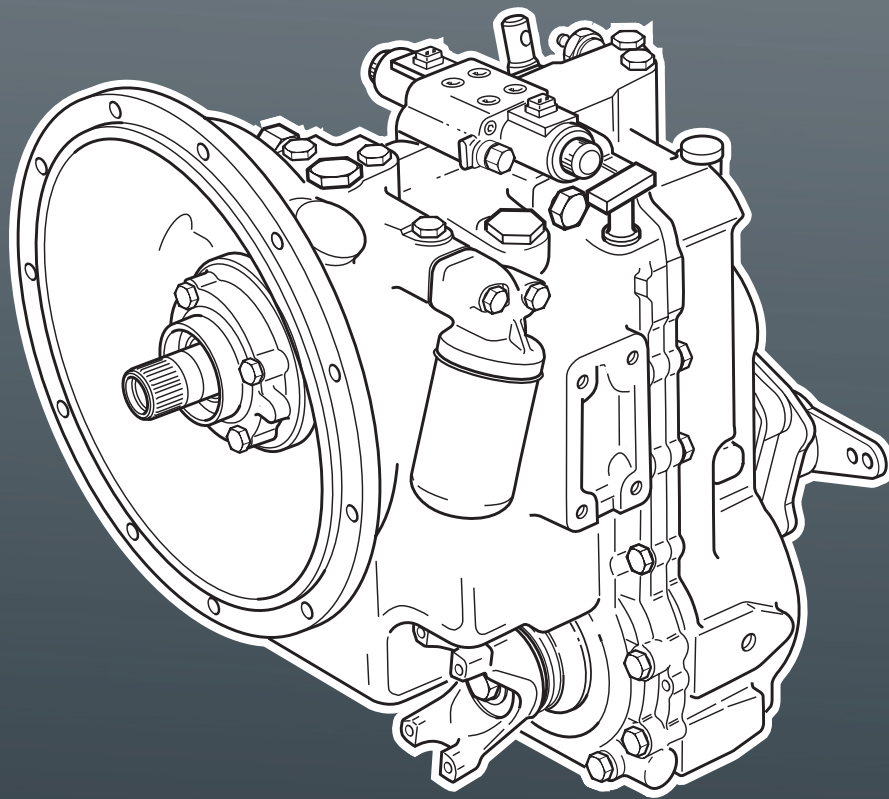


647020EN (01/07/2008)

GEAR BOX

SERIE C+

Repair manual



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**GEAR BOX AND CONVERTER
(WITH BRAKE)**

Without brake

- | | |
|----------------------------|-------------------------------|
| 1 – Reverse idler gear | 41 – Synchro assy |
| 2 – Bearing | 42 – Output shaft 1st gear |
| 3 – Shim | 43 – Bearing |
| 4 – Spacer | 44 – Spacer |
| 5 – Input shaft | 45 – Coupling |
| 6 – Seal | 46 – Out put shaft drive gear |
| 7 – Seal (inner) | 47 – Seal |
| 8 – «O» ring | 49 – «O» ring |
| 9 – Seal (outer) | 50 – Washer |
| 10 – «O» ring | 51 – Screw |
| 11 – Piston | 52 – Out put shaft |
| 12 – Clutch disc | 54 – Gear (37 teeth) |
| 13 – Friction disc | 55 – Bearing |
| 14 – Piece | 56 – Shim |
| 15 – Circlips | 57 – Spacer |
| 16 – Spring | 58 – Spacer |
| 17 – Bushing | 59 – End yoke |
| 18 – Circlips | 60 – 1st and 2nd shift rod |
| 19 – Thrustwasher | 61 – 3th and 4th shift rod |
| 20 – Forward primary gear | 62 – Ball |
| 21 – Roller bearing | 63 – Spring |
| 22 – Spacer | 64 – Plug |
| 23 – Bearing | 65 – «O» ring |
| 24 – Stop washer | 66 – 1st and 2nd shift fork |
| 25 – Backward primary gear | 67 – 3th and 4th shift fork |
| 26 – Countershaft | 68 – Screw |
| 27 – Bearing | |
| 28 – Bearing | |
| 29 – Shim | |
| 30 – Spacer | |
| 31 – Out put shaft | |
| 32 – 3rd gear | |
| 33 – 2nd gear | |
| 34 – Coupling sleeve | |
| 35 – Synchro assy | |
| 36 – Circlips | |
| 37 – 4th gear | |
| 38 – Washer | |
| 39 – Bearing | |
| 40 – Plug | |

SPECIAL TOOLS

NUMBER	DESIGNATION
- 479307	Hand press.
- 479309	Input & Rev. Idler shaft brg. removal collet.
- 563390	4WD brg removal collet.
- 563391	Out put shaft front brg. removal collet.
- 563392	C / shaft and output shaft rear brg. removal collet.
- 563394	C / shaft front bearing removal collet.
- 563393	Input shaft spring compressor.
- 563395	Shimming Adapter

Recommended tube sizes for replacing bearings

	Ø INTERIOR	Ø EXTERIOR
C / shaft, Output shaft rear & 4WD brg.	41 mm	47 mm
Reverse idler, output shaft front & input shaft brgs.	36 mm	41 mm
Output shaft 1st gear brg. sleeve	50,5 mm	55 mm

The dummy plug for re-fitting inner detent spring & ball can be made using a piece of bar 18mm dia. x 25 mm long.

SPECIFICATIONS

- Level of sound pressure in the driver's cab (According to standard prEN 12053 : 1995)	83,6 dBA	
- Travel speed of the lift truck		
. Forward	25 km/h	
. Reverse	25 km/h	
- Standard lift height	5300 mm	
- Rated capacity with standard attachment	3500 kg	
- Load center	500 mm	
- Weight of forks (Each)	72 kg	
- Lifting motions		
. Unladen lifting	10,5 s	30,6 m/mn
. Laden lifting	11,1 s	28,9 m/mn
. Unladen lowering	7,2 s	44,4 m/mn
. Laden lowering	6,7 s	47,4 m/mn
- Reverse tilt time unladen	4,6 s	30,8 °/s
- Forward tilt time unladen	3,7 s	38,3 °/s
- Lift truck weight with standard attachment		
. Unladen	8840 kg	
. Rated load	12340 kg	
- Axle weight with attached equipment (Transport position)		
. Front unladen		kg
Rated load		kg
. Rear unladen		kg
Rated load		kg
- Tensile strain at coupling hook		
. Unladen		6600 daN
. Rated load	ML 635 Série 2	7500 daN
	ML 635 Turbo Série 2	9000 daN
- Break out force with bucket (According to standard ISO 8313)		6650 daN

SPECIFICATIONS

- Level of sound pressure in the driver's cab <i>(According to standard prEN 12053 : 1995)</i>	83,6 dBA	
- Travel speed of the lift truck		
. Forward	25 km/h	
. Reverse	25 km/h	
- Standard lift height	7540 mm	
- Rated capacity with standard attachment	3500 kg	
- Load center	500 mm	
- Weight of forks (Each)	72 kg	
- Lifting motions (Jib retracted)		
. Unladen lifting	7,9 s	36,5 m/mn
. Laden lifting	8,6 s	33,5 m/mn
. Unladen lowering	5 s	57,6 m/mn
. Laden lowering	4,6 s	62,6 m/mn
- Telescoping motions (Lifting jib)		
. Unladen extending	7,6 s	25 m/mn
. Laden extending	7,9 s	24,1 m/mn
. Unladen retracting	5,6 s	33,8 m/mn
. Laden retracting	5,7 s	33,2 m/mn
- Reverse tilt time unladen	3,7 s	38,4 °/s
- Forward tilt time unladen	3,2 s	43,8 °/s
- Lift truck weight with standard attachment		
. Unladen	8000 kg	
. Rated load	11500 kg	
- Axle weight with attached equipment (Transport position)		
. Front unladen	3880 kg	
Rated load	10090 kg	
. Rear unladen	4120 kg	
Rated load	1410 kg	
- Tensile strain at coupling hook		
. Unladen	6300 daN	
. Rated load	8900 daN	
- Break out force with bucket <i>(According to standard ISO 8313)</i>	6760 daN	

ANGLE GEAR-BOX

- Type

FRONT AXLE

- Type
- Hub reducers

REAR AXLE

- Type
- Hub reducers

BRAKE

- Service brake
 - . Type
- Parking brake
 - . Type

ELECTRIC CIRCUIT

- Earth
- Battery
- Alternator
 - . Type
 - . Tension regulator
- Starter
 - . Type

TURNER POWERTRAIN SYSTEMS

DANA
Epicyclic

DANA
Epicyclic

Foot pedal. Hydraulic servo-brake, applied on the front and rear wheels.

Multidisc brake immersed in oil.

Mechanical hand lever applied on the front wheels.

Multidisc brake immersed in oil.

Negative

12 V - 105 Ah - 680 A EN

12 V - 65 A

Magneti Marelli A127

Incorporated into the alternator

12 V

Magneti Marelli M127

SPECIFICATIONS

- Level of sound pressure in the driver's cab LpA (According to standard prEN 12053 : 1995)	83,6 dB	
- Level of sound power in the LwA environment (According to directive 2000 / 14 CE guaranteed)		
MT 1233 S Série 2	105 dB	
MT 1233 S Turbo Série 2 + T M-U	106 dB	
- Travel speed of the lift truck (Except particular conditions)		
. Forward	27,6 km/h	
. Reverse	27,6 km/h	
- Standard lift height	12000 mm	
- Rated capacity with standard attachment	3300 kg	
- Load center	500 mm	
- Weight of forks (Each)	68 kg	
- Lifting motions (Jib retracted)		
. Unladen lifting	12 s	28,2 m/mn
. Laden lifting	12,5 s	26,7 m/mn
. Unladen lowering	8,5 s	39,7 m/mn
. Laden lowering	8 s	42,2 m/mn
- Telescoping motions (Lifting jib)		
. Unladen extending	15,4 s	25,9 m/mn
. Laden extending	15,4 s	25,9 m/mn
. Unladen retracting	12,7 s	31,5 m/mn
. Laden retracting	12,2 s	32,6 m/mn
- Reverse tilt time unladen	4,75 s	26,1 °/s
- Forward tilt time unladen	4,2 s	29,5 °/s
- Lift truck weight with standard attachment		
. Unladen	8960 kg	
. Rated load	12260 kg	
- Axle weight with attached equipment (Transport position)		
. Front unladen	4510 kg	
Rated load	11105 kg	
. Rear unladen	4450 kg	
Rated load	1155 kg	
- Tensile strain at coupling hook		
. Unladen	6100 daN	
. Rated load	7500 daN	
MT 1233 S Série 2	7500 daN	
MT 1233 S Turbo Série 2 + T M-U	8600 daN	
- Break out force with bucket (According to standard ISO 8313)	7000 daN	

	MT 1330 SL Série 2	MT 1330 SL Turbo Série 2
A	1200 mm	1200 mm
B	2770 mm	2770 mm
C	2135 mm	2135 mm
C1	2045 mm	2045 mm
D	5955 mm	5955 mm
D1	5865 mm	5865 mm
D2	4420 mm	4420 mm
E	7155 mm	7155 mm
F	1970 mm *** 1990 mm ****	1970 mm *** 1990 mm ****
F1	1970 mm *** 1990 mm ****	1970 mm *** 1990 mm ****
G	450 mm	450 mm
G1	445 mm	445 mm
G2	450 mm	450 mm
G3	275 mm	275 mm
H	4 °	4 °
H1	4 °	4 °
I	1050 mm	1050 mm
J	950 mm	950 mm
K	1040 mm	1040 mm
L	45 mm	45 mm
N	1850 mm	1850 mm
O	125 mm	125 mm
P2	45,5 °	45,5 °
P3	40 °	40 °
R	3640 mm *** 3950 mm ****	3640 mm *** 3950 mm ****
S	8720 mm *** 8870 mm ****	8720 mm *** 8870 mm ****
T	4665 mm	4665 mm
U1	2575 mm	2575 mm
U2	2715 mm * 2755 mm **	2715 mm * 2755 mm **
V	5600 mm *** 5750 mm ****	5600 mm *** 5750 mm ****
V1	1320 mm *** 1470 mm ****	1320 mm *** 1470 mm ****
V2	4000 mm *** 4150 mm ****	4000 mm *** 4150 mm ****
W	2370 mm *** 2390 mm ****	2370 mm *** 2390 mm ****
W1	2320 mm	2320 mm
W2	1225 mm	1225 mm
W3	2035 mm	2035 mm
Y	12 °	12 °
Z	112 °	112 °

* : 1st ASSEMBLY

** : 2nd ASSEMBLY

*** : Up to machine Nr : 147615

**** : From machine Nr : 147616

SPECIFICATIONS

- Level of sound pressure in the driver's cab LpA (According to standard prEN 12053 : 1995)	83,6 dB	
- Level of sound power in the LwA environment (According to directive 2000 / 14 CE guaranteed)		
MT 1740 SL Série 2	105 dB	
MT 1740 SL Turbo Série 2	106 dB	
- Travel speed of the lift truck (Except particular conditions)		
. Forward	27,6 km/h	
. Reverse	27,6 km/h	
- Standard lift height	16650 mm	
- Rated capacity with standard attachment	4000 kg	
- Load center	500 mm	
- Weight of forks (Each)	72 kg	
- Lifting motions (Jib retracted)		
. Unladen lifting	s	m/mn
. Laden lifting	s	m/mn
. Unladen lowering	s	m/mn
. Laden lowering	s	m/mn
- Telescoping motions (Lifting jib)		
. Extending of telescope I, unladen	13,9 s	14,8 m/mn
. Extending of telescope I, Laden	14,7 s	14 m/mn
. Retracting of telescope I, unladen	10,6 s	19,5 m/mn
. Retracting of telescope I, Laden	10,2 s	20,2 m/mn
. Extending of telescope II, unladen	7,96 s	25,9 m/mn
. Extending of telescope II, Laden	9,7 s	21,3 m/mn
. Retracting of telescope II, unladen	7,15 s	28,9 m/mn
. Retracting of telescope II, Laden	7,25 s	28,5 m/mn
. Extending of telescope III, unladen	10,4 s	19,8 m/mn
. Extending of telescope III, Laden	11,5 s	17,9 m/mn
. Retracting of telescope III, unladen	9,7 s	21,3 m/mn
. Retracting of telescope III, Laden	8,7 s	23,7 m/mn
- Reverse tilt time unladen	5,3 s	23,4 °/s
- Forward tilt time unladen	8,4 s	14,7 °/s
- Lift truck weight with standard attachment		
. Unladen	kg	
. Rated load	kg	
- Axle weight with attached equipment (Transport position)		
. Front unladen	kg	
Rated load	kg	
. Rear unladen	kg	
Rated load	kg	
- Tensile strain at coupling hook		
. Unladen	daN	
. Rated load	daN	
MT 1740 SL Série 2	daN	
MT 1740 SL Turbo Série 2	daN	
- Break out force with bucket (According to standard ISO 8313)	7000 daN	

10

General information

Introduction

This workshop manual has been written to provide assistance in the service and overhaul of Perkins New 1000 Series engines. For overhaul procedures the assumption is made that the engine is removed from the application. The engine conforms with USA (EPA/CARB) stage 1 and EEC stage 1 emissions legislation for agricultural and industrial applications.

Most of the general information which is included in the relevant User's Handbook (sections 1 to 9) has not been repeated in this workshop manual and the two publications should be used together.

Where the information applies only to certain engine types, this is indicated in the text.

The details of some operations will be different according to the of fuel injection pump which is fitted. The specific pump type used can be found by reference to the manufacturer's identification plate on the pump body. Generally, the type of pump fitted is as shown below.

Lucas	DP200 Series
Bosch	EPVE
Stanadyne	DB4

When reference is made to the "left" or "right" side of the engine, this is as seen from the flywheel end of the engine.

Special tools have been made available and a list of these is given in [section 25](#). Reference to the relevant special tools is also made at the beginning of each operation, where relevant.

POWERPART recommended consumable products are listed [on page 21](#). Reference to the relevant consumable products is also made at the beginning of each operation, where relevant.

Data and dimensions are included at the end of each section.

Read and remember the "Safety precautions". They are given for your protection and must be used at all times.

Danger is indicated in the text by two methods:

Warning! *This indicates that there is a possible danger to the person.*

Caution: *This indicates that there is a possible danger to the engine.*

Note: Is used where the information is important, but there is not a danger.

Standard torque tensions

Most of the torque tensions on the engine are standard. Special torque tensions are listed in the separate special torque tables. The standard torque tensions listed in the tables below can be used when a special torque is not necessary.

The torque tensions below apply to components lubricated lightly with clean engine oil before they are fitted.

Standard torques for setscrews and nuts

Thread Size	Torque		
	Nm	lbf ft	kgf m
M6 x 1,00	9	7	0,9
M8 x 1,25	22	16	2,2
M10 x 1,50	44	33	4,5
M12 x 1,75	78	58	8.0
M14 x 2,00	124	91	12,6
M16 x 2,00	190	140	19,3

Standard torques for studs (metal end)

Thread Size	Torque		
	Nm	lbf ft	kgf m
M6 x 1,00	5	4	0,5
M8 x 1,25	11	9	1,1
M10 x 1,50	18	14	1,8
M12 x 1,75	25	19	2,5

Standard torques for pipe unions, plugs, and adaptors

Thread Size (Inches)	Torque		
	Nm	lbf ft	kgf m
1/8 PTF	9	7	0.9
1/4 PTF	17	13	1,7
3/8 PTF	30	23	3,0
3/4 PTF	45	35	4,5

SAFETY NOTICE

Instructions in the SERVICE BULLETINS assume that the engineer has a good knowledge of safety procedures and has been trained in the maintenance and repair of equipment.

If you do not understand the information contained in this bulletin, ask your supervisor or contact MANITOU'S AFTER-SALES SERVICE for advice.

REMEMBER SAFETY MUST COME FIRST.

N° : 1784
CODE : 114 00
DATE : 23/11/09

ACCEPTED UNDER WARRANTY

Yes | No
 |

Code A

A = Compulsory and immediate modification

Code B

B = Modification to be made during maintenance visit *

Code C

C = For information

MACHINES CONCERNED:

MANITOU RANGE

SUBJECT: UPGRADE OF THE MAINTENANCE BOOK

Please find enclosed the presentation of the new maintenance book ref: 720327 comprising 3 documents: the commissioning and mandatory service reports as well as a record of the machine's life.

After-Sales Service

TIME REQUIRED FOR MODIFICATION:

hour(s)

* : The improvements to be realized during a maintenance visit (Code B) are warranted for a 12 month period from the issue date of the technical information.

WEIGHT: - 1 kg 1 to 5 kg 5 to 10 kg 10 to 25 kg + 25 Kg

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Recipients: subsidiaries, dealers

Copy: spw, after sales service, mo, sales, marketing, tc

Inwerkingstelling:

In dit deel van het onderhoudsboekje staat de procedure beschreven die betrekking heeft op de inwerkingsstelling van de machine. U vindt hier ook drie exemplaren van de verklaring van inwerkingstelling:

- Een exemplaar moet **als eerste naar het filiaal** teruggestuurd worden of, indien dit niet mogelijk is, naar MANITOU in ANCENIS. Let op: op het moment staat er in het onderhoudsboekje alleen Manitou Ancenis vermeld maar dit zal worden aangepast.
- Een exemplaar moet door de dealer bewaard worden
- Een exemplaar moet door de klant bewaard worden.

Eerste verplichte grote beurt na 500 uur of 6 maanden:

Gedetailleerde beschrijving van het proces dat men moet volgen voor de eerste grote en verplichte beurt van de machine. In dit deel van het onderhoudsboekje vindt u twee formulieren met betrekking tot deze beurt:

- Een exemplaar moet door de dealer bewaard worden
- Het andere exemplaar moet door de klant zelf bewaard worden.

Ontwikkeling van de frequentie van de verplichte grote beurten:

De eerste grote beurten die na 50 uur of 3 maanden verricht moesten worden, moeten vanaf nu tot stand gebracht worden na 500 uur of 6 maanden en dit is geldig voor alle machines met uitzondering van die voorzien van een KUBOTA motor, op deze machines moeten de eerste grote beurten wel na 50 uur verricht worden.

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E - STARTING THE LIFT TRUCK

SAFETY NOTICE

 **The lift truck must only be started up or manoeuvred when the operator is sitting in the driver's cab, with his seat belt adjusted and fastened.**

- Never try to start the lift truck by pushing or towing it. Such operation may cause severe damage to the transmission. If necessary, to tow the lift truck in an emergency, the transmission must be placed in the neutral position (see : 3 - MAINTENANCE : G - OCCASIONAL MAINTENANCE).
- If using an emergency battery for start-up, use a battery with the same characteristics and respect battery polarity when connecting it. Connect at first the positive terminals before the negative terminals.

 **Failure to respect polarity between batteries can cause serious damage to the electrical circuit. The electrolyte in the battery may produce an explosive gas. Avoid flames and generation of sparks close to the batteries. Never disconnect a battery while it is charging.**

INSTRUCTIONS

- Check the closing and locking of the hood(s).
- Make sure that the forward/reverse lever is in neutral.
- Turn the ignition key to the position I to activate the electrical system.
- Whenever you switch on the lift truck, perform the automatic check on the longitudinal stability alarm system (see : 2 - DESCRIPTION : INSTRUMENTS AND CONTROLS). Do not use the lift truck if it does not conform to the regulations.
- Make sure the signal lights on the instrument control panel and fuel level indicators are working properly (see : 2 - DESCRIPTION : INSTRUMENTS AND CONTROLS).
- Turn the ignition key to position II to preheat for 5 seconds and turn the ignition key fully : the I.C. engine should then start. Release the ignition key and let the I.C. engine run at idle.
- Do not engage the starter motor for more than 15 seconds and carry out the preheating for 5 seconds between unsuccessful attempts.
- Make sure all the signal lights on the control instrument panel are off.
- Check all control instruments when the I.C. engine is warm and at regular intervals during use, so as to quickly detect any faults and to be able to correct them without any delay.
- If an instrument does not show the correct display, stop the I.C. engine and immediately carry out the necessary operations.

F - DRIVING THE LIFT TRUCK

SAFETY NOTICE

 **Operators' attention is drawn to the risks involved in using the lift truck, in particular :**

- **Risk of losing control.**
- **Risk of losing lateral and frontal stability of the lift truck.**

The operator must remain in control of the lift truck.

In the event of the lift truck overturning, do not try to leave the cabin during the incident. YOUR BEST PROTECTION IS TO STAY FASTENED IN THE CABIN.

- Observe the company's traffic regulations or, by default, the public highway code.
- Do not carry out operations which exceed the capacities of your lift truck or attachments.
- Always drive the lift truck with the forks or attachment to the transport position, i.e. at 300 mm from the ground, the jib retracted and the carriage sloping backwards.
- Only carry loads which are balanced and properly anchored to avoid any risk of a load falling off.
- Ensure that pallets, cases, etc, are in good order and suitable for the load to be lifted.
- Familiarise yourself with the lift truck on the terrain where it will be used.
- Ensure that the service brakes are working properly.
- The loaded lift truck must not travel at speeds in excess of 12 km/h.
- Drive smoothly at an appropriate speed for the operating conditions (land configuration, load on the lift truck).
- Do not use the hydraulic jib controls when the lift truck is moving.
- Do not manoeuvre the lift truck with the jib in the raised position unless under exceptional circumstances and then with extreme caution, at very low speed and using gentle braking. Ensure that visibility is adequate.
- Take bends slowly.
- In all circumstances make sure you are in control of your speed.
- On damp, slippery or uneven terrain, drive slowly.
- Brake gently, never abruptly.
- Only use the lift truck's forward/reverse lever from a stationary position and never do so abruptly.
- Do not drive with your foot on the brake pedal.
- Always remember that hydrostatic type steering is extremely sensitive to movement of the steering wheel, so turn it gently and not jerkily.
- Never leave the I.C. engine on when the lift truck is unattended.
- Do not leave the cab when the lift truck has a raised load.
- Look where you are going and always make sure you have good visibility along the route.

OPERATING INSTRUCTIONS THE PLATFORM

For ORH lift trucks



Installation of the platform on the lift truck is only possible if the shields "operating the platform" of the lift truck and the platform are identical (see : 2 - DESCRIPTION : OPERATING THE PLATFORM).

A - DISPOSITION IN THE PLATFORM

- Wear clothes suited for operating the platform, avoid loose clothes.
- Never operate the platform when hands or feet are wet or soiled with greasy substances.
- It is highly recommended that a safety harness be worn and hooked onto the ring placed there for this purpose.
- The controls must not be used for any other than their intended purpose (e.g. getting in and out of the lift truck, coat hanger etc.).
- Safety helmets must be worn.

B - OPERATING THE PLATFORM

- However experienced they may be, operators must acquaint themselves with the emplacement and operation of all control instruments prior to operating the platform.
- Check before operating that the platform has been correctly assembled and locked onto the lift truck.
- Check before operating the platform that the access gate has been properly locked.
- The platform should be operated in an area free of any obstructions or danger when it is lowered to the ground.
- The operator using the platform must be aided on the ground by a person with adequate training.
- You should stay within the limits set out in the platform load chart.
- The lateral stresses are limited pressure (see : 2 - DESCRIPTION : CHARACTERISTICS).
- It is strictly forbidden to suspend a load from the platform or from the lift truck jib.
- The lift truck must not be moved with one (or more) person(s) in the platform.
- It is forbidden to transport people on the platform using the hydraulic controls in the lift truck's driver's cab (except in case of rescue).
- The operator must not get in or out of the platform when it is not on ground level (jib retracted and in the down position).
- The platform must not be fitted with attachments that increase the unit's wind load.
- Do not use ladders or improvised structures in the platform to gain extra height.
- Do not climb onto the sides of the platform to gain extra height.
- Remember to unlock the rear axle oscillation before moving the lift truck (as model of lift truck).

C - ENVIRONMENT



Operating the platform close to electricity cables is forbidden.

- In the event of wind speeds of between 45 and 90 km/h, the rear axle oscillation must be locked (as model of lift truck).



Operation of the platform is strictly forbidden in the event of wind speeds of over 90 km/h.

IDENTIFICATION OF THE LIFT TRUCK

As our policy is to promote a constant improvement of our products, our range of telescopic lift trucks may undergo certain modifications, without obligation for us to advise our customers.

When you order parts, or when you require any technical information, always specify :

NOTE : For the owner's convenience, it is recommended that a note of these numbers is made in the spaces provided, at the time of the delivery of the lift truck.

PLATE MANUFACTURER OF THE LIFT TRUCK (FIG. A)

- Model _____
- Series _____
- Serial Nr _____
- Chassis Nr _____
- Year of manufacture _____

For any further technical information regarding your lift truck refer to chapter : CHARACTERISTICS in paragraph : 2 - DESCRIPTION.

I.C. ENGINE (FIG. B)

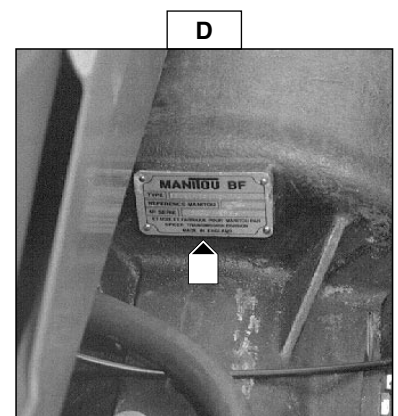
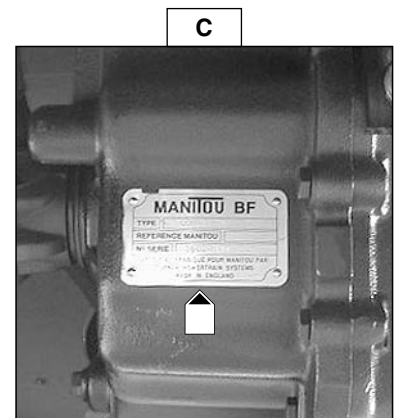
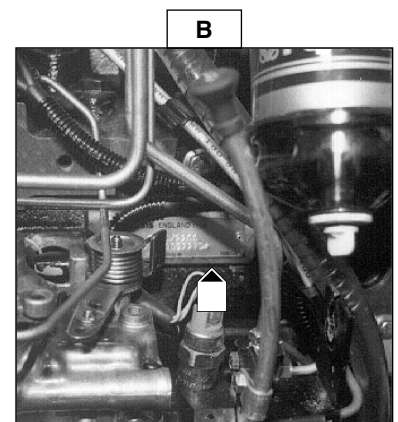
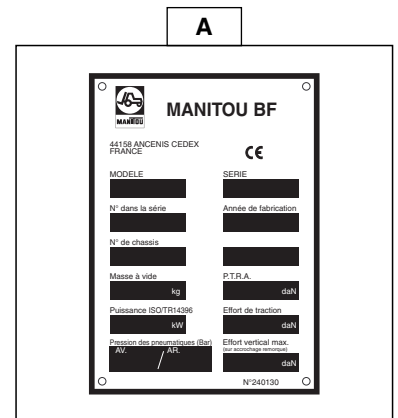
- Engine Nr _____

TRANSMISSION (FIG. C)

- Type _____
- MANITOU reference _____
- Serial Nr _____

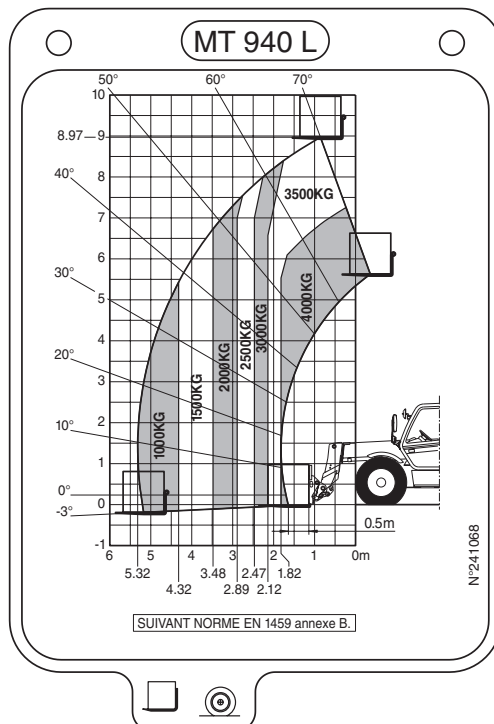
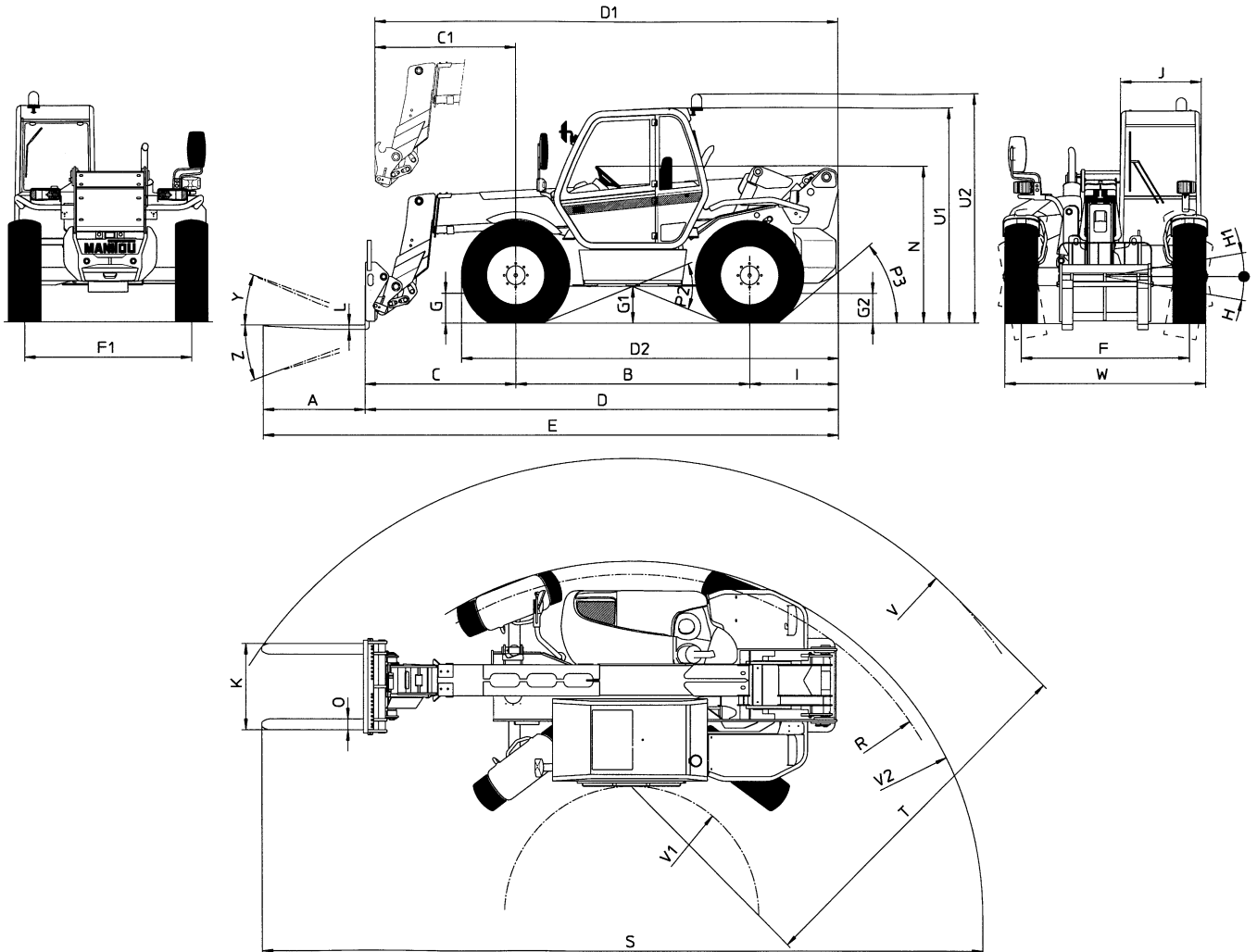
ANGLE GEAR-BOX (FIG. D)

- Type _____
- MANITOU reference _____
- Serial Nr _____



DIMENSIONS AND LOAD CHART

MT 940 L Série 2
 MT 940 L Turbo Série 2
 MT 940 L Turbo MONO-ULTRA Série 2



CHARACTERISTICS

MT 1330 SL Série 2

MT 1330 SL Turbo Série 2

FRONT AND REAR TYRES

	DIMENSIONS	PRESSURE	TYRE LOAD		PRESSURE ON THE CONTACT SURFACE		AREA OF THE CONTACT SURFACE	
					HARD GROUND	LIGHT GROUND	HARD GROUND	LIGHT GROUND
STANDARD	15,5/80-24 SGI TL 12PR GOODYEAR	4,5 Bar	Front unladen	2450 kg	9,8 kg/cm ²	2,6 kg/cm ²	250 cm ²	930 cm ²
			Front laden	5700 kg	13,9 kg/cm ²	3,7 kg/cm ²	410 cm ²	1520 cm ²
			Rear unladen	2200 kg	9,4 kg/cm ²	2,5 kg/cm ²	235 cm ²	870 cm ²
			Rear laden	450 kg	12,9 kg/cm ²	3,5 kg/cm ²	35 cm ²	130 cm ²
OPTION	18-19,5 16PR I224 TL ALLIANCE	5,5 Bar	Front unladen	2450 kg	4,42 kg/cm ²	1,88 kg/cm ²	554 cm ²	1306 cm ²
			Front laden	5700 kg	7,16 kg/cm ²	3,05 kg/cm ²	796 cm ²	1868 cm ²
			Rear unladen	2200 kg	4,16 kg/cm ²	1,76 kg/cm ²	529 cm ²	1248 cm ²
			Rear laden	450 kg	1,68 kg/cm ²	0,71 kg/cm ²	268 cm ²	637 cm ²
OPTION	440/80-24 T37 158B DUNLOP	4,5 Bar	Front unladen	2450 kg	8,4 kg/cm ²	2,4 kg/cm ²	290 cm ²	1040 cm ²
			Front laden	5700 kg	12,2 kg/cm ²	3,4 kg/cm ²	465 cm ²	1680 cm ²
			Rear unladen	2200 kg	8,1 kg/cm ²	2,3 kg/cm ²	270 cm ²	970 cm ²
			Rear laden	450 kg	5,2 kg/cm ²	1,5 kg/cm ²	86 cm ²	310 cm ²
	18x19,5 16PR T35 STAB. TL DUNLOP	5 Bar	Front unladen	2450 kg	7,4 kg/cm ²	3,1 kg/cm ²	333 cm ²	791 cm ²
			Front laden	5700 kg	10,1 kg/cm ²	4,2 kg/cm ²	563 cm ²	1343 cm ²
			Rear unladen	2200 kg	7,1 kg/cm ²	3 kg/cm ²	309 cm ²	733 cm ²
			Rear laden	450 kg	3,9 kg/cm ²	1,7 kg/cm ²	115 cm ²	268 cm ²
OPTION	15,5x25 12PR SGL DL 2A GOODYEAR	4,5 Bar	Front unladen	2450 kg	6,8 kg/cm ²	3,7 kg/cm ²	360 cm ²	660 cm ²
			Front laden	5700 kg	8,4 kg/cm ²	4,5 kg/cm ²	680 cm ²	1260 cm ²
			Rear unladen	2200 kg	6,7 kg/cm ²	3,7 kg/cm ²	330 cm ²	605 cm ²
			Rear laden	450 kg	3,2 kg/cm ²	1,7 kg/cm ²	140 cm ²	260 cm ²
	445/70R24 IT510 151G GOODYEAR	4,1 Bar	Front unladen	2450 kg	9,1 kg/cm ²	3 kg/cm ²	270 cm ²	810 cm ²
			Front laden	5700 kg	10,3 kg/cm ²	3,4 kg/cm ²	555 cm ²	1680 cm ²
			Rear unladen	2200 kg	8,8 kg/cm ²	2,9 kg/cm ²	250 cm ²	755 cm ²
			Rear laden	450 kg	5,6 kg/cm ²	2 kg/cm ²	80 cm ²	230 cm ²
OPTION	1200R24 X MINE D2 MICHELIN	6 Bar	Front unladen	2450 kg	4,6 kg/cm ²	kg/cm ²	528 cm ²	cm ²
			Front laden	5700 kg	6,6 kg/cm ²	kg/cm ²	859 cm ²	cm ²
			Rear unladen	2200 kg	4,4 kg/cm ²	kg/cm ²	503 cm ²	cm ²
			Rear laden	450 kg	1,4 kg/cm ²	kg/cm ²	325 cm ²	cm ²
	15,5R25 XHA MICHELIN	4 Bar	Front unladen	2450 kg	3,1 kg/cm ²	1,44 kg/cm ²	792 cm ²	1699 cm ²
			Front laden	5700 kg	3,6 kg/cm ²	1,64 kg/cm ²	1576 cm ²	3486 cm ²
			Rear unladen	2200 kg	3,1 kg/cm ²	1,42 kg/cm ²	721 cm ²	1545 cm ²
			Rear laden	450 kg	1,1 kg/cm ²	0,53 kg/cm ²	398 cm ²	852 cm ²
	18R19,5 XF TL MICHELIN	6,5 Bar	Front unladen	2450 kg	3,6 kg/cm ²	1,69 kg/cm ²	674 cm ²	1454 cm ²
			Front laden	5700 kg	4,2 kg/cm ²	1,94 kg/cm ²	1362 cm ²	2939 cm ²
			Rear unladen	2200 kg	3,5 kg/cm ²	1,64 kg/cm ²	621 cm ²	1340 cm ²
			Rear laden	450 kg	2,5 kg/cm ²	1,16 kg/cm ²	180 cm ²	388 cm ²

HYDRAULIC CIRCUIT

- Type of pump
- Lifting, tilting, telescoping, tilting corrector, stabilizer, attachment circuit
 - . Max. rating capacity unladen
 - . Pressure
 - . Capacity
- Steering circuit
 - . Max. rating capacity unladen
 - . Pressure
 - . Capacity
- Braking circuit
 - . Max. rating capacity unladen
 - . Pressure
 - . Capacity
- Filtration
 - . Return
 - . 2nd body suction

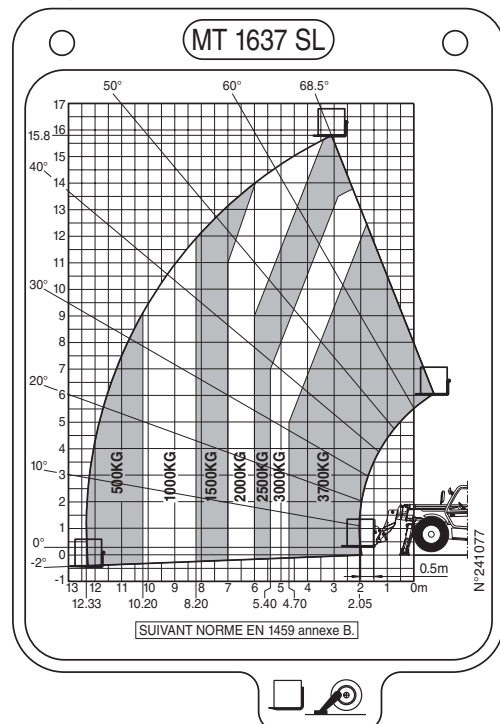
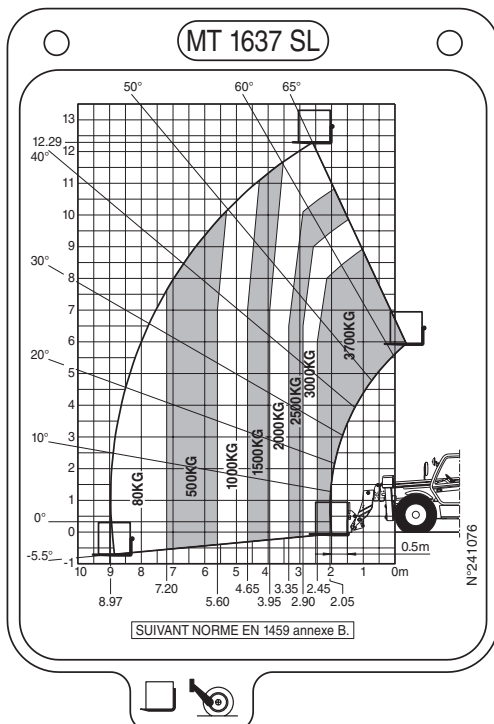
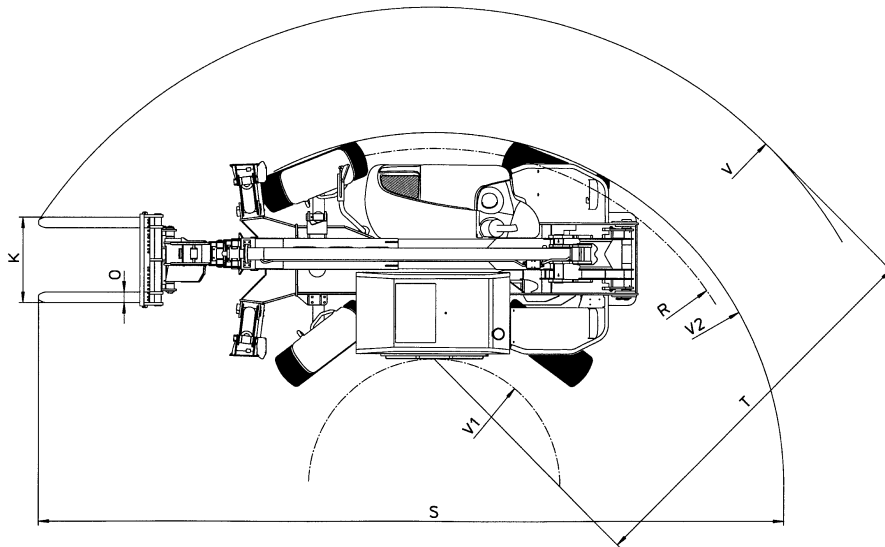
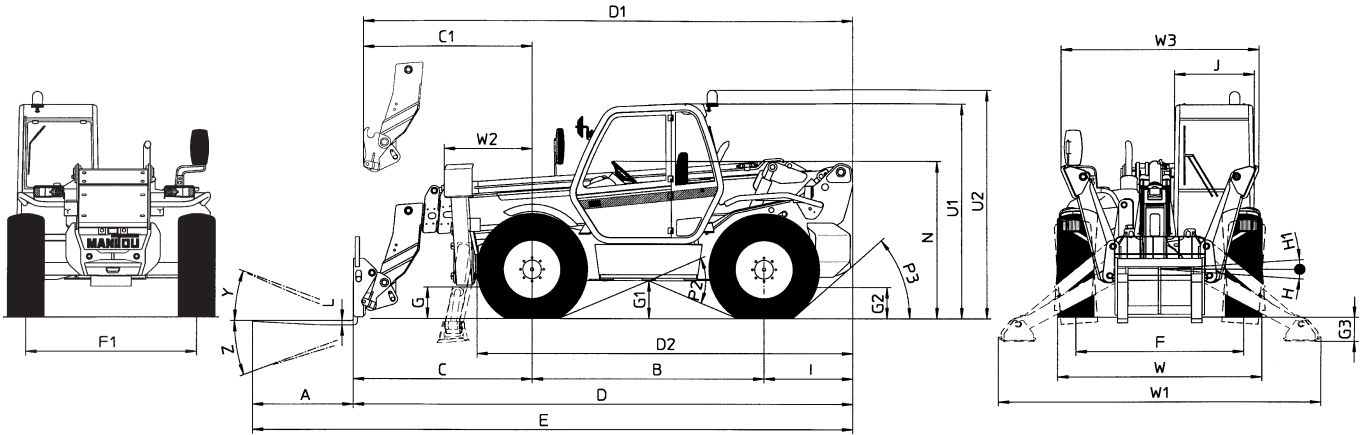
Gear double pump with flow divider

1st body	2nd body
98 L/mn	68 L/mn
260 Bar	160 Bar
41 cm ³	28,5 cm ³
	2nd body
	68 L/mn
	140 Bar
	28,5 cm ³
	2nd body
	68 L/mn
	40 Bar
	28,5 cm ³

10 μ
100 μ

DIMENSIONS AND LOAD CHART

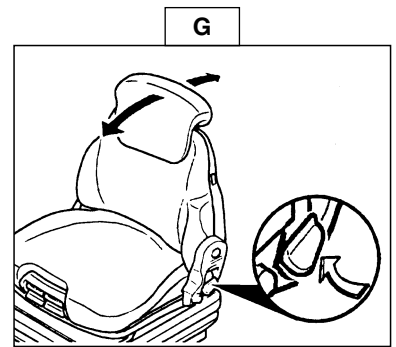
MT 1637 SL Série 2
 MT 1637 SL Turbo Série 2
 MT 1637 SL Turbo MONO-ULTRA Série 2



ADJUSTMENT OF THE ANGLE OF THE BACK-REST (FIG. G)

- Support the back-rest, pull the lever and position the back-rest to find the desired position.

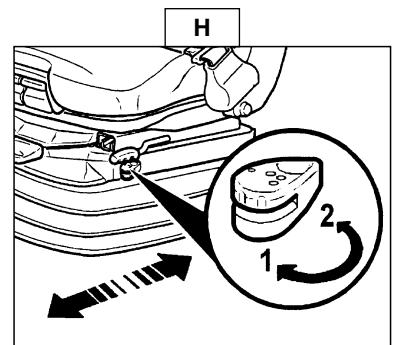
! *If you do not support the back-rest when making adjustments, it swings completely forwards.*



HORIZONTAL SHOCK ABSORBER (FIG. H)

In certain conditions (e.g. driving with a trailer) it is advised that a horizontal shock absorber be used. The driver's seat is thus better able to absorb jerks in the direction of travel.

- Position 1 : Horizontal shock absorber fitted.
- Position 2 : Horizontal shock absorber removed.



LONGITUDINAL ADJUSTMENT (FIG. I)

- Adjust the locking lever until you reach the position required. This then locks and the seat will not shift into another position.

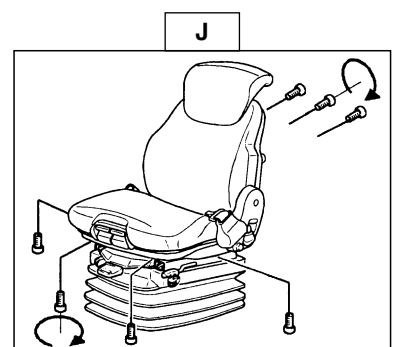
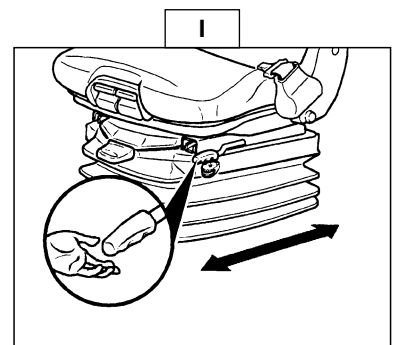
MAINTENANCE (FIG. J)

Dirt may adversely affect the correct functioning of the seat. For this reason, make sure your seat is always clean.

- To clean or change the cushions, simply remove them from the seat frame.

! *A rocking head-rest increases the risk of an accident !*

Avoid wetting the cushion fabric when cleaning. Check the resistance of the fabric on a small hidden area before using any fabric or plastic cleaner.



2 - SAFETY BELT

- Sit correctly on the seat.
- Check that seat belt is not twisted.
- Place the seat belt at hip level and not across the stomach.
- Attach the seat belt and check that it locks.
- Adjust the seat belt to your body shape without squeezing your hip.

! *In no event should the lift truck be used if the seat belt is defective (Fixing, locking, cuts, tears, etc.). Repair or replace the seat belt immediately.*

MT 845 Turbo MONO-ULTRA Série 2

BUTTON A : Controls the lifting of the load and the tilt of the carriage.

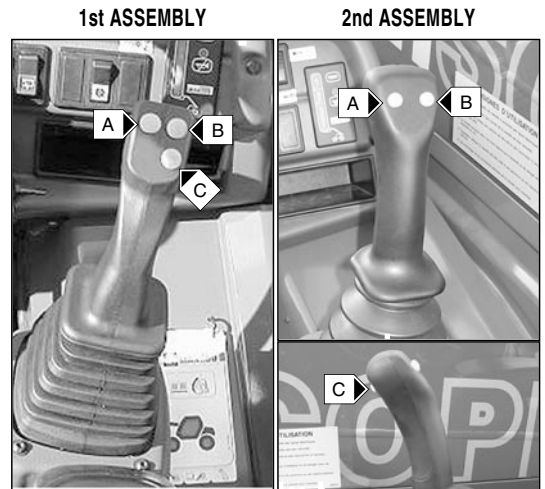
- The lever backwards when lifting.
- The lever forwards when lowering.
- The lever to the left for reverse tilt.
- The lever to the right for forward tilt.

BUTTON B : Controls the telescoping and an additional attachment.

- The lever backwards for the retraction.
- The lever forwards for the extension.
- The lever to the left and to the right for the additional attachment.

BUTTON C : OPTION Attachment hydraulic locking device.

- and/or
- OPTION Jib head electrovalve.



MT 940/1240 L Turbo MONO-ULTRA Série 2

BUTTON A : Controls the lifting of the load and the tilt of the carriage.

- The lever backwards when lifting.
- The lever forwards when lowering.
- The lever to the left for reverse tilt.
- The lever to the right for forward tilt.

BUTTON B : Controls the telescoping and an additional attachment.

- The lever backwards for the retraction.
- The lever forwards for the extension.
- The lever to the left and to the right for the additional attachment.

NOTE : MT 1240 L Turbo MONO-ULTRA Série 2

When completely retracting the telescopes, insistently operate the control so as to allow all the telescopes to retract fully.

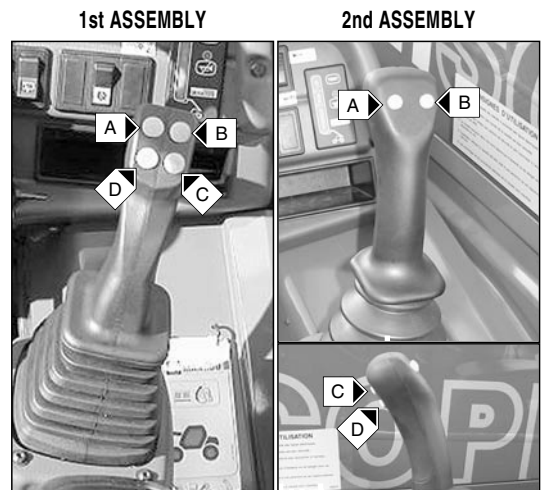
BUTTON C : OPTION Attachment hydraulic locking device.

- and/or
- OPTION Jib head electrovalve.

BUTTON D : Controls the tilting corrector.

- The lever to the left when tilting the lift truck on the left.
- The lever to the right when tilting the lift truck on the right.

NOTE : Tilt can be corrected up to the carriage articulation axle height of 3m50 from the ground, with the jib retracted.



MT 1233 S Turbo MONO-ULTRA Série 2

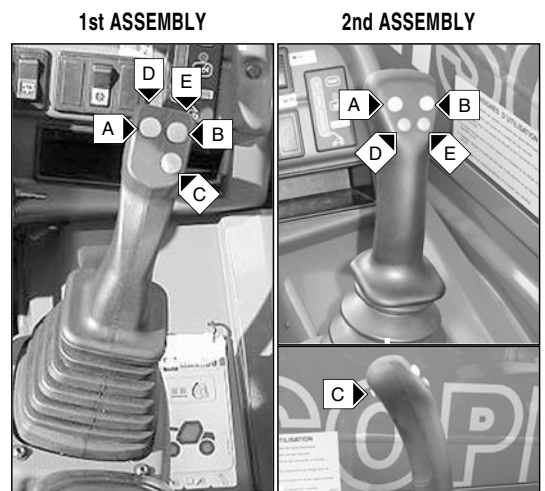
BUTTON A : Controls the lifting of the load and the tilt of the carriage.

- The lever backwards when lifting.
- The lever forwards when lowering.
- The lever to the left for reverse tilt.
- The lever to the right for forward tilt.

BUTTON B : Controls the telescoping and an additional attachment.

- The lever backwards for the retraction.
- The lever forwards for the extension.
- The lever to the left and to the right for the additional attachment.

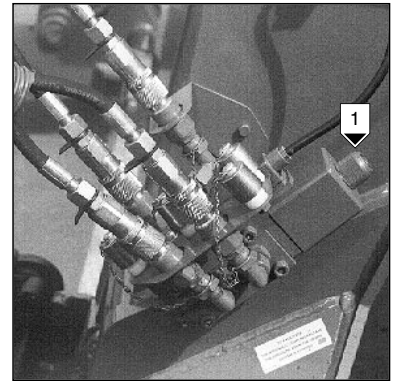
NOTE : When completely retracting the telescopes, insistently operate the control so as to allow all the telescopes to retract fully.



11 - JIB HEAD ELECTROVALVE

Enables use of two hydraulic functions on the attachment circuit.

NOTE : Certain jib head electrovalves have a decompression button 1 for quick connection of easy-fit connectors.



FUNCTIONING

MT 845 Série 2 + Turbo
MT 940/1240 L Série 2 + Turbo
MT 1233 S Série 2 + Turbo
MT 1330/1337 SL Série 2 + Turbo

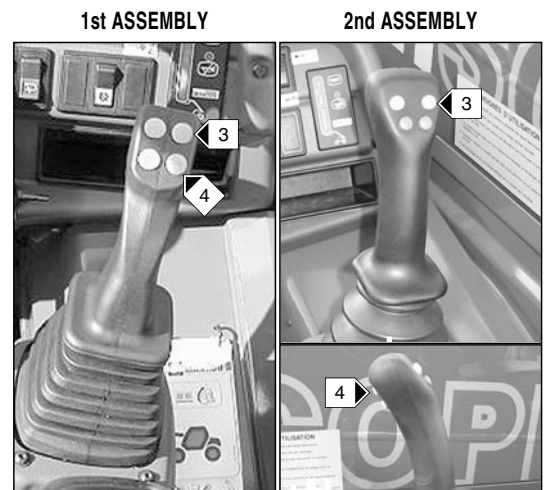
- Button 2 not engaged, the lever controls a hydraulic function.
- Pressing button 2, the lever controls another hydraulic function.



FUNCTIONING

MT 845 Turbo MONO-ULTRA Série 2
MT 940/1240 L Turbo MONO-ULTRA Série 2
MT 1233 S Turbo MONO-ULTRA Série 2
MT 1337 SL Turbo MONO-ULTRA Série 2

- When pressing the button 3, the lever to the right or to the left controls one hydraulic function.
- When pressing the button 4, the lever to the right or to the left controls another hydraulic function.



LUBRICANTS AND FUEL

I.C. ENGINE

ORGANS TO BE LUBRICATED	CAPACITY	RECOMMENDATION	PACKAGING	PART NUMBER
I.C. ENGINE	7,75 Liters	MANITOU Oil API CG4	20 L. 55 L. 209 L.	582357 582358 582359
COOLING CIRCUIT	23,5 Liters	Cooling liquid (Protection - 30 °C)	2 L. 5 L. 20 L. 210 L.	473076 470077 470078 470079
		Cooling liquid (Protection - 25 °C)	2 L. 5 L. 20 L. 210 L.	554002 554003 554004 554005
FUEL TANK	135 Liters	Diesel fuel (*)		

TRANSMISSION

ORGANS TO BE LUBRICATED	CAPACITY	RECOMMENDATION	PACKAGING	PART NUMBER
TRANSMISSION	9,4 Liters	MANITOU Oil Automatic transmission	1 L. 25 L. 55 L. 209 L.	62148 487655 546217 546195
ANGLE GEAR BOX	2,25 Liters	MANITOU Oil Mechanical transmission for axles and boxes SAE 80W90	2 L. 25 L. 55 L. 209 L.	499237 161585 546221 546220
TRANSMISSION UNIVERSAL JOINT		MANITOU Grease Multipurpose HD NLGI 2	1 Kg. 5 Kg.	554973 554974

JIB

ORGANS TO BE LUBRICATED	RECOMMENDATION	PACKAGING	PART NUMBER
JIB PADS	MANITOU Grease Multipurpose NLGI 2	1 Kg.	161590
GREASING OF THE JIB	MANITOU Grease Multipurpose HD NLGI 2	1 Kg. 5 Kg.	554973 554974

HYDRAULICS

ORGANS TO BE LUBRICATED	CAPACITY	RECOMMENDATION	PACKAGING	PART NUMBER
HYDRAULIC OIL TANK		MANITOU Oil	25 L.	161588
MT 845 Série 2 + Turbo + Turbo MONO-ULTRA	120 Liters	Hydraulic ISO 46	55 L.	546108
MT 940 L Série 2 + Turbo + Turbo MONO-ULTRA	120 Liters		209 L.	546109
MT 1233 S Série 2 + Turbo + Turbo MONO-ULTRA	126 Liters			
MT 1240 L Série 2 + Turbo + Turbo MONO-ULTRA	126 Liters			
MT 1330 SL Série 2 + Turbo	126 Liters			
MT 1337 SL Série 2 + Turbo + Turbo MONO-ULTRA	126 Liters			
MT 1637 SL Série 2 + Turbo + Turbo MONO-ULTRA	175 Liters			
MT 1740 SL Série 2 + Turbo	175 Liters			

BRAKE

ORGANS TO BE LUBRICATED	RECOMMENDATION	PACKAGING	PART NUMBER
BRAKE CIRCUIT	MANITOU Oil Mineral brake fluid	1 L.	490408

CAB

ORGANS TO BE LUBRICATED	RECOMMENDATION	PACKAGING	PART NUMBER
CAB DOOR	MANITOU Grease Multipurpose HD NLGI 2	1 Kg. 5 Kg.	554973 554974
WINDSCREEN WASHER TANK	Windscreen washer fluid	1 L. 5 L. 30 L. 225 L.	490402 486424 505527 490432

ELECTRICITY (Up to machine Nr : 147615)

ORGANS TO BE LUBRICATED	RECOMMENDATION	PACKAGING	PART NUMBER
LOAD STATUS INDICATOR DEVICE	MANITOU Grease Multipurpose HD NLGI 2	1 Kg. 5 Kg.	554973 554974

B - EVERY 50 HOURS SERVICE

Carry out the operations described previously as well as the following operations.

B1 - DRY AIR FILTER CARTRIDGE

CHECK - CLEAN

In case of use in a heavily dust laden atmosphere, there are pre-filtration cartridges (See chapter : FILTERS CARTRIDGES AND BELTS in paragraph : 3 - MAINTENANCE). Also, the checking and cleaning periodicity of the cartridge must be reduced.

! *If the clogging indicator light comes on, this operation must be carried out as quickly as possible (1 hour maximum). The cartridge must not be cleaned more than seven times, after which the cartridge must be changed.*

- For the disassembly and reassembly of the cartridge, see chapter : D3 - DRY AIR FILTER CARTRIDGE in paragraph : 3 - MAINTENANCE.
- Clean the filter cartridge using a compressed air jet (Max. pressure 3 bar) directed from the top to the bottom and from the inside towards the outside at a minimum distance of 30 mm from the cartridge wall.
- Cleaning is completed when there is no more dust on the cartridge.

! *Respect the safety distance of 30 mm between the air jet and the cartridge to avoid tearing or making a hole in the cartridge. The cartridge must not be blown anywhere near the air filter box. Never clean the cartridge by tapping it against a hard surface. Your eyes must be protected during this intervention.*

- Clean the cartridge seal surfaces with a damp, clean lint-free cloth and grease with a silicone lubricant (MANITOU Reference : 479 292).

! *Do not clean the dry air filter cartridge by washing it in liquid. Do not clean by any means the safety cartridge located inside the filter cartridge, change it for a new one if it is dirty or damaged.*

B2 - RADIATOR CORE

CLEAN

- Open the I.C. engine bonnet.

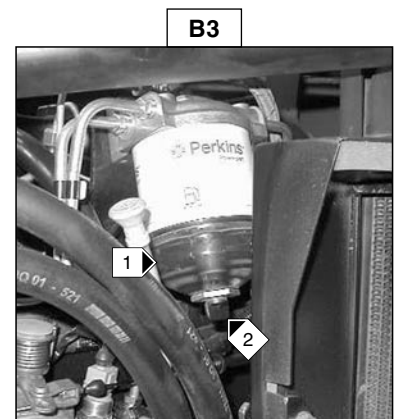
In order to prevent the radiator becoming clogged, clean the radiator with a compressed air jet directed from inside to outside. This is the only way to clean the core of debris.

! *When handling straw, grain or cereal, clean the radiator core daily. Do not use water jet or high pressure steam as this could damage the radiator fins.*

B3 - FUEL FILTER

CHECK

- Open the I.C. engine bonnet.
- Visually check for the presence of water in tank 1 (Fig. B3) and drain if necessary.
- Place a receptacle under the tank and loosen drain plug 2 (Fig. B3) by two of three turns.
- Leave the diesel fuel to flow out until it is free from impurities and water.
- Tighten the drain plug while the diesel fuel is running out.



B4 - JIB

GREASE

To be carried out weekly, if the lift truck has been operated for less than 50 hours during the week.

! *In the event of prolonged use in an extremely dusty or oxidising atmosphere, reduce this interval to 10 working hours or every day.*

C5 - FRONT AXLE DIFFERENTIAL OIL LEVEL

CHECK

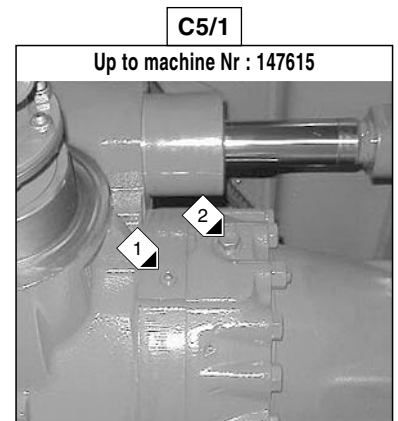
Place the lift truck on level ground with the I.C. engine stopped.

Up to machine Nr : 147615

- Remove level plug 1 (Fig. C5/1). The oil should be flush with the edge of the hole.
- If necessary, add oil (See chapter : LUBRICANTS AND FUEL in paragraph : 3 - MAINTENANCE) by the filler port 2 (Fig. C5/1).
- Replace and tighten the level plug 1 (Fig. C5/1).

From machine Nr : 147616

- Remove level plug 1 (Fig. C5/2). The oil should be flush with the edge of the hole.
- If necessary, add oil (See chapter : LUBRICANTS AND FUEL in paragraph : 3 - MAINTENANCE) by the same hole.
- Replace and tighten the level plug 1 (Fig. C5/2) (Tightening torque 34 to 49 N.m).



C6 - REAR AXLE DIFFERENTIAL OIL LEVEL

CHECK

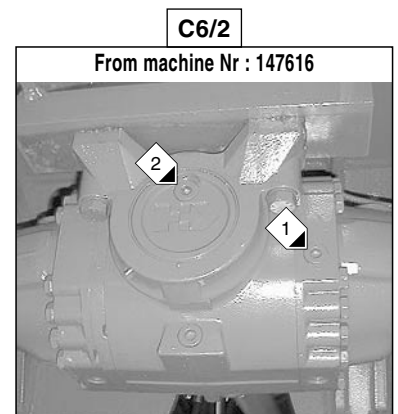
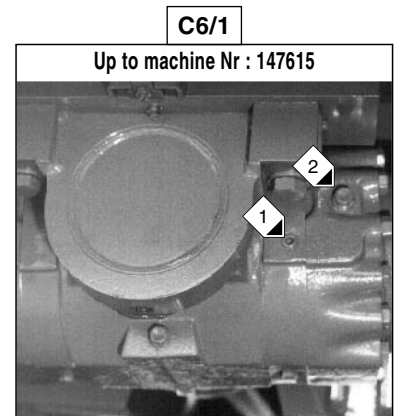
Place the lift truck on level ground with the I.C. engine stopped.

Up to machine Nr : 147615

- Remove level plug 1 (Fig. C6/1). The oil should be flush with the edge of the hole.
- If necessary, add oil (See chapter : LUBRICANTS AND FUEL in paragraph : 3 - MAINTENANCE) by the filler port 2 (Fig. C6/1).
- Replace and tighten the level plug 1 (Fig. C6/1).

From machine Nr : 147616

- Remove level plug 1 (Fig. C6/2). The oil should be flush with the edge of the hole.
- If necessary, add oil (See chapter : LUBRICANTS AND FUEL in paragraph : 3 - MAINTENANCE) by the filler port 2 (Fig. C6/2).
- Replace and tighten the level plug 1 (Fig. C6/2) (Tightening torque 34 to 49 N.m).



E - EVERY 1000 HOURS SERVICE

Carry out the operations described previously as well as the following operations.

E1 - FUEL TANK

CLEAN

! While carrying out these operations, do not smoke or work near a flame.

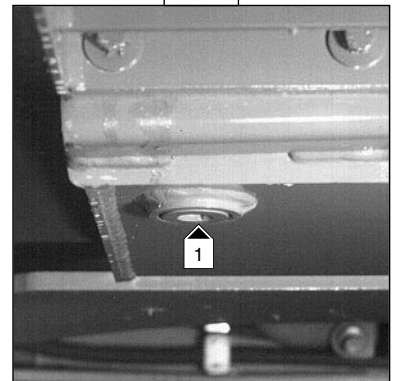
Place the lift truck on level ground with the I.C. engine stopped.

- Inspect the parts susceptible to leaks in the fuel circuit and in the tank.
- In the event of a leak, contact your dealer.

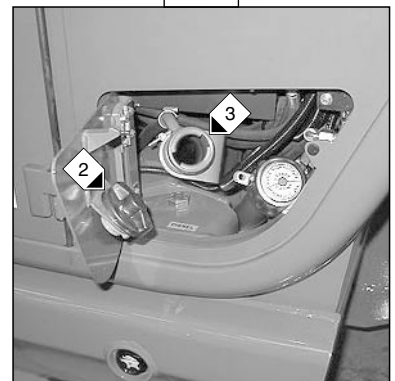
! Never try to carry out a weld or any other operation by yourself, this could provoke an explosion or a fire.

- Place a container under drain plug 1 (Fig. E1/1) and unscrew the plug.
- Open the access panel for fuel filling.
- Remove cap 2 (Fig. 1/2) and set it on its bracket.
- Let the fuel flow and clean with 10 litres of clean fuel by filler port 3 (Fig. E1/2).
- Refit and tighten drain plug 1 (Fig. E1/1) (Tightening torque 29 to 39 N.m).
- Fill the fuel tank with clean fuel (See chapter : LUBRICANTS AND FUEL in paragraph : 3 - MAINTENANCE) filtered through a strainer or a clean, lint-free cloth and refit the filler plug 2 (Fig. E1/2).
- Close the access panel for fuel filling and open the I.C. engine bonnet.
- Re-prime the system by activating fuel feed pump 4 (Fig. E1/3).
- If necessary, bleed the system (See chapter : G1 - FUEL SYSTEM in paragraph : 3 - MAINTENANCE).

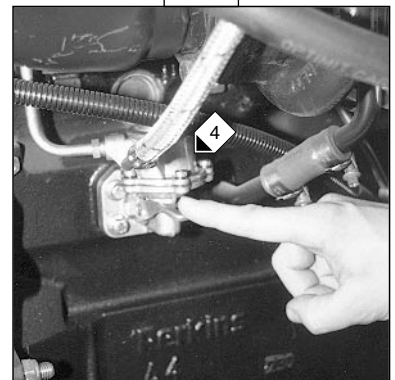
E1/1



E1/2



E1/3



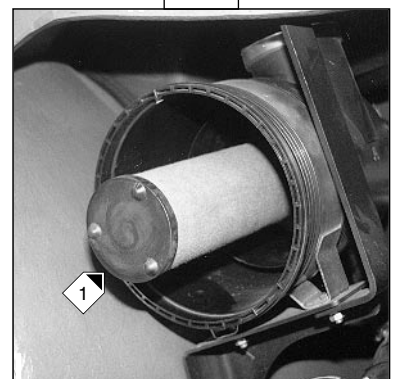
E2 - SAFETY DRY AIR FILTER CARTRIDGE

CHANGE

- For the disassembly and reassembly of the cartridge, see chapter : D3 - DRY AIR FILTER CARTRIDGE in paragraph : 3 - MAINTENANCE.
- Gently remove the dry air filter safety cartridge 1 (Fig. E2), taking care to avoid spilling the dust.
- Clean the gasket surface on the filter with a damp, clean lint-free cloth.
- Before mounting check the state of the new safety cartridge (See chapter : FILTERS CARTRIDGES AND BELTS in paragraph : 3 - MAINTENANCE).
- Introduce the cartridge into the filter axis and push it in, pressing the edges and not the middle.

NOTE : The periodicity for changing the safety cartridge is given for information only. The safety cartridge must be changed for every two changes of the air filter cartridge.

E2



G3 - LIFT TRUCK

TOW

! Do not tow the lift truck at more than 25 km/h.

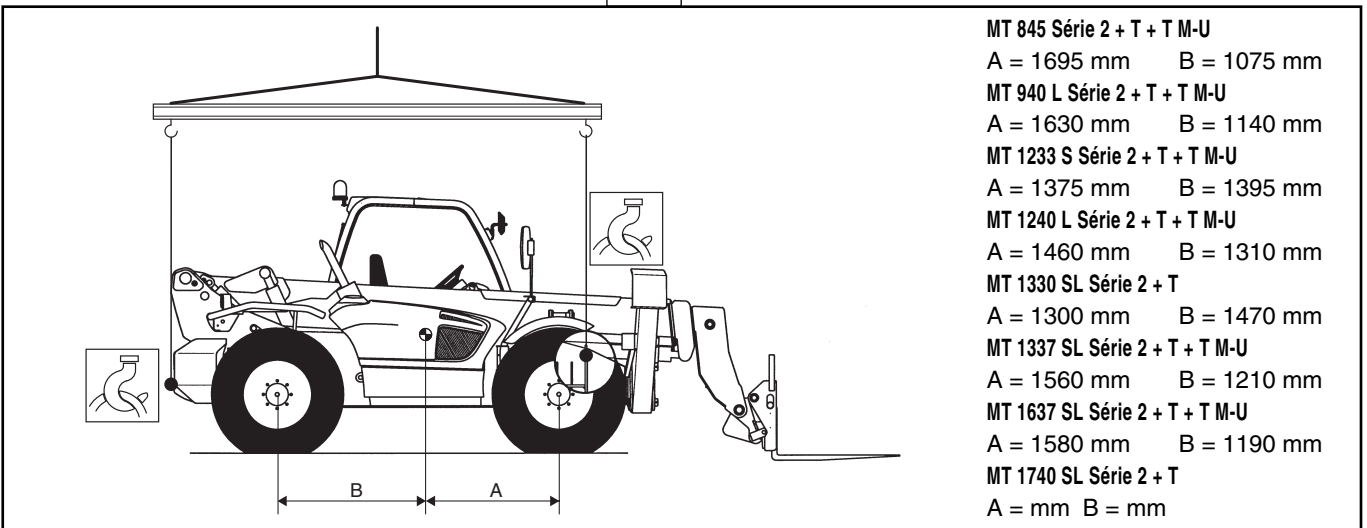
- Put the forward/reverse lever and the gear shift in neutral.
- Release the parking brake.
- Put the warning lights on.
- If the I.C. engine is not running there will be no steering or braking assistance. Operate the steering and pedal slowly avoiding sudden jerky movements.

G4 - LIFT TRUCK

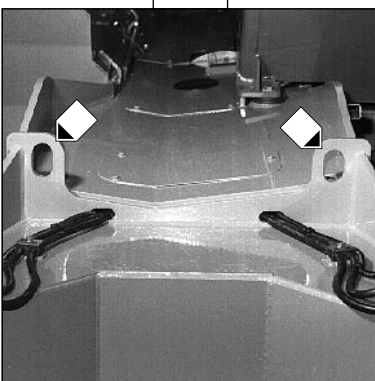
SLING

- Take into account the position of the lift truck gravity center for lifting (Fig. G4/1).
- Place the hooks in the fastening points provided (Fig. G4/2 and G4/3).

G4/1



G4/2



G4/3



G4/3



C - ATTACHMENT WITHOUT HYDRAULICS AND HYDRAULIC LOCKING DEVICE (OPTION)

MT 845 Turbo MONO-ULTRA Série 2

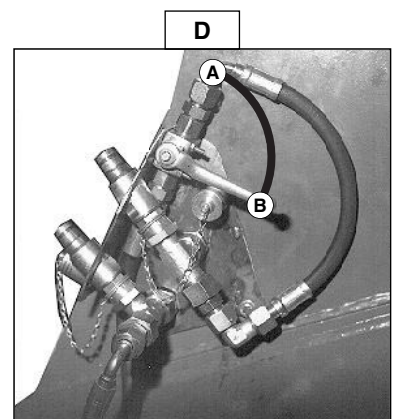
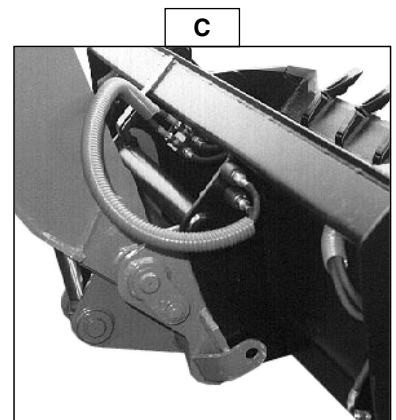
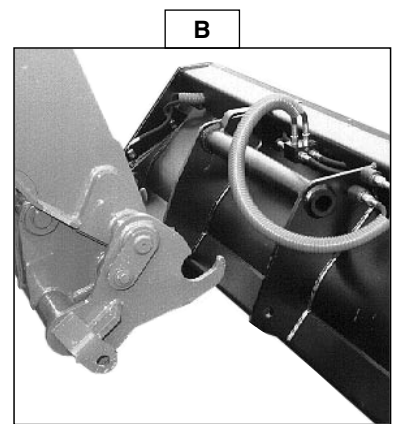
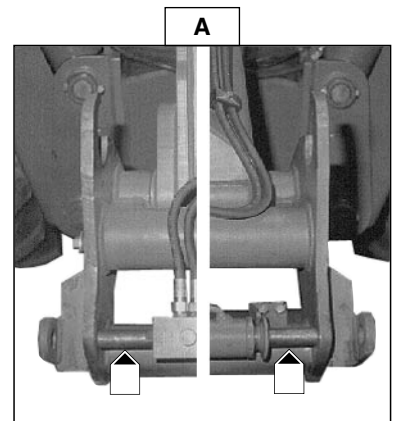
MT 940/1240 L Turbo MONO-ULTRA Série 2

MT 1233 S Turbo MONO-ULTRA Série 2

MT 1337/1637 SL Turbo MONO-ULTRA Série 2


TAKING UP AN ATTACHMENT

- Ensure that the attachment is in a position facilitating the locking to the carriage. If it is not correctly oriented, take the necessary precautions in order to move it safely.
- Check that the rods on the locking cylinder are retracted (Fig. A).
- Place the lift truck with the jib lowered in front of and parallel to the attachment, tilt the carriage forwards (Fig. B).
- Bring the carriage under the locking tube of the attachment, slightly lift the jib, incline the carriage backwards in order to position the attachment (Fig. C).
- Lift the attachment off the ground to facilitate locking.



HYDRAULIC LOCKING

- Put the valve in position A (Fig. D), that is to say, the hydraulic circuit of the attachment locking open.
- Press the button 1 (Fig. E) of the distributor lever and push the lever to the right so as to completely lock the attachment onto the carriage.
- Close the valve in position B (Fig. D), that is to say, the hydraulic circuit of the attachment locking closed.

 **Always close the valve in position B (Fig. D) after the locking of the attachment, in order to avoid accidental unlocking and use the attachment safely.**

HYDRAULIC RELEASING

- Put the valve in position A (Fig. D), that is to say, the hydraulic circuit of the attachment locking open.
- Press the button 1 (Fig. E) of the distributor lever and push the lever to the left so as to completely unlock the attachment.


LAYING AN ATTACHMENT

- Proceed in the reverse order of paragraph TAKING UP AN ATTACHMENT while making sure you place the attachment flat on the ground and in closed position.

INACTIVATE THE HYDRAULIC RELEASE CONTROL

You can change an attachment without leaving the control post, by cutting the electricity supply to the hydraulic control.

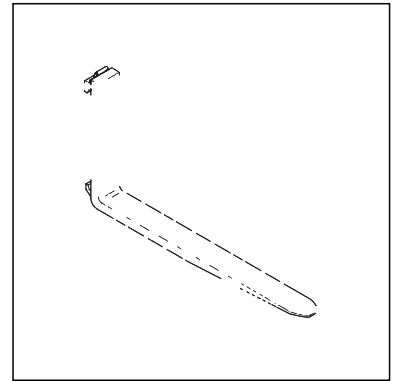
- Leave the valve in position A (Fig. D).
- Use switch 2 (Fig. F) to cut the electricity supply to the hydraulic control. The circuit is out of action when indicator 3 (Fig. F) is on.

 **Always cut the electrical power to the circuit using switch 2 (Fig. F) after each change of attachment to avoid involuntary release and use the attachment in complete safety.**

STANDARDISED FORK

Reference : 415618
Section : 125 x 45 x 1200 mm
Weight : 72 Kg

Reference : 415652
Section : 125 x 50 x 1200 mm
Weight : 78 Kg



LOAD BACK REST

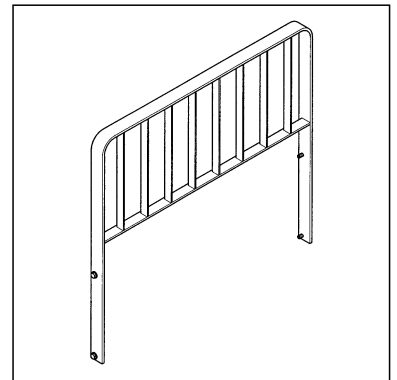
Reference : 556008
Width : 1260 mm
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Reference : 555325
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Weight : Kg

Reference : 556010
Width : 1580 mm
Weight : Kg

Reference : 469854
Width : 1670 mm
Weight : Kg

Reference : 469869
Width : 2000 mm
Weight : Kg



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