

310739

Report

72230 - T

Change Request <input type="checkbox"/>	Change Order <input checked="" type="checkbox"/>	Initiator of Change
Reason for Change		External: Customer <input type="checkbox"/>
Drawings distribution		Supplier <input type="checkbox"/>
Reference		Internal: <input checked="" type="checkbox"/>
German change order: 36202_1; 35890; 35889 and 35888.		Issued by:
		Team: B/WLQ1
		Name: M. Di Pasquale
		Date: August, 19th 2014
Description of Change		
# see chapter 2 #		

Distribution List	Drawings (DDA)	Change Information		Drawings (DDA)	Change Information
Issuer	<input type="checkbox"/>	<input checked="" type="checkbox"/>	B/WLQ1: Central Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B/ELE1: Product Engineering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	B/WLQ3: Customer Service	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B/ELE2/3: Testing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	B/WLQ2: Metallurgical Laboratory	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B/WLP: ME	<input type="checkbox"/>	<input checked="" type="checkbox"/>	B/GPS1: Production line - Gears	<input type="checkbox"/>	<input type="checkbox"/>
B/EX: Program management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	B/GPS2: Production line - Shafts	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B/BLF: Finance & Controlling	<input type="checkbox"/>	<input type="checkbox"/>	B/GPS3: Housings (2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B/EEL: Logistics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	B/GPS4: Assembly line	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B/WLQ4: SQA	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
B/WLQ4: Incoming Inspection (1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Getrag Plants

DEU: Untergruppenbach	<input type="checkbox"/>	<input type="checkbox"/>	GEC: Sterling Heights	<input type="checkbox"/>	<input type="checkbox"/>
DEL: Ludwigsburg	<input type="checkbox"/>	<input type="checkbox"/>	GPG: Charlestone	<input type="checkbox"/>	<input type="checkbox"/>
DEN: Neuenstein	<input type="checkbox"/>	<input type="checkbox"/>	GFT: Köln	<input type="checkbox"/>	<input type="checkbox"/>
DER: Rosenberg	<input type="checkbox"/>	<input type="checkbox"/>	GFT: Kechnec	<input type="checkbox"/>	<input type="checkbox"/>
DEW: Bad Windsheim	<input type="checkbox"/>	<input type="checkbox"/>	GTC: Detroit	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Customers

C'HANGAN: Chongqing (CN)	<input type="checkbox"/>	<input type="checkbox"/>	FORD: Detroit (US)	<input type="checkbox"/>	<input type="checkbox"/>
CUMMINS: Darlington (US)	<input type="checkbox"/>	<input type="checkbox"/>	LAND ROVER: Longbridge (UK)	<input type="checkbox"/>	<input type="checkbox"/>
GME: Rüsselsheim (DE)	<input type="checkbox"/>	<input type="checkbox"/>	NAMG: Longbridge (UK)	<input type="checkbox"/>	<input type="checkbox"/>
GMB: São Paulo Brazil (BR)	<input type="checkbox"/>	<input type="checkbox"/>	RENAULT: Paris (FR)	<input type="checkbox"/>	<input type="checkbox"/>
GM-NAO & SATURN: Detroit (US)	<input type="checkbox"/>	<input type="checkbox"/>	ROVER: Longbridge (UK)	<input type="checkbox"/>	<input type="checkbox"/>
FIAT: Torino (IT)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Remarks

(1) This department has to receive the drawings: 2500354800, 2500323801, 2500323200, 2500323400, 2500354000, 2500353221 and 2500353222
 (2) This department has to receive the drawings: 2500354801 and 2500353220.

BP

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2 Info

36202-1: Short waviness on bearing races between input shafts was found to be the root cause of Reverse Whine (Whistle), which is sever affecting the FTT at GTM -the Input Shaft Outer from supplier Linamar is the largest contributor-

The countermeasure is the control of short waviness by Fourier analysis on the bearing journal of diameter 49.

Prints of Input Shaft Inner have already a specification using Fourier analysis (previously released e.g. CO35236_1 or since their creation).

After many investigations and a six-sigma project, Linamar has committed to the new specification using Fourier analysis, leading to its approval in CCB. It is now added to Bari's prints of Input Shafts Outer.

Only Bari's prints for all applications (Ford, Renault, Edison) are modified. Linamar's prints were already released with CO36202 and prints of GJT include already this specification. Additionally, the roughness in that diameter (D49) has different values between applications.

Reason for this is unknown. Therefore, some prints are changed to standardize this specification with the other prints, which are majority –Bari, Linamar and Qoros-.

35890: Getrag contractually agreed on Ford's branding directive. This change is to make modifications to the raw housings. New CAD data sent to supplier.

35889: Getrag contractually agreed on Ford's branding directive. This change is to make modifications to the raw housings. New CAD data sent to supplier.

35888: Getrag contractually agreed on Ford's branding directive. This change is to make modifications to the raw housings. New CAD data sent to supplier.

3 Spare parts

- No impact on Spare parts -

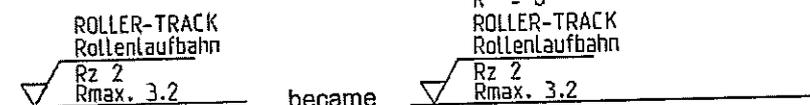
4 Drawing Distribution

- **2506365139** **Input Shaft Outer**
(Maturity level of specification F approved)

AE " I " from 01.08.2014

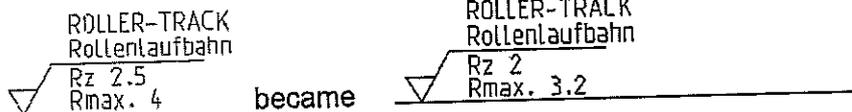
- **2506423139** **Input Shaft Outer** **AE " k " from 01.08.2014**
 (Maturity level of specification F approved)
- **2506431235** **Input Shaft Outer** **AE " e " from 01.08.2014**
 (Maturity level of specification 3 approved)

Kurzwelligkeit ausgewertet
 mit Fourier-Analyse,
 Auswertung 5. bis 300. Ordnung
 SHORT WAVINESS INTERPRETED
 USING FOURIER-ANALYSIS.
 EVALUATION 5. TO 300. ORDER
 n0 = 0.7
 K = 0.6
 R = 6
 ROLLER-TRACK
 Rollenlaufbahn



- **2506428535** **Input Shaft Outer** **AE " h " from 01.08.2014**
 (Maturity level of specification F approved)
- **2506428935** **Input Shaft Outer** **AE " j " from 01.08.2014**
 (Maturity level of specification F approved)
- **2506517635** **Input Shaft Outer** **AE " e " from 01.08.2014**
 (Maturity level of specification 3 approved)
- **2506388035** **Input Shaft Outer** **AE " f " from 01.08.2014**
 (Maturity level of specification 3 approved)

Kurzwelligkeit ausgewertet
 mit Fourier-Analyse,
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 SHORT WAVINESS INTERPRETED
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 n0 = 0.7
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- **2500354800** / **Clutch Housing (1-5)** **AE " d " from 08.08.2014**
 (Maturity level of specification 3 approved) /
 Sheet 1: D7 &D10: CAD-DATASET 2014-08-08 was 2013-12-06; Sheet 4: Add Ford part
 no.
- **2500354801** **Clutch Housing (1-5)** **AE " c " from 08.08.2014**
 (Maturity level of specification 3 approved)
 Sheet 1: D7 &D10: CAD-DATASET 2014-08-08 was 2013-12-06; Sheet 4: Added Ford
 part no.

- **2500323801** **Clutch Housing (1-5)** **AE " d " from 08.08.2014**
(Maturity level of specification 3 approved)
Sheet 1: CAD-DATASET 2014-08-08 was 2012-07-18; Sheet 4: Added Ford part no.
- **2500323200** **Clutch Housing (1-5)** **AE " f " from 08.08.2014**
(Maturity level of specification 3 approved)
Sheet 1: D10 &D8: CAD-DATASET 2014-08-08 was 2013-05-29; Sheet 4: Add Ford part number to raw part.
- **2500323400** **Transmission Housing (1-4)** **AE " d " from 12.08.2014**
(Maturity level of specification 3 approved)
Sheet 1: CAD-DATASET FROM 2014-08-12 was FROM 2013-11-29; Sheet 4: ADD FORD PART NUMBER TO RAW PART.
- **2500354000** **Transmission Housing (1-4)** **AE " d " from 12.08.2014**
(Maturity level of specification F approved)
Sheet 1: D11 &D8: CAD-DATASET FROM 2014-08-12 was FROM 2011-10-19;
Sheet 4: ADD FORD PART NUMBER TO RAW PART.
- **2500353220** **Clutch Housing (1-5)** **AE " d " from 08.08.2014**
(Maturity level of specification 3 approved)
Sheet 1: CAD-DATASET 2014-08-08 was 2012-07-16; Sheet 4: Add Ford part number to raw part.
- **2500353221** **Clutch Housing (1-5)** **AE " c " from 08.08.2014**
(Maturity level of specification 3 approved)
Sheet 1: CAD-DATASET 2014-08-08 was 2012-07-16; Sheet 4: Add Ford part number to raw part.
- **2500353222** **Clutch Housing (1-5)** **AE " c " from 08.08.2014**
(Maturity level of specification 3 approved)
Sheet 1: CAD-DATASET 2014-08-08 was 2012-07-16; Sheet 4: Add Ford part number to raw part.

5 Instructions

- The modification must be followed from all affected departments.
- The old drawing must be replaced.
- GPS2 department has to take a break point, for modification referred to:
 - 2506365139;
 - 2506423139;
 - 2506431235;
 - 2506428535;
 - 2506428935;
 - 2506517635;
 - 2506388035.
- GPS3 department has to take a break point, for modification referred to:
 - 2500354801;
 - 2500353220.

- GPS4 department has to take a break point, for modification referred to:
 - 2500354800;
 - 2500323801;
 - 2500323200;
 - 2500323400;
 - 2500354000;
 - 2500353221;
 - 2500353222.
- #MTC1063#; #MTC869#; #MTC868#; #MTC871#: THE CHANGE IS READY TO BE IMPLEMENTED. THE CHAMPION HAS TO MAKE SURE THAT ALL CHECK LIST ACTIVITIES ARE COMPLETE BEFORE KICKING OFF THE MODIFICATION. BREAK POINT MUST BE COMMUNICATED TO ELE1.

6 Breakpoint request

Data di comunicazione modifica: DATE OF THE CHANGE ORDER:	Numero di comunicazione modifica: CHANGE ORDER NUMBER:	
Codice pezzo: PART NUMBER:	Denominazione: PART NAME:	

PRODUZIONE PRODUCTION	Codice pezzo: PART NUMBER COMPONENT:	
	Data di produzione: PRODUCTION DATE:	
	Data di uscita: DELIVERY DATE:	Firma: SIGNATURE:

MONTAGGIO ASSEMBLY	Tipo di cambio: TRANSMISSION VARIANT:	
	Data di montaggio: ASSEMBLY DATE:	

SPEDIZIONE LOGISTICS	1° numero cambio: 1ST TRANSMISSION AFFECTED BY THE CHANGE:	Firma: SIGNATURE:
	Termine di consegna: DELIVERY DATE:	

SPEDIZIONE LOGISTICS	Data di uscita: DELIVERY DATE:	Firma: SIGNATURE:
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Osservazioni:
REMARKS:

Destinatari: DISTRIBUTION LIST:		✓	✓	✓	✓	
Reparto: DEPARTMENT:	GPS 1	GPS 2	GPS 3	GPS 4	ELE 1	
Data: DATE:						