsco HA Ameca DE SAN SA Sun

Kirloskar	KI	Loram	LO	CRCC	CR
Simplex	SI				

For example, SPN '2.01.0001.1.01.6 PL' indicates hydraulic pump (OEM item) manufactured by Plasser India.

4.0 Mode of Procurement: The committee deliberated on the present practices being followed by zonal railways for procurement of spares and recommended the following modes of procurement of spares.

### 4.1 Annual Maintenance Contract (AMC) with OEMs

Railway may enter into AMC with OEMs of machines and OEMs of engines of machines. The AMC will include service charges and spares. The spare list with AMC will consist of all related items included in Annexure-I, II, IIIA & IIIB and any other item proposed by OEM. This spare list should have SPN along with OEM parts no. However, the committee observed that there may be reservations from the OEM in quoting SPN initially. In such a case, AMC will be entered into based on the current practice of having OEM part no. only and SPN can be added in due course. The items through AMC may be taken on the basis of OEM Service Engineer report normally. Railway should try to use Branded and own make items available in stock against service engineer report to the extent possible. However, for use of spares other than Annexure-I from OEM, the approval of DyCE/TM shall be taken.

Spares required for stocking, if any, for maintenance of machines by railway may also be taken through AMC with the approval of CE/Track machine.

### 4.2 Rate Contracts with OEMs

Rate contract may be entered by Railways with OEM or his authorized dealer for supply of spares for items in Annexure-I for spares required for POH of track machines done by them and for meeting the requirement of spares for regular maintenance by Railways. This spare list will have SPN along with OEM parts number.

For CPOH, rate contract with OEM or his authorized dealer shall include items in Annexure-I, II and III and any other items required but not included in these annexures. CPOH should try to use Branded and own make items available in

stock to the extent possible. However, for use of spares other than Annexure-I items from rate contract, the approval of DyCE/CPOH shall be taken.

# 4.3 Single tender with OEMs

Railway may go for procurement of those Items included in Annexure-I on single tender basis from OEM or their authorized dealers after PAC certification.

# 4.4 Open tender for branded items

Railway shall procure the items from the listed brands only as open tender. Procurement of Branded items is to be done only through authorized dealer/manufacturer. Tenderer should enclose certificate from the manufacturer in support of his authorization for the sale of concerned branded item.

# 4.5 Open Tender for Own Make Items

Annexure-III is in two parts. Annexure-III(A) includes all items for which drawing and specification have been issued by RDSO. Annexure-III(B) contains other items being procured by CPOH and Railways on the basis of drawing and specification developed by them.

Tenders for procurement of items in Annexure-III(A) shall be invited as per the drawing and specifications only. However, the committee observed that some spare parts of the machines supplied by Phooltas/Russian/Chinese firms etc are not being made available by OEMs and it is also not possible to draw the specifications of these items at present. It may be necessary to procure the items from open market based on the sample for keeping the machines running. In such cases, specific approval of CE/TMC shall be taken for procurement of such items on the basis of sample.

Drawing and specification developed by CPOHs/Railways shall be sent to RDSO mentioning their SPN and OEM's part no and all such drawings shall be finalized by RDSO within next one year. CPOHs/Railway shall send the drawing in AutoCAD, specification and one sample to RDSO. Since the performance of items in this group is yet to be established, these items will continue to be procured as per current practice for a period of one year after approval of policy or final decision of the standing committee regarding their category whichever is earlier. If drawings/specifications are not finalized within this period, such items

can further be procured as own make only after approval from CE/TMC and EDTM/RDSO.

- After finalization of drawing and specification of particular item by RDSO, the same shall be updated in the list & thereafter tender shall be called on the basis of RDSO drawing and specifications only.
- Railways shall identify Govt., reputed accredited (NABL etc) test labs for getting
  the items tested for its conformity to RDSO/Own specification. The supplier must
  submit test report for conformity to specified properties from such labs for items
  being supplied. Railway may go for additional test check whenever required.
  RDSO should revisit and specify the acceptance test for all items in Annexure
  IIIA.

## 5.0 Procedure for trial of new branded/own make items

Any new equivalent brand other than those mentioned in Annexure-II, shall be tried only through CPOH/zonal railway for the machines being overhauled (POH) by them after checking the functional adequacy and fitment issues of the item proposed and after approval of CE/TMC. The provision for other manufacturers offering similar/equivalent product shall be kept in tender for supply of items through open tender of CPOH subject to fitment of items without any modification of installation base. The manufacturer may also supply their items free of cost to CPOH/zonal railway for trial. CPOHs/zonal railway shall conduct trial for sufficient time period and after satisfactory performance, propose the item to standing committee (referred in Para 6) with the performance report for inclusion of the brand in approved brand list/own make list. For the machines being overhauled (POH) in zonal railways, the abovementioned procedure shall be adopted by them for adoption of new equivalent brand.

Similar procedure for trial of own makes items shall be adopted by CPOH/zonal railway after developing the drawing and specifications.

# 6.0 Procedure for addition and deletion from the list:

- The list of items in different annexure is dynamic and any spare in one annexure may be shifted to another annexure based on the experience gained. Similarly, the specified brands for a particular item can also be added or deleted. A standing committee consisting of the following members shall be responsible for revision of the spare List falling in different annexure on the basis of performance reports from Railways/CPOH.
  - i) Director/Track Machine/RDSO (Co-ordinator)
  - ii) Dy.CE/CPOH/ALD
  - iii) Dy.CE/CPOH/RYP
  - iv) Dy. CE/TMC/ER

#### v) Dy. CE/TMC/WR

The first list finalized by this committee shall be taken as initial list of spares falling in different categories including for Brands finalized in Branded categories (Annexure-II). The standing committee shall accordingly review the list periodically and submit their recommendation to ED/TM/RDSO who shall be the accepting authority for revised list and his decision shall be final.

- All proposals for revision of the list from Railways shall be addressed to Director/TM/RDSO who shall compile all such proposals for putting it to the standing committee. The standing committee shall meet at least twice every year in April-May and Oct-Nov to review the list for addition and deletion as required and shall submit their recommendation accordingly to the accepting authority. All subsequent revision shall be done to the last accepted list.
- 6.3 Railway should send the proposal along with the performance report duly signed by Chief Engineer/Track Machines to Director/TM/RDSO for consideration of the standing committee. The standing committee shall recommend to include/delete/shift the item from one category to another on the basis of available report or it may ask one or more zonal Railway or the same Railway for further trial after approval of ED/TM/RDSO.
- Shifting of OEM (Annexure-I) to branded/own make items category (Annexure-II/III), shall be considered by standing committee based on the recommendations of CPOHs only for machine for which POH is done at CPOH or Zonal Railways for track machines being overhauled by Zonal Railways. The prospective vendors will approach CPOHs or Zonal Railways with their product and CPOHs or Zonal Railways will check the fitment and functional adequacy of the proposed items. If product found satisfactory, CPOHs or Zonal Railways shall propose to the standing committee with performance report for further decision of the standing committee.
- The committee has observed that one of the major component affecting the performance of tamping machines is tamping unit. As per the present practice, the vibration shaft and other components being used during overhauling of tamping units are own make items (placed at Annexure-IIIA). The performance of these banks is about 600-800kms while the original tamping units of OEM make give a performance of more than 1500 kms. Therefore, there is a prima facie case that OEM made vibration shafts and other items as per list given below should only be used to increase the life of tamping unit.

S.	Plasser Part	Description
No.	no.	
1	DL23.401	Vibration Shaft (Imported)
2	UD25.1101	Vibration Shaft (Imported)

3	UD25.1102	Vibration Shaft (Imported)
4	CU20.301	Vibration Shaft (Imported)
5	2E31-02A	Spacer sleeve
6	2E 31-04	Tamping arm Bolt
7	DL23.108	Spacer Ring
8	2E34.210	Bush (imported) O/Size
9	DL12.06	Bush(Imported)

However, a detailed life cycle based cost analysis of using these items of OEM and own make during overhauling of tamping unit is to be carried out to take a final decision in this respect. CPOH workshops will use the OEM components for overhauling of few banks to assess their performance and carry out their life cost analysis to submit the same to the standing committee. The committee can review the existing practice based on the same. However till final decision in this regard, these items may be procured from OEM also with approval of CE/TMC.

- 6.6 The list of items along with final report of committee is to be uploaded on the RDSO website & TMS.
- 7.0 A module should be developed in TMS for uploading of purchase orders by railways for different spares similar to what have been for track components. This will help railways to assess reasonable rates during tender finalization.

### 8.0 Recommendations

The committee has deliberated upon the existing system of procurement of spares for track machines, as detailed above and recommends the following:

- A unique identification system for track machine spares as detailed in Para 3.2 above should be adopted for proper management and uniform system of procurement of spares over Indian Railways. This unique identification number is proposed to be called Spare Part Number (SPN).
- Classification of various spares of track machines should be done in three categories namely OEM spares, branded spares and own make spares as detailed in Para 3(iii) for economizing the repairs without compromising on the reliability of track machines.
- 3. The classification of the items in different annexures is dynamic in nature and the procedure for periodic review is proposed to be done by a standing committee, as proposed in Para 6.0 above.
- 4. The items which are not included in any of the annexures at present should be procured by Zonal railway/CPOH as OEM/Branded/Own make depending upon the type and criticality of the item with the approval of CE/Track Machines. The details of the same should be advised to RDSO duly recommending as per para 6 for deliberations by the standing committee for inclusion in appropriate list. Policy for procurement of spares for track machines by zonal railways and CPOH is proposed in Para 4.0 above.

- Policy for procurement of spares for track machines by zonal railways and CPOH is proposed in Para 4.0 above.
- 6. Procedure for trial and induction of new items (Branded spares as well as Own make spares) has been proposed in Para 5.0
- 7. CE/TMC will be competent to take decisions on issues pertaining to procurement of spares for track machines not covered by this policy.
- 8. A module should be developed in TMS for uploading of purchase orders by railways for different spares for track machines. This will help railways to assess reasonableness of rates.

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