



**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**CRITICAL SPARE PARTS LIST
FOR
POINT AND CROSSING CHANGING MACHINE
T-28 (AMECA)**



Revision-1
March-19

**RESEARCH DESIGNS AND STANDARDS ORGANISATION
LUCKNOW-226011**

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 Point and Crossing Changing machine (T-28) AMECA, 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.

(Om Prakash)
Director Track Machine-III

March, 2019

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SITE - At machine
STMD - Satellite depot
ZTMD - Zonal depot

T-28 (AMECA)**ENGINE**

S. No	Brief description	Part no.	Nos per M/C	Estt. life cycle in Yrs.	Requirement per m/c		
					SITE	STMD	ZTMD
1. ENGINE							
1.1	Self-starter 35530060VM	5290125	1	6	0.2*	0	0
1.2	Start switch	COBO-13342700	1	6	0	0	0.2*
1.3	Engine stop Switch	--	1	6	0	0	0.2*
1.4	L.O.P by pass switch	--	1	6	0	0	0.2*
1.5	Lube oil filter	41150030A	1	0.25	2	0	2
1.6	Fuel filter	9990186	1	0.25	2	0	2
1.7	Air Filter outer	9990189	1	0.25	2	0	2
1.8	Air Filter Inner (Air safety round)	9990190	1	0.25	2	0	2
1.9	V-Belt	A-57	2	1	2	0	0
1.10	R.P.M. Cum Hour Meter	--	1	6	0	0	0.2*
1.11	Lub. Oil Pressure Gauge	--	1	6		0	0.2*
1.12	Transmission Temperature Gauge	--	1	6	0	0	0.2*
1.13	Fuel Level Gauge	--	1	6	0	0	0.2*
1.14	Engine Temperature Gauge	---	1	6	0	0	0.2*
1.15	Oil Temperature Gauge	---	1	6	0	0	0.2*
1.16	Pressure Gauge 0-400kg	60720004	1	6	0	0	0.2*
1.17	Pressure Gauge	0-300 BARANI	1	6	0	0	0.2*

(*) Minimum quantity 1

T-28 (AMECA)

HYDRAULIC

S. No	Brief description	Part no.	Nos per M/C	Estt. life cycle in Yrs.	Requirement per m/c		
					SITE	STMD	ZTMD
2. HYDRAULIC							
2.1	Hydraulic Pump	6030028	2	6	0	0	0.3*
2.2	Main Pump	3PBG27/27 S-FS SALAMI	1	6	0	0	0.2*
2.3	Safety Pump	2PBG2/D SALAMI	1	6	0	0	0.2*
2.4	Hydraulic Motor (Rail wheel)	6130010	2	6	0	0	0.3*
2.5	Hydraulic Motor	6130012	2	6	0	0	0.7*
2.6	Hydraulic Valve (Wheel cylinder)	6020009	4	6	0	0	0.7*
2.7	Hydraulic Valve	6020061	4	6	0	0	0.7*
2.8	Hydraulic Valve (Vertical cylinder)	6020062	4	6	0	0	0.7*
2.9	Hydraulic Valve (Non return valve)	6020063	4	6	0	0	0.7*
2.10	Hydraulic Valve (Wheel rotation)	6020064	4	6	0	0	0.7*
2.11	Hydraulic Valve (Ball type BFF -14)	6020065	4	6	0	0	0.7*
2.12	Hydraulic Valve (Cross cylinder)	6020068	4	6	0	0	0.7*
2.13	Hydraulic valve	6020148	4	6	0	0	0.7*
2.14	Hydraulic Valve	610050	4	6	0	0	0.7*
2.15	Flow Control valve	VPR/3-ET-RL-12 OLEO	2	6	0	0	0.3*
2.16	Check Valve	VNR/SP/34 LUEN	4	6	0	0	0.7*
2.17	Flow control Valve	00205G001	8	6	1	0	1
2.18	TC Valve	00L06G001	4	6	0	0	0.7*
2.19	TC Valve	RVAL50205930	1	6	0	0	0.2*
2.20	Hydraulic filter for salami pump	FBO-160/66 , P-171617	1	6	0	0	0.2*
2.21	Hydraulic filter for Eaton pump	P-171616 FBO 160/3 P-550148	2	6	0	0	0.3*
2.22	Hydraulic Suction filter	FBO- CA-160/3 5180009	2	0.25	4	2	2

(*) Minimum quantity 1

T-28 (AMECA)

HYDRAULIC/MECHANICAL

S. No	Brief description	Part no.	Nos per M/C	Estt. life cycle in Yrs.	Requirement per m/c		
					SITE	STMD	ZTMD
2.23	Hydraulic Return filter	FBO- CA-500/3 /5180010	1	0.25	2	2	0
2.24	Hydraulic hoses	0.9 mtr 12 no	4	0.5	4	2	2
2.25	Hose	00EB06BBAC-1	2	3	0.7*	0	0
2.26	Set of Hydraulic hoses	HS 18	1	3	0.3*	0	0
2.27	Hydraulic clamp lift cylinder	17311	1	6	0.2*	0	0
2.28	Hose grease Cylinder	00EB06BBAC170	2	6	0.3*	0	0
2.29	Vertical lifting cylinder	17018 AMECA	2	6	0.3*	0	0
2.30	Seal Set Wheel Cyl.	16057S	1	2	0.5*	0	0
2.31	Seal Set Clamp Lift Cyl.	17311S	1	2	0.5*	0	0
2.32	Seal Set horizontal Cyl.	17012S	1	2	0.5*	0	0
2.33	Seal Set Trolley up/down Cyl.	21013S	1	2	0.5*	0	0
2.34	Seal Set vertical Cyl.	17018S	1	2	0.5*	0	0
2.35	Seal Set Trolley shifting Cyl.	20033S	1	2	0.5*	0	0
2.36	Manual Control liver	796329000	1	3	0	0	0.3*
3. MECHANICAL							
3.1	Stop valve	OWC/ DE/34 LULUEN	2	6	0	0	0.3*
3.2	Stop Valve	OWC/DE/12 LULUNE	4	6	0	0	0.7*
3.3	Release Pipe	AGS 340 HANSA	2	6	0	0	0.3*
3.4	Driving pipe one side straight and other side 90° L bent	5 mt 12 no	4	0.5	2	2	4
3.5	Wheel Cylinder	16057	4	6	0.7*	0	0
3.6	Hydraulic Clamp Lift Cylinder	0017311	2	2	0	0	1
3.7	Hydraulic Lift Cylinder	0021013	2	2	0	0	1

(*) Minimum quantity 1

T-28 (AMECA)**MECHANICAL**

S. No	Brief description	Part no.	Nos per M/C	Estt. life cycle in Yrs.	Requirement per m/c		
					SITE	STMD	ZTMD
3.8	Hydraulic Lateral cylinder	0020233	2	2	0	0	1
3.9	Crawler Rubber Shoe	9990211	96	1	48	0	48
3.10	Sprocket	49ET410010	2	2	0	0	1
3.11	Phosphor Bronze Plate (PB)	-----	16	2	0	0	8
3.12	Springing unit (Grease cylinder unit)	00LO5E013	2	2	0	0	1
3.13	Chain link	DX(CR2845)	46	2	5	5	13
3.14	Chain link	SX(2846)	46	2	5	5	13
3.15	WRI 215 Rings	6040464	32	2	0	0	16
3.16	Bearing for rail wheel	5010004	8	2	0	0	4
3.17	Bearing for Rail wheel	510008	8	2	0	0	4
3.18	Mechanical lock pins	-----	8	2	0	0	4
3.19	Nut, Bolts & washers 3/8"x4"	-----	64	2	16	0	16
3.20	Sprocket wheel gallotird	-----	1	1	0	0	1
3.21	Chain pins	-----	100	2	25	0	25
3.22	Hock pin for towing	002.0039	2	10	0	0	0.2*
3.23	Intermediate pin	002.0023	2	10	0	0	0.2*

(*) Minimum quantity 1

T-28 (AMECA)

ELECTRICAL

S. No	Brief description	Part no.	Nos per M/C	Estt. life cycle in Yrs.	Requirement per m/c		
					SITE	STMD	ZTMD
4. ELECTRICAL							
4.1	Relay	332204203	2	2	0	0	1
4.2	Relay	332014213	2	2	0	0	1
4.3	Relay	529.0233 T1853 make SIPEA	10	2	0	0	5
4.4	Cable wire 6011/M30	9900019	1	2	0	0	0.5*
4.5	Alternator (18522021A)VM/22A	9990316	1	2	0	0	0.5*
4.6	Voltage Controller	7382228	1	2	0	0	0.5*
4.7	Fuses	7.5 , 10 and 15Amp	10	5	1	0	1
4.8	Single core cable 1.5 mm ² PVC wire	-----	20 m	2	10	0	0
4.9	Horn/Light Alarm	1	3	0	0	0.3*
4.10	24-V Rev. Counter	VDO 1142	1	5	0	0	0.2*
4.11	6/30V hours Counter	...246023	1	5	0	0	0.2*
4.12	Ampere meter	VDO 80-00-80	1	2	0	0	0.5*
4.13	Timer	VDMO7D SALAMI	1	2	0	0	0.5*
4.14	Timer	VDO8A SALAMI	1	2	0	0	0.5*
4.15	Light Relay	BOCSH 332014213	1	2	0	0	0.5*
4.16	Battery 120 AH or 88 AH 12 V	York 65560	2	3	0	0	0.7*
4.17	Positive Battery Clamp	CREA C023100	2	2	1	0	0
4.18	Negative Battery Clamps	CREA C023101	2	2	1	0	0
4.19	Electro Valve 24Volt	6020066	1	2	0	0	0.5*
4.20	Electro Valve 12Volt	6020067	1	2	0	0	0.5*
4.21	Electro Valve 24Volt Clamp lifting Cylinder	6020096	1	2	0	0	0.5*

(*) Minimum quantity 1

ACKNOWLEDGEMENT

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RAILWAYS

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|----|--------|------------------|------------------|
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