

Memo

Name: **Buti Khanye** Reference: X4091152-115
Rev: 00

Title / Designation: **Snr Works Engineer**
Turbo Gen Services
Works Engineering Department

To: Makoma Raphephela

Copy to: _____

Date: 10 / 12 / 2025

Subject: Couplings - Jig Plates

- ERI Engineering Development (ED) to Design and make a manufacturing drawings for Couplings Jig Plates for different power stations as per requirements for each fleet.
 - ED to supply manufacturing drawing for these Jig Plates.
 - Hold Point for Works Engineering to assess drawings from ED.
1. Subcontractor to supply material and manufacture the jig plate assemblies as per specification on the drawings, and the list of all the jig plates required.
 2. Manufacturing drawings will be supplied to a subcontractor (current available drawings are attached, other drawing will follow as they become available).
 3. Subcontractor to also supply all items as per assembly drawings.

NOTE: Jig plates manufacturing drawings are in a process of being developed for some jig plates, but these is drawings that are currently complete and can be used for manufacturing for other jig plate assemblies (see attached).

Kendal Power Station – Gen/Exciter Jig Plate Assembly

Jig plate need to be manufactured with its accessories as tabled below (also see attached relevant drawings):
 Therefore we need to manufacture eight (8) items as shown below (13.64_200, 13.64_201, 13.64_202, 13.64_218) and (13.64_204, 13.64_205, 13.64_206, 13.64_207).
 Quotation needs to also include **Bought Out Item** as tabulated on the drawings attached.

DRAWING NUMBER	DESCRIPTION
13.64_216	Gen-Exciter Coupling with Sleeve MAIN ASSEMBLY

13.64_217	Gen-Exciter Jig Plate ASSEMBLY
13.64_218	Gen-Exciter Jig Plate PART
13.64_202	Coupling Bush PART
13.64_201	Jacking Bracket PART
13.64_200	Spigot Ring PART

13.64_203	Gen-Exciter Expanding Coupling Collar ASSEMBLY
13.64_204	Expanding Collar PART
13.64_205	Expanding Drive PART
13.64_206	Expanding Shoe PART
13.64_207	Nylon Support Bush PART

Bought Out Items:

- Socket Head Cap Screw M12 x 60 (ISO 4762) (Class 8.8)
- Socket Head Cap Screw M16 x 120 (ISO 4762) (Class 8.8)
- Socket Head Cap Screw M10 x 30 (ISO 4762) (Class 8.8)
- Garter Spring DIN 17224 (Di 24 & Du 3.5)
- Dia16 External Circlip (DIN. 471)

Arnot – LP/Gen Jig Plate MAIN ASSEMBLY

Jig plate need to be manufactured with its accessories as tabled below (also see attached relevant drawings):
 Therefore we need to manufacture items as shown below (13.41_1790, 13.41_1791, 13.41_1792, 13.41_1793) and (13.641_1788, 13.41_1794, 13.41_1796, 13.41_1795).

Quotation needs to also include **Bought Out Item** as tabulated on the drawings attached.

DRAWING NUMBER	DESCRIPTION
13.41_1786	Arnot – LP/Gen Jig Plate MAIN ASSEMBLY

13.41_1789	Arnot - LP/Gen Expanding Coupling Collar ASSEMBLY
13.41_1790	Expanding Collar PART
13.41_1791	Expanding Drive Screw PART
13.41_1792	Expanding Shoe PART
13.41_1793	Nylon Support Bush

13.41_1787	LP/Gen Jig Plate ASSEMBLY
13.41_1788	LP/Gen Jig Plate PART
13.41_1794	LP/Gen Jacking Block PART
13.41_1796	LP/Gen Spigot Ring PART
13.41_1795	LP/Gen Jig Bush PART

Bought Out Items:

- Socket Head Cap Screw M16 x 80 (ISO 4762) (Class 8.8)
- Socket Head Cap Screw M10 x 30 (ISO 4762) (Class 8.8)
- Socket Head Cap Screw M10 x 30 (ISO 4762) (Class 8.8)
- Garter Spring DIN 17224 (Di 26 & Du 3.5)

- Dia. 22 External Circlip (DIN. 471)

Arnot – IP/LP Jig Plate MAIN ASSEMBLY

Please note that a jig plate need to be manufactured with its accessories as tabled below (also see attached relevant drawings):

Therefore we need to manufacture items as shown below (13.41_1790, 13.41_1791, 13.41_1792, 13.41_1793) and (13.641_1787, 13.41_1788, 13.41_1794, 13.41_1795).

Quotation needs to also include **Bought Out Item** as tabulated on the drawings attached.

DRAWING NUMBER	DESCRIPTION
13.41_1786	Arnot – IP/LP Jig Plate MAIN ASSEMBLY

13.41_1789	Arnot - LP/Gen Expanding Coupling Collar ASSEMBLY
13.41_1790	Expanding Collar PART
13.41_1791	Expanding Drive Screw PART
13.41_1792	Expanding Shoe PART
13.41_1793	Nylon Support Bush

13.41_1787	Arnot – IP/LP Jig Plate Assembly
13.41_1788	Jig Plate PART
13.41_1794	Jacking Block
13.41_1795	Jig Bush

Arnot HP/IP Jig MAIN ASSEMBLY

Please note that a jig plate need to be manufactured with its accessories as tabled below (also see attached relevant drawings):

Therefore we need to manufacture items as shown below (13.41_1799, 13.41_1800, 13.41_1794, 13.41_1795) and (13.41_1802, 13.41_1803, 13.41_1804, 13.41_1805).

Quotation needs to also include **Bought Out Item** as tabulated on the drawings attached.

DRAWING NUMBER	DESCRIPTION
13.41_1797	Arnot HP/IP Jig MAIN ASSEMBLY

13.41_1798	Arnot HP/IP Jig Plate Assembly
13.41_1799	HP/IP Jig Plate
13.41_1800	Spigot Ring
13.41_1794	Jacking Block
13.41_1795	Jig Bush

13.41_1801	Arnot HP/IP Expanding Coupling Collar Assembly
13.41_1802	Expanding Collar
13.41_1803	Expanding Drive
13.41_1804	Expanding Shoe
13.41_1805	Nylon Support Bush

Bought Out Items:

- Socket Head Cap Screw M16 x 100 (ISO 4762) (Class 8.8)
- Socket Head Cap Screw M10 x 30 (ISO 4762) (Class 8.8)
- Socket Head Cap Screw M12 x 60 (ISO 4762) (Class 8.8)
- Garter Spring DIN 17224 (Di 24 & Du 3.5)
- Dia. 16 External Circlip (DIN. 471)

Compiled by:



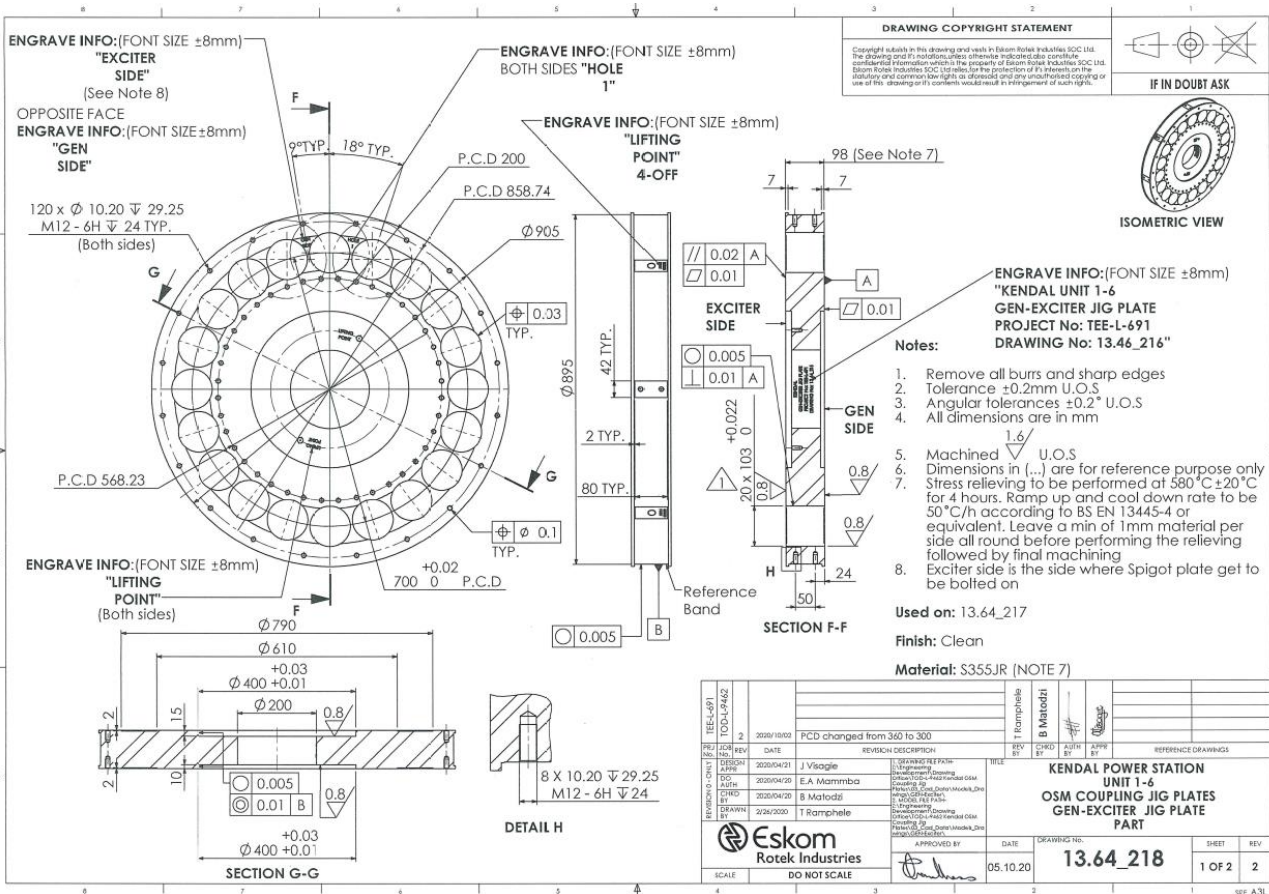
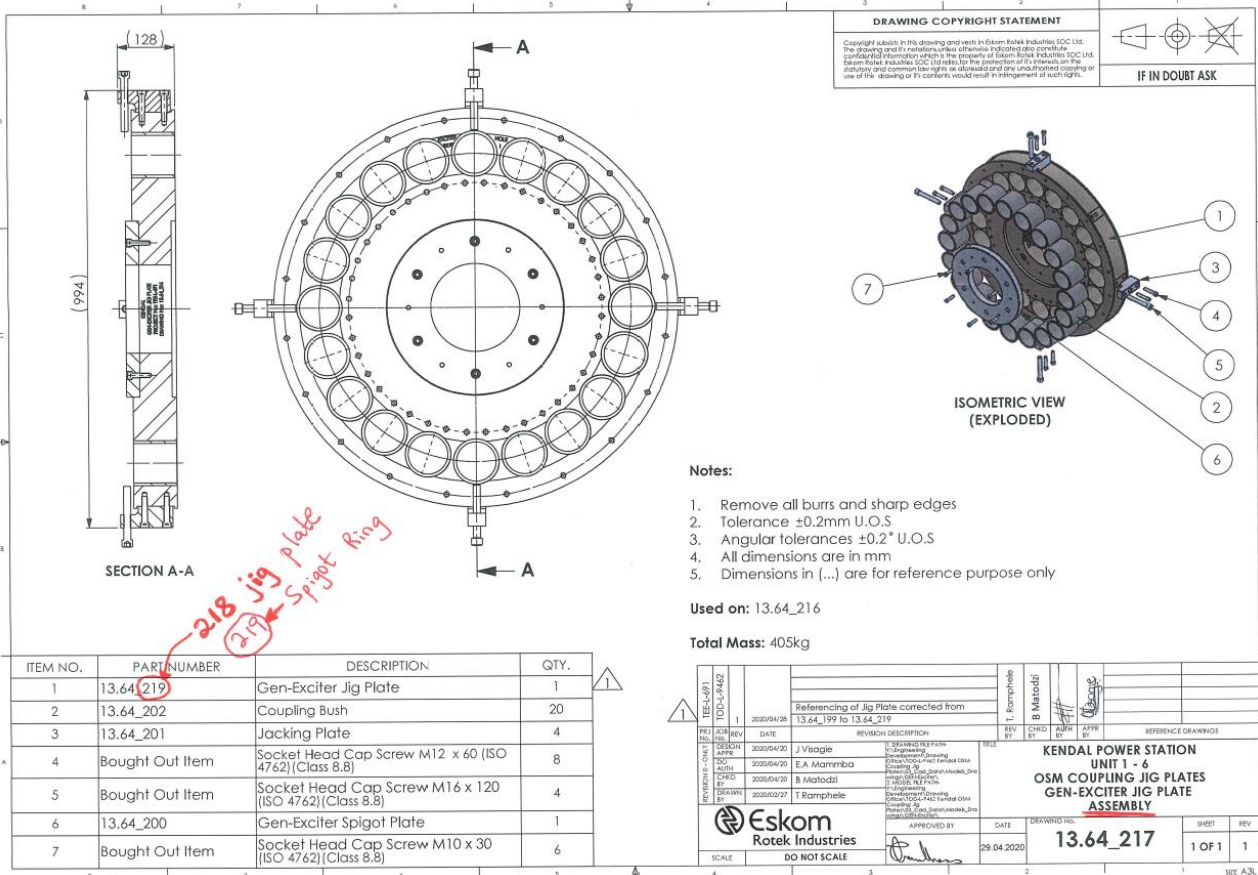
Snr Works Engineer – ERI

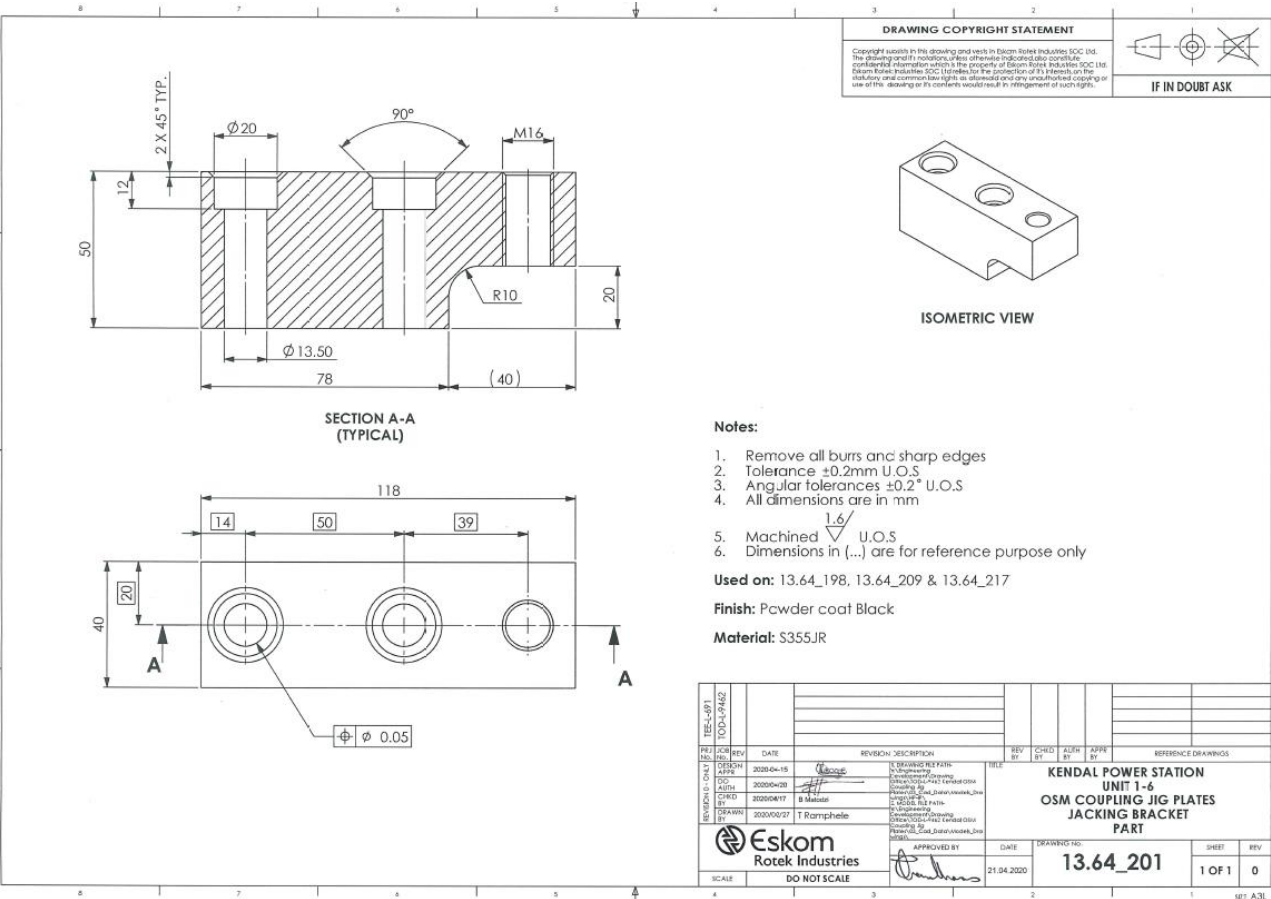
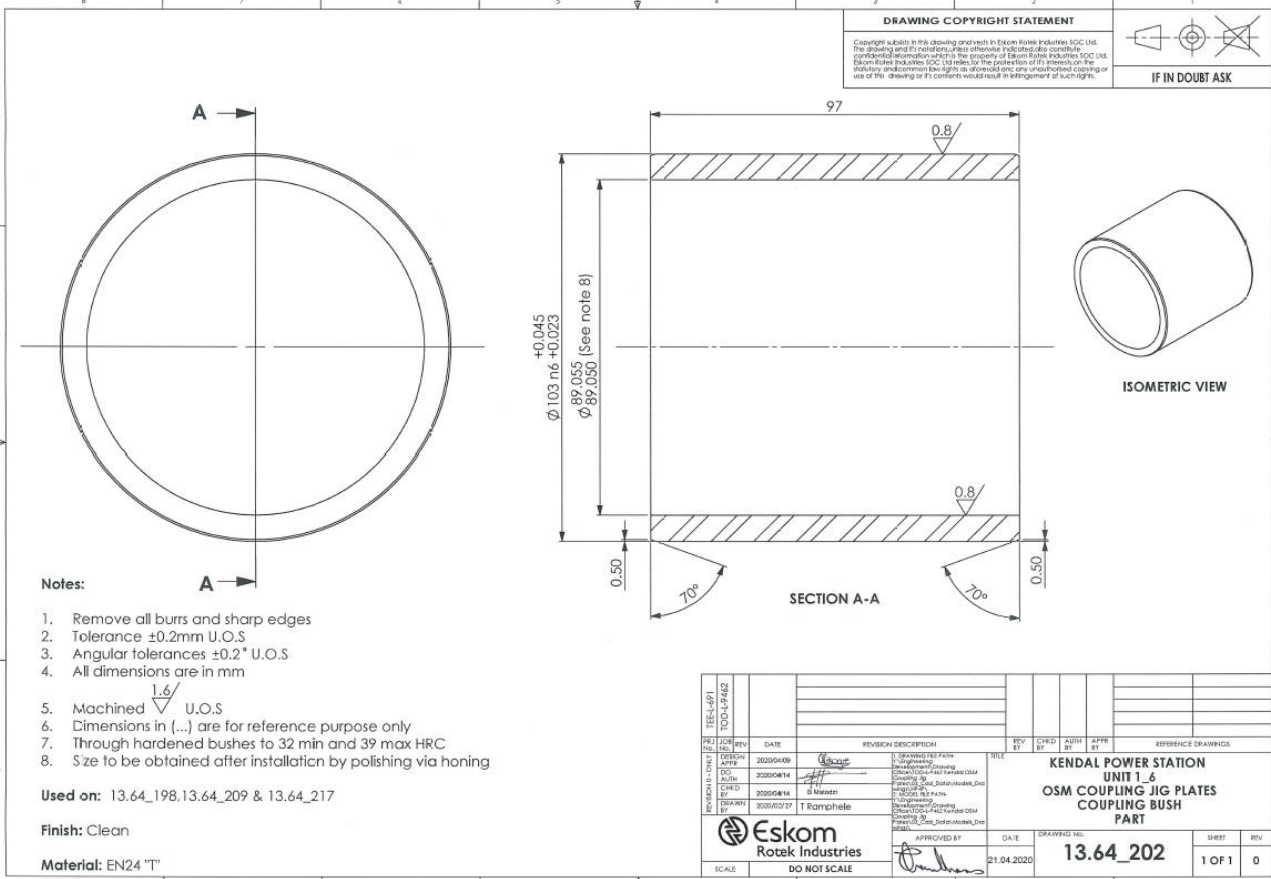
Buti Khanye

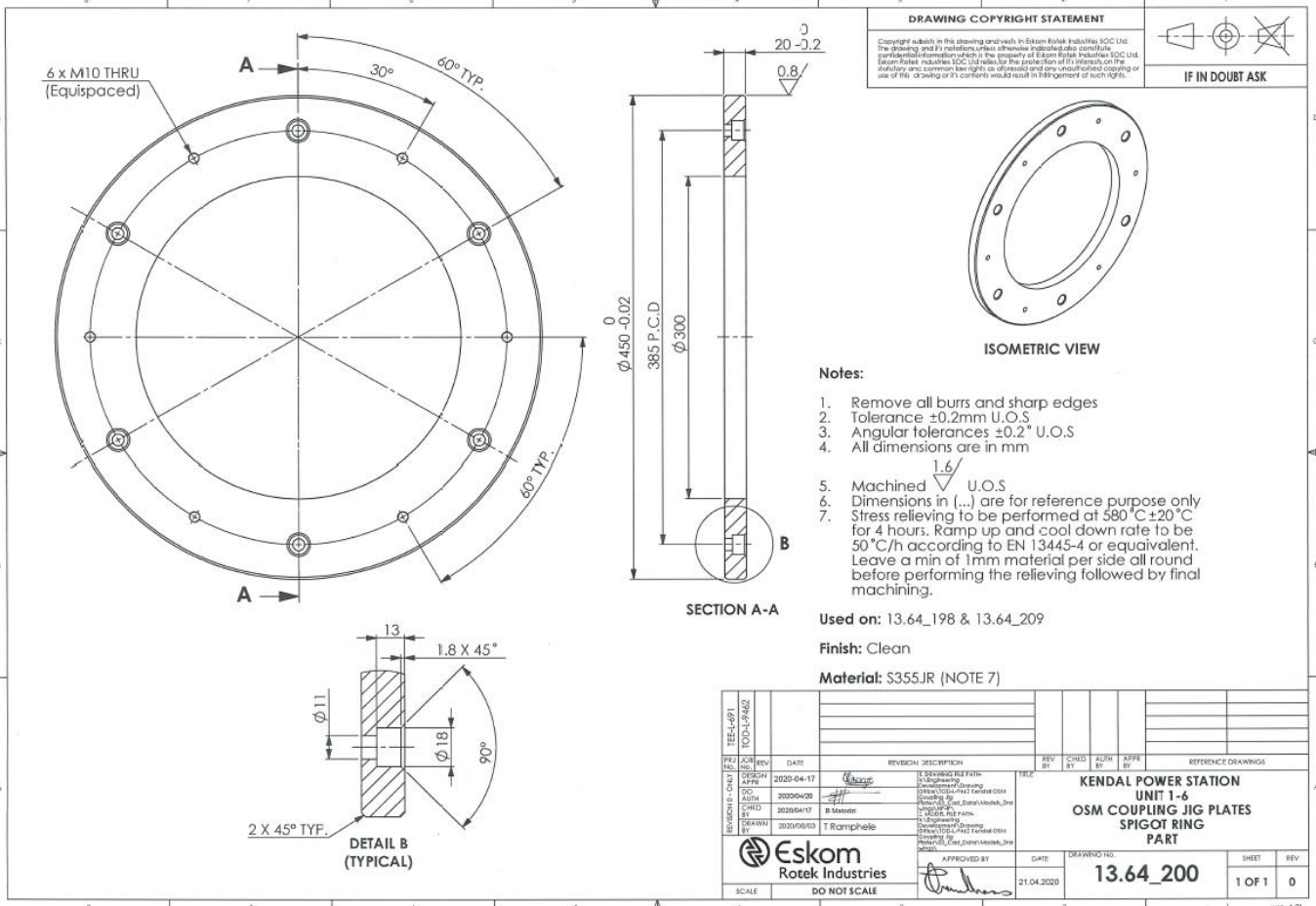
List of jig plates required are as per below slide ('Additional Requirements Column' is showing quantity of jig plates required)

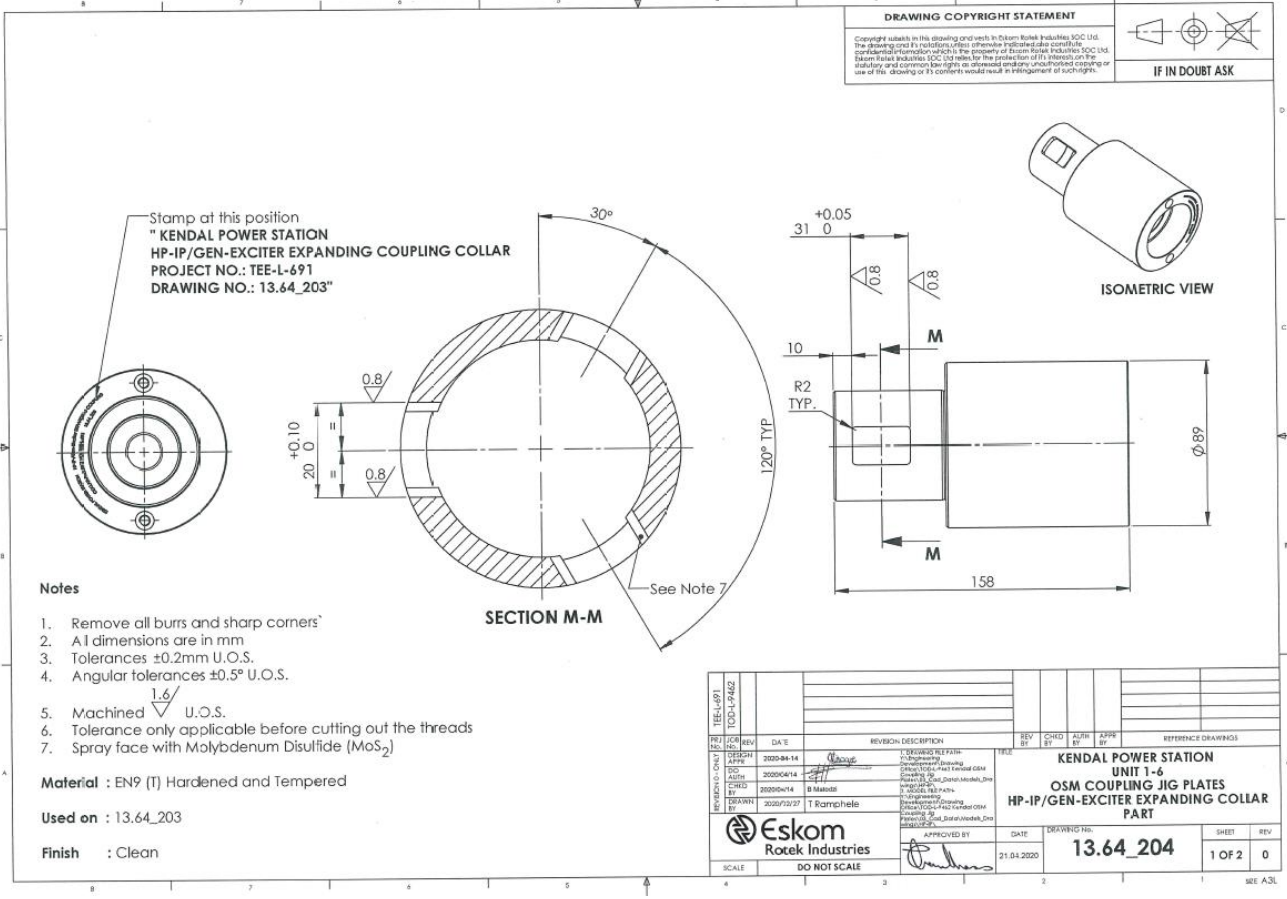
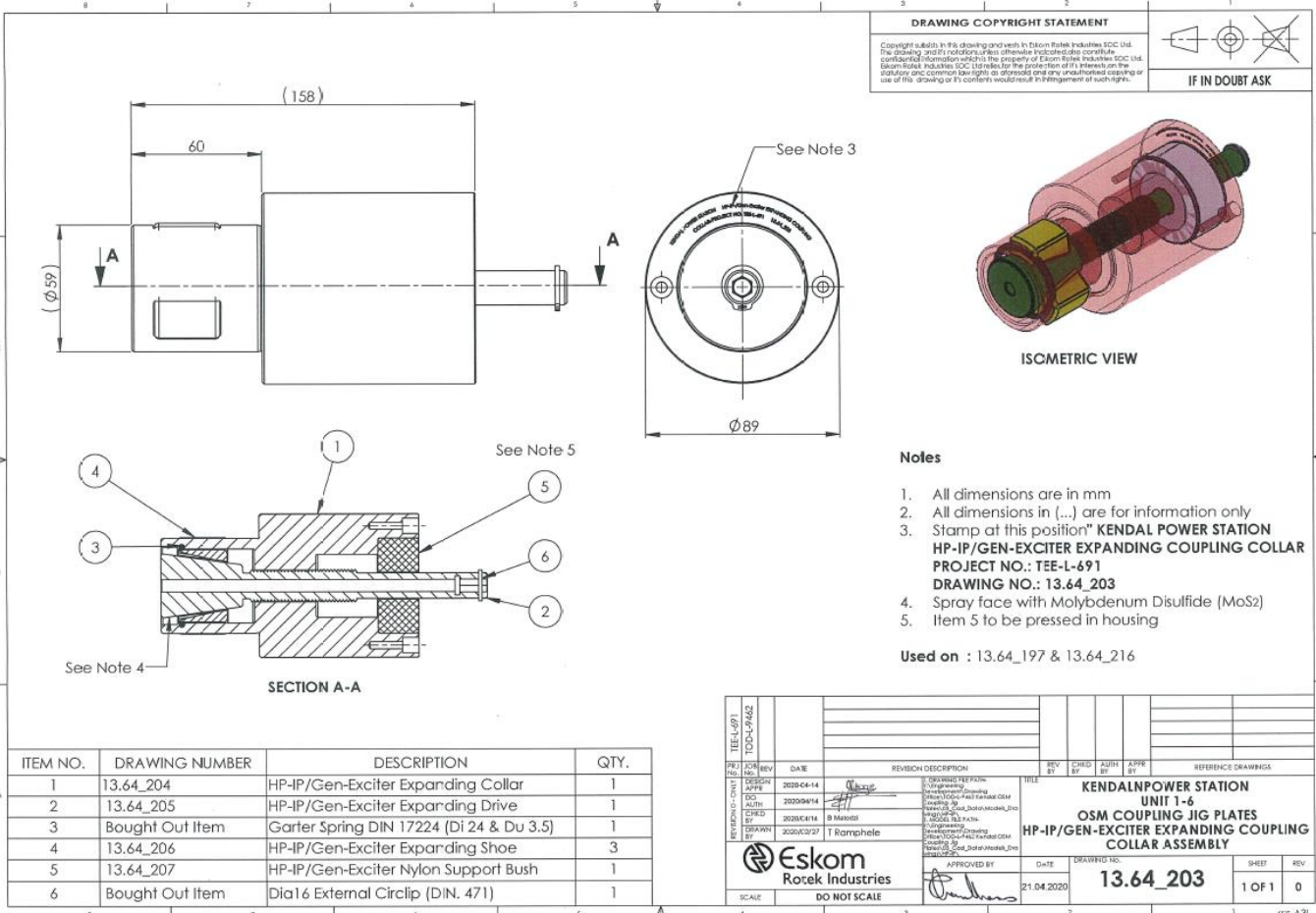
JIG PLATE OVERVIEW

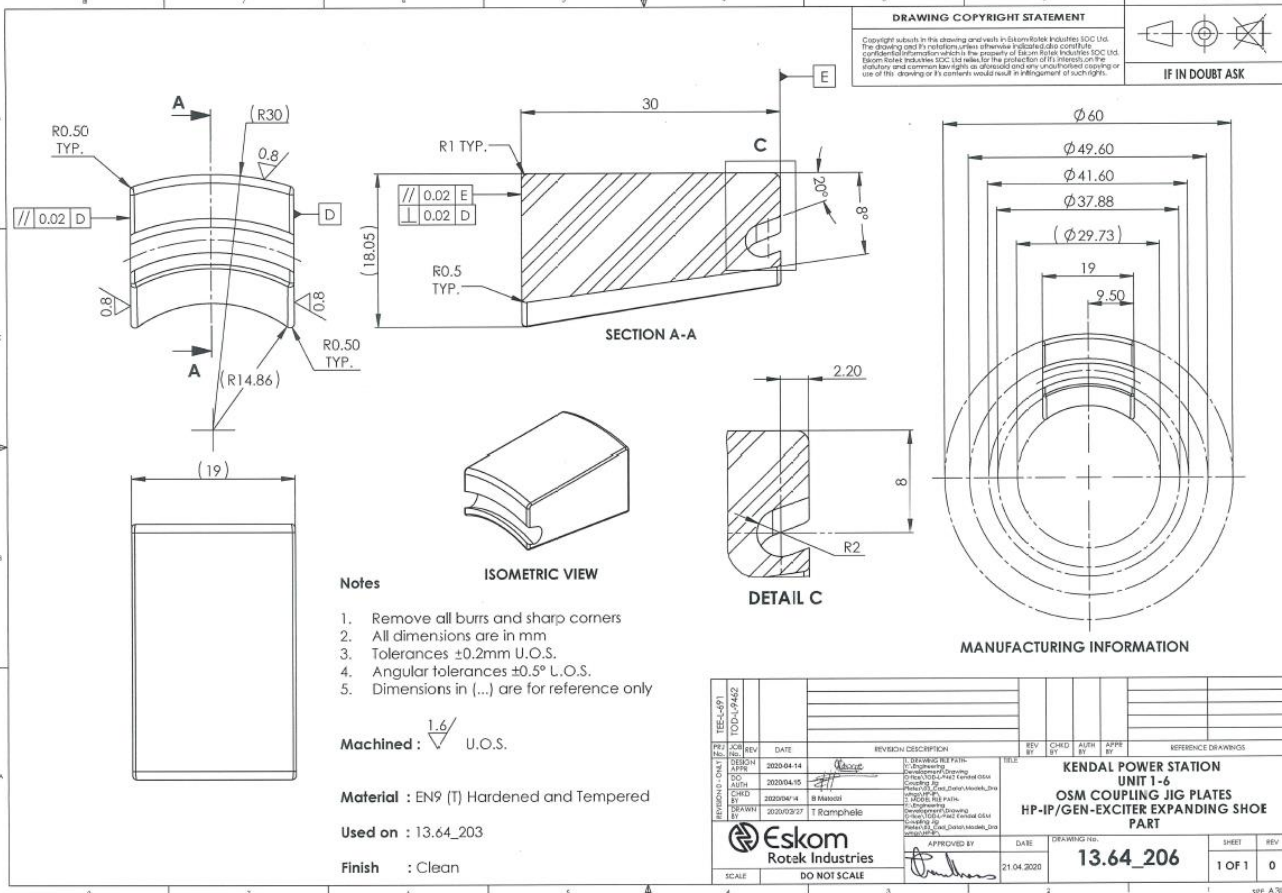
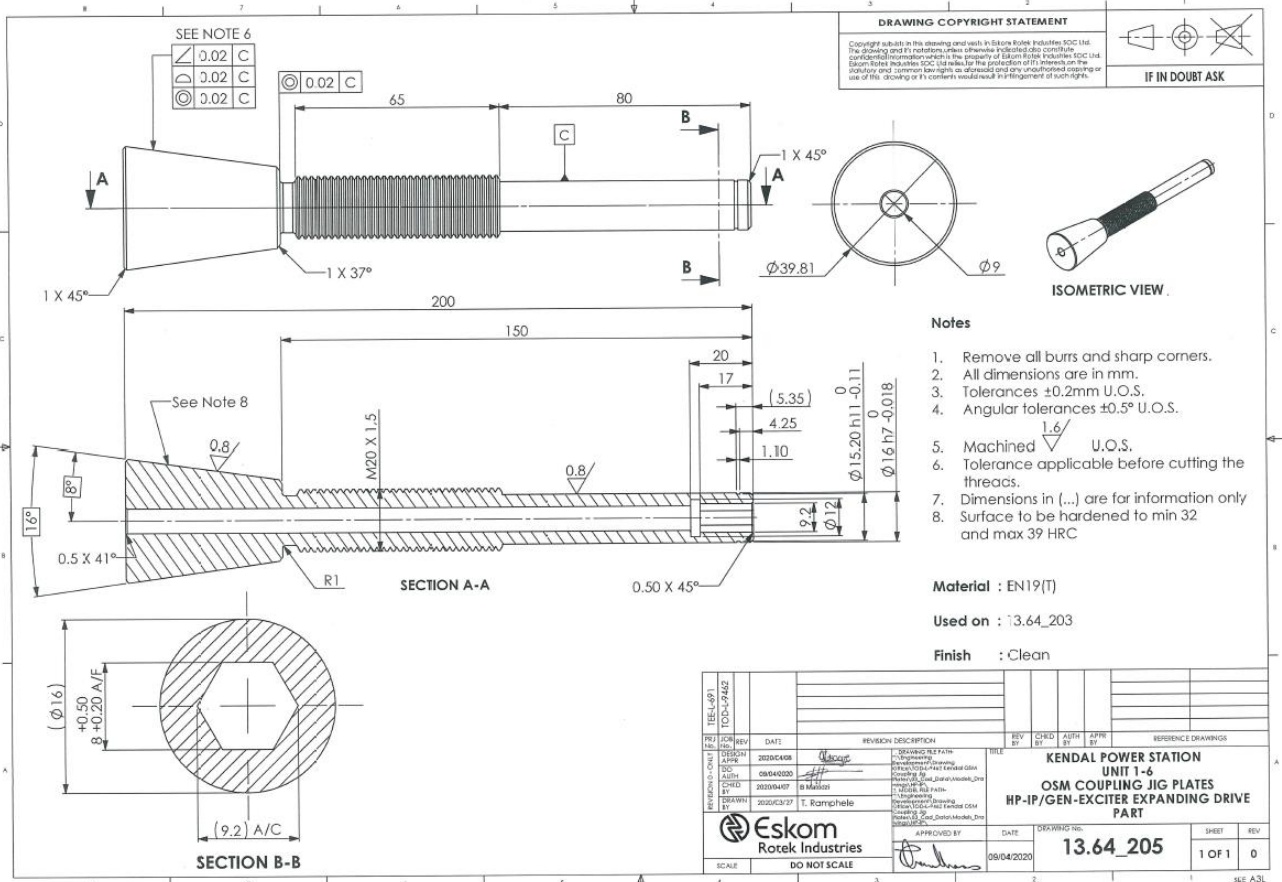
Fleet	Stations	Coupling Type	JIG Plate Availability	Additional Requirements	Drawing Available
GEC	Duvha, Tutuka, Majuba	HP/IP	1	1	X
		IP/LP1	1	1	X
		LP1/LP2	1	1	X
		LP2/Gen	1	1	X
		Gen/Exciter	1	1	X
		Exciter/PMG	0	2	X
		PMG/ETG	0	2	X
	Camden	HP/LP	0	1	X
		LP/Gen	0	1	X
	Grootvlei	HP/LP	0	1	X
LP/Gen		0	1	X	
ABB/BBC	Arnot	HP/IP	0	1	Yes
		IP/LP	0	1	Yes
		LP/Gen	0	1	Yes
	Kriel	HP/IP	0	1	Yes
		IP/LP1	0	1	Yes
		LP1/LP2	0	1	X
Siemens	Kendal	LP2/Gen	1	1	X
		HP/IP	0	1	X
		IP/LP1	0	1	X
		LP1/LP2	0	1	X
		LP2/Gen	0	1	X
ABB/BBC	Medupi	Gen/Exciter	0	1	Yes
		HP/IP	0	1	X
		IP/LP1	0	1	X
		LP1/LP2	0	1	X
	Kusile	LP2/Gen	0	1	X
		IP/LP1	0	1	X
		LP1/LP2	0	1	X
Siemens	Hendrina	LP2/Gen	0	1	X
		HP/LP	0	1	Yes
		LP/Gen	0	1	Yes

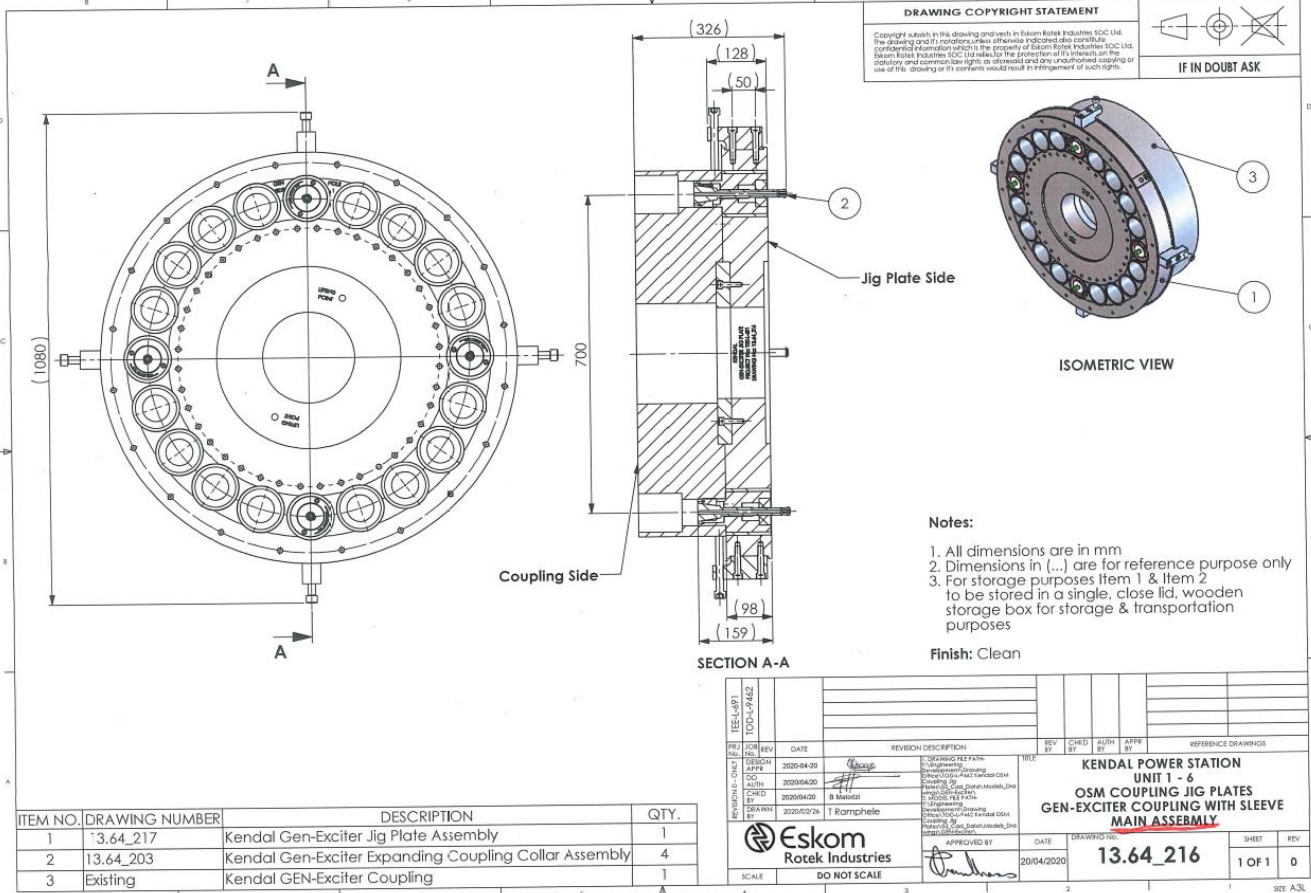
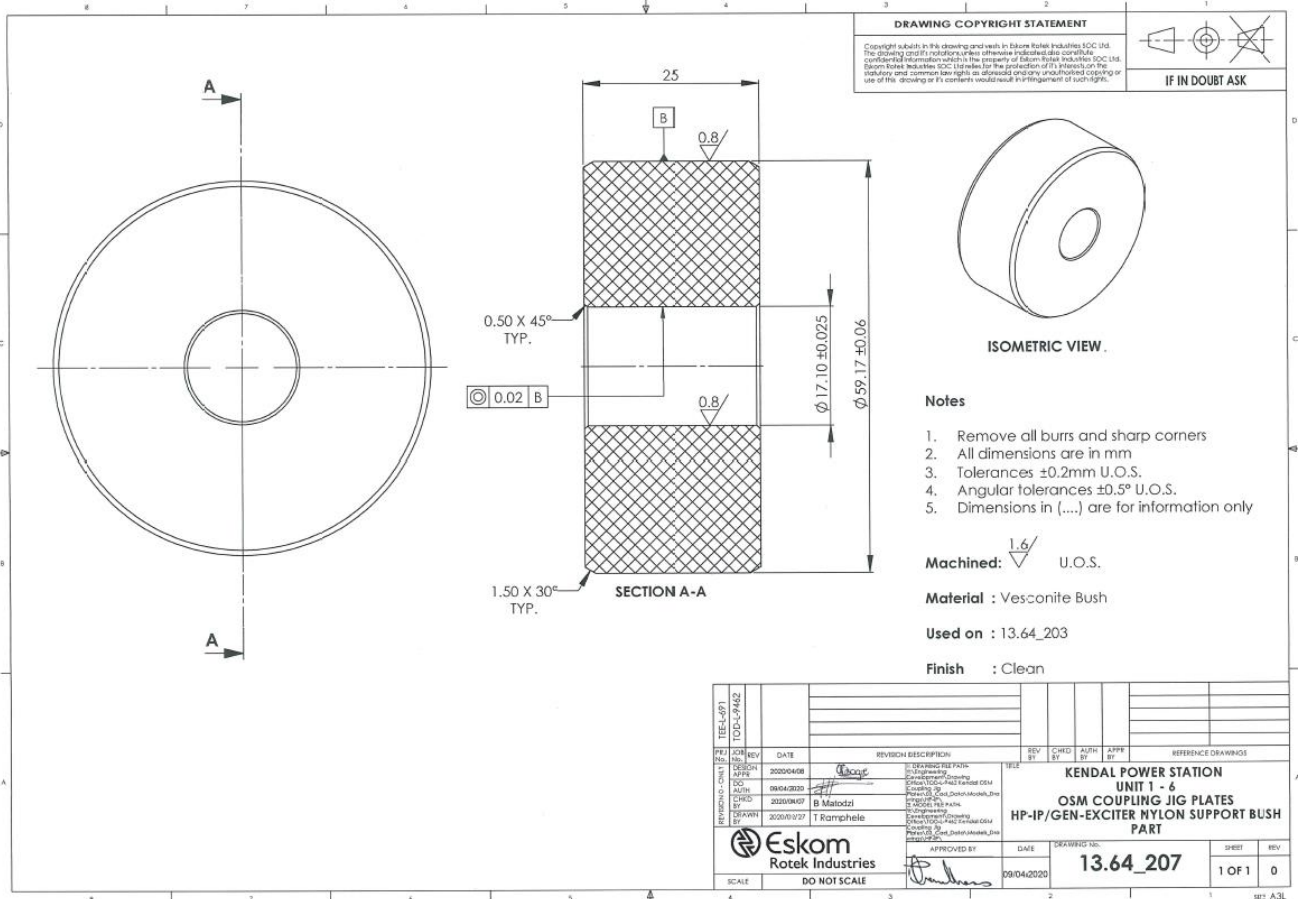


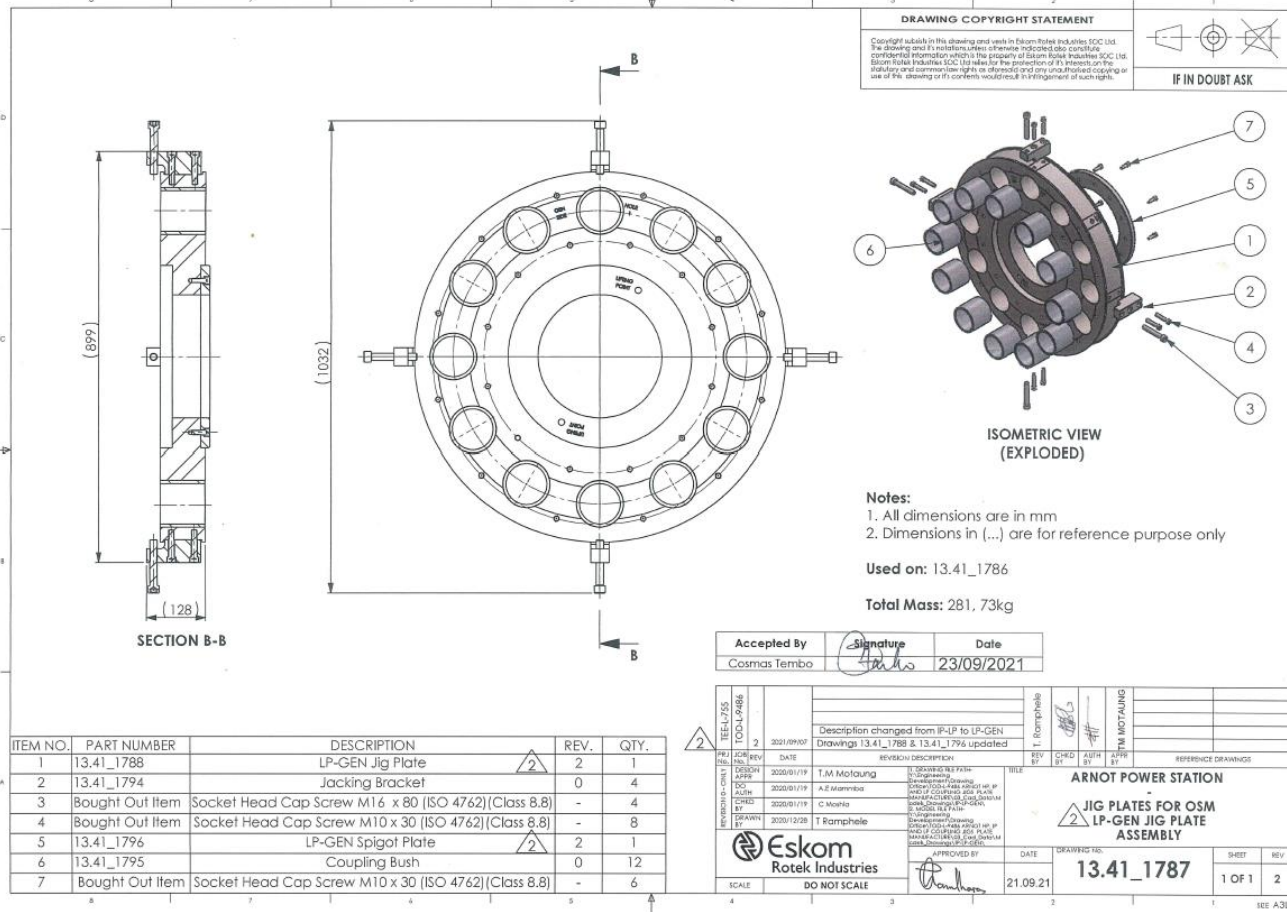
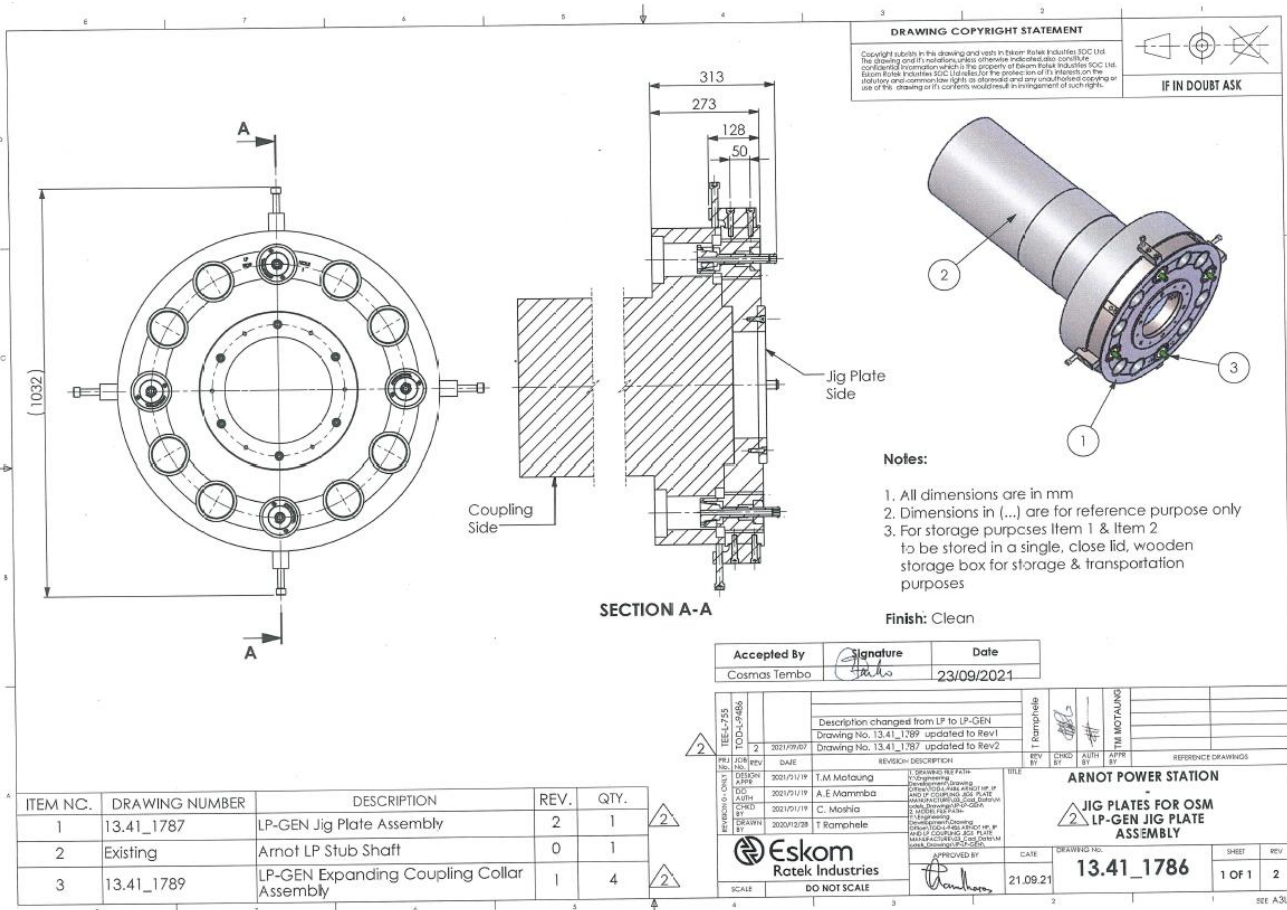


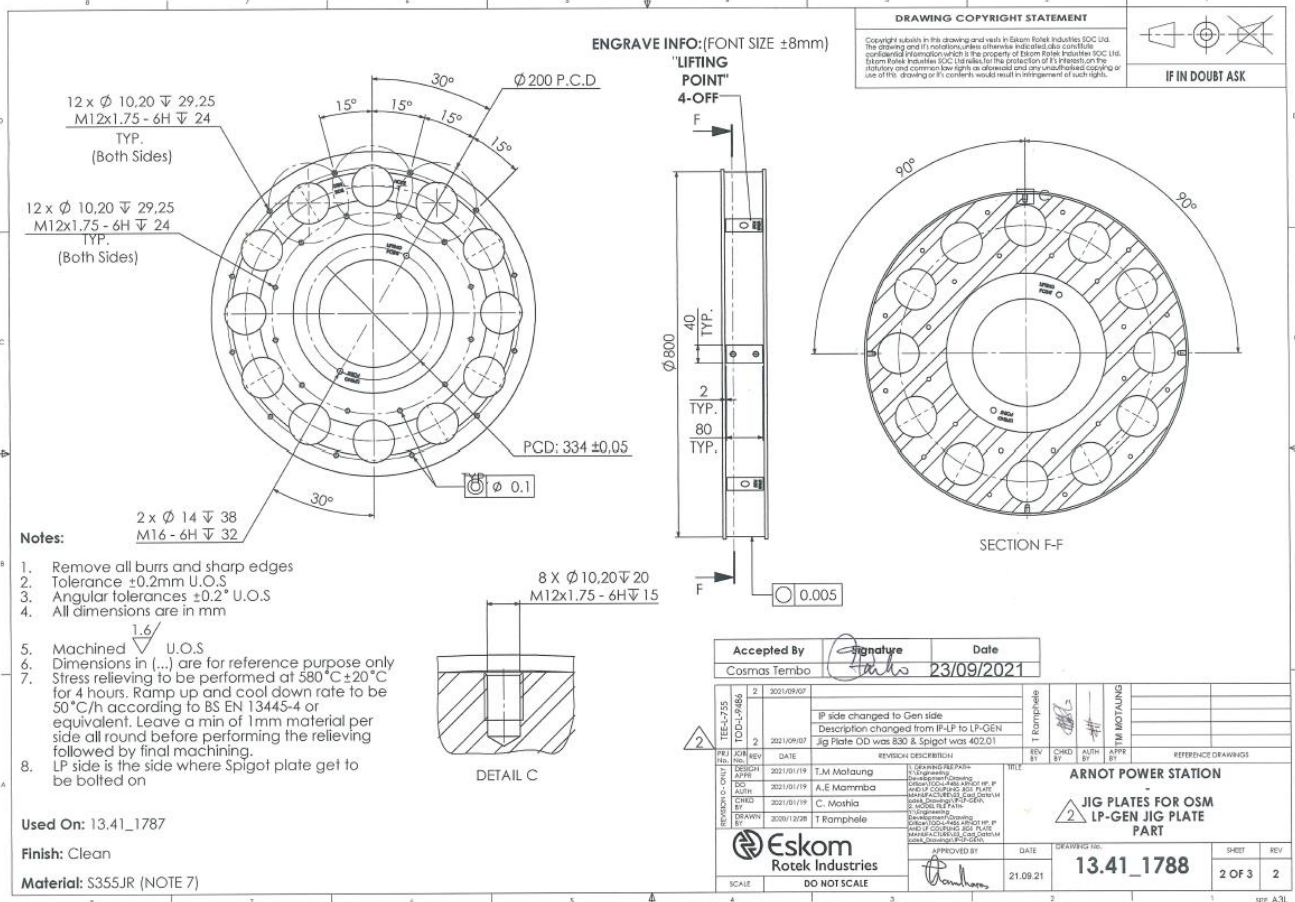
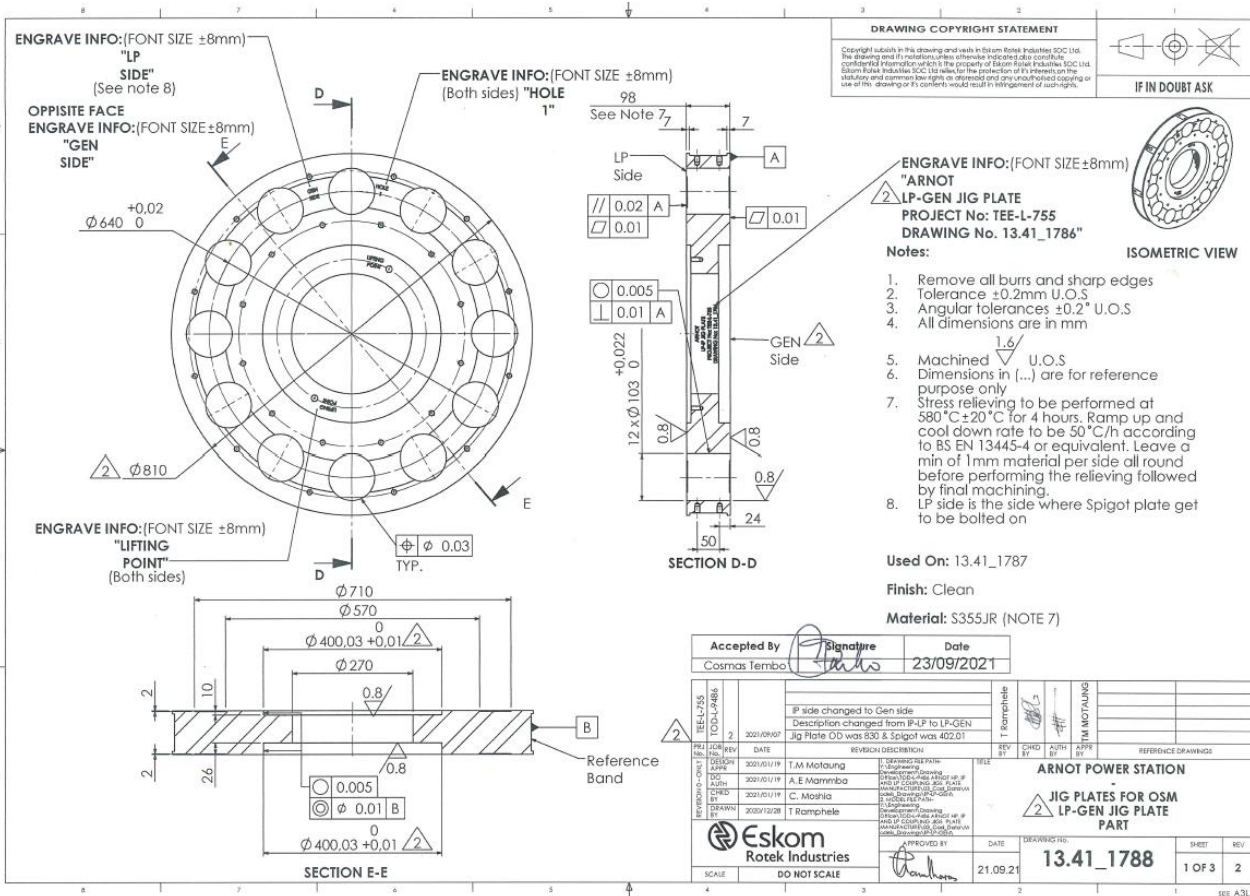


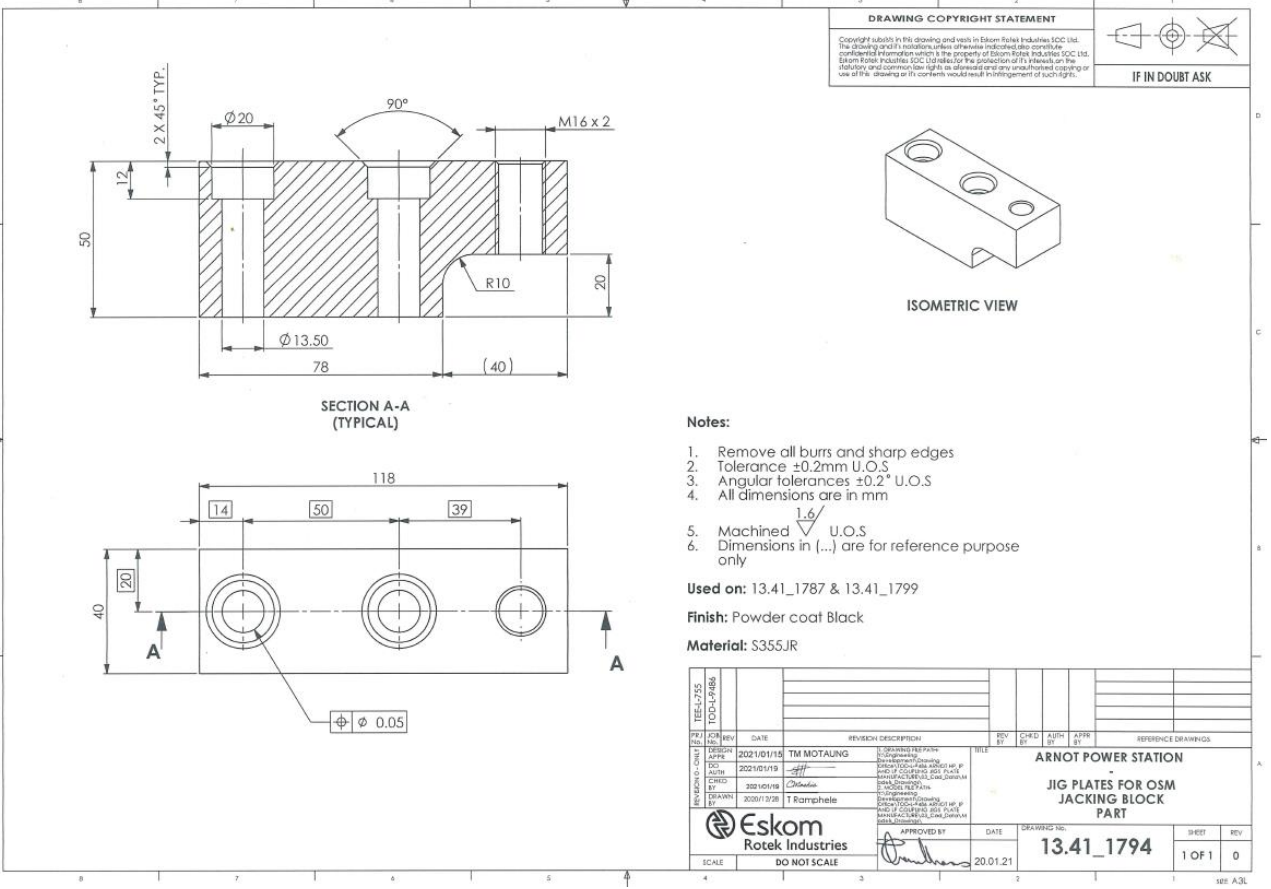
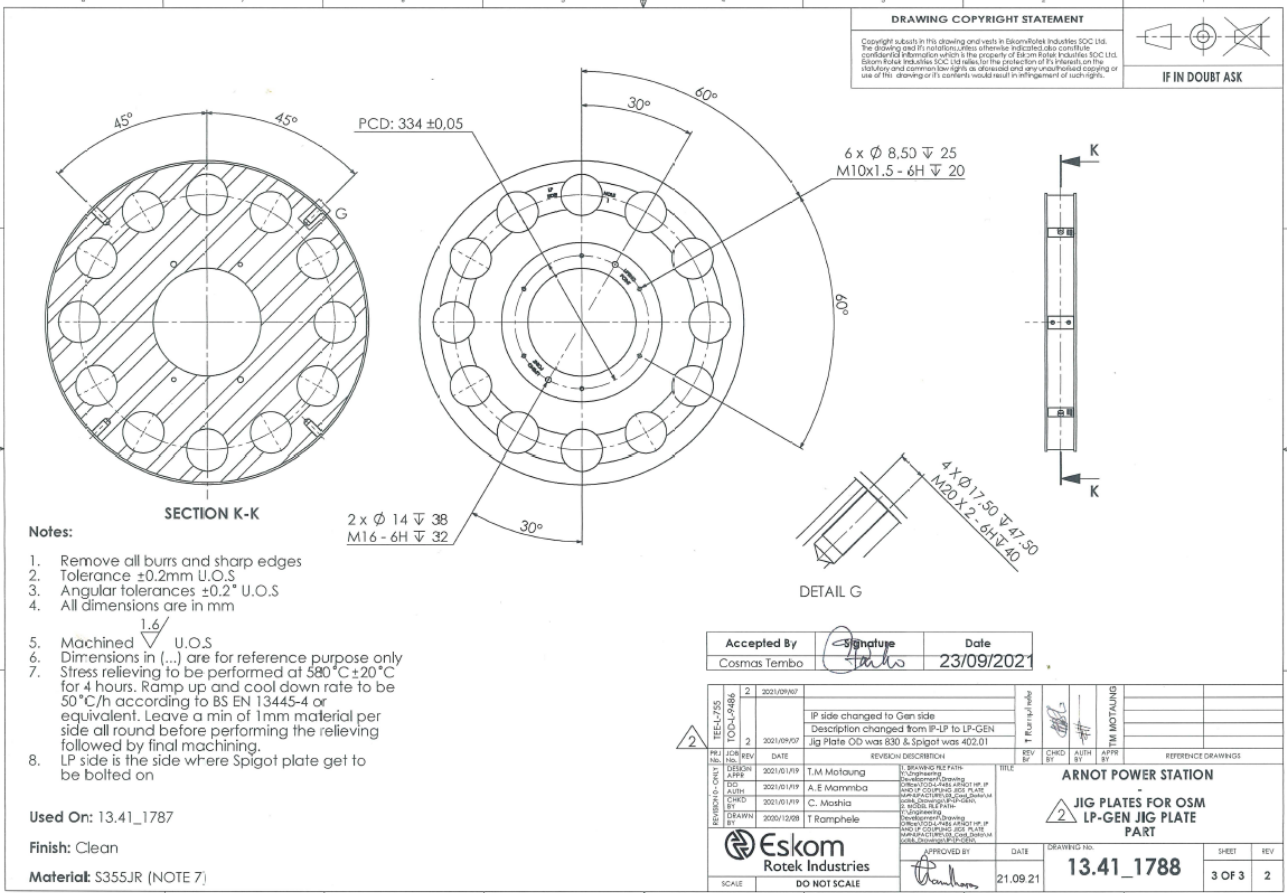


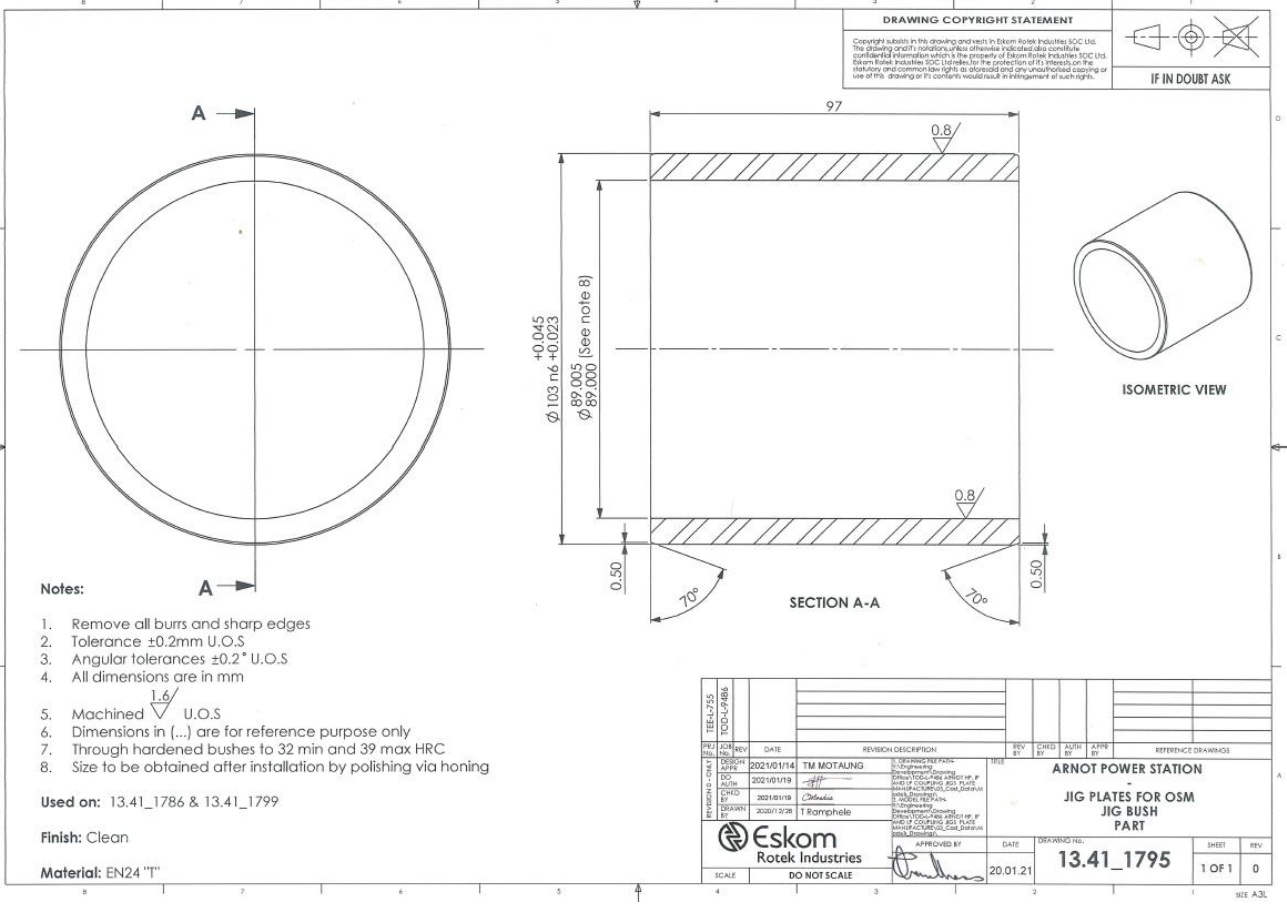
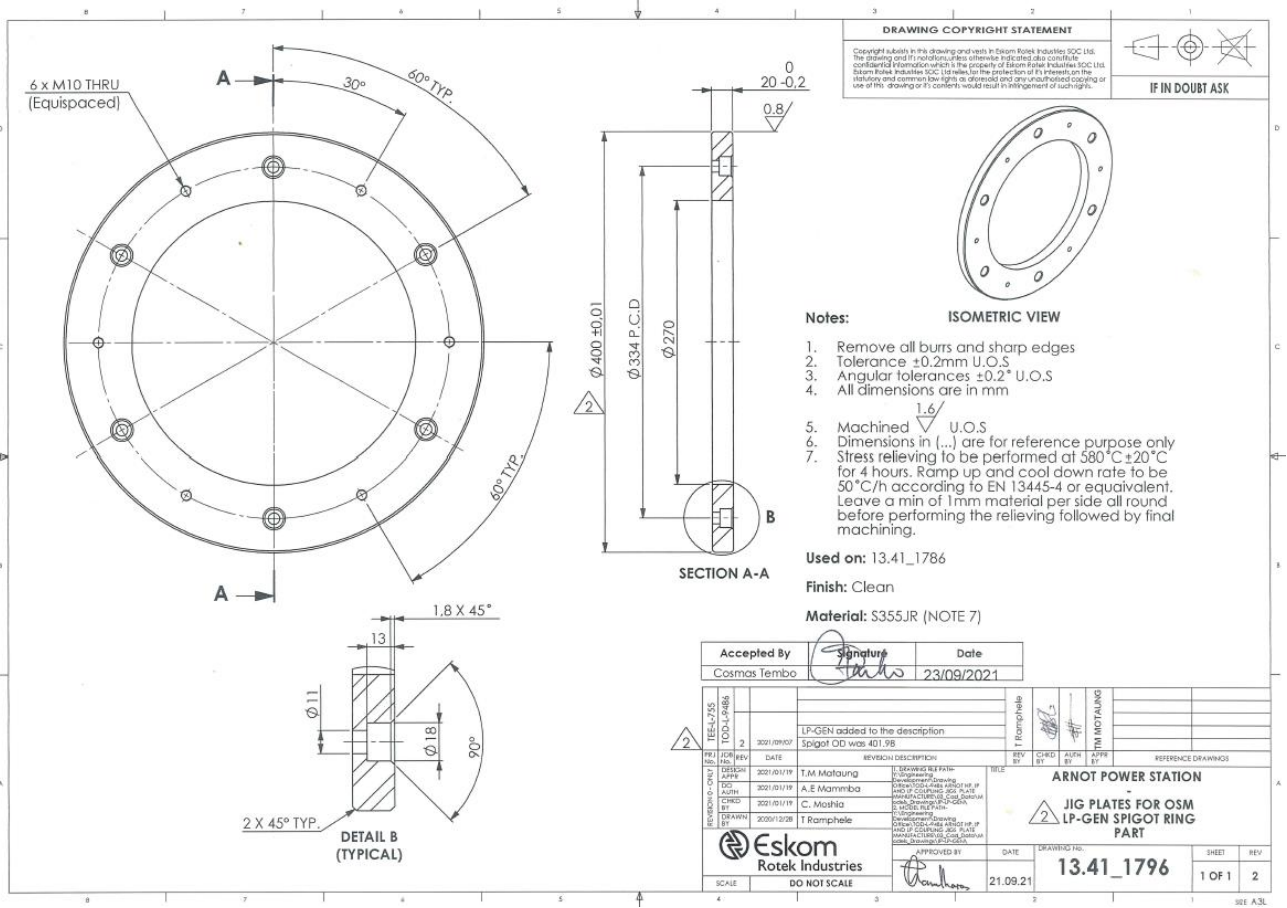


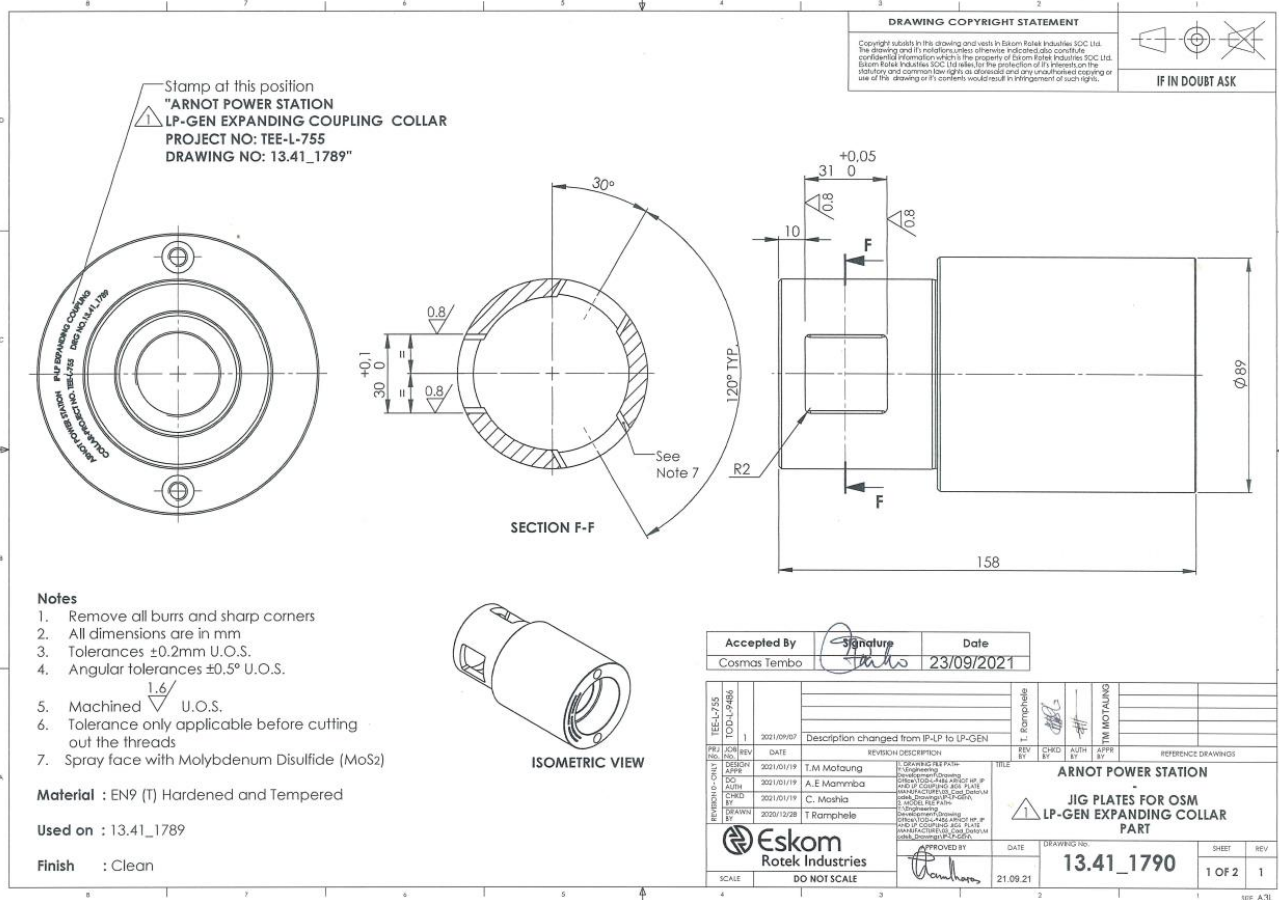
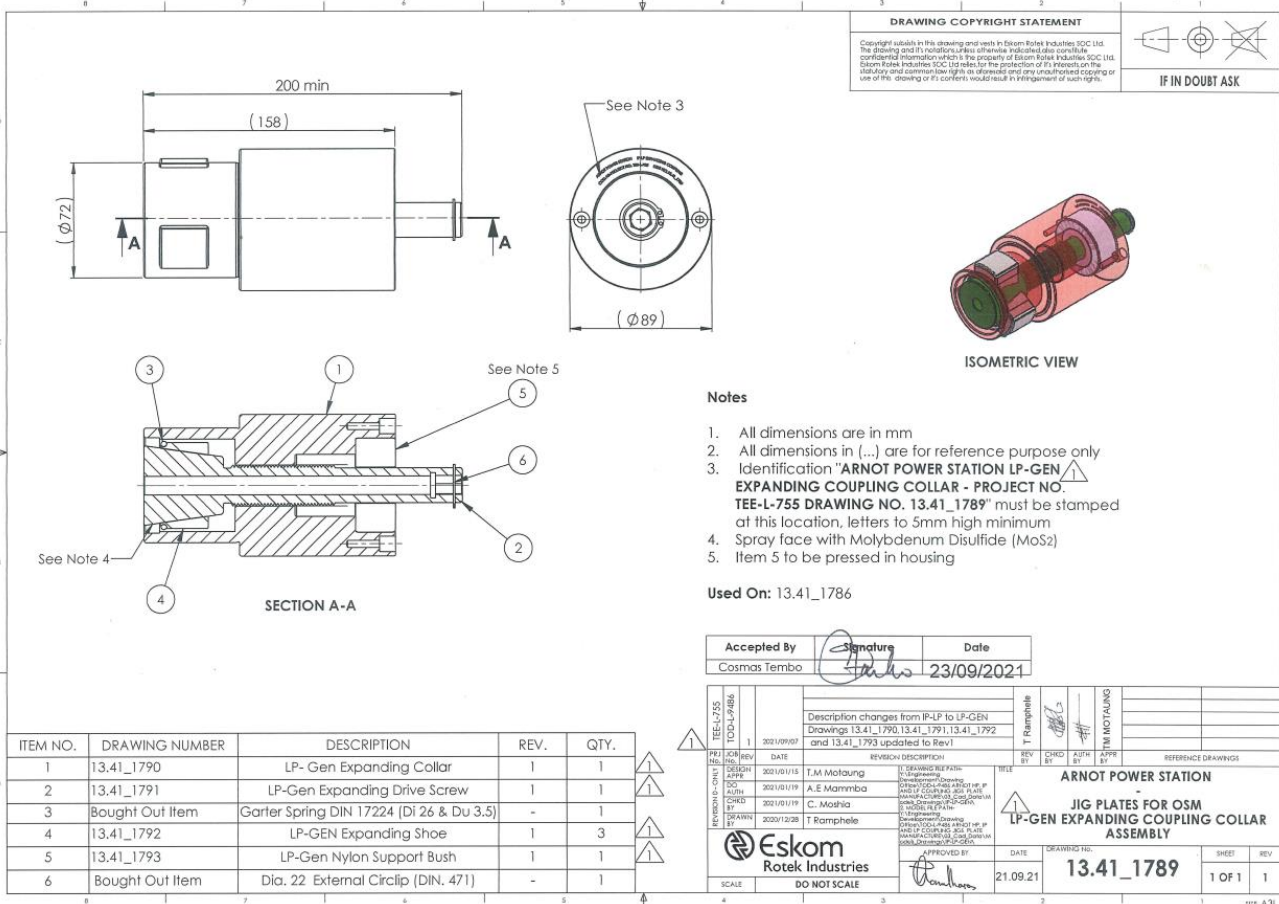


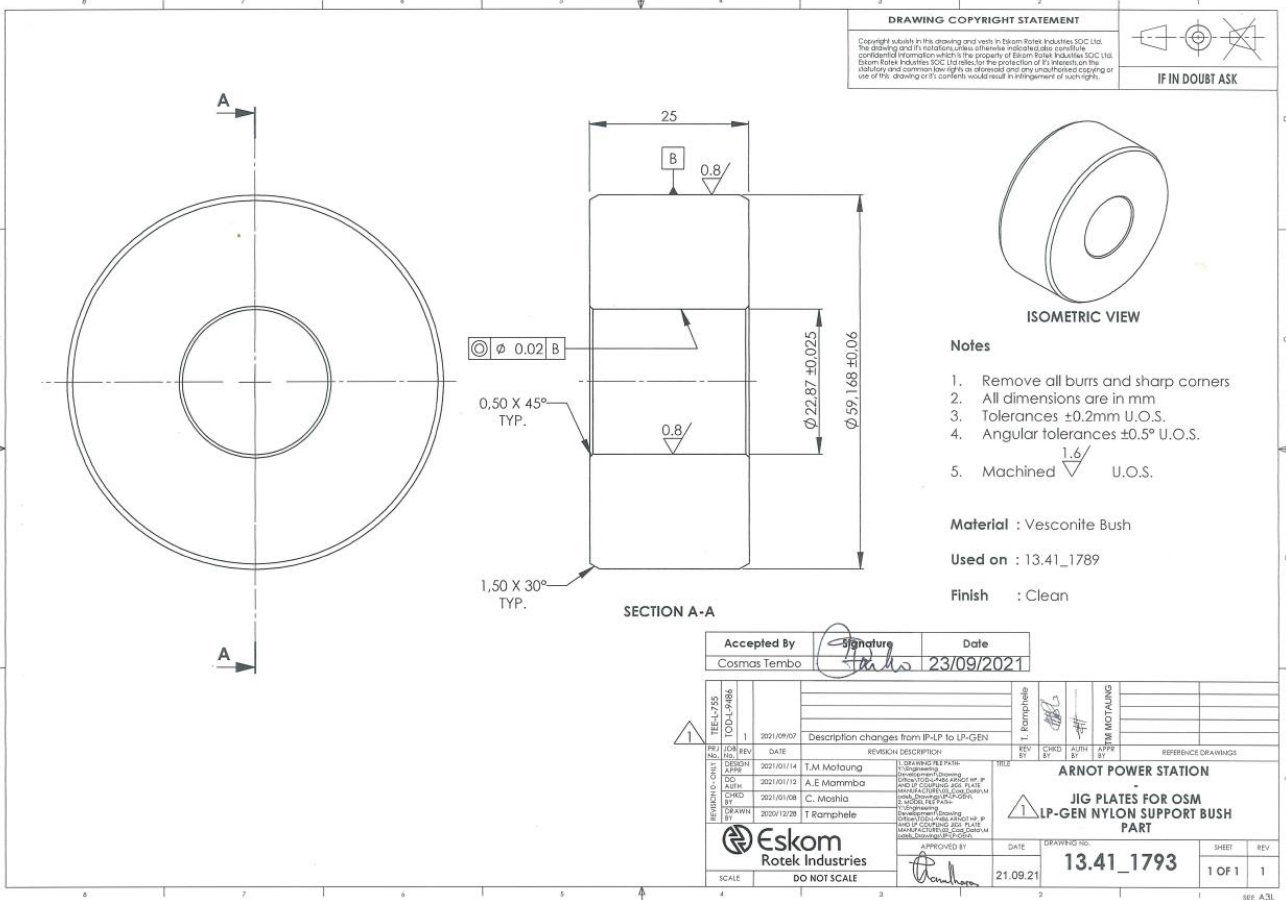
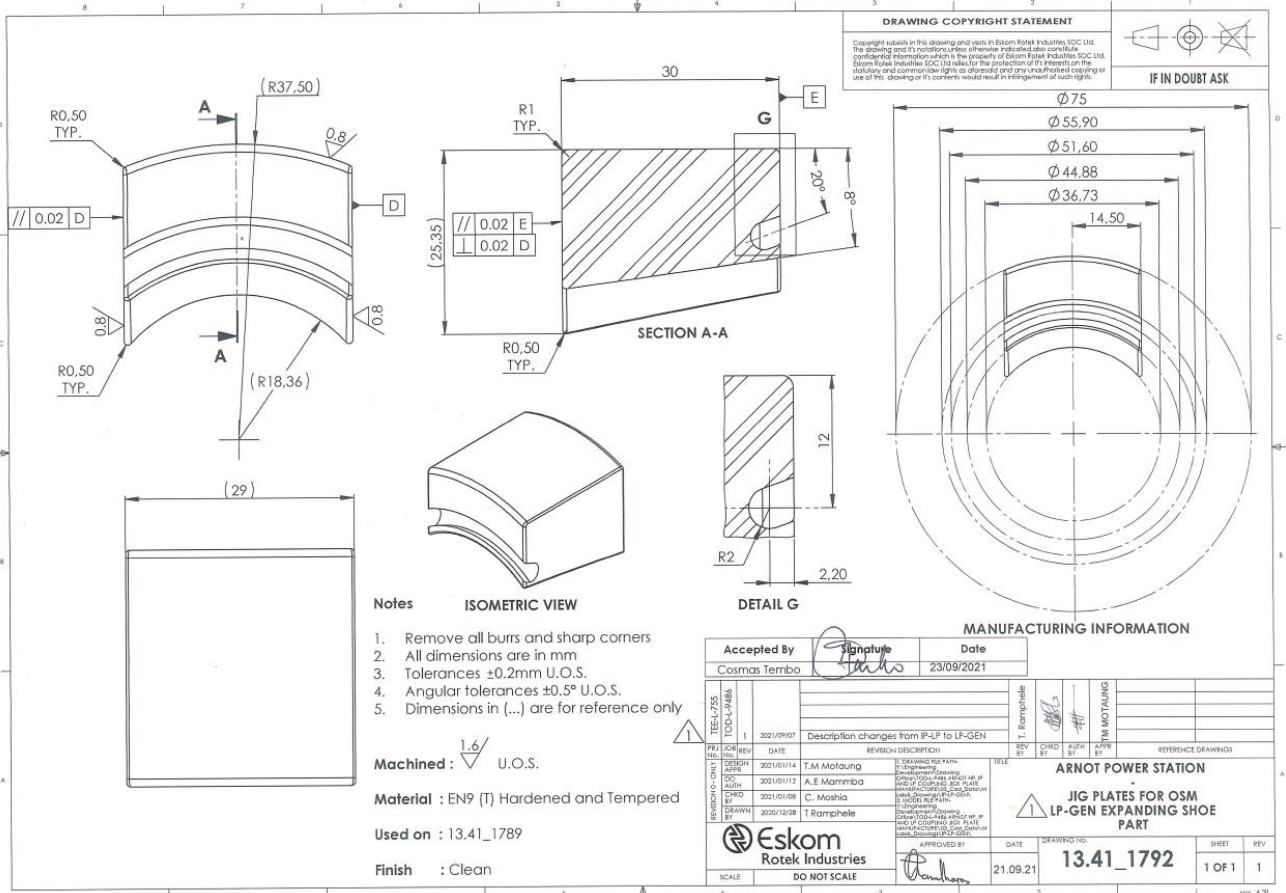


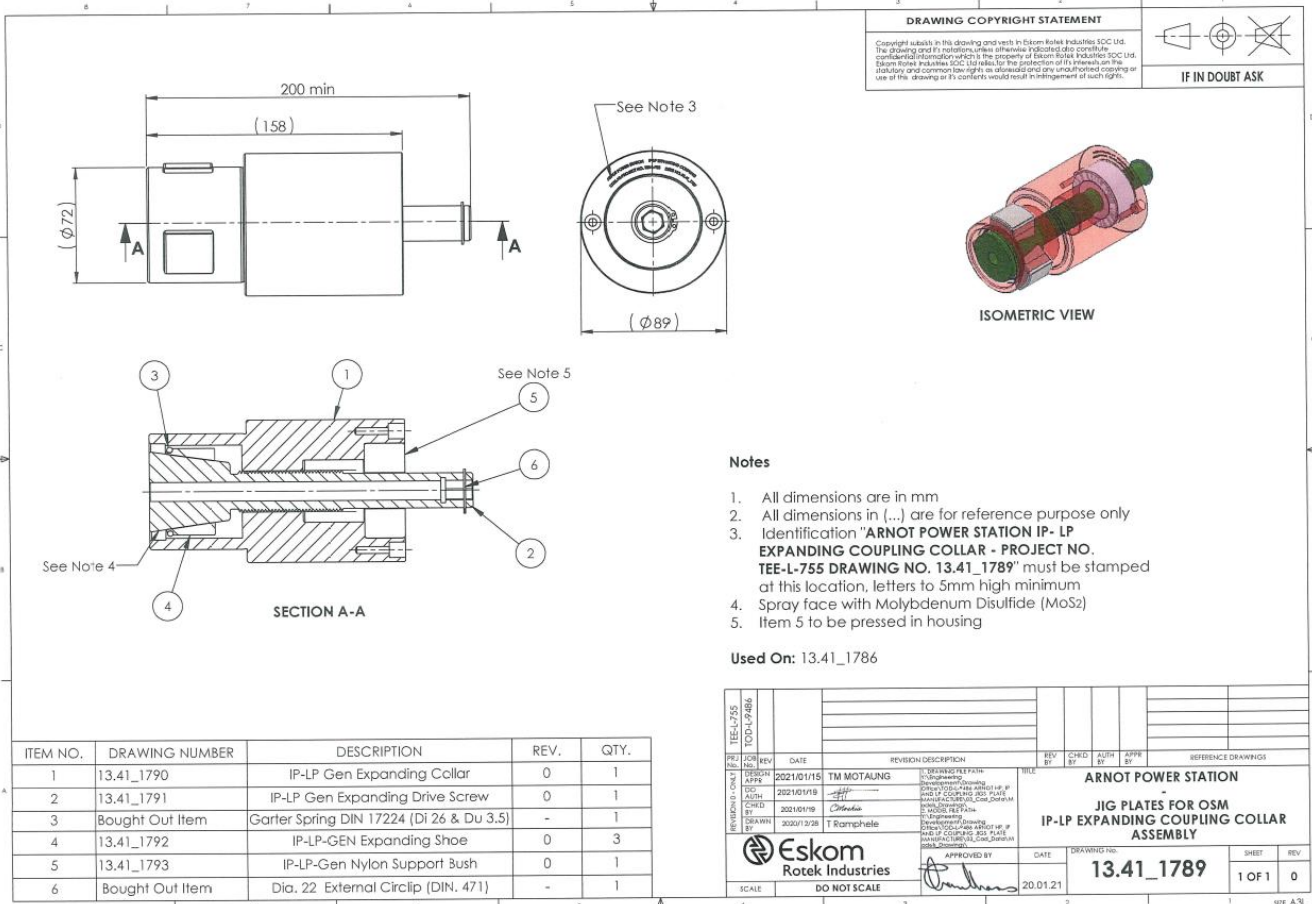
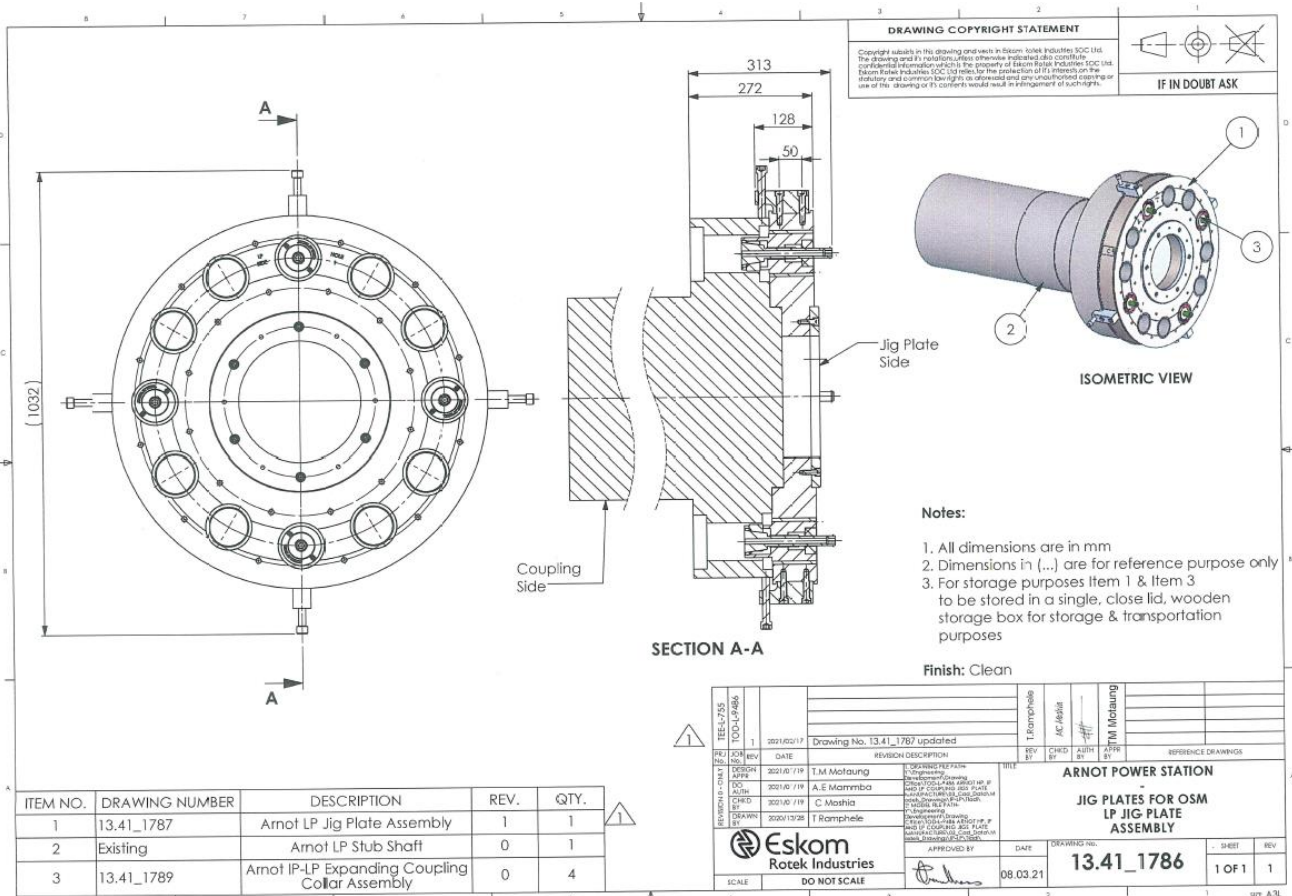


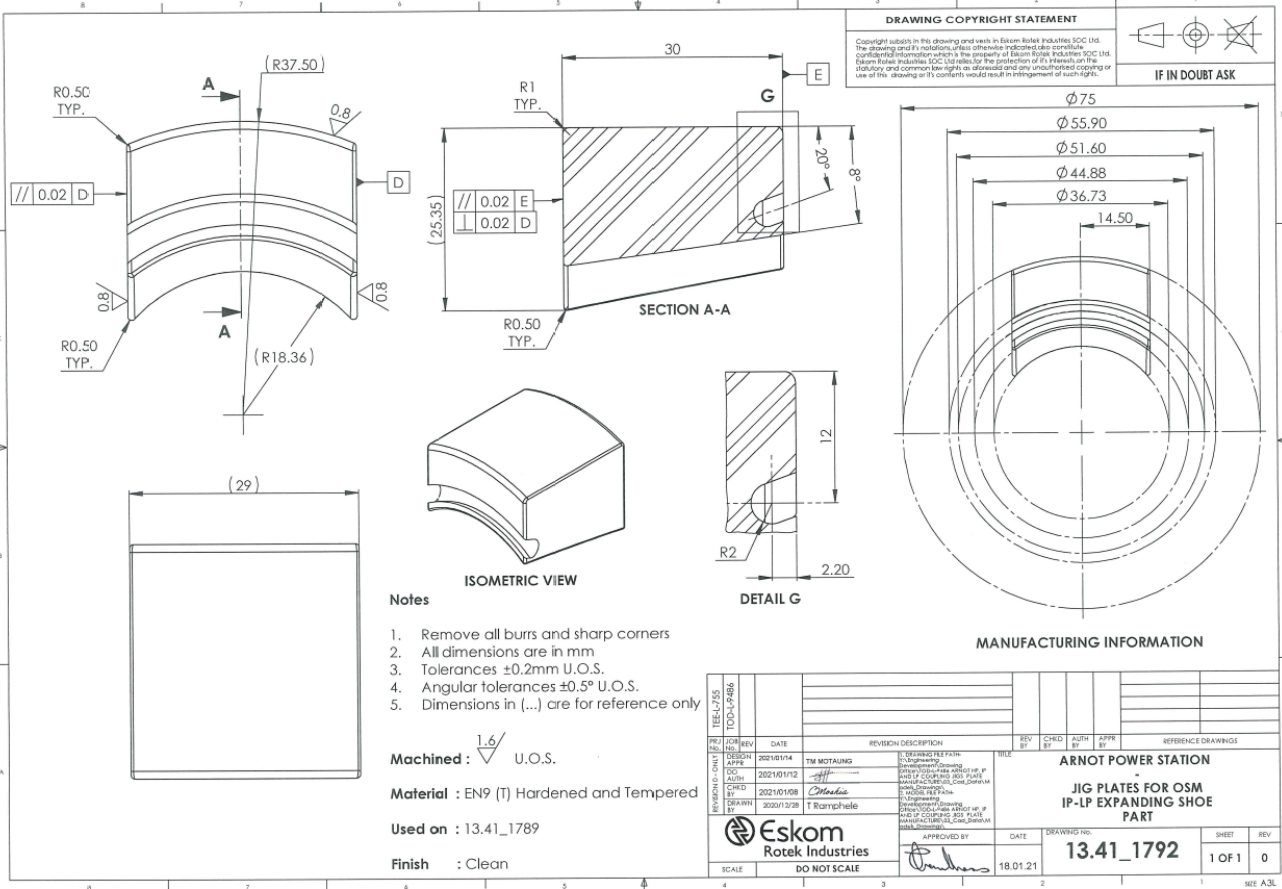
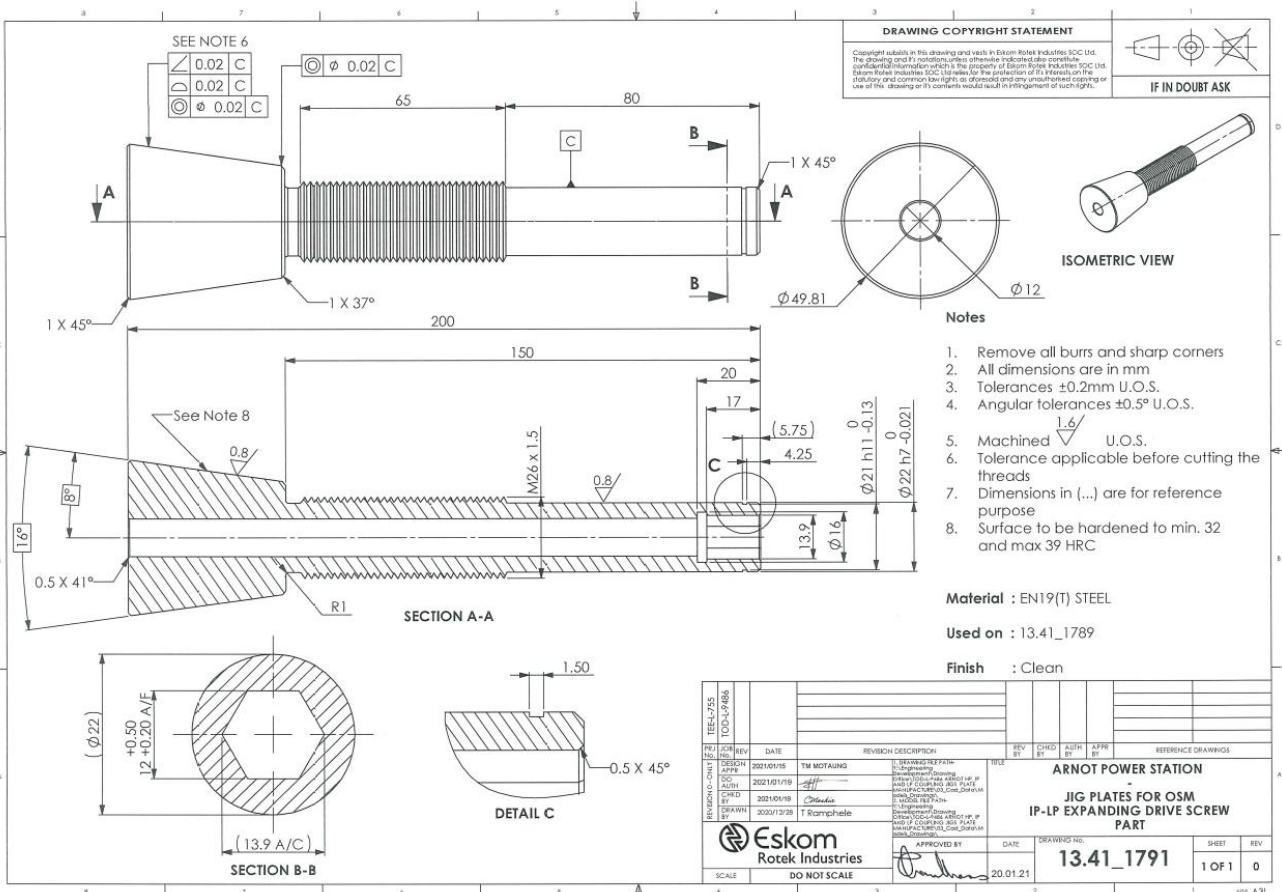


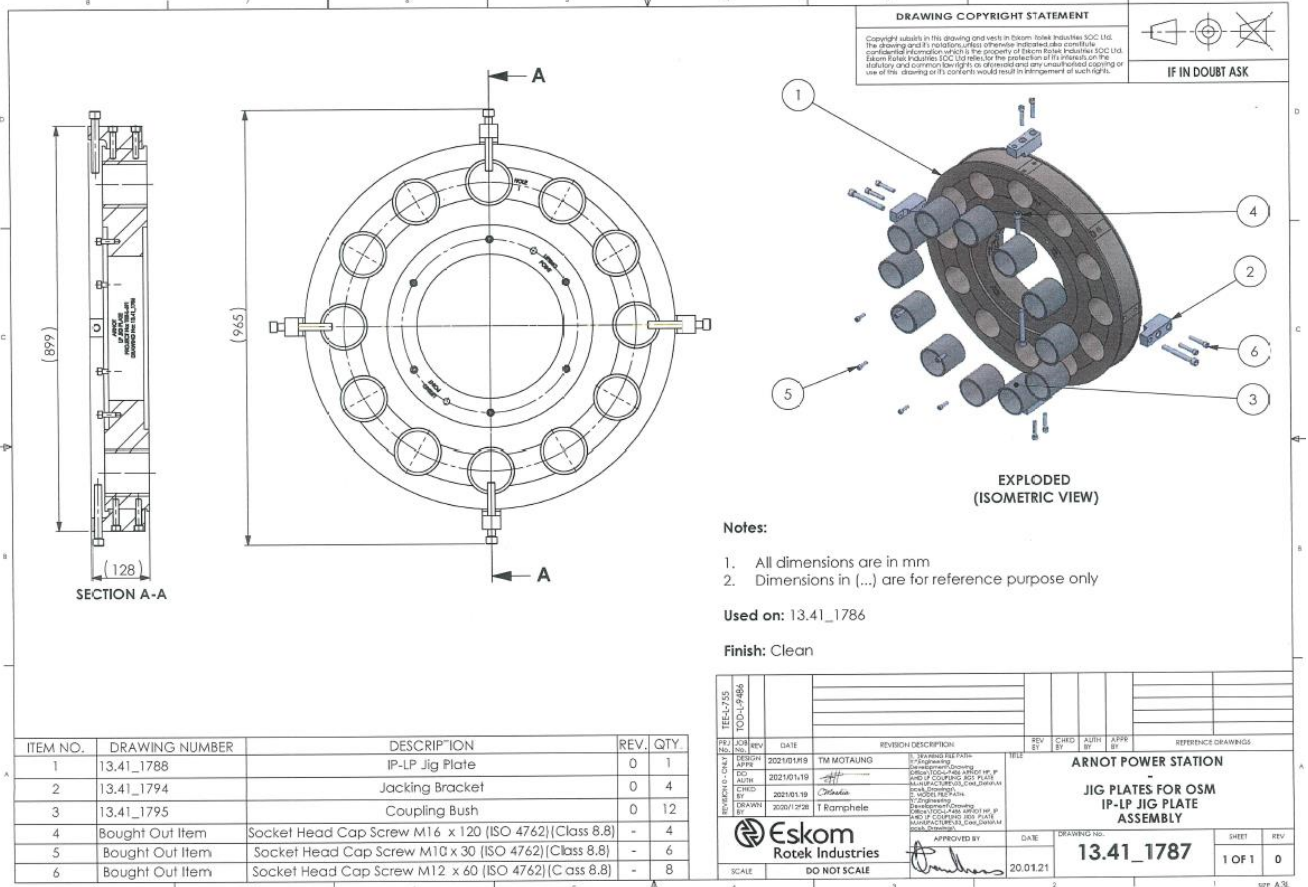
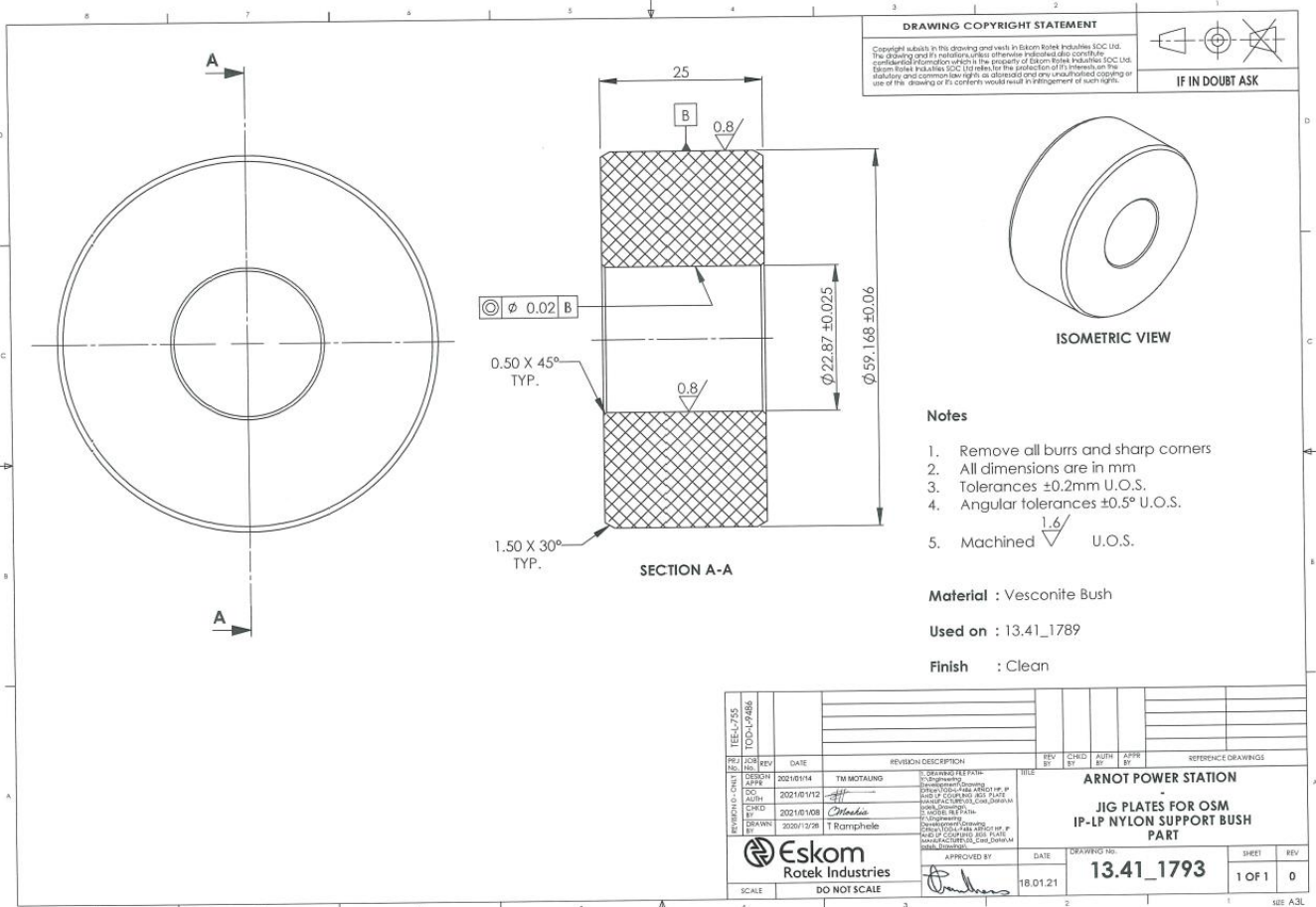


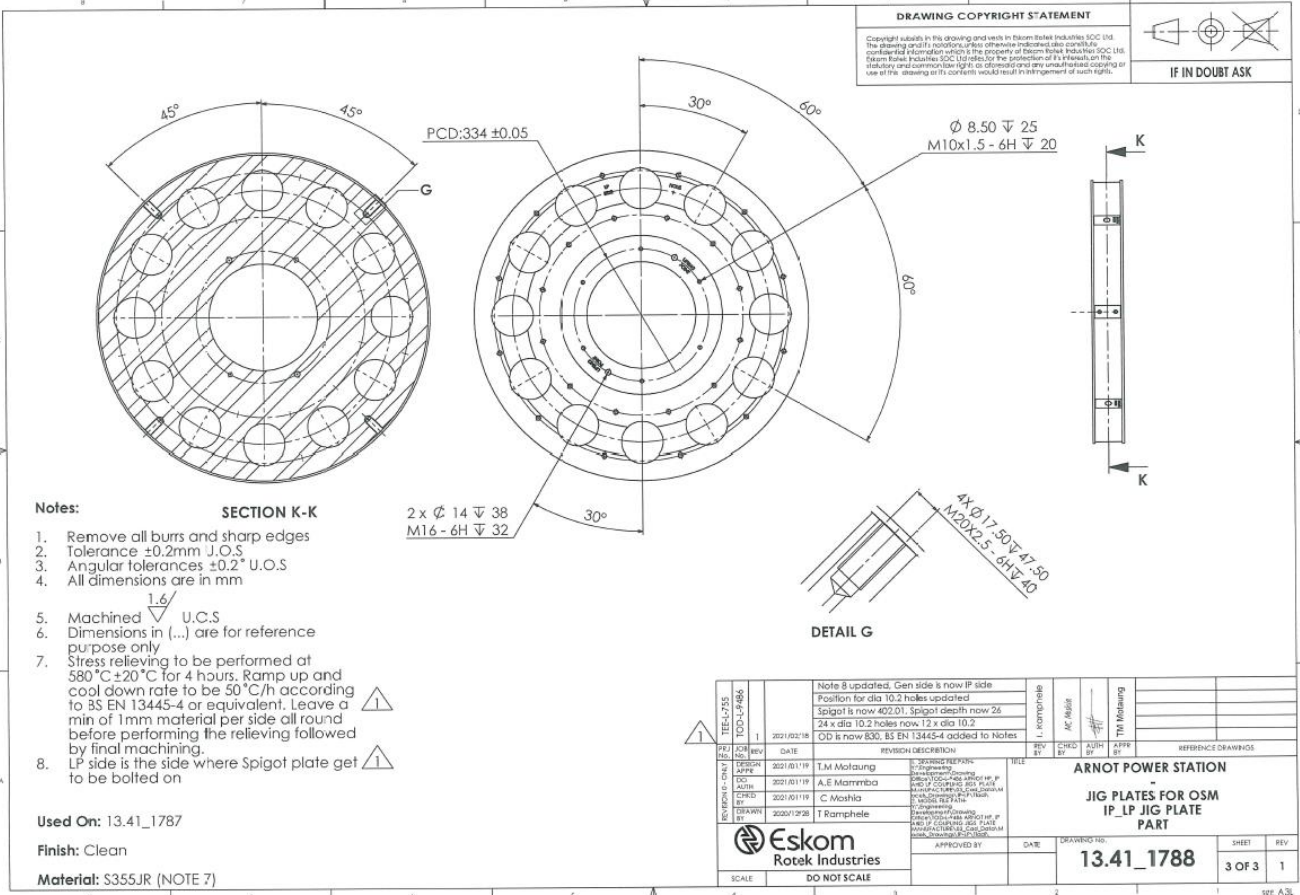
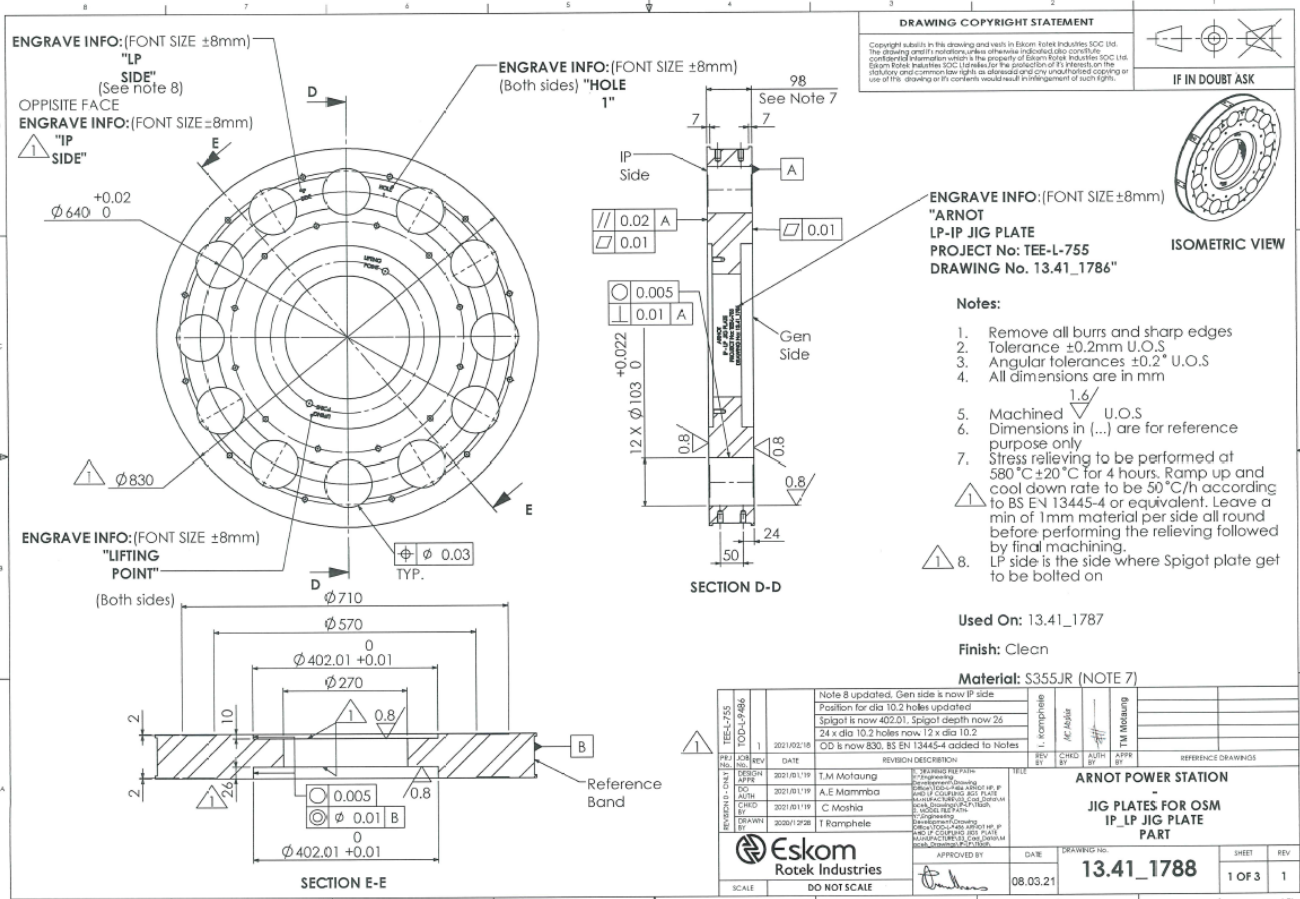


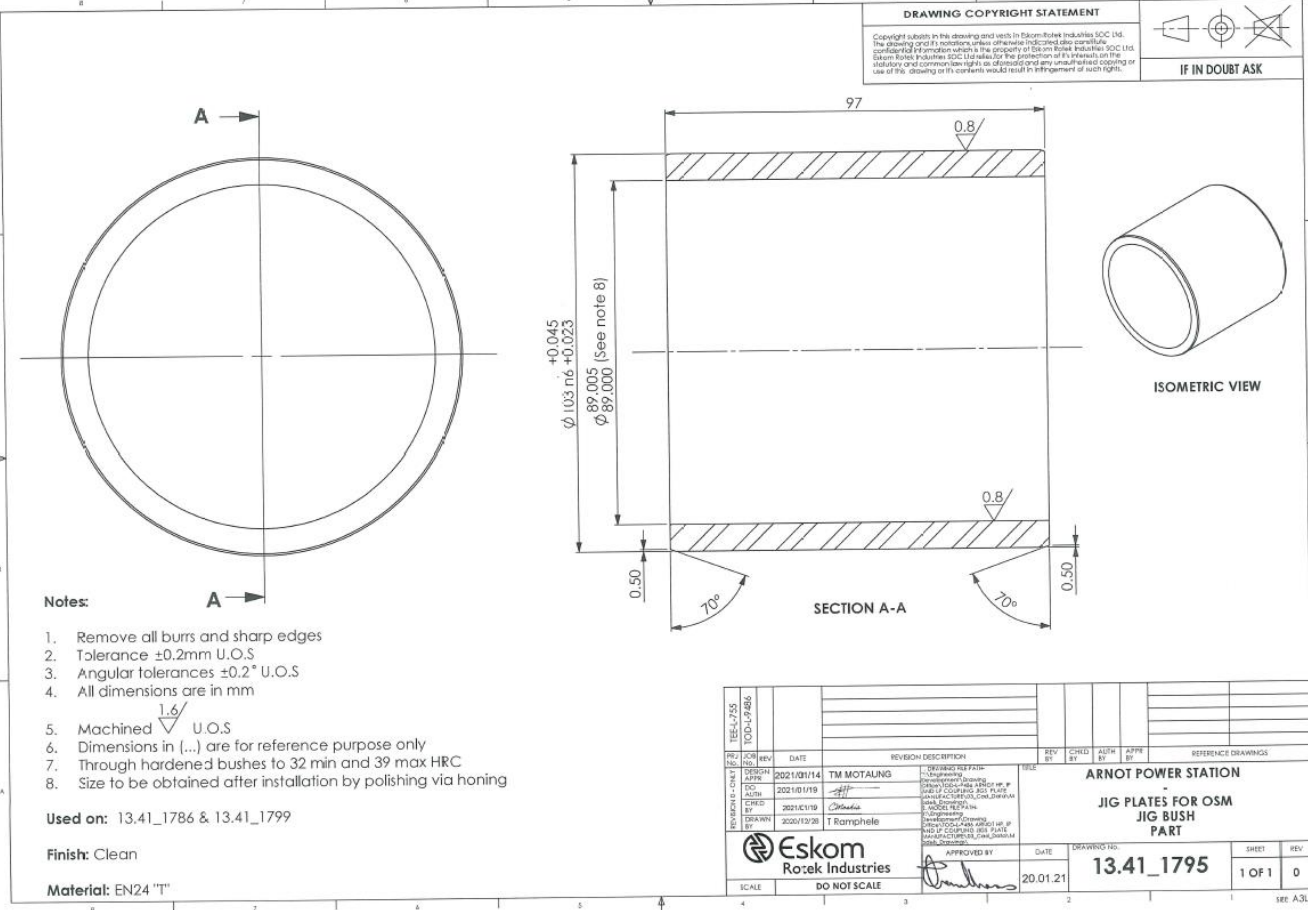
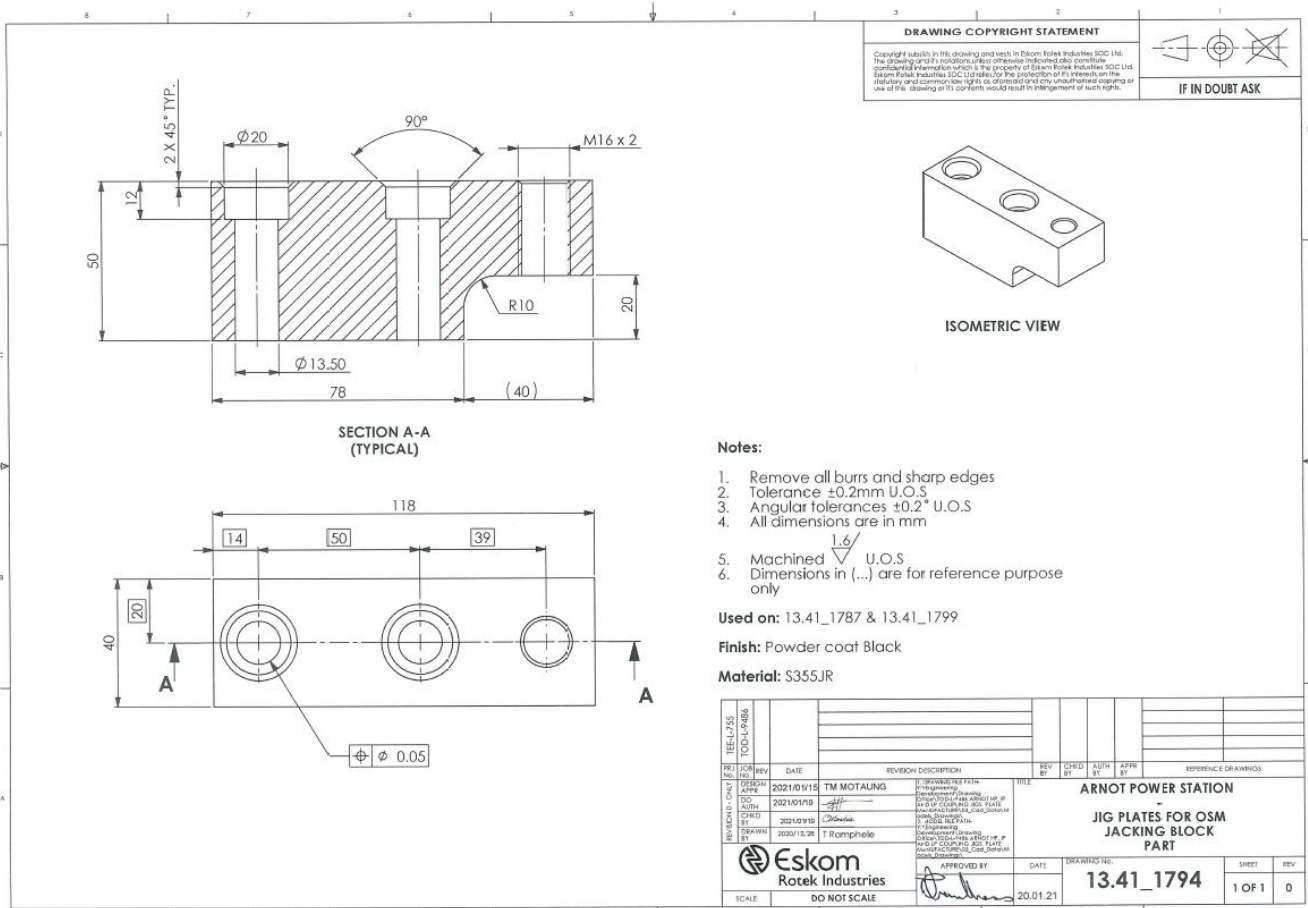


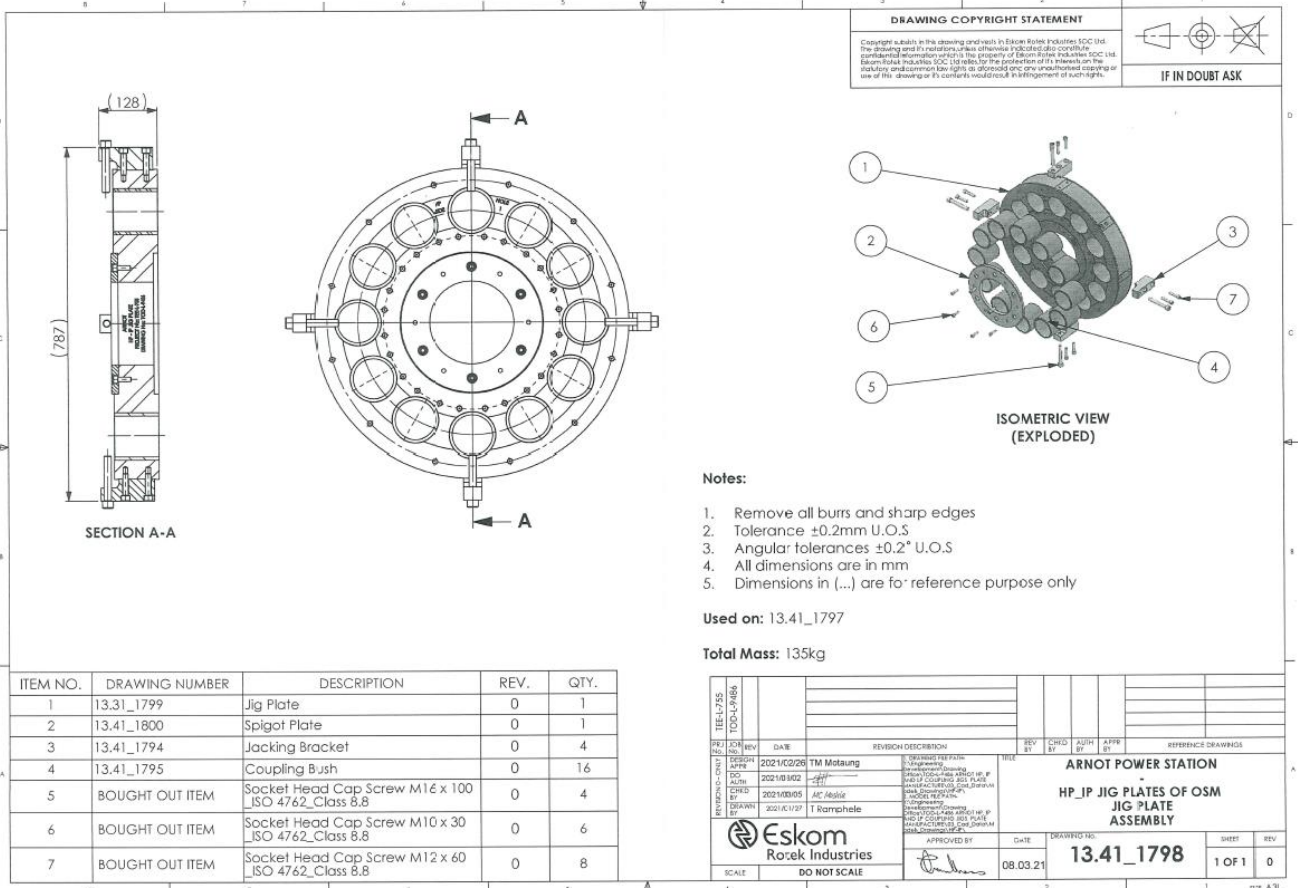
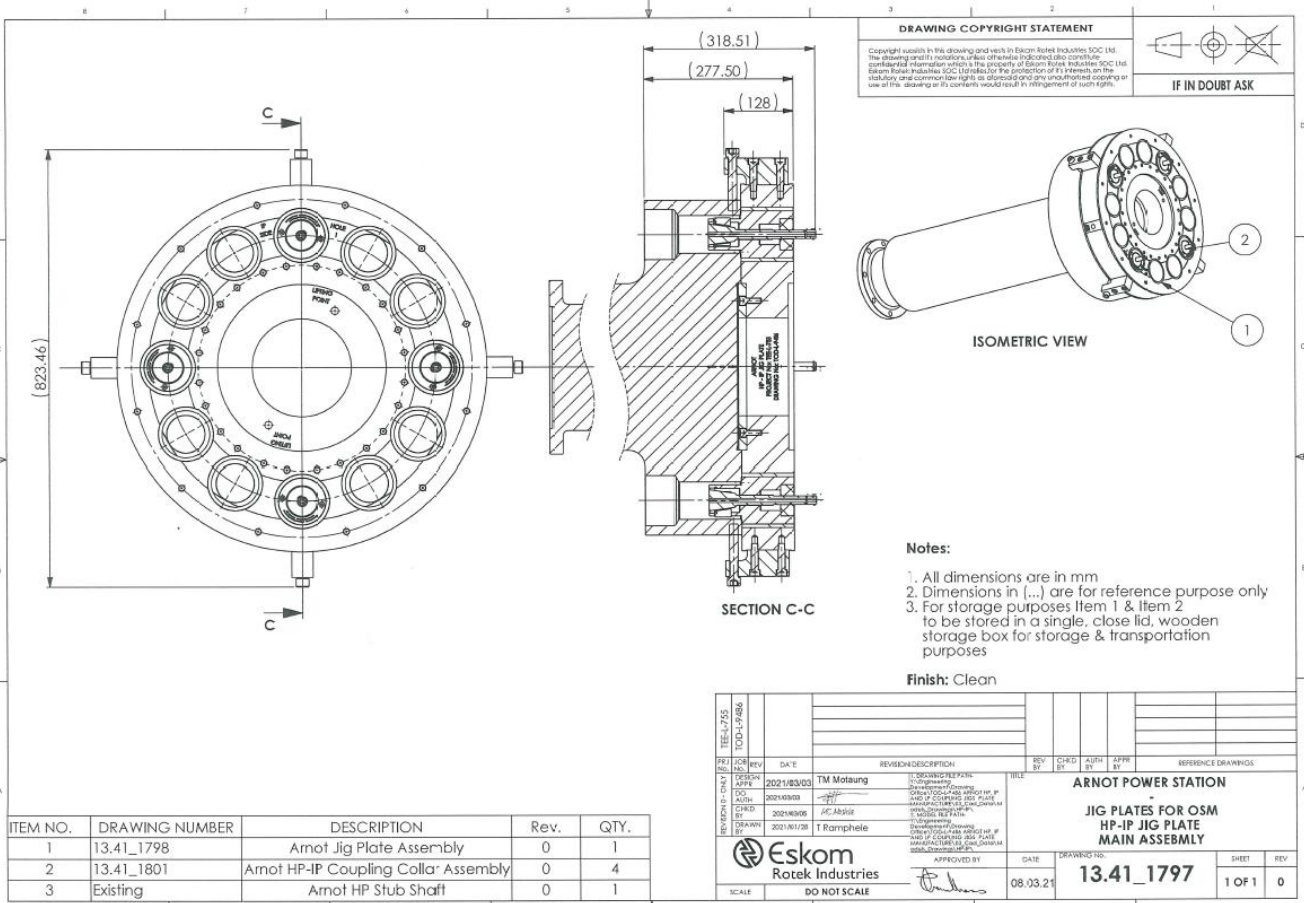


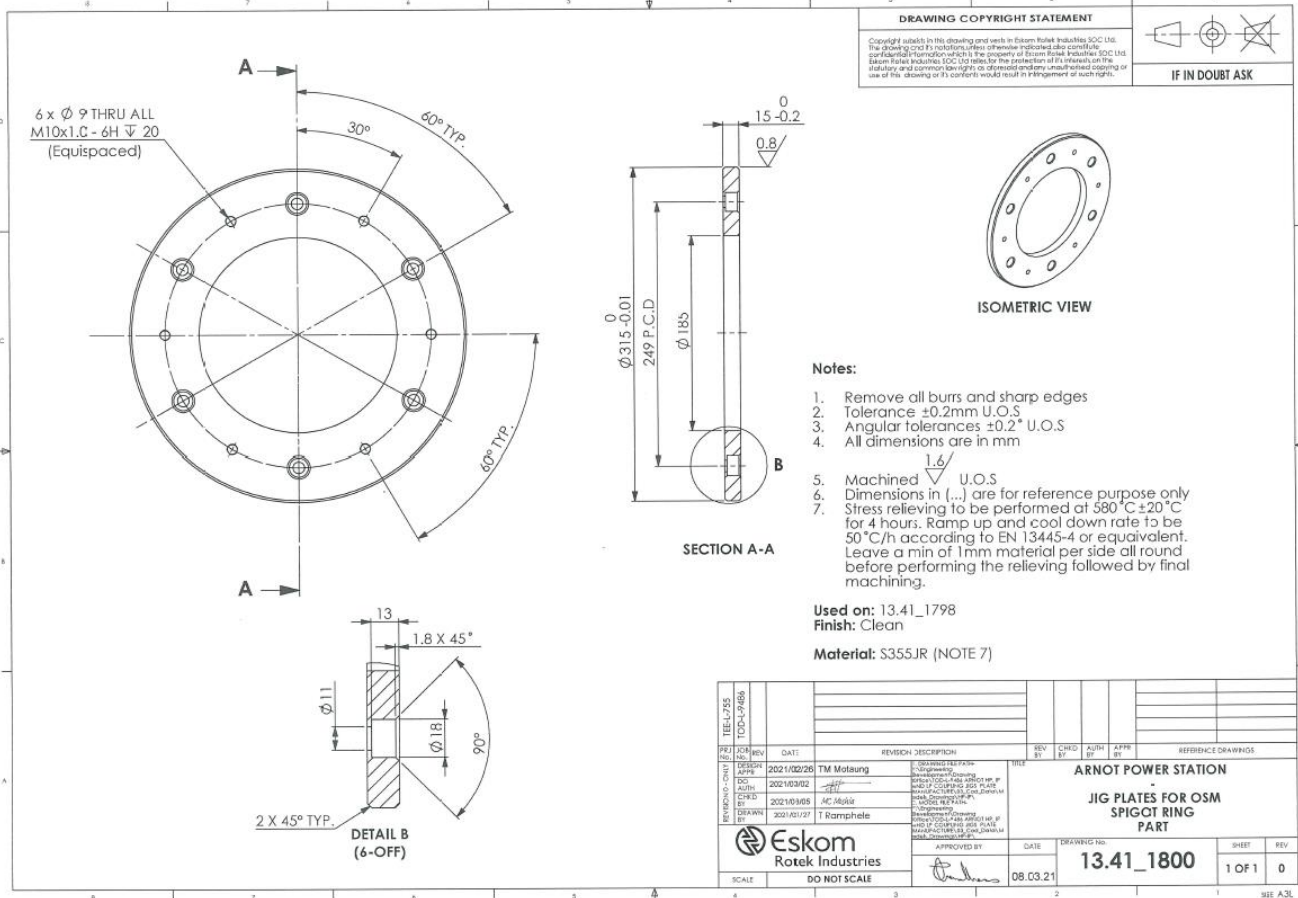
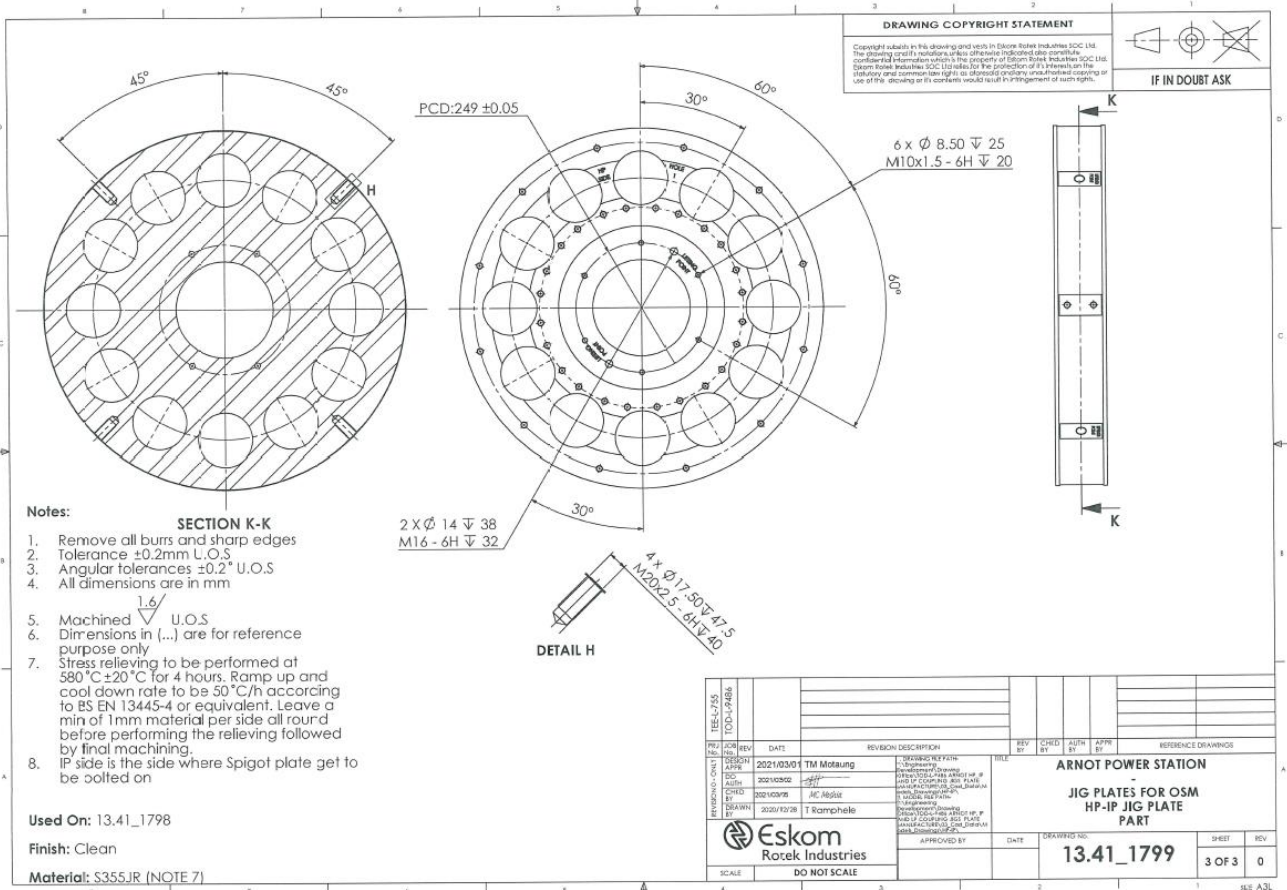


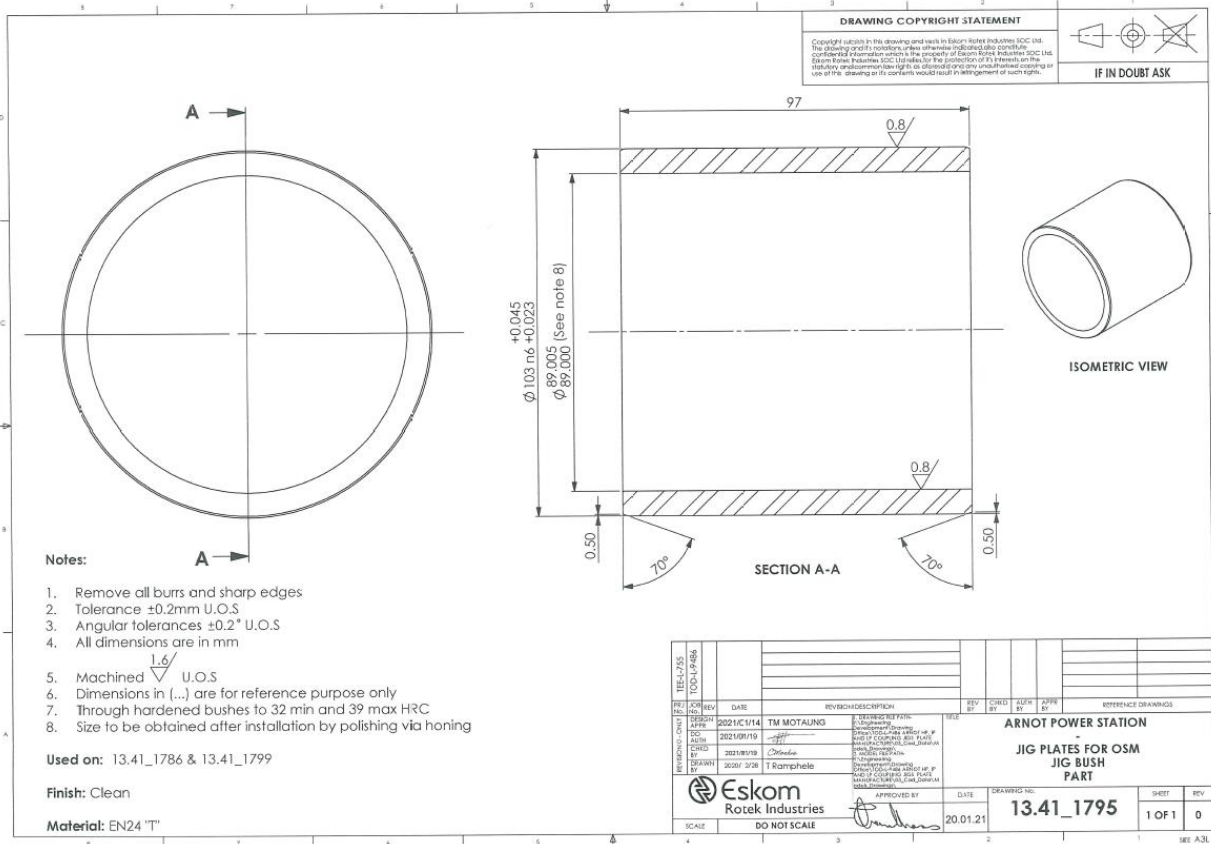
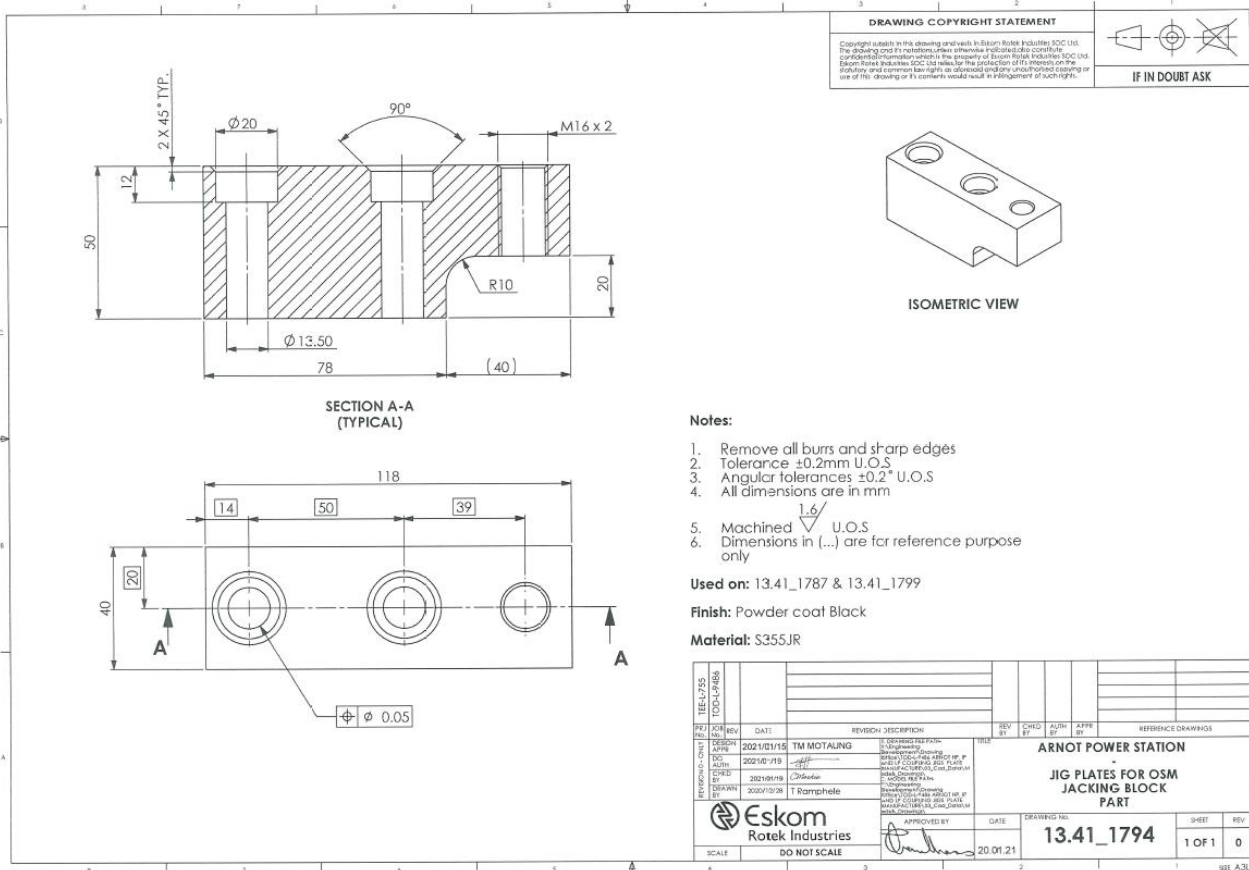


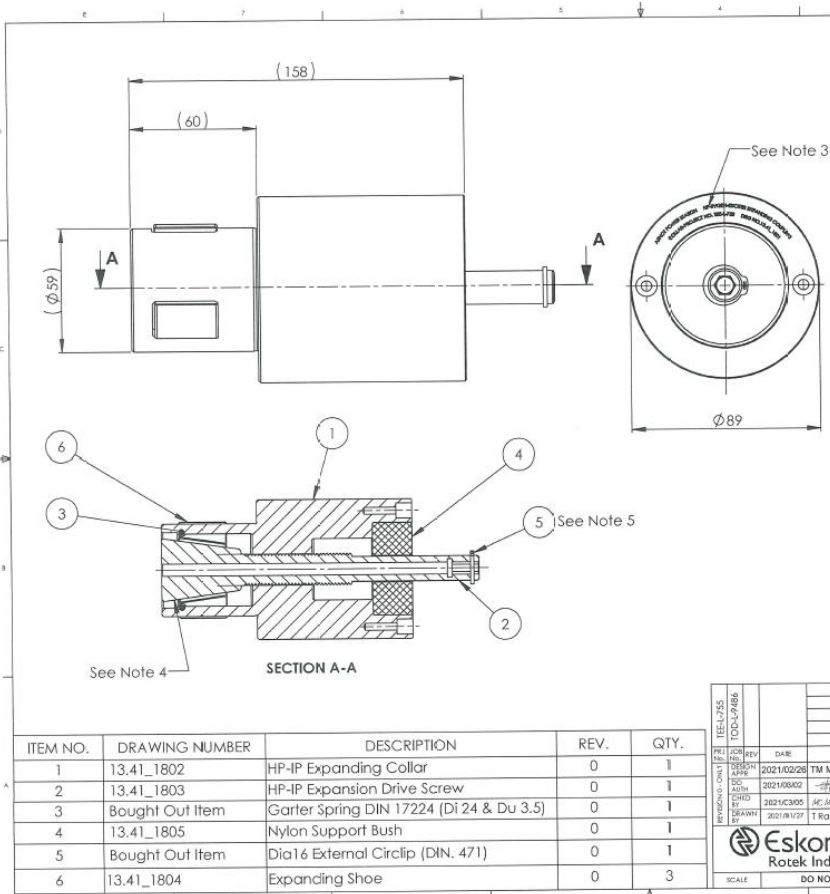












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IF IN DOUBT ASK



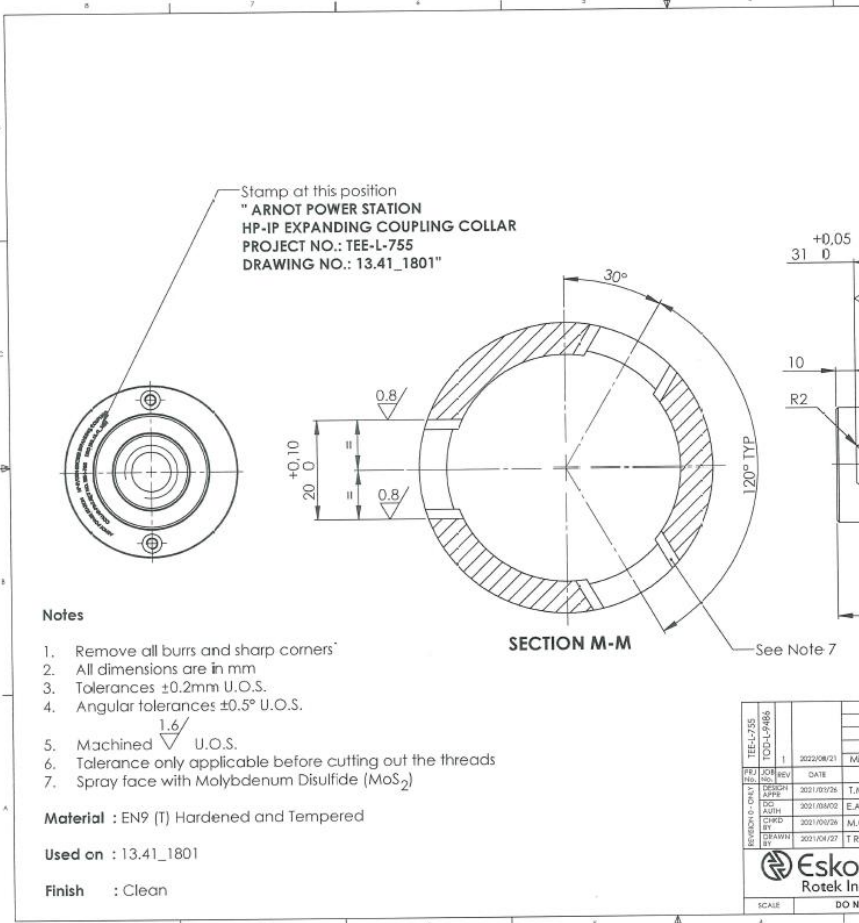
ISOMETRIC VIEW

- Notes**
1. All dimensions are in mm
 2. All dimensions in (...) are for information only
 3. Stamp at this position "ARNOT POWER STATION HP-IP EXPANDING COUPLING COLLAR PROJECT NO.: TEE-L-755 DRAWING NO.: 13.41_1801"
 4. Spray face with Molybdenum Disulfide (MoS₂)
 5. Item 5 to be pressed in housing
- Used on : 13.41_1797

ITEM NO.	DRAWING NUMBER	DESCRIPTION	REV.	QTY.
1	13.41_1802	HP-IP Expanding Collar	0	1
2	13.41_1803	HP-IP Expansion Drive Screw	0	1
3	Bought Out Item	Garter Spring DIN 17224 (Di 24 & Du 3.5)	0	1
4	13.41_1805	Nylon Support Bush	0	1
5	Bought Out Item	Dia 16 External Circlip (DIN. 471)	0	1
6	13.41_1804	Expanding Shoe	0	3

REV	BY	CHKD	DATE	REVISION DESCRIPTION	REV	CHKD	DATE	REFERENCE DRAWINGS
1	T. Ramphelle		2021/02/28	TM Motuung				
2	E.A. Mammaba		2021/06/02					
3	M.C. Moshia		2021/12/05					
4	T. Ramphelle		2021/06/17					

Eskom Rotek Industries
 DO NOT SCALE
 DATE: 08.03.21
 DRAWING NO.: **13.41_1801**
 SHEET: 1 OF 1
 REV: 0



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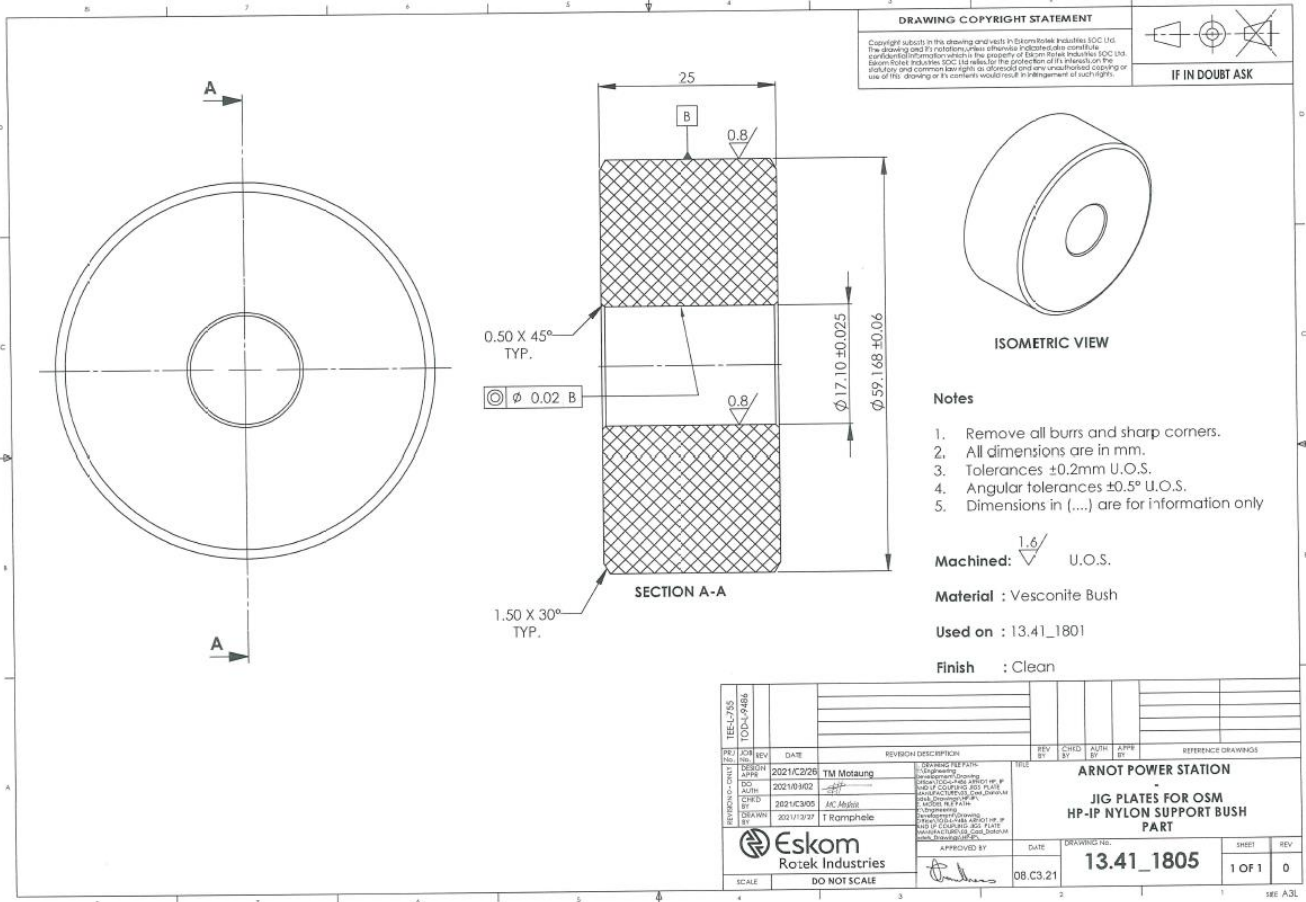
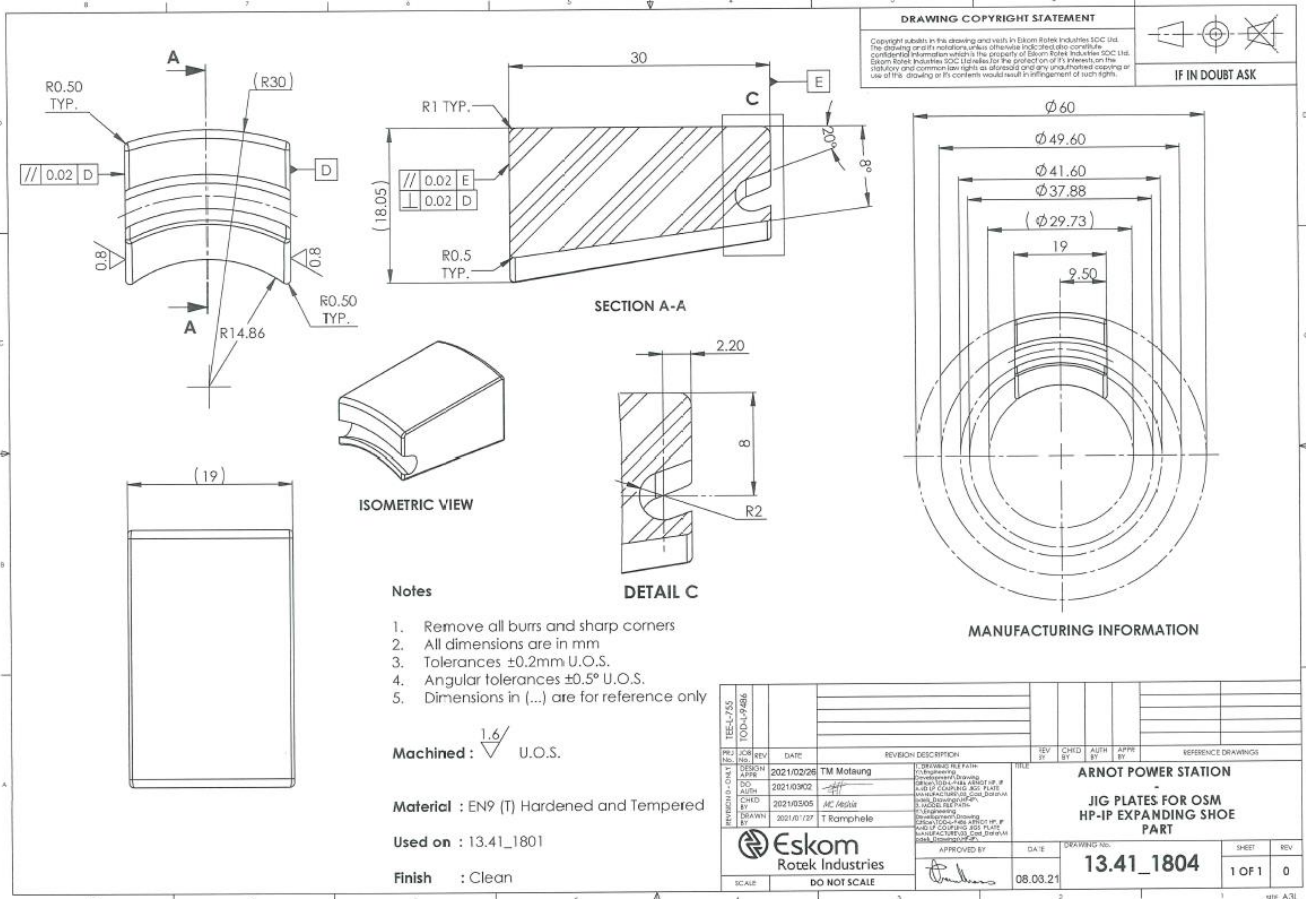
ISOMETRIC VIEW

- Notes**
1. Remove all burrs and sharp corners
 2. All dimensions are in mm
 3. Tolerances ±0.2mm U.O.S.
 4. Angular tolerances ±0.5° U.O.S.
 5. Machined $\sqrt{1.6}$ U.O.S.
 6. Tolerance only applicable before cutting out the threads
 7. Spray face with Molybdenum Disulfide (MoS₂)

Material : EN9 (T) Hardened and Tempered
Used on : 13.41_1801
Finish : Clean

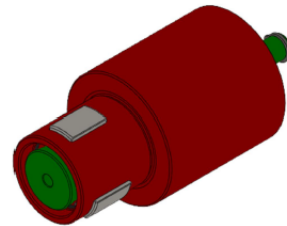
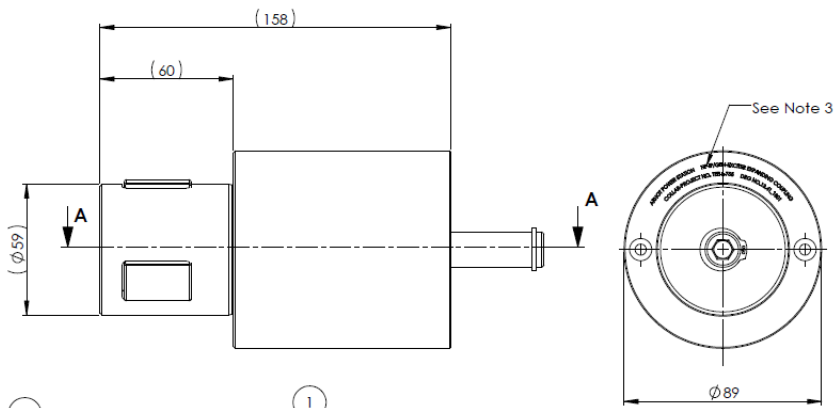
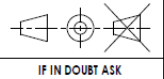
REV	BY	CHKD	DATE	REVISION DESCRIPTION	REV	CHKD	DATE	REFERENCE DRAWINGS
1	T. Ramphelle		2022/06/21	Missing dimension has been added				
2	T.M. Motuung		2021/03/26					
3	E.A. Mammaba		2021/06/02					
4	M.C. Moshia		2021/06/02					
5	T. Ramphelle		2021/06/17					

Eskom Rotek Industries
 DO NOT SCALE
 DATE: 08.03.21
 DRAWING NO.: **13.41_1802**
 SHEET: 1 OF 2
 REV: 1

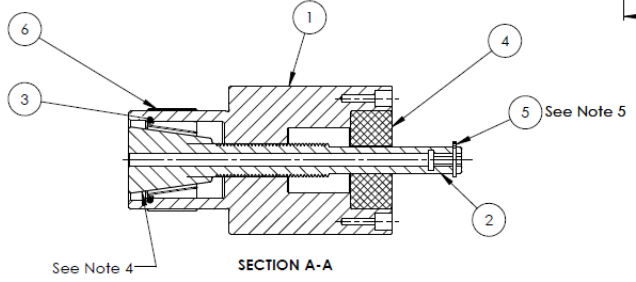


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ISOMETRIC VIEW



Notes

1. All dimensions are in mm
2. All dimensions in (...) are for information only
3. Stamp at this position: **ARNOT POWER STATION
HP-IP EXPANDING COUPLING COLLAR
PROJECT NO.: TEE-L-755
DRAWING NO.: 13.41_1801**
4. Spray face with Molybdenum Disulfide (MoS₂)
5. Item 5 to be pressed in housing

Used on : 13.41_1797

ITEM NO.	DRAWING NUMBER	DESCRIPTION	REV.	QTY.
1	13.41_1802	HP-IP Expanding Collar	0	1
2	13.41_1803	HP-IP Expansion Drive Screw	0	1
3	Bought Out Item	Garter Spring DIN 17224 (Di 24 & Du 3.5)	0	1
4	13.41_1805	Nylon Support Bush	0	1
5	Bought Out Item	Dia16 External Circlip (DIN, 471)	0	1
6	13.41_1804	Expanding Shoe	0	3

PREPARED BY: TEE-L-755 DESIGNED BY: TEE-L-755 CHECKED BY: TEE-L-755 DRAWN BY: TEE-L-755	DATE: 20210208 DATE: 20210302 DATE: 20210305 DATE: 20210127	REVISION DESCRIPTION: 1. DRAWING SET PART 1 2. Development Drawing 3. HP-IP Expanding Collar 4. MANUFACTURING SCALE DRAWING 5. MOCING TEE-L-755 6. Development Drawing 7. Development Drawing 8. Development Drawing 9. Development Drawing	REV BY: [Signature] CHKD BY: [Signature] AUTH BY: [Signature] APPR BY: [Signature]	REFERENCE DRAWINGS: ARNOT POWER STATION JIG PLATES FOR OSM HP-IP EXPANDING COUPLING COLLAR ASSEMBLY
ESCOM ROTEK INDUSTRIES DO NOT SCALE		APPROVED BY: [Signature] DATE: 08.03.21	DRAWING NO.: 13.41_1801	SHEET: 1 OF 1 REV: 0