

312992



# Part Submission Warrant

Part Name	<b>Input shaft Outer</b>	Customer Part Number	<b>250.6.3880.35</b>
Shown on Drawing No.	<b>250.6.3880.35</b>	Organization Part #	
Engineering Change Level	<b>h C007260_MIP_1</b>	Dated	<b>10-gen-17</b>
Additional Engineering Changes		Dated	
Safety and/or Government Regulation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Purchase Order No.	
Weight (kg)			<b>1.5440</b>
Checking Aid No.		Checking Aid Engineering Change Level	
		Dated	

### ORGANIZATION MANUFACTURING INFORMATION

### CUSTOMER SUBMITTAL INFORMATION

#### GETRAG MODUGNO

Organization Name & Supplier/Vendor Code

**VIA DEI CICLAMINI N°4**

Street Address

**MODUGNO BARI 70026 ITALY**

City Region Postal Code Country

Customer Name/Division

Buyer/Buyer Code

**DCT250**

Application

### MATERIALS REPORTING

Has customer-required Substances of Concern information been reported?  Yes  No  n/a

Submitted by IMDS or other customer format:

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Are polymeric parts identified with appropriate ISO marking codes?  Yes  No  n/a

### REASON FOR SUBMISSION (Check at least one)

<input type="checkbox"/> Initial Submission	<input type="checkbox"/> Change to Optional Construction or Material
<input checked="" type="checkbox"/> Engineering Change(s)	<input type="checkbox"/> Supplier or Material Source Change
<input type="checkbox"/> Tooling: Transfer, Replacement, Refurbishment, or additional	<input type="checkbox"/> Change in Part Processing
<input type="checkbox"/> Correction of Discrepancy	<input type="checkbox"/> Parts Produced at Additional Location
<input type="checkbox"/> Tooling Inactive > than 1 year	<input type="checkbox"/> Other - please specify below

### REQUESTED SUBMISSION LEVEL (Check one)

Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.

Level 2 - Warrant with product samples and limited supporting data submitted to customer.

Level 3 - Warrant with product samples and complete supporting data submitted to customer.

Level 4 - Warrant and other requirements as defined by customer.

Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

### SUBMISSION RESULTS

The results for  dimensional measurements  material and functional tests  appearance criteria  statistical process package

These results meet all drawing and specification requirements:  Yes  NO (If "NO" - Explanation Required)

Mold / Cavity / Production Process \_\_\_\_\_

### DECLARATION

I hereby affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at the production rate of 2000 / 24 hours. I also certify that documented evidence of such compliance is on file and available for review. I have noted any deviations from this declaration below.

EXPLANATION / COMMENTS: **Drawing correction with standard Tip diameter tolerance used for topping machining (increased)**

Is each Customer Tool properly tagged and numbered?  Yes  No  n/a

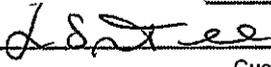
Organization Authorized Signature  Date **24/01/2017**

Print Name **Camarda Ettore** Phone No. **tel 390805858220** Fax No. \_\_\_\_\_

Title **Area 1 Manager** E-mail **ettore.camarda@magna.com**

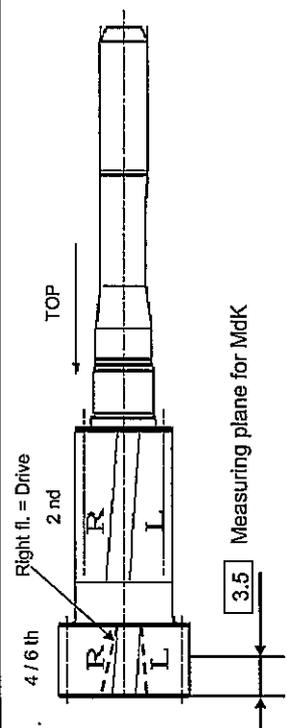
FOR CUSTOMER USE ONLY (IF APPLICABLE)

Part Warrant Disposition:  Approved  Rejected  Other

Customer Signature  Date **24.01.17**

Print Name \_\_\_\_\_ Customer Tracking Number (optional) \_\_\_\_\_

STIRNRAD GEAR		Toleranzen der Verzahnung (DIN 3961 vom Aug. 1978) gültig für Werte am Einzelzahn Tolerances of gearing (DIN 3961 of Aug. 1978) valid for values at individual tooth	
ausenverzahnt external		linke Fl. left flank	rechte Fl. right flank
Zähnezahl Number of teeth	49	# 0.004	# 0.004
Modul Normal module	1.800000		
Eingriffswinkel Normal pressure angle	17° 30' 0"		
Schätigungswinkel Helix angle	24° 0' 0"		
Steigungsrichtung Hand of helix	RIGHT		
Profilverschiebungsfaktor Addendum modification coeff.	0.200		
Teilkreisdurchmesser Pitch diameter	96.547		
Kopfkreisdurchmesser Outside diameter	101.90 -0.26		
Kopfnutzkreisd. theo. max. d <sub>na</sub> Tip diam. usable theo.	101.45		
Kopfnutzkreisd. theo. min. d <sub>na</sub> Tip diam. usable theo.	101.15		
Fußkreisdurchmesser Root diameter	91.70 -0.35		
Fußnutkreisdurchmesser Root diameter usable	94.32		
Grundkreisradius Base circle radius	45.632		
Grundkreisdurchmesser Base diameter	91.264		
Normalzahnstärke max. s <sub>n</sub> Normal tooth thickness	3.054		
Normalzahnstärke min. s <sub>n</sub> Normal tooth thickness	3.029		
Meßzähnezahl Number of teeth spanned			
Zahnweite max. W <sub>k</sub> Base tangent length			
Zahnweite min. W <sub>k</sub> Base tangent length			
Meßkugeldurchmesser Ball diameter	3.0000		
Diam. Zweikugelmäß max. M <sub>dk</sub> Measurement o. balls	101.118		
Diam. Zweikugelmäß min. M <sub>dk</sub> Measurement o. balls	101.047		
Verdrehtflankenspiel theo. Circumferential backlash	0.067		
	0.162		

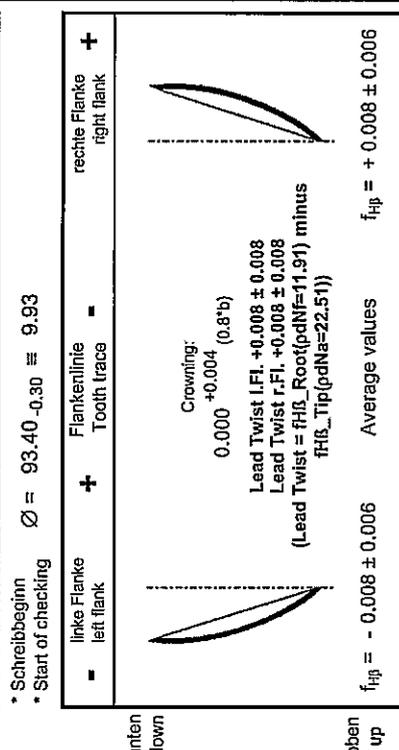
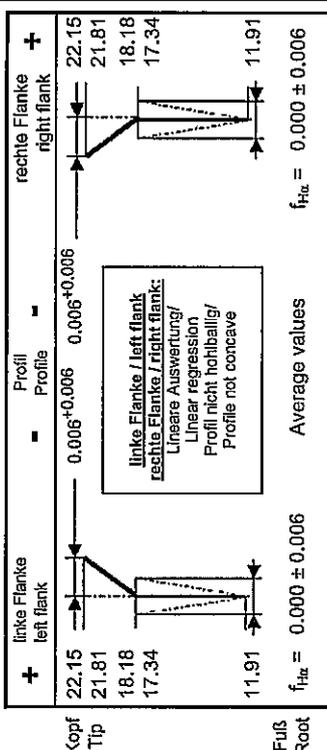


Hondurchmesser = 93.40 -0.30 ± 9.93 honing diameter

# Der Verlauf der Profil- und Flankenlinie muss über den Messbereich stetig sein (ein- oder mehrfache Richtungsänderungen sind nicht zulässig)

# The form of the profile and helix has to be continuous (one or more changes of directions are not allowed)

Für fp max. zwei Wellen zulässig  
For fp max. two waves allowed



\* f<sub>rat</sub> (zwischen dNf und dem Schreibbeginn ds) max fit/2, jedoch 0.003 zulässig  
\* f<sub>rat</sub> (between dNf and start of checking ds) max fit/2, 0.003 allowable.

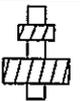
Profil- und Flankenlinienprüfung nach VDI/VDE 2612  
Tabellenwerte für F<sub>p</sub> und f<sub>fp</sub> sind auf die gesamte Radbreite im Meßkreis d<sub>m</sub> bezogen  
Flankenlinienprüfbereich L<sub>p</sub> = 0.8\*b hochgerechnet auf 1.0\*b  
Begriffe für Stirnräder nach DIN 868, 3960, 3998

Profil and helix checking according to VDI/VDE 2612  
Listed tolerance data for F<sub>p</sub> and f<sub>fp</sub> refers to the total face width in the meas. dia. d<sub>m</sub>  
Tooth trace testing area L<sub>p</sub> = 0.8\*b calculated to 1.0\*b  
Terms of the tooth system according to DIN (German Industrial Standards) No. 868, 3960, 3998

Verteiler:		Schutzvermerk nach ISO 16016 beachten Protection per ISO 16016	
Buch. Anz.		Cricenti	
Änd.Nr.		2020117	
Datum		2012-01-13	
Name		Paalen, Holger	
Dateiname		250	
Ersatz für		Verzahnungsblatt Endkontrollen	
Erstverwendung bei Getriebeart:		Final Check Gear Data	
Abbildungen sind unmaßstäblich. Diagrams not to scale.		Bezeichnung	
Datum		250	
Name		Inhalt	
gez. 2012-01-13		Inhalt	
gepr.		Inhalt	
Zeichnungsnummer		250.63880.35	
Drawing number		250.63880.35	
Remark:		250.63880.35	



# Ruota cilindrica Evolvente/Elica



Nr. prog.: STI0412 06 0	P26 B7590	Controllore: turno b	Data: 24.01.2017 16:42
Denominazione: Input Outer Z49	Numero denti z: 49	Largh.fasc.dent. b: 13.85mm	
Numero disegno.: 250.6.3880.35-IG H	Modulo m: 1.8mm	Tratto evolv. La: 9.63mm	
Comessa/serie nr.: 1	Angolo pressione: 17.5°	Tratto elica Lb: 11.08mm	
Masch.Nr.: M001	Spindel: Formale elicoidale	Angolo elicoidale: 24°	Inizio elab. M1: 12.06mm
Untersuchungszweck: Laufende Messung	Ø Base db: 91.2641mm	Palpatore Ø (#2C): 1mm	
Werkzeug:	Charge:	Ang. Base: 22.825°	Fat.scor.pr. x: .2

<p>Testa-Ø: 101.707mm</p> <p>[101.64/101.9]</p>	
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	VDI
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Drawing 3880 update from index "g" to "h"

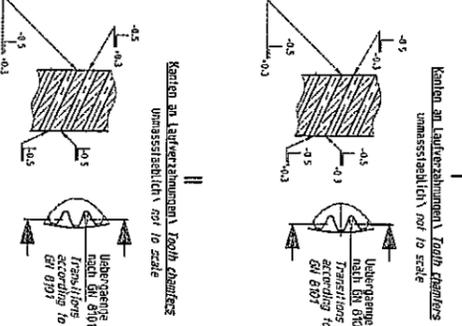
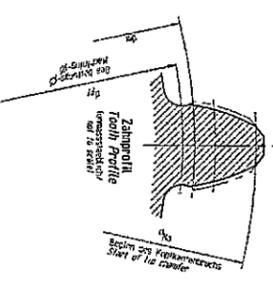
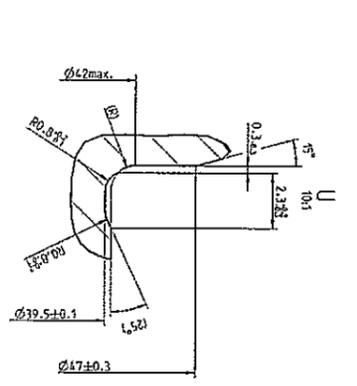
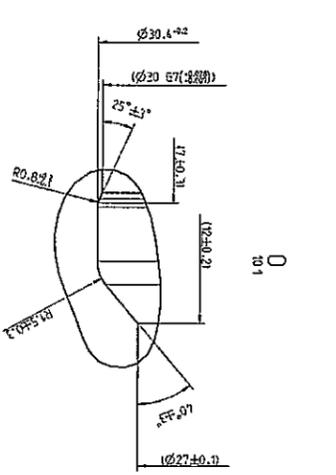
Short description:

h	1x	007260_MIP_	VIEW A-A: Kopfkreis-Ø/TIP DIAMETER Ø101.9-0.26 WIP/W 45 Ø101.9-0.2	20170110
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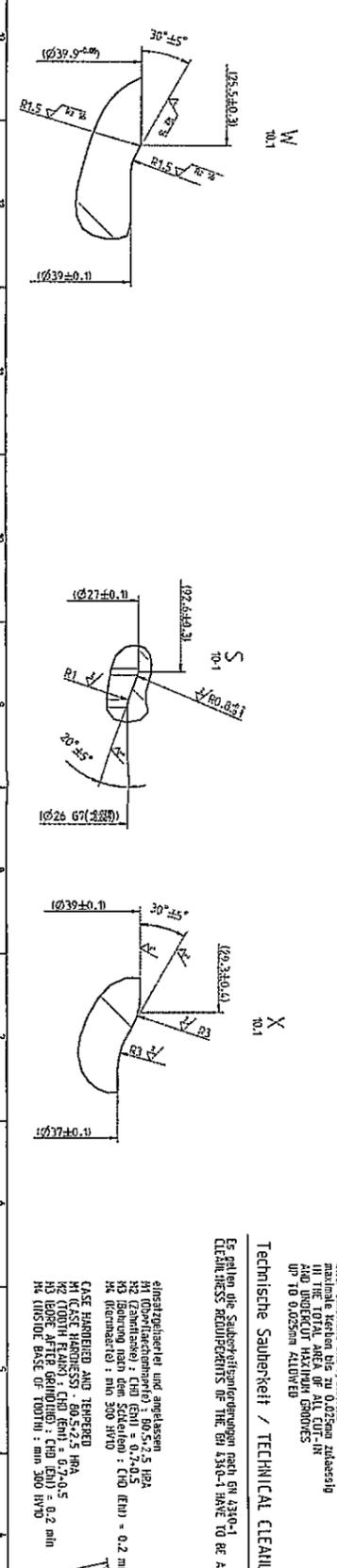
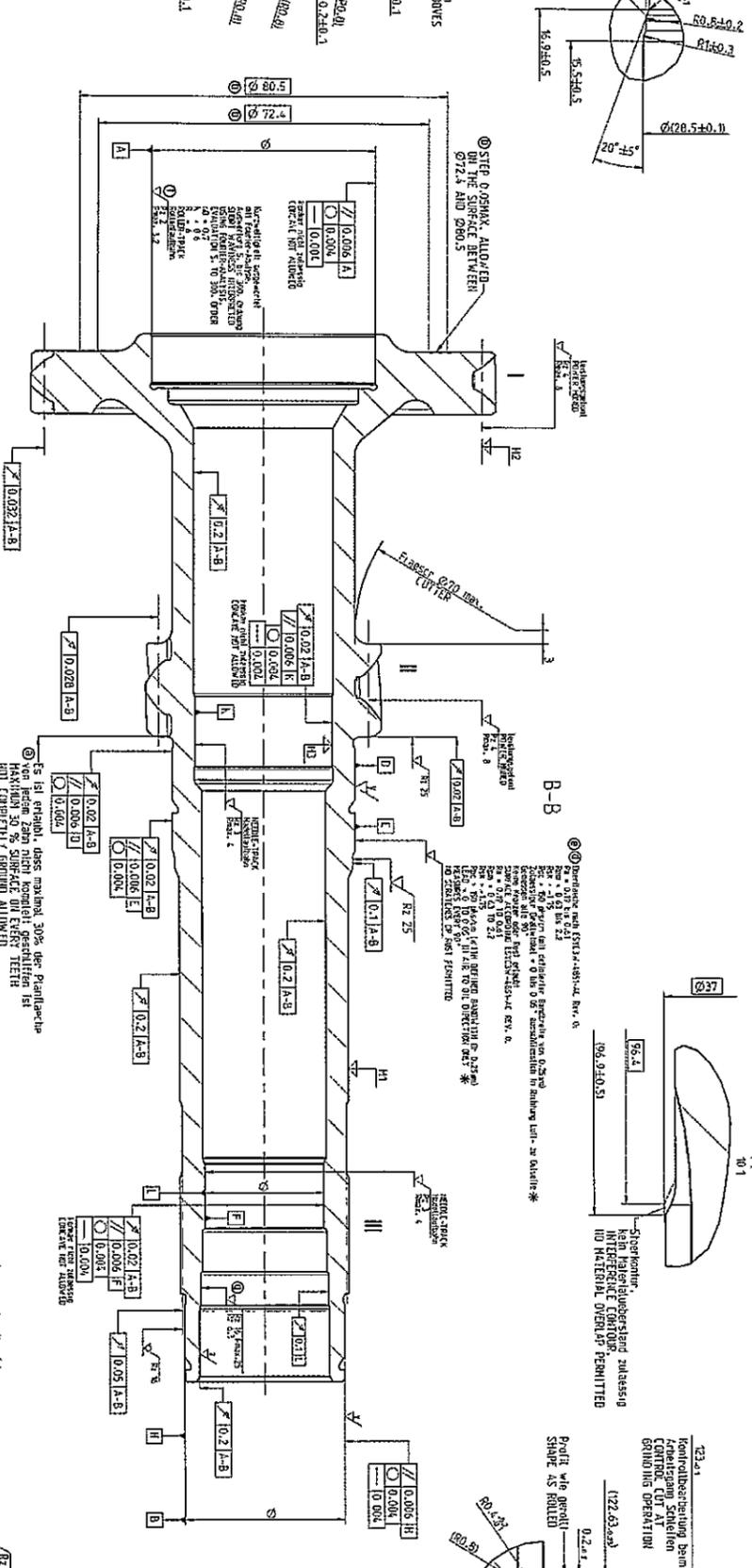
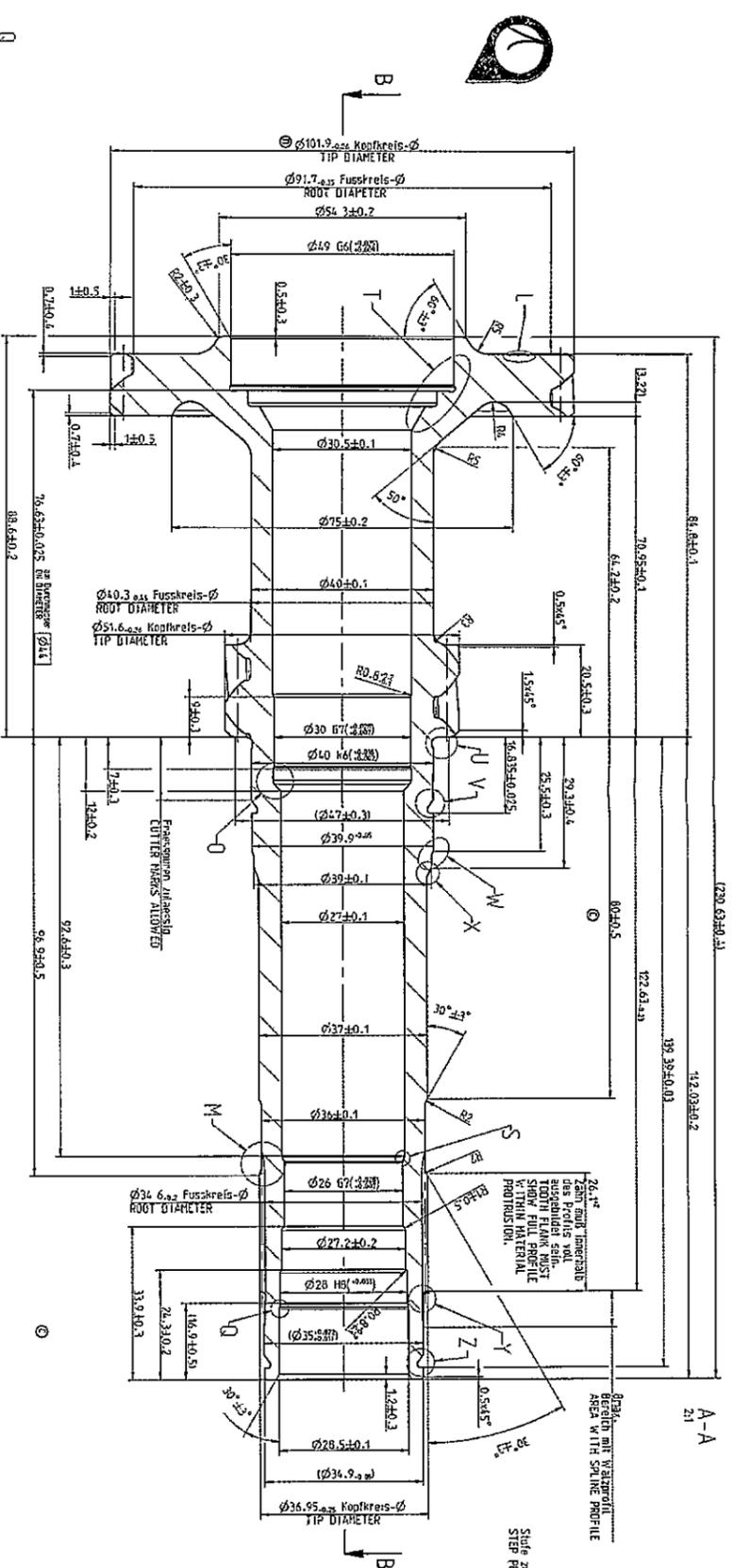
PPAP Requirements		Required	Note for ind. "b"
1	Design Records	Yes	
2	Authorized Engineering change documents	Yes	see dwg
3	Customer Engineering approval	n.a.	
4	DFMEA	NO	
5	Process flow diagram(s)	NO	
6	PFMEA	NO	only drawing correction with increased tolerance
7	Control plan	Yes	Correlation sheet change
8	Measurement system analysis studies	NO	
9	Dimensional results	Yes	
10	Records of Material / Performance test results	NO	
11	Initial process studies	NO	
12	Qualified laboratory documentation	NO	
13	Appearance Approval Report (A.A.R.)	n.a.	
14	Sample Production Parts	Yes	
15	Master sample	Yes	
16	Checking aids	n.a.	
17	Customer-Specific Requirements	NO	
18	Part Submission Warrant (PSW)	Yes	

PPAP Docs updated
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes

Other requirements			
1	PSW Raw part	NO	
2	PSW E.P. part	NO	
3	PSW Engagement Rings	NO	

Ausgangszugung / EXTERNAL GEAR		SÄE PIPES 32164	
Material / Material	2012418	Material / Material	2012418
Produktionszeichnung / Drawing	2012417	Produktionszeichnung / Drawing	2012417
Materialbezeichnung / Material Name	2012418	Materialbezeichnung / Material Name	2012418
Zeichnungsnummer / Drawing Number	2012418	Zeichnungsnummer / Drawing Number	2012418
Datum / Date	2012418	Datum / Date	2012418
Zeichnungsart / Drawing Type	2012418	Zeichnungsart / Drawing Type	2012418
Produktionszeichnung / Drawing	2012417	Produktionszeichnung / Drawing	2012417
Materialbezeichnung / Material Name	2012418	Materialbezeichnung / Material Name	2012418
Zeichnungsnummer / Drawing Number	2012418	Zeichnungsnummer / Drawing Number	2012418
Datum / Date	2012418	Datum / Date	2012418
Zeichnungsart / Drawing Type	2012418	Zeichnungsart / Drawing Type	2012418



Technische Sauberkeit / TECHNICAL CLEANLINESS:  
 Es gelten die Sauberkeitsanforderungen nach DIN 4300-1  
 CLEANNESS REQUIREMENTS OF THE DIN 4300-1 HAVE TO BE APPLIED

INPUT SHAFT OUTER	
Material / Material	2012418
Produktionszeichnung / Drawing	2012417
Materialbezeichnung / Material Name	2012418
Zeichnungsnummer / Drawing Number	2012418
Datum / Date	2012418
Zeichnungsart / Drawing Type	2012418
Produktionszeichnung / Drawing	2012417
Materialbezeichnung / Material Name	2012418
Zeichnungsnummer / Drawing Number	2012418
Datum / Date	2012418
Zeichnungsart / Drawing Type	2012418