

312797



Part Submission Warrant

Part Name	Speed Gear 5	Customer Part Number	250.1.4225.37
Shown on Drawing No.	250.1.4225.37	Organization Part #	
Engineering Change Level	d C007260_MIP_1	Dated	10-gen-17
Additional Engineering Changes		Dated	
Safety and/or Government Regulation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Purchase Order No.	
Weight (kg)			0.3730
Checking Aid No.		Checking Aid Engineering Change Level	
		Dated	

ORGANIZATION MANUFACTURING INFORMATION

GETRAG MODUGNO

Organization Number and Plant Location Code

VIA DEI CICLAMINI N°4

Street Address

MODUGNO BARI 70026 ITALY

City Region Postal Code Country

CUSTOMER SUBMITTAL INFORMATION

Customer Name Structure

Project Buyer Code

DCT250

Supply Part

MATERIALS REPORTING

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

Submitted by IMDS or other customer format:

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

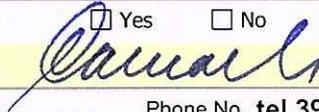
DECLARATION

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

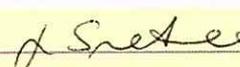
Organization Authorized Signature  Date **31/01/2017**

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

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

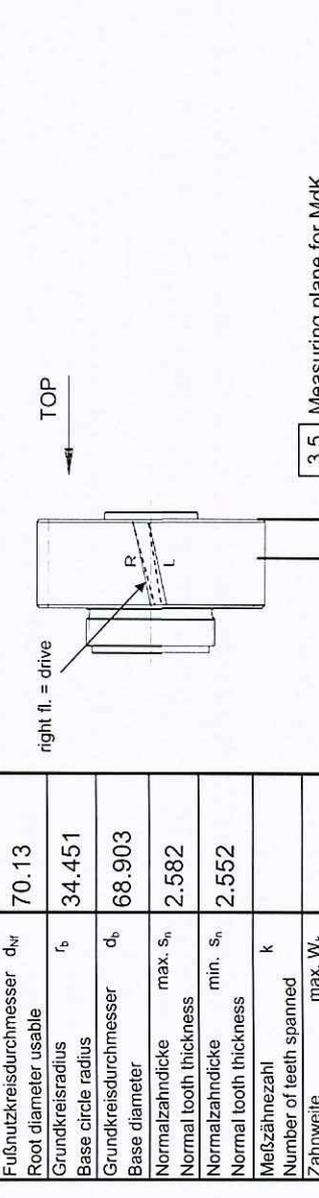
FOR CUSTOMER USE ONLY (IF APPLICABLE)

Part Warrant Disposition: Approved Rejected Other

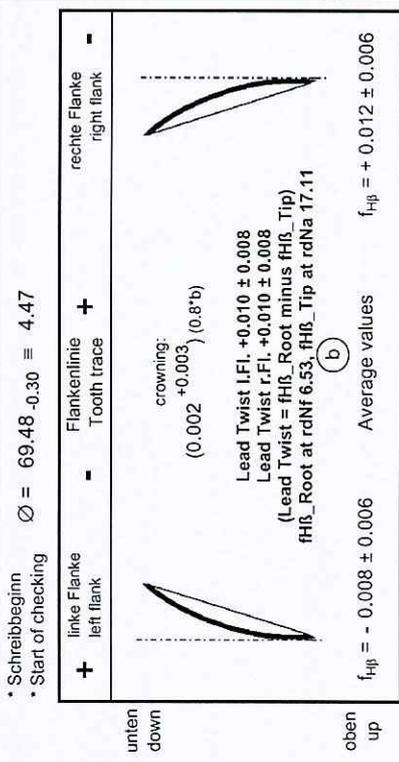
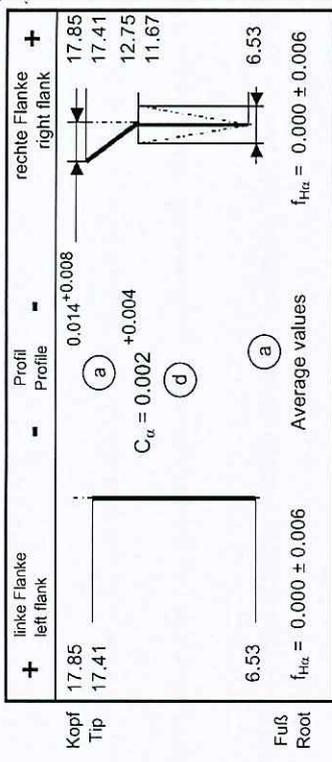
Customer Signature  Date **31.01.17**

Print Name **F. SPEZZA** Customer Tracking Number (optional)

STIRNRAD		Toleranzen der Verzahnung (DIN 3961 vom Aug. 1978)				(8)	
GEAR		gültig für Werte am Einzelzahn				Tolerances of gearing (DIN 3961 of Aug. 1978)	
valid for values at individual tooth		linke Fl. left flank	rechte Fl. right flank				
außenverzahnt external							
Zähnezahl Number of teeth	z						
Modul Normal module	m_n						
Eingriffswinkel Normal pressure angle	α_n						
Schrägungswinkel Helix angle	β						
Steigungsrichtung Hand of helix							
Profilierschiebungsfaktor Addendum modification coeff.	x						
Teilkreisdurchmesser Pitch diameter	d						
Kopfkreisdurchmesser Outside diameter	d_a						
Kopfnutzkreis, theo. max. usable theo.	d_{ia}						
Kopfnutzkreis, theo. min. usable theo.	d_{ia}						
Fußkreisdurchmesser Root diameter	d_f						
Fußnutzkreisdurchmesser Root diameter usable	d_{fr}						
Grundkreisradius Base circle radius	r_b						
Grundkreisdurchmesser Base diameter	d_b						
Normalzahnstärke Normal tooth thickness	max. s_n						
Normalzahnstärke Normal tooth thickness	min. s_n						
Meßzähnezahl Number of teeth spanned	k						
Zahnweite Base tangent length	max. W_k						
Zahnweite Base tangent length	min. W_k						
Meßkugeldurchmesser Ball diameter	D_M						
Diam. Zweikugelmaß Measurement o. balls	max. M_{2K}						
Diam. Zweikugelmaß Measurement o. balls	min. M_{2K}						
Verdrehfankenpiel Circumferential backlash	theo. 0.070						
	0.175						



Measuring plane for Mdk	
Hondurchmesser honing diameter	$69.48 - 0.30 \approx 4.47$



* Schreibebeginn $\varnothing = 69.48 - 0.30 \approx 4.47$
 * Start of checking
 * Profil Profile
 * Flankenlinie Tooth trace
 * Profil- und Flankenlinienprüfung nach VDI/VDE 2612
 * Listed tolerance data for F_β and $f_{H\beta}$ refers to the total face width in the meas. dia. d_M
 * Tooth trace testing area $L\beta = 0.8*b$ hochgerechnet auf $1.0*b$
 * Terms of the tooth system according to DIN (German Industrial Standards) No. 868, 3960, 3998

Verteiler:	
See change report	20/0117 Cricenti
See change report	20/1106 Cricenti
See change report	20/3028 Cricenti
See change report	20/3055 Cricenti
See change report	14/02/01 Cricenti
Buch. Anz. Änd.Nr.	Datum Name
Abbildungen sind unmaßstäblich. Diagrams not to scale.	
Ersatz für Erstverwendung bei Getriebetypen: 250.0.0004.16	
Datum Name	Verzahnungsblatt Endkontrolle
gez. 2009-11-18 Paaßen, Holger	Final Check Gear Data
gepr.	Benennung: Naming:
Schaltrrad 5.Gg.	
Zeichnungsnummer: Drawing number:	
250.1.4225.37	

Ruota cilindrica Evolvente/Elica



Nr. prog.: STI0412 06 0	P26 B7590	Controllore: turno c	Data: 31.01.2017 10:01
Denominazione: SR5		Numero denti z 38	Largh.fasc.dent. b 13.5mm
Numero disegno.: 250.1.4225.37-ICA		Modulo m 1.7mm	Tratto evolv. La 10.88/5.14mm
Commessa/serie nr.: Pz. 1		Angolo pressione 17.5°	Tratto elica Ls 10.8mm
Masch.Nr.: M001	Spindel: Formn	Angolo elica -28°	Inizio elab. M1 6.53mm
Untersuchungszweck: Laufende Messung		Ø Base db 68.9026mm	Palpatore Ø (#2C) 1mm
Werkzeug:	Charge:	Ang. Base -26.599°	Fat.scor.pr. x -.083

TIRO

Testa-Ø: 77.987mm [77.79/78.05]

VDI

Ruota cilindrica Evolvente/Elica



Nr. prog.: STI0412_06 0	P26 B7590	Controllore: turno c	Data: 31.01.2017 10:03
Denominazione: SR5		Numero denti z 38	Largh.fasc.dent. b 13.5mm
Numero disegno.: 250.1.4225.37-ICA		Modulo m 1.7mm	Tratto evolv. La 10.88/5.14mm
Commessa/serie nr.: Pz. 2		Angolo pressione 17.5°	Tratto elica Lβ 10.8mm
Masch.Nr.: M001	Spindel: Forme	Angolo elica -28°	Inizio elab. M1 6.53mm
Untersuchungszweck: Laufende Messung		Ø Base db 68.9026mm	Palpatore Ø (#2C) 1mm
Werkzeug:	Charge:	Ang. Base -26.599°	Fat.scor.pr. x -.083

TIRO

Testa-Ø: 77.986mm [77.79/78.05]

VDI

Ruota cilindrica Evolvente/Elica



Nr. prog.: STI0412_06 0	P26 B7590	Controllore: turno c	Data: 31.01.2017 10:04
Denominazione: SR5		Numero denti z 38	Largh.fasc.dent. b 13.5mm
Numero disegno.: 250.1.4225.37-ICA		Modulo m 1.7mm	Tratto evolv. La 10.88/5.14mm
Commessa/serie nr.: Pz. 3		Angolo pressione 17.5°	Tratto elica L& 10.8mm
Masch.Nr.: M001	Spindel: Formata	Angolo elicale -28°	Inizio elab. M1 6.53mm
Untersuchungszweck: Laufende Messung		Ø Base db 68.9026mm	Palpatore Ø (#2C) 1mm
Werkzeug:	Charge:	Ang. Base -26.599°	Fat.scor.pr. x -.083

TIRO

Testa-Ø: 78.023mm [77.79/78.05]

VDI

Ruota cilindrica Evolvente/Elica



Nr. prog.: STI0412_06 0	P26 B7590	Controllore: turno c	Data: 31.01.2017 10:06
Denominazione: SR5		Numero denti z 38	Largh.fasc.dent. b 13.5mm
Numero disegno.: 250.1.4225.37-ICA		Modulo m 1.7mm	Tratto evolv. La 10.88/5.14mm
Commessa/serie nr.: Pz. 4		Angolo pressione 17.5°	Tratto elica Ls 10.8mm
Masch.Nr.: M001	Spindel: Formn. 101	Angolo elica -28°	Inizio elab. M1 6.53mm
Untersuchungszweck: Laufende Messung		Ø Base db 68.9026mm	Palpatore Ø (#2C) 1mm
Werkzeug:	Charge:	Ang. Base -26.599°	Fat.scor.pr. x -.083

TIRO

Testa-Ø: 78.023mm [77.79/78.05]

VDI

Ruota cilindrica Evolvente/Elica



Nr. prog.: STI0412_06 0	P26 B7590	Controllore: turno c	Data: 31.01.2017 10:08
Denominazione: SR5		Numero denti z 38	Largh.fasc.dent. b 13.5mm
Numero disegno: 250.1.4225.37-ICA		Modulo m 1.7mm	Tratto evolv. La 10.88/5.14mm
Commessa/serie nr.: Pz. 5		Angolo pressione 17.5°	Tratto elica L8 10.8mm
Masch.Nr.: M001	Spindel: Formn	Angolo elica -28°	Inizio elab. M1 6.53mm
Untersuchungszweck: Laufende Messung		Ø Base db 68.9026mm	Palpatore Ø (#2C) 1mm
Werkzeug:	Charge:	Ang. Base -26.599°	Fat.scor.pr. x -.083

TIRO

Testa-Ø: 78.023mm [77.79/78.05]

VDI



