

MEMORIAL DESCRITIVO

1. DENOMINAÇÃO E APLICAÇÃO DO BEM

- **Denominação Técnica:** Eixo Dianteiro Direcional e Motriz com Geometria Tipo Portal
- **Código de Engenharia da Plataforma:** Série Mercedes-Benz 737 (Submodelo 737.207)
- **Aplicação e Destinação:** Componente de transmissão de força, tração integral e direcionamento estrutural para veículos e plataformas automotivas pesadas MRV de elevada mobilidade e uso fora de estrada.
- **Exclusividade Tecnológica:** Construção mecânica com desvio geométrico de elevação (*Portal Drop*) de $+138,5\text{ mm}$ e sistema *Torque Tube* integrado, permitindo maior distância do solo sem interferência estrutural.

2. ESPECIFICAÇÕES TÉCNICAS E MECÂNICAS

- **Geometria Estrutural e Dimensões:**
 - **Largura de Via (*Hub Face to Hub Face*):** 2295 mm
 - **Cota de Elevação (*Portal Drop*):** $+138,5\text{ mm}$ entre o tubo estrutural e o centro do cubo da roda
 - **Tubo Estrutural:** Diâmetro externo de $80,0\text{ mm}$, espessura de parede de $12,5\text{ mm}$, confeccionado em aço trefilado sem costura ST52.3 / E355
 - **Interface de Fixação das Rodas:** 8 furos padrão DIN, PCD 275 mm , prisioneiros M20 x 1,5, classe de resistência 10.9, torque de aperto especificado em 600 Nm
- **Cinemática, Transmissão e Tratamentos Térmicos:**
 - **Arquitetura de Redução:** Dois estágios mecânicos independentes (diferencial central e cubos portais).
 - **Redução Primária (Diferencial):** Relação $2,55 : 1$. Par hipóide *Gleason Hypoid* em aço 18CrNiMo7-6 com cementação gasosa profunda (dureza superficial de 60-62 HRC e núcleo de 35-42 HRC).
 - **Redução Secundária (Cubos Portais):** Relação $1,94 : 1$. Engrenagens helicoidais carbonitretadas com têmpera por indução (dureza de 58-60 HRC).
 - **Relação de Redução Global:** $4,96 : 1$.

- **Folga entre Dentes (*Backlash*):** 0,15 - 0,22 mm\$.
- **Semi-eixos e Kingpins:** Aço 4340 (40CrNiMo7) com dureza de 45-48 HRC. Mancais sobre rolamentos de rolos cônicos duplos e esferas duplas blindadas.
- **Ângulo Máximo de Esterçamento:** 42°\$.
- **Sistemas Auxiliares e Frenagem:**
 - **Bloqueio do Diferencial:** Acionamento pneumático tipo *Dog Clutch*. Pressão de operação de 6,5 a 8,0 bar\$, com retorno automático em pressões inferiores a 3,5 bar\$.
 - **Sistema de Calibragem Automática (CTIS):** Integrado via galerias pneumáticas internas e juntas rotativas em PTFE aditivado com MoS2 (faixa de operação de 1,1 a 6,0 bar\$).
 - **Freios:** Sistema ar-sobre-hidráulico com pinças duplas (*Twin Caliper*) e discos ventilados de 374 x 22 mm\$.
 - **Vedação:** Retentores em Viton montados em compartimentos estanques.
- **Capacidades de Lubrificação e Carga:**
 - **Capacidade do Cáster Central:** 2,5 litros\$ (óleo SAE 85W-140 / especificação MB 235.0)
 - **Capacidade dos Cubos Portais:** 0,25 - 0,35 litros\$ por cubo (óleo SAE 85W-140 / especificação MB 235.0)
 - **Peso Líquido Aproximado:** 480 kg\$
 - **Capacidade Máxima de Carga Admissível:** 5.600 kg\$

M E R C E D E S - B E N Z



Operating Instructions

UNIMOG 435

Important!

Tighten wheel nuts on new vehicles and following wheel changes after a distance of approx. 40 to 60 km!



Tightening torque

U 1300 L	400 Nm
U 1700 L/38	400 Nm



Before operating

Observe carefully the operating and safety regulations in the operating instructions! Important notes are highlighted in the corresponding sections.

Printed in Germany

Technical details of vehicle as compared with data and illustrations of the present Operating Instructions subject to change.

Reproduction or translation, in part or in full, is subject to our written authorization.

Daimler-Benz Aktiengesellschaft

Stuttgart-Untertürkheim
Werk Gaggenau, Abteilung UKD
Postfach 12 20

D-7560 Gaggenau

M E R C E D E S - B E N Z



Operating Instructions

UNIMOG 435

U 1300 L

U 1700 L / 38

1 GENERAL

Page

1	GENERAL INFORMATION	3
	Warranty	3
	Vehicle data card	3
	Type plates	5

2	OPERATING	6
	Doors and roof hatch	6
	Seats, vehicle tools	7
	Instrument panel	8
	Symbols	9
	Instruments	10
	Switches	11
	Turn signal flasher switch	11
	Engine control	12
	Four-wheel drive, differential lock	13
	Parking brake	14
	Shifting the gears	15
	Start pilot	16
	Heating and ventilation	17
	Hood	18
	Inspections before moving-off	19
	Regular inspections	21
	Trailer operation	22

3	MAINTENANCE	23
	Maintenance intervals	23
	Maintenance schedule	24
	Lubrication chart	26
	Lube point survey	27

	Some maintenance jobs	29
	Cleaning fuel filter	29
	Vent filter engine	29
	Tensioning V-belt	30

Page

	Cleaning air filter	32
	Checking wheel nuts	33
	Tightening air compressor	33
	Checking brake pads	33
	Differential locks U 1300 L	33

4	PRACTICAL ADVICE	34
	Adjusting headlights	34
	Tanks	34
	Draining coolant	34
	Checking tire pressure	34
	Inflating tires	35
	Wheels - tire change	35
	Spare wheel - wheel change	36
	Platform - benches	37
	Winch	38
	Tilting driver's cab	40
		42

5	TROUBLE-SHOOTING	45
	Fuel system	45
	Compressed air system	46
	Wheels - front axle	46
	Emergency release of spring-loaded cylinder	47
	Towing	48
	Electrical system	49
	Fuses and electrical connections ...	50

6	OPERATING MATERIALS	52
	Capacities	52

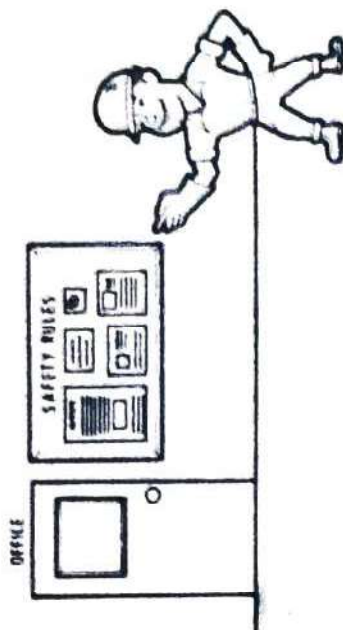
7	TECHNICAL DATA	54
	Fuel consumption	54

Warranty

warranty claims can only be made when the warranty terms contained in the General Terms of Sale have been observed. These general Terms of Sale contain several points with the necessary prerequisites for the recognition of existing claims.

Special version

Under "special version" one understands additional items of equipment which can retroactively be installed. This includes, for example, front pto shaft, winch and drive for fast pto shaft, among other things. These are not components of the standard constructional state.



Vehicle data card

The "personnel voucher" contains all technical specifications regarding the constructional state of the vehicle, including special versions.

In all inquiries concerning the vehicle, as well as when ordering spare parts, always specify the type, the chassis No., engine No. or other unit numbers.

The vehicle data card is also available at the representative where the vehicle was bought.

[illegible]

2 OPERATION

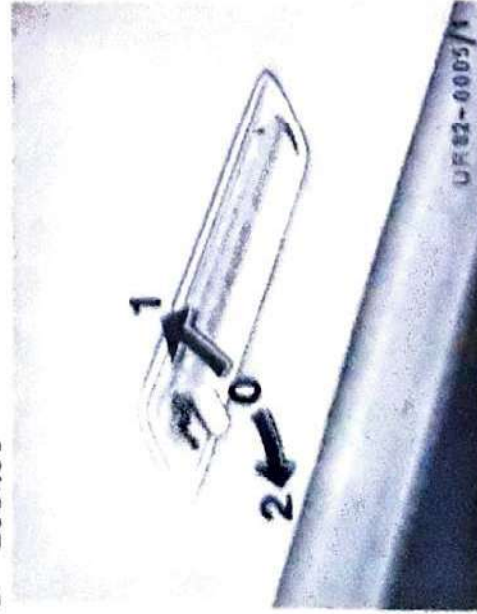
Doors and roof hatch



UR 72-0006/1

Door lock

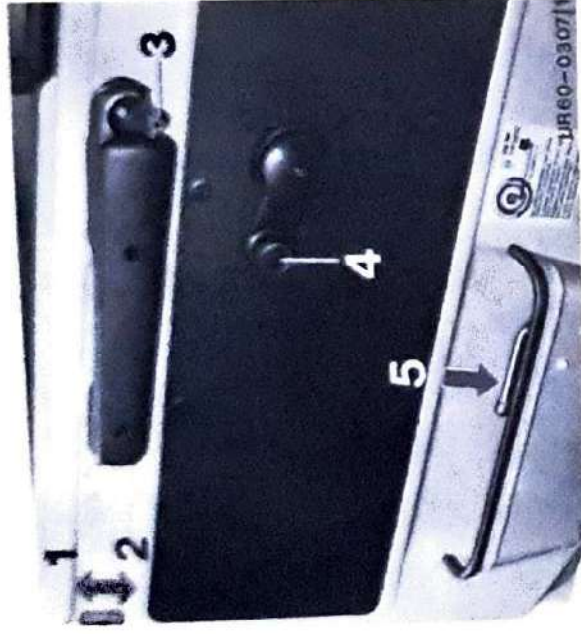
- 1 Unlocked
- To open, depress closing cylinder
- 2 Locked



UR 82-0005/1

Interior lights

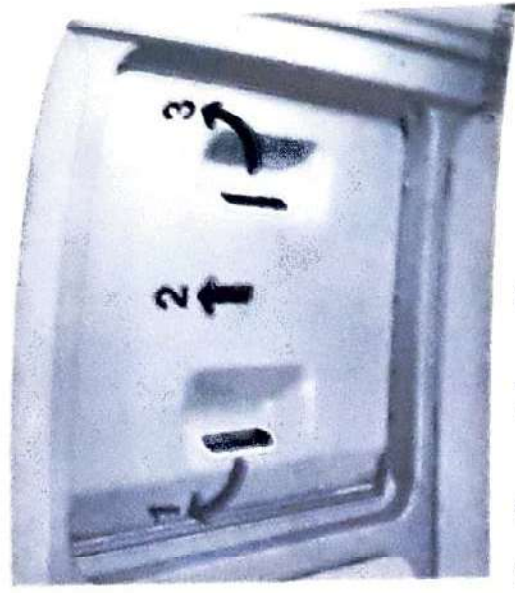
- 1 ON
- 0 OFF
- 2 Switched ON and OFF via door contact



UR 60-0307/1

Door and window operation

- 1 Door safety device unlocked
- 2 Door safety device locked
- 3 Opening lever
- 4 Window crank
- 5 Square wrench for hood and battery box



Roof venting flap

- 1 Open toward front
- 2 Completely open
- 3 Open toward rear



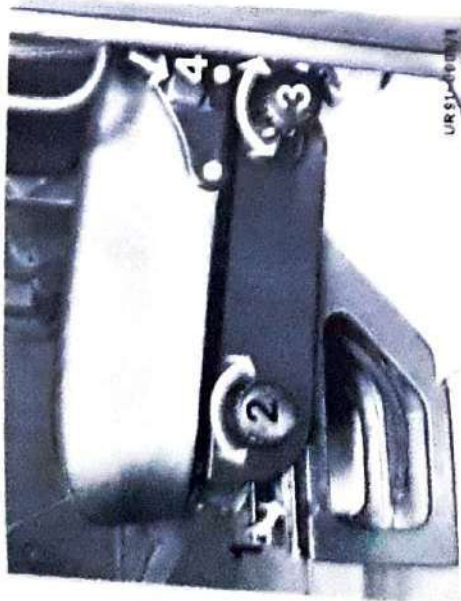
UR 60-0308

Open roof hatch

Unlock handles

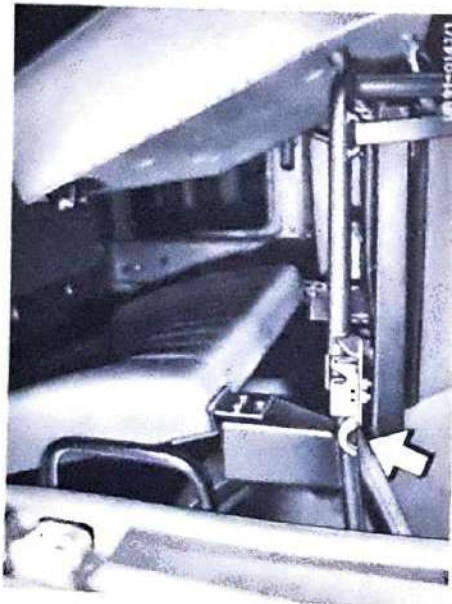
2 OPERATION

Seats and vehicle tool kit

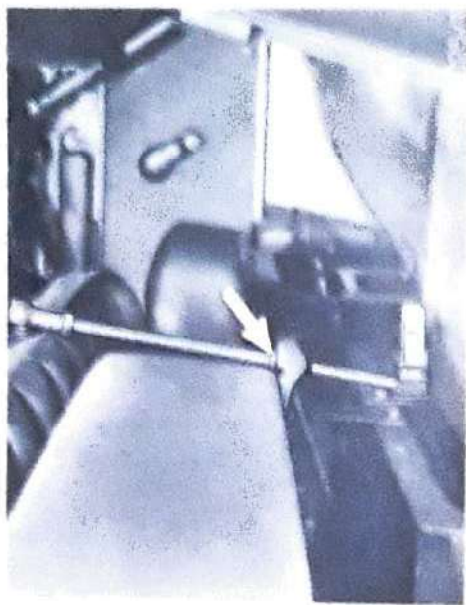


Driver's seat adjustment

- 1 Forward and back
- 2 Seat height front
- 3 Seat height rear
- 4 Backrest



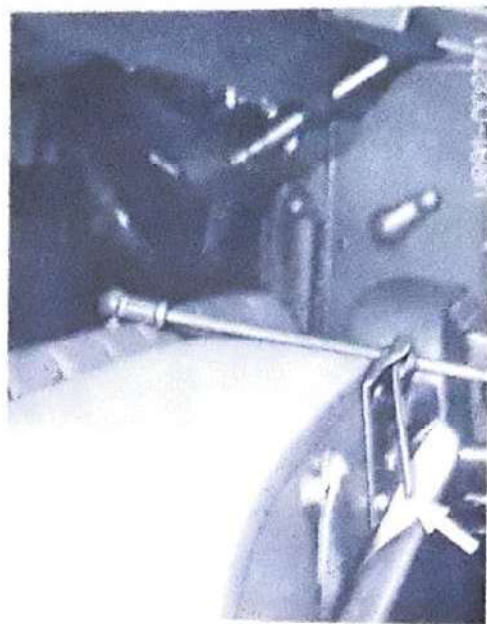
Co-driver's bench seat folding



Insert support in lock.
Push rest down until support engages.



Inlock backrest for standing room

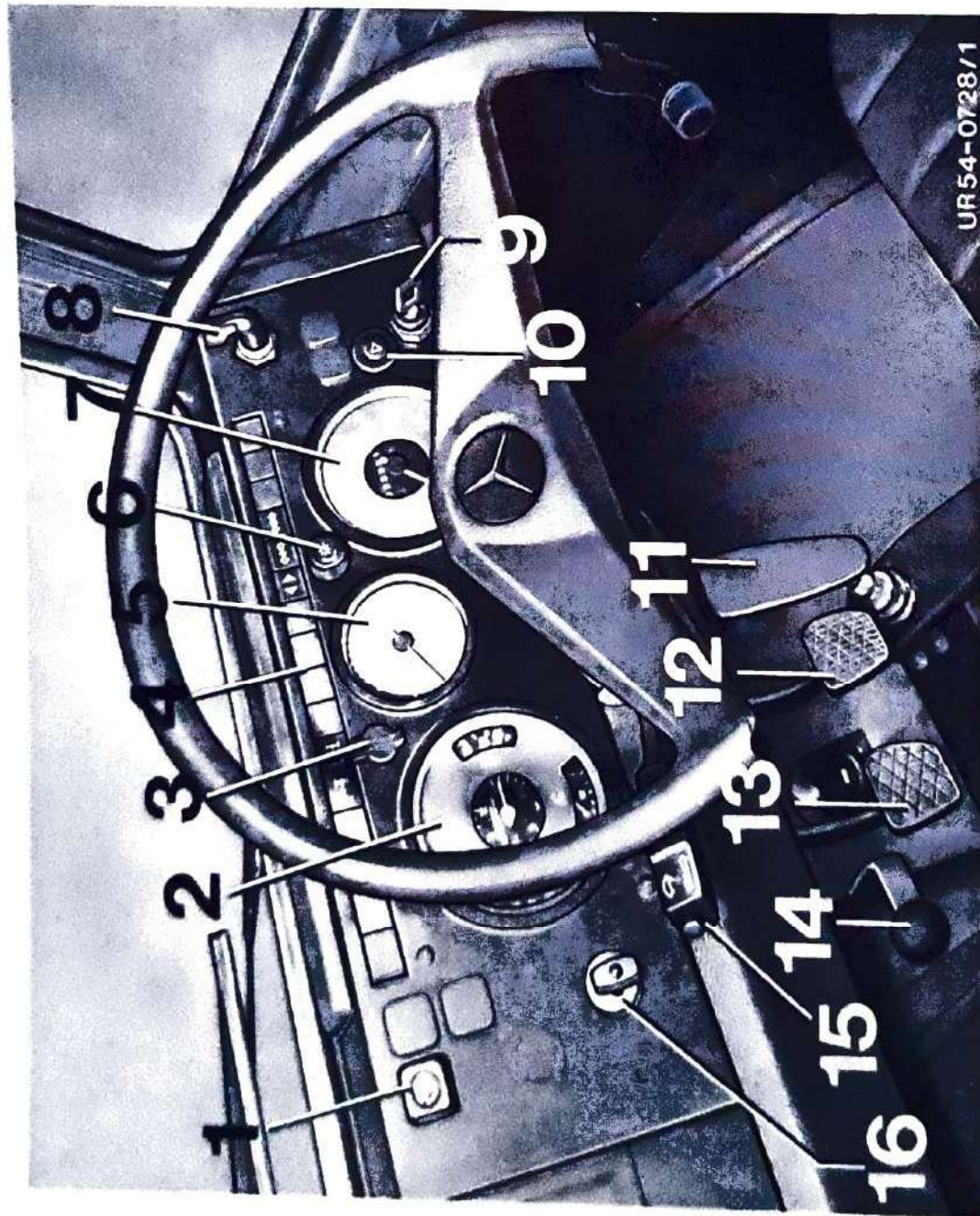


Pull handle forward to unlock

2 OPERATION

Instrument panel

- 1 Switch for windshield washer
- 2 Instrument cluster
- 3 Socket
- 4 Control lights
- 5 Rpm counter, tachometer, engine
- 6 Instrument lights regulating
- 7 Speedometer
- 8 Four-wheel drive - differential lock
- 9 Ignition switch
- 10 Warning indicator switch - emergency flasher
- 11 Accelerator pedal
- 12 Brake system
- 13 Clutch pedal
- 14 Engine regulator lever
- 15 Combination switch:
 - Flash
 - Horn
 - Windscreen wipers
 - Hi-beam and dimmer
- 16 Main light switch



Instruments, Switches and Control Levers

2 OPERATION

Symbols of Switches and Warning/Indicating Lights



Switch for instrument lights



Turn signal indicator light (flasher) motor truck



Parking brake release warning light (effective as of 6 bar)



Warning flasher switch



Turn signal indicator light (flasher) for trailer



Differential pressure control. Indicates defect in brake system



Switch for windshield washer



High beam indicator light



Charge indicator
Lighting-up indicates defect in charge function



Four-wheel drive indicator light



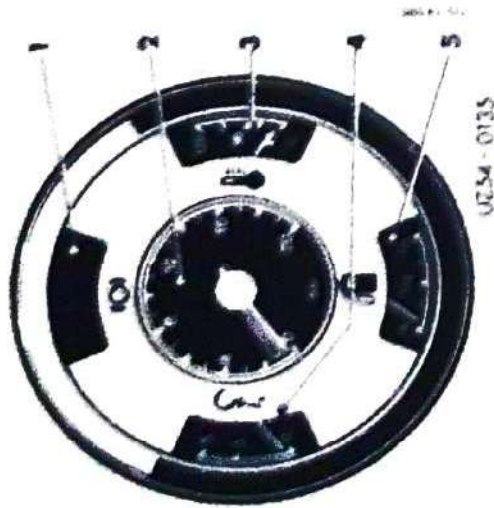
Pto drive control (special version)



Differential lock indicator light

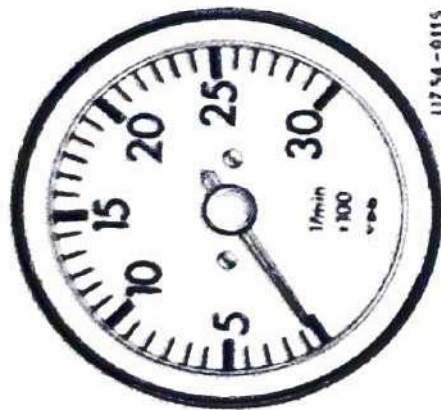
2 OPERATION

Instruments



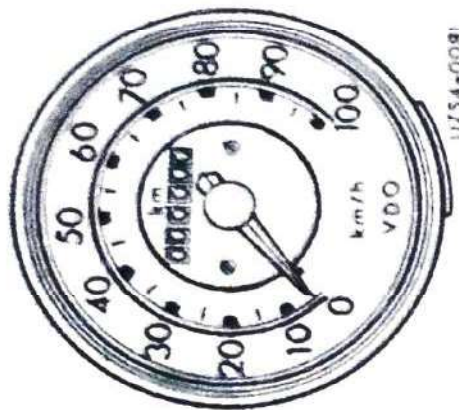
Instrument cluster

- 1 Warning light, supply pressure
light on below 12 bar
- 2 Supply pressure gauge
Lower needle
= supply pressure 18 bar
1st brake circuit
Upper needle
= supply pressure 18 bar
2nd brake circuit
- 3 Coolant temperature indicator 80-90° C
- 4 Oil pressure max. 5 bar
gauge min. 0,5 bar
- 5 Fuel gauge
1/1 = 160 Liters
1/2 = 80 Liters
R = Reserve approx.
5 to 10 Liters

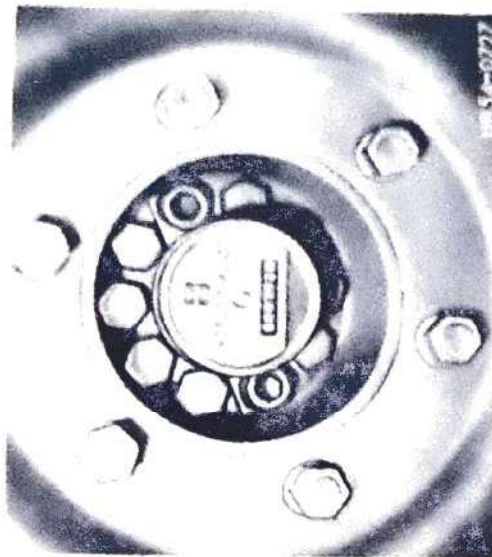


Rpm counter, engine (U 1700 L)

1/min = revolution per minute



Speedometer with kilometer counter



Odometer on rear wheel right



Running-in

Do not fully stress the engine during the first 1500 km, max. 2500/min.

2 OPERATION

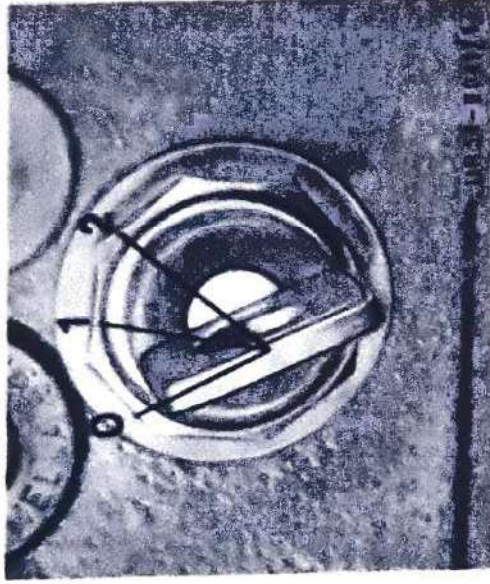
Switch

Blinker switch



Main light switch

- 0 Shutoff
- 1 Parking light
Tail lights
Instrument lights
- 2 Additional
High beam
Low beam
High beam indicator light



Ignition start switch

- 0 Insert ignition key
- 1 Ignition position
- 2 Starting position

! Never pull out
key when engine
is running!



Combination switch

- 1 Low beam
- 2 High beam
- 3 Headlight flasher
- 4 Turn signal flasher right
- 5 Turn signal flasher left
- 6 Windshield wiper
Pushing switch = On
Pushing switch = Off
once again = Off
- 7 Windshield wiper rocker
switch
I = slow
II = fast
- 8 Horn

2 OPERATION

Engine regulator throttle

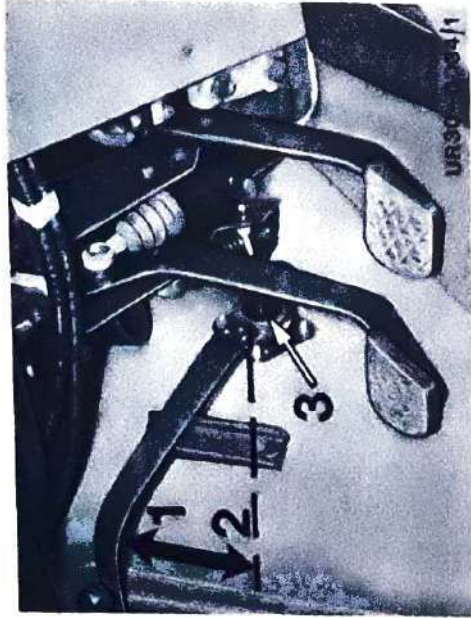
U 1300 L



Engine regulator

- 1 Idle speed = pull
- 2 Idle speed adjusting
Stop = push

U 1700 L

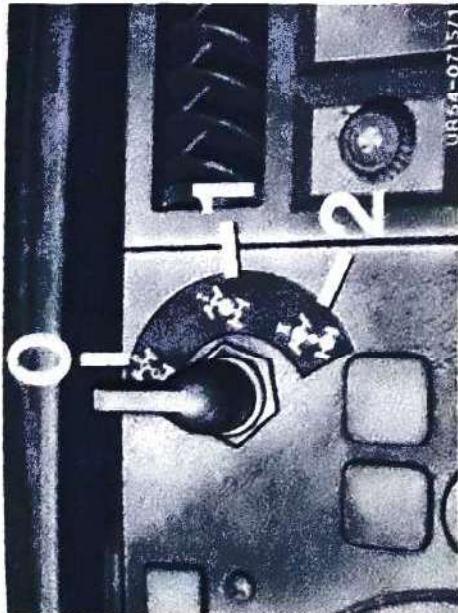


Engine regulator

- 1 Stop - idle position
- 2 Part load - full load
- 3 Locking

2 OPERATION

Four-wheel drive and differential lock



Switch for four-wheel drive and differential lock

Note:

Operable as of 7,0 bar supply pressure!



If possible, do not drive with four-wheel drive and differential locks engaged on firm road surfaces, as when turning there is no compensation between right and left wheels.

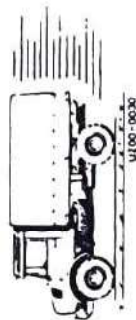
0 Rear-wheel drive



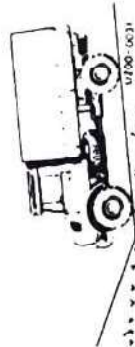
1 Four-wheel drive



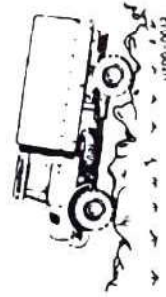
2 Four-wheel drive and differential lock



Street



Uphill - downhill - cross country



Difficult terrain



Travelling through water

2 OPERATION

Parking brake - parking vehicle - checking parking brake - emergency release of parking brake

Trailer operation

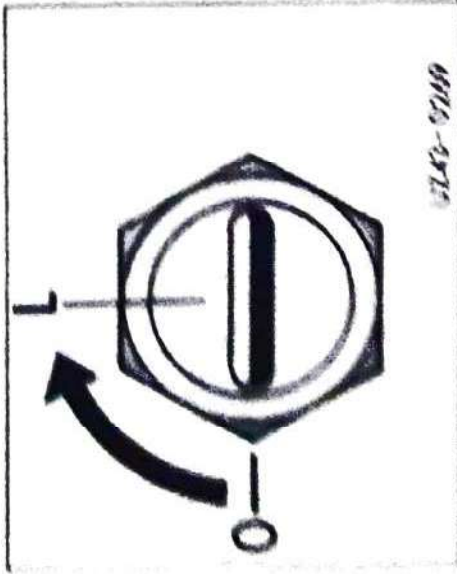


344-502 13

Parking brake valve

L release position

B fully braked position



344-502 13

Release valve for

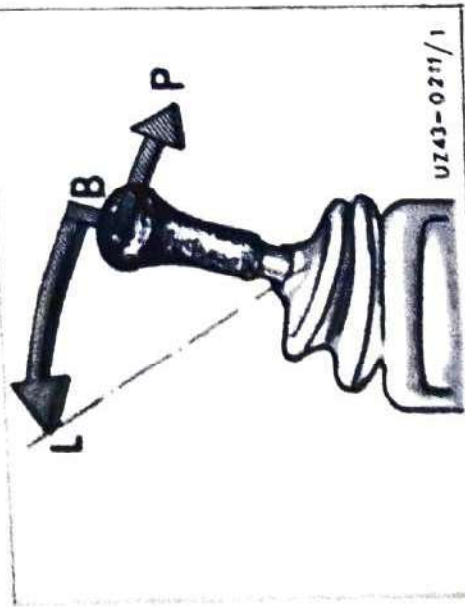
emergency release

1. L

2. Release position

1. Release page 47

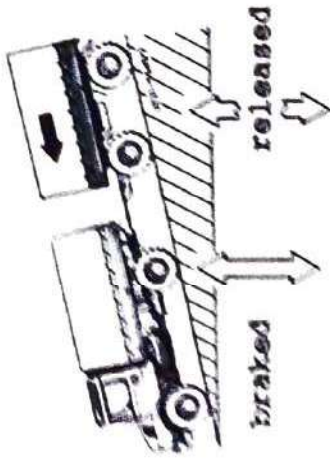
Trailer operation



344-502 13

Checking parking brake

P check position



P switched on in check

position

Important

Combination must not move when parking brake (spring type) functions satisfactorily!

Functional check

Hold brake lever a few seconds in position P.

General

In position P a possible failure of the trailer brake is simulated, i. e. the spring-type brake must hold the combination.

UNIMOG with trailer

(Trailer with air pressure brake system)

release of parking brake

2 OPERATION

Shifting the gears

Compressed air supply min. 6 bar

Forward gears 1 to 8

Shift only with actuated clutch.

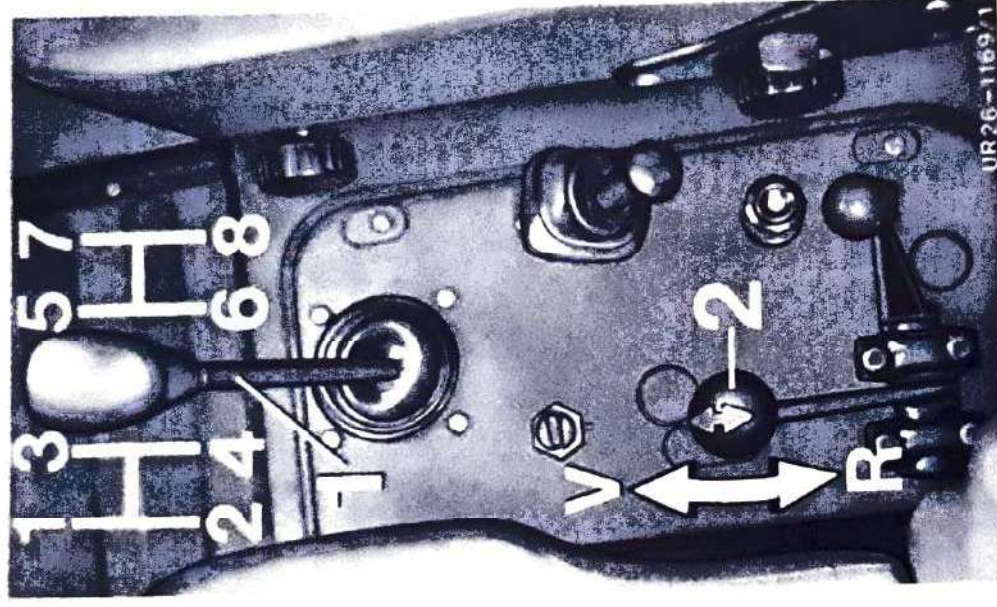
When vehicle unladen **move off in third gear.**

When vehicle heavily laden **move off in first gear.**

Reverse gears 1 to 4

Shift lever (2) forward and reverse only with stationary vehicle and after actuating clutch.

The indicator acts as a shift monitor and helps the driver to avoid incorrect shifts, especially when driving off.

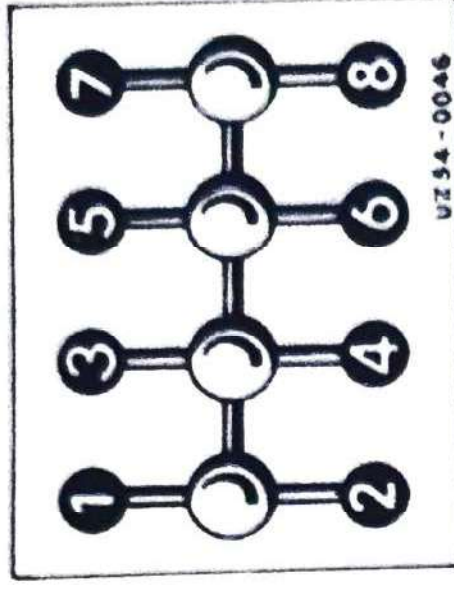


Transmission shifting

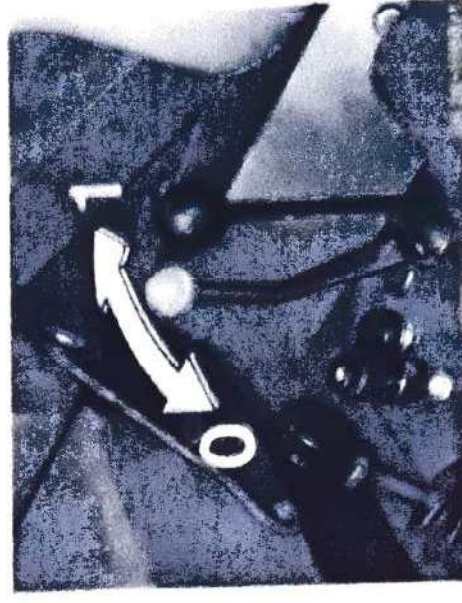
- 1 Main shift lever
- 2 Forward-reverse-lever
- V Forward, 1 to 8
- R Reverse, 1 to 4

Important! Lock shift

Gears may only be operated **one after another.**



Gear shifting diagram with electrical indication of neutral position

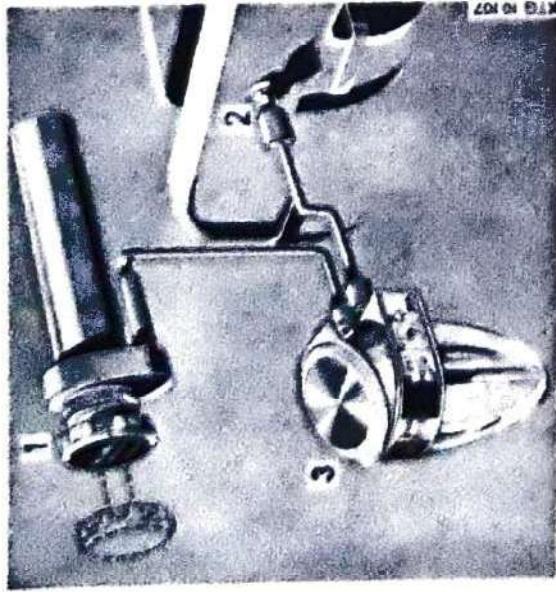


Pto shift lever 1 On
0 Off

To switch on and off, actuate clutch.

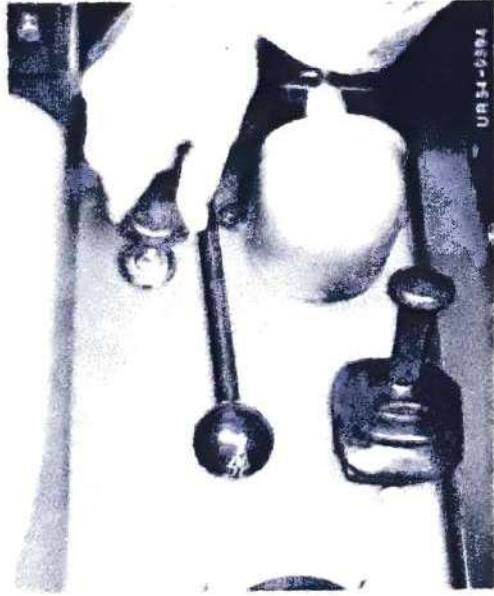
2 OPERATION

Start pilot - cold start



Operating diagram

- 1 Air pump
- 2 Injection nozzle
- 3 Container for starting fuel



When starting, repeatedly actuate start pilot until engine starts



Fill with starting fuel

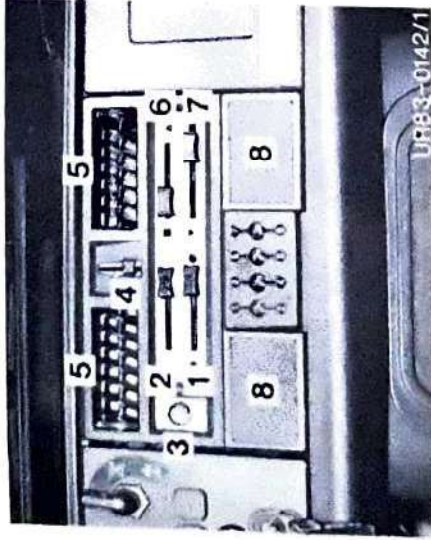


Starting fuel is flammable

Observe filling instructions on container!

2 OPERATION

Heating and venting



1 Heater

Warm air

Lever position:
 Left = cold (blue)
 Right = warm (red)

2 Leg room venting

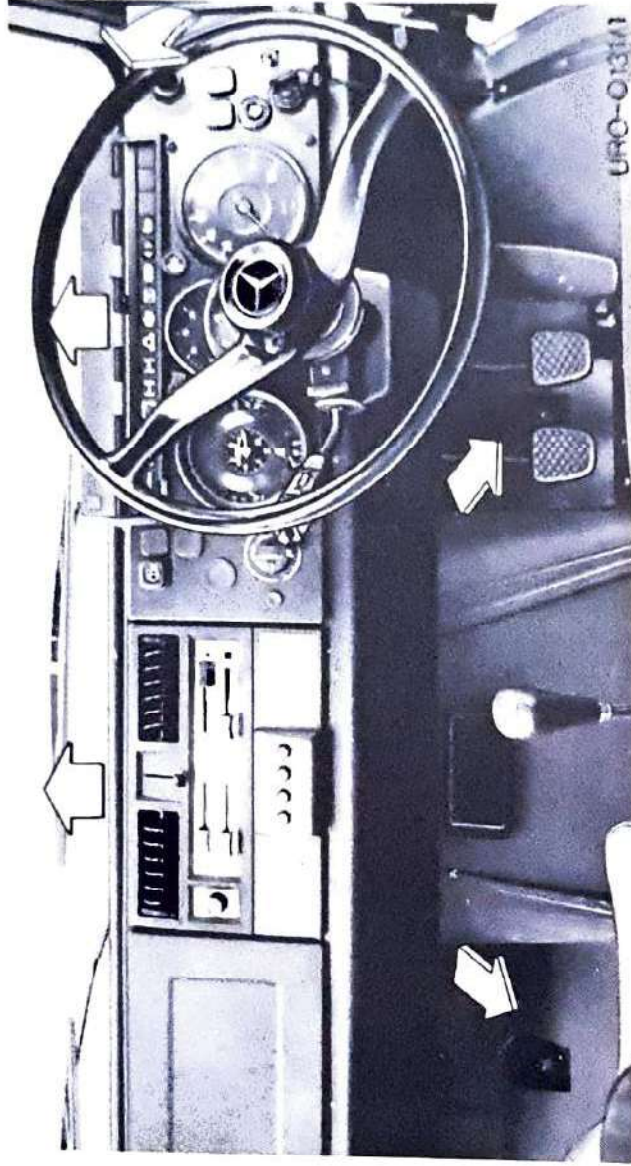
Fresh air

Lever position: Right = closed
 Left = open

3 Blower 3-stage control

4 Venting and defroster windows

Lever position:
 Top = closed
 Bottom = open



Venting nozzles in cab

5 Pivoting nozzles

Fresh air

6 Defroster/heater

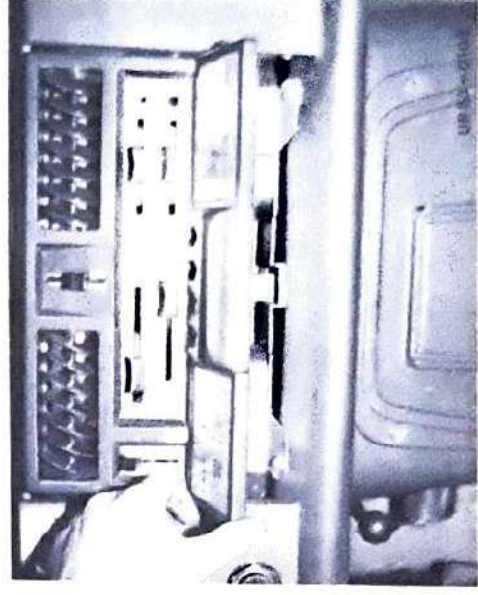
For windshield and side windows

Lever position:
 Left = top closed
 Right = top open

7 Heating and venting

For leg room right and left

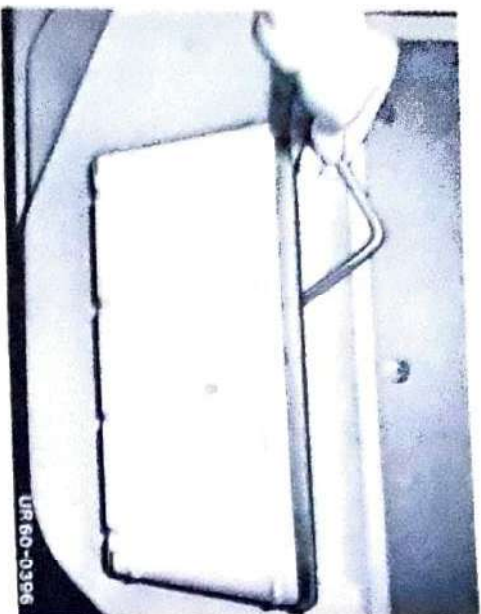
Lever position:
 Left = bottom open
 Right = bottom closed



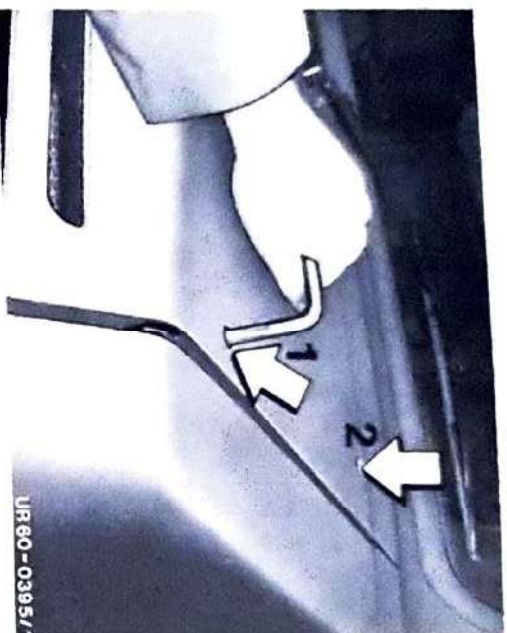
8 Open venting flap

2 OPERATION

Access to engine - hood



Square wrench

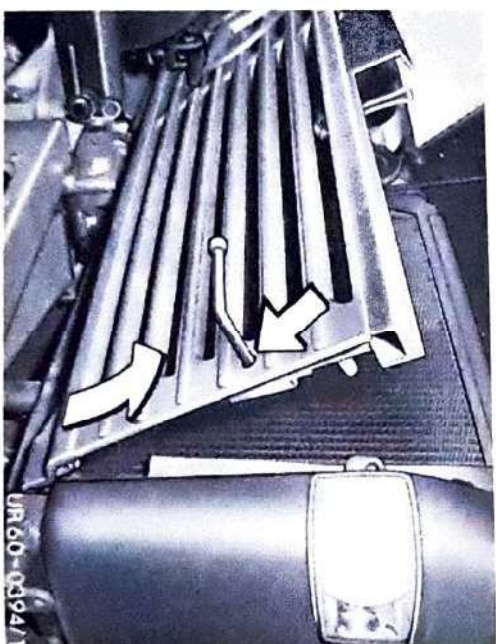


Unlocking engine hood

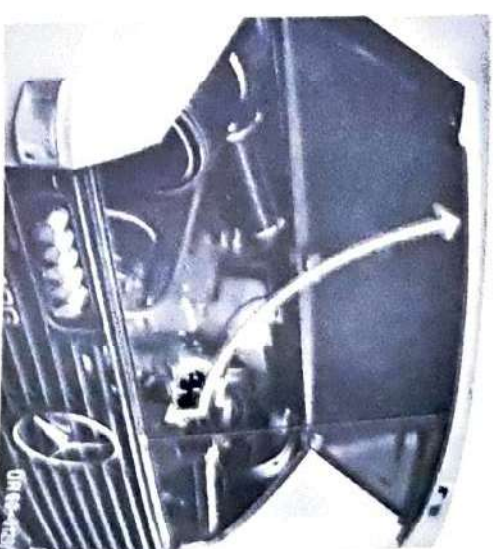
- 1 Unlock to raise
- 2 Unlock to remove



Withdraw step bar



Unlock and detach front grille



Open engine hood and support



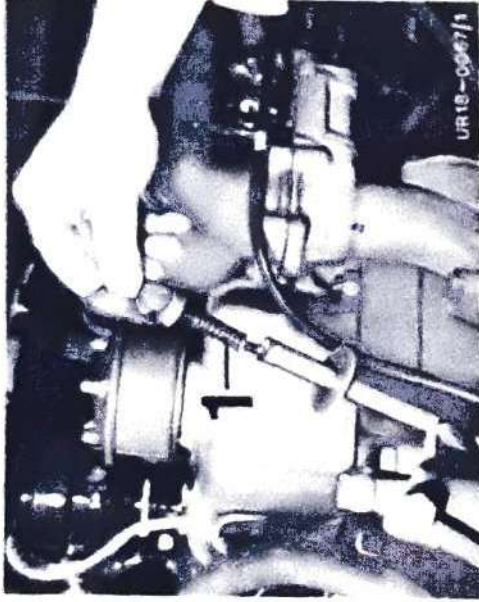
Prop up engine hood behind coolant regulator

2 OPERATION

Check daily before driving vehicle

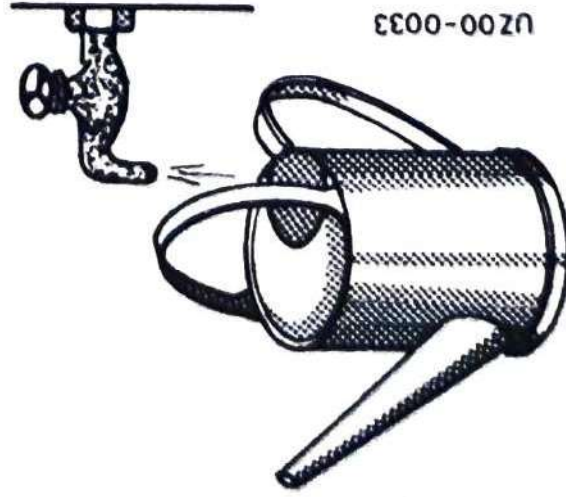


Coolant reservoir



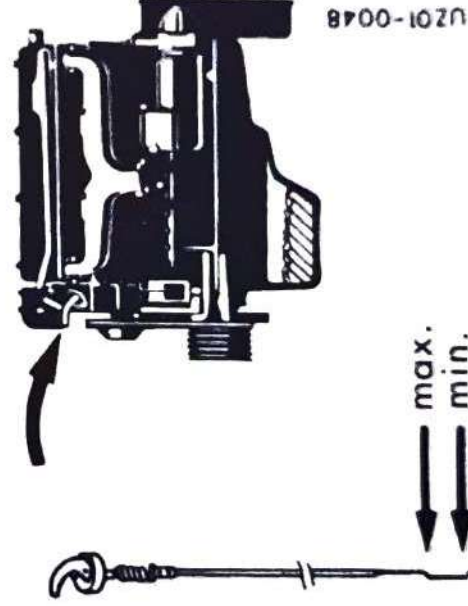
Check oil level in engine

1 Pull out oil dipstick



Only top up with clean water.

See page 53 for information on anti-freeze and anti-corrosion additive.



Do not top up above max. mark!



Fill engine with oil

Use only HD engine oil in S3 quality!

Capacity: page 52

2 OPERATION

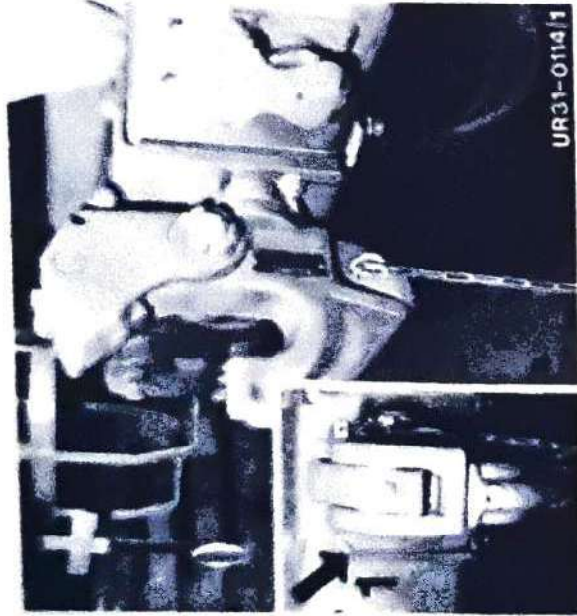
Check daily before driving vehicle



Compressed-air tank

Pull cord to drain condensate.

Caution, high pressure
18 bar.



UR31-0114/1

Check trailer coupling
for condition

1 Fold locking pin



UR31-0129/1

Check fastening bolts for
tightness.

2 OPERATION

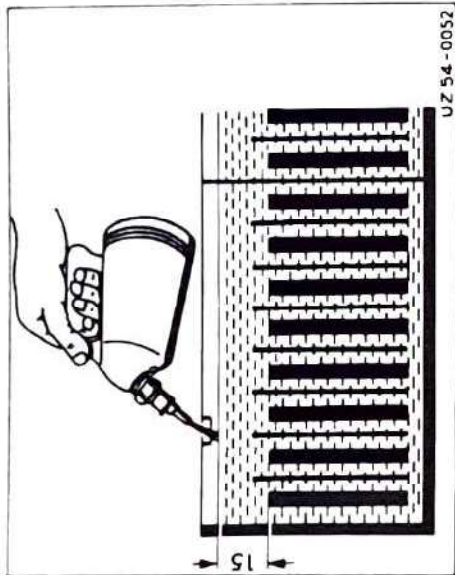
Regulator checking



UR54-0719/1

Open battery box

Open battery box with square key



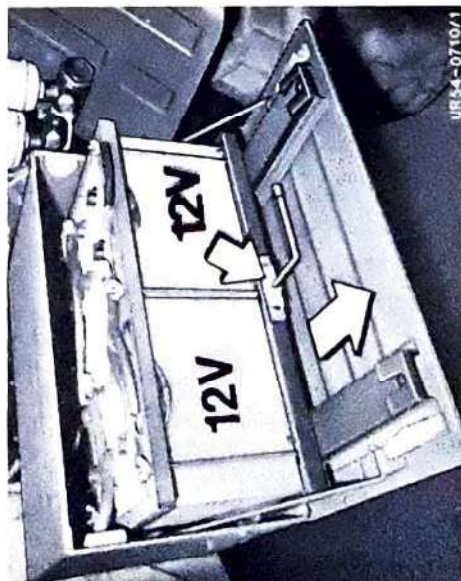
UZ 54-0052

Fill only with distilled water



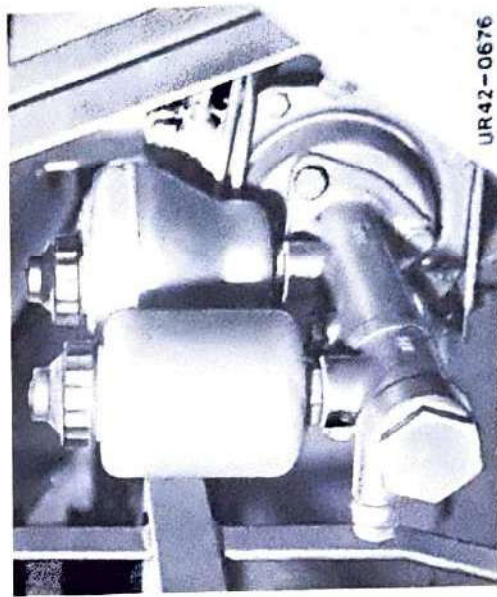
UR 44-0127

Check oil level in steering reservoir



UR54-0710/1

Unlock and withdraw



UR42-0676

Check brake fluid level

Do not top up - first check brake pads for wear!

2 OPERATION

Trailer operating



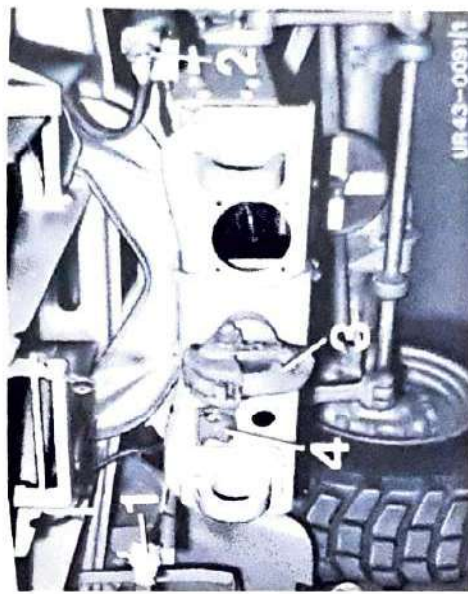
Minimum supply pressure in tractor unit 12 bar

1. Operating trailer is only permissible when trailer coupling is in normal position, e.e. actuating lever in upper position.
2. When handling heavy trailer loads, charge UNIMOG to full payload.
3. Switch on four-wheel drive.
4. Going down hill shift into lower gear.
5. Observe max. permissible trailer load
 U 1300 L = 10.500 kg *
 U 1700 L = 12.000 kg *

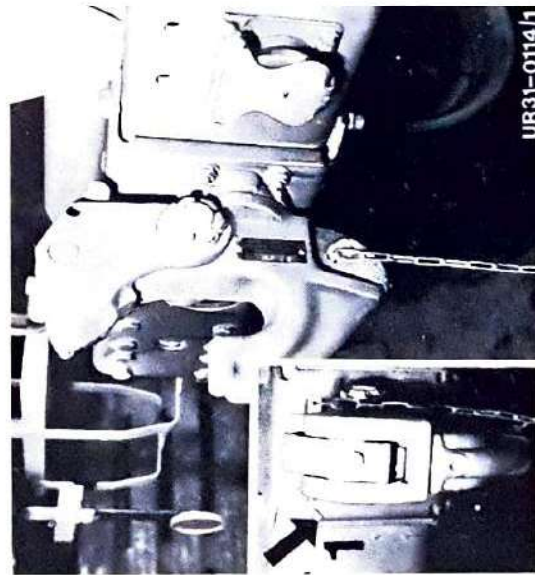
* On trailer with continuous brake system, refer page 64.



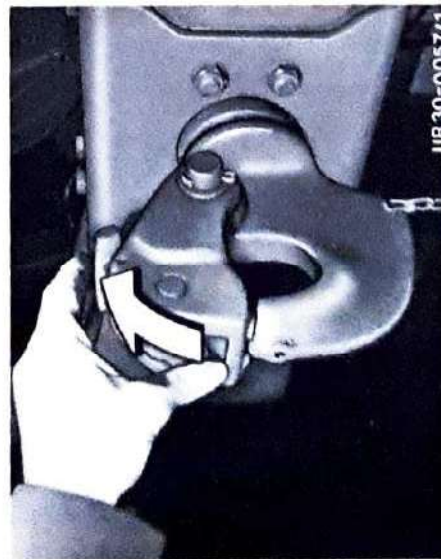
Chock under platform



- Connecting trailer
- 1 Coupling head, brake (yellow)
 - 2 Coupling head, supply (red)
 - 3 Trailer coupling
 - 4 Trailer socket



Coupling opened
 After closing insert (1)
 pin and fold



Hook-type trailer coupling
 To open raise latch bar

3 MAINTENANCE

Maintenance intervals



Complete all maintenance jobs in accordance with specified maintenance intervals.

In order to maintain the operation safety of the vehicle and to uphold the right to warranty claims, the work which we deem absolutely necessary must be carried out regularly and on time.

General

1. Maintenance according to fuel consumption, lts.

If fuel consumption is recorded maintenance can be executed according fuel consumption.

2. Maintenance according to kilometres, km

If fuel consumption is not recorded maintenance must be executed on driven kilometres or on time.

3. Maintenance according to time, months

Vehicles which have after a certain period have not reached fuel consumption or kilometre service then maintenance must be executed to space of time.

Maintenance schedule	Fuel consumption		
	lts.	km	Months
E 1	300	-	once
F 1	-	-	monthly
F 2 + F 1	-	-	6 months
F 3 + F 1 + F 2	2000	8000	12 months
F 4 + F 1 + F 2 + F 3	4000	16000	24 months

3 MAINTENANCE

Job Survey		E 1	F 1	F 2	F 3	F 4
Lubrication jobs	Fig.No.	after 300 l once	each - months	after - 6 months	after 2000 l 8000 km 12 months	after 4000 l 16000 km 24 months
Change oil in engine, complete oil filter care	1 to 4	●			●	●
Check oil level in transmission, correct	5, 6, 7			●	●	●
Check oil level in pto transmission, correct	8			●	●	●
Check oil level in axle drive and hub reduction of front and rear axle, correct	10, 11, 12			●	●	●
Check oil level in steering, correct	13, 14			●	●	●
Check brake fluid level	15, 16			●	●	●
Change oil in transmission	5, 6, 7 (9)	●				●
Change oil in pto transmission	8	●			●	●
Change oil in axle drive and hub reduction	10, 11, 12	●			●	●
Change oil in steering, replace oil filter element	13, 14	●				●
Lubricate joints on shaft from clutch to transmission	18	●		●	●	●
Lubricate steering knuckle bearings	17	●		●	●	●
Lubricate trailer coupling	20			●	●	●
Lubricate pto shaft joints	17			●	●	●
Lubricate intermediate shaft on engine	19			●	●	●
Lubricate winch and shift knob right	21			●	●	●



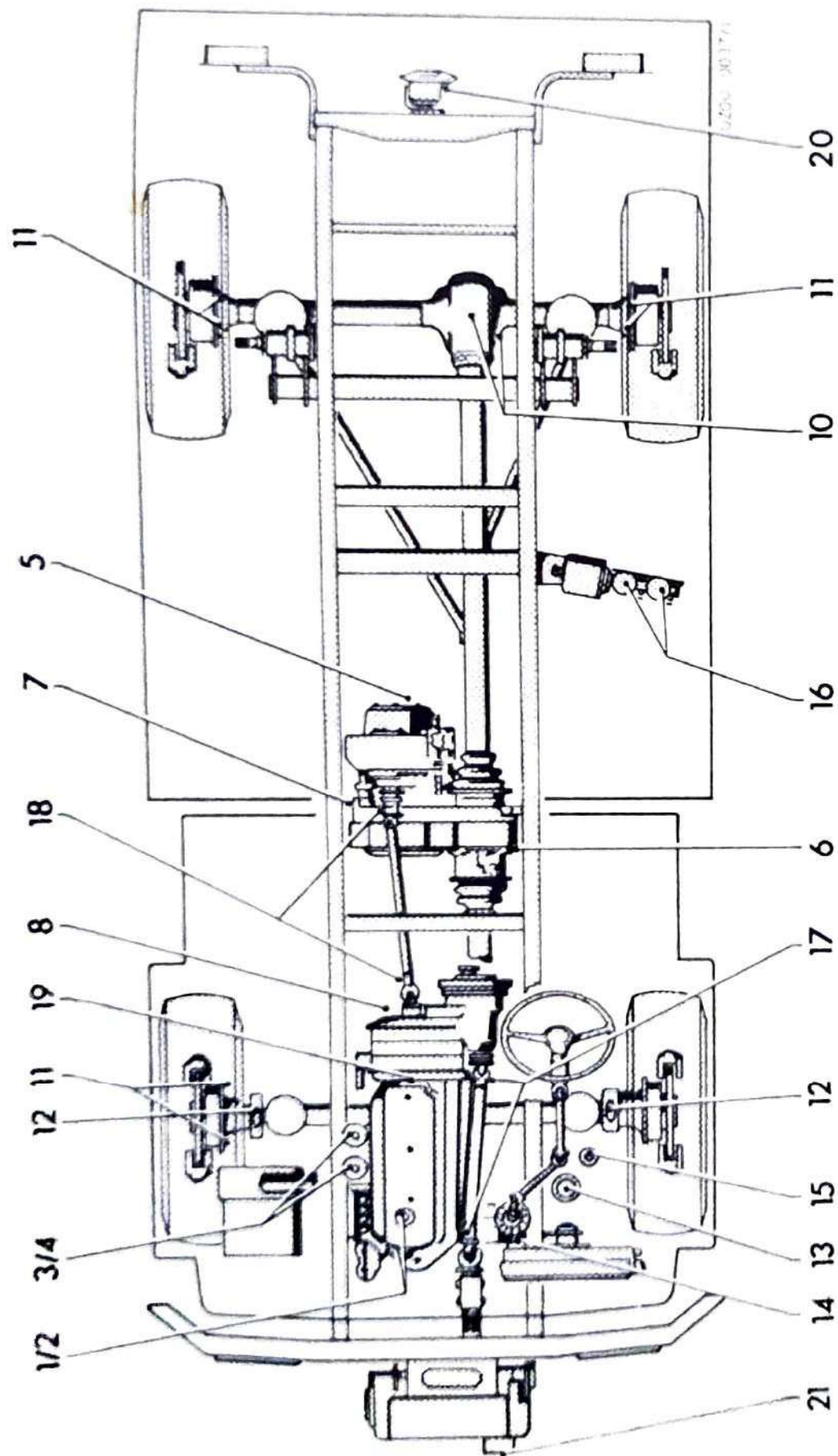
3 MAINTENANCE

Maintenance schedule		E1	F1	F2	F3	F4
Job survey		after 300 l	each -	after -	after 2000 l	after 4000 l
		-	-	-	8000 km	16000 km
	Page	once	months	6 months	12 months	24 months
Tighten cylinder head nuts		•				•
Check valve clearance, adjust		•				
Clean fuel filter and felt filter element, replace if necessary, and bleed	29				•	•
Check V-belt, tighten	30	•		•	•	•
Check wheel nuts for fastening, tighten	32	•		•	•	•
Tighten air compressor and retighten head bolts	32	•				
Check brake lining thickness (visual inspection)	32			•	•	•
Complete battery care	22		•	•	•	•
Drain condensate from differential lock (U 1300 L)	33				•	•
Change brake fluid	27 (16)				•	•
Replace filter element in air cleaner	32					•
Replace engine vent filter ¹⁾	29					•
Change brake fluid in clutch system	27 (15)					•
Retighten control arms, strutbar and drive train connecting bolts of steering system		•		•	•	•
Replace filter element in heating and venting system	32				•	•

1) Observe hint on page 29

3 MAINTENANCE

Lubrication chart



3 MAINTENANCE

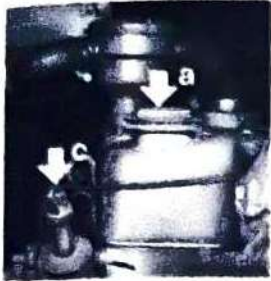


Lubrication point survey

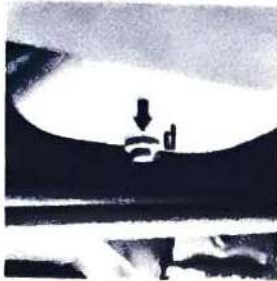
Lubrication point survey

- a Add engine oil
- b Add gear oil
- c Check oil level
- d Drain oil

- e Lubricate with grease
- f Replace oil filter element
- i Check brake fluid
- k Add automatic transmission fluid (ATF)



1



2



3



4



5



6



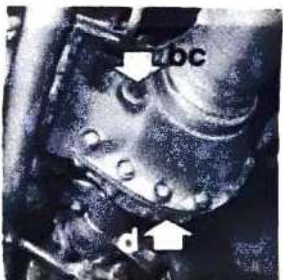
7



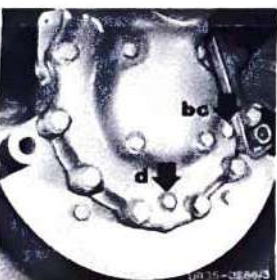
8



9



10



11



12



13



14



15



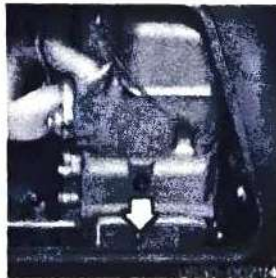
16



17



18



19



20



21

3 MAINTENANCE

Additional maintenance jobs

Daily

Check oil level in engine, top up.

Weekly

Check maintenance indicator of
air cleaner, clean.

Fall inspection

Check anti-freeze in cooling
water, top up.

Every 24 months

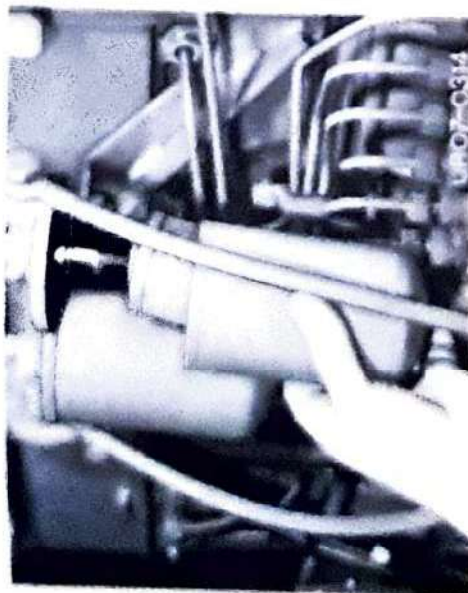
Check coolant hoses, replace
if necessary.

Replace anti-freeze in cooling
water.

3 MAINTENANCE

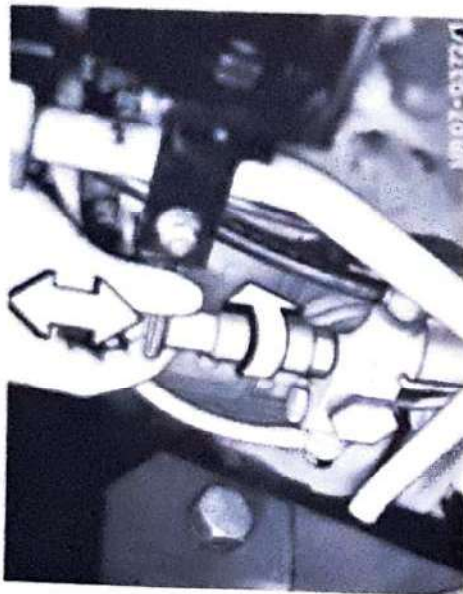
Some Maintenance jobs -

Clean fuel filter



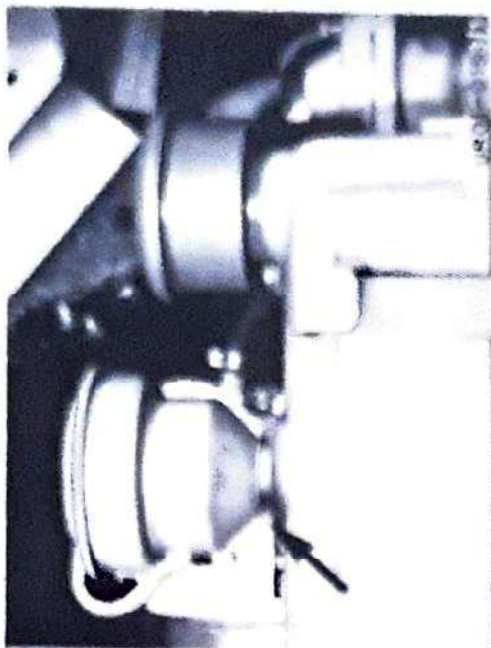
Remove both filter bowls

Bleeding



Screw on fuel handpump
an pump

Vent filter, engine



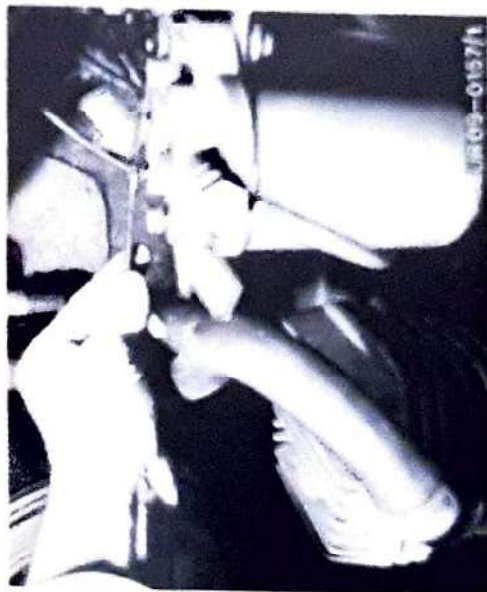
Vent filter, engine
Replace filter each
two years

Hint:

Vent filter marked "E"
replacing not to be
necessary. **service-free!**



Blow out fuel filter element
with compressed air.
Max. approx. 3 bar!

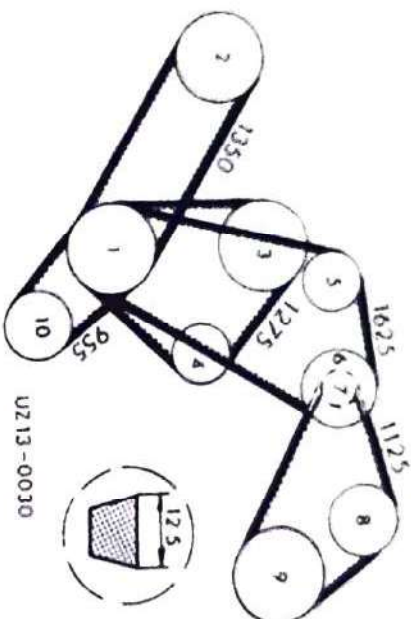
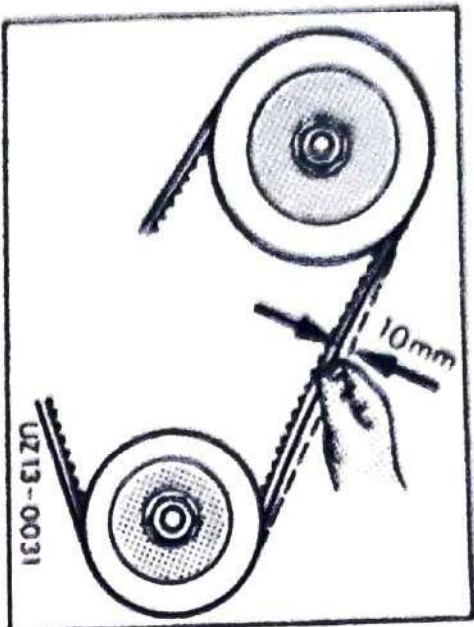


Vent fuel filter
Open vent screw, pump until
fuel flows out free of
bubbles.

3 MAINTENANCE

Tension V-belt

Tension V-belt so that it can be depressed about 10 mm with the thumb (depending on the length of V-belt). V-belts which are too tight or too loose are destroyed prematurely.



Dimensions in mm

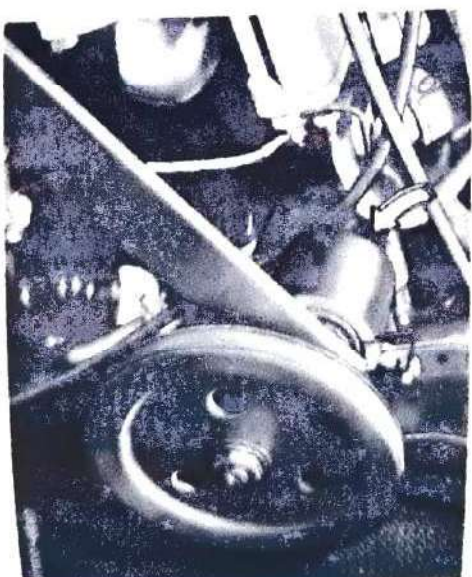
- 1 Crankshaft
- 2 Air compressor
- 3 Coolant pump
- 4 Alternator
- 5 Tensioning roller
- 6/7 Intermediate bearing
- 8 Tensioning roller
- 9 Fan
- 10 Steering pump
- 11 Hydraulic pump



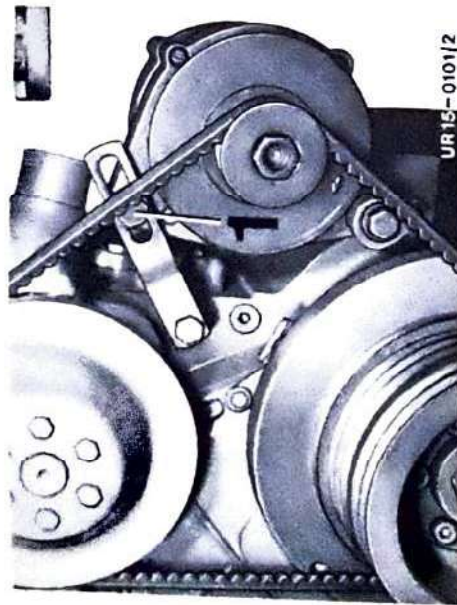
Checking fan drive tension by hand



Adjust tensioning roller (Both arrows = basic adjustment)
Release tension screws

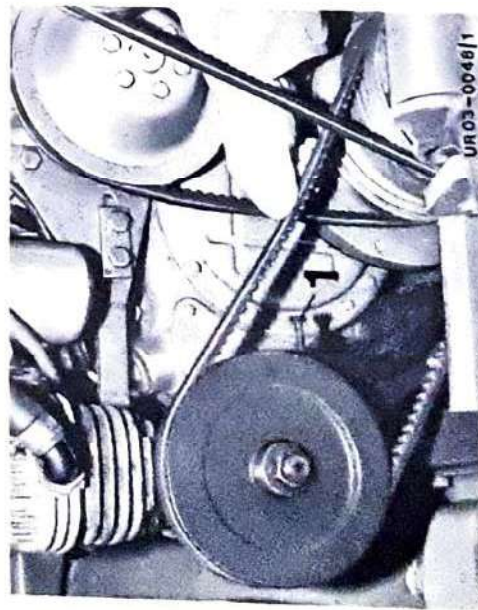


Tension V-belt



Alternator - coolant pump drive

1 Tensioning screw



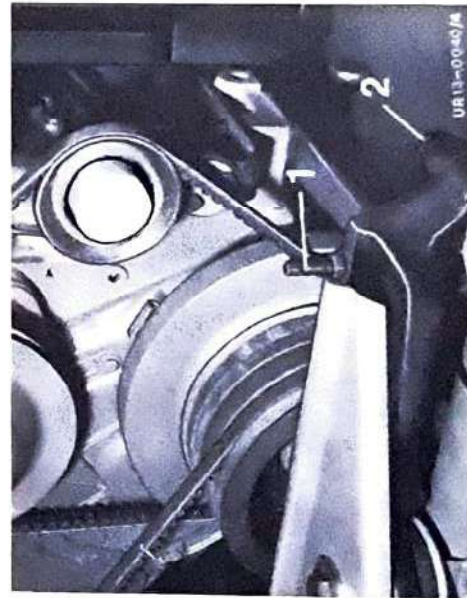
Air compressor drive

1 Tensioning screw



Fan drive and tensioning roller behind the radiator

1 Tensioning screw



Steering pump drive

1 Tensioning screw
2 Fastening screw

3 MAINTENANCE

Filter element of venting system

Clean air filter



Dry air filter

- 1 Maintenance indicator
- 2 Dust discharge valve

Note: Check weekly, under severe dust conditions daily.

Only clean if maintenance indicator showing (red colored area)!

Afterwards again disengage maintenance indicator, press 32 knob!



Blowing-out air filter paper element

Compressed air max. 5 bar

Important!

Never run engine without air filter element.

Replace after cleaning five times, however, at least every 2 years!



Replacing filter element

- 1 Filter element
- 2 Venting grille

If required, but at least once a year, unscrew venting grille and replace filter element.

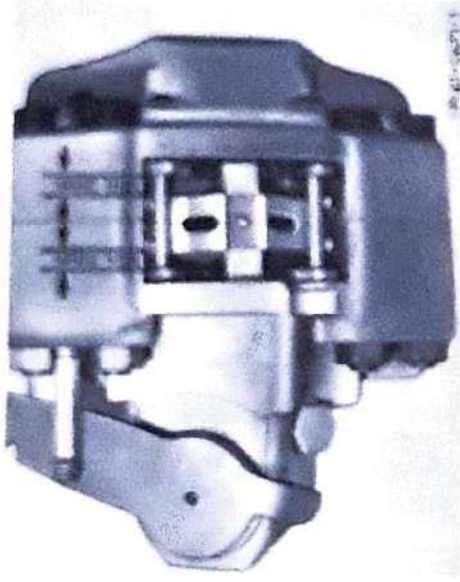
3 MAINTENANCE

Check wheel nuts



Check wheel nuts for tight
seat 400 Nm (40 kpm)

Check brake pads



Lining thickness at least
2 mm

Differential lock II 1300 G



Drain condensate, before
filling anti-corrosion oil

Air compressor



Tighten air compressor,
cylinder head bolts to
35 Nm (3,5 kpm)



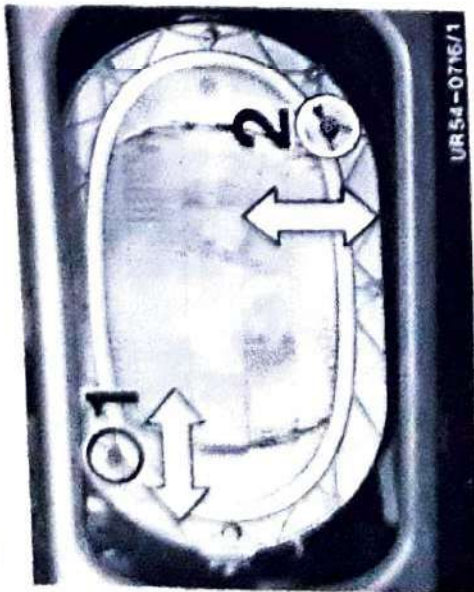
Unscrew pipe on front
and rear axle housing



Fill in approx. 1 to 2 cm³
anti-corrosion oil

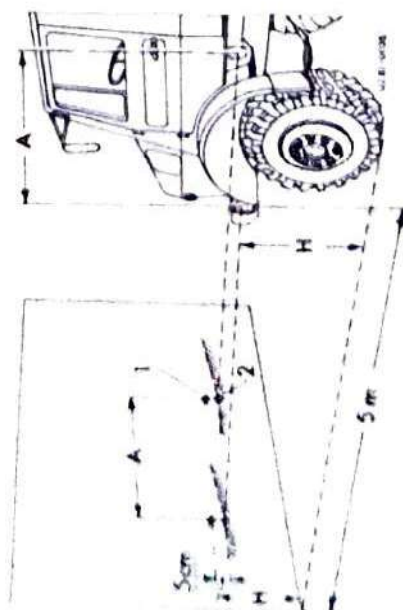
4 PRACTICAL ADVICE

Adjusting headlights



Adjust screws of water-tight headlights

- 1 Horizontal adjustment
- 2 Vertical adjustment



Adjusting headlights

- 1 Main beam middle
- 2 Low beam middle
- A Headlight center spacing
- H Headlight center height

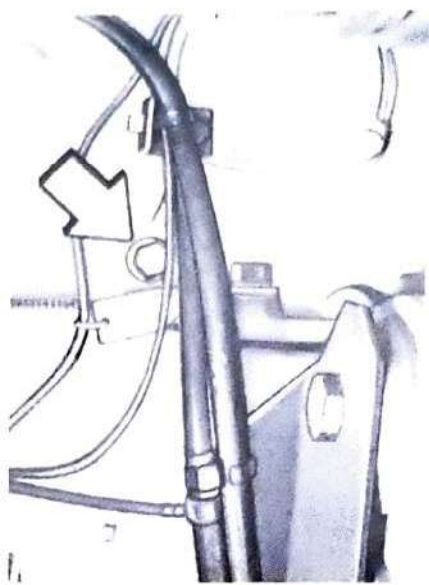
34

Draining coolant



Drain valve on radiator

Collect coolant in a container, because of antifreeze factor up to -25°C



Drain plug on engine

Filling with fuel



Withdraw and turn filler pipe

Important!

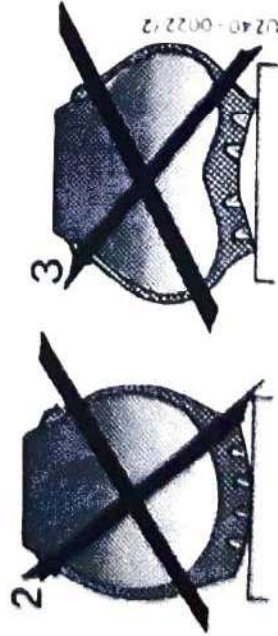
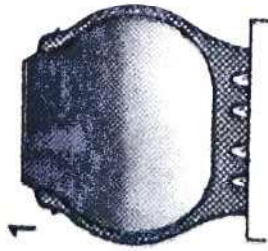
Never fill with fuel from a container without a strainer.

Checking tire pressure



UZ40-0125/4

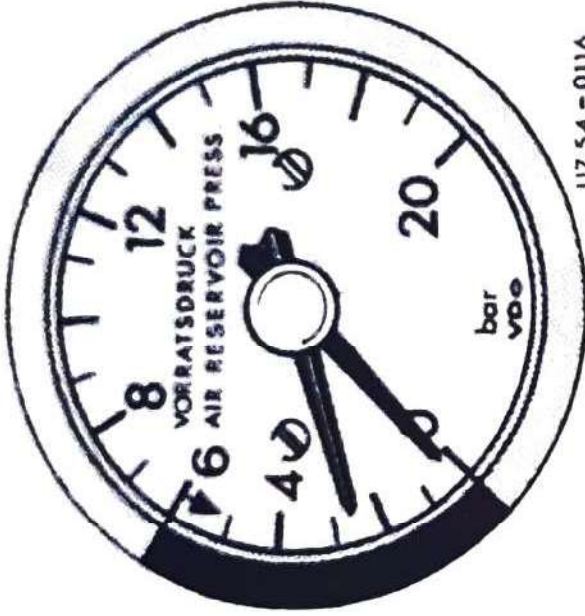
1 Check tire pressure



- 1 Normal tire pressure
- 2 Increased tire pressure *
- 3 Reduced tire pressure *

* Tire wear!

Filling tires



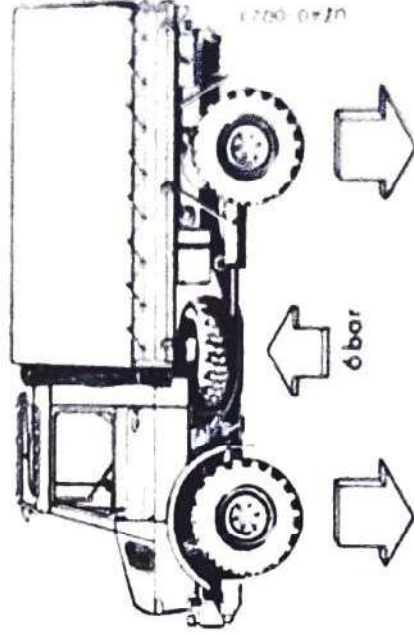
UZ54-0116

Reduce to 6 bar to inflate tires



Connect tire inflating hose at pressure regulator

When inflating tires run engine!



Tires	Front	Rear	Type
12,5R20 XL	4,0 bar	4,0 bar	U 1300 L
13,00-20 XL	5,0 bar	5,0 bar	U 1700 L

Note: Minimum tire pressure in cross country driving 1,5 bar

4 PRACTICAL ADVICE

Wheels - Changing Tires

Change tires at least every 10000 km.

Note direction of tread!

Tires are installed with opposed tread direction, thereby obtaining improved steering capability and quieter driving.



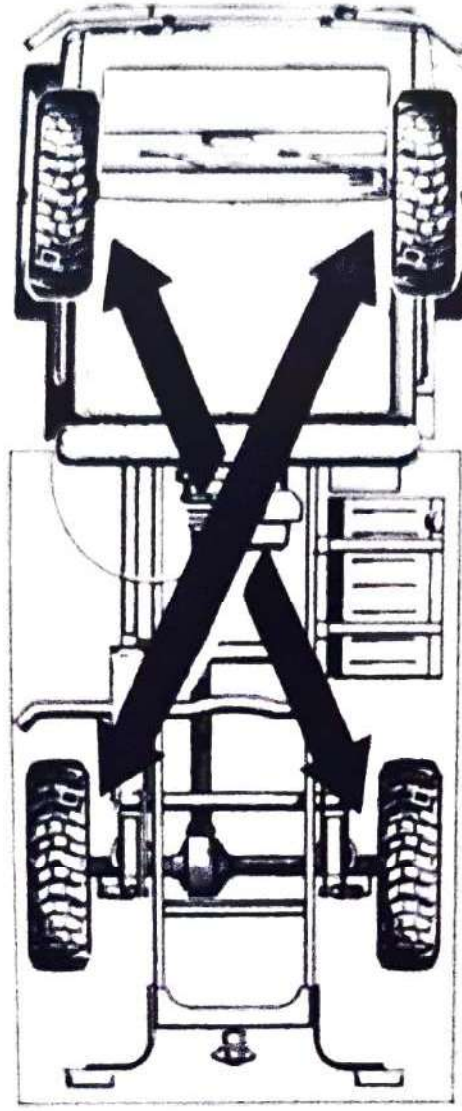
UMLMOG with tires
Michelin pilot XL
Tread installed in opposed
direction



Important

Tighten wheel nuts on new vehicles and following wheel changes after a distance of approx. 40 to 60 km!

Tightening torque 400 Nm

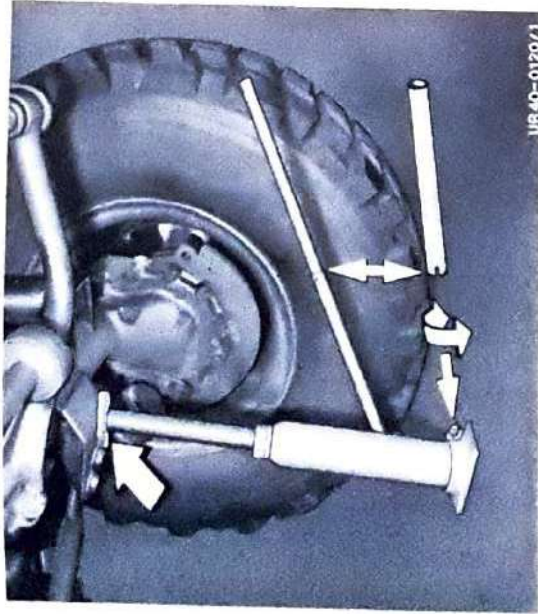


UZ 40 - 0024

Only change tires crosswise!

4 PRACTICAL ADVICE

Spare wheel - wheel change



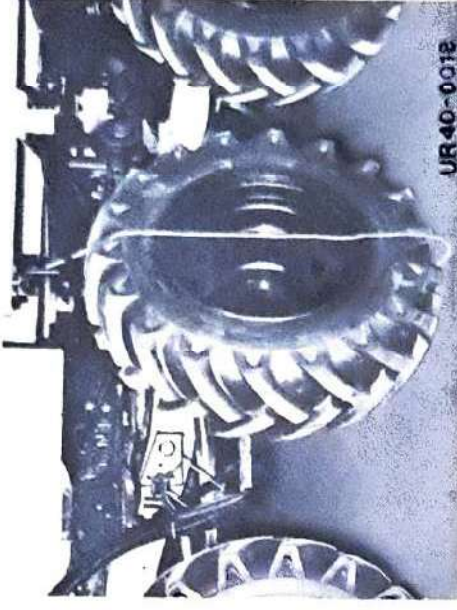
Jack 10 t

Only position at end of axle tube!

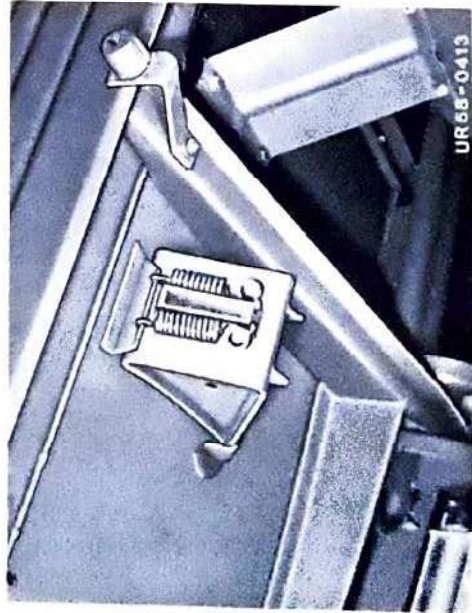
Fitting and removing spare wheel U 1700 L



Attach rope on hook under bracket



Run rope across center of wheel



Chocks under platform



Release spare wheel and lower with crank



Raise and fasten spare wheel

4 PRACTICAL ADVICE

Platform

Centre bench
for 8 persons (U 1300 L)
for 16 persons (U 1700 L)



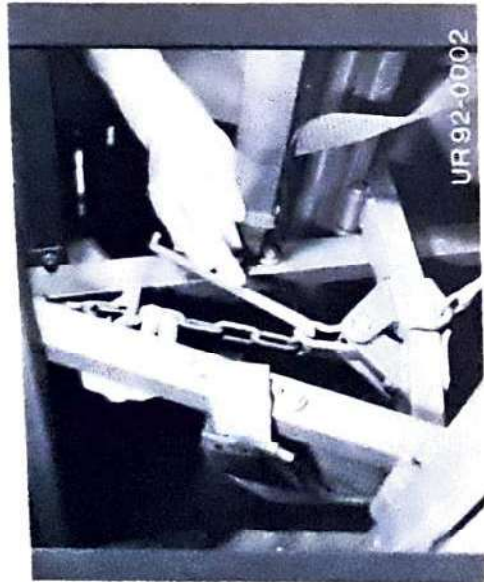
Centre bench installed

- 1 Turnbuckle
- 2 Chain tightener

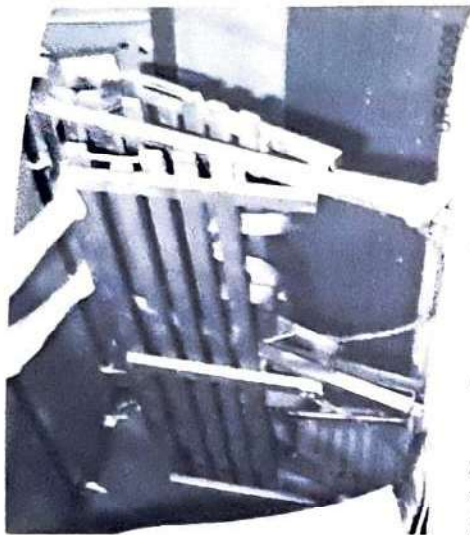


Each seat belt must be
used for 2 persons

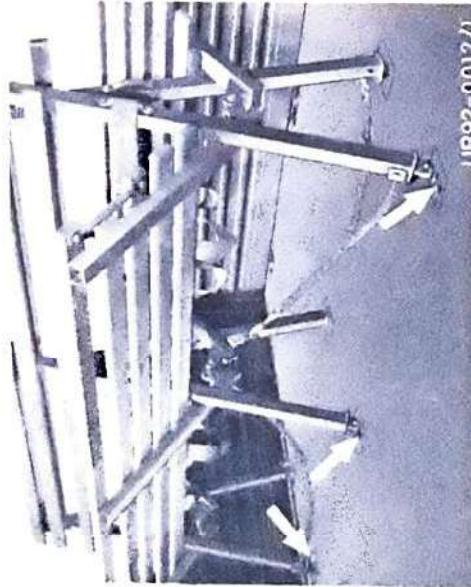
Centre bench stowing away



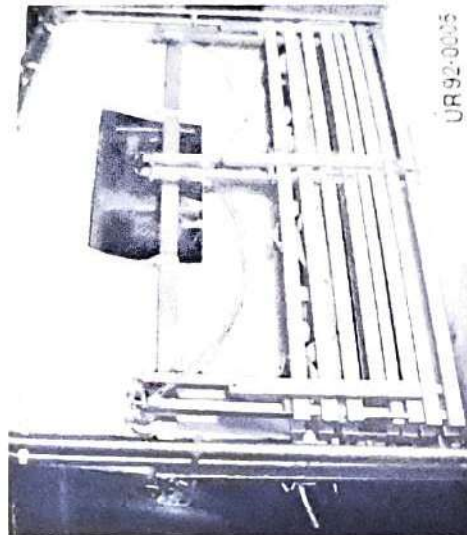
Open turnbuckle



Fold seat upwards



Fold seat upwards
Lift bench on one side first



Bench stowed on front
of platform

4 PRACTICAL ADVICE

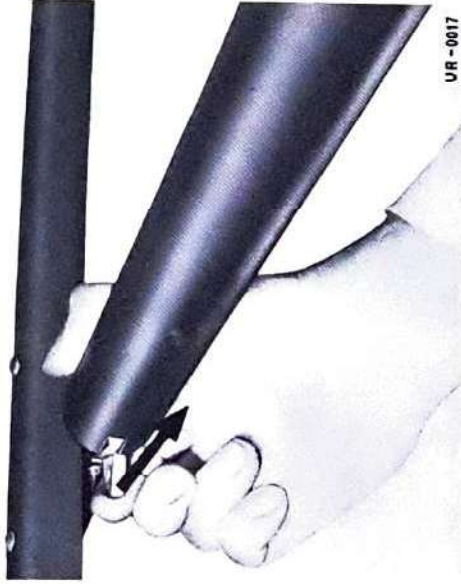
Platform



Insert tensioning chain in platform hole

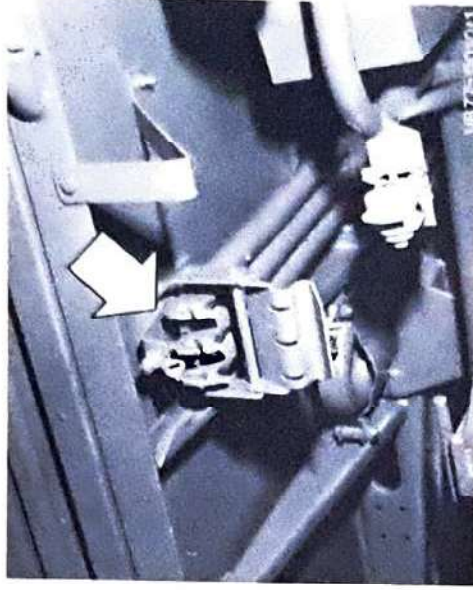
UR92-0010

Stake to be stowed



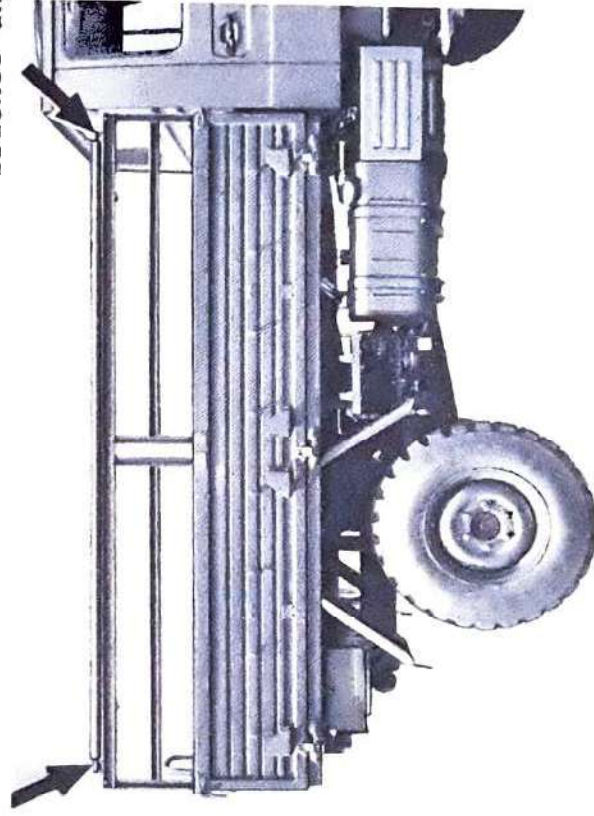
UR-0017

Unlock stake



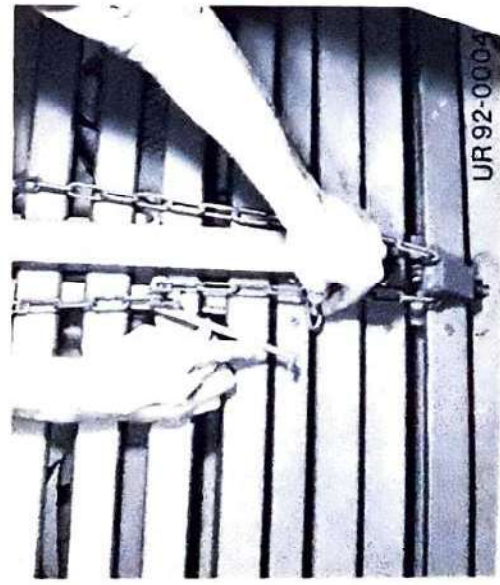
Three stakes stowed in bracket under platform

UR72-0001



UR60-0271/1

Two stakes to be fitted on the extension of side boards



Fasten bench seat with turnbuckle

UR92-0004

4 PRACTICAL ADVICE

Cable winch

The winch is only to be used for recovery purpose and not for lifting or lowering loads.

Roll-off cable

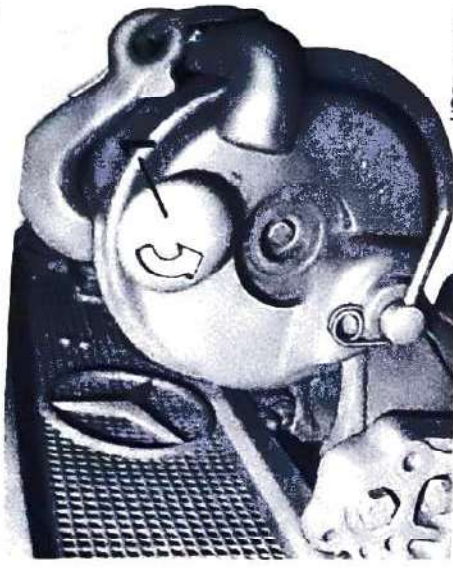
Loose friction (1) brake as that the cable drum remains lighth braked.

Pull cable outwards and fasten on appropriate place.

Brake lever must be in vertical position, i.e. the band brake is functioning, pos. a.

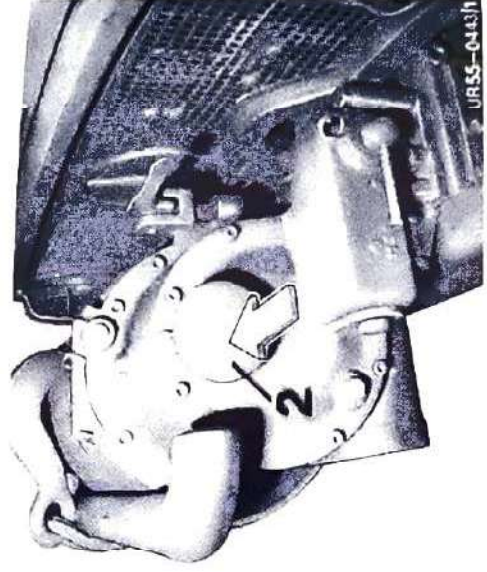
Remove safety spring and push-in coupling knob. Winch is engaged.

Actuate clutch, engage Pto, release clutch pedal slowly and accelerate.



URS5-0445h

Loosen friction brake (1)
pull cable outwards



URS5-0443h

Engage cable winch push
bottom coupling knob (2)

4 PRACTICAL ADVICE

Caution

With winch in operation, do not leave driver's cab.

A second person should guide and instruct the operator on all recovery procedures.

Danger!

To stop winch, actuate clutch pedal again and disengage PTO shift lever.

Roll-off cable

Loosen band brake (3) slowly, pos. (b).

Caution!

The hand must remain on the brake lever.

Bring lever back into vertical position, pos. (a).

Disengage winch.

Slacken cable

Loosen band brake (3), pos. (b).

Move cable up and down to relieve tension. After procedure disengage winch - pull out coupling knob (2).

Return motion lock:

A mechanical lock to hold winch drum in a certain position.

Required e.g. for pulling or recovering on other vehicle with the winch cable.



3 Band brake
a Brake position
b Loosening position



4 Reverse locking lever

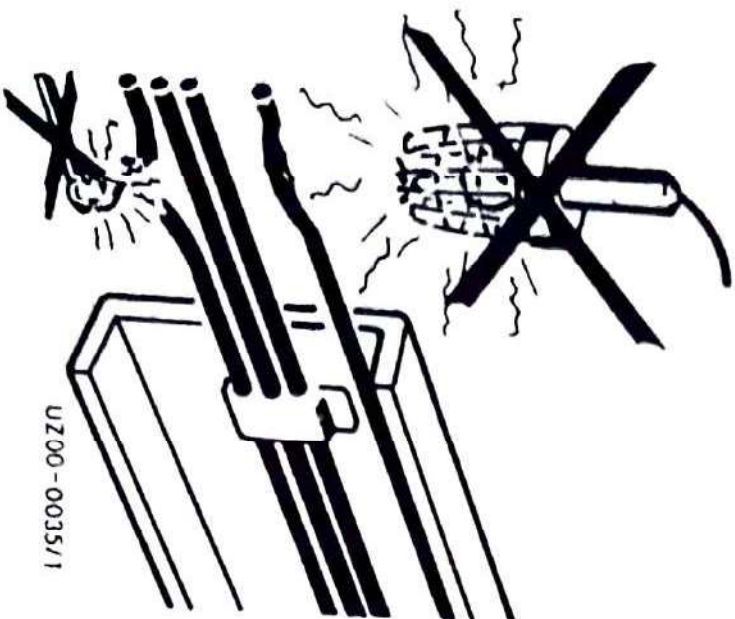
4 PRACTICAL ADVICE

Tilting driver's cab

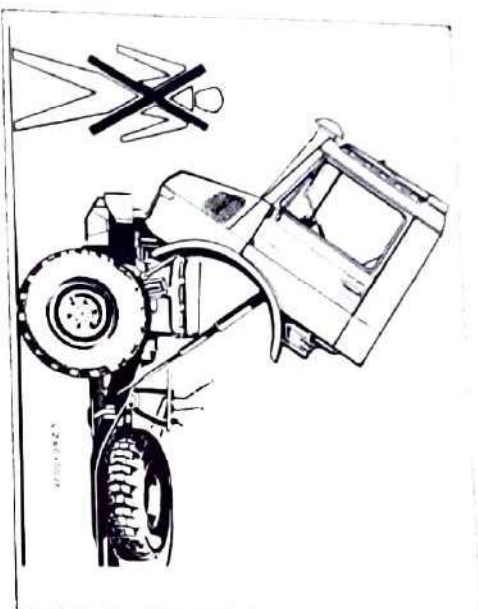


Safety regulation!
Keep clear of cab fore
and aft when cab tilted!

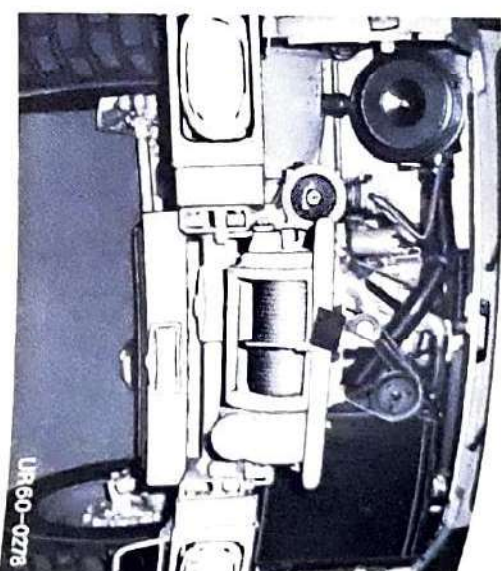
Close doors before tilting
cab!



Caution when repairing -
42 plastic cables!



1 Locating pin (1) for
telescopic cylinder



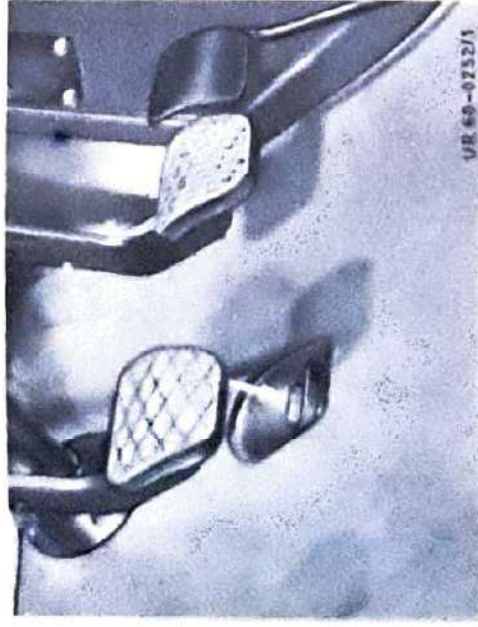
2 Before tilting, remove front
grille and engine hood. Set
wheels in straight-forward
direction.



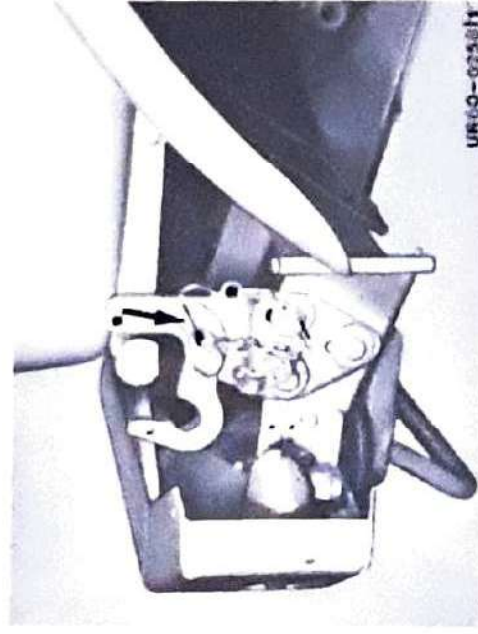
3 Release intake hose between
engine and air cleaner

4 PRACTICAL ADVICE

Tilting driver's cab



4 Unscrew mounting screws (2) of driver's cab front



6 Unlock tilting device right and left



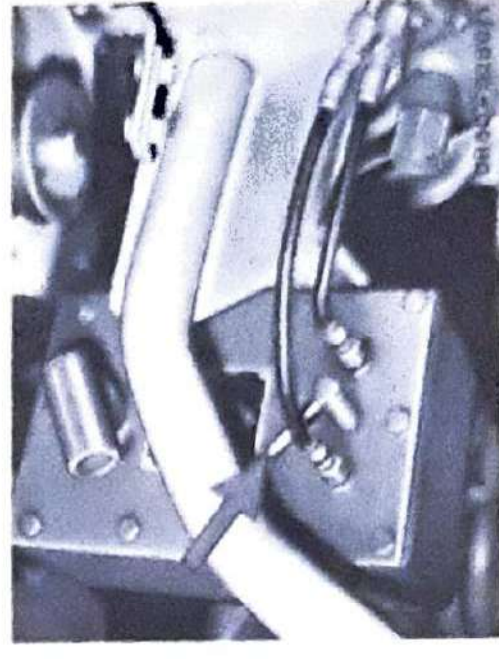
8 Close lock valve with pump on cylinder (turn right)



5 Unscrew mounting screws (2) of driver's cab rear



7 Turn tilting device upwards, lock and secure



9 Control lever in position lift "Heben"

4 PRACTICAL ADVICE

Lowering driver's cab



10 Insert handle in pump socket (1)
Pump cab upwards

Lowering the driver's cab is also executed by pumping. The locking valve (2) may not be opened.



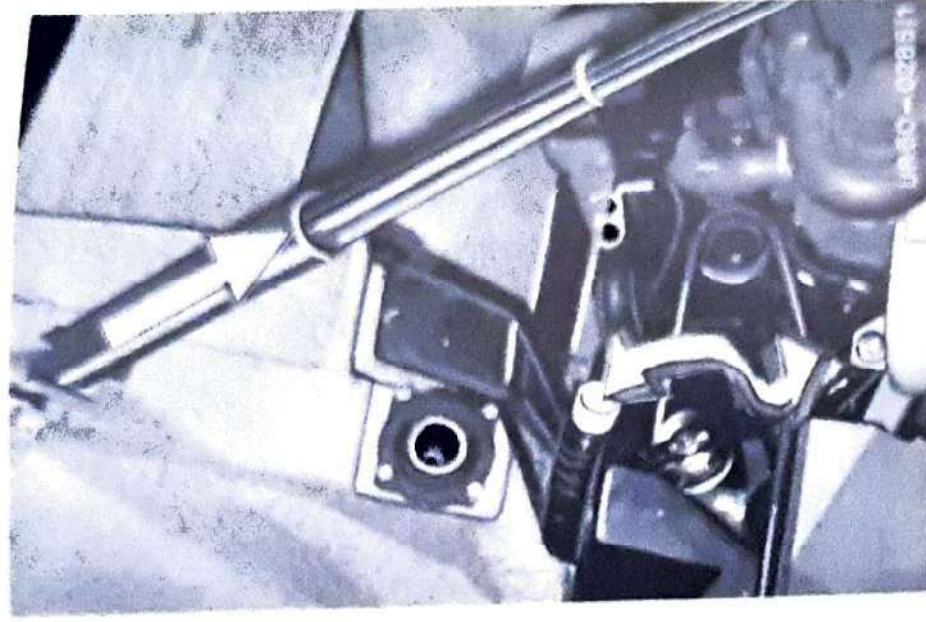
Risk of accident!



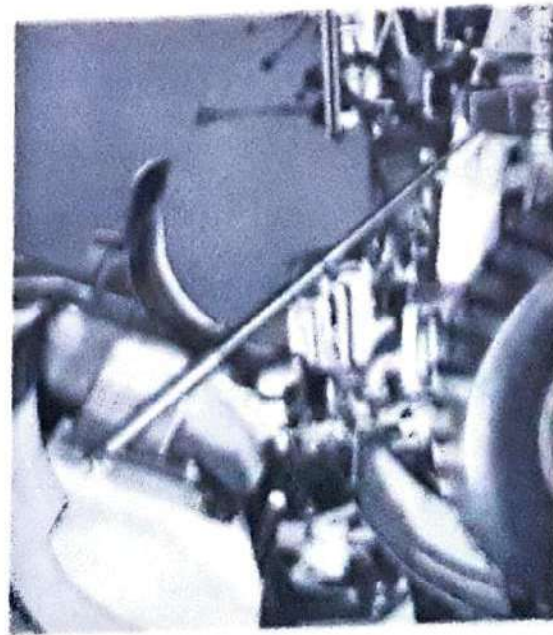
Set control lever (1) to position down ("Senken"). Open lock valve (2) after lowering the driver's cab (turn left).

Important!

Valve must always be open when driver's cab is in normal position in order to maintain the necessary pressure compensation in twisting.



Insert steering shaft into sliding sleeve when lowering the cab, in doing so observe punch markings.



11 Driver's cab in end position

5 TROUBLE SHOOTING

Fuel system

Engine does not start

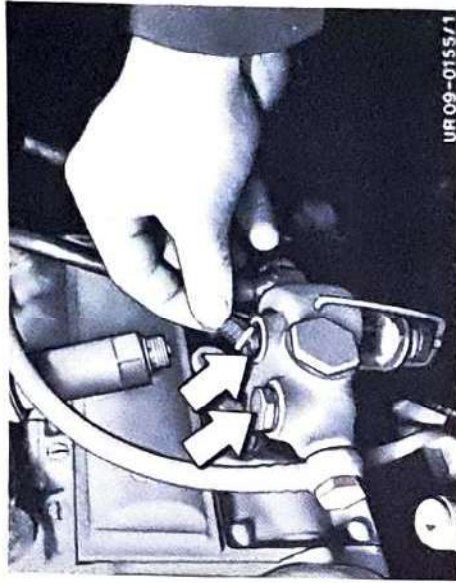
Engine fails

Possible fault

No fuel

Prefilter dirty

Dirty valves

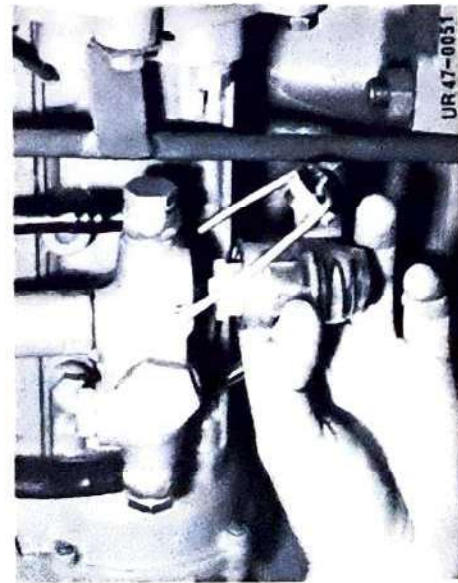


Remove valves

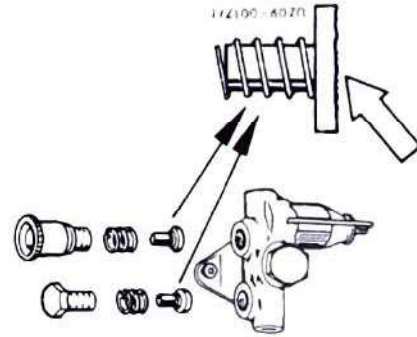
Prefilter draws-in air



Check gasket, replace!



Remove filter and clean element



Check valves, clean underside and smoothen

5 TROUBLE SHOOTING

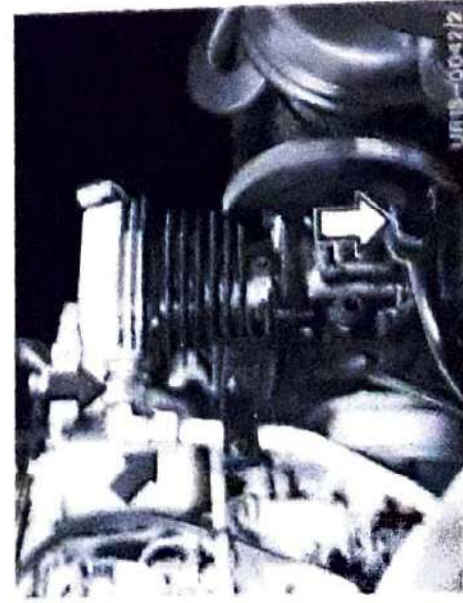
Wheels - Front axle

Compressed air system

High tire wear
Uneven tire wear

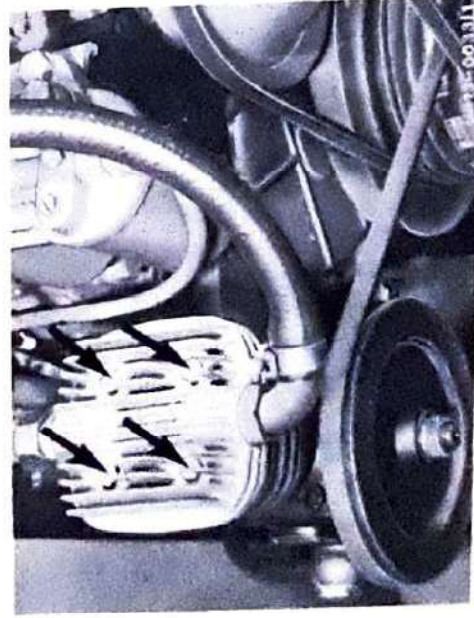
Possible fault

Toe-out wrongly adjusted
Tire pressure too high
or too low
Tie rod bend



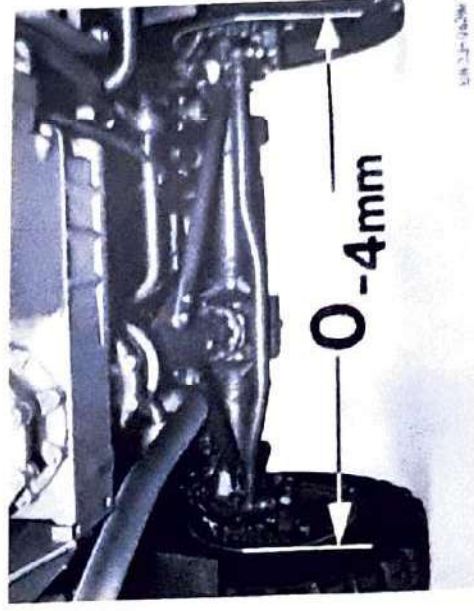
Air pressure lines

- Connections
46 - Tighten connection



Tighten V-belt

Tighten cylinder head



Adjusting track

Perm. track 0 to -4 mm
(toe-out)

5 TROUBLE SHOOTING

Emergency release of spring-loaded cylinders

Operation



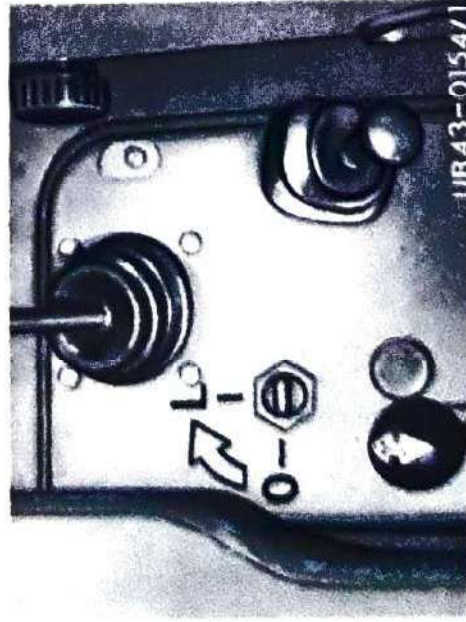
Caution when manoeuvring the vehicle!
The vehicle cannot be braked without compressed-air supply.

In case of defective air-pressure system - leakage, defective compressor or defective engine - the vehicle can be towed for repair. The spring loaded parking brake cylinder can be released through a separate reservoir.

Operational instruction for spring-loaded cylinder

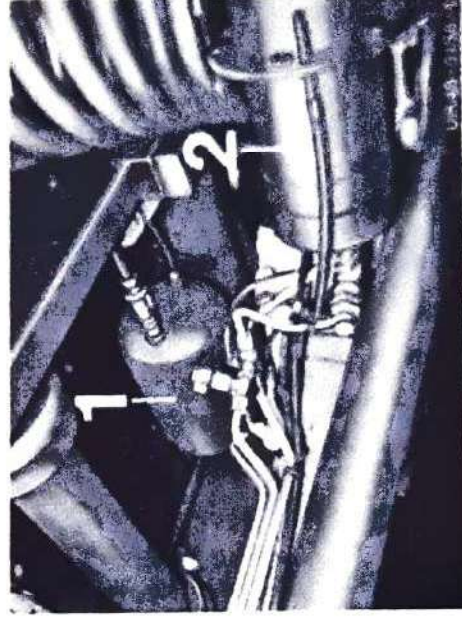
The spring-loaded brake cylinder der brakes with spring force and releases with compressed air!

Turn knob into "L" position and hold - spring loaded cylinder remains in released position.



Shift valve for emergency system

- O Off
- L Release position

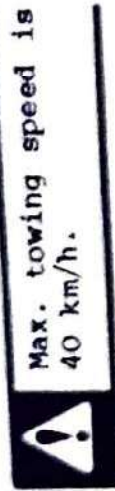
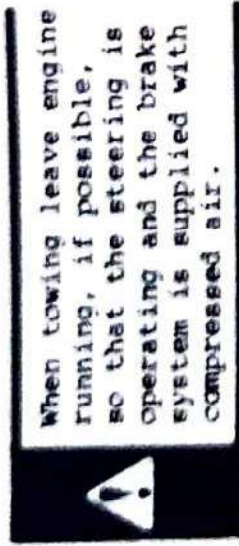


Emergency release of parking brake

- 1 Compressed-air reservoir
- 2 Spring-loaded cylinder at rear axle, left side

5 TROUBLE SHOOTING

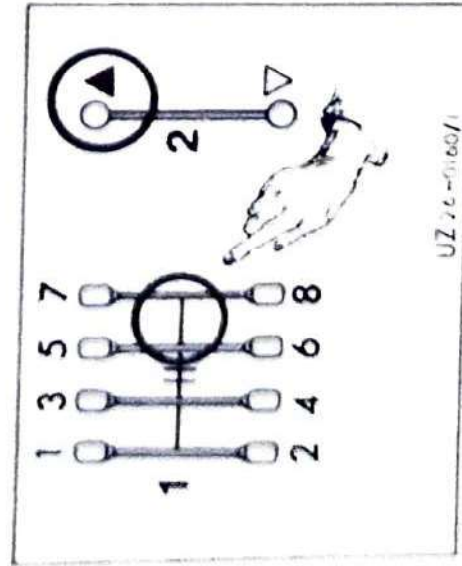
Towing



Important note:

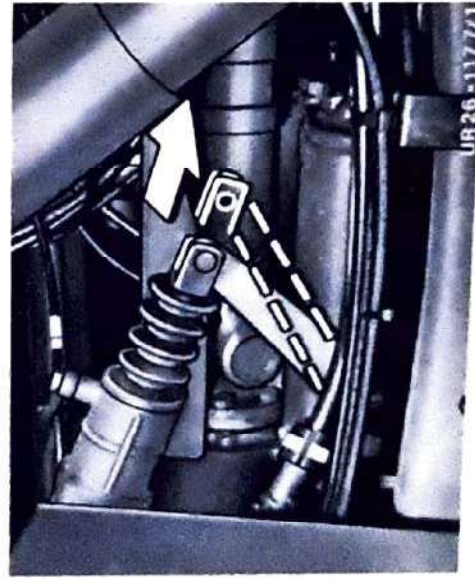
Do not tow or push with battery disconnected! Alternator damage.

To avoid transmission damage



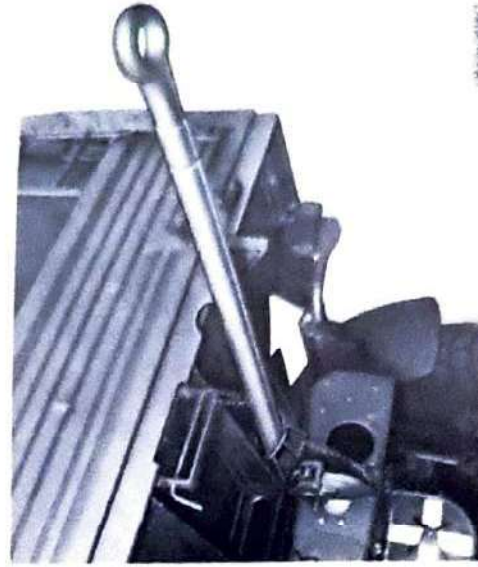
Observe gear position when towing!

Important, when vehicle has no compressed air note:



Gear lever must be positioned forward, if necessary shift with vehicle tool kit (extension-rod)

The vehicle may only be towed with towbar.



Withdraw towbar from under platform

Electrical system

Cable connections

Lighting

Lighting defective

Possible fault

Fuse blown due to

- Short circuit
- Loose contact

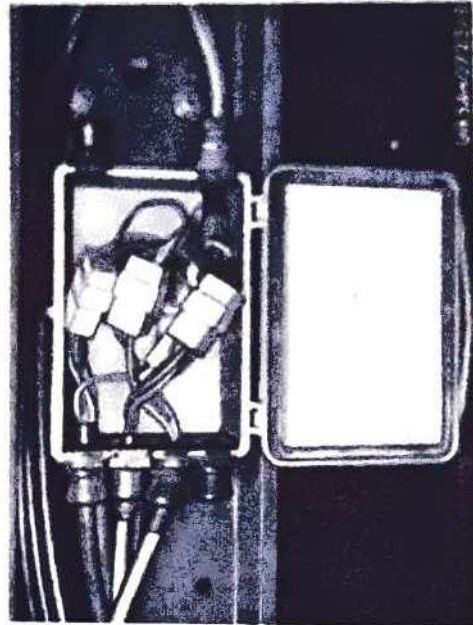
Bulb defective



Change bulb

Large bulb	55/50 W
Small bulb	4 W

Corrosion at cable connector
or other connections

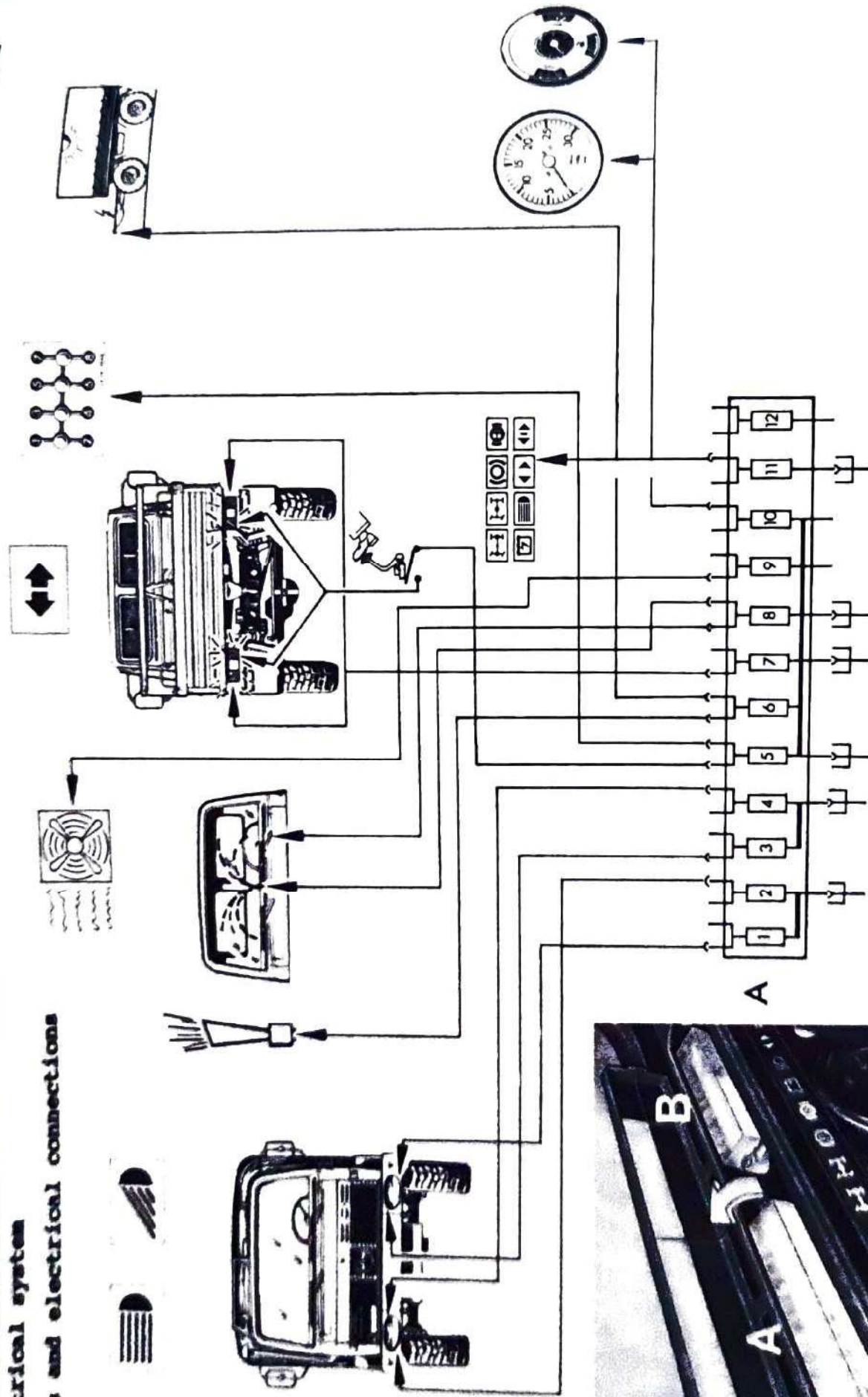


Check cable connector on
frame

5 TROUBLE SHOOTING

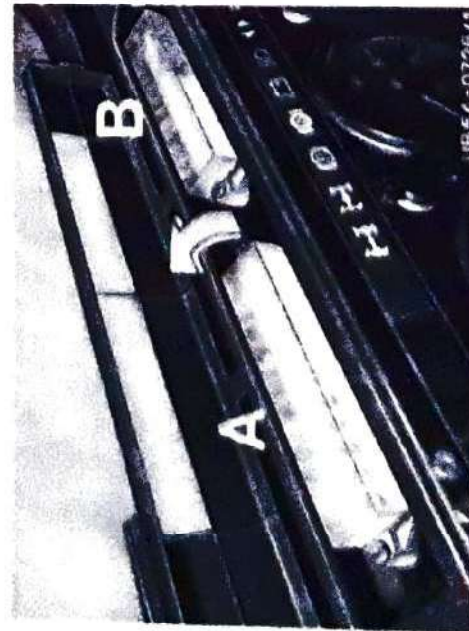
Electrical system

Fuses and electrical connections



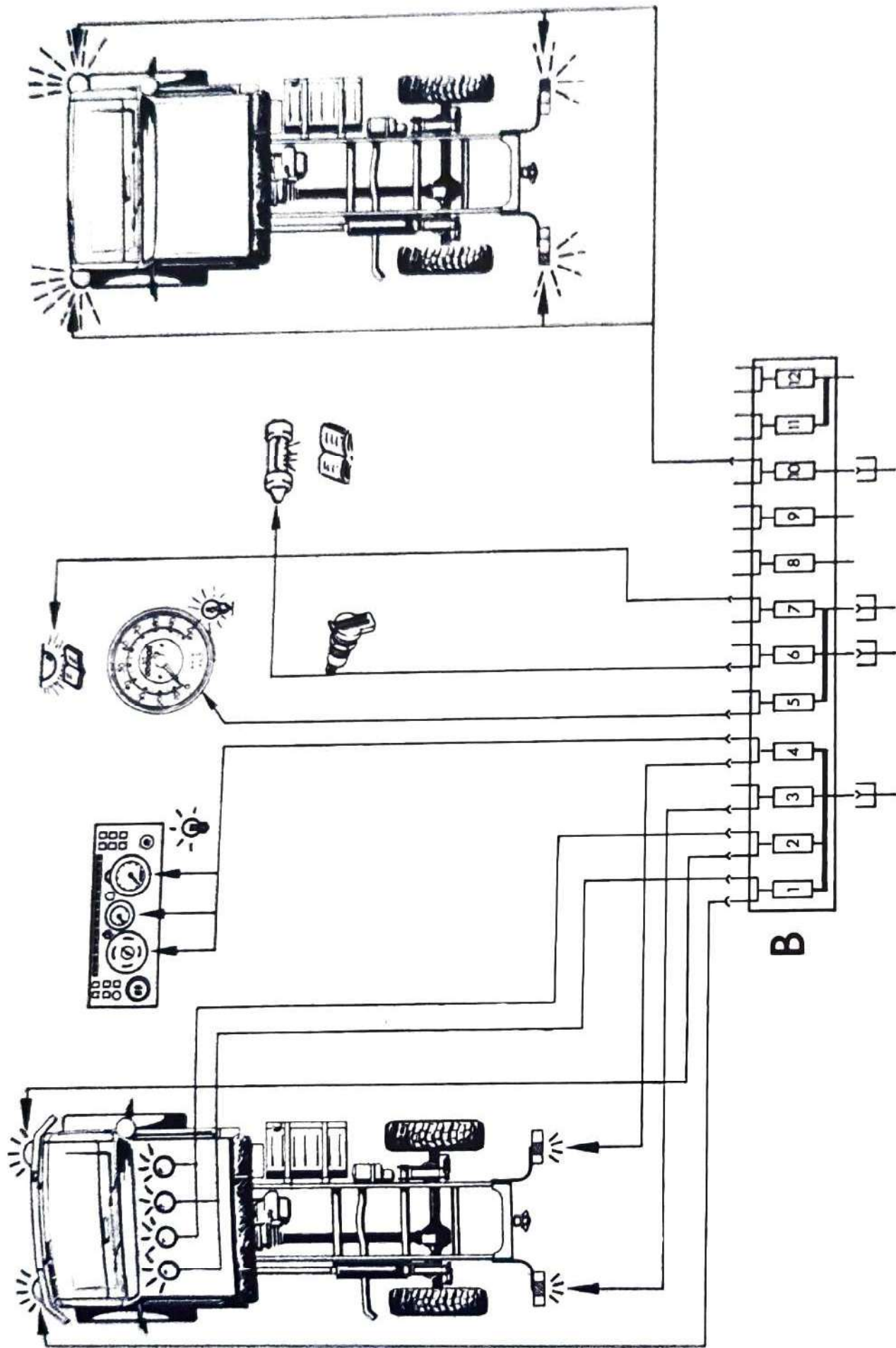
U754-0136

Fuse box left A



Open fuse boxes
50 Remove plastic cover

5 TROUBLE SHOOTING



Fuse box right B

6 OPERATING MATERIALS

Filling capacities

Assembly or unit	Operating material	SAE class	Season / ambient temperature	Capacity in liters U 1300 L U 1700 L
Engine Oil filter	Engine oil HD *	30 ²⁾ 40 ²⁾	all seasons summer	14,5 In oil filter 1,5 15 2 x 1,0
Transmission with power take-off (special version)	Engine oil HD	30 ²⁾ 20 W 20	all seasons winter	10,5 11,0
Front and rear axle axle drive housing	Gear oil, hypoid	90	all seasons	each 2,5
Front and rear axle planetary hub drive	Gear oil, hypoid	90	Pto bearing front (special version)	0,25 0,6
Pto bearing, front (special version)	Gear oil ¹⁾ Gear oil, hypoid	80	all seasons ¹⁾	each 0,08
Pto transmission (special version)	Engine oil HD	30 ²⁾ 20 W 20	all seasons winter	5,75

1) Constant use 2) only single grade oil

* Use Engine oil S3 quality only (for engine with turbocharging U 1700 L)
See Operating Materials specifications sheet 227,0/227,1

6 OPERATING MATERIALS

Filling capacities

Assembly or unit	Operating material	SAE class	Season / ambient temperature	Capacity in liters U 1300 L U 1700 L
Hydraulic steering, reservoir and steering	Engine oil HD ³⁾	10 W	all seasons	2,25
Hydraulic brake system Hydr. clutch control linkage	Brake fluid	DOT 3	all seasons	approx. 1,0
	Brake fluid		all seasons	approx. 0,2
Cooling system	Water with		summer / all seasons only in tropical zones	approx. 20,0 approx. 1 1/8 ≈ 0,2
	- Anticorrosive agent			
Windshield washer reservoir	- Antifreeze ⁴⁾ to -25° C		winter / all seasons	approx. 3,0
	Water, MB-windshield washer concentrate		all seasons	approx. 7,0
Fuel tank	Diesel fuel	as per DIN		160
Cable winch	Gear oil Gear oil, hypoid	80 90	all seasons	2,0
Grease nipple	Grease/multi-grade grease		all seasons	as required
Battery terminals	Anti-acid grease		all seasons	as required

3) Or transmission fluid (ATF) Type A

4) Factory filling, standard. If no anti-freeze is required, use 1 1/8 (approx. 10 cc/l.) approved treating agent in cooling water.

7 TECHNICAL DATA

Chassis



U 1300 L

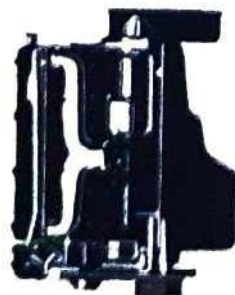
UNIMOG 435

U 1300 L

Sales designation
Model
Design of vehicle
Special version

435.115
Military-cross country vehicle
Right hand drive,
exhaust system right side

Engine



352

OM 352.X/1

353.961

Diesel four-stroke with
direct injection (RQV-regulator)
6 cylinders in line
97 dia.

mm ϕ

128

mm

5675

cc.

17,0 : 1

i

18°

20 (warm engine)

1 - 5 - 3 - 6 - 2 - 4

96 (130) at 2800/min

363 at 1700/min

11,3

2800

overhead

0,20

0,30

80° to 90° (coolant temperature)

2 to 5

min. 0,6

water cooled

tropicalized thermostat (as of 71° C)

54 Fuel consumption

As per DIN 70030

1/100 km

22,0

7 TECHNICAL DATA

Chassis



Sales designation
Model
Design of vehicle
Special version

UNIMOG 435

U 1700 L

435.113

Military-cross country vehicle
Right hand drive,
exhaust system right side

U 1700 L

Engine



Type

352 A (with exhaust gas
turbocharger)

Type/sales designation

Model

Operation

OM 352.A LII/1

353.959

Diesel four-stroke with
turbocharger and direct
injection (RSV-regulator)
6 cylinders in line

Arrangement of cylinders

Bore

mm ϕ

Stroke

mm

Total displacement

cc.

Compression ratio

i

Start of delivery BTDC

Compression pressure

min. bar

Injection order

Output according to DIN

kw (HP)

Torque max.

Nm

Torque rise

%

Nominal speed

1/min

Valve arrangement

Valve clearance

intake mm

exhaust mm

(cold)

Operating temperature

Oil gauge pressure normal

bar

Oil gauge pressure at idle

bar

Cooling system

Special version

97 dia.

128

5675

16,0 : 1

19°

20 (warm engine)

1 - 5 - 3 - 6 - 2 - 4

124 (168) at 2800/min

520 at 1800/min

23,0

2800

overhead

0,25

0,40

80° to 90° (coolant temperature)

2 to 5

min. 0,6

water cooled

tropicalized thermostat (as of 71° C)

Fuel consumption

As per DIN 70030

1/100 km

20,8

55

7 TECHNICAL DATA

0 1300 L / 0 1700 L

Clutch



Design
Model
Clutch pressure
Actuation
Adjustment

approx. N

single-plate dry clutch
GPM 330 N
11500 to 13100
hydraulic
automatic

Transmission



Main transmission

Design
Manufacturer
Type and designation
Model
Number of speeds

Synchromesh spur gear transmission with planetary group

Daimler-Benz
UG 3/40-8/13,01 GPA
717.901
8 forward - 4 reverse

Ratio

Forward	Reverse
1st gear 13,01	12,60
2nd gear 9,01	8,74
3rd gear 5,96	5,78
4th gear 4,38	4,24
5th gear 2,97	
6th gear 2,06	
7th gear 1,36	
8th gear 1,00	

PTO drive



Past pto

(special version)
Translation either
Max. speed

i =
1/min

fast pto to rear
1,0 or 0,7
2800 3940

7 TECHNICAL DATA

pto transmission

U 1300 L / U 1700 L



Design	Getriebezapfwelle
Designation	UNA 3/40
Max. speed	540
Connection	at front
	1 3/8" (splined profile as per DIN 9611)
Front PTO	
Perm. power load	33 kW

Axles



Rear axle	U 1300 L	U 1700 L
Type/designation	HU 2/14 S-4,0	HU 3/1 S-6,8
Model	747.111	747.206
Stabilizer	-	stabilizer reinforced

Front axle

Type/designation	AU 2/14 S-4,0	AU 3/1 S-5,3
Model	737.111	737.202
Translation		
Total	5,307 (100 km/h)	6,38 (90 km/h)
Axle drive	23 : 9	24 : 11
Wheel hub drive	27 : 13	38 : 13
Track		0 to -4 (toe-out)
Camber		1°45'
Inclination		10°
Caster		7°
Steering angel		40°
Stabilizer	Stabilizer	Stabilizer, reinforced

7 TECHNICAL DATA

Steering



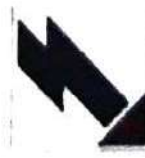
	U 1300 L	U 1700 L
Design	Ball nut power steering	
Manufacturer	Daimler-Benz	
Designation	LS 3 B	
Model	765.601	
Steering pump	Type	ZF 7672
Operating pressure	bar	130

Wheels and tires



Tire	Size	12,5R20 (radial)	13,00-20
Manufacturer		Michelin	Michelin
Designation		Pilote XL / tubeless	
Rim	Size	11 x 20	10.00V-20
Tire pressure front/rear	bar	4,0/4,0	5,0/5,0

Electrical system



Rated voltage	V	24, RFI suppression
Alternator		Three-phase, Bosch (with installed regulator)
Output	W	1540
Volt x amp.	V x A	28 x 55
Starter motor	kW	2,9 (splashproof)
Battery	V	24 (2 x 12)
Capacity	Ah	2 x 125
Electrolyte density		1,23 (tropical version)
Head lights		Left hand traffic

7 TECHNICAL DATA

U 1300 L / U 1700 L

Brakes



Hydraulic brake system

Design

Hydraulic dual-circuit brake system, disk brake, aire pressure actuated axle-load, dependent regulating

Parking brake system

Linkage-less spring-loaded parking brake with separate emergency release system

Release pressure bar

5,5 to 6,0

Compressed air brake system

Design according to EEC

Dual-circuit compressed air brake system

Supply pressure bar

18,0 (min. 12,0)

Operating pressure max. bar
bar

9,5 (single operation)
7,35 (trailer operation)

Trailer brake system

Design according to EEC
connections

Two-line trailer brake system
front ¹⁾ and rear

Operating pressure bar

7,35 at trailer operation

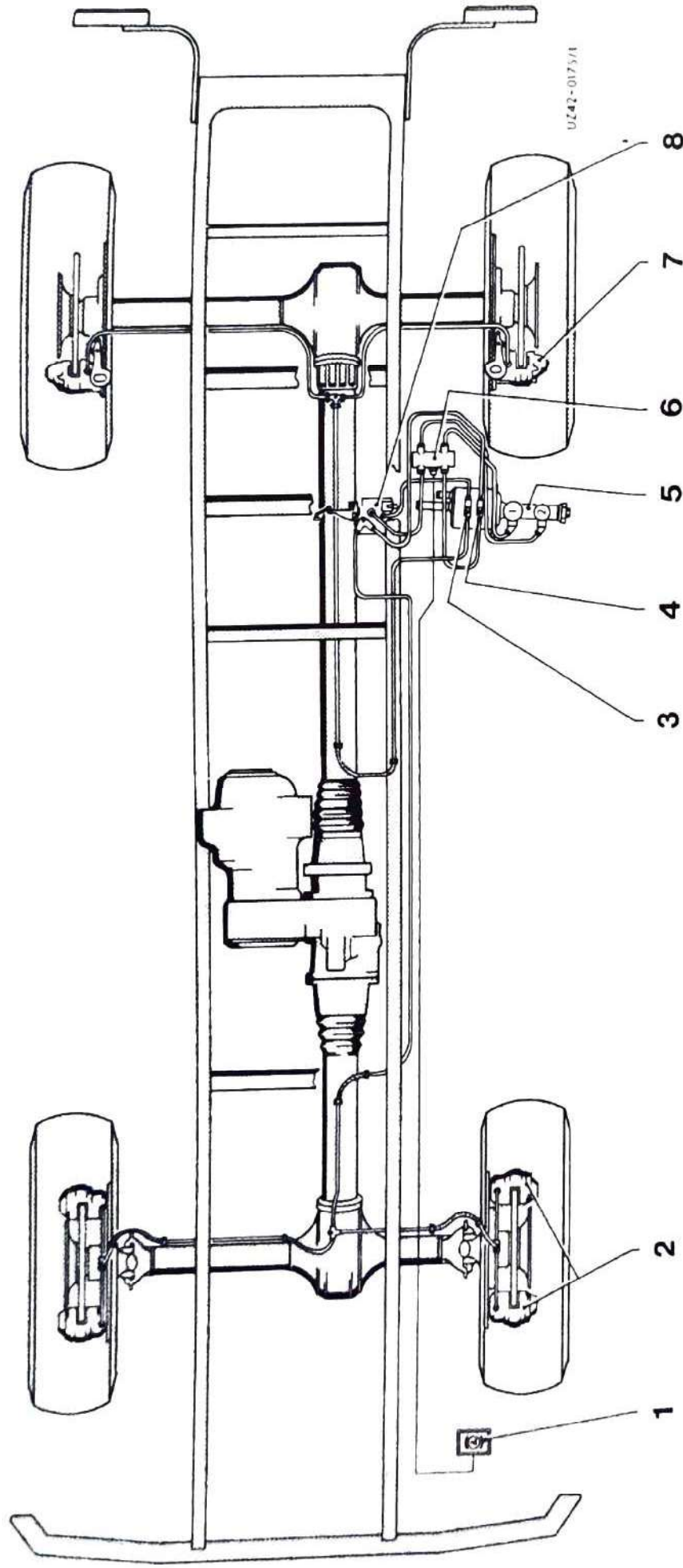
EG = EEC European Economic
Commission Regulations

1) Only U 1700 L

7 TECHNICAL DATA

Hydraulic brake system

U 1300 L / U 1700 L



Hydraulic two-circuit brake system with load dependent regulation via rear axle

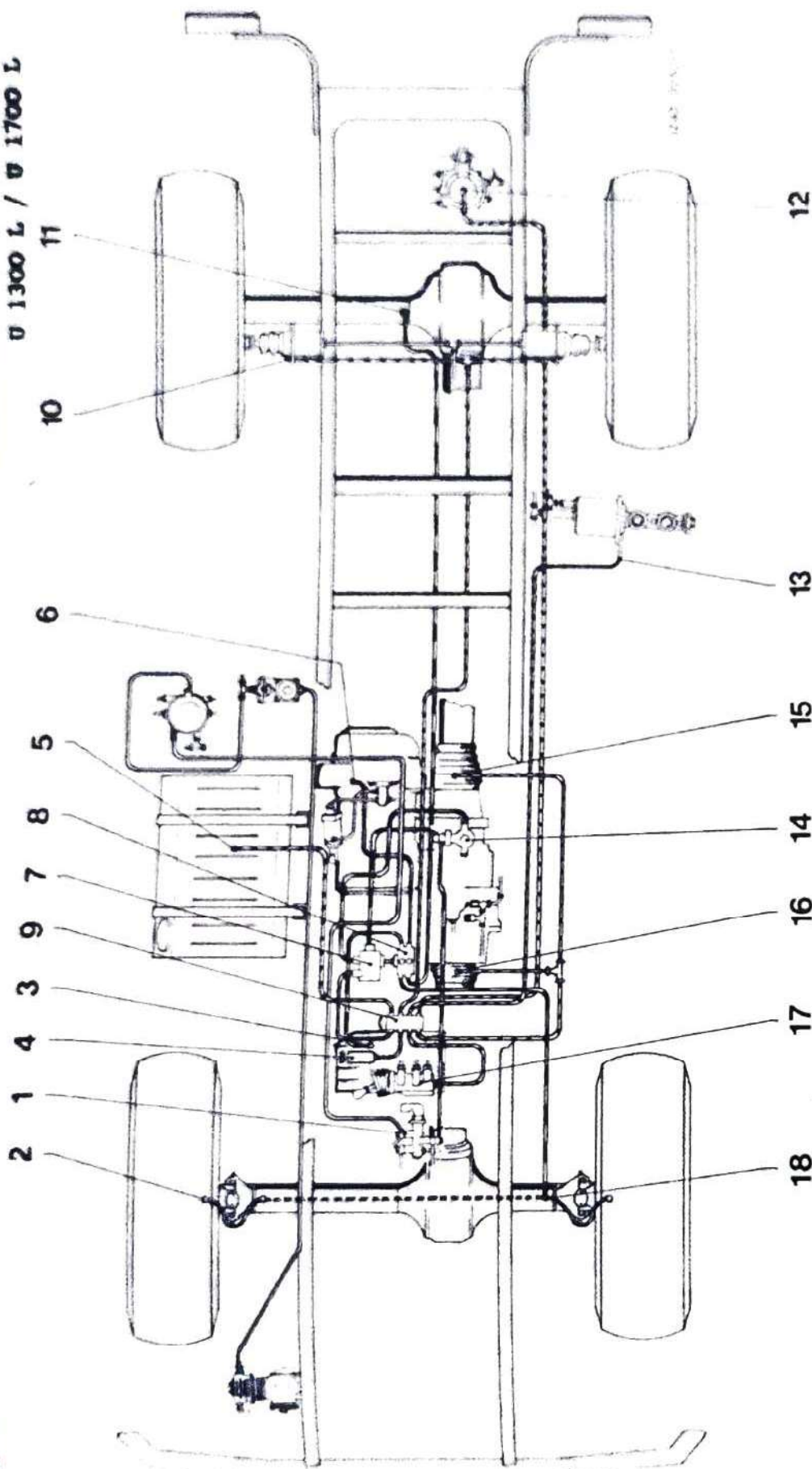
- | | | | |
|---|---|---|-----------------------------------|
| 1 | Warning lamp - brake pressure drop | 5 | Main brake cylinder |
| 2 | Brake calipers | 6 | Differential pressure sender unit |
| 3 | Test connection - load-sensing, rear axle | 7 | Combined brake caliper |
| 4 | Test connection - no load-sensing, front axle | 8 | ALB-regulator * |

60 * ALB load dependent brake

7 TECHNICAL DATA

Compressed air system

Ø 1300 L / Ø 1700 L



Aggregat pressurize and venting for fording ability

Pressurize

- 1 Switch valve, four-wheel drive, differential lock
- 2 Ventilation hub reduction
- 3 Ventilation pto transmission
- 4 Venting start pilot
- 5 Venting fuel tank
- 6 Ventilation main transmission

Venting

- 7 3/2-way valve
- 8 Distributor
- 9 Central release filter
- 10 Venting spring loaded cylinder
- 11 Ventilation rear axle
- 12 Venting trailer control valve

Pressure 0,35 - 0,2 bar

- 13 Venting primary cylinder
- 14 Pressure regulation valve
- 15 Venting rear axle
- 16 Venting front axle
- 17 Venting hand brake vehicle
- 18 Ventilation front axle

7 TECHNICAL DATA

Compressed air brake system

U 1300 L / U 1700 L

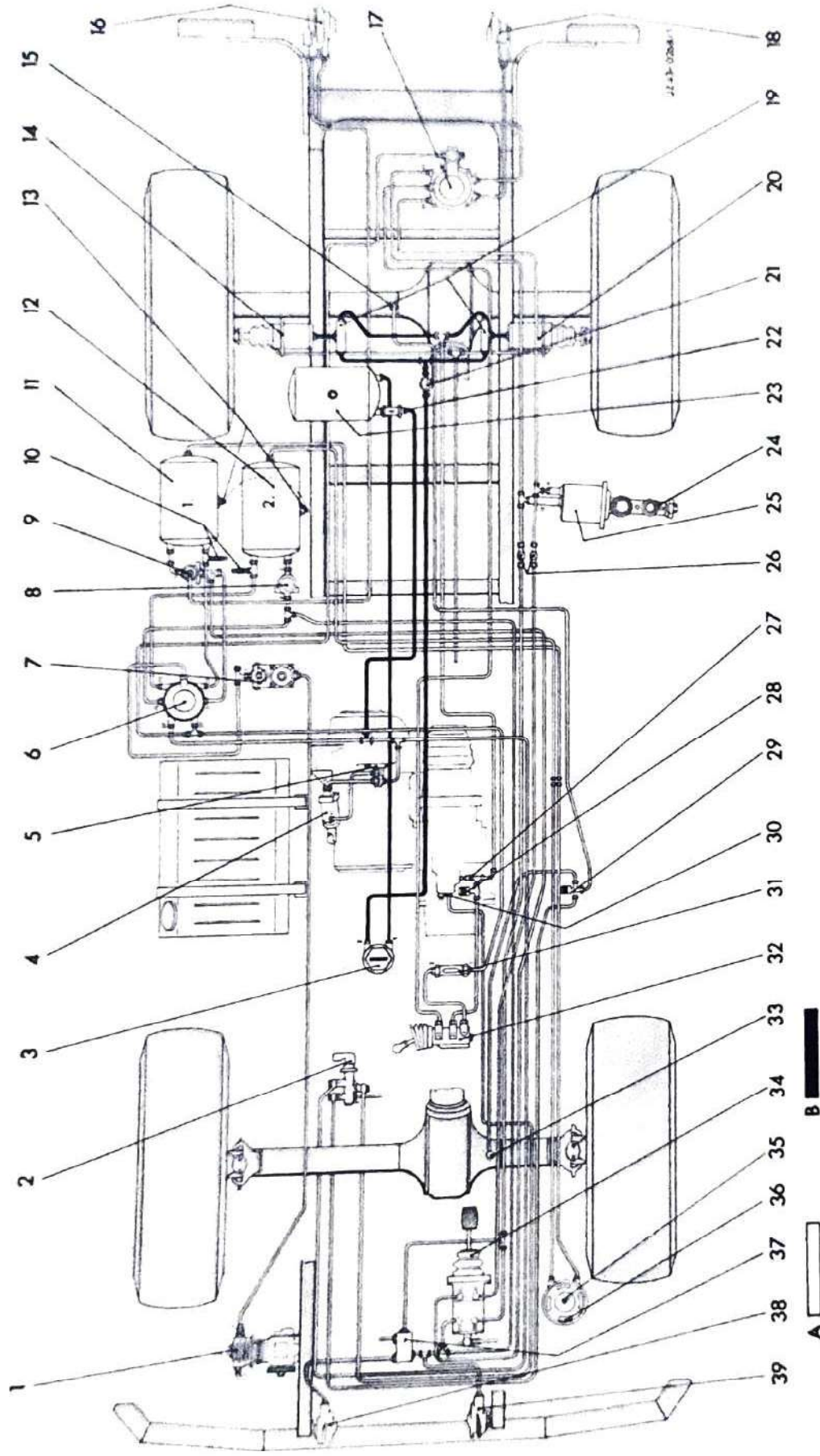
A Compressed air brake system

B Emergency release system for spring loaded cylinders

- | | | | |
|----|---|----|--|
| 1 | Air compressor | 20 | Spring-loaded brake cylinder left |
| 2 | Switch valve, four-wheel drive differential lock | 21 | Test connection, fill-in connection |
| 3 | Shift valve, emergency release system | 22 | Non-return valve |
| 4 | Shift cylinder, planetary drive | 23 | Compressed air tank, emergency system |
| 5 | Shift valve, transmission | 24 | Main brake cylinder dual circuit |
| 6 | Four-circuit protective valve | 25 | Primary cylinder dual circuit |
| 7 | Pressure regulator with tire fill-in connection | 26 | Test connections, brake circuit 1 and 2 |
| 8 | Pressure reducing valve (9,5 bar) | 27 | Test connections, parking brake |
| 9 | Pressure reducing valve, switchable (7,35 bar) | 28 | Pressure switch, parking brake |
| 10 | Test connections, supply pressure circuit 1 and 2 | 29 | Pressure switch, differential lock |
| 11 | Compressed-air tank circuit 1 (18 bar) | 30 | Connection four-wheel drive |
| 12 | Compressed-air tank circuit 2 (18 bar) | 31 | Non-return valve |
| 13 | Water separator | 32 | Parking brake valve |
| 14 | Spring loaded brake cylinder right | 33 | Connection differential lock front |
| 15 | Connection differential lock rear | 34 | Operating brake valve, dual circuit |
| 16 | Coupling head, supply (red) | 35 | Double pressure gauge, circuit 1 and 2 |
| 17 | Trailer control valve with break-away valve | 36 | Control light red, supply (below 12 bar) |
| 18 | Coupling head, brake (yellow) | 37 | Relais valve (control valve) only |
| 19 | Lock valve | 38 | Coupling head, brake |
| | | 39 | Coupling head, supply |

7 TECHNICAL DATA

U 1300 L / U 1700 L



Dual-circuit compressed-air brake system with double-line trailer brake, spring-loaded parking brake with emergency release system

7 TECHNICAL DATA

Platform



Model	U 1300 L	U 1700 L
Measurements	435.614	435.632
Container lock ISO/ASA	3150x2200x500	4250x2375x500
Centre bench	6'8"	Twist-Lock TL 109
Seating capacity	1	2
Tarpaulin frame	8 persons	16 persons
		removable

Driver's cab



Model	425.820	425.820
Version	Safety cab, mounted at three points, OECD tested, tilting-type, right hand drive	

Weights



Permissible gross vehicle weight	kg	7500	12000
Permissible axle load	front	4000	5300
	rear	4000	6800
Dead weight	approx. kg	5400	7000
Payload	kg	2500	5000
	cross country	max. kg	2000
	with container	max. kg	2500

Trailer loads

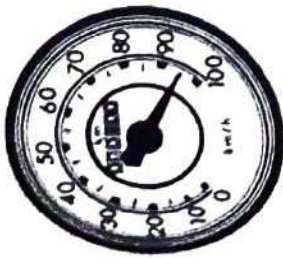


Perm. trailer		
with continuous brake	kg	10500
without brake	kg	2300
Trailer coupling	optional	Hook type coupling / or automatic coupling
Perm. support load	approx. N (kp)	12500 (1250) 15000 (1500)

7 TECHNICAL DATA

Maximum speeds

Engine speed 2800/min



U 1300 L

Maximum speed km/h

Tires
12,5R20

Gears	forward	reverse
1	7,7	8,1
2	11,1	11,5
3	16,9	17,5
4	22,9	23,7
5	33,8	
6	48,8	
7	73,9	
8	100,0	

Max. climbing capacity
without trailer

approx. 70 %

U 1700 L

Tires
13,00-20

Gears	forward	reverse
1	7,0	7,2
2	10,1	10,4
3	15,2	15,7
4	20,7	21,3
5	30,6	
6	44,1	
7	66,7	
8	91,0	

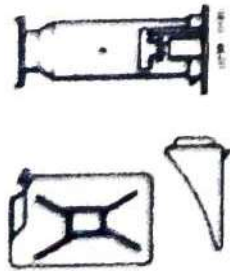
Max. climbing capacity
without trailer

approx. 70 %

7 TECHNICAL DATA

U 1300 L / U 1700 L

Equipment and tools



Towbar
Chock
Safety belt on rear sideboard
Spare wheel
Tool
Hydraulic jack 4 t / 10 t
Hand lamp

Paintwork

Bronze green according NSN 8010-98-106-0859
MIL-E-52798 A ME

Cable winch



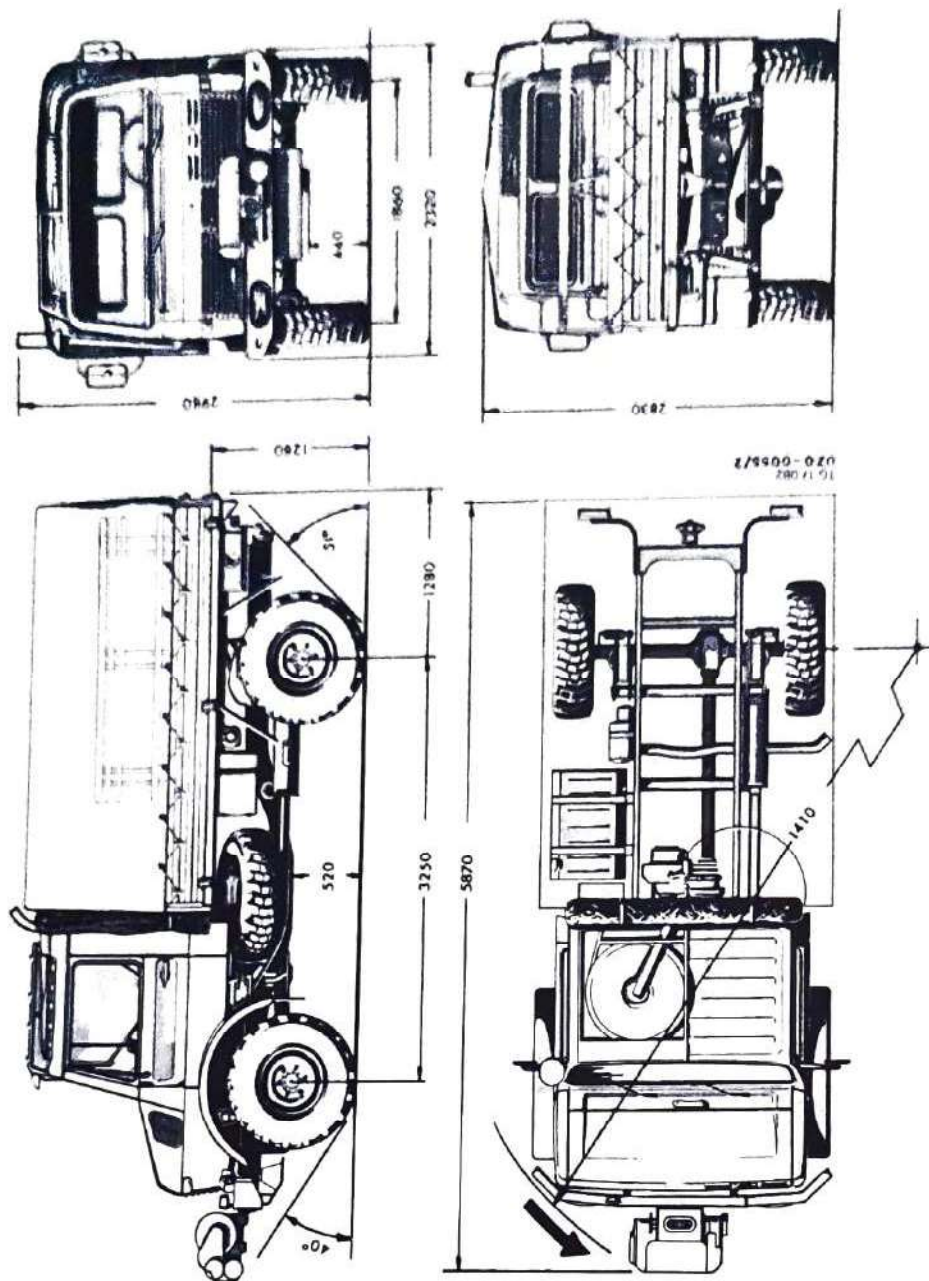
Model Recovery-cable winch
Manufacturer Firma Werner, Trier-Ehrang
Type F 64.1 M1 SE with overload protection
Tractive power approx. kp 6297 inner cable position
approx. kp 5200 middle cable position $\pm 15\%$
approx. kp 3760 outer cable position
Cable dia. mm ϕ 12
Rope length m 40
Weight kg 125

7 TECHNICAL DATA

U 1300 L

Dimensions mm

Fording depth approx. 1000 mm
 Max. height 2980 mm
 Height of canvas 1280 mm
 Turning circle 14,10 m

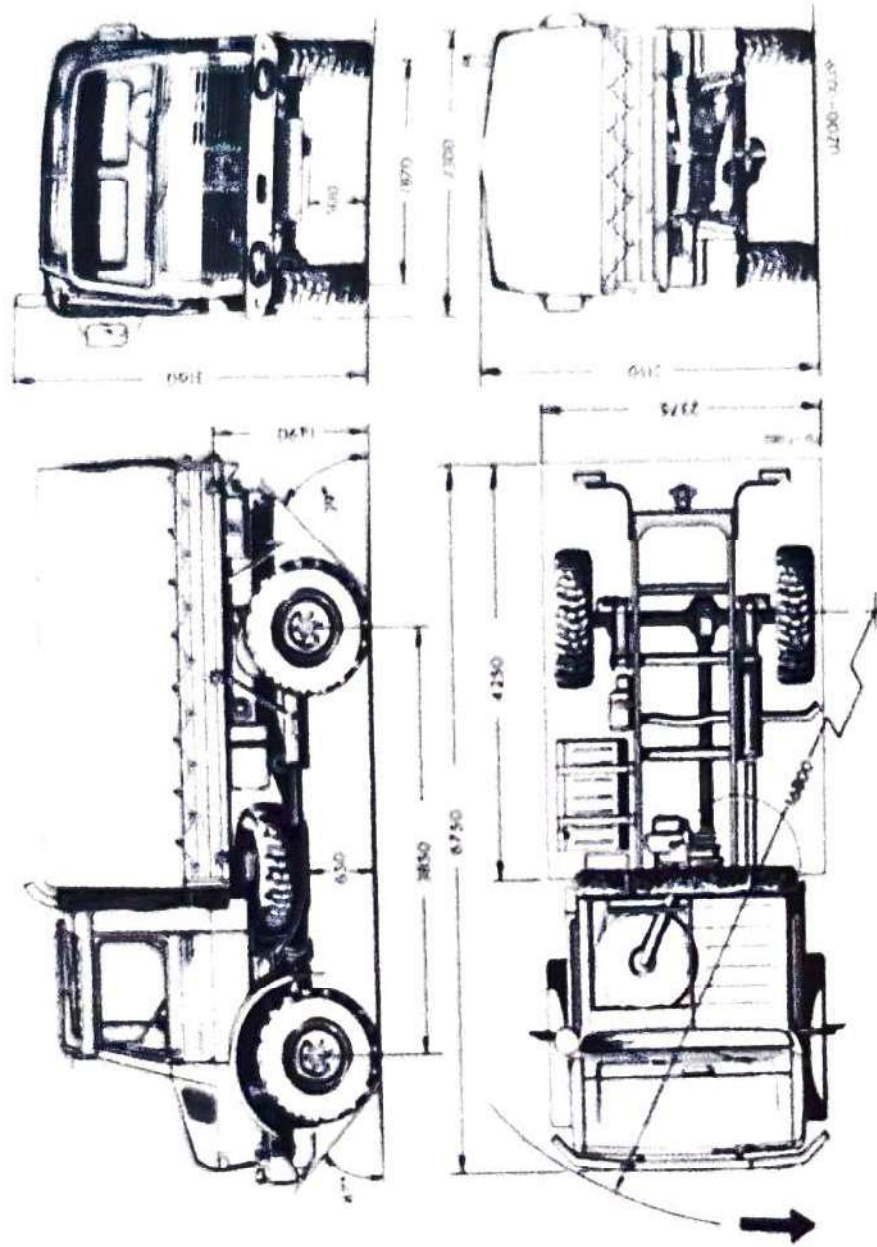


7 TECHNICAL DATA

U 1700 L

Dimensions mm

Fording depth approx. 1200 mm
 Max. height 3160 mm
 Height of canvas 1280 mm
 Turning circle 16,80 m



7 TECHNICAL DATA

Important tightening torques



Torque wrench

Designation	Threads	U 1300 L	U 1700 L
		Nm	Nm
Engine			
Engine mount front and rear	M 14 x 1,5	200	200
Center bolt, oil filter bowl		40	40
Cylinder head cover	M 8	25	25
Cylinder head	M 12	100 - 110	100 - 110
Air compressor (cylinder head)		35	35
Transmission			
Transmission bearing			
left	M 16 x 1,5	380	380
right	M 12 x 1,5	150	150
left and right to frame	M 36 x 1,5	180	180
Axles			
Control arm frame to axle	M 14 x 1,5	275	300
	M 16 x 1,5		400
Steering arm to steering knuckle	M 18 x 1,5	400	
Fastening caliper to axis	M 16 x 1,5	250	600
	M 20 x 1,5		
Wheels			
Wheel nuts	M 20 x 1,5	400	400
Steering (LS 3 B)			
Steering gear on frame	M 18 x 1,5	400	400
Nut on pitman arm	M 42 x 1,5	530	530
Drag link to pitman arm	M 20 x 1,5	230	230
Platform			
Container locks		750	750

7 TECHNICAL DATA

Electrical Wiring Diagram

- 1a Turn signal right
- 1b Turn signal left
- 2a Main headlight right
- 2b Main headlight left
- 3a Parking light right
- 3b Parking light left
- 4a Marker light right
- 4b Marker light left
- 5 Switch on door
- 6 Cab-dome light
- 7 Horn
- 8 Protection switch (current supply)
- 9 Switch, fog light ¹⁾
- 10 Switch, windshield washer
- 11 Regulating switch instrument lights
- 12 Reading lamp
- 13 Socket
- 14 Ignition-start switch
- 15 Tachometer, tachograph ¹⁾
- 16 Instrument cluster
- 17 Revolution counter
- 18 Main light switch
- 19 Connection for control PTO ¹⁾
- 20 Turn signal (flasher, for 2nd trailer)
- 21 Turn signal (flasher, for 1st trailer)
- 22 Turn signal (flasher) indicator light
- 23 Indicator light, high beam
- 24 Indicator light, charge control
- 25 Indicator light, differential pressure, brake
- 26 Indicator light, parking brake
- 27 Indicator light, four-wheel drive

- 28 Indicator light, differential lock
- 29 Transmission shift indicator
- 30 Relais current supply ¹⁾
- 31 Relais current supply ¹⁾
- 32 Blower switch
- 33 Heating ventilation blower
- 34 Windshield wiper
- 35 Windshield washer
- 36 Combination switch
- 37 Brake light switch
- 38 Fuse box A
- 39 Fuse box B
- 40 Warning flasher switch
- 41 Warning flasher transmitter
- 42a Connection, cab
- 42b Connection, cab (not connected)
- 43 Battery (2 x 12 V)
- 44 Alternator
- 45 Socket current supply
- 46 Transmitter for temperature (coolant)
- 47 Transmitter for oil pressure
- 48 Transmitter for fuel supply
- 49 Switch differential pressure ¹⁾
- 50 Switch for engine brake ¹⁾
- 51 Switch for reverse light
- 52 Switch for differential lock
- 53 Switch for four-wheel drive
- 54 Switch for parking brake
- 55 Switch for shift gate indicator
- 56 Starter switch
- 57 Cable connecting box rear
- 58a Turn signal right

- 58b Turn signal left
- 59a Tail light right
- 59b Tail light left
- 60a Brake light right
- 60b Brake light left
- 61 Licence plate light
- 62 Fog tail light ¹⁾
- 63 Trailer socket (7 pole)
- 64 Back up light ¹⁾

Ground connection

- m = Engine
- X = Instrument panel
- Y = Frame
- Z = Cab

Wire color code

- bl = blue
- br = brown
- ge = yellow
- gn = green
- gr = grey
- li = lilac
- rs = pink
- rt = red
- sw = black
- ws = white

¹⁾ Subsequent installation possible
special version

7 TECHNICAL DATA

U 1300 L / U 1700 L

Technical Wiring Diagram 24 Volt

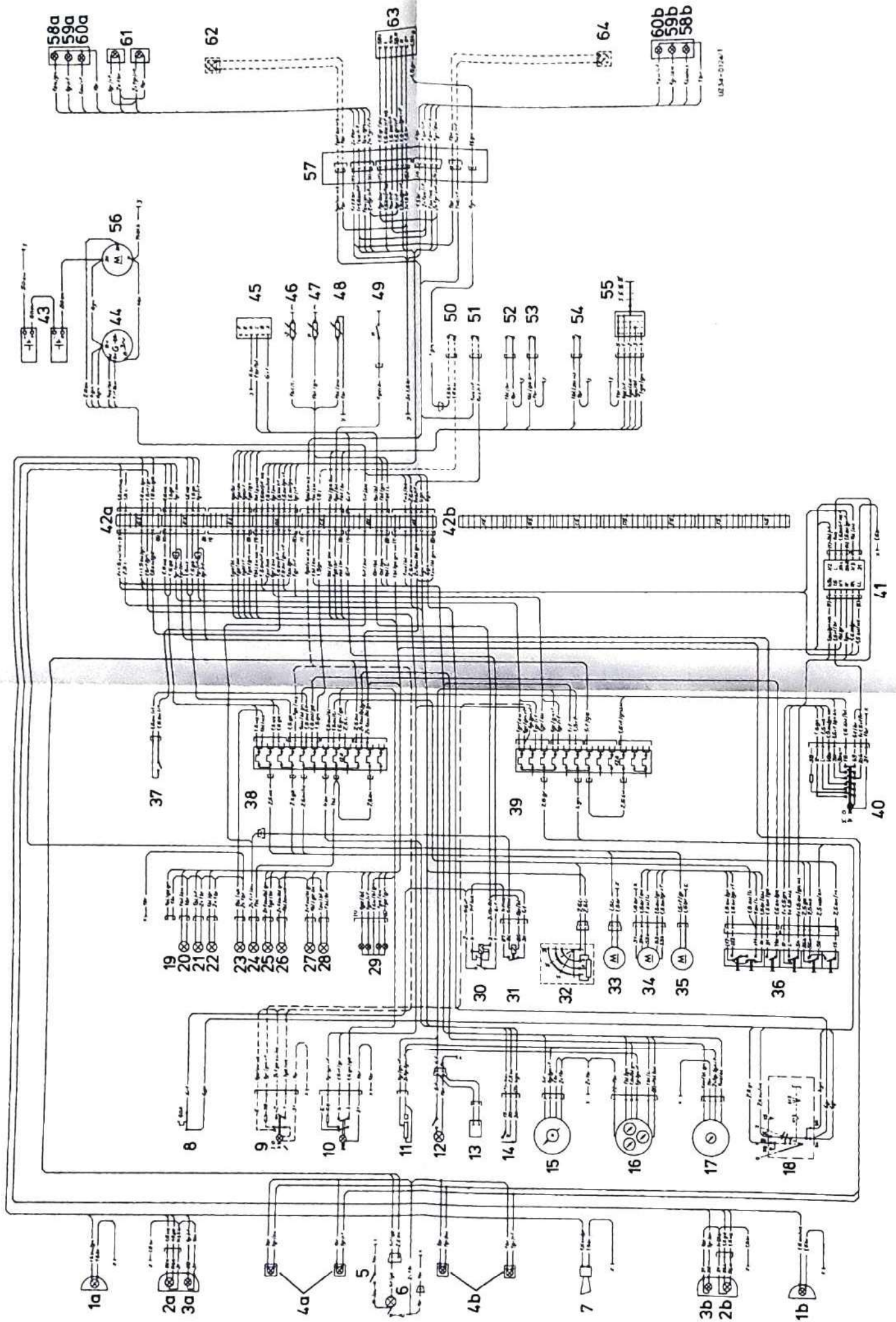
U 1300 L / U 1700 L

Explanations to Circuit Diagram

The line layout is showed in a simplified manner for the sake of clarity.

Please remember the following points:

The code color and cross-sectional area of a wire together form an aid helping you to following the course of a line. The direction of the slanting stroke at corners and branches indicates how the line continues. Several wirings (cable-set) are only shown as one line.



Edition 07.82

09.82 Wbo · 1,5 M · Printed in Germany

Daimler-Benz AG Stuttgart-Untertuerkheim

UKD 30 402 51 44

22518

