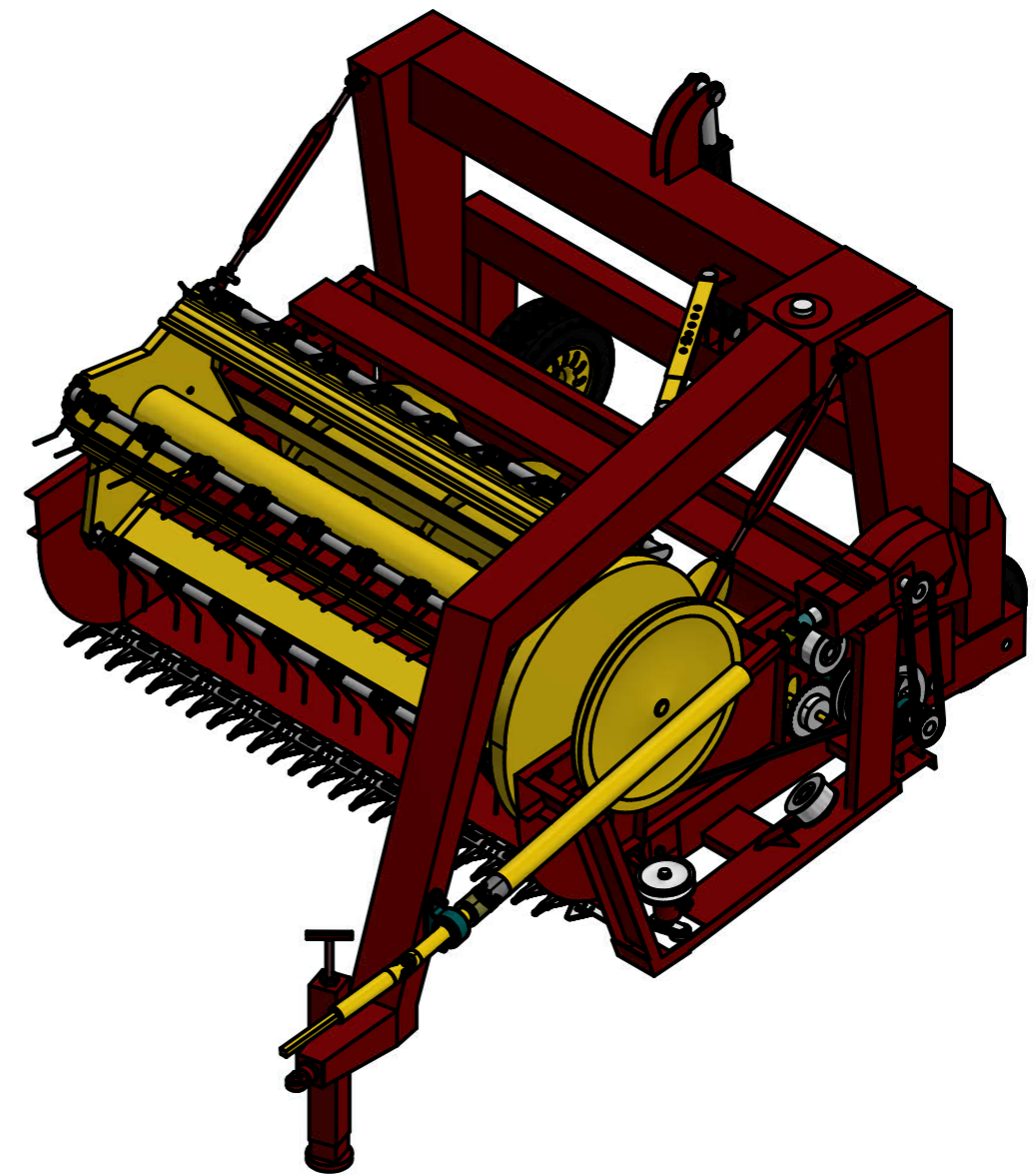


ISOMETRICO  
SCALE 1:20



ISOMETRICO  
SCALE 1:20

DRAWN WLJSM/XRCC	02/02/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>MÁQUINA SEGADORA ACONDICIONADORA</b>		
QA				
MFG ORMAQ		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
APPROVED ORMAQ		SIZE <b>A3</b>	DWG NO <b>DISEÑO COMPLETO</b>	REV 01
PLANO N°: 01		SCALE 1:20	SHEET 1 OF 1	

**NOTA:**  
LA CORONA ES RECICLADO  
DE UN AUTO MOVIL.

CHAVETA DE 6.3\*4.8\*50 MM

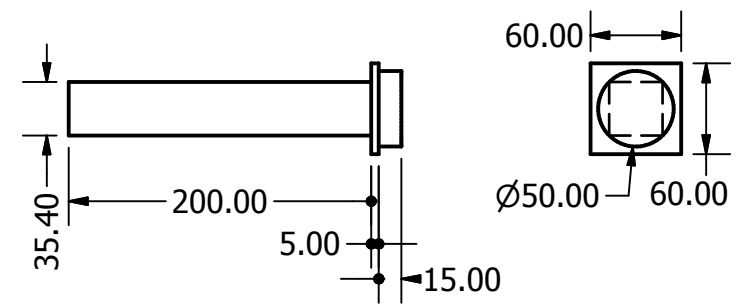
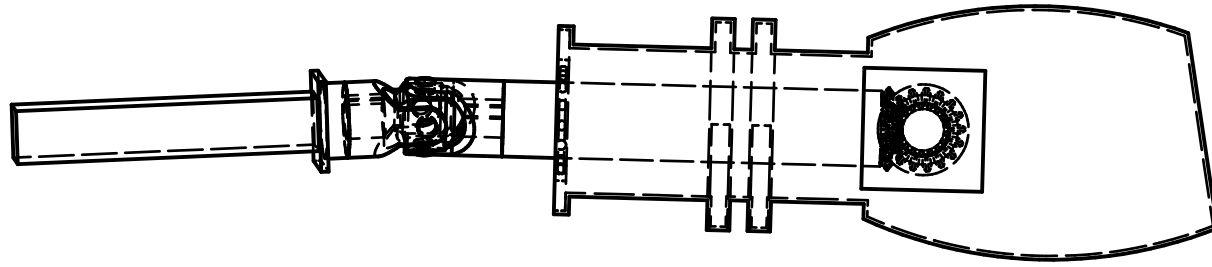
DETALLE A  
SCALA 1:5

AGUJERO PARA REGULAR  
DISTANCIA DE TRABAJO

DETALLE B  
SCALA 1:5

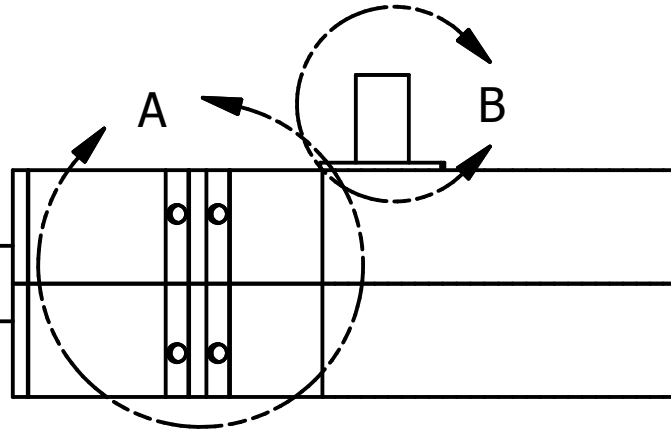
PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	6	AS 1252 - M12 x 30	Steel, Mild
2	1	Corona de transmision	
3	1	Cojinete autoalineante	Generic
4	1	Cojinete autoalineante	Generic
5	1	Cardan 1 y arbol de transmision	
7	1	Engranaje de transmision de 17 dientes	Steel
9	1	Cardan 2	
10	1	Conexion para tractor	Generic

DRAWN WLJSM/XRCC	06/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>SISTEMA DE TRANSMISION DE TRACTOR A EJE PRINCIPAL</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	DWG NO <b>SISTEMA TRANSMISION</b>	REV 01
APPROVED ORMAQ		SCALE 1:10		SHEET 1 OF 5
PLANO N°: 02				

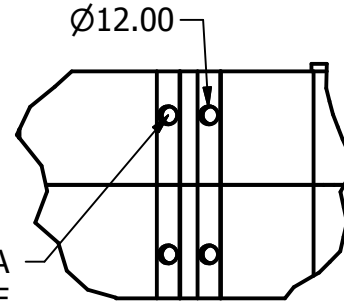


EL DISEÑO ES PARA  
REGULAR LA DISTANCIA Y  
ES LA CONEXION PARA  
EL ARBOL DE TRANSMISION

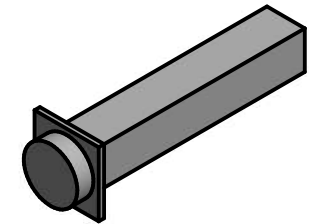
CARDAN DE TRANSMISION



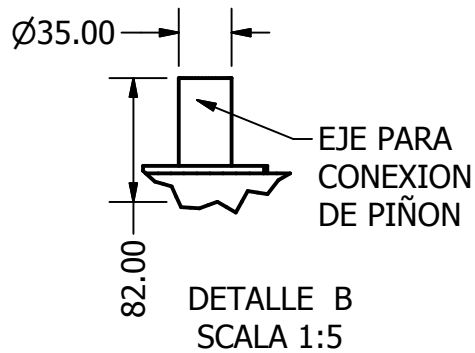
ESPACIO PARA  
SUJECION DE  
CORONA EN LA  
ESTRUCTURA DE  
LA MAQUINA



DETALLE A  
SCALA 1:5



ISOMETRICO  
SCALA 1:5



DETALLE B  
SCALA 1:5

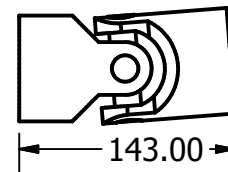
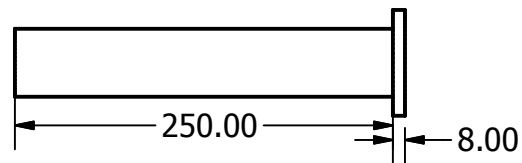
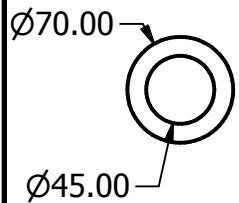
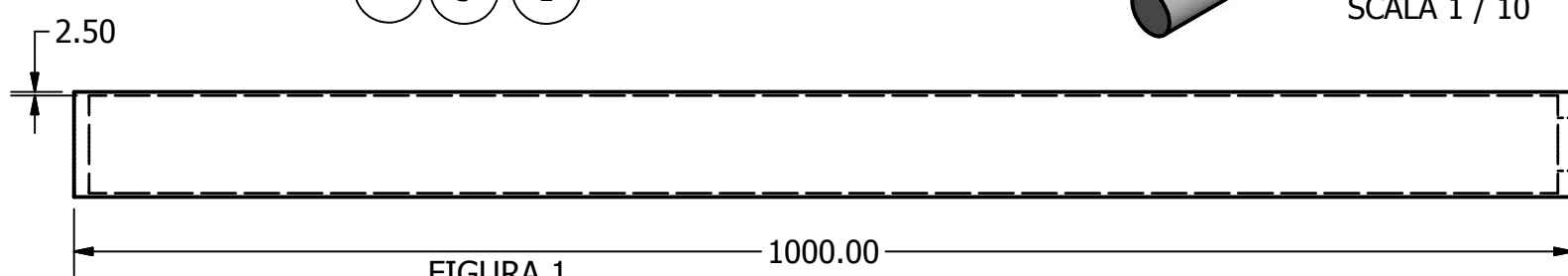
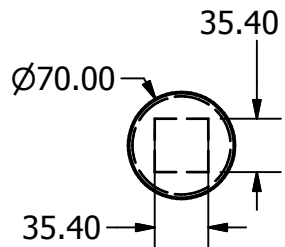
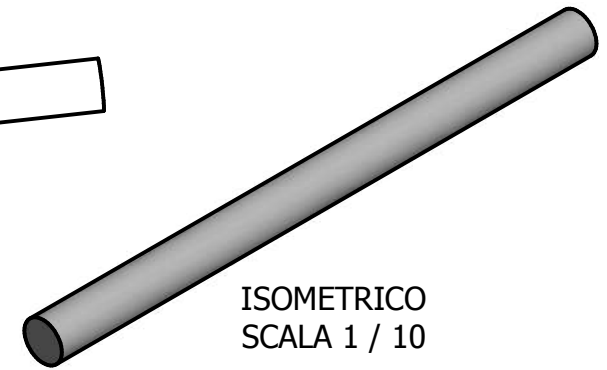
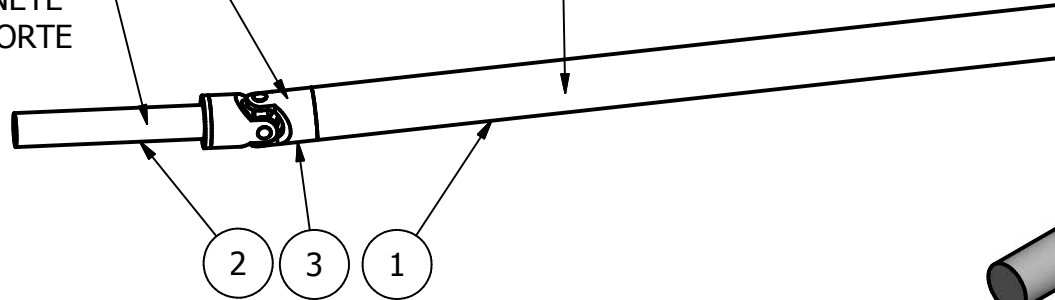
**NOTA:**  
ESTA CORONA ES RECICLADA Y  
MODIFICADA DE UN AUTOMOVIL,  
ESTA SE PUEDE ENCONTRAR EN  
EL MERCADO.

DRAWN WLJSM/XRCC	06/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>CORONA DE TRANSMISION</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	DWG NO <b>SISTEMA TRANSMISION</b>	REV <b>01</b>
APPROVED ORMAQ		SCALE 1:5	SHEET 2 OF 5	
PLANO N°: 03				

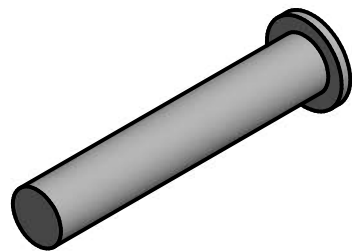
EJE DE CONEXION  
PARA EL COJINETE  
DE SOPORTE

CARDAN

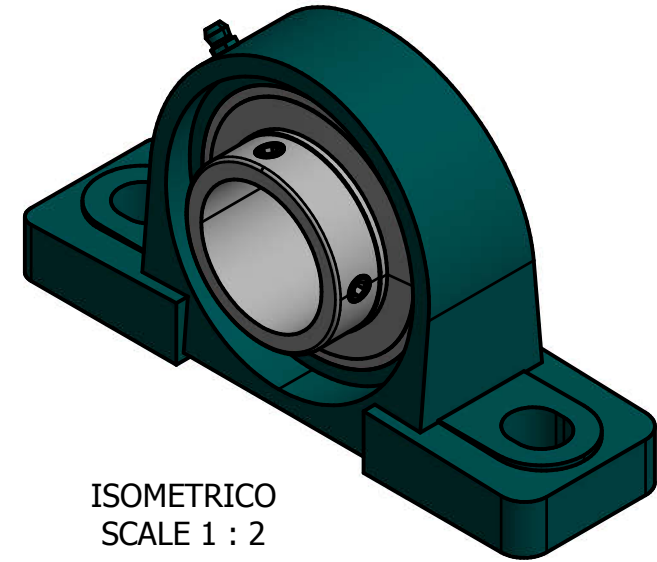
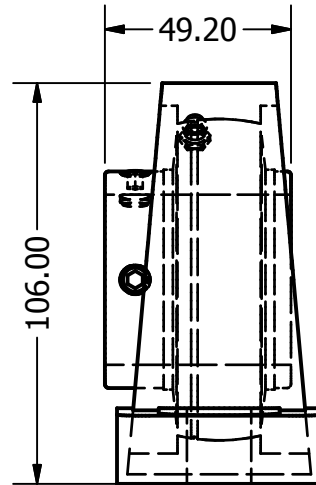
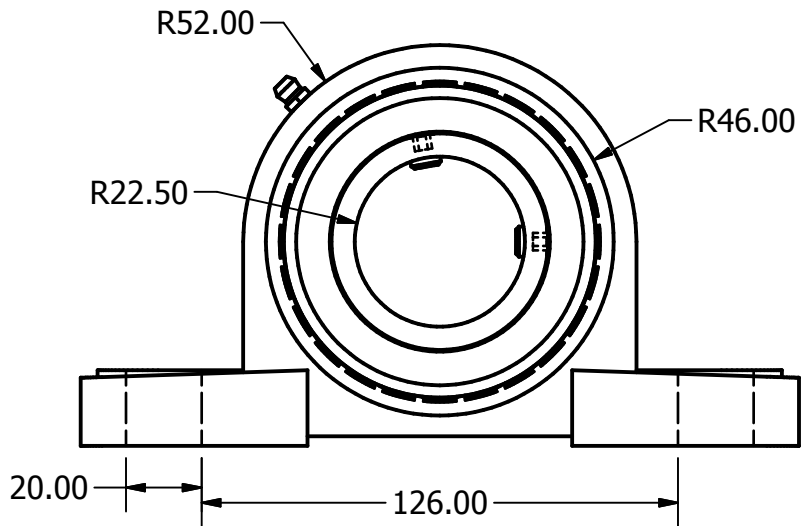
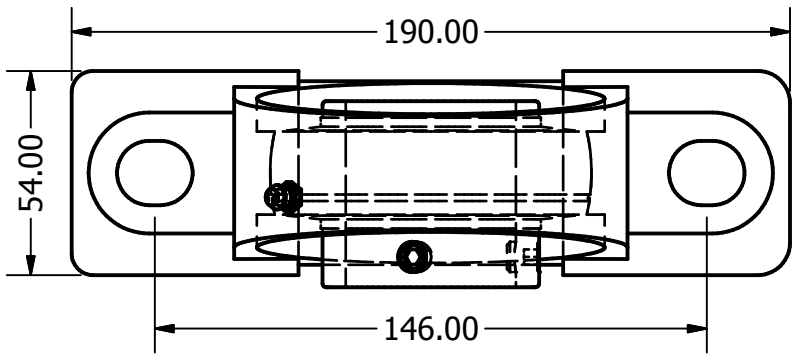
EJE DE TRANSMISION  
CON REGULACION DE  
DISTANCIA



**NOTA:**  
LOS MATERIALES PARA SU  
CONSTRUCCION SE  
ESPECIFICAN EN HOJA 1



DRAWN WLJSM/XRCC	06/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>CARDAN Y ARBOL</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	DWG NO	REV 01
APPROVED ORMAQ		<b>SISTEMA TRANSMISION</b>		
PLANO N°: 04		SCALE 1:10	SHEET 3 OF 5	



ISOMETRICO  
SCALE 1 : 2

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	24200-45209	24200 Tipo pedestal de cojinetes UPC	Generic de Empresa Norelem

**NOTA:**  
ESTE TIPO DE COJINETE ES  
ADQUIRIDO EN EL MERCADO.

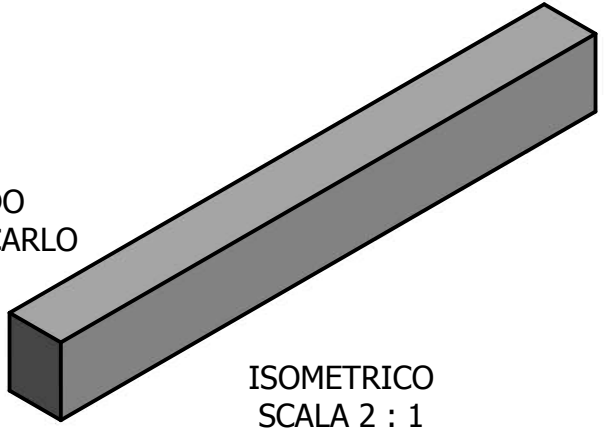
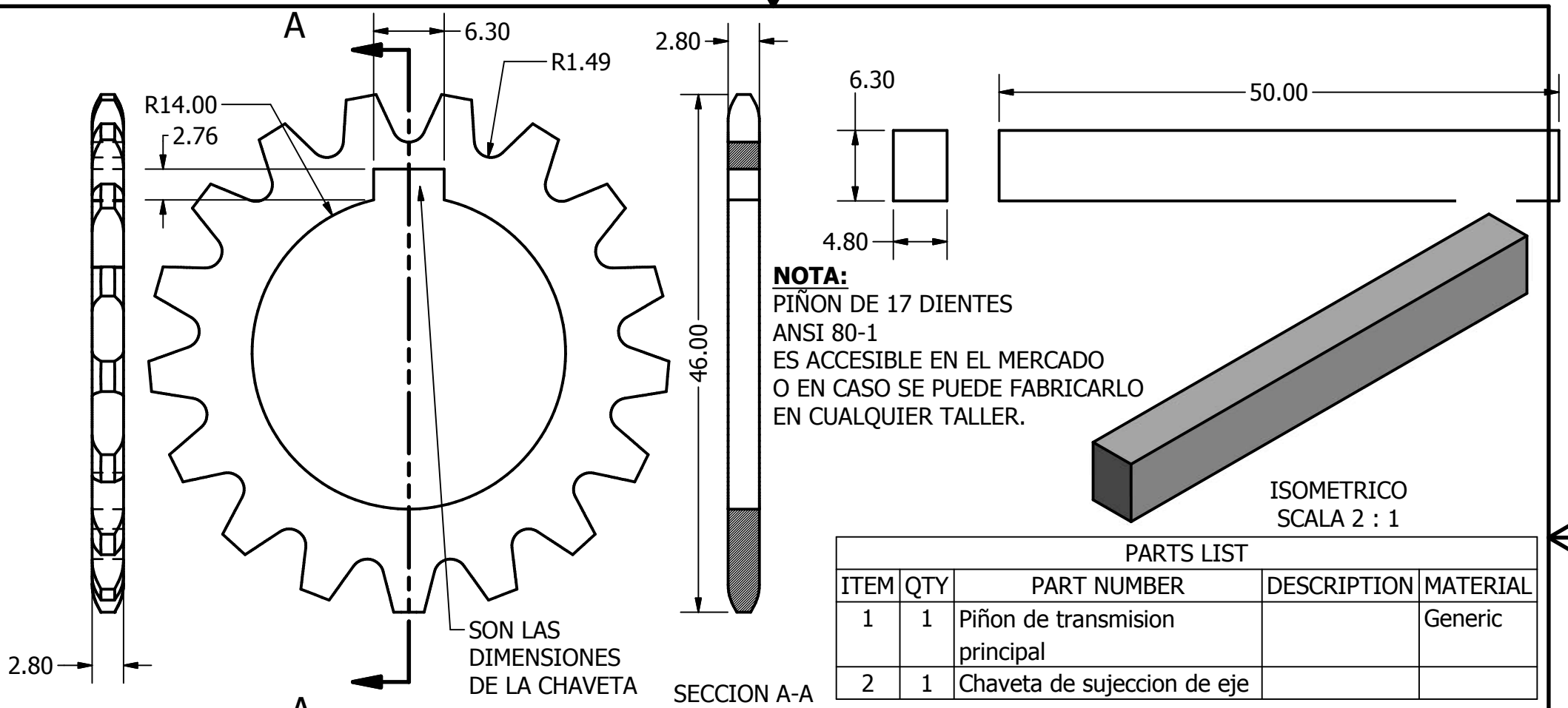
DRAWN WLJSM/XRCC	06/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 05	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO  
FIMEES - EPIME

TITLE  
**COJINETE AUTOALINEANTE**

TESISTAS:  
Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori

SIZE <b>A4</b>	DWG NO	REV 01
SCALE 1 : 2		SHEET 4 OF 5
<b>SISTEMA TRANSMISION</b>		



PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Piñon de transmision principal	Generic
2	1		Chaveta de sujecion de eje	



DRAWN WLJSM/XRCC	SCALE 2:1 06/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 06	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>PIÑON Y CHAVETA DE TRANSMISION PRINCIPAL</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	DWG NO	REV 01	
SCALE 2:1		SHEET 5 OF 5	



**NOTA:** PROYECTADO PARA EL AUMENTO DE FAJA PARA EL SISTEMA DE CUCHILLAS

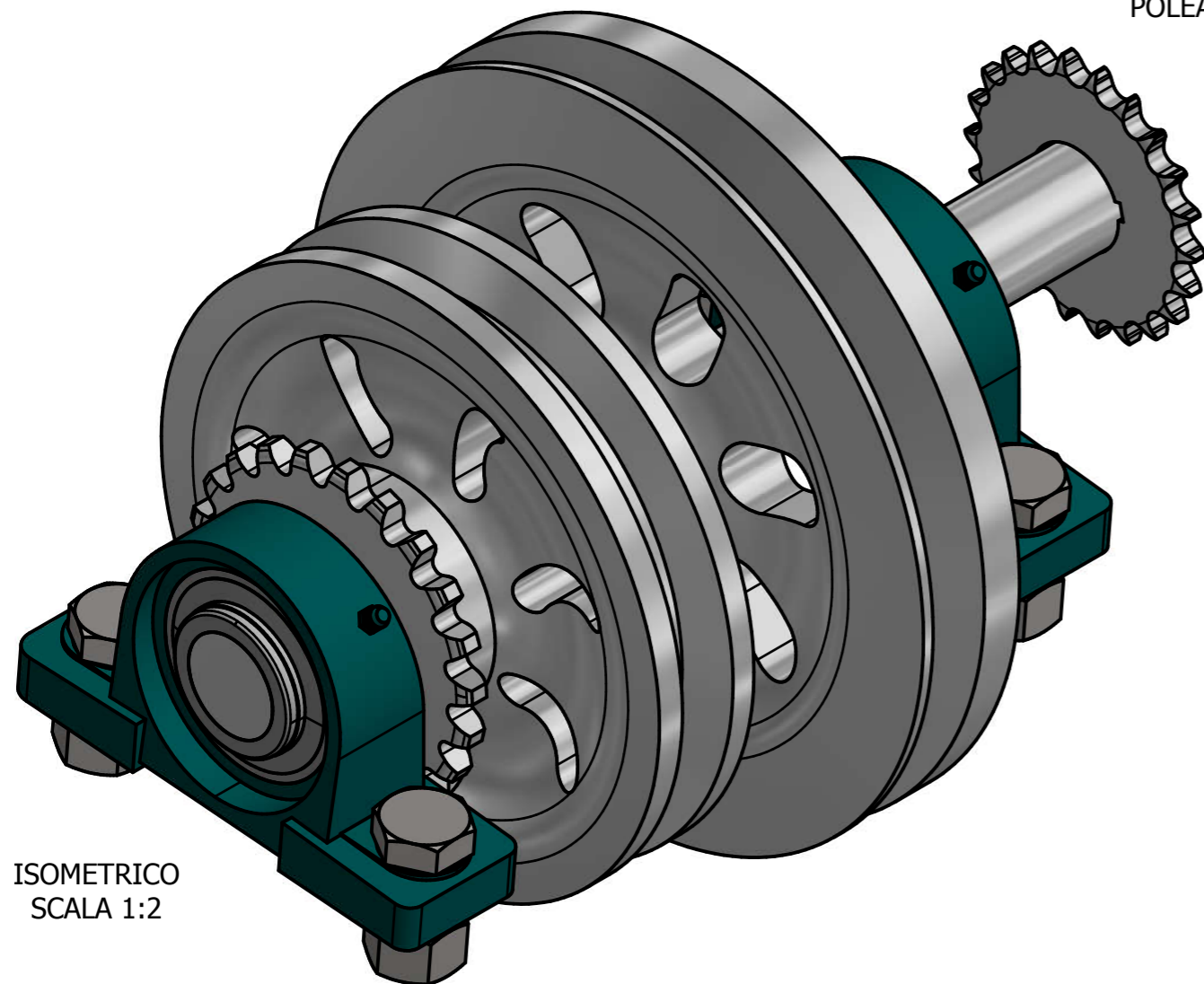
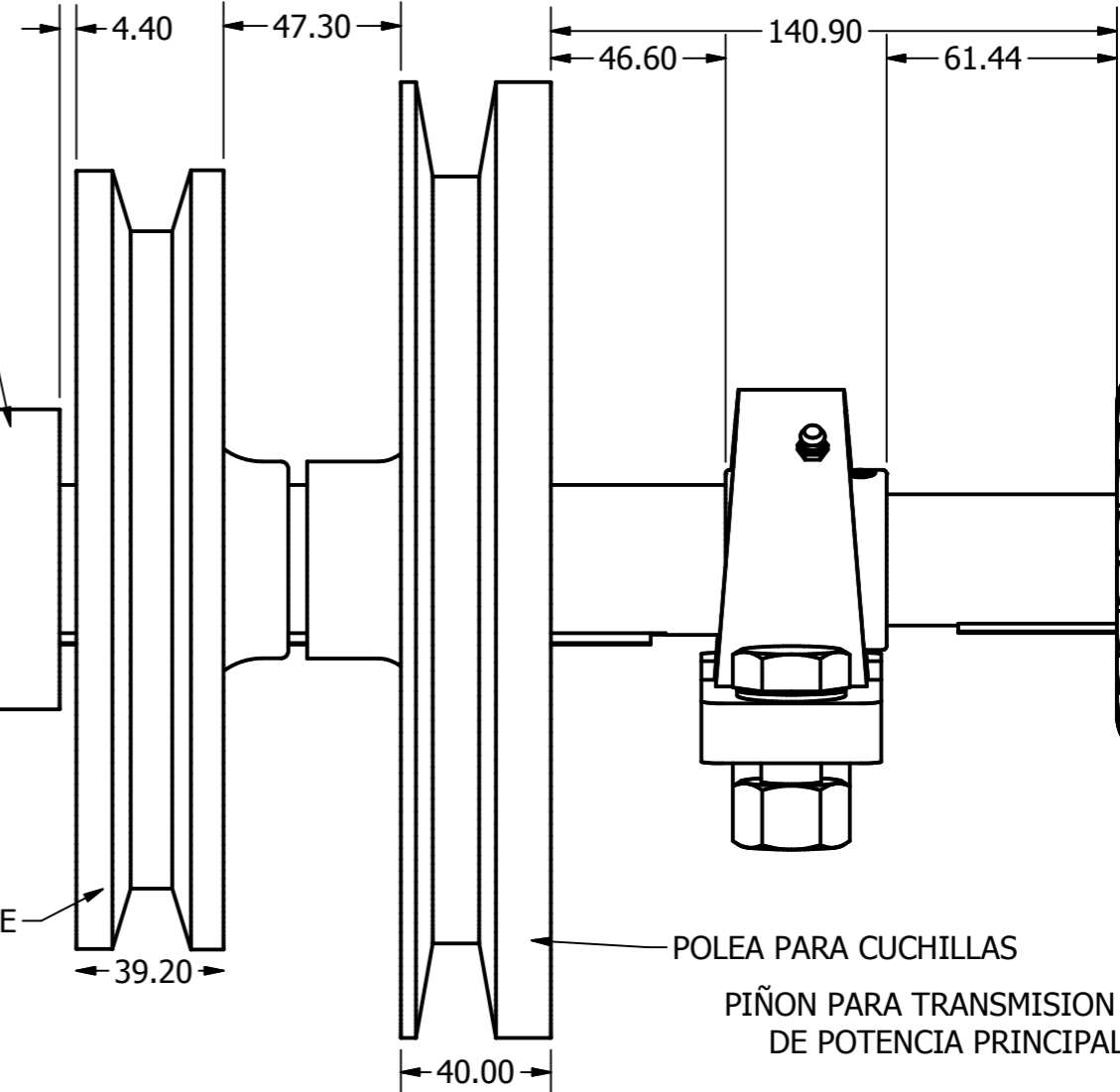
PIÑÓN PARA TORNILLO SIN FIN

PERNO Y TUERCA DE SUJECION

POLEA PARA MOLINETE

POLEA PARA CUCHILLAS

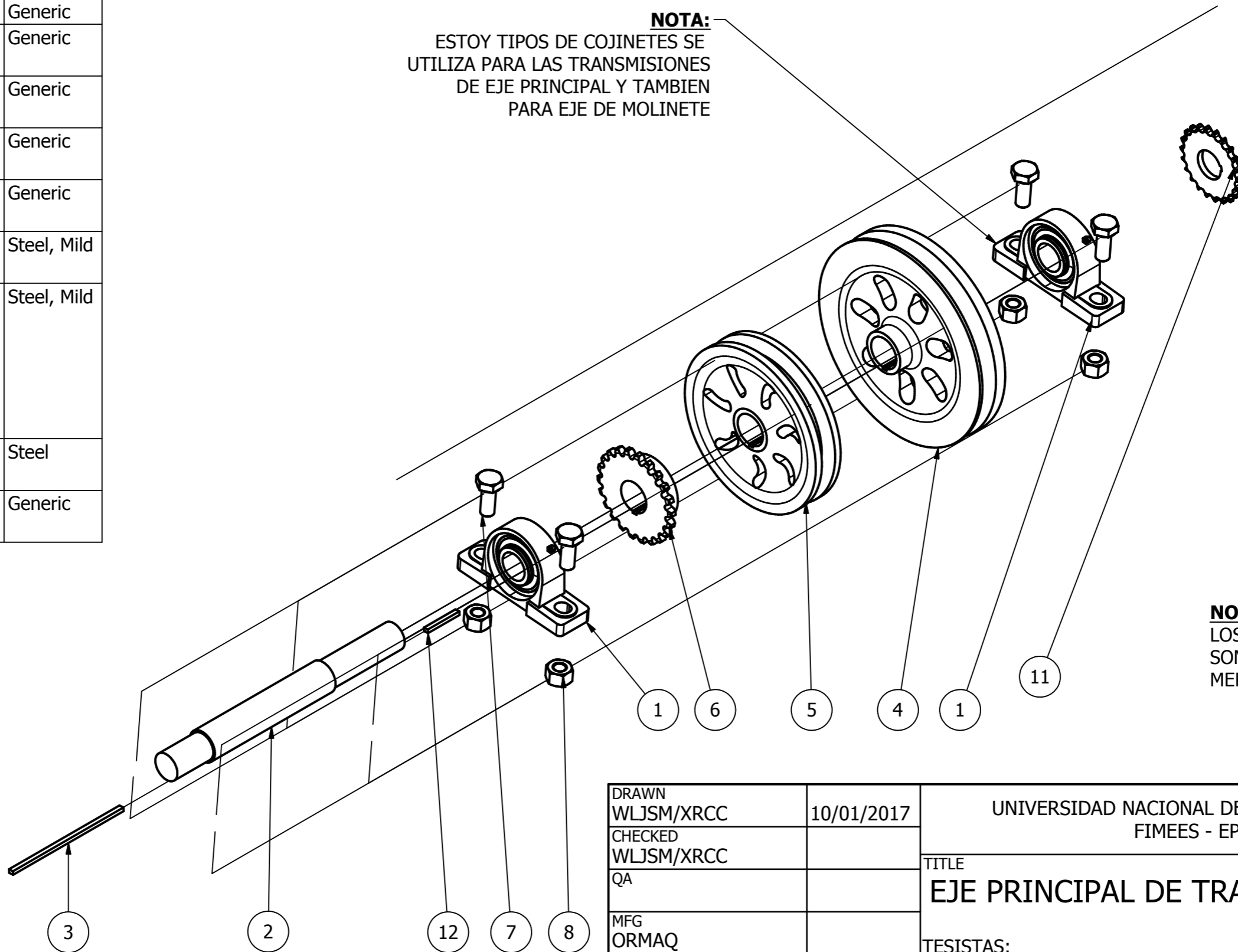
PIÑÓN PARA TRANSMISION DE POTENCIA PRINCIPAL



ISOMETRICO  
SCALA 1:2

DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>ENSAMBLE DE EJE PRINCIPAL</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	DWG NO <b>EJE PRINCIPAL</b>	REV 01
APPROVED ORMAQ				
PLANO N°: 07		SCALE 1:2	SHEET 1 OF 7	

PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	2	Cojinete para trnansmision principal	
2	1	Eje principal	Generic
3	1	Chaveta para poleas y piñon principal	Generic
4	1	Polea de transmision cuchilla	Generic
5	1	Polea de transmision molinete	Generic
6	1	Piñon de transmision tornillo sin fin	Generic
7	4	AS 1252 - M16 x 40	Steel, Mild
8	4	AS 1252 - M16	Steel, Mild
11	1	Piñon de transmision principal	Steel
12	1	Chaveta para piñon principal	Generic

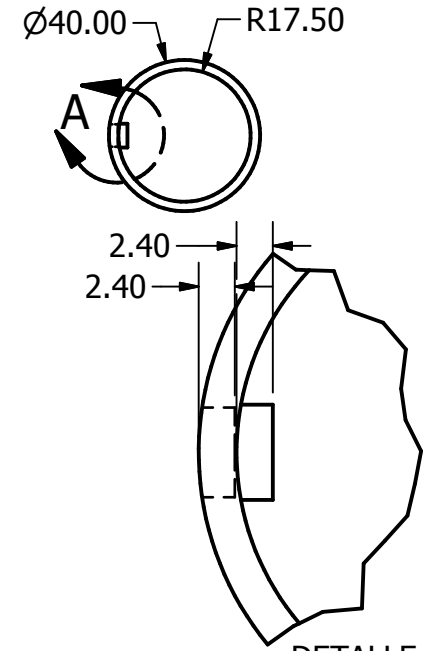
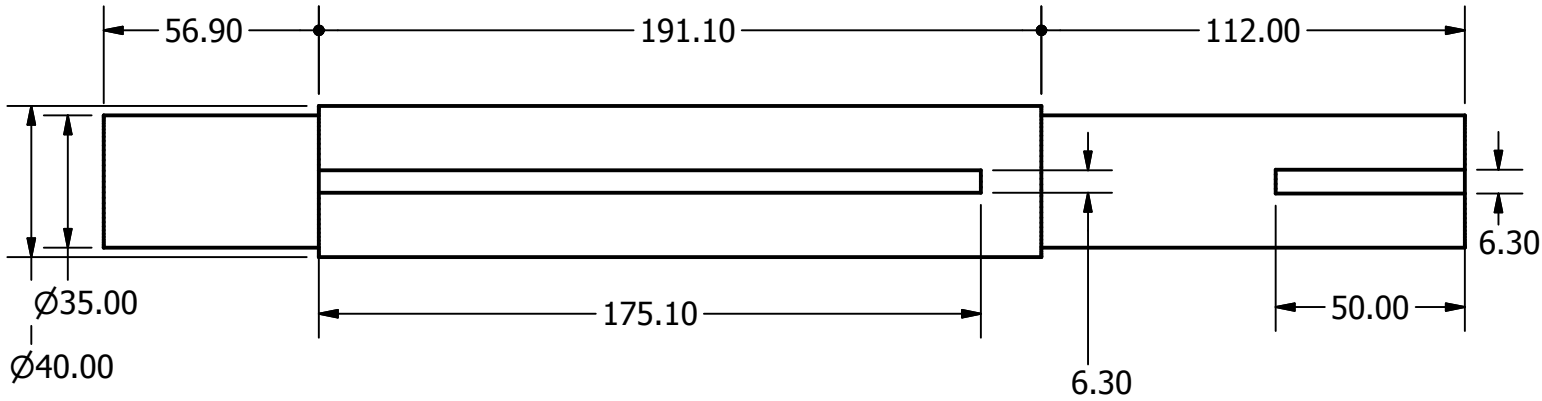


**NOTA:**  
 ESTOS TIPOS DE COJINETES SE UTILIZA PARA LAS TRANSMISIONES DE EJE PRINCIPAL Y TAMBIEN PARA EJE DE MOLINETE

**NOTA:**  
 LOS PERNOS Y TUERCAS SON ACCESIBLES EN EL MERCADO.

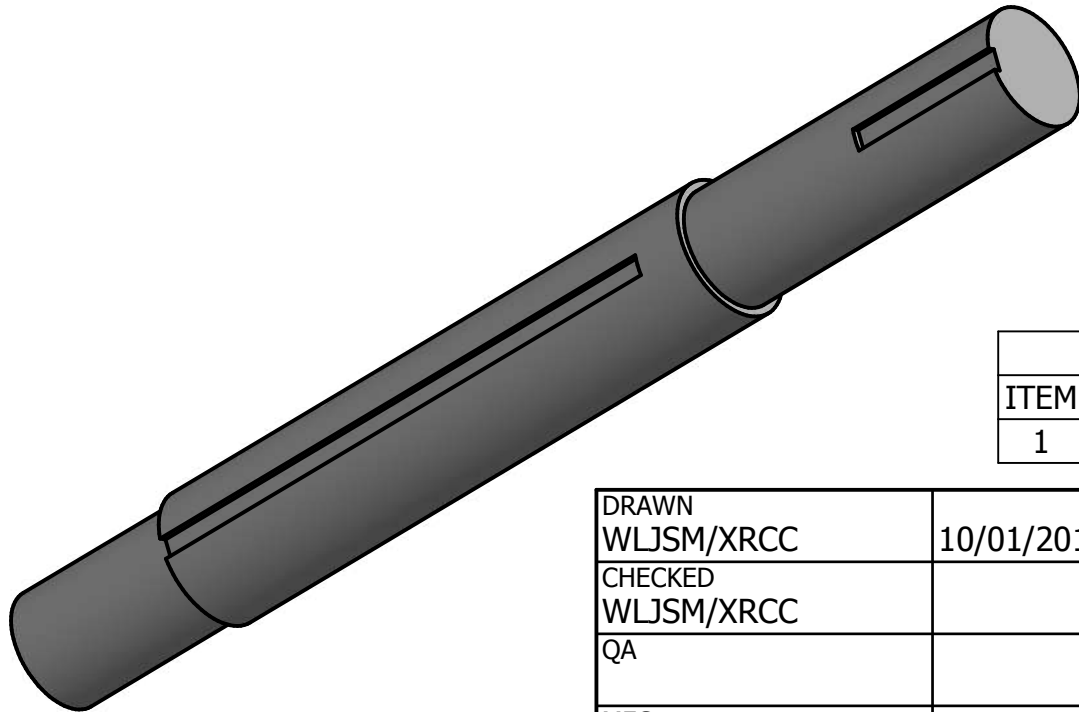
DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>EJE PRINCIPAL DE TRANSMISION</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	DWG NO <b>EJE PRINCIPAL</b>	REV 01
APPROVED ORMAQ		SCALE 1:5	SHEET 2 OF 7	
PLANO N°: 08				





**NOTA:**  
 LAS DIMENSIONES  
 DE LA CHAVETA  
 ES DE 6.3\*4.8MM

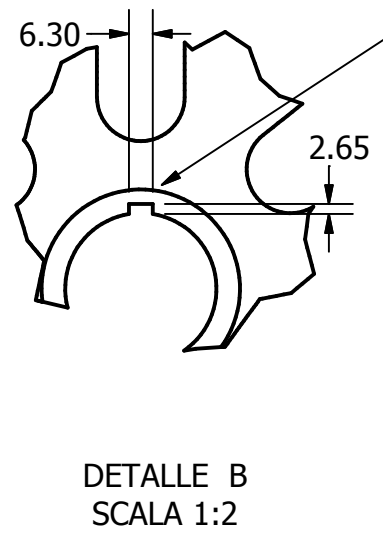
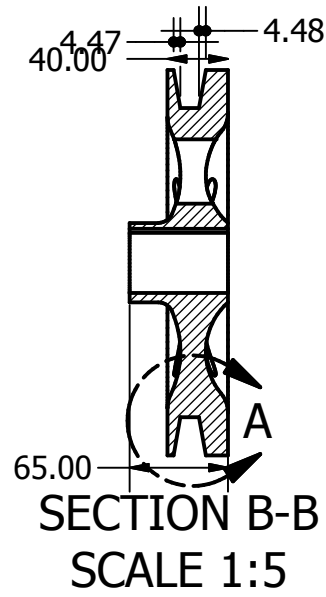
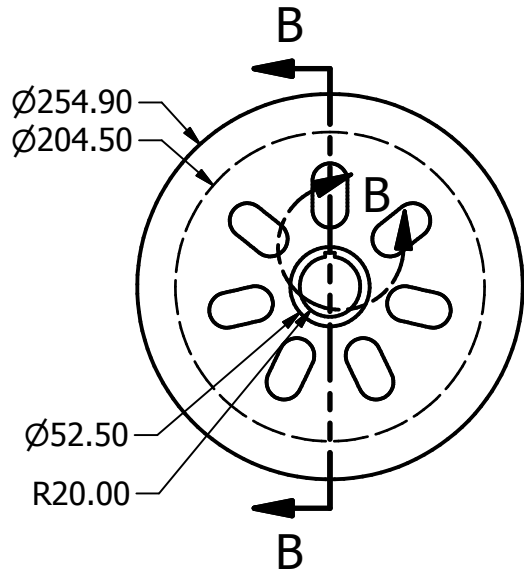
DETALLE A  
 ESCALA 2:1



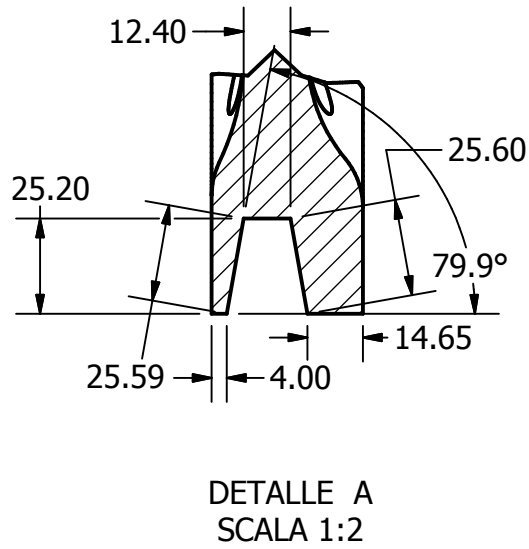
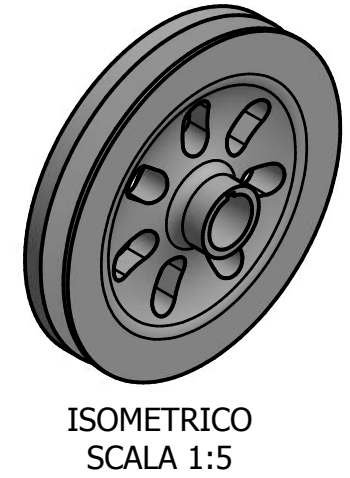
ISOMETRICO  
 ESCALA 1:2

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Eje principal de transmision	Generic

DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>EJE PRINCIPAL</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	DWG NO <b>EJE PRINCIPAL</b>	REV <b>01</b>
APPROVED ORMAQ		SCALE 1:2		SHEET 3 OF 7
PLANO N°: 09				

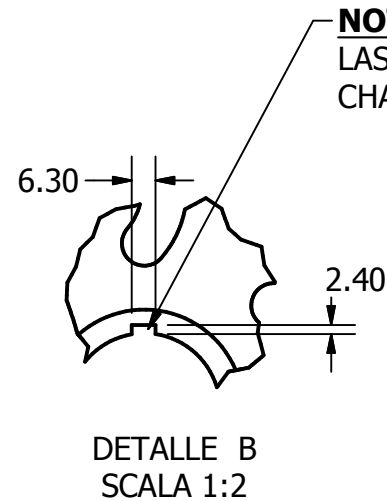
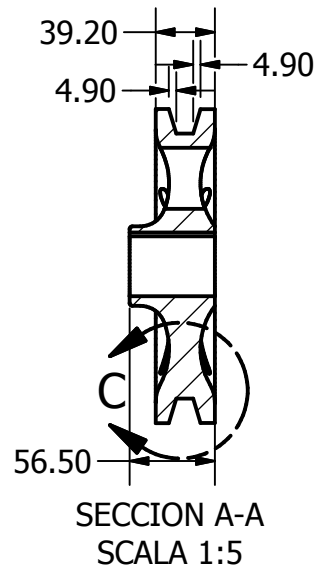
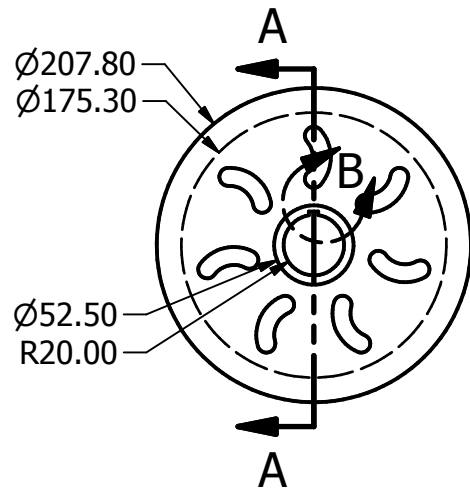


**NOTA:**  
LAS DIMENSIONES DE LA CHAVETA ES DE 4.8\*6.3MM

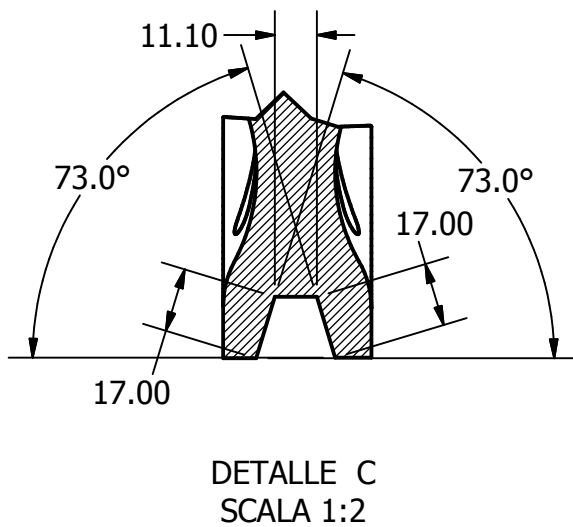


PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Polea de trnamision cuchilla	Generic

DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>POLEA DE TRANSMISION CUCHILLA</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	DWG NO <b>EJE PRINCIPAL</b>	REV <b>01</b>
APPROVED ORMAQ		SCALE 1:5		SHEET 4 OF 7
PLANO N°: 10				

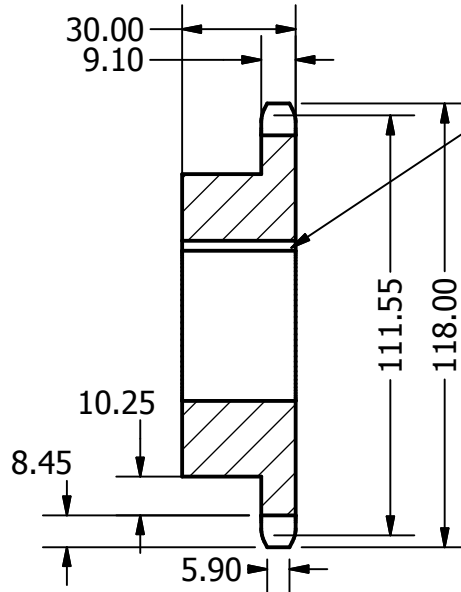
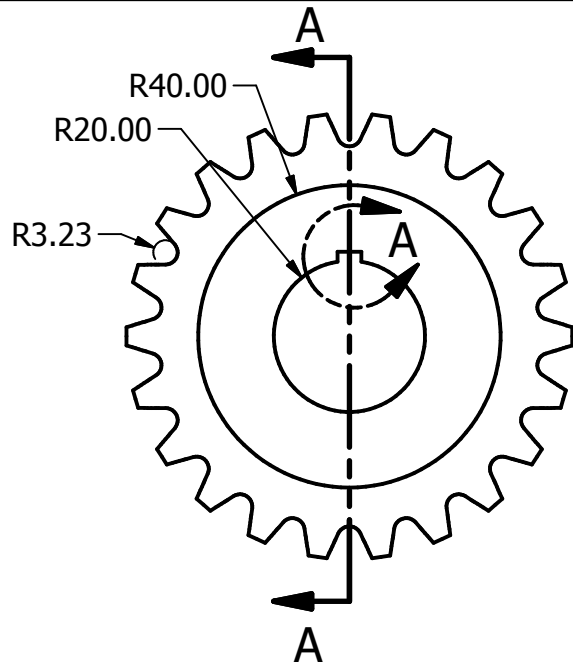


**NOTA:**  
LAS DIMENSIONES DE LA  
CHAVETA ES DE 4.8\*6.3MM

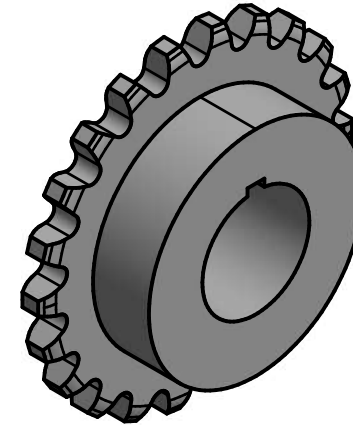


PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Polea de transmision molinete	Generic

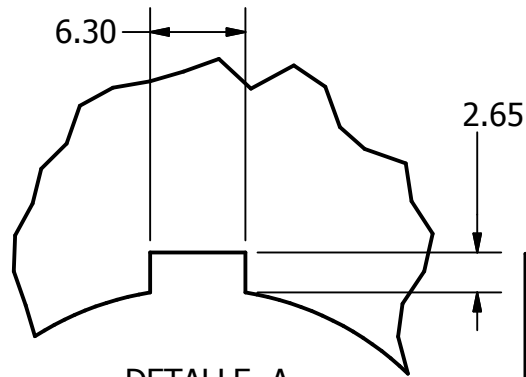
DRAWN WLJSM/XRCC		10/01/2017		UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC				TITLE <b>POLEA DE TRANSMISION MOLINETE</b>	
QA				TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
MFG ORMAQ				SIZE <b>A4</b>	DWG NO <b>EJE PRINCIPAL</b>
APPROVED ORMAQ				SCALE 1:5	REV 01
PLANO N°: 11				SHEET 5 OF 7	



**NOTA:**  
LAS DIMENSIONES DE LA  
CHAVETA ES DE 4.8\*6.3MM



ISOMETRICO  
SCALA 1:2



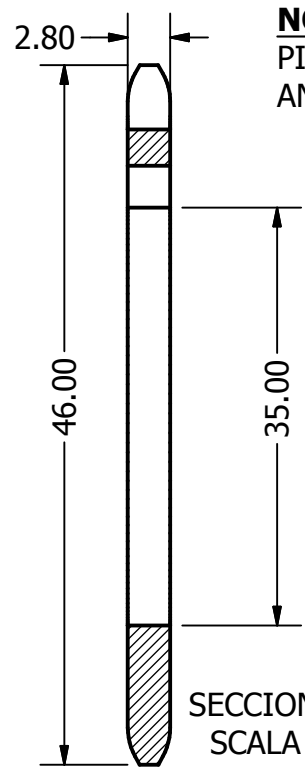
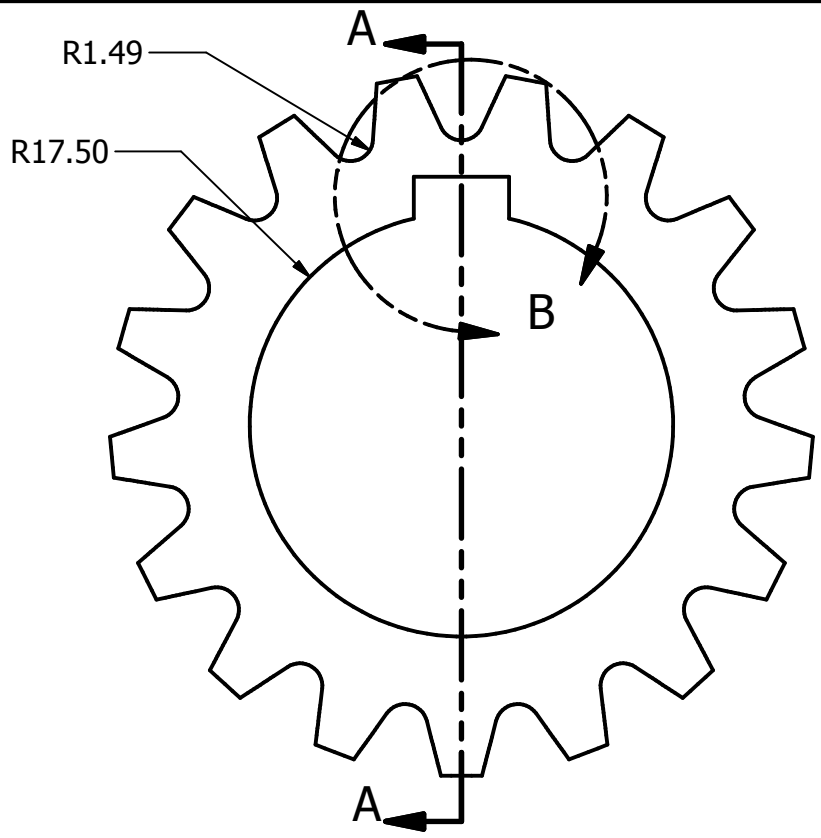
DETALLE A  
SCALA 2:1

**NOTA:**  
PIÑON DE 22 DIENTES  
ANSI 35-1

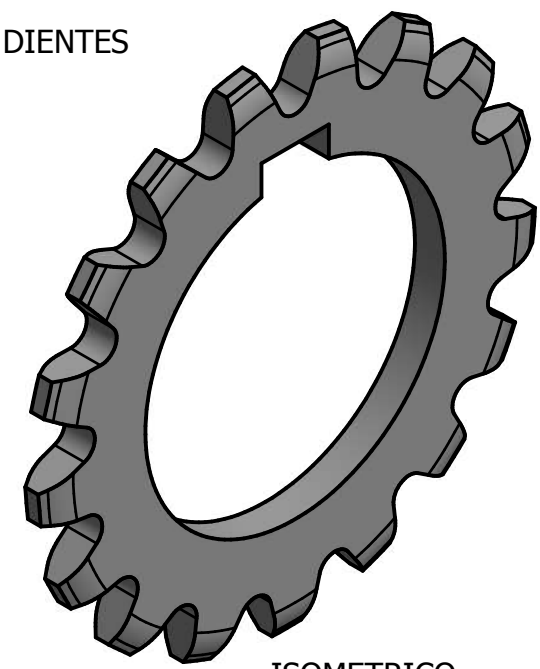
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	Piñon de transmision tornillo sin fin	A1-01-10-22	Generic

DRAWN WLJSM/XRCC	10/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 12	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>PIÑON DE TRANSMISION TORNILLO SIN FIN</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	DWG NO <b>EJE PRINCIPAL</b>	REV 01	
SCALE 1:2	SHEET 6 OF 7		



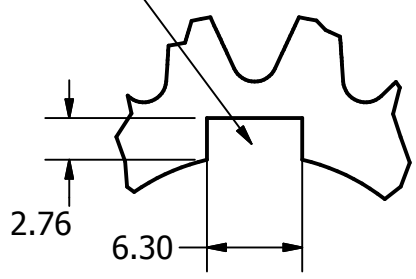
**NOTA:**  
PIÑÓN DE 17 DIENTES  
ANSI 80-1



ISOMETRICO  
SCALA 2:1

SECCION A-A  
SCALA 2:1

**NOTA:**  
LAS DIMENSIONES DE LA  
CHAVETA ES DE 4.8\*6.3MM

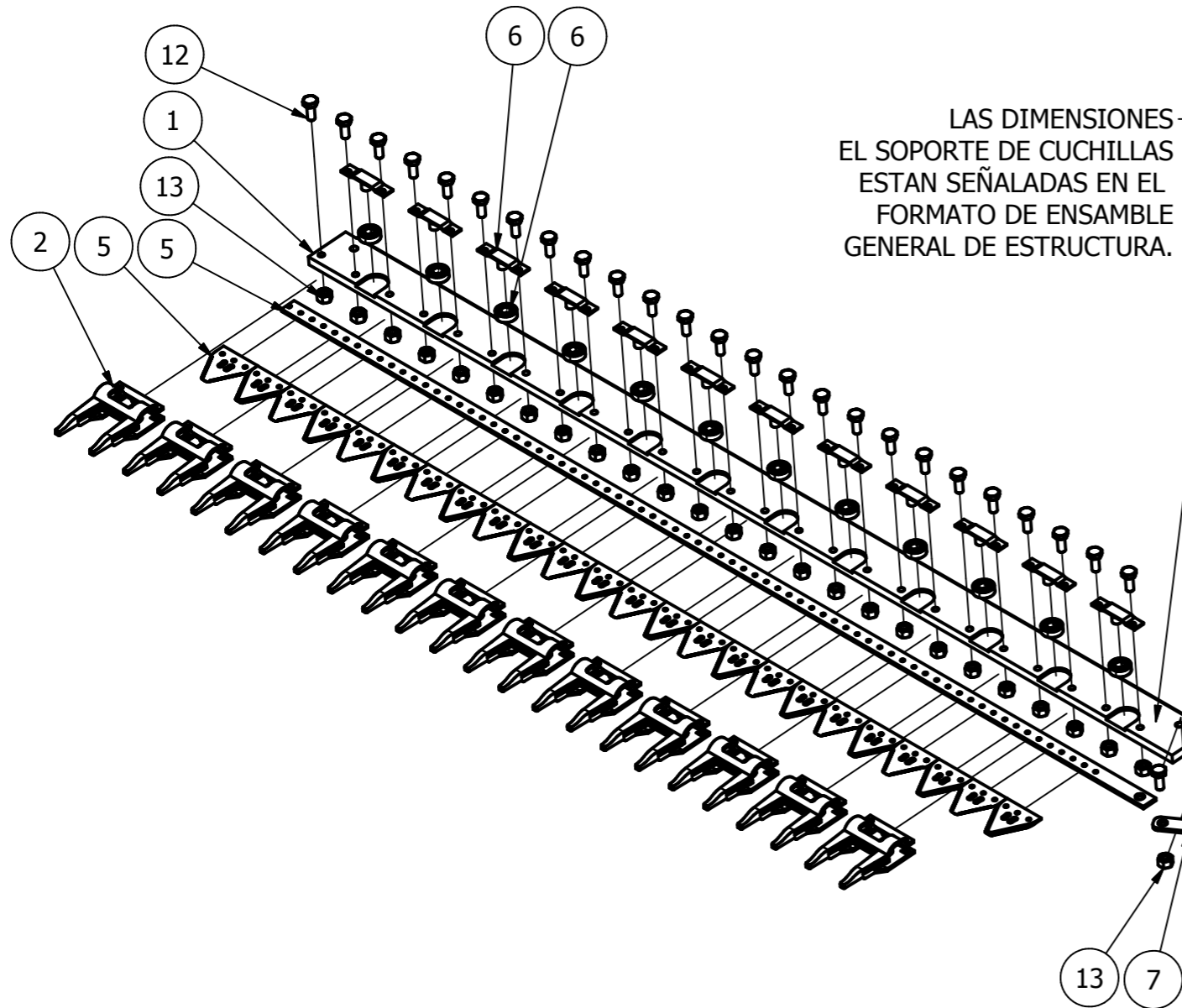


DETALLE B  
SCALA 2:1

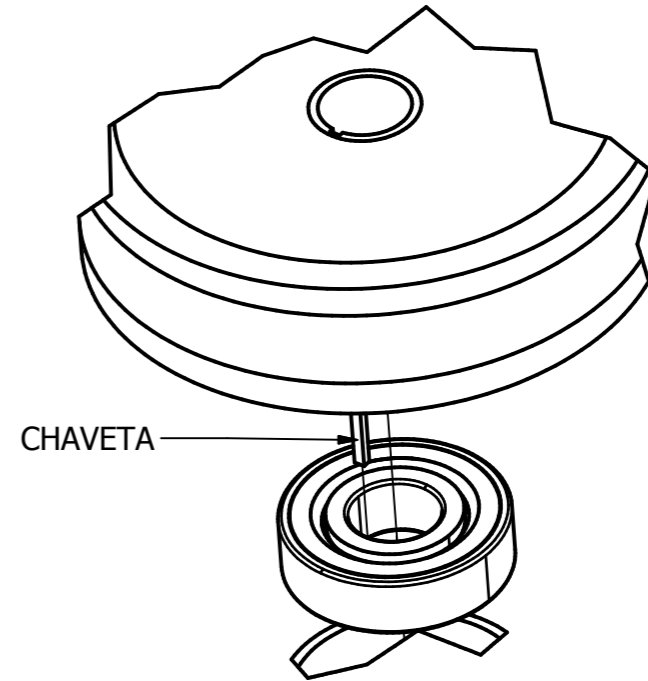
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Piñon de transmision principal	Generic

DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC				
QA		TITLE <b>PIÑÓN DE TRANSMISION PRINCIPAL</b>		
MFG ORMAQ		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
APPROVED ORMAQ		SIZE <b>A4</b>	DWG NO	REV 01
PLANO N°: 13		SCALE 2:1	SHEET 7 OF 7	

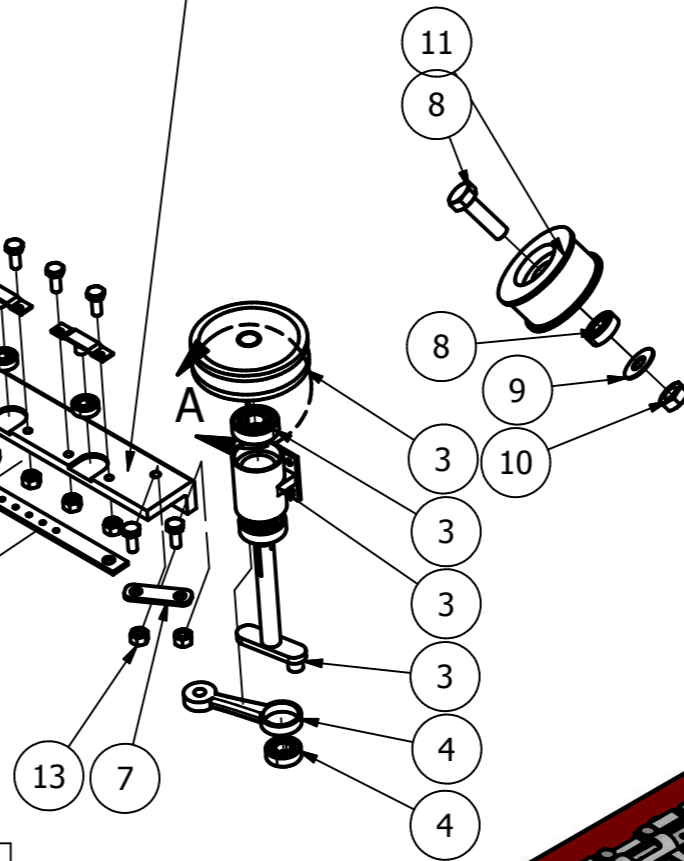
UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>PIÑÓN DE TRANSMISION PRINCIPAL</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	DWG NO	REV 01	
PLANO N°: 13		SCALE 2:1	SHEET 7 OF 7



LAS DIMENSIONES  
EL SOPORTE DE CUCHILLAS  
ESTAN SEÑALADAS EN EL  
FORMATO DE ENSAMBLE  
GENERAL DE ESTRUCTURA.



DETALLE A  
SCALA 1:2



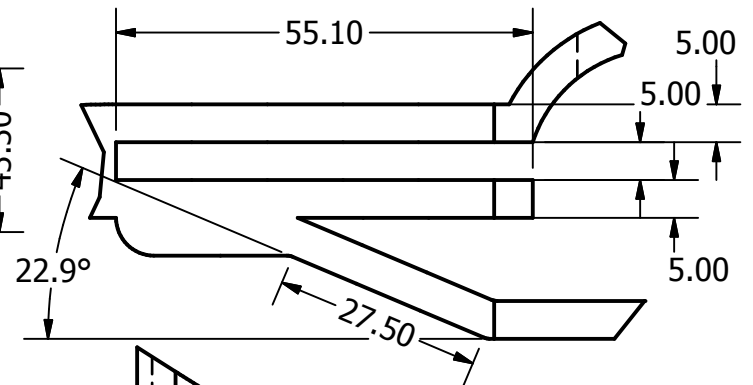
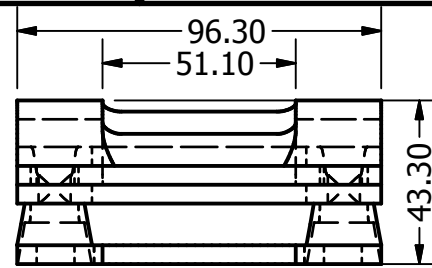
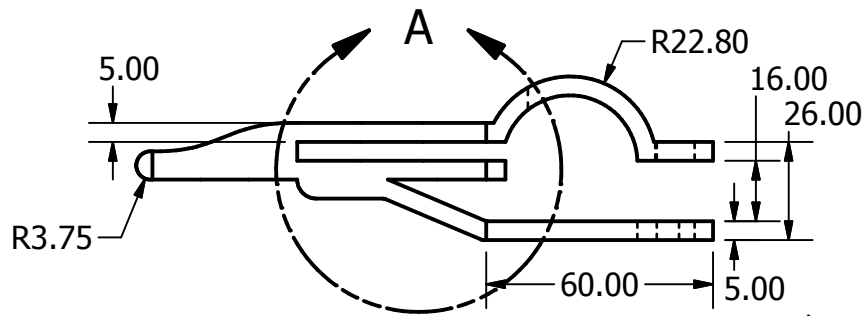
ISOMETRICO  
SCALA 1:10

PARTS LIST

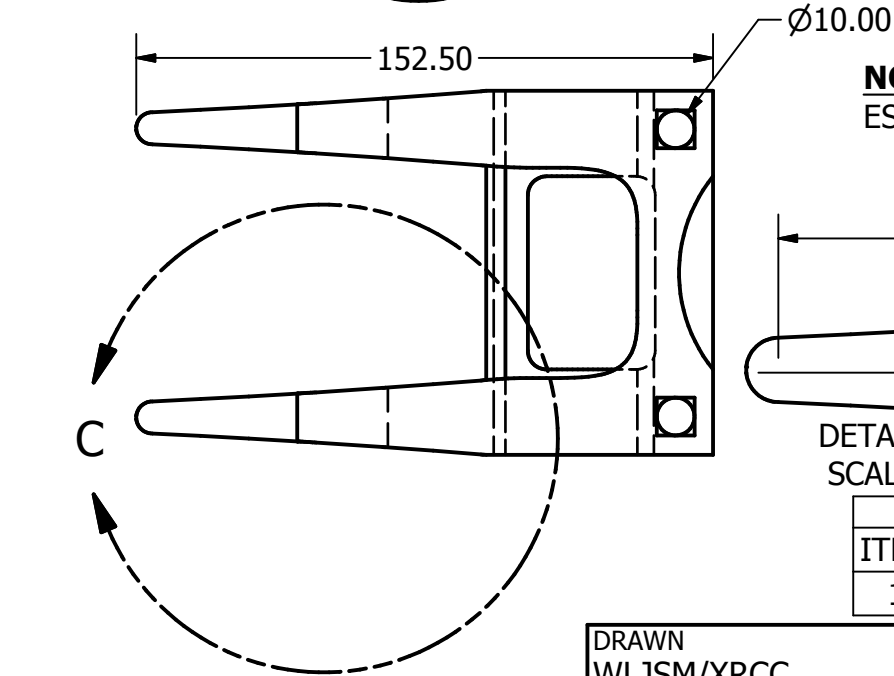
ITEM	QTY	PART NUMBER
1	1	Soporte de eje cuchillas
2	12	Garras para Proteccion de cuchillas
3	1	Ensamble de transmision cuchillas
4	1	Ensamble de brazo transmision cuchillas
5	1	Ensamble cuchillas y eje de soporte
6	12	Ensamble de rodamiento y soporte para eje cuchillas
7	1	Union de transmision cuchilla
8	1	Perno y rodamiento de tensador de faja cuchilla
9	1	Volanda para tensador de faja cuchilla
10	1	Tuerca para tensador de faja cuchilla
11	1	Tensador de faja cuchilla
12	27	AS 1252 - M12 x 30
13	27	AS 1252 - M12

DRAWN WLJSM/XRCC	09/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>SISTEMA DE CUCHILLAS</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	DWG NO	REV 01
APPROVED ORMAQ		<b>ENSAMBLE CUCHILLA</b>		
PLANO N°: 14		SCALE 1:10	SHEET 1 OF 8	





DETALLE A  
SCALA 1 : 1

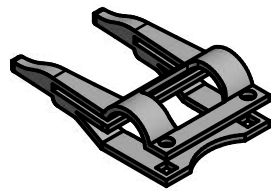


DETALLE C  
SCALA 1:1

**NOTA:**  
ESTA PIEZA ES IMPORTADA.

PARTS LIST

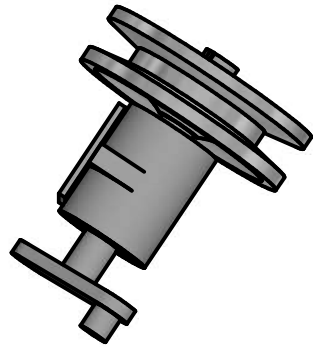
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Garra para proteccion de cuchilla	Generic



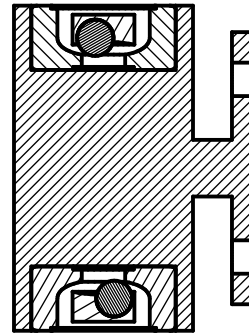
ISOMETRICO  
SCALA 1:5

DRAWN WLJSM/XRCC	09/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 15	

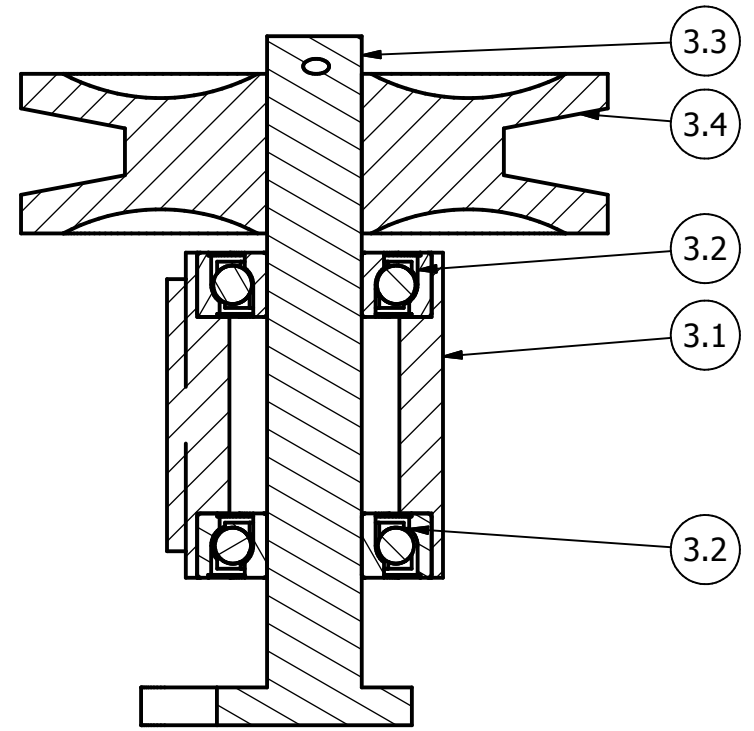
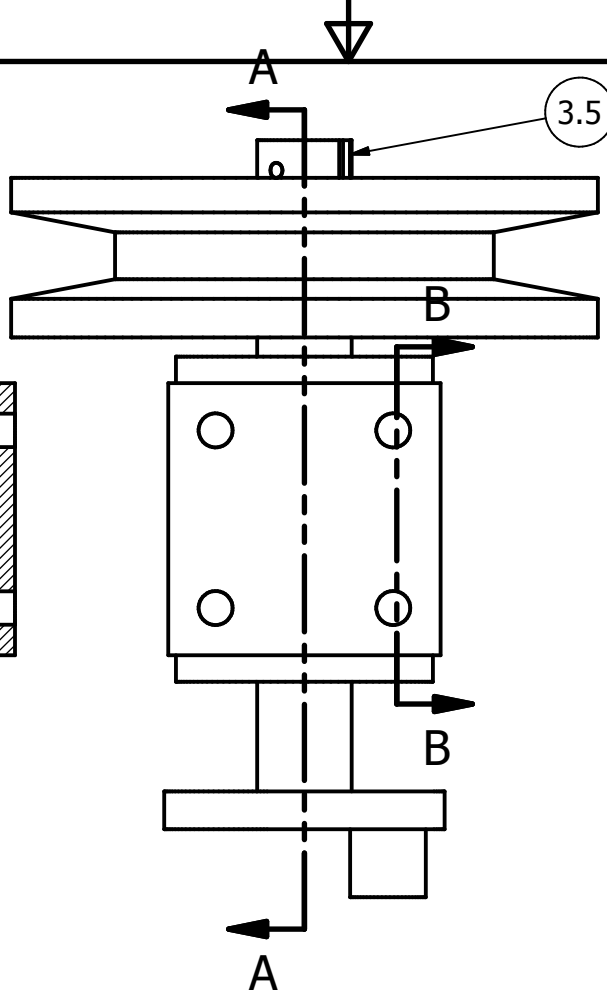
UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
TITLE <b>GARRAS DE PROTECCION PARA CUCHILLAS</b>		
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
SIZE <b>A4</b>	DWG NO	REV 01
SCALE 1:2	ENSAMBLE CUCHILLA	
SHEET 2 OF 8		



ISOMETRICO  
SCALA 1:5



SECCION B-B  
SCALA 1:2



SECCION A-A  
SCALA 1:2

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
3.1	1	Soporte de eje	
3.2	2	rodamiento	L1-7305BE2R S
3.3	1	Eje de transmision cuchilla	
3.4	1	Polea para cuchilla	
3.5	1	Chaveta de eje	

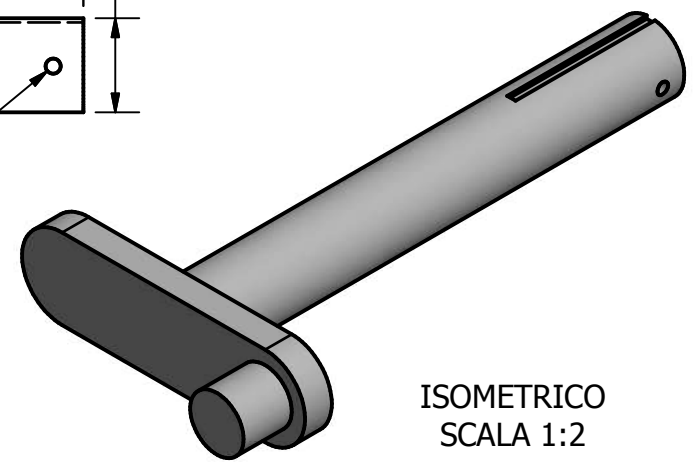
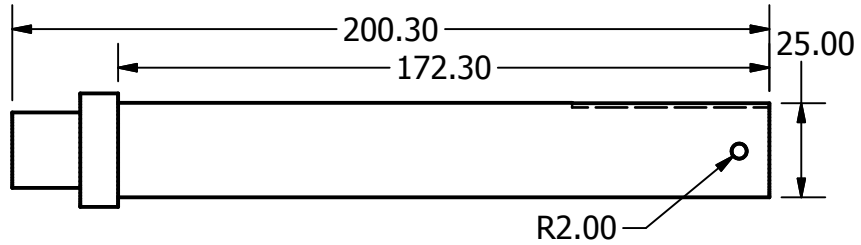
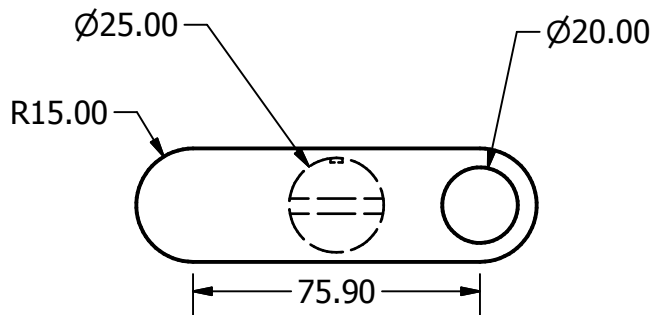
DRAWN WLJSM/XRCC	09/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
TITLE <b>ENSAMBLE DE TRANSMISION CUCHILLAS</b>		
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
SIZE <b>A4</b>	SHEET 3.0 OF 3.5	DWG NO <b>ENSAMBLE CUCHILLA</b>
		REV <b>01</b>

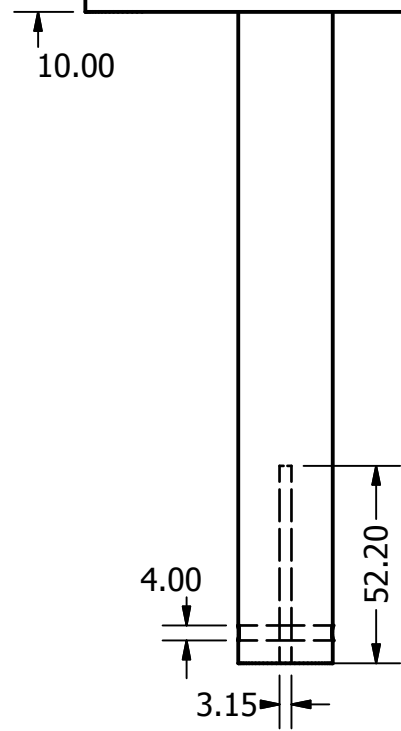
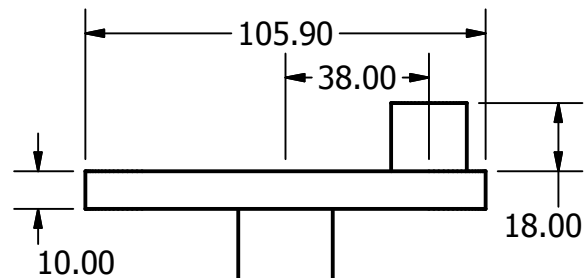
PLANO N°: 16

SCALE 1:2

SHEET 3 OF 8

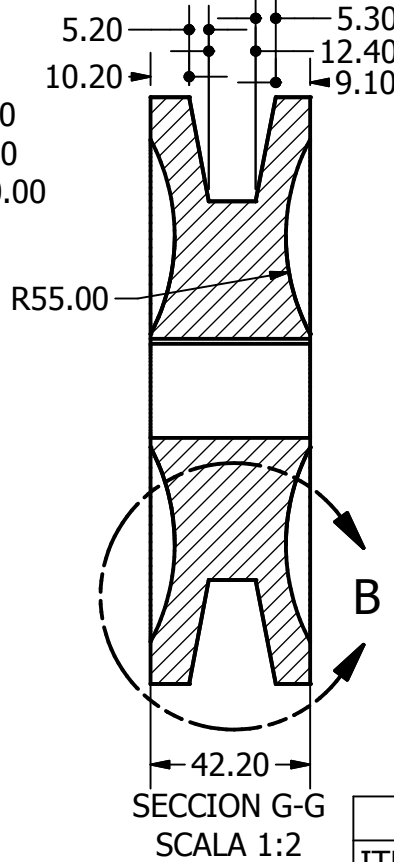
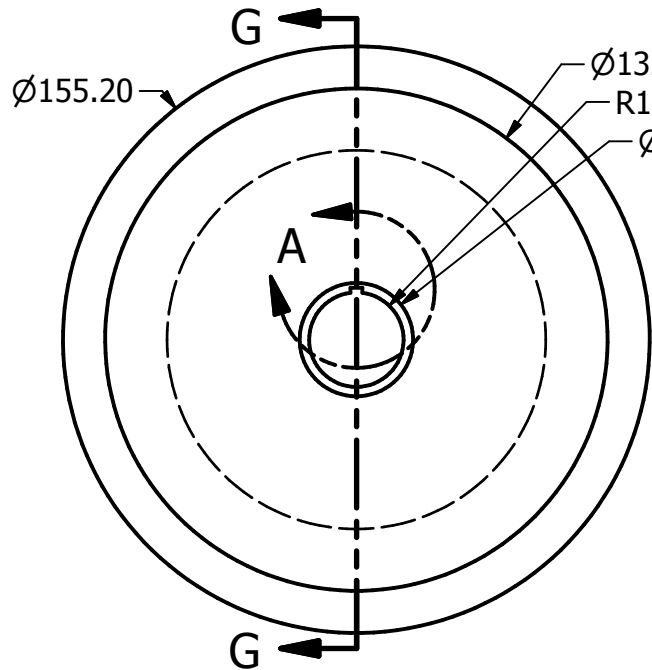


ISOMETRICO  
SCALA 1:2

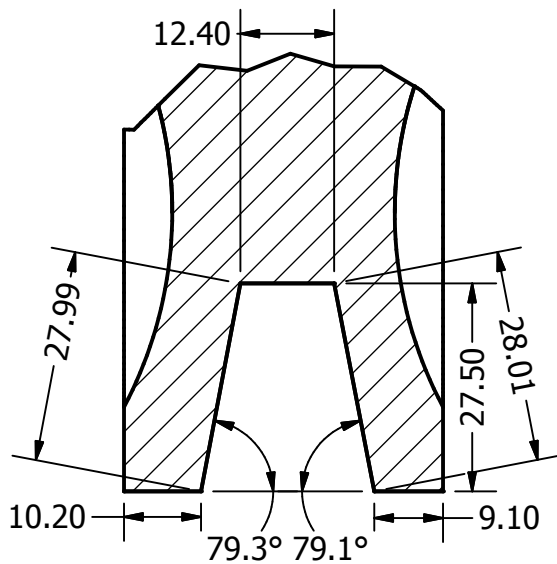
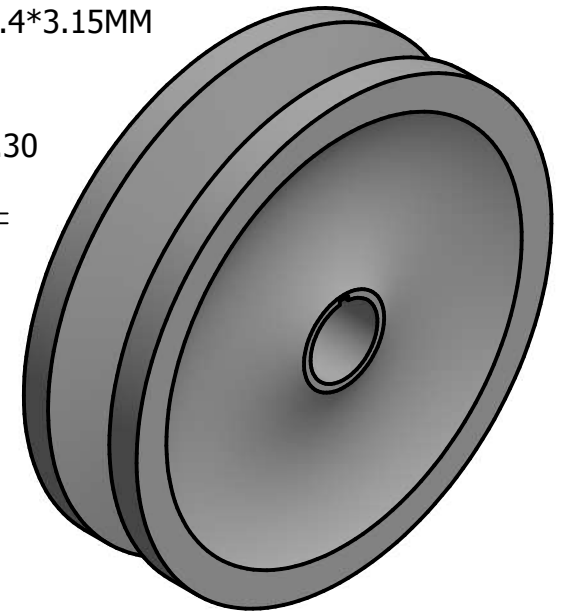
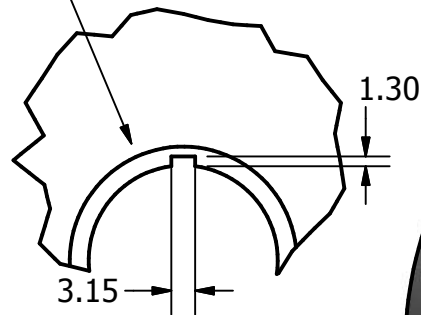


PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Eje de transmision cuchilla	Generic

DRAWN WLJSM/XRCC	09/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>EJE DE TRANSMISION CUCHILLA</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	SHEET 3.3 OF 3.5	DWG NO <b>ENSAMBLE CUCHILLA</b>
APPROVED ORMAQ		SCALE 1:2		REV 01
PLANO N°: 17				SHEET 4 OF 8



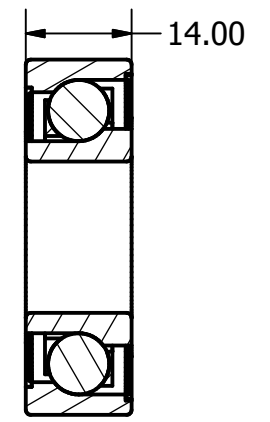
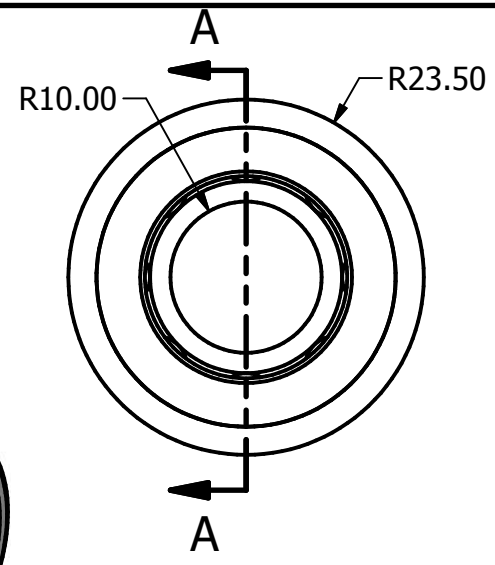
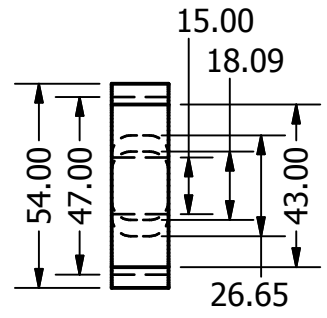
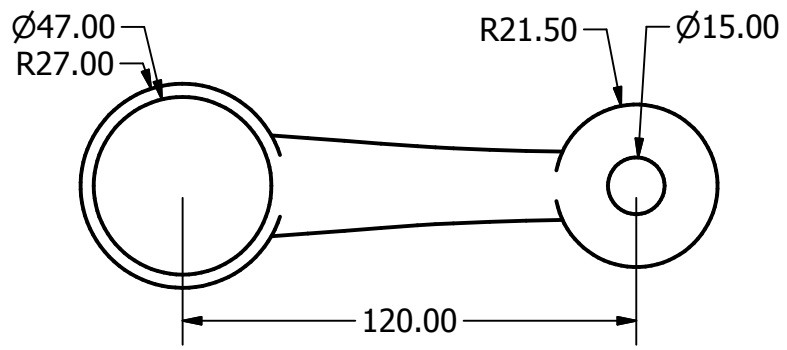
LAS DIMENSIONES DE LA CHAVETA SON DE 2.4\*3.15MM



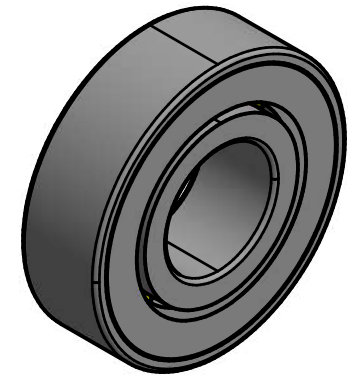
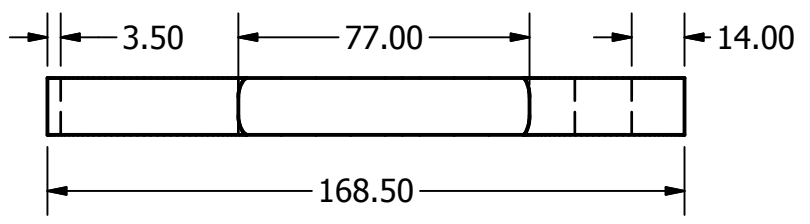
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1		Polea para cuchilla

DRAWN WLJSM/XRCC	09/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
CHECKED WLJSM/XRCC					
QA					
MFG ORMAQ					
APPROVED ORMAQ		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
PLANO N°: 18		SIZE A4	SHEET 3.4 OF 3.5	DWG NO	REV 01

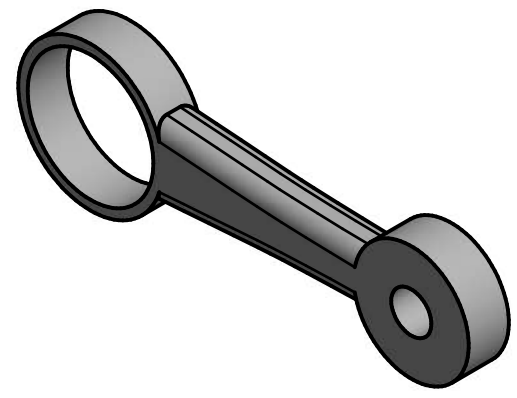
UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>POLEA PARA CUCHILLA</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SCALE 1:2	SHEET 3.4 OF 3.5		DWG NO
SCALE 1:2		SHEET 5 OF 8	



SECCION A-A  
SCALA 1:1



ISOMETRICO  
SCALA 1:1



ISOMETRICO  
SCALA 1:2

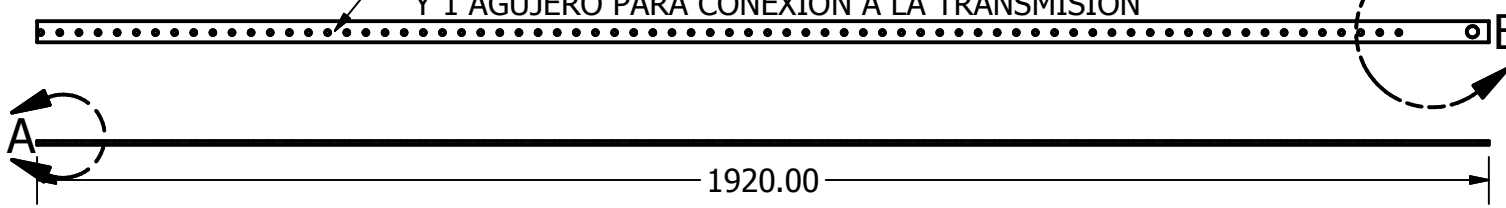
PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	Rodamiento para brazo de transmision	l1-7204be2rs	Generic
2	1	brazo para transmision		Generic

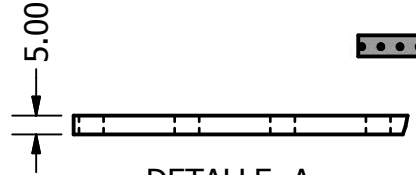
DRAWN WLJSM/XRCC	09/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 19	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>ENSAMBLE DE BRAZO DE TRANSMISION</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	DWG NO	REV 01	
SCALE 1:2		SHEET 6 OF 8	

HAY LA CANTIDAD DE 72 AGUJEROS PARA SUJETAR LAS CUCHILLAS  
Y 1 AGUJERO PARA CONEXION A LA TRANSMISION

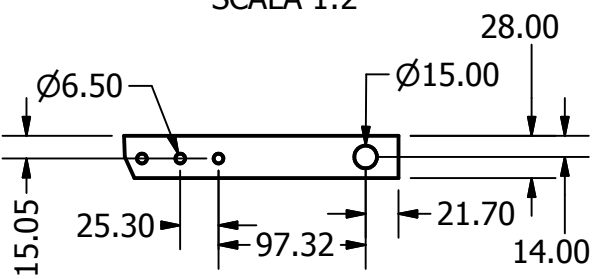


1920.00

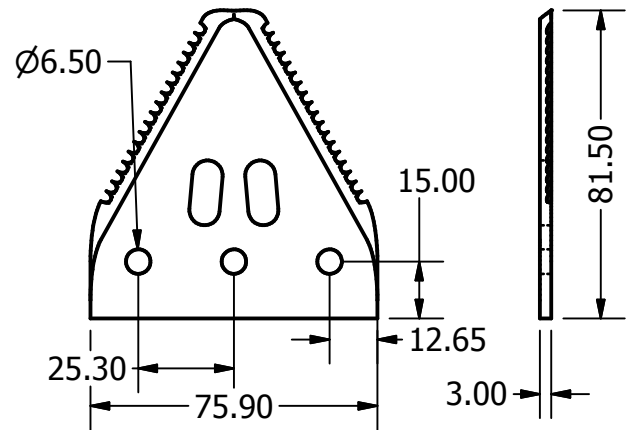


DETALLE A  
SCALA 1:2

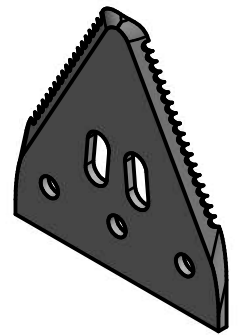
ISOMETRICO  
SCALA 1:10



DETALLE B  
SCALA 1:5



PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Eje para sujecion de cuchilla	Generic
2	1		Cuchilla	

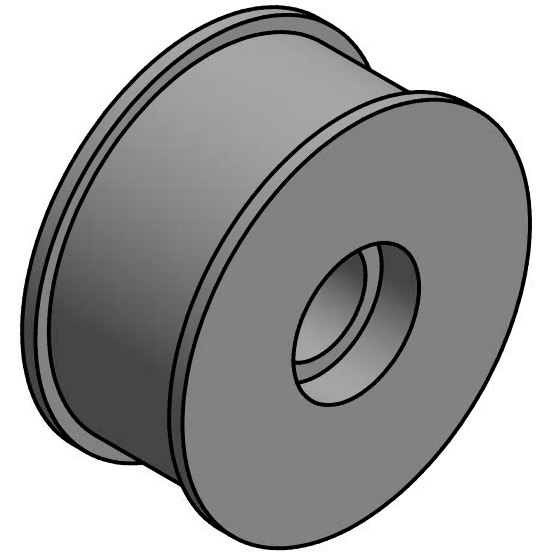
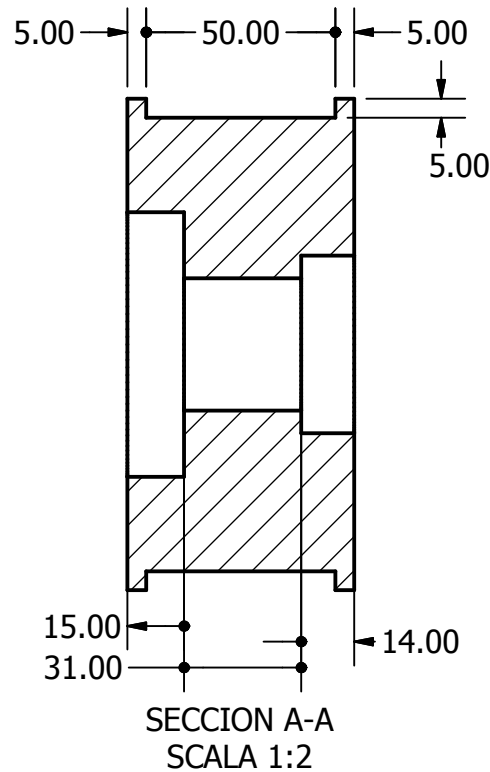
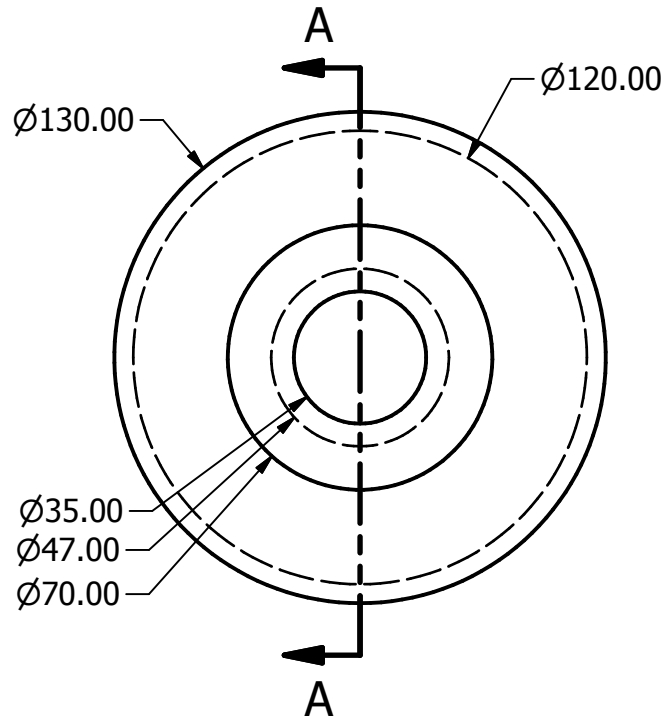


ISOMETRICO  
SCALA 1 : 2

DRAWN WLJSM/XRCC	09/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 20	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>ENSAMBLE DE CUCHILLA Y EJE DE SOPORTE</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	DWG NO	REV 01	
SCALE 1:10	<b>ENSAMBLE CUCHILLA</b>		SHEET 7 OF 8

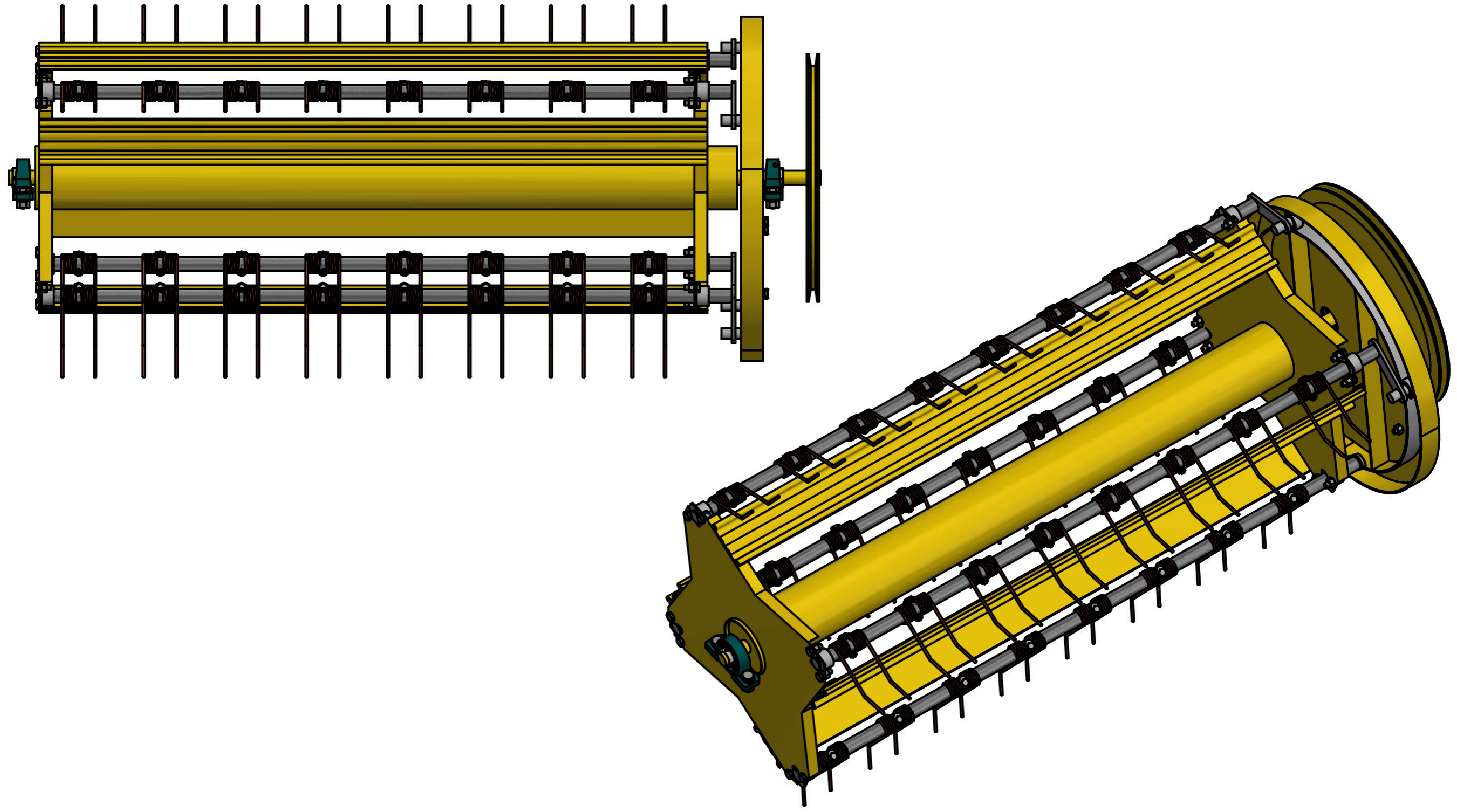




ISOMETRICO  
SCALA 1:2

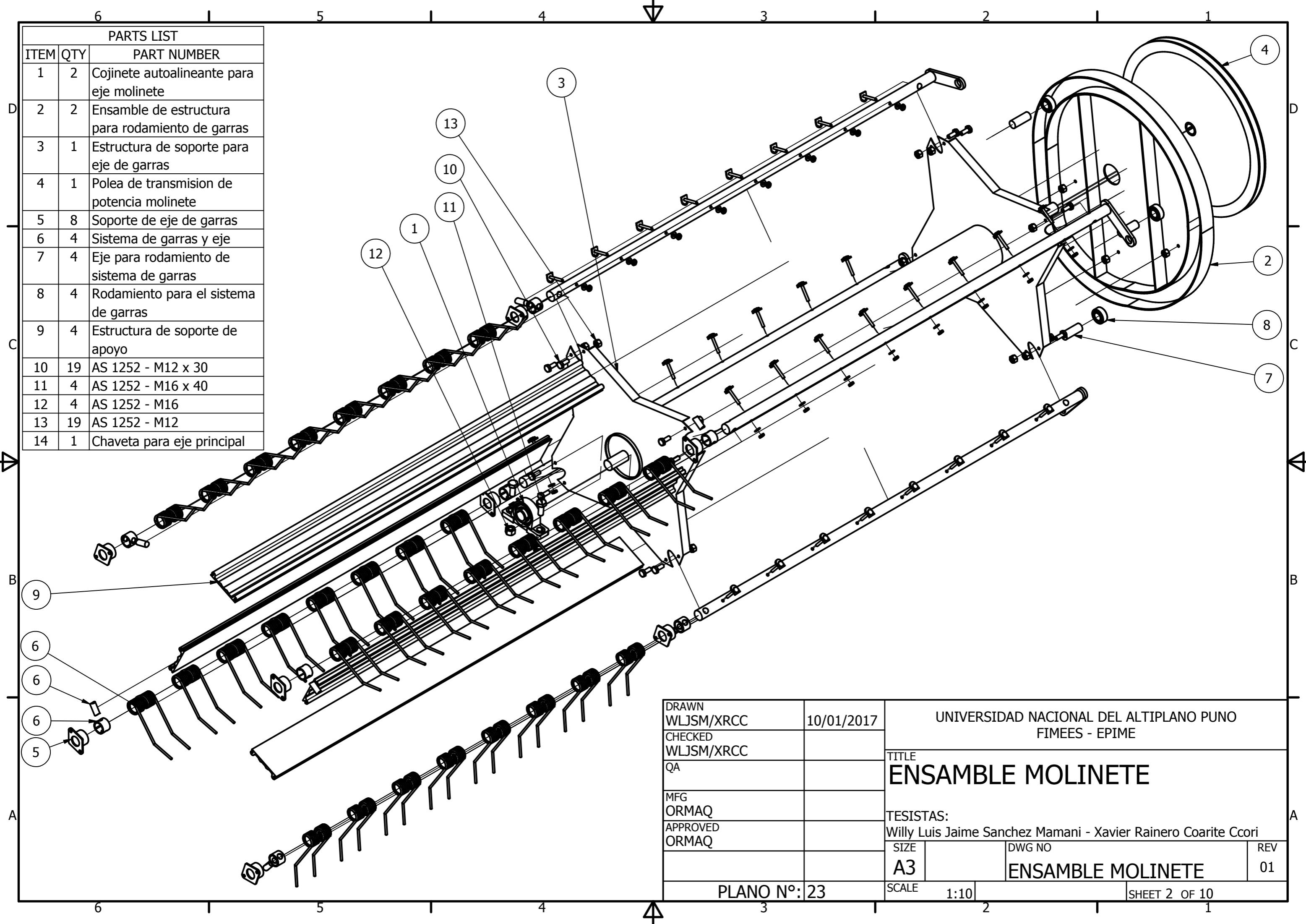
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Tensador de faja cuchilla	Generic

DRAWN WLJSM/XRCC	09/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>TENSADOR DE FAJA CUCHILLA</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	DWG NO	REV 01
APPROVED ORMAQ		<b>ENSAMBLE CUCHILLA</b>		
PLANO N°: 21		SCALE 1:2	SHEET 8 OF 8	

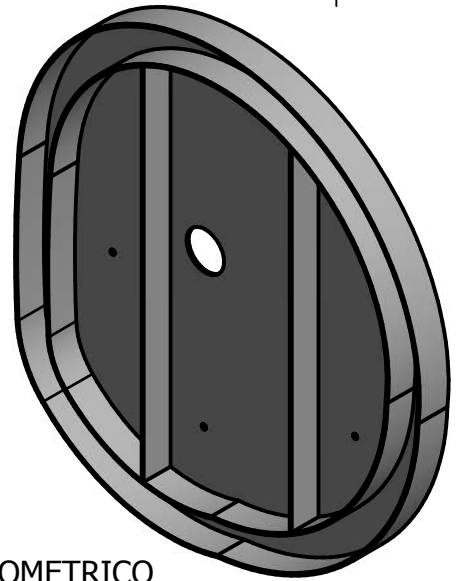
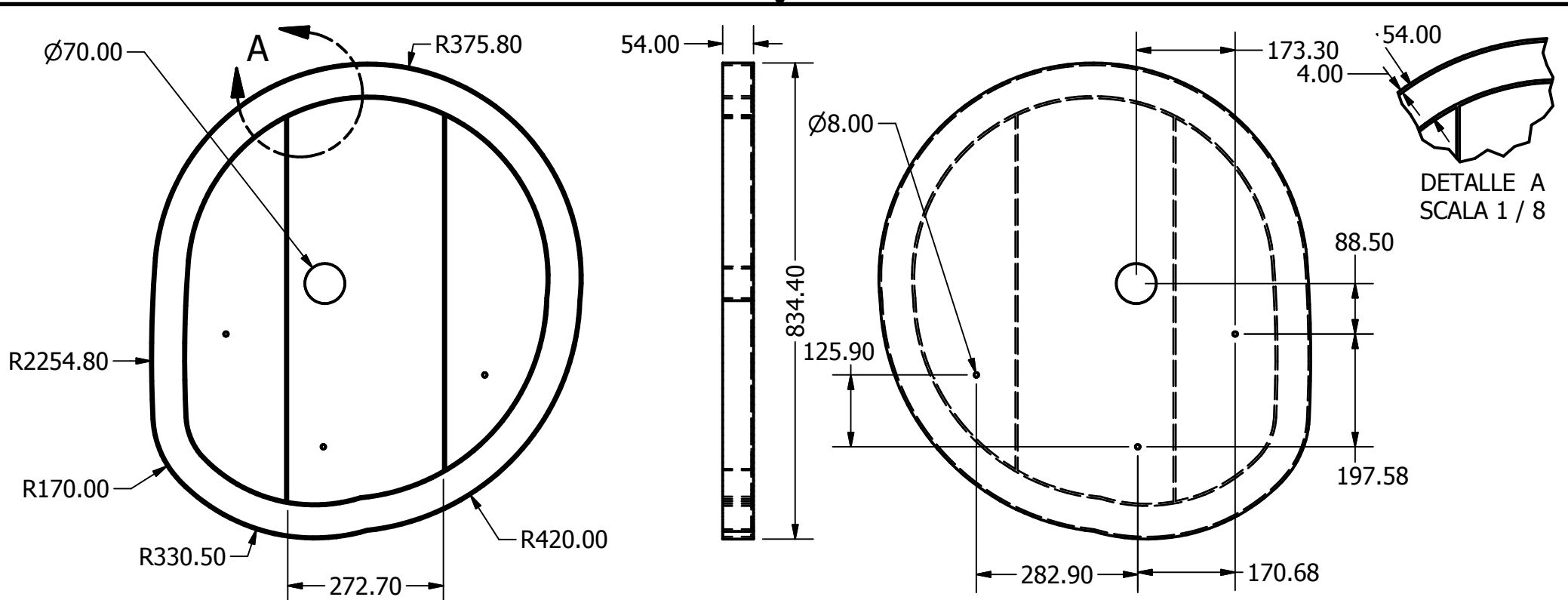


DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>ENSAMBLE MOLINETE GENERAL</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	DWG NO <b>ENSAMBLE MOLINETE</b>	REV 01
APPROVED ORMAQ		SCALE 1:10	SHEET 1 OF 10	
PLANO N°: 22				

PARTS LIST		
ITEM	QTY	PART NUMBER
1	2	Cojinete autoalineante para eje molinete
2	2	Ensamble de estructura para rodamiento de garras
3	1	Estructura de soporte para eje de garras
4	1	Polea de transmision de potencia molinete
5	8	Soporte de eje de garras
6	4	Sistema de garras y eje
7	4	Eje para rodamiento de sistema de garras
8	4	Rodamiento para el sistema de garras
9	4	Estructura de soporte de apoyo
10	19	AS 1252 - M12 x 30
11	4	AS 1252 - M16 x 40
12	4	AS 1252 - M16
13	19	AS 1252 - M12
14	1	Chaveta para eje principal



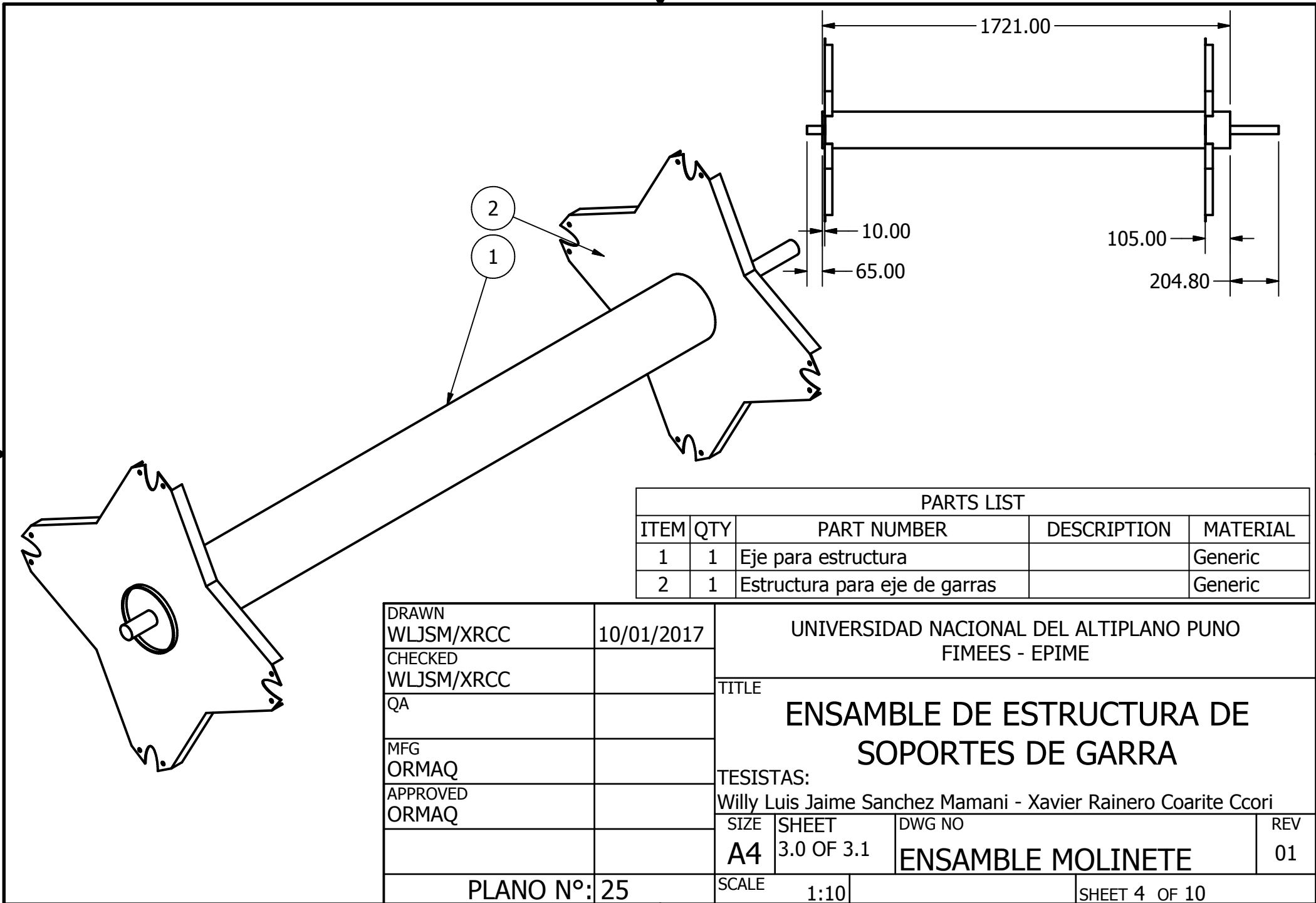
DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC		TITLE <b>ENSAMBLE MOLINETE</b>	
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
MFG ORMAQ		SIZE <b>A3</b>	DWG NO <b>ENSAMBLE MOLINETE</b>
APPROVED ORMAQ		SCALE 1:10	REV 01
PLANO N°: 23		SHEET 2 OF 10	



ISOMETRICO  
SCALA 1:10

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Estructura de rodamiento de garras	Generic

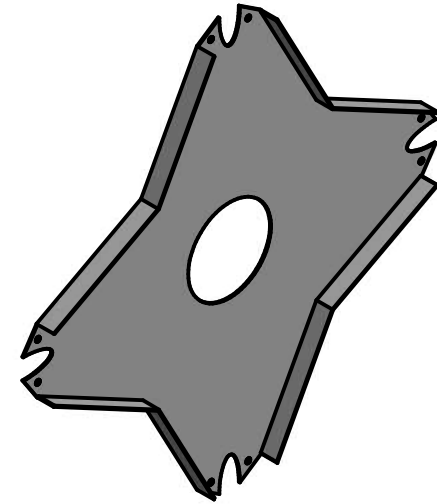
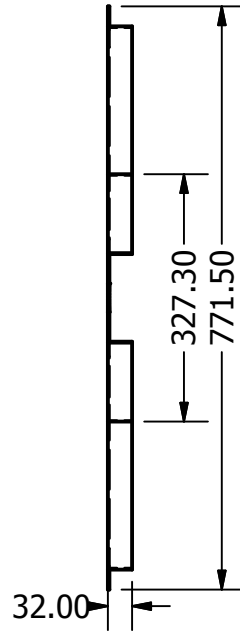
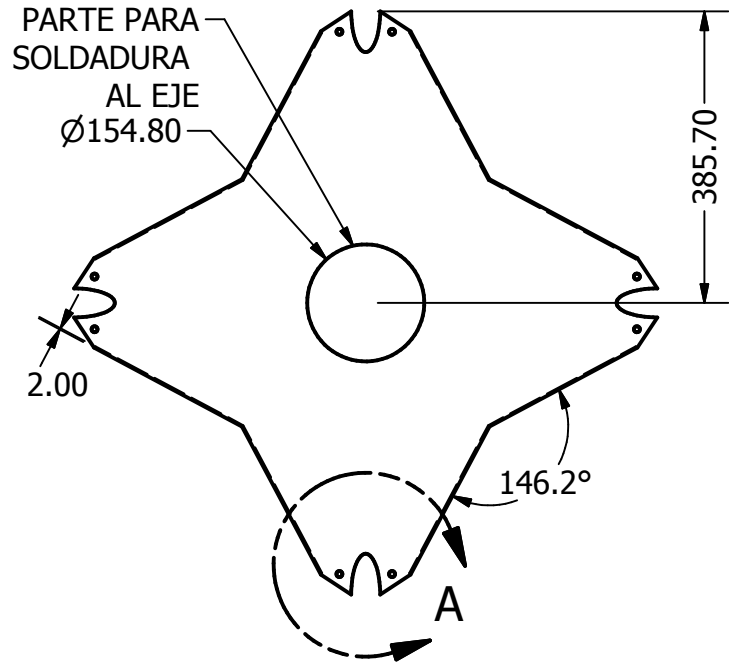
DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>ESTRUCTURA DE RODAMIENTO DE GARRAS</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	DWG NO <b>ENSAMBLE MOLINETE</b>	REV <b>01</b>
APPROVED ORMAQ		SCALE 1:10	SHEET 3 OF 10	
PLANO N°: 24				



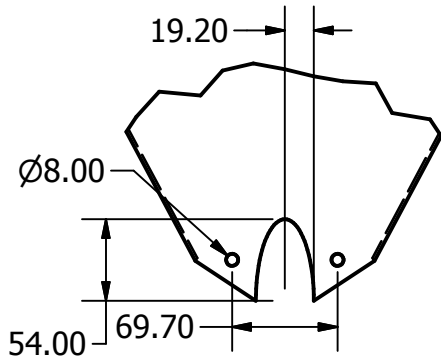
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Eje para estructura	Generic
2	1		Estructura para eje de garras	Generic

DRAWN WLJSM/XRCC	10/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
<b>PLANO N°: 25</b>	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>ENSAMBLE DE ESTRUCTURA DE SOPORTES DE GARRA</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	SHEET 3.0 OF 3.1	DWG NO <b>ENSAMBLE MOLINETE</b>	REV <b>01</b>
SCALE 1:10		SHEET 4 OF 10	



ISOMETRICO  
SCALA 1:10

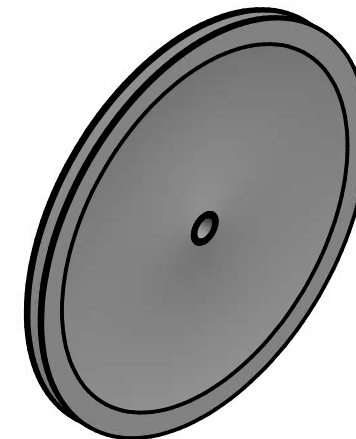
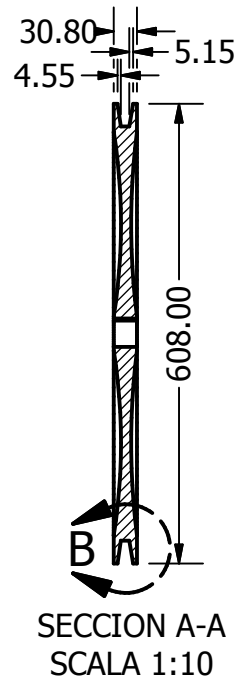
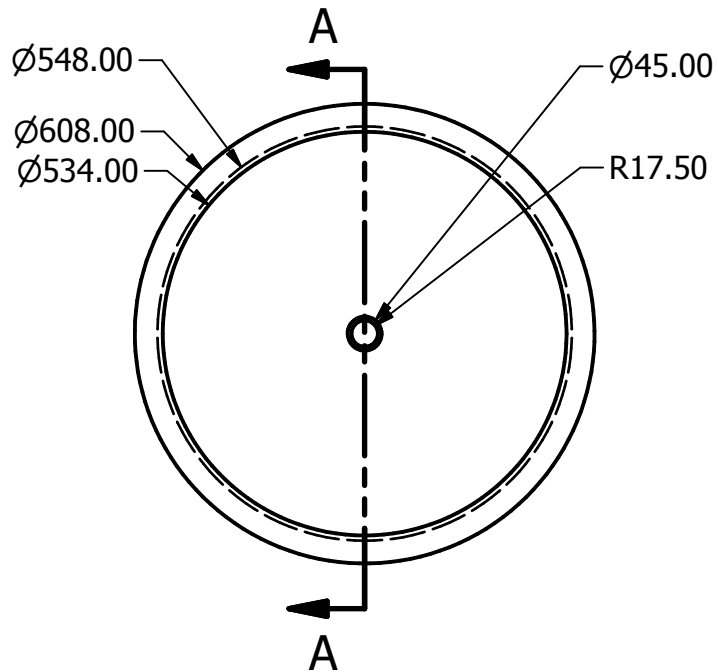


DETALLE A  
SCALA 1:5

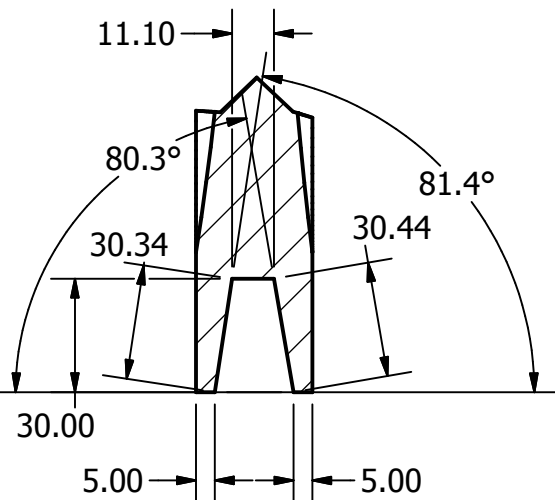
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	Estructura para eje de garras		Generic

DRAWN WLJSM/XRCC		10/01/2017		UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC				TITLE <b>ESTRUCTURA PARA EJE DE GARRAS</b>	
QA				TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
MFG ORMAQ				SIZE <b>A4</b>	SHEET 3.1 OF 3.1
APPROVED ORMAQ				DWG NO <b>ENSAMBLE MOLINETE</b>	
				SCALE 1:10	REV 01
PLANO N°: 26				SHEET 5 OF 10	





ISOMETRICO  
SCALA 1:10



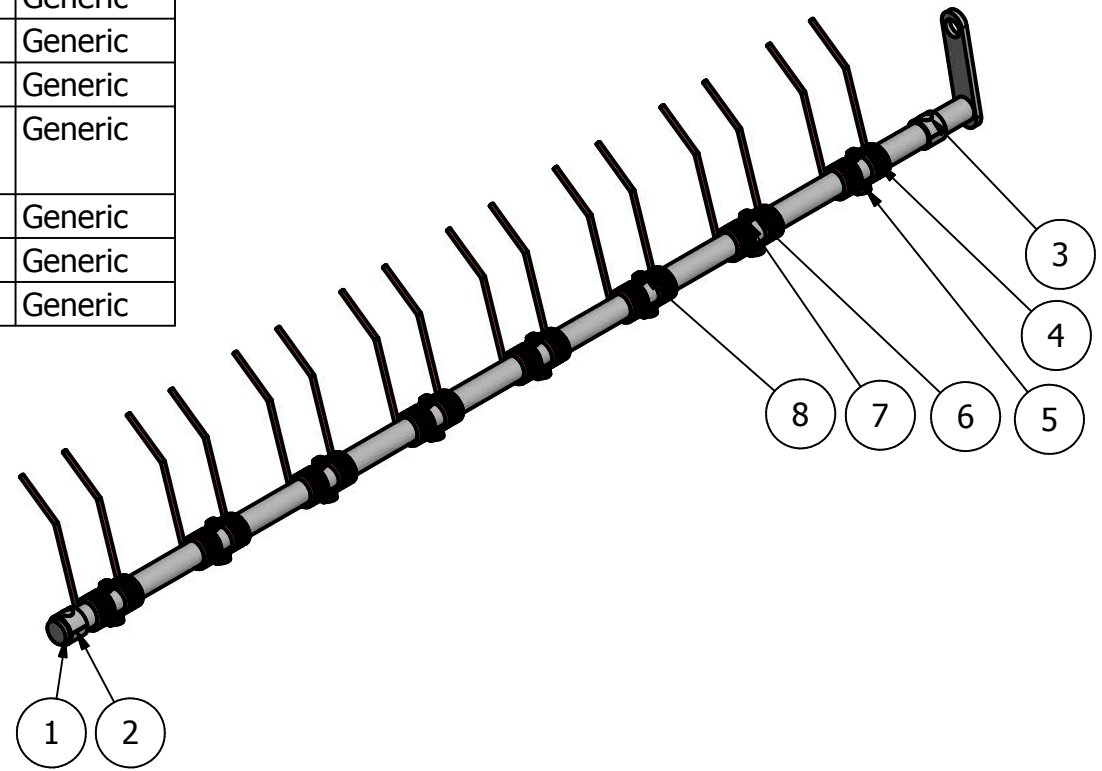
DETALLE B  
SCALA 1:2

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Polea de transmision de potencia molinete	Generic

DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>POLEA DE TRANSMISION DE POTENCIA MOLINETE</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	DWG NO	REV 01
APPROVED ORMAQ		<b>ENSAMBLE MOLINETE</b>		
PLANO N°: 27		SCALE 1:10	SHEET 6 OF 10	

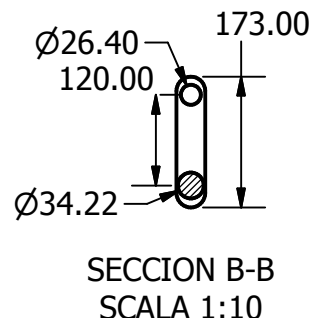
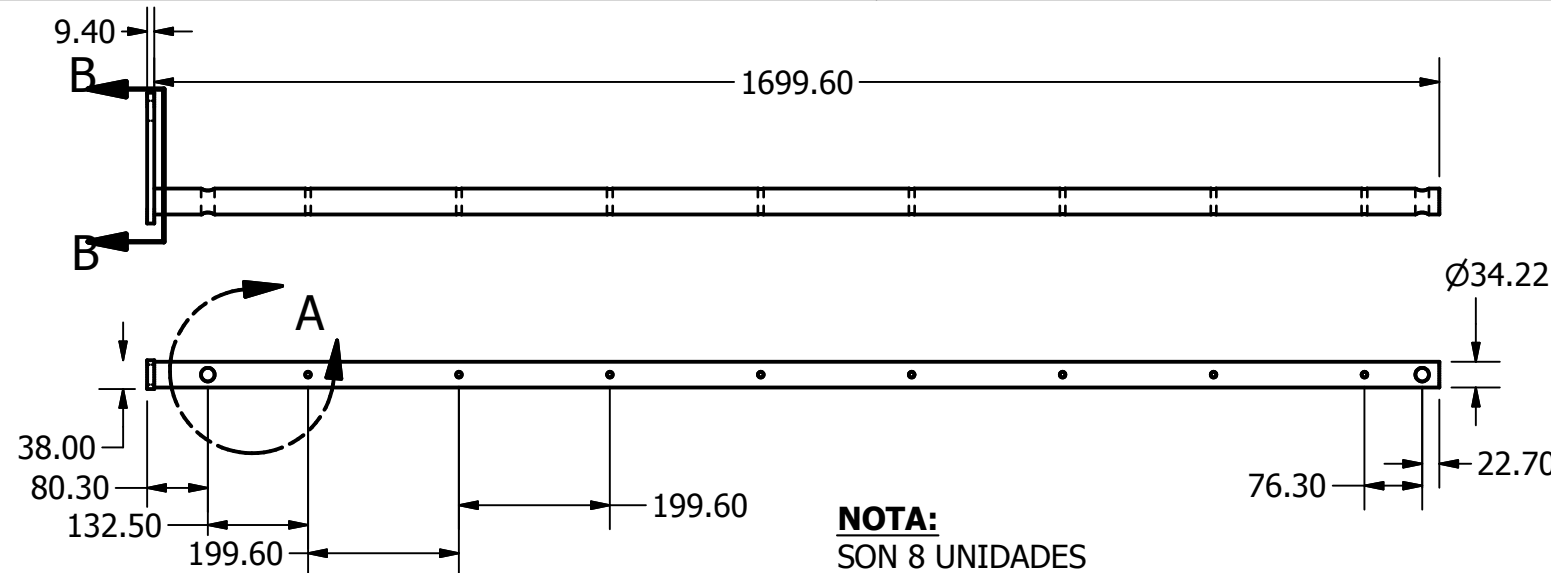


PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	1	Eje principal de garra	Generic
2	2	Anillo para el soporte de garra	Generic
3	2	Sujeccion para el anillo	Generic
4	8	Garra	Generic
5	8	volanda con cabezal para perno de garra	Generic
6	8	Tuerca para garra	Generic
7	8	volanda para garra	Generic
8	8	Perno para gara	Generic

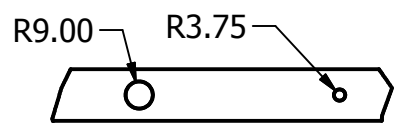


DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>ENSAMBLE SISTEMA DE GARRA Y EJE</b>		
QA				
MFG ORMAQ		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
APPROVED ORMAQ		SIZE <b>A4</b>	SHEET 6.0 OF 6.2	DWG NO <b>ENSAMBLE MOLINETE</b>
PLANO N°: 28		SCALE 1:10	REV 01	
		SHEET 7 OF 10		

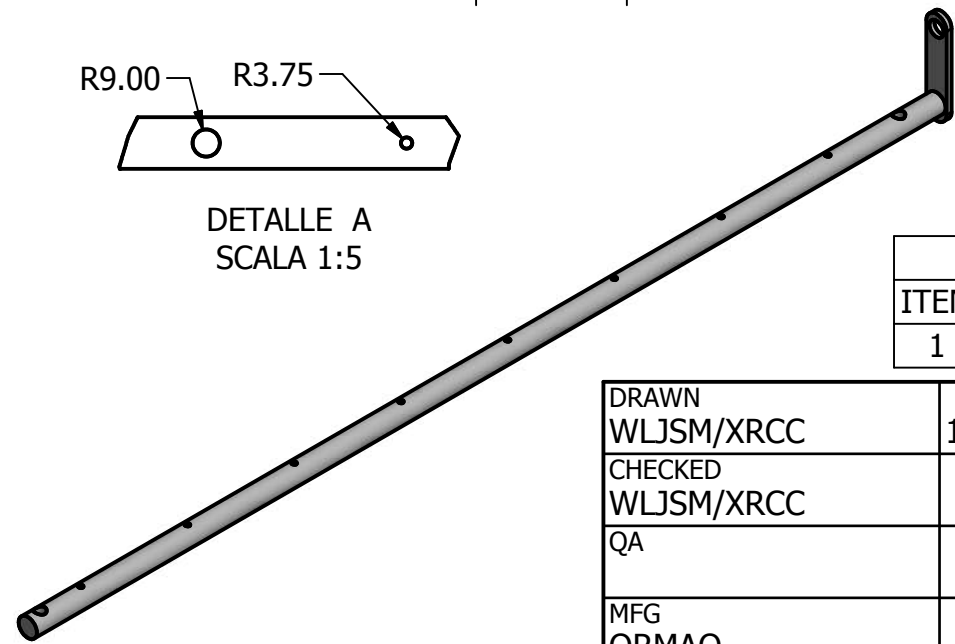




**NOTA:**  
SON 8 UNIDADES  
DE GARRAS Y AGUJEROS.



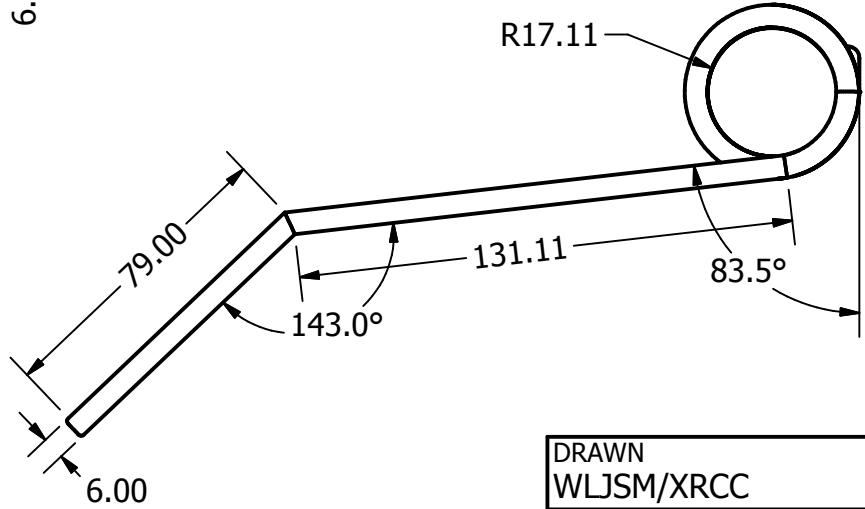
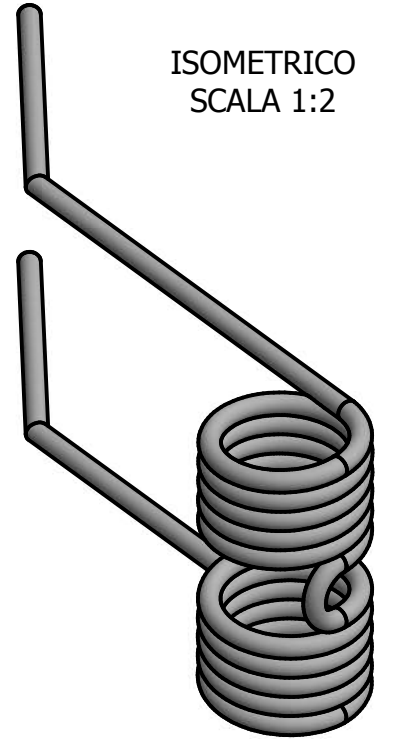
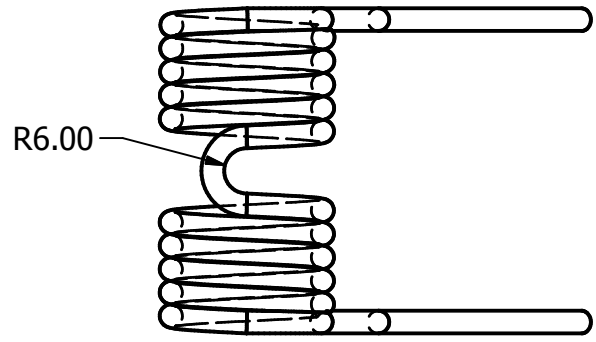
DETALLE A  
SCALA 1:5



ISOMETRICO  
SCALA 1:10

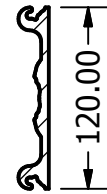
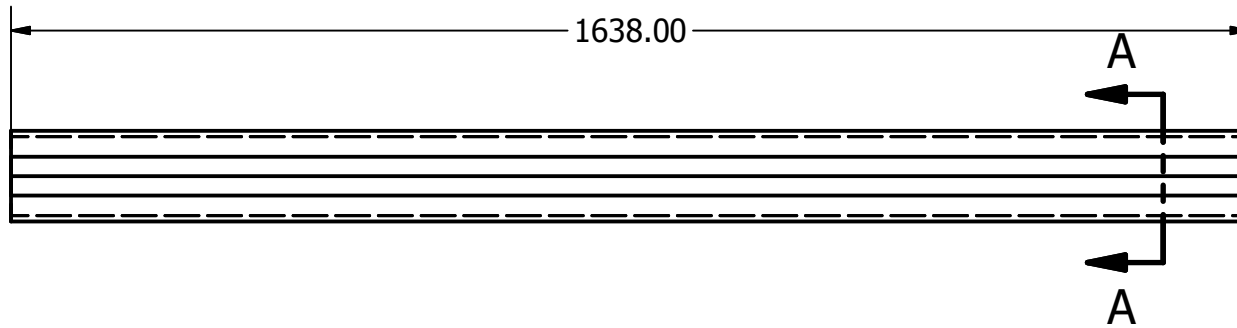
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Eje principal	Generic

DRAWN WLJSM/XRCC		10/01/2017		UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC					
QA				TITLE <b>ENSAMBLE SISTEMA DE GARRA Y EJE</b>	
MFG ORMAQ				TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
APPROVED ORMAQ				SIZE <b>A4</b>	SHEET 6.1 OF 6.2
				DWG NO <b>ENSAMBLE MOLINETE</b>	REV 01
PLANO N°: 29		SCALE 1:10		SHEET 8 OF 10	

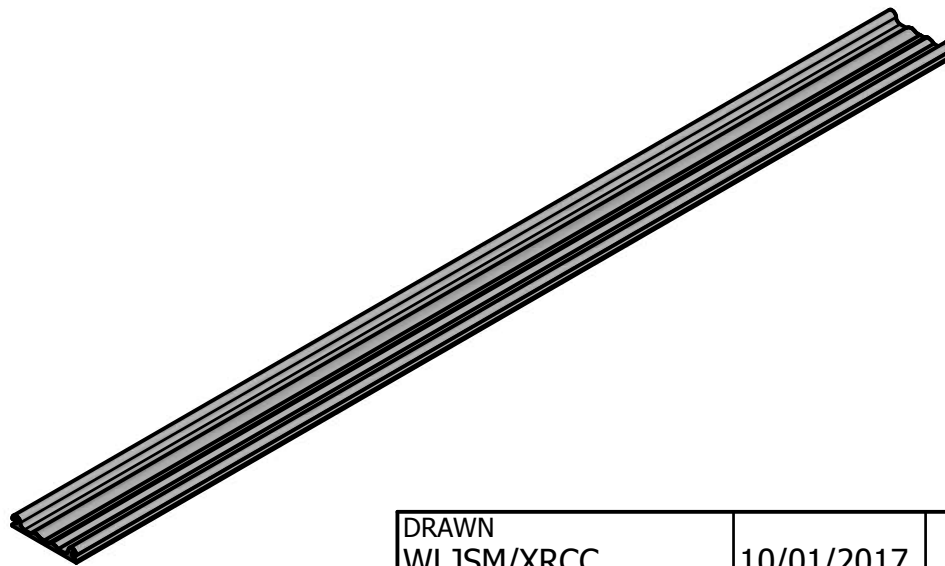


PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	Garra		Generic

DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>GARRA</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	SHEET 6.2 OF 6.2	DWG NO <b>ENSAMBLE MOLINETE</b>
APPROVED ORMAQ		SCALE 1:2		REV 01
PLANO N°: 30		SHEET 9 OF 10		



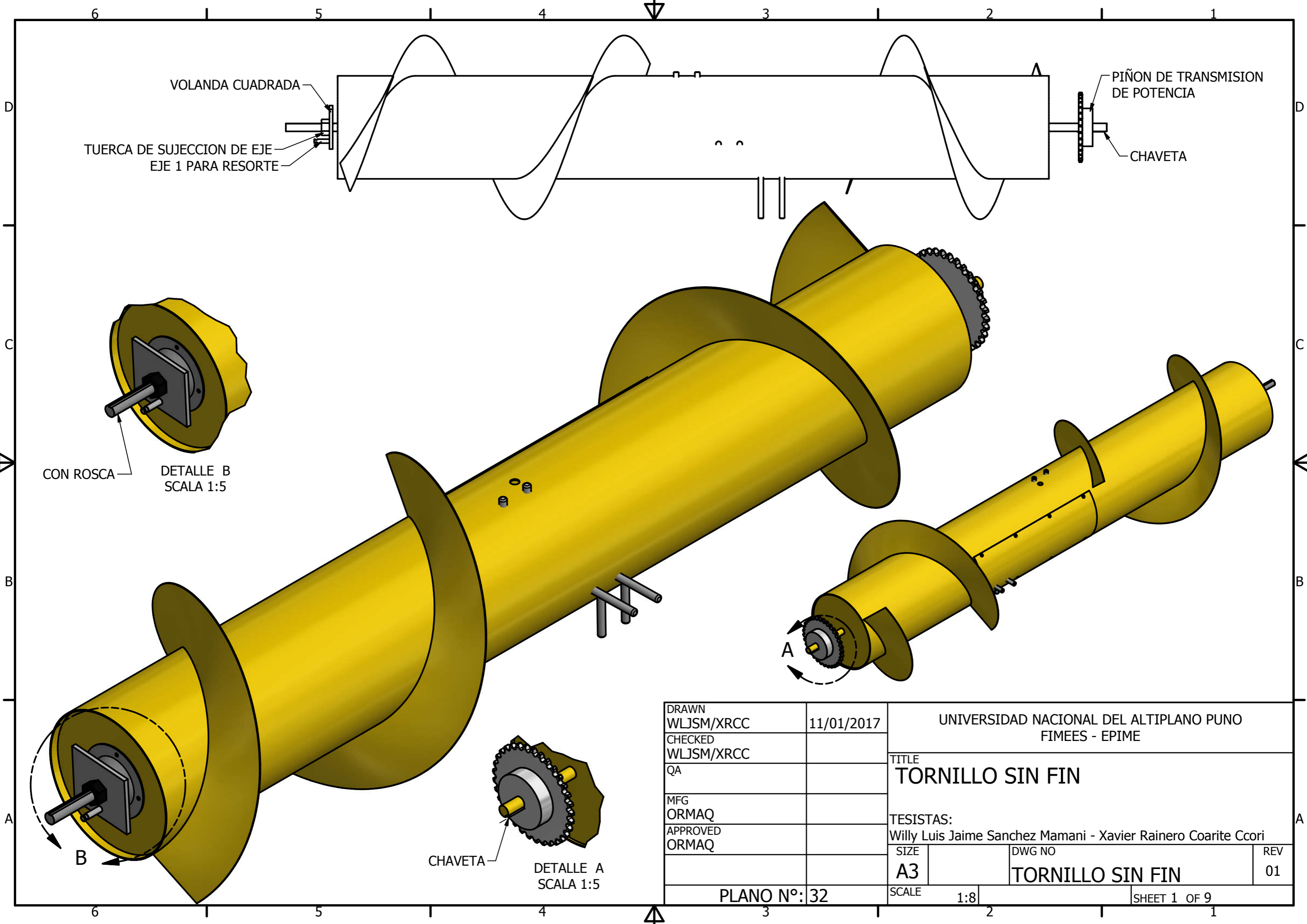
SECCION A-A  
SCALA 1:5



ISMETRICO  
SCALA 1:10

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	Estructura de soporte para apoyo		Generic

DRAWN WLJSM/XRCC	10/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>ESTRUCTURA DE SOPORTE DE APOYO</b>		
QA				
MFG ORMAQ		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
APPROVED ORMAQ		SIZE <b>A4</b>	DWG NO <b>ENSAMBLE MOLINETE</b>	REV 01
PLANO N°: 31		SCALE 1:10	SHEET 10 OF 10	



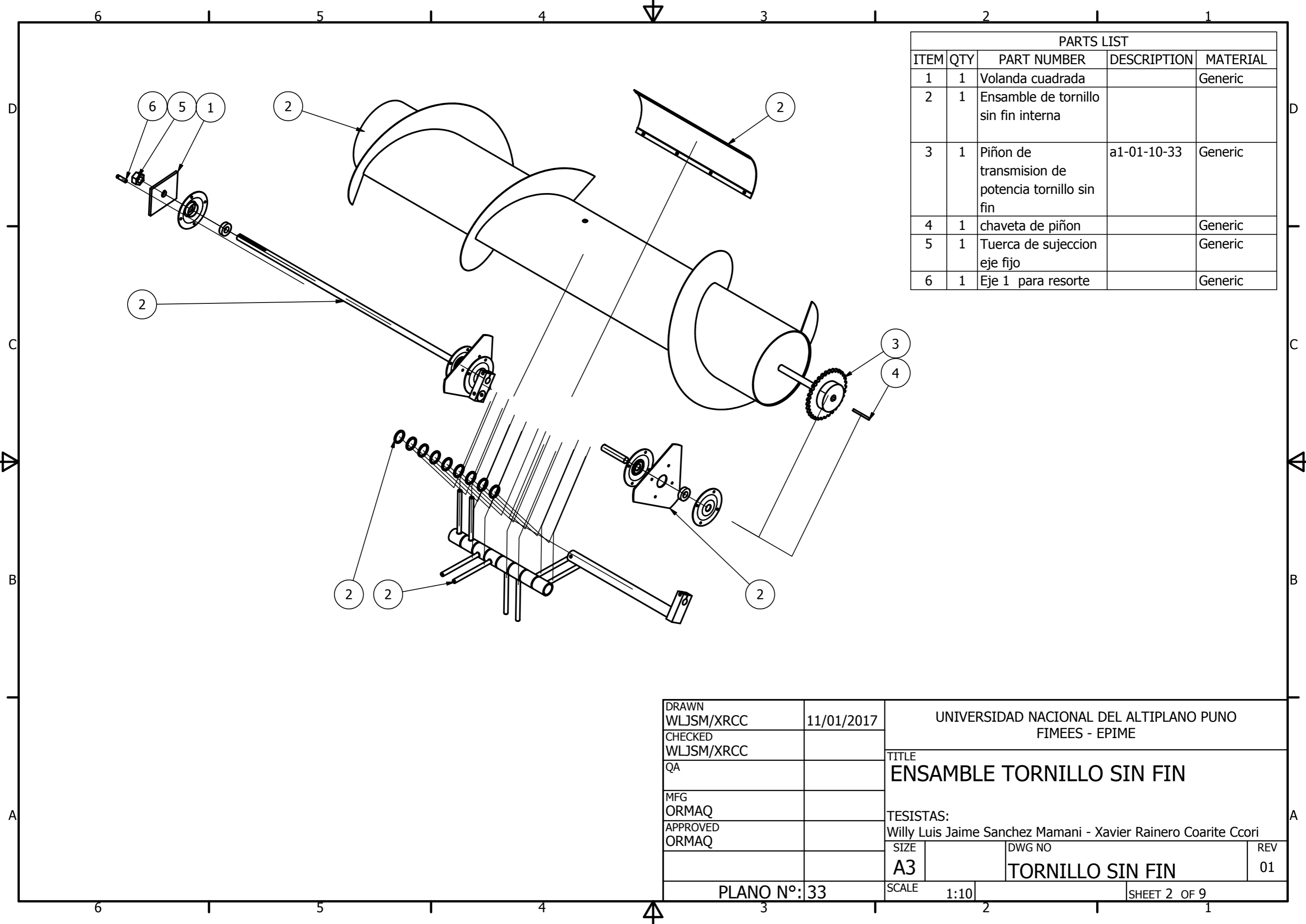
VOLANDA CUADRADA  
 TUERCA DE SUJECCION DE EJE  
 EJE 1 PARA RESORTE

PIÑON DE TRANSMISION  
 DE POTENCIA  
 CHAVETA

CON ROSCA  
 DETALLE B  
 SCALA 1:5

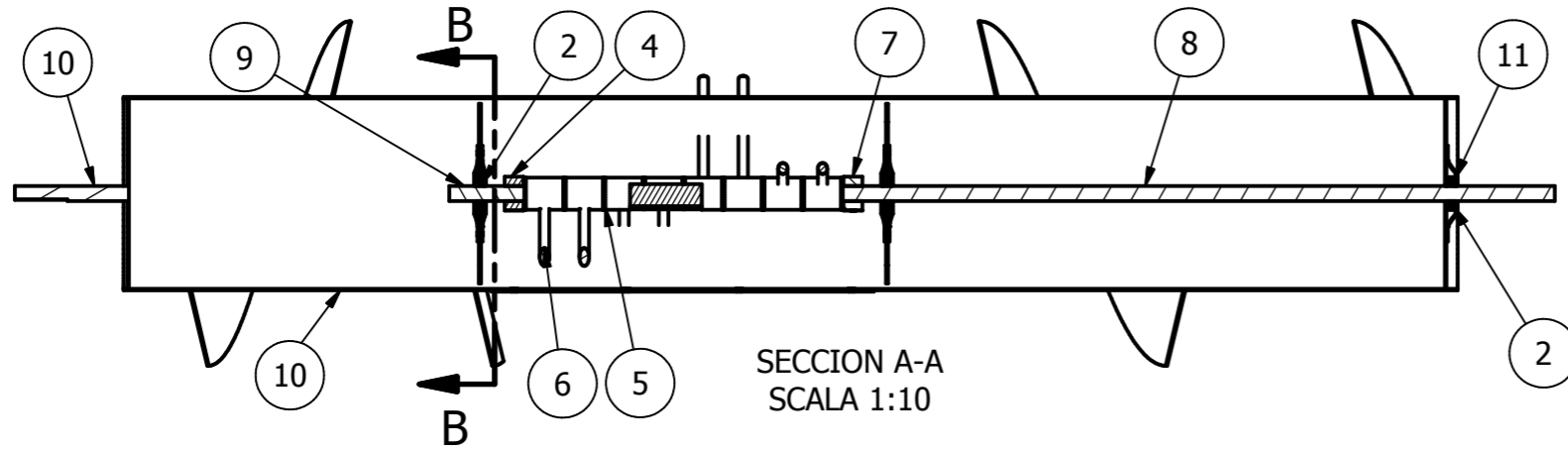
CHAVETA  
 DETALLE A  
 SCALA 1:5

DRAWN WLJSM/XRCC	11/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>TORNILLO SIN FIN</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	DWG NO	REV 01
APPROVED ORMAQ		<b>TORNILLO SIN FIN</b>		
PLANO N°: 32		SCALE 1:8	SHEET 1 OF 9	

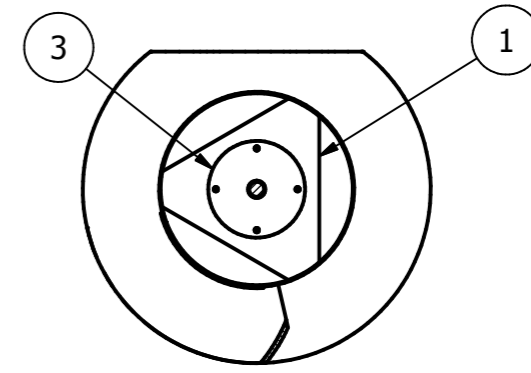


PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Volanda cuadrada	Generic
2	1		Ensamble de tornillo sin fin interna	
3	1		Piñon de transmision de potencia tornillo sin fin	a1-01-10-33 Generic
4	1		chaveta de piñon	Generic
5	1		Tuerca de sujecion eje fijo	Generic
6	1		Eje 1 para resorte	Generic

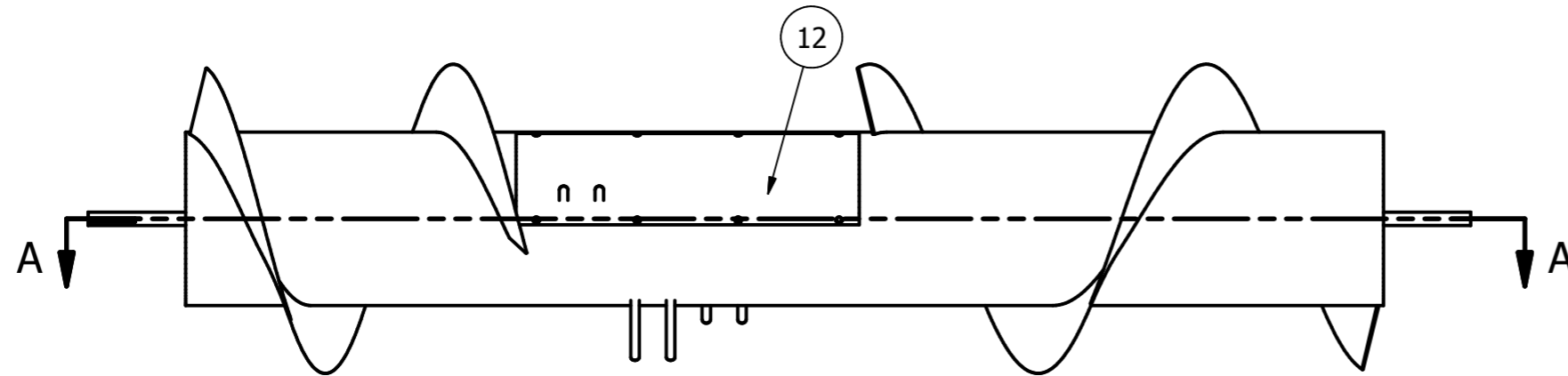
DRAWN WLJSM/XRCC 11/01/2017 CHECKED WLJSM/XRCC QA MFG ORMAQ APPROVED ORMAQ	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME TITLE <b>ENSAMBLE TORNILLO SIN FIN</b> TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori
PLANO N°: 33	SCALE 1:10 DWG NO <b>TORNILLO SIN FIN</b> REV 01
SHEET 2 OF 9	



SECCION A-A  
SCALA 1:10



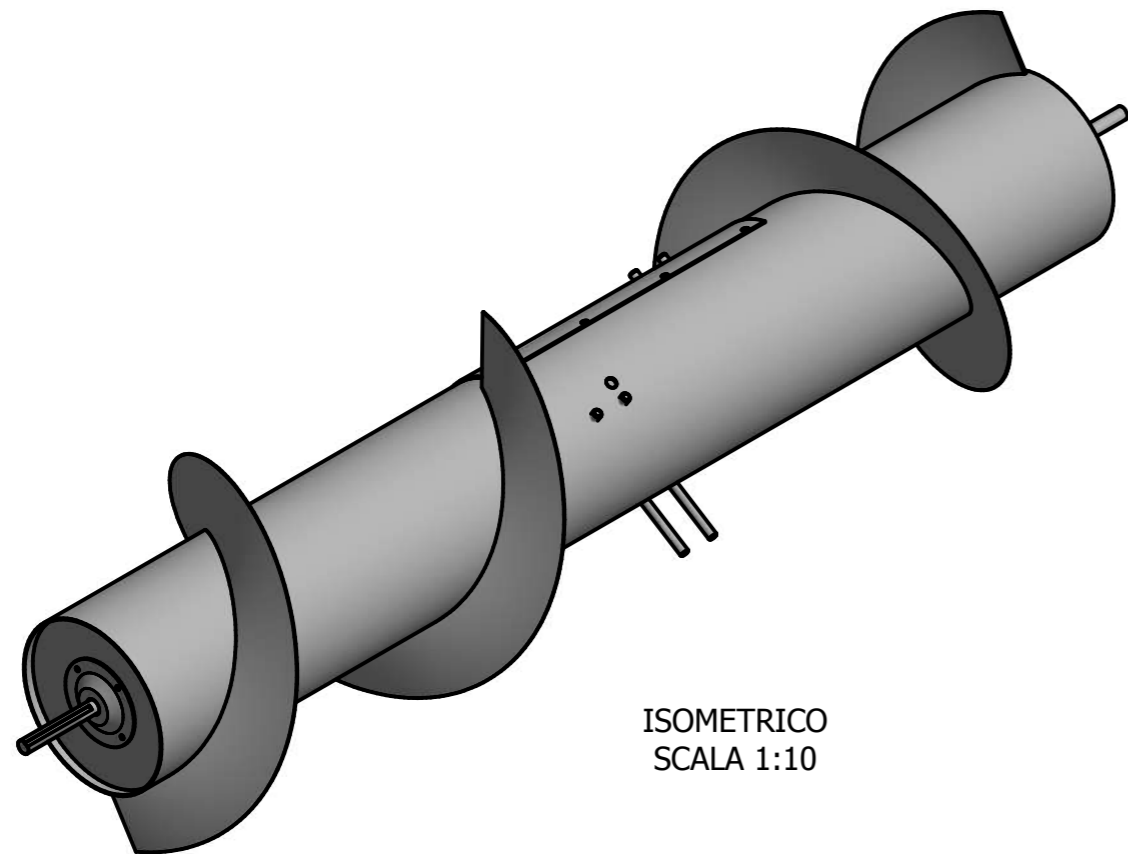
SECCION B-B  
SCALA 1:10



A

A

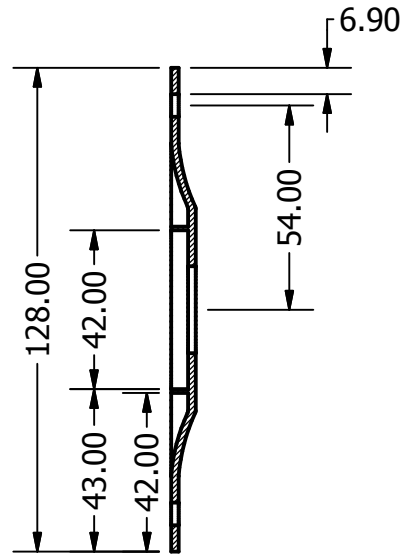
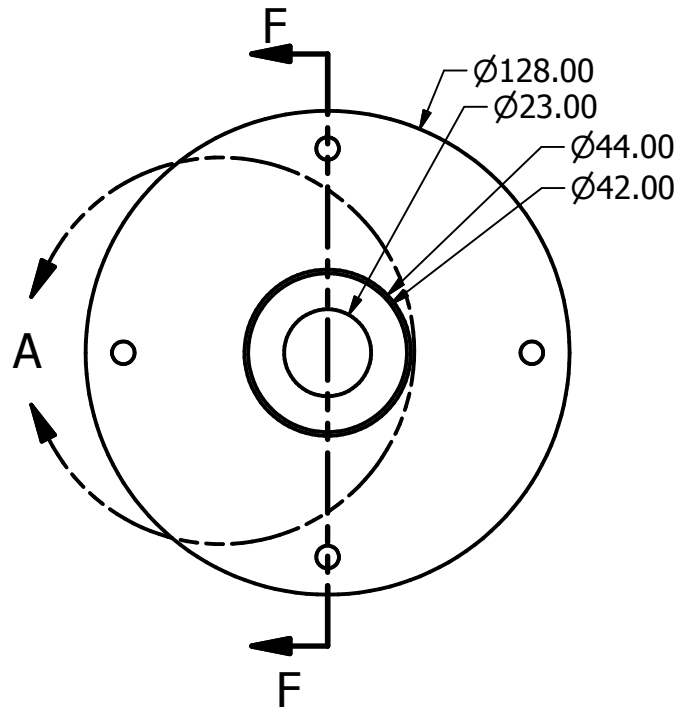
PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	2	Soporte de eje tornillo sin fin	Generic
2	3	Rodamiento para eje tornillo sin fin	Generic
3	4	Proteccion de rodamiento para eje tornillo sin fin	Generic
4	1	Conexion para eje y eje	Generic
5	9	Volandas de separacion	Generic
6	8	Garras de tornillo sin fin	Generic
7	1	Conexion entre ejes	Generic
8	1	Eje interno fijo_1	Generic
9	1	Eje interno fijo_2	Generic
10	1	Eje interno movil y cilindro de tornillo sin fin	Generic
11	1	Proteccion de rodamiento de eje fijo	Generic
12	1	Tapa de tornillo sin fin	Generic



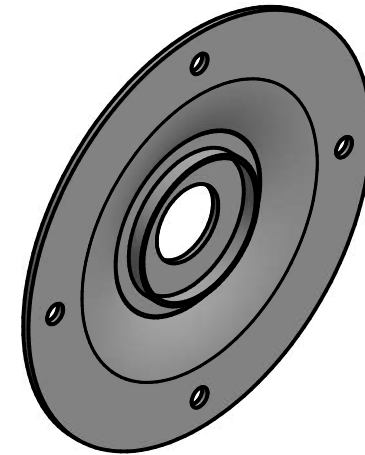
ISOMETRICO  
SCALA 1:10

DRAWN WLJSM/XRCC	11/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>ENSAMBLE DE TORNILLO SIN FIN INTERNA</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	SHEET 2.0 OF 2.5	DWG NO <b>TORNILLO SIN FIN</b>
APPROVED ORMAQ				REV 01
PLANO N°: 34		SCALE 1:10	SHEET 3 OF 9	

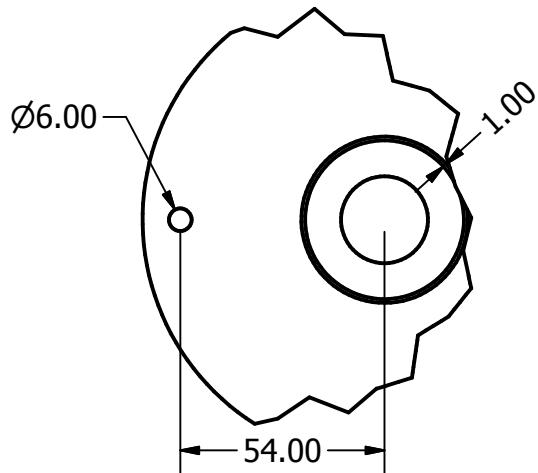




SECTION F-F  
SCALE 1:2

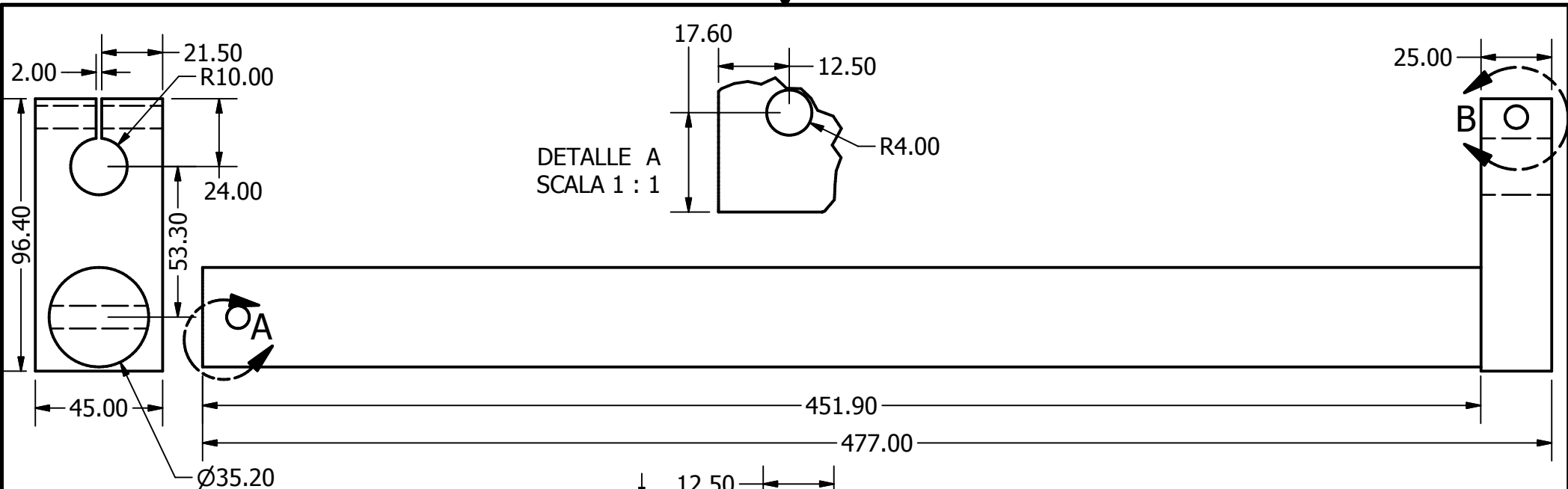


ISOMETRICO  
SCALA 1:2



DETALLE A  
SCALA 1:2

DRAWN WLJSM/XRCC	11/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>PROTECCION DE RODAMIENTO PARA EJE TORNILLO SIN FIN</b>		
QA				
MFG ORMAQ		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
APPROVED ORMAQ		SIZE <b>A4</b>	SHEET 2.1 OF 2.5	DWG NO <b>TORNILLO SIN FIN</b>
PLANO N°: 35		SCALE 1:2	REV 01	
			SHEET 4 OF 9	



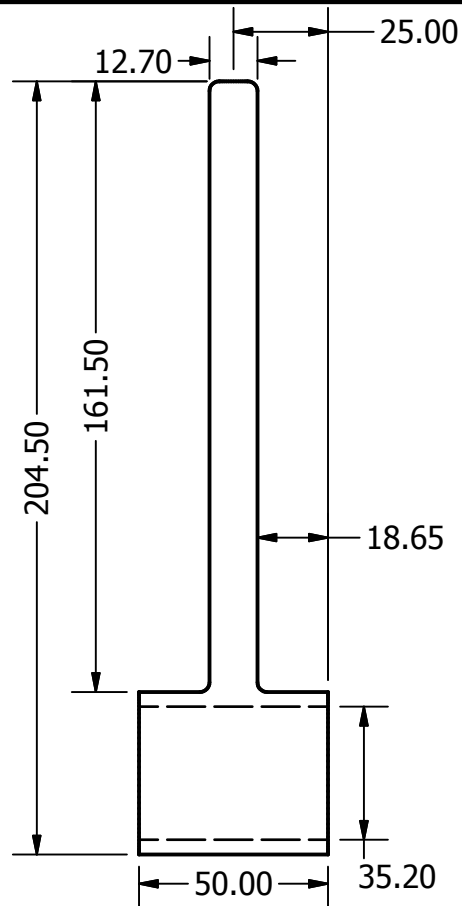
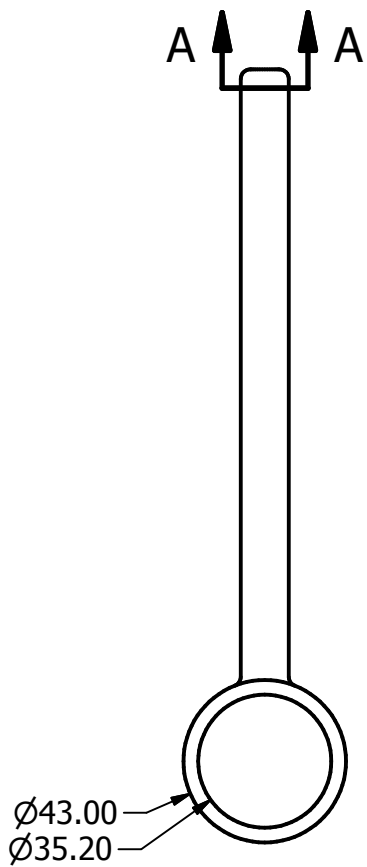
DETALLE A  
SCALA 1 : 1

DETALLE B  
SCALA 1:1

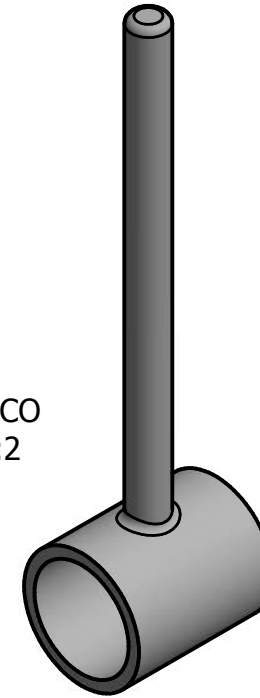
ISOMETRICO  
SCALA 1:5

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Conexion para ejes y eje	Generic

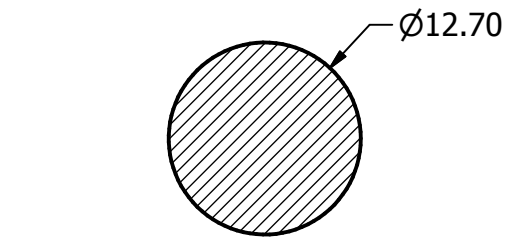
DRAWN WLJSM/XRCC	11/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>CONEXION PARA EJE Y EJE</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	SHEET 2.2 OF 2.5	DWG NO <b>TORNILLO SIN FIN</b>
APPROVED ORMAQ				REV 01
PLANO N°: 36		SCALE 1:2	SHEET 5 OF 9	



ISOMETRICO  
SCALA 1:2



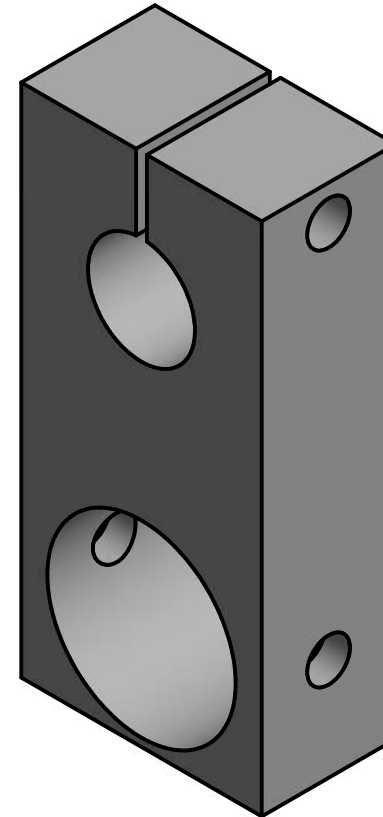
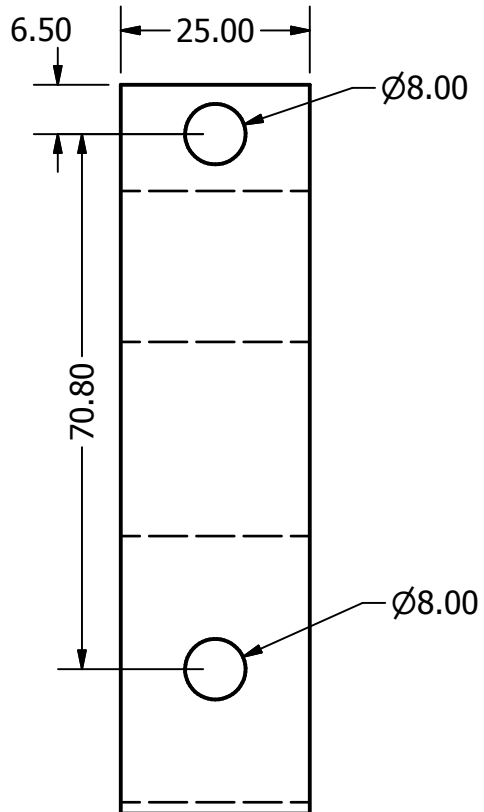
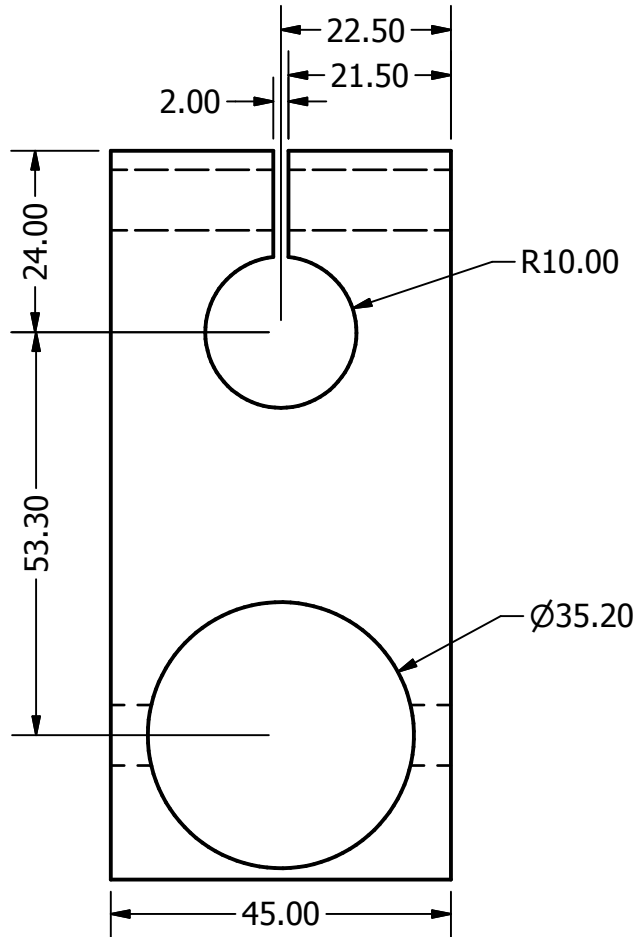
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Garra para tornillo sin fin	Generic



SECCION A-A  
SCALA 2:1

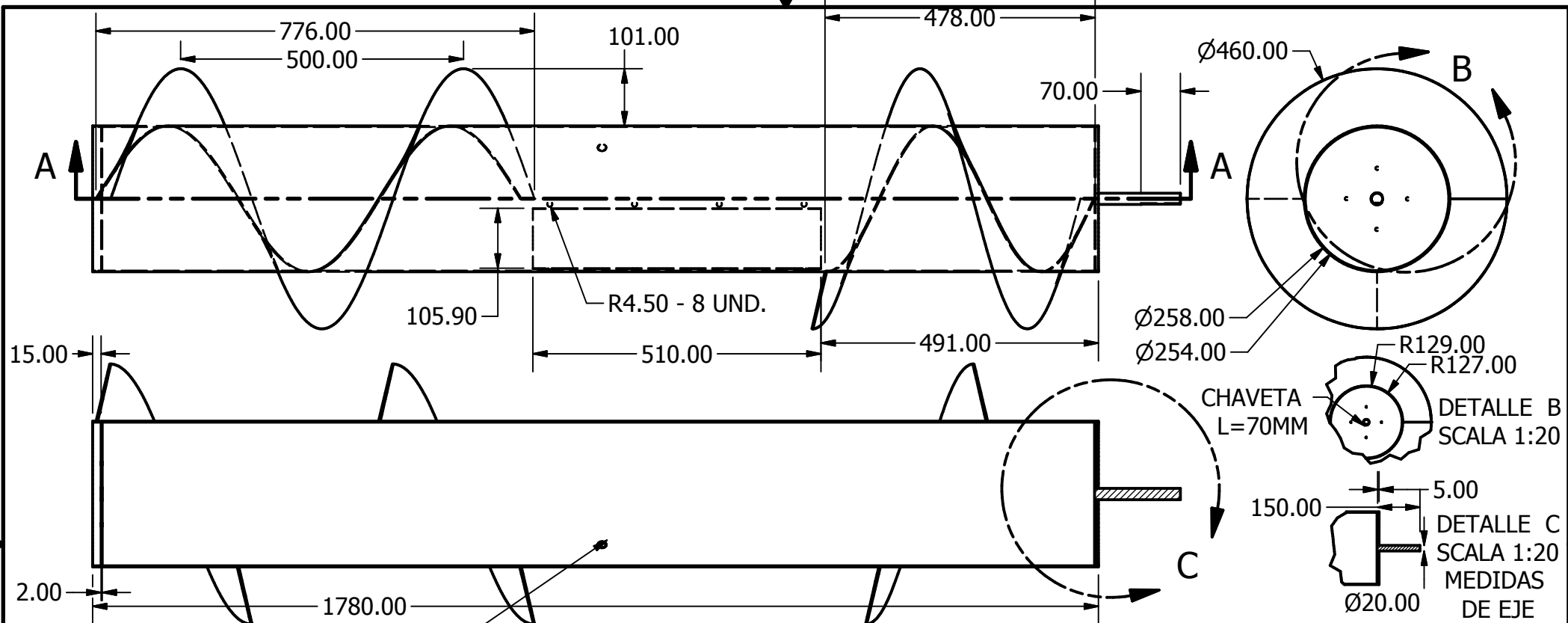
DRAWN WLJSM/XRCC	11/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
<b>PLANO N°: 37</b>	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>GARRAS DE TORNILLO SIN FIN</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	SHEET 2.3 OF 2.5	DWG NO <b>TORNILLO SIN FIN</b>	REV 01
SCALE 1:2		SHEET 6 OF 9	



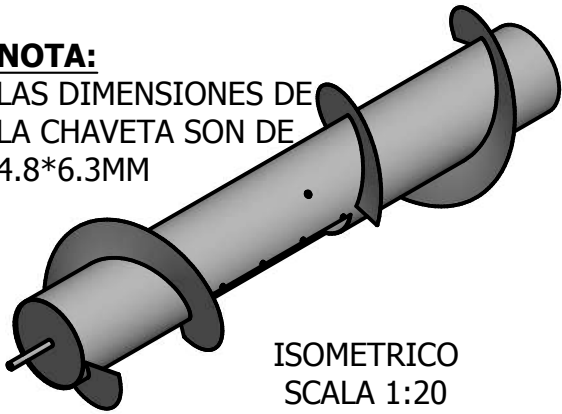
ISOMETRICO  
SCALA 1:1

DRAWN WLJSM/XRCC	11/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>CONEXION ENTRE EJES</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A4</b>	SHEET 2.4 OF 2.5	DWG NO <b>TORNILLO SIN FIN</b>
APPROVED ORMAQ		SCALE 1:1		REV 01
PLANO N°: 38		SHEET 7 OF 9		



$\varnothing 13.00\text{MM}$   
 4 GRUPOS DE 2 AGUJEROS A UNA DISTANCIA DE 53.00MM C/U CON UN  $\angle 90^\circ$  RESPECTO AL EJE CENTRO

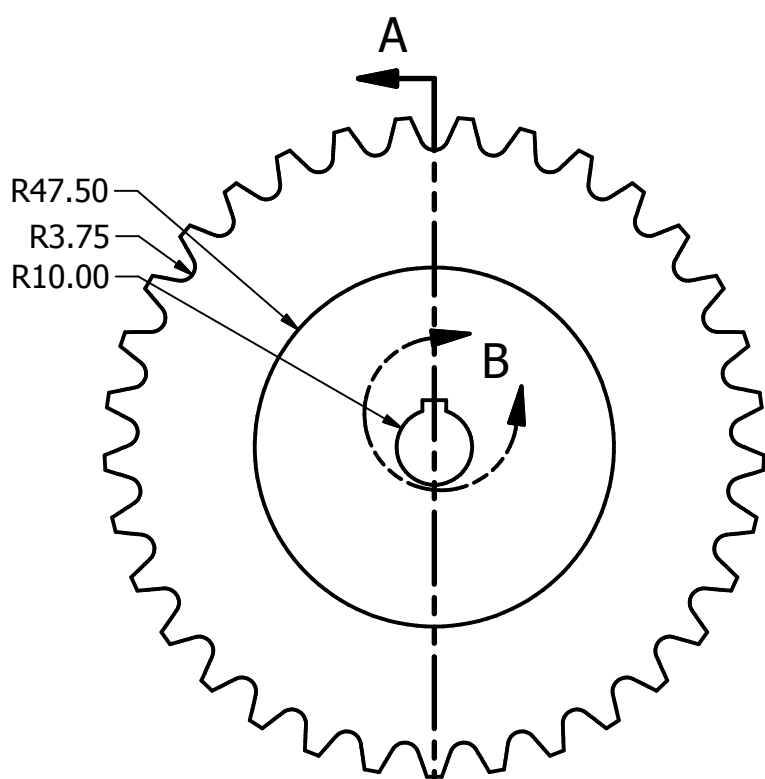
**NOTA:**  
 LAS DIMENSIONES DE LA CHAVETA SON DE 4.8\*6.3MM



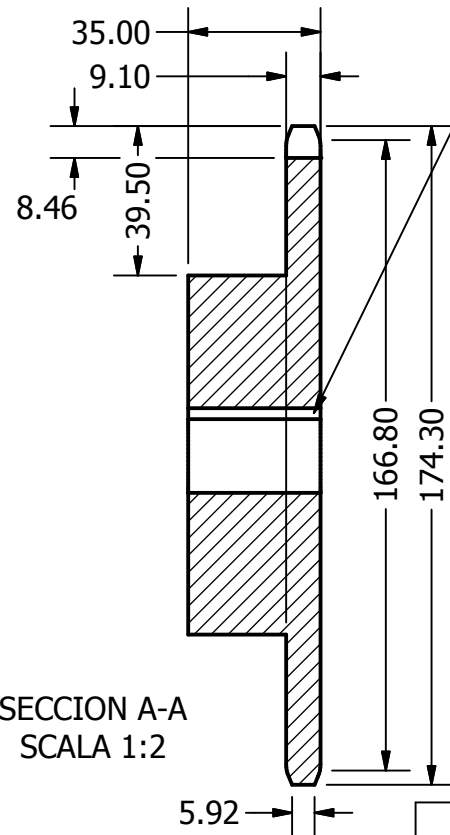
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	tornillo son fin		Generic

DRAWN WLJSM/XRCC	11/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC				
QA				
MFG ORMAQ				
APPROVED ORMAQ		TITLE <b>EJE INTERNO MOVIL Y CILINDRO DE TORNILLO SIN FIN</b>		
		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
		SIZE <b>A4</b>	SHEET 2.5 OF 2.5	DWG NO <b>TORNILLO SIN FIN</b>
PLANO N°: 39		SCALE 1:10	REV 01	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME				
TITLE <b>EJE INTERNO MOVIL Y CILINDRO DE TORNILLO SIN FIN</b>				
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori				
SIZE <b>A4</b>	SHEET 2.5 OF 2.5	DWG NO <b>TORNILLO SIN FIN</b>		REV 01
PLANO N°: 39		SCALE 1:10	SHEET 8 OF 9	

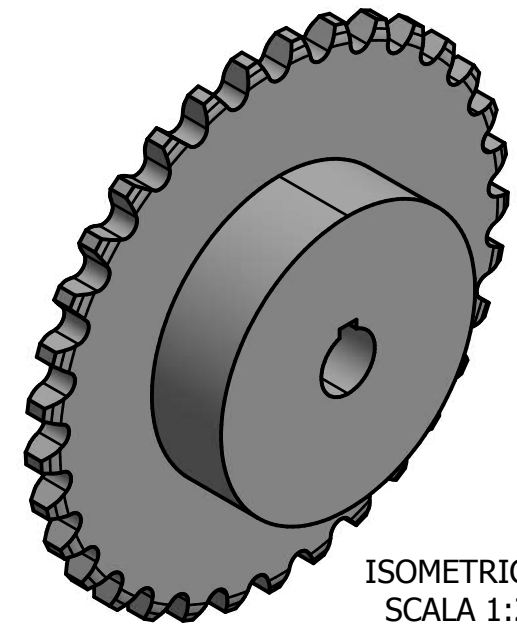


R47.50  
R3.75  
R10.00

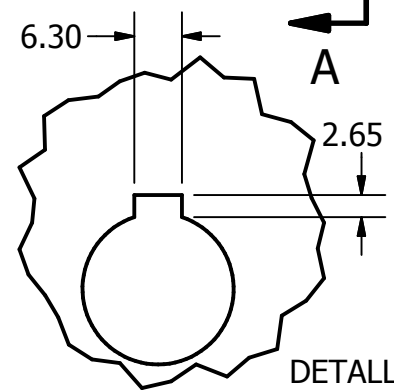


SECCION A-A  
SCALA 1:2

**NOTA:**  
LAS DIMENSIONES DE LA  
CHAVETA ES DE 4.8\*6.3MM



ISOMETRICO  
SCALA 1:2



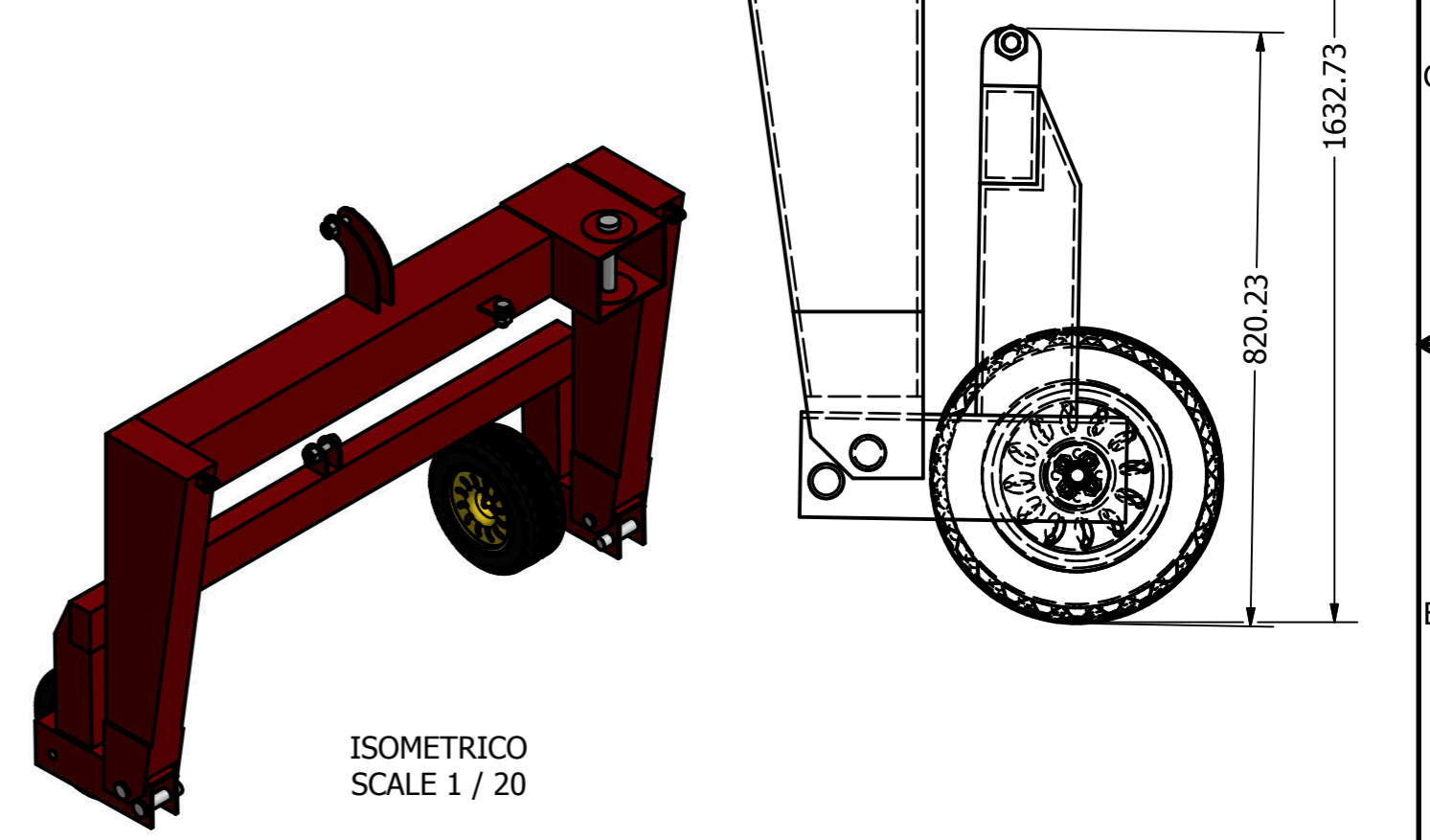
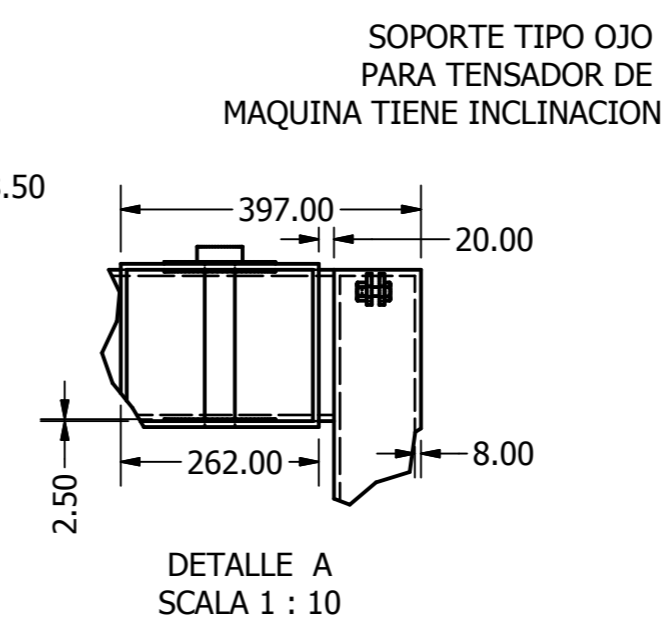
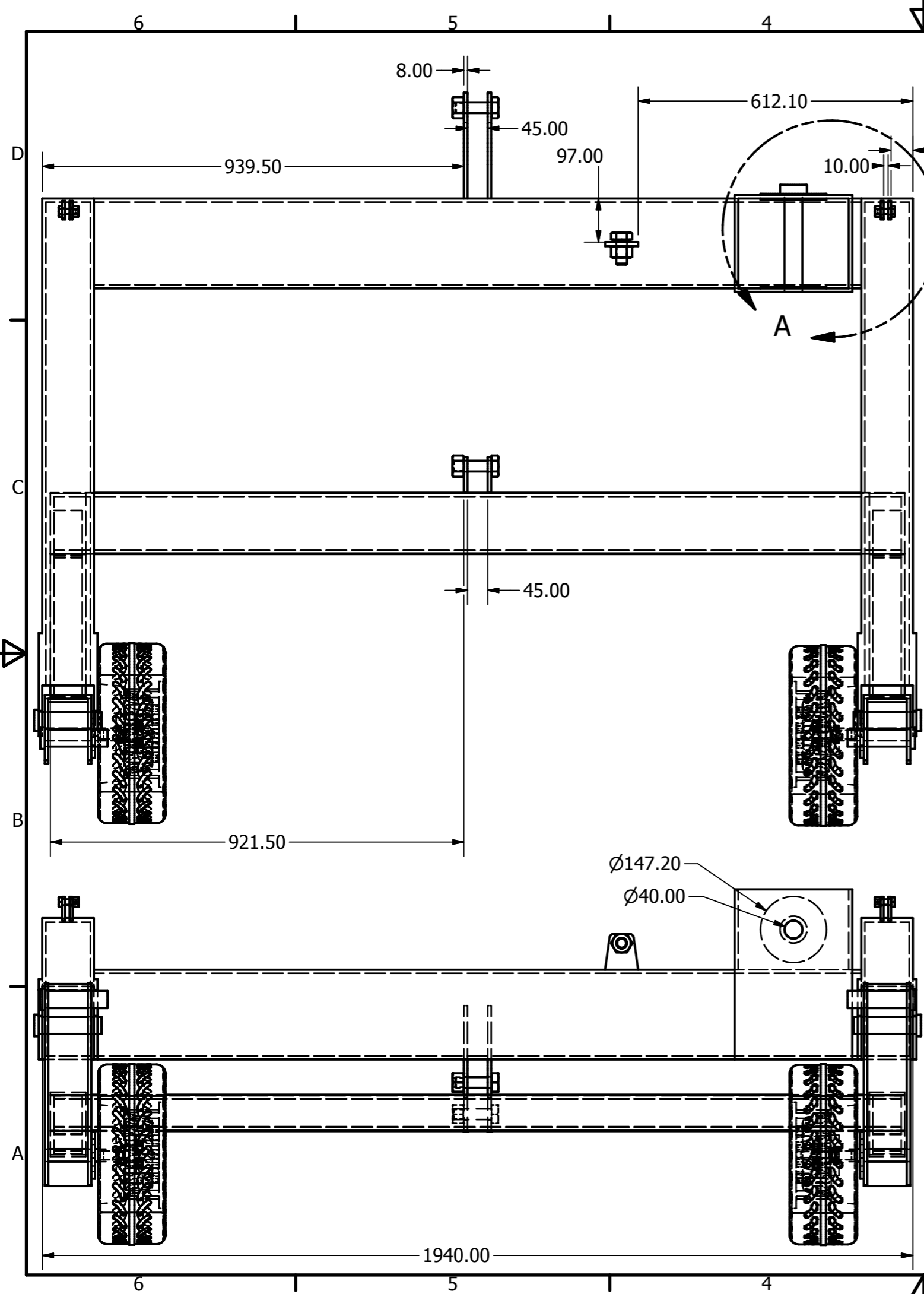
DETALLE B  
SCALA 1:1

**NOTA:**  
PIÑÓN DE 33 DIENTES  
ANSI 35-1

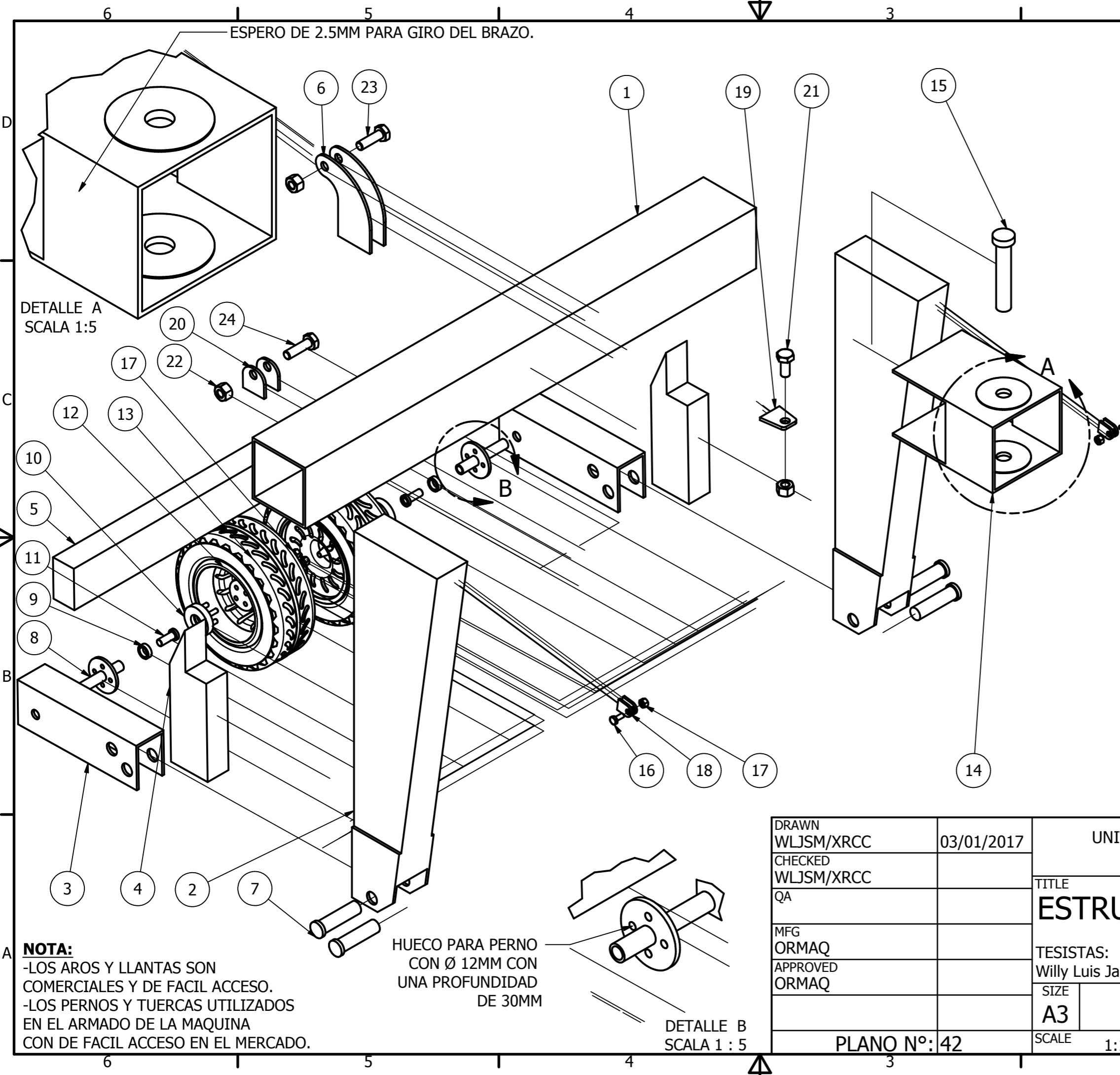
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	Piñon de transmision	a1-01-10-33	Generic

DRAWN WLJSM/XRCC	11/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 40	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>PIÑÓN DE TRANSMISION DE POTENCIA TORNILLO SIN FIN</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	DWG NO	REV <b>01</b>	
SCALE 1:2		SHEET 9 OF 9	



DRAWN WLJSM/XRCC	03/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>ESTRUCTURA PRINCIPAL</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	DWG NO	REV 01
APPROVED ORMAQ		<b>SOPORTE PRINCIPAL</b>		
<b>PLANO N°: 41</b>		SCALE 1 / 10	SHEET 1 OF 2	



ESPERO DE 2.5MM PARA GIRO DEL BRAZO.

DETALLE A  
SCALA 1:5

DETALLE B  
SCALA 1 : 5

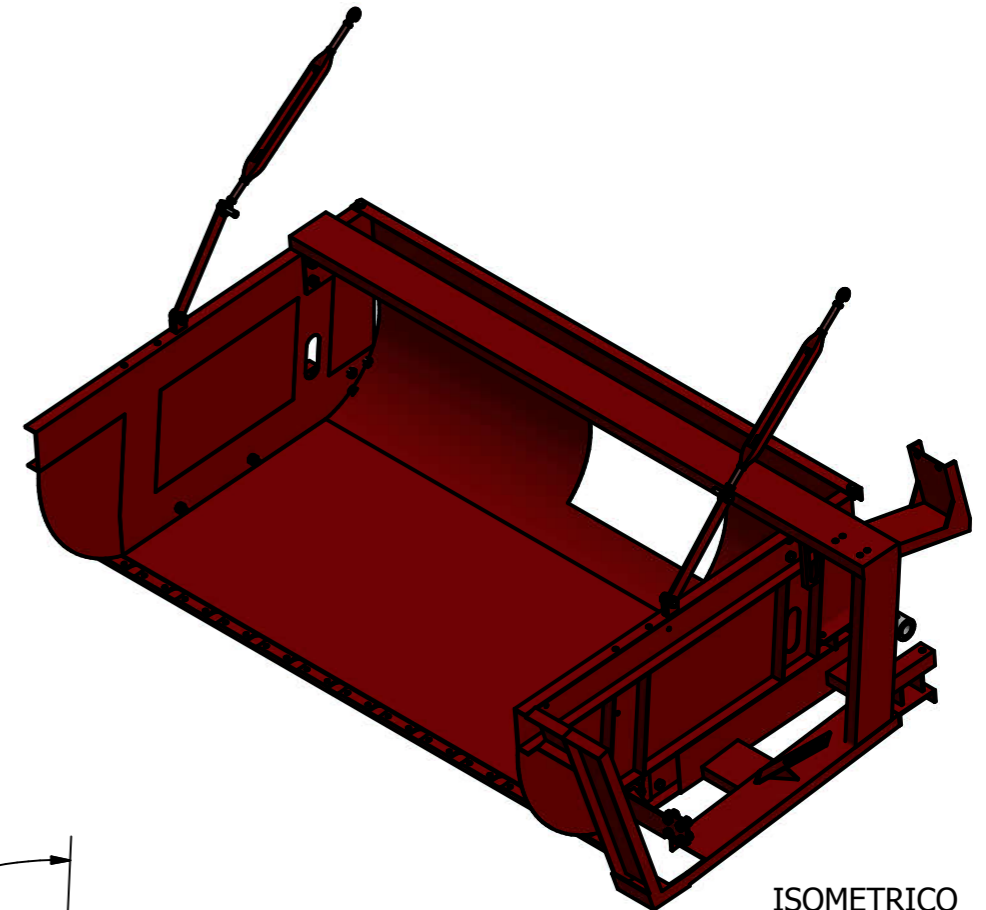
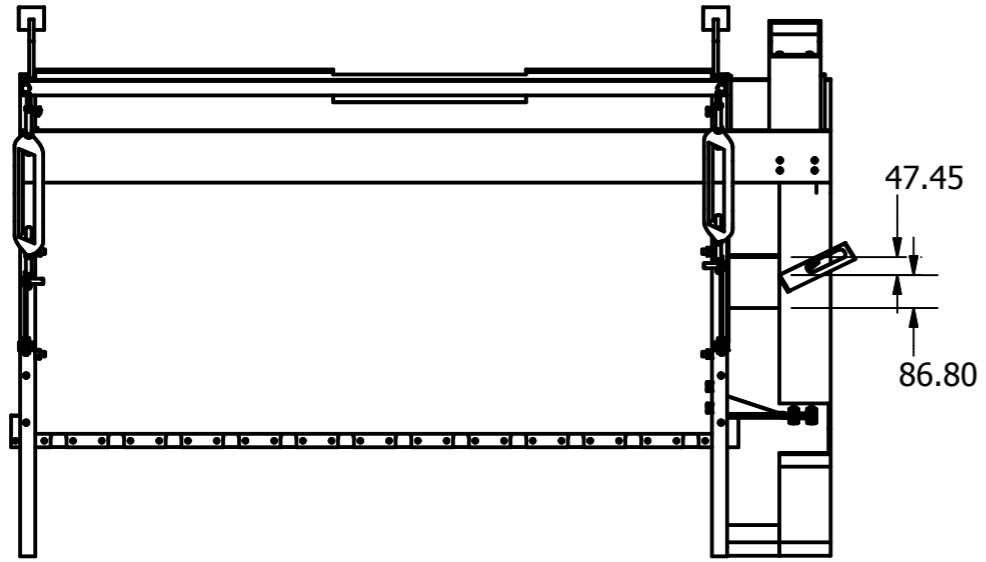
**NOTA:**  
-LOS AROS Y LLANTAS SON  
COMERCIALES Y DE FACIL ACCESO.  
-LOS PERNOS Y TUERCAS UTILIZADOS  
EN EL ARMADO DE LA MAQUINA  
CON DE FACIL ACCESO EN EL MERCADO.

HUECO PARA PERNO  
CON Ø 12MM CON  
UNA PROFUNDIDAD  
DE 30MM

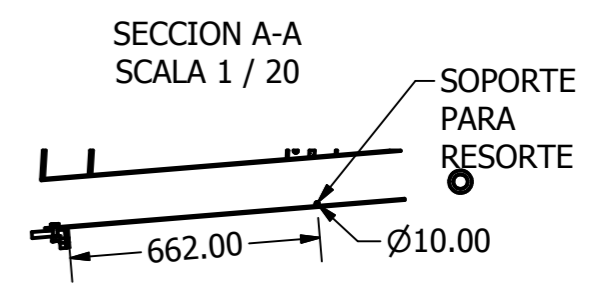
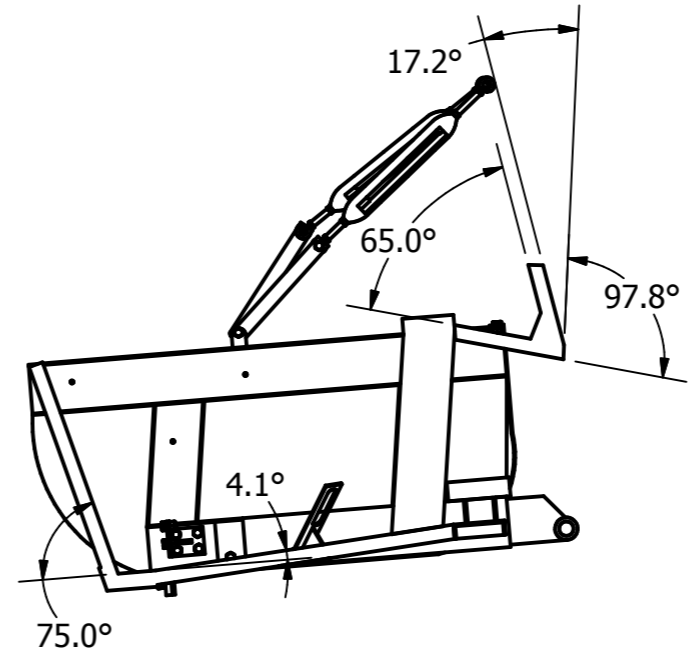
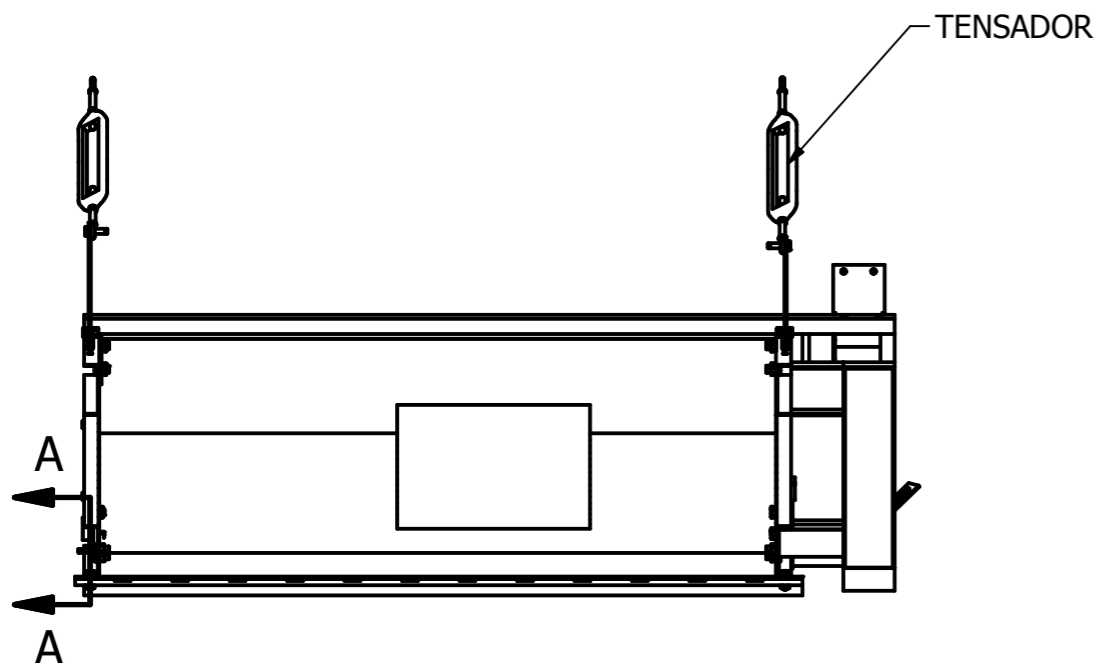
PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	1	Travesaño horizontal principal	ACERO
2	2	Travesaño vertical principal	ACERO
3	2	Travesaño horizontal de conexion	ACERO
4	2	Travesaño vertical secundario	ACERO
5	1	Travesaño horizontal secundario	ACERO
6	2	Soporte tipo ojo	ACERO
7	4	Cuña de sujecion	Generic
8	2	Eje de conexion para la llanta	Generic
9	2	Rodamiento de eje para llanta	Generic
10	2	Conexion llanta y eje	Generic
11	2	Perno sujecion eje	Generic
12	2	Aro 13	Generic
13	2	Llanta	Generic
14	1	Soporte de brazo	Generic
15	1	Cuña para sujecion de brazo	Generic
16	2	AS 1252 - M12 x 30	Steel, Mild
17	10	AS 1252 - M12	Steel, Mild
18	4	Soporte tipo ojo para tensador de maquina	Generic
19	1	Soporte 2 tipo ojo para ajuste de maquina	Generic
20	2	Soporte tipo ojo	Generic
21	1	AS 1252 - M24 x 55	Steel, Mild
22	3	AS 1252 - M24	Steel, Mild
23	1	AS 1252 - M24 x 80	Steel, Mild
24	1	AS 1252 - M24 x 85	Steel, Mild

DRAWN WLJSM/XRCC	03/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC		TITLE <b>ESTRUCTURA PRINCIPAL</b>	
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
MFG ORMAQ		SIZE <b>A3</b>	DWG NO
APPROVED ORMAQ		REV 01	
PLANO N°: 42		SCALE 1:10	SHEET 2 OF 2



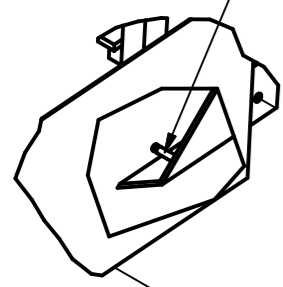


ISOMETRICO  
SCALA 1 / 20

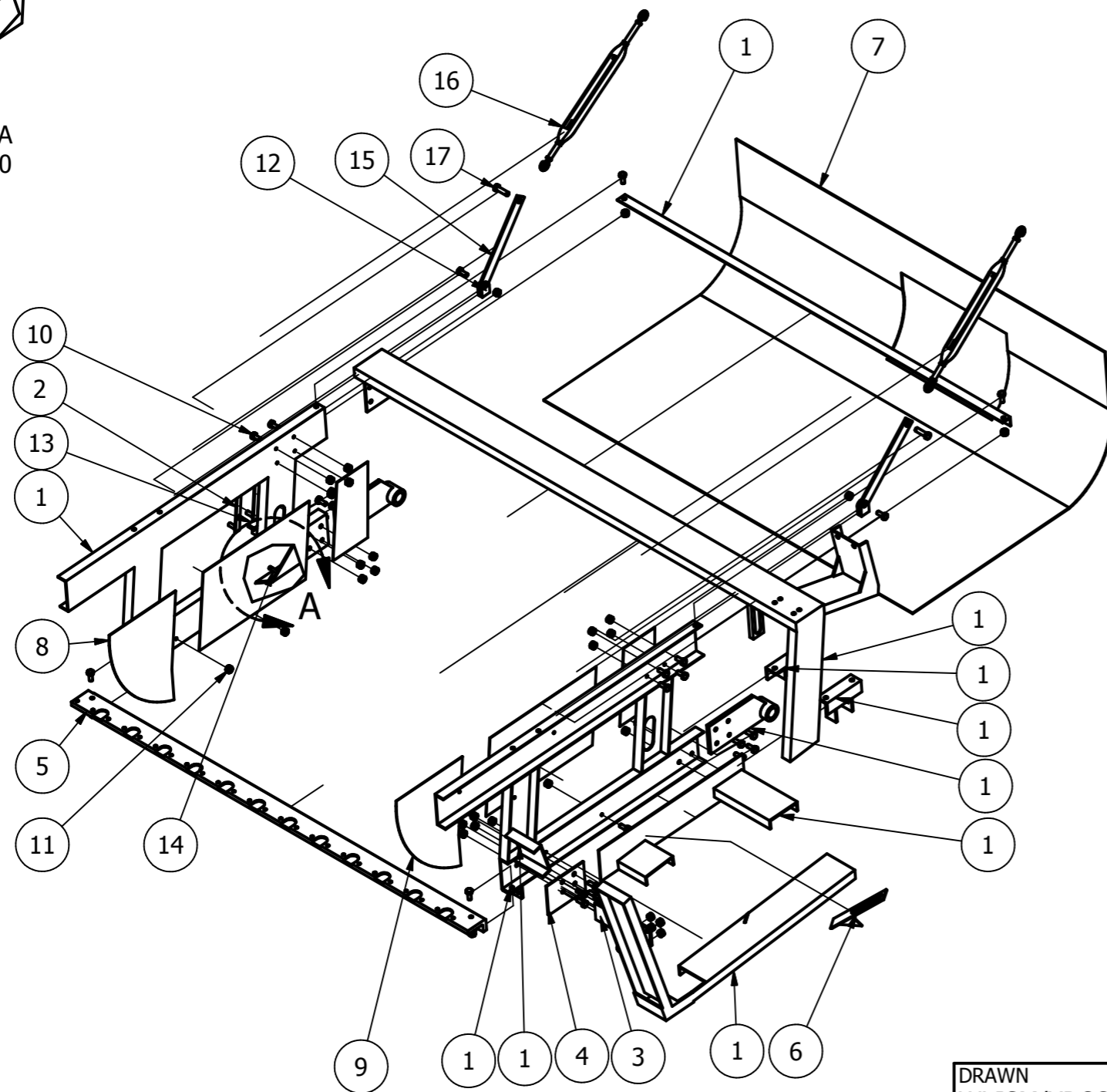


DRAWN WLJSM/XRCC	04/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC		TITLE <b>ESTRUCTURA MAQUINA GENERAL</b>		
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
MFG ORMAQ		SIZE <b>A3</b>	DWG NO ENSAMBLE DE MAQUINA	REV 1
APPROVED ORMAQ		SCALE 1 / 20	SHEET 1 OF 5	
PLANO N°: 43				

SOPORTE DE RESORTE



DETALLE A  
SCALA 1:10

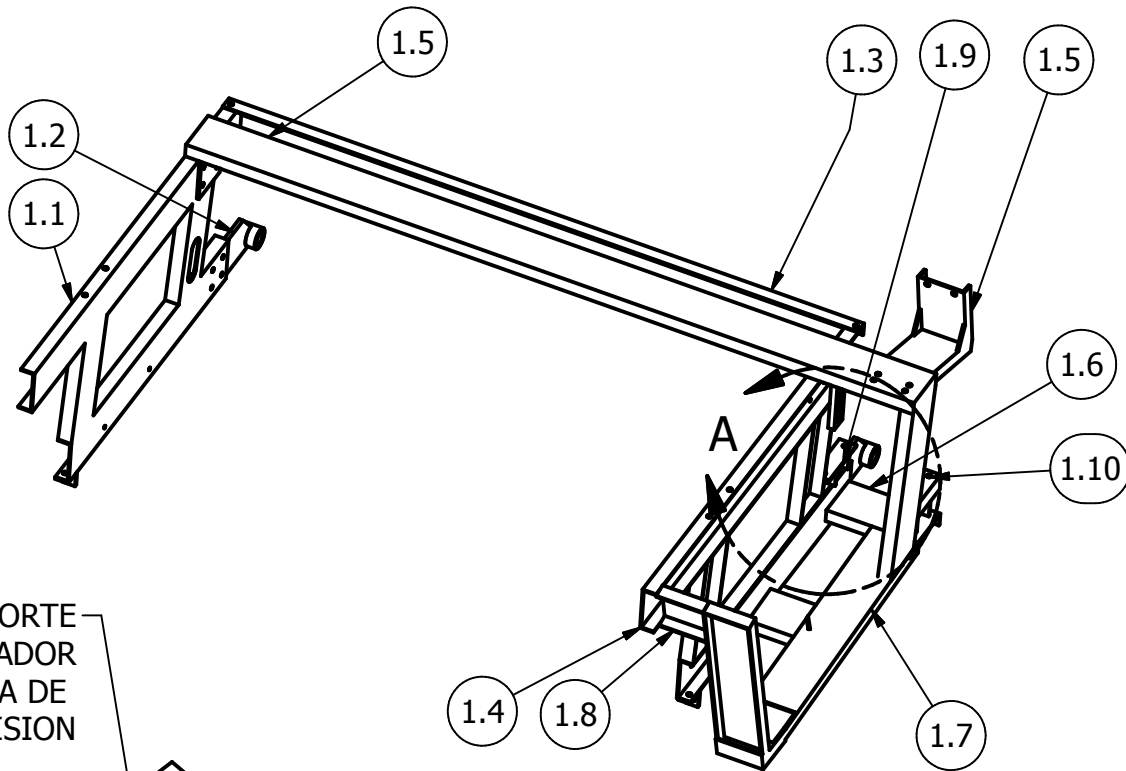


PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	1	Ensamble de estructura principal	
2	2	Soporte para ajuste de eje tornillo sin fin	Generic
3	1	Soporte para polea de sistema cuchillas	Generic
4	1	Placa de ajuste de soporte para polea de cuchilla	Generic
5	1	soporte de eje de cuchillas	Generic
6	1	Soporte para tensador de faja cuchilla	Generic
7	1	Plancha inferior	Generic
8	1	Plancha de tapa derecha	Generic
9	1	plancha de tapa izquierda	Generic
10	34	AS 1252 - M12 x 30	Steel, Mild
11	34	AS 1252 - M12	Steel, Mild
12	4	Soporte tipo ojo para tensador de maquina	Generic
13	1	Soporte de volante cuadrado para eje	Generic
14	1	soporte para resorte	Generic
15	2	Complemento para tensador	Generic
16	2	Tensador	
17	2	Bolt GB 31.1 M14 x 50	Steel, Mild

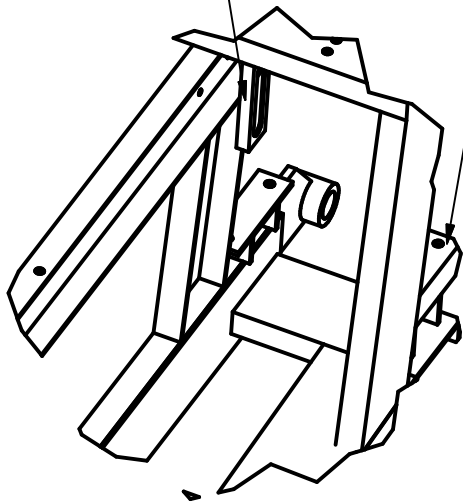
**NOTA:**

EL ITEM 1 APARECE POR QUE ESTA EL ENSAMBLE DE LA ESTRUCTURA DE NUESTRA MAQUINA, EN DONDE SE DESPLAZO TODAS LAS PARTES.

DRAWN WLJSM/XRCC	04/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC		TITLE <b>ESTRUCTURA DE MAQUINA GENERAL</b>	
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
MFG ORMAQ		SIZE <b>A3</b>	DWG NO ENSAMBLE DE MAQUINA
APPROVED ORMAQ			REV 1
PLANO N°: 44		SCALE 1 / 20	SHEET 2 OF 5



SOPORTE  
PARA TENSADOR  
DE FAJA DE  
TRANSMISION

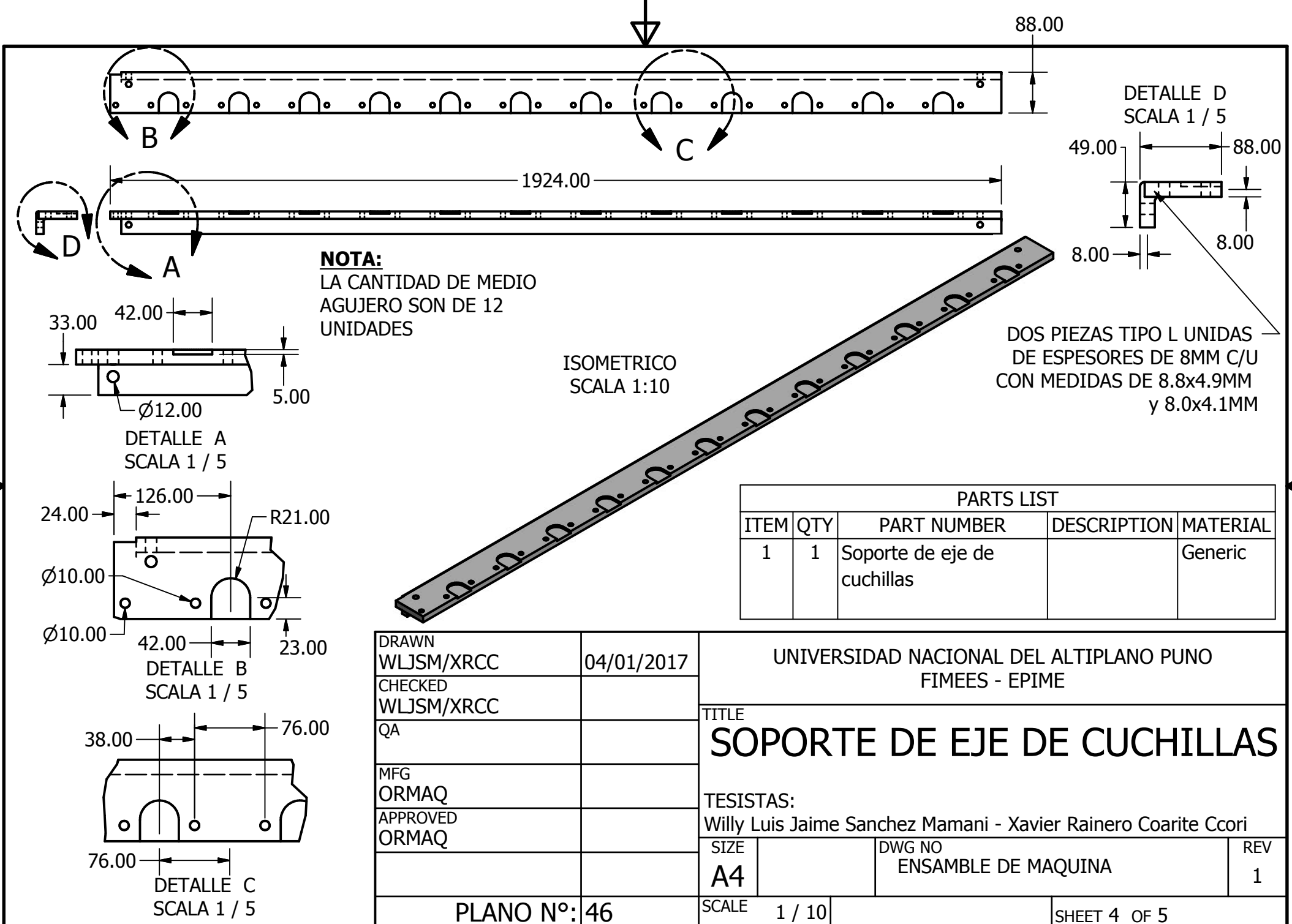


DETALLE A  
SCALA 1 / 10

SOPORTE DE  
COJINETE EJE  
PRINCIPAL

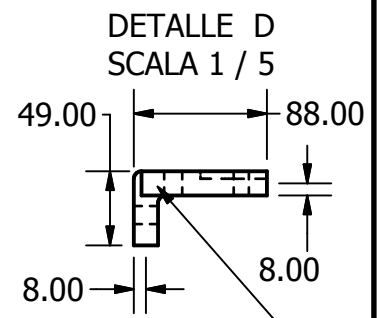
PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1.1	1	Estructura base derecho	Generic
1.2	2	Soporte de conexion maquina y soporte principal	Generic
1.3	1	Travesaño de sujeccion las estructuras	Generic
1.4	1	Estructura base izquierdo	Generic
1.5	1	Travesaño de sujeccion y soporte para la corona	Generic
1.6	1	Soporte de conexion para soporte de cojinetes	Generic
1.7	1	Soporte para tensador de faja cuchilla	Generic
1.8	1	soporte de conexion	Generic
1.9	1	Soporte 1 para cojinete de eje	Generic
1.10	1	Soporte 2 para cojinete de eje	Generic

DRAWN WLJSM/XRCC	04/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC		TITLE <b>ENSAMBLE DE ESTRUCTURA PRINCIPAL</b>	
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
MFG ORMAQ		SIZE <b>A4</b>	DWG NO ENSAMBLE DE MAQUINA
APPROVED ORMAQ			REV 1
PLANO N°: 45		SCALE 1 / 20	SHEET 3 OF 5



**NOTA:**  
 LA CANTIDAD DE MEDIO  
 AGUJERO SON DE 12  
 UNIDADES

ISOMETRICO  
 SCALA 1:10

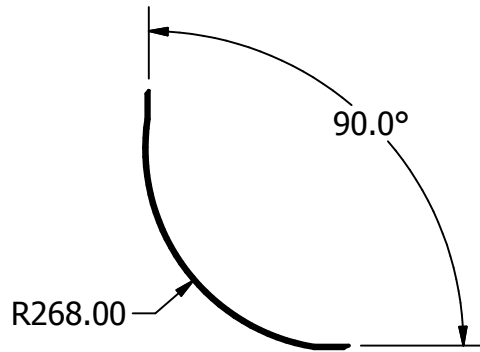
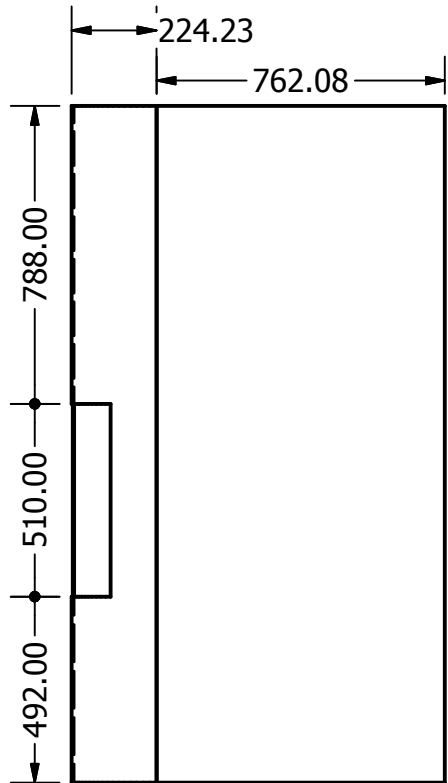
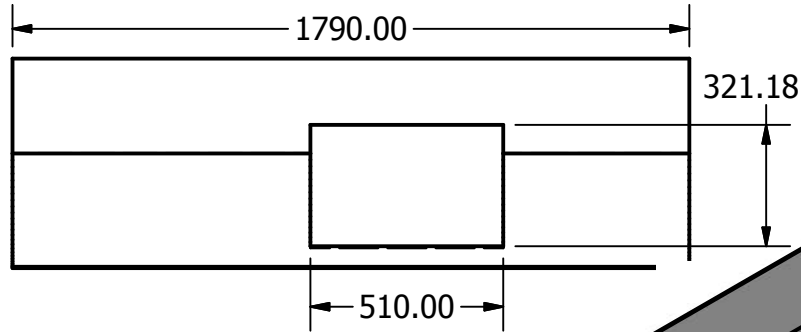
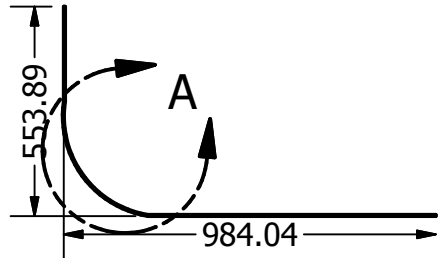


DOS PIEZAS TIPO L UNIDAS  
 DE ESPESORES DE 8MM C/U  
 CON MEDIDAS DE 8.8x4.9MM  
 y 8.0x4.1MM

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Soporte de eje de cuchillas	Generic

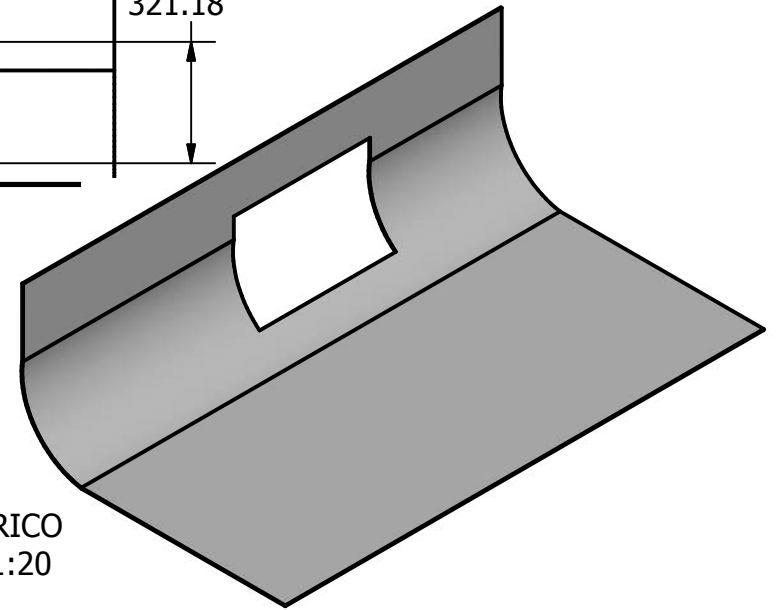
DRAWN WLJSM/XRCC	04/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME
CHECKED WLJSM/XRCC		
QA		TITLE <b>SOPORTE DE EJE DE CUCHILLAS</b>
MFG ORMAQ		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori
APPROVED ORMAQ		SIZE <b>A4</b>
		DWG NO ENSAMBLE DE MAQUINA
		REV 1
PLANO N°: 46		SCALE 1 / 10
		SHEET 4 OF 5

**NOTA:**  
LA MEDIDA DEL  
ESPESOR ES DE 2.9MM



DETALLE A  
SCALA 1 / 10

ISOMETRICO  
SCALA 1:20

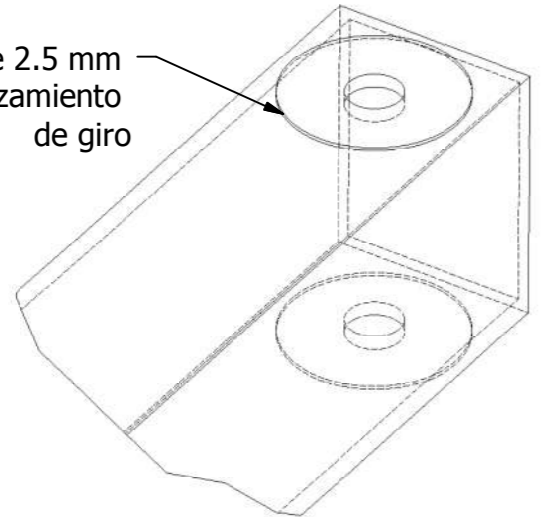


PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	Plancha inferior		Generic

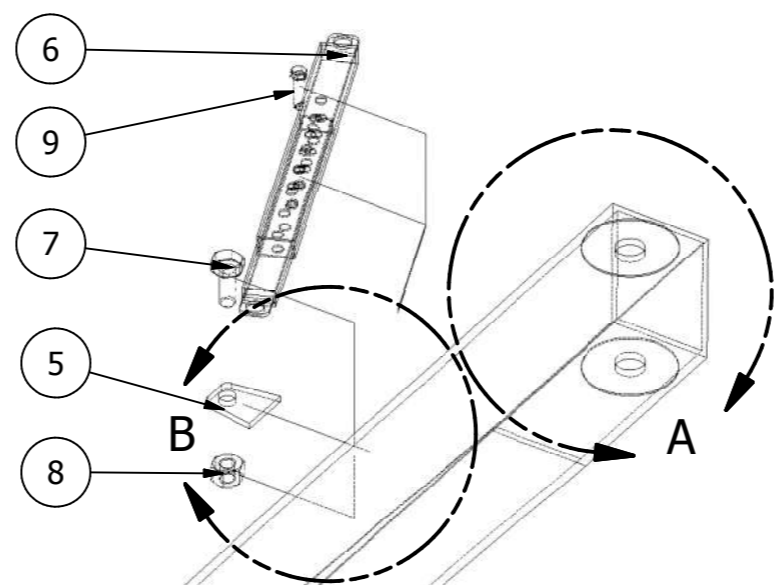
DRAWN WLJSM/XRCC	04/01/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 47	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>PLANCHA INFERIOR</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori			
SIZE <b>A4</b>	DWG NO ENSAMBLE DE MAQUINA	REV 1	
SCALE 1:20	SHEET 5 OF 5		

Elevación de 2.5 mm  
para rozamiento  
de giro

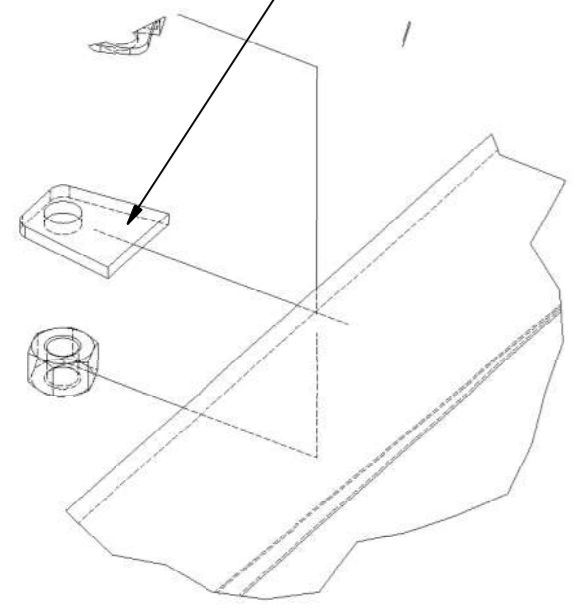


DETALLE A  
SCALA 1 / 5

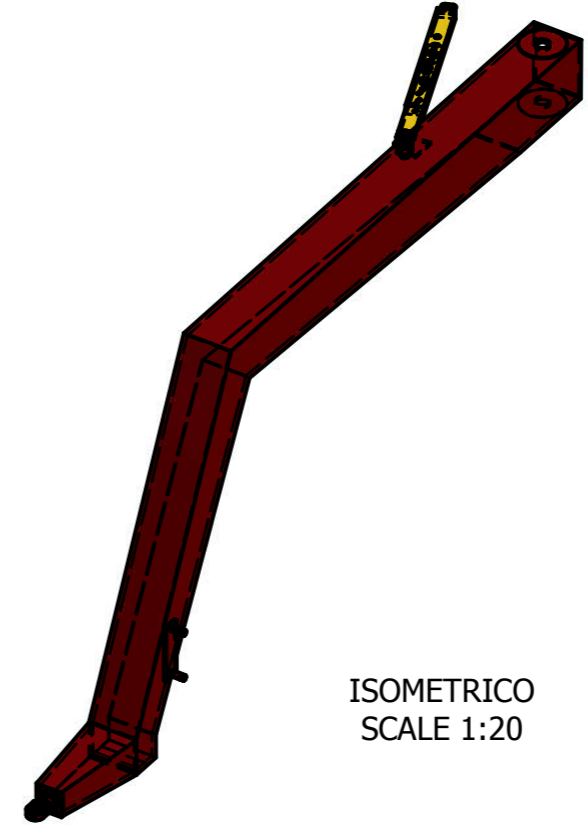
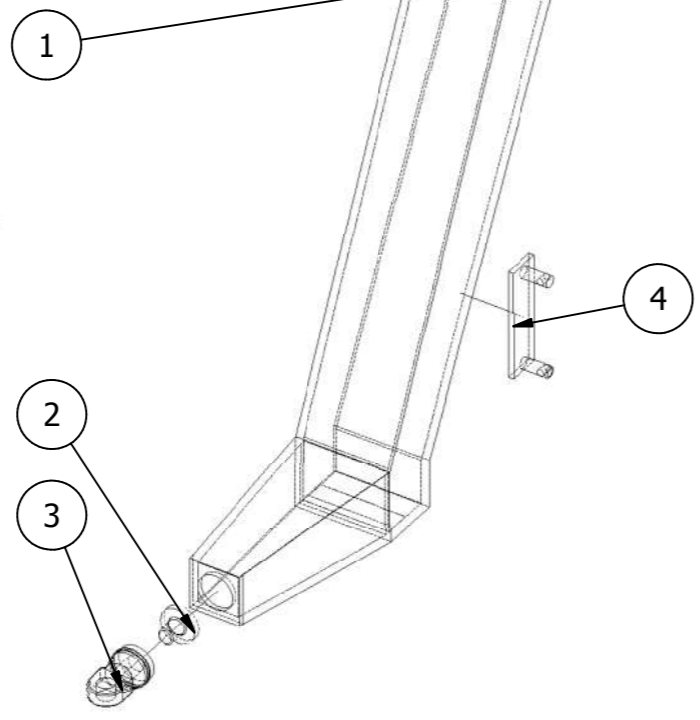


PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	1	Brazo	Generic
2	1	Perno sujecion para brazo de tractor	Generic
3	1	Sujecion para tractor	Generic
4	1	Soporte para cojinete autoalinante	Generic
5	1	soporte 1 tipo ojo para ajuste de máquina	Generic
6	1	Ajuste de máquina para trabajo y transporte	
7	1	AS 1252 - M24 x 55	Steel, Mild
8	1	AS 1252 - M24	Steel, Mild
9	1	Bolt GB 31.1 M14 x 50	Steel, Mild

SOPORTE TIPO OJO  
REVISAR EL PLANO 6

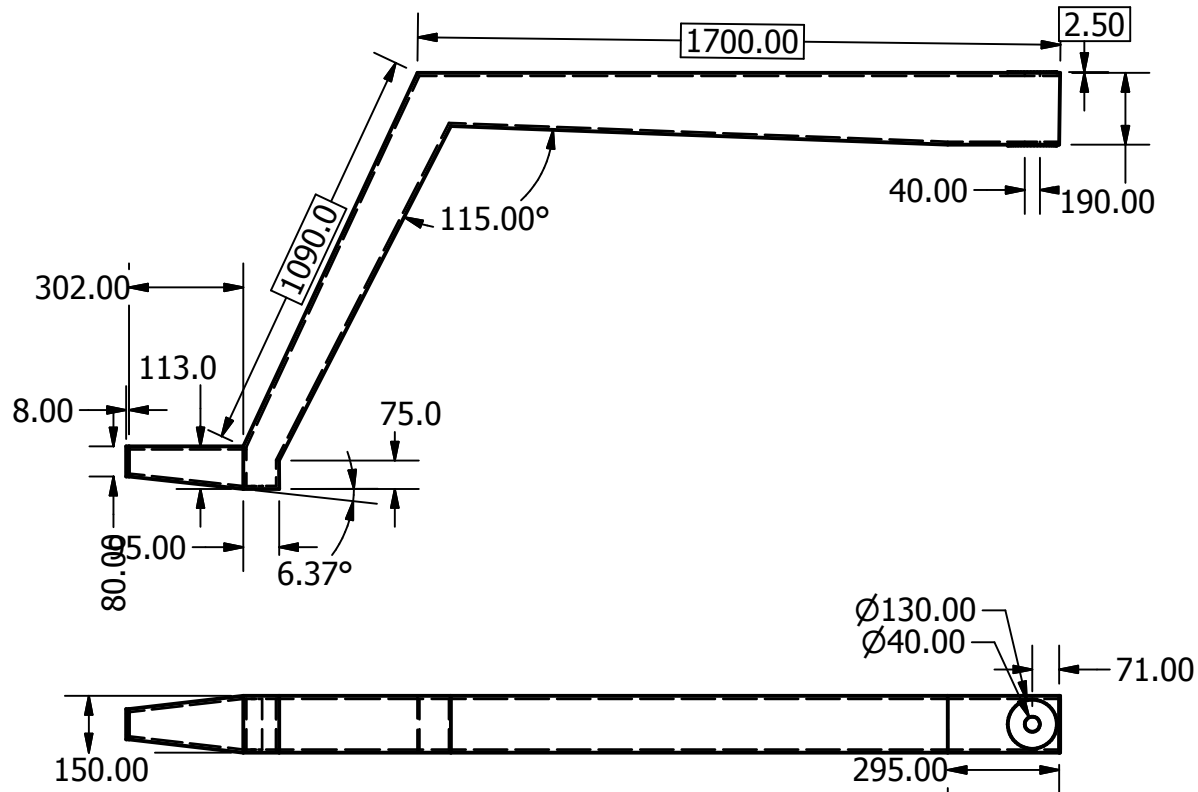
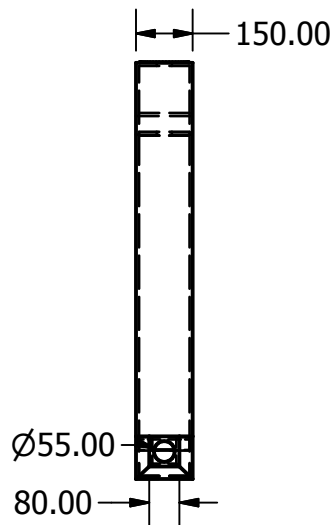


DETALLE B  
SCALA 1 / 5



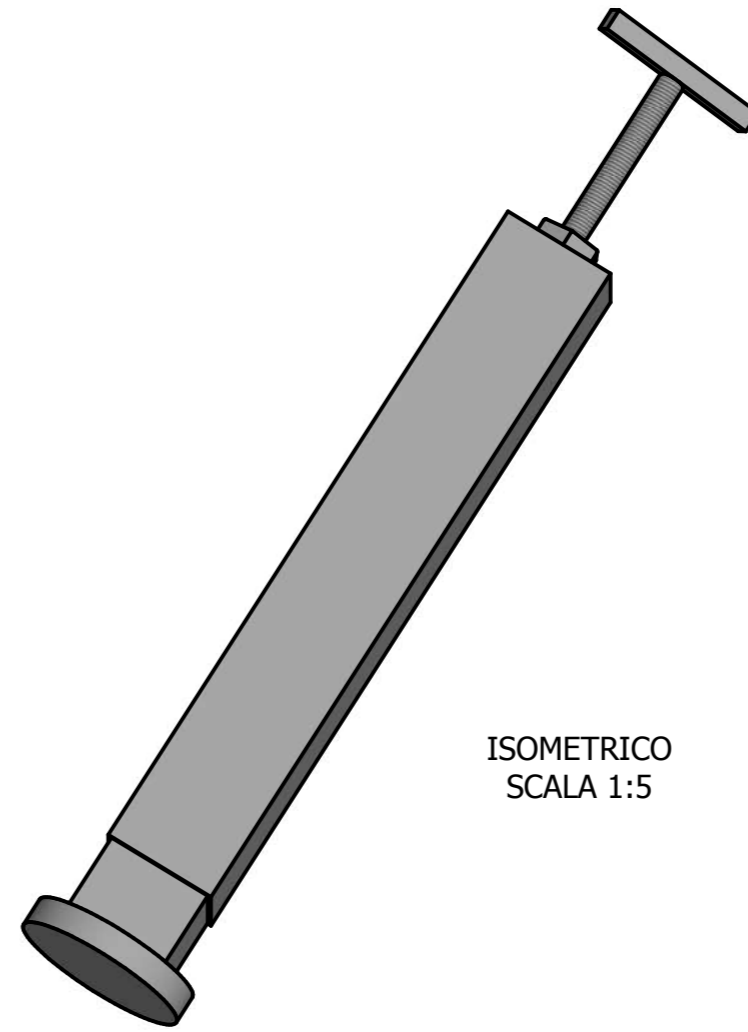
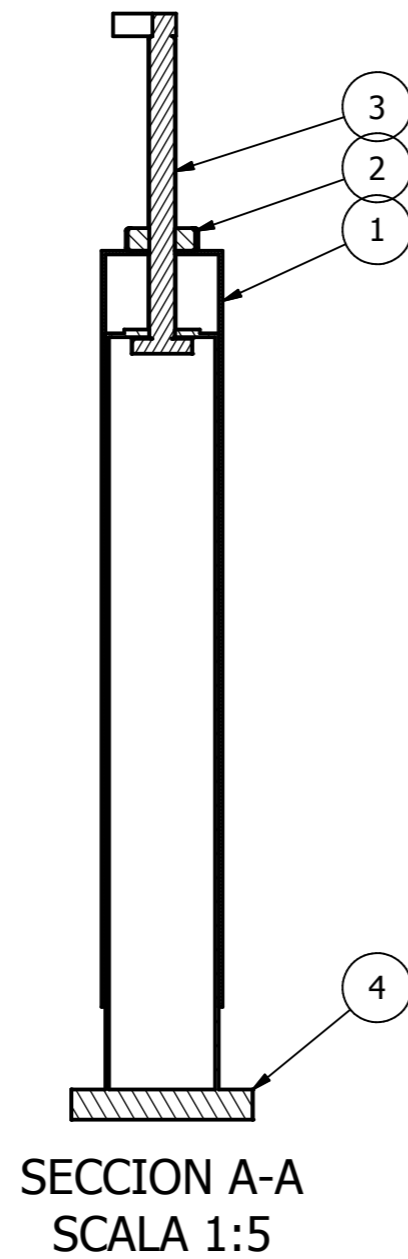
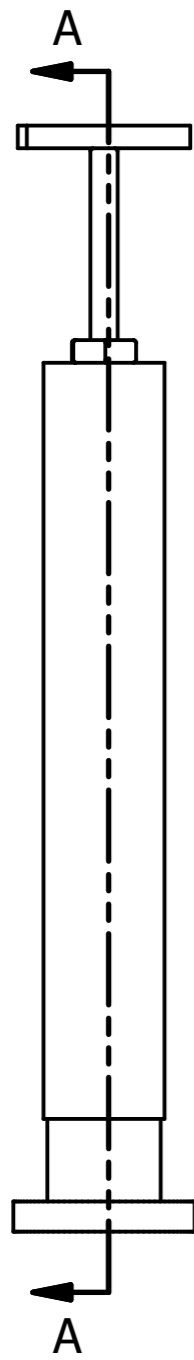
ISOMETRICO  
SCALE 1:20

DRAWN WLJSM/XRCC	03/01/2017	UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC		TITLE <b>BRAZO DE SOPORTE</b>	
QA		TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
MFG ORMAQ		SIZE <b>A3</b>	DWG NO <b>BRAZO DE SOPORTE</b>
APPROVED ORMAQ		SCALE 1 / 10	REV 01
PLANO N°: 48		SHEET 1 OF 2	



PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	1	brazo	Generic

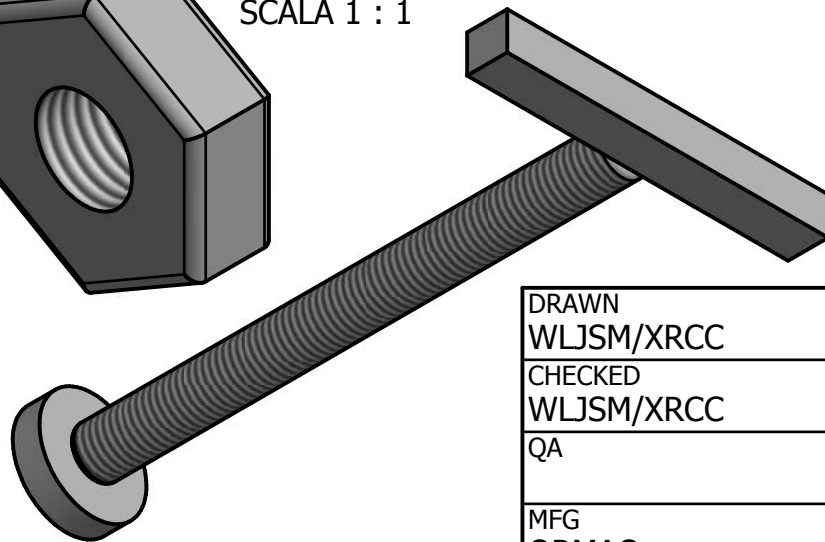
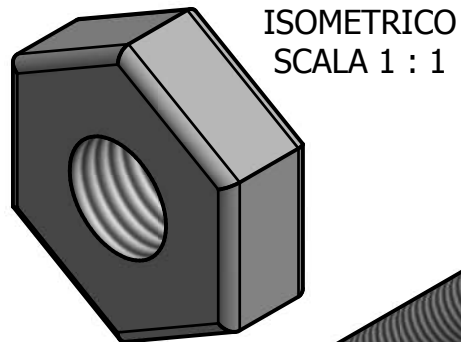
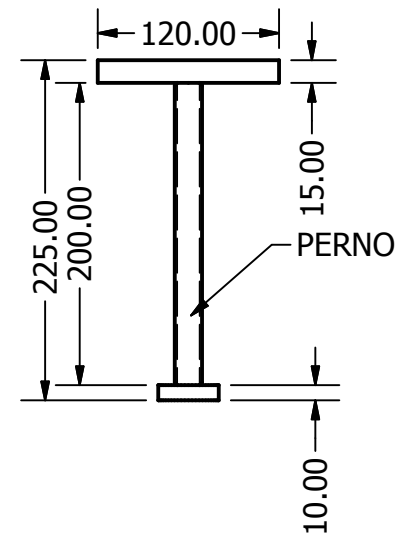
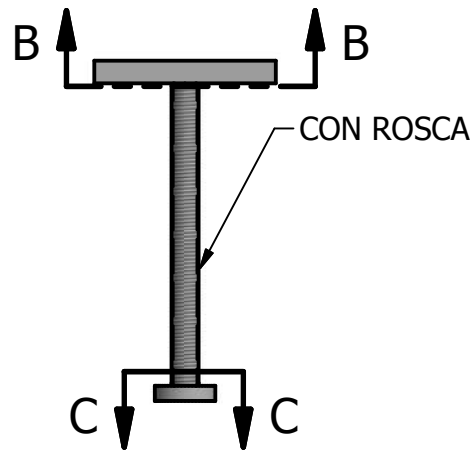
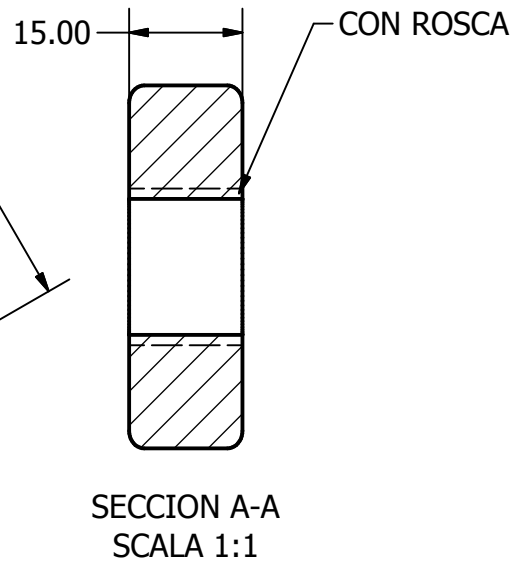
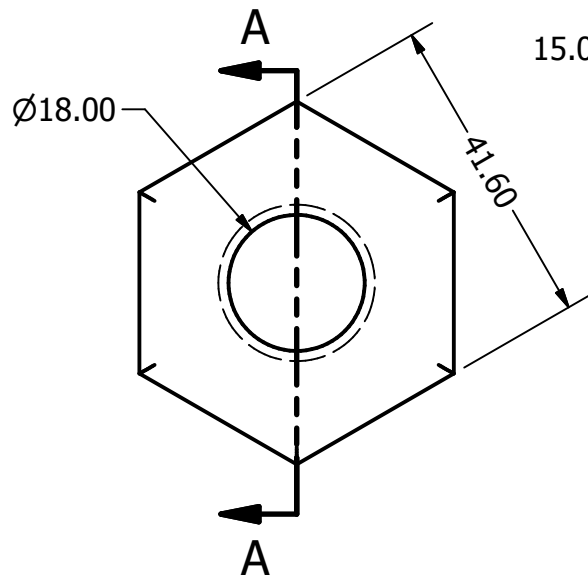
DRAWN WLJSM/XRCC		03/01/2017		UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME	
CHECKED WLJSM/XRCC					
QA				TITLE <b>BRAZO</b>	
MFG ORMAQ				TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori	
APPROVED ORMAQ				SIZE <b>A4</b>	DWG NO <b>BRAZO DE SOPORTE</b>
				SCALE 1:20	REV 01
PLANO N°: 49				SHEET 2 OF 2	



PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Base principal	Generic
2	1		Tuerca de ajuste	Generic
3	1		Perno y manivela para levante	Generic
4	1		Base secundario	Generic

DRAWN WLJSM/XRCC		02/02/2017		UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME		
CHECKED WLJSM/XRCC						
QA				TITLE <b>SOPORTE PARA BRAZO</b>		
MFG ORMAQ				TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Ccori		
APPROVED ORMAQ				SIZE <b>A3</b>	DWG NO <b>SOPORTE DE BRAZO</b>	REV 01
PLANO N°: 50		SCALE 1:5		SHEET 1 OF 2		





PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1		Perno y manivela para levante	Generic
2	1		Tuerca de sujecion	

DRAWN WLJSM/XRCC	02/02/2017
CHECKED WLJSM/XRCC	
QA	
MFG ORMAQ	
APPROVED ORMAQ	
PLANO N°: 51	

UNIVERSIDAD NACIONAL DEL ALTIPLANO PUNO FIMEES - EPIME			
TITLE <b>TUERCA - PERNO Y MANIVELA PARA LEVANTE</b>			
TESISTAS: Willy Luis Jaime Sanchez Mamani - Xavier Rainero Coarite Cori			
SIZE <b>A4</b>	DWG NO	REV 01	
SCALE 1:1		SHEET 2 OF 2	
<b>SOPORTE DE BRAZO</b>			