

8. HOLES AT 112 ± 0.1
P.C.D AS SHOWN

6. HOLES AT 101.6 ± 0.1
P.C.D AS SHOWN

01	LPIA 715 TC - BS2	MIN. 459mm MAX. 469mm	1070 02 - 715	2154 4110 0112
SR. NO.	VEHICLE	"A" DIMENSION (CLOSED CONDITION)	RSB PART NO.	IATA MOTORS PART NO.

All Dimns. in mm
Do not scale the drg.
If in doubt Ask Please
Projection 1st Angle

M/cg Deviation for open Dimns (Ref to IS: 2102, Pt. 1)		Surface Roughness Symbols													
Dim.	Over	6	30	120	315	1000	2000	>4000	New	N1	N1.5	N3	N6	N6 GRD	N6 HRD & GRD
Upto. & inc	6	30	120	315	1000	2000	4000		▽	▽	▽	▽	▽	▽	▽
Tolerance	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	Old	▽	▽	▽	▽	▽	▽

For other Roughness Symbols & Values See IS: 3073 (IS: 11507)

Material Description
Size, Spec. Std. No.

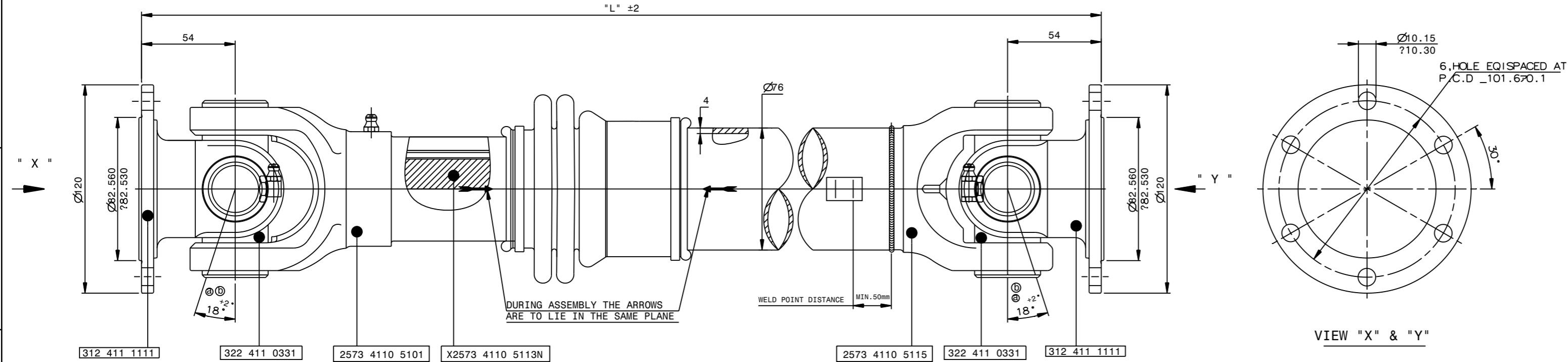


RSB
TRANSMISSIONS
(I) LTD

Date	Mod No.	Mat. No.	Zone	Modification	D.O.	STDZ
2005	SIGN	DATE	1/08	NEW RELEASE	W-A	SS
CAD	AJIT	DATE	1/08	Surface Protection		
CHD	IT PAIRA	DATE	1/08	Replace Drg.		
STDZ				Reference Drg. No.		
APPD	S.S.			Opp Hand Drg./Pt. No.		
SCALE	1:1	Projection	1st Angle	Drg./Part No.		
Drg./Part Designation				1070 02 - 715		
PROPELLER SHAFT (NEAR)				Sheet No. 1		
PROPOSAL DRAWING FOR						
LPIA 715 TC - BS2						

MASTER COPY REF: PROP. SHAFT 001C (FILE NO. -) CAD REF: COMP 1 /D:/Projects/Prop. shaft/LPIA 715 TC - BS2/Proposal drawing.

TML PART NO:- 2154 4110 0112



- NOTES:-
- MAXIMUM UNBALANCE 70 Cmg.
PROPELLER SHAFT TO RUN VIBRATION FREE UP TO A SPEED OF 3000 R.P.M.
 - WHEN TURNING THE SHAFT BY HAND TOTAL INDICATOR READING IS NOT TO EXCEED 0.3 mm. OVER THE WHOLE LENGTH.
 - ALL STRAIGHTENING OPERATIONS HAS TO BE DONE ON SHAFT AS A WHOLE.
 - SHAFT TO WITHSTAND A TORQUE OF 225 Kgmm WITHOUT ANY PERMANENT DEFORMATION
 - GREASE NIPPLE ON BOTH CROSSES ARE TO BE IN THE SAME DIRECTION.

SL.NO.	TATA MOTORS PART NO.	PART DESCRIPTION	QTY.
5	2573 4110 5115	SHORT FORK	01
4	X2573 4110 5113N	REAR END PIECE	01
3	2573 4110 5101	LONG FORK	01
2	322 411 0331	CROSS ASSY.	02
1	312 411 1111	FLANGE YOKE	02

BILL OF MATERIAL

SR. No.	VEHICLE	"L" DIMENSION (CLOSED)	"L" DIMENSION (ASSY. LENGTH)	SLIP	TML PART NO.
02	LPTA 715 TC 32 TC (REAR)	788	816	70	2198 4110 0102
01	LPTA 715 TC 32 (FRONT)	1312	1336		2198 4110 0101

Machining Deviation as per(class to IS:2102 Pt. 1)									
M/cg Deviation for open Dimns (Med to IS 2102 Pt. 1)					Surface Roughness Symbols				
Dim	Over	Upto & Inc	6	30	120	315	1000	2000	>4000
Tolerance	± 0.1	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2	± 2	± 3	

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Material Description Size, Spec. Std. No.

10/8/10	c		Dim. 788 was 798 as per TML Slip length added	HP RAJ
4/8/10	b		Articulation Angle 18° was 18°	Amit RAJ
19/7/10	a		Angle 18° was 23° & slip length removed from table	Amit RAJ
3/2/09	NR			

Date: 2009
Mod. No.:
SIGN: AJIT
DATE: 3/2/09

Product/Group No.:
Replace Drg.:
Reference Drg. No.:
Opp Hand Drg./Pt. No.:
Drg./Part No.: 1076 02 715
Sheet No. 1 of 1

All dimns. in mm
Do not scale the drg.
If in doubt Ask Please
Projection Angle

MASTER COPY REF: PROP. SHAFT 001C (FILE NO. -)
ROP.SHAFTPTAPTA 715\ PROPOSAL DRAWING FOR LPTA 715

Material Description, Size, Spec. Std. No.

Classification of characteristic:
 ● Critical ▲ Key Instruction
 ○ Major (None) Minor
 ● Applies to upper limit
 ○ Applies to lower limit

14/08/10	99_M 204530		SUPPLIER DRAWING MODIFIED, DIMN. 788 WAS 798 & 18° WAS 23° SLIP LENGTH 70 WAS 110.	SRD SSH
31/07/09	99_M 204512		NEW RELEASE	SRD SSH

Date: 2009
SIGN: AVV
DATE: 25/07

Product/Group No.: LPTA 715 BS11

Scale: NTS

Table Drawing Assy Propellar Shaft

2198 4110 04 01

Sheet No 1 of 1 Sheets

Machining Deviation as perclass to ISO 2768

Machining Deviations as per ISO 2768 m									SURFACE ROUGHNESS SYMBOLS / VALUES IN um Ra								
Dim	Over	-	6	30	120	400	1000	2000	Symbol	N12	N11	N9	N7	N6	N3	N6 GRD	N6 HRD & GRD
	Upto & Inc.	6	30	120	400	1000	2000	4000	Value	50	25	6.3	1.6	0.8	0.1	0.8	0.8
Tolerance	± 0.1	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2	± 2	For other Roughness Symbols & Values See IS : 10719									

All dimensions are in mm unless otherwise stated. First Angle Projection

Nominal dims.	Tolerance in μ	Tool/Gauge No.

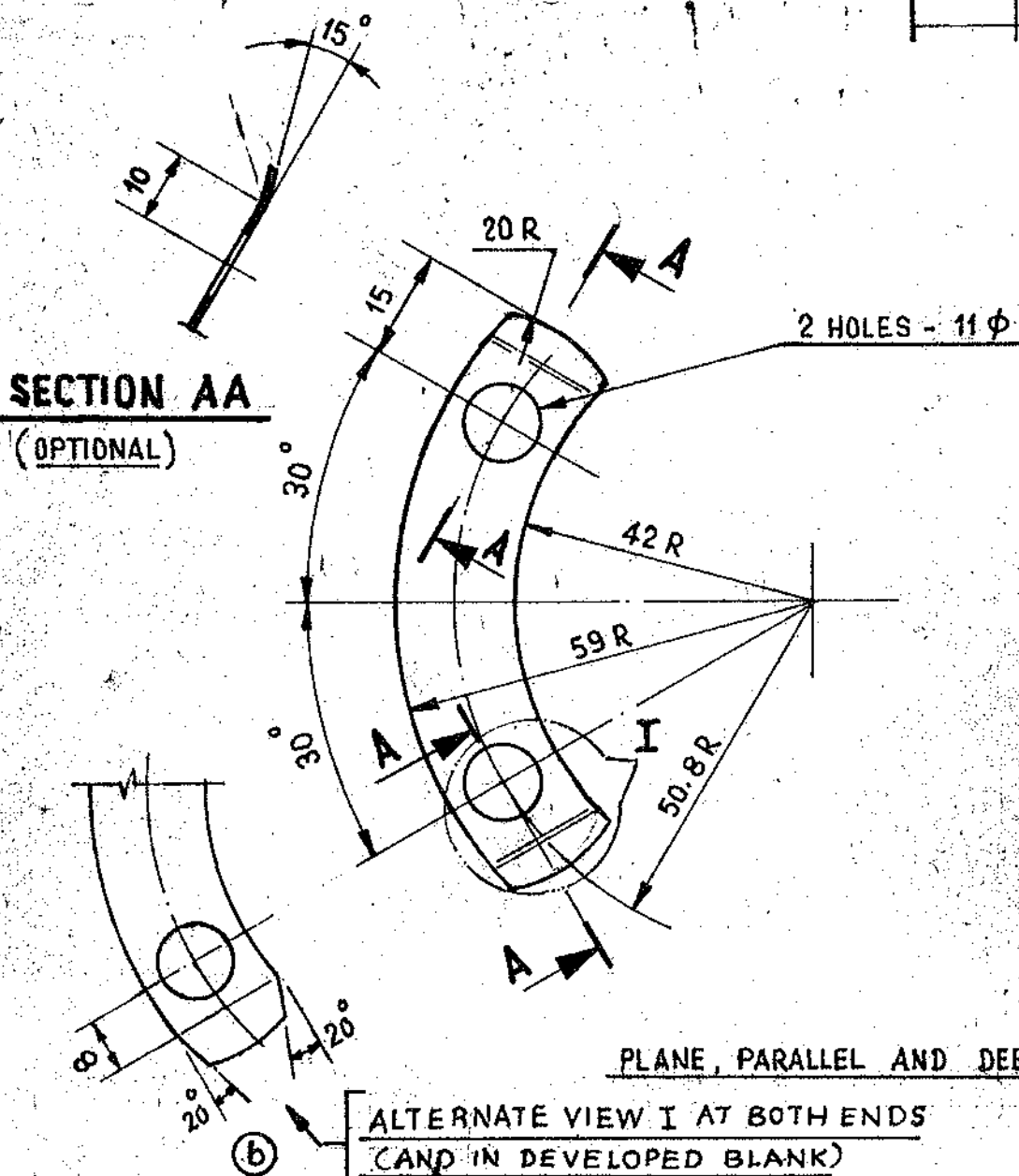
Surface Finish Symbols

Hardened & Ground	▽▽▽▽
Polishing	▽▽▽
Finishing	▽▽
Smoothing	▽
Roughing	▽

For Roughness Values See IS: 11805

Machining Deviation for open Dimensions

Dim.	Over	6	30	120	315	1000	2000	4000
Up to & inc.	6	30	120	315	1000	2000	4000	10000
Tolerance	± 0.1	± 0.3	± 0.5	± 0.8	± 1.2	± 2	± 3	± 5



PLANE, PARALLEL AND DEBURRED.

ALTERNATE VIEW I AT BOTH ENDS
(CAMP IN DEVELOPED BLANK)

* COLD ROLLED LOW CARBON STEEL SHEET 1.0 THK.
D-513 QUARTER HARD 15:513

Qty	Item No.	Description	Description & Size Material/Std. Item/Part No.	Spec./Std. No.	Pattern/Die/ Tool No.	Fin. Wt. in kg.	Remarks
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Tolerances as per Std.

Measurements to be specially checked.

Surface protection as per Std. SS 8451-11

27/11/2008	205PM	d	MATL. WAS 'D513 SS: 4010'	R.N.W.
25-2-98	28PM 895	c	MATL. D-513 SS 4010 WAS DD 1019 OR USE 1203	UJG
3-3-78	PG43/77	b	ALTERNATE VIEW I: ADDED	MSK RGP

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1977	Date	Name	Mod. No.	Sl. No.	Zone	Modification	Name
Drawn	13/11	hulk	2-558	PG43/77	a	ALTERNATIVE MATLS. USE 1203 OR D-513 ADDED.	RGP
CHD	13/11	Raj	1-127	PG43/77	-	NEW RELEASE.	VTR. RGP
Sd.	9/12	hulk	Date	Mod. No.	Sl. No.	Zone	Name
APPD.	13/11	Raj	Reference Drg. No.	2505 2640 61/01	MOD. 1.0	Reference Drg. No.	CHD



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Scale: 1:1	Opp. Hand Drg./Pt. No.
Org./ Part Designation	Drg./ Part No.
LOCKING PLATE	2505 2640 61/01
Sheet No.	of

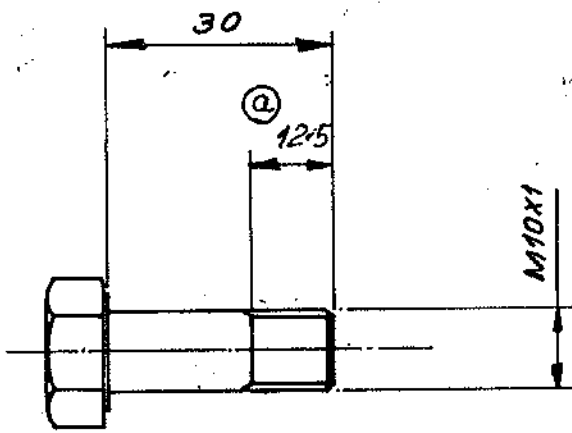
Surface Finish Symbols

Machining Deviation for open Dimensions

Hardened & Ground	▽▽▽	>4000
Ground	▽▽	7000
Fine Finishing	▽	1000
Smoothing Finishing	▽	315
Raw (smooth, unmilled)	▽	120
	▽	30
	▽	6
	▽	0.6
	▽	0.3
	▽	0.2
	▽	0.1
	▽	± 0.1
	▽	± 0.2
	▽	± 0.3
	▽	± 0.5
	▽	± 0.8
	▽	± 1.2
	▽	± 2
	▽	± 3

All dimensions are in mm unless otherwise stated. Angle Projection

Nominal dms.	Tolerance in μ	Tool/Gauge No.



ALL OTHER DETAILS ARE SAME AS

HEX. BOLT-M10x1x30, IS:1364

a P1-12.9, SS: 9400

b
d

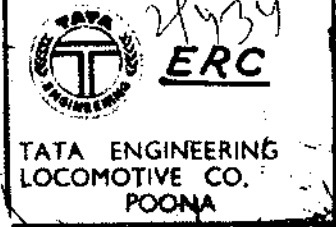
Qty.	Item No.	Description	Material/Std. Item/Part No	Spec./Std No	Pattern/Die/Tool No.	Fin. Wt. in kg.	Remarks
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Tolerances as per Std
 Measurements to be specially checked
 Surface protection as per Std.

02-02 94 PM	2001 409018	d	12.9 QUALITY WAS 10.9, SURFACE PROTECTION SS: 8451 - B.C.H DELETED.
19.8.97	94 PM 332.048	c	SS: 94.00 ADDED AS ALTERNA-TIVE
11.11.95	93 PM 309024	b	SS: 8451-BCH WAS SS: 9400
7.3.79	P098/79	a	DIMENSION 12.5 WAS
1/8/77	P44/77	-	NEW RELEASE

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77	Date	Name	11.11.95	93 PM 309024	b	SS: 8451-BCH WAS SS: 9400
Drawn	2/5	CHB	7.3.79	P098/79	a	DIMENSION 12.5 WAS
CHD	2/5	Am	1/8/77	P44/77	-	NEW RELEASE
Std.	4/8	Jul	Date	Mod. No	Sl. No	Modification
APPD	2/5	Del.	Replaces Drg. No.	Reference Drg. No.	Opp. Hand Drg/Pt No	Name



Scale: 1:1	Product 1516	Drg./Part Designation	BOLT	Drg./Part No.	25764111 32 01
Sheet No. 1 of 1			ORG		