

EXPLANATORY NOTE:-

MATERIAL QUOTED:- STEEL 12X H3A GOST 4543-71.

CHROMIUM -NICKEL AND CHROMIUM-NICKEL STEEL
12 X H3A = GRADE OF STEEL.

CHEMICAL COMPOSITION :-

C O N T E N T O F E L E M E N T S %								
C	Si	Mn	Cr	Ni	P	S	Cu	
M A X I M U M								
0.09-0.16	0.17-0.37	0.30-0.60	0.60-0.90	2.75-3.15	0.025	0.025	0.30	

MECHANICAL PROPERTIES:-

2. HEAT TREATMENT.

- a) **HARDENING** i) FIRST HARDENING OR NORMALIZING = 860°C.
ii) SECOND HARDENING = 760-810°C.
iii) COOLING MEDIUM = WATER OR OIL.
- b) **TEMPERING** i) TEMPERATURE °C = 180.
ii) COOLING MEDIUM = AIR OR OIL.

3. YIELD POINT Kg/mm² (MIN) = 70.
4. ULTIMATE STRENGTH Kg/mm² (MIN) = 95.
5. % RELATIVE ELONGATION (MIN) = 11.
6. % RELATIVE REDUCTION ALONG CROSS SECTION (MIN) = 55.
7. IMPACT STRENGTH Kg.m/cm² (MIN) = 9.

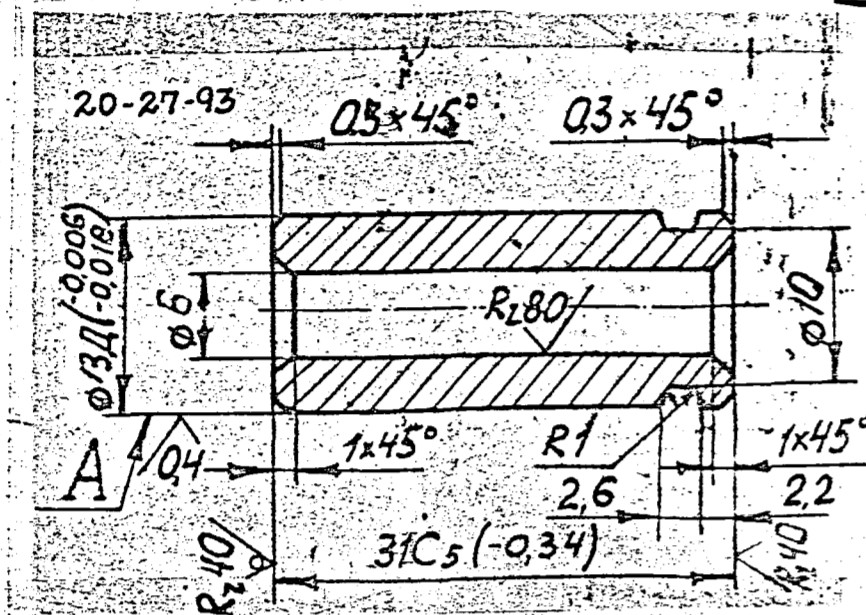
ALTERNATE MATERIAL QUOTED : STEEL 18x2H4MA TY 14-1-381-72

a) **CHEMICAL COMPOSITION : AS PER GOST 4543-71**

GRADE OF STEEL	C O N T E N T O F E L E M E N T S %								
	C	Si	Mn	Cr	Ni	Mo	P	S	Cu
M A X I M U M									
18x2H4BA (18x2H4MA)	0.14-0.20	0.17-0.37	0.25-0.55	1.35-1.65	4.00-4.40	0.30-0.40	0.025	0.025	0.30

b) **MECHANICAL PROPERTIES : AS PER GOST 4543-71**

GRADE OF STEEL	YIELD POINT Kg/mm ²	ULTIMATE STRENGTH Kg/mm ²	RELATIVE ELONGATION %	RELATIVE REDUCTION ALONG CROSS SECTION %	IMPACT STRENGTH Kgfm/cm ²
	m i n i m u m				
18x2H4BA (18x2H4MA)	85	115	12	50	12



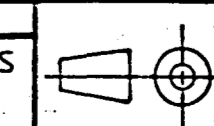
- INSPECTION GROUP III AS PER TECHNICAL REQUIREMENTS TT-11
- CARBURIZE SURFACE A, h 1 TO 1.4mm, IN MANUFACTURED ARTICLE: HRC > 58. HRC 26 TO 40 OF NON-CARBURIZED SURFACES
- UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS:
FOR HOLES - AS PER A7
FOR SHAFTS - AS PER B7
FOR OTHERS - AS PER C7
- COATING: CHEMICALLY OXIDIZED, OILED.
- ALTERNATE MATERIAL IS STEEL 18 X 2 H4MA TY 14-1-381-72, HRC 35 TO 45 AS NON-CARBURIZED SURFACES.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. 0.024 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)
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ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

DRN	CHD	TCD	APPD	DATE	SCALE	DIMENSIONS IN mm.	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS 2102-69	ALL THREADS TO CONFORM TO	D S CAT NUMBER	DRAWING NUMBER
				24-5-89	2 : 1					20-27-93



TAPPET PIN