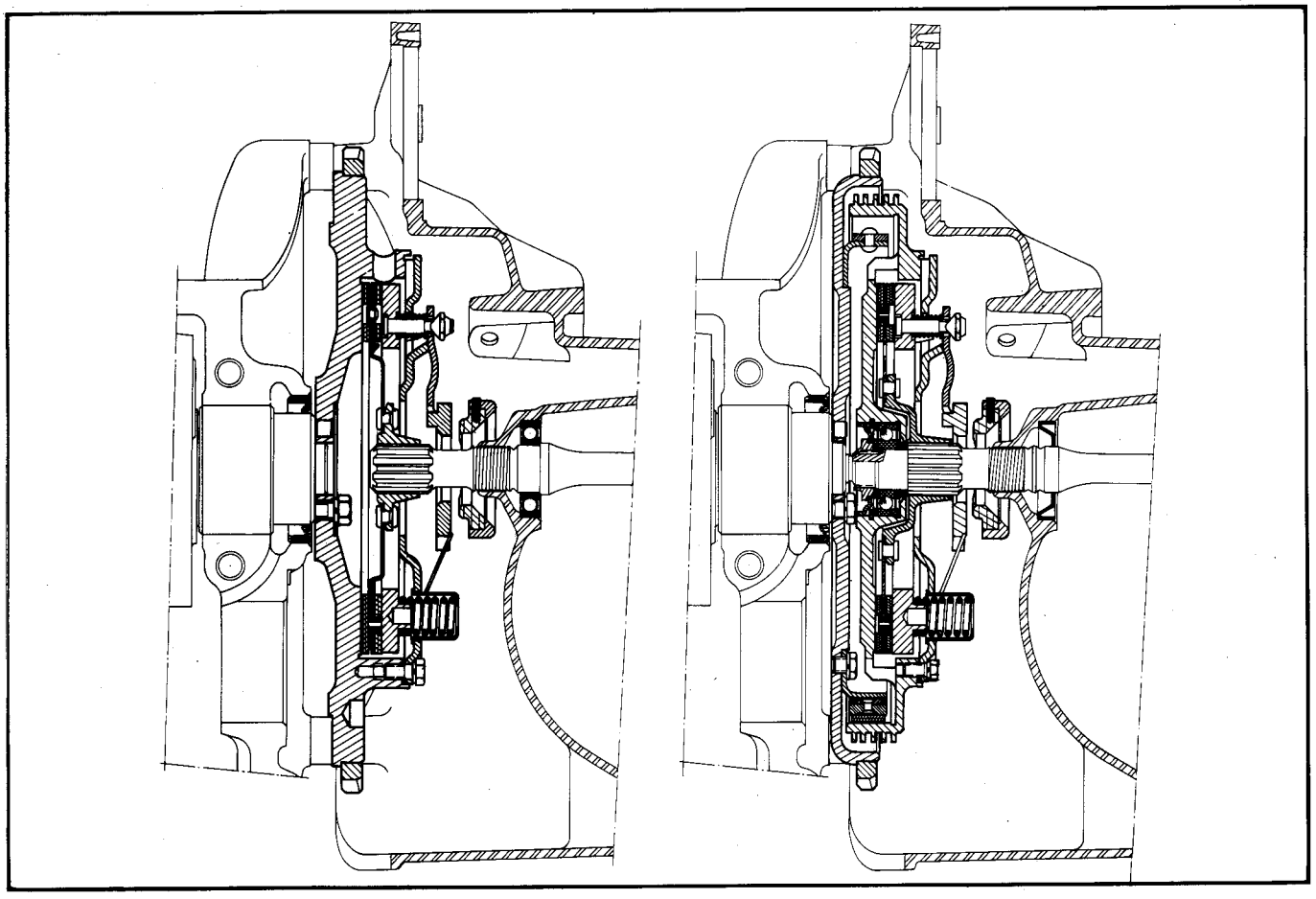
OPERATION No. A. 312-00 : *Characteristics and special features of the clutch.* **Op. A. 312-00** 1

CLUTCHES FITTED ON VEHICLES EQUIPPED WITH ENGINES :

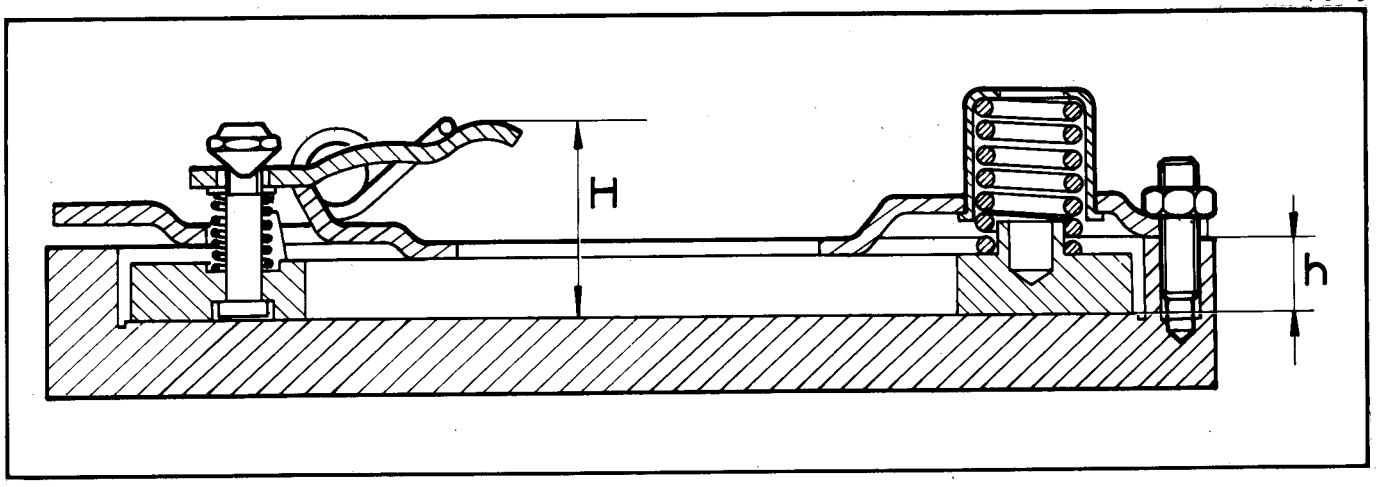
A 53 → *2/1970*
A 79/0 → *1/1972*
M 4 → *10/1968*

A. 31-7



Manual 816-1

A. 31-3



CHARACTERISTICS

Mechanism : « FERODO » type PKH 3 (engines A 53 and A 79/0)
« FERODO » type PKH 4 (engine M 4)

Disc : ..... Progressive type ⟶ *10/1967* - « DENTEL » type *10/1967* ⟶

Disc hub : ..... 10 grooves ⟶ *4/1966* - 18 teeth *4/1966* ⟶

Lining : ..... « FERODO » M 8 or A 3 S

Thrust bearing : ..... Graphite ring

SPECIAL FEATURES

Clutch springs : (engine A 53 and A 79/0)
- 3 springs (pink mark),
- 3 springs (orange mark).

Clutch springs : (engine M 4)
- 6 springs (ruby mark)

Distance between the engine-gearbox joint face and the surface of the boss receiving the bearing in the drum. (centrifugal clutch) = 5.12 to 5.42 mm (0.201 to 0.203 in).

Tightening torques :
- Nut securing clutch drum to mainshaft : ..... 3 to 4 da Nm (21.66 to 28.88 ft.lbs)
- Screw securing weight carrying ring on flywheel : ..... 0.9 to 1.4 da Nm (6.49 to 10.1 ft.lbs)
- Screw securing clutch mechanism : ..... 1 to 1.3 da Nm (7.22 to 9.38 ft.lbs)

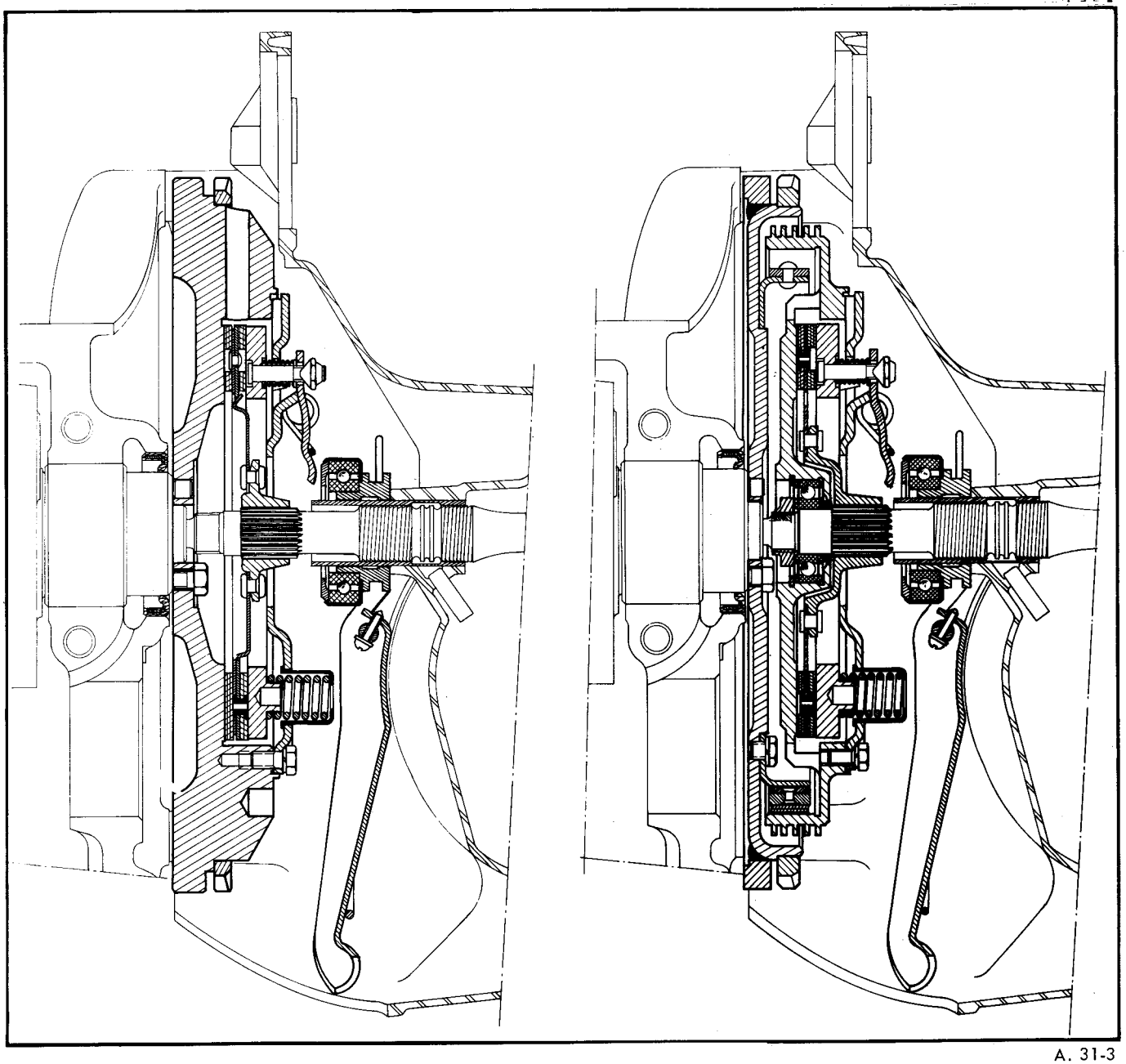
Clearance between thrust ring and toggles : ..... 0.5 to 1 mm ((.019 to 0.039 in)
Pedal free movement : ..... 10 to 15 mm (0.39 to 0.59 in)

Adjusting the toggles *(see diagram on page 1)* :
- Distance between top of toggles and thrust plate : ..... H = 26 to 27,5 mm (1.02 to 1.08 in)
- Distance between plate and housing for clutch mechanism : ..... h = 12 mm (0.47 in)

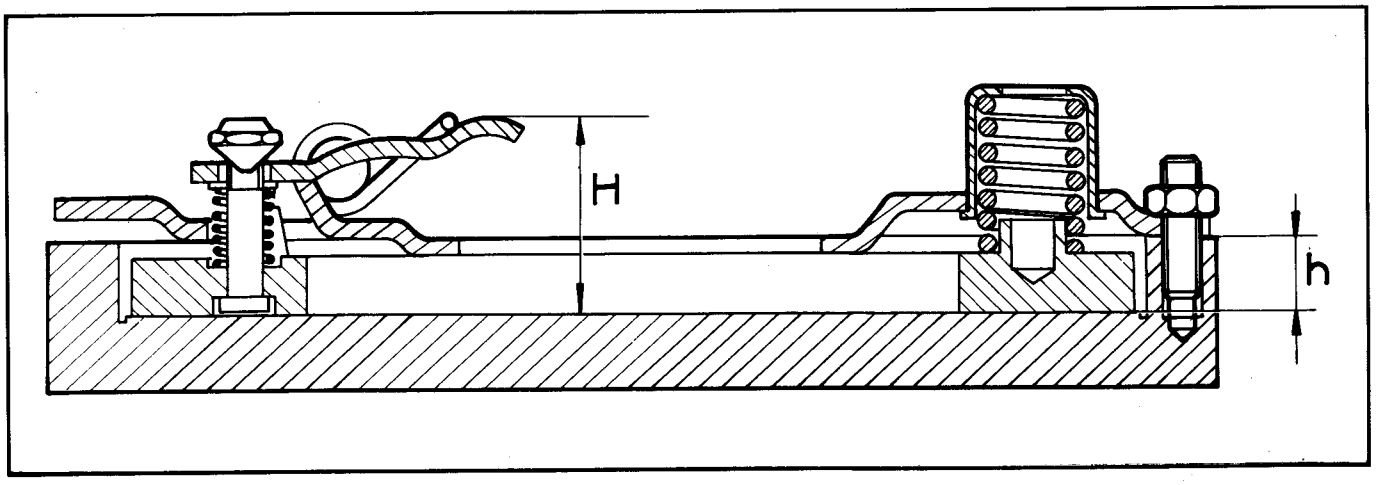
♦ SPRING CLUTCHES FITTED ON VEHICLES EQUIPPED WITH ENGINES :

A 79/0 *2/1972 → 8/1972*
A 79/1 *3/1968 → 9/1979*
M 28/1 *5/1968 → 2/1982*
M 28 *2/1970 → 2/1982*

A. 31-2



A. 31-3



Supplement No. 1 to Manual 816-1 (CORR)

CHARACTERISTICS *(→ 2/1982)*

Mechanism:	« FERODO » Type PKHB 4.5
Disc :	« DENTEL » Type
Disc hub :	18 grooves
Lining :	A 3 S quality or 813 engine side and A 3 S gearbox side
Thrust bearing :	Ball type

SPECIAL FEATURES

Clutch springs :
- 6 springs (« light grey » mark)

Distance between the engine-gearbox joint face and the surface of the boss receiving the bearing in the drum (centrifugal clutch) = 5.12 to 5.42 mm (0.201 to 0.203 in).

Tightening torques :

- Nut securing clutch drum to mainshaft :	3 to 4 da Nm (21.66 to 28.88 ft.lbs)
- Screw securing weight carrying ring on flywheel :	0.9 to 1.4 da Nm (6.49 to 10.1 ft.lbs)
- Screw securing clutch mechanism :	1 to 1.3 da Nm (7.22 to 9.38 ft.lbs)
Clearance between stop and toggles :	1 to 1.5 mm (.039 to .059 in)
Pedal free movement :	20 to 25 mm (0.78 to 0.98 in)

Adjusting the toggles *(see diagram page 3)* :

- Distance between top of toggles and thrust plate :	H = 25.6 to 26.3 mm (1.007 to 1.047 in)
- Distance between plate and housing for clutch mechanism :	h = 12 mm (0.47 in)

♦ CHARACTERISTICS *(2/1982 →)*

Diaphragm type mechanism :	VERTO 160 DBR 210
Disc :	Dia. 160 mm
Disc hub :	Fixed, 18 grooves
Lining :	A 35 quality
Thrust bearing :	Ball-type

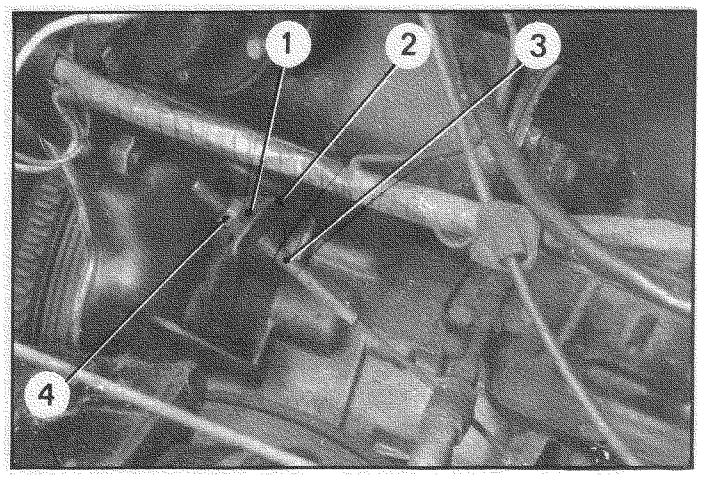
SPECIAL FEATURES *(2/1982 →)*

Will be dealt with in a further updating.

ADJUSTING THE CLUTCH CLEARANCE

A. *Vehicles AZ (2 CV)* ⟶ *February 1970.*
Vehicles AZU (2 CV) ⟶ *January 1972.*
Vehicles AK (3 CV) ⟶ *October 1967.*
Vehicles AM (3 CV) ⟶ *December 1963.*

10 655



The pad of the clutch pedal should be at the same height as that of the brake pedal. The height is adjusted by moving the stop pin, located in one of the holes of the brake pedal shaft

1. Adjust the clutch clearance :

Untighten the lock nut then tighten or loosen the adjustment nut (1) to obtain **a clearance of 0.5 to 1 mm (0.019 to 0.039 in)** between the nut (1) and the fork (2).
This check should be carried out by holding the clutch cable (3) taut by its free end and slightly pressing on the clutch fork (2) to bring the graphited thrust bearing into contact with the toggles thrust ring. Tighten the lock-nut (4).

B. *Vehicles AY - AK - AZU - AZL and AM equipped with a pendant pedal gear*

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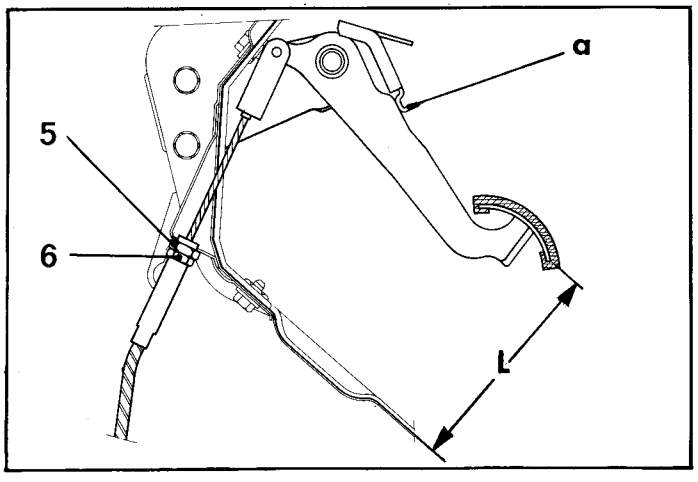
A. 31-1



2. Check the pedal height :

With the pedal against the stop « a », the height of the pedal should be :

L = 130.5 ± 5 mm (5.13 ± 0.19 in)

measured from the lower corner of the pedal pad to the floor plating. If not, bend the support plate at « a » to obtain the correct height.

For vehicles AM *11/1971* ⟶ only :
pedal height :

L = 135 ± 2.5 mm (5.31 ± 0.098 in)

3. Adjust the clutch clearance :

Loosen the lock nut (6) and turn nut (5) to obtain **a clearance of 1 to 1.5 mm (0.039 to 0.059 in)** between the ball thrust bearing and the levers.
The clutch pedal free movement should then be 20 to 25 mm (0.78 to 0.98 in).
Tighten the lock-nut (6).

I. GEARBOXES :

Vehicles fitted with gear ♦ lever on rear cover

- *AZ* ⟶ *February 1970*
- *AY* ⟶ *October 1968 (⟶ March 1969 on AYA DYANE)*
- *AZU* ⟶ *January 1972*
- *AK* ⟶ *October 1967*
- *AM* ⟶ *February 19, 1968*

SPECIAL FEATURES.

Adjustments :

- Lateral play of second gear loose pinion	0.05 to 0.35 mm (.0019 to 0.013 in)
- Lateral play of intermediate gear train :	
- 2 CV (unadjustable) : old torque *(width of bearing : 18 mm, 0.70 in)*	0.05 to 0.35 mm (.0019 to 0.13 in)
new torque *(width of bearing : 16 mm, 0.62 in)*	0.45 to 1 mm (0.17 to 0.039 in)
- 3 CV (adjustable)	0.10 to 0.20 mm (.0039 to .0078 in)
- Backlash (pinion, crownwheel)	0.13 to 0.23 mm (.0051 to .009 in)
- Minimum play between planetary and satellite gears	0.1 mm (.0039 in)

Tightening torques :

- Primary shaft nut	7 to 9 da Nm (50.54 to 64.98 ft.lbs)
- Bevel pinion shaft nut	7 to 8.5 da Nm (50.54 to 61.37 ft.lbs)
- Securing screw for flange retaining mainshaft bearing	2.5 da Nm (18.05 ft.lbs)
- Securing screw for flange retaining rear bearing on bevel pinion shaft	2.5 to 3 da Nm (18.05 to 21.66 ft.lbs)
- Bearing nut on mainshaft	12 to 14 da Nm (86.64 to 101.08 ft.lbs)
- Securing screw for differential crownwheel	7 to 8 da Nm (50.54 to 64.98 ft.lbs)
- Nut holding differential shaft and ball bearing	10 to 12 da Nm (72.2 to 86.64 ft.lbs)
- Ring nut for locking ball bearing in bearing block	10 to 14 da Nm (72.2 to 101.08 ft.lbs)
- Drain plug	3.5 to 4.5 da Nm (25.27 to 32.49 ft.lbs)
- Level plug	1 to 1.5 da Nm (7.22 to 10.83 ft.lbs)
- Clutch housing (securing) : Nut dia : 10 mm (0.39 in)	3.5 to 4.5 da Nm (25.27 to 32.49 ft.lbs)
Screw dia : 7 mm (0.27 in)	1.5 to 2 da Nm (10.83 to 14.44 ft.lbs)
- Rear cover (screw dia. = 7 mm, 0.27 in)	1.5 to 2 da Nm (10.83 to 14.44 ft.lbs)
- Nuts securing differential shaft bearing (dia = 9 mm, 0.35 in)	3.8 to 4.2 da Nm (27.43 to 30.32 ft.lbs)

Lubrication :

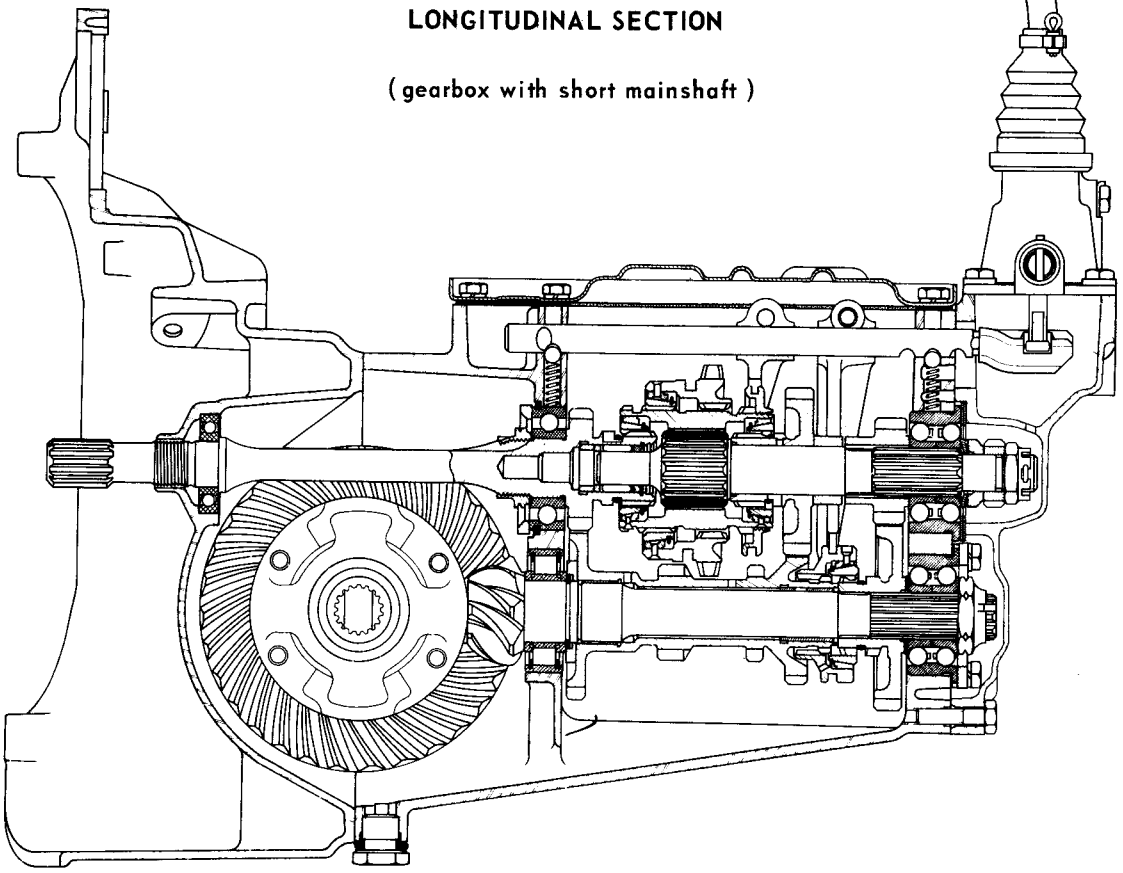
- Grade of oil	TOTAL EP 80
- Capacity	0.9 litres (1.58 Imp.pts)

Supplement No. 1 to Manual 816-1 (COR/R)

A. 33-1 a

LONGITUDINAL SECTION

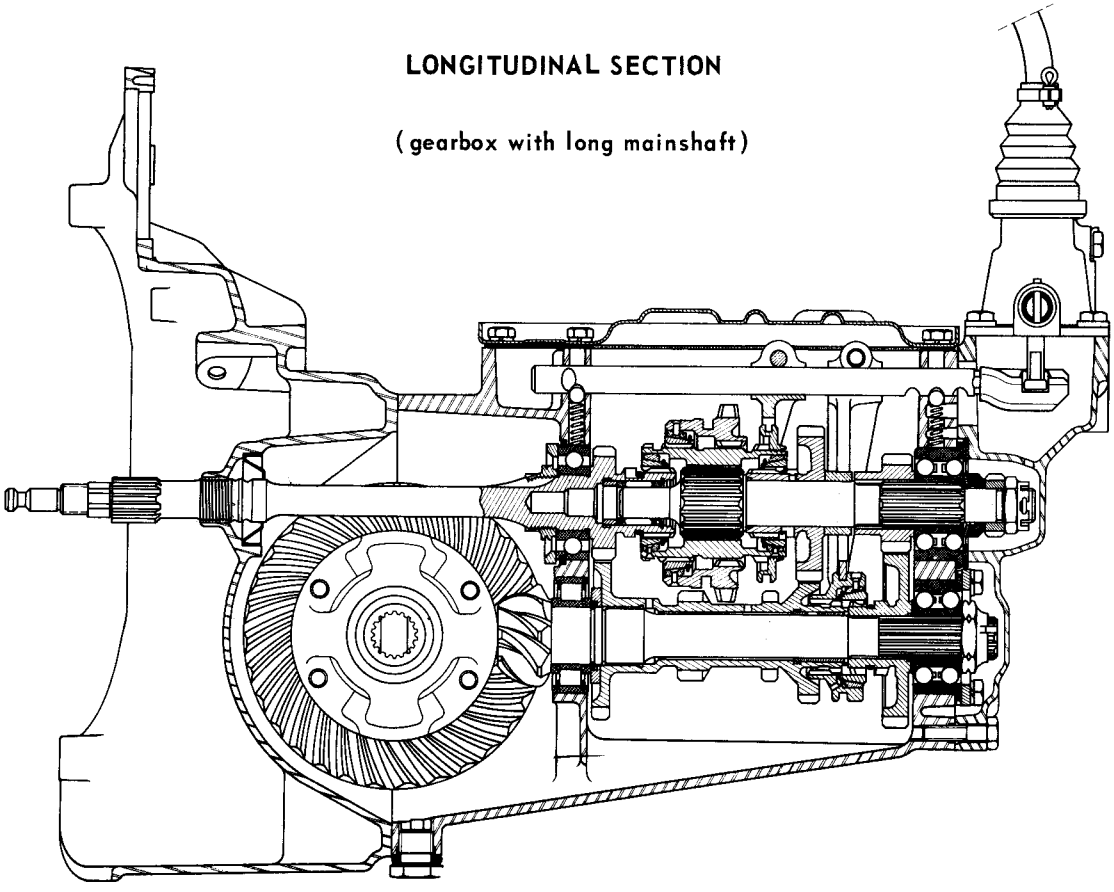
(gearbox with short mainshaft)



A. 33-1

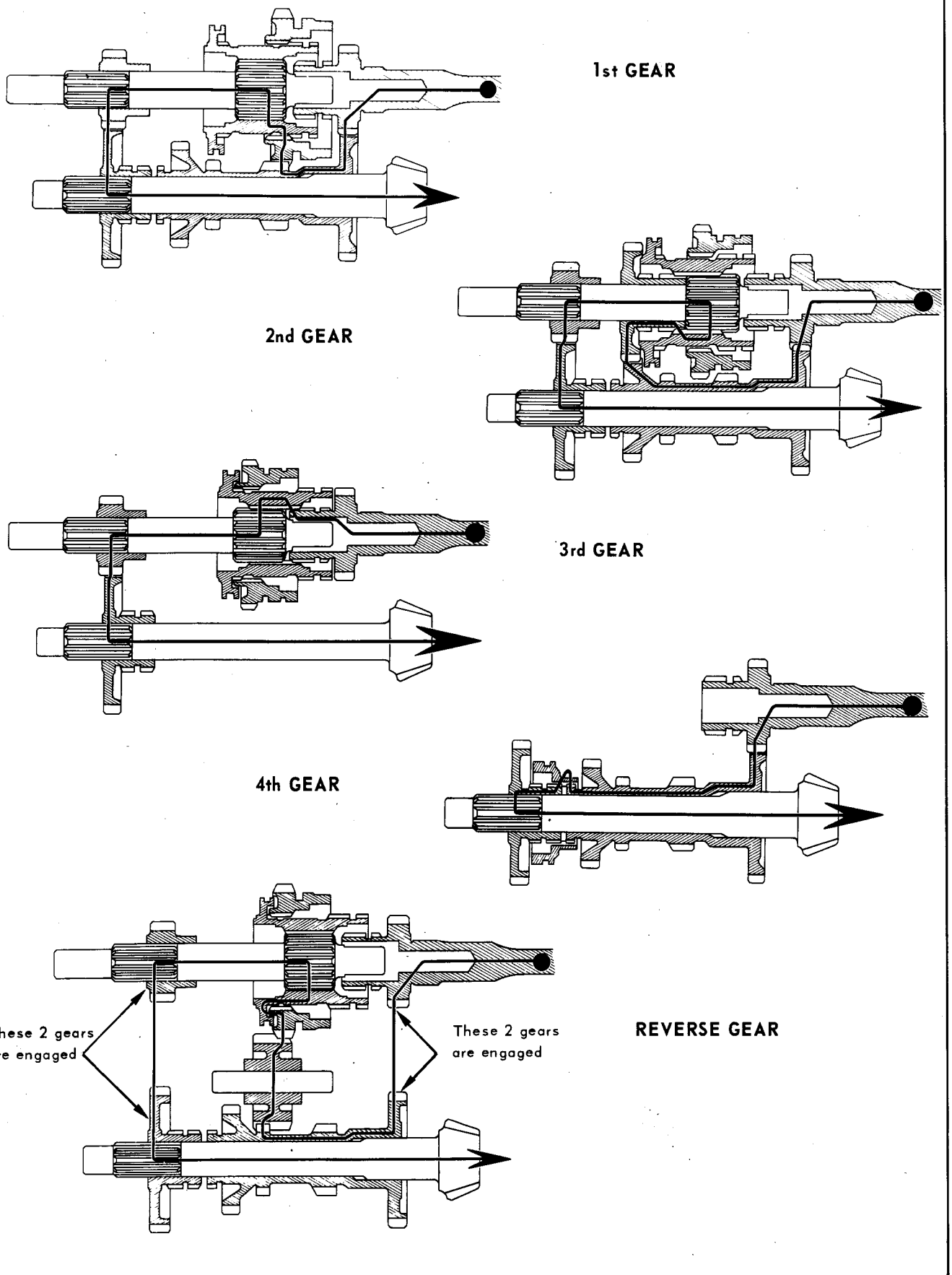
LONGITUDINAL SECTION

(gearbox with long mainshaft)



GEAR SEQUENCE

A. 33-5



Manual 816-1

Gear ratios (with 125 - 380 X tyres whose rolling circumference under load is 1.800 meters, 5 ft 10 in)

Gearbox fitted *on* **AZ** *vehicles* *11/1964* ⟶ *2/1970*				
Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)
1	19/28 × 14/33 × 15/32 (7.410 : 1)	8/29 (3.625 : 1)	26.863 : 1	4.020 (2.512)
2	19/28 × 22/25 × 15/32 (3.572 : 1)		12.950 : 1	8.339 (5.211)
3	15/32 (2.133 : 1)		7.733 : 1	13.966 (8.728)
4	19/28 (1.473 : 1)		5.342 : 1	20.217 (12.635)
REV	19/28 × 13/33 × 15/32 (7.980 : 1)		28.929 : 1	3.733 (2.333)
Speedometer drive ratio = 6/25				

Gearbox fitted *on* **AZU** *vehicles* *11/1964* ⟶ *3/1968*				
Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)
1	19/28 × 14/33 × 15/32 (7.410 : 1)	8/32 (3 875 : 1)	28.713 : 1	3.761 (2.350)
2	19/28 × 22/25 × 15/32 (3.572 : 1)		13.841 : 1	7 802 (4,876)
3	15/32 (2 133 : 1)		8 265 : 1	13 067 (8.166)
4	19/28 (1 473 : 1)		5 707 : 1	18 924 (11 827)
REV	19/28 × 13/33 × 15/32 (7 980 : 1)		30 922 : 1	3 926 (2 453)
Speedometer drive ratio = 5/22				

Gearbox fitted *on* **AZU** *vehicles* *3/1968* ⟶ *1/1972*				
Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)
1	18/28 × 14/33 × 15/32 (7 822 : 1)	8/31 (3 875 : 1)	30 311 : 1	3 563 (2 226)
2	18/28 × 24/26 × 15/32 (3 595 : 1)		13 930 : 1	7 753 (4 845)
3	15/32 (2 133 : 1)		8 266 : 1	13 065 (8 165)
4	18/28 (1 555 : 1)		6 027 : 1	17 919 (11 199)
REV	18/28 × 13/33 × 15/32 (8 423 : 1)		32 642 : 1	3 308 (2.06)
Speedometer drive ratio = 5/22				

Gear ratio (with 125-380 X tyres, whose rolling circumference under load is 1.800 meters, 5 ft 10 in).

Gearbox *fitted on* **AYA (DYANE)** *vehicles 8/1967 ⟶ 3/1968*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)
1	18/28 × 14/33 × 15/32 (822 : 1)	8/29 (3.625 : 1)	28.355 : 1	3.808 (2.38)
2	18/28 × 24/26 × 15/32 (3.595 : 1)		13.032 : 1	8.287 (5.179)
3	15/32 (1.133 : 1)		7.733 : 1	13.966 (8.728)
4	18/28 (1.555 : 1)		5.638 : 1	19. 155 (11.971)
REV	18/28 × 13/33 × 15/32 (8.428 : 1)		30.536 : 1	3.536 (2.21)
Speedometer drive ratio = 6/25				

Gearbox *fitted on the following vehicles* { **AYA 3 (DYANE 6)** *(1/1968 ⟶ 10/1968)*; **AM - AMB (AMI 6 Saloon and Estate)** *(10/1963 ⟶ 7/1965)*; **AMF (AMI 6 « Familial » Estate)** *(10/1963 ⟶ 7/1965)*; **AMC (AMI 6 « Commercial » Estate)** *(10/1963 ⟶ 7/1965)*

Gear ratios (with 125-380 X and 135-380 X tyres, whose rolling circumference under load is 1.800 (5 ft 10 in) and 1.840 meters (6 ft 0.4 in) respectively)

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)	
				125 - 380 X	135 - 380 X
1	19/25 × 14/31 × 13/25 (5.602 : 1)	8/29 (3.625 : 1)	20.310 : 1	5.317 (3.32)	5 435 (3.39)
2	19/25 × 23/26 × 13/25 (2.860 : 1)		10.367 : 1	10.417 (6.51)	10.649 (6.65)
3	13/25 (1.923 : 1)		6.971 : 1	15.494 (9.68)	15.837 (9.89)
4	19/35 (1.315 : 1)		4.766 : 1	22.660 (14.16)	23.115 (14.44)
REV	19/25 × 14/31 × 13/25 (5.602 : 1)		20.310 : 1	5.317 (3.32)	5.435 (3.39)
Speedometer drive ratio = 4/15					

Gear ratios (with 135-380 X tyres, whose rolling circumference under load is 1.840 meters, 6 ft 0.4 in)

Gearbox *fitted on the following vehicles* { **AK** *(⟶ 10/1967)*; **AMF (« Familial » Estate)** *(7/1965 ⟶ 2/1968)*; **AMC (« Commercial » Estate)** *(7/1965 ⟶ 2/1968)*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)
1	19/27 × 14/31 × 13/25 (6.051 : 1)	8/29 (3.625 : 1)	21.935 : 1	5.033 (3.14)
2	19/27 × 23/26 × 13/25 (3.089 : 1)		11.198 : 1	9.250 (5.77)
3	13/25 (1.923 : 1)		6.971 : 1	15.837 (9.89)
4	19/27 (1.421 : 1)		5.151 : 1	21.432 (13.39)
REV	19/27 × 14/31 × 13/25 (6.051 : 1)		21.935 : 1	5.033 (3.14)
Speedometer drive ratio = 4/15				

Supplement No. 1 to Manual 816-1 (CORR)

II. GEARBOXES.

Vehicles fitted with gear lever on upper cover

AZ 2/1970 → 9/1975
AY 10/1968 → (3/1968 → on DYANE 4)
AZU 1/1972 → 2/1978
AK 10/1967 → 2/1978
MEHARI 10/1968 →
AM 2/1968 → 9/1978
Acadiane 2/1978 →

SPECIAL FEATURES

Adjustments :

- Lateral play of second gear loose pinion ..... 0.05 to 0.35 mm (.0019 to 0.013 in)
- Lateral play of intermediate gear train ..... 0.10 to 0.20 mm (.0039 to .0078 in)
- Minimum play between planetary gears and satellite ..... 0.1 mm (.0039 in)
- Backlash (pinion, crownwheel)
  Gearbox with lever on upper cover ..... 0.14 to 0.18 mm (.0055 to .0070 in)

Tightening torques :

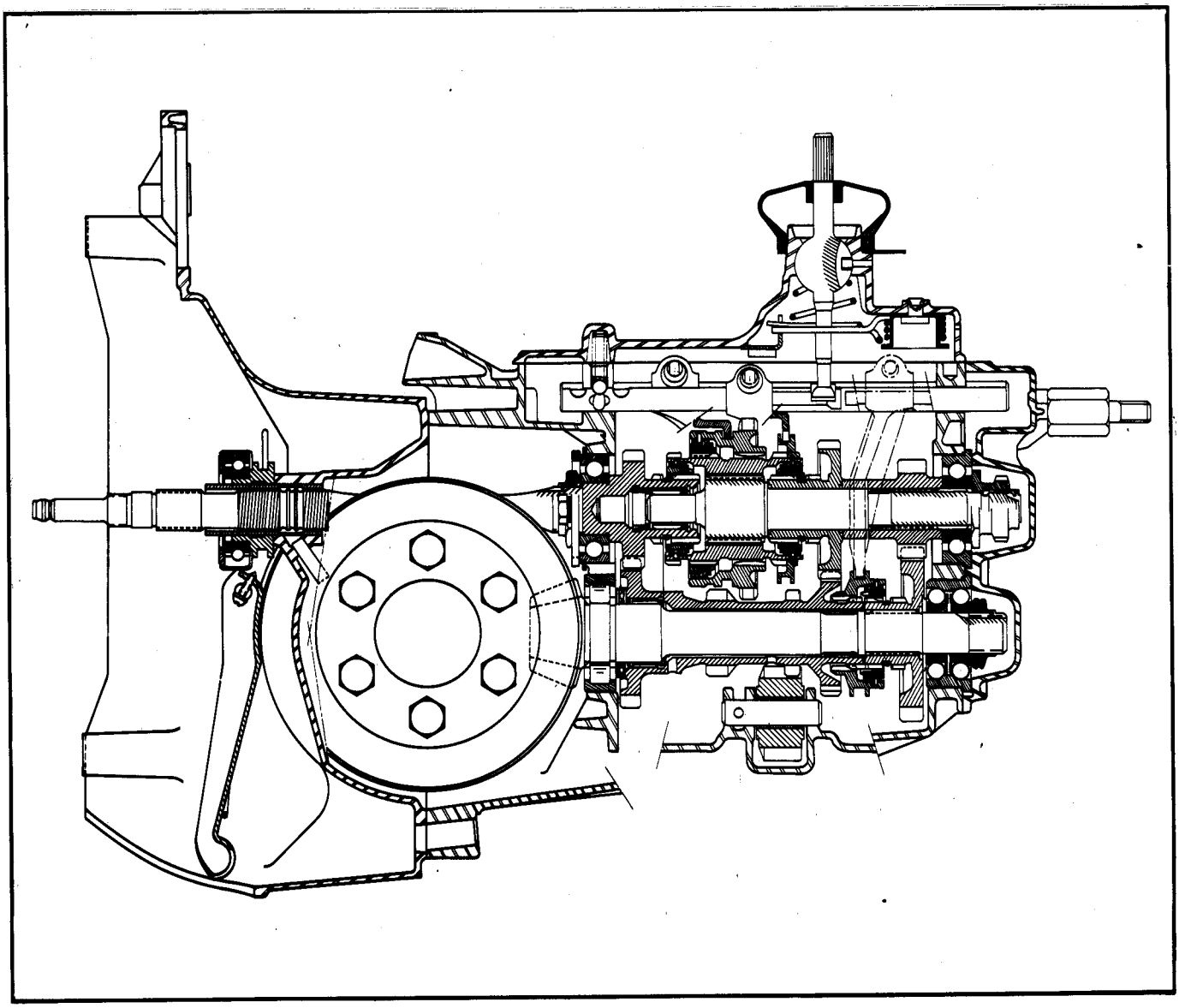
- Nut on primary shaft ..... 7 to 9 da Nm (50.54 to 64.98 ft.lbs)
- Nut on bevel pinion shaft ..... 7 to 8.5 da Nm (50.54 to 61.37 ft.lbs)
- Securing screw for flange retaining mainshaft bearing ..... 2.5 da Nm (18.08 ft.lbs)
- Nut securing mainshaft bearing ..... 12 to 14 da Nm (86.64 to 101.08 ft.lbs)
- Securing screw for differential crownwheel ..... 7 to 8 da Nm (50.54 to 64.98 ft.lbs)
- Clutch housing : bearing screw ..... 3.5 to 4.5 da Nm (25.27 to 32.49 ft.lbs)
  screw diameter = 7 mm (0.27 in) ..... 1.5 to 2 da Nm (10.83 to 14.44 ft.lbs)
- Nut holding differential shaft and ball bearing ..... 10 to 20 da Nm (72.2 to 144.4 ft.lbs)
- Ring nut for locking ball bearing on bearing block ..... 6 to 10 da Nm (43.32 to 72.2 ft.lbs)
- Nuts securing differential shaft bearing ..... 3.8 to 4.2 da Nm (27.43 to 30.32 ft.lbs)
- Screw securing rear cover (diameter = 7 mm, 0.27 in) ..... 1.5 to 2 da Nm (10.83 to 14.44 ft.lbs)
- Drain plug ..... 3.5 to 4.5 da Nm (25.27 to 32.49 ft.lbs)
- Level plug ..... 1 to 1.5 da Nm (7.22 to 10.83 ft.lbs)

Lubrication :

- Grade of oil ..... TOTAL EP 80
- Capacity ..... 0.9 litre (1.58 Imp.pts)

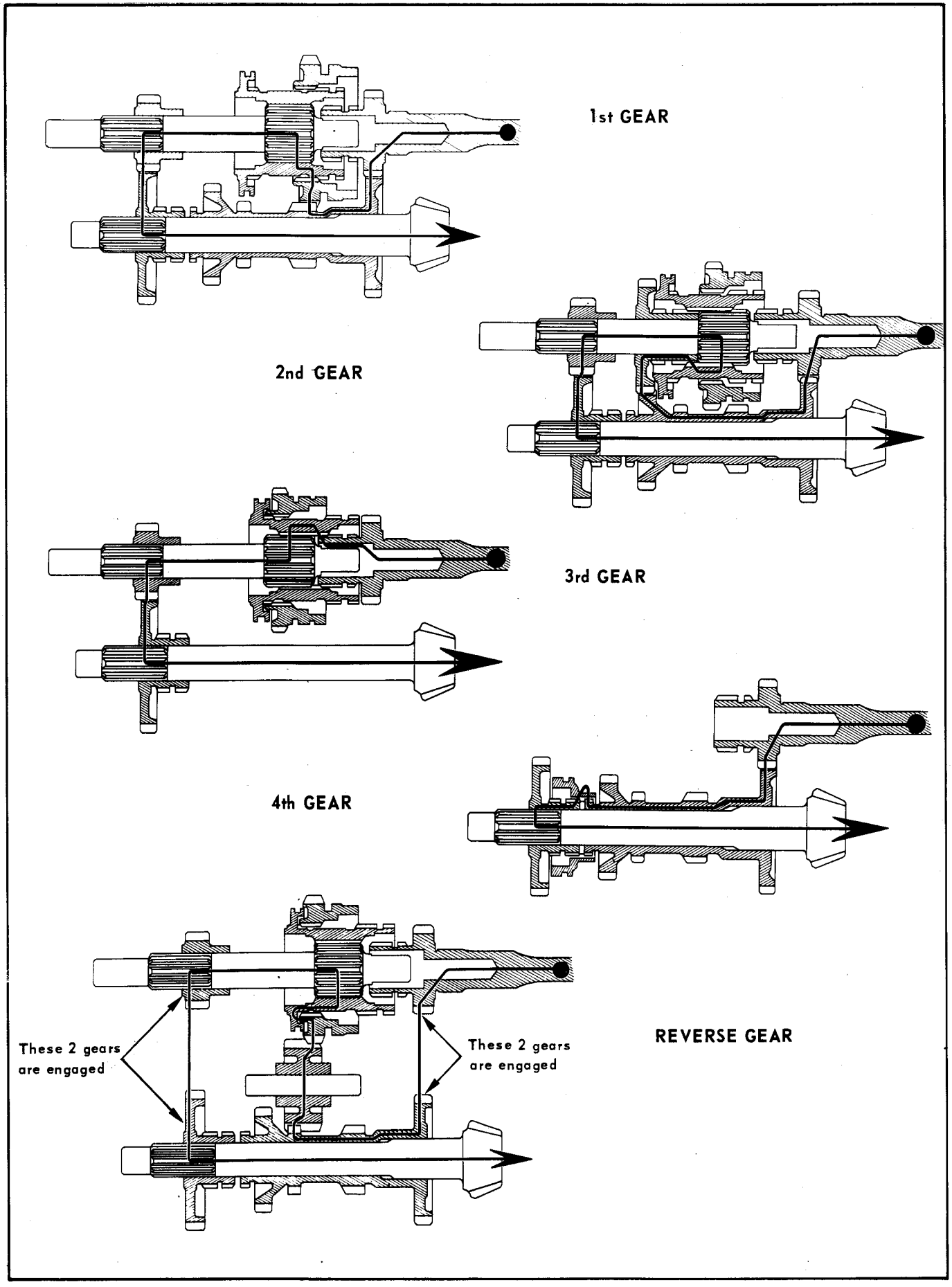
LONGITUDINAL SECTION

A. 33-2



GEAR SEQUENCE

A. 33-5



Gear ratios (with 125-380 X tyres whose rolling circumference under load is 1.800 meters, 5 ft 10 in)
(with 135-380 X tyres whose rolling circumference under load is 1.840 meters, 6 ft 0.4 in)

Gearbox *fitted on the following vehicles* { **AYA 3 (DYANE 6)** *(1/ 1968 ⟶ 10/ 1968)*; **AM (AMI 6)** *(2/ 1968 ⟶ 5/ 1968)*; **AMB (AMI 6, Estate)** *(2/ 1968 ⟶ 5/ 1968)*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)	
				125-380 X	135-380 X
1	19/25 × 14/31 × 13/25 (5.602 : 1)	8/29 (3.625 : 1)	20.307 : 1	5.318 (3.323)	5.436 (3.397)
2	19/25 × 23/26 × 13/25 (2.860 : 1)		10.368 : 1	10.461 (6.538)	10.648 (6.655)
3	13/25 (1.923 : 1)		6.971 : 1	15.492 (9.682)	15.837 (9.898)
4	19/25 (1.315 : 1)		4.789 : 1	22.646 (14.153)	23.052 (14.407)
REV	19/25 × 14/31 × 13/25 (5.602 : 1)		20.307 : 1	5.318 (3.323)	5.318 (3.323)
Speedometer drive ratio = 4/15					

Gearbox *fitted on the following vehicles* { **AM 2**; **AMB 2 (AMI 6, M 28 engine)**; **AMF**; **AMC** } *5/ 1968 ⟶ 3/ 1969*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)	
				125-380 X	135-380 X
1	19/25 × 14/31 × 13/25 (5.602 : 1)	8/31 (3.875 : 1)	21.707 : 1	4.975 (3.109)	5.085 (3.803)
2	19/25 × 23/26 × 13/25 (2.860 : 1)		11.082 : 1	9.745 (6.090)	9.962 (6.220)
3	13/25 (1.923 : 1)		7.451 : 1	14.494 (9.058)	14.816 (9.26)
4	19/25		5.095 : 1	21.197 (13.248)	21.668 (13.542)
REV	19/25 × 14/31 × 13/25 (5.602 : 1)		21.707 : 1	4.975 (3.109)	5.085 (3.803)
Speedometer drive ratio = 4/15					

Gearbox *fitted on the following vehicles* { **AK** *(10/ 1967 ⟶ 5/ 1968)*; **AMF (AMI 6 « Familial »)** *(2/ 1968 ⟶ 5/ 1968)*; **AMC (AMI 6 « Commercial » Estate)** *(2/ 1968 ⟶ 5/ 1968)*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)	
				125-380 X	135-380 X
1	19/27 × 14/31 × 13/25 (6.051 : 1)	8/29 (3.625 : 1)	21.934 : 1	4.923 (3.076)	5.033 (3.145)
2	19/27 × 23/26 × 13/25 (3.089 : 1)		11.197 : 1	9.645 (6.028)	9.859 (6.161)
3	13/25 (1.923 : 1)		6.970 : 1	15.494 (9.683)	15.839 (9.899)
4	19/27 (1.421 : 1)		5.151 : 1	21.197 (13.248)	21.668 (13.537)
REV	19/27 × 14/31 × 13/25 (6.051 : 1)		21.934 : 1	4.923 (3.076)	5.033 (3.145)
Speedometer drive ratio = 4/15					

Supplement No. 1 to Manual 816-1 (CORR)

Gear ratios (with 125 - 380 X tyres whose rolling circumference under load is 1.800 meters, 5 ft 10 in).

Gearbox *fitted on the following vehicles* { **AYB (DYANE 6, M 28 engine)** *2/1970* → ; **AM 3 (AMI 8)** *3/1969* → *7/1969* ; **AMF 3 (AMI 8 Estate)** *9/1969* → *9/1978*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)
1	20/27 × 14/31 × 13/25 (5.748 : 1)	8/31 (3.875 : 1)	22.275 : 1	4.848 (3.03)
2	20/27 × 23/26 × 13/25 (2.934 : 1)		11.372 : 1	9.497 (5.935)
3	13/25 (1.923 : 1)		7.451 : 1	14.494 (9.058)
4	20/27 (1.350 : 1)		5.231 : 1	20.646 (12.903)
REV	20/27 × 14/31 × 13/25 (5.748 : 1)		22.275 : 1	4.848 (3.03)

Speedometer drive ratio = 4/16

Gear ratios (with 135 - 380 X tyres whose rolling circumference under load is 1.840 meters, 6 ft 0.4 in)

Gearbox *fitted on the following vehicles* { **AMC 3 («Commercial» Estate)** *9/1969* → *9/1978* ; **AY (series CD) ACADIANE** *2/1978* →

Gears	Gearbox ratios	Crownwheel	Overall ratios	Speed at 1000 rpm engine speed in kph. (mph)
1	20/27 × 14/31 × 13/25 (5.748 : 1)	8/31 (3.875 : 1)	22.275 : 1	4.956 (3.097)
2	20/27 × 23/26 × 13/25 (2.934 : 1)		11.372 : 1	9.705 (6.067)
3	13/25 (1.923 : 1)		7.451 : 1	14.816 (9.26)
4	20/27 (1.350 : 1)		5.231 : 1	21.104 (13.19)
	20/27 × 14/31 × 13/25 (5.748 : 1)		22.275 : 1	4.956 (3.097)

Speedometer drive ratio = 4/16

Gear ratios (with 135 - 380 X tyres whose rolling circumference under load is 1.840 meters, 6 ft 0.4 in)

Gearbox *fitted on the following vehicles* { **AY series CA (MEHARI)** *10/1968* → ; **AK** *5/1968* → *2/1978*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed in 1000 rpm engine speed in kph (mph)
1	19/27 × 14/31 × 13/25 (6.051 : 1)	8/31 (3.875 : 1)	23.448 : 1	4.708 (2.942)
2	19/27 × 23/26 × 13/25 (3.089 : 1)		11.970 : 1	9.223 (5.764)
3	13/25 (1.923 : 1)		7.451 : 1	14.816 (9.26)
4	19/27 (1.421 : 1)		5.506 : 1	20.059 (12.536)
REV	19/27 × 14/31 × 13/25 (6.051 : 1)		23.448 : 1	4.708 (2.924)

Speedometer drive ratio = 4/16

Gear ratios (with 125-380 X tyres whose rolling circumference under load is 1.800 meters, 5 ft 10 in)

Gearbox *fitted on the following vehicles*
- **AYA 2 (Dyane 4)** *3/1968 → 9/1975*
- **AZ (2 CV 4)** *2/1970 → 9/1979*
- **AZU (2 CV van)** *1/1972 → 2/1978*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)
1	19/28 × 14/31 × 15/32 (6.961 : 1)	8/33 (4.125 : 1)	28.715 : 1	3.761 (2.350)
2	19/28 × 23/26 × 15/32 (3.553 : 1)		14.659 : 1	7.367 (4.604)
3	15/32 (2.133 : 1)		8.799 : 1	12.274 (7.671)
4	19/28 (1.473 : 1)		6.078 : 1	17.769 (11.105)
REV	19/28 × 14/31 × 15/32 (6.961 : 1)		28.715 : 1	3.761 (2.350)

Speedometer drive ratio = 3/14

Supplement No. 1 to Manual 816-1 (CORR)

Gear ratios (with 125 - 380 X tyres whose rolling circumference under load is 1.800 meters, 5 ft 10 in)

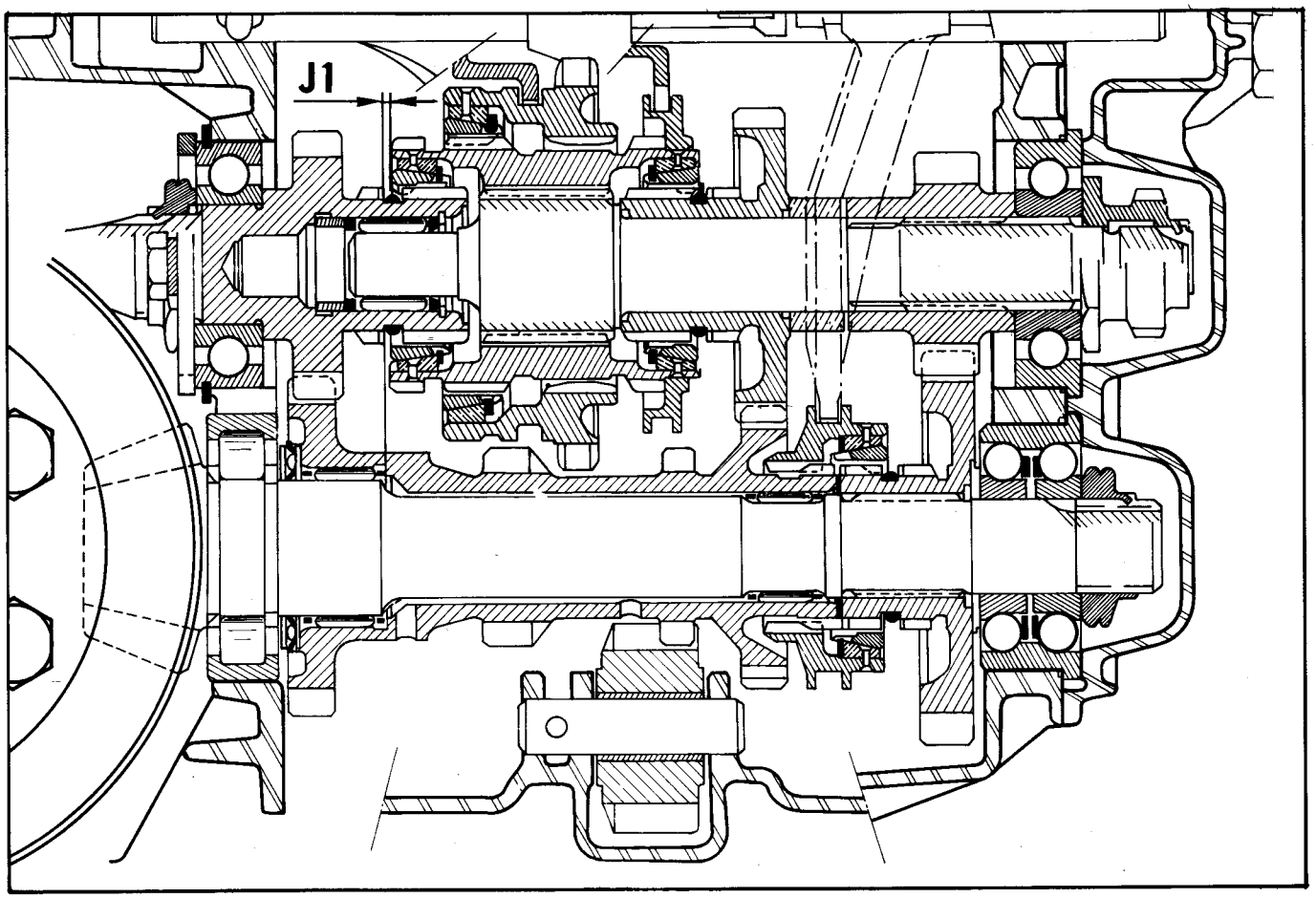
Gearbox *fitted on the following vehicles*
- **AYB (DYANE 6, M 28/1 engine)** *10/1968 → 2/1970*
- **AZ (2 CV 6)** *2/1970 →*

Gears	Gearbox ratios	Crownwheel and pinion	Overall ratios	Speed at 1000 rpm engine speed in kph (mph)
1	19/25 × 14/31 × 14/25 (5.202 : 1)	8/33 (4.125 : 1)	21.458 : 1	5.033 (3.145)
2	19/25 × 23/26 × 14/25 (2.656 : 1)		10.956 : 1	9.857 (6.160)
3	14/25 (1.785 : 1)		7.363 : 1	14.667 (9.166)
4	19/25 (1.315 : 1)		5.424 : 1	19.911 (12.444)
REV	19/25 × 14/31 × 14/25 (5.202 : 1)		21.458 : 1	5.033 (3.145)

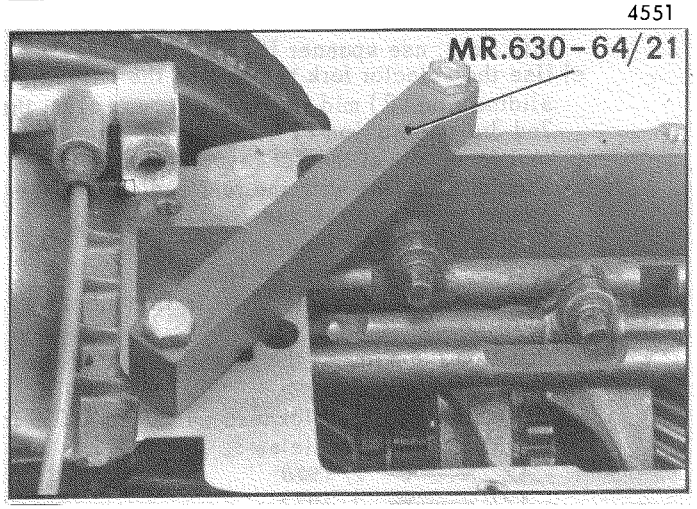
Speedometer drive ratio = 4/16

ADJUSTING THE FORKS

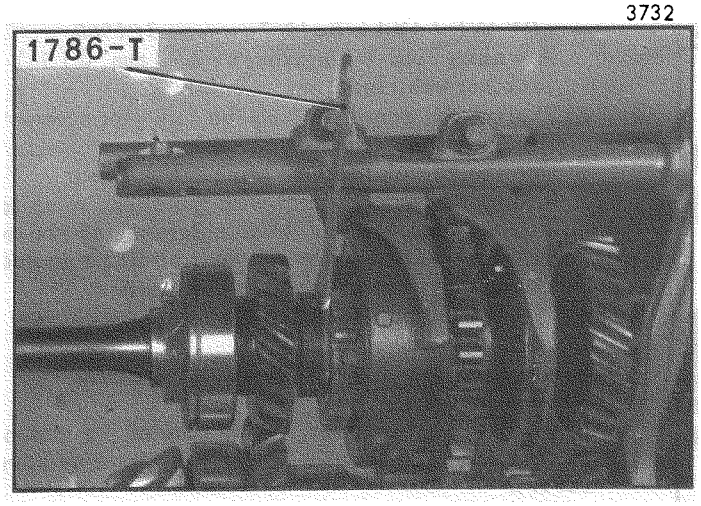
A. 33-3



4551



3732



1. Remove the upper cover from the gearbox.

2. Adjust the 2nd-3rd selector fork :

a) Position the fork shaft in neutral position.

In the case the gearbox control lever is fitted on the upper cover, the operation is simplified by using clamp MR. 630-64/21 to maintain the locking spring in position.

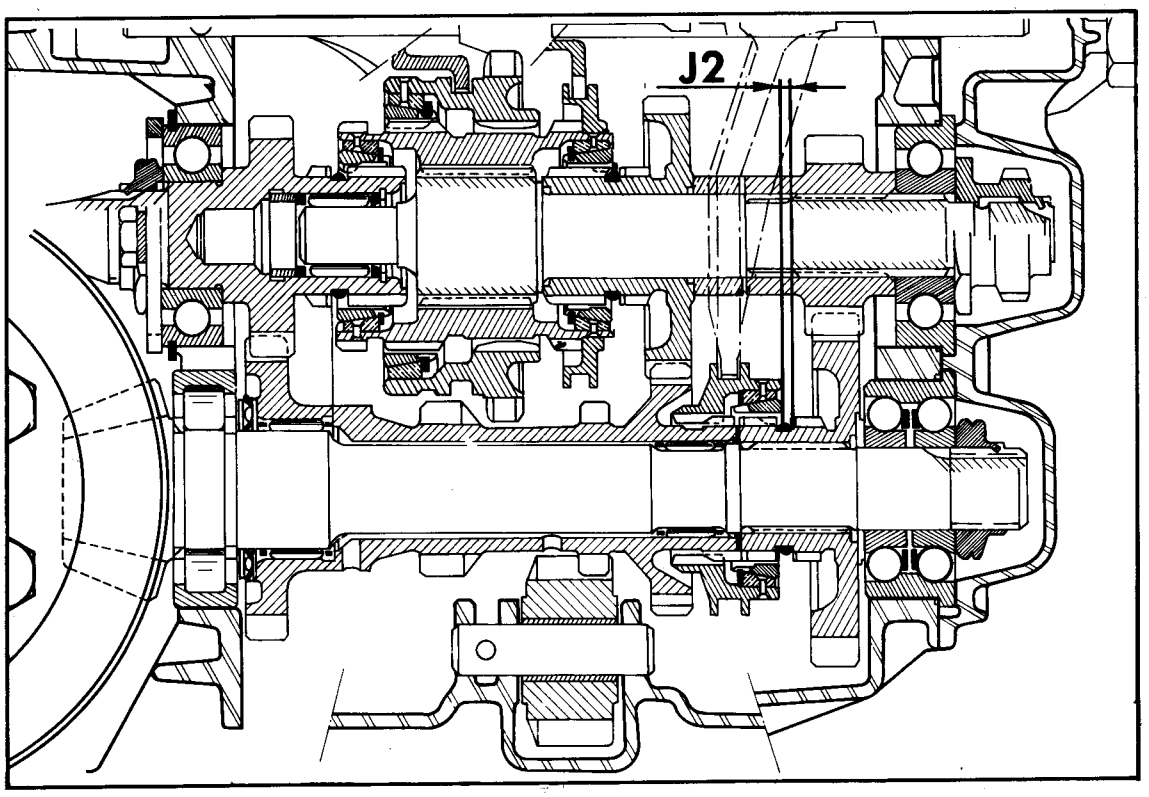
b) Position the shim 1786-T (thickness : 1.8 mm, 0.07 in) on the mainshaft retarding ring. Slacken the screw holding the fork (for screws with flats use spanner 1677-T).

c) Using the selector fork, bring the sliding ring for 2nd and 3rd gears into contact with the shim so as to obtain a clearance J 1 = 1.8 mm (0.07 in) between the end of 2nd-3rd sliding ring and the mainshaft dogs.

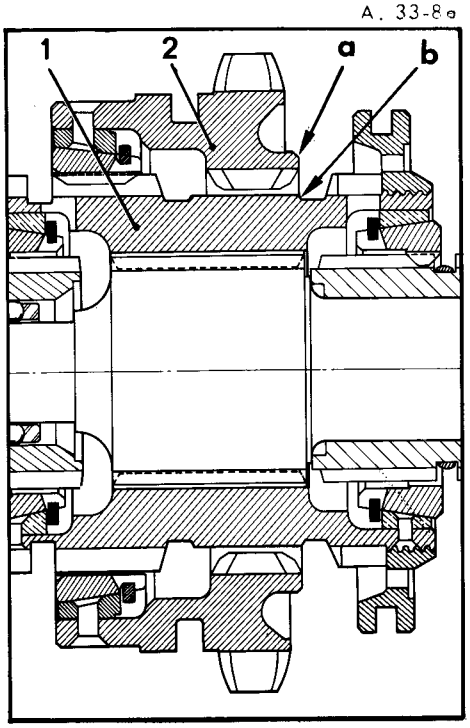
d) Tighten the bolt holding the fork.

e) Remove the shim.

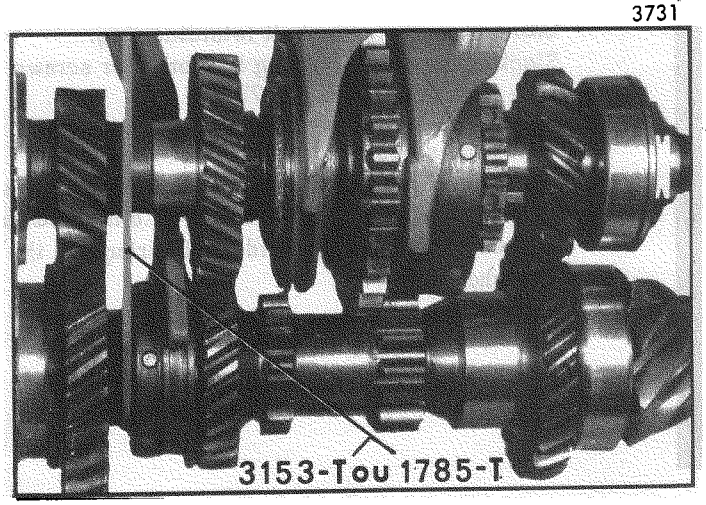
A. 33-3



A. 33-8a



3731



3. Adjust the 1st-reverse selector fork.

Before carrying out this adjustment, the 2nd-3rd selector fork must without fail be correctly adjusted.

a) Make sure that the fork shaft is in neutral position.
b) Slacken the screws securing the fork (for screws with flats, use spanner 1677-T).
c) Use the selector fork to position the 1st-reverse sliding ring (2) mid-way along its travel on the 2nd-3rd sliding ring (1). In this position, the rear face « a » of the 1st-reverse sliding ring should be in line with the rear end « b » of the ground portion of the 2nd-3rd sliding ring.
d) Tighten the screw holding the fork.

4. Adjust the 4th gear selector fork :

a) Make sure that the fork shaft is in neutral position.
b) Position the shim on the retarding ring of the step-down gear :
Use shim 1785-T (thickness : 1.50 mm, 0.059 in) for the following vehicles :
- *AZ* ⟶ *2/1970*
- *AZU* ⟶ *2/1972*
- *DYANE (AYA) 8/1967* ⟶ *3/1968*

Use shim 3153-T (thickness : 2.70 mm, 0.1 in) for other vehicles.
c) Slacken the screw holding the fork (for screws with flats use spanner 1677-T).
d) Use the selector fork to bring the 4th gear sliding ring into contact with the shim, so as to obtain a clearance J2 (value determined above) between the end of the 4th gear sliding ring and the driving dogs of the step-down gear.
e) Tighten the bolt securing the fork.
f) Remove the shim.

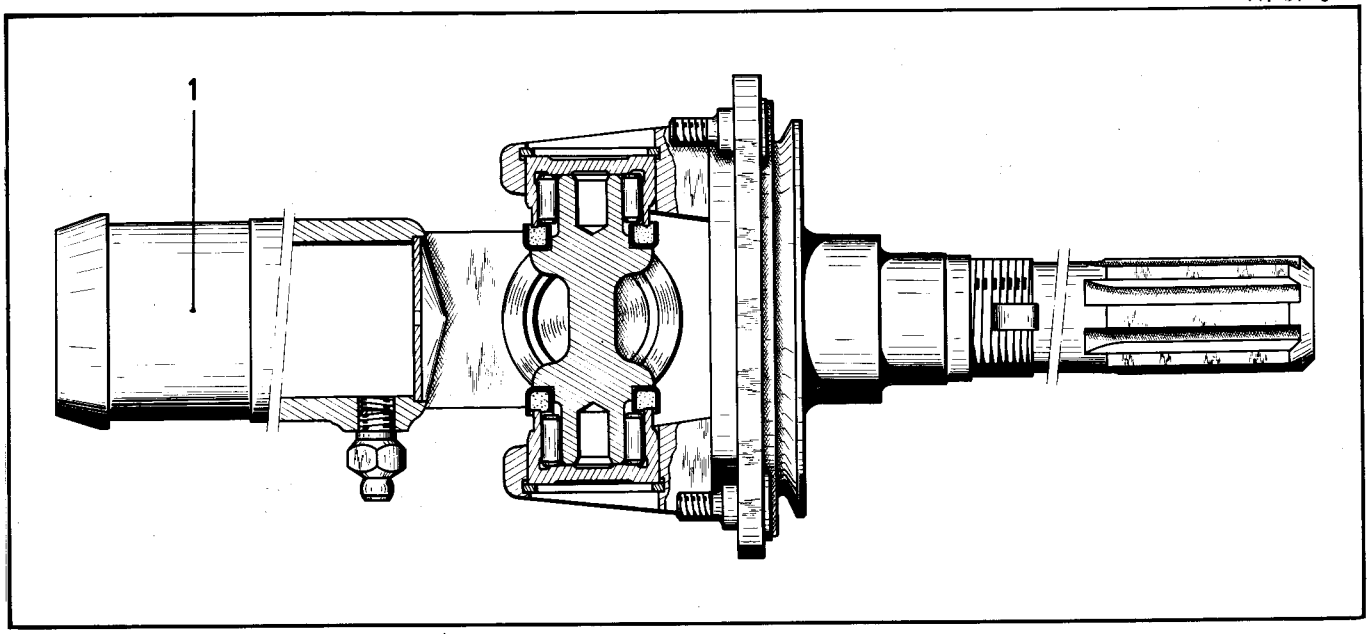
5. Select each gear in turn : Remove the clamp MR. 630-64/21.

6. Replace the upper cover, taking care of the locking springs *(for gearboxes with the gear lever on upper cover).*

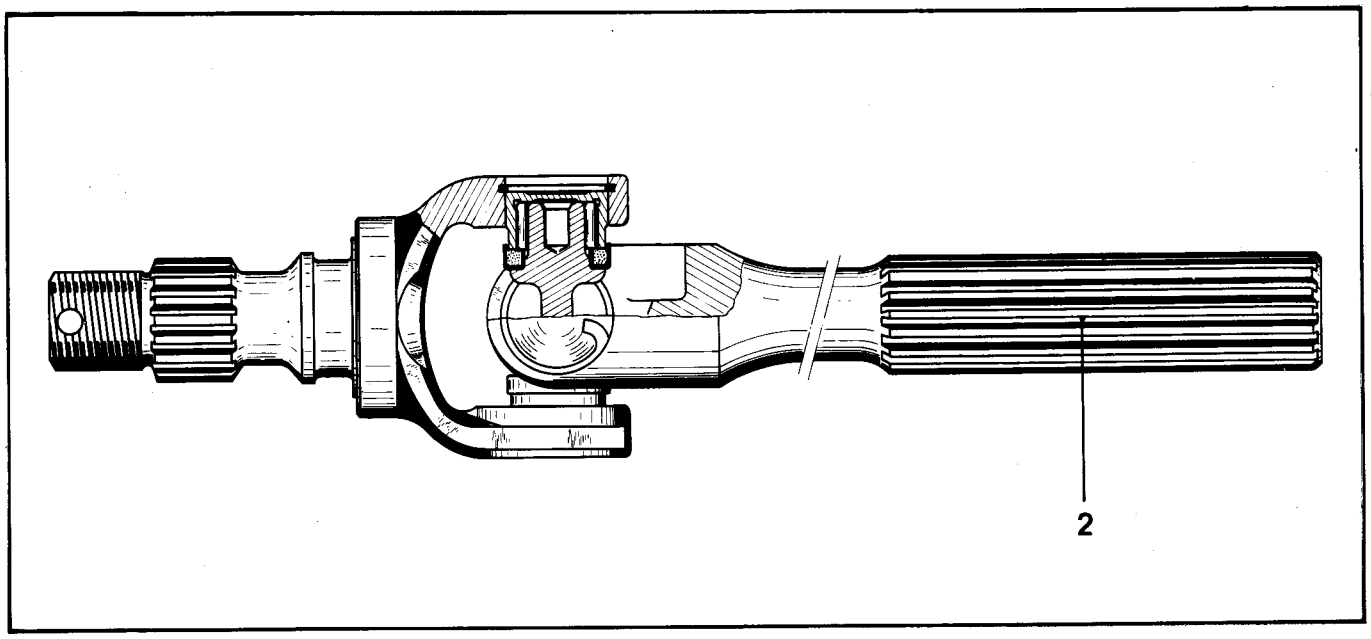
OPERATION No. A. 372-00 : *Characteristics and special features of drive shafts.* **Op. A. 372-00** 1

DRIVE SHAFT WITH SINGLE CROSSHEAD UNIVERSAL JOINT

A. 37-6



A. 37-7



CHARACTERISTICS

- Simple crosshead joint, gearbox end.
- Simple crosshead joint, wheel end.
- Fitting : The fork of the sliding yoke (1) must be in line with the fork of the splined shaft (2).

SPECIAL FEATURES

Tightening torque :

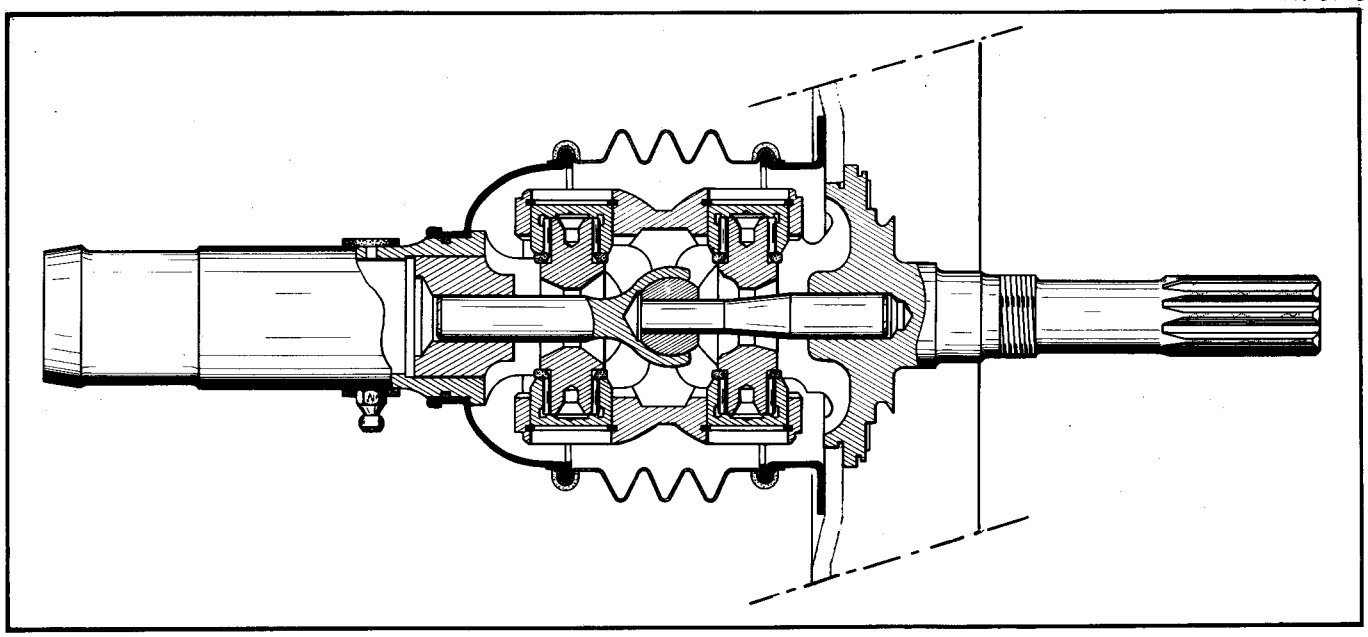
- Fixing nut on hub (face and threads greased) : ..... 35 to 40 da Nm (252 to 288 ft.lbs)

Lubrication :

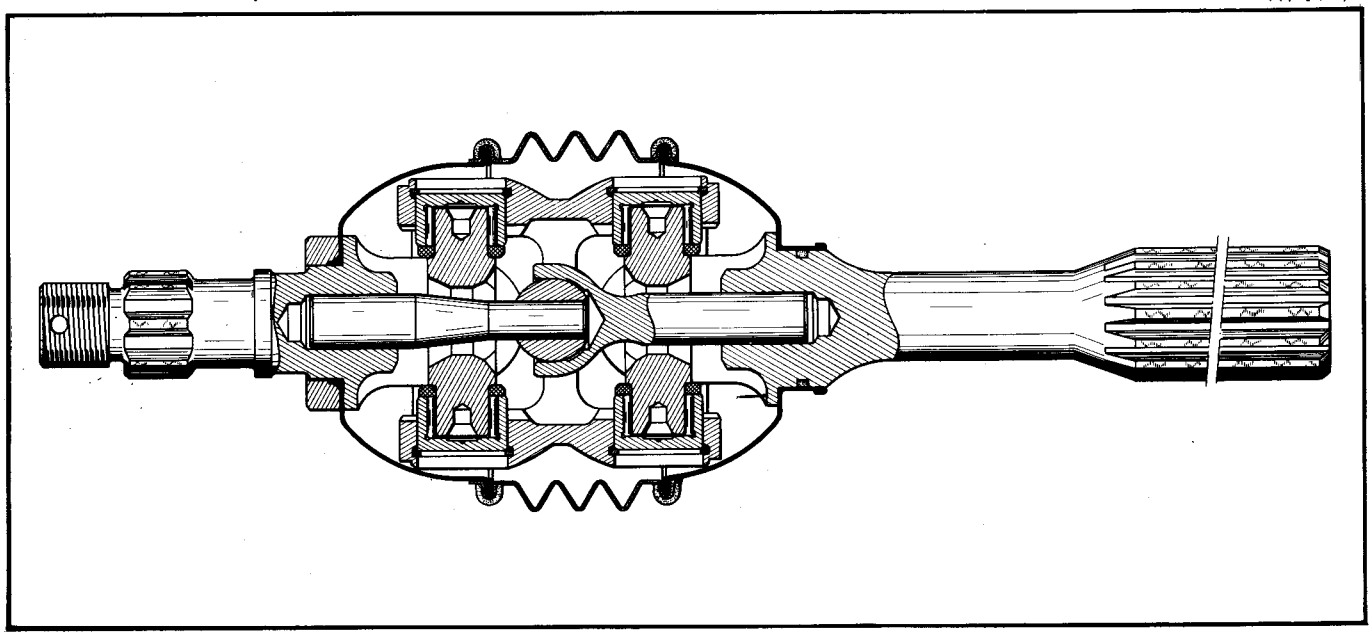
- Grease : ..... TOTAL MULTIS MS

DRIVE SHAFT WITH DOUBLE CROSSHEAD

A. 37-8



A. 37-9



CHARACTERISTICS

- Constant velocity joint with double crosshead, gearbox end.
- Constant velocity joint with double crosshead, wheel end.
- Fitting : The sliding yoke may take up any position in relation to the splined shaft.

SPECIAL FEATURES

Tightening torque :

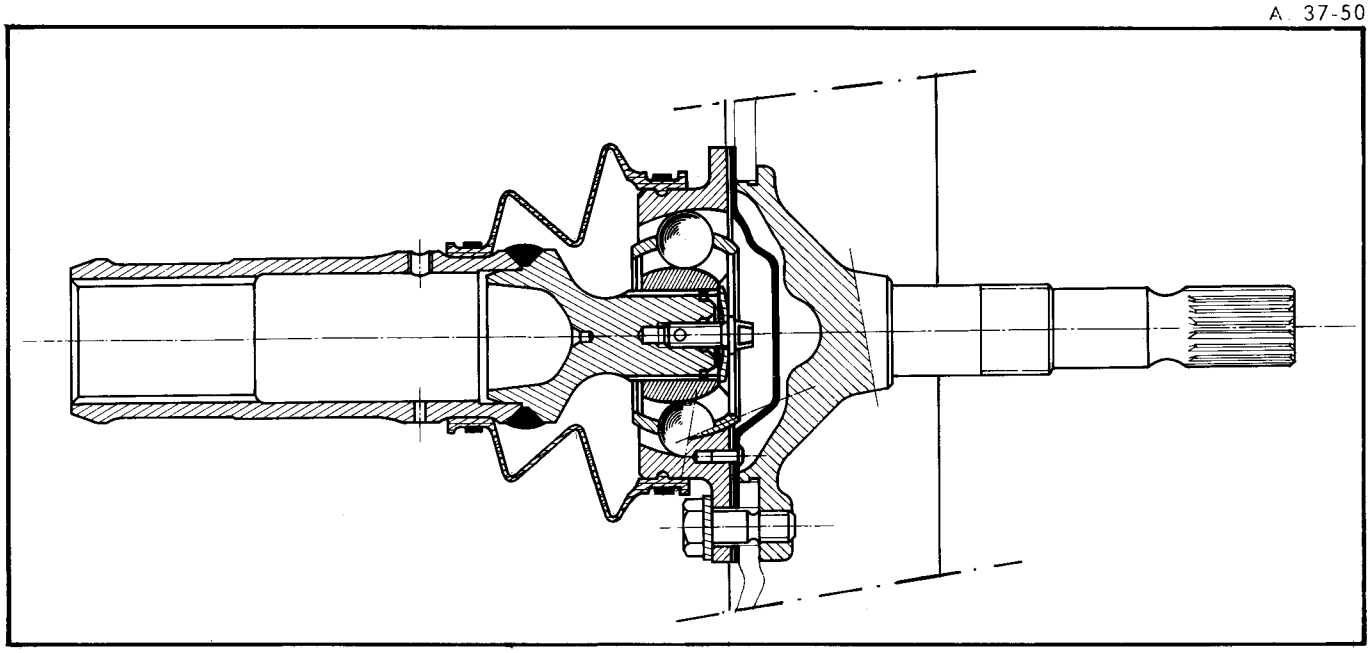
- Fxing nut on hub : ..... 35 to 40 da Nm (252 to 288 ft.lbs)

Lubrication :

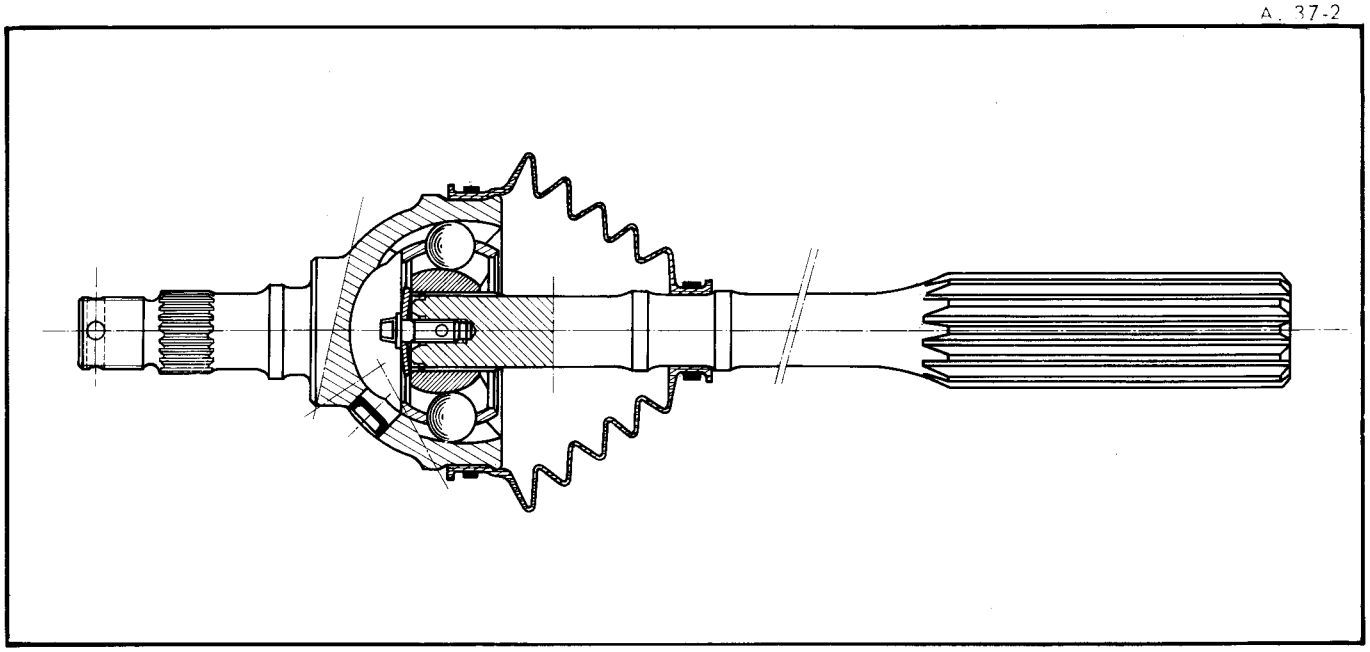
- Grease : ..... TOTAL MULTIS

DRIVE SHAFT WITH BALL TYPE UNIVERSALS

A. 37-50



A. 37-2



Manual 816-1

CHARACTERISTICS

- Ball type constant velocity joint, gearbox end.
- Ball type constant velocity joint, wheel end.
- Fitting : The sliding yoke may take up any position in relation to the splined shaft.

SPECIAL FEATURES

Tightening torques :

- Fixing nut on hub (face and threads greased) : ..... 35 to 40 da Nm (252 to 288 ft.lbs)
- Bolt securing drive shaft to gearbox output shaft : ..... 4.5 to 5 da Nm (32.4 to 36.1 ft.lbs)

Lubrication :

- Grease : ..... TOTAL MULTIS MS

NOTE : *Since October 1971, some vehicles have been fitted with drive shafts which have a double crosshead constant velocity joint at gearbox end and a ball type constant velocity joint at wheel end.*