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**GOVERNMENT OF INDIA**

**Ministry of Railways**

**Schedule of Technical Requirement (STR)**

**for**

**Mechanical Signalling Items**

**Research Designs & Standards Organisation**

**Manak Nagar Lucknow –226011**

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## MECHANICAL SIGNALLING ITEMS

List of Specifications/Drawings for various items types of Mechanical Signalling Items

S. NO.	ITEM DESCRIPTION	SPECIFICATION/DRAWING
1	RODDING COMPENSATOR	Drg No: SA-3504, 8943
2	CRANK ALL TYPES	Drg. No: SA-3415, 8950, 3412, 8948, 5852, 5853, 5854, 5856, 5857, 5858, 8954, 8955, 8956, 8958, 8959, 8960, 3416, 8951, 3417, 8952
3	FACING POINT LOCK	Drg No: SA-3297, 5984
4	LOCK BAR CLIP	Drg No: SA-3561, 8972, 3560, 8971, 8979, 8675
5	LIFTING BARRIER FOR INTERLOCKED GATE	Drg No: SA-7974, 7976, 7978
6	RODDING JOINTS	Drg No: SA-5813, 6050, 6051, 3622, 3606
7	GROUND CONNECTION FOR POINT MACHINE	Drg No: SA-8800-01, 20-21, 9151-52, 9000-01, 03-04, 9065-66, 9101
8	COLOUR LIGHT POST, BASE & ANCHOR BOLTS	IRS: S-6/81 Drg No: S-2011/M , SA-116A/M
9	APPARATUS CASE (Medium & Large)	Drg No: SA-20325, 20330, RDSO/S-11500, RDSO/S 11507
10.	KEY LOCK	IRS: S-30/64
11.	CLAMP LOCK FOR IRS POINT MACHINE (60 Kg)	Drg No: RDSO/S-3454
12.	CLAMP LOCK FOR IRS POINT MACHINE (52 Kg)	Drg No: RDSO/S-3455
13.	CLAMP LOCK FOR SIEMENS POINT MACHINE (S-700 K)	Drg No: RDSO/S-3415

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**MACHINERY, PLANT AND TESTING EQUIPMENT OF MECHANICAL  
SIGNALLING ITEMS**

**(A) MACHINE SHOP:**

1. Lathe machine
2. Milling machine
3. Shaper machine
4. Surface grinding machine
5. Shearing stamping machine
6. Drilling machine
7. Power Press
8. Hand Grinder
9. Required tools and jigs for shear metal fitting and other mechanical shops

**(B) FOUNDRY/FORGEING/WELDING SHOP:**

1. Furnace (~~Optional~~)\*#
2. Smithy Hearth (Bhatti) with Blower
3. Moulding/casting accessories
4. Forging accessories machine (~~Optional~~)#
5. Electrical welding machine
6. Oxy-Acetylene welding/cutting machine
7. Riveting drilling machine
8. Portable drilling machine

**(C) PAINTING/ELECTRO PLATING SHOP:**

1. Painting equipment

**(D) ASSEMBLY SHOP:**

1. Tools, Jigs like bench vices etc

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**(E) TEST AND MEASURING EQUIPMENTS:**

1. Steel scale
2. Measuring tape
3. Inside and outside vernier caliper
4. Screw gauge
5. Spring balance 300 Kgs
6. Assortment of tools and accessories
7. Pressure feeler and other gauges
8. Surface finishing equipment#
9. Ultrasonic flaw detector (can be conducted through Govt./recognized labs)
10. Hardness testing machine#
11. Facility for chemical analysis of metallic parts (can be conducted through Govt./recognized labs)
12. DG Set-~~125~~-80 KVA

- Note:** 1.\* Furnace is not required for the items no. 4, 6,7,11,12, 13 and for item no. 1, 2, 3, 5, 8, 9, 10 furnace is required but firm can outsource it from a ISO certified firm **with the prior approval of RDSO.**
- 2.# Furnace, forging accessories machine, Surface finishing equipment and Hardness testing machine are not required for apparatus case of mild steel vide drawing no. RDSO/S-11500, RDSO/S 11507 ~~if firm is not manufacturing 'E' Type lock instead purchasing it from RDSO recommended vendors.~~

**Quality Assurance Flow Chart for  
Mechanical Signalling Items**

