

APPROVED FOR TURNKEY PROJECTS

2011/10/1
CHIEF ENGINEER / CONSTRUCTION -1
APTRANSCO/VIDYUTH SOUDHA/HYD.

GUARANTEED TECHNICAL PARTICULARS FOR 132KV PT				
Sl. No.	DESCRIPTION	UNIT	GUARANTEED VALUES	
1	Type		Out Door, Single phase, Oil immersed, Vacuum impregnated, Self cooled, Electromagnetic Type	
2	Manufacturer's Type/Designation		LVT-132	
3	Mounting of tank		Bottom	
4	Conforming to standard		IS-3156 (1992)	
5	Rated system voltage	KVrms	132	
	Highest system voltage	KVrms	145	
6	Rated primary voltage	KVrms	132/√3	
7	Secondary winding details		Winding-I	Winding-II
a)	Rated secondary voltage	Volts	110/√3	110-110/√3
b)	Rated burden	VA	150	50
c)	Class of accuracy	%	0.2	3P
8	Temp. rise at 1.1 times rated voltage with rated burden	°C	within limits of IS-3156	
9	Rated voltage factor & Time		1.2 Cont. & 1.5 For 30 Sec.	
10	Temperature Rise for item -8 above	°C	within limits of IS-3156	
11	Impulse withstand test voltage	KVp	650	
12	One minute power frequency withstand test voltage on primary	KVrms	275	
13	One minute power frequency withstand test voltage on secondary	KVrms	3	
14	Porcelain bushing (Make)		IEC/BNGK/CJI/WSI/OBLUM/EQUILENT	
15	Total creepage distance of the bushing	mm	3625	
16	Protected creepage distance		50% of Total	
17	Quantity of insulating oil	Ltrs	124±10%	
18	Weight of insulating oil	Kg	120±10%	
19	Total weight including oil	Kg	450±10%	
20	Mounting details	mm	400×400	
21	Live part to ground clearance		As per standard	
22	Whether V.T is sealed construction with Nitrogen at top		Yes	
23	Over all dimensions	mm	As per Approved Drawing	
24	Grade of oil		EHV Grade As per IS - 335	
25	V.T shall carry 25% above the rated burden continuously without injury in respect of voltage transformers		Yes	

[Signature]

For LAMCO INDUSTRIES PVT. LTD.


IN-CHARGE (D&D)

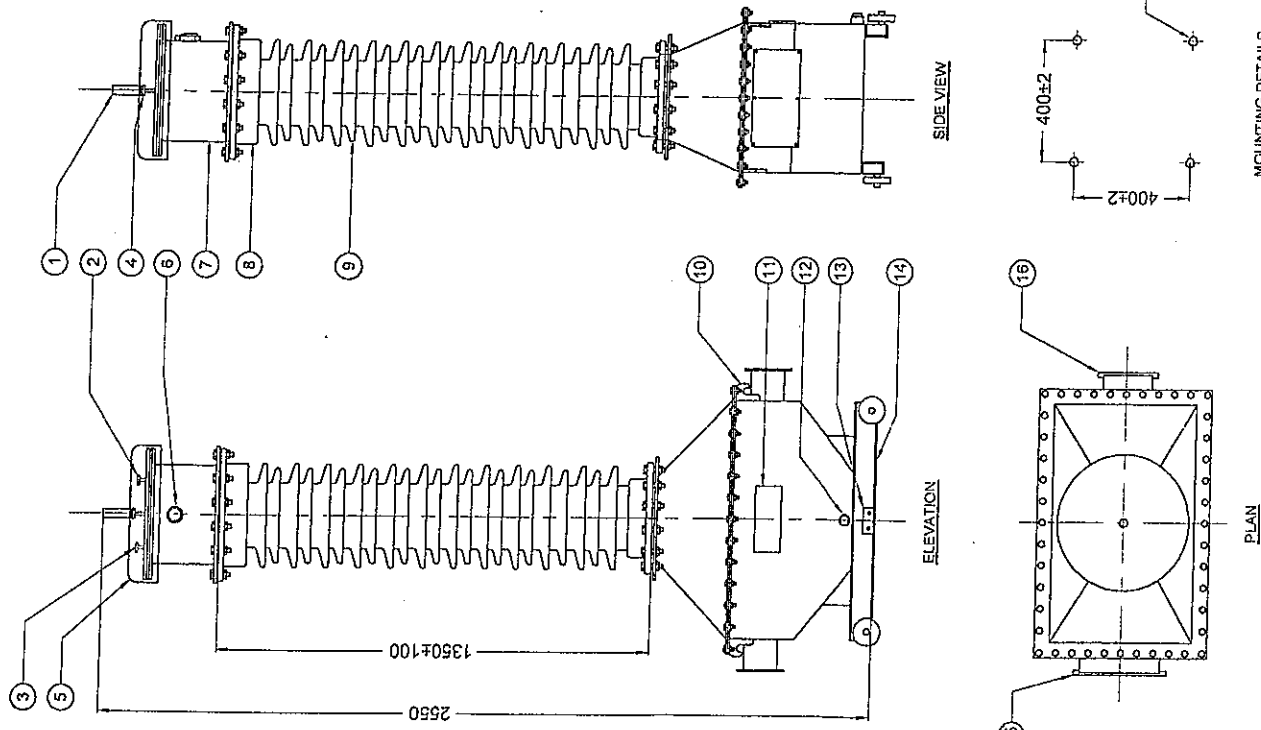
DATE: 08/11/11

HOD(B.D)

DATE:

26 The type tests should have been conducted not earlier than 5 years in the standard third party laboratory. The manufacturer shall produce the type tests at the time of acceptance tests.
27 Quality of material held applicable standard - B.I.S. The manufacturer shall produce the valid B.I.S. certification at the time of acceptance tests.

	Standardised Guaranteed Technical Particulars for 132KV PT (LAMCO Industries Pvt Ltd)
	STD/GTP-DWG/Approval No. 208-9 Revision No. 0
	Prepared & Approved during October - 2011
Customer ref : APTRANSCO	



- NOTE:
- TOTAL CREEPAGE DISTANCE : 3625 mm (Nom)
 - TOTAL WEIGHT : 450±10%Kgs
 - QUANTITY OF OIL : 120±10%Kgs
 - INSULATING OIL : IS : 335
 - REFERENCE STANDARD : IS : 3156
 - MATERIAL OF PRIMARY & SECONDARY WINDING : COPPER
 - MATERIAL OF CORE : CRGO SILICON STEEL
 - TANK FINISH : GALVANIZING
 - MATERIAL : M.S. 3.125mm THICK

APPROVED FOR TURNKEY PROJECTS

CHIEF ENGINEER / CONSTRUCTION-1
APTRANSCO/VIDYUTH SOUDHA/HYD.

[Signature]
 20/11/2011

CUSTOMER : M/S. TRANSMISSION CORPORATION OF ANDHRA PRADESH LTD.
 RATIO : 132KV/3/ 110V/1/3 - 110V,110V/1/3

SL. No	DESCRIPTION	MATERIAL	QTY
16	PRIMARY EARTHING TERMINAL BOX	MILD STEEL	1
15	SECONDARY TERMINAL BOX	MILD STEEL	1
14	MOUNTING CHANNEL	MILD STEEL	2
13	EARTHING TERMINAL	MILD STEEL	2
12	OIL DRAIN PLUG	MILD STEEL	1
11	NAME PLATE	BRASS	1
10	LIFTING HOOK	MILD STEEL	4
9	MAIN BUSHING	PORCELAIN	1
8	BUSHING FLANGE	M.C.I.M.S	2
7	TOP TANK	MILD STEEL	1
6	OIL LEVEL INDICATOR	ALUMINIUM	1
5	DOME COVER	MILD STEEL	1
4	NITROGEN FILLING VALVE	BRASS	1
3	PRESSURE RELIEF DEVICE	BRASS	1
2	OIL FILLING PLUG	MILD STEEL	1
1	PRIMARY TERMINAL (Ø30x80mm LONG)	ALUMINIUM	1

REV. No.	BRIEF DESCRIPTION		SIGNATURE	DATE
	LAMCO INDUSTRIES PRIVATE LIMITED, B - 38,39,40, SANATHNAGAR IIC, HYDERABAD-500018, A.P., INDIA		<i>[Signature]</i>	08/11/11
TOLERANCE ±5%		PROJECTION	DRAWN	
ALL DIMENSIONS ARE IN mm		SCALE : NTS	CHECKED	08/11/11
TITLE : 132KV POTENTIAL TRANSFORMER (OIL IMMERSED, SINGLE PHASE, OUT DOOR TYPE)		APPROVED		08/11/11
DRAWING NUMBER E 2132122 APTRANSCO			ISSUE - 1 REV - 0	

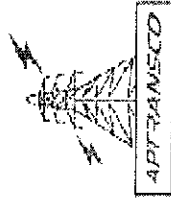
Standardised Drawing for 132KV PT (LAMCO Industries Pvt Ltd).

STD/GTP-DWG/Approval No. 208-10-Sheet1 Revision No. 0

Prepared & Approved during October - 2011

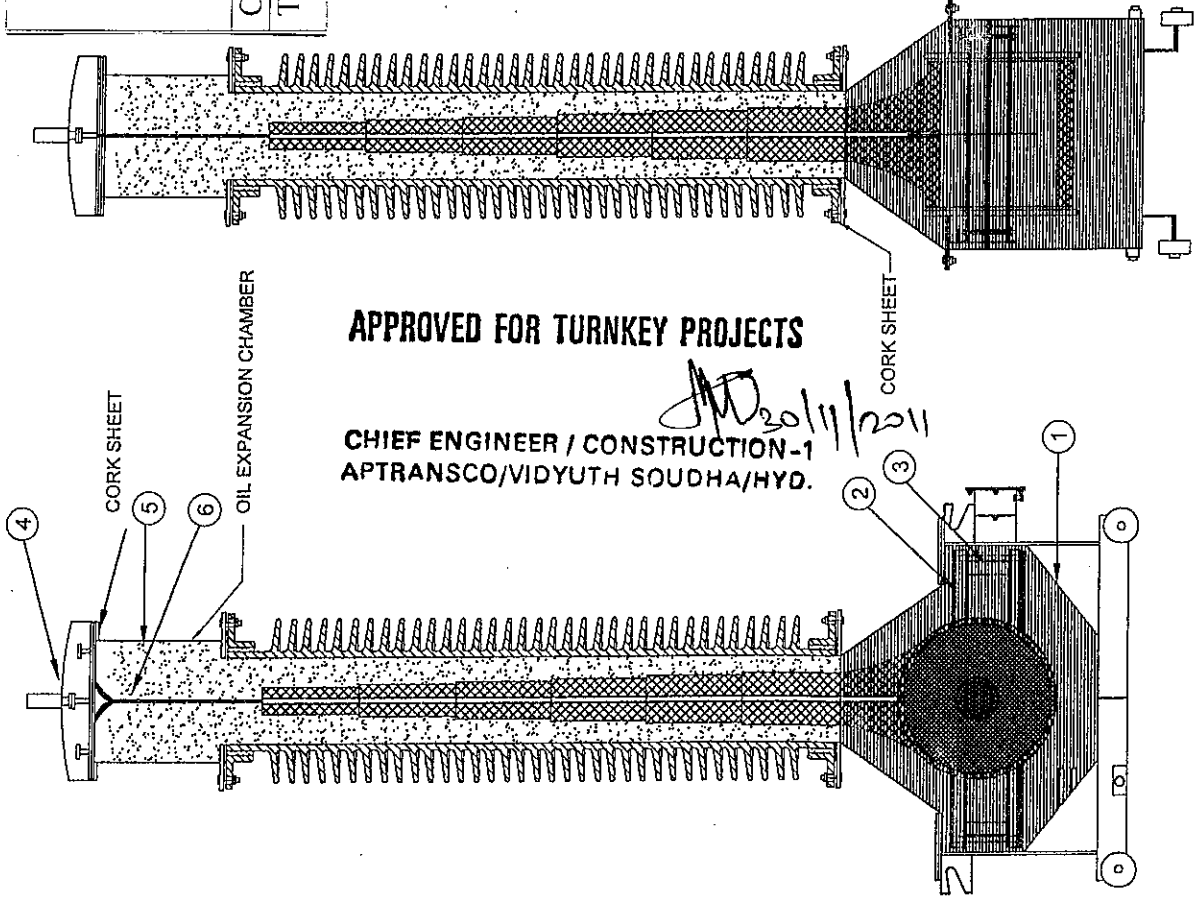
Customer ref : APTRANSCO

Standardised Drawing for 132KV PT (LAMCO Industries Pvt Ltd).
 STD/GTP-DWG/Approval No. 208-10-sheet2 Revision No. 0
 Prepared & Approved during October - 2011



Customer ref : APTRANSCO
 Title: Sectional view of 132KV Potential Transformers

CUSTOMER : M/S. TRANSMISSION CORPORATION OF ANDHRA PRADESH LTD.
 RATIO : 132KV/√3, 110KV/√3 - 110V, 110V/√3



APPROVED FOR TURNKEY PROJECTS
 CHIEF ENGINEER / CONSTRUCTION-1
 APTRANSCO/VIDYUTH SOUDHA/HYD.

Sl. No.	DESCRIPTION	QTY.	MATL.
6.	H.V. LEAD (PARALLEL)	3	COPPER
5.	TRANSFORMER OIL	-	NAPHTHELENE BASED
4.	PRIMARY TERMINAL HOLDER	1	COPPER
3.	CORE(LAMINATION)	1	C.R.G.O. M-4 SILICON STEEL
2.	SECONDARY WINDING	1	COPPER
1.	PRIMARY WINDING	1	COPPER

REV. No.	BRIEF DESCRIPTION	SIGNATURE	DATE
	LAMCO INDUSTRIES PRIVATE LIMITED, B - 38,39,40, SANATHNAGAR I.E, HYDERABAD-500018, A.P., INDIA.		
		TOLERANCE ±5%	08/11/11
		ALL DIMENSIONS ARE IN mm.	08/11/11
	PROJECTION	APPROVED	08/11/11
	SCALE : NTS		
	DRAWN		
	CHECKED		
	APPROVED		
	DRAWING NUMBER	E 2132004	ISSUE - 1
		APTRANSCO	REV - 0
	TITLE : 132KV POTENTIAL TRANSFORMER SECTIONAL VIEW (OIL IMMERSED, SINGLE PHASE, OUT DOOR TYPE)		

POTENTIAL TRANSFORMER			
REF. STD	IS : 3156	RATIO	132KV/ $\sqrt{3}$ /110V/ $\sqrt{3}$ - 110V, 110V/ $\sqrt{3}$
FREQ.	50 Hz	CORE	1 2
PHASE	SINGLE	BURDEN	150VA 50VA
N.S.V	132 KV	CLASS	0.2 3P
H.S.V	145 KV	I. LEVEL	275/650 KV
YEAR	2011	V.F	1.2 CONTINUOUS & 1.5 FOR 30 Sec.
SL. NO			
CUSTOMER	M/S. TRANSMISSION CORPORATION OF ANDHRA PRADESH LTD.		
P.O.NO.			

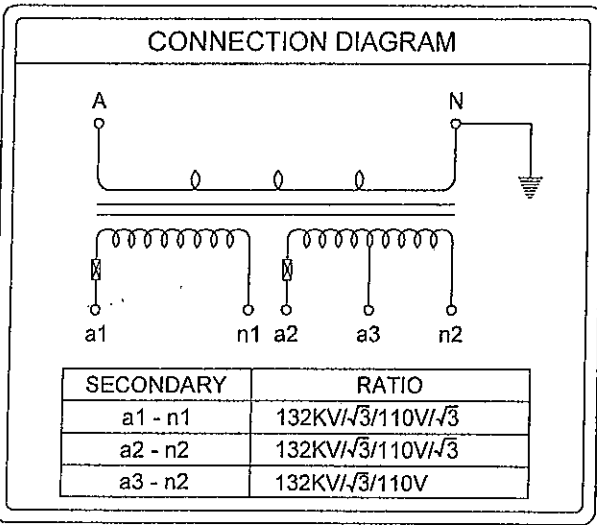


LAMCO INDUSTRIES PRIVATE LIMITED
B-38, 39 & 40 SANATHNAGAR I.E,
HYDERABAD - 500 018, A.P, INDIA

APPROVED FOR TURNKEY PROJECTS

[Signature] 30/10/2011

**CHIEF ENGINEER / CONSTRUCTION-1
APTRANSCO/VIDYUTH SOUDHA/HYD.**



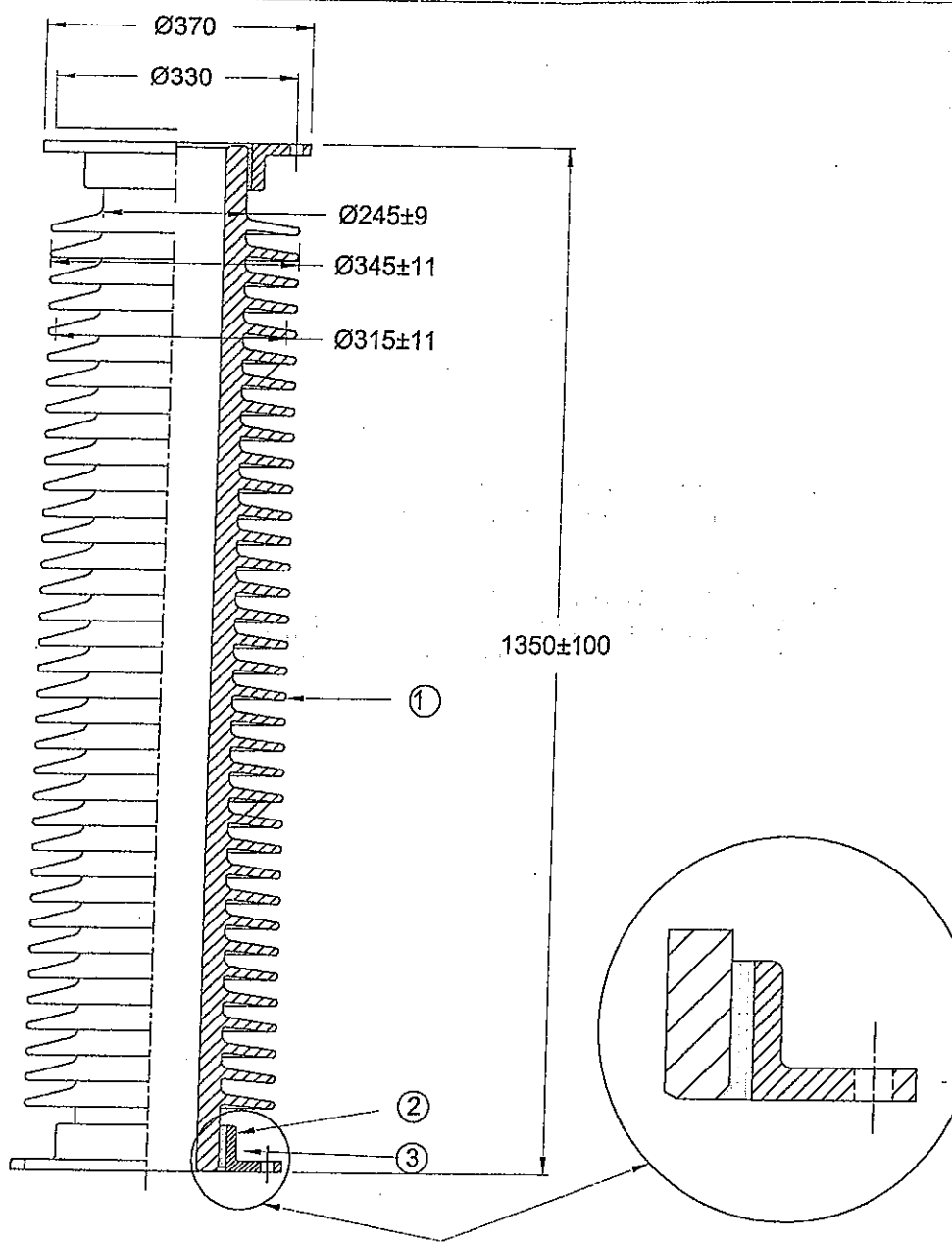
CAUTION
DO NOT DISCONNECT LINK
WHILE TRANSFORMER
IS ENERGISED.

Standardised Drawing for 132KV PT (LAMCO Industries Pvt Ltd),
 STD/GTP-DWG/Approval No. 208-10-sheet3 Revision No. 0
 Prepared & Approved during October - 2011

Customer ref : APTRANSCO
 Title: Name And Connection Diagram

MATERIAL : BRASS

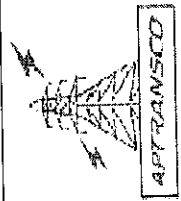
REV. No.	BREIF DESCRIPTION	SIGNATURE	DATE
<p>LAMCO INDUSTRIES PRIVATE LIMITED, B - 38,39,40, SANATHNAGAR I.E, HYDERABAD-500018, A.P, INDIA.</p>	TOLERANCE	DRAWN	08/11/11
	ALL DIMENSIONS ARE IN mm	CHECKED	08/11/11
		APPROVED	08/11/11
TITLE :		DRAWING NUMBER	ISSUE - 1
NAME AND CONNECTION DIAGRAM		E 8132122	REV - 0
		APTRANSCO	



Standardised Drawing for 132KV PT (LAMCO Industries Pvt Ltd).

STD/GTP-DWG/Approval No. 208-10-sheet4 Revision No. 0

Prepared & Approved during October - 2011



Customer ref : APTRANSCO
Title: 132KV PT Porcelain Housing Assembly.


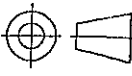
CUSTOMER: M/S. TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED.

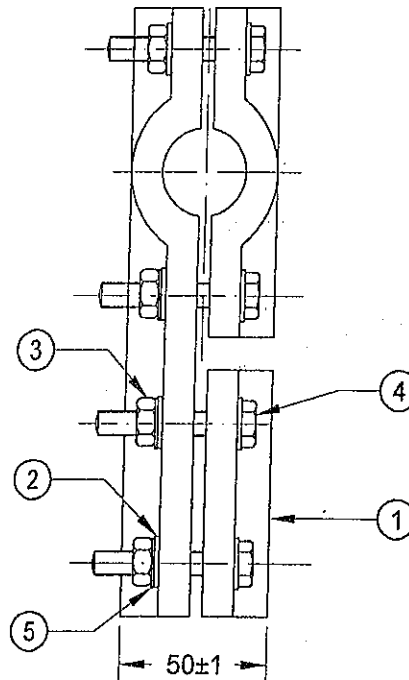
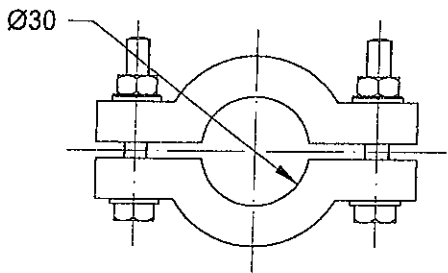
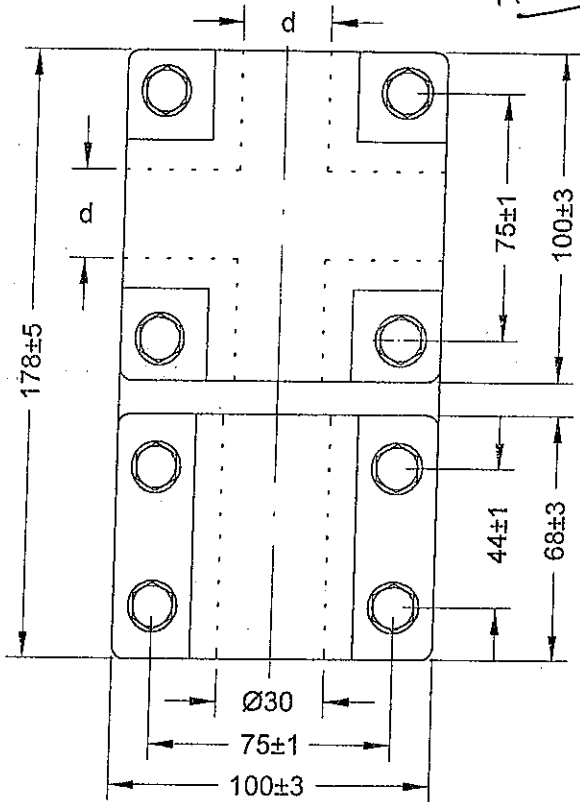
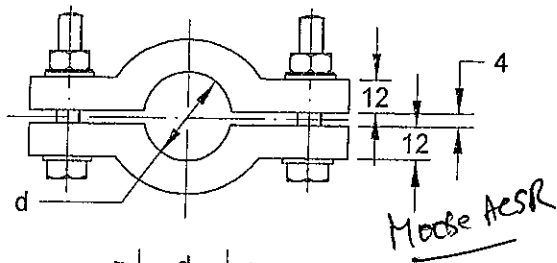
APPROVED FOR TURNKEY PROJECTS

[Signature]
20/11/2011
CHIEF ENGINEER / CONSTRUCTION-1
APTRANSCO/VIDYUTH SOUDHA/HYO

SL.No	DESCRIPTION	QTY.	MATERIAL	REMARKS
03	CEMENT	—	PORTLAND	—
02	FLANGE	2	M.C.I/M.S	—
01	INSULATOR	1	PORCELAIN	—

BILL OF MATERIAL

REV. No.	BREIF DESCRIPTION	SIGNATURE	DATE
	 LAMCO INDUSTRIES PRIVATE LIMITED, B - 38,39,40, SANATHNAGAR I.E, HYDERABAD-500018, A.P, INDIA.	DRAWN <i>[Signature]</i>	08/11/11
		CHECKED <i>[Signature]</i>	08/11/11
		APPROVED <i>[Signature]</i>	08/11/11
TOLERANCE AS INDICATED ALL DIMENSIONS ARE IN mm		PROJECTION 	SCALE : NTS
TITLE : DETAILS OF PORCELAIN HOUSING ASSEMBLY FOR 132KV PT			DRAWING NUMBER E 7132003A ISSUE - 1 REV - 0



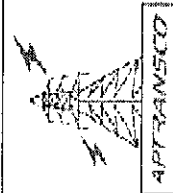
SUITABLE FOR BELOW CONDUCTORS

CONDUCTOR NAME	DIA (d)
GOAT	25.959
ANTELOPE	26.746
KUNDAH	26.797
SHEEP	27.915
DRAKE	28.140
ZEBRA	28.575
DEER	29.870
CAMEL	30.175
TARANTULA	30.910
ELK	31.471
✓MOOSE	31.775

Standardised Drawing for Line Terminal Connector (LAMCO Industries Pvt Ltd).

STD/GTP-DWG/Approval No. 208-10-sheet5 Revision No. 0

Prepared & Approved during October - 2011



Customer ref : APTRANSCO

Title: Line Terminal Connector(Horizontal & Vertical Takeoff)

CUSTOMER: M/S. TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED.

APPROVED FOR TURNKEY PROJECTS

CHIEF ENGINEER / CONSTRUCTION -
APTRANSCO/VIDYUTH SOUDHA/HYD

5	SPRING WASHERS	M.S (HDG)	08
4	M10 X 40 BOLTS	M.S (HDG)	08
3	M10 NUTS	M.S (HDG)	08
2	PLAIN WASHERS	M.S (HDG)	16
1	CLAMP SET	AL. ALLOY	01
I. No	DESCRIPTION	MATERIAL	QTY

01. CUSTOMER COMMENTS INCORPORATED

REV. No.	BREIF DESCRIPTION	SIGNATURE	DATE
<p>LAMCO INDUSTRIES PRIVATE LIMITED, B - 38,39,40, SANATHNAGAR I.E, HYDERABAD-500018, A.P, INDIA.</p>	TOLERANCE ±0.5	PROJECTION 	DRAWN Sudheer
	ALL DIMENSIONS ARE IN mm	SCALE : NTS	CHECKED
			APPROVED
TITLE : LINE TERMINAL CONNECTOR (HORIZONTAL & VERTICAL TAKE OFF)		DRAWING NUMBER E 5000922 APTRANSCO	ISSUE - 1 REV - 1

THIS ARE IN MPD

APPROX WEIGHT

DESCRIPTION	WEIGHTS (KG)
CORE & WINDING	134
PORCELAIN INSULATOR CBHEL EPD HAKE	141
TANK, TOP-CHAMBER & FITTINGS	142
OIL	133
TOTAL WEIGHT	550
OIL QUANTITY IN LITERS	160

TABLE OF FITTINGS

ITEM	DESCRIPTION
2	COMBINED RATING AND DIAGRAM PLATE
3	LIFTING LUG
4	EARTHING TERMINAL ARRANGEMENT WITH MID NUTS & BOLTS
8	NAME PLATES
12	OIL LEVEL GAUGE WITH OIL SIGHT GLASS
14	DRAIN VALVE WITH PLUGE (5NB) WITH SEALING ARRGT.
95	SECONDARY TERMINAL BOX AND COVER
93	PRESSURE RELEASE DEVICE
99	NITROGEN FILLING SCHRADER VALVE
90	PRIMARY TERMINAL #30 TINNED COPPER
91	SECONDARY TERMINALS #8 NICKLE PLATED BRASS (INSIDE TERMINAL BOX)
93	EARTH LINK
95	SECONDARY CARTRIDGE FUSE 16 AMPS,
106	SLING GUIDES
108	STRESS RING

MINIMUM VALUES

TOTAL CREEPAGE	3625mm
INSULATION LEVEL KV RMS/KVPIE75/650	

NOTES:-

- DIMENSIONS SHOWN THUS ARE OVERALL DESPATCHING DIMENSIONS EXCLUSIVE OF PACKING.
- SLING GUIDES IT.106 ARE TO BE DESPATCHED LOOSE.
- ALL EXTERNAL FERRIOUS PARTS WILL BE HDG.

NOTES:

- THIS DRAWING IS FOR TENDING PURPOSE ONLY, DIMENSIONS AND DETAILS ARE SUBJECT TO REVISION AND SHOULD NOT BE FINALLY WORKED TO UNLESS CONFIRMED.

CUSTOMER:MS.-HEG MANDIDEEP
ITEM:1

ADDITIONAL INFORMATION

STATUS OF DRAWING	DATE	BY	CHKD
ISSUED FOR PROCS			
THE TRP	MAX. REV. 8		
1	1	ALTRD	CHECKED
2	2	ALTRD	CHECKED

REV. DATE	ALTRD	CHECKED	REV. DATE	ALTRD	CHECKED

REV. DATE	ALTRD	CHECKED	REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

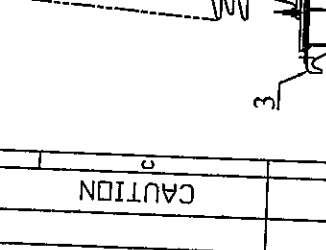
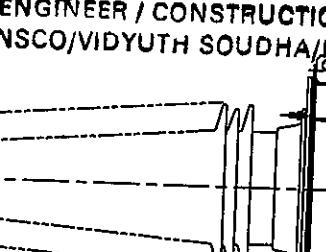
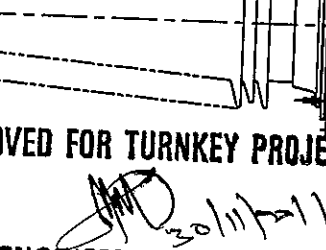
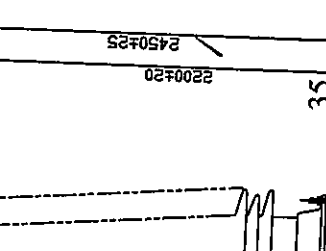
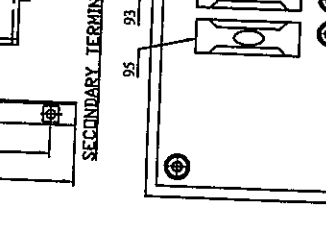
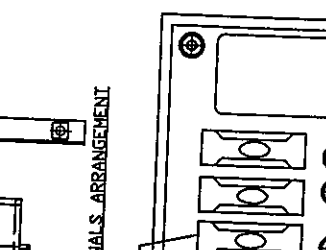
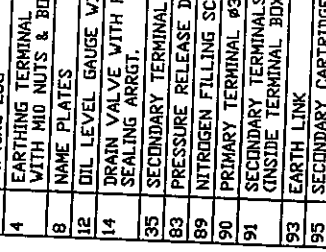
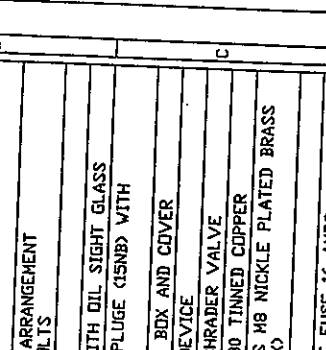
REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED

STATUS OF DRAWING

REV. DATE	ALTRD	CHECKED



APPROVED FOR TURNKEY PROJECTS

CHIEF ENGINEER / CONSTRUCTION-6
APTRANSCO/VIDYUTH SOUDHA/HYD.

30/11/2011

CHECKED

ADARSH
DEBEN

CAUTION

INS20495.dwg

STANDARDISED DRAWING FOR 132KV PT (LAMCO Industries Pvt Ltd).

STD/GTP-DWG/Approval No. 208-10-sheet6 Revision No. 0

Prepared & Approved during October - 2011

APTRANSCO

Customer ref. APTD ANSCO

Customer ref. APTD ANSCO

Customer ref. APTD ANSCO