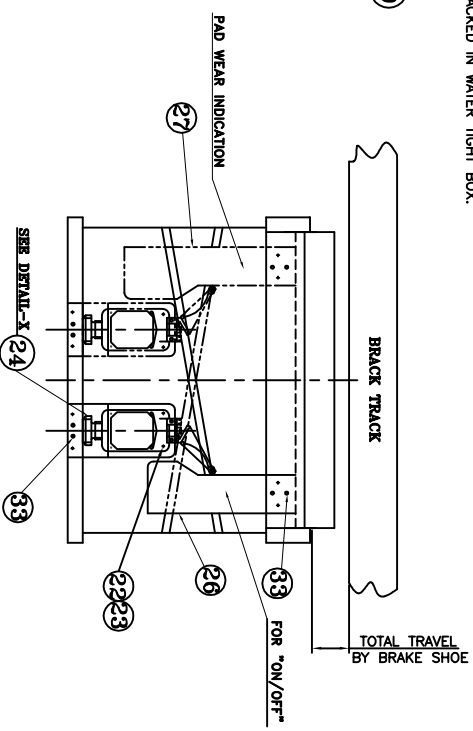
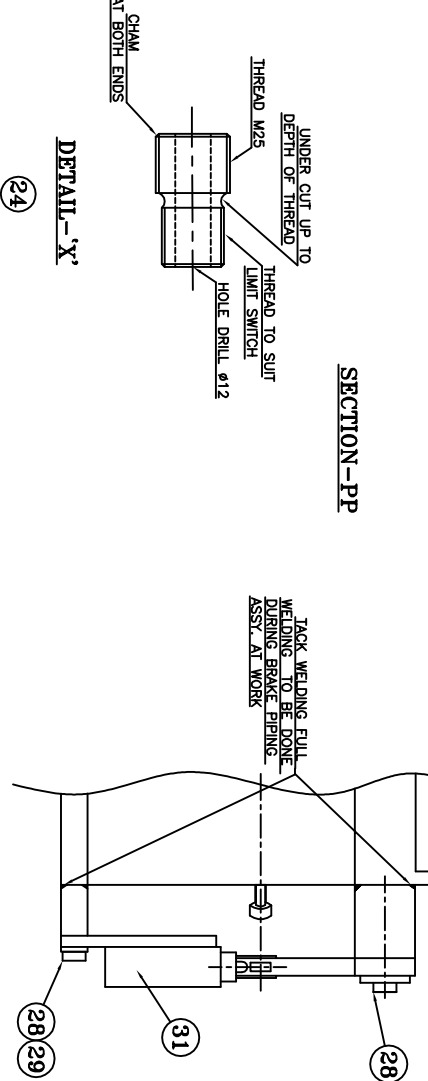
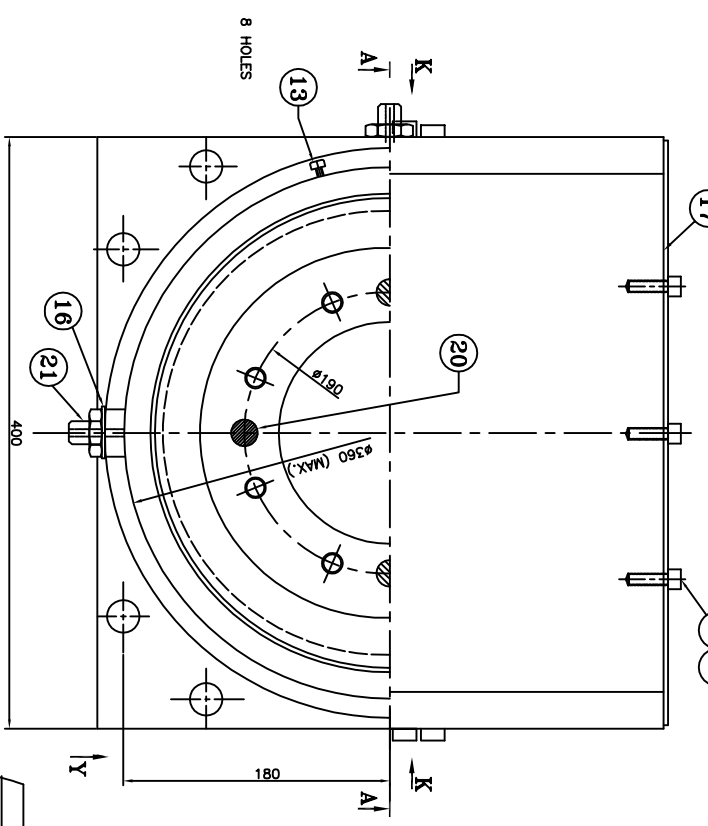
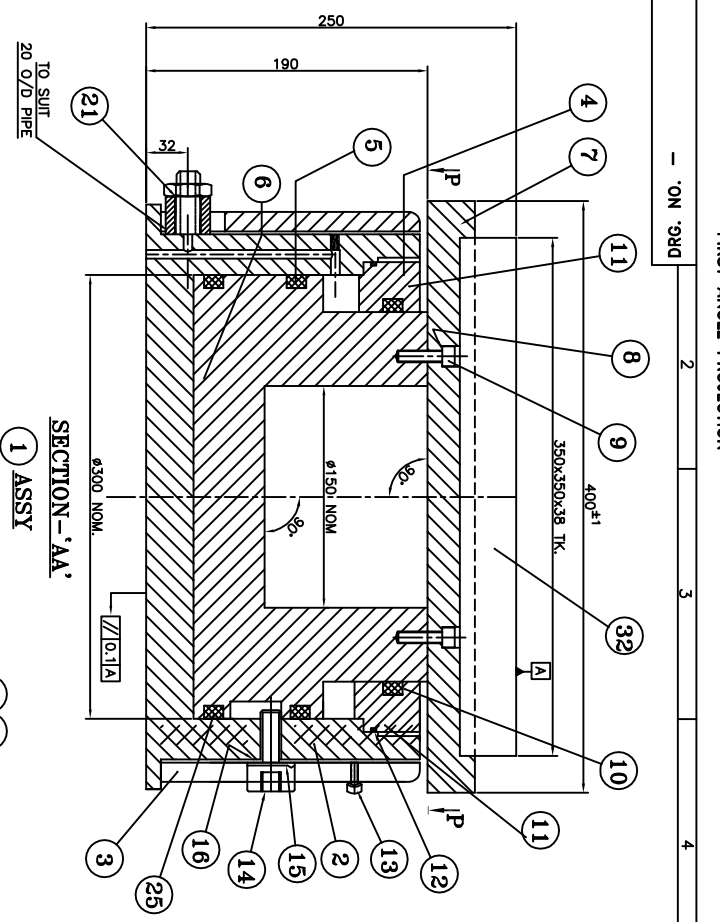


FIRST ANGLE PROJECTION



TECHNICAL REQUIREMENTS:-

APPLICATION

FOR BRAKING & JACKING OF HYDRO GENERATOR ROTORS.

FOR BRAKING BY AIR PRESSURE UP TO 7kg/cm<sup>2</sup>

FOR OIL PRESSURE UP TO 100kg/cm<sup>2</sup>

BRAKE PAD

ASBESTOS FREE MATERIAL CFB/M-11 OF W/S COEFF. FRICTION BANDS PVT. LTD.

THICKNESS -38mm.

BRAKE PAD WEAR -15mm.(MINIMUM)

LIMIT SWITCH

QUANTITY -2Nos. 1NO FOR BRAKE PAD WEAR INDICATION & 1NO. FOR BRAKE 'ON/OFF' INDICATION.

SEGENS/AAI BALLJOL OR EQUIVALENT REPUTED MAKE

HERMETICALLY SEALED ROLLER TYPE

CONTACTS RATING -2NO+2NC

CONTACTS RATING - LAMP- 220/250 VDC

LIMIT SWITCH FOR BRAKE 'ON/OFF' SHALL OPERATE AND CHANGE OVER CONTACTS WHEN BRAKE IS RAISED BY 5mm & MORE TRAVELL.

LIMIT SWITCH FOR PAD WEAR TO OPERATE WHEN THE PAD HAS WORN OUT BY 15mm.

WITH TOTAL TRAVEL OF 25MM

CONSTRUCTION

PISTON & CYLINDER TYPE AND TO OPERATE WITH AIR & OIL MEDIUM.

AIR LEAK PROOF AT 15kg/cm<sup>2</sup> FOR 30MINUTES.

OIL LEAK PROOF AT 250kg/cm<sup>2</sup> FOR 30MINUTES.

MAXIMUM LIFT OF BRAKE/JACK-38mm.

BRAKE PISTON & CYLINDER SHALL BE COATED WITH ANTI-RUST & ANTI SEIZURE HARD CHROME PLATING OF 30MICRONS MIN ON EACH TO PREVENT STICKING OF BRAKES (FOR STANDARD AND TESTING OF CHROME PLATING REFER AA0673612).

CYLINDER & PISTON SHALL BE TRULY CONCENTRIC & THEIR AXIS TRULY VERTICAL TO AVOID STICKING/SEIZURE & JERKING.

ALL SEALS, GASKETS, PACKING ETC MUST BE OF SUPERIOR QUALITY RUBBER AND MUST HAVE LIFE OF SEARS MINIMUM.

BOTTOM SUPPORT PLATE SURFACE & TOP BRAKE PAD SURFACE MUST BE TRULY PARALLEL.

PROVISION SHALL BE MADE FOR MOUNTING LIMIT SWITCHES ON BOTH SIDES OF ASSEMBLY.

FINISH

EXTERNAL SURFACES SHALL BE SAND BLASTED TO REMOVE RUST.

THE BRAKE ASSY. SHALL BE PAINTED WITH ONE COAT OF RED OXIDE PRIMER AND TWO COATS OF HIGH QUALITY OUT DOOR FINISHING EPOXY PAINT.

THE COLOUR OF THE PAINTS SHALL BE LIGHT GREY TO IS-5 SHADE 631. PAINT TK.100-150MICRONS. BASE OF THE CYLINDER SHALL BE PROTECTED DURING TRANSPORT BY APPLYING A COAT OF TEMPORARY RUST PREVENTIVE COATING.

TESTS

1. ALL THE (100%) JACKS SHALL BE TESTED AGAINST THE EACH PO.

2. BRAKES TO BE RAISED & LOWERED BY 38mm, 10 TIMES BY AIR PRESSURE OF 7kg/cm<sup>2</sup>

3. JACK TO BE RAISED & LOWERED BY 38mm, 10 TIMES BY OIL PRESSURE OF 100kg/cm<sup>2</sup> OPERATION SHALL BE SMOOTH & WITHOUT JERKS WITHOUT OIL LEAKAGE. OPERATION OF LIMIT SWITCH SHALL BE CHECKED WITH LAMP TEST.

4. JACKS TO BE RAISED & LOWER BY 38mm, 10 TIMES BY OIL PRESSURE OF 200kg/cm<sup>2</sup> LEAKAGE OF OIL.

5. BRAKES TO BE TESTED AT 15kg/cm<sup>2</sup> AIR PRESSURE FOR 10 MINUTES.

6. ONE NO. BRAKE/JACK ASSEMBLY SHALL BE SELECTED AT RANDOM AND SHALL BE DISMANTLED FOR INSPECTION OF INTERNAL PARTS AND REASSEMBLED. IT SHALL THEN BE SUBJECTED TO THE TESTS AT SN-4

PROVISION SHALL BE MADE FOR OILING THE PISTON & CYLINDER

SUPPORT & LOCKING RINGS SHALL BE PROVIDED ON JACKS

INDEPENDENT PERIOD MOVEMENT OF RINGS SHALL BE SMOOTH

LOOKING ARRANGEMENT SHALL BE PROVIDED SO THAT BRAKES/JACKS DO NOT TRAVEL BEYOND MORE THAN 38mm

11. ALL WELDS SHALL BE FILLET TYPE & OIL TIGHT AND SHALL BE DP TESTED

SUPPLY CONDITION

PISTON & CYLINDER SHALL BE OILED BEFORE ASSEMBLY & SUPPLIED

NAME PLATE SHALL BE PUT ON THE ASSEMBLY INDICATING THE PISTON DIA, PAD SIZE, LOAD CAPACITY MAKE & YEAR OF MFG.

PACKING

BRAKE/JACK ASSEMBLY SHALL BE FIRST PACKED IN 500 MICRONS ΔTK POLYETHYLENE SHEET & SEALED AND THEN PACKED IN WATER TIGHT BOX.

INSTRUCTIONS FOR VENDORS:-

1. SCOPE- DESIGN, MANUFACTURE, TEST, INSPECTION, PACK & SUPPLY.

2. THIS IS ONLY AN ASSEMBLY DRAWING INDICATING BHEL'S TECHNICAL REQUIREMENTS. VENDORS TO MAKE THEIR OWN MANUFACTURING DRAWINGS.

Table with columns for Part No., Description, and Material. It lists various components like Dowel Pin, Brake Liner, Limit Switch, Spring Washer, Gland Nut, Gland Packing, Cap Screw, Nipple, Retaining Plate, Washer, Location Plate, Location Screw, Cap Screw for Support, O Ring, Gland Nut, Gland Packing V Ring, Cap Screw M10x20mm Length, Spring Washer, Top Plate, Ram Packing Ring (Upper), Support Ring (Top), Support Ring (Bottom), and Cylinder Assembly.

SAMPLE DRAWING

HALEY gsoh DyeDvdy1 fveVsvHk  
BHARAT HEAVY ELECTRICALS LTD.  
BHOPAL

DOUBLE ACTING BRAKE ASSY.  
Drawing No. 01

Revision table with columns for REV, DATE, APPROVED, and ZONE. It shows multiple revisions of the drawing.