

**WERKSTATTHANDBUCH
WORKSHOP MANUAL
MANUEL D'ATELIER
MANUAL DE TALLER**

**Getriebe
Power Train
Transmission
Transmisión**

**D 2506-D 5506
D 5206,D 6206
Intrac 2002, 2003**

2911883 4/77

Klöckner-Humboldt-Deutz AG



INHALTSVERZEICHNIS



	Seite
Technische Daten	3
Getriebeschnitt TW 25.2, 35.1, 35.2	5
Getriebeschnitt TW 35.3, 35.4, 50, 50.1, 50.2, 50.3, 50.4	6
Getriebeschnitt (Intrac 40 km/h Variante)	7
Zwischenwelle	8
Vorderradantrieb	9
Hinterachshälfte (Trommelbremse)	10
Hinterachshälfte (Scheibenbremse)	11
Zapfwelle (Standart)	12
Zapfwelle (Duo)	13
Getriebeschema	14-23

INDEX

	Page
Specification Data	3
Section through transmission TW 25.2, 35.1, 35.2	5
Section through transmission TW 35.3, 35.4, 50, 50.1, 50.2, 50.3, 50.4	6
Section through transmission (Intrac of 40 km/h model)	7
Intermediate shaft	8
Front-wheel drive	9
Rear half-axle (drum brake)	10
Rear half-axle (disc brake)	11
PTO-shaft (standard)	12
PTO-shaft (two-speed)	13
Power train diagram	14-23

1. Sechskantschraube
2. Sechskantpaßschraube
3. Tragrohr
4. Druckring
5. Beilage
6. Abdeckblech
7. Rillenkugellager
8. Lagergehäuse
9. Radial-Wellendichtring
10. Hinterachshälfte
11. Sechskantschraube
12. Bremstrommel
13. Sechskantmutter
14. Federring

1. Hex. bolt
2. Fitted hex. bolt
3. Axle tube
4. Thrust ring
5. Shim
6. Cover plate
7. Ball bearing
8. Bearing housing
9. Radial shaft seal
10. Rear half-axle
11. Hex. bolt
12. Brake drum
13. Hex. nut
14. Lockwasher

1. Vis 6 pans
2. Vis d'ajustage à 6 pans
3. Trompette
4. Bague de serrage
5. Cale
6. Tôle de recouvrement
7. Roulement rainuré à billes
8. Cage de palier
9. Joint d'arbre
10. Demi-essieu AR
11. Vis 6 pans
12. Tambour de frein
13. Ecrou 6 pans
14. Rondelle Grower

1. Tornillo hexagonal
2. Tornillo hexagonal de vástago calibrado
3. Trompeta de eje
4. Anillo de presión
5. Suplemento
6. Chapa de recubrimiento
7. Cojinete de bolas fijo
8. Caja de soporte
9. Anillo de hermetiz. de eje radial
10. Semieje trasero
11. Tornillo hexagonal
12. Tambor de freno
13. Tuerca hexagonal
14. Arandela elástica

Herausgegeben vom Kundendienst der Klöckner-Humboldt-Deutz AG, Köln,
Abteilung AS-KV
Alle Rechte vorbehalten - Printed in Germany
Diese Druckschrift darf ohne unsere schriftliche Genehmigung weder ganz noch
auszugsweise vervielfältigt werden.
Änderungen und Irrtum vorbehalten.

Published on behalf of the Service Department of Klöckner-Humboldt-Deutz AG,
Cologne, Dept. AS-KV
All rights reserved - Printed in Germany
This publication may not be produced in any form, in whole or in part, without
our written approval.
Errors and omissions excepted.

Édité par le Service Après Vente de Klöckner-Humboldt-Deutz AG, Cologne,
Dept. AS-KV
Tous les droits réservés - Imprimé en Allemagne
La reproduction, même partielle, du présent manuel n'est permise qu'après obtention
écrite de notre consentement.
Sous réserve de modifications, sauf erreur

Edición de la Sección de Service de la Klöckner-Humboldt-Deutz AG, Köln
Sección AS-KV
Todos los derechos reservados - Printed in Germany
Sin nuestro expreso consentimiento por escrito no se podrá facilitar el presente
impreso, ni parcial ni totalmente, a terceros, ni tampoco sacar copias del mismo.
Reservado el derecho de modificación.
S.e.u.o.

Klöckner-Humboldt-Deutz AG



Zur Beachtung

Das vorliegende Werkstatthandbuch gibt dem Fachmann typbedingte Hinweise zur Instandsetzung unserer Erzeugnisse. Handelsübliche Werkzeuge und allgemeines Gerät, das zur Ausrüstung einer Werkstatt gehört, wird dabei vorausgesetzt. Spezialwerkzeuge sind auf das notwendige Maß beschränkt; sie sind jeweils an der Einsatzstelle mit im Bild angegebener Werkzeug-Nr. und in einer Zusammenfassung gezeigt.

Die Werkstatthandbücher unterliegen keinem Änderungsdienst! Bis zur nächsten Neuauflage, in die alle zwischenzeitlichen Änderungen aufgenommen werden, bitten wir Sie eventuelle Änderungen den technischen Rundschreiben zu entnehmen.

Von den Werkstätten sind zusätzlich die Unterlagen über Wartungsarbeiten und technischen Daten zu beachten.

Im Werkstatthandbuch sind rechts neben die Bilder Bildzeichen gesetzt. Die Hinweise in den Abbildungen (z.B. DW 55, F9) sind Angaben über empfohlene Werkstoffe bzw. Dichtungsmittel. Zum Verständnis dieser Zeichen ist es erforderlich, sich mit deren Bedeutung vertraut zu machen (siehe Bildzeichenerklärung und Aufstellung über Fette und Dichtungsmittel).

Die Bildzeichen ersetzen weitgehend den Text und ermöglichen im Zusammenwirken mit der Bildaussage ein schnelles Auffassen des jeweiligen Arbeitsganges.

Die Bildfolge beginnt mit dem Ausbau bzw. dem Zerlegen der Baugruppe, wobei nur kurze Hinweise gegeben werden. Der Einbau bzw. Zusammenbau wird ausführlich unter Berücksichtigung sämtlicher Maßnahmen behandelt, die zu einem störungsfreien Betrieb unbedingt erforderlich sind. Das Reinigen und Prüfen sämtlicher Einzelteile wird dabei ebenso vorausgesetzt wie eine fachgerechte Arbeitsausführung.

Einstell- sowie Meß- und Prüfvorgänge werden im Zuge des Ein- bzw. Zusammenbaues behandelt. Umfangreiche Einstellarbeiten sind in selbständigen Kapiteln der jeweiligen Baugruppen zugeordnet.

Soweit erforderlich, werden Baugruppen durch eine Explosionsdarstellung ergänzt. Die Positionsnummern in den Abbildungen sind mit denen der Explosionsdarstellungen identisch. Das jeweilige Bildzeichen bezieht sich auf das angesprochene Teil. Pflege- und Wartungsarbeiten sowie Ölqualitäten sind jeweils aus der Bedienungsanleitung zu entnehmen.

Sind Teile auszuwechseln, so dürfen nur Original-Ersatzteile verwendet werden!

Konstruktionsänderungen, im Sinne der technischen Weiterentwicklung, behalten wir uns vor.

Inhaltsverzeichnis

Contents

Table des matières

Indice

Zeichnungen, Getriebeschema
Drawings, Power train diagram
Croquis, Schéma de transmission
Planos, esquema de transmisión

Hinterachse
Rear axle
Pont AR
Puente trasero

Zapfwelle
PTO-shaft
Prise de force
Toma de fuerza

Getriebe
Power Train
Transmission
Transmisión

TW 25.2, 35.1, 35.2

Getriebe
Power Train
Transmission
Transmisión

TW 35.3, 35.4, 50, 50.1, 50.2, 50.3, 50.4

Ausgleichgetriebe
Diff. gear
Différentiel
Diferencial

Schaltdeckel
Gear shift cover
Couvercle de changement de vitesses
Tapa de cambio de velocidades

Kriechgänge
Creep gears
Vitesses rampantes
Marchas ultralentas

Vorderradantrieb
Front-wheel drive
Pont moto-directeur
Eje delantero motriz

Riemenscheibe
Belt pulley
Poulie à courroie
Polea

Spezialwerkzeuge
Special tools
Outillage spécial
Herramientas especiales

Bildzeichenerklärung

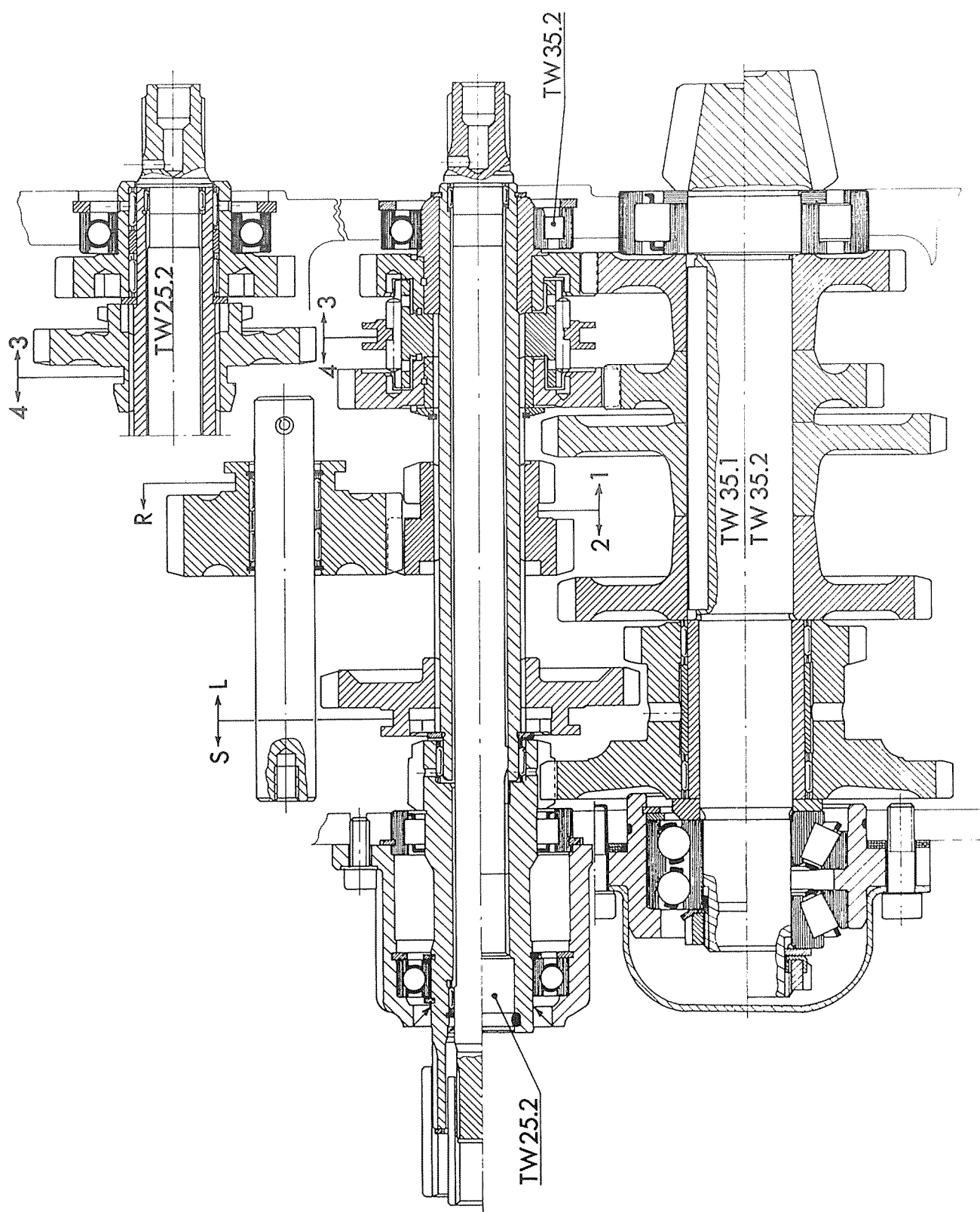
	Abbauen - Ausbauen behindernder Teile.		Bedingt wiederverwendbar bei Bedarf auswechseln.
	Zerlegen von Baugruppen.		Bei jeder Montage auswechseln.
	Zusammenbauen zu einer Baugruppe.		Einölen
	Einbauen - Anbauen aller Teile, die beim Zerlegen hinderlich waren.		Einfetten
	Markieren Vor Demontage. Beim Zusammenbauen Markierung beachten.		Ölschmierung
	Unterbauen - Abstützen - Abfangen.		Auge, kontrollieren, prüfen
	Einfüllen - Auffüllen - Nachfüllen einer Flüssigkeit (z.B. Öl, Kühlwasser...).		Spezialwerkzeug
	Ablassen einer Flüssigkeit (z.B. Öl, Kühlwasser...).		Materialschaden verhüten (Teilbeschädigung).
	Entsichern - Sichern (mechanisch) z.B. Splint, Sicherungsblech usw.		Einbaurichtung beachten
	Sichern - Kleben - Dichtmittel (flüssig)		Entlüften
	Wuchten Unwuchten beseitigen.		Lösen (z.B. Lockern einer Spanneinrichtung.).
	Personenschaden verhüten Hinweis auf eine Gefahrenstelle.		Spannen (z.B. Anziehen einer Spanneinrichtung.).
	Spanabhebende Bearbeitung		Prüfen - Einstellen (z.B. Drehmomente, Maße, Drücke usw.).

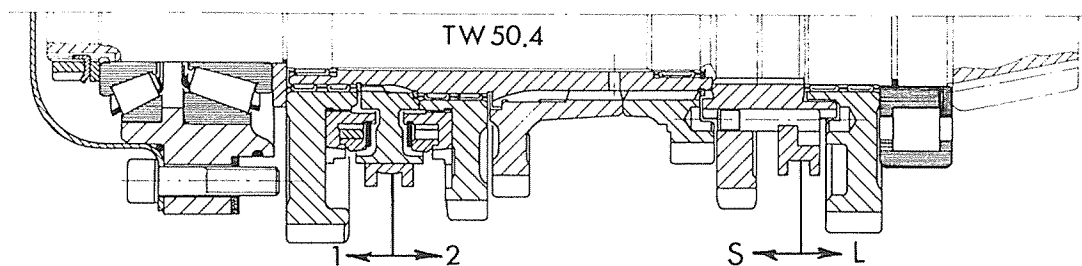
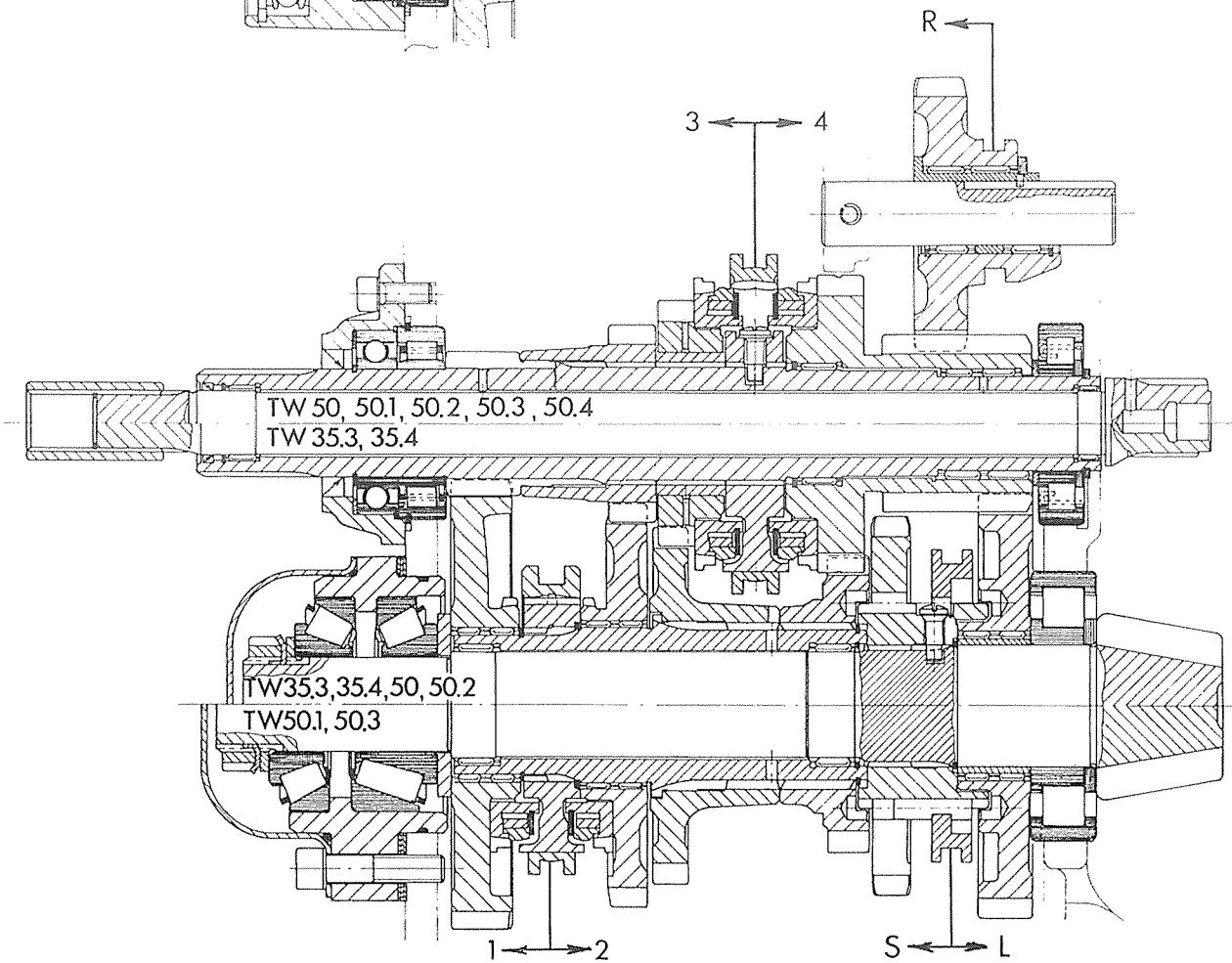
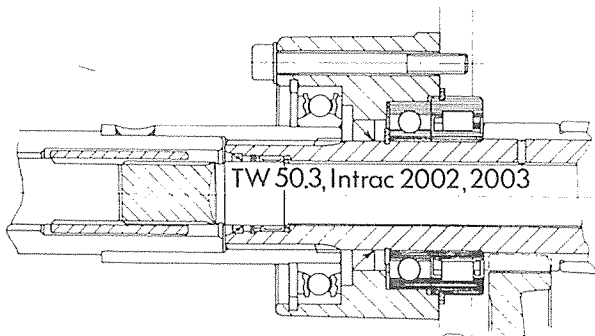
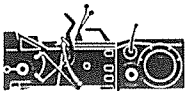


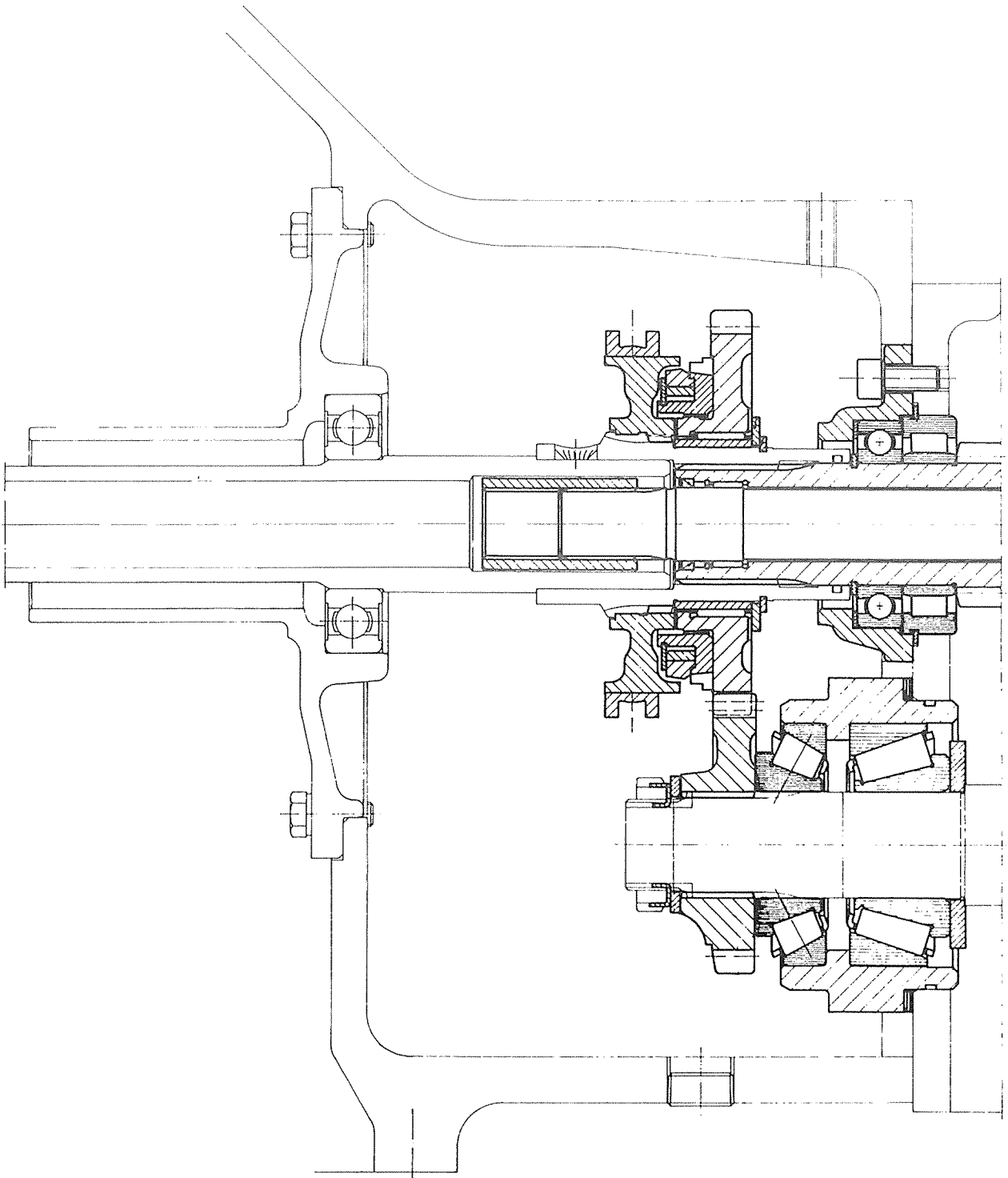
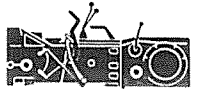
Werkstoffangabe auf Zeichnungen	Benennung Zusammensetzung und Aufbau	Kennzeichnende Eigenschaften	Temperaturbeständigkeit in °C	Richtlinien für die Verwendung	Bemerkungen und Verwendungsbereich
FETTE					
Deutz F 2	Silikon-Paste synthetisch		+ 180°C	Elektroisolierpaste für Steckverbindungen in Zündsystemen	Entspricht Silikon-Paste P4 der Fa. Westinghouse, Motoren- u. Aggregatebau
Deutz F 5	Mehrzweckfett nach DIN 51 825, enthält Mineral- u. synthetische Öle unter Zusatz von Lithiumseifen u. Korrosionsschutzstoffen	gute Kälte- und Wärmebeständigkeit, soll nicht in Wasser löslich sein, nicht ausbluten und nicht ranzig werden.	- 30°C bis + 120°C	Mehrzweckfett für Gleit- und Wälzlager	Entspricht HFL 300 W der Firma DOG. Farbe natur transparent
Deutz F 9	Hochleistungsfett nach DIN 51 825 Lithiumverseift und Molybdändisulfid	soll korrosionshemmend, wasser- und wärmebeständig sein und nicht ranzig werden.	min. -30°C bis min. +120°C	Für hohe Lagerdrücke und Temperaturen, oder Dauerschmierung mit Notlaufeigenschaften	Entspricht: DR 2 der Firma Molykote AG, München. Das verwendete Molybdändisulfid muß Mil-M 7866 A entsprechen
Deutz F 10	Hochleistungsfett enthält: Seifen, Mineralöl, Silikon, Festschmierstoffe	soll wasser- und kältebeständig sein, vor Korrosion schützen und darf nicht ausbluten	- 10°C bis + 180°C kurz + 200°C	Wird für Langzeitschmierung von Gleit- und Wälzlagern bei mittleren und höheren Lagerdrücken und hohen Temperaturen gebraucht.	Entspricht: Spezialfett V der Fa. DOG. Das verwendete Molybdändisulfid muß Mil-M 7866 A entsprechen
Deutz F 11	Heißlagerfett mit kleinen Teilen Molybdändisulfid (MoS ₂)	soll bei sehr hohen Temperaturen und höheren Lagerdrücken verschleißmindernd wirken	- 10°C bis + 200°C	Anwendung bei Wälz- und Gleitlagern mit höheren Lagerdrücken u. andauernden Lagertemperaturen	entspr. Heißlagerfett der Fa. DOG
Deutz F 12	Heißlagerfett enthält Sonderzusätze und Silikonöl, sowie Schmierstoffkombination	völlig homogen, ausreichend kälte- und wasserbeständig, korrosionsschützend	- 10°C bis + 250°C kurz + 300°C	Anwendung bei Langzeitschmierung von Gleit- u. Wälzlagern mit mittleren Lagerdrücken u. sehr hoher thermischer Belastung	Das verwendete Molybdändisulfid muß Mil-M 7866 A entsprechen
Deutz F 14	Korrosionsschutzfett 100 % hochwertiges und ausgesprochenes Korrosionsschutzfett, frei von Säuren	Korrosionsschutz bei dicker Schicht über Jahre gewährleistet		Langzeitkorrosionsschutz für Bohrungen, Paßflächen und alle blanken Flächen	Farbe: transparent, leicht gelb gefärbt
DICHTUNGSWERKSTOFFE					
Deutz DW48	<u>Dichtmasse</u>	zähfeste Silikon-Vulkanisat	- 73° bis + 230°	Abdichten von Zwischenräumen (zähelast. Fugenverschlüsse)	Entspr. Silastik 732 RTV der Fa. Dow Corning Intern. Brüssel
Deutz DW49		nach Behandlungsvorschrift 8025-03-9805	- 30° bis + 130°	Abdichten von Kernlochstopfen	Entspr. Abdichtmasse 54 der Fa. Sonderhoff, Köln
Deutz DW50		flüssige Dichtung	+110° in HD-Schmieröl und Dieselkraftstoff	Abdichten von Pumpengehäusen	Entspr. Curil bzw. Teroson-Fluid
Deutz DW51		flüssige Dichtung	+ 150° in HD-Schmieröl		Entspr. Sigma der Firma Sonderhoff, Köln
Deutz DW53		gefüllte, hochpolym-Kunststoffmischung	+ 150° in Benzin u. HD-Schmieröl	Fugenabdichtung	Entspr. Abdichtmasse G der Fa. Stankiewicz
Deutz DW55	<u>Sicherungsmittel</u> Flüssiger Einkomponenten Kunststoff, der unter Luftabschluß bei gleichzeitigem Kontakt mit Metallen aushärtet	dünnflüssig, sehr fest	- 60° bis + 150° bei geringer Belastung auch bis + 200°	Schraubensicherungen bis M 16	Entspr. Loctite Typ 601 (bisher Loctite-Flügelteile)
Deutz DW56		dickflüssig, sehr fest			Entspr. Loctite Typ AVX (bisher Loct. Rohrdichtg. extra stark)
Deutz DW57		dünnflüssig, leicht lösbar		Sichern leicht lösbarer Schrauben bis M 14	Entspr. Loctite Typ 221 (bisher Loct. Schraubensicherg. schwach)
Deutz DW58				DEUTZ DW 58 wird ersetzt	durch DEUTZ DW 55
Deutz DW59		mittelviskos, sehr fest		Schraubensicherungen, Gew. - u. Flächenabdichtungen	Entspr. Loctite Type 270 (bisher Loctite-Hydrauliksicherung)
Deutz DW60		dickflüssig, mittelfest		alle Schraubensicherungen	Entspr. Loctite Type CV X (bisher Loct. Rohrdichtung stark)
Deutz DW61	<u>Aktivator</u>		Viskosität bei 25°	Der Aktivator beschleunigt die Aushärtung	Entspr. Locquic Typ T

Triebwerk	Power train	TW 25.2	TW 35.1	TW 35.2 TW 35.2 ^x TW 35.4	TW 50	TW 50.1 TW 50.2 TW 50.3 TW 50.4
<u>Füllmenge in Liter</u> Triebwerk Vorderradantrieb a. Erstfüllung b. Regelfüllung Riemenscheibe	<u>Capacities (litres)</u> Power train Front-wheel drive - initial fill - refill Belt pulley	16	16	18 ^x	18	
<u>Anziehvorschriften in Nm (kpm)</u> Fußhebel der Differentialsperre Sechskantschraube in der Zwischenwelle Ausgleichgetriebschrauben	<u>Tightening torques in Nm (kpm)</u> Diff. lock pedal Intermediate shaft hex. bolt Diff. gear bolts	100 - 115 (10 - 11,5)				135 (13,5)
<u>Axialspiel in mm</u> Antriebswelle der Duo-Zapfwelle Antriebshohlwelle	<u>Axial clearance in mm</u> Drive shaft of PTO-shaft Drive quill shaft	0,1 - 0,3 0,25 - 1,3			0,3 - 0,55	
<u>Rollwiderstand in Nm (kpcm)</u> Kegelrollenlager	<u>Rolling resistance in Nm (kpcm)</u> Tapered roller bearing	2 - 3			(20 - 30)	
<u>Zahnflankenspiel in mm</u> Kegeltrieb	<u>Backlash in mm</u> Bevel drive	0,1 - 0,2				
<u>Zapfwelle</u> Durchmesser x Länge (DIN 9611) Drehrichtung	<u>PTO-shaft</u> Diameter x length Direction of rotation	1 3/8 " x 75 mm rechts clockwise				
<u>Zapfwellenleistung in kW</u> (in PS)	<u>PTO performance in kW</u> (in HP)	15,5 (21,12)	21,2 (28,8)	24,7 (33,6)	31,8 (43,2)	36,7 (49,9)
<u>max. Drehmoment in Nm</u> (in kpm)	<u>max. torque in Nm</u> (kpm)	480 (48)	750 (75)		1500 (150)	
<u>Riemenscheibe</u> Anordnung Drehrichtung Durchmesser x Breite mm	<u>Belt pulley</u> Location Direction of rotation Diameter x width	an Zapfwelle linksseitig/ LH on PTO-shaft rechts clockwise 245 x 100 245 x 100 und 320 x 140				
<u>Riemenscheibenleistung in kW</u> (in PS)	<u>Belt pulley performance in kW</u> (HP)	14,9 20,24	20,3 27,6	23,7 32,2	32,5 44,2	35,2 47,8
<u>Mäh Antrieb</u> Drehrichtung Drehzahl ohne Vorgelege 1/min mit Vorgelege 1/min	<u>Mower drive</u> Direction of rotation Speed w/o reduction 1/min Speed with reduction 1/min	rechts clockwise 1160 1270 1185 1230 1135 1245 1160 1210				
1 kpm = 9,81 Nm 1 PS = 0,74 kW (HP)	1 Nm = 0,102 kpm 1 kW = 1,36 PS (HP)					

Indication of material on drawings	Designation and composition	Characteristics	Temperature resistance in °C	Guidelines for use	Remarks
GREASES					
Deutz F 2	Silicone paste		+ 180°C	Isolation paste for plug socket connections in ignition systems	Correspd. to SILIKONE PASTE P4 of Messrs. Westinghouse
Deutz F 5	Multi-purpose grease to DIN 51 825, composed of mineral and synthetic oils w. additives of lithiumsoaps a. corrosion inhibitors.	Good cold and heat resisting properties, insoluble in water, not becoming oily and rancid.	- 30°C up to + 120°C	Multi-purpose grease for friction and anti-friction bearings.	Correspd. to HFL 300 W of Messrs. DOG. Natural colour, transparent.
Deutz F 9	HD grease to DIN 51 825 lithium saponified and molybdenum disulphide.	Corrosion inhibiting, water- and heat-resistant, not becoming rancid.	min. - 30°C up to max. + 120°C	Suitable for high bearing pressures and temperatures on permanent lubrication protecting also in case of lubricating film breakage.	Correspd. to DR 2 of Messrs. Molykote AG, München. Molybdenum disulphide used acc. to MIL-M 7866 A.
Deutz F 10	HD grease composed of soaps, mineral oil, silicone solid lubricants.	Water- and cold-resistant, anti-corrosive, not becoming oily.	- 10°C up to + 180°C temp. + 200°C	Suitable for long-term lubrication of friction and anti-friction bearings under medium and high bearing pressures and high temperatures.	Correspd. to special grease V of Messrs. DOG. Molybdenum disulphide used acc. to MIL-M 7866 A.
Deutz F 11	Hot bearing lubricant containing small portion of molybdenum disulphide (Mo S ₂).	Wear reducing under high temperatures and high bearing pressures.	- 10°C up to + 200°C	Suitable for friction and anti-friction bearings under high bearing pressures and permanent high bearing temperatures.	Correspd. to hot bearing lubricant of Messrs. DOG.
Deutz F 12	Hot bearing lubricant containing special additives and silicone oil as well as lubricant combination.	Fully homogenous with adequate cold and water resisting properties, anti-corrosive.	- 10°C up to + 250 °C temp. + 300°C	Suitable for long-term lubrication of friction and anti-friction bearings under medium bearing pressures and extremely high terminal load.	Molybdenum disulphide used acc. to MIL-M 7866 A.
Deutz F 14	Non-corrosive grease 100 % anti-corrosive, free from acids.	Ensuring long-lasting corrosion protection when generously applied.		Long-term corrosion, protection for holes, locating and all bright metal surfaces.	Colour: transparent, light yellow
SEALING MATERIALS					
Deutz DW48	Sealing compound	Viscous silicone vulcanisat	- 73°C up to +230°C	Sealing of intermediate spaces (viscous gap closures).	Correspd. to SILASTIK 732 RTV of Messrs. Dow Corning International Brüssel
Deutz DW49		Acc. to treatment specification 8025-03-9805	- 30°C up to +130°C	Sealing of core hole plugs	Correspd. to sealing compound of Messrs. Sonderhoff, Cologne
Deutz DW50		Liquid seal	+ 110°C in HD lube oil and diesel fuel	Sealing of pump housings	Correspd. to CURIL and TEROSON FLUID
Deutz DW51		Liquid seal	+ 150°C in HD lube oil		Correspd. to SIGMA of Messrs. Sonderhoff, Cologne
Deutz DW53		Highly synthetic polymeric mixture	+ 150°C in petrol and HD lube oil	Sealing of gaps	Corresp. to sealing compound G of Messrs. Stankiewicz
Deutz DW55	Securing media Liquid single-component plastic with hardens with the exclusion of air and simultaneous contact with metals.	Highly fluid, highly solid	- 60° up to + 150°C and, under low load, up to +200°	Securing of bolts up to M 16	Correspd. to Loctite type 601
Deutz DW56		Semi-fluid, highly solid			Correspd. to Loctite type AVX (formerly Loctite pipe sealing, extra strong).
Deutz DW57		Highly fluid, easily soluble		Securing of easily loosening bolts to M 14	Correspd. to Loctite type 221 (formerly Loct. securing of bolts, weak)
Deutz DW58				Deutz DW 58 to be replaced by	Deutz DW 55
Deutz DW59		Semi-viscous, highly solid		Securing of bolts, sealing of threads and interfaces	Correspd. to Loctite type 270 (formerly Loct. for hydraulic installations).
Deutz DW60		Semi-fluid, semi-solid		Securing of any bolts	Correspd. to Loctite type CV X (formerly Loct. pipe sealing strong).
Deutz DW61		Activator	viscosity at 25°		Correspd. to Locquic type T

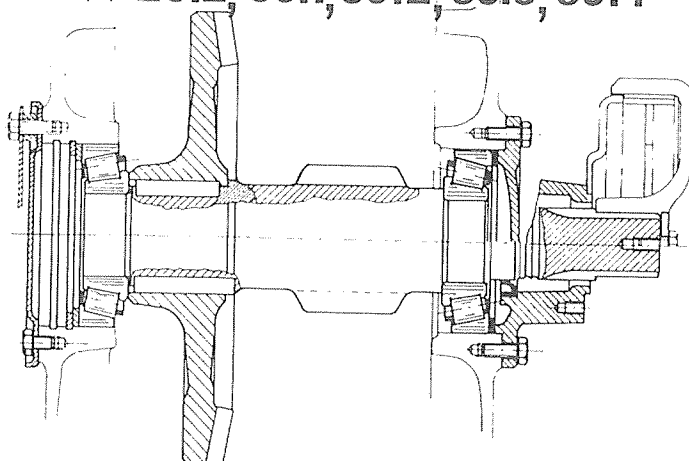




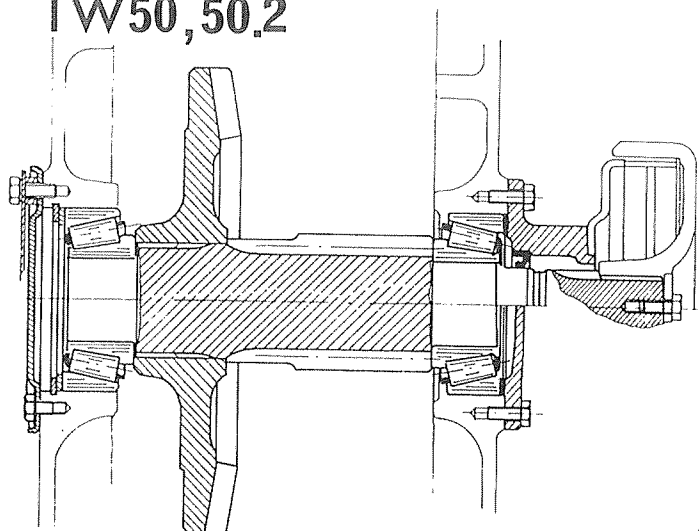




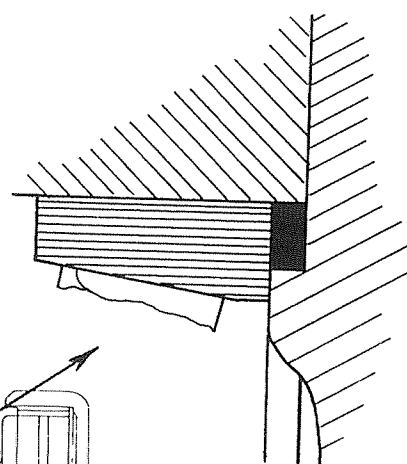
TW 25.2, 35.1, 35.2, 35.3, 35.4



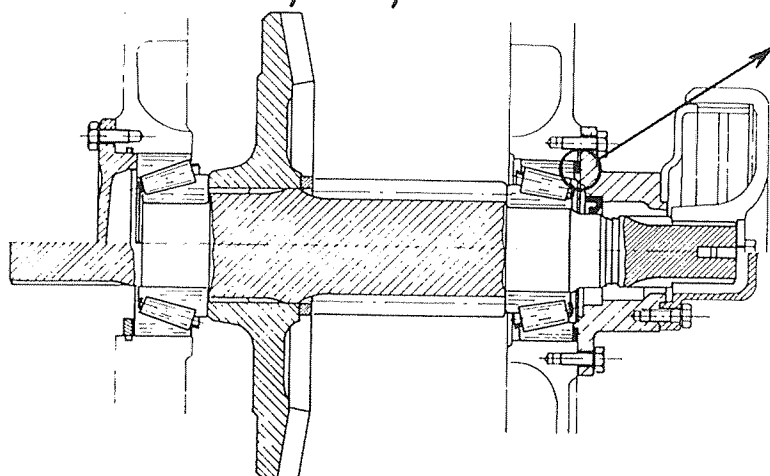
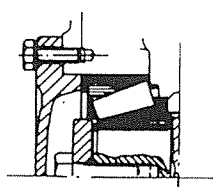
TW50, 50.2

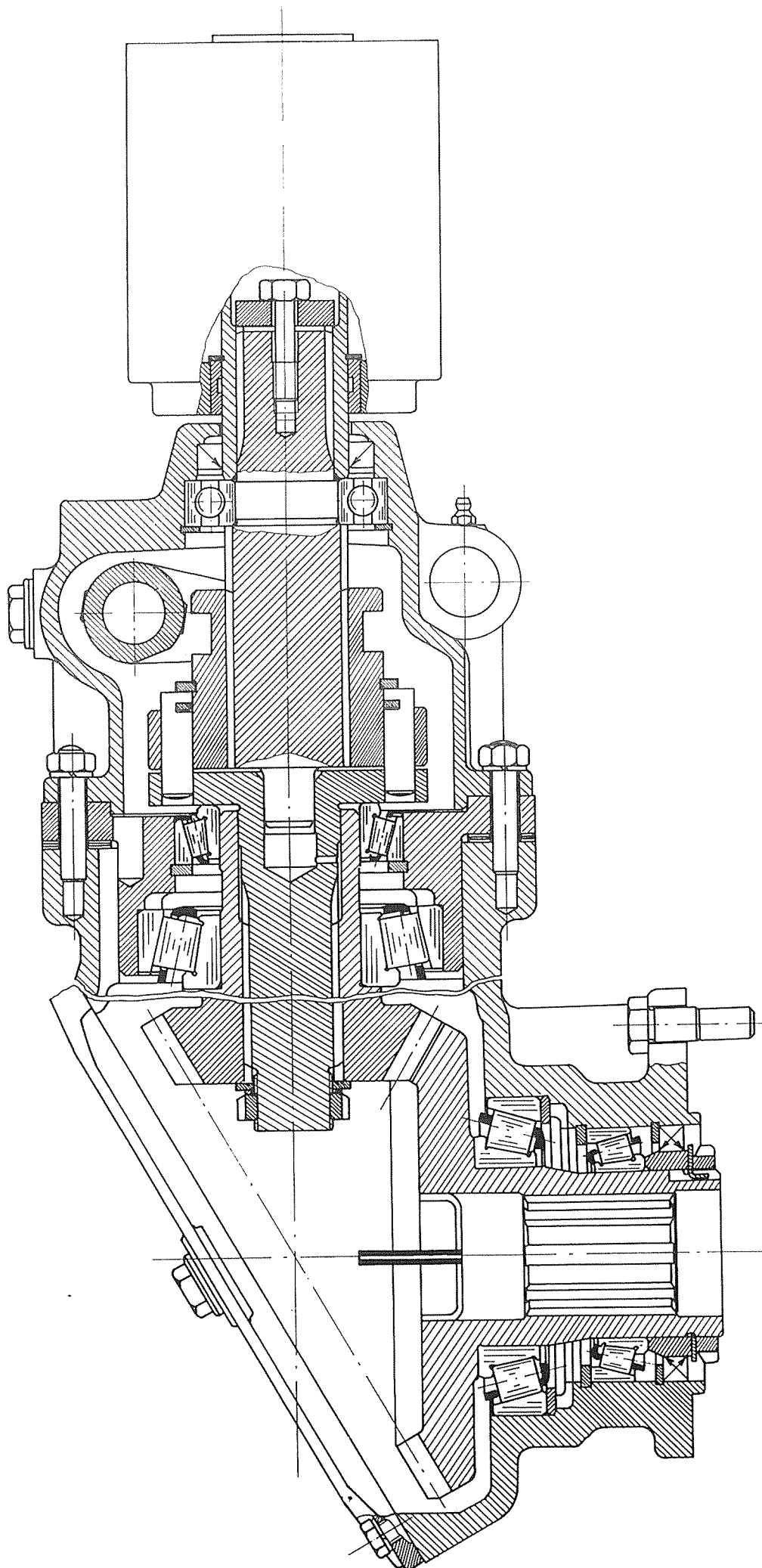


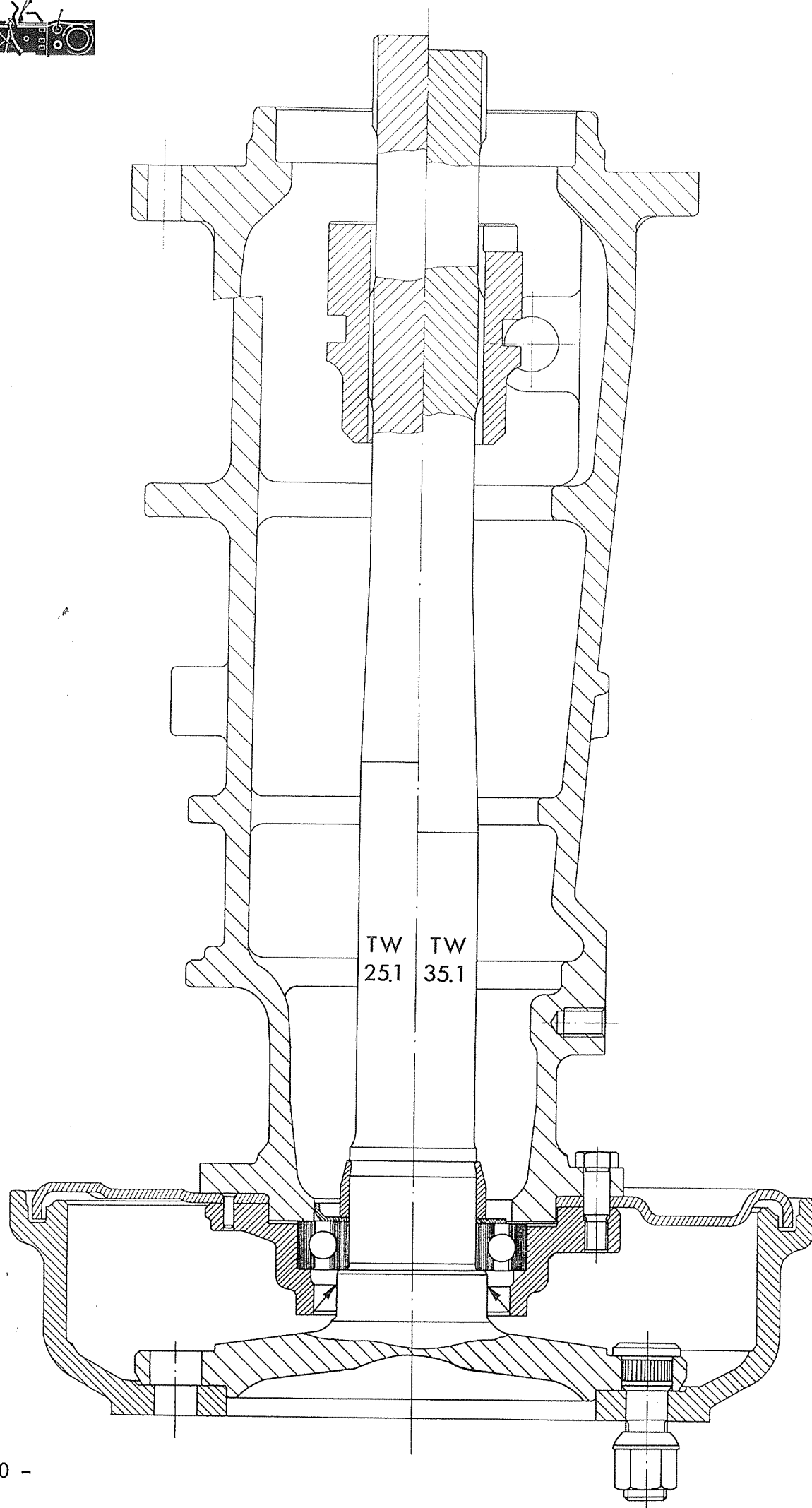
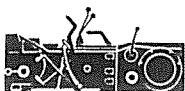
TW 50.1, 50.3, 50.4

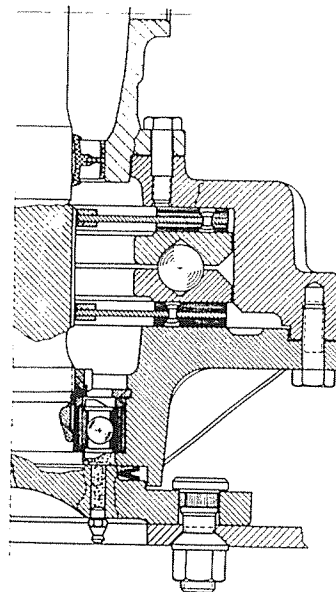
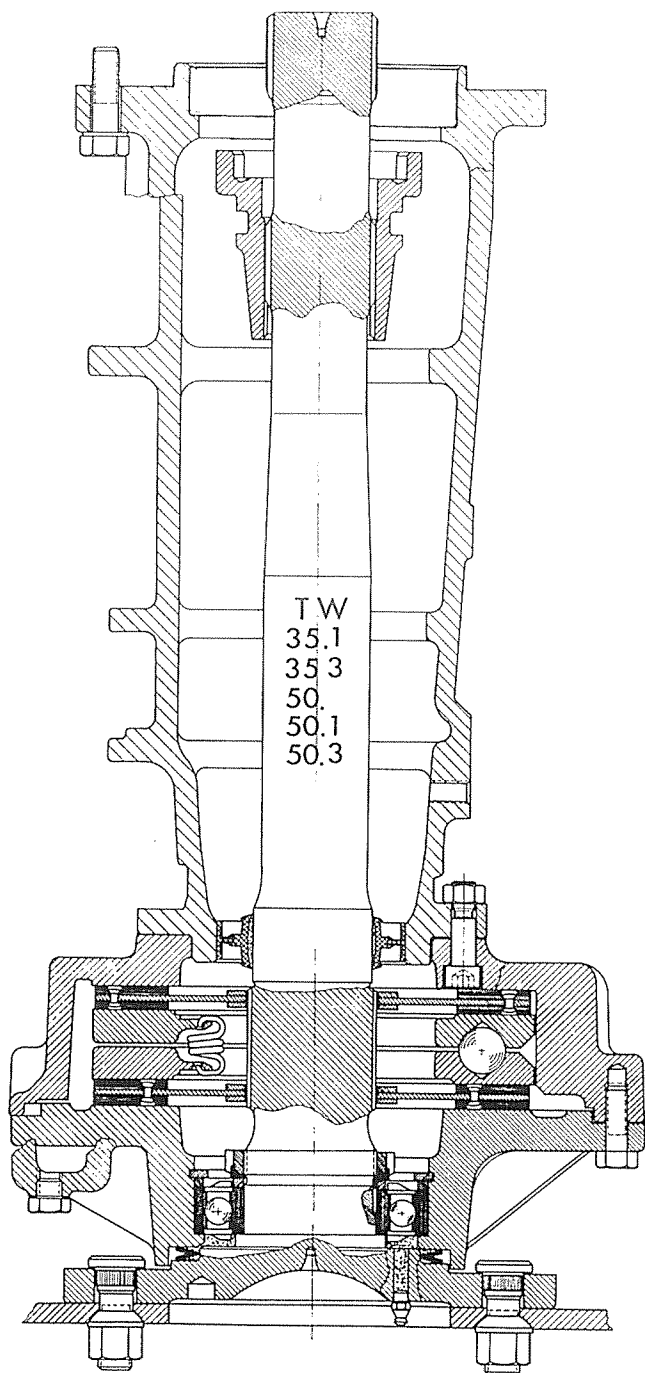


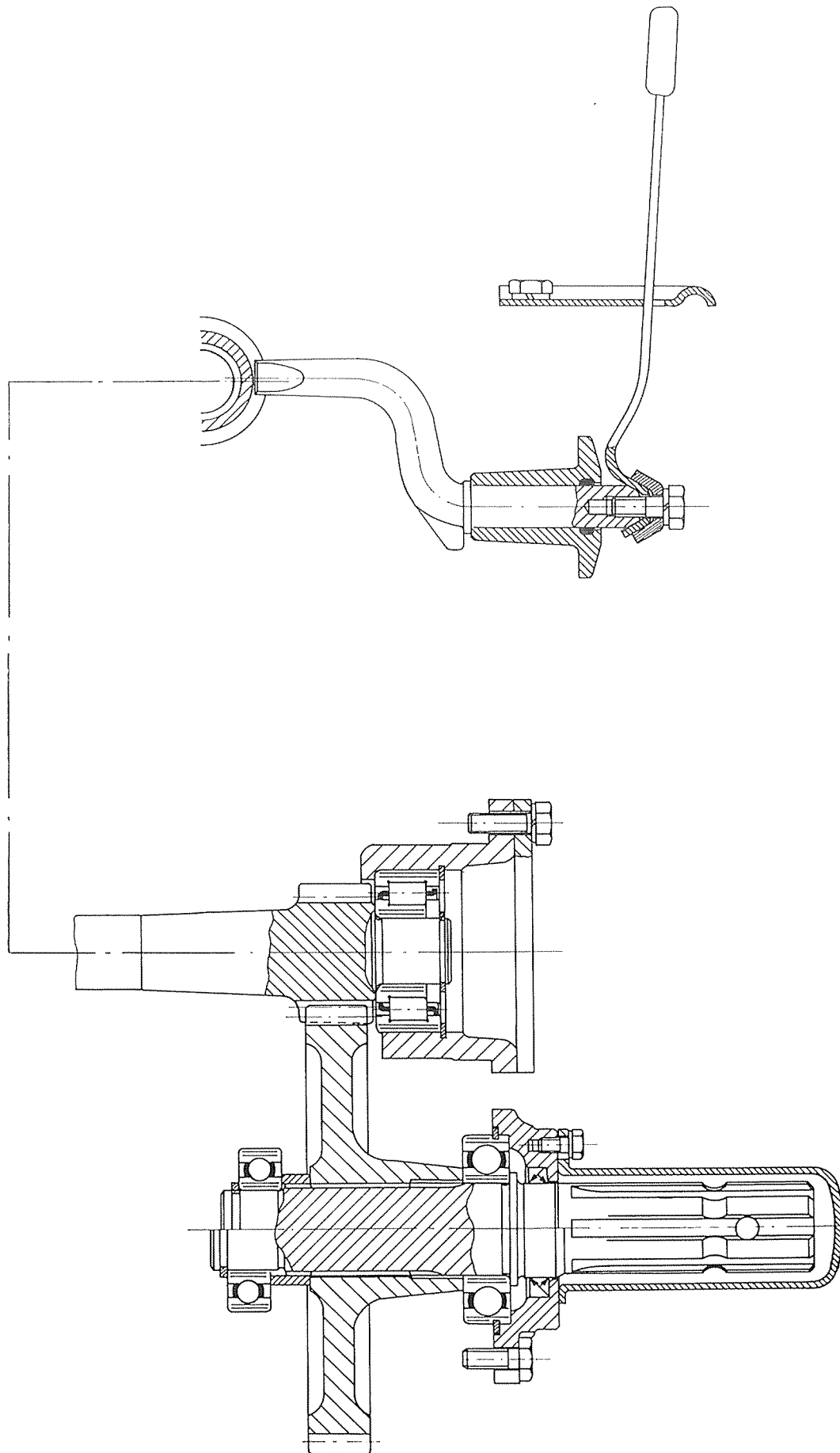
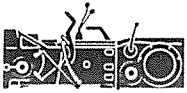
TW 50.3

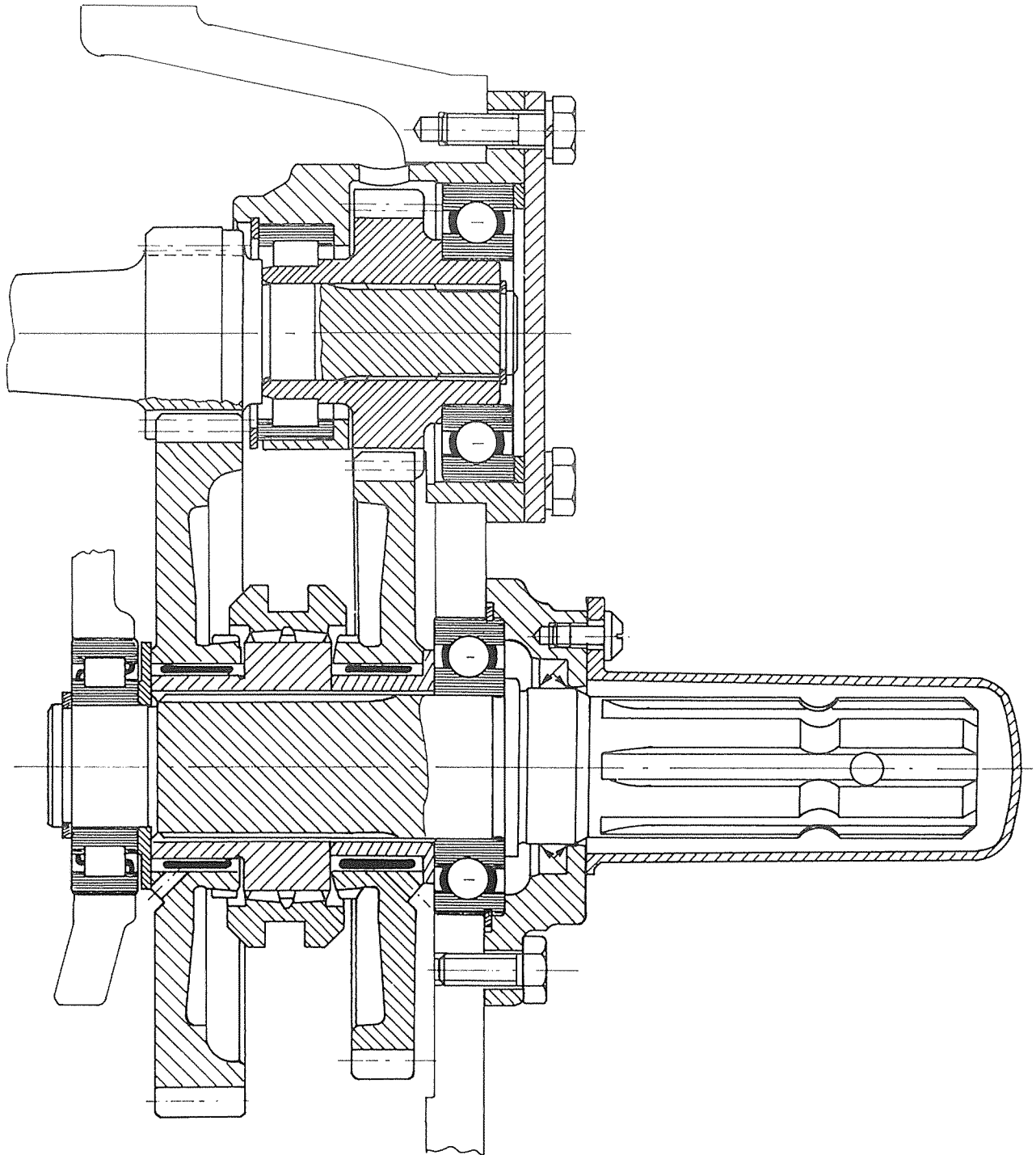


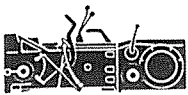




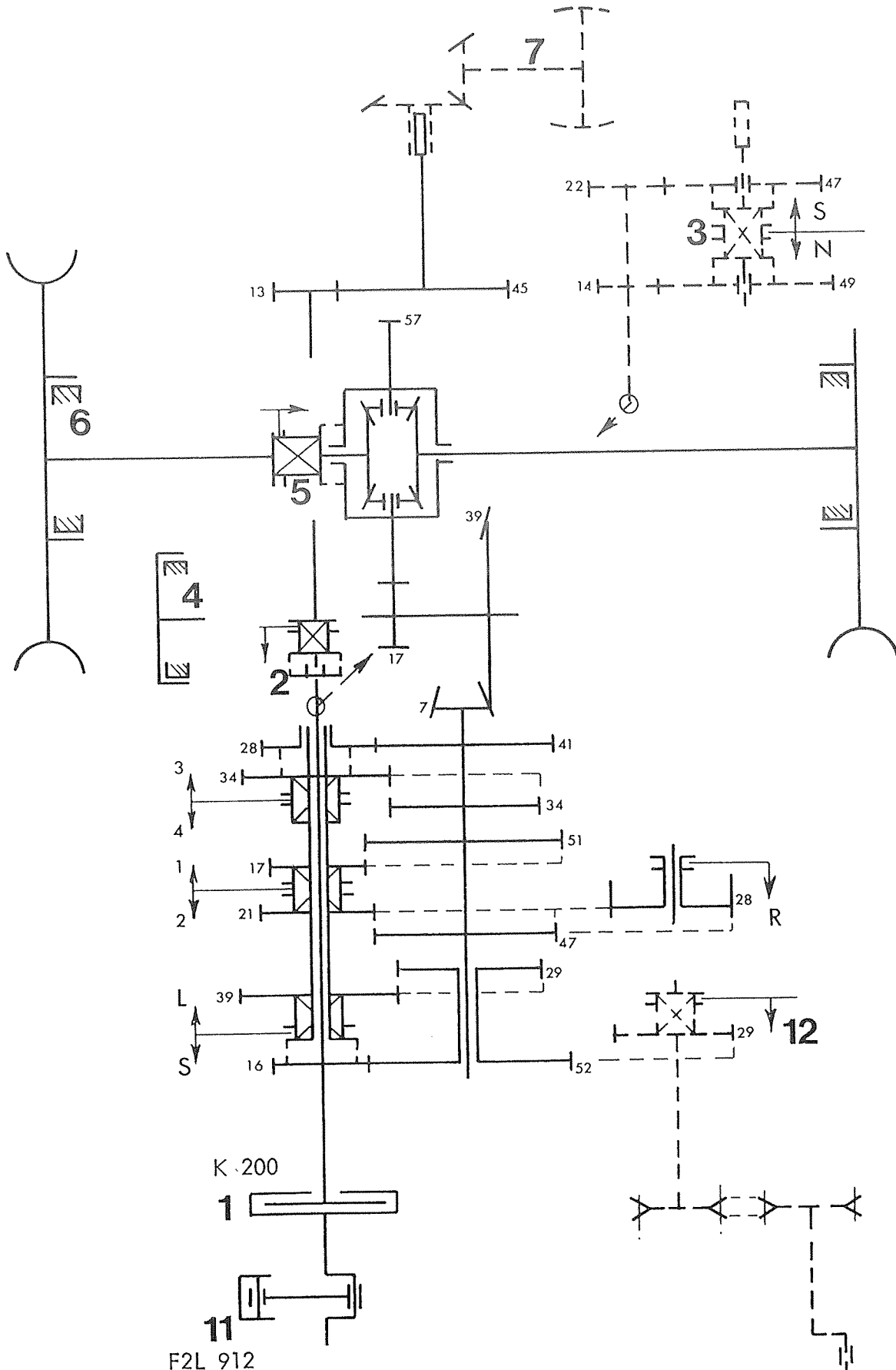


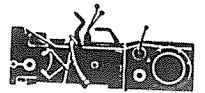




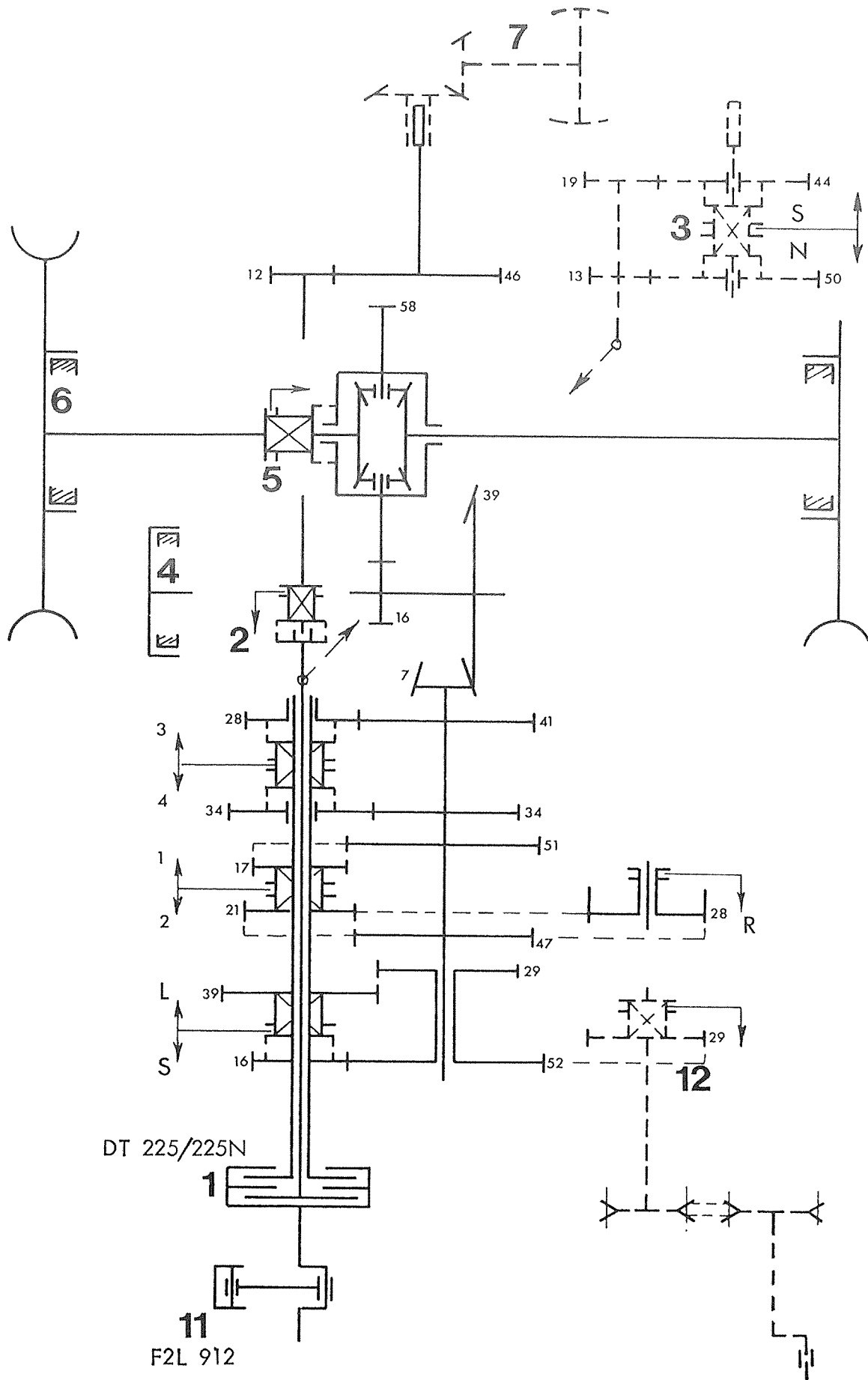


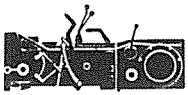
D 25 06 (TW 25.2)





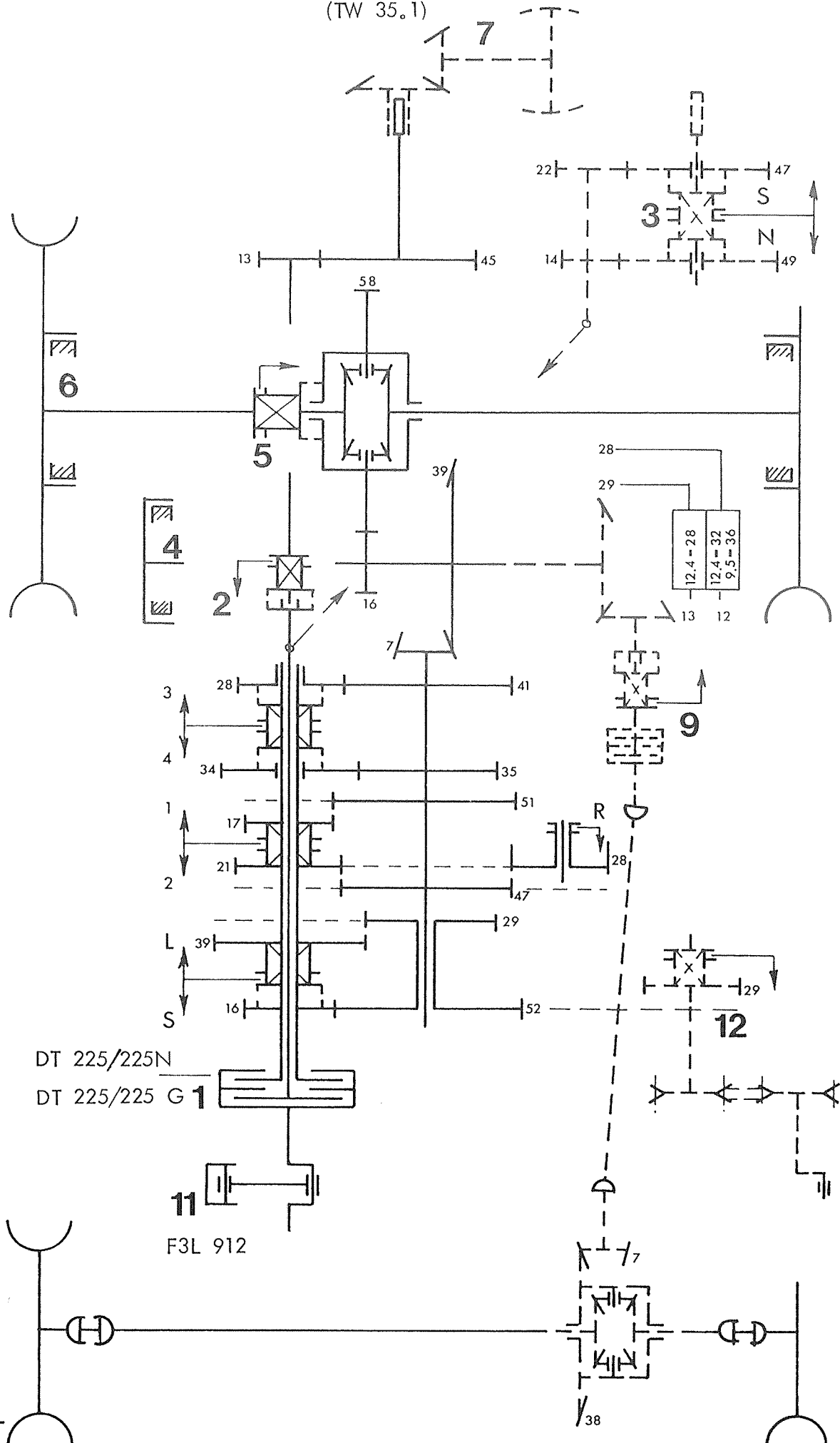
D 30 06 (TW 35.1)



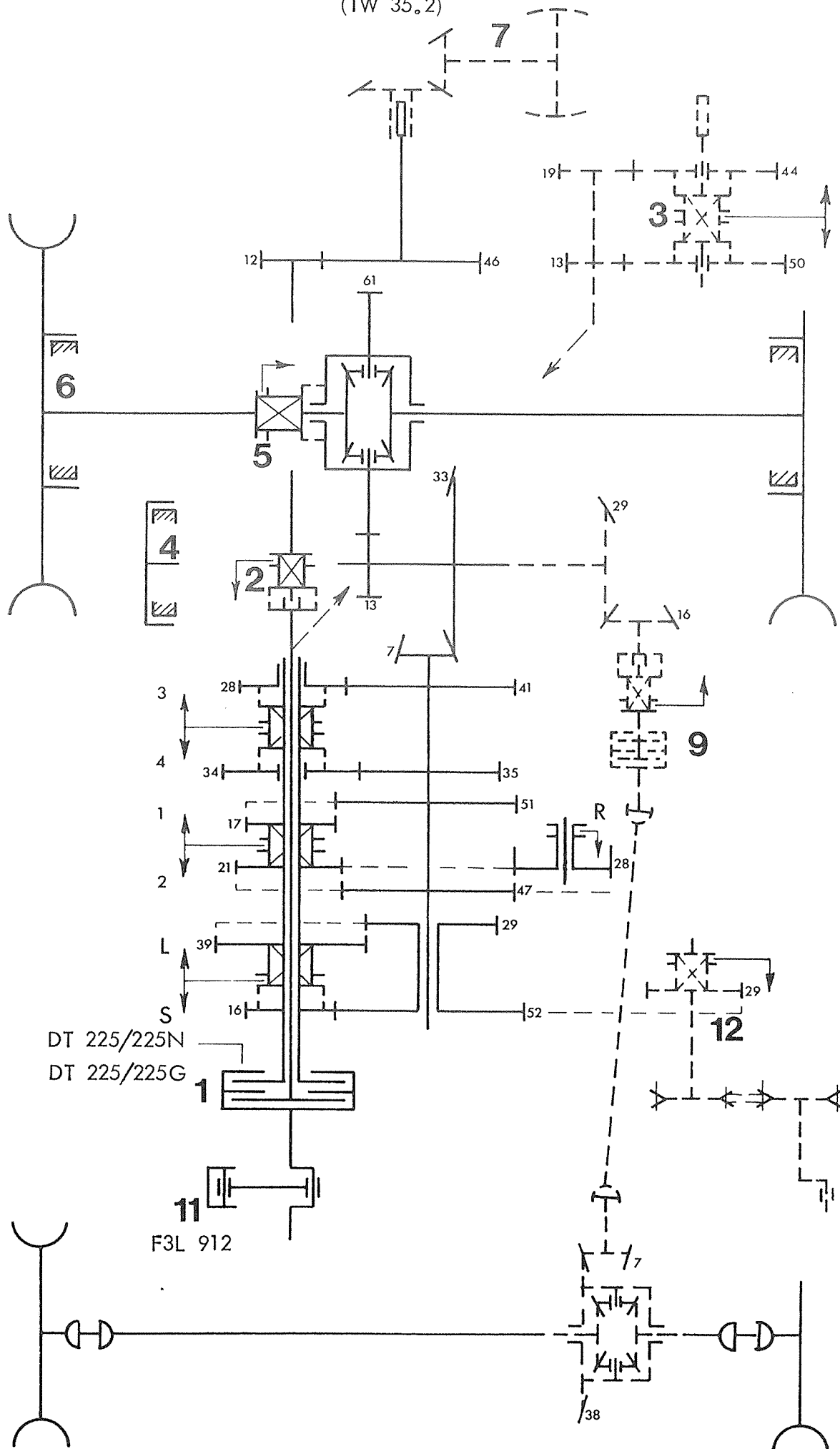


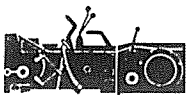
D 40 06 - D 40 06 A

(TW 35.1)



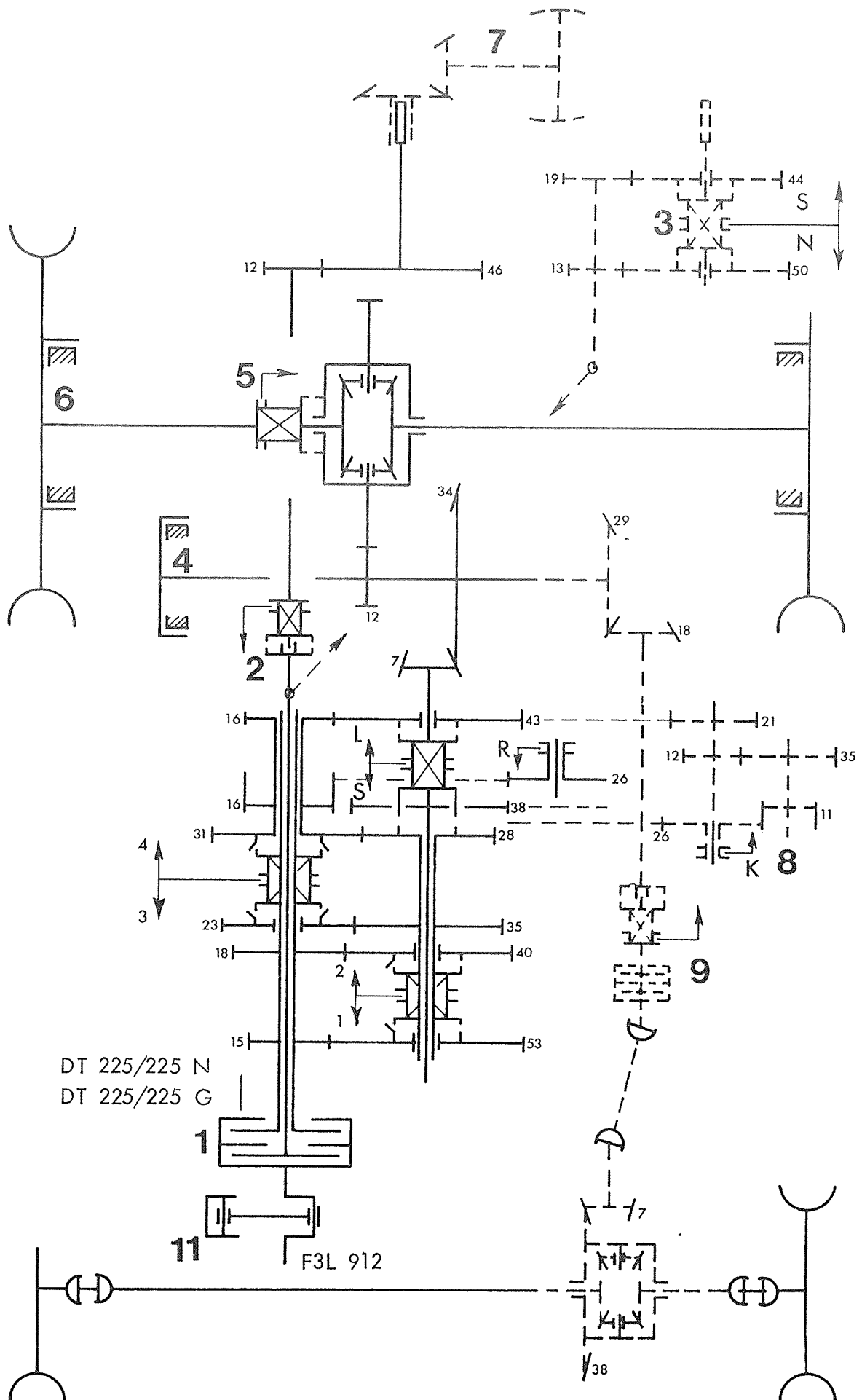
D 45 06 - D 45 06 A
(TW 35.2)

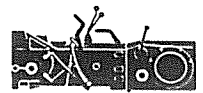




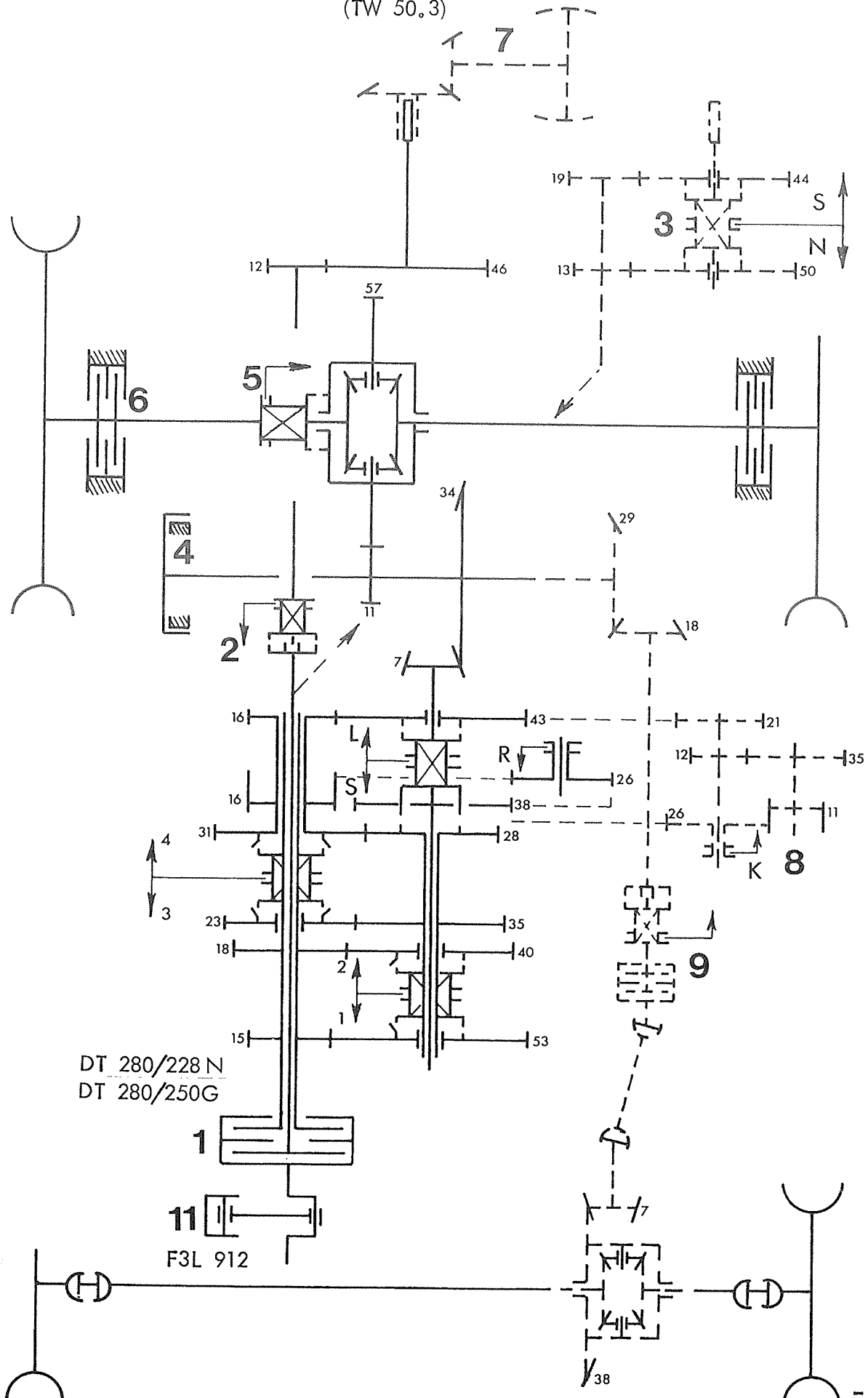
D 45 06 - D 45 06 A

(TW 35.4)



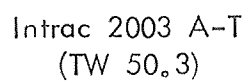


D 52 06 - D 52 06 A
(TW 50.3)



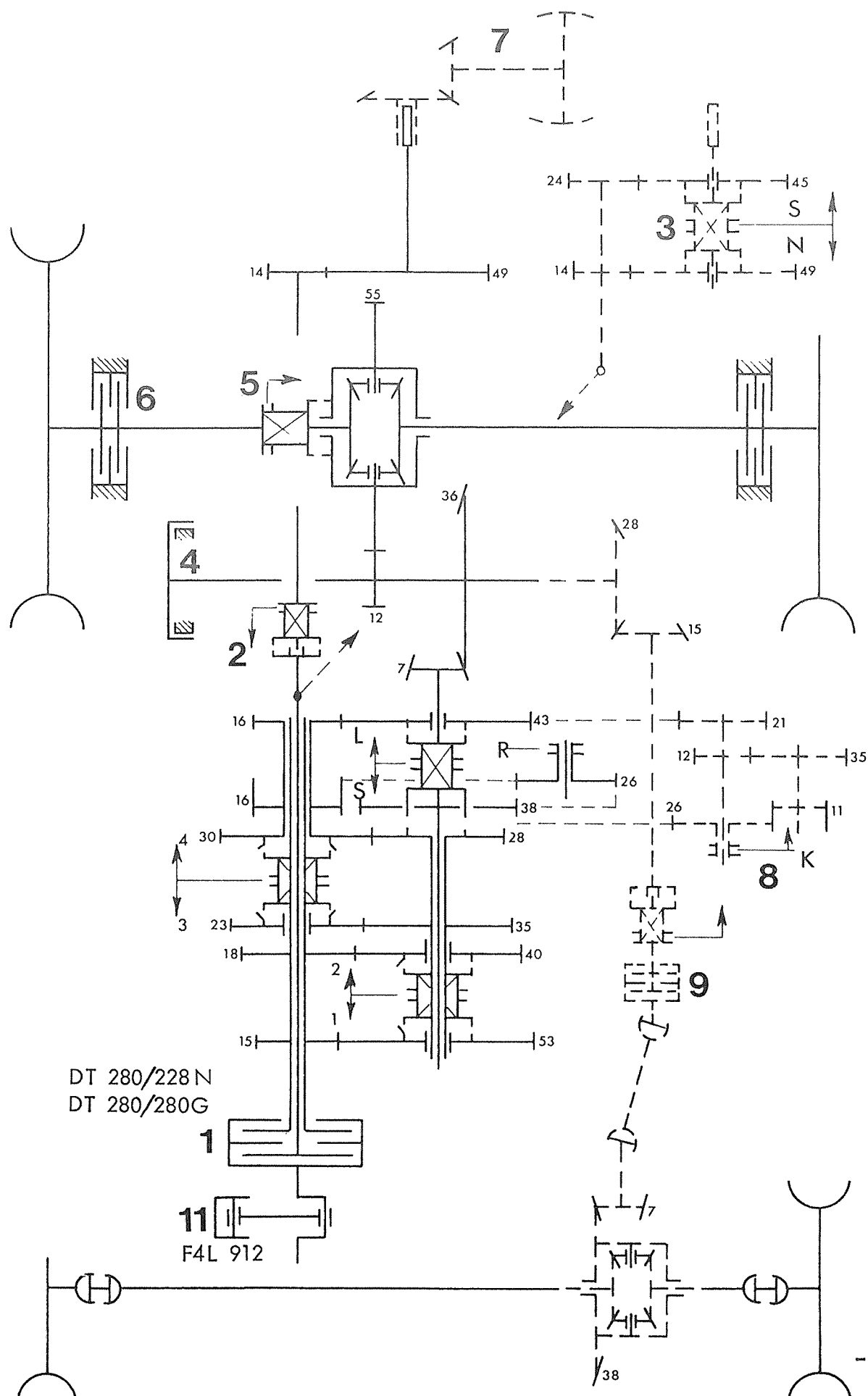
DT 280/228 N
DT 280/250 G

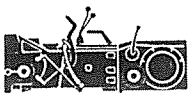
F3L 912



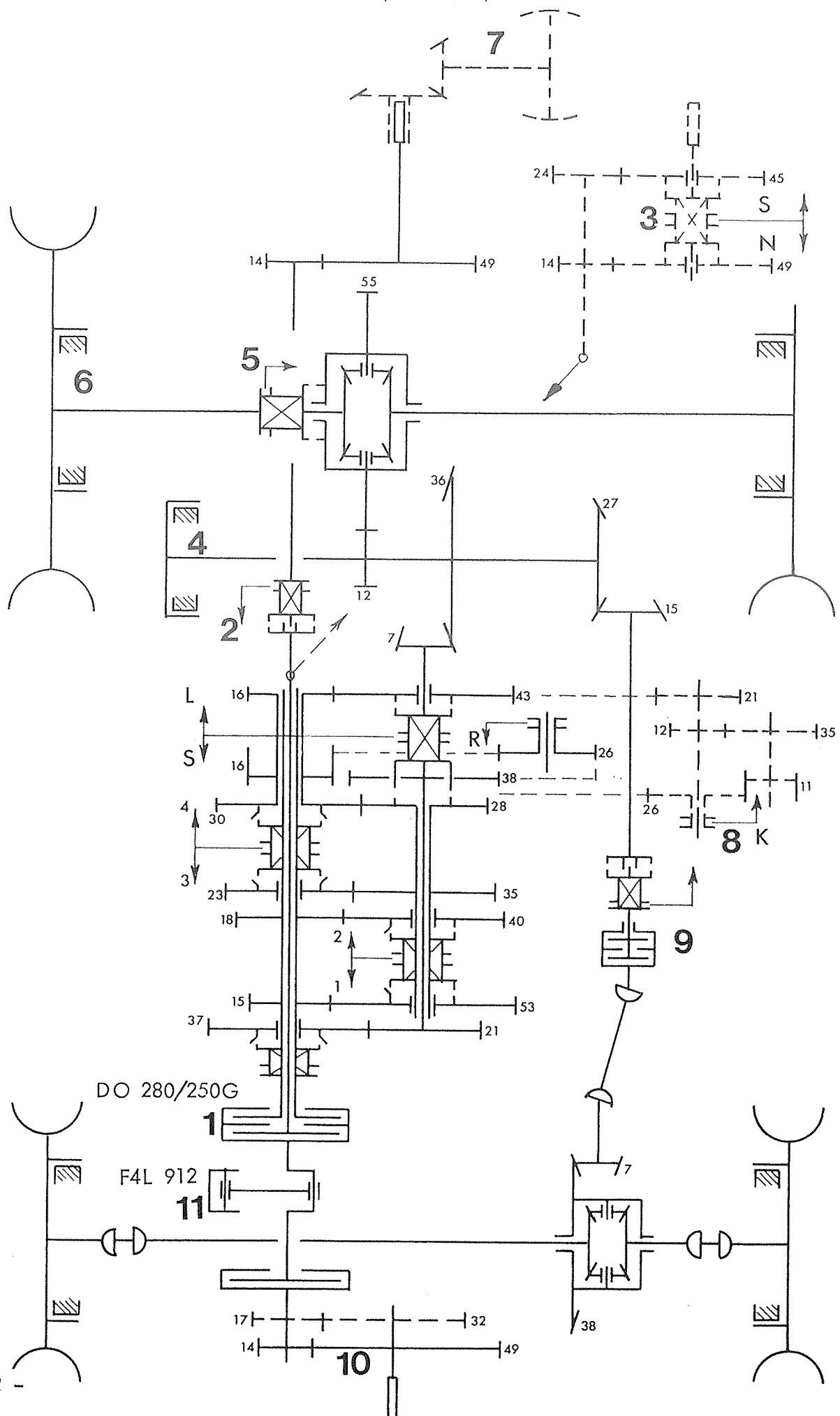


D 62 06 - D 62 06 A
(TW 50.4)





Intrac 2003 A-T
(TW 50.04)



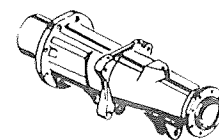


1. Kupplung
2. Einfach-Zapfwelle
3. Duo-Zapfwelle
4. Handbremse
5. Differentialsperre
6. Betriebsbremse
7. Riemenscheibe
8. Kriechgang
9. Vorderradantrieb
10. Frontzapfwelle
11. Motor
12. Mähantrieb

1. Clutch
2. Standard PTO-shaft
3. Two-speed PTO-shaft
4. Hand brake
5. Diff. lock
6. Foot brake
7. Belt pulley
8. Creep gear
9. Front wheel drive
10. Front PTO-shaft
11. Engine
12. Mower drive

1. Embrayage
2. Prise de force simple
3. Prise de force à deux régimes
4. Frein à main
5. Blocage du différentiel
6. Frein de route
7. Poulie à courroie
8. Vitesse rampante
9. Pont moto-directeur
10. Prise de force frontale
11. Moteur
12. Commande de barre de coupe

1. Embrague
2. Toma de fuerza standard
3. Toma de fuerza duo
4. Freno manual
5. Bloqueo de diferencial
6. Freno de rodadura
7. Polea de correa
8. Marchas ultralentas
9. Eje delantero motriz
10. Toma de fuerza frontal
11. Motor
12. Accionamiento de segadora



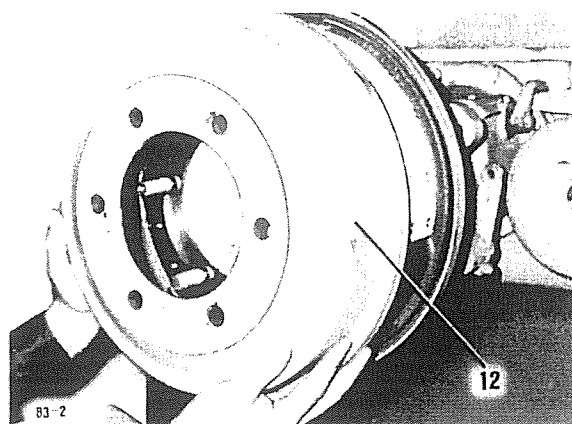
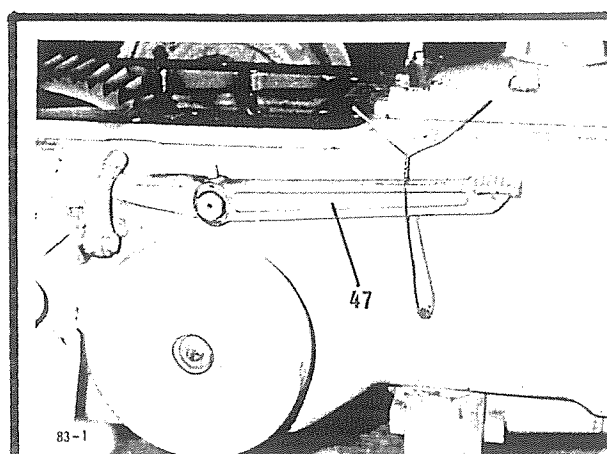
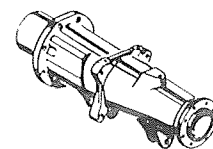
INHALTSVERZEICHNIS

	Seite
Teildemontage der Hinterachshälfte (Trommelbremse)	3
Hinterachshälfte zusammenbauen	5
Komplettdemontage der Hinterachshälfte	7
Tragrohr zusammenbauen	9
Explosionsdarstellung (Trommelbremse)	13/14
Teildemontage der Hinterachshälfte (Scheibenbremse)	17
Hinterachshälfte zusammenbauen	18
Explosionsdarstellung (Scheibenbremse)	23/24
Tragrohr abbauen	27
Tragrohr anbauen	28
Differentialhebelteile einbauen	30
Explosionsdarstellung (Hebelteile)	33/34

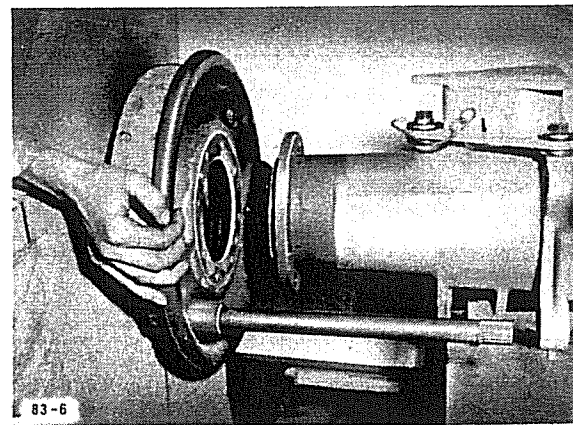
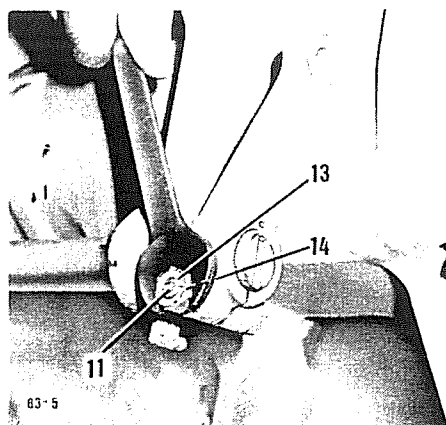
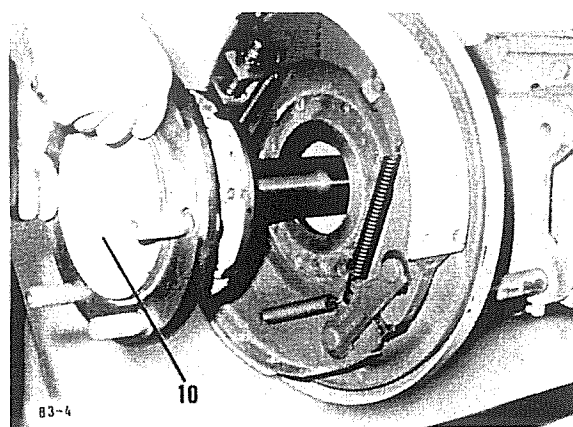
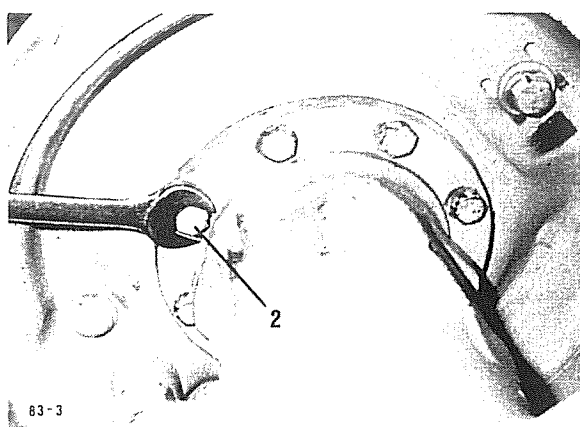
INDEX

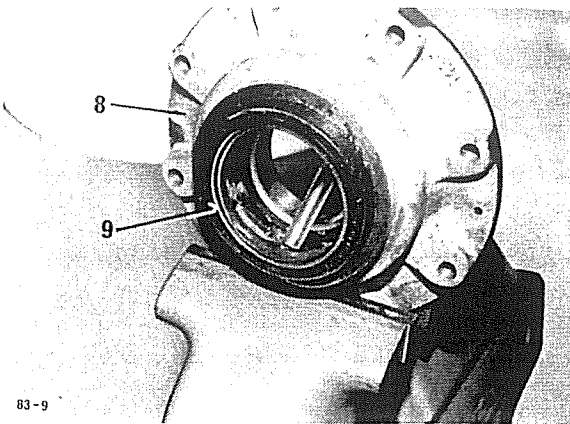
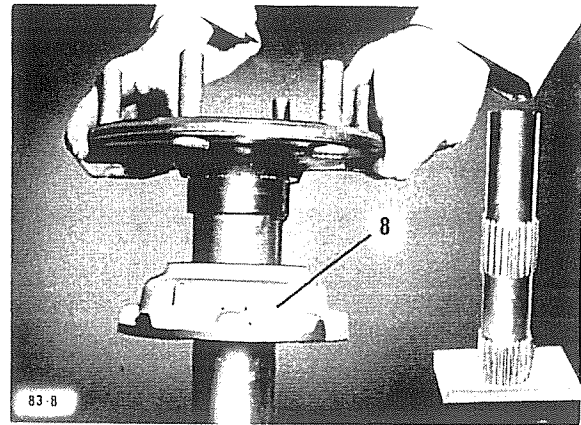
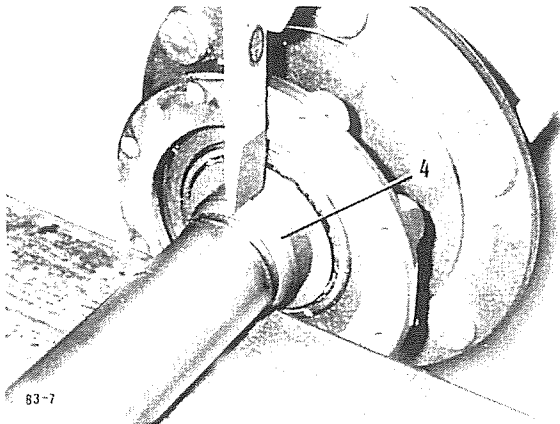
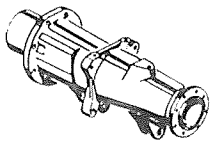
	Page
Partially dismantling the rear half-axle	3
Reassembling rear half-axle	5
Completely dismantling rear half-axle	7
Reassembling the axle tube	9
Explosion view (drum brake)	13/14
Partially dismantling the rear half-axle (disc brake)	17
Reassembling rear half-axle (disc brake)	18
Explosion view (disc brake)	23/24
Removing the axle tube	27
Refitting the axle tube	28
Installing diff. lever parts	30
Explosion view (diff. lever parts)	33/34

TEILDEMONTAGE DER HINTERACHSHÄLFTE (TROMMELBREMSE)
 PARTIALLY DISMANTLING THE REAR HALF-AXLE (DRUM BRAKE)
 DEPOSE PARTIELLE DU DEMI-ESSIEU AR (FREIN A TAMBOR)
 DESMONTAJE PARCIAL DEL SEMIEJE TRASERO (FRENO DE TAMBOR)

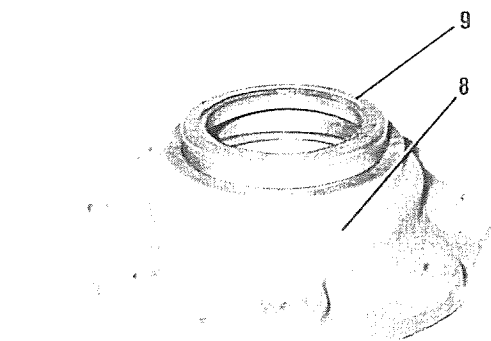
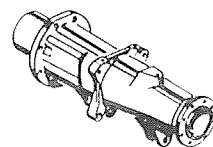


Hinterachshälfte rechts
 Half-axle RH
 Demi-essieu AR, côté droit
 Semieje trasero, derecha

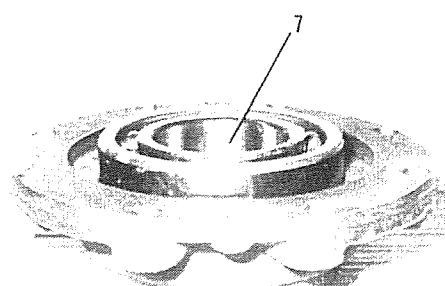




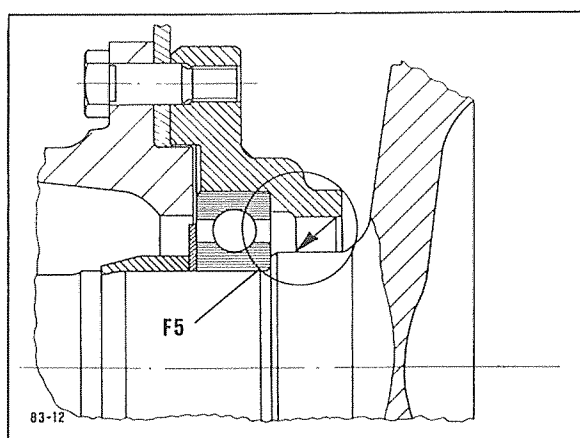
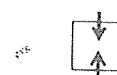
HINTERACHSHÄLFTE ZUSAMMENBAUEN
 REASSEMBLING REAR HALF-AXLE
 REASSEMBLAGE DU DEMI-ESSIEU AR
 REARMAR EL SEMIEJE TRASERO



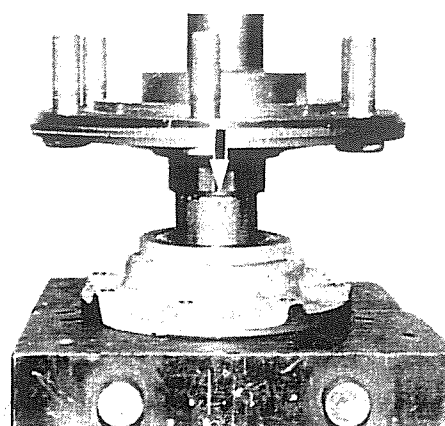
83-10



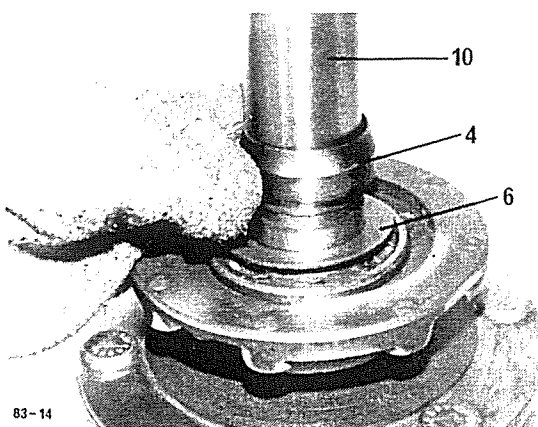
63-11



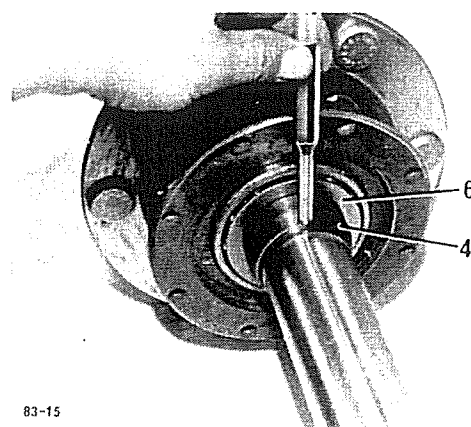
83-12



83-13

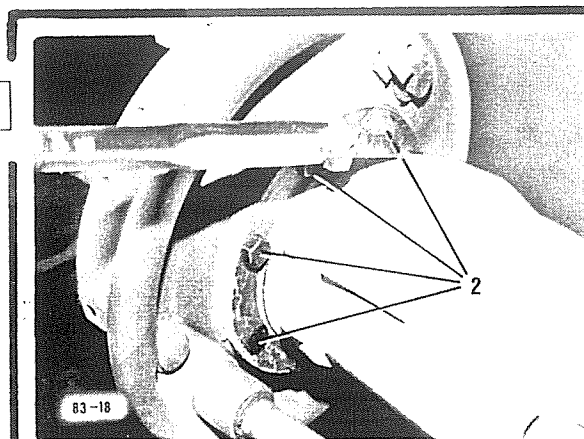
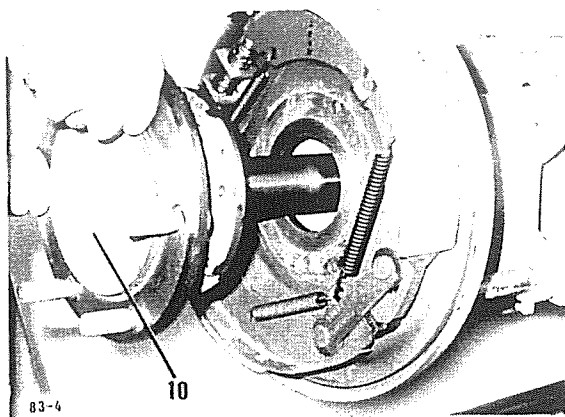
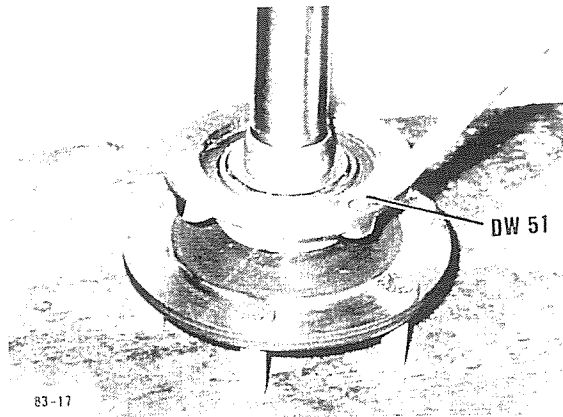
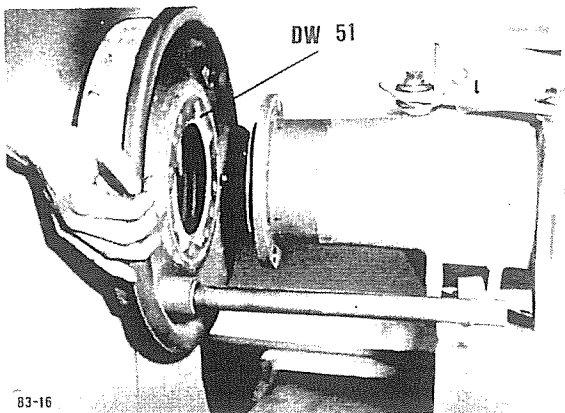
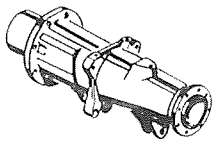


83-14

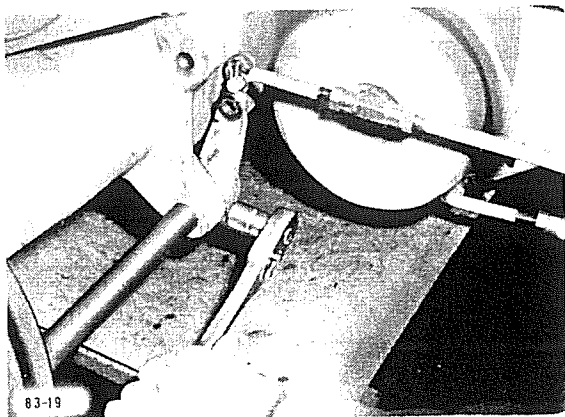


83-15

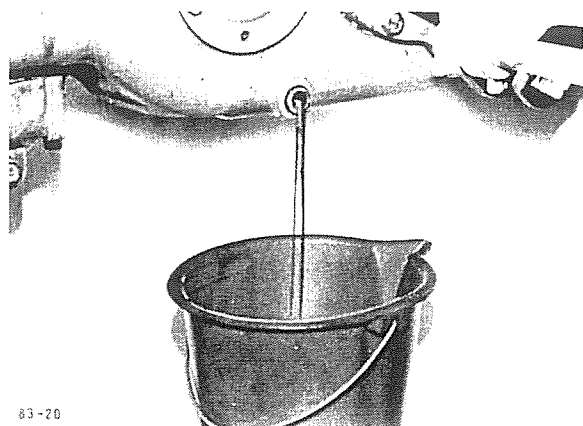
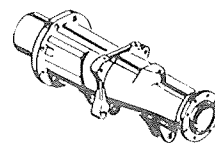




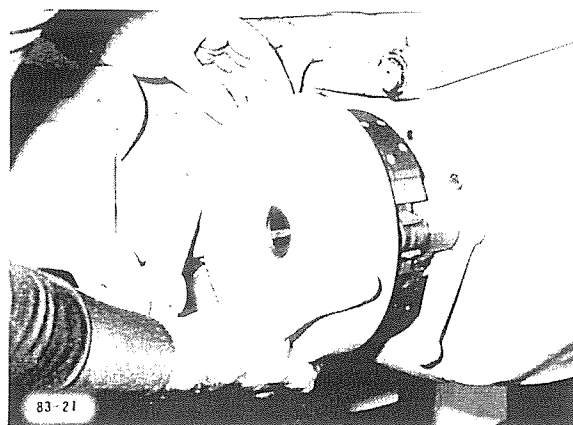
69 Nm (6,9 kpm)



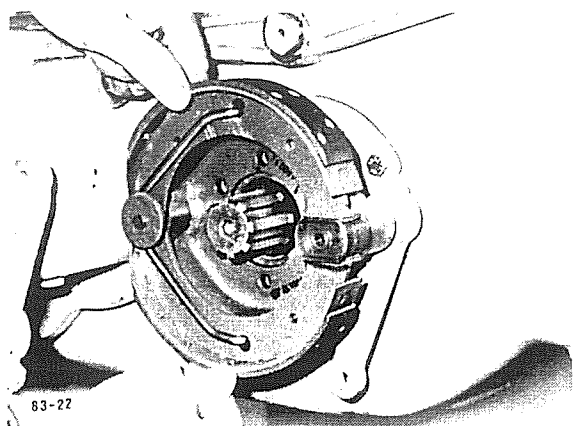
KOMPLETTDEMONTAGE DER HINTERACHSHÄLFTE
 COMPLETELY DISMANTLING REAR HALF-AXLE
 DEPOSE COMPLET DU DEMI-ESSIEU AR
 DESMONTAJE COMPLETO DEL SEMIEJE TRASERO



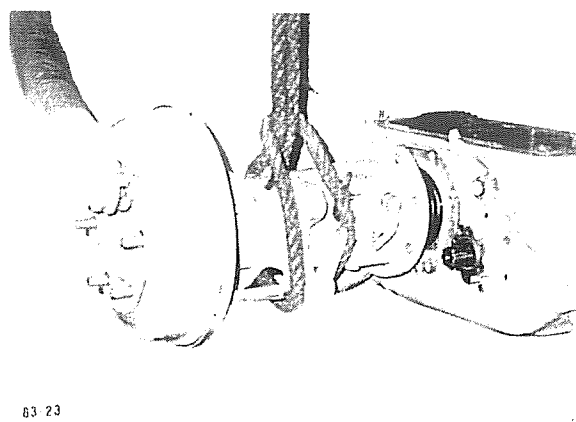
83-20



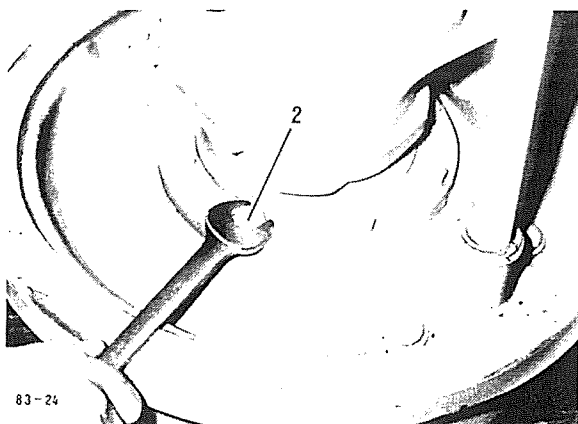
83-21



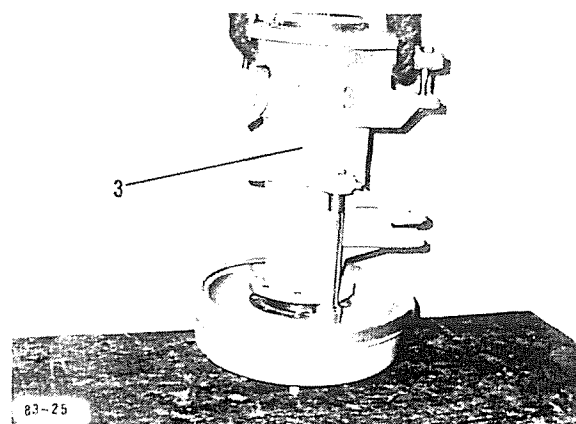
83-22



83-23

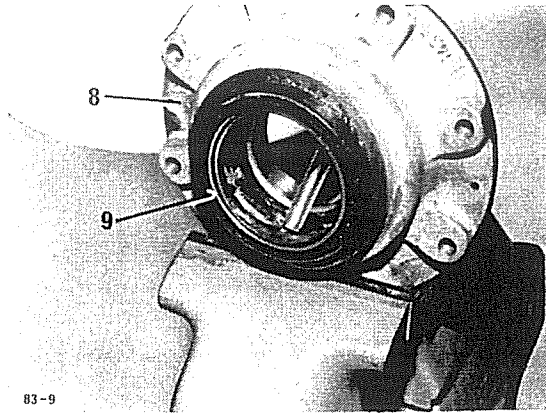
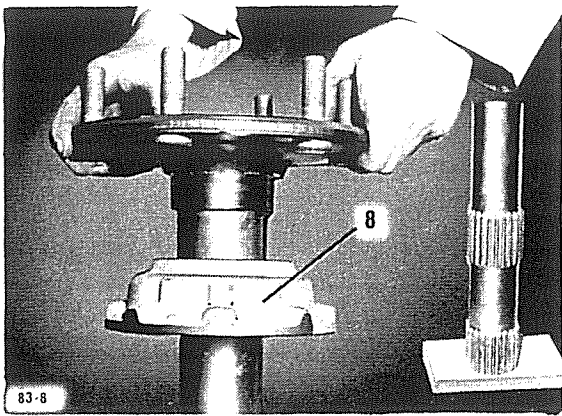
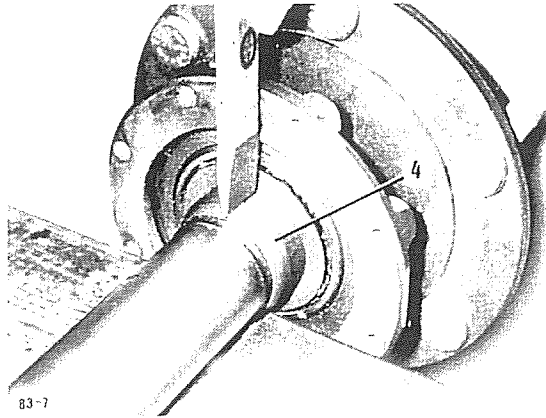
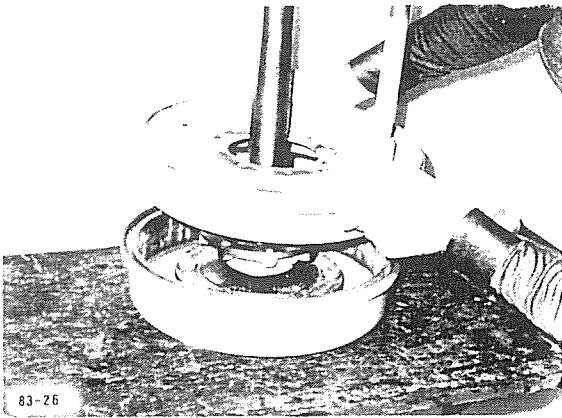
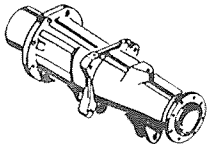


83-24

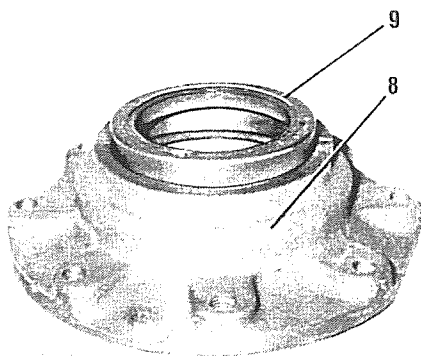
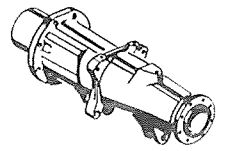


83-25

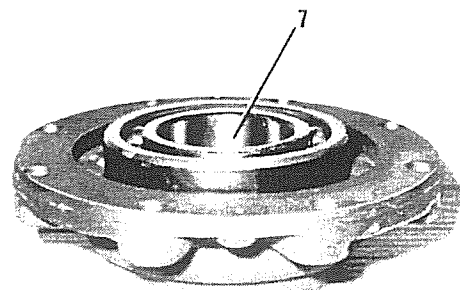




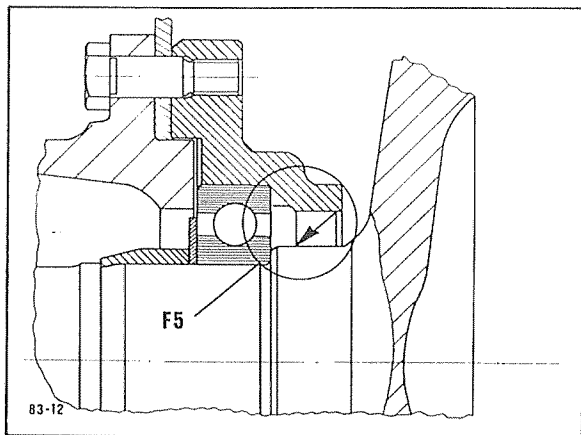
TRAGROHR ZUSAMMENBAUEN
 REASSEMBLING THE AXLE TUBE
 REASSEMBLAGE DE LA TROMPETTE
 REARMAR LA TROMPETA DE EJE



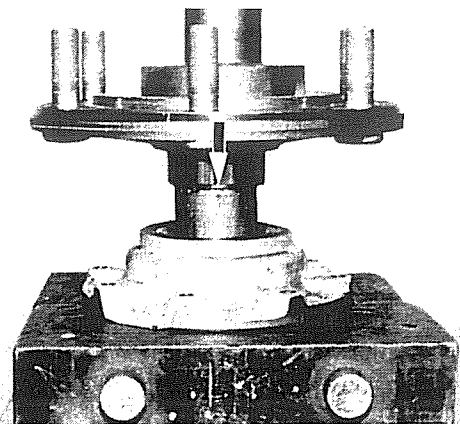
83-10



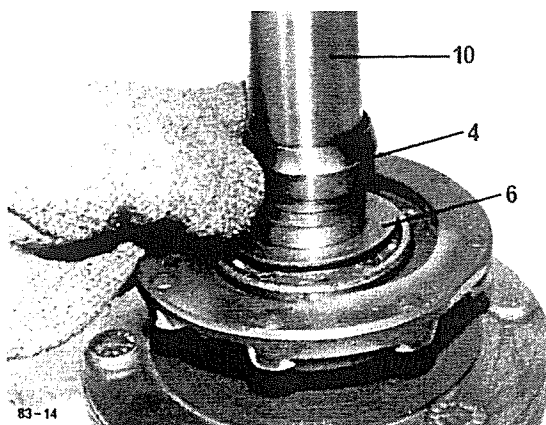
83-11



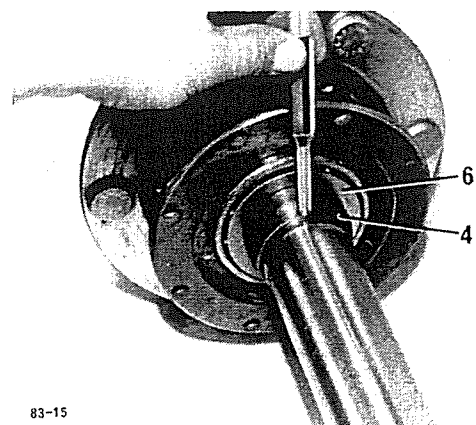
83-12



83-13

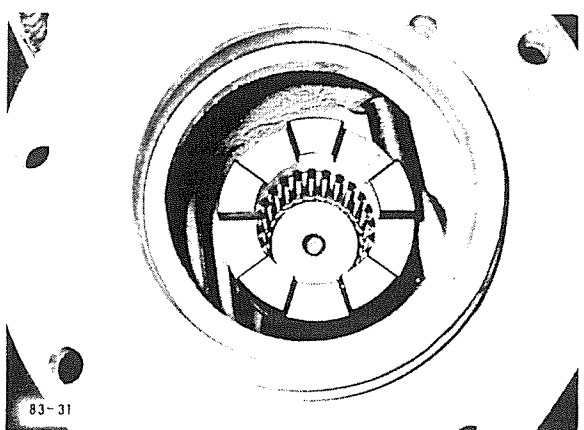
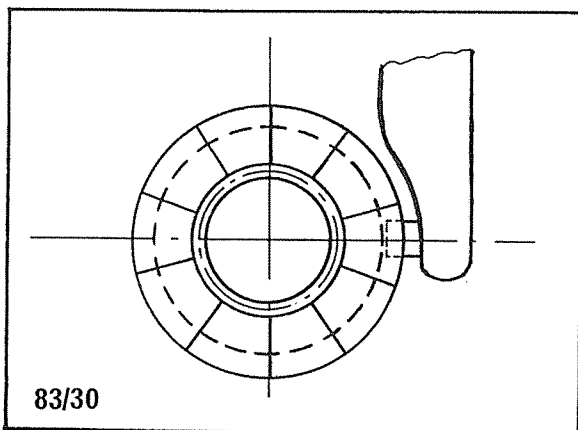
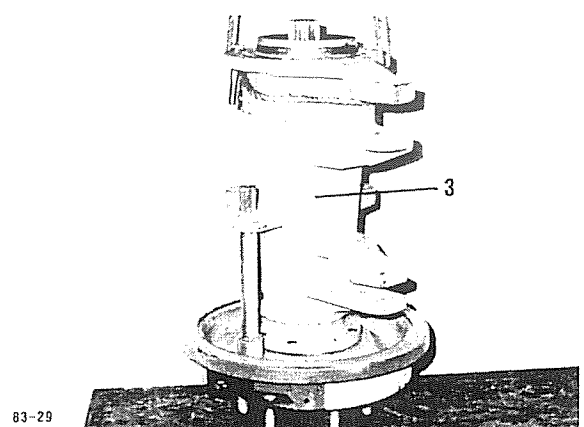
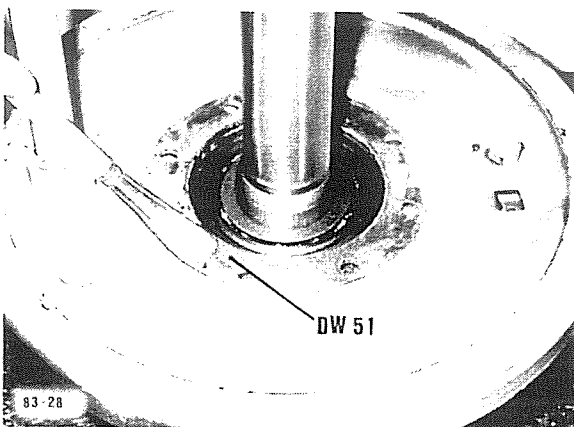
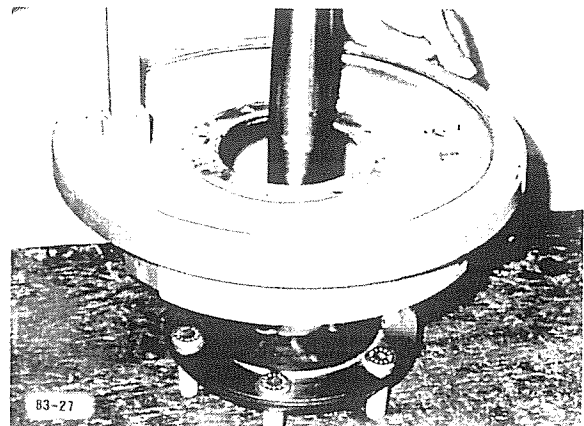
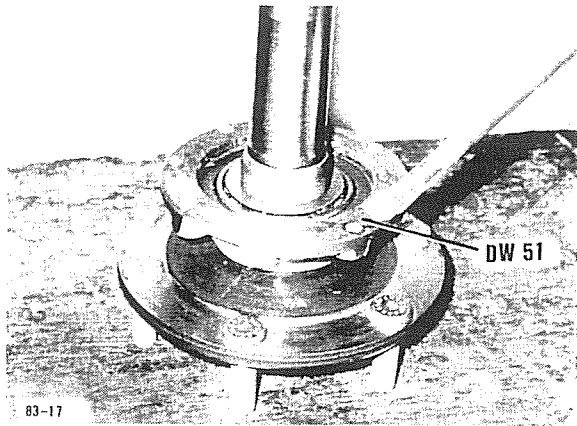
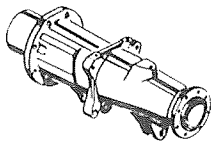


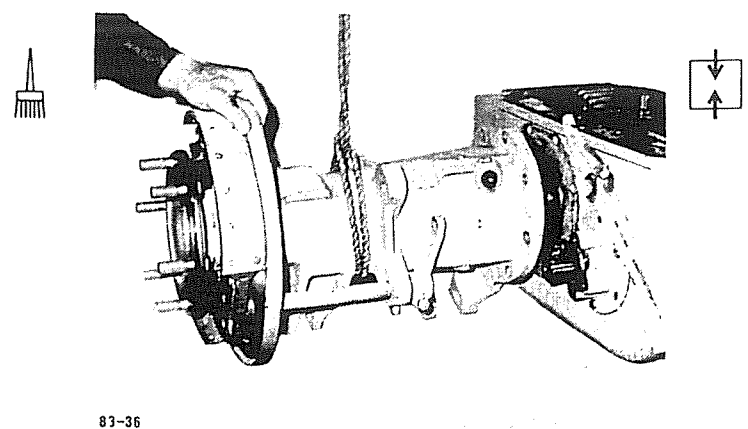
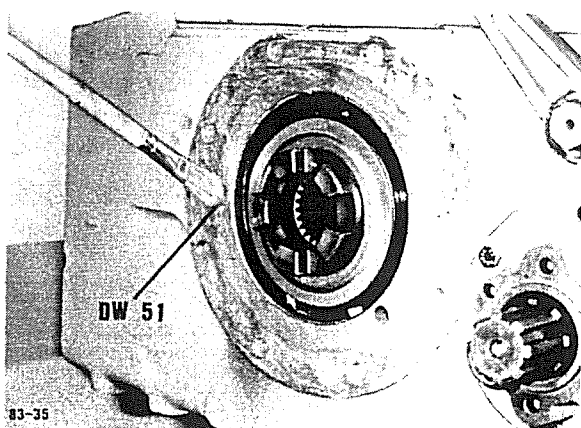
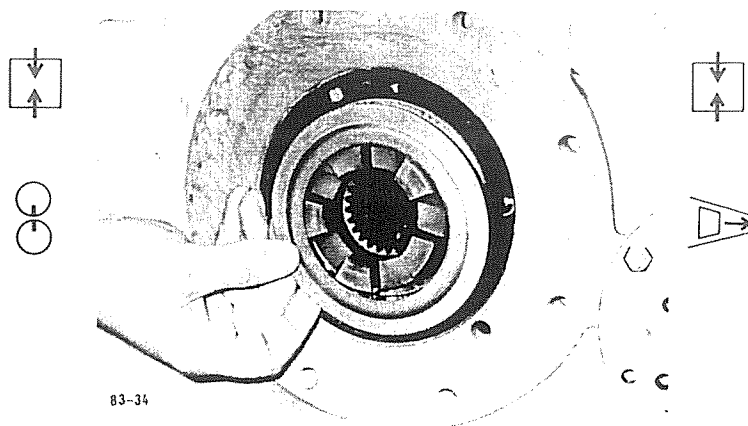
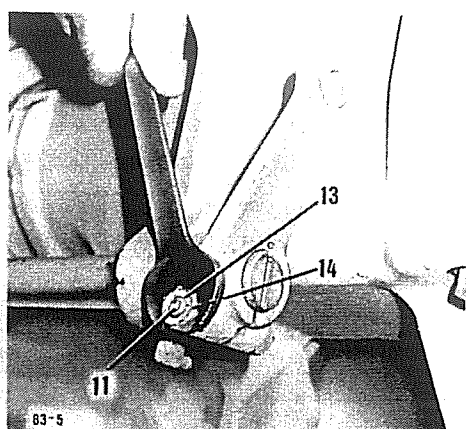
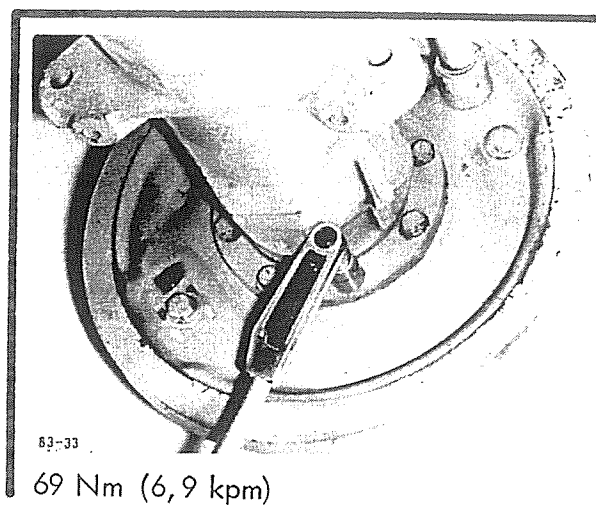
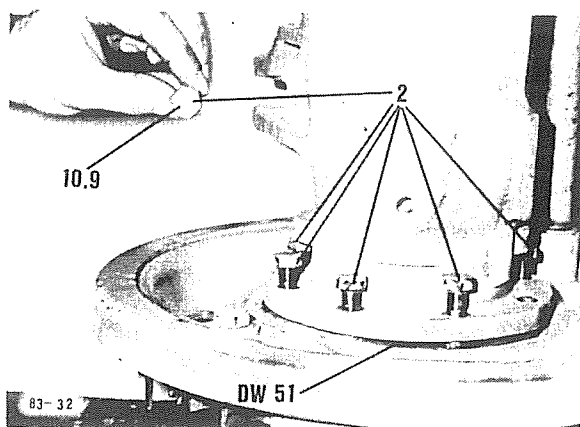
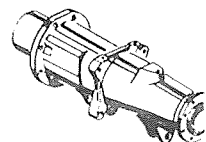
83-14

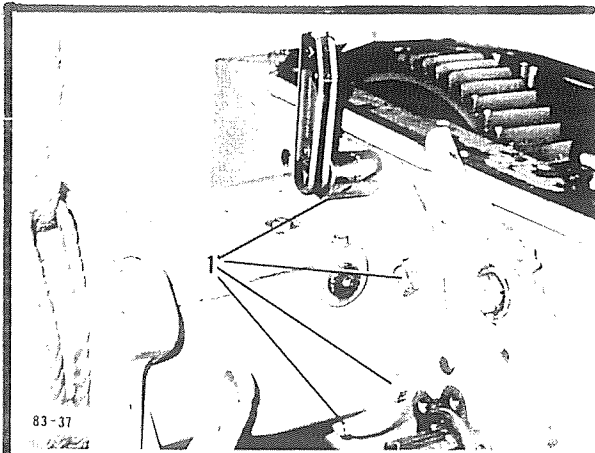
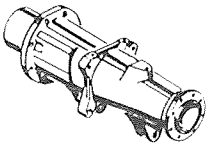


83-15

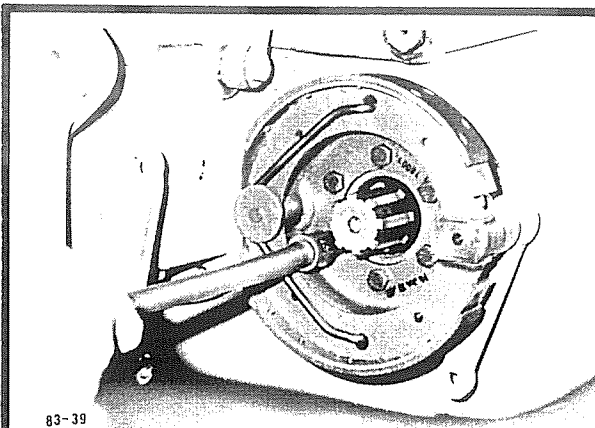
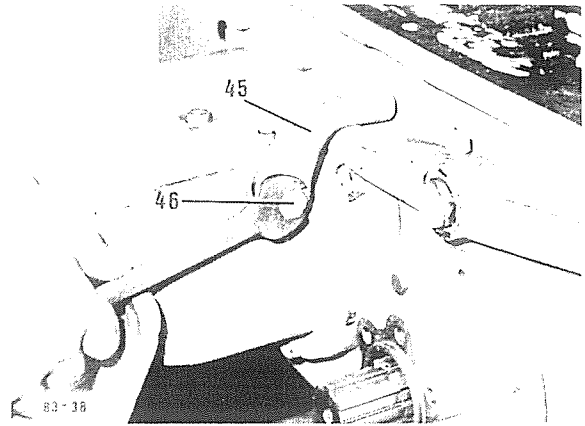




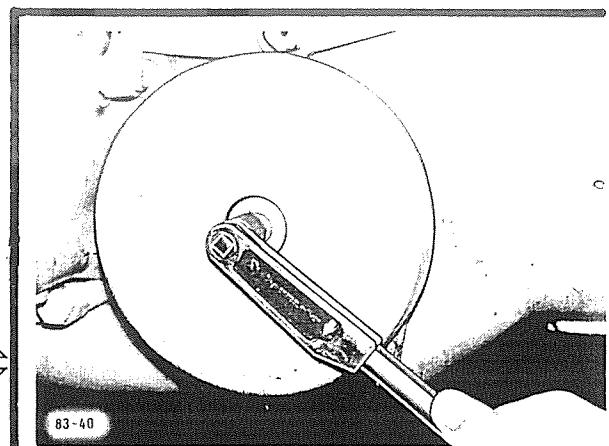




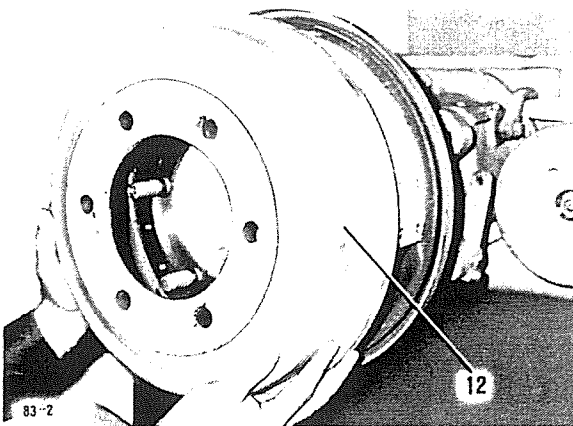
135 Nm (13,5 kpm)

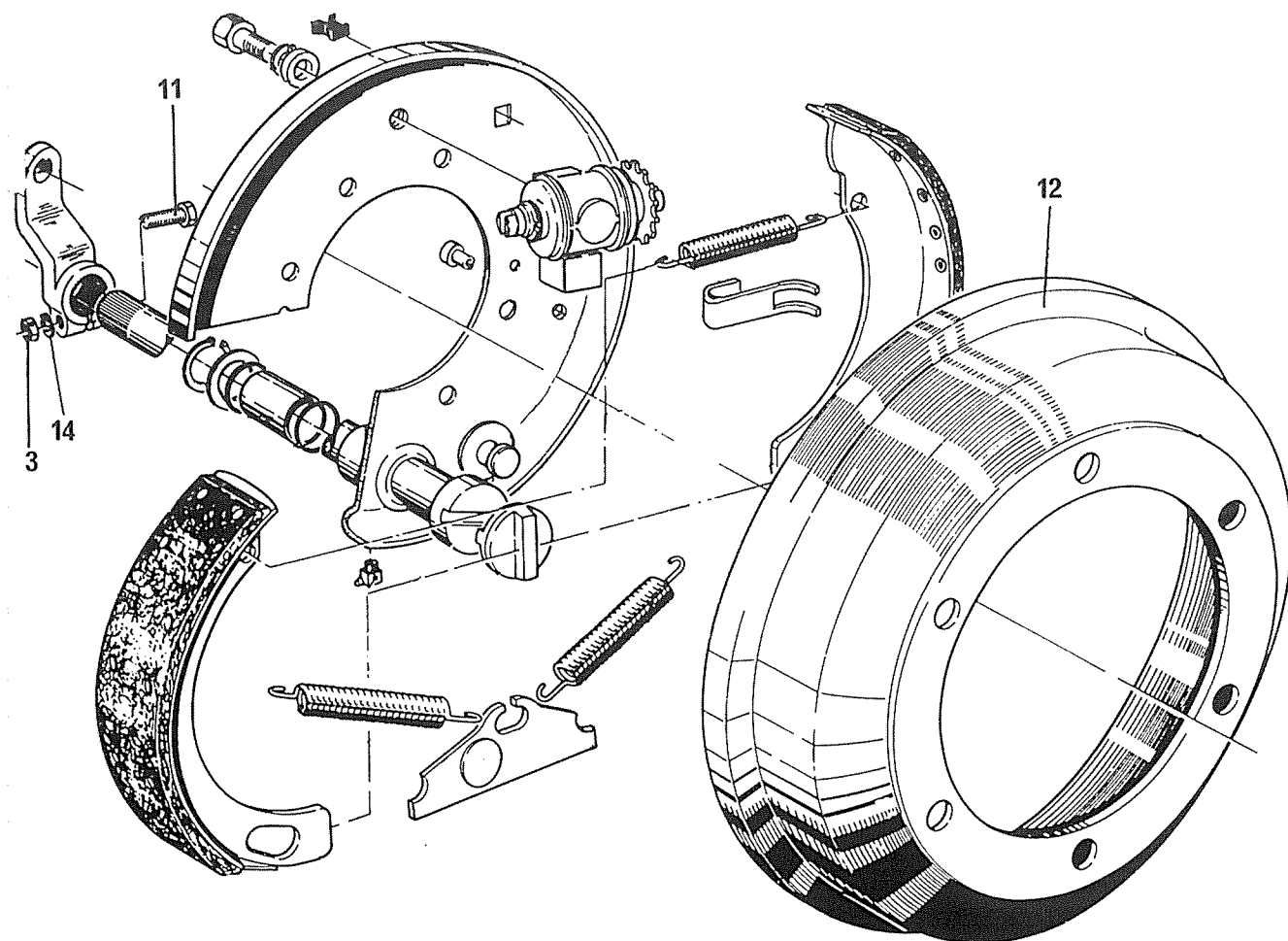
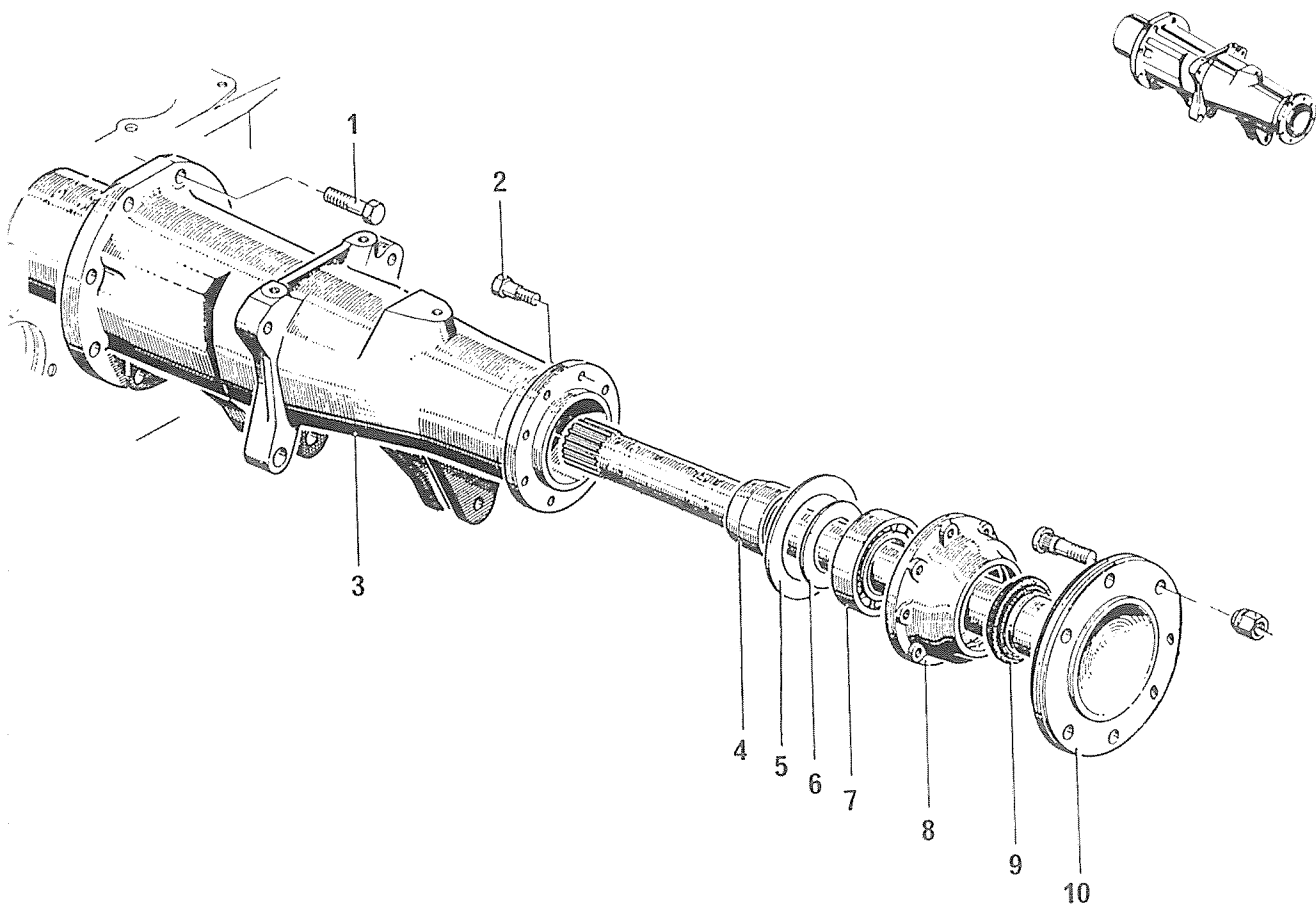


30 Nm (3,0 kpm)

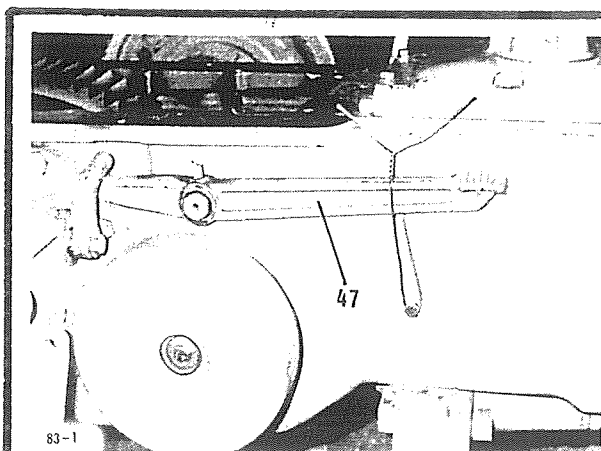
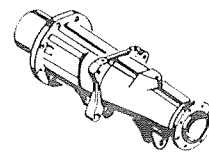


25 Nm (2,5 kpm)

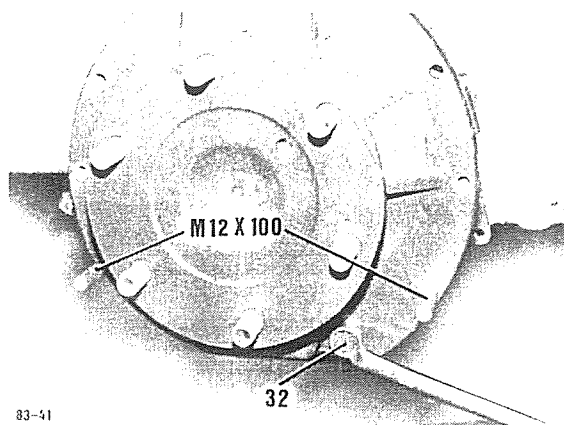




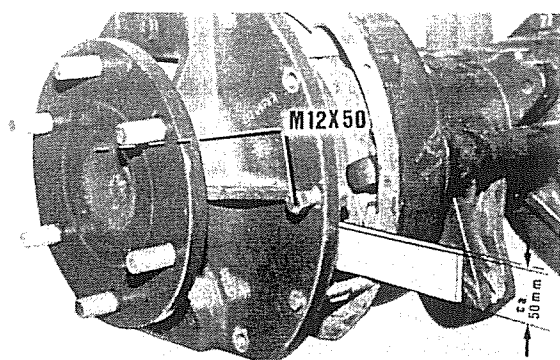
TEILDEMONTAGE DER HINTERACHSHÄLFTE (SCHEIBENBREMSE)
 PARTIALLY DISMANTLING THE REAR HALF-AXLE (DISC BRAKE)
 DEPOSE PARTIELLE DU DEMI-ESSIEU AR (FREIN A DISQUES)
 DESMONTAJE PARCIAL DE SEMIEJE TRASERO (FRENO DE DISCOS)



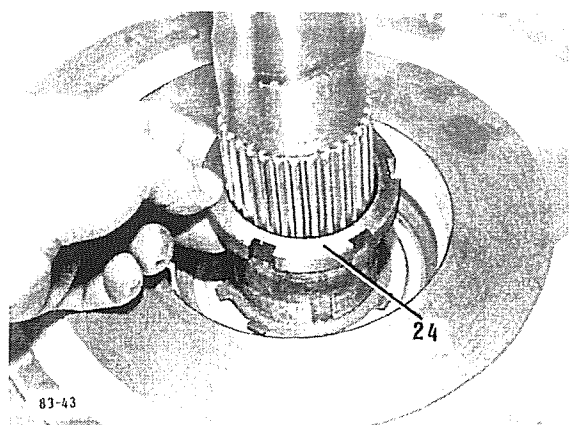
83-1
 Hinterachshälfte rechts
 Half-axle RH
 Demi-essieu AR, côté droit
 Semieje trasero, derecha



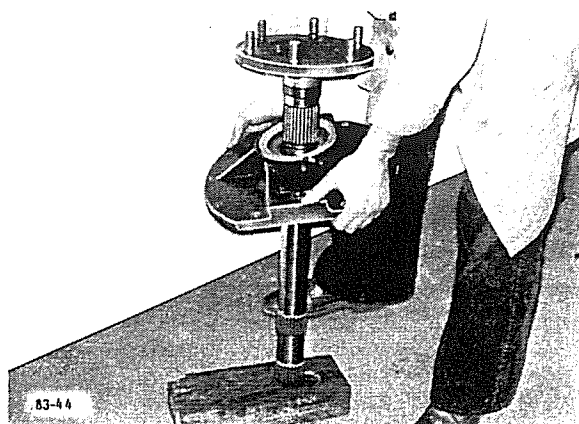
83-41



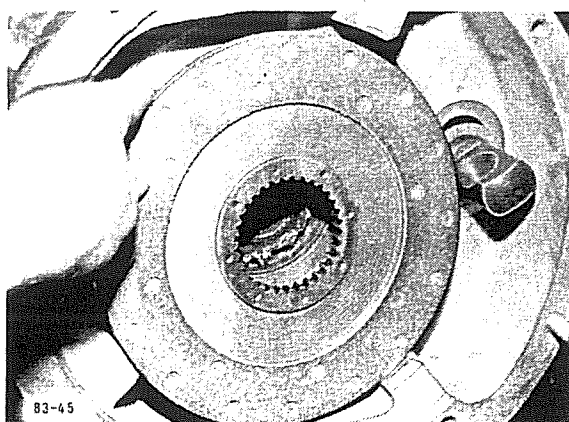
83-42



83-43

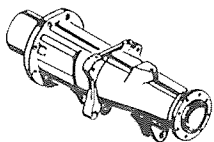


83-44

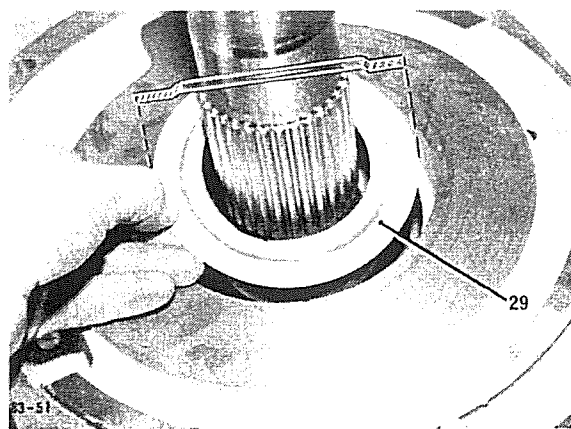
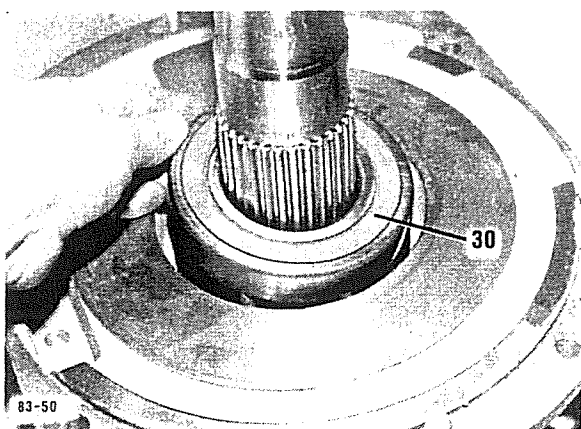
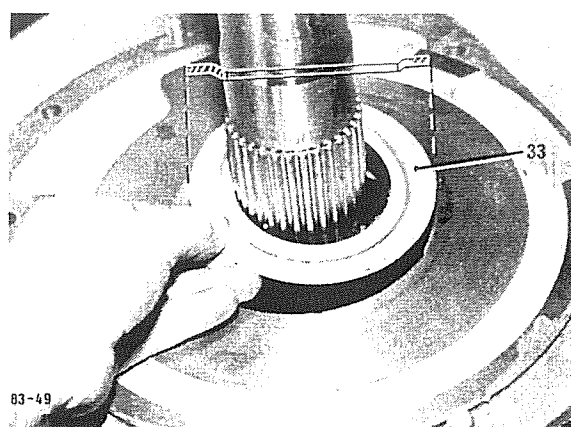
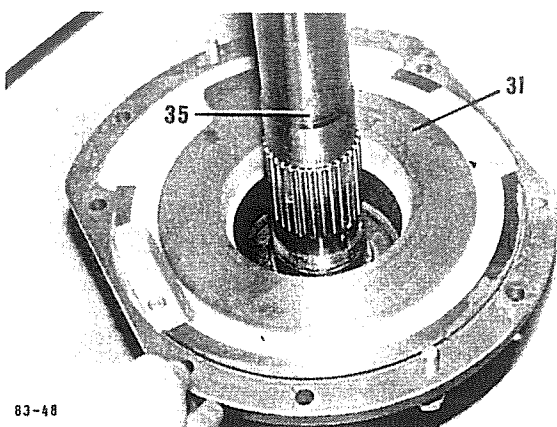
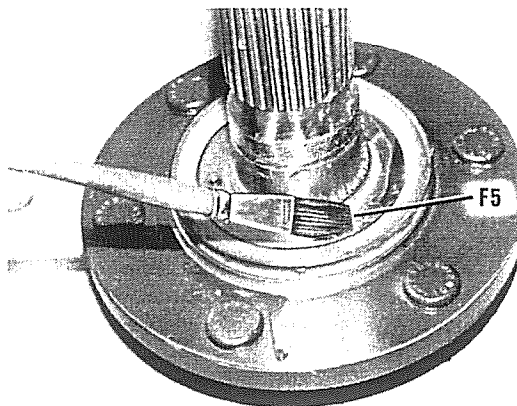
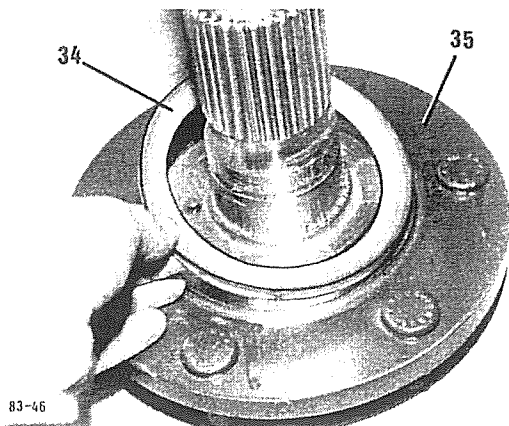


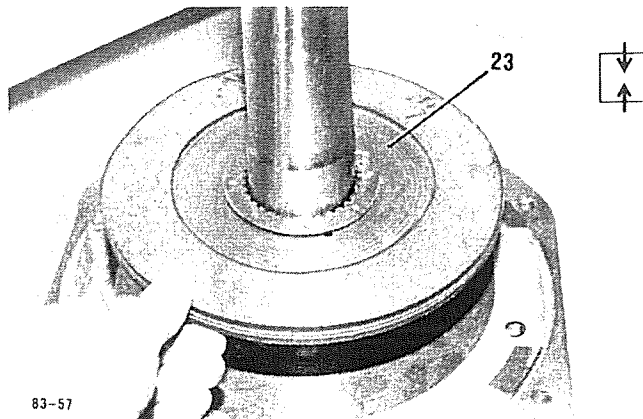
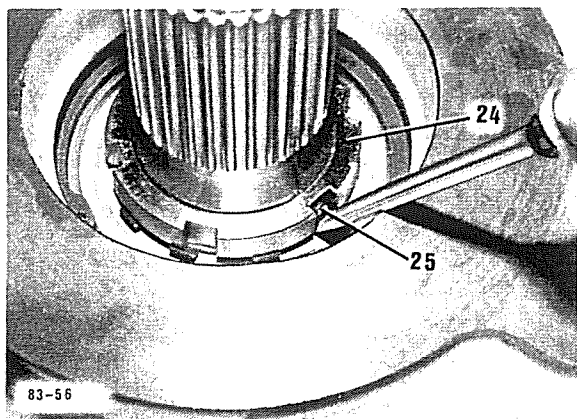
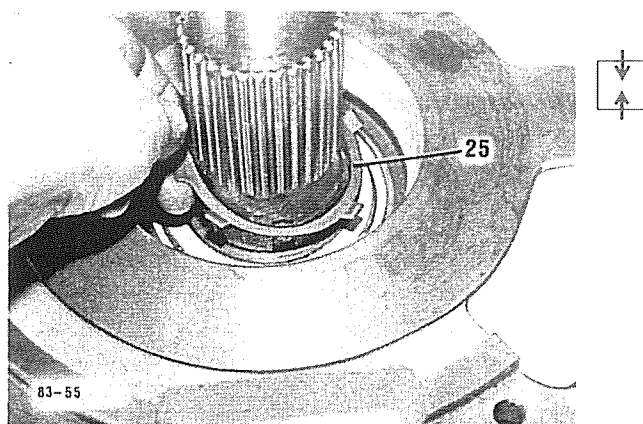
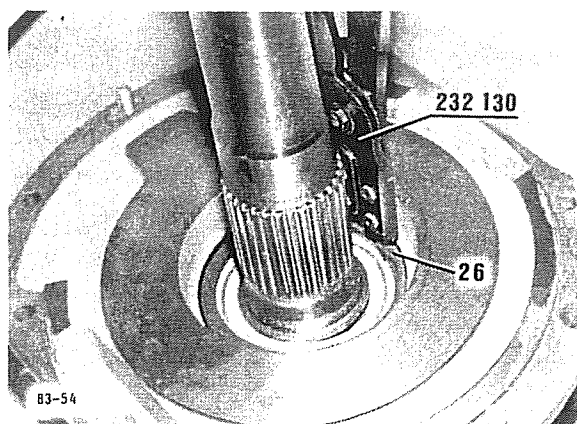
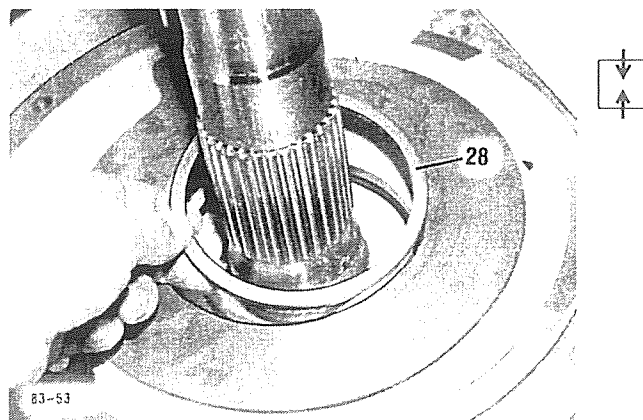
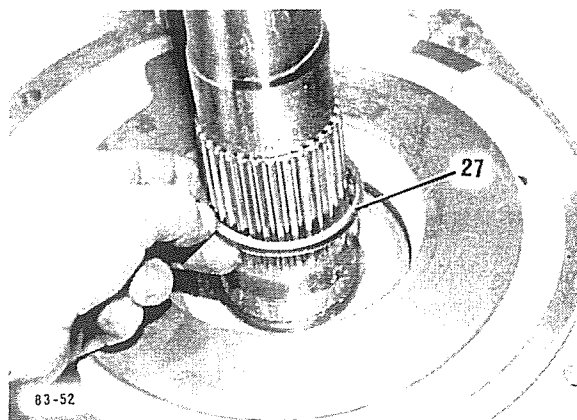
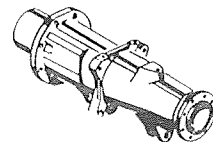
83-45



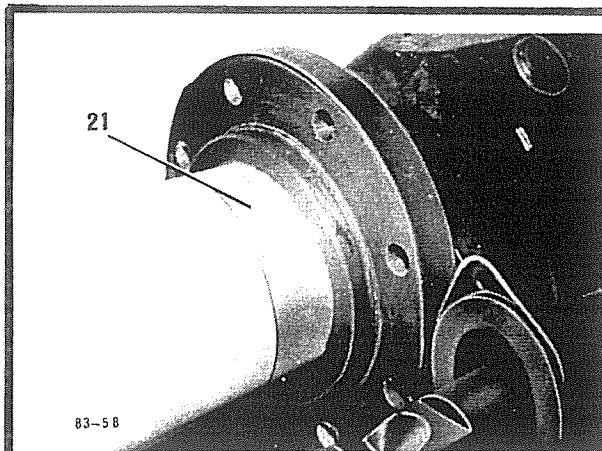
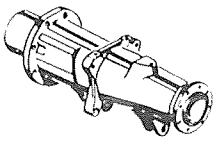


HINTERACHSHÄLFTE ZUSAMMENBAUEN (SCHEIBENBREMSE)
 REASSEMBLING REAR HALF-AXLE (DISC BRAKE)
 DEMI-ESSIEU AR: REASSEMBLAGE (FREIN A DISQUES)
 REARMAR EL SEMIEJE TRASERO (FRENO DE DISCOS)



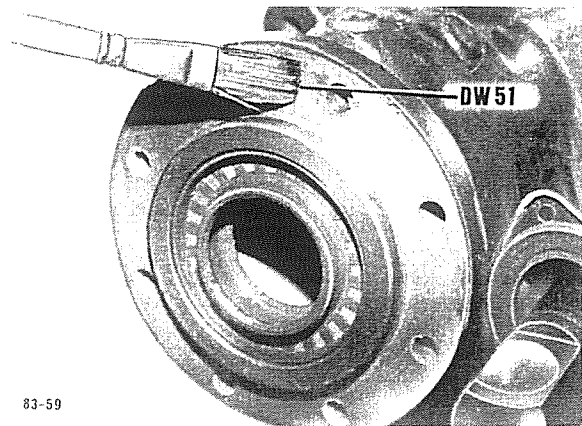


Pos. 24 festziehen
Tighten item 24
Serrer énergiquement pos. 24
Apretar Pos. 24

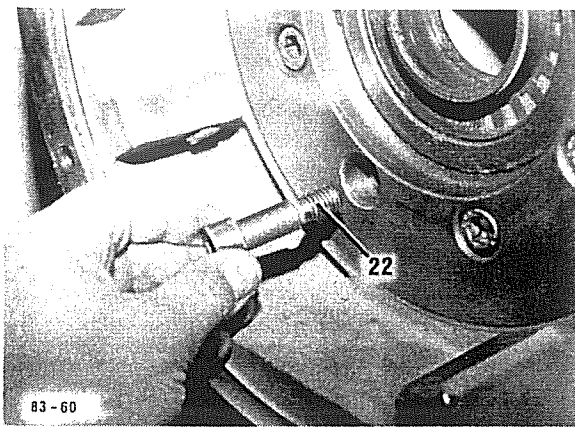


83-58

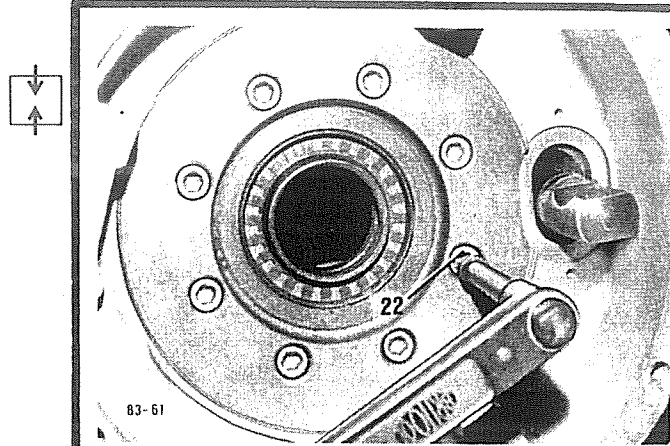
geeignetes Hilfsmittel
 suitable means
 moyen auxiliaire convenable
 medio auxiliar apropiado



83-59

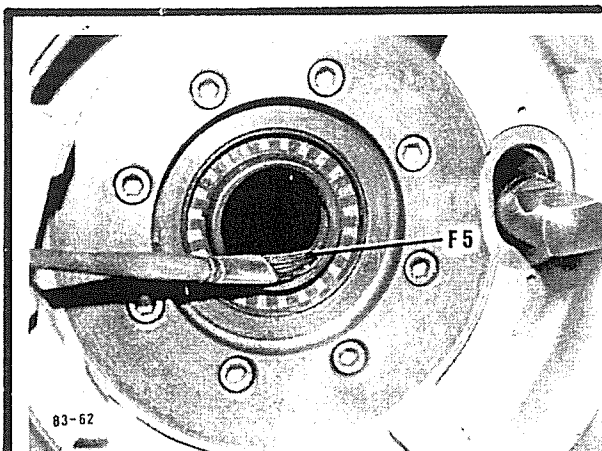


83-60

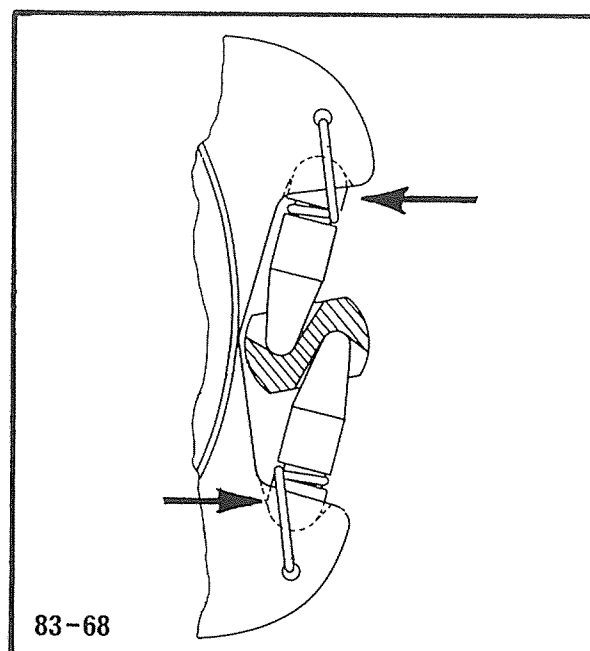
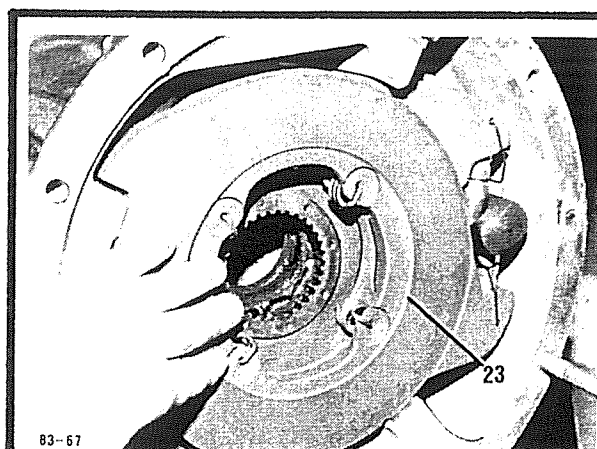
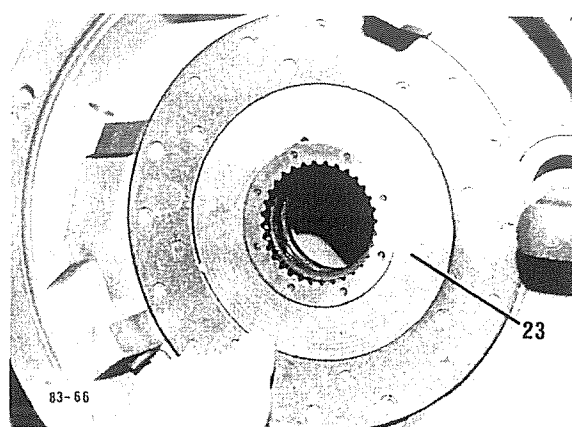
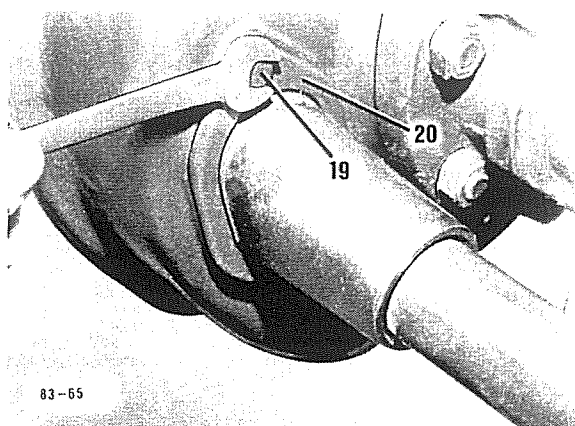
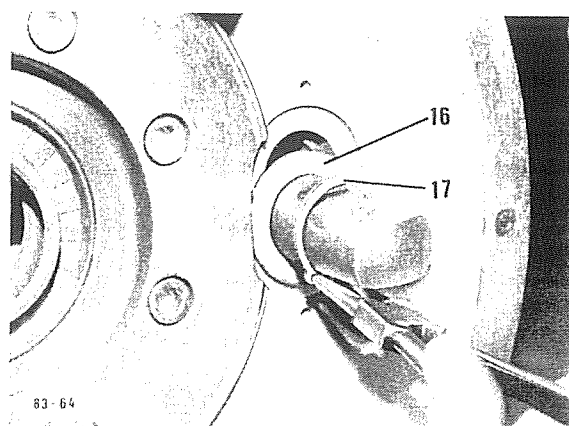
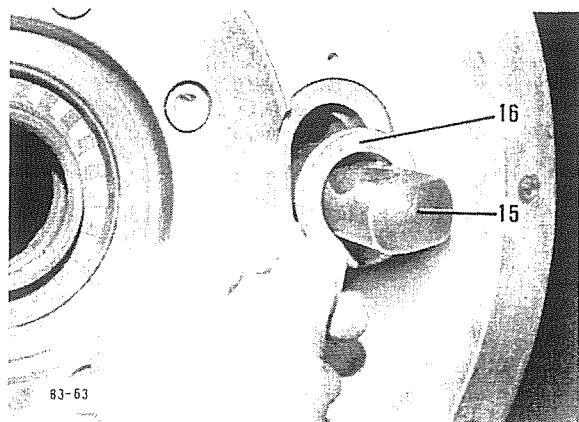
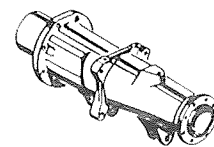


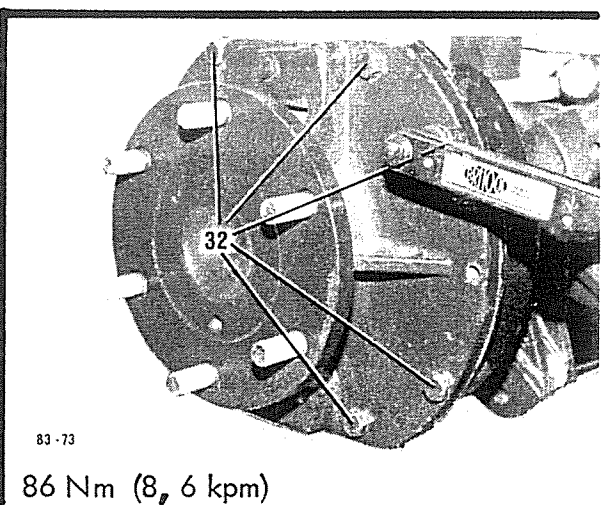
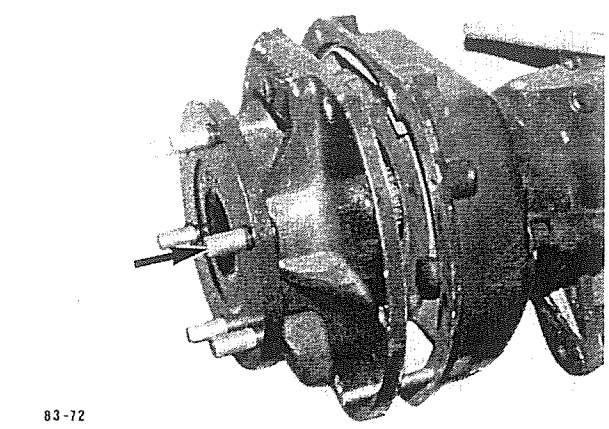
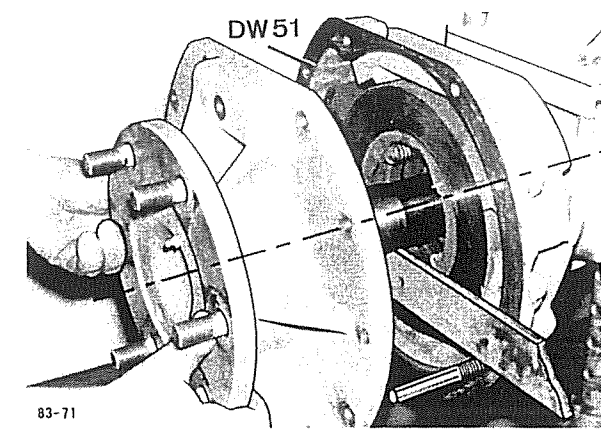
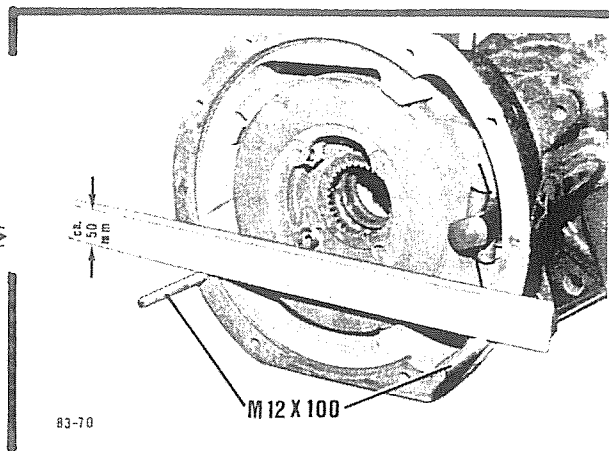
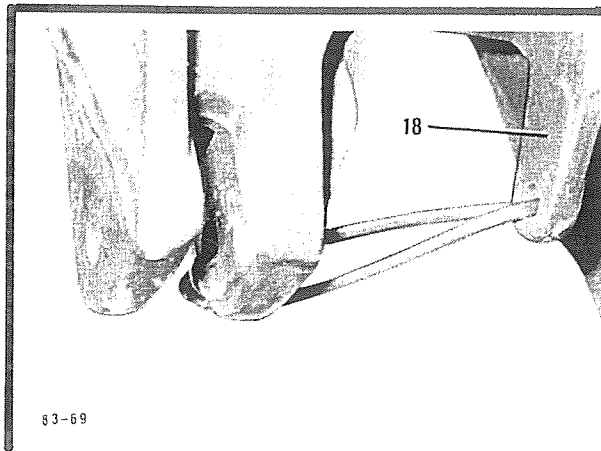
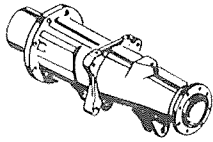
83-61

86 Nm (8,6 kpm)



83-62



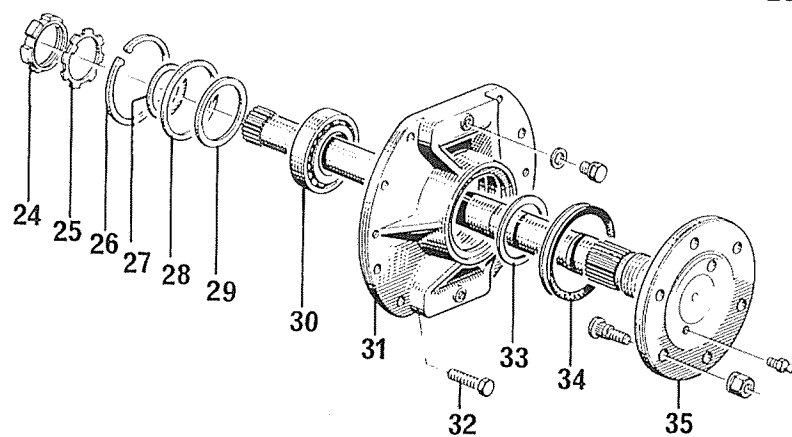
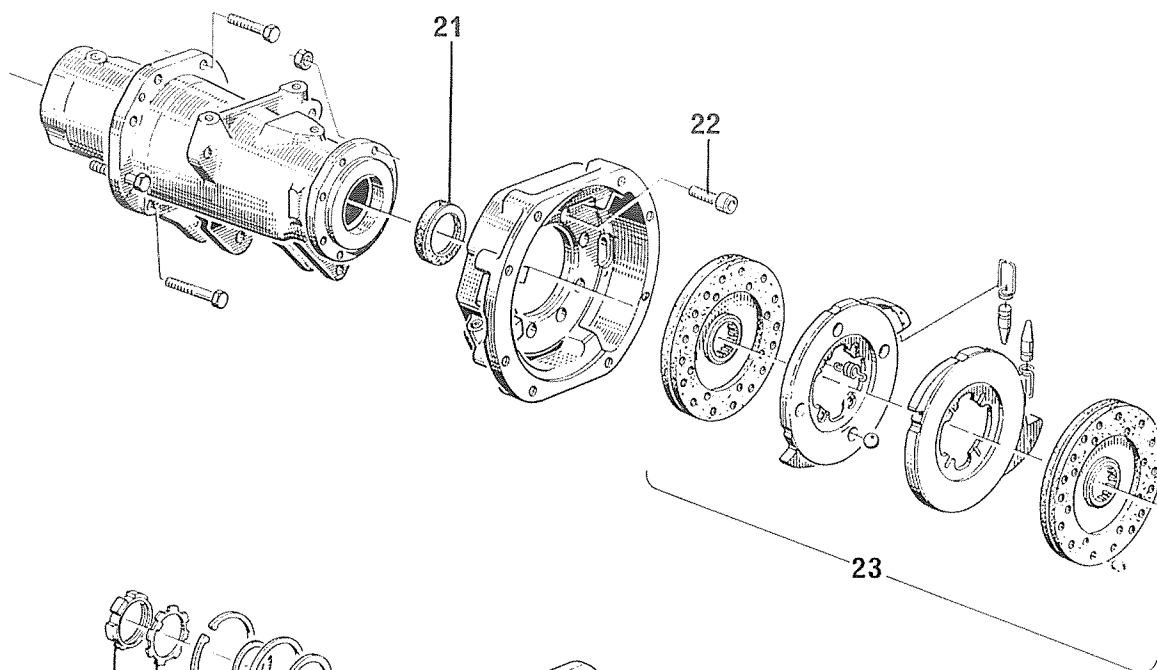
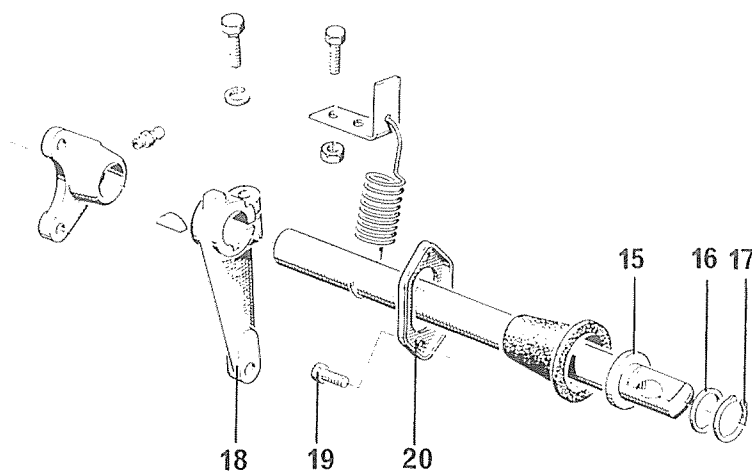
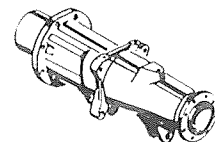


15. Welle
 16. Scheibe
 17. Sicherungsring
 18. Hebel
 19. Sechskantschraube
 20. Flansch
 21. Radial-wellendichtring
 22. Zylinderschraube
 23. Bremse
 24. Nutmutter
 25. Sicherungsblech
 26. Sicherungsring
 27. Abstandring
 28. Scheibe
 29. Dichtring
 30. Rillenkugellager
 31. Deckel
 32. Sechskantschraube
 33. Dichtring
 34. Ring
 35. Steckwelle

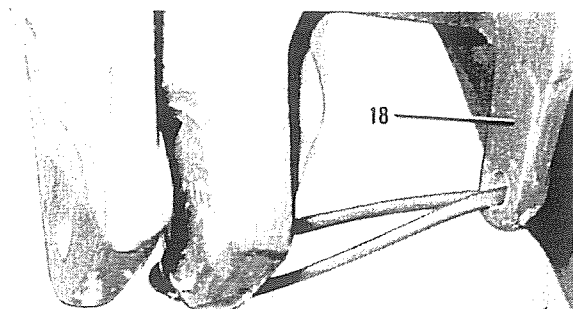
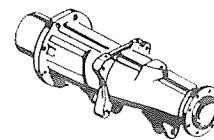
15. Shaft
 16. Washer
 17. Circlip
 18. Lever
 19. Hex. bolt
 20. Flange
 21. Radial shaft seal
 22. Cheese-head screw
 23. Brake
 24. Grooved nut
 25. Locking plate
 26. Circlip
 27. Spacer
 28. Washer
 29. Washer
 30. Ball bearing
 31. Cover
 32. Hex. bolt
 33. Washer
 34. Ring
 35. Half-shaft

15. Arbre
 16. Rondelle
 17. Circlip
 18. Levier
 19. Vis 6 pans
 20. Bride
 21. Joint d'arbre radial
 22. Vis à tête cylindrique
 23. Frein
 24. Ecrou à chapeau
 25. Tôle d'arrêt
 26. Circlips
 27. Bague d'entretoise
 28. Rondelle
 29. Bague-joint
 30. Roul rainure bille
 31. Couvercle
 32. Vis 6 pans
 33. Bague-joint
 34. Bague
 35. Demi-essieu

15. Eje
 16. Arandela
 17. Circlip
 18. Palanca
 19. Tornillo hexagonal
 20. Brida
 21. Anillo de hermetiz. de eje radial
 22. Tornillo de vaso hexagonal
 23. Freno
 24. Tuerca ranurada
 25. Chapa de seguridad
 26. Circlip
 27. Anillo distanciario
 28. Arandela
 29. Anillo de junta
 30. Cojinete de bolas fijo
 31. Tapa
 32. Tornillo hexagonal
 33. Anillo de junta
 34. Anillo
 35. Semieje

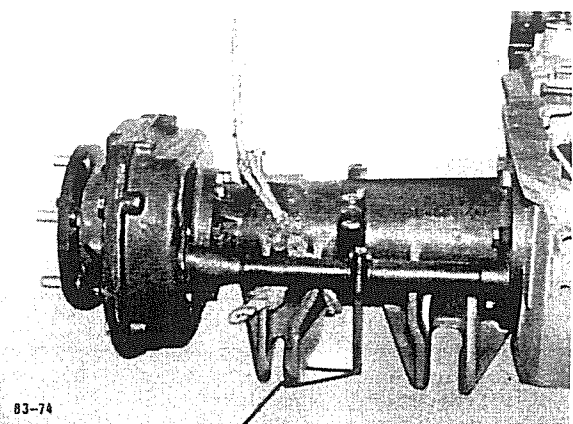


TRAGROHR ABBAUEN
REMOVING THE AXLE TUBE
TROMPETTE: DEPOSER
DESMONTAR LA TROMPETA DE EJE

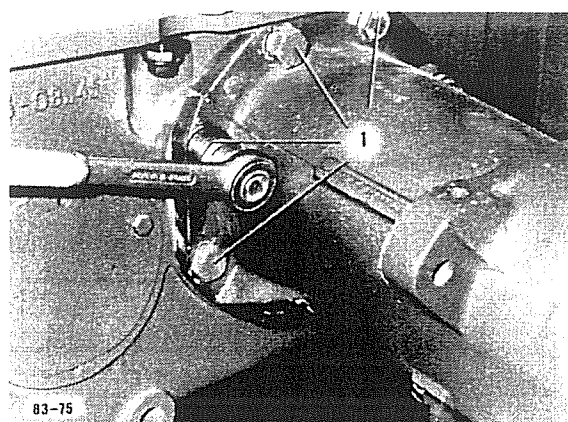


bei Ausführung Scheibenbremse
with disc brake
sur exécution frein à disques
en la ejecución con freno de discos

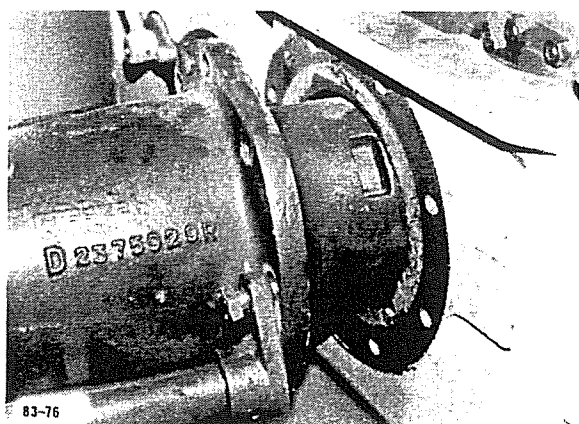
83-69



83-74

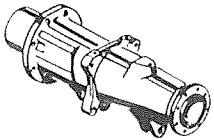


83-75

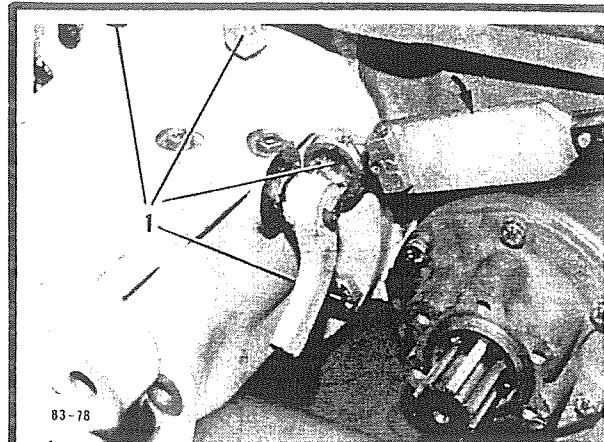
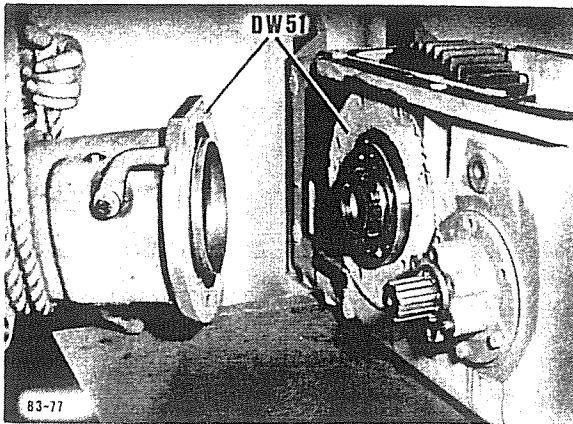


83-76

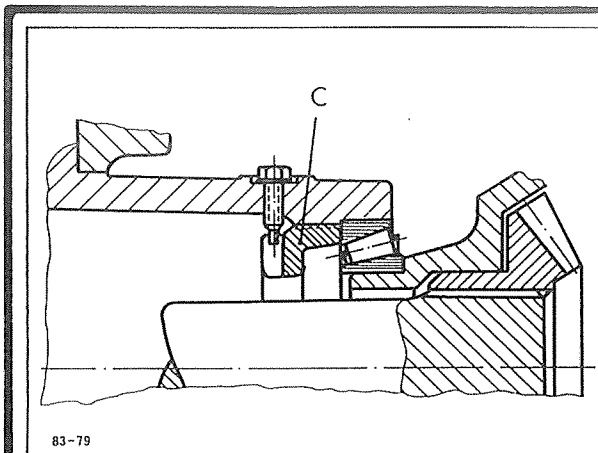




TRAGROHR ANBAUEN
REFITTING THE AXLE TUBE
TROMPETTE: REMONTER
REMONTAR LA TROMPETA DE EJE



135 Nm (13,5kpm)

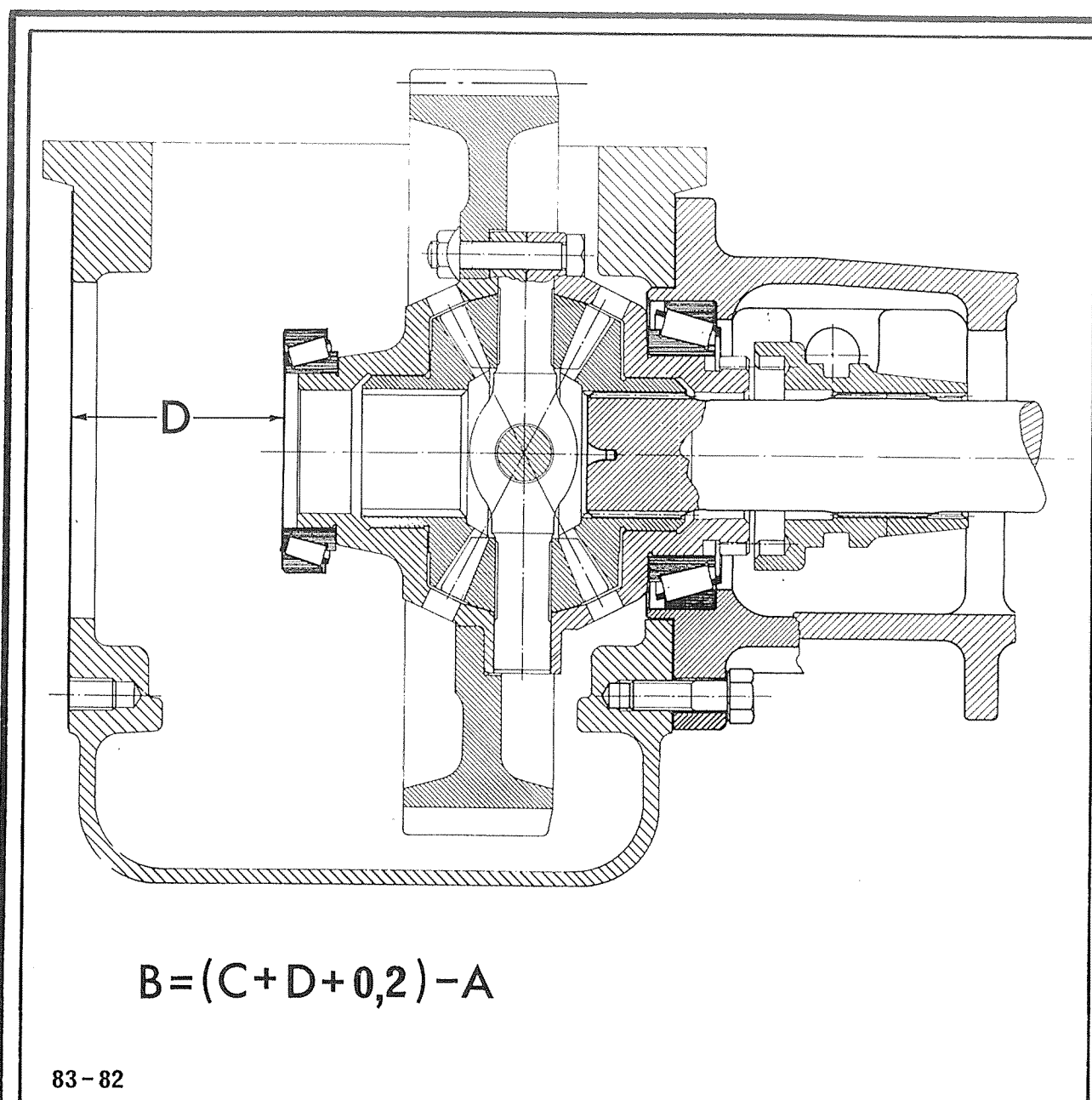
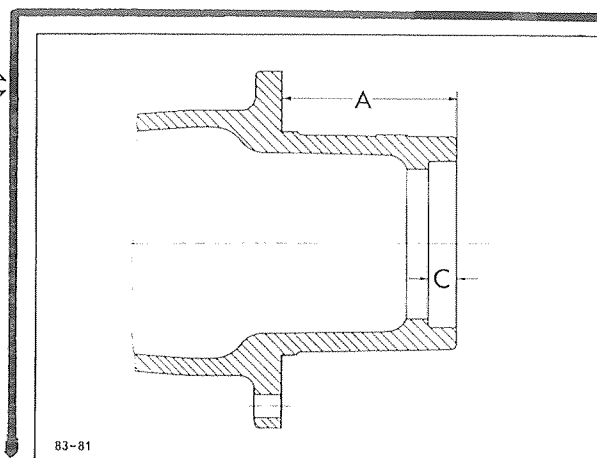
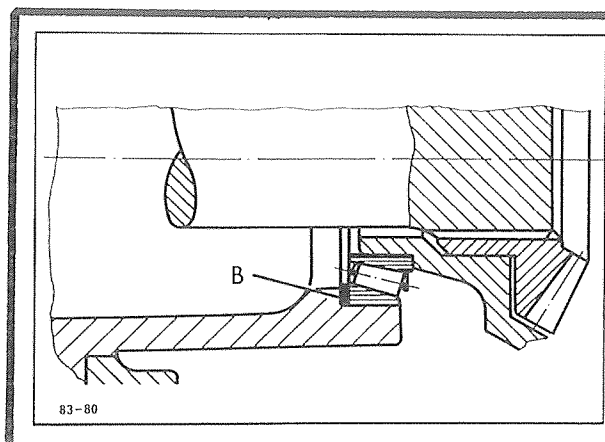
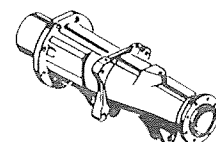


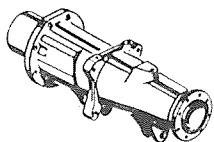
Lager mit Stellring C spielfrei einstellen, Einstellring 1 Sicherungsöffnung weiterdrehen und sichern

Set bearing free from clearance by ring C, turn ring farther through one cutout and secure

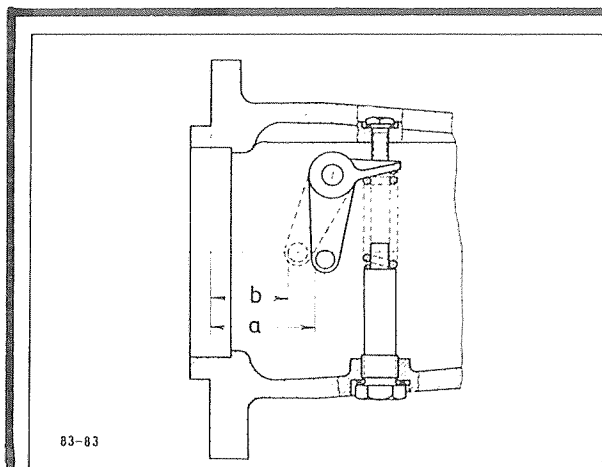
Régler le palier à l'aide de la bague de réglage de manière qu'il n'ait pas de jeu; tourner la bague de réglage de 1 (une) ouverture d'arrêt plus loin et la bloquer finalement

Graduar el cojinete, con el anillo de graduación C, para que quede sin juego; seguir girando el anillo de graduación por un taladro de afianzamiento más y afianzar el anillo

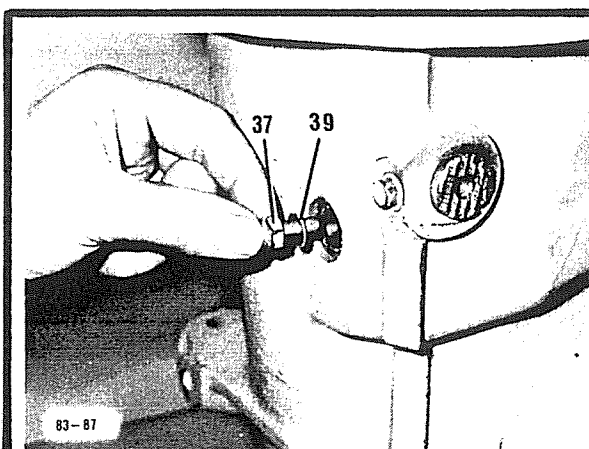
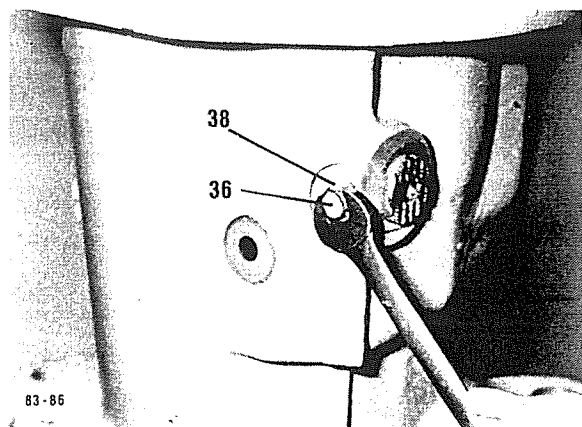
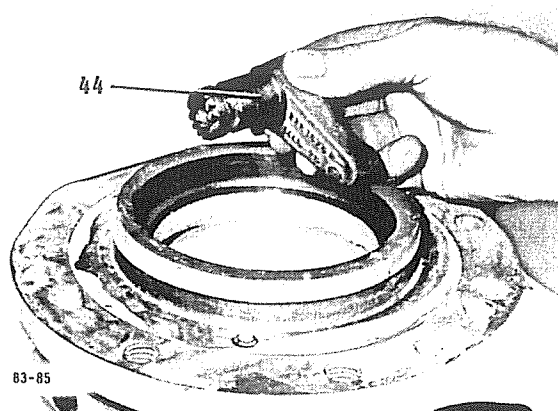
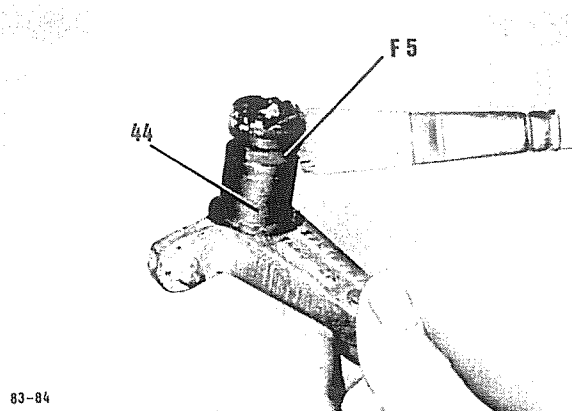




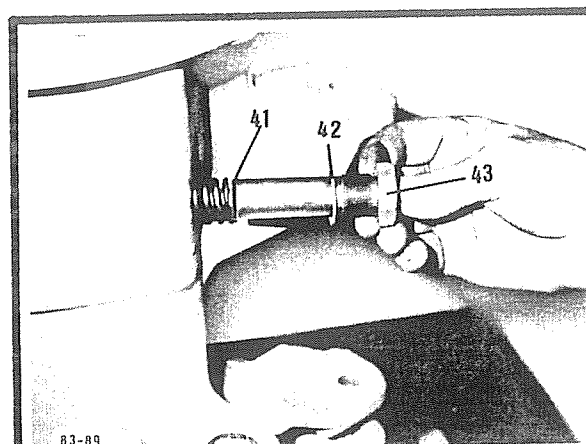
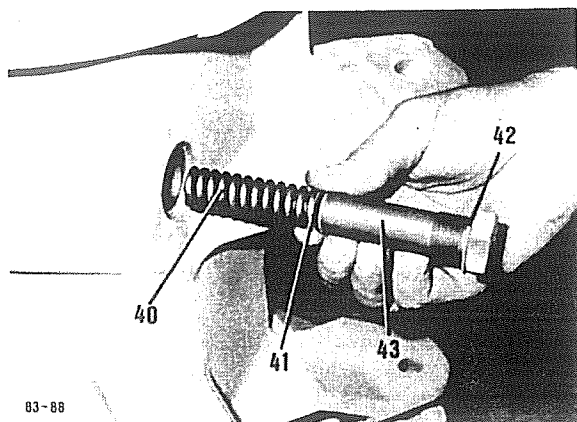
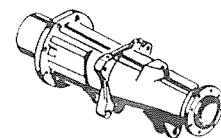
DIFFERENTIALHEBELTEILE EINBAUEN
 INSTALLING DIFF. LEVER PARTS
 MONTER LE MECANISME A LEVIER DU DIFFERENTIEL
 REMONTAR PIEZAS DE PALANCA DE DIFERENCIAL



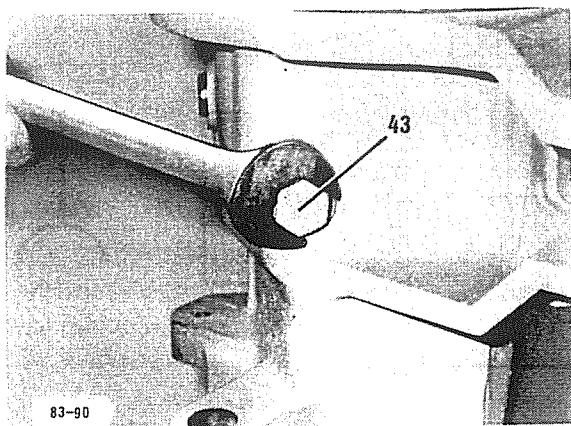
	TW 25.2 TW 35.1 TW 35.2 TW 35.4	TW 50 TW 50.1 TW 50.2 TW 50.3 TW 50.4
a	65 mm	65 mm
b	51 mm	49 mm



Maß "a" mit Pos. 37 + 39 einstellen
 Set "a" with item 37 + 39
 Régler la cote "a" moyennant le poste 37 + 39
 Graduar la medida "a" con pos. 37 + 39



Maß "b" mit Pos. 41 + 42 einstellen
 Set "b" with item 41 + 41
 Régler la cote "b" moyennant le poste 41 + 42
 Graduar la medida "b" con pos. 41 + 42

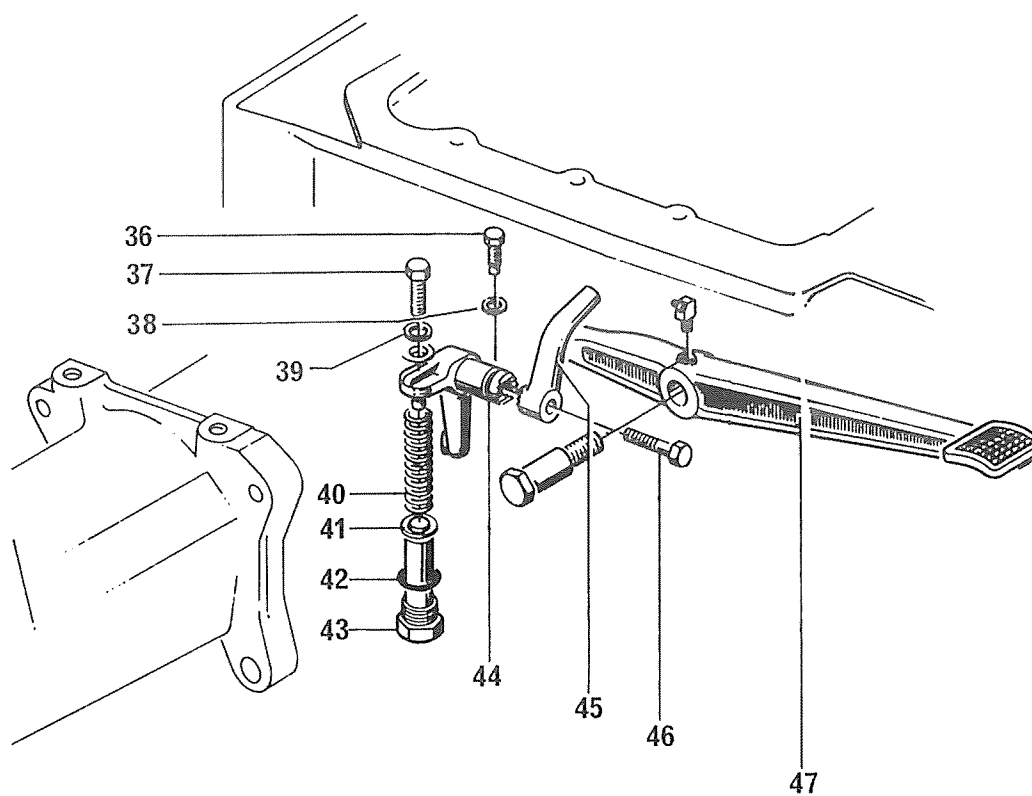
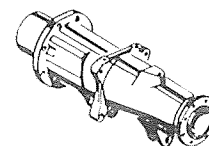


36. Sechskantschraube
37. Sechskantschraube
38. Dichtring
39. Dichtring
40. Schraubenfeder
41. Scheibe
42. Dichtring
43. Sechskantschraube
44. Hebel
45. Umlenkhebel
46. Sechskantschraube
47. Hebel

36. Hex. bolt
37. Hex. bolt
38. Washer
39. Washer
40. Spring
41. Washer
42. Washer
43. Hex. bolt
44. Lever
45. Reversing lever
46. Hex. bolt
47. Lever

36. Vis 6 pans
37. Vis 6 pans
38. Bague-joint
39. Bague joint
40. Ressort à boudin
41. Rondelle
42. Bague-joint
43. Vis 6 pans
44. Levier
45. Levier de renvoi
46. Vis 6 pans
47. Levier

36. Tornillo hexagonal
37. Tornillo hexagonal
38. Anillo de junta
39. Anillo de junta
40. Resorte helicoidal
41. Arandela
42. Anillo de junta
43. Tornillo hexagonal
44. Palanca
45. Palanca de inversión
46. Tornillo hexagonal
47. Palanca





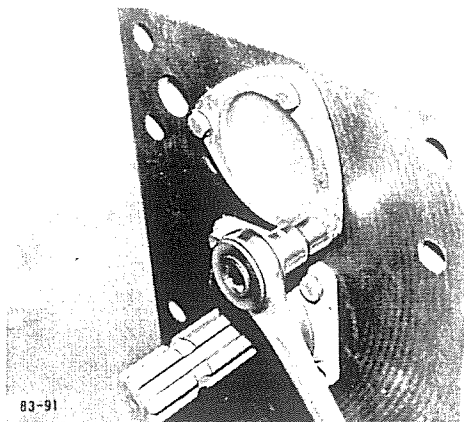
INHALTSVERZEICHNIS

	Seite
Zapfwelle ausbauen (Standard)	3
Zapfwelle einbauen	4
Zapfwelle ausbauen (Duo)	8
Zapfwelle einbauen	10
Explosionsdarstellung (Zapfwellenbetätigung)	17/18
Explosionsdarstellung (Zapfwelle)	23/24

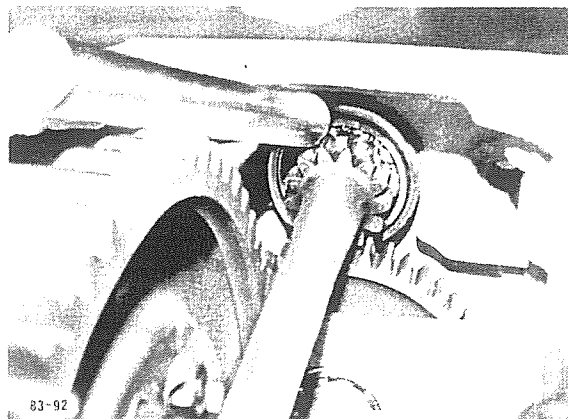
INDEX

	Page
Removing the PTO-shaft (standard)	3
Refitting the PTO-shaft	4
Removing the two-speed PTO-shaft	8
Refitting the two-speed PTO-shaft	10
Explosion view (PTO control)	17/18
Explosion view (PTO-shaft)	23/24

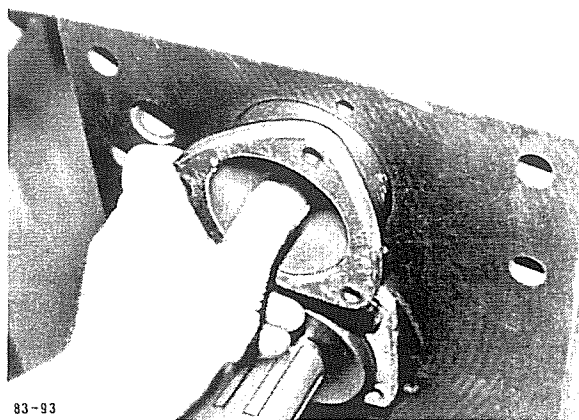
ZAPFWELLE AUSBAUEN (Standard)
 REMOVING THE PTO-SHAFT (standard)
 PRISE DE FORCE: DEPOSER (standard)
 DESMONTAR EL EJE TOMA DE FUERZA (standard)



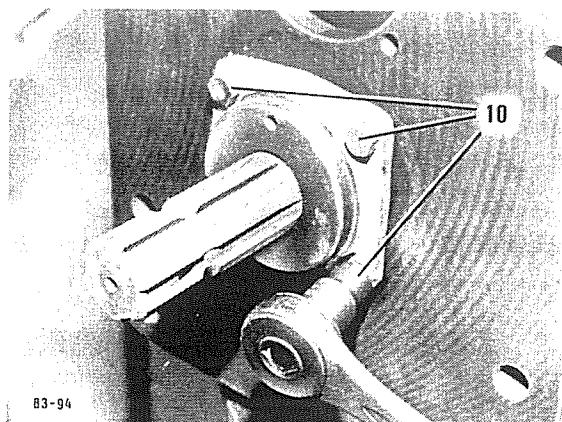
83-91



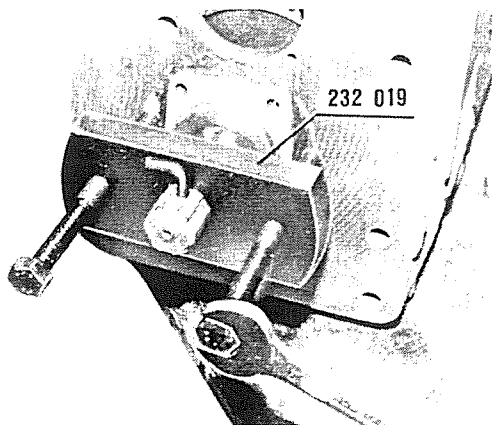
83-92



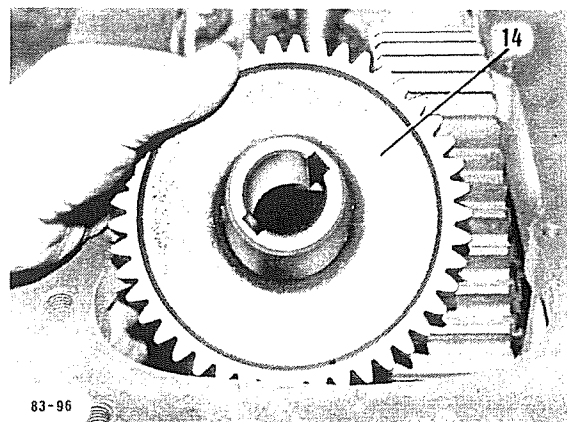
83-93



83-94

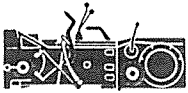


83-95

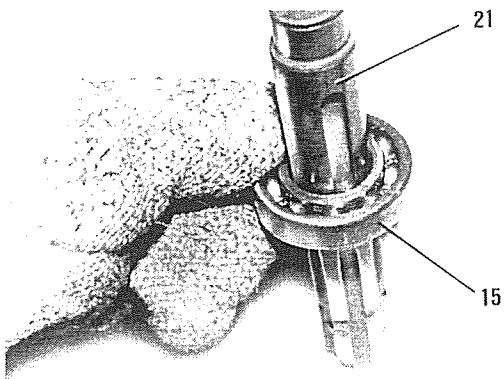


83-96

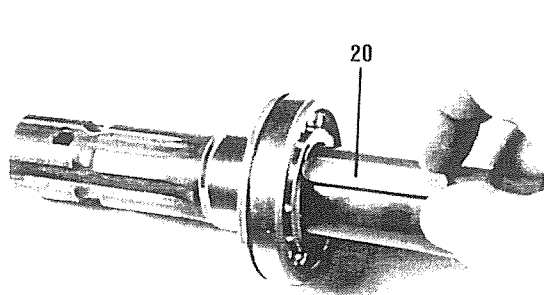




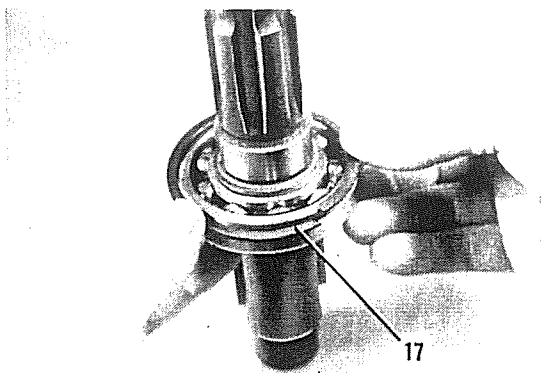
ZAPFWELLE EINBAUEN
REFITTING THE PTO-SHAFT
PRISE DE FORCE: REMONTER
REMONTAR EL EJE TOMA DE FUERZA



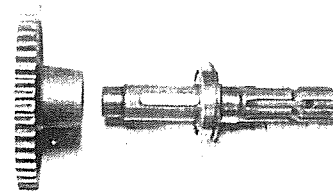
83-97



83-98



83-99

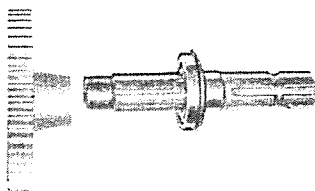


83-100



A

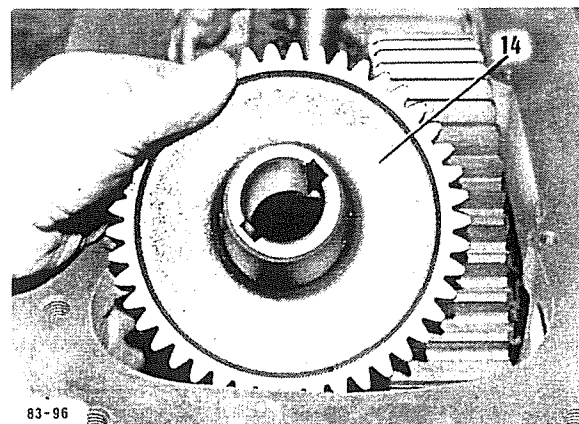
Ausführung A
Type A
Version A
Ejecución A



83-101



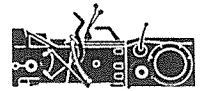
B



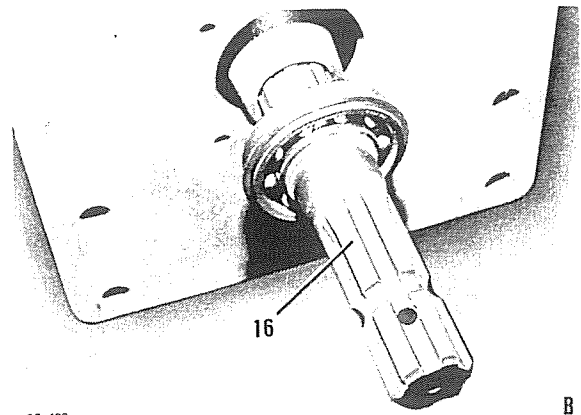
83-96



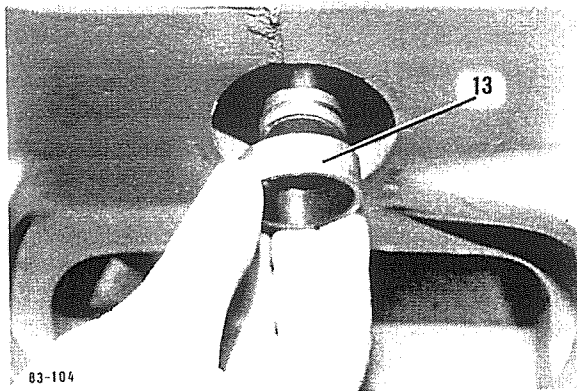
Ausführung B
Type B
Version B
Ejecución B



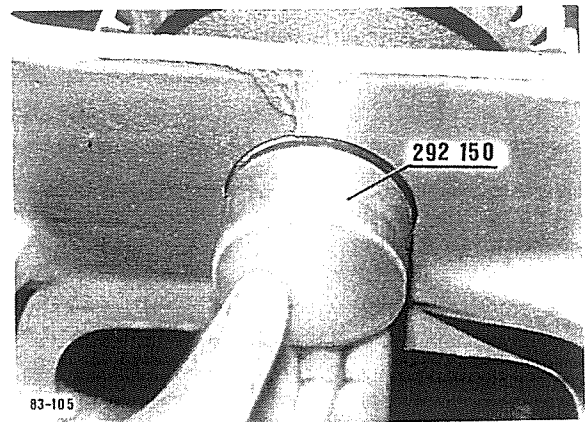
83-102



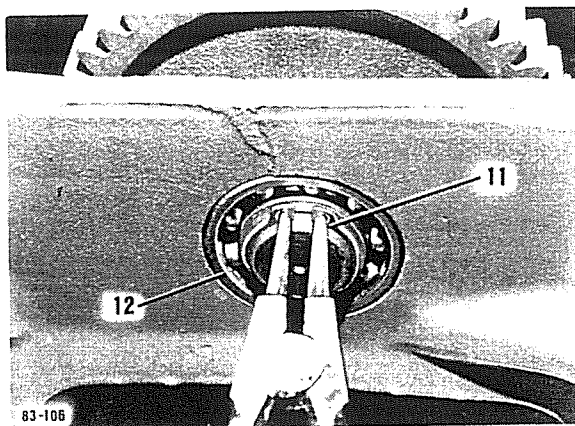
83-103



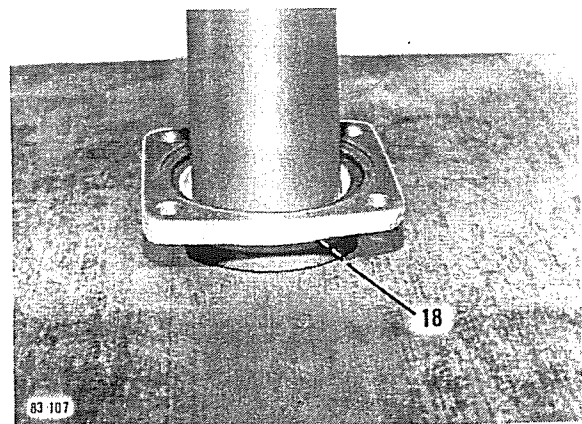
83-104



83-105

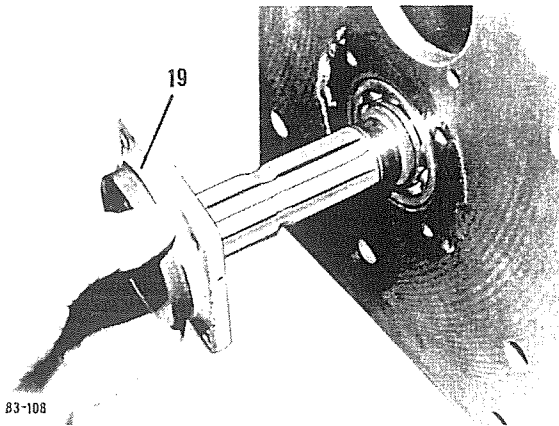
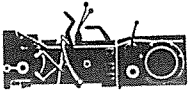


83-106

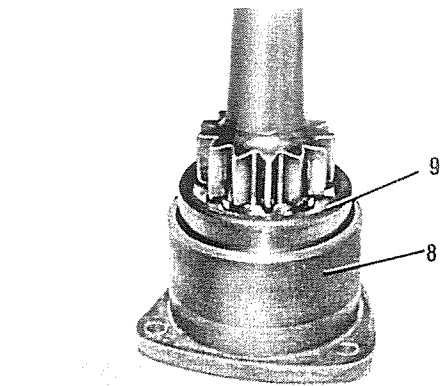
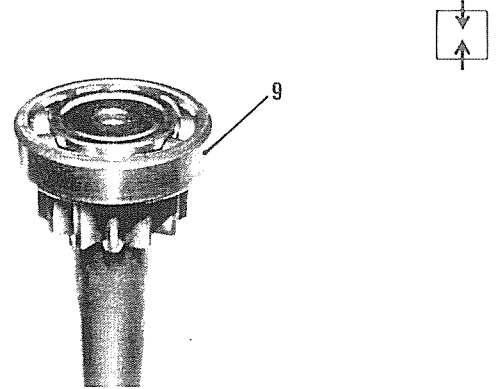


83-107



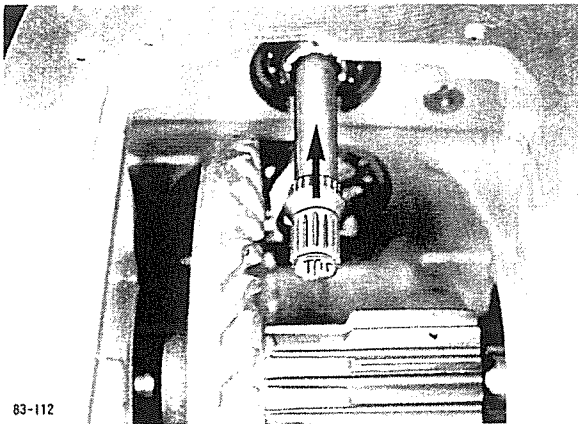
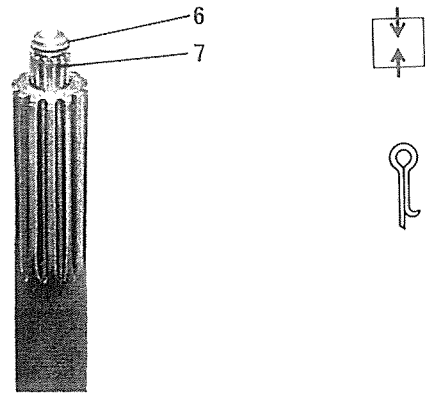


83-109

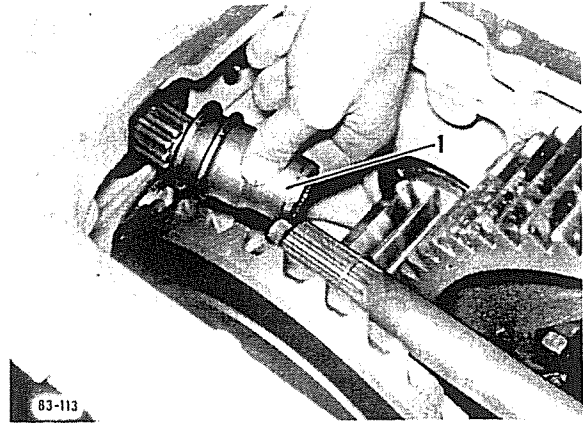


83-110

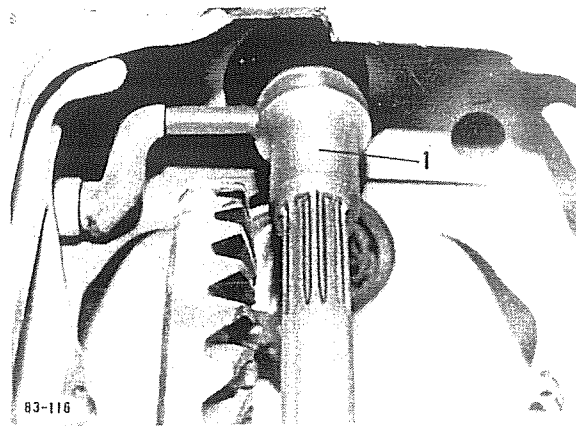
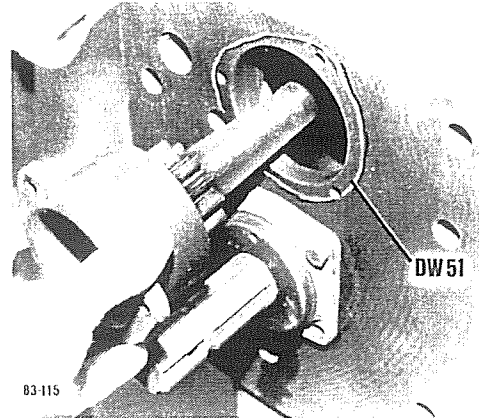
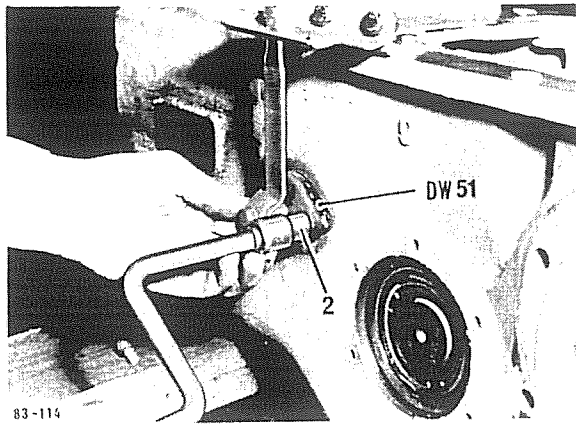
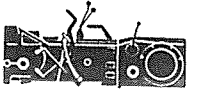
83-111

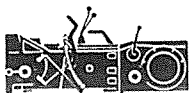


83-112

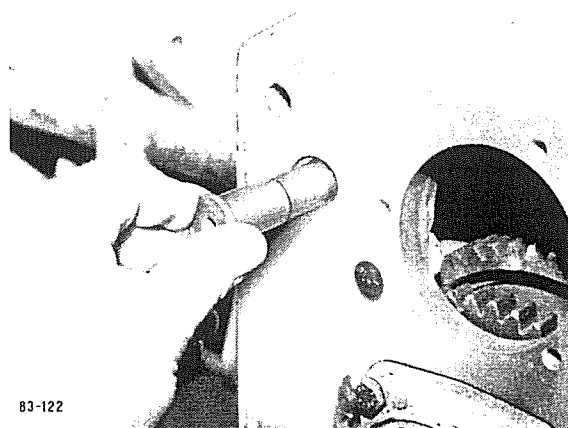
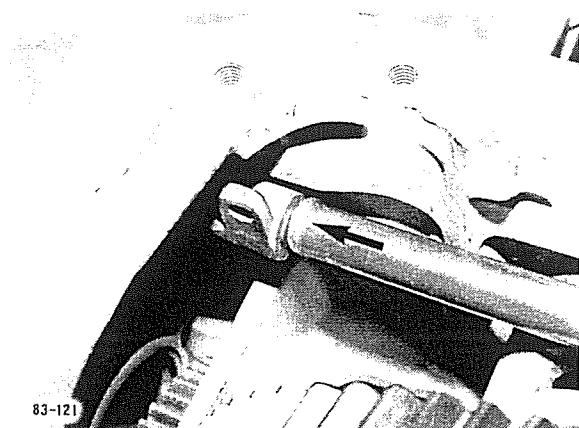
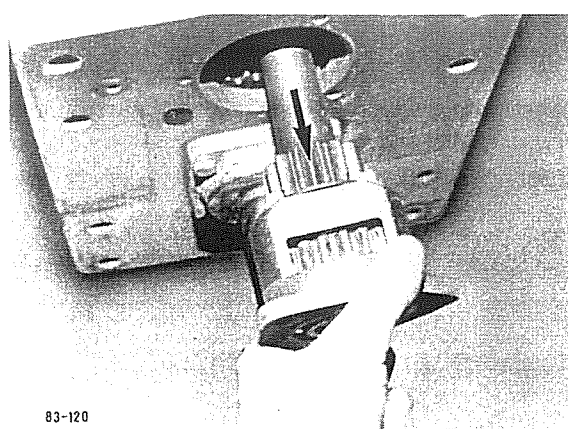
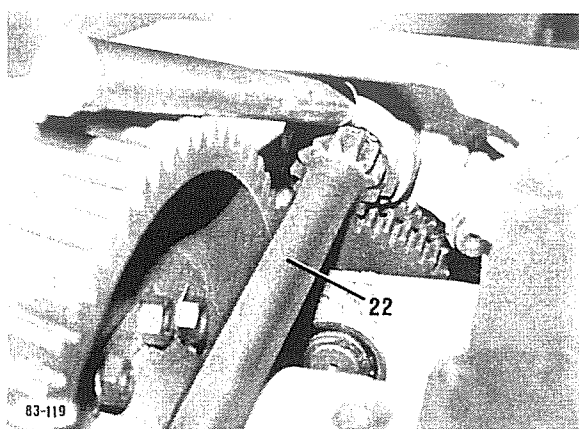
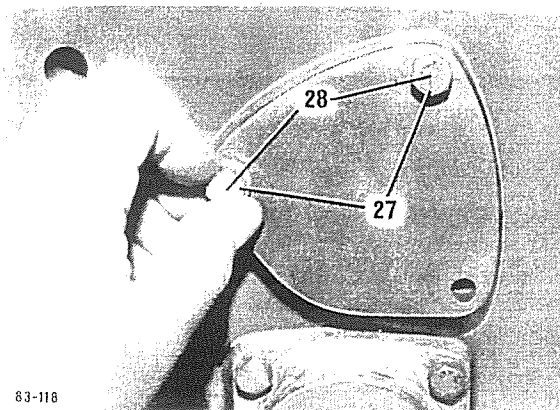
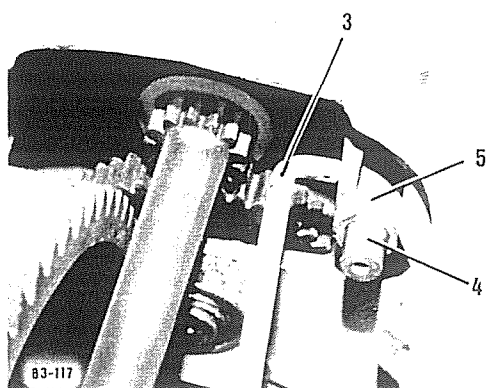


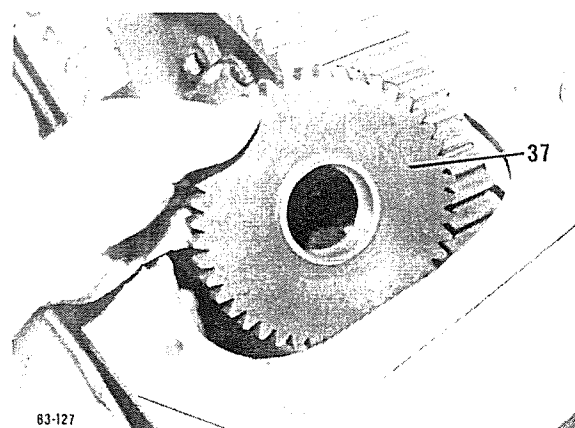
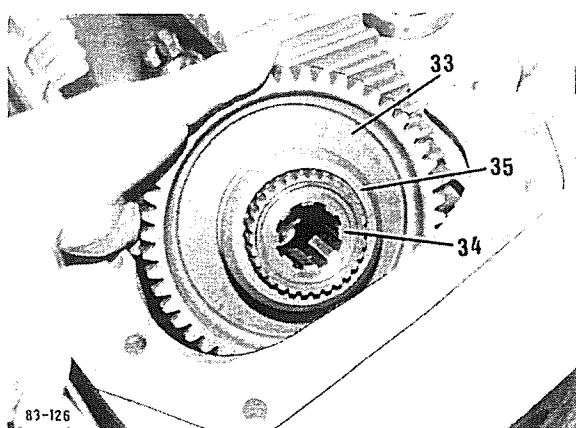
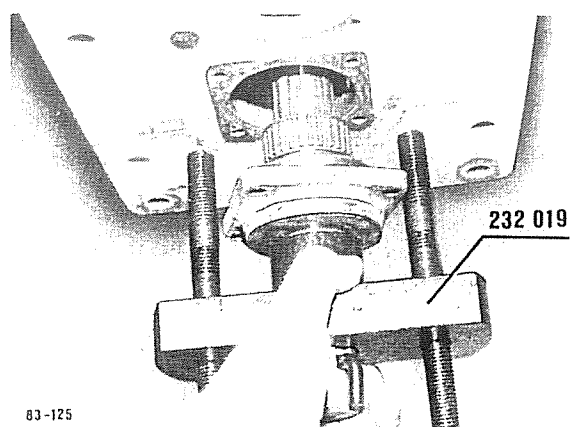
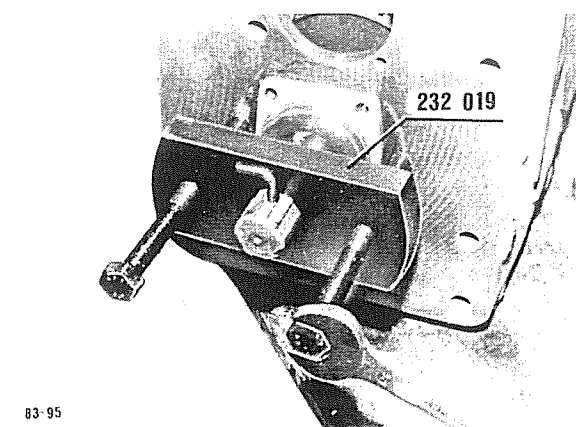
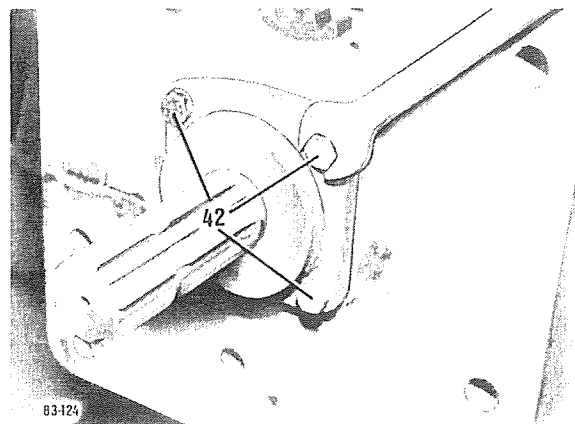
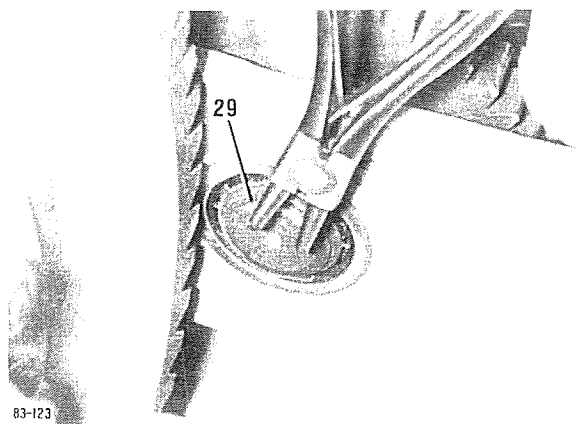
83-113

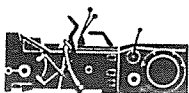




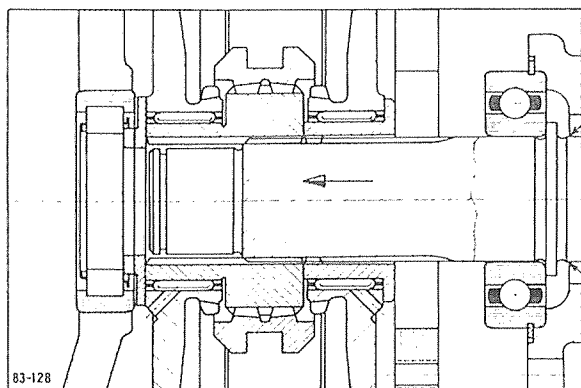
ZAPFWELLE AUSBAUEN (DUO)
REMOVING THE TWO-SPEED PTO-SHAFT
PRISE DE FORCE: DEPOSER (A DEUX REGIMES)
DESMONTAR EL EJE TOMA DE FUERZA (duo)



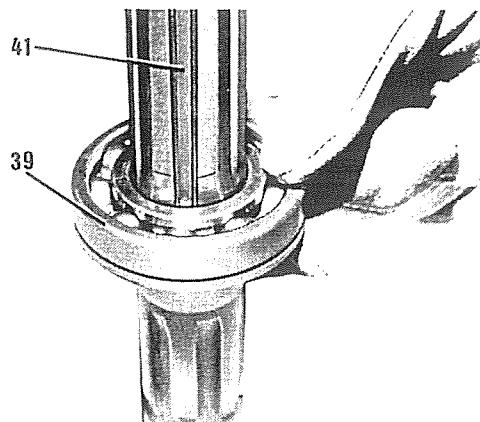




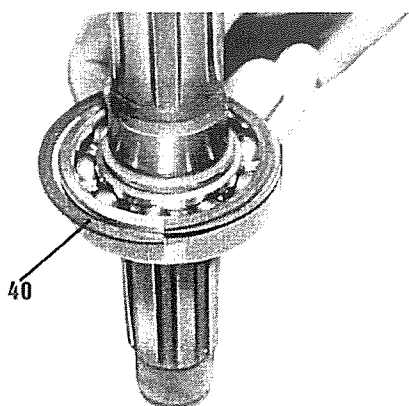
DUO-ZAPFWELLE EINBAUEN
REFITTING THE TWO-SPEED PTO-SHAFT
PRISE DE FORCE A DEUX REGIMES: REMONTER
REMONTAR EL EJE TOMA DE FUERZA (duo)



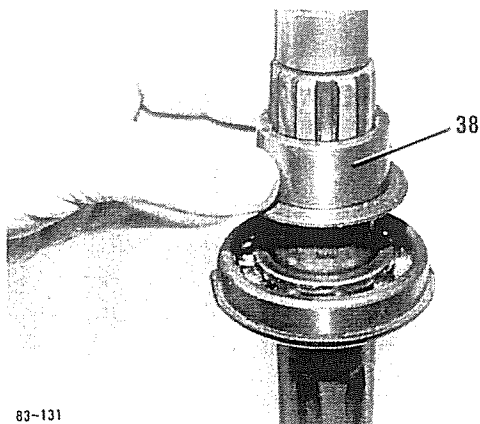
83-128



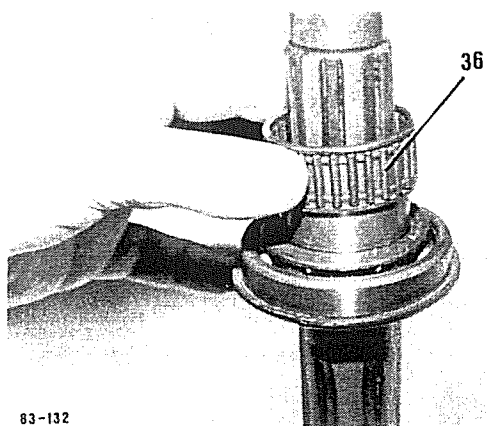
83-129



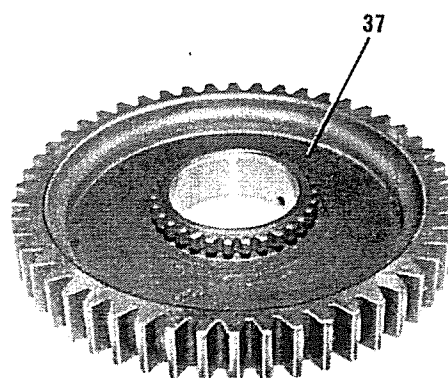
83-130



83-131

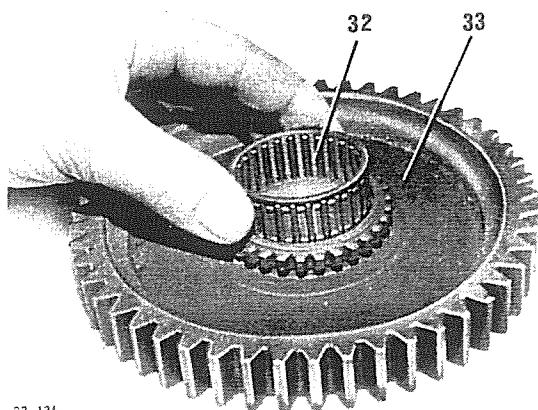


83-132

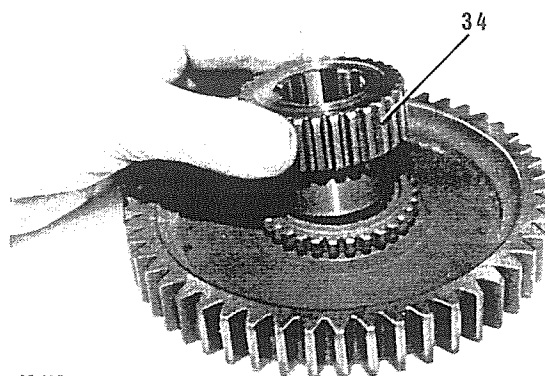


83-133

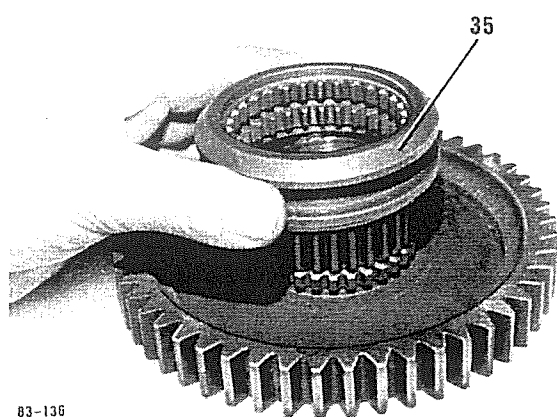




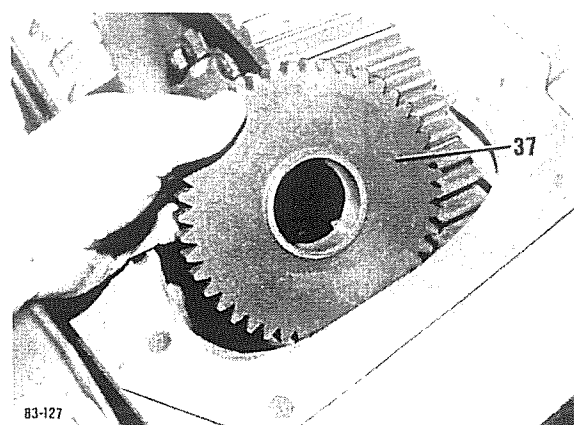
83-134



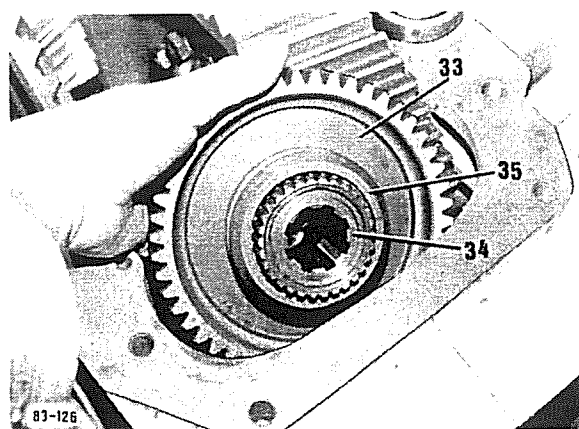
83-135



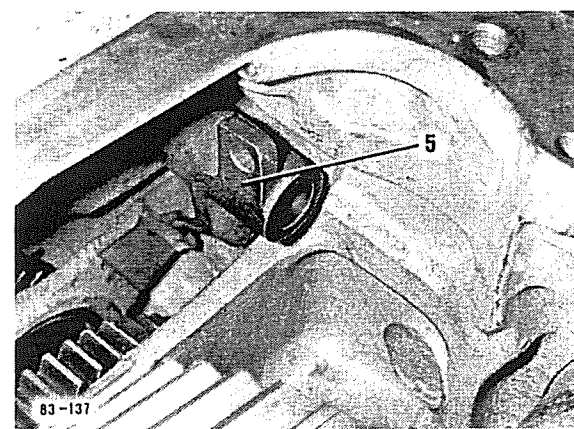
83-136



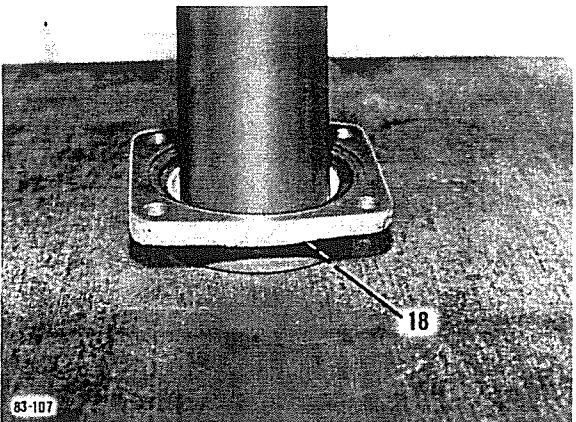
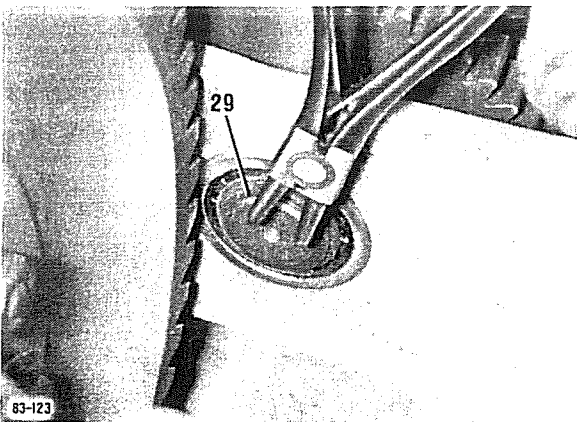
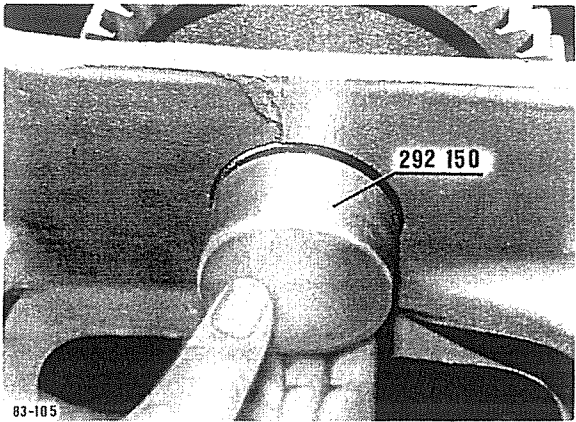
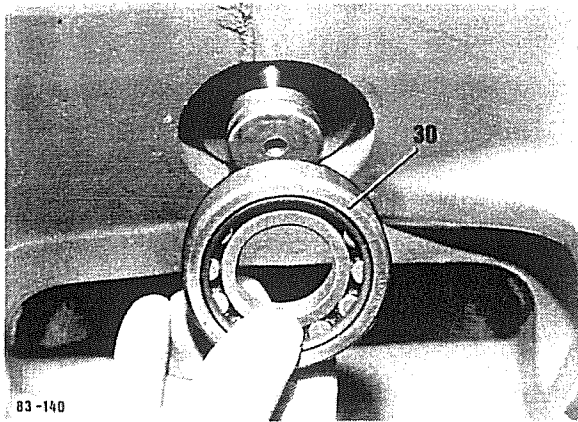
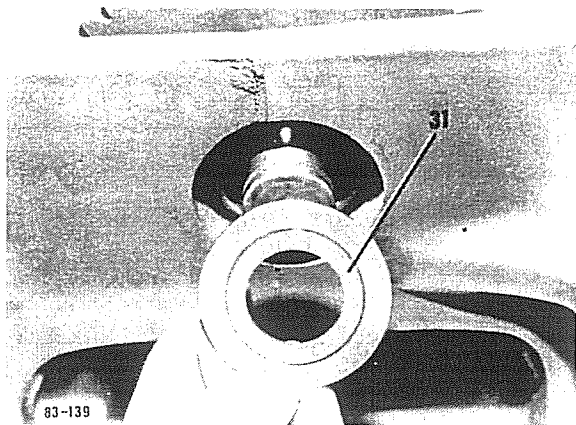
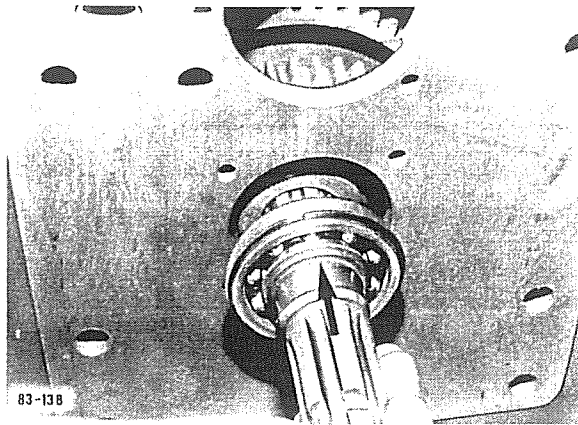
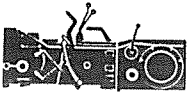
83-127

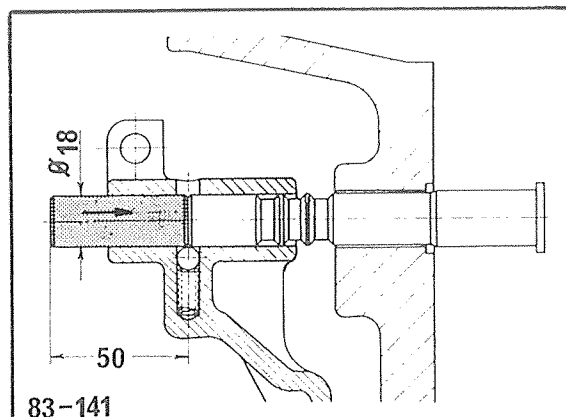
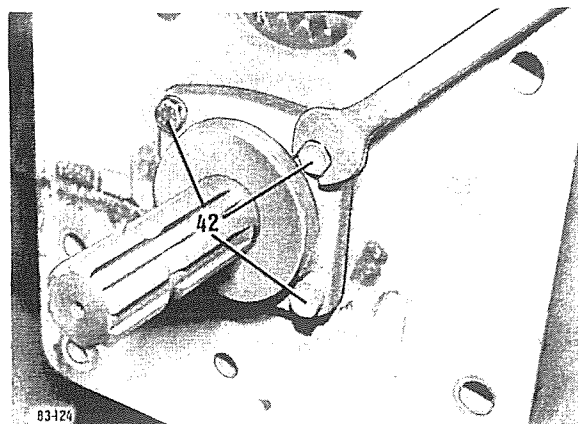


83-126

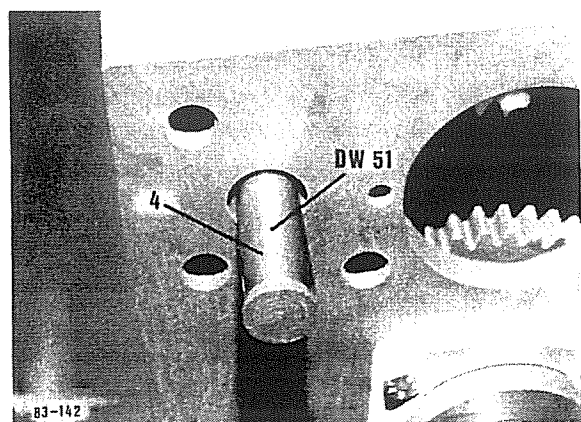


83-137

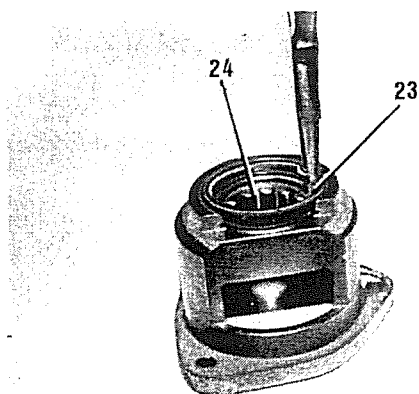
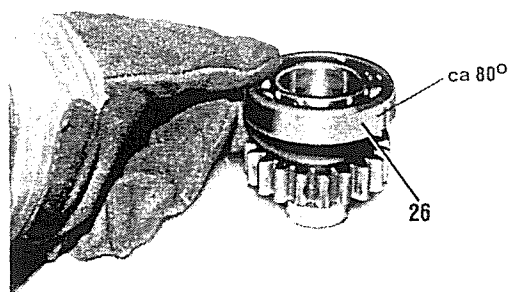
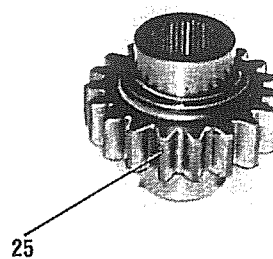




Hilfswerkzeug
Auxiliary tool
Outil auxiliaire
Herramienta auxiliar

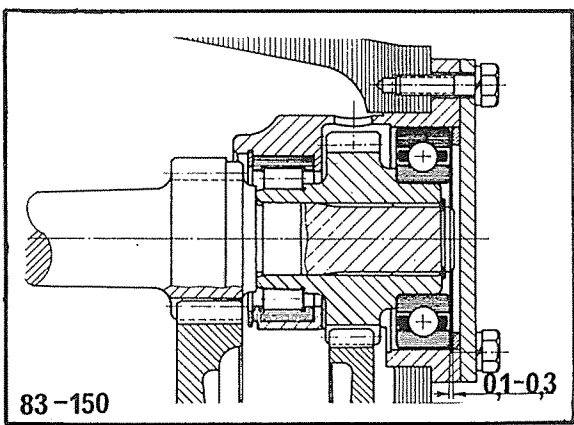
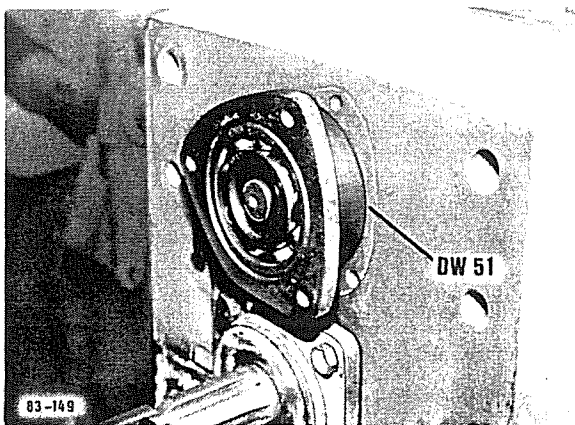
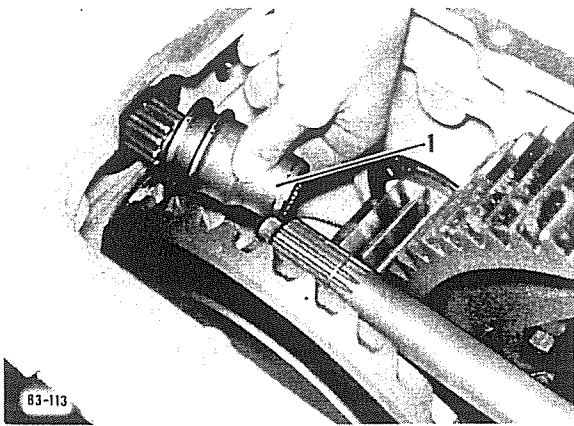
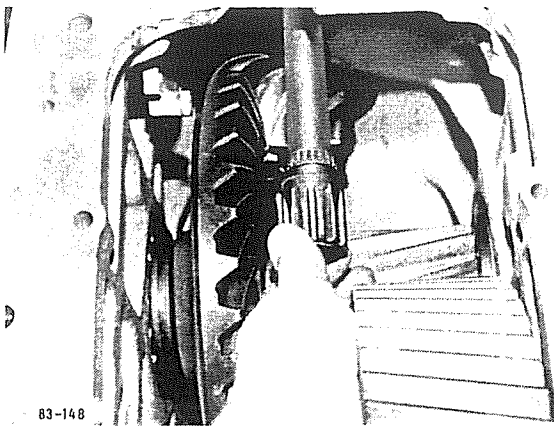
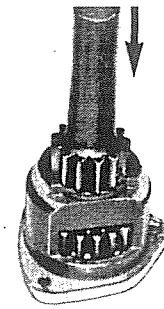
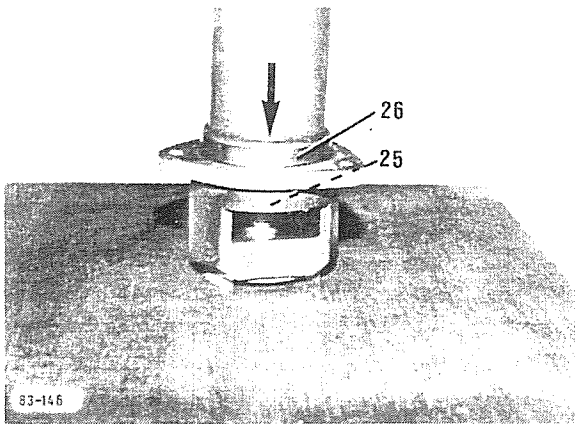
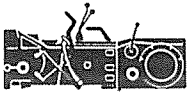


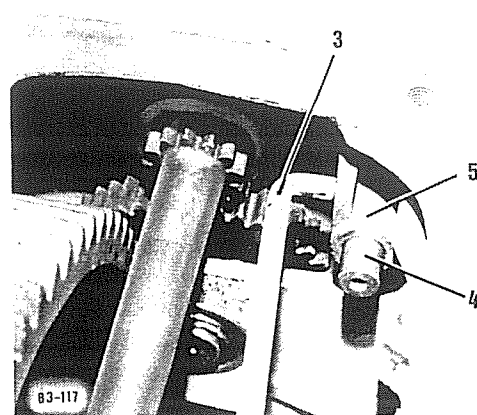
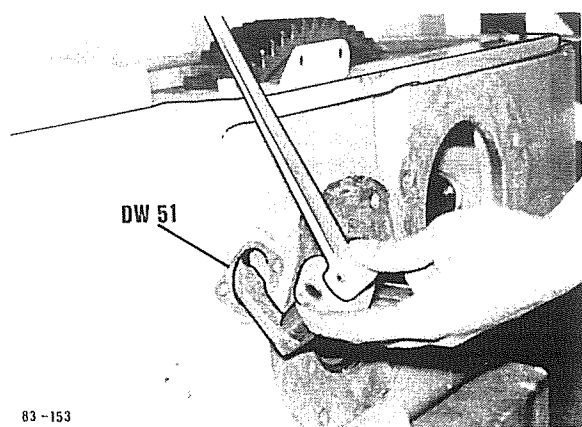
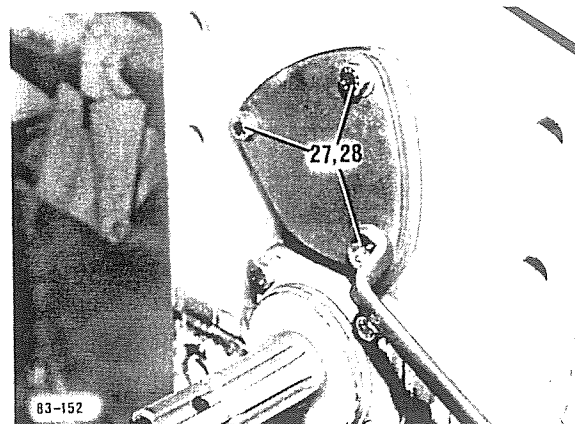
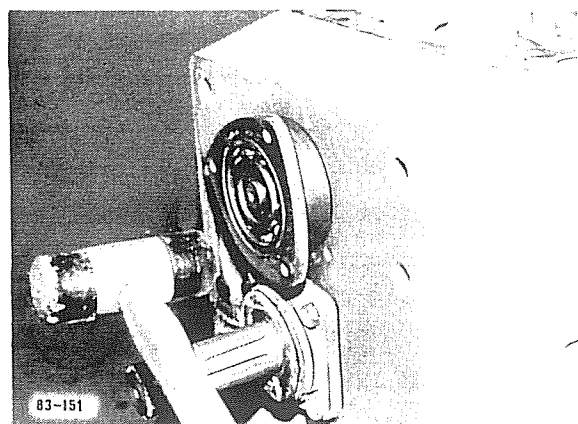
83-143



83-145

83-144



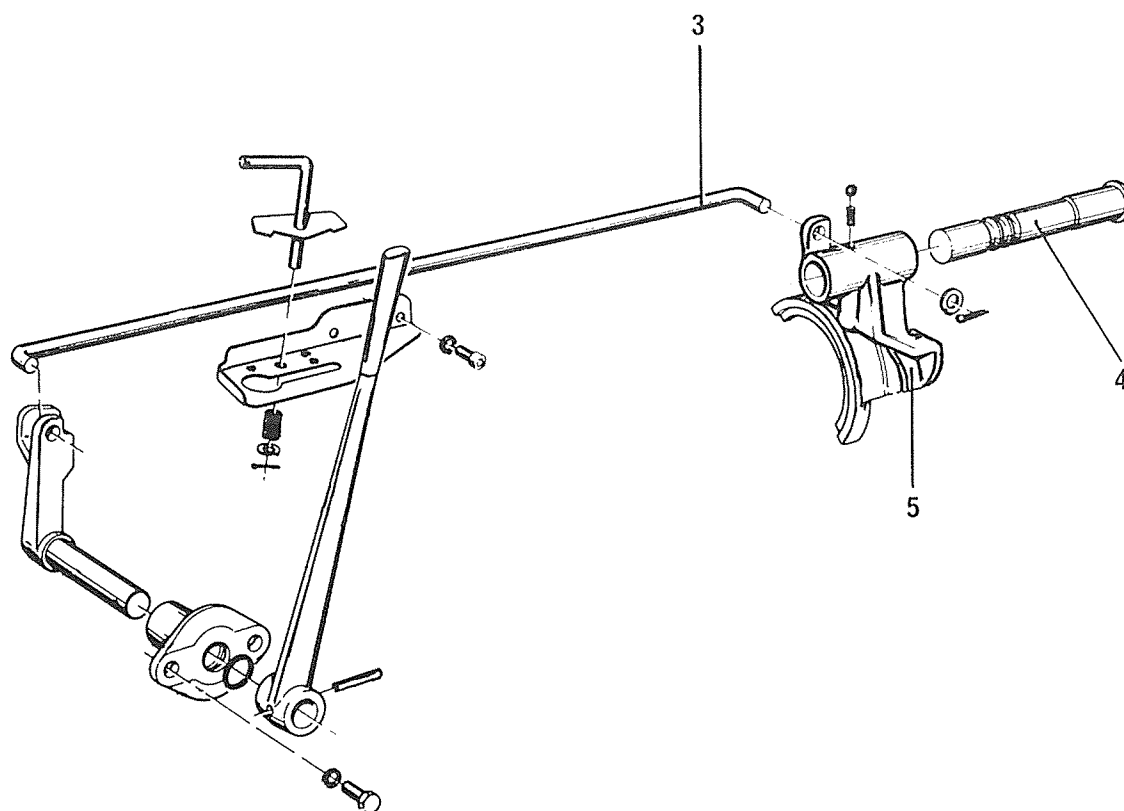
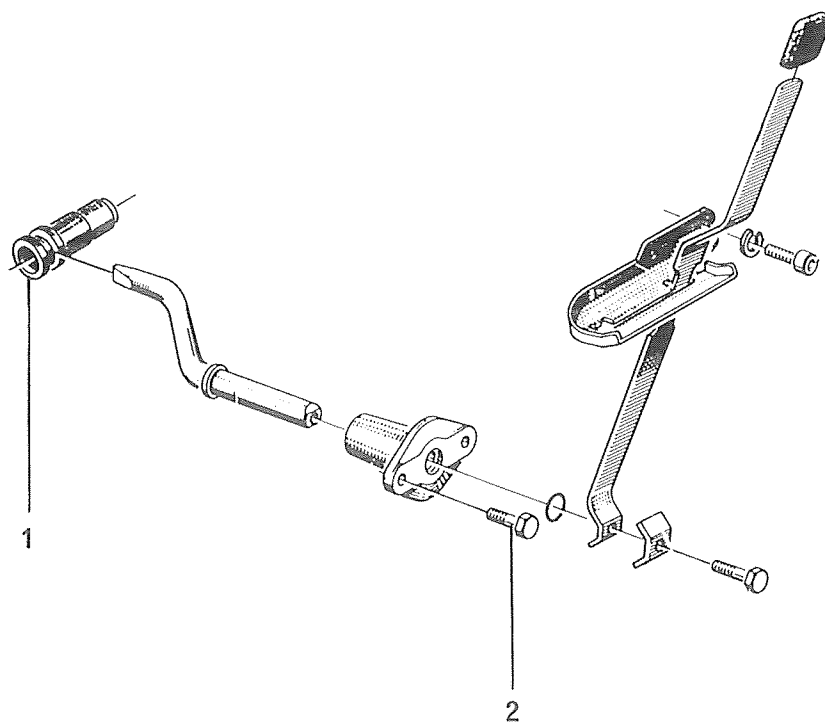
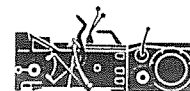


1. Schaltnuffe
2. Sechskantschraube
3. Schaltstange
4. Bolzen
5. Schaltgabel

1. Shift sleeve
2. Hex. bolt
3. Shift rod
4. Pin
5. Shift fork

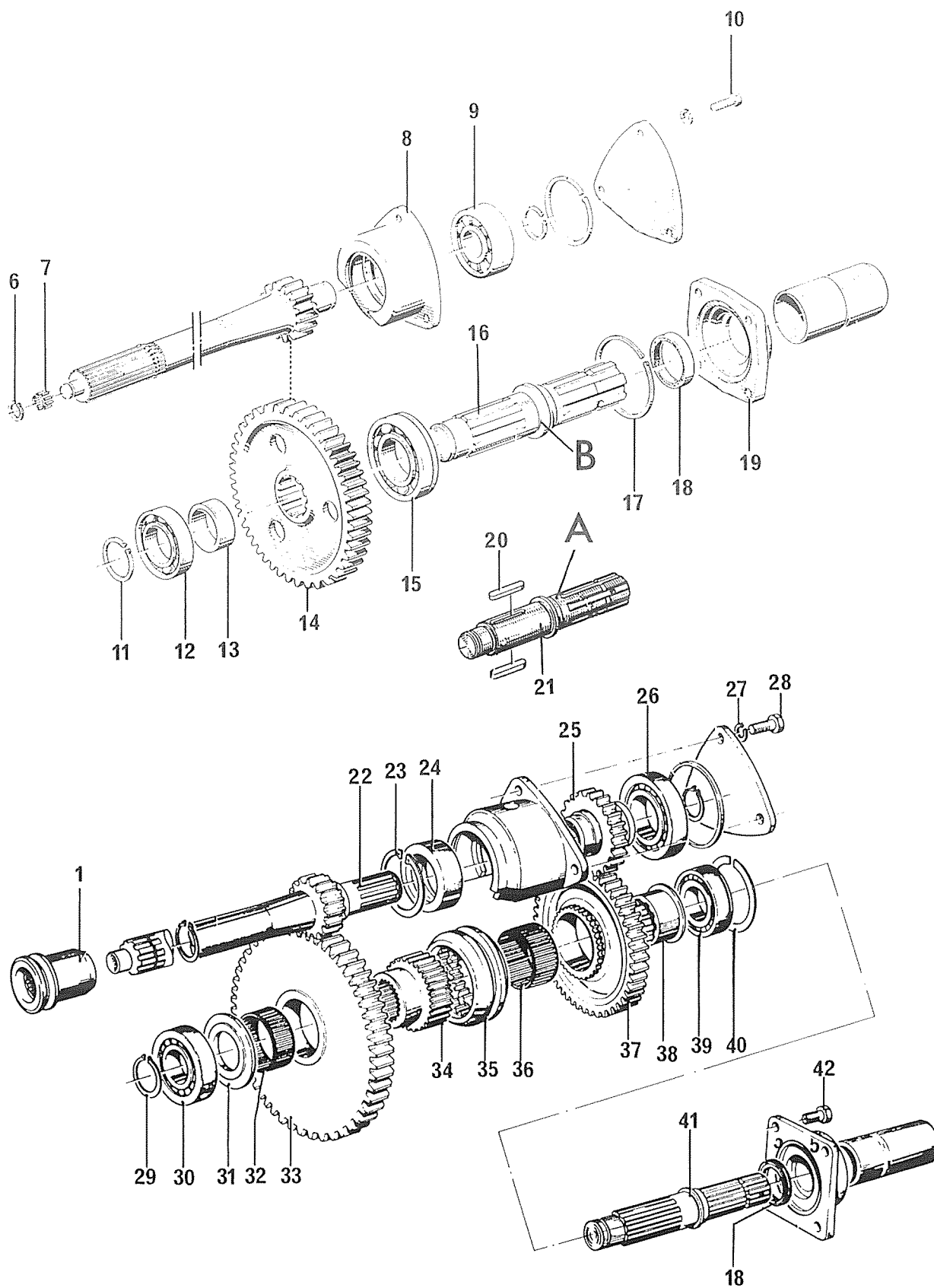
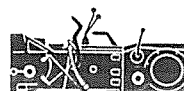
1. Manchon de commande
2. Vis 6 pans
3. Tige de fourchette de commande
4. Boulon
5. Fourchette de commande

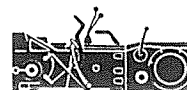
1. Manguito de conexión
2. Tornillo hexagonal
3. Barra de conexión
4. Bulón
5. Horquilla de conexión





6. Sicherungsring	6. Circlip
7. Nadelkäfig	7. Needle cage
8. Lagerdeckel	8. Cap
9. Zylinderrollenlager	9. Roller bearing
10. Sechskantschraube	10. Bolt
11. Sicherungsring	11. Circlip
12. Rillenkugellager	12. Ball bearing
13. Abstandsrohr	13. Spacer
14. Zahnrad	14. Gear
15. Rillenkugellager	15. Ball bearing
16. Welle, Ausführung B	16. Shaft, type B
17. Sicherungsring	17. Circlip
18. Radial-Wellerdichtring	18. Radial seal
19. Lagerdeckel	19. Cap
20. Paßfeder	20. Key
21. Welle, Ausführung A	21. Shaft, type A
22. Antriebswelle	22. Drive shaft
23. Sicherungsring	23. Circlip
24. Außenring	24. Outer race
25. Zahnrad	25. Gear
26. Rillenkugellager	26. Ball bearing
27. Federring	27. Lockwasher
28. Sechskantschraube	28. Bolt
29. Sicherungsring	29. Circlip
30. Zylinderrollenlager	30. Roller bearing
31. Anlaufscheibe	31. Stop washer
32. Nadelkäfig	32. Needle cage
33. Zahnrad	33. Gear
34. Mitnehmer	34. Driver
35. Schaltmuffe	35. Shift sleeve
36. Nadelkäfig	36. Needle cage
37. Zahnrad	37. Gear
38. Buchse	38. Bush
39. Rillenkugellager	39. Ball bearing
40. Sicherungsring	40. Circlip
41. Welle	41. Shaft
42. Sechskantschraube	42. Bolt





INHALTSVERZEICHNIS

	Seite
Rückwärtsgang ein- und ausbauen	3
Antriebshohlwelle ausbauen	5
Kegelradwelle ausbauen	7
Kegelradwelle einbauen	8
Antriebshohlwelle einbauen	16
Schaltgestänge einbauen	21
Explosionsdarstellung (Wechselgetrieb)	25/26

INDEX

	Page
Removing and refitting the reverse gear	3
Removing the drive quill	5
Removing the bevel gear shaft	7
Refitting the bevel gear shaft	8
Refitting the drive quill	16
Refitting the shift linkage	21
Explosion view (change speed gearbox)	25/26

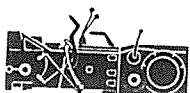


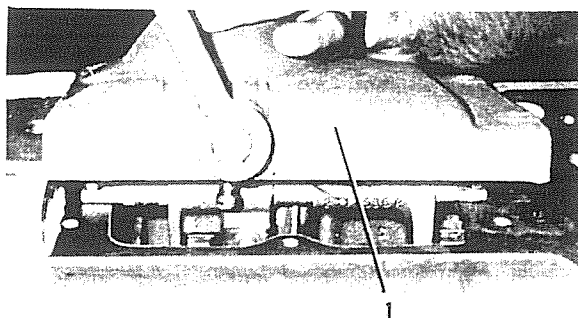
TABLE DES MATIERES

	Page
Marche AR: démonter et remonter	3
Arbre creux de commande: démonter	5
Arbre de pignon conique: démonter	7
Arbre de pignon conique: remonter	8
Arbre creux de commande: remonter	16
Tringle de commande: remonter	21
Vue en éclaté (boîte de changement des vitesses)	25/26

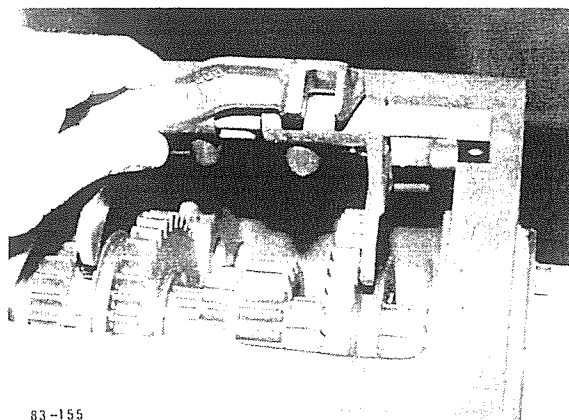
INDICE

	Pág.
Desmontar y remontar la marcha atrás	3
Desmontar el eje hueco de accionamiento	5
Desmontar el eje de rueda cónica	7
Remontar el eje de rueda cónica	8
Remontar el eje hueco de accionamiento	16
Remontar el varillaje de cambio	21
Esquema de despiece (cambio de velocidades)	25/26

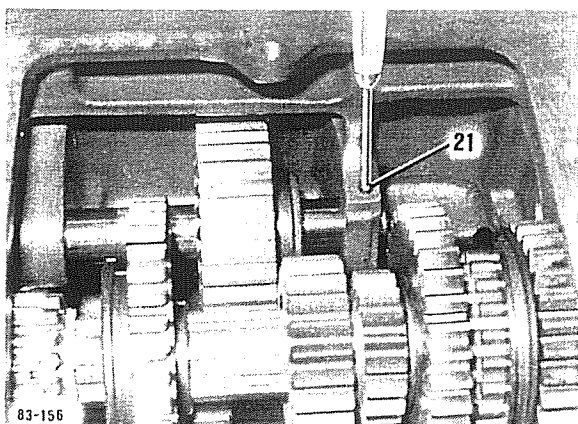
RÜCKWÄRTSGANG EIN- UND AUSBAUEN
 REMOVING AND REFITTING THE REVERSE GEAR
 MARCHE AR: DEMONTER ET REMONTER
 DESMONTAR Y REMONTAR LA MARCHA ATRAS



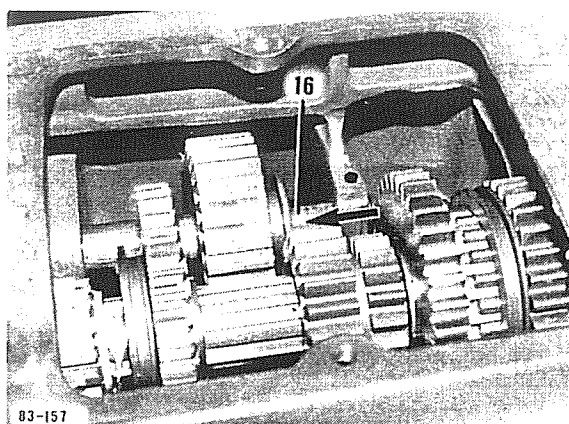
83-154



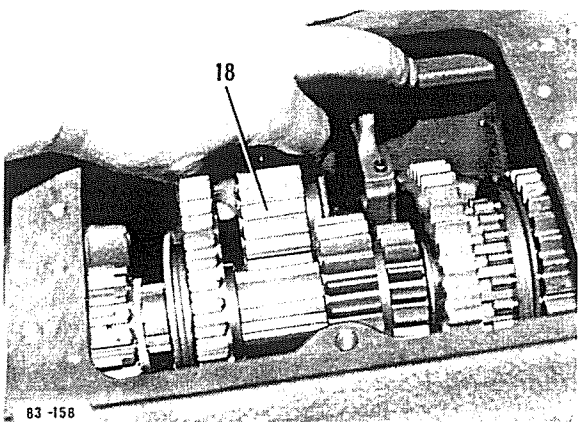
83-155



83-156

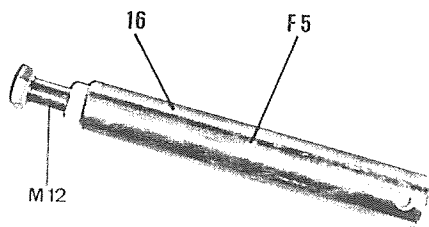
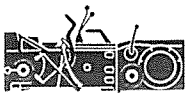


83-157

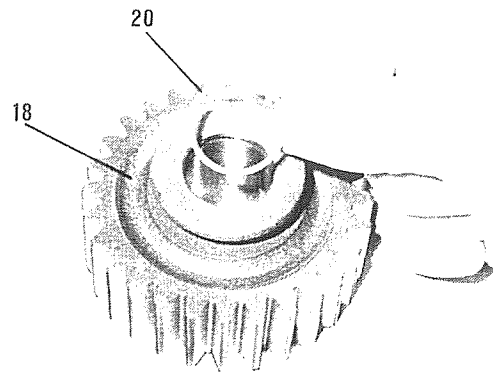


83-158

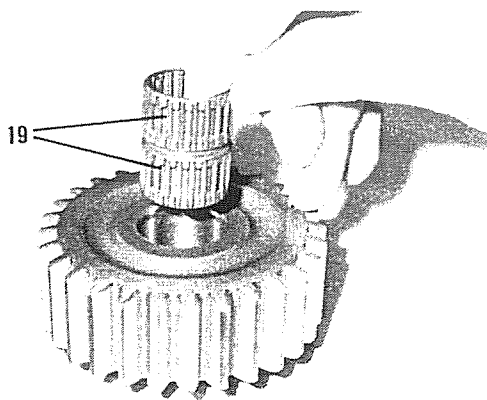




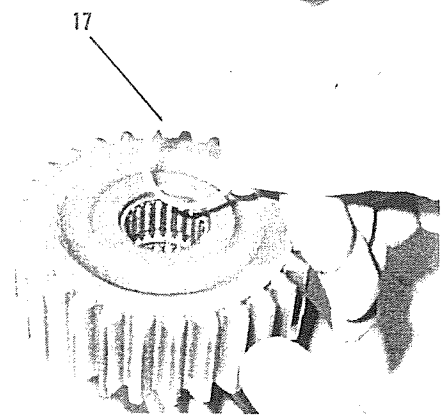
83-159



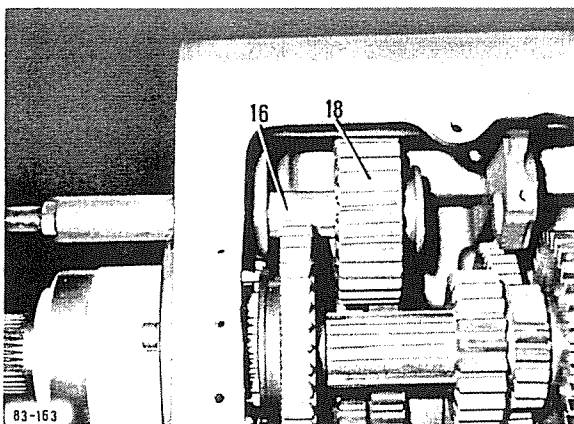
83-160



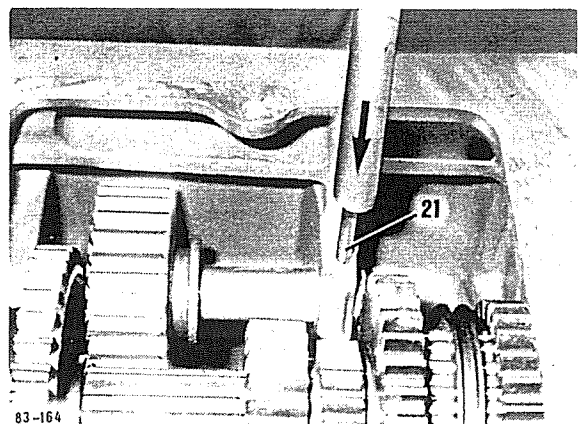
83-161



83-162



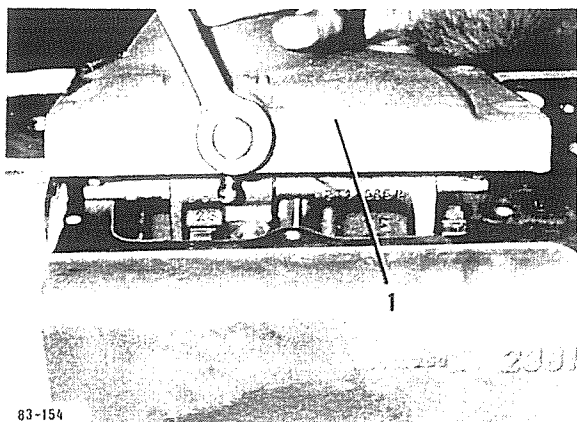
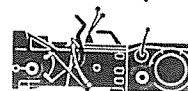
83-163



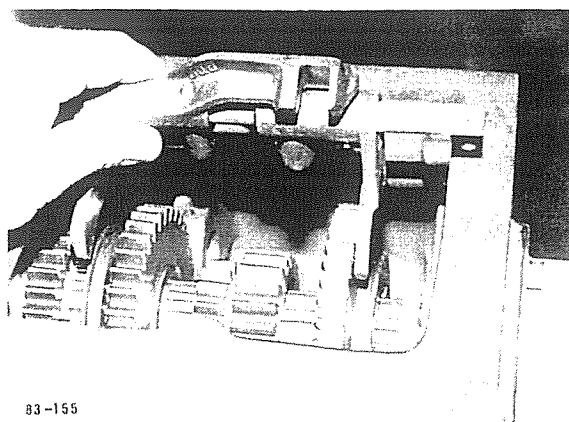
83-164



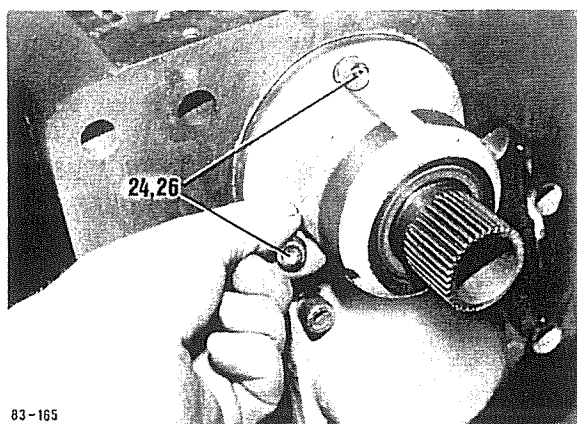
ANTRIEBSHOHLWELLE AUSBAUEN
 REMOVING THE DRIVE QUILL
 ARBRE CREUX DE COMMANDE: DEMONTER
 DESMONTAR EL EJE HUECO DE ACCIONAMIENTO



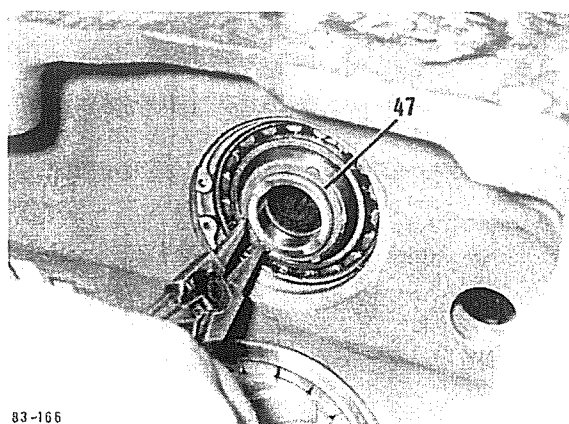
83-154



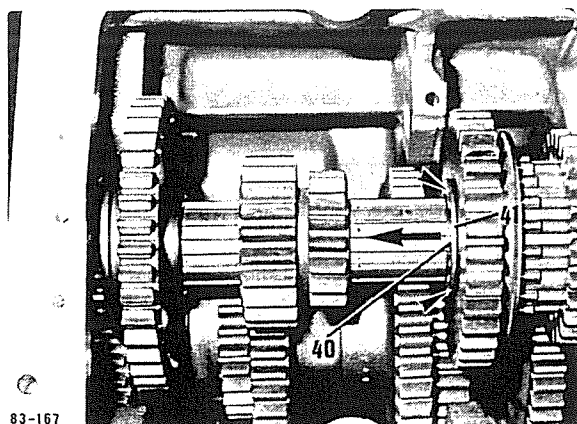
83-155



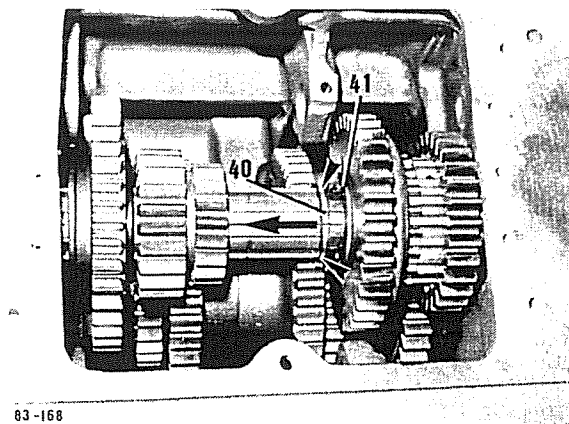
83-165



83-166

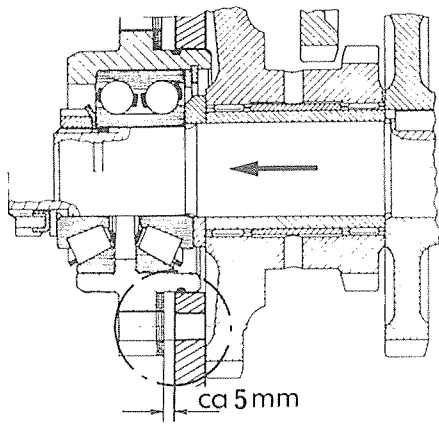
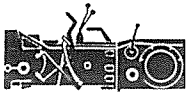


83-167

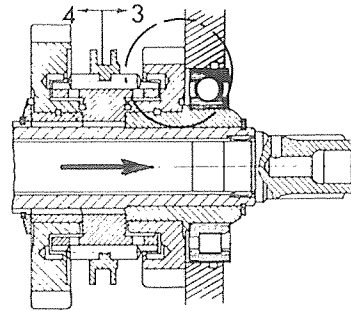


83-168

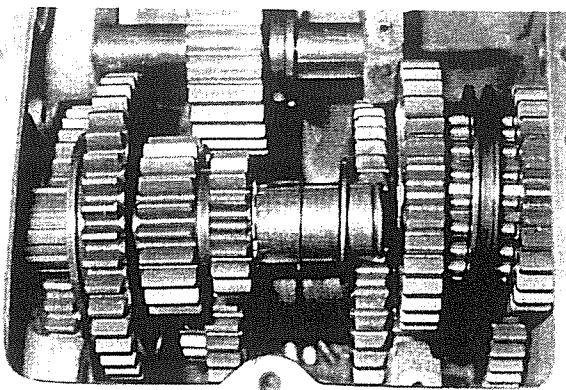




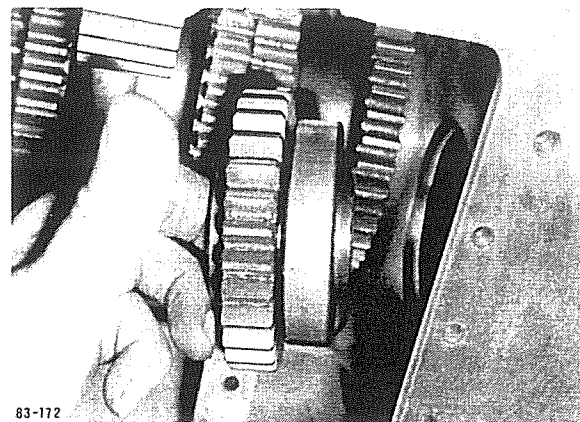
83-169



83-170

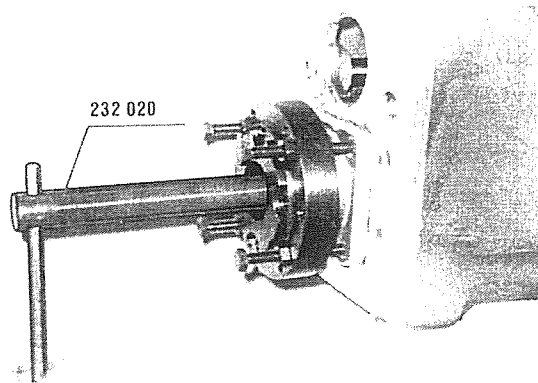
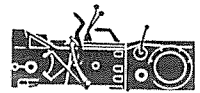


83-171



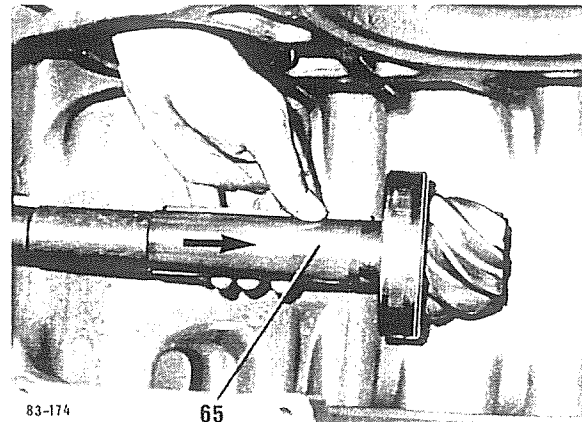
83-172

KEGELRADWELLE AUSBAUEN
 REMOVING THE BEVEL GEAR SHAFT
 ARBRE DE PIGNON CONIQUE: DEMONTER
 DESMONTAR EL EJE DE RUEDA CONICA



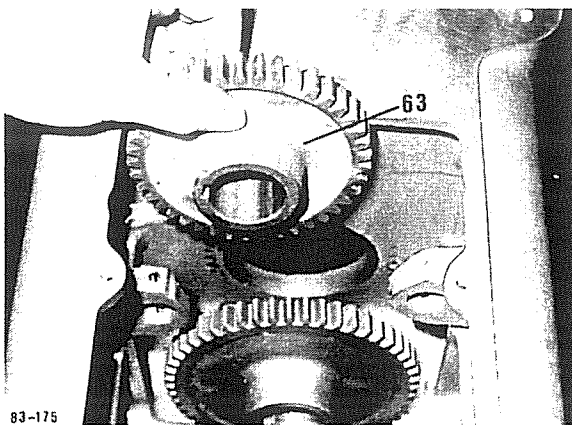
83-173

Zwischenwelle ist ausgebaut
 Intermediate shaft is removed
 Arbre intermédiaire est démonté
 Queda desmontado el eje intermedio

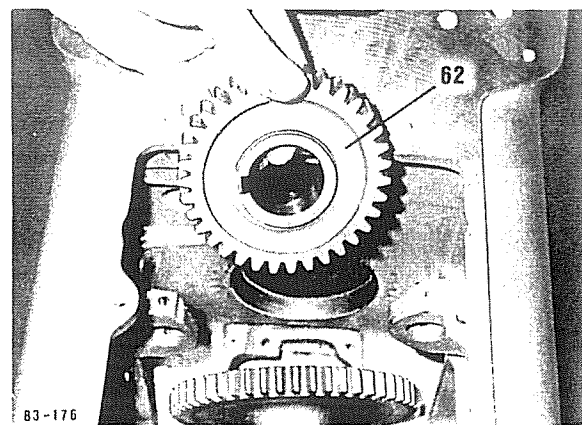


83-174

65

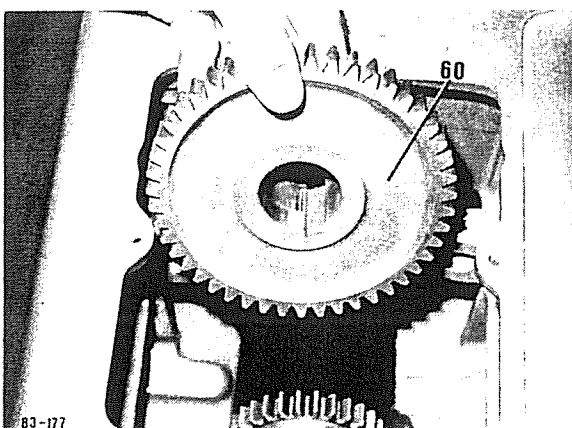


83-175

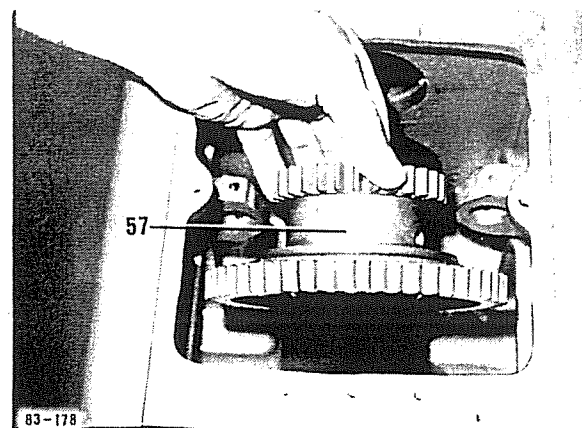


83-176

62



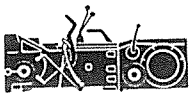
83-177



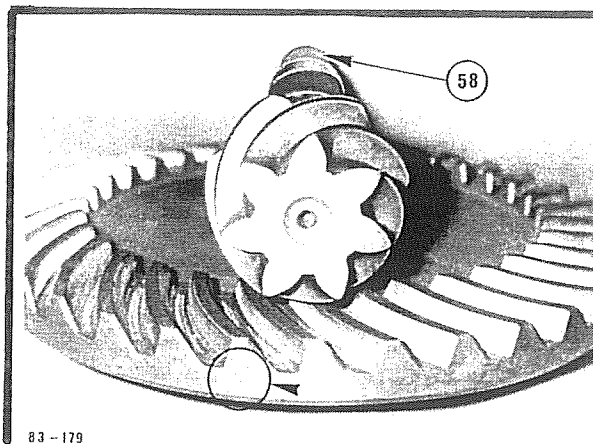
83-178

57

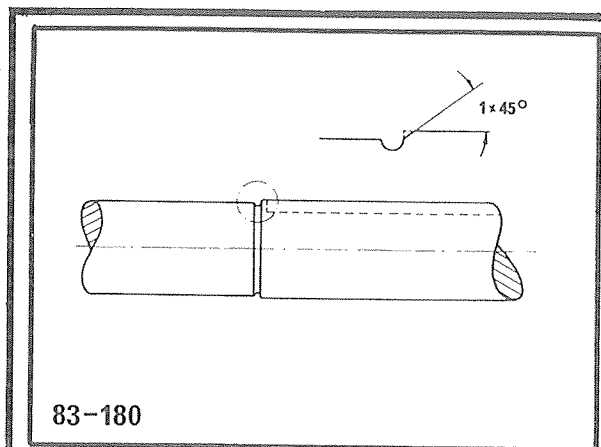




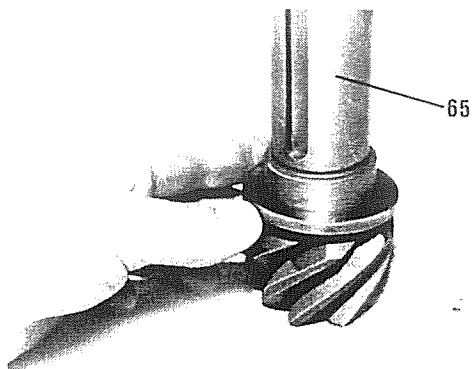
KEGELRADWELLE EINBAUEN
REFITTING THE BEVEL GEAR SHAFT
ARBRE DE PIGNON CONIQUE: REMONTER
REMONTAR EL EJE DE RUEDA CONICA



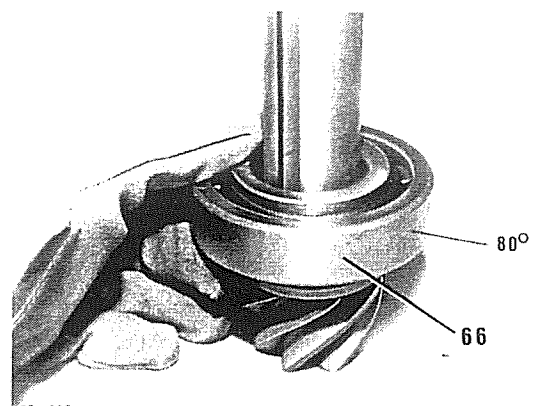
83-179



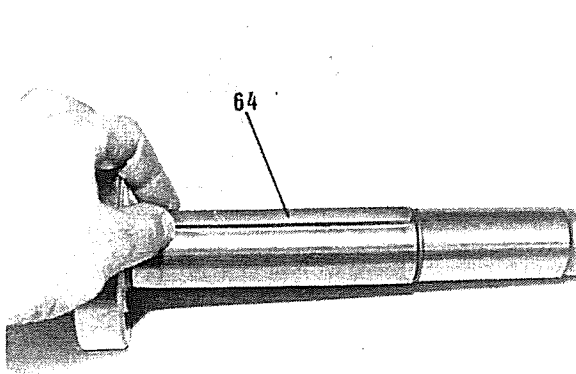
83-180



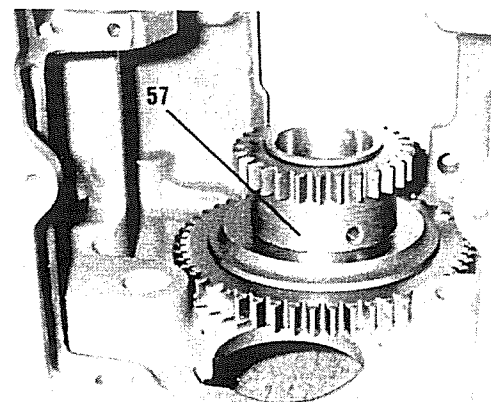
83-181



83-182

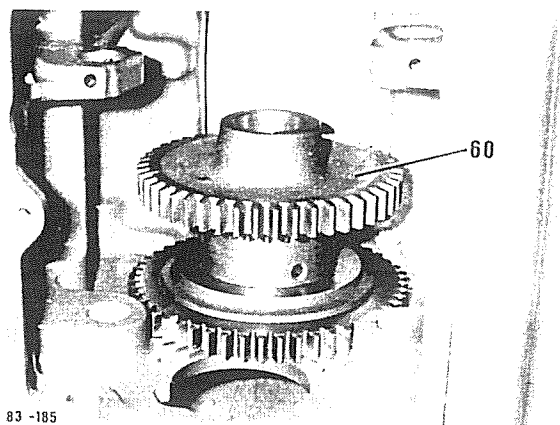
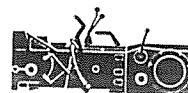


83-183

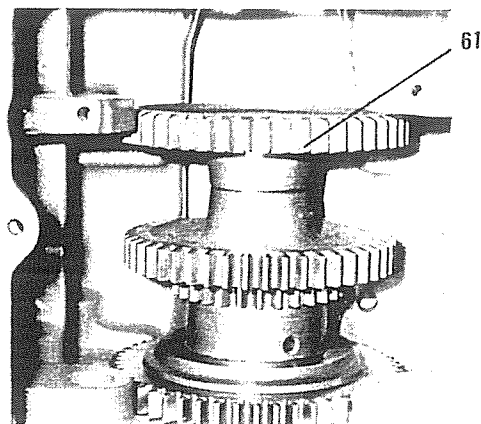


83-184

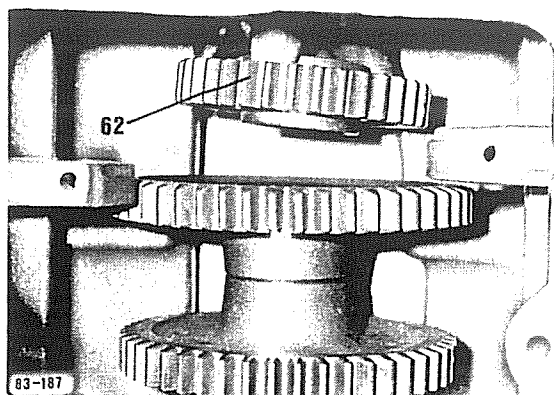




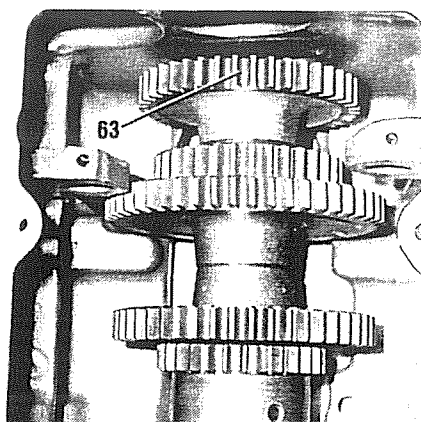
83-185



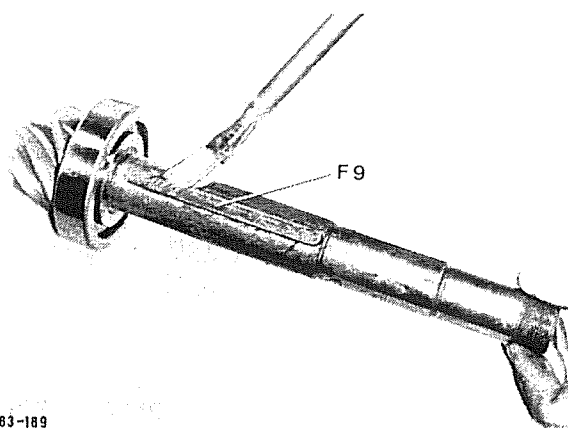
83-186



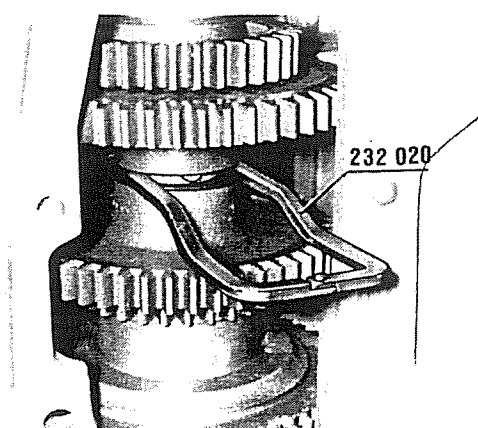
83-187



83-188

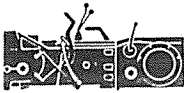


83-189

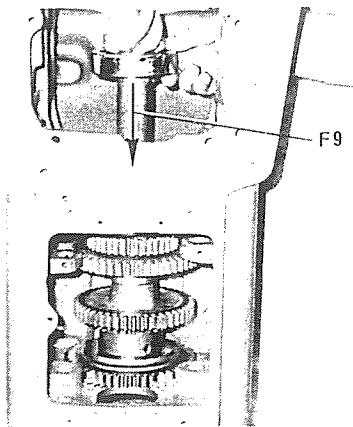


83-190

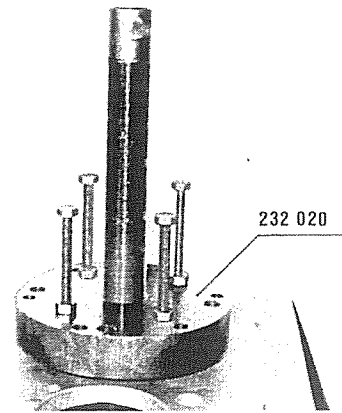




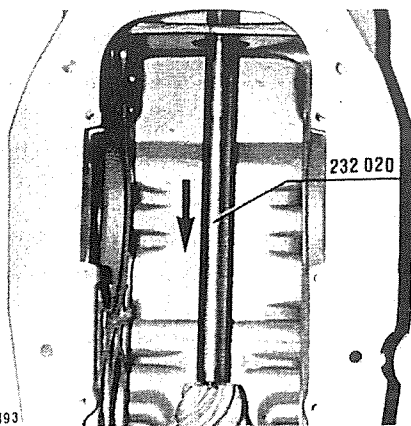
83-191



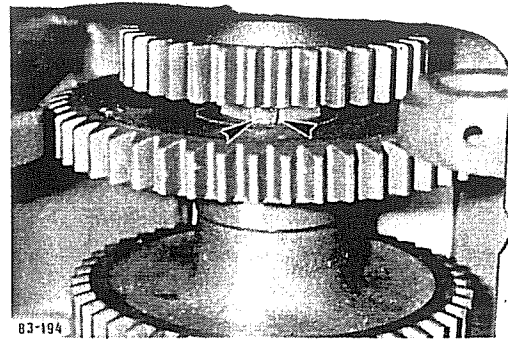
83-192



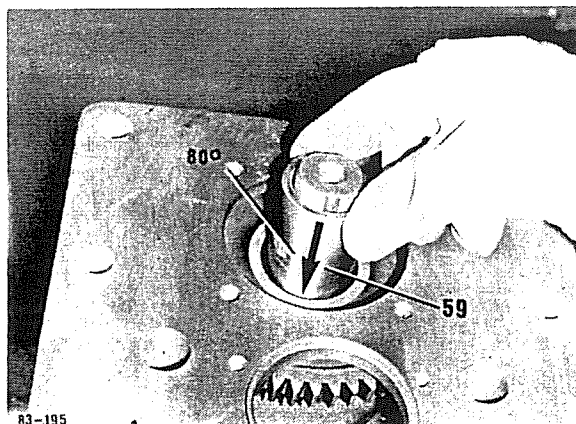
83-193



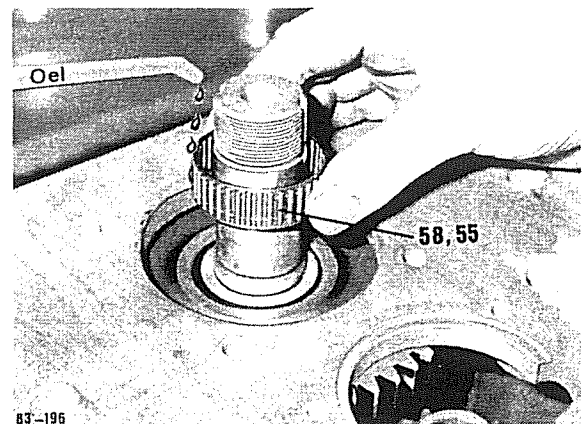
83-194

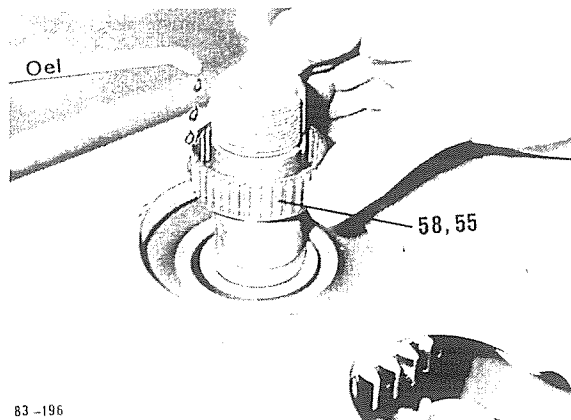
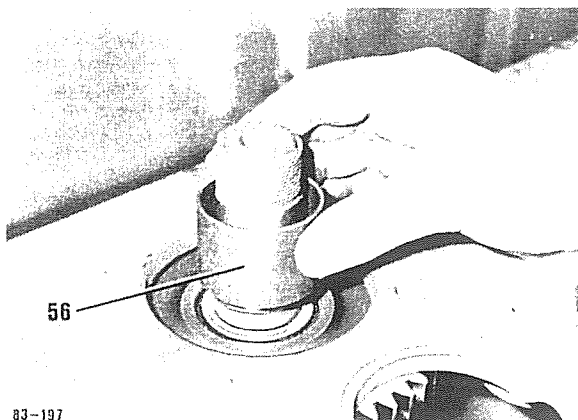


83-195



83-196

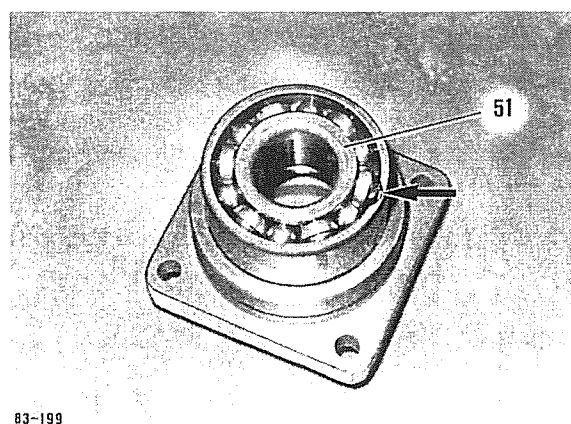
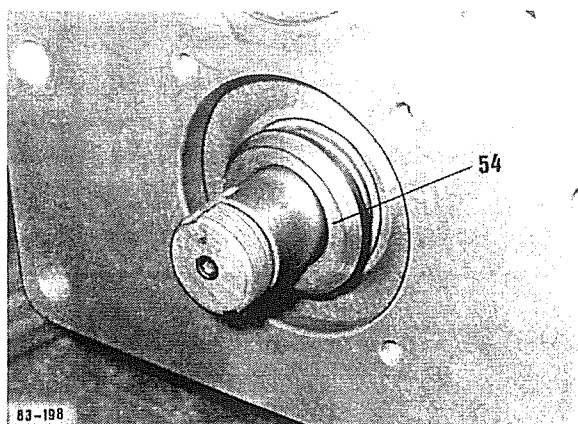




83-197

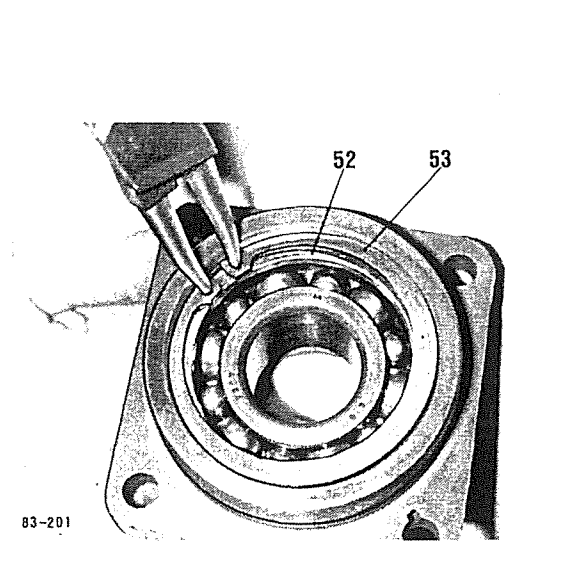
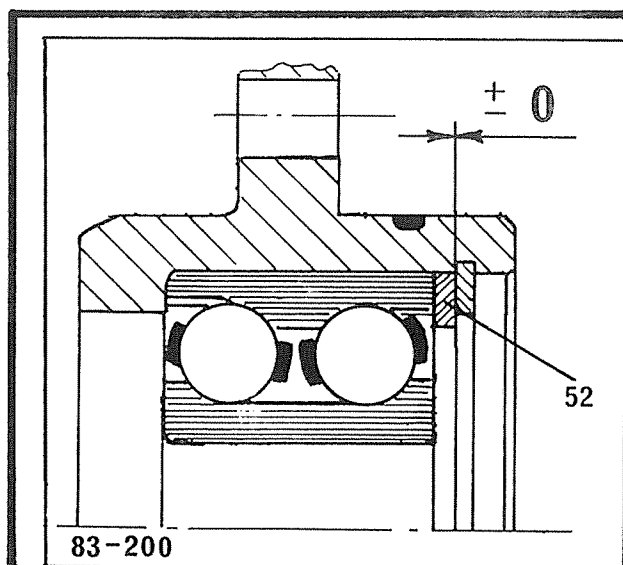
83-196

Nur TW 25.2/TW 35.1
Only TW 25.2/TW 35.1
Seulement TW 25.2/TW 35.1
Sólo TW 25.2/TW 35.1



83-198

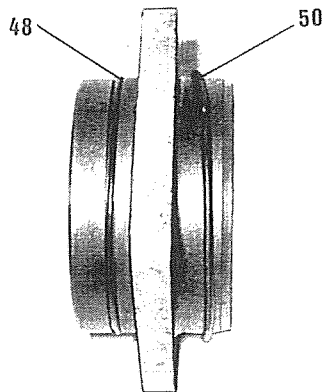
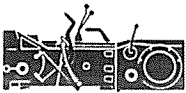
83-199



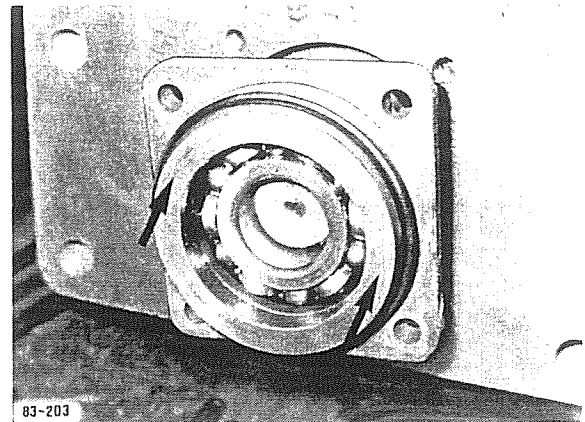
83-200

83-201

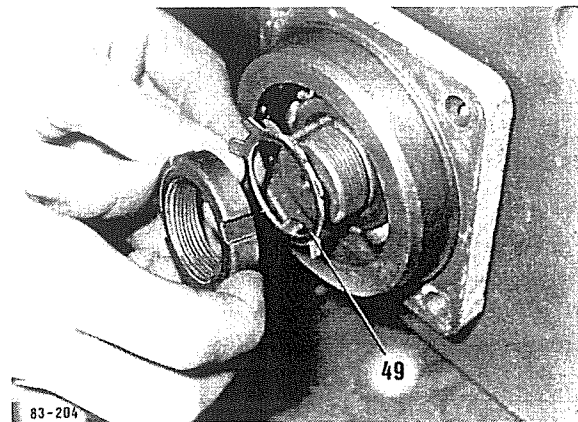
spielfrei
no clearance
sans jeu
sin juego



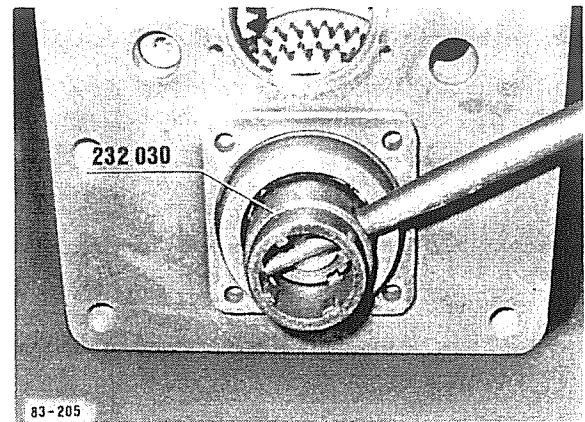
83-202



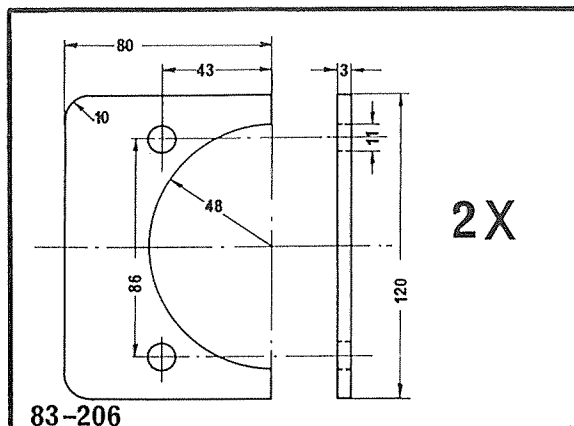
83-203



83-204

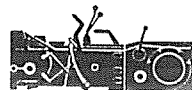


83-205

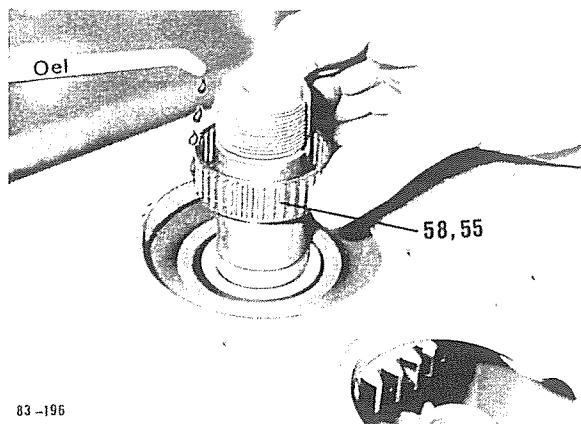


83-206

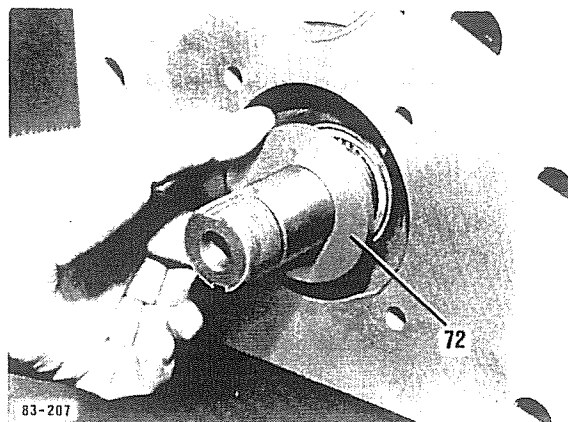




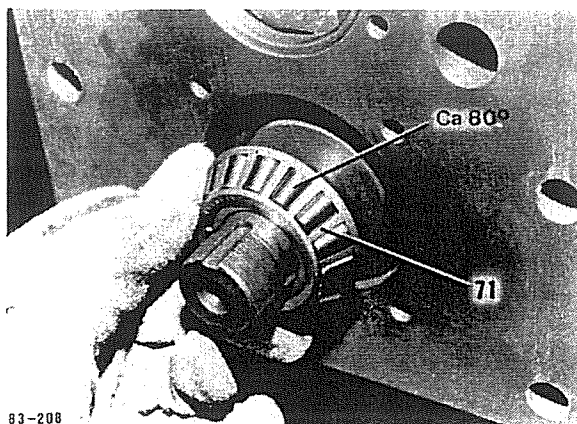
Nur TW 35.2
Only TW 35.2
Seulement TW 35.2
Sólo TW 35.2



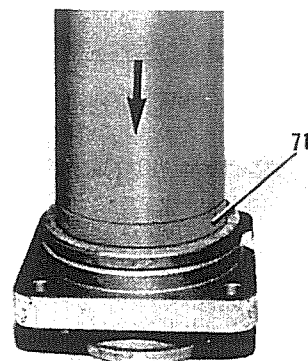
83-196



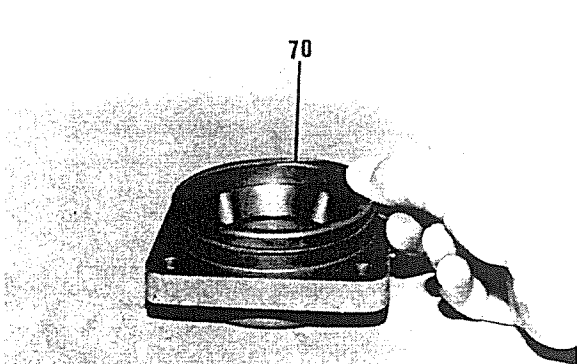
83-207



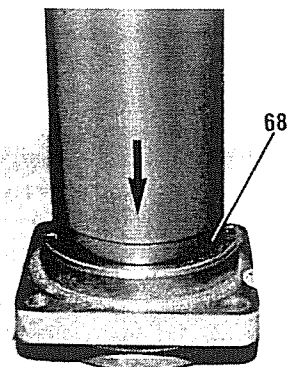
83-208



83-209

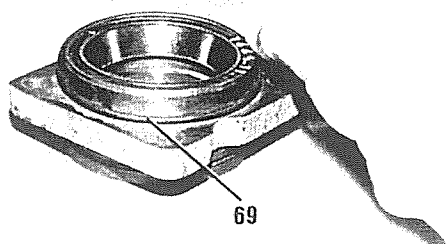
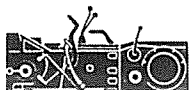


83-210

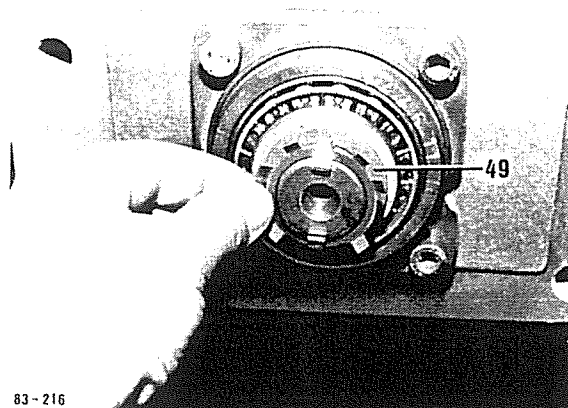
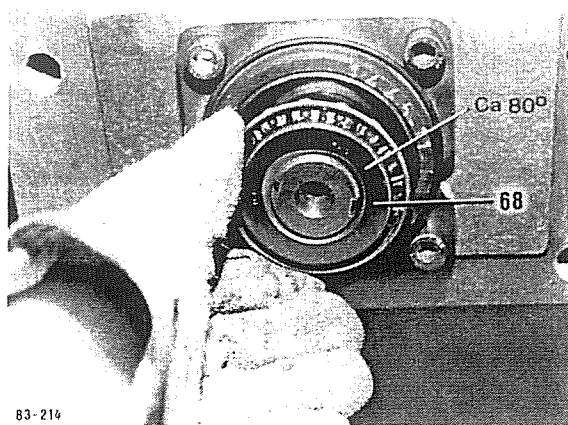
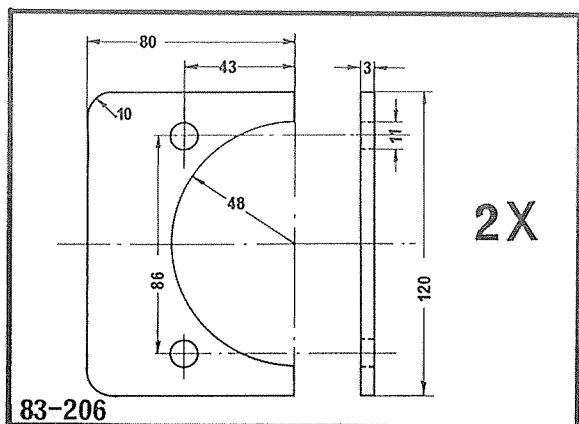
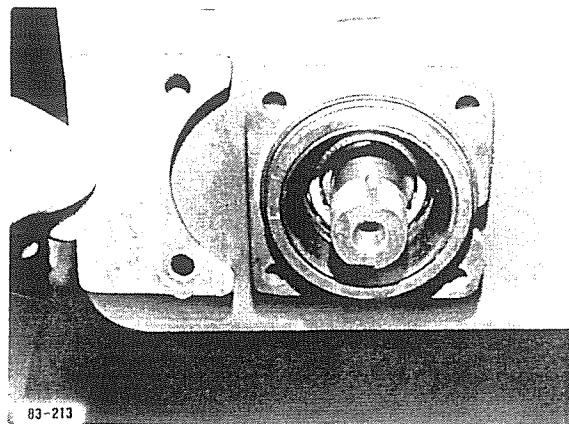


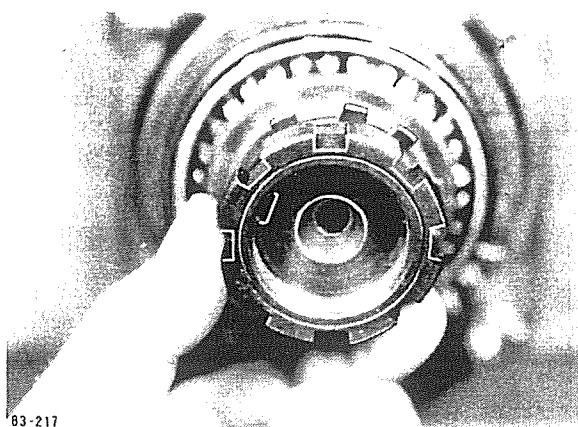
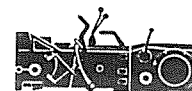
83-211



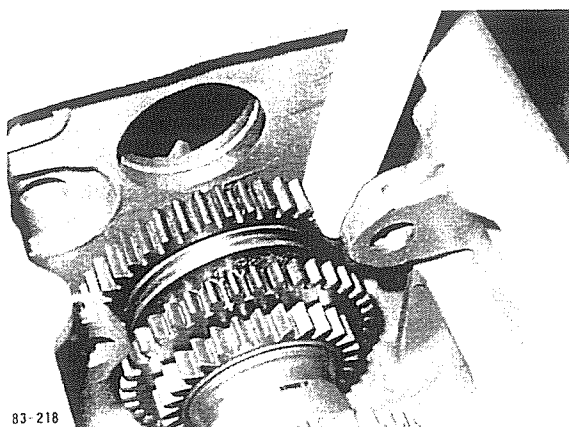


83-212

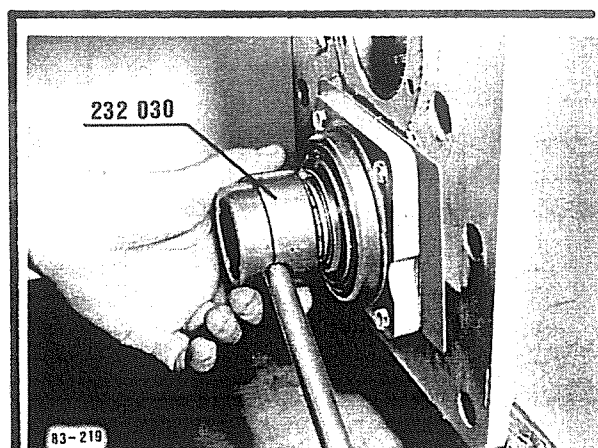




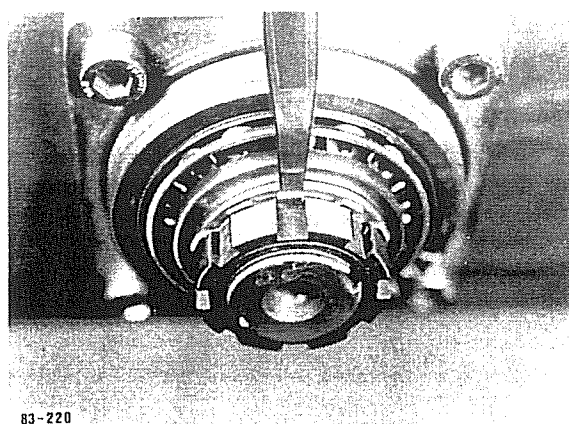
83-217



83-218



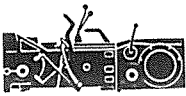
83-219



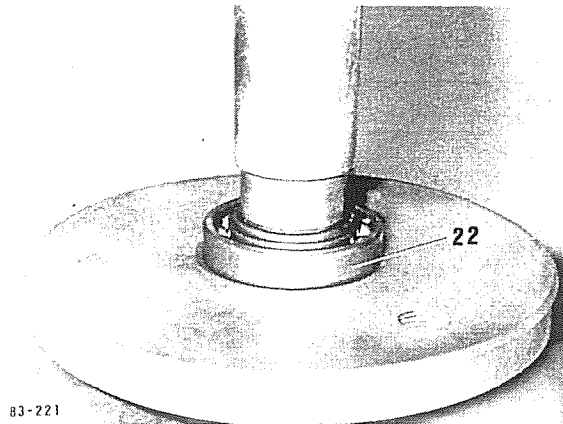
83-220



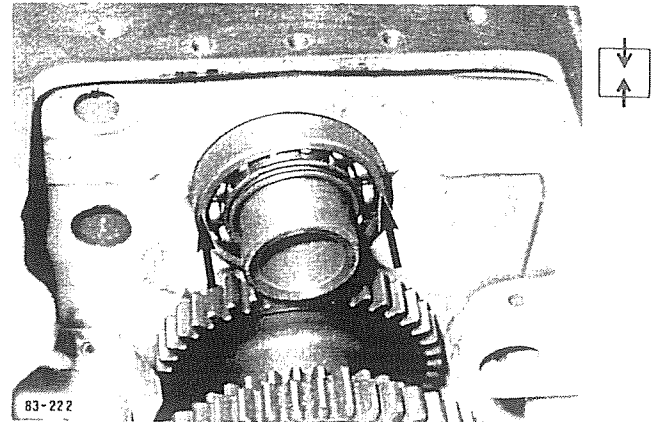
2 - 3 Nm (20 - 30 kpcm)



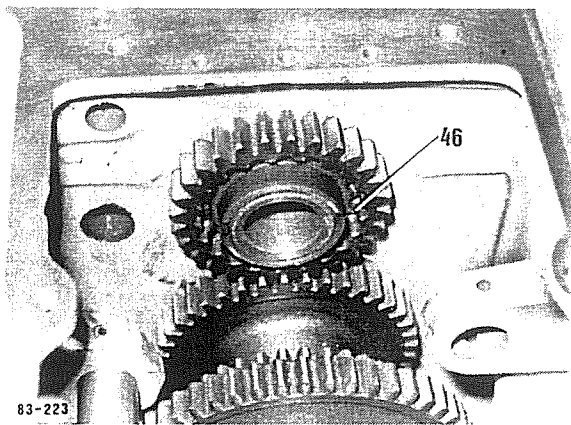
ANTRIEBSHOHLWELLE EINBAUEN
REFITTING THE DRIVE QUILL
ARBRE CREUX DE COMMANDE: REMONTER
REMONTAR EL EJE HUECO DE ACCIONAMIENTO



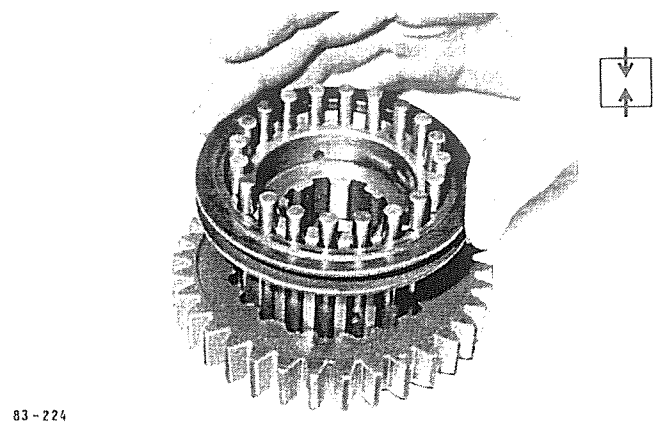
83-221



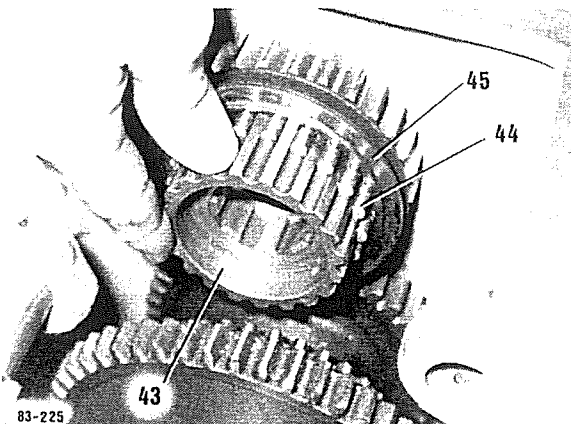
83-222



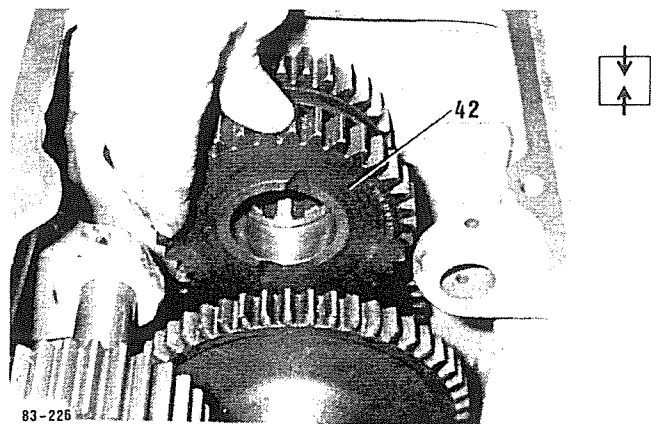
83-223



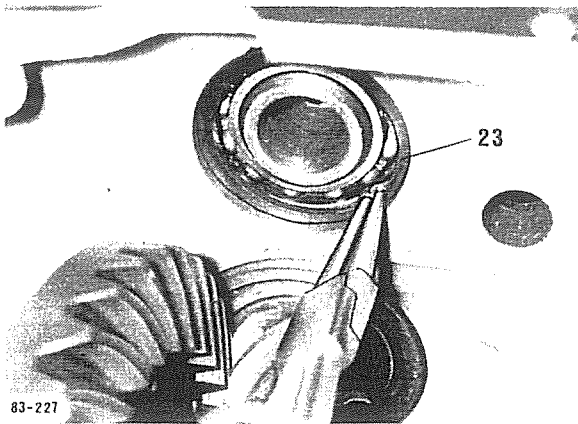
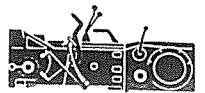
83-224



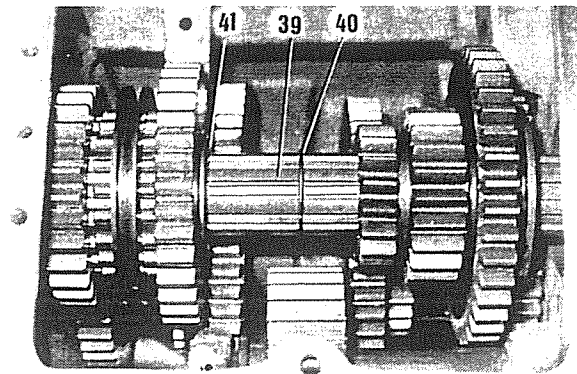
83-225



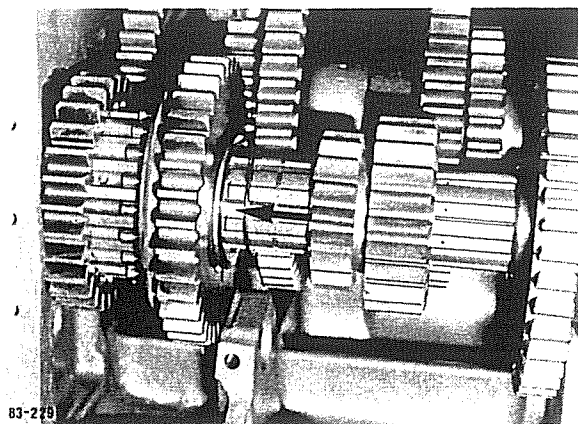
83-226



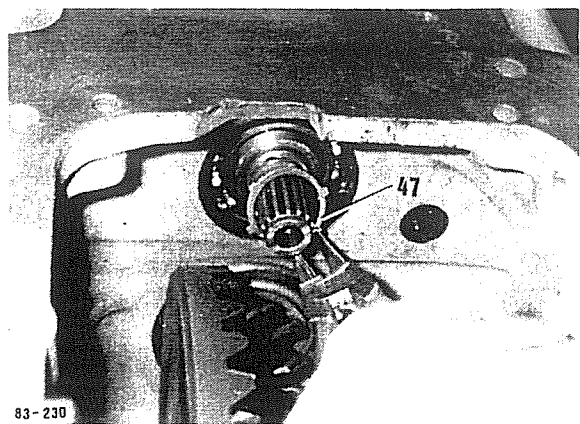
83-227



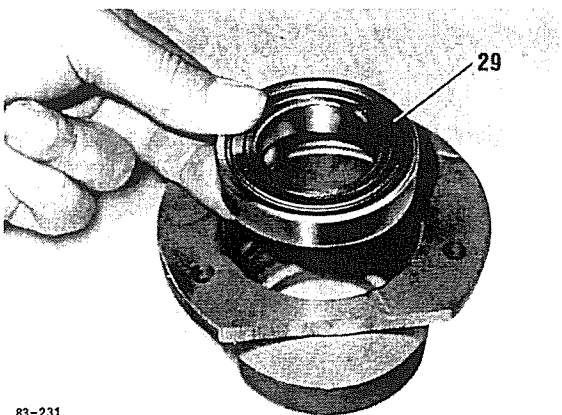
83-228



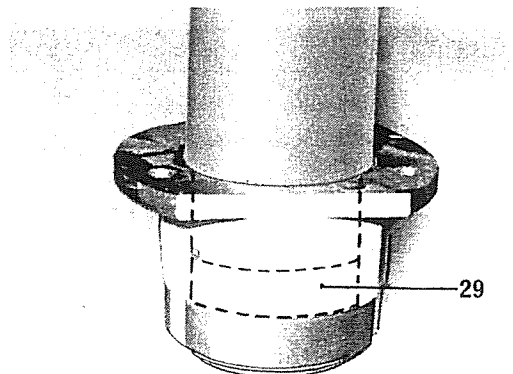
83-229



83-230

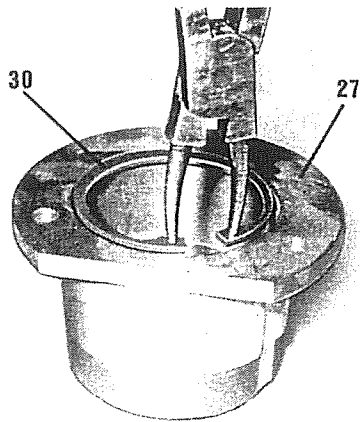
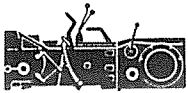


83-231

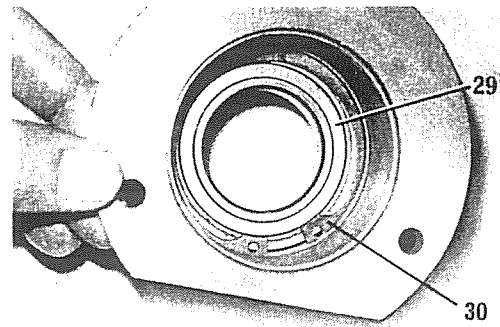


83-232

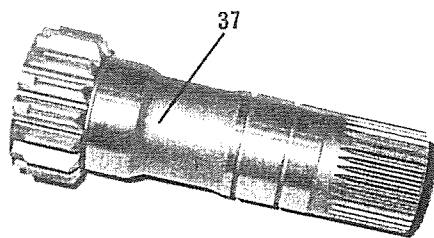




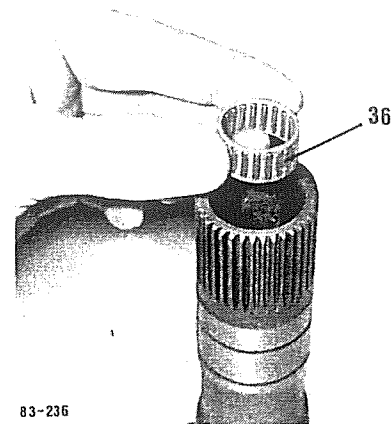
83-233



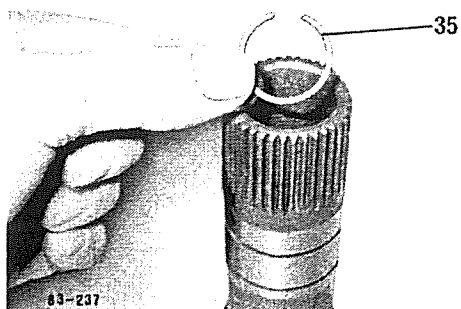
83-234



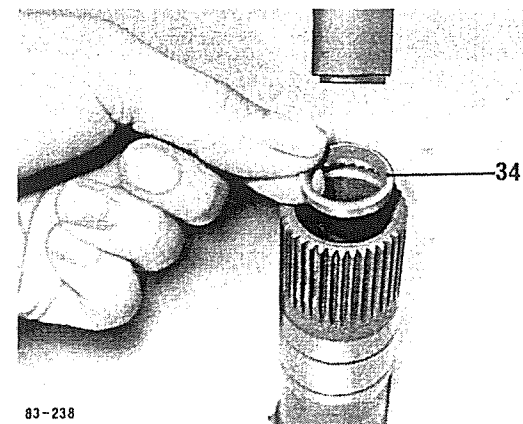
83-235



83-236



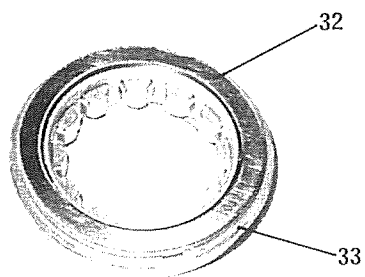
83-237



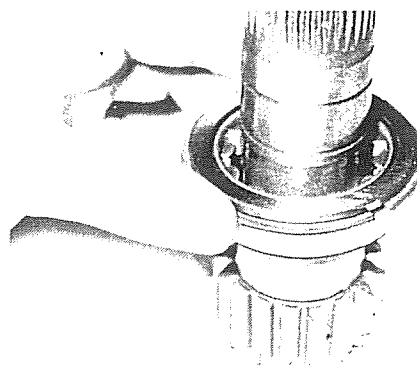
83-238



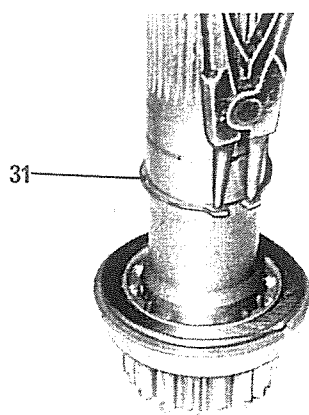
Hilfsmittel verwenden
 Auxiliary tool
 Employer moyen auxiliaire
 Utilizar medio auxiliar



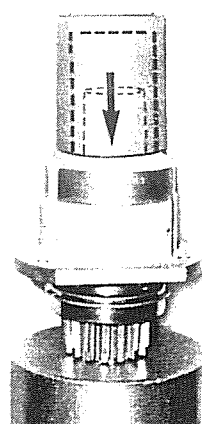
83-239



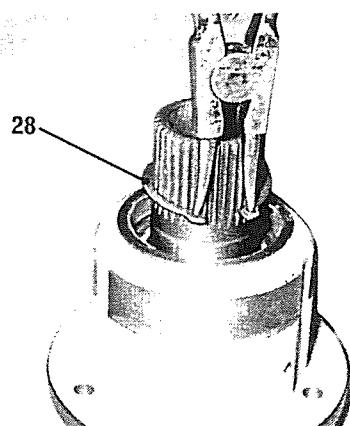
83-240



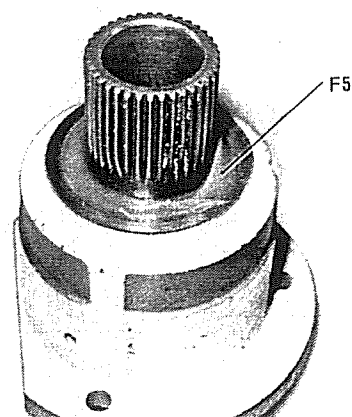
83-241



83-242

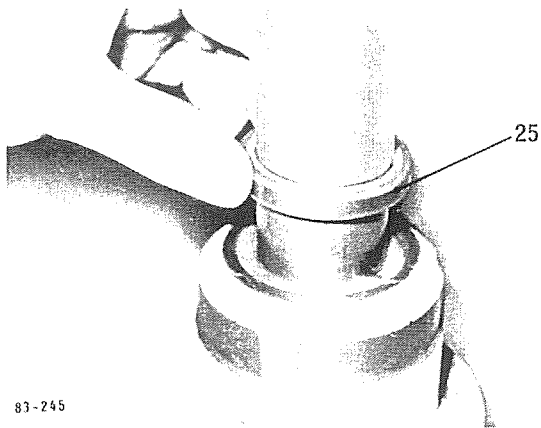
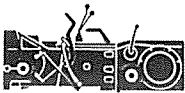


83-243



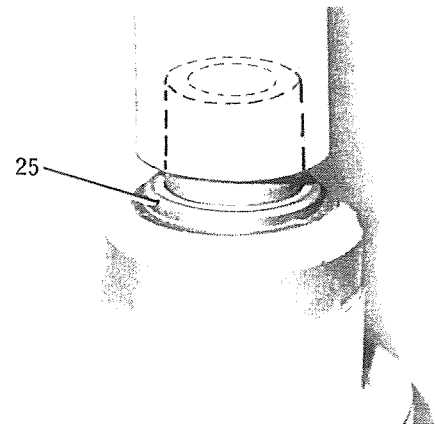
83-244



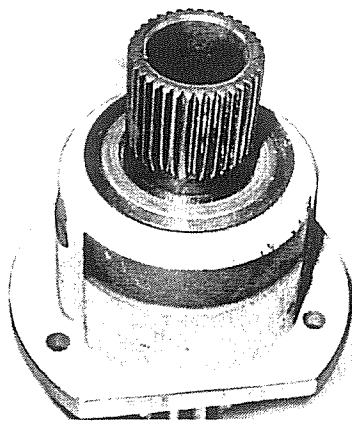


83-245

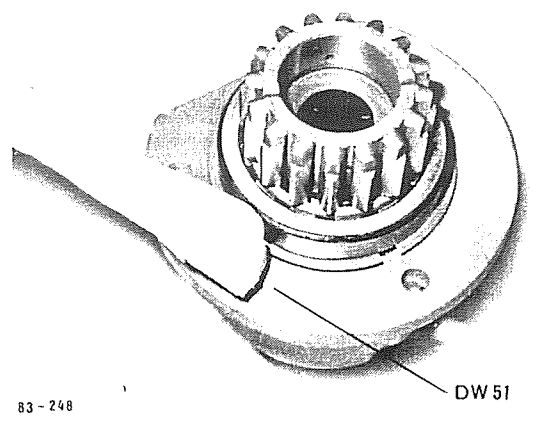
Hilfsmittel verwenden
Auxiliary tool
Employer moyen auxiliaire
Utilizar medio auxiliar



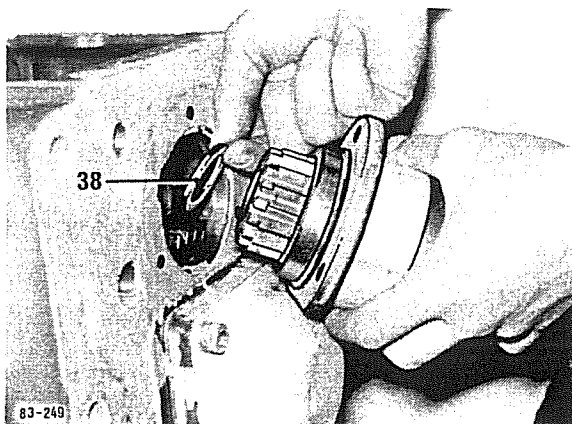
83-246



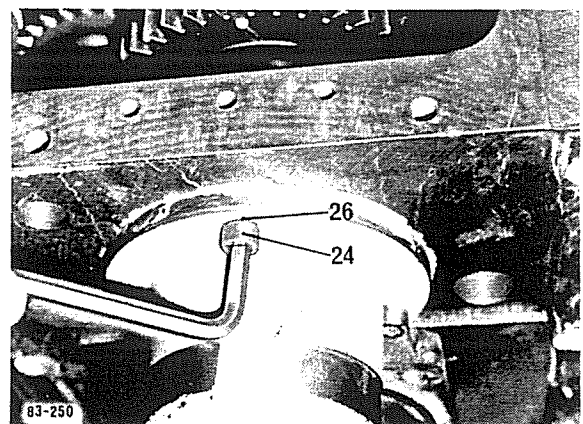
83-247



83-248

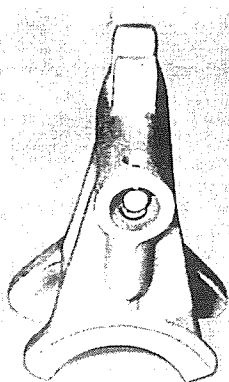
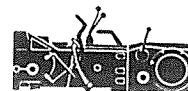


83-249

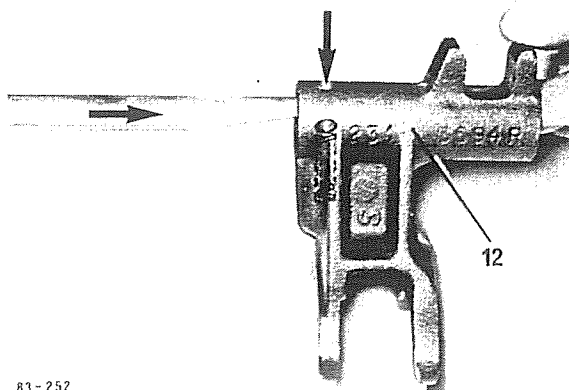


83-250

SCHALTGESTÄNGE EINBAUEN
REFITTING THE SHIFT LINKAGE
TRINGLE DE COMMANDE: REMONTER
REMONTAR EL VARILLAJE DE CAMBIO

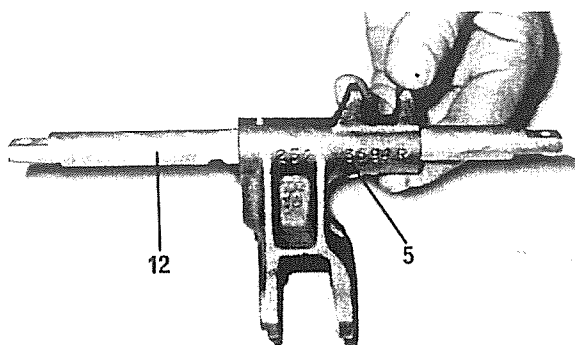


83-251

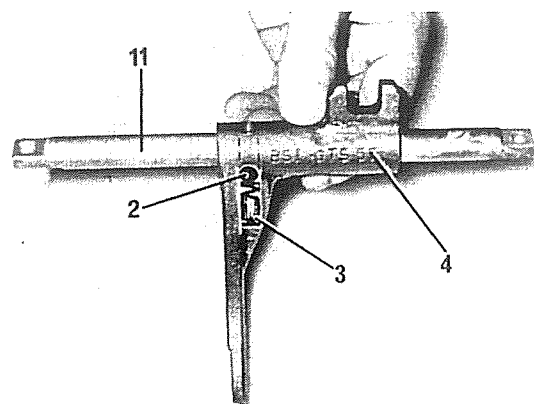


83-252

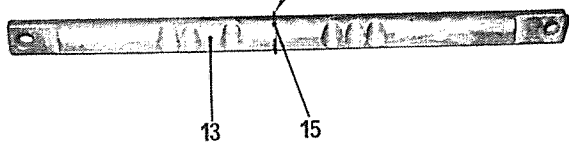
Hilfsmittel verwenden
Auxiliary tool
Employer moyen auxiliaire
Utilizar medio auxiliar



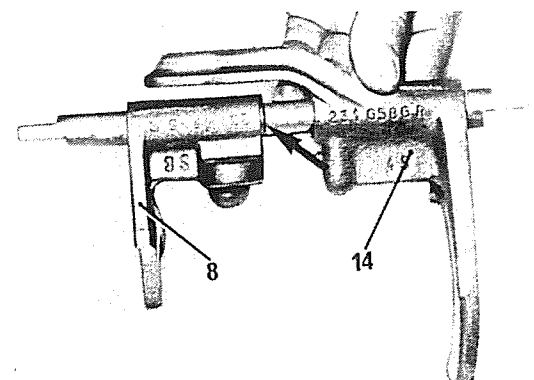
83-253



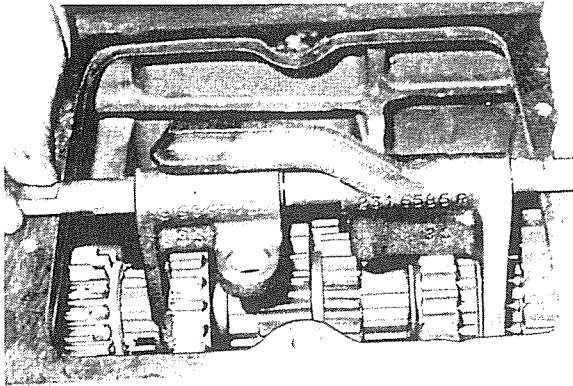
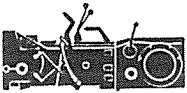
83-254



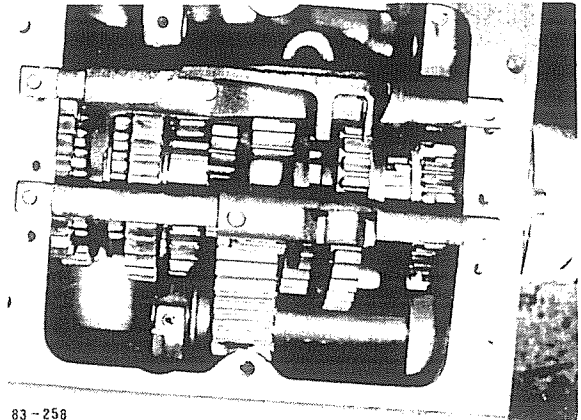
83-255



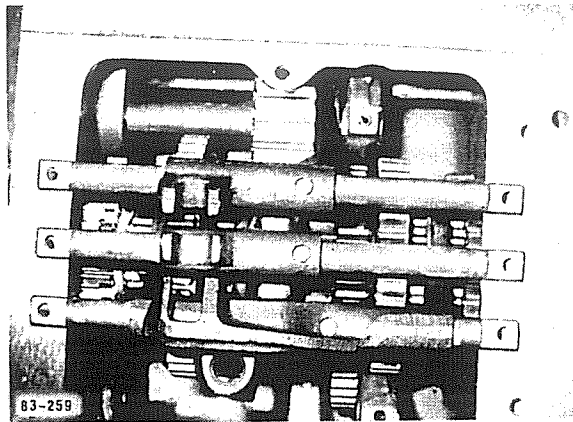
83-256



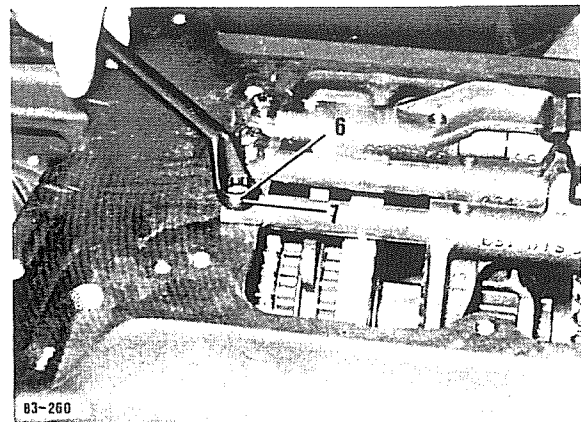
83-257



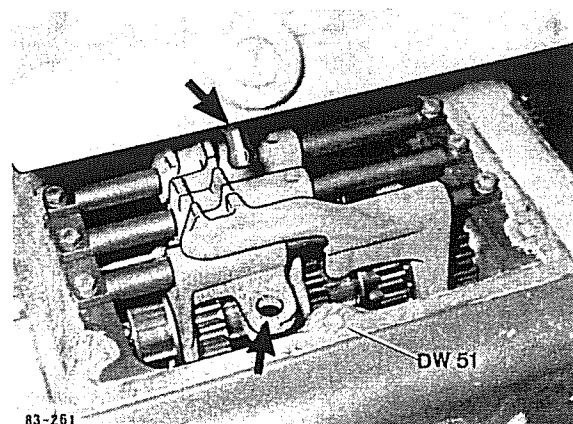
83-258



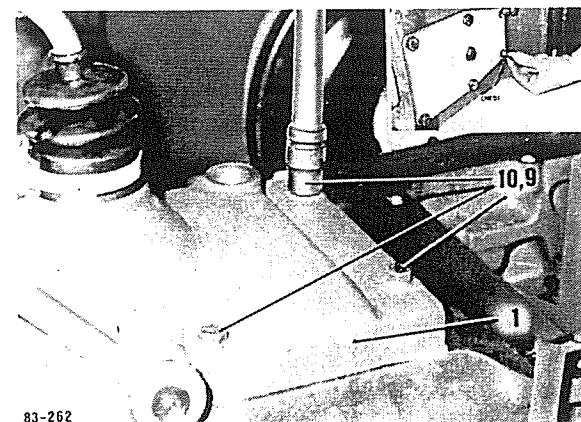
83-259



83-260



83-261



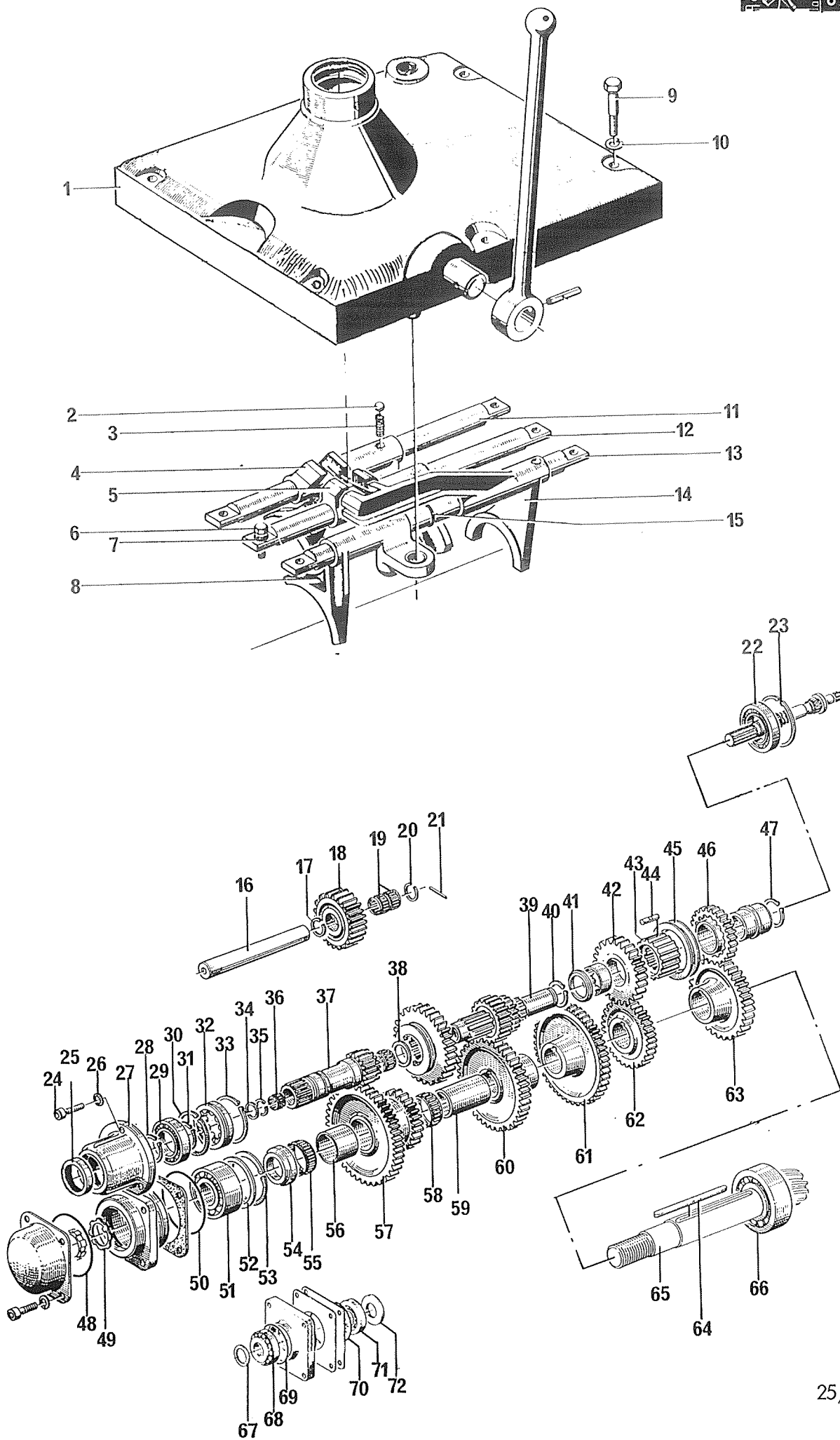
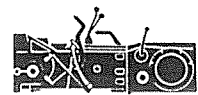
83-262





1. Schaltdeckel
2. Kugel
3. Druckfeder
4. Schaltgabel, Rückwärtsgang
5. Schaltgabel 1-2 Gang
6. Sechskantschraube
7. Federring
8. Schaltgabel, Schnell-Langsam
9. Sechskantschraube
10. Federring
11. Schaltstange, Rückwärtsgang
12. Schaltstange, 1-2 Gang
13. Schaltstange, Schnell-Langsam
und 3-4 Gang
14. Schaltgabel 3-4 Gang
15. Sicherungsring
16. Bolzen
17. Sicherungsring
18. Rücklaufrolle
19. Doppelnadelkäfig
20. Sicherungsring
21. Spannhülse
22. Rillenkugellager
23. Sicherungsring
24. Zylinderschraube
25. Radial-Wellendichtring
26. Sicherungsscheibe
27. Lagerdeckel
28. Sicherungsring
29. Rillenkugellager
30. Sicherungsring
31. Sicherungsring
32. Rollenlager
33. Sicherungsring
34. Radial-Wellendichtring
35. Sicherungsring
36. Nadelkäfig
37. Antriebshohlwelle
38. Abstandsscheibe
39. Hohlwelle
40. Sicherungsring
41. Abstandsscheibe
42. Zahnrad
43. Bolzenträger
44. Schaltbolzen
45. Schiebemuffe
46. Zahnrad
47. Sicherungsring
48. Rundgummiring
49. Sicherungsblech
50. Rundgummiring
51. Schrägkugellager
52. Beilage
53. Sicherungsring
54. Abstandsring
55. Nadelkäfig
56. Abstandsrohr
57. Doppelzahnrad
58. Nadelkäfig
59. Lagerbuchse
60. Zahnrad
61. Zahnrad
62. Zahnrad
63. Zahnrad
64. Paßfeder
65. Kegelradwelle
66. Zylinderrollenlager
67. Nasenscheibe
68. Kegelrollenlager
69. Rundgummiring
70. Rundgummiring
71. Kegelrollenlager
72. Anlaufscheibe

1. Gear shift cover
2. Ball
3. Spring
4. Fork, reverse gear
5. Fork, 1st and 2nd gear
6. Bolt
7. Lockwasher
8. Fork, high-low
9. Bolt
10. Lockwasher
11. Rod, reverse gear
12. Rod, 1st and 2nd gear
13. Rod, high-low
and 3rd + 4th gear
14. Fork, 3rd + 4th gear
15. Circlip
16. Pin
17. Circlip
18. Reverse gear
19. Needle cage
20. Circlip
21. Dowel sleeve
22. Ball bearing
23. Circlip
24. Screw
25. Radial shaft seal
26. Lockwasher
27. Cap
28. Circlip
29. Ball bearing
30. Circlip
31. Circlip
32. Roller bearing
33. Circlip
34. Radial shaft seal
35. Circlip
36. Needle cage
37. Drive quill
38. Spacer
39. Quill
40. Circlip
41. Spacer
42. Gear
43. Pin carrier
44. Pin
45. Sleeve
46. Gear
47. Circlip
48. O-seal
49. Locking plate
50. O-seal
51. Ball bearing
52. Shim
53. Circlip
54. Spacer
55. Needle cage
56. Spacer
57. Cluster gear
58. Needle cage
59. Bearing bush
60. Gear
61. Gear
62. Gear
63. Gear
64. Key
65. Bevel gear shaft
66. Roller bearing
67. Tab washer
68. Roller bearing
69. O-seal
70. O-seal
71. Roller bearing
72. Stop washer





INHALTSVERZEICHNIS

	Seite
Schaltung ausbauen	3
Antriebshohlwelle ausbauen	4
Antriebshohlwelle zerlegen	6
Rückwärtsgang ausbauen und zerlegen	8
Kegelradwelle ausbauen und zerlegen	9
Kegelradwelle einbauen	11
Rückwärtsgang zusammenbauen und einbauen	19
Antriebshohlwelle montieren und einbauen	21
Schaltgestänge einstellen	31
Zwischenwelle ausbauen	35
Zwischenwelle einbauen	37
Kegeltrieb einstellen	38
Explosionsdarstellung (Schaltung zum Wechselgetriebe)	47/48
Explosionsdarstellung (Wechselgetriebe)	53/54
Explosionsdarstellung (Zwischenwelle)	57/58

INDEX

	Page
Removing the gear shift mechanism	3
Removing the drive quill	4
Dismantling the drive quill	6
Removing and dismantling the reverse gear	8
Removing and dismantling the bevel gear shaft	9
Refitting the bevel gear shaft	11
Reassembling and refitting the reverse gear	19
Reassembling and refitting the drive quill	21
Setting the shift linkage	31
Removing the intermediate shaft	35
Refitting the intermediate shaft	37
Set bevel drive	38
Explosion view (Gear-shift mechanism)	47/48
Explosion view (change speed gearbox)	53/54
Explosion view (Intermediate shaft)	57/58



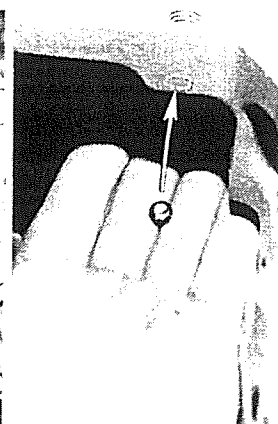
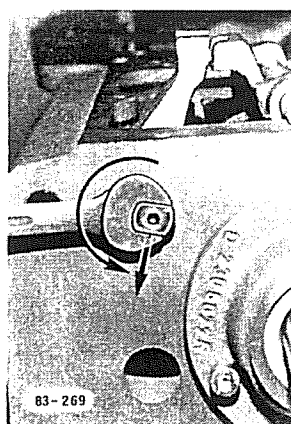
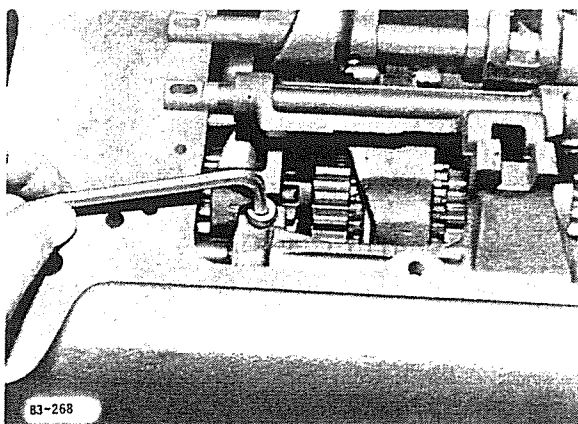
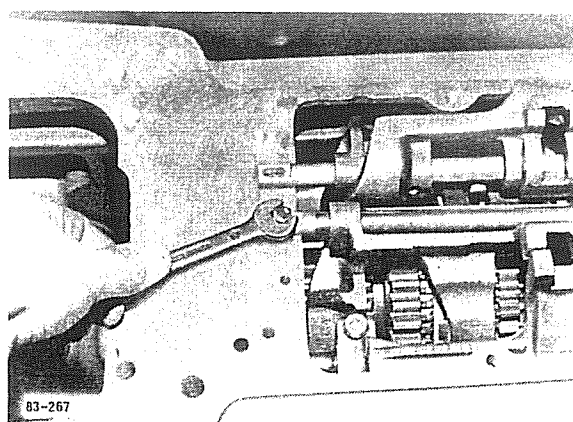
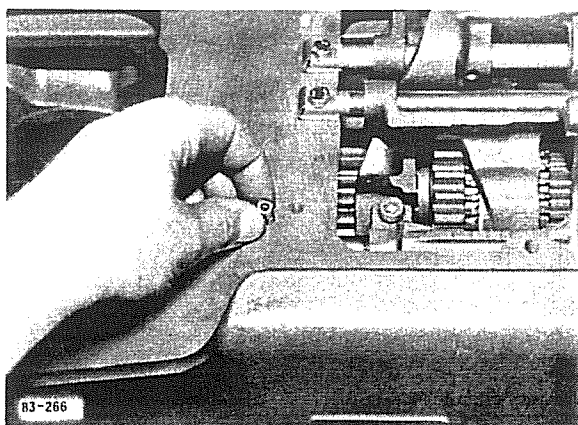
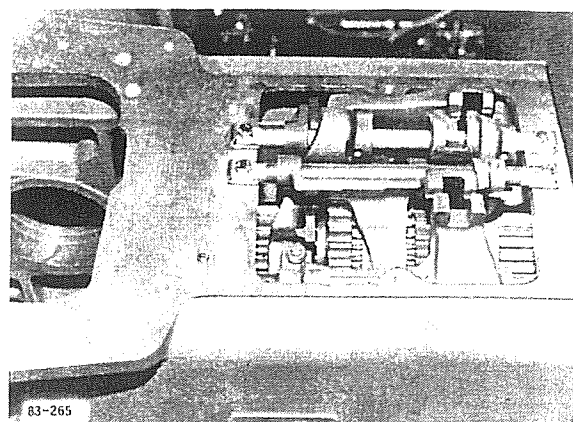
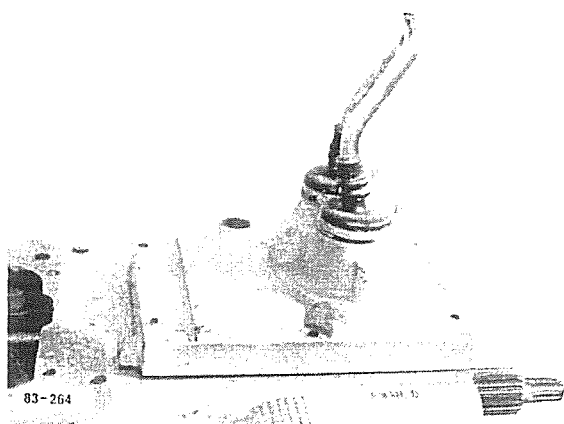
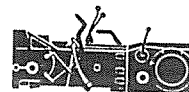
TABLE DES MATIERES

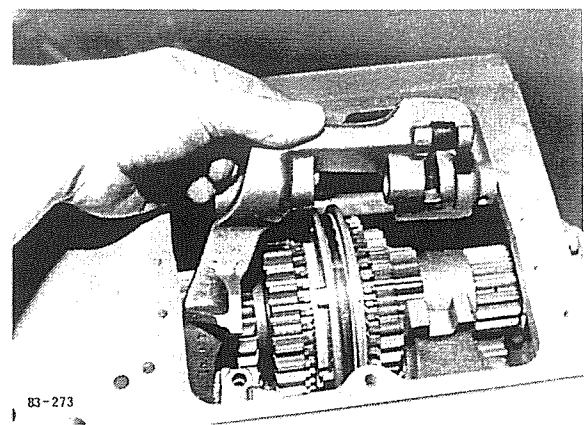
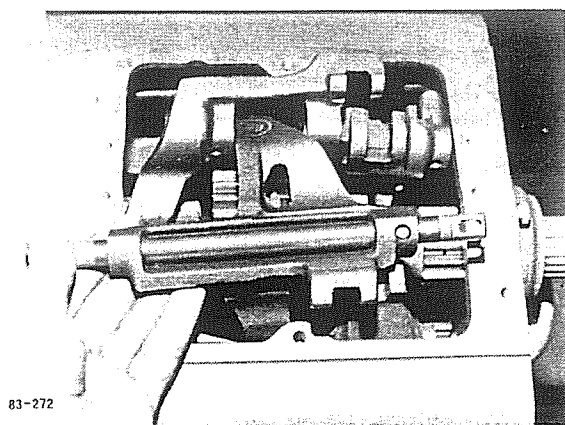
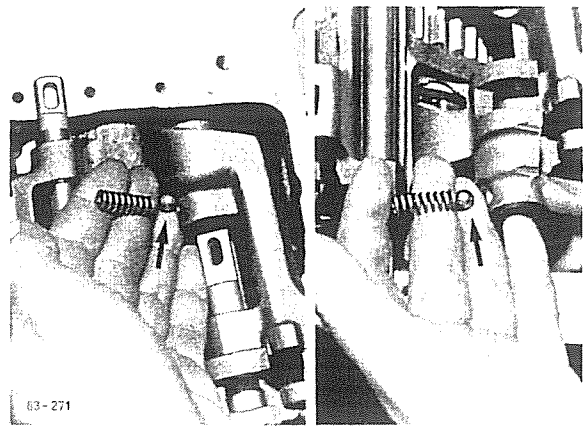
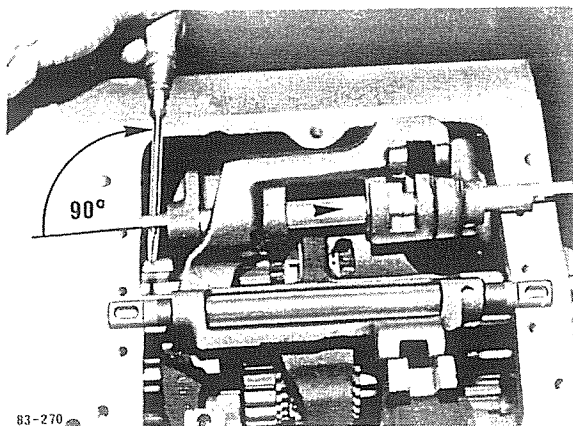
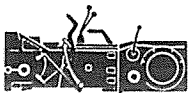
	Page
Commande de changement des vitesses: démonter	3
Arbre de commande: démonter	4
Arbre de commande: désassembler	6
Marche AR: démonter et désassembler	8
Arbre de pignon conique: démonter et désassembler	9
Arbre de pignon conique: remonter	11
Marche AR: assembler et monter	19
Arbre creux de commande: assembler et monter	21
Tringle de commande: régler	31
Arbre intermédiaire: démonter	35
Arbre intermédiaire: remonter	37
Couple conique: régler	38
Vue en éclaté, commande de changement des vitesses	47/48
Vue en éclaté, boîte de changement des vitesses	53/54
Vue en éclaté, arbre intermédiaire	57/58

INDICE

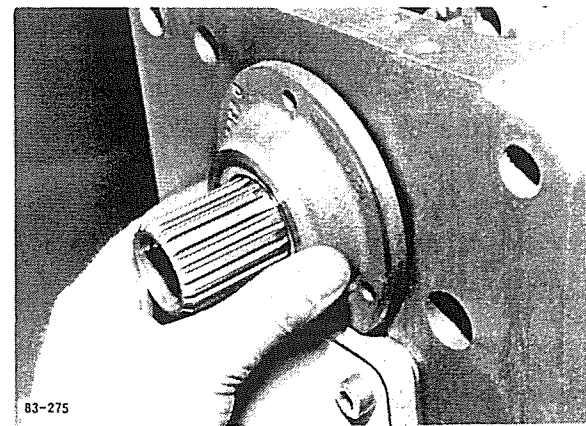
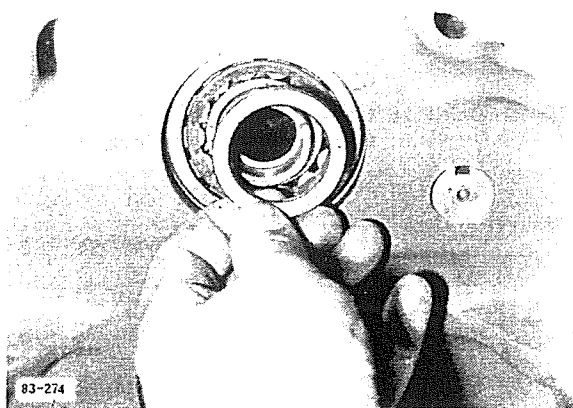
	Pág.
Desmontar el cambio de velocidades	3
Desmontar el eje hueco de accionamiento	4
Desarmar el eje hueco de accionamiento	6
Desmontar y desarmar la marcha atrás	8
Desmontar y desarmar el eje de rueda cónica	9
Remontar el eje de rueda cónica	11
Rearmar y remontar la marcha atrás	19
Rearmar y remontar el eje hueco de accionamiento	21
Graduar el varillaje de cambio	31
Desmontar el eje intermedio	35
Remontar el eje intermedio	37
Graduar el grupo cónico	38
Esquema de despiece (Mando para cambio de velocidades)	47/48
Esquema de despiece (Cambio de velocidades)	53/54
Esquema de despiece (Eje intermedio)	57/58

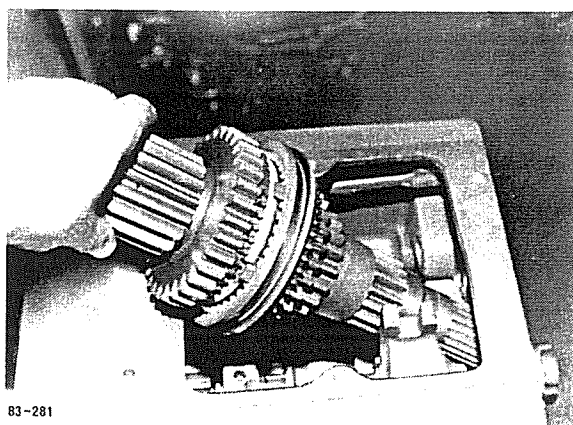
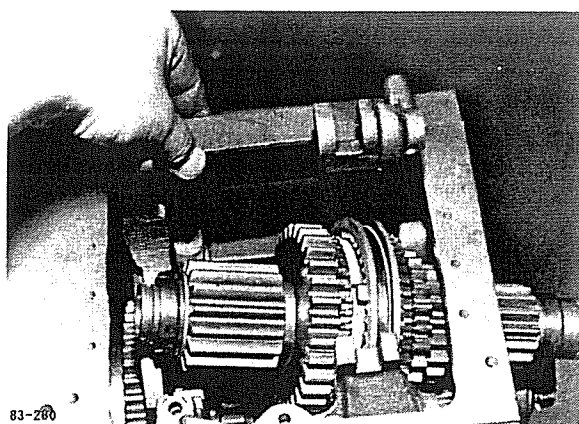
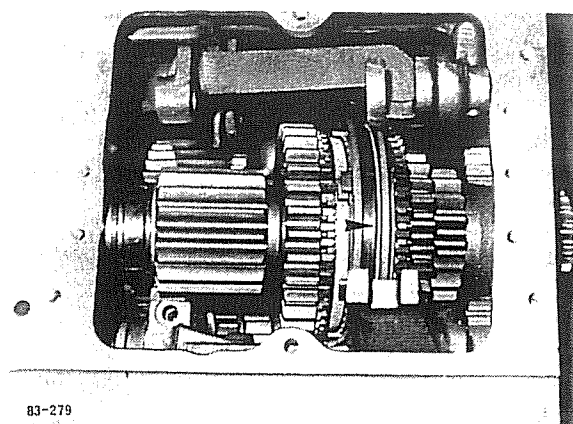
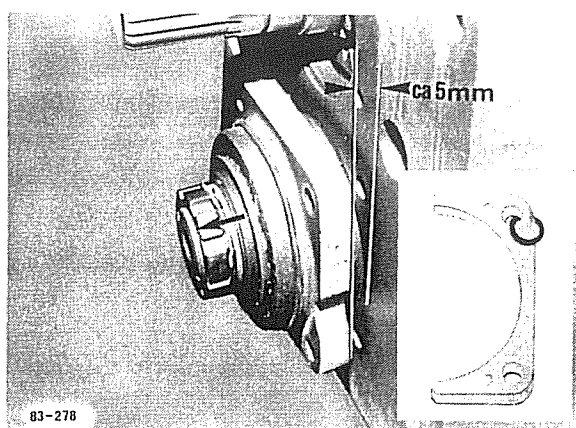
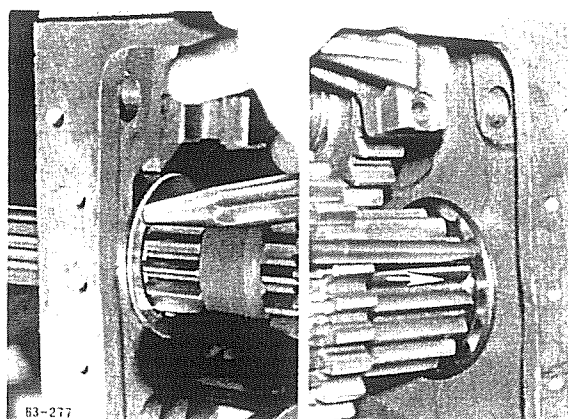
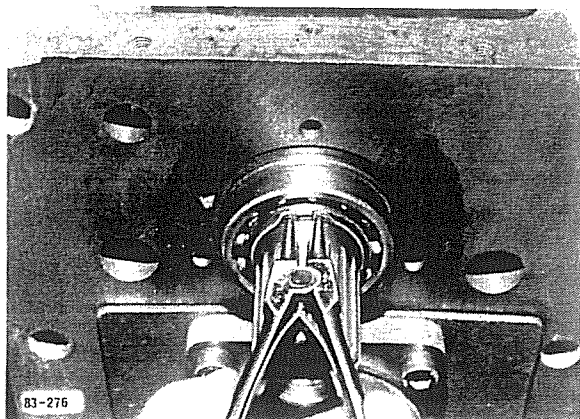
SCHALTUNG AUSBAUEN
 REMOVING THE GEAR SHIFT MECHANISM
 COMMANDE DE CHANGEMENT DES VITESSES: DEMONTER
 DESMONTAR EL CAMBIO DE VELOCIDADES

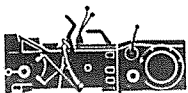




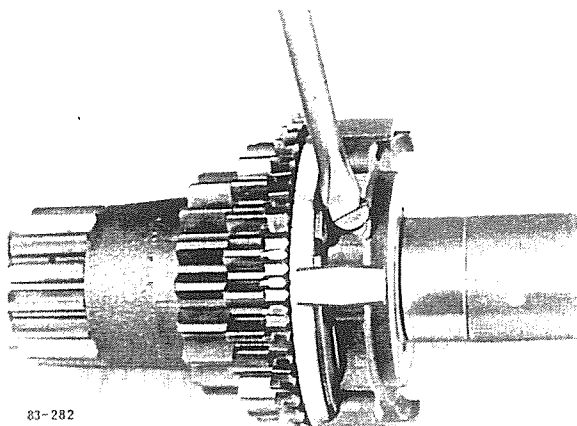
ANTRIEBSHOHLWELLE AUSBAUEN
 REMOVING THE DRIVE QUILL
 ARBRE CREUX DE COMMANDE: DEMONTER
 DESMONTAR EL EJE HUECO DE ACCIONAMIENTO



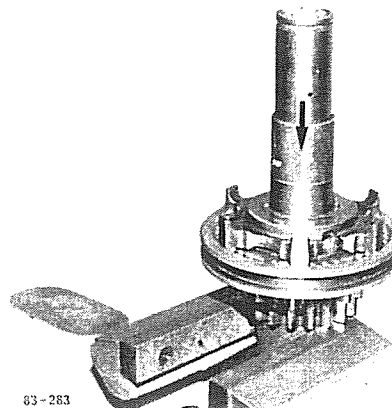




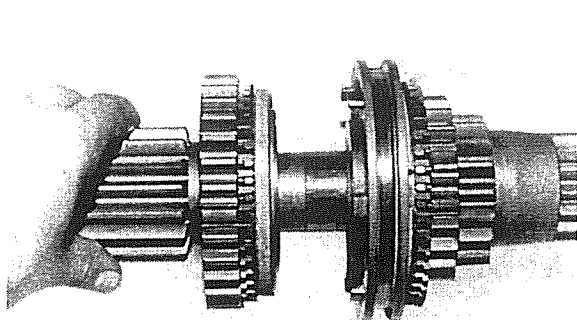
ANTRIEBSHOHLWELLE ZERLEGEN
DISMANTLING THE DRIVE QUILL
ARBRE CREUX DE COMMANDE: DESASSEMBLER
DESARMAR EL EJE HUECO DE ACCIONAMIENTO



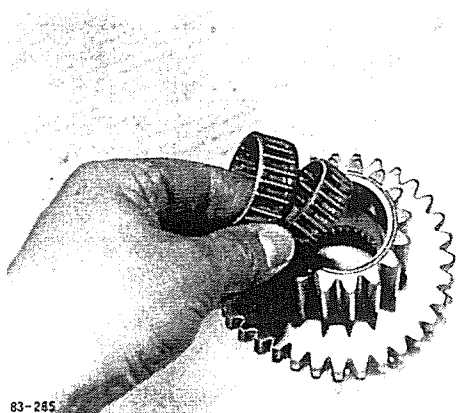
83-282



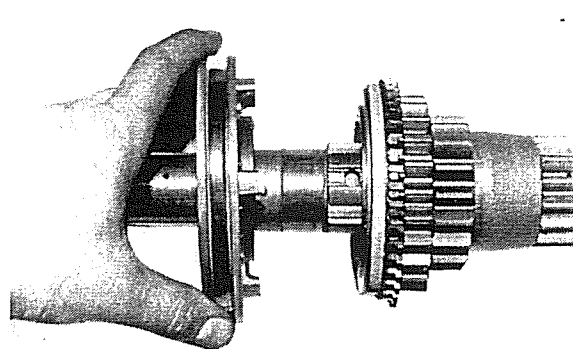
83-263



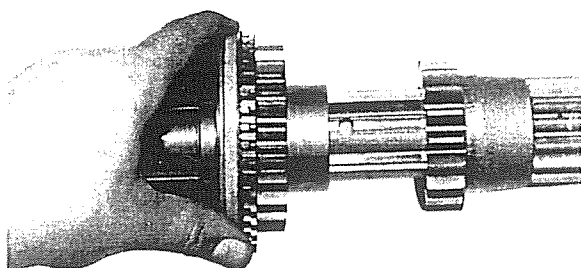
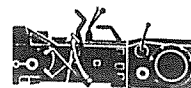
83-284



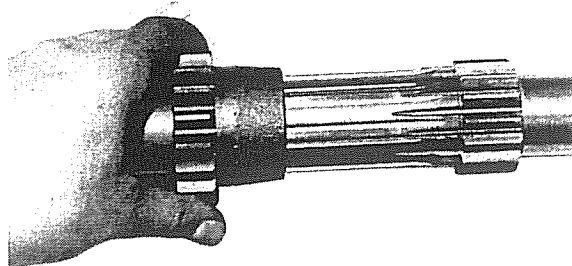
83-285



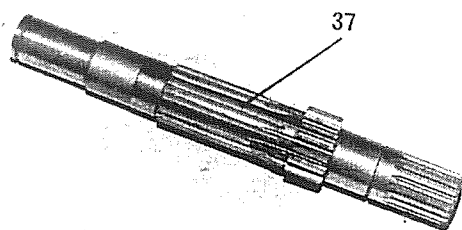
83-286



83-287

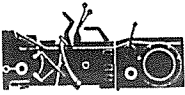


83-288

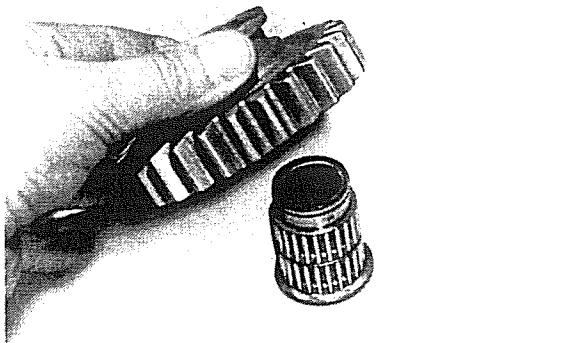
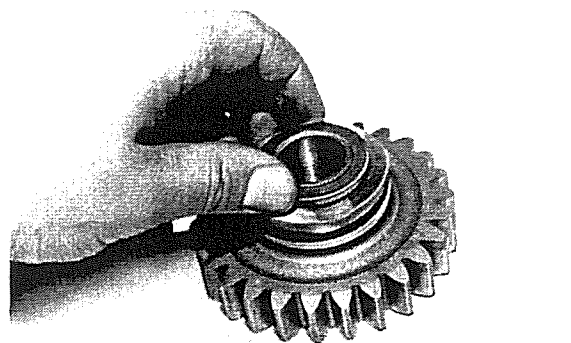
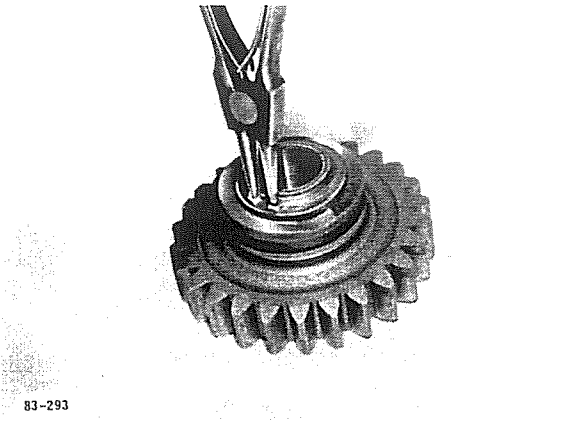
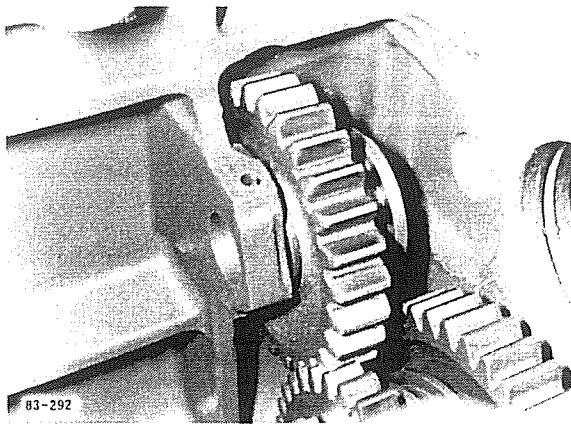
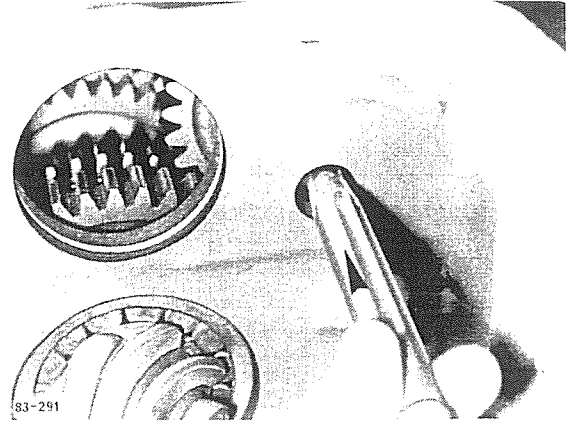
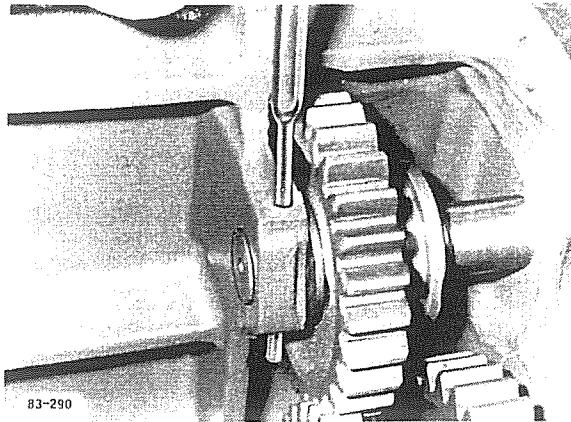


83-289





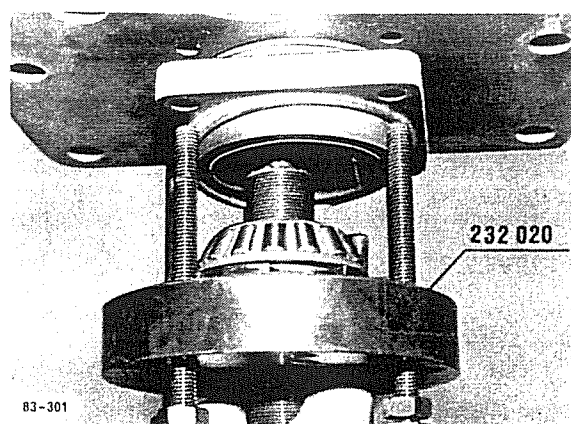
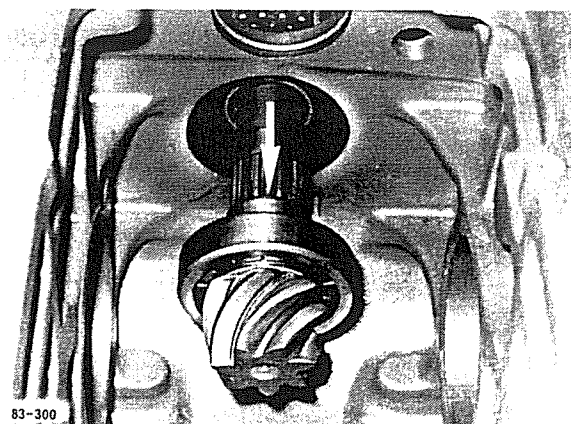
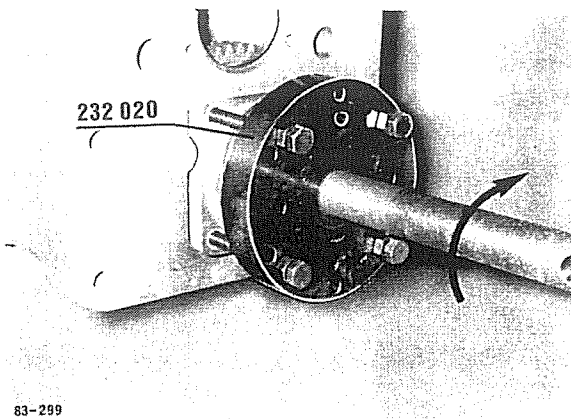
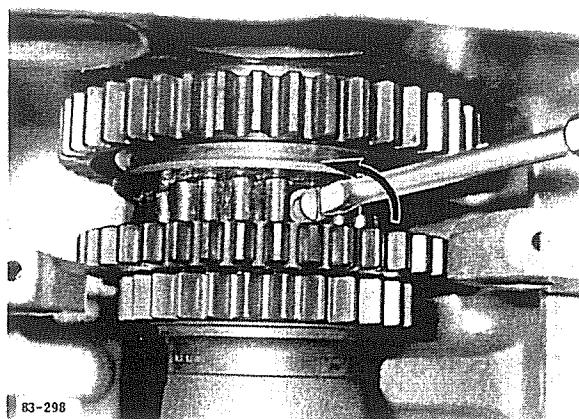
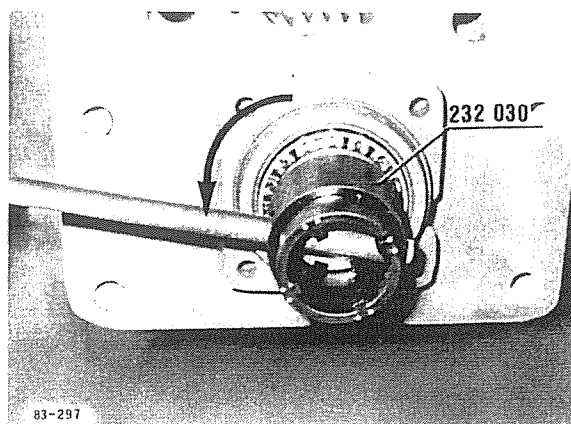
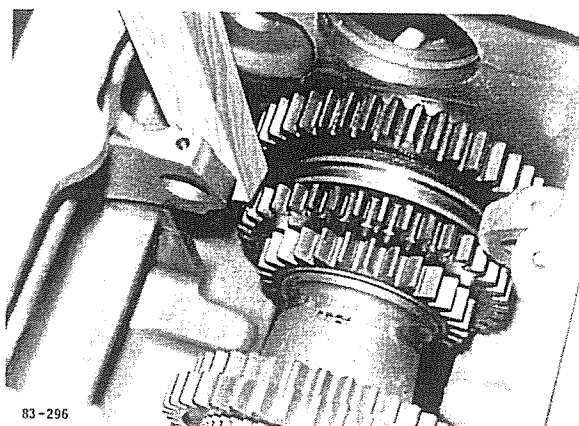
RÜCKWÄRTSGANG AUSBAUEN UND ZERLEGEN
REMOVING AND DISMANTLING THE REVERSE GEAR
MARCHE AR: DEMONTER ET DESASSEMBLER
DESMONTAR Y DESARMAR LA MARCHA ATRAS

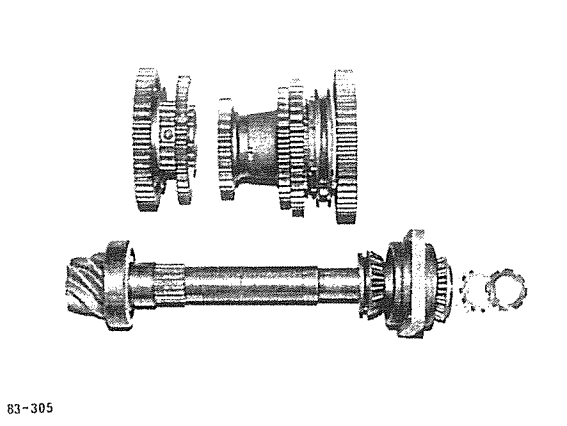
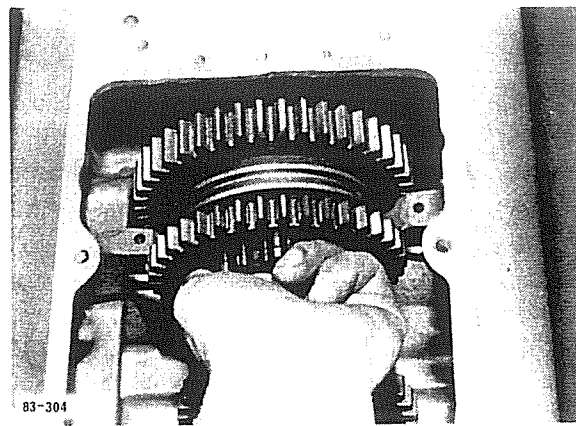
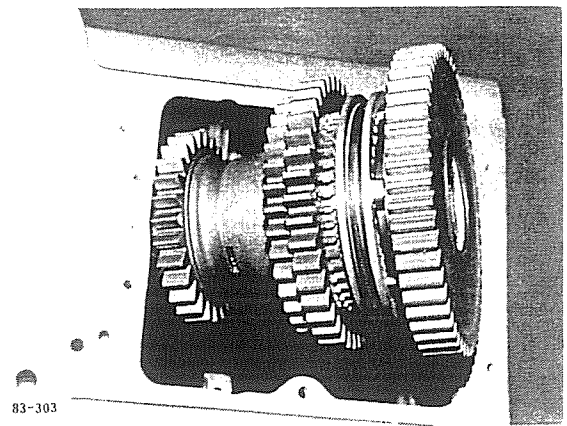
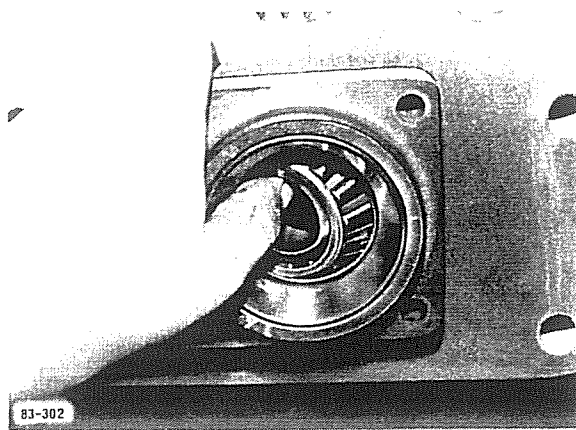
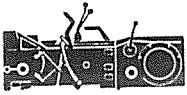


83-294

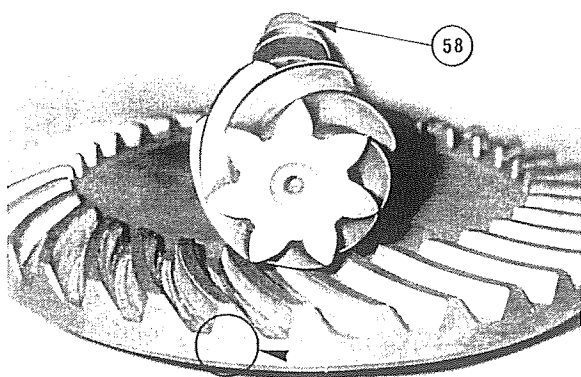
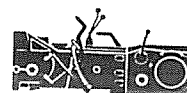
83-295

KEGELRADWELLE AUSBAUEN UND ZERLEGEN
 REMOVING AND DISMANTLING THE BEVEL GEAR SHAFT
 ARBRE DE PIGNON CONIQUE: DEMONTER ET DESASSEMBLER
 DESMONTAR Y DESARMAR EL EJE DE RUEDA CONICA

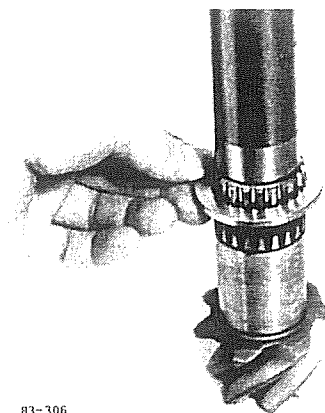




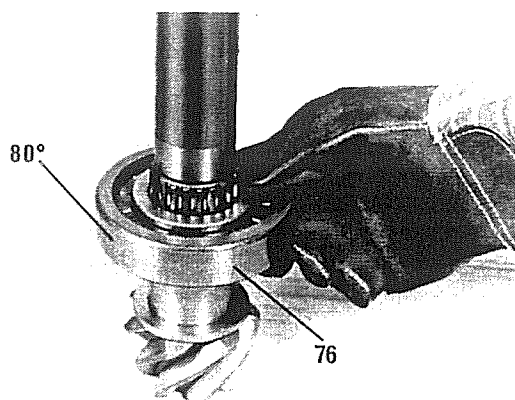
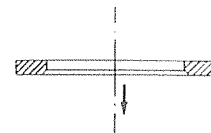
KEGELRADWELLE EINBAUEN
REFITTING THE BEVEL GEAR SHAFT
ARBRE DE PIGNON CONIQUE: REMONTER
REMONTAR EL EJE DE RUEDA CONICA



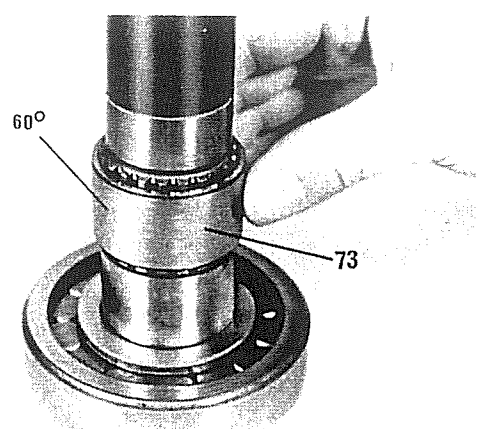
83-179



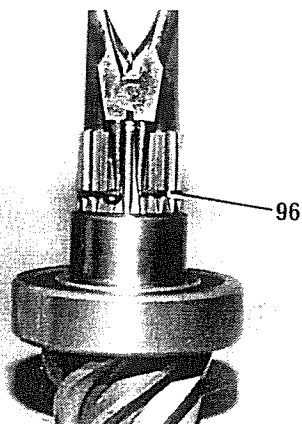
83-306



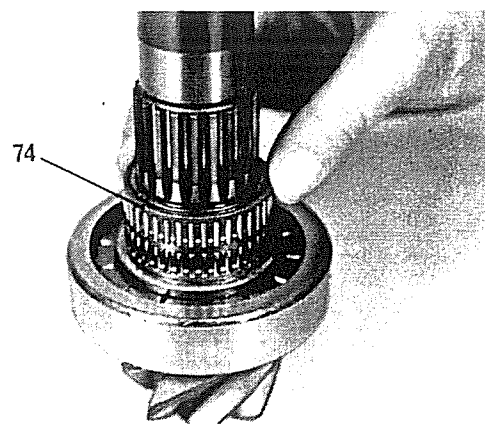
83-307



83-308

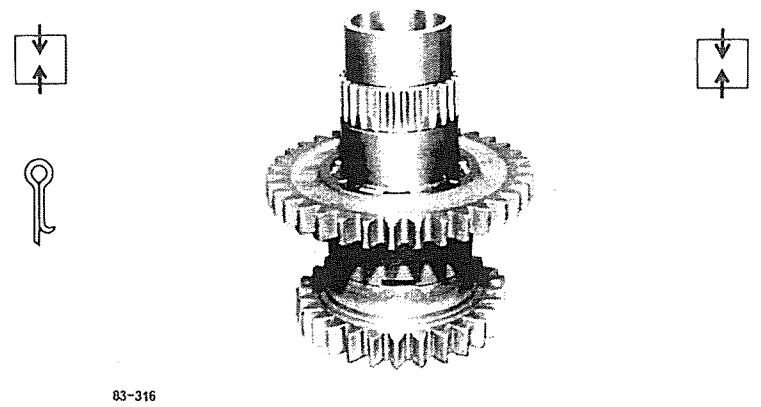
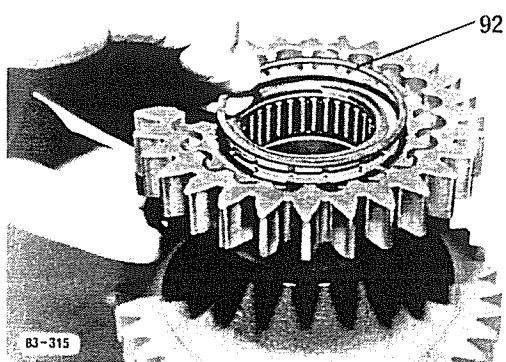
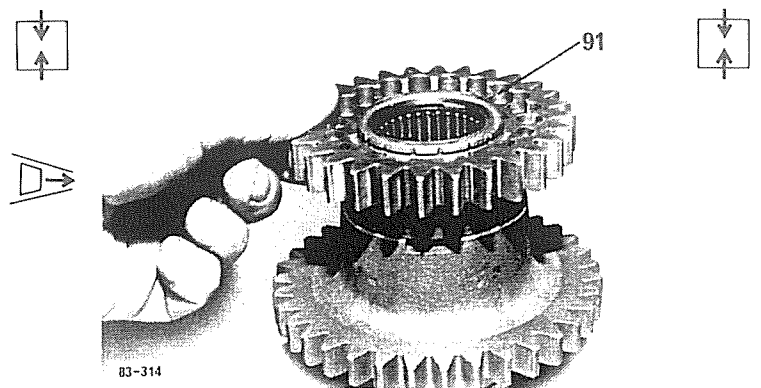
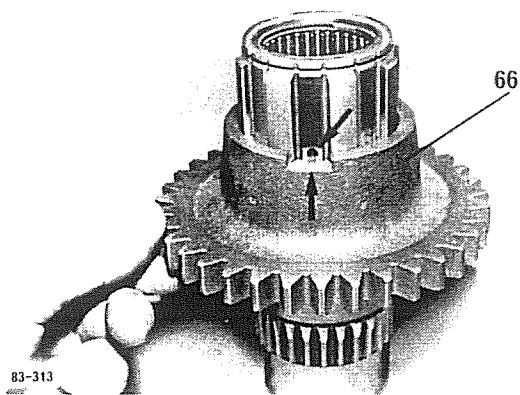
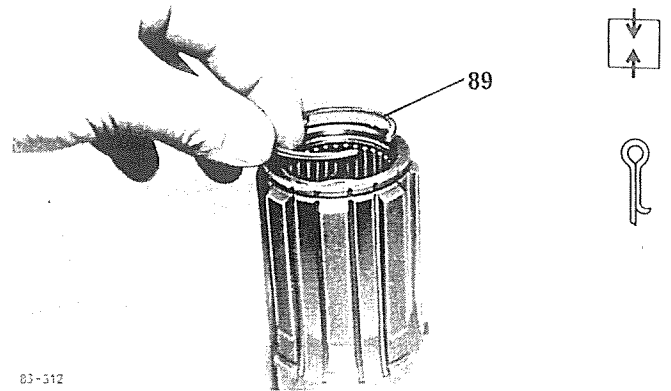
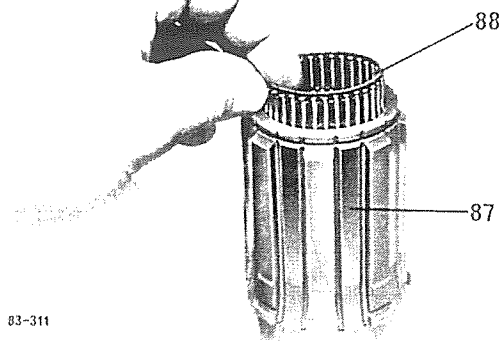
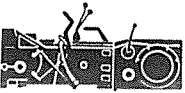


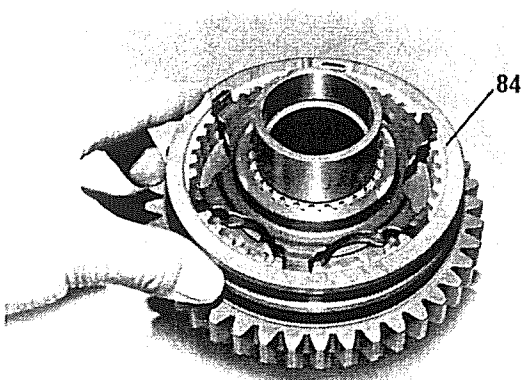
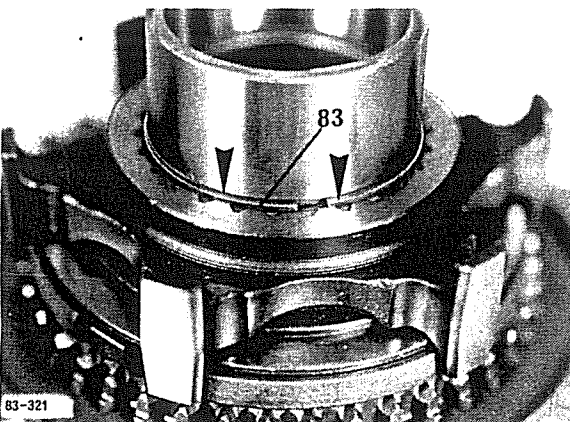
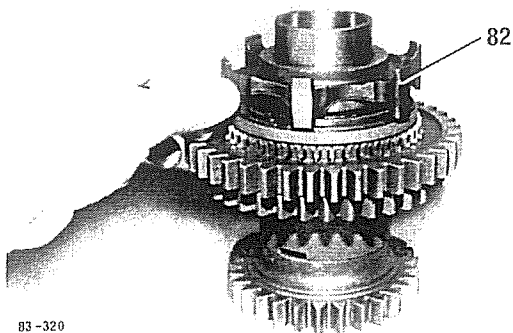
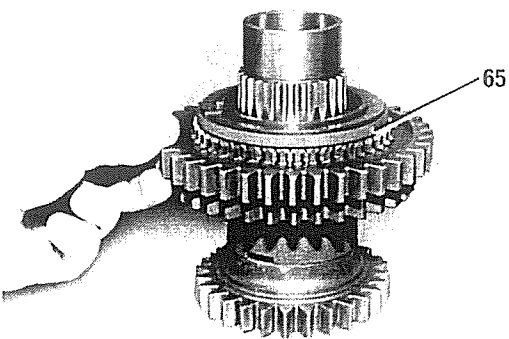
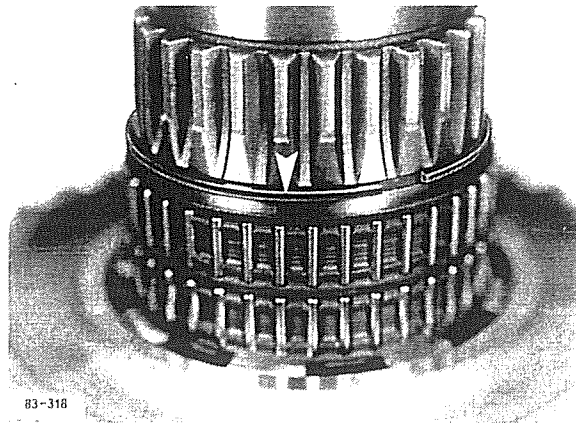
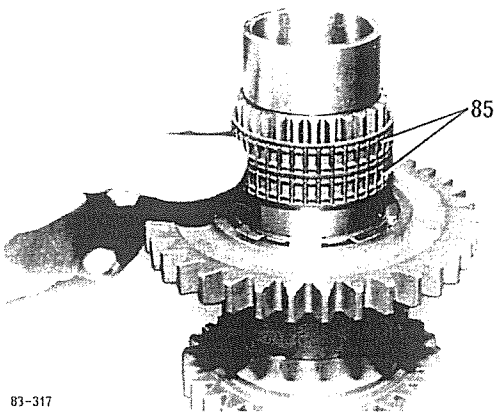
83-309

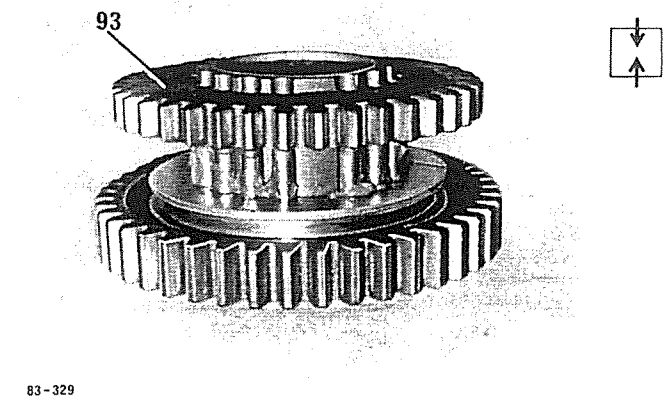
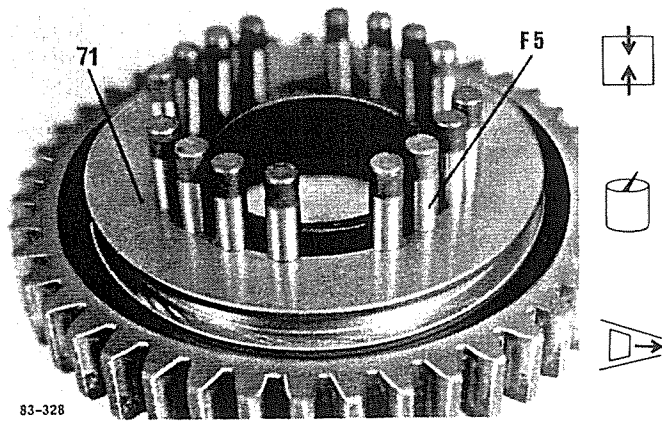
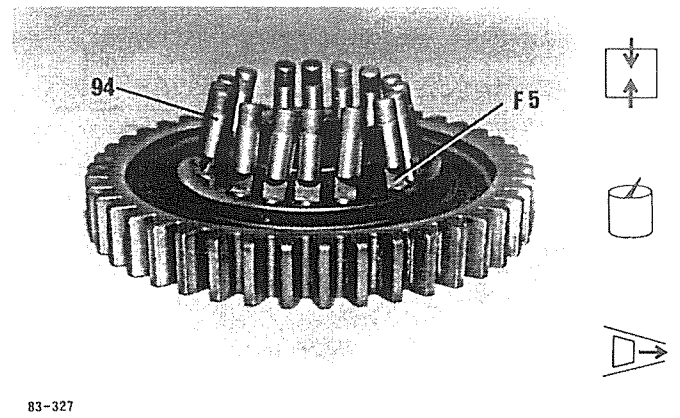
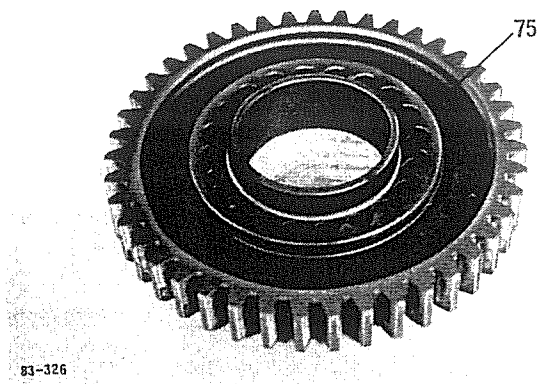
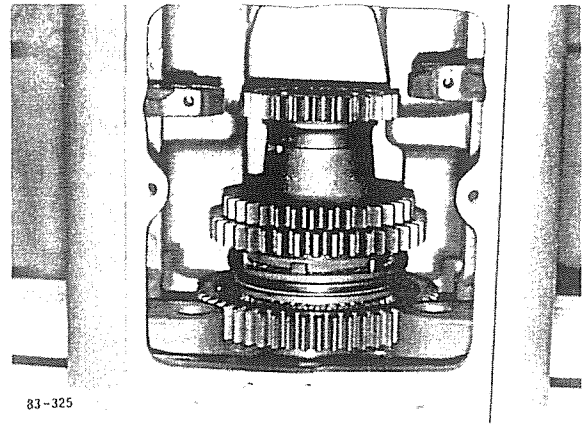
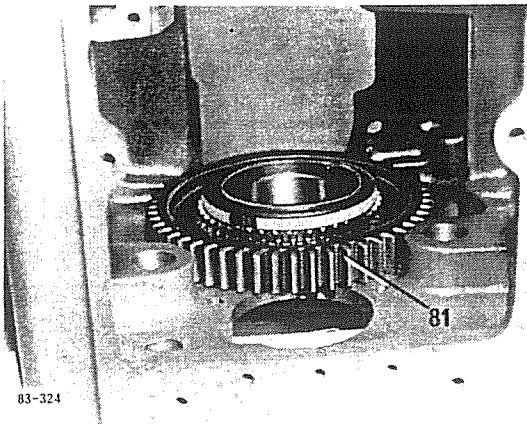
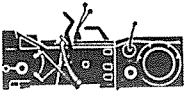


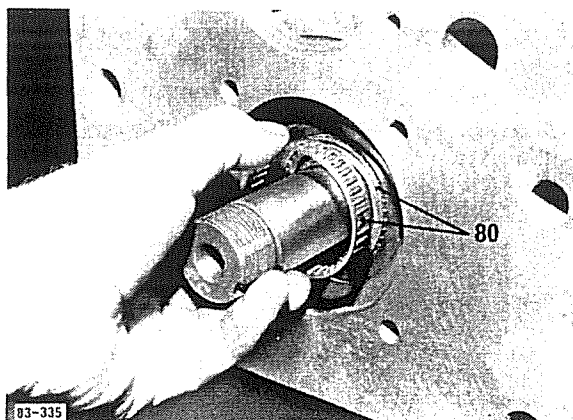
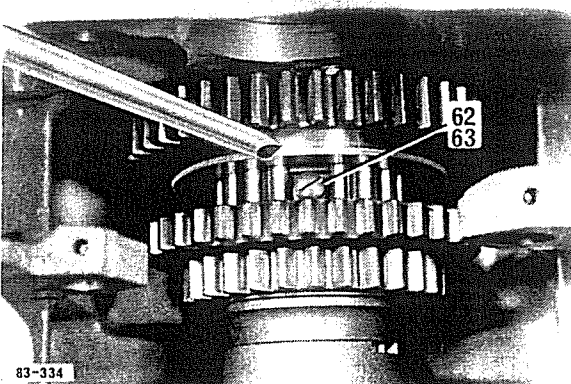
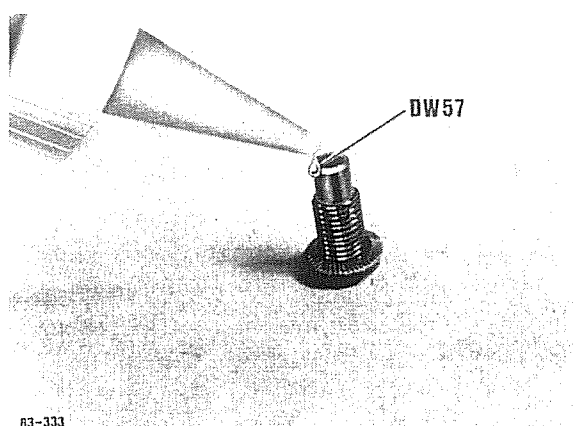
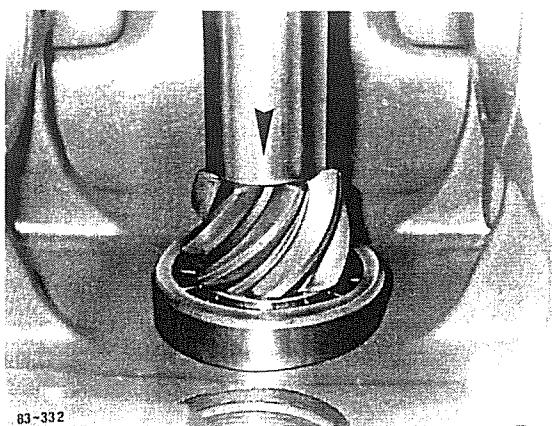
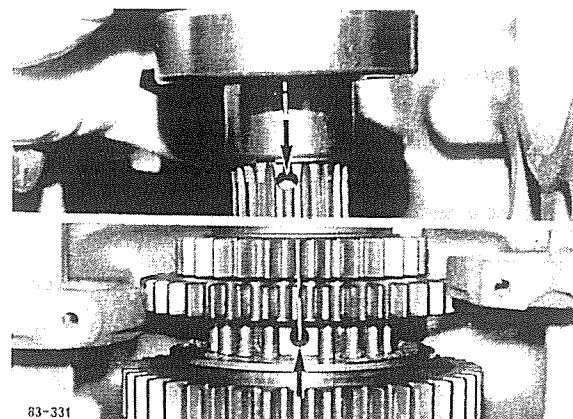
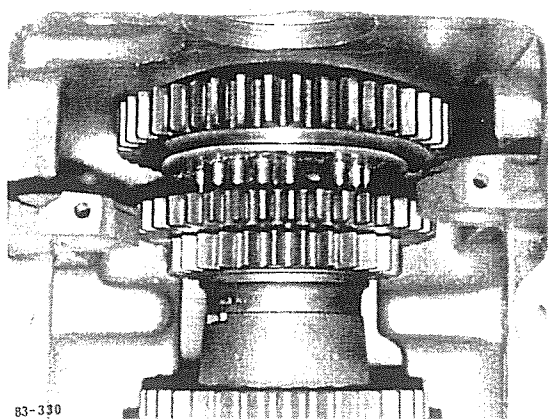
83-310

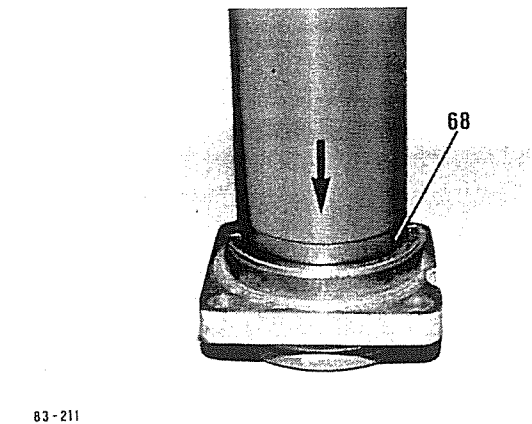
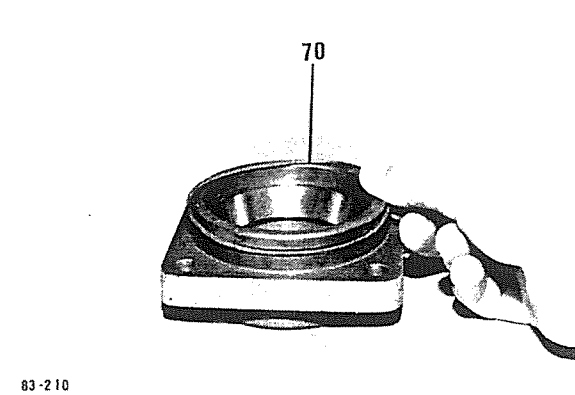
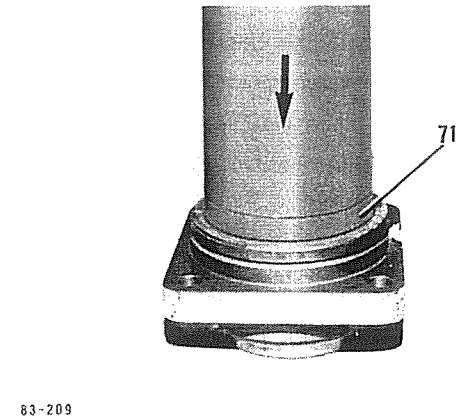
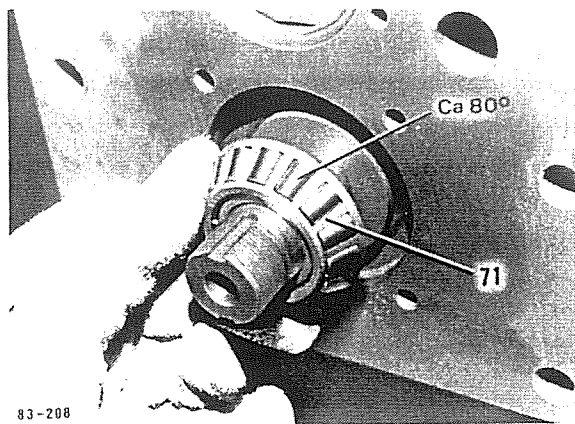
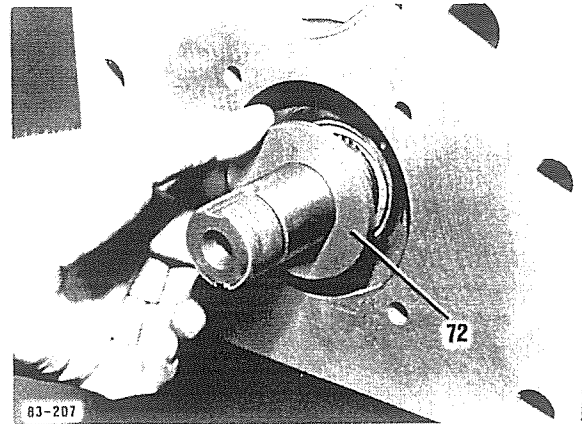
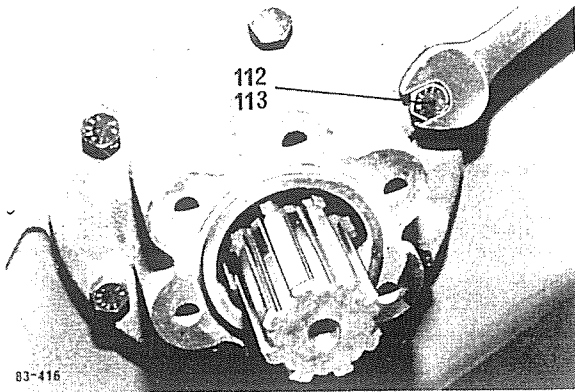
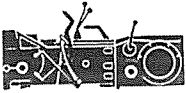


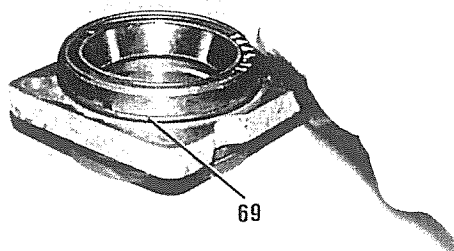
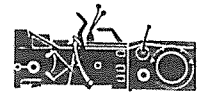




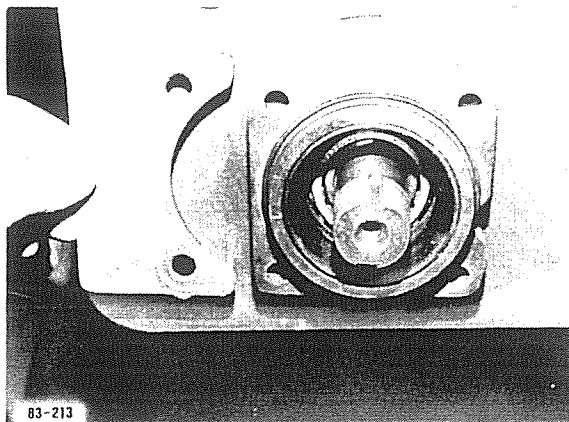




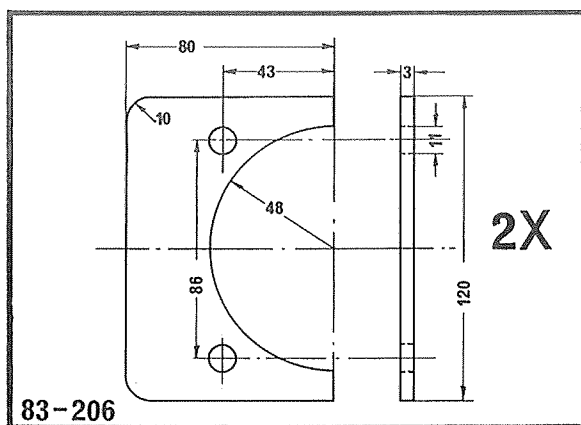




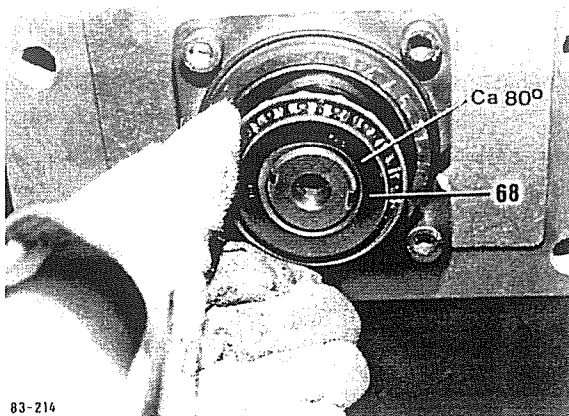
83-212



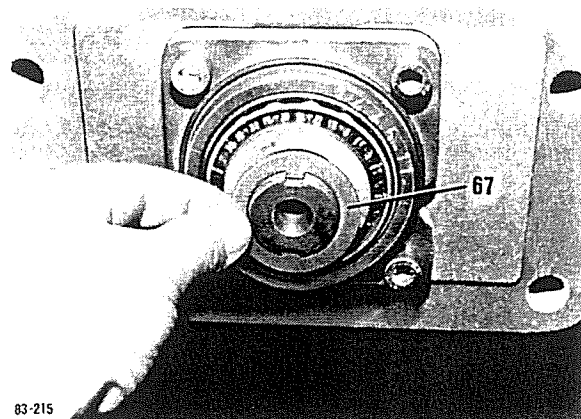
83-213



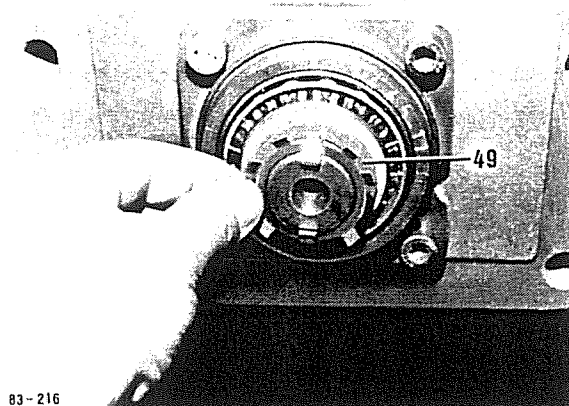
83-206



83-214

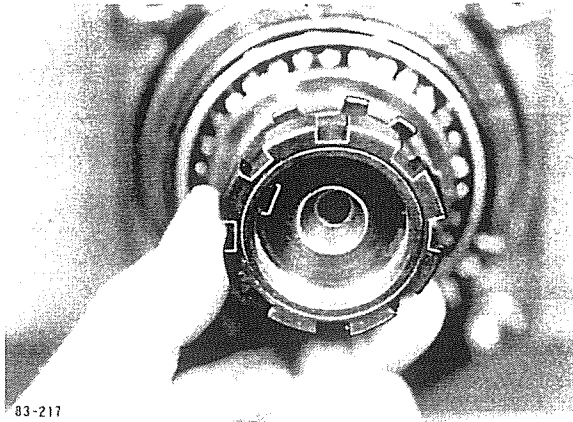
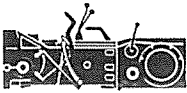


83-215

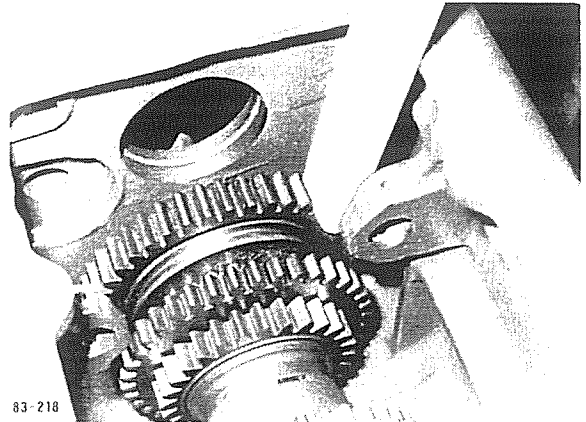


83-216

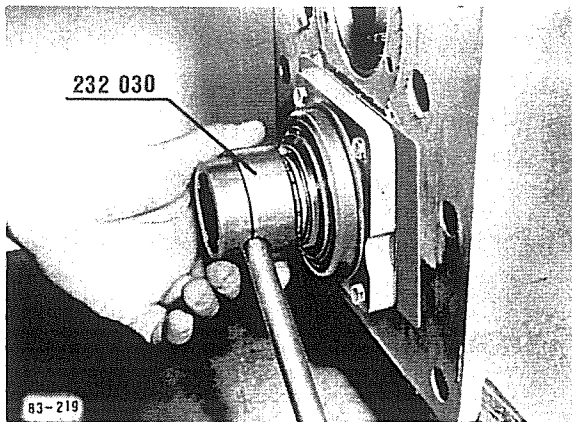




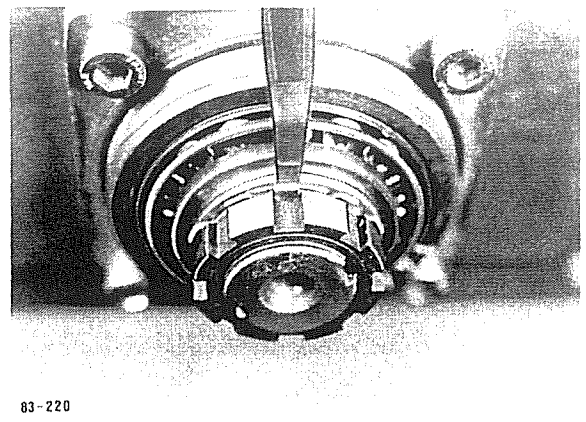
83-217



83-218



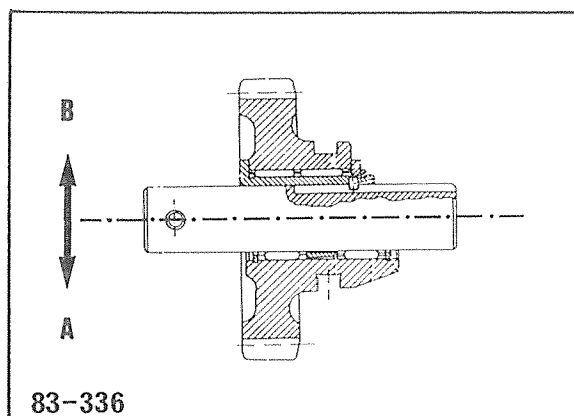
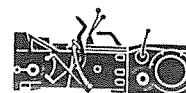
83-219



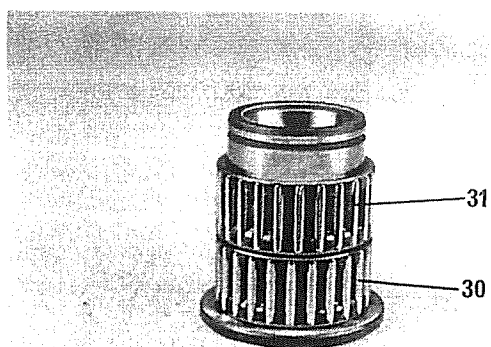
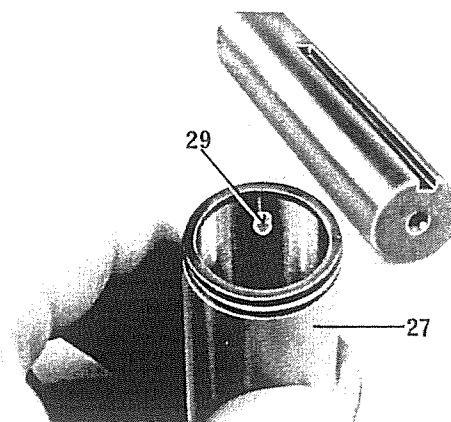
83-220



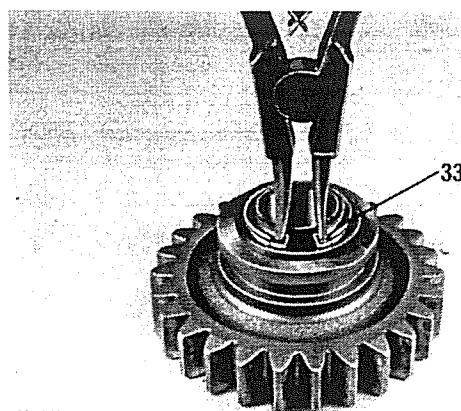
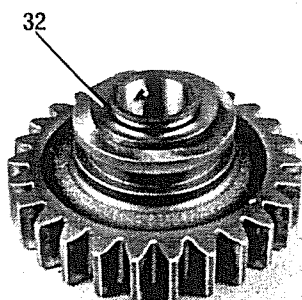
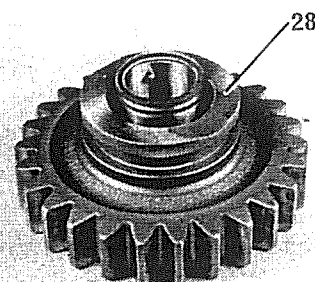
RÜCKWÄRTSGANG ZUSAMMEN- UND EINBAUEN
 REASSEMBLING AND REFITTING THE REVERSE GEAR
 MARCHE AR: REASSEMBLER ET REMONTER
 REARMAR Y REMONTAR LA MARCHA ATRAS



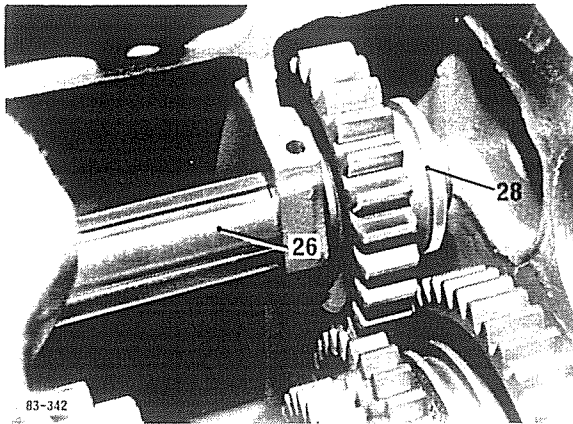
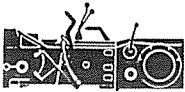
83-337



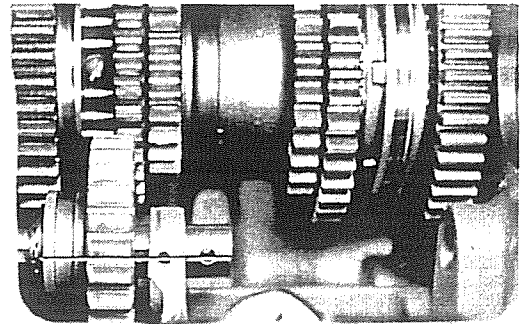
83-339



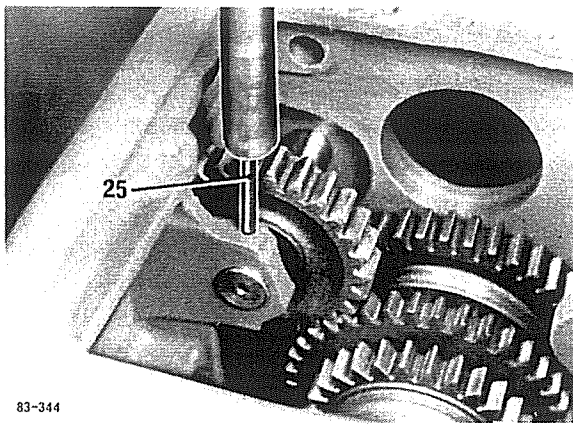
83-341



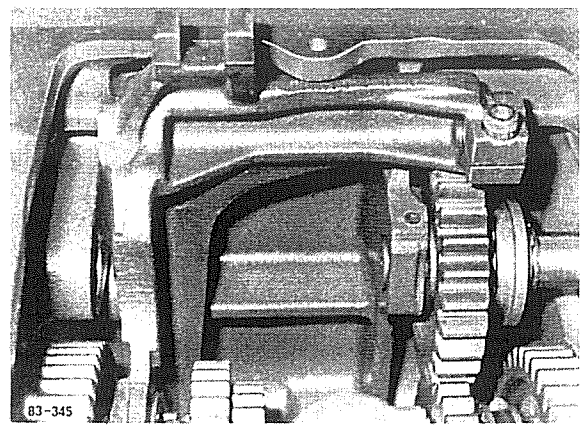
83-342



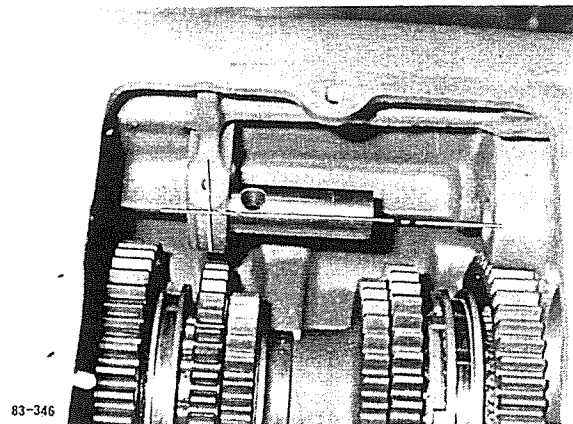
83-343



83-344

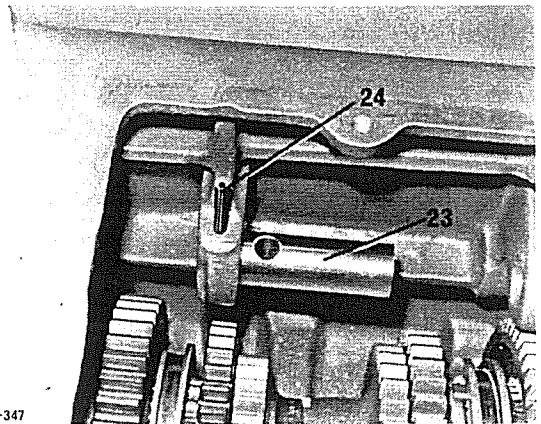


83-345



83-346

nur K-Gang
only creep-gear
vit. rampante seulement
sólo marcha ultralenta

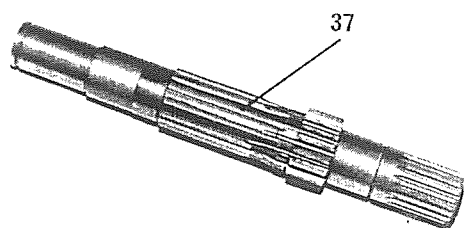
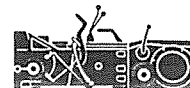


83-347

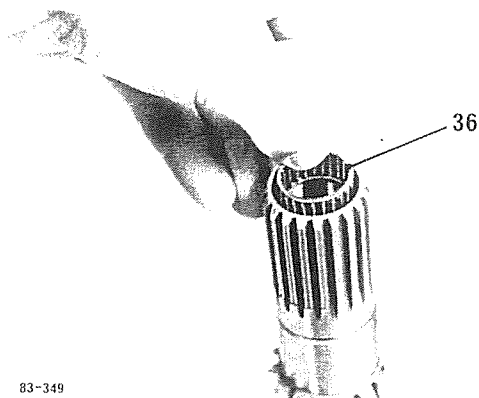
nur K-Gang
only creep-gear
vit. rampante seulement
sólo marcha ultralenta



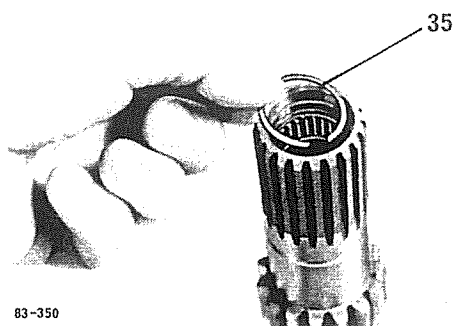
ANTRIEBSHOHLWELLE MONTIEREN UND EINBAUEN
 REASSEMBLING AND REFITTING THE DRIVE QUILL
 ARBRE CREUX DE COMMANDE: MONTER ET REASSEMBLER
 REARMAR Y REMONTAR EL EJE HUECO DE ACCIONAMIENTO



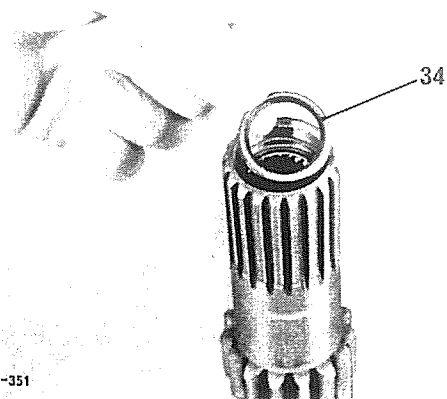
83-289



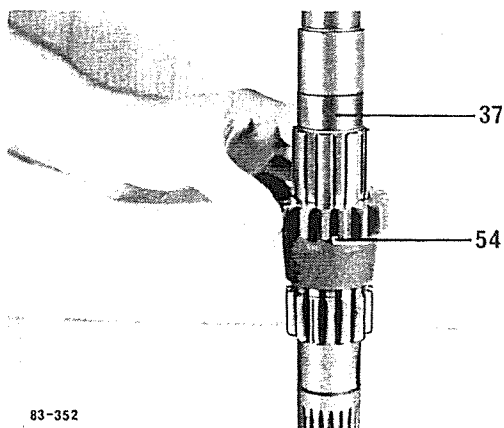
83-349



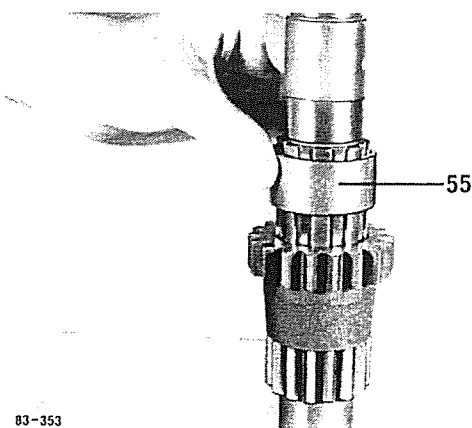
83-350



83-351

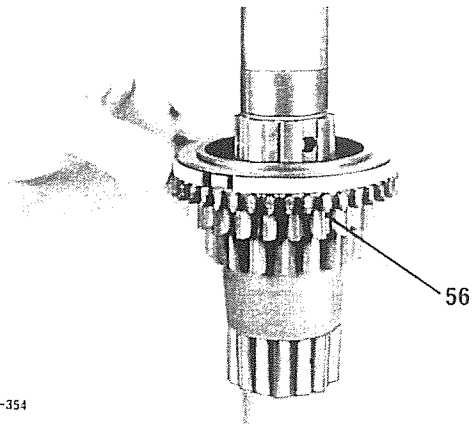
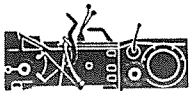


83-352

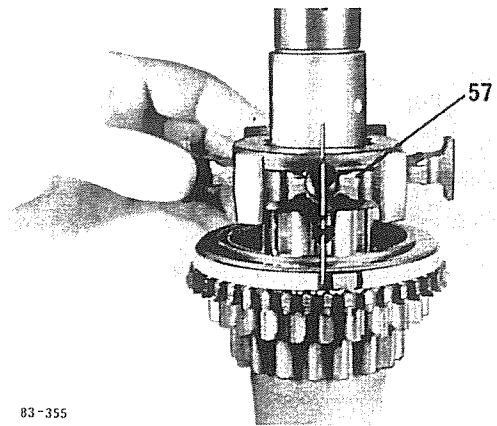


83-353

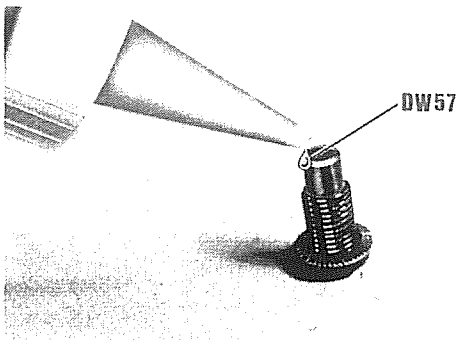




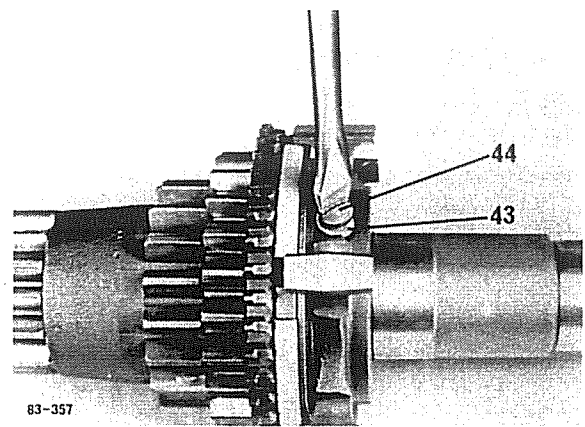
83-354



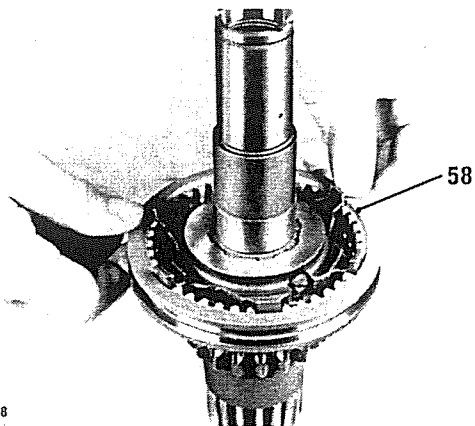
83-355



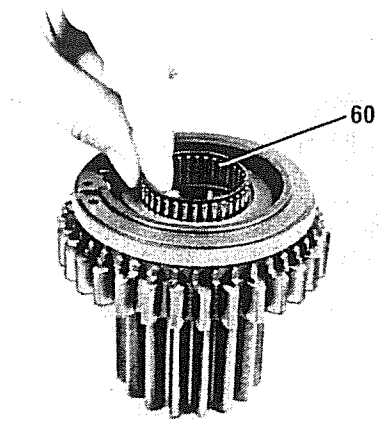
83-333



83-357

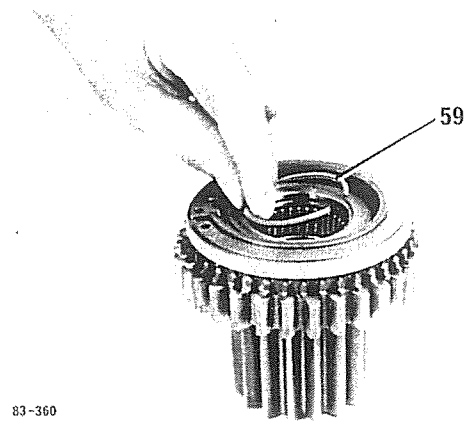
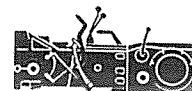


83-358

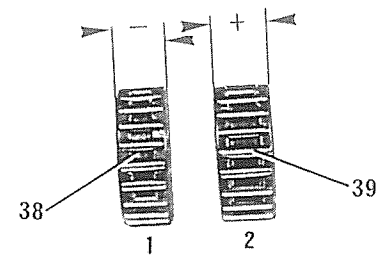


83-359

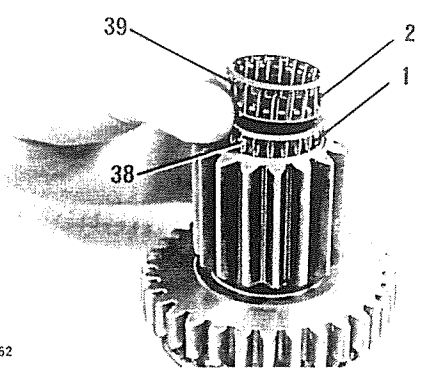




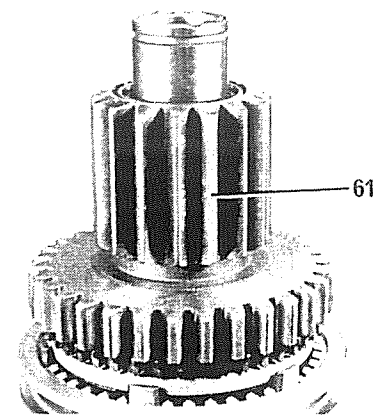
83-360



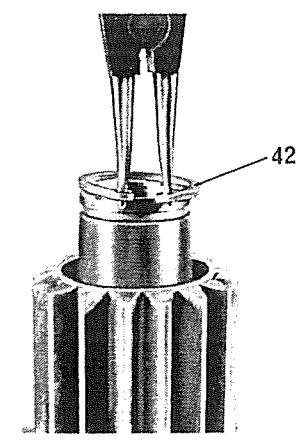
83-361



83-362

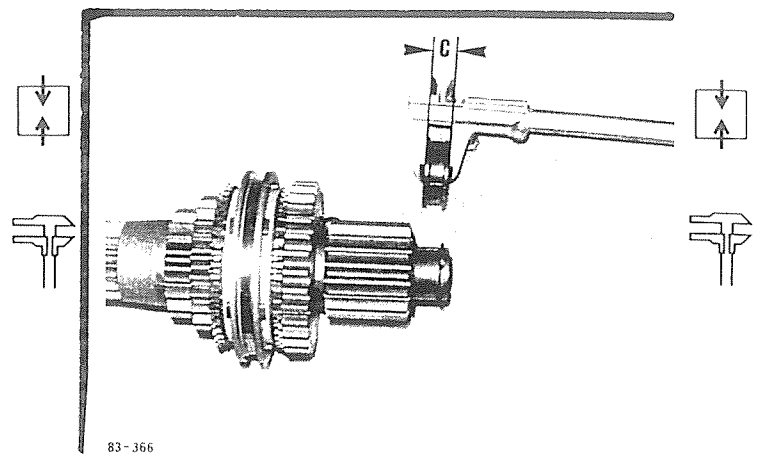
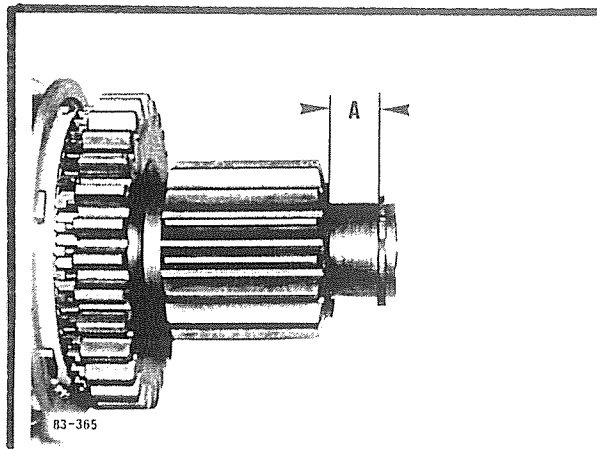
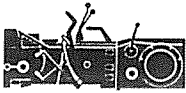


83-363

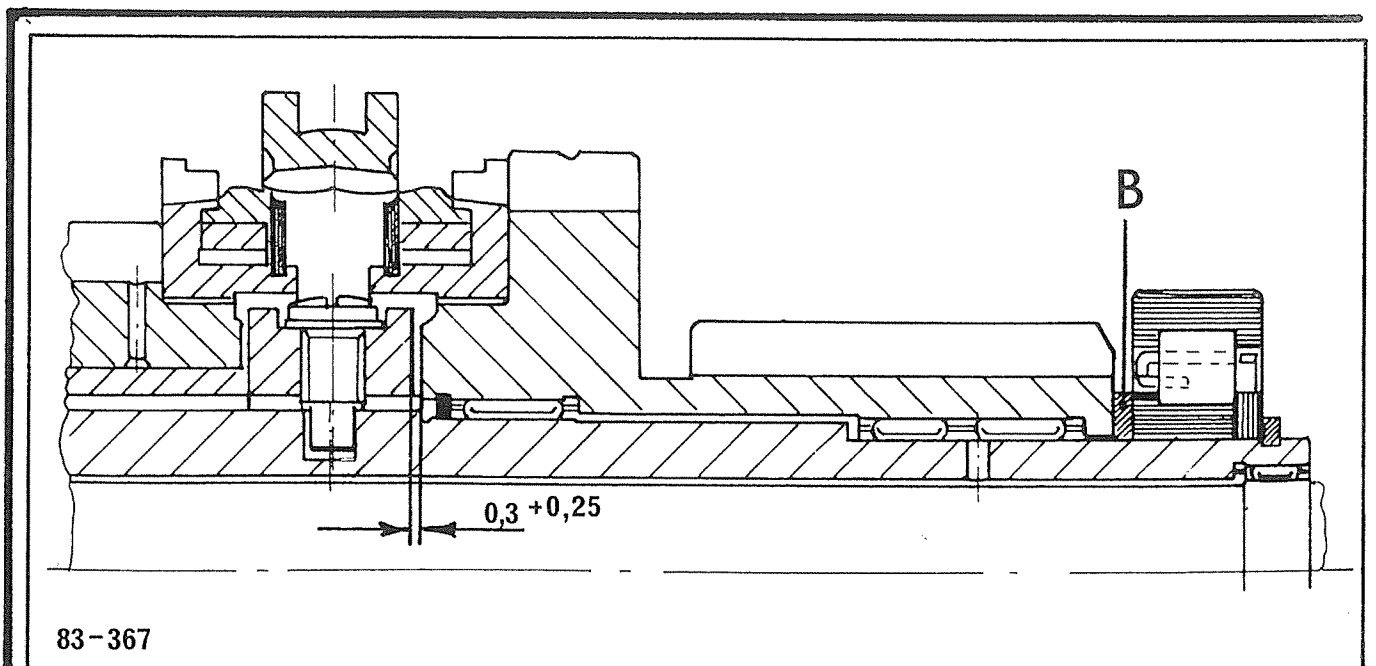
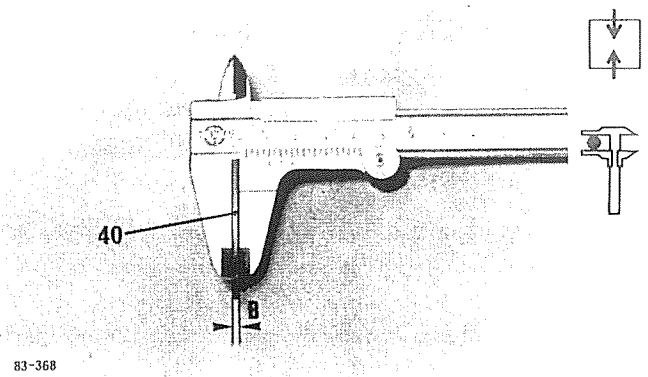


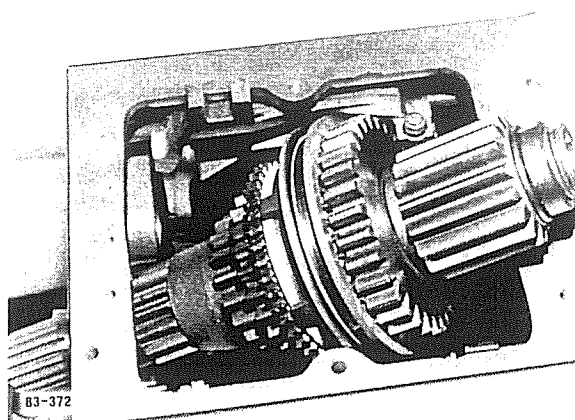
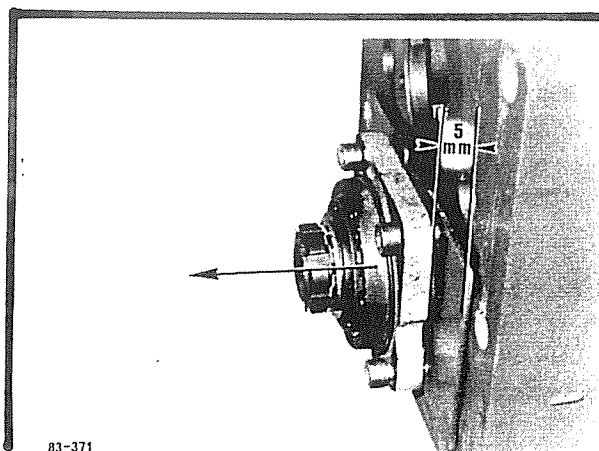
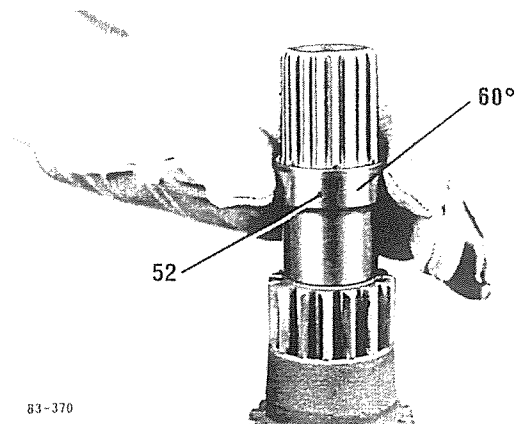
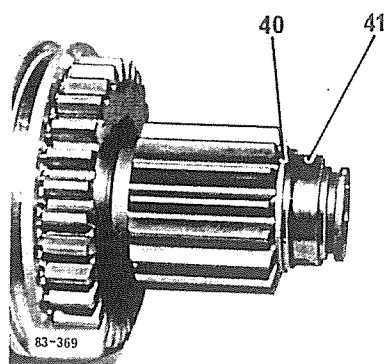
83-364

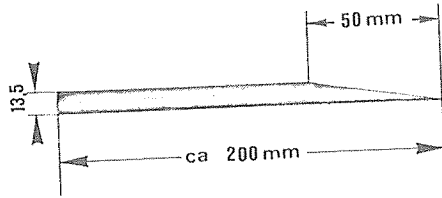
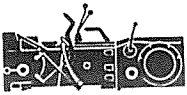




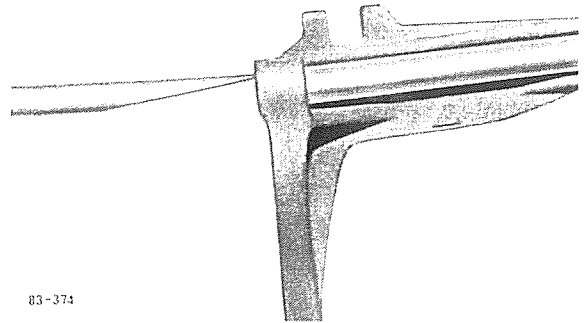
$$B = A - (C + 0,3)$$



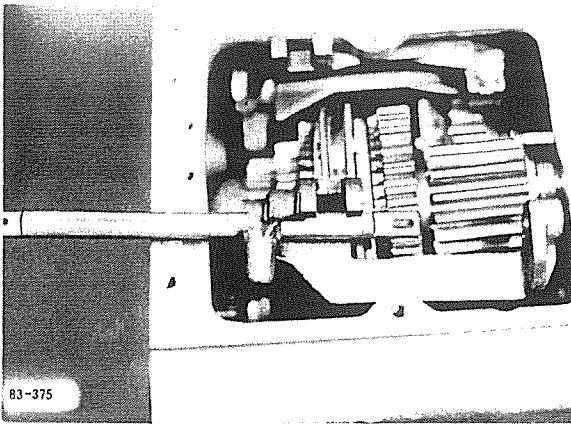




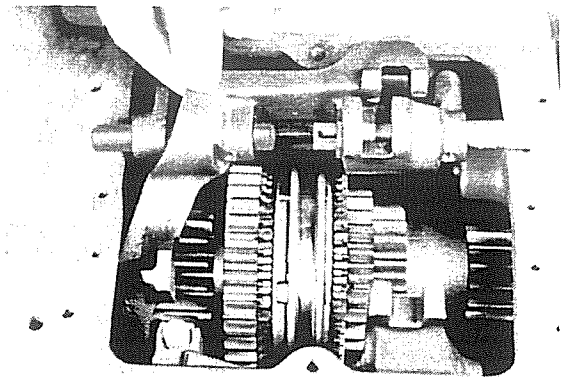
83-373



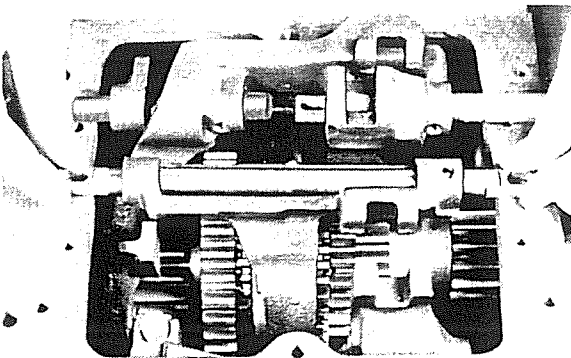
83-374



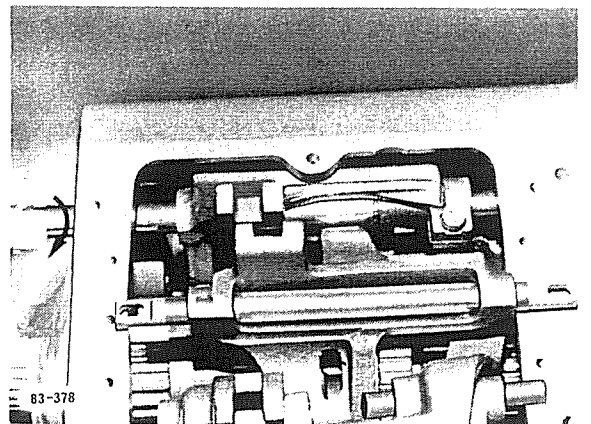
83-375



83-376

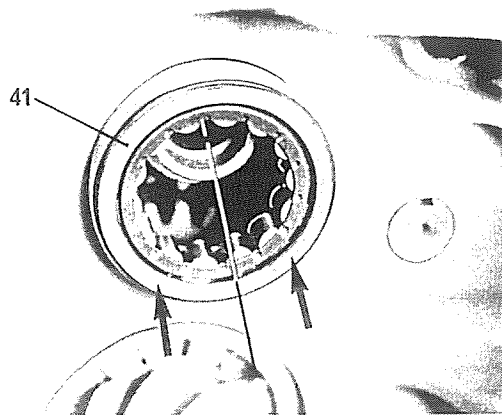
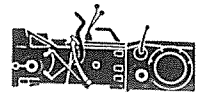


83-377

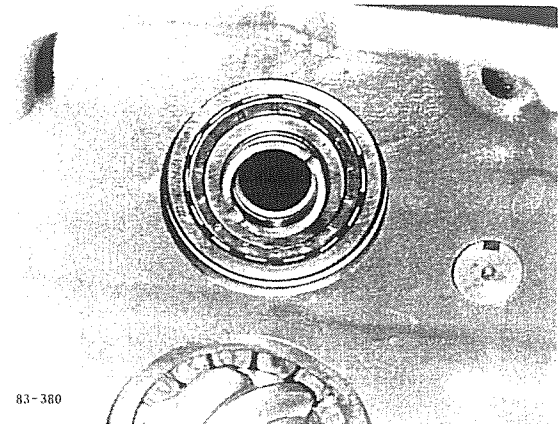


83-378

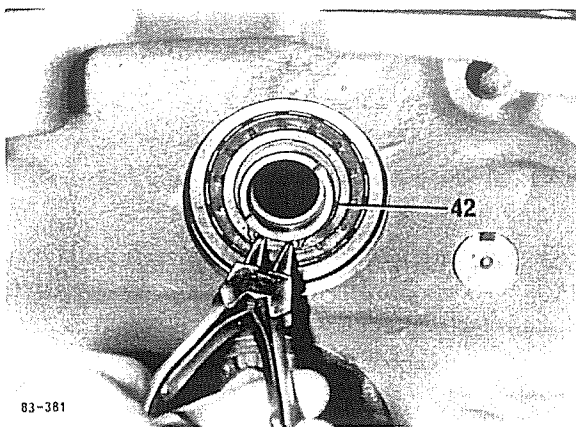




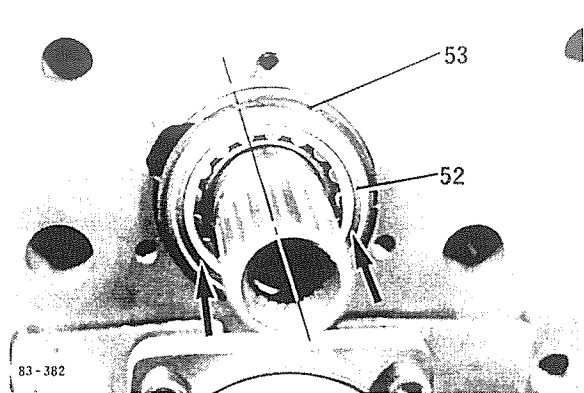
83-379



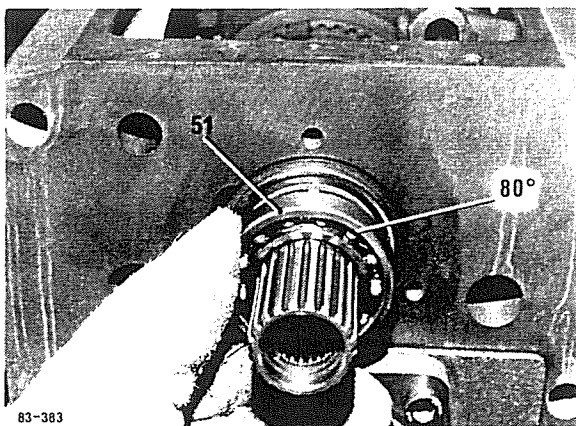
83-380



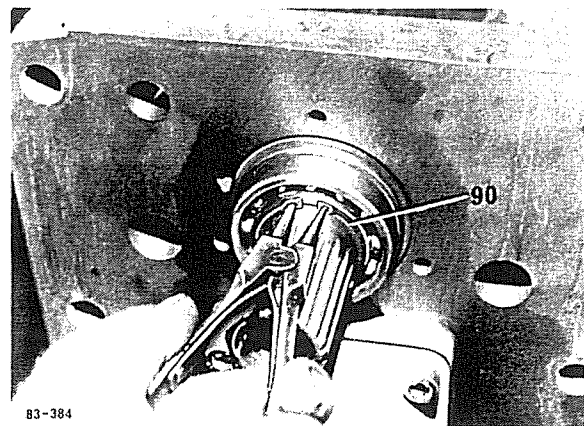
83-381



83-382

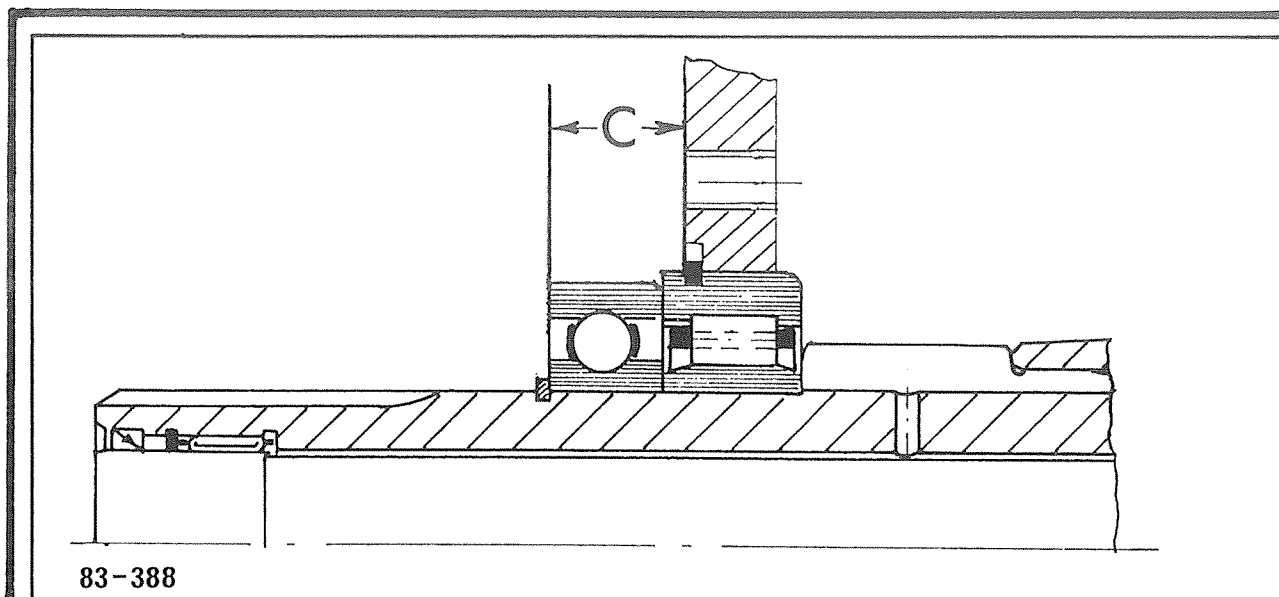
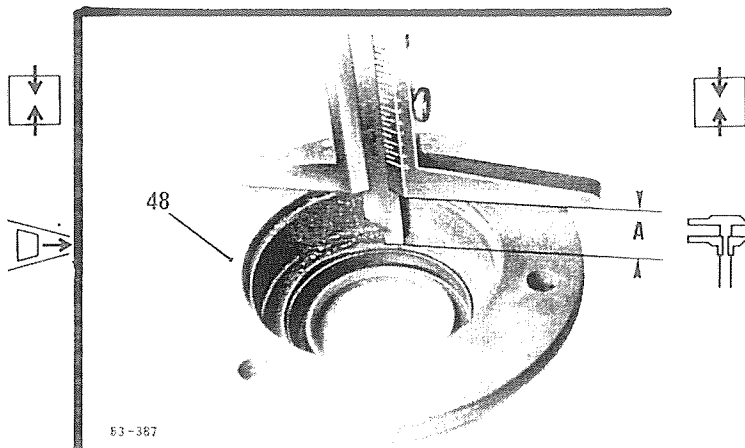
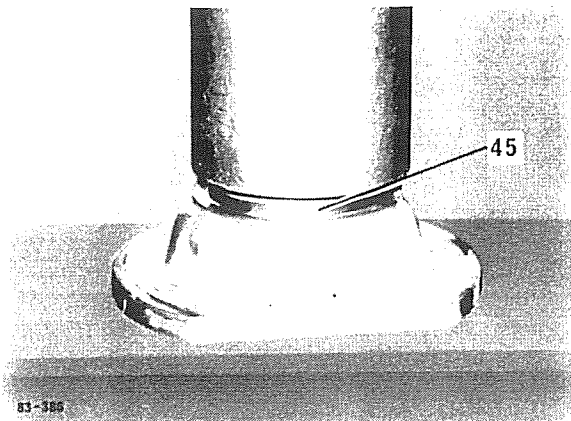
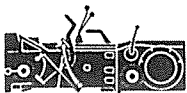


83-383

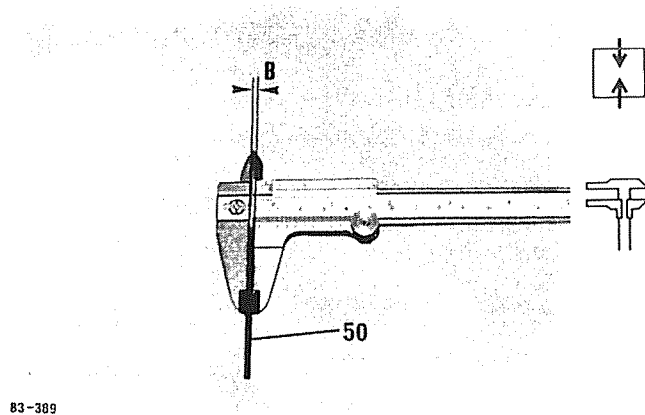


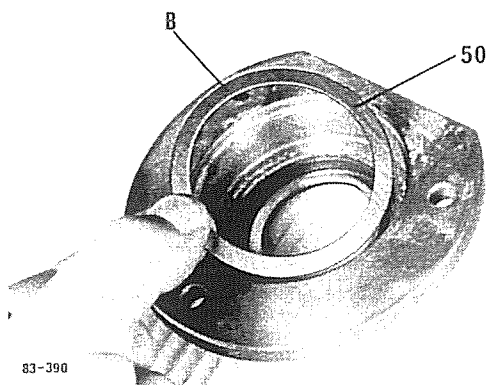
83-384



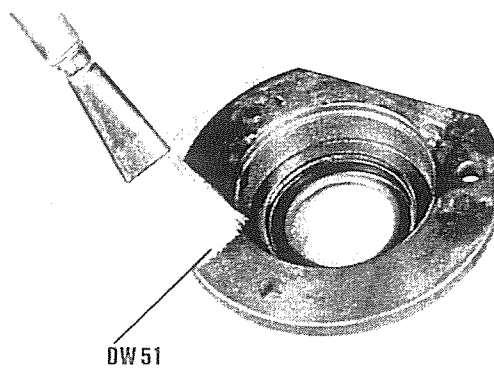


$$B = A - C$$

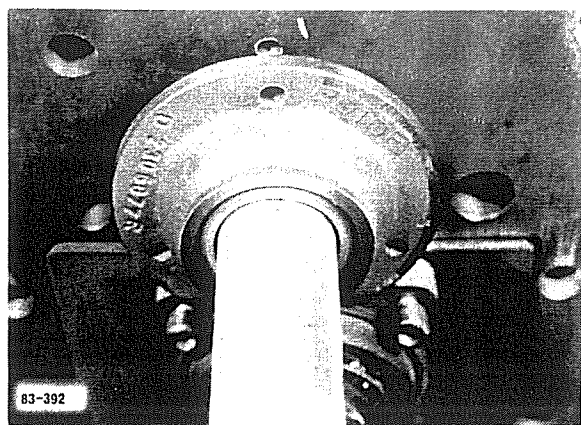




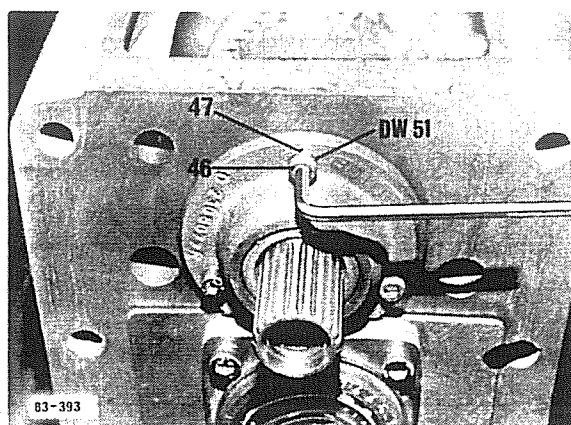
83-390



83-391



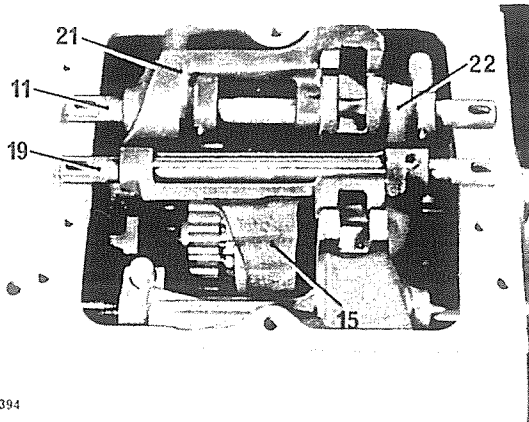
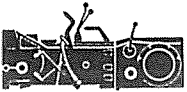
83-392



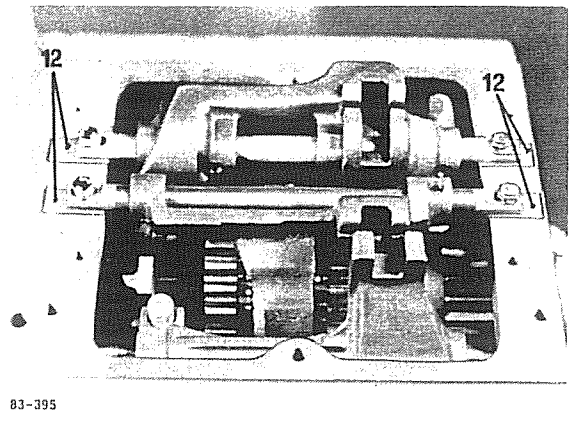
83-393



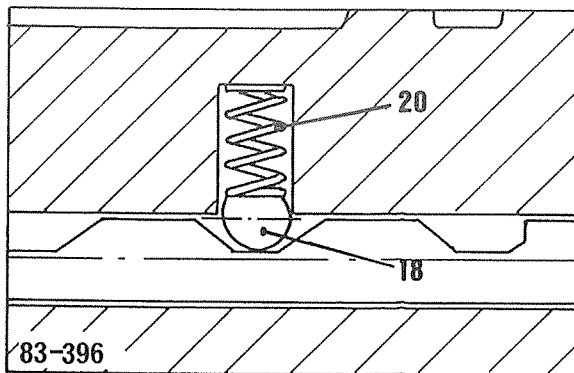
geeignetes Hilfsmittel
suitable means
moyen auxiliaire convenable
medio auxiliar apropiado



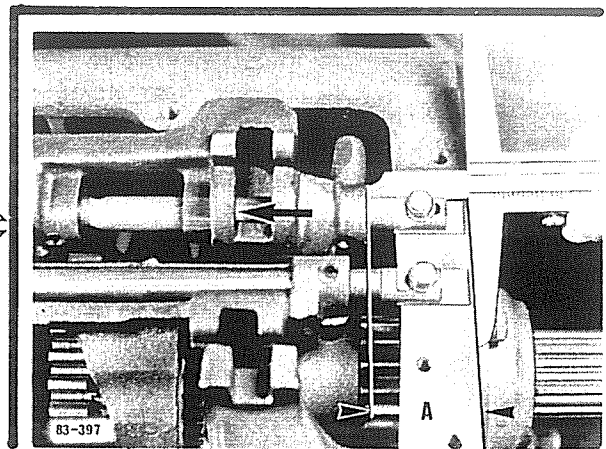
83-394



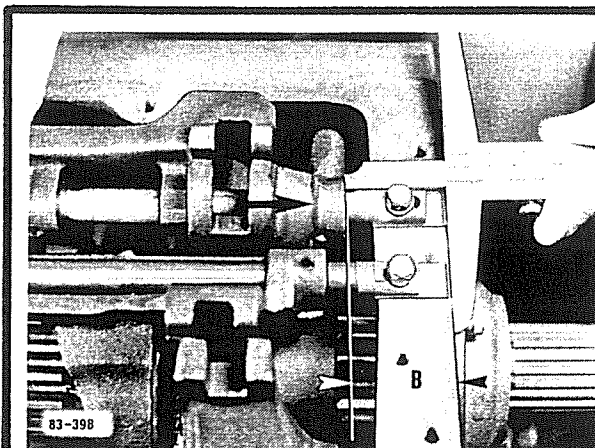
83-395



83-396



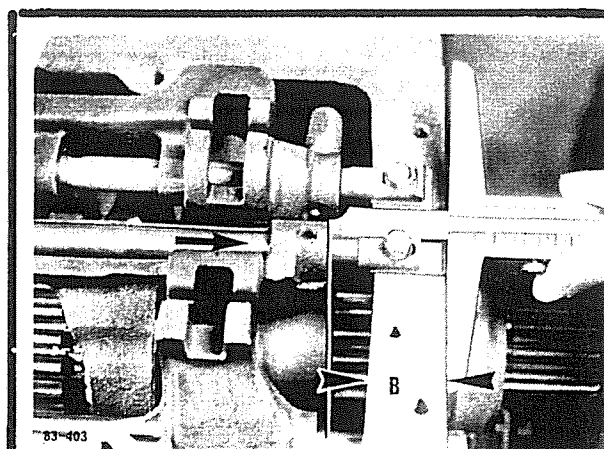
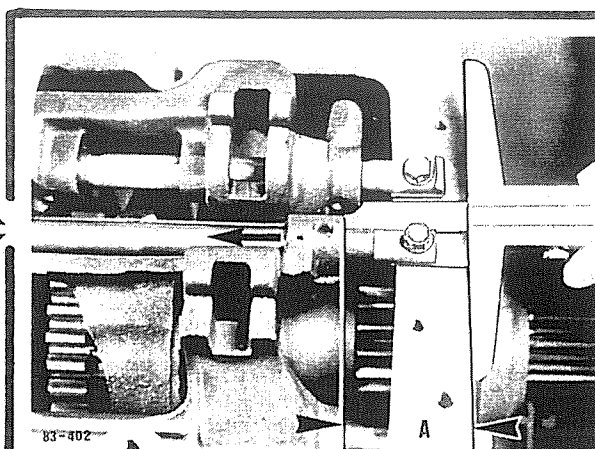
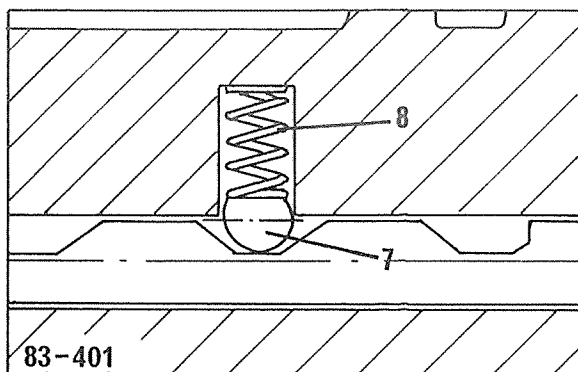
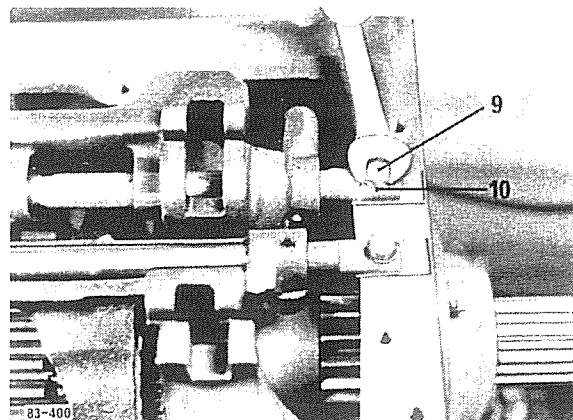
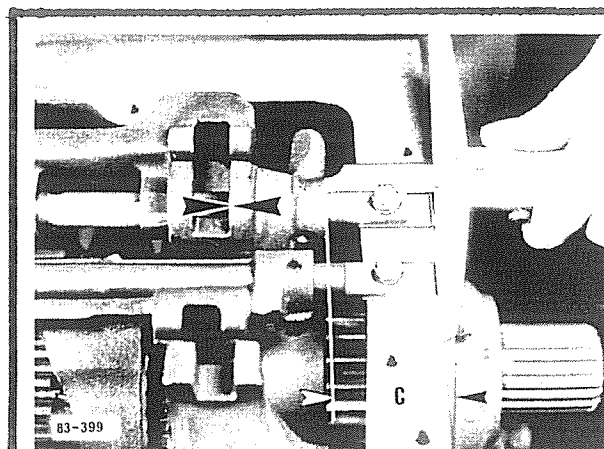
83-397



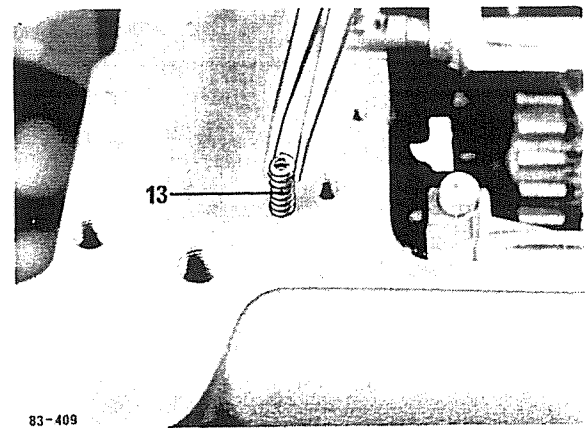
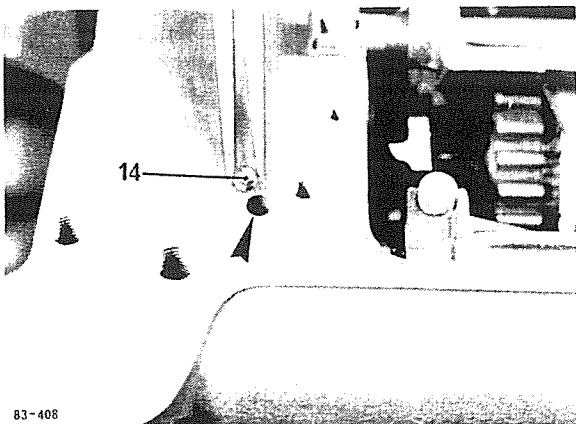
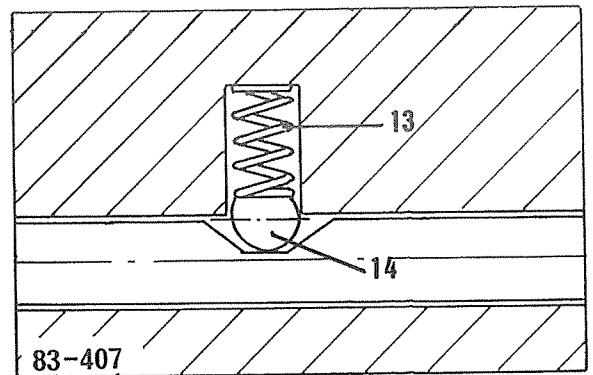
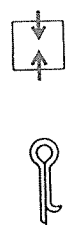
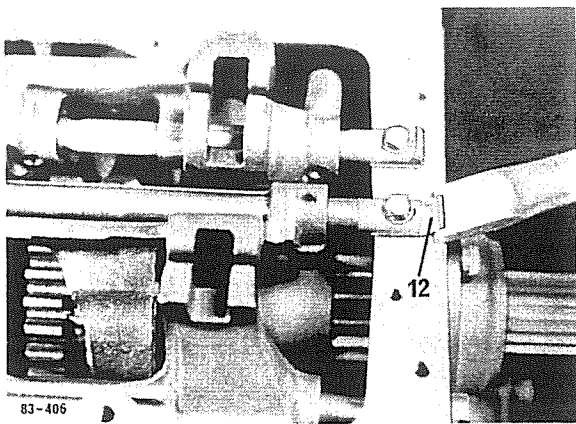
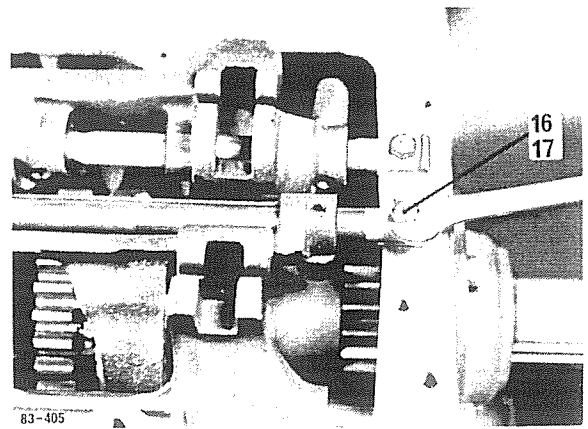
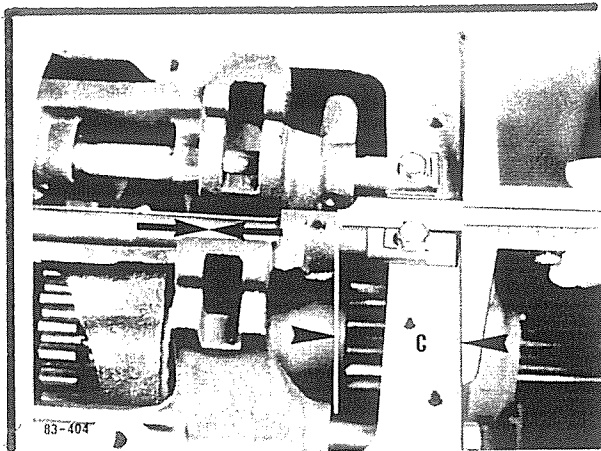
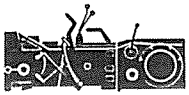
83-398

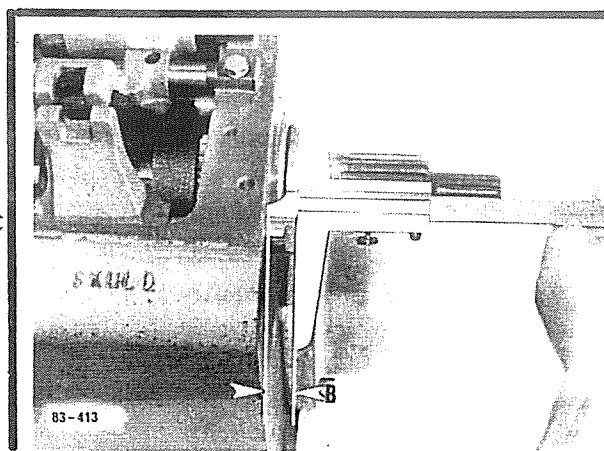
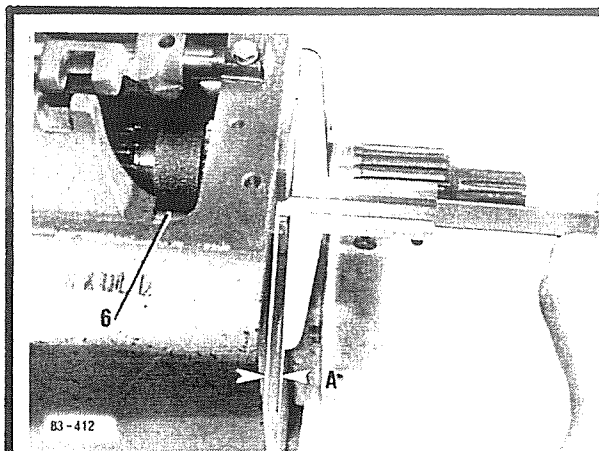
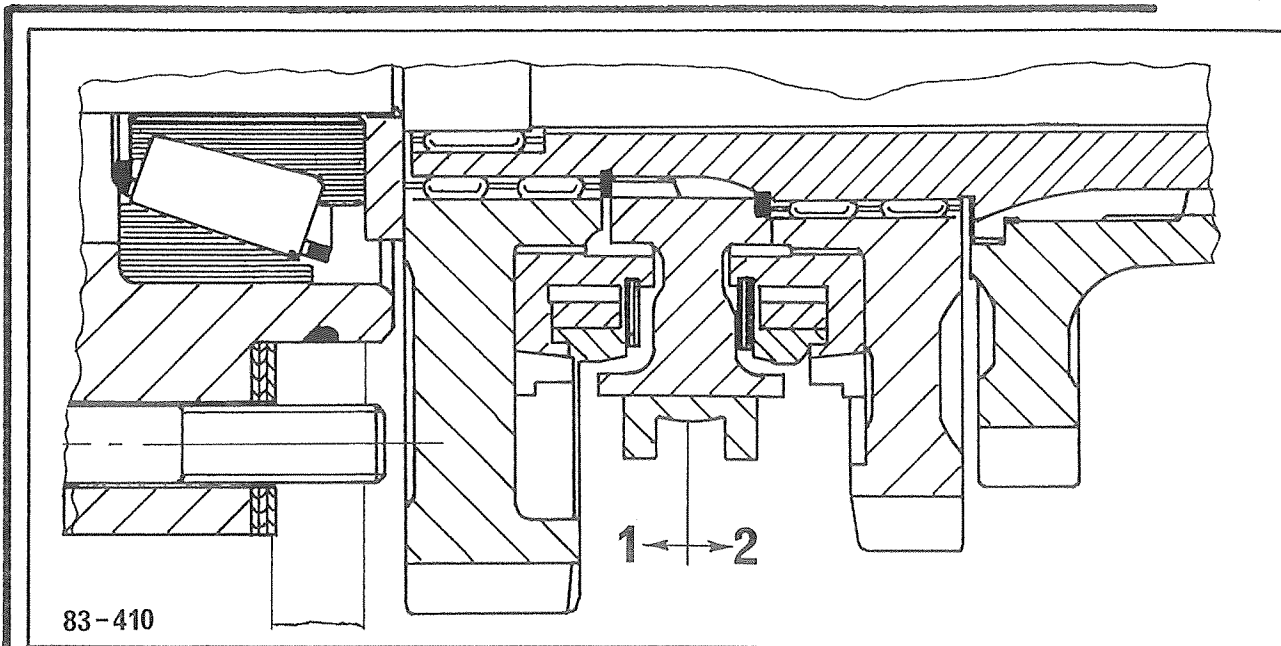
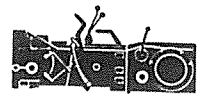
$$\frac{A + B}{2} = C$$

SCHALTGESTÄNGE EINSTELLEN
 SETTING THE SHIFT LINKAGE
 TRINGLE DE COMMANDE: REGLER
 GRADUAR EL VARILLAJE DE CAMBIO

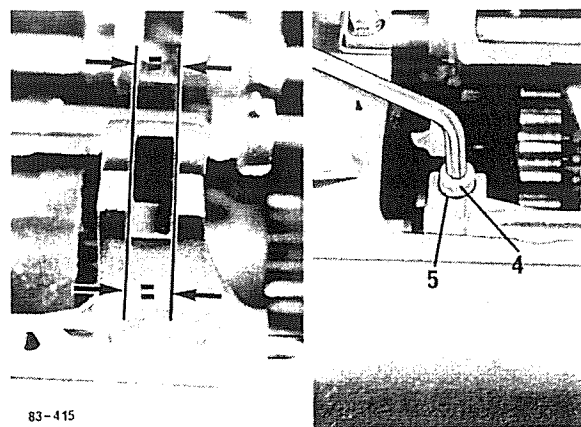
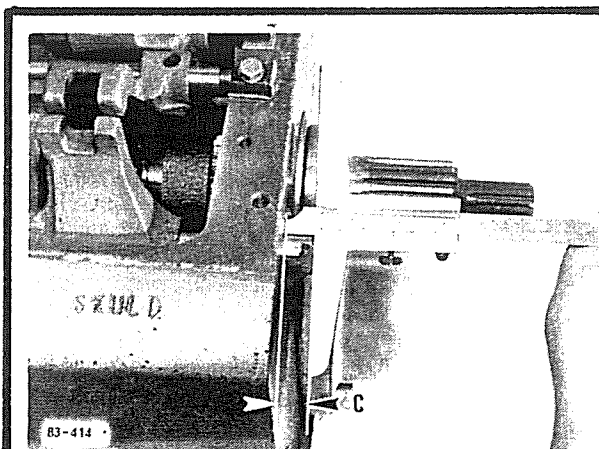


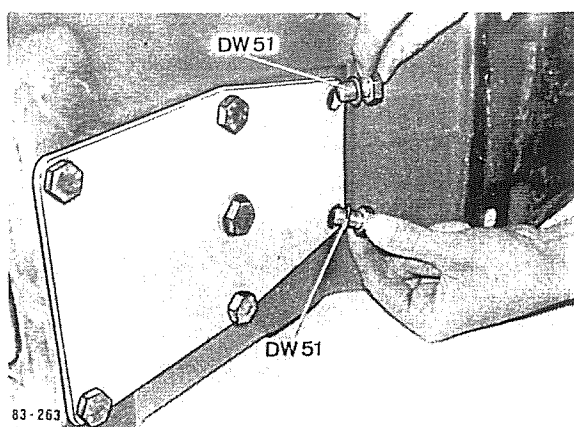
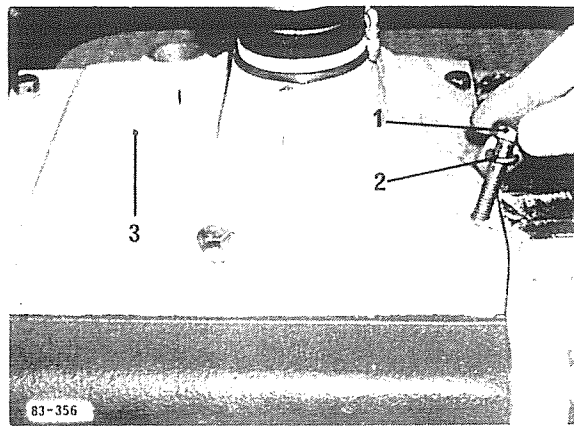
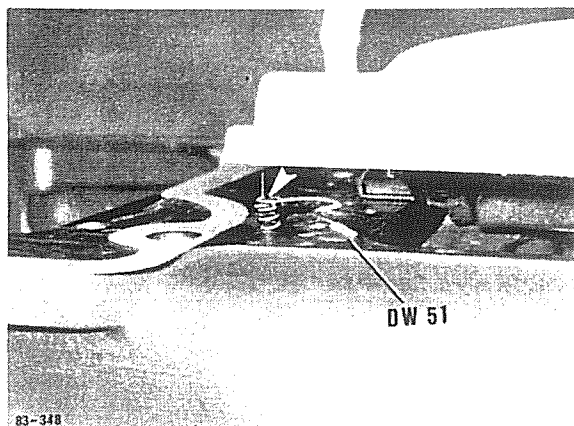
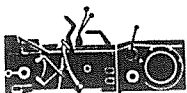
$$\frac{A+B}{2} = C$$



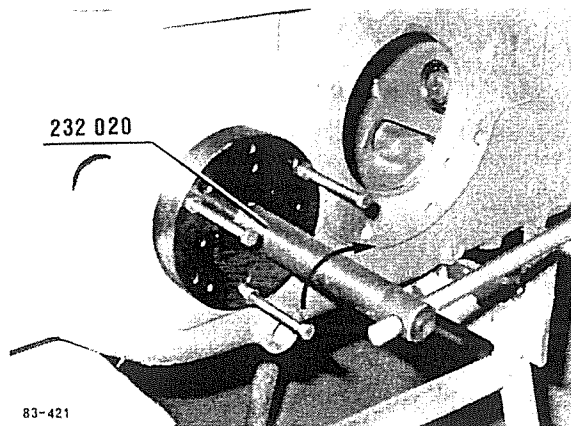
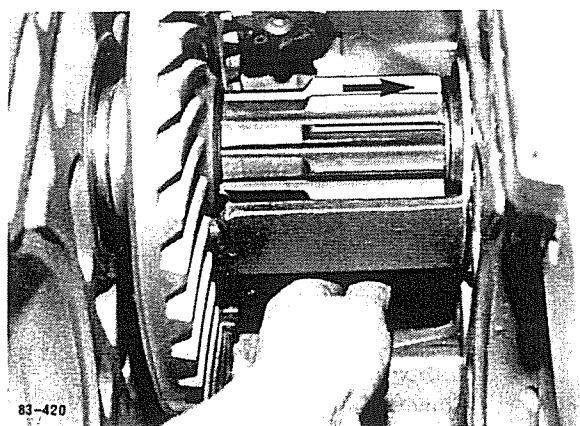
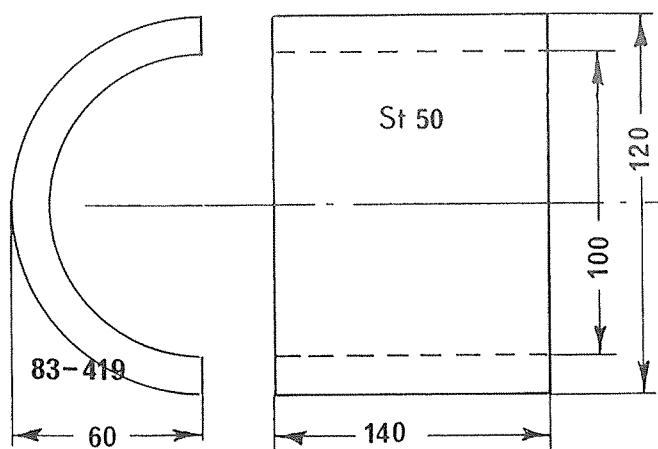
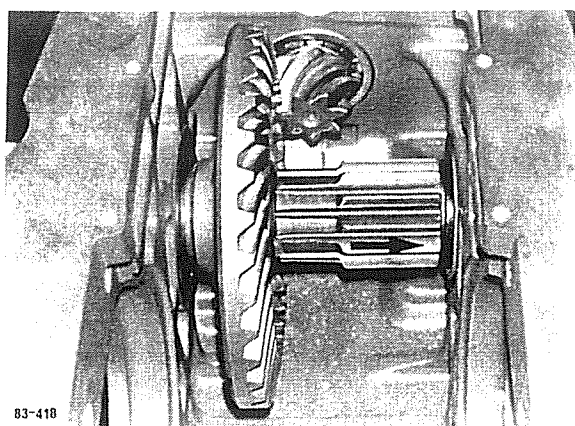
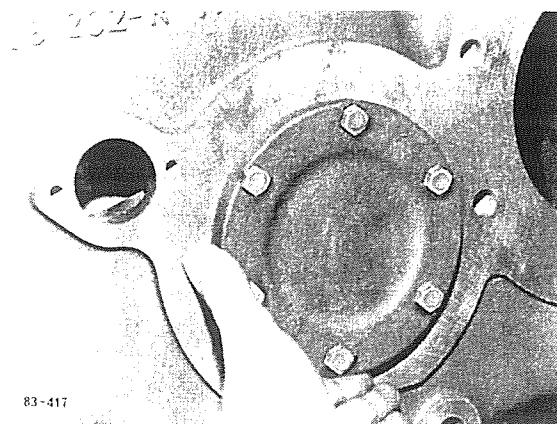
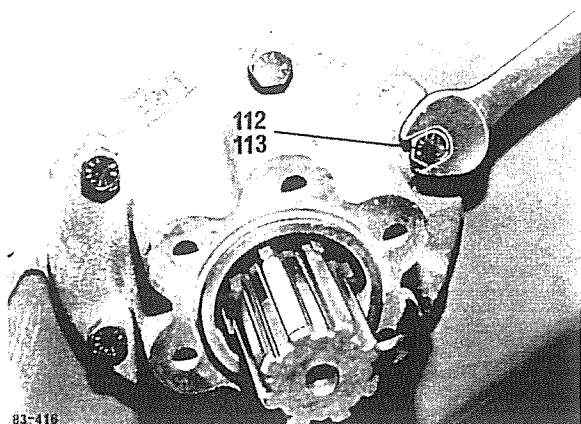
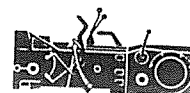


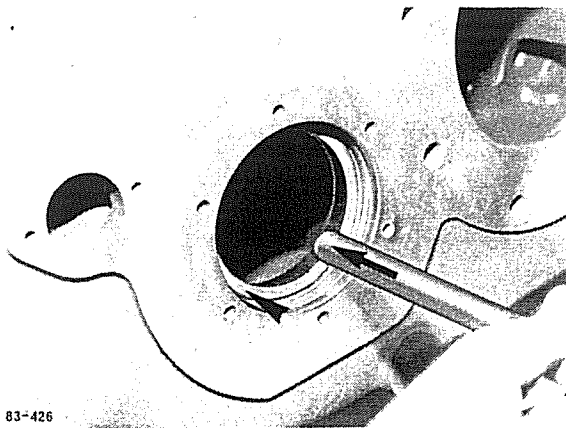
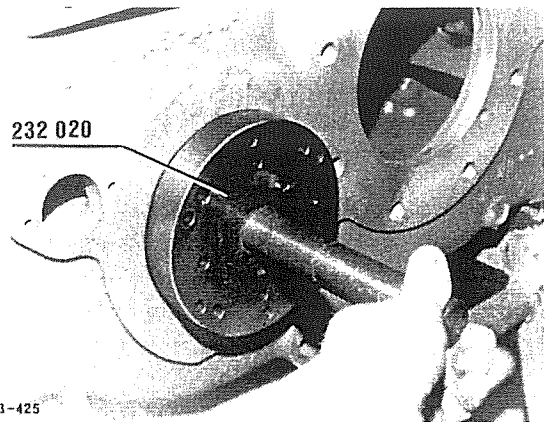
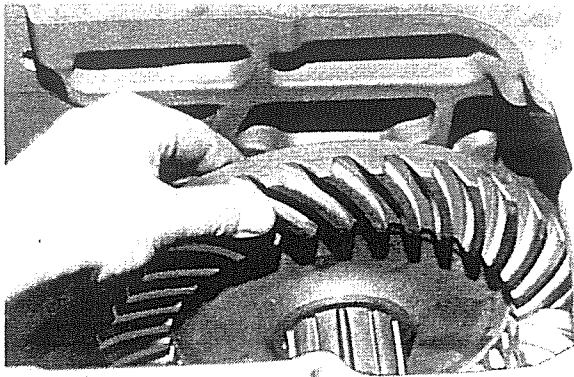
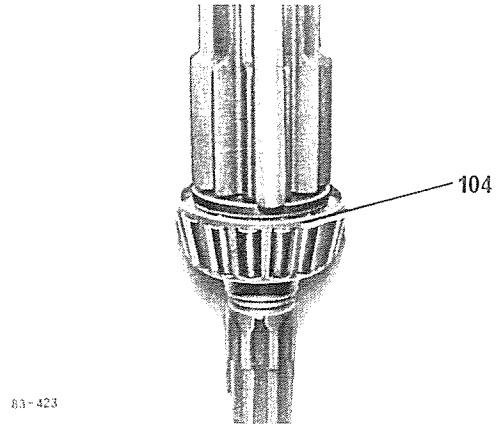
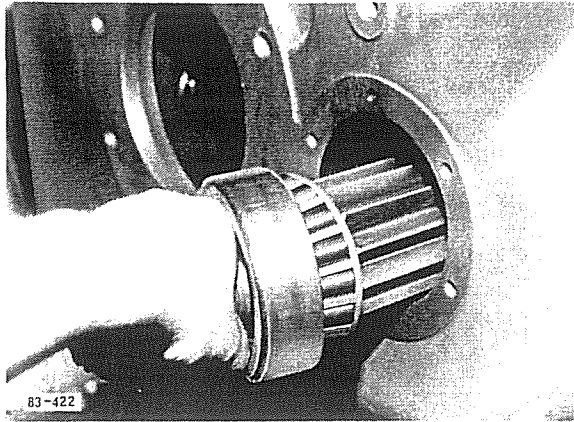
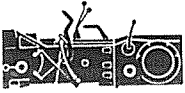
$$\frac{A+B}{2} = C$$





ZWISCHENWELLE AUSBAUEN
 REMOVING THE INTERMEDIATE SHAFT
 ARBRE INTERMEDIAIRE: DEMONTER
 DESMONTAR EL EJE INTERMEDIO





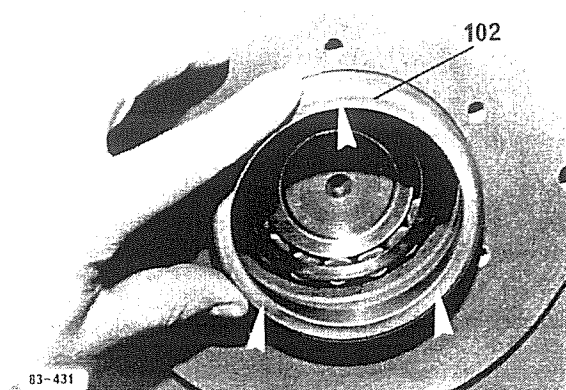


83-429

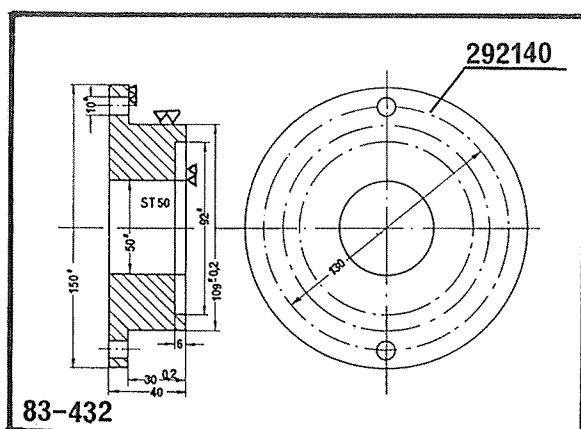
83-429



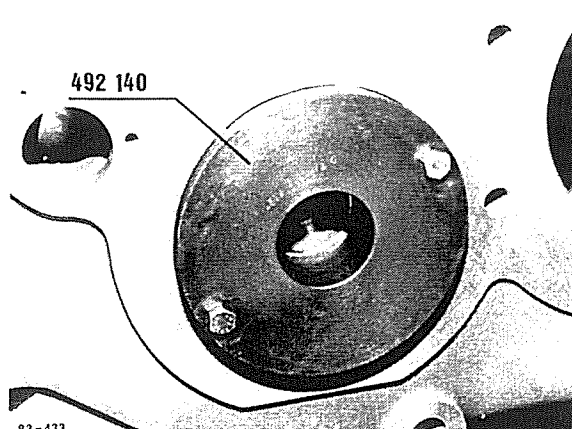
83-430



83-431

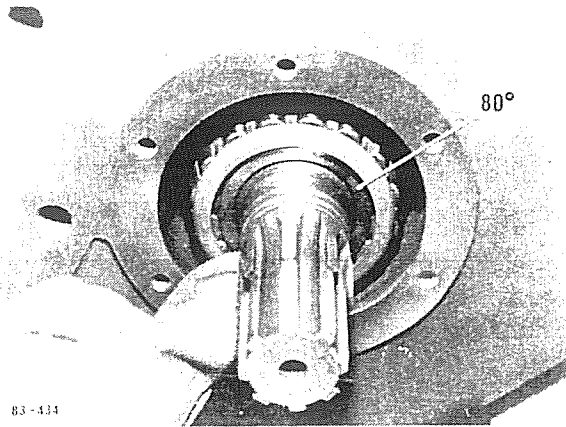
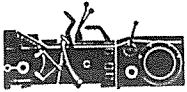


83-432

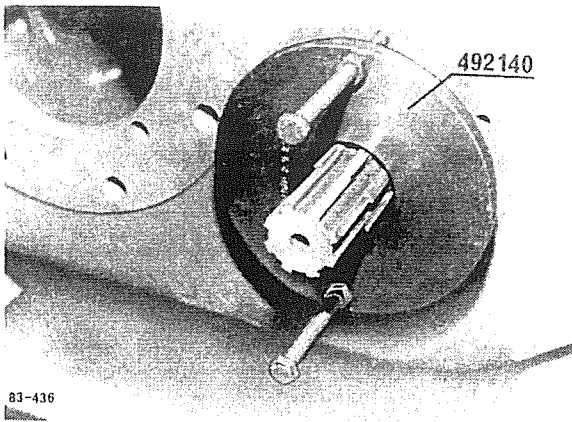
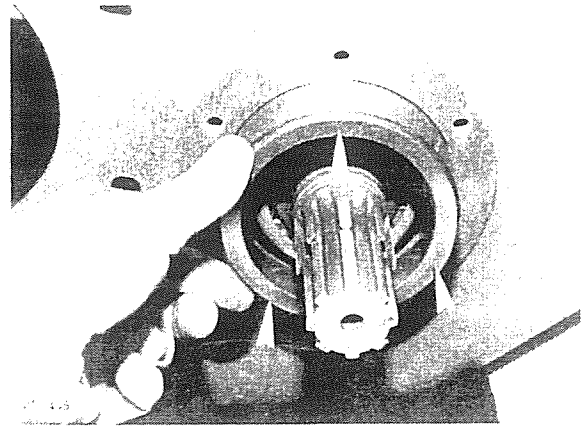


83-433

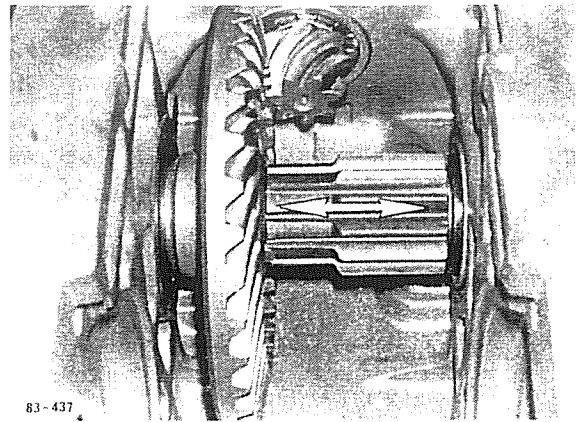




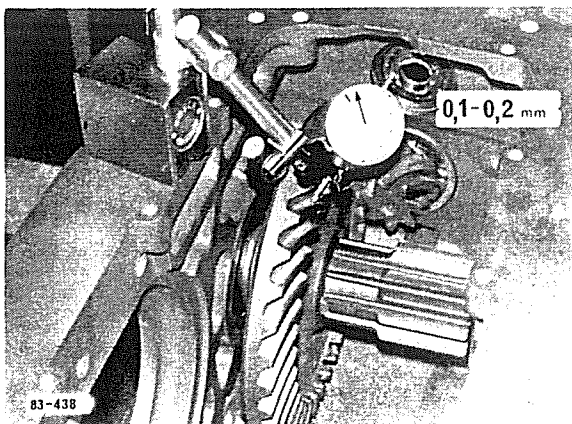
83-434



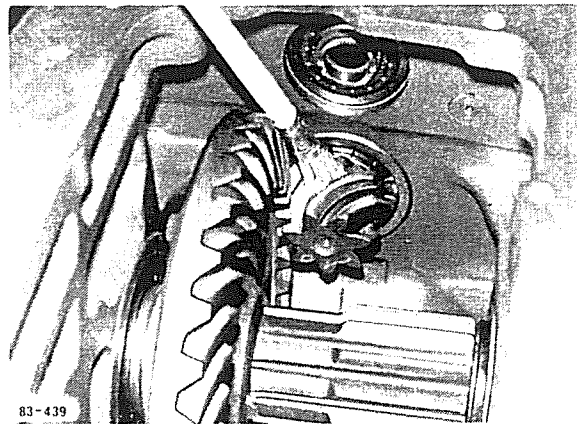
83-436



KEGELTRIEB EINSTELLEN
SET BEVEL DRIVE
COUPLE CONIQUE: REGLER
GRADUAR EL GRUPO CONICO

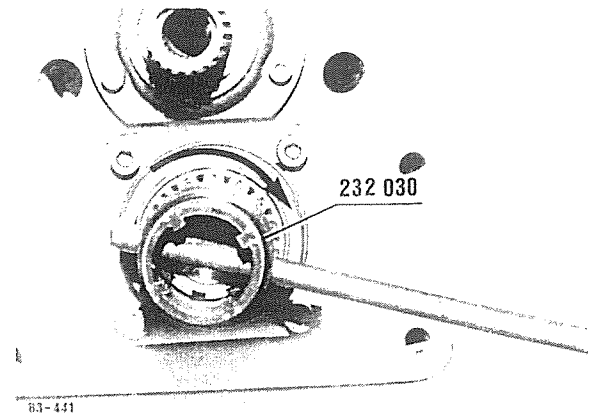
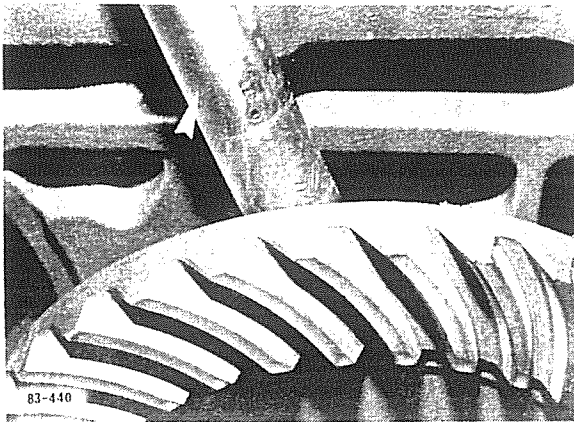
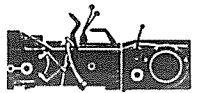


83-438

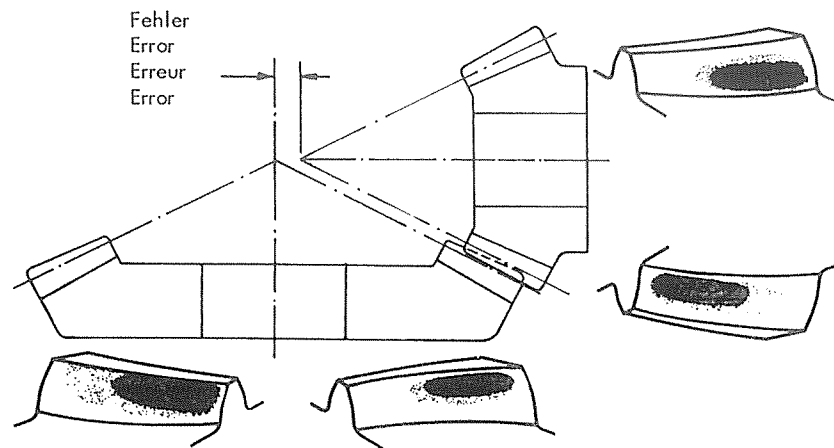


83-439

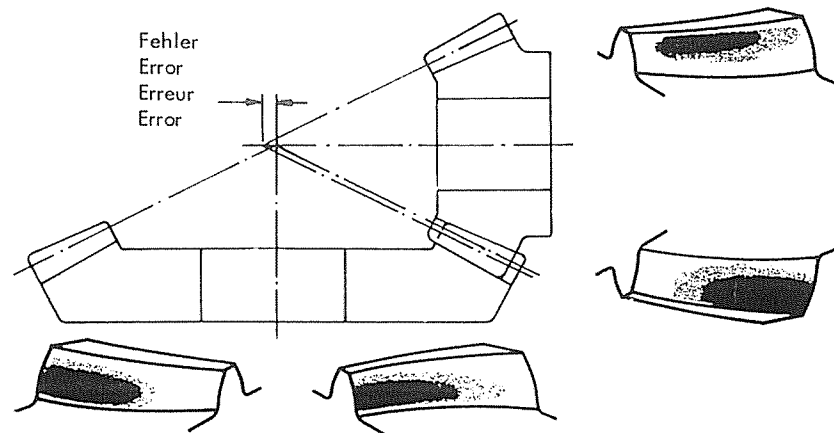


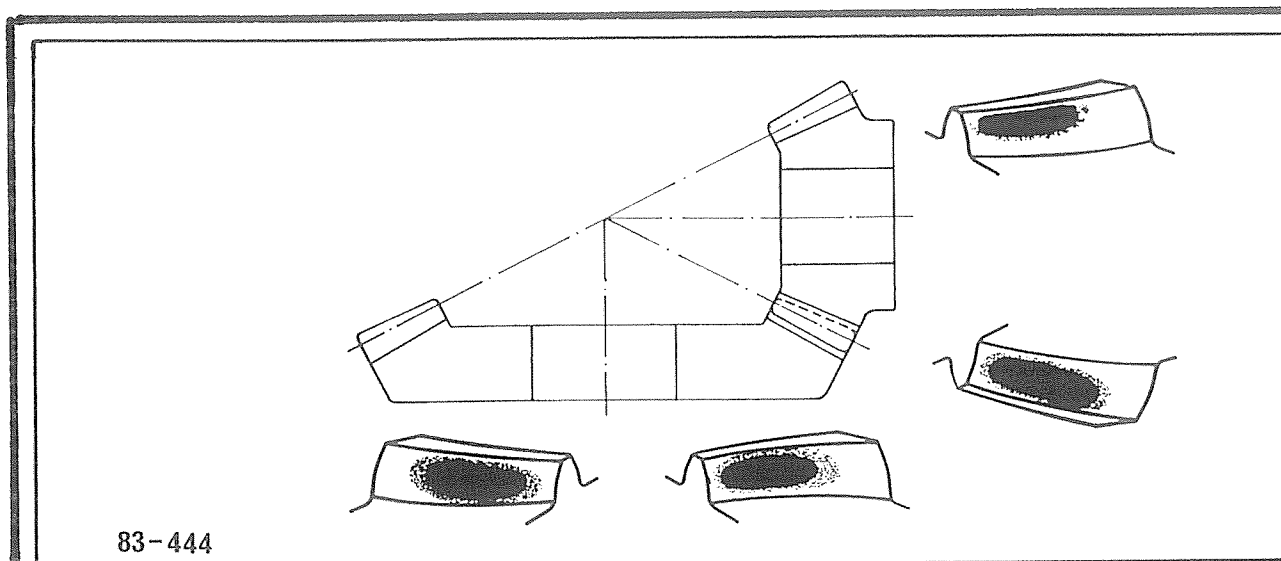
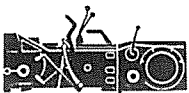


83-442

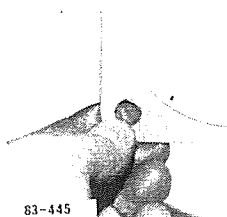


83-443

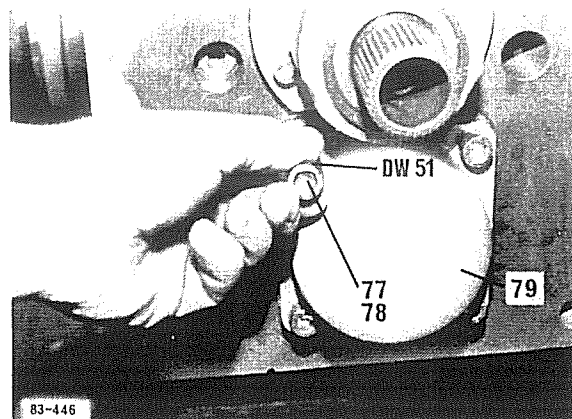
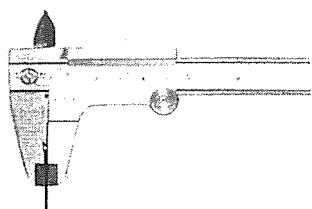




83-444

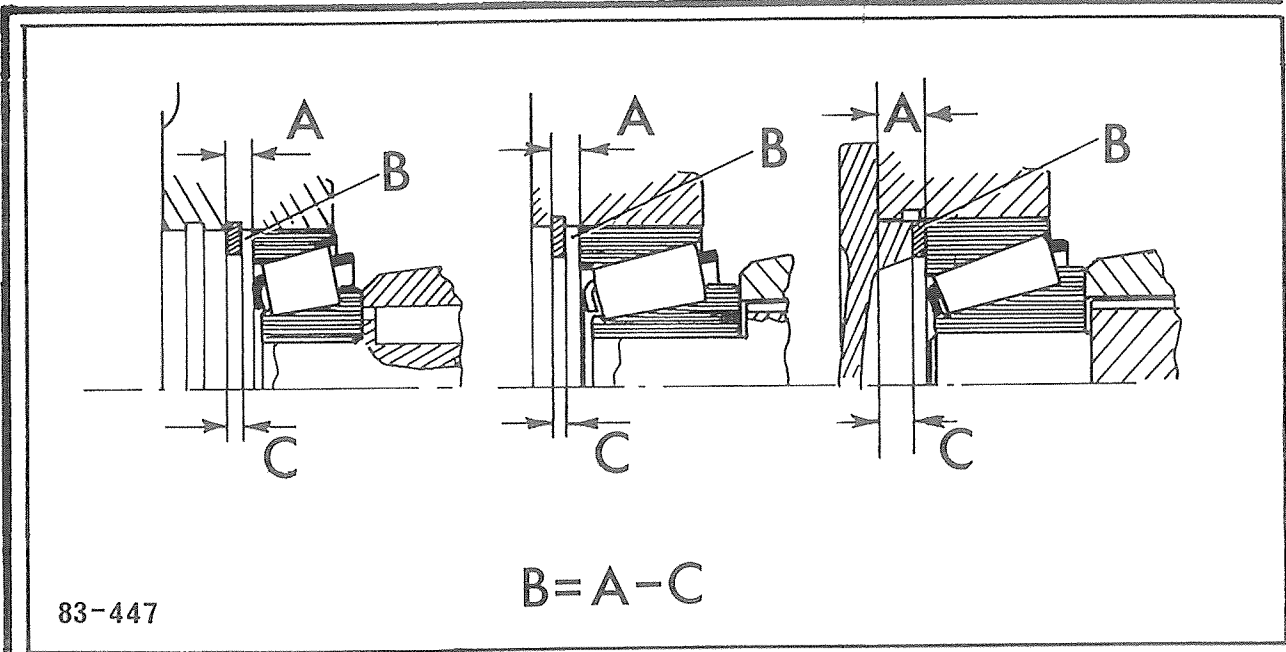


83-445

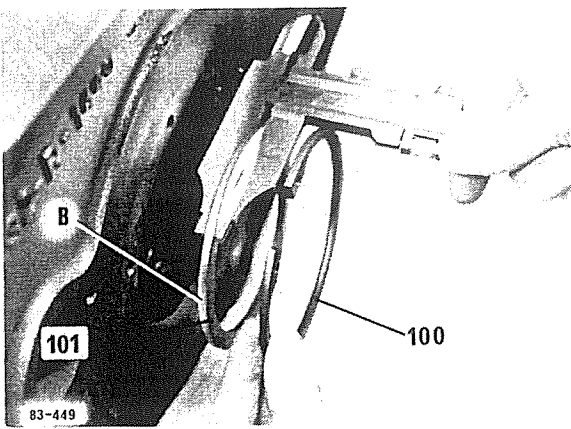
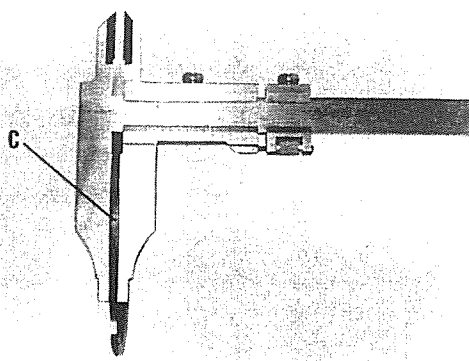


83-446

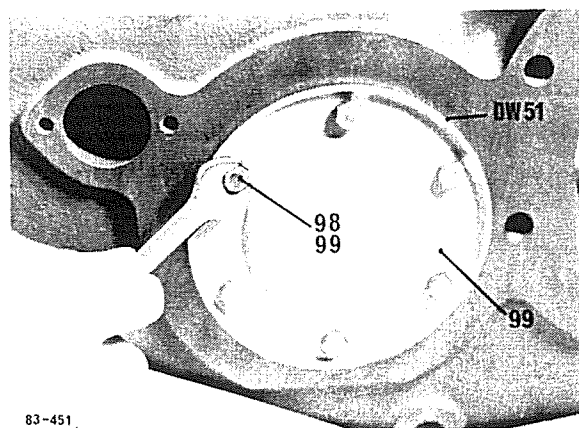
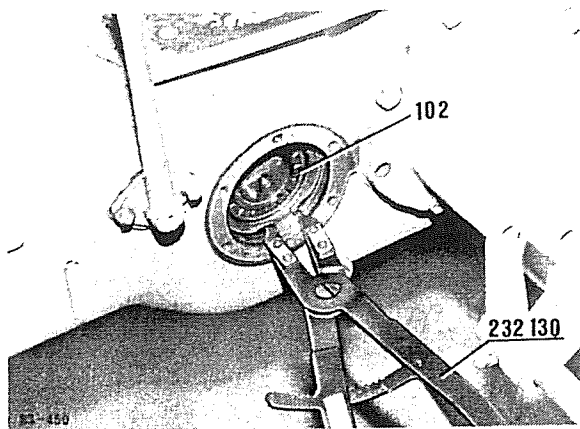




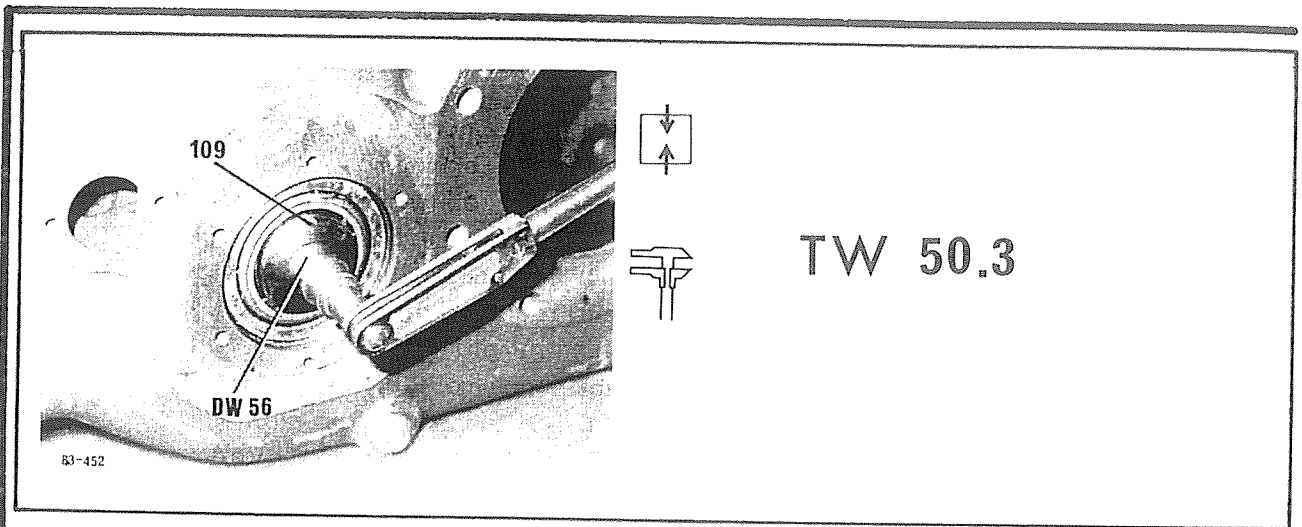
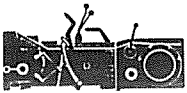
83-447



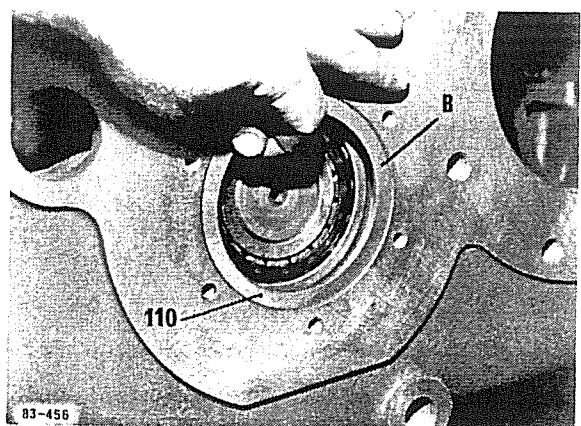
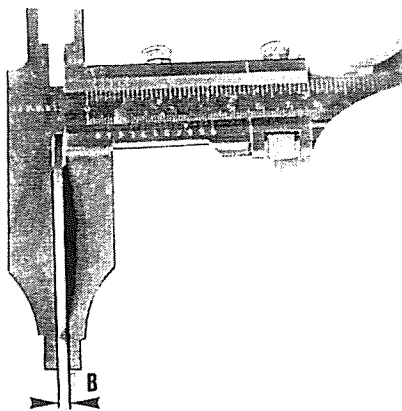
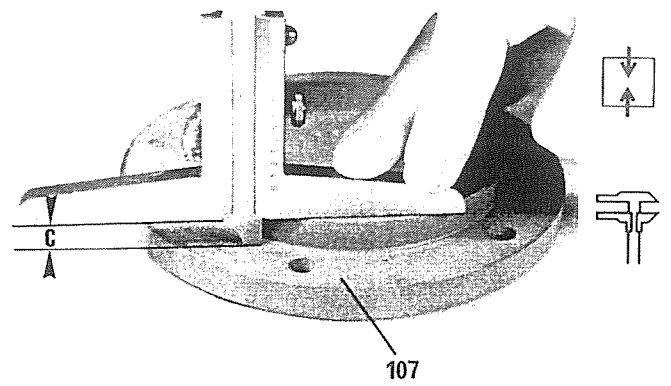
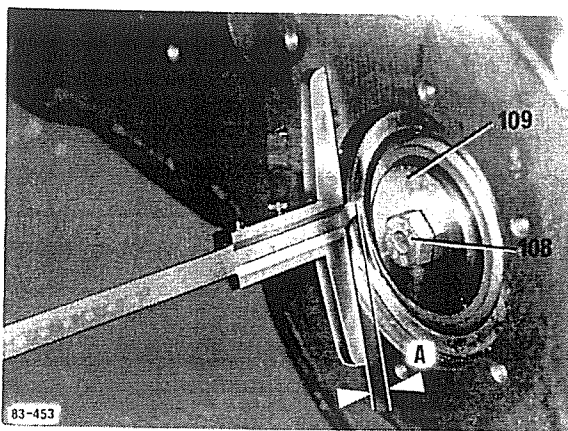
83-448

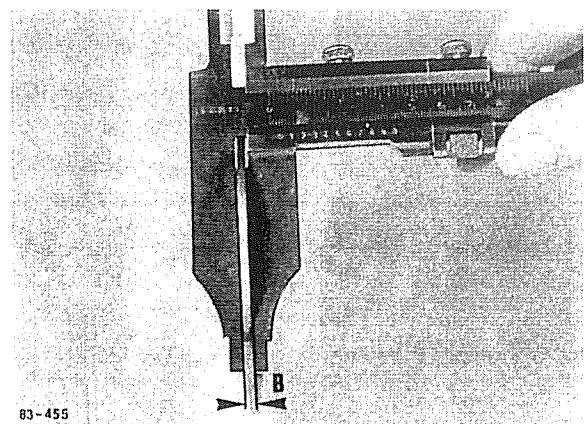
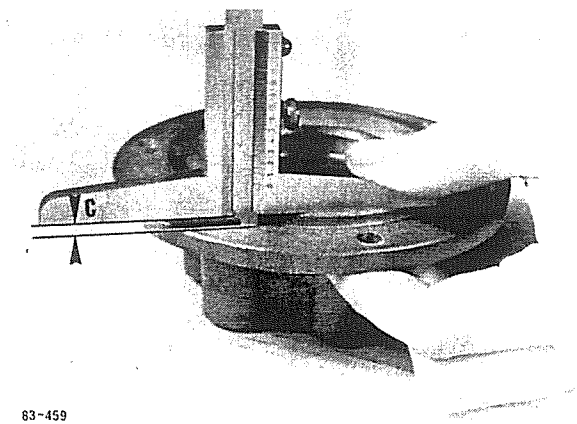
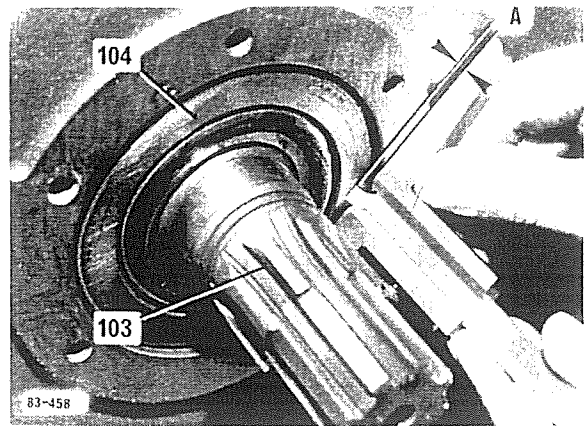
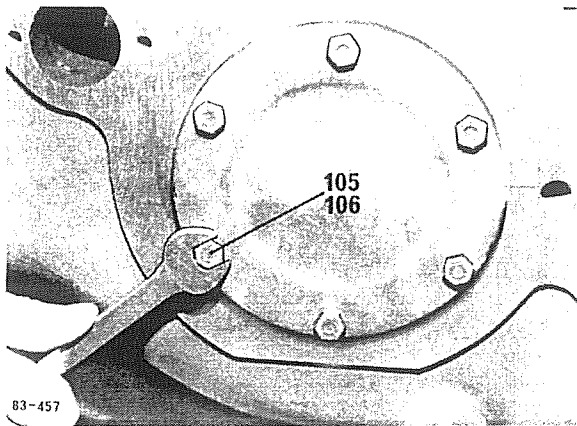
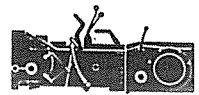


83-451

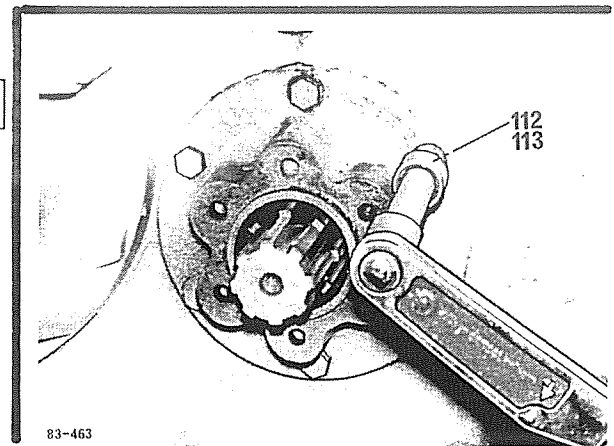
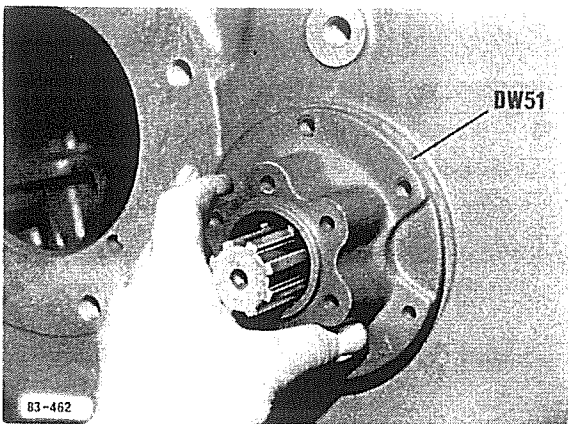
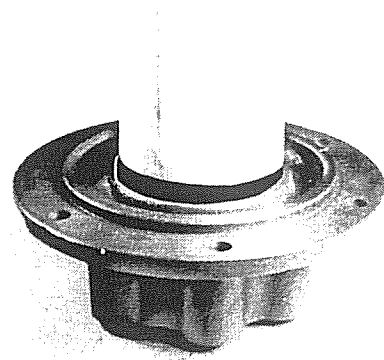
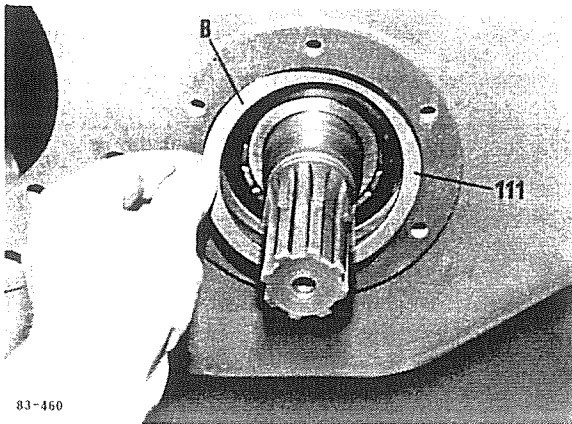
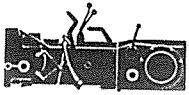


135 Nm (13,5 kpm)





$$A - C = B$$



25 Nm (2,5 kpm)

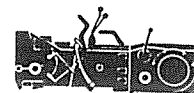


Abb. 1 Schaltung zum Wechselgetriebe
alte Ausführung

Abb. 2 Schaltung zum Wechselgetriebe
neue Ausführung

Abb. 3 Schaltung zum Wechselgetriebe
bei Kriechgang

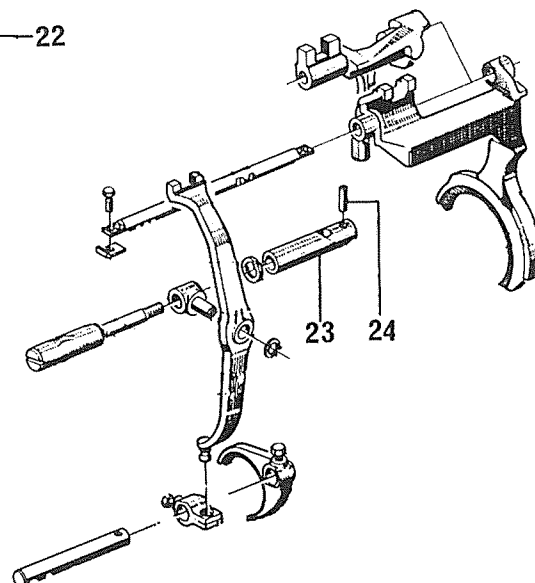
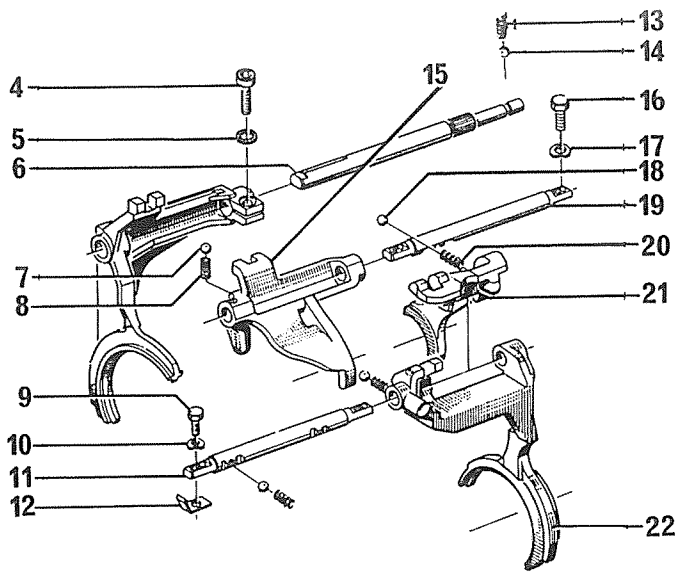
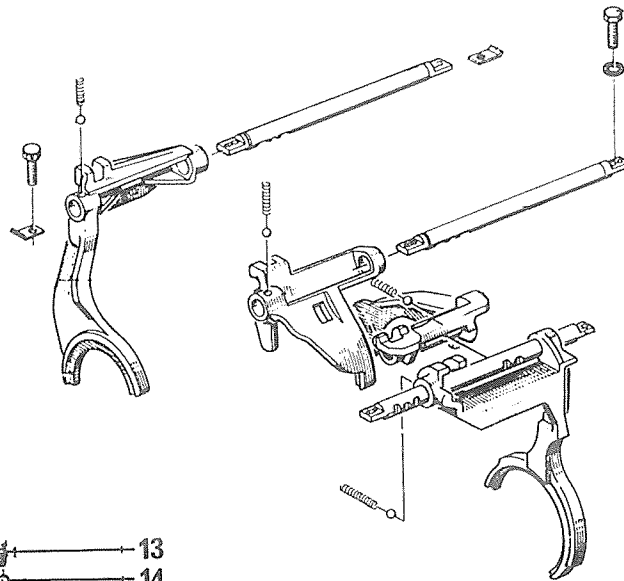
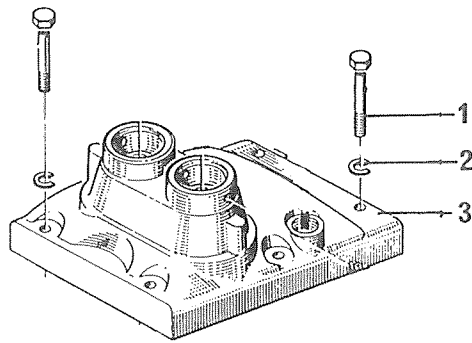
Fig. 1 Gear-shift mechanism
old type

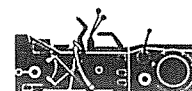
Fig. 2 Gear-shift mechanism
new type

Fig. 3 Gear-shift mechanism
with creep gear

1. Sechskantschraube
2. Federring
3. Schaltdeckel
4. Zylinderschraube
5. Sicherungsscheibe
6. Schaltstange 1-2 Gang
7. Kugel
8. Druckfeder
9. Sechskantschraube
10. Federring
11. Schaltstange, Schnell-Langsam
12. Sicherungsblech
13. Druckfeder
14. Kugel
15. Schaltgabel, 3-4 Gang
16. Sechskantschraube
17. Federring
18. Kugel
19. Schaltstange 3-4 Gang
20. Druckfeder
21. Schaltgabel, Rückwärtsgang
22. Schaltgabel, Langsam-Schnell
23. Zwischenwelle, Kriechgang
24. Spannhülse

1. Hex. bolt
2. Lockwasher
3. Cover
4. Screw
5. Lockwasher
6. Rod, 1st and 2nd gear
7. Ball
8. Spring
9. Bolt
10. Lockwasher
11. Rod, high-low
12. Locking plate
13. Spring
14. Ball
15. Fork, 3rd and 4th gear
16. Bolt
17. Lockwasher
18. Ball
19. Rod, 3rd and 4th gear
20. Spring
21. Fork, reverse gear
22. Fork, high-low
23. Intermediate shaft, creep gear
24. Dowel sleeve





25. Spannhülse
26. Bolzen
27. Lagerbuchse
28. Zahnrad
29. Zylinderstift
30. Nadelkäfig
31. Nadelkäfig
32. Anlaufscheibe
33. Sicherungsring
34. Radial-Wellendichtring
35. Sicherungsring
36. Nadelkäfig
37. Antriebshohlwelle
38. Nadelkäfig
39. Nadelkäfig
40. Beilage
41. Zylinderrollenlager
42. Sicherungsring
43. Sicherungsscheibe
44. Linsenschraube
45. Radial-Wellendichtring
46. Zylinderschraube
47. Sicherungsring
48. Lagerdeckel
49. Sicherungsblech
50. Beilage
51. Rillenkugellager
52. Zylinderrollenlager
53. Sicherungsring
54. Zahnrad
55. Buchse
56. Zahnrad
57. Muffe
58. Schaltmuffe
59. Sicherungsring
60. Nadelkäfig
61. Zahnrad
62. Linsenschraube
63. Sicherungsscheibe
64. Zahnrad, unsynchronisiert
65. Zahnrad, synchronisiert
66. Zahnrad
67. Nasenscheibe
68. Kegelrollenlager
69. Rundgummiring
70. Rundgummiring
71. Kegelrollenlager
72. Anlaufscheibe
73. Buchse
74. Nadelkäfig
75. Zahnrad
76. Zylinderrollenlager
77. Zylinderschraube
78. Sicherungsring
79. Deckel
80. Nadelkäfig
81. Zahnrad
82. Muffe
83. Sicherungsring
84. Schaltmuffe
85. Doppelnadelkäfig
86. Muffenträger, unsynchronisiert
87. Hohlwelle
88. Nadelkäfig
89. Sicherungsring
90. Sicherungsring
91. Zahnrad
92. Sicherungsring
93. Zahnrad
94. Schaltbolzen
95. Schiebemuffe
96. Sicherungsring

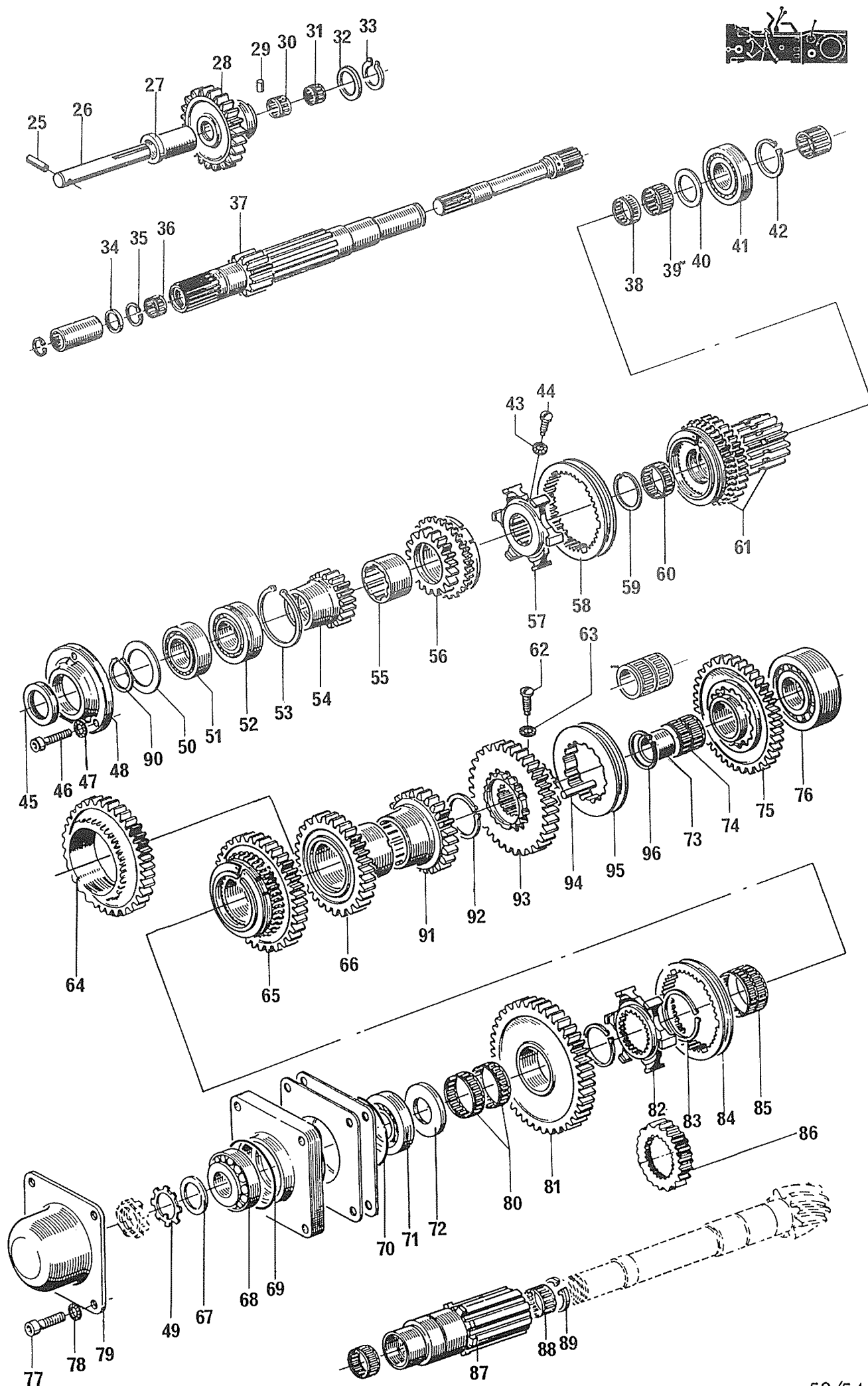
25. Dowel sleeve
26. Pin
27. Bush
28. Gear
29. Pin
30. Needle cage
31. Needle cage
32. Stop washer
33. Circlip
34. Radial shaft seal
35. Circlip
36. Needle cage
37. Drive quill
38. Needle cage
39. Needle cage
40. Shim
41. Roller bearing
42. Circlip
43. Lockwasher
44. Screw
45. Radial shaft seal
46. Screw
47. Circlip
48. Cap
49. Locking plate
50. Shim
51. Ball bearing
52. Roller bearing
53. Circlip
54. Gear
55. Bush
56. Gear
57. Sleeve
58. Sleeve
59. Circlip
60. Needle cage
61. Gear
62. Screw
63. Lockwasher
64. Gear, not synchronised
65. Gear, synchronised
66. Gear
67. Tab washer
68. Roller bearing
69. O-seal
70. O-seal
71. Roller bearing
72. Stop washer
73. Bush
74. Needle cage
75. Gear
76. Roller bearing
77. Screw
78. Circlip
79. Cover
80. Needle cage
81. Gear
82. Sleeve
83. Circlip
84. Sleeve
85. Needle cage
86. Sleeve carrier, not synchronised
87. Quill
88. Needle cage
89. Circlip
90. Circlip
91. Gear
92. Circlip
93. Gear
94. Pin
95. Sleeve
96. Circlip

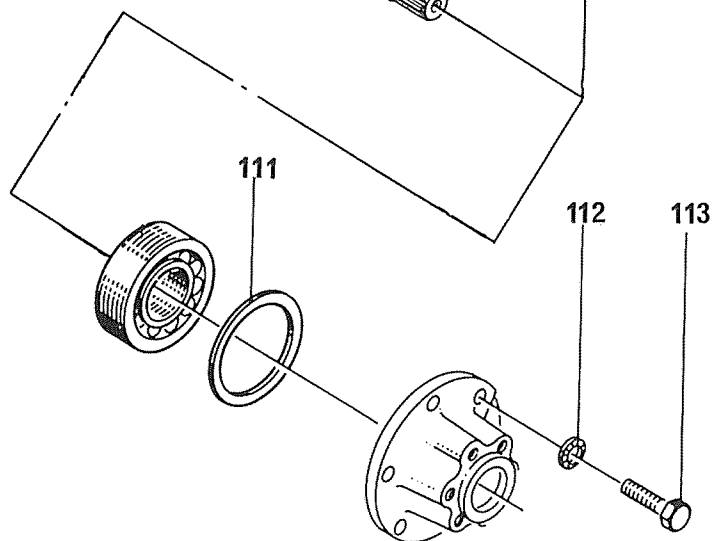
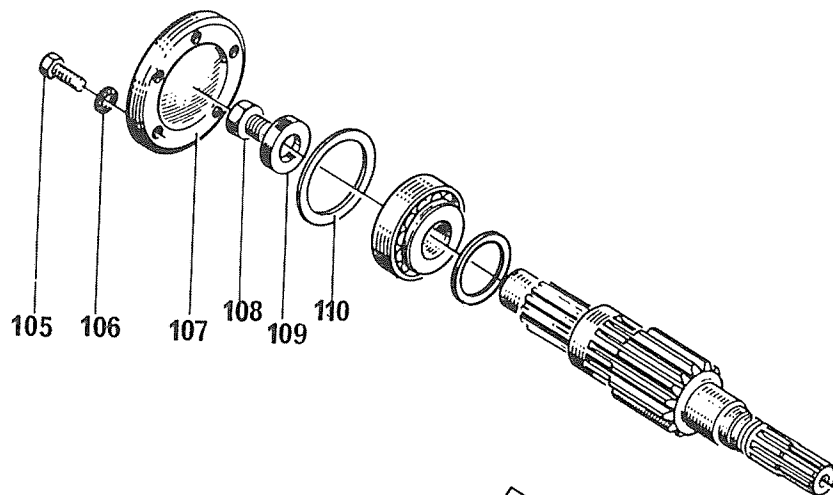
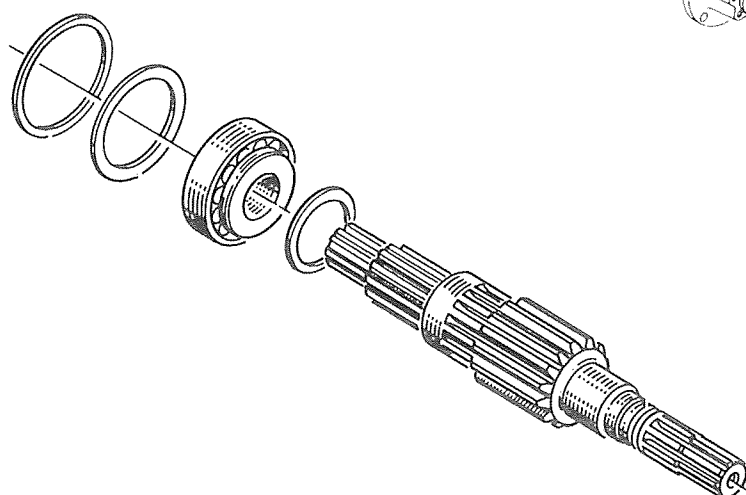
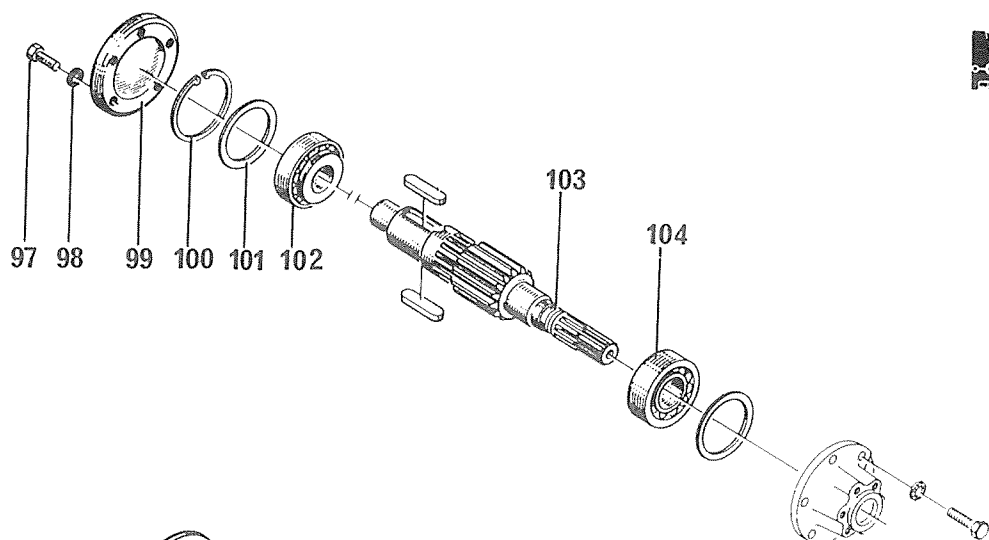
97. Sechskantschraube
 98. Sicherungsscheibe
 99. Deckel
 100. Sicherungsring
 101. Beilage
 102. Kegelrollenlager
 103. Zwischenwelle
 104. Kegelrollenlager
 105. Sechskantschraube
 106. Sicherungsscheibe
 107. Deckel
 108. Sechskantschraube
 109. Druckscheibe
 110. Beilage
 111. Beilage
 112. Sicherungsscheibe
 113. Sechskantschraube

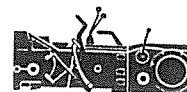
97. Bolt
 98. Lockwasher
 99. Cover
 100. Circlip
 101. Shim
 102. Roller bearing
 103. Intermediate shaft
 104. Roller bearing
 105. Bolt
 106. Lockwasher
 107. Cover
 108. Bolt
 109. Thrust washer
 110. Shim
 110. Shim
 111. Lockwasher
 112. Bolt

97. Vis 6 pans
 98. Rondelle d'arrêt
 99. Couvercle
 100. Circlip
 101. Cale
 102. Roulement à rouleaux coniques
 103. Arbre intermédiaire
 104. Roulement à rouleaux coniques
 105. Vis 6 pans
 106. Rondelle d'arrêt
 107. Couvercle
 108. Vis 6 pans
 109. Rondelle de serrage
 110. Cale
 111. Cale
 112. Rondelle d'arrêt
 113. Vis 6 pans

97. Tornillo hexagonal
 98. Arandela de seguridad
 99. Tapa
 100. Circlip
 101. Suplemento
 102. Cojinete de rodillos cónicos
 103. Eje intermedio
 104. Cojinete de rodillos cónicos
 105. Tornillo hexagonal
 106. Arandela de seguridad
 107. Tapa
 108. Tornillo hexagonal
 109. Arandela de presión
 110. Suplemento
 111. Suplemento
 112. Arandela de seguridad
 113. Tornillo hexagonal







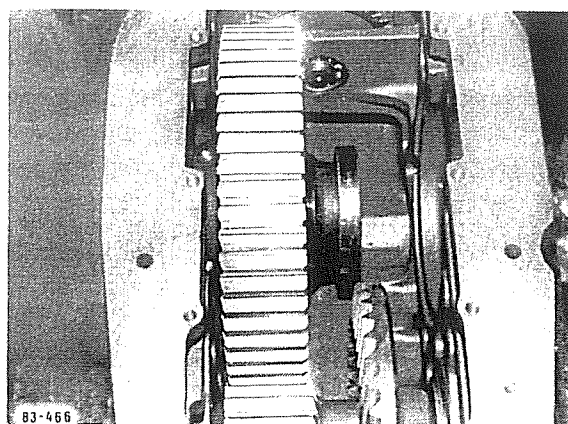
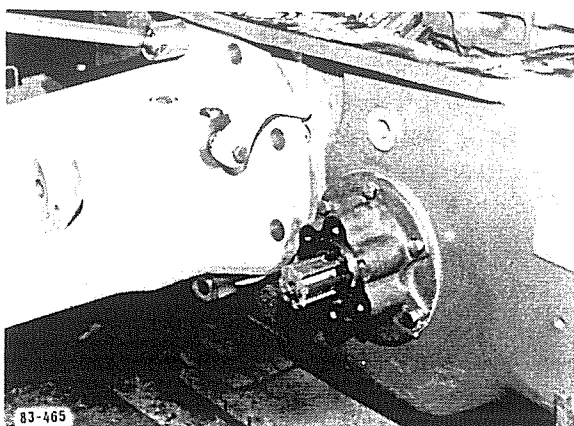
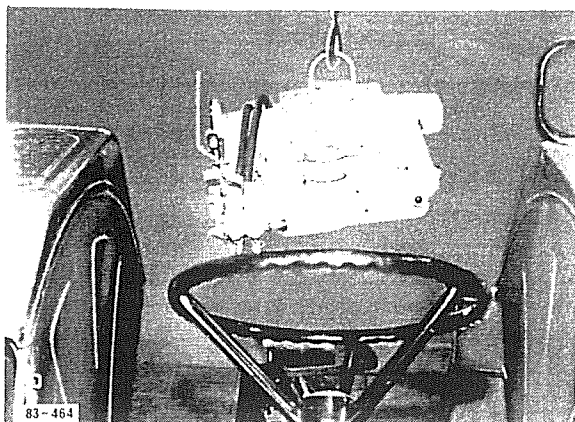
INHALTSVERZEICHNIS

	Seite
Ausgleichgetriebe ausbauen	3
Ausgleichgetriebe zerlegen und zusammenbauen	3
Explosionsdarstellung (Ausgleichgetriebe)	7/8

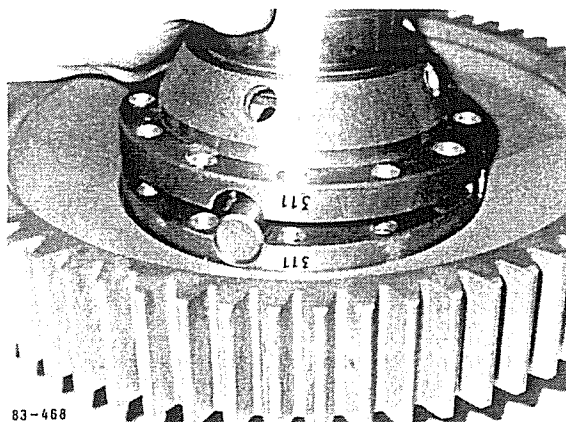
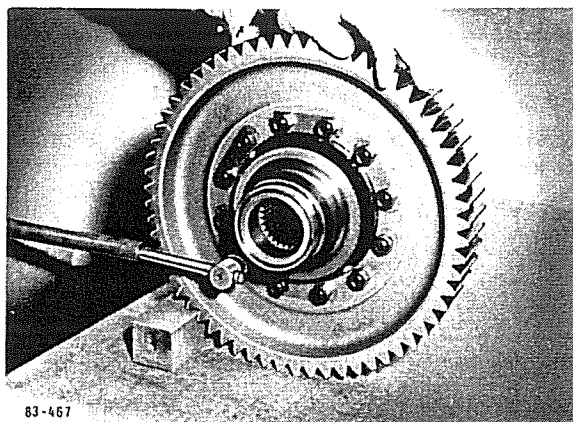
INDEX

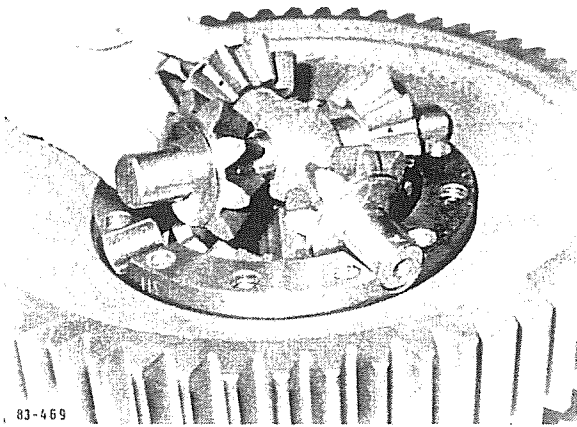
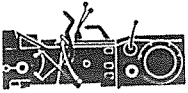
	Page
Removing the differential gear	3
Dismantling and reassembling the differential gear	3
Explosion view (differential gear)	7/8

AUSGLEICHGETRIEBE AUSBAUEN
REMOVING THE DIFFERENTIAL GEAR
DIFFERENTIEL: DEMONTER
DESMONTAR EL DIFERENCIAL

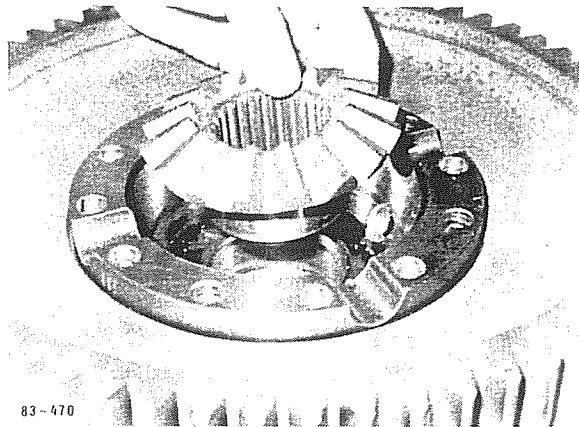


AUSGLEICHGETRIEBE ZERLEGEN UND ZUSAMMENBAUEN
DISMANTLING AND REASSEMBLING THE DIFFERENTIAL GEAR
DIFFERENTIEL: DESASSEMBLER ET REASSEMBLER
DESARMAR Y REARMAR EL DIFERENCIAL

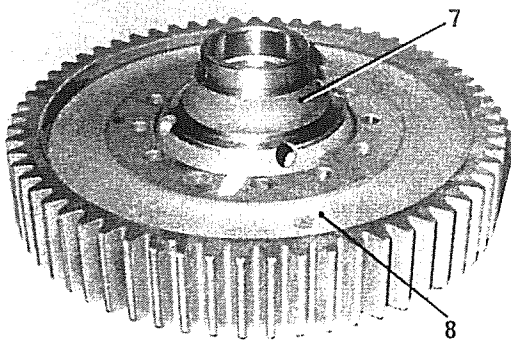




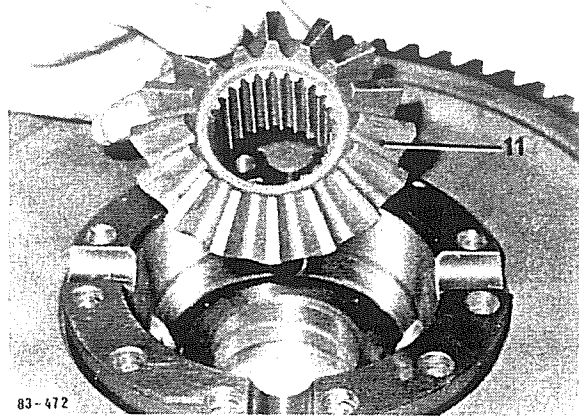
83-469



83-470



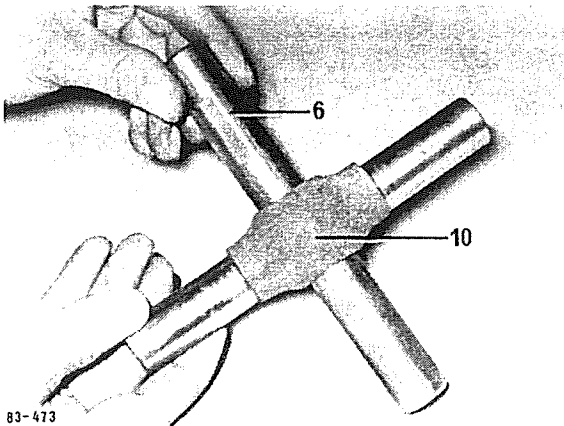
83-471



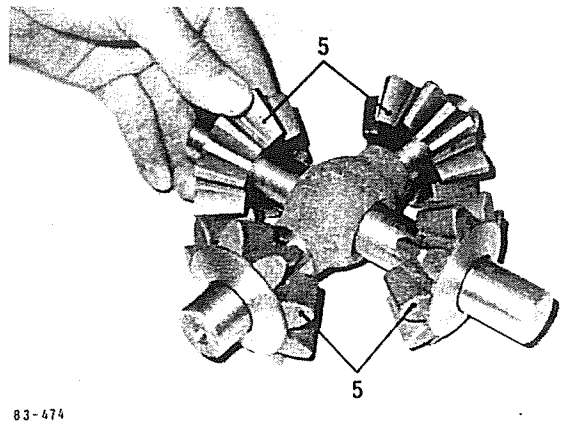
83-472



8 Paßbohrungen
8 Dowel holes
8 Alésages justes
8 Taladros de ajuste

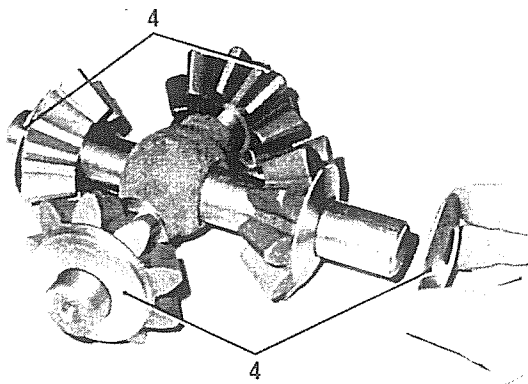
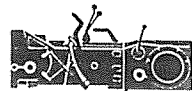


83-473

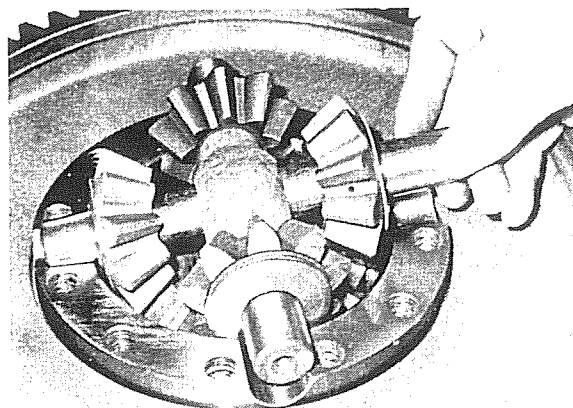


83-474

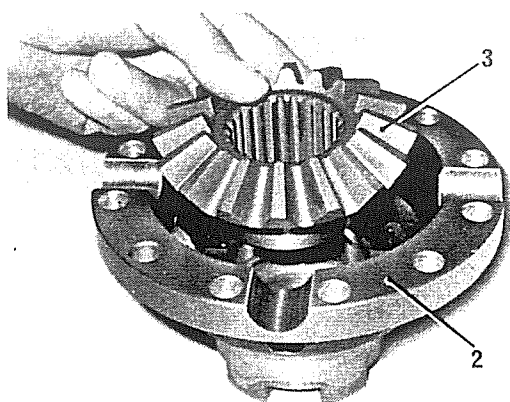




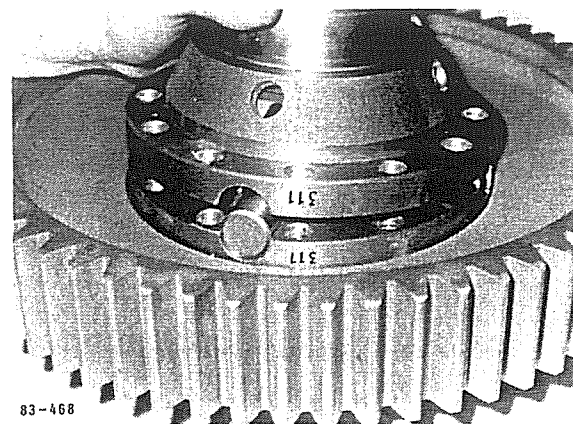
83-475



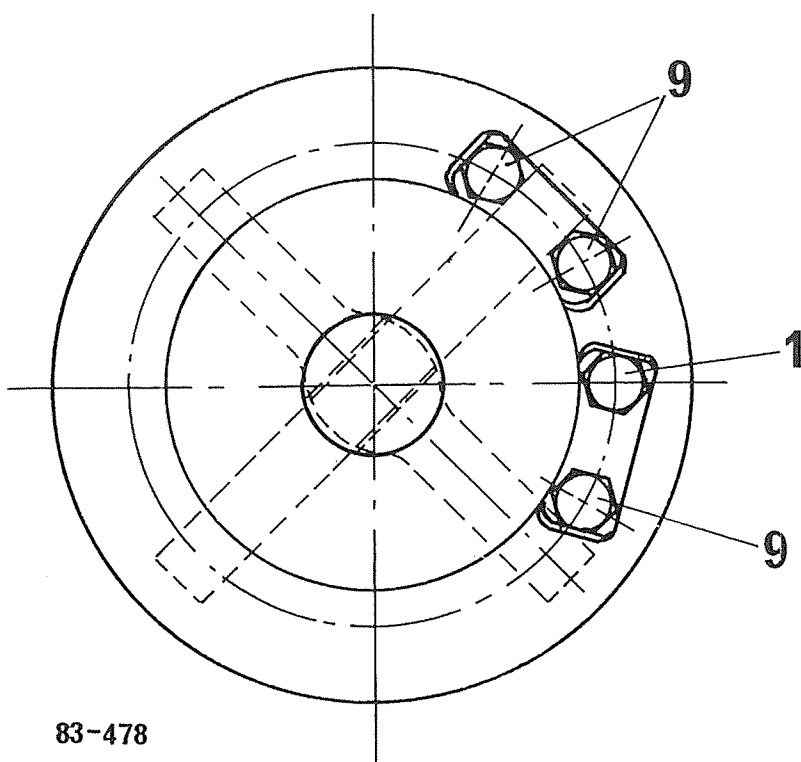
83-476



83-477



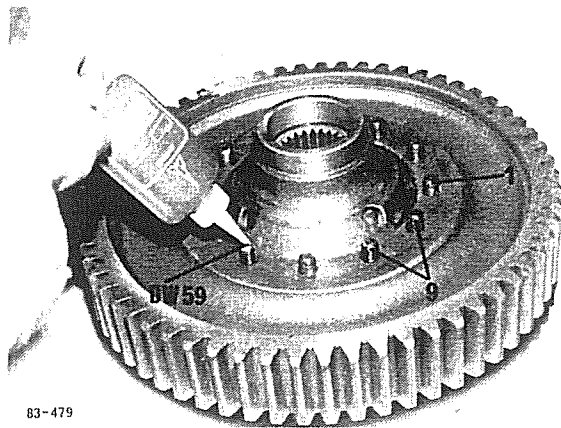
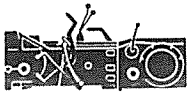
83-468



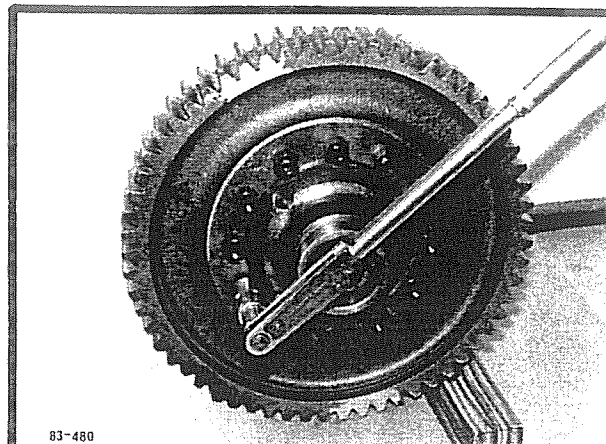
83-478

1 = SECHSKANTPASSCHRAUBE
FITTED BOLT
VIS D'AJUSTAGE 6 PANS
TORNILLO HEXAGONAL

9 = SECHSKANTSCHRAUBE
BOLT
VIS 6 PANS
TORNILLO HEXAGONAL



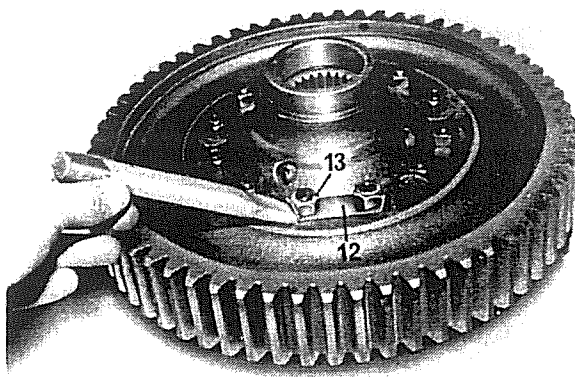
83-479



83-480



120 - 130 (12 - 13 kpm)



83-481

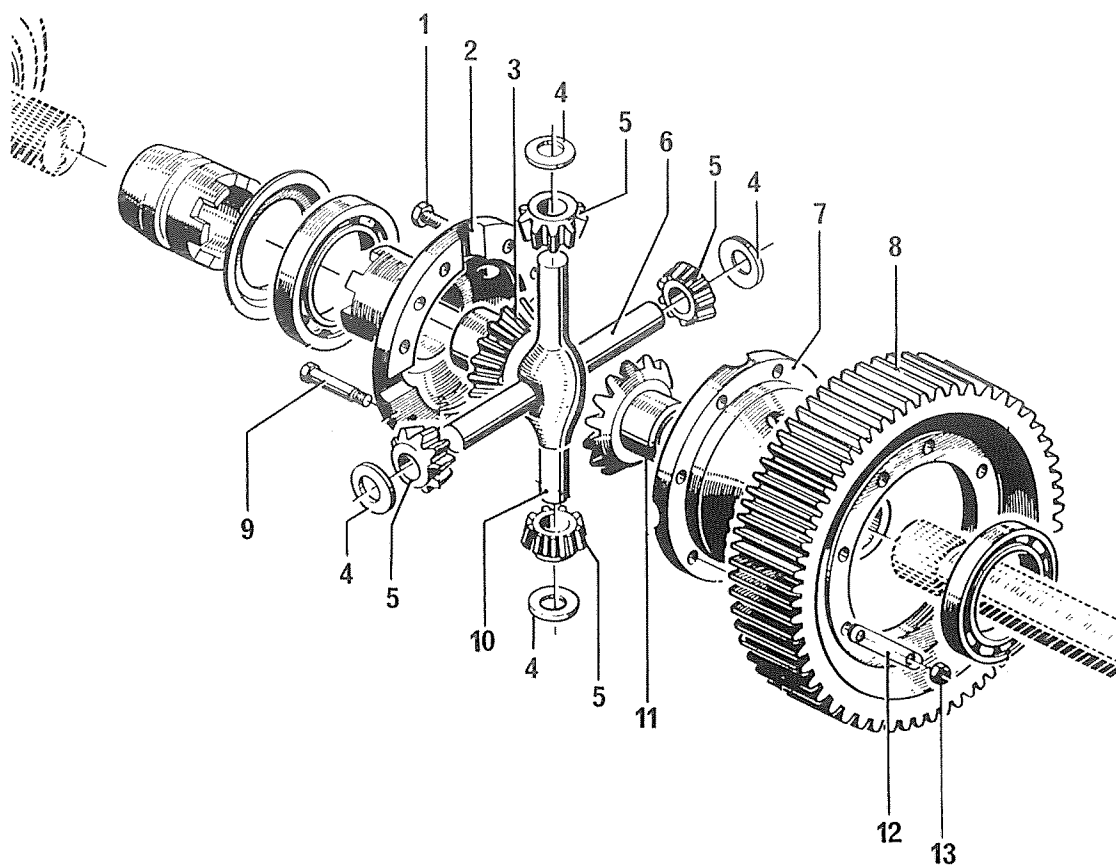
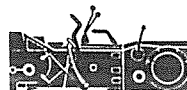


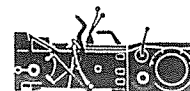
1. Sechskantschraube
2. Differenzialgehäuse
3. Kegelrad
4. Anlaufscheibe
5. Kegelrad
6. Kreuzzapfen
7. Differentialgehäuse
8. Zahnrad
9. Sechskantpaßschraube
10. Kreuzzapfen
11. Kegelrad
12. Sicherungsblech
13. Sechskantmutter

1. Bolt
2. Differential casing
3. Bevel gear
4. Stop washer
5. Bevel gear
6. Cross-type pin
7. Differential casing
8. Gear
9. Fitted bolt
10. Cross-type pin
11. Bevel gear
12. Lockwasher
13. Nut

1. Vis 6 pans
2. Boîtier de différentiel
3. Engrenage conique
4. Disque de butée
5. Engrenage conique
6. Tourillon en croix
7. Boîtier de différentiel
8. Engrenage
9. Vis d'ajustage 6 pans
10. Tourillon en croix
11. Engrenage conique
12. Tôle d'arrêt
13. Ecrou 6 pans

1. Tornillo hexagonal
2. Caja de diferencial
3. Piñón
4. Arandela de tope
5. Piñón
6. Muñón de cruceta
7. Caja de diferencial
8. Rueda dentada
9. Tornillo hexagonal de vástago calibr.
10. Muñón de cruceta
11. Piñón
12. Chapa de seguridad
13. Tuerca hexagonal





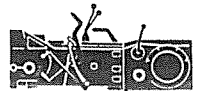
INHALTSVERZEICHNIS

	Seite
Schaltdeckel zerlegen	3
Schaltdeckel zusammenbauen	4
Explosionsdarstellung (Schaltdeckel)	11/12

INDEX

	Page
Dismantling the shift cover	3
Reassembling the shift cover	4
Explosion view (cover)	11/12

SCHALTDECKEL ZERLEGEN
DISMANTLING THE SHIFT COVER
COUVERCLE DE LA GRILLE DE PASSAGE DES VITESSES: DESASSEMBLER
DESARMAR LA TAPA DE CAMBIO



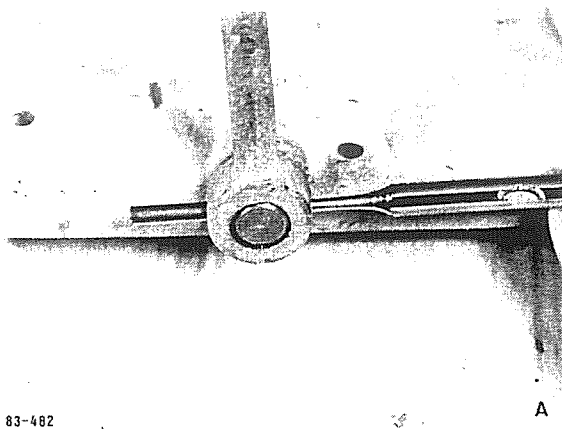
Normalausführung
Standard type
Version standard

Versión standard

Synchronausführung
Synchronous type
Version synchronisée

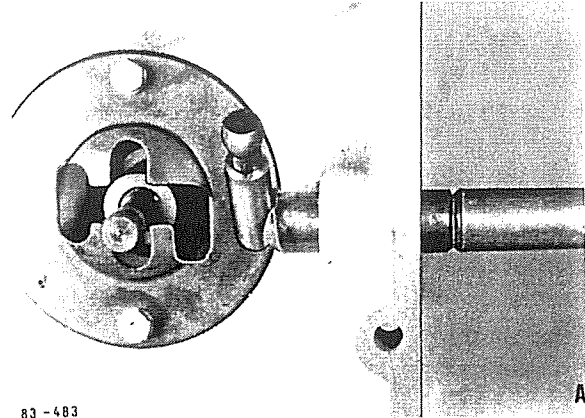
Versión sincronizada

mit Anlaßsperre
with starting lock
avec contacteur de
démarrage
con bloqueo contra
arranque



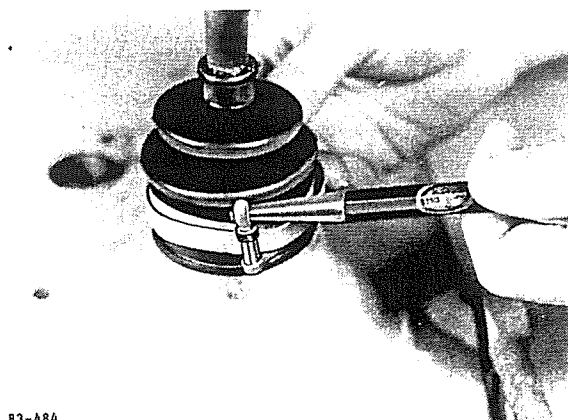
83-482

A

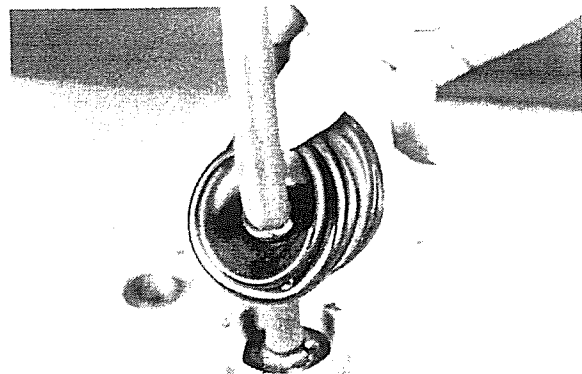


83-483

A

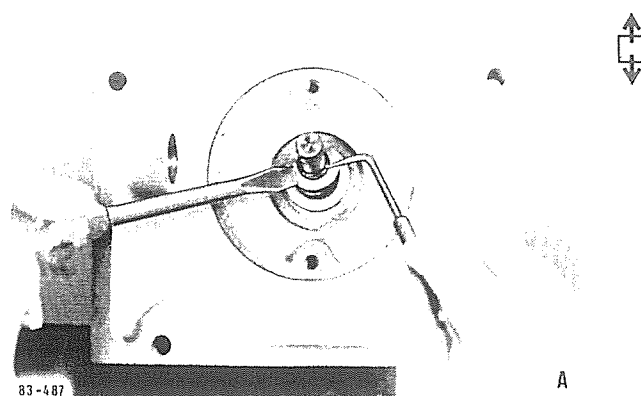
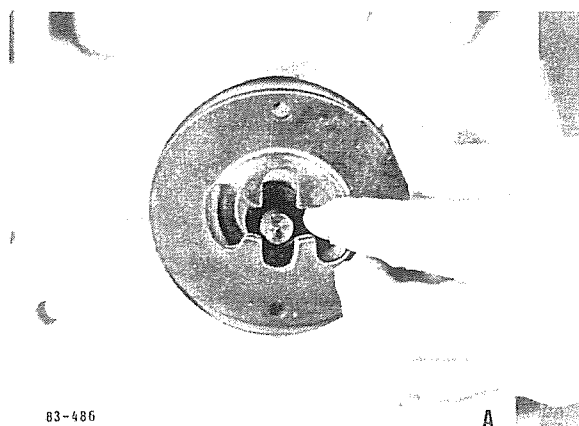
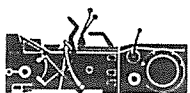


83-484

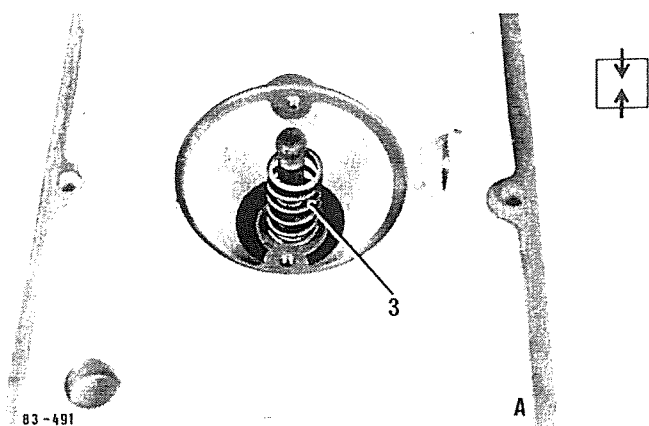
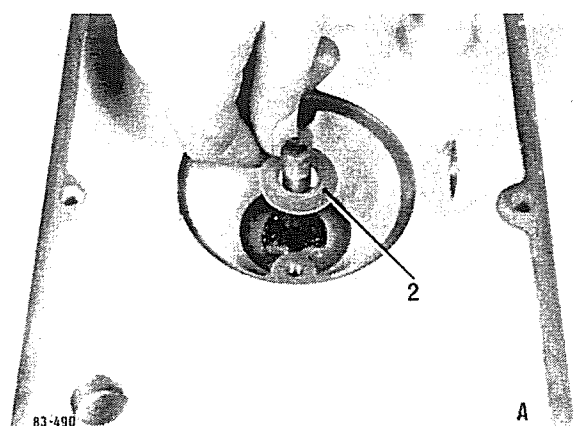
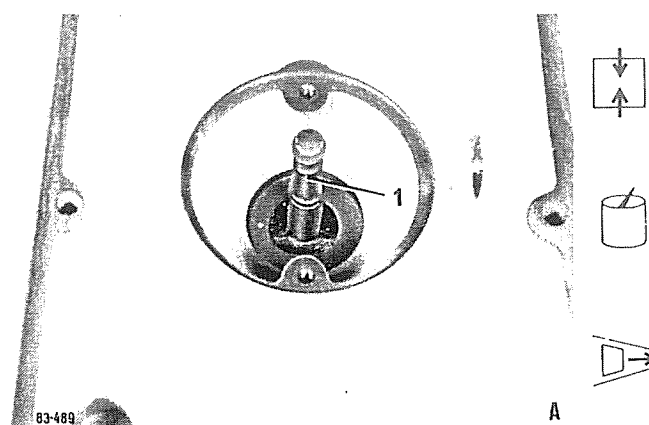
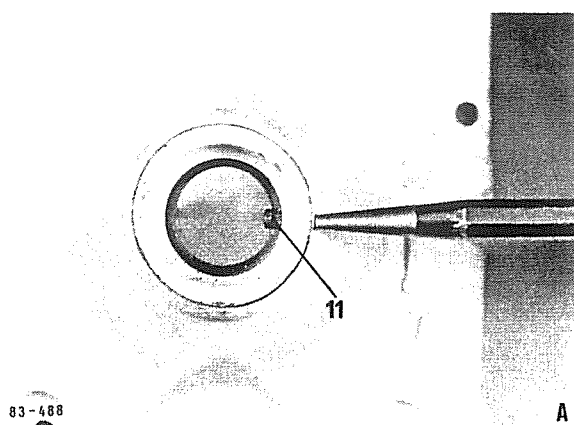


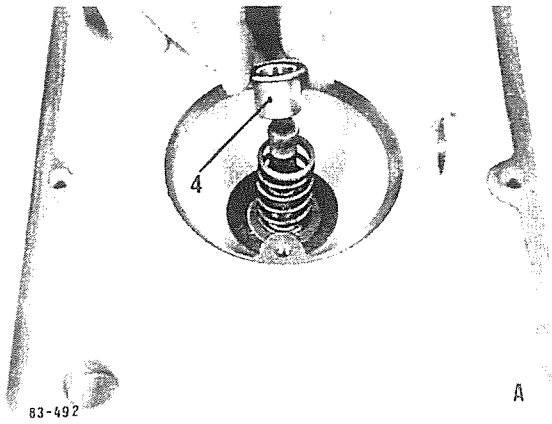
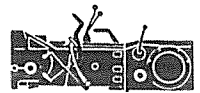
83-485

A

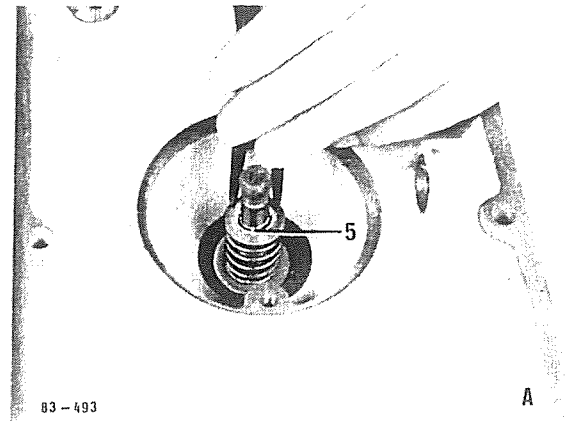


SCHALTDECKEL ZUSAMMENBAUEN
REASSEMBLING THE COVER
COUVERCLE DE LA GRILLE DE PASSAGE DES VITESSES: REASSEMBLER
REARMAR LA TAPA DE CAMBIO

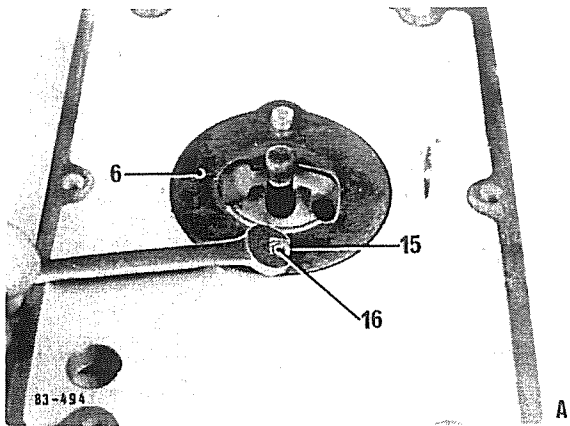




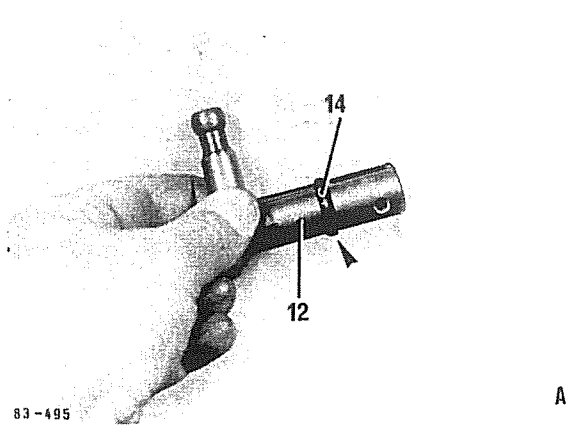
A



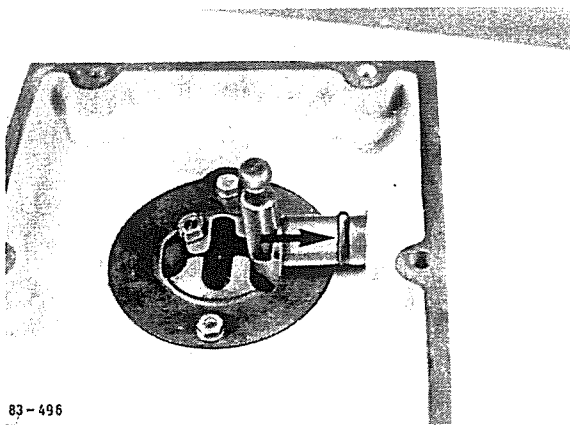
A



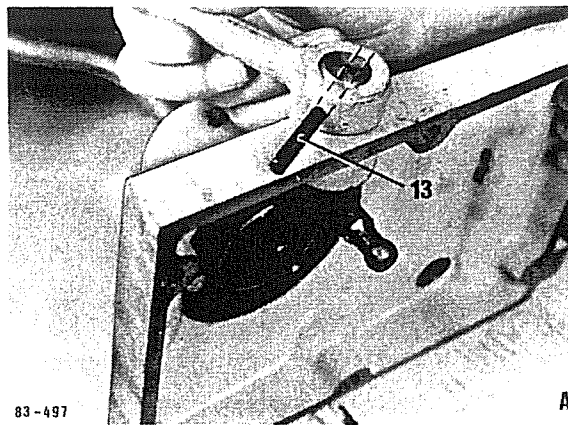
A



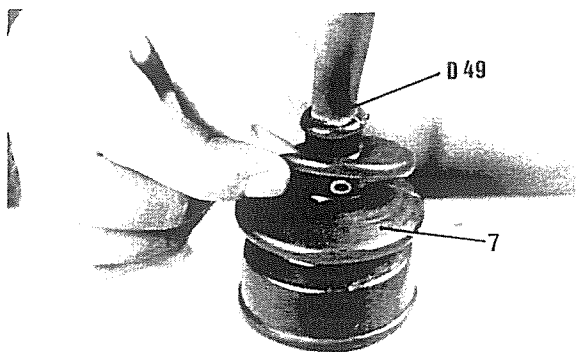
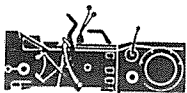
A



83-496

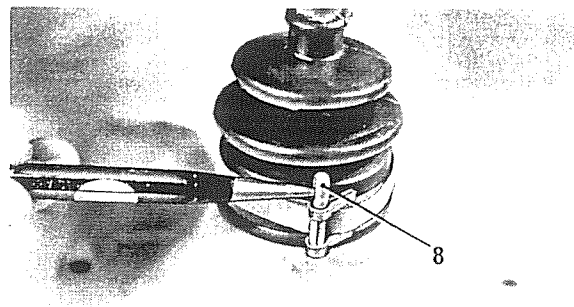


A



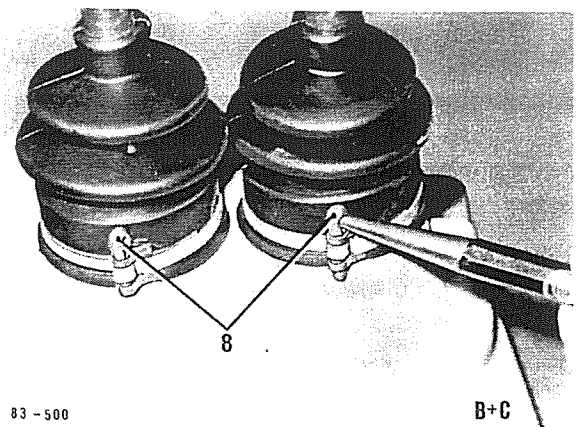
83-498

A



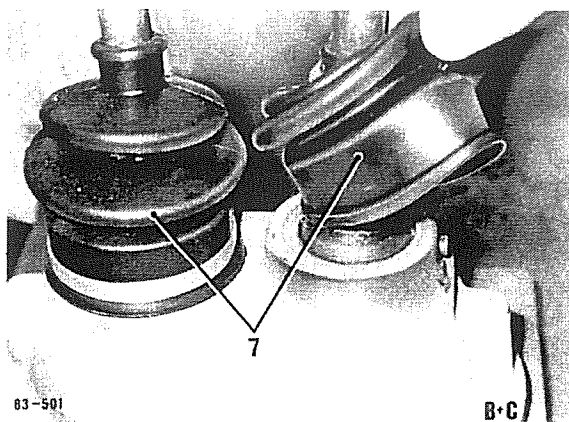
83-499

A



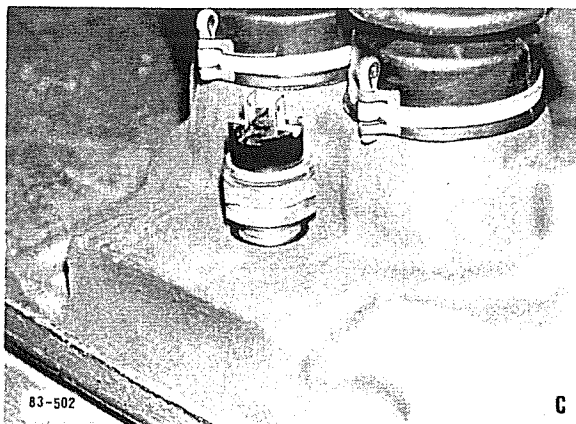
83-500

B+C



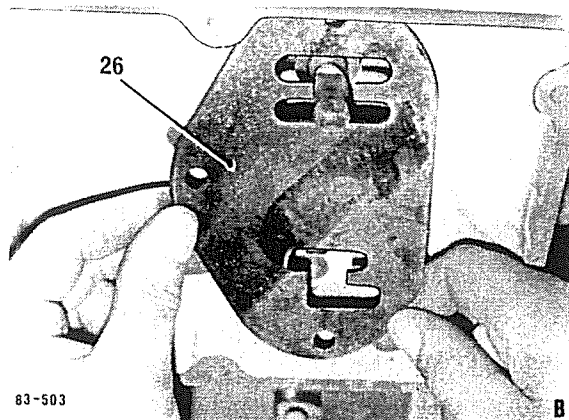
83-501

B+C



83-502

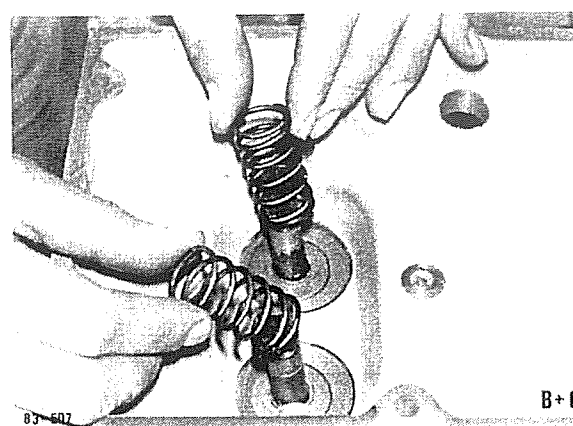
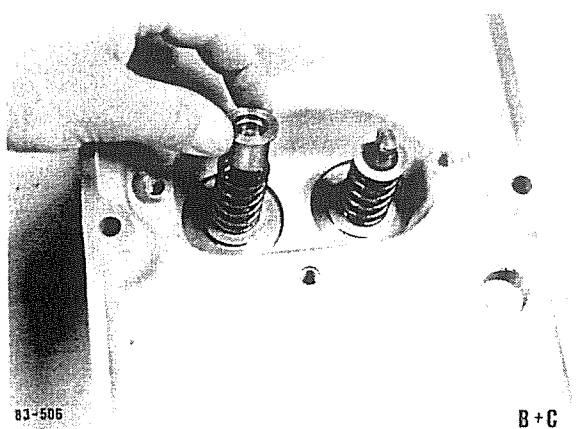
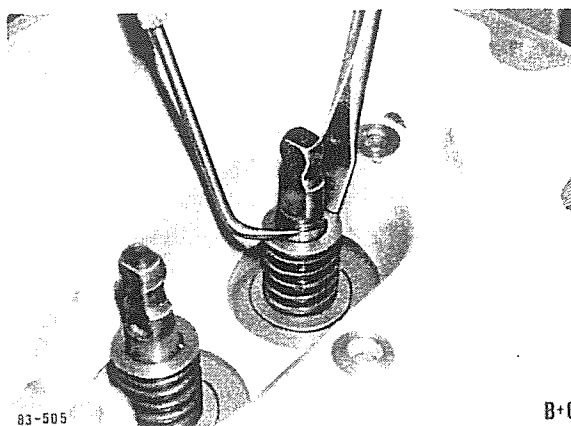
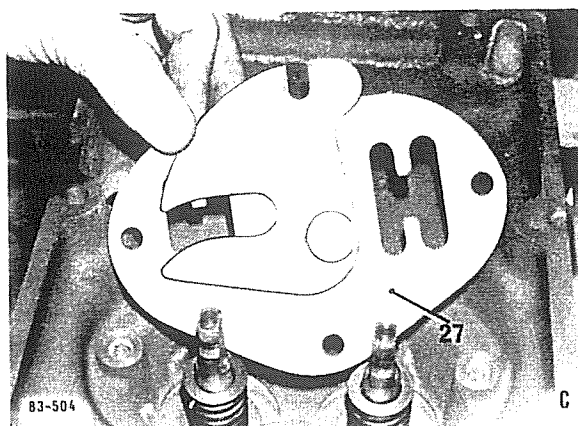
C

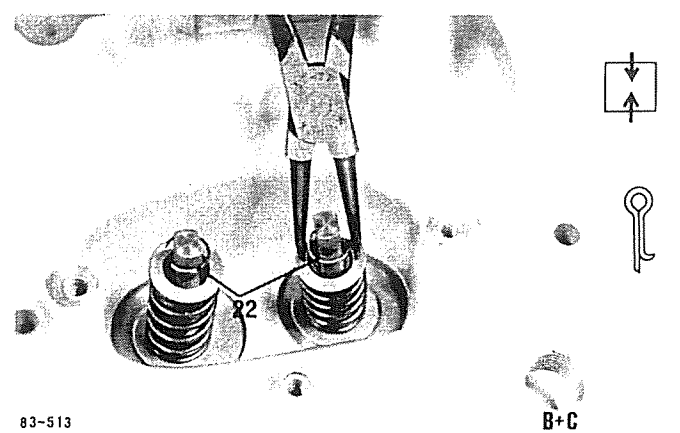
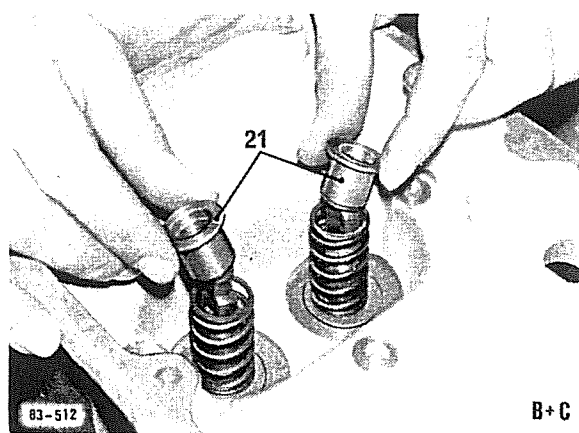
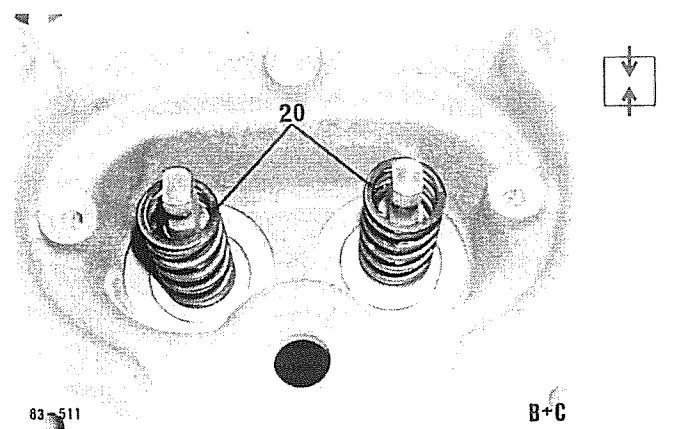
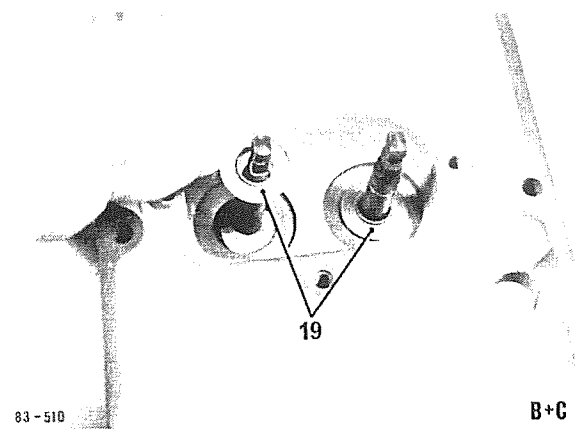
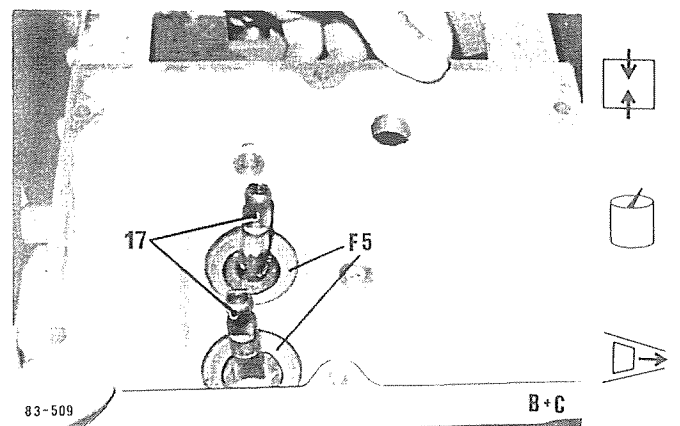
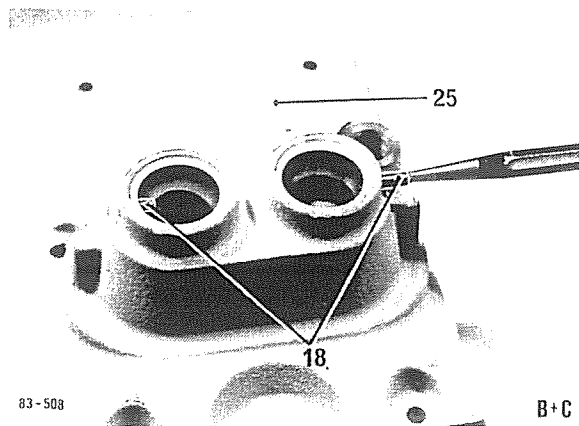


83-503

B







8