

# INDIAN RAIWAYS

## CRITICAL SPARES OF TRACK MACHINES

UTV-SAN

**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 parts for M/s SAN make UTV has 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

(OM PRAKASH)  
Director Track Machine-III

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SITE - At machine

STMD - Satellite depot

ZTMD - Zonal depot

**UTV SAN**
**ENGINE**

Sl.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per m/c		
					SITE	STMD	ZTMD
ENGINE CUMMINS NTA 855-L (BC)							
1.	Self starter motor	91525400	1	6	0	0	0.16*
2.	Positioning cylinder ( fuel actuating valve)	42849420	1	6	0	0	0.16*
3.	3/2 way solenoid valve	94717120	1	5	0	0	0.2*
4.	Shut down coil	91503990	1	4	0	0	0.25*
5.	Fuel filter Boss	94610030	1	5	0	0	0.2*
6.	Fuel Pipe	94650030	8	4	1	0	1
7.	Fuel Filter	3166555	1	0.25	1	1	2
8.	Lube oil filter	3166554	1	0.25	1	1	2
9.	Lube oil bypass filter	3873576	1	0.25	1	1	2
10.	Air cleaner element outer	32260189	1	0.5	1	0	1
11.	Air cleaner element inner	32260188	1	0.5	1	0	1
12.	Water temperature sensor	97503380	1	6	0	0	0.16*
13.	Water temperature gauge	97504390	1	6	0	0	0.16*
14.	Water temperature switch	91507700	1	6	0	0	0.16*
15.	Water level sensor	91522860	1	6	0	0	0.16*
16.	Water level switch cum indicator	91523880	1	6	0	0	0.16*
17.	Magnetic switch (starter)	91507720	1	6	0	0	0.16*
18.	Lube oil pressure sensor	97504090	1	6	0	0	0.16*
19.	Lube oil pressure switch	91507710	1	6	0	0	0.16*
20.	Lube oil temperature gauge	97504750	1	6	0	0	0.16*
21.	Lube oil temperature sensor	97504760	1	6	0	0	0.16*
22.	RPM & Engine hour meter	97503270	1	6	0	0	0.16*
23.	RPM sensor	97503130	1	6	0	0	0.16*
24.	Cut off valve	94722620	1	6	0	0	0.16*

\*Minimum quantity 1

**UTV SAN****HYDRAULIC**

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per m/c		
					SITE	STMD	ZTMD
1.	Hydraulic Check Valve	94722640	1	6	0	0	0.16*
2.	Hydraulic return filter	99014024	1	0.5	1	0	1
3.	Hydraulic suction filter	99014025	1	0.5	1	0	1
4.	Hydraulic hoses	91020760	1	6	0	0	0.16*
5.	Hydraulic hoses	91020680	1	6	0	0	0.16*
6.	Hydraulic hoses	91020670	1	6	0	0	0.16*
7.	Hydraulic hoses	91020700	1	6	0	0	0.16*
8.	Hydraulic hoses	91020740	1	6	0	0	0.16*
9.	Hose "S"Type	91014310	1	6	0	0	0.16*
10.	Hydraulic Hose of gear box	91020670	1	6	0	0	0.16*
11.	Adaptor	55865990	7	4	1	0	1
12.	25 NBMS 1" Elbow	94605060	6	4	1	0	1

\*Minimum Quantity 1

**UTV SAN**
**MECHANICAL**

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per m/c		
					SITE	STMD	ZTM D
1.	Flexible coupling	12316490	1	6	0	0	0.16*
2.	Cardan shaft	36101332	1	6	0	0	0.16*
3.	Cardan shaft	36101131	2	6	0	0	0.32*
4.	Nylon nut	98520060	8	6	0	0	1
5.	Spring washer	98617200	24	6	0	0	4
6.	Locking washer	53293130	2	6	0	0	0.32*
7.	Stud	51093030	8	6	0	0	1
8.	Split pin	98405360	4	6	0	0	0.64*
9.	Castel nut	98512070	4	6	0	0	0.64*
10.	Rotary switch	91568310	1	6	0	0	0.16*
11.	Break block	51820160	8	1	8	0	0
12.	Break shoe key	51820130	4	6	0	0	0.64*
13.	Brake cylinder	94702300	4	6	0	0	0.67*
14.	Flange	51013110	1	6	0	0	0.16*
15.	Flange	51013510	3	6	0	0	0.5*
16.	Adopter	51014310	2	6	0	0	0.32*
17.	Dowel	55810550	8	6	0	0	1
18.	Spring Washer	98903260	12	6	1	0	1
19.	Input Pinion shaft	52557530	1	6	0	0	0.16*
20.	Flange	52548650	2	6	0	0	0.32*
21.	Hex Socket set screw	98609570	2	6	0	0	0.32*
22.	Magnetic drain plug	94613150	2	6	0	0	0.32*
23.	Oil sight glass	97503880	1	6	0	0	0.16*
24.	Breather filter	94802040	1	6	0	0	0.16*
25.	Cap Screw	56093090	16	6	1	0	2
26.	Yoke Shaft Assembly	46106005	1	6	0	0	0.16*
27.	Yoke Sleeve assembly	46104543	1	6	0	0	0.16*
28.	Cross and Bearing Assembly	46102010	2	6	0	0	0.32*
29.	Felt Washer	56195017	1	6	0	0	0.16*
30.	Grease Nipple	98410140	5	2	5	0	5
31.	Stopper plate	55819030	4	2	1	0	1
32.	Torque arm	55832570	2	2	1	0	0

\*Minimum quantity 1

**UTV SAN**
**ELECTRICAL & ELECTRONICS**

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per m/c		
					SITE	STMD	ZTMD
1.	Toggle switch	91568110	1	6	0	0	0.16*
2.	Electronic timer relay	91521530	6	6	0	0	1
3.	Alternator	91512290	1	6	1	0	0.16*
4.	Ampere meter battery	97501590	1	6	0	0	0.16*
5.	Auxiliary relay timer	91560090	2	6	0	0	0.32*
6.	Circuit breaker 63 amp	91535490	3	6	0	0	0.5*
7.	Circuit breaker 25 amp	91535480	2	6	0	0	0.32*
8.	Circuit breaker 16 amp	91535470	1	6	0	0	0.16*
9.	Circuit breaker 10 amp	91535500	5	6	0	0	1
10.	Circuit breaker 6 amp	91535460	4	6	0	0	0.64*
11.	Circuit breaker 3 amp	91536140	3	6	0	0	0.5*
12.	Toggle switch	91533290	2	6	0	0	0.32*
13.	Relay	91503920	10	6	0	0	1
14.	Battery	91514010	2	3	1	0	1
15.	Battery isolating switch	91514390	1	6	0	0	0.16*
16.	Knife switch assembly	45860050	1	6	0	0	0.16*
17.	EBMV Magnet valve (emergency brake)	94712950	7	6	0	0	1
18.	Electric horn	91565080	2	3	1	0	1
19.	Alternator charging correction register	91533890	1	3	1	0	1
20.	D.C. Contractor	91542400	1	3	0	0	1
21.	Engine Startup switch	91502330	1	3	0	0	1
22.	Halogen bulb	91532480	6	1	3	0	3
23.	Proximity switch	91542130	1	5	0	0	0.2*
24.	Transmission oil pressure sensor	97504780	1	5	0	0	0.2*
25.	Transmission oil pressure sensor	97504770	1	5	0	0	0.2*
26.	Mode selection switch	91568130	1	5	0	0	0.2*
27.	Forward reverse switch	91521616	1	5	0	0	0.2*
28.	Voltmeter battery	91528430	1	5	0	0	0.2*
29.	Emergency motor switch	91538350	1	5	0	0	0.2
30.	Head light	91532470	4	5	0	0	0.2
31.	Marker light	91516990	4	5	0	0	0.2
32.	Flasher lamp	91564020	2	5	0	0	0.2
33.	Forward –Reverse switch	91521610	1	6	0	0	0.16*

\*Minimum quantity 1

**UTV SAN**
**PNEUMATICS**

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per m/c		
					SITE	STMD	ZTMD
1.	Positioning Cylinder (Acutting )	42849420	1	6	0	0	0.16*
2.	SA-9 Brake Valve	94717590	2	6	0	0	0.32*
3.	A-9 Auto Brake Valve	94717240	2	6	0	0	0.32*
4.	C3 –W Distributor valve	94717280	1	6	0	0	0.16*
5.	Control Valve Wiper motor	94701910	2	6	0	0	0.32*
6.	Emergency Brake	94709840	2	6	0	0	0.32*
7.	SA-1 Brake Valve	94701440	2	6	0	0	0.32*
8.	Breather Filter	94802040	1	6	0	0	0.16*
9.	Pneumatic Cylinder(Transmission System)	42542040	1	6	0	0	0.16*
10.	Pneumatic Cylinder(Transmission System)	42542050	1	6	0	0	0.16*
11.	Pneumatic Cylinder(Transmission System)	42542060	1	6	0	0	0.16*
12.	Foot Valve	94709970	2	6	0	0	0.32*
13.	JSL Type brake cylinder	94702300	4	6	0	0	0.66*
14.	Pn. Check Valve 1	94717150	1	6	0	0	0.16*
15.	Pn. Solenoid Valve	94712950	9	6	0	0	1
16.	After Cooler	12336020	1	6	0	0	0.16*
17.	Air Filter with Drain cock	94717170	2	6	0	0	0.32*
18.	Air Reservoir	90703070	2	6	0	0	0.32*
19.	Auto Drain Valve	94709890	2	6	0	0	0.32*
20.	½ Drain Valve	94717410	3	6	0	0	0.5*
21.	J-1 Safety Valve	94717190	1	6	0	0	0.16*
22.	¾ Check Valve	94717200	1	6	0	0	0.16*
23.	3/8" check valve	94717220	1	6	0	0	0.16*
24.	Pressure reducing valve	94717570	1	6	0	0	0.16*
25.	Air Lubricator	94717520	1	6	0	0	0.16*
26.	3/8 Isolating Valve	94701020	4	6	0	0	0.64*
27.	Air Pressure Switch	91509310	1	6	0	0	0.16*
28.	Air Pressure Switch ( forward and reverse)	91502020	2	6	0	0	0.32*
29.	Temperature Switch (Transmission oil)	91501820	1	6	0	0	0.16*
30.	Pressure Switch(Transmission oil)	91522540	1	6	0	0	0.16*

\*Minimum quantity 1



**UTV SAN****PNEUMATICS**

S.No	Brief description	Part no.	Nos per M/C	Estt. life cycle in year	Requirement per m/c		
					SITE	STMD	ZTMD
31.	3/2 way solenoid valve	94717120	1	6	0	0	0.16*
32.	Air Pressure Switch (brake)	91509420	1	6	0	0	0.16*
33.	Air Pressure Switch (power cut off)	91502280	1	6	0	0	0.16*
34.	Single Air Pressure gauge	97501080	1	6	0	0	0.16*
35.	Pneumatics horn (Dual tone)	94710010	2	6	0	0	0.32*
36.	½ Isolating cock with vent	90701030	7	6	0	0	1
37.	3/8 Double check valve	94717260	10	6	0	0	2
38.	C2W Relay Valve	94717290	1	6	0	0	0.16*
39.	Duplex Check Valve ¾"	94717320	1	6	0	0	0.16*
40.	3/8" Check valve	94717220	1	6	0	0	0.16*
41.	C3-W Distributor valve	94717280	1	6	0	0	0.16*
42.	Duplex air pressure gauge 4"	97504480	1	6	0	0	0.16*
43.	Pneumatic hose pipe no. 10 OD	94650040	100 M	6	10 M	0	20 M
44.	Pneumatic hose pipe no. 12 OD	94650010	100 M	6	10 M	0	20 M
45.	Pneumatic hose pipe no. 18 OD	94650030	70 M	6	5 M	0	20 M
46.	Pneumatic hose pipe no. 22 OD	94650050	20 M	6	5M	0	5 M

\*Minimum quantity 1

## **ACKNOWLEDGEMENT**

Following officers and staff have made their valuable contributions in finalization of the critical spares parts list of track machines UTV-SAN

### **RAILWAY**

- |    |        |            |              |
|----|--------|------------|--------------|
| 1. | . SHRI | RAJA VERMA | SSE//TMC/SWR |
| 2. | . SHRI | RAVI KUMAR | SSE//TMC/SWR |

### **SAN ENGG**

- |    |        |              |          |
|----|--------|--------------|----------|
| 1. | . SHRI | DURGA PRASAD | ENGINEER |
|----|--------|--------------|----------|

### **RDSO**

- |    |        |                        |         |
|----|--------|------------------------|---------|
| 1. | . SHRI | MUSLIM AHMAD           | ARE/TM  |
| 2. | . SHRI | VED PRAKASH SRIVASTAVA | SSE/TM  |
| 3. | . SHRI | SURENDRA KUMAR         | SSRE/TM |