

ITEMS  
IDENTIFIED  
FOR DEVELOPMENT  
BY MSE

CAPTIVE POWER PLANT  
NALCO, ANGUL

1. COLLAR TYPE JOURNAL SHAFT SLEEVE

MATERIAL CODE

31408724650

DRAWING NO

VA610800243001 BHEL PART NO.

APPLICATION

BOWL MILL

ANNUAL REQUIREMENT

165 NOS.



## 02. TROUGHING IDLER

MATERIAL CODE 31216005000  
DRAWING NO 4-01-3-02716-00  
APPLICATION CHP CONVEYOR BELT  
ANNUAL REQUIREMENT 1000 NOS.

DESCRIPTION TROUGHING IDLER FOR 1000 MM  
BELT(L-352MM)

ROLLER FOR TROUGHING IDLER HAVING ROLL LENGTH OF 352 MM FOR 1000 MM WIDTH BELT.  
DETAILED SPECIFICATION:-

1. OUTER DIA OF ROLL 139.7 MM
2. THICKNESS OF ROLL 4.5 MM
3. MATERIAL OF ROLL ERW PIPE AS PERIS: 9295/1983.
4. SHAFT DIA 25MM MADE OUT OF MS BRIGHT BAR/EN8 AS PER BS: 970/ STEEL OF C-40 ASPERIS-1570.
5. BEARING SKF/ ABL MAKE SEIZE RESISTANCE BEARING.
6. HOUSING PRESSED STEEL/ CRCA SHEET.
7. LUBRICATION MULTISTAGE NYLON LABYRINTH SEALED FORLIFE.
8. DUST COVER CRCAAS PER IS-513.
9. ROLL MOUNTING DROP IN SLOTTYPE
10. QUALITY ASSURANCE PLAN THE IDLERS SHALL BE MANUFACTURED AS PERIS-8598

THE FOLLOWING CHECKS WILL BE CARRIED OUT DURING PRE-DESPATCH INSPECTION:

1. VISUAL CHECK THE OUTER SURFACE SHOULD BE VISUALLY SATISFACTORY.
2. DIMENSION ACCURACY AS PER DRAWING NO:4-01-3-02716-00 SENT TO YOU ALONG WITH THE NIT.
3. WATER TEST : WATER JET WILL BE IMPINGED FROM BOTH SIDES OF IDLERS FOR 4 HOURS AND THE ROLLER WILL BE CHECKED FOR FREE OF WATER ON THE BEARING.
4. DUST TEST . THE IDLER WILL BE ROTATED INSIDE AN ENCLOSED PRESSURED COLD DUST CHAMBER FOR 2 HR & THEN ROLLER WILL BE CHECKED TO FIND OUT ANY PRESENCE OF DUST IN THE VICINITY OF BEARING.



## 03. MILD STEEL LINERS FOR PENDROL CLIPS

MATERIAL CODE 76908003340  
DRAWING NO T3738(Latest Alteration) AS PER RDSO  
APPLICATION CIVIL MAINTENANCE (CRS)  
ANNUAL REQUIREMENT 8560 NOS.

DESCRIPTION MILD STEEL LINERS FOR PENDROL CLIPS IN PCS-12  
SLEEPERS FOR 52KG RAIL



## 04. END CUT MS LINER

MATERIAL CODE  
DRAWING NO  
APPLICATION  
ANNUAL REQUIREMENT

76908003341  
T3738 (Latest Alteration) AS PER RDSO  
CIVIL MAINTENANCE (CRS)  
500 NOS.

DESCRIPTION

SLEEPER AND TO BE USED AT FISH PLATED RAIL JOINTS.



## 05. ELASTIC RAIL CLIPS

MATERIAL CODE  
DRAWING NO  
APPLICATION  
ANNUAL REQUIREMENT  
DESCRIPTION

76908000230  
T3738 (Latest Alteration) AS PER RDSO  
CIVIL MAINTENANCE (CRS)  
500 NOS.

END CUT MS  
LINER FOR  
52 KG PSC

ELASTIC RAIL CLIPS TYPE "J" CONFIRMING TO IRS  
SPECIFICATION NO-T-31-92 WITH LATEST CORRIGENDUM  
AS PER RDSO DRG.NO. T-4158 WITH LATEST ALTERATION  
FOR 52 KG RAIL AND SLEEPER.



## 06. BRACKET FOR RETURN IDLER

MATERIAL CODE	31216013030
DRAWING NO	4-01-4-02729-01
MATERIAL OF CONSTRUCTION	: MILD STEEL
APPLICATION	CHP
ANNUAL REQUIREMENT	: 400 NOS.
DESCRIPTION	BRACKET FOR RETURN IDLER



## 07. TOOTH RING HAMMER

MATERIAL CODE	31221103010
DRAWING NO	4-14-4-02728-00
MATERIAL OF CONSTRUCTION	AUSTENITIC MANGANESE STEEL
APPLICATION	CHP CRUSHER
ANNUAL REQUIREMENT	700 NOS.
DESCRIPTION	TOOTH RING HAMMER



### HAMMER SPECIFICATIONS:-

MATERIAL:IS-276(LATEST),GRADE-1. HARDNESS : 200-229 BHN. WEIGHT : 30KG EACH.

THICKNESS:105MM. TOLARENCES SHALL BE AS PER IS-4897. QUALITY PLAN FOR TOOTHED RING HAMMER :-

- I. WEIGHT VARIATION :- THE MAXIMUM WT.VARIATION BETWEEN THE STANDARD SPECIFIED HAMMER AND THE FINISHED HAMMER SHOULD NOT EXCEED 900 GMS I.E. THE WEIGHT OF EACH INDIVIDUAL HAMMER SHOULD BE WITHIN THE RANGE OF 29.1 KG TO 30.9 KG ONLY. FOR THIS VENDOR SHALL FURNISH THE WEIGHT LIST OF ALL HAMMERS. NALCO SHALL RANDOMLY CHECK THE WEIGHT OF THE HAMMER FOR ACCEPTANCE.
  - II. BEND TEST :- THE BEND TEST WILL BE CARRIED OUTAS PERIS:276(LATEST)ON TEST BARS FROM EACH POUR.
  - III. DROP TEST :- FOR EVERY LOT OF HAMMERS OFFERED FOR INSPECTION, 5 NOS. WILL BE RANDOMLY SELECTED FOR DROP TEST. DURING THE DROP TEST A WT. OF 50 KG SHALL BE DROPPED ON THE MANUFACTURED HAMMER. (WHICH SHALL BE RESTING ON ITS 105 MM WIDE FACE) FROM A HEIGHT OF 5 MTRS. DURING THE TEST, THE HAMMER UNDER TEST SHALL BE SECUREDLY HELD ON A HARD SURFACE SO THAT IT IS NOT ABLE TO RUN OFF.
- ACCEPTANCE CRITERIA :- APPEARANCE OF ANY CRACK ON THE HAMMER SHALL BE THE CRITERIA FOR REJECTION. SURFACE INDENTATION WILL NOT BE A CRITERIA FOR REJECTION. IN CASE OF ANY OF THE FIVE HAMMERS THUS TESTED SHOWS A CRACK, THE SAME TEST SHALL BE REPEATED ON ADDITIONAL 10 NOS. HAMMERS FROM THE LOT OF 70 NOS. IN CASE OF ANY HAMMER FAILS IN THIS BATCH ALSO, THE ENTIRE LOT OF 70NOS HAMMERS WILL BE REJECTED.
- REPAIR AND PAINTING NO WELDING REPAIR AND PAINTING SHALL BE ALLOWED ON THE CASTINGS.
- CHEMICAL ANALYSIS :- DETAIL CHEMICAL ANALYSIS OF EACH POUR (LADDLE WISE) HAS TO BE FURNISHED AT THE TIME OF INSPECTION.
- IV. HEAT TREATMENT :- HEAT TREATMENT CHART I.E. TIME VRS. TEMP. CHART OF ALL HAMMERS HAS TO BE FURNISHED ALONG WITH VENDOR HTPROCEDURE.
  - V. BHN TEST:- 10 NOS. HAMMERS WILL BE SELECTED FROM A LOT OF 70 NOS. HAMMERS FOR BHN TEST. HAMMERS HAVING BHN NO IN THE RANGE OF 200-229 WILL ONLY BE ACCEPTED BY NALCO.
  - VIII. INSPECTION :- ONCE THE HAMMERS ARE READY FOR INSPECTION THE VENDOR SHOULD GIVE A CALL FOR INSPECTION WELLIN ADVANCE.
- GENERAL CONDITIONS : -THE CASTINGS SHOULD BEAR THE TRADE MARK OF THE MANUFACTURER DISTINCTLY.

## 08. BOWL EXTENSION RING

MATERIAL CODE	31408027560
DRAWING NO	HY 611763663001.
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	SPARE FOR BOWL MILL XRP 763
ANNUAL REQUIREMENT	120 Nos



## 09. TRUNION BUSH WASHER

MATERIAL CODE	31408069030
MATERIAL OF CONSTRUCTION	NITRILE RUBBER
APPLICATION	BOWL MILL
ANNUAL REQUIREMENT	100 NOS.
DESCRIPTION	TRUNION BUSH WASHER FOR TRUNION SHAFT OF BOWL MILL, TYPE- XRP-763/ XRP-803 AS PER BHEL PART NO.HY-610800503001.



## 10. SEPARATOR TOP LINER

MATERIAL CODE	31408746090
APPLICATION	BOWL MILL
ANNUAL REQUIREMENT	80 NOS.
DESCRIPTION	SEPARATOR TOP LINER PART NO. VA613802543001



## 11. EMITTING ELECTRODE

MATERIAL CODE	31601011050
MATERIAL OF CONSTRUCTION	: SS WIRE 2 R K 66 0 F I M P O R T E D O R I G I N, GRADE:904L/ SS2562,
APPLICATION	SPARE FOR ESP
ANNUAL REQUIREMENT	13000 Nos
SPECIFICATION	EMITTING ELECTRODE SUITABLE FOR ESP MODEL OF ESP : 2FAA -6X 36-90-125-A2 TYPE : SPIRAL WITH METAL HOOK IN BOTH ENDS WIRE DIA : 2.7MM.ID OF SPIRAL:30MM (+1/-0)



## 12. SLEEVE FOR SOOT BLOWER GEAR BOX

MATERIAL CODE	30804038020
MATERIAL OF CONSTRUCTION	X04Cr19Ni9,AS PER IS:1570(V)-1985 (EQUIVALENT OF SS 304)
APPLICATION	SPARE FOR SOOT BLOWER GEAR BOX, BOILER
ANNUAL REQUIREMENT	80 Nos
SPECIFICATION	OD 102 mm, ID 90 mm & L 136 mm



## 13. OUTER ARM FOR EMITTING ELECTRODE

MATERIAL CODE	31601012000
DRAWING NO	1-01-3-03486-00
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	OUTER ARM FOR EMITTING ELECTRODE IN ESP
ANNUAL REQUIREMENT	100 Nos



## 14. OUTER ARM FOR COLLECTING ELECTRODE

MATERIAL CODE	31601012550
DRAWING NO	1-01-3-03488-00
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	OUTER ARM FOR COLLECTING RAPPING SYSTEM IN ESP
ANNUAL REQUIREMENT	300 Nos



## 15. INNER ARM FOR ESP

MATERIAL CODE	31601011500
DRAWING NO	1-01-3-03487-01
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	USED AS SPARE IN ESP
ANNUAL REQUIREMENT	300 Nos





## 16. SHOCK RECEIVING PAD

MATERIAL CODE	31601014310
DRAWING NO	1-01-4-06667-00
MATERIAL OF CONSTRUCTION	Gr. 280-520W ,IS:1030
APPLICATION	UNIT #6 ESP
ANNUAL REQUIREMENT	220 Nos.



## 17. SET RING

MATERIAL CODE	31601028030
DRAWING NO	1-01-4-03460-00
MATERIAL OF CONSTRUCTION	30C8, AS PER IS:1570(II)-1979, HARDNESS 179 BHN (MIN.)
APPLICATION	SPARE FOR RAPPING SYSTEM, ESP
ANNUAL REQUIREMENT	100 Nos



## 18. PLAIN BEARING

MATERIAL CODE	31601013050
DRAWING NO	1-01-3-03489-00
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	SPARE FOR RAPPING SYSTEM, ESP
ANNUAL REQUIREMENT	300 Nos



## 19. HT MOUNTING STUD

MATERIAL CODE	62219030070
APPLICATION	ASSEMBLY PURPOSE (BOILER)
ANNUAL REQUIREMENT	4500 Nos
SPECIFICATION	M12X35, AS PER IS:1862, GR.8.8



## 20. TUBE BEND

MATERIAL CODE	30801028150
MATERIAL OF CONSTRUCTION	SA 210 GR-A1 APPLICATION BOILER TUBES
ANNUAL REQUIREMENT	150 Nos.
SPECIFICATION	44.5X4.5MM THICK, LENGTH-604.2MM, RADIUS/ANGLE OF BEARING-R 65/180 DEGREE.



## 21. IMPACT IDLER

MATERIAL CODE	31216702950
DRAWING NO.	4-13-3-06611-00
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	IMPACT IDLER FOR 1000 MM BELT WIDTH
ANNUAL REQUIREMENT	200 Nos



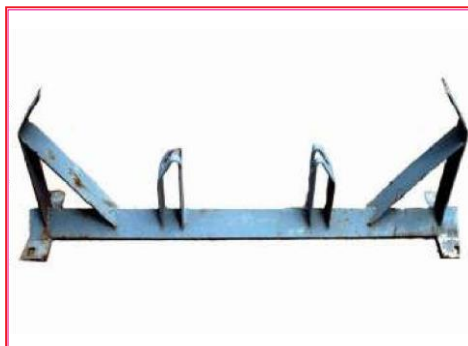
## 22. SCREEN BAR CLAMP BOLT

MATERIAL CODE	31221302530
DRAWING NO	4-15-4-02725-00
APPLICATION	CHP
DESCRIPTION	SCREEN BAR CLAMP BOLT WITH ONE HEXAGONAL NUT, ONE LOCK NUT AND TWO WASHERS .
ANNUAL REQUIREMENT	59 NOS.



## 23. TROUGHING IDLER FRAME

MATERIAL CODE	31216024560
DRAWING NO	4-13-2-06351-01
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	SUPPORT FOR 1000 MM BELT WIDTH IDLER (CHP)
ANNUAL REQUIREMENT	700 Nos



## 24. SCRAPER BAR

MATERIAL CODE	31707114060
DRAWING NO	1-04-3-03185-02
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	SPARE FOR SCRAPER CONVEYOR FOR UNIT#1 TO 6,9,10(AHP)
ANNUAL REQUIREMENT	150 Nos



## 25. FLUSHING APPARATUS

MATERIAL CODE	31708001040
DRAWING NO	1-04-0-06294-00
MATERIAL OF CONSTRUCTION :	REFER DRAWING
APPLICATION	IN ESP
ANNUAL REQUIREMENT	12 Nos

