

ALL DIMENSIONS ARE IN mm.

NOTE: 01. ROLLER CHAIN IS MEANT FOR HEAVY DUTY SERVICES.IT HAS TO COPE UP WITH SHOCK LOADS IN THE ABRASIVE, HOT & DIRTY ATMOSPHERE.

THESE CHAIN ARE USED FOR LIFTING GUILLOTINE GATE BLADES IN THE AIR/HOT AIR/FLUE GAS PATH OF COAL/ OIL FIRED POWER PLANTS.

02. MATERIAL AND CONSTRUCTION: SHOULD MEET THE LOADING AND WORKING REQUIREMENTS.

03. THE DIMENSIONS " PITCH, D, E & F " ARE TO BE MAINTAINED BY THE VENDOR.

04. THE DIMENSIONS " A, B, C, H & T " ARE GIVEN FOR REFERENCE ONLY AND VENDOR HAS TO PROVIDE THE DIMENSIONS FOR BHEL APPROVAL.

05. TOTAL BLOCK END CLEARANCE FOR BOTH SIDES TOGETHER SHOULD BE MINIMUM 1.00 MM AND MAXIMUM 3.0 MM .

06. MAXIMUM SIDE BOW SHOULD NOT EXCEED $\frac{5\text{MM}}{3\text{MM}}$ FOR 10 FEET LENGTH OF CHAIN.

07. THE PIN BUSHINGS AND SIDE BAR PITCH HOLES ARE TO BE FULL ROUNDED DESIGN TO PREVENT SHARP CORNERS, STRESS CONCENTRATION AND POSSIBILITY OF SIDE BAR FATIGUE. PITCH HOLES ARE TO BE ACCURATELY SIZED AND SPACED TO ASSURE INTERFERENCE FIT WITH PINS AND BUSHINGS.

08. OTHER CONNECTED MATING PARTS ARE TO BE UNIFORMLY SIZED TO PROVIDE UNIFORM CLEARANCE BETWEEN LINKS TO ASSURE FREE ARTICULATION.

09. PINS, SIDE BARS, ROLLER & BUSH ARE TO BE HEAT TREATED TO WITHSTAND SHOCK AND WEAR LOAD AND ENSURE HIGH STRENGTH & FATIGUE.

10. ROLLERS ARE TO BE PROCESSED TO WITHSTAND SPROCKET TOOTH IMPACT.

11. CHAIN LENGTH MEASURING LOAD 1/50 OF MINIMUM BREAKING LOAD.

12. CHAIN PRE LOAD 1/3 OF MINIMUM BREAKING LOAD.

13. SUPPLIER HAS TO ENSURE GUARANTEE WITH TEST CERTIFICATE FOR THE CHAIN PRELOAD PULL, MINIMUM BREAKING LOAD / ULTIMATE TENSILE STRENGTH.

14. SUPPLY BITS OF CHAINS EQUIVALENT TO 10 FEET LONG AND REQUIRED PIN ACCESSORIES TO CONNECT WITH EACH BITS.

15. MARKING: THE CHAIN NUMBER AND VENDOR'S NAME ARE TO BE PUNCHED IN THE SIDE BAR AND PIN HEAD.

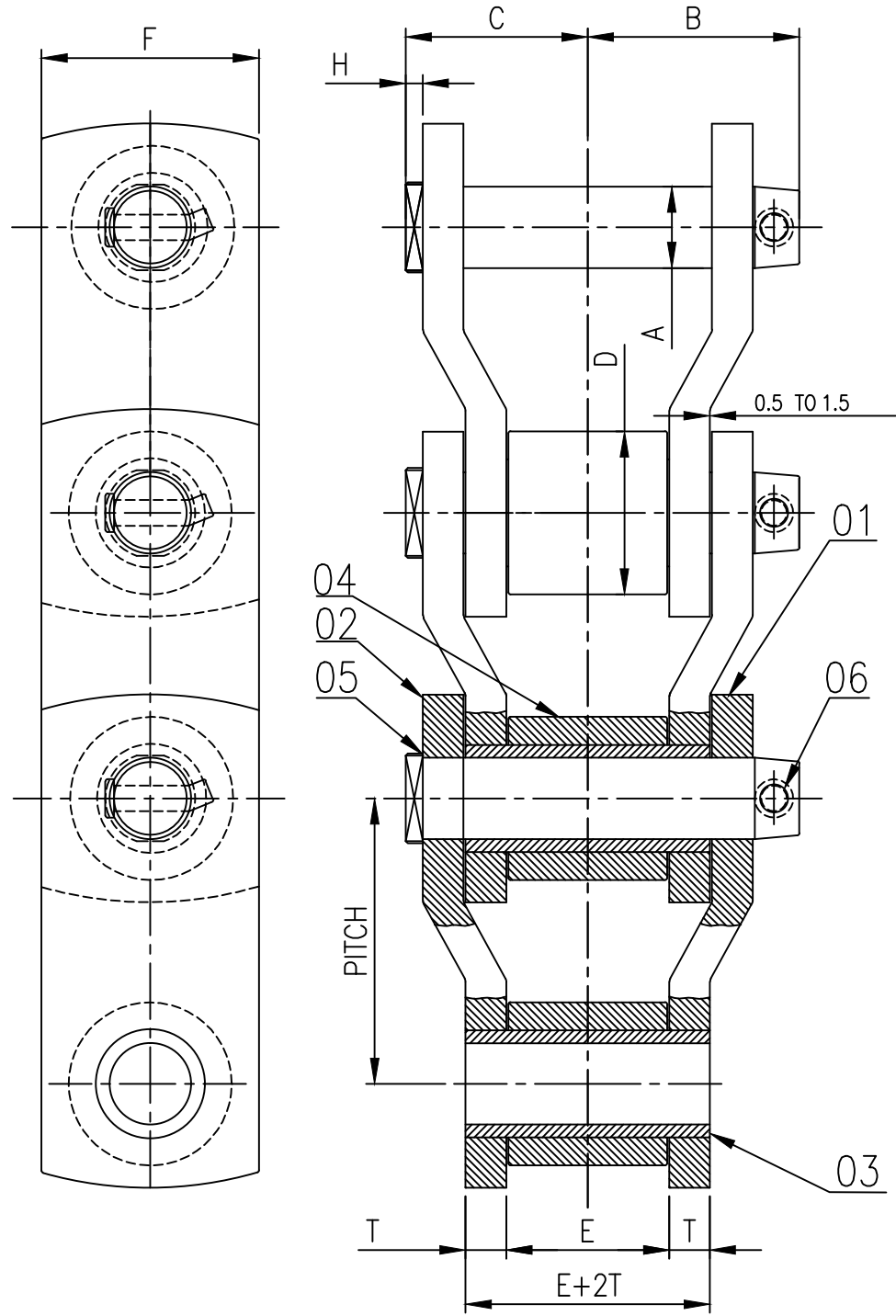
16. PACKING: CHAIN SHALL BE NEATLY PACKED TIGHTLY IN SEPARATE POLYTHENE BAGS AND STACKED IN A WOODEN BOX AS PER FIG 78 OF ASTM A 700-05 (LATEST REV). WEIGHT OF EACH BOX SHOULD NOT EXCEED 500KG. PACKING SLIP SHOULD CONTAIN P.O. NO. ,T.C NO & QUANTITY.

17. VENDOR HAS TO FILL THE BILL OF MATERIALS & OTHER DETAILS IN THE GIVEN TABLE.

18. VENDOR HAS TO PREPARE AND SUBMIT GA DRAWING WITH DIMENSIONAL TOLERANCE AT THE TIME OF ENQUIRY ITSELF.

19. THE INSPECTION & TESTING REQUIREMENT SHALL BE AS PER BHEL QUALITY PLAN QP:NO:SQP:DAM:501 (REFER LATEST REVISION)

20. INWARD INSPECTION: VERIFY THE CORRECTNESS OF CHAIN NUMBER AND CONNECTING ACCESSORIES, APART FROM THE GENERAL INSPECTION AS PER P.O.



SL NO	CHAIN NUMBER	CHAIN LENGTH MEASURING LOAD (KGF)	CHAIN PRELOAD (KGF)	MINIMUM BREAKING LOAD (KGF)	AVERAGE ULTIMATE STRENGTH (KGF)	DIMENSIONS (MM)									BHEL MATERIAL CODE
						PITCH (MM)	A	B	C	+0.0 -0.1 D	+1.0 -0.00 E	±1.0 F	T	H (MIN)	
1.	RO 622	180	3000	9000	9100	+0.11 -0.00 42.0	11.1	28.7	24.9	22.3	25.4	28.7	4.8	8	96145120
2.	RO 1343	1890	31500	94500	105000	+0.25 -0.00 103.89	25.4	69.75	62.25	47.63	49.2	70.0	14.5	10	96145265
3.	RO 4824	3250	58666	176000	190500	+0.38 -0.00 152.4	38.1	97.5	85.8	76.2	76.2	101.6	19.0	10	96145266

05

		RO4824	RO1343	RO622	
06	'T' PIN (ϕ)	MILD STEEL	MILD STEEL	MILD STEEL	
05	CONNECTING PIN	EN-19 OR BETTER MATERIAL	EN-19 OR BETTER MATERIAL	EN-19 OR BETTER MATERIAL	
04	ROLLER	EN-9 OR BETTER MATERIAL	EN-9 OR BETTER MATERIAL	EN-9 OR BETTER MATERIAL	
03	BUSH	EN-9 OR BETTER MATERIAL	EN-9 OR BETTER MATERIAL	EN-9 OR BETTER MATERIAL	
02	OFFSET PLATE (TYPE-II)	EN-19 OR BETTER MATERIAL	EN-19 OR BETTER MATERIAL	EN-9 OR BETTER MATERIAL	
01	OFFSET PLATE (TYPE-I)	EN-19 OR BETTER MATERIAL	EN-19 OR BETTER MATERIAL	EN-9 OR BETTER MATERIAL	
SL NO	DESCRIPTION	MATERIAL SPECIFICATION	MATERIAL SPECIFICATION	METHOD OF HEAT TREATMENT	HARDNESS

BILL OF MATERIALS

Bharat Heavy Electricals Ltd UNIT: BOILER AUXILIARIES PLANT RANIPET - 632 406		TITLE GATE CHAIN (ROLLER)	
DRAWN. BALA.L	CHKD. J.KUPPAN	APPROVED V.KESAVAN	DATE 11/06/2010
		DRG. NO. 3-48-003-59764	REV 05

REV	DATE	PRD:GOPI	CHD:VK	REV	DATE	PRD:KS	CHD:VK	REV	DATE	PRD:AK	CHD:VK	REV	DATE	PRD:BALA.L	CHD:VK	REV	DATE	PRD:JK	CHD:VK
05	26/07/14	RO 1343 CHAIN ADDED.		04	09/03/12	BILL MATERIAL TABLE ALTERED. MATERIAL FOR RO 622 CHAIN ADDED.		03	01/11/11	NOTE 06 & DIMENSION TABLE E & F TOLERANCE ALTERED.		02	29/09/10	BOM TABLE ADDED		01	15/06/10	DRG RIVET HEAD REMOVED NOTES:15 TO 17 & BOM TABLE ADDED	